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MASTER OF MILITARY STUDIES

TITLE:

Maximizing the Efficiency of MAGTF Lift Capacity in WestPac

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Executive Summary

Title: Maximizing the Efficiency of MAGTF Lift Capacity in WestPac

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Thesis: The airlift capacity for the MAGTF Commander in the Pacific can significantly improve the unity of effort and maximize logistical efficiency by streamlining the fixed-wing (FW) airlift request process, restructuring the Operational Support Airlift (OSA) command relationships, and procuring the C-40 aircraft.

Discussion: The span of PACOM's Area of Responsibility (AOR) combined with the current Administration's focus in the Western Pacific provide numerous challenges to rapidly deploy within the operational reach of the MAGTF Commander. The prompt response to today's requirements in the Western Pacific is critical to the MAGTF's self-sufficiency as well as promoting the PACOM Commander's Intent of Theater Security Cooperation and humanitarian assistance. More specifically, how should the MAGTF deploy personnel and equipment throughout the PACOM AOR without the sole reliance on a single KC-130 squadron? This MMS concept is to examine the roles of WestPac KC-130 mission essential tasks, employment, and current structure with the responsibilities and force laydown of Marine Corps Operational Support Airlift (OSA) in order to provide higher echelon commands with solutions to increasing lift demands while maintaining the combat effectiveness of the KC-130 squadron. In addition, this MMS topic will focus on concurrent utilization, funding and additional procurement of aviation equipment, command and control of lift assets, and the interrelationships of the Marine Corps and Joint forces. This proposal will provide commanders with an overview of lift capabilities as well as proposed solutions for assets and force structure laydown in order to maintain the cost effective and efficient autonomy and survival of the MAGTF.

Conclusion: Significant changes to the mindset, vision, and structure of Marine airlift must be undertaken in order to continue to operate cost effectively and further the MAGTF's self-sufficiency. The proposed recommendations are vital solutions to yield both short-term and long-term effects across the airlift spectrum.

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Preface

This paper is an examination of the multifaceted challenges facing the Marine Corps' airlift capacity in WestPac. Significant deficiencies in the task process, command and control structures, and airframe usage exist that prevent a cost effective and unity of effort approach in supporting the MAGTF. Further, my intent is to make recommendations to streamline the utilization of Marine Corps airlift and maximize its efficiency.

I greatly appreciate the patience and mentorship I received from Dr. Ed Erickson in writing, direction, and focus. I am grateful for all the support I received from Col R.P. Cote, LtCol R. Hawkins, LtCol J.P. Pellegrino, Maj J.G. Parker, Maj Rich Roberts, and the Staff Officers of VMGR-152. Lastly, I am truly appreciative of the vision and wealth of knowledge pertaining to this topic from LtCol J.S. Payne II, LtCol Robert Houde (ret), and Mr. Walt Murphy, CTR, USMC.

The Marine Corps is transitioning from significant combat operations in south Asia to a forward deployed presence in the Pacific with plans for multiple Marine Air Ground Task Forces (MAGTF) west of the International Date Line: Okinawa, Guam, Australia, and the 31st Marine Expeditionary Unit (MEU). This transition is occurring while considerable national budget pressures are driving force reductions and decreasing readiness across the services. These budget constraints and restraints will require innovative solutions to keep forward deployed MAGTFs ready for action. Marine Corps fixed-wing assault support assets offer significant synergies and efficiencies to support the MAGTF across the range of military operations. Critical to optimizing the current airlift demand by MAGTF Commanders, the disaggregate structure of these assets leads to a fiscal overextension and capacity underutilization of the fixed-wing assault support airframes.

The MAGTF Commander's ability to timely respond to crisis is critical in meeting the needs of United States national security objectives as well as furthering the existence of the Marine Corps. This ability is of the utmost importance as the Marine Corps continues its presence in the Pacific Area of Responsibility (AOR). Pacific Command (PACOM), the largest of the geographic Unified Combatant Commands, spans 105 million square miles and "encompasses about half the earth's surface, stretching from the waters off the west coast of the U.S. to the western border of India, and from Antarctica to the North Pole."¹ In addition, the thirty-six nations that comprise the Asia-Pacific region are home to more than 50% of the world's population.² Concurrently, U.S. Marine Forces, Pacific (MARFORPAC) possesses about two-thirds of U.S. Marine Corps combat strength, includes I and III Marine Expeditionary Forces (MEF), and comprises about 85,000 personnel.³ Within an area as vast as PACOM, the timeliness to respond does not exist solely in maritime transport, although one could argue that

the presence of the 31st Marine Expeditionary Force (MEU) Pacific, 7th Fleet naval assets, and High Speed Vessel (HSV) attest to this. However, timeliness is also a characteristic of the airlift capabilities of the MAGTF Commander.

The achievements of the Marine Corps in the Pacific within the last decade are numerous. The leadership, rapid response, and enduring presence exhibited during various humanitarian assistance / disaster relief (HA/DR) efforts such as the 2005 Pakistan earthquake relief operations, *Operation Unified Assistance* for tsunami relief in 2004, and nearly a dozen of operations in support of typhoon destruction demonstrate the capabilities of the U.S. Marine Corps in WestPac. In addition, *Operation Tomodachi*, a 45-day evolution in 2011 to engage the earthquake, tsunami, and nuclear catastrophe on mainland Japan, demonstrated the versatility of III MEF while it simultaneously supported efforts for *Operation Enduring Freedom* (OEF).

The Department of Defense (DOD) in today's world is changing rapidly. Since the completion of Operation Iraqi Freedom (OIF) and combat operations in Afghanistan quickly ending, the military is facing severe budget constraints, sequestration and manpower reductions, and a reevaluation of equipment necessities. The Marine Corps' ability to historically accomplish "more with less" will continue in the near future. The current administration's strategic refocus to the Asian Pacific region has direct implications for Marine Corps operations as the Marine Corps is also adjusting its Pacific force structure. The addition of 250 Marines in Darwin, Australia, based upon the U.S. / Australia Defense Pact of late 2011, will eventually increase Marine force totals in the region to 2,500 personnel. In addition, the Marine Corps continues to restructure the shift of III MEF personnel to Guam and integrate the assault support capabilities of two new MV-22 squadrons to Marine Corps Air Station, Futenma. Furthermore, the Marine Corps resumed the pre-war Unit Deployment Program (UDP) in which continental

United States (CONUS) infantry battalions execute a six-month rotation to Japan to capitalize on unique training and readiness opportunities (Figure 1).

Despite the challenges to the Marine Corps, the current leadership continues to provide sound guidance for its role in today's crisis. The Marine Corps Vision and Strategy 2025 states that in order to remain the nation's force in readiness, "the Marine Corps must continuously innovate. This requires that we look across the entire institution and identify areas that need improvement and effect positive change."⁴ Such is the case with Marine Corps airlift capacity in the Pacific. The criticisms of never having enough lift available in WestPac are historically legitimate, but never is it more prevalent than in present day.⁵ The employment of Marine Corps fixed-wing assets requires improvements to defeat the tyranny of distance challenges in the Pacific. Unlike its CONUS counterparts that possess road networks and numerous air, ground, and waterborne shipping options, the Marine Corps in WestPac must rely on either air or maritime transportation to attain unit readiness and training, participate in various PACOM and MEF-level exercises, and provide timely contributions to disaster relief operations.

The MAGTF is a unique construct that incorporates vital elements of the Marine Corps into a finely tuned military capability. It integrates a spectrum of ground and aviation elements specifically designed for the accomplishment of particular missions. Employing Marine Corps airlift capacity must be within the same context. Unfortunately, the Marine Corps does not view the utilization of airlift as a wide, all-encompassing spectrum.⁶ It rightfully utilizes airlift as a MAGTF capability, yet narrowly focuses on airlift capacity in a single concept. This argument also does not imply that MAGTF Commanders do not employ the lift options available nor does it imply egregious utilization in the past. However, this argument will present a multifaceted approach for maximizing airlift efficiency for the MAGTF Commander.

Senior leaders resistant to institutional change justly request historical data and maintain the premise of “how is the status quo not supporting the MAGTF?” The airlift mission will continue to succeed for the MAGTF despite routine obstacles as units strive to perfect mission accomplishment. In order to counteract the mismanagement and inefficiencies of today’s airlift status quo, the Marine Corps has an obligation to implement cost effective solutions to further enable its demand for timely response. In addition, critics to Marine airlift must understand the MAGTF Commander’s desire for timely response and, despite the Marine Corps and sister service guidance to become more joint in nature, must also realize the Joint Force’s ravenous competition for airlift requirements. The utilization of joint airlift has a proven success and will continue in the future, ultimately allowing USMC lift assets to cover additional obligations, but the Marine Corps airlift requirements cannot be “everything Joint.” However, in order to meet the demand for timely response and maintain the self-sufficiency of the MAGTF, in conjunction with a Pacific refocus and diminishing budget, the internal sourcing of organic airlift assets is significantly broken and desperately needs change. The airlift capacity for the MAGTF Commander in the Pacific can significantly improve the unity of effort and maximize logistical efficiency by streamlining the fixed-wing (FW) airlift request process, restructuring the Operational Support Airlift (OSA) command relationships, and procuring the C-40 aircraft.

Fixed-Wing Assault Support Aircraft, Mission, and Force Laydown

Marine Corps Operational Support Airlift

The primary mission of Marine Corps OSA is to provide the time sensitive air transport of high priority passengers and cargo between and within a theater of war.⁷ The Marine Corps

currently possesses twenty-seven Commercially Variant Aircraft (CVA) dispersed among ten separate facilities to assist in the OSA mission (Figure 2). Encompassing the scope of range and lift capabilities, the Marine Corps owns a multitude of aircraft to fulfill its mission. The C-20G and the C-9B, variants of the Gulfstream IV and McDonnell Douglas DC-9 respectively, cover the realm of medium-long range, medium lift capabilities. The UC-35 and the UC-12 aircraft, for short-medium range, light lift requirements, are variations similar to the Cessna Citation and Beechcraft King Air respectively. In addition, the upgraded UC-12W model possesses an advanced Cargo Decking System capability allowing the eight passenger aircraft to transform into a 2,500-pound cargo lift aircraft. The flight training of aircrews to ensure combat readiness, in conjunction with passenger and cargo air transport, fulfills the peacetime role and encompasses the air evacuation and air logistical support within the assault support function of Marine aviation. Because tactical aircraft are costly to operate and require more maintenance man-hours than CVA, Marine OSA can reduce these costs, limit tactical aircraft fatigue, and preserve the tactical assault support aircraft for their primary missions.⁸

OSA aircraft possess several attributes unique to commercial designs:⁹

- Low operating costs
- Exceptional mission reliability rates
- Low maintenance required per flight hour
- Efficient, commercially based aircrew transition training
- Small deployed logistics footprint
- Inconspicuous profile at foreign airports

These attributes combine to offer a significant set of advantages, which include:

- Preserves the service life of tactical airframes.
- Frees tactical airframes to be employed in their primary missions.
- Provides access to smaller airfields, enabling direct movement to objective.
- Provides quick response to emerging mission requirements.
- Bridges gaps between commercial cargo carriers and MAGTFs.
- Facilitates productive time for commanders and staffs en route.

- Mitigates force protection risks created by layovers in foreign airports.

Resident within the Marine Corps Air Stations and Installations, OSA aircraft fall predominantly under the Joint Operational Support Airlift Center (JOSAC), subordinate to U.S. Transportation Command (TRANSCOM), for DoD-wide passenger and cargo transportation within CONUS. However, the Marine OSA assets based in WestPac do not fall under JOSAC tasking authority and receive mission direction from Marine Corps Installations, Pacific (MCIPAC), formerly Marine Corps Bases, Japan (MCBJ) (Figure 3). Because the OSA aircraft and associated personnel are subordinate to Marine installations, unique operational challenges exist for the MAGTF. Having a separate chain of command from tactical airframes and limited exposure to the Naval Aviation Enterprise (NAE) and Defense Readiness Reporting System (DRRS), the OSA construct did not possess a direct link to the warfighting MAGTF and were difficult to deploy based upon aircrew combat readiness reporting.

Marine Corps KC-130 Hercules

The Marine Corps possesses approximately (70) KC-130 aircraft between the active and reserve squadrons within Marine Aerial Refueler Transport Squadron (VMGR). Retaining the traditional military command and control hierarchy, the KC-130 is a tactical assault support aircraft (Figure 4). Three active duty squadrons employ the most recent KC-130J model from Okinawa, Japan; Miramar, California; and Cherry Point, North Carolina. Likewise, the two reserve squadrons, based in Newburgh, New York and Fort Worth, Texas, continue to utilize the “legacy” KC-130T model aircraft. Within the Marine Corps aviation functions, the KC-130 is the premier all-weather provider of assault support capable of carrying ninety-two combat troops or a payload of 42,000 pounds among six pallet positions. According to the KC-130 Training

and Readiness Manual, the overall VMGR mission is to “support the MAGTF Commander by providing air-to-air refueling and assault support, day or night under all weather conditions during expeditionary, joint, or combined operations.”¹⁰ The primary role of a VMGR squadron is to provide air-to-air refueling to tactical fighter aircraft and helicopters. Secondary missions include Rapid Ground Refueling (RGR) of aircraft and land-based vehicles, air delivery of personnel and cargo, airborne communications platform for the Direct Air Support Center (DASC), air evacuation of casualties and noncombatants, air transport of personnel and cargo, and search and rescue (SAR).

In addition, the Marine Corps recently added a roll-on/roll-off offensive weapons capability onto the KC-130 airframe. KC-130 aircraft incorporating this feature, named Harvest Hawk, provide vital Intelligence, Surveillance, and Reconnaissance (ISR) capabilities, as well as Hellfire missile deployment, in support of MAGTF ground combat operations. The exponential demand for KC-130 utilization by the MAGTF presents significant operational challenges to answering Marine airlift options. The combat success of the Harvest Hawk, recent full-time support of two KC-130s per MEU, and an imposed Fleet training obligation following the deactivation of the KC-130 Fleet Replacement Squadron (FRS) all contribute to increased Fleet-wide KC-130 requirements.¹¹ Exacerbated by location and mission necessity, the Okinawa-based VMGR squadron (VMGR-152) sustains additional operational responsibilities in comparison to its CONUS counterparts. In addition to preserving tactical readiness via limited training opportunities since its departure from OEF, the airlift request process directs VMGR-152 as the primary air refueling and trail maintenance platform for the two high demand Okinawa-based MV-22 Osprey squadrons throughout the Pacific.

FW Airlift Request Process

The airlift request process is the method to request assault support and direct mission execution of airlift assets. Similar in design amongst the four Marine Aircraft Wings (MAWs), an assault support request (ASR) outlines mission specific details for the use “of aircraft to provide tactical mobility and logistic support for the MAGTF, the movement of high priority cargo and personnel within the immediate area of operations, in-flight refueling, and the evacuation of personnel and cargo.”¹² In addition, rotary-wing assets use a comparable process and execute missions for short-range movements to training ranges and facilities. This does not disregard the validity of Pacific rotary-wing lift as a viable means for assault support transportation, but the minimal range and landing zone usage is not applicable to fixed-wing assets and must be discounted for this argument. The organic resources utilized for WestPac airlift are resident to the VMGR and H&HS squadrons, specifically, the KC-130 and the OSA C-12 and UC-35 aircraft, respectively. Each of these units incorporates a different design for supporting Assault Support Requests (ASR). In the author’s experience, the airlift frag process for Marine fixed-wing assets in WestPac implements a poor design, plans in exclusivity, and fails to integrate the action officers representing the respective type/model/series (T/M/S) aircraft.

KC-130 Air Transportation Coordination Office (ATCO) Design

The 1st MAW ATCO is resident to the Wing Operations section and incorporates active KC-130 aircrew to manage and process ASRs. Historically, KC-130 Aircraft Commanders, Warrant Officer navigators, and Staff NCO loadmasters held this billet. The uniqueness of the KC-130 mission in an antiquated airframe to calculate enroute travel times and load plans lent

itself to this ideal construct. Currently, with the introduction of the KC-130J model, the merging of the crew chief and loadmaster MOS, and the lack of navigators otherwise required to fill billets in the reserve VMGR squadrons, an Aircraft Commander and Crewmaster fulfill these ATCO billets. Two areas flaw this ATCO design: method of assignment and required number of personnel.

Arguably, the current KC-130 squadron leadership decides the method of identifying the next ATCO in succession. This holds legitimacy as squadron leadership best knows the experience of prospective ATCO billet holders and can maintain identifiable input to best articulate the VMGR position. Identifying the right individual for the position is often a difficult decision for VMGR as there is an inherent desire to keep the identified ATCO asset within the squadron. The familiarity with overwater flight planning and complex cargo load capabilities of VMGR are necessities in order to increase the efficiencies of MAGTF lift capacity.

Yet filling these positions through an ad hoc process of seat-swapping temporary additional duty (TAD) based, in part, on the availability of the respective billet holders only detracts from the importance of these “Airlift Managers.” Dynamic changes in ATCO personnel due to deployment cycles and squadron combat leadership opportunities diminish a desired continuity at the MAW level. One option is to source the billet by a table of organization (T/O) line number for a period of 12 months by MMOA, to field grade Aircraft Commanders well versed in the intricacies of Pacific KC-130 operations. Squadron leadership can continue to source a SNCO Crewmaster to augment the second ATCO billet. This provides the ATCO with opportunities to maintain flight currency and continued tactical training opportunities. Another option is to reduce manning to only a field grade KC-130 Aircraft Commander for a twelve month ‘Duties Involving Flight, All Flight Activity Denied’ (DIFDEN) status. Suitable criteria

should be a one-year extension following a three-year tour or PCA orders following twenty-four months within the squadron. This would provide a constant MAW presence; offer a well-needed one-year out of the cockpit tour, and allow the squadron to retain the SNCO Crewmaster for invaluable tactical training. In addition, the ATCO will not struggle to maintain flight currency once VMGR-152 relocates to mainland Japan in FY14.

OSA ATCO Design

The OSA ATCO is similar in design yet not designated by official means. The OSA Air Cell falls within the headquarters of Marine Corps Installations, Pacific (MCIPAC), and Headquarters and Headquarter Service (H&HS) Squadron, Futenma is responsible to man, train, and equip the Marines within the Air Cell. Identified within the last decade as a must-need priority for air planning, the Futenma Air Station staff placed great importance in establishing a higher echelon air operations planner. This planner would serve as the conduit to collect, manage, and prioritize ASRs for units requesting OSA airlift. The MCIPAC ATCO is an aviator from H&HS Futenma who already has prior squadron obligations whereas his enlisted support staff, surprisingly, may or may not have an aviation background. Commonly, this Air Cell consists of Marines under the Fleet Assistance Program (FAP), those removed from their prior billets due to attrition, or those awaiting placement in other units. Since the formulation of the Air Cell, the staff of H&HS Futenma consistently has to train the ATCO billet holders because of inexperience in job or aviation related matters. A simpler version that organizes the 1st MAW ATCO will also strengthen the efficiency of MCIPAC air operations. HQMC should coordinate with subordinate commands to identify and appropriately staff the MCIPAC Air Cell. MCIPAC leadership should request TAD orders for OSA pilots and enlisted aviation specialists by T/O

line number for a period of twelve months by MMOA. Flight status would remain in place for ATCO OSA pilots to facilitate flight currency and contribution to squadron operations.

Planning in Exclusivity

The methods of collecting ASRs to produce mission tasking for both units are vastly different and executed exclusive of one another. The 1st MAW ATCO requires ASR submissions by the tenth of each month for subsequent KC-130 support the following month. The ATCO will then process, combine, and loosely prioritize ASRs over an additional ten-day period for review by VMGR squadron planners. Once a pre-request (frag) conference is complete by 1st MAW and VMGR staff, an official frag conference during the third week of the month incorporates all adjacent and subordinate unit planners requesting KC-130 support. Afterward, the Air Tasking Order (ATO) states the official results of the monthly frag conference. The VMGR squadron then generates a flight schedule for the next day's missions based upon ATO direction.

Various methods direct KC-130 utilization: 1) long range airlift and tactical missions in support of higher echelon Theater Security Cooperation (TSC) events or the Training and Exercise Employment Plan (TEEP), 2) monthly frag conferences, and 3) last minute, immediate airlift requests. The frag process contains two complementary deficiencies: planning and prioritization. Well-planned, prioritized, and conducted six to twelve months before STARTEX, airlift support for TEEP exercises encompasses support, tactical, and strategic airlift depending on the venue. Often submitted well inside the deadline window and continuously accepted for support, the overwhelming effort to manage airlift discrepancies is the result of improperly planned and late frag requests ultimately needing immediate attention. This has an adverse

effect on the published ATO, expected KC-130 missions, and over usage of airframe life cycles. According to Marine Corps Order (MCO) 4631.10A, “Tactical (Fleet Marine Force organic) aircraft shall not be used for OSA missions except under extraordinary circumstances and with the approval of the Deputy Chief of Staff for Aviation.”¹³ Yet, the VMGR squadron routinely completes last minute lift requests, as directed by 1st MAW, for minimal passengers and cargo due to poor planning by III MEF subordinate units. An option is for major subordinate commands (MSC) of III MEF to adhere to the planning construct as set forth by 1st MAW ATCO or be accountable to find alternate means for airlift.

The lack of 1st MAW ATCO prioritization for airlift missions, with minimal III MEF oversight, creates confusion in mission precedence and generates an acceptance that every lift is a priority. Unlike 2nd and 3rd MAW, located in CONUS, 1st MAW ATCO fails to establish priority codes for tasked airlift missions. The lack of prioritization codes has another derisive effect. During the author’s experience coordinating with 1st MAW ATCO, often times joint services request KC-130 support and adhere to the ASR timeline provided, but there exists an expectation to support Marine airlift requests as a priority. Despite poor Marine Corps planning, the joint service KC-130 request is unsupportable due to a lack of available resources. 1st MAW ATCO needs to identify a similar prioritization construct to facilitate airlift control and provide requesting units additional time to find alternate airlift as required (Figure 5, 6).

MCIPAC ATCO conducts its frag process completely different. Although large-scale TEEP exercises use a comparable planning process, MCIPAC ATCO must also incorporate the dynamic schedules of Distinguished Visitor (DV) and General Officer movements into the OSA long-range airlift plan. In contrast to KC-130 operations, the MCIPAC ATCO manages requests on a weekly basis and does not publish a monthly ATO. Designed for a seventy-two hour cycle,

OSA flight schedules remain solidified for that three-day period. Subsequent airlift requests adjust into a future time block consistent for support.

The enabling of a three-day frag cycle facilitates contract maintenance phase inspections and allows flight opportunities to the small aviation staff resident to H&HS.¹⁴ In addition, the uniqueness of a three-day frag cycle requires proactive planning from requesting units and prevents an additional layer of last minute MCIPAC inputs to a published flight schedule.¹⁵ However, MCIPAC must demonstrate consistency regarding airlift prioritization. ASRs processed on a first come, first serve basis support the OSA peacetime mission “to provide essential training for operational personnel, cost effective seasoning of pilots, and the transport of passengers and cargo where military needs dictate.”¹⁶ According to MCO 4631.10A, Operational Support Airlift Management, applying Priority, Urgency, Justification, Category (PUJC) codes, in conjunction with a review of passenger/cargo eligibility, determines the validity of OSA airlift requests.¹⁷ Furthermore, passenger rank cannot be a sole determinant for mission priority: “Travel status, distinguished visitor (DV) code or status, grade, or rank alone is not sufficient to justify the use of government aircraft or to dictate a particular aircraft type.”¹⁸ Arranging OSA airlift requirements based upon rank structure or lacking PUJC codes is inefficient and against Department of Defense policy. An option is for MCIPAC to adopt full utilization of PUJC codes and adhere to OSA directives in order to streamline air operations and prevent unsupported missions.

Lack of Integration

Another problem with the FW frag process is the failure of both ATCO divisions to fully integrate. The efforts of each ATCO operate inside a vacuum, have no oversight from III MEF,

and rarely synchronize with each other due to separate command relationships. Although located in the same building, there is rarely any interaction between these entities regarding airlift frags and support. Inconsistencies with airlift flight scheduling would regularly place both KC-130 and OSA aircraft at the same airport for routine passenger transport.

An option is to establish a combined Air Cell to manage and synchronize airlift requests. Designed to alleviate aircraft mismanagement and unnecessary expenditures from redundant mission tasking, the Air Cell would collocate the KC-130 and OSA ATCOs within the same office at MAW/MCIPAC, not at MEF headquarters. III MEF should not have complete control of day-to-day airlift missions, but should supervise the coordinated efforts to prioritize monthly airlift requests. III MEF adds an additional layer of bureaucracy unnecessary for routine air operations. III MEF oversight, essential for large-scale and long-term frag requests, should continue for TEEP events, multinational airlift efforts, 3d MEB and HA/DR operations, and GO/DV movements. The III MEF air shop does not possess the manpower structure outlined in its table of organization (T/O).¹⁹ The III MEF air shop retains the minimal manpower required, usually one field grade or company grade Air Officer and two enlisted MAGTF planners, to effectively manage MEF air support without having to engage in MSC air activities.²⁰

In order to efficiently manage and provide cost effective airlift within a resource-limited AOR, it is crucial to implement a redesigned frag process, coordinated management of airlift requests, and the integration of the ATCO billets into one identifiable division. The KC-130 and OSA frag cycles are functional for their respective missions and structures. Changes to ATCO manpower and design, airlift planning and prioritization, and synchronizing both ATCO divisions are critical to maintain the professionalism and cost-effectiveness of WestPac airlift

operations. Implementing the aforementioned options will streamline III MEF airlift efficiency and invigorate squadron productivity.

OSA Command and Control Relationships

The second method to streamline airlift support is to restructure the OSA Command and Control (C2) relationships. The voracious demand for airlift is currently encountering significant resource limitations. The dichotomy of command and control between 1st MAW and MCIPAC reveals a disconnected relationship in utilizing airlift assets effectively. However, why do the OSA aircraft remain outside the typical aviation structure, and what are the solutions to streamline WestPac OSA command and control?

Tactical in nature, MAW aviation assets combine peacetime tactical training and wartime integration with ground forces. MCIPAC assets are peacetime support aircraft yet possess limited combat experience despite their doctrinal underpinnings. This limited experience is due, in part, to a lack of Aircraft Survivability Equipment (ASE) and tactically trained aircrews. Additionally, not all OSA aircraft possess mode 4 Identification, Friend or Foe (IFF) transponder capability, or offensive or defensive capabilities and “must not be tasked to operate in an area of known threat.”²¹ Recent data shows extremely successful results of OSA aircraft deploying with ASE and Mode 4 capabilities to Iraq and Afghanistan providing vital lift of Marine Corps and Coalition forces personnel and cargo. Furthermore, the lack of OSA assets deployed among the MEUs demonstrates the unfamiliarity of operational support aircraft capabilities. Passenger airlift data examined from the 13th and 15th MEU deployments in 2010 and 2011, respectively, show that of 178 KC-130 sorties flown, 122 sorties (69%) were appropriate for OSA aircraft.²²

The command and control of OSA aircraft for support during III MEF exercises lacks integration as well. Historically, OSA assets attach to the Marine Corps command element (CE) maintaining authority during the exercise. Subordinate to the command element, the aviation combat element (ACE) maintains command and control of aircraft in support of the MAGTF exercise objectives. During *Exercise Cobra Gold*, a bilateral and multinational PACOM training evolution, the employment of MAGTF airlift employed this construct. Poor communication and lack of complete airlift assimilation into the MAGTF caused KC-130 training sortie cancellations and immediate airlift additions to the daily flight schedule.²³ An option is to adjust the MEF C2 structure to incorporate OSA assets into the ACE, not the CE. The ACE maintains control of all aviation assets and the reporting chain of command funnels directly to the CE for adjustments. Exercising the deployment airlift capabilities of OSA aircraft provides the MAGTF Commander with a greater scope of airlift capacity and further validates the OSA mission. This allows the tactically trained KC-130s the opportunity to continue assault support for the MAGTF, (Multinational Forces-Iraq (MNF-I), and International Security Assistance Force (ISAF) ground forces.

Competing mission requirements and participation in III MEF exercises fails to integrate both WestPac OSA squadrons. Historically, mission overtasking or aircraft underutilization distinguishes the relationship between these squadrons. The airlift practices of Pacific OSA must align with current doctrine. According to the current version of MCO 4631.10A, the CO, MCAS Futenma shall validate and process airlift requests and schedule Marine OSA aircraft located at CO MCAS Futenma and CO MCAS Iwakuni.²⁴ However, in order to enhance the efficiency of OSA management, MCBJ developed an order in 2008 specifically identifying the tasking authority. Designed to amplify MCO 4631.10A, among other references, the MCBJO 4631.1

states the “MCBJ Aviation Branch will validate and process airlift requests...and assigned to either CO, MCAS Futenma or CO, MCAS Iwakuni.”²⁵ Despite the discrepancy in tasking authority between the two Marine Corps Orders, a unity of command best serves OSA management. A suggestion is for the operations staff of MCIPAC to maintain ownership in processing airlift requests in order to limit mission disagreements, prevent aircraft redundancy on exercise deployments, and maintain an authority for effective command and control. In addition, the MCIPAC ATCO should incorporate an aviator from both MCAS Futenma and MCAS Iwakuni to work concurrently on airlift requests for streamlining mission requirements to the respective air stations.

Another proposal is to remove OSA from the Marine Corps Installations C2 and place these squadrons under the direct control of the MAW. This would facilitate Marine Corps integration of aviation airlift support, automatically harmonize the ATCO divisions, provide visibility for additional airlift capacity, prioritize OSA missions in support of Marine Corps requirements, and maintain ownership of Marine aviation assets. The shift to MAW C2 would have significant impact to WestPac airlift by removing responsibility from MCIPAC and allowing them to focus on their mission “to more effectively and efficiently manage and oversee Marine Corps installation support services to operating forces, like III Marine Expeditionary Force.”²⁶

The OSA assets under the MAW structure would organize as Marine Transport Squadrons (VMR), led by a lieutenant colonel while maintaining contract maintenance support, and numerically labeled in succession based upon their CONUS counterparts. In addition, the command relationships would be similar to that of a VMGR squadron. Subordinate to a Marine Aircraft Group (MAG) only for administrative purposes, the MAW would retain operational and

tactical control (OPCON/TACON) unless adjusted to Joint Task Force (JTF) control for disaster relief and combat operations. An option for force laydown is to place the VMR squadron at a location that best serves the MAW Commander's requirements for MAGTF support while ensuring the air station infrastructure can support the squadron footprint. For example, a suggestion that has immediate effects is to combine the OSA squadrons from Okinawa and Iwakuni into one VMR squadron, based at MCAS Futenma, with an aircraft detachment located at MCAS Iwakuni. Detachment personnel would deploy from Iwakuni to continue MAGTF support, but rotate continuously from the Okinawa-based squadron. This option would prevent complications and competition for mission support, as well as maintain the critical hierarchical command structure for the MAW Commander.

By maintaining MAW control of OSA aircraft, it guarantees General Officer involvement for implementation and integration of airlift assets. It would also provide additional flexibility to meet time critical demands of logistical support for maintenance personnel, parts, and tools. Attaching OSA assets within the MAGTF provides invaluable flexibility in filling high-priority and short notice missions without having to compete with the airlift needs of other services.²⁷ The OSA relationship with JOSAC would still exist in CONUS. In accordance with the directives of DODD 4500.56, Policy on the Use of Government Aircraft and Air Travel, the Marine Corps can continue to ensure its OSA business practices are within congressional requirements. However, by placing OSA directly under the MAW structure, the Marine Corps can fully capitalize on the capabilities of OSA aircraft in reference to the definition of "Mission Requirements." The White House Circular, labeled OMB Circular A-126, defines Mission Requirements as:

activities that constitute the discharge of an agency's official responsibilities. Such activities include, but are not limited to, the transport of troops and/or equipment,

training, evacuation (including medical evacuation), intelligence and counter-narcotics activities, search and rescue, transportation of prisoners, use of defense attaché-controlled aircraft, aeronautical research and space and science applications, and other such activities. For purposes of this Circular, mission requirements do not include official travel to give speeches, to attend conferences or meetings, or to make routine site visits.²⁸

ATCO would manage and prioritize MAGTF airlift support missions for OSA aircraft, and then provide excess sortie capacity to JOSAC for high demand TRANSCOM requirements, similar to excess tactical air sorties given to the JFACC Commander.

A third and, arguably, controversial option is to place all OSA assets and supporting structure under the lieutenant colonel command of a VMGR squadron, utilizing a VMGR field grade officer as the OSA officer-in-charge. This design would serve to sustain an all-encompassing FW lift capability while providing additional means for immediate lift capacity. The MAW C2 and force laydown remains the same, with contract maintenance and enlisted support incorporated into the VMGR structure. OSA pilots and aircrew would remain the initial design in transitioning to VMGR, eventually augmented by fixed and rotary-wing pilots and aircrew serving outside their MOS in a B-billet status. The final phase is maintaining the separate MOS for FW Support pilot/aircrew. A separate MOS would define pilot/aircrew specificity and prevent VMGR personnel from having to maintain flight currency in three separate airframes. Critics to this recommendation must realize the overwhelming majority of Marine Corps resident experts for long range, overwater, and international airlift are inherent to a VMGR squadron. The Marine Corps should allow the VMGR fixed wing specialists the opportunity to manage and employ the light lift, medium range capabilities of OSA aircraft.

In addition, the Marine Corps already employs various aircraft within a single squadron. Critics cannot argue the historical achievements and collaborative success in the dual T/M/S of Marine Light Attack Helicopter Squadron (HMLA), to include AH-1W Cobras and UH-1 Hueys,

under a common framework. Complementary in mission construct, the design of the HMLA squadron is to provide light attack and utility capabilities to the MAGTF Commander. By placing OSA assets under a VMGR command, the MAGTF Commander maintains the ability to “one stop shop” airlift resources across the range and capacity spectrum.

The final, yet least preferable, option to increase airlift effectiveness in WestPac is to organize an overseas version of JOSAC. The author considers this option least preferable because the Marine Corps OSA assets would be under similar CONUS TRANSCOM adjudication authority and derive less benefit from OSA ownership. However, by demanding to maintain full support of OSA assets in WestPac yet still provide excess sortie capacity for contingency requirements, the Marine Corps can ensure its airlift obligations are met, limit redundancy of available aircraft, and allow a single tasking authority for Pacific theater support. There exists zero higher echelon oversight for OSA-related tasking in WestPac. According to Major Joseph Parker, former H&HS Futenma Operations Officer, “[Marine OSA] would get tasked from Okinawa pick up the Commander of U.S. Forces, Japan in mainland Japan and upon arrival, [OSA aircrew] would see two unused C-12 aircraft near VIP parking.”²⁹ This incurs excessive per diem, fuel, and maintenance costs, unnecessary airframe deterioration, and inability to support competing airlift requests. Each service has OSA capabilities in WestPac, yet they operate independent of each other. There exists a modern-day resource and fiscal obligation for DOD to simultaneously manage and effectively control competing OSA assets for Pacific theater employment.

Procurement of C-40 Aircraft

The final proposal to significantly improve airlift capacity for the MAGTF Commander is

the acquisition of Marine Corps-operated C-40 aircraft. The C-40, a variant of the Boeing 737 aircraft, would replace the aging C-9 inventory in CONUS as well as capitalize on the medium range, medium lift deficiency in WestPac. Capable of carrying 121 passengers or 38,000 pounds of cargo, the C-40 is a dominant force multiplier nestled between the light lift capabilities of OSA and the strategic lift capabilities of the U.S. Air Force. In comparison to a KC-130, the C-40 carries 50% greater passenger capacity at 500-1000 greater nautical mile range. Critics against the Marine Corps procurement of C-40 aircraft would reference the successful utilization of the Naval Air Logistics Office (NALO) aircraft by Marine Corps units. In 2009, the Marine Corps was the fifth largest consumer of Pacific Naval lift. However, the Navy C-40s continue to be “dedicated to the airlift demands of the Carrier Battle Group.”³⁰ Furthermore, critics will point to the Marine Corps consumption of Air Mobility Command (AMC) and USAF C-17s and C-130s for cargo and passenger movements. Yet, the answer is not in the application of Joint lift; however, one can agree that large strategic lift requires large USAF assets. The USAF charges the consumer excessive operating costs to use USAF/AMC aircraft through TRANSCOM’s Transportation Capital Working Fund. The Marine Corps pays all costs from airport origination to mission completion. The Civil Reserve Air Fleet (CRAF) is another way to lease large aircraft for personnel and cargo lift by paying for commercial providers such as ATLAS, WORLD, and Omni Air. Again, “this is expensive, requires considerable forward planning in support of TEEP events, and limits the flexibility for time-critical response.”³¹ The solution is to identify what method the Marine Corps can bridge the gap between the cost and depth of personnel and cargo movements demanded by the MAGTF Commander.

The recurring issue is that the Marine Corps is not effective in identifying Pacific lift gaps, and III MEF does not capture and articulate this unanswered demand to HQMC.³²

Moreover, the consistent utilization of KC-130 aircraft for routine lift is blatant, against 1st MAW orders, and only detracts from the combat readiness and airframe life cycles of the VMGR squadron. For example, III MEF tasked VMGR-152 to support the airlift movement of a Marine infantry company and associated gear from Okinawa, Japan to Darwin, Australia. Resident within the aviation command structure, the MEF and MAW command elements maintain KC-130 tasking authority. This movement required five KC-130 aircraft, amounted to 50% of the squadron Ready Basic Aircraft (RBA), and maximized the KC-130 aircraft limit for tasking during a four-day period. The RBA standards, published by the 1st MAW Aviation Logistics Division, dictate that 75% of VMGR-152 aircraft inventory shall maintain an RBA status.³³ Furthermore, 1st MAW SOP for Air Operations states that KC-130 “planning and scheduling shall be based on a daily usage rate equaling 50 percent of the RBA goal as defined by the Naval Aviation Enterprise (NAE).”³⁴ At the time of execution, VMGR-152 possessed (15) aircraft, yet two aircraft were in support of Operation Enduring Freedom:

(15) aircraft assigned – (2) deployed to OEF = (13) aircraft
(13) aircraft X 75% mandatory RBA status = (9.75) aircraft rounded to (10) aircraft
(10) aircraft X 50% daily usage rate = (5) aircraft available for daily tasking

The orders and directives present clear guidance for KC-130 tasking procedures allowing the VMGR squadron to utilize the remaining aircraft for tactical training and maintenance cycles. This guidance also facilitates an expected level of KC-130 aircraft readiness for use in immediate contingency operations. If all KC-130 aircraft engage in higher echelon mission execution on a daily basis, then aircrew combat and maintenance readiness significantly decreases. Implementing these directives provides a comprehensive balance to airlift missions, combat

readiness, and maintenance inspections, and higher commands assume the risk in deviating from these orders. Yet, the Marine presence in northern Australia expects to increase to 2,500 personnel in addition to a planned 3d MEB relocation to Guam. The VMGR squadron is also planning to permanently relocate 700 miles north to Iwakuni, Japan in fiscal year 2014. The future Marine Corps presence in WestPac will identify command elements in Hawaii, Guam, and Okinawa. In addition, large numbers of Marines will also maintain a continuing presence in mainland Japan and Australia due to the resumption of the UDP. What is the Marine Corps' plan to reposition and transport the significant force structure required for training and contingency operations without the sole reliance on one VMGR squadron? The C-40 aircraft serves as the Marine Corps' "global connector" and enables a customized, cost-effective, time-critical lift capability unmatched in Marine Corps aviation inventory.

Despite the initial procurement costs and long-term acquisition plan for the C-40, the cost per hour (CPH) is more advantageous to the comparison of other Marine Corps lift expenditures. At \$4,320 per KC-130 flight hour, the C-40 can carry a larger payload a further distance at a cost of \$4,120.³⁵ For a location that views the VMGR squadron as its only alternative for routine and large-scale airlift, the C-40 provides a cost effective solution to maximizing WestPac airlift capacity. Opponents to a C-40 acquisition and Pacific employment program highlight the introduction of two MV-22 Osprey squadrons in WestPac available for personnel and cargo lift opportunities. Although capable of carrying 24 passengers or 20,000 pounds of cargo, the MV-22 operating CPH is \$9,156, over twice the CPH of the C-40 aircraft. Additionally, the MV-22 payload capability pales in comparison to the C-40 and would require multiple KC-130-supported air-to-air refueling missions to match the distance of the C-40.

The command and control of a Marine Corps C-40 unit should emulate the US Navy

detachment construct. According to LtCol Robert Houde (ret), former HQMC OSA staff officer, “The C-40 could originate as a CONUS Air Station asset and deploy in a detachment status, much like the Navy C-40 Det at Naval Air Station Atsugi, Japan.”³⁶ III MEF would have to request the usage of the C-40 through Time Phased Force Deployment Data (TPFDD) program. Once approved, the C-40 would chop to III MEF for Pacific utilization. C-40 employment opportunities exist regularly throughout the fiscal year as III MEF participates in nearly 90 training exercises in the Pacific region. The purpose of a non-permanent detachment would provide doctrinal ownership to the Pacific MAGTF Commander for missions in support of operations and exercises and ensure a higher authority does not task the aircraft. Once the TPFDD timeline is completed, the C-40 Det returns to its CONUS Air Station for JOSAC and TRANSCOM tasking. In the event of PACOM contingency operations, other Service commanders senior to III MEF can request the Marine C-40 for support, but will fall under JP-1 doctrine. As stated in JP-1, “The MAGTF commander will retain OPCON of organic air assets. Sorties in excess of MAGTF direct support requirements will be provided to the JFC for tasking through the JFACC for the support of other components of the joint force or the joint force as a whole.”³⁷ This ensures the priority completion of MAGTF airlift obligations before external utilization.

The following examples provide a performance and cost comparison between the KC-130 and C-40 aircraft in two scenarios.³⁸ A notional mission assigned is to transport 120 Marines from Andersen Air Base, Guam to Utaphao, Thailand covering approximately 2,590 nautical miles (NM). The mission requirements necessitate either two KC-130s, passenger-limited due to flight publication limitations, or one C-40 aircraft. The utilization of the KC-130 aircraft is 3.5 times the cost of one C-40 airframe while also increasing enroute time traveled by

three additional flight hours.

An alternate example encompasses the movement of 2,500 Marines from Okinawa, Japan to Clark Air Base, Philippines in support of TSC or HA/DR objectives. Over a 72-hour period, the performance capabilities of the C-40 far exceed that of the KC-130 and at a far cheaper price. The C-40 utilizes one-half of the KC-130 aircraft required, one-third the necessary flight crews, and nearly 65% of the total KC-130 sorties. In addition, the C-40 is over three times cheaper to operate when evaluating cost per ton-mile at \$0.41, in comparison to \$1.41 for the KC-130. In a fiscally constrained environment where the force projection demand continues to increase, the C-40 aircraft is the answer to the range and payload requirements in WestPac.

Recommendations

The concepts to improve the Marine Corps airlift capacity in the Pacific need to demonstrate a “time and impact” analysis in order to prove effectiveness. The recommendations provided comprise a time-phased approach for implementation. From a short-term perspective, the changes associated with both KC-130 and OSA ATCO frag process design, planning, and integration are critical to increasing the efficiency of MAGTF airlift. The leadership must place the utmost importance in filling the ATCO with quality billet holders and demand planning excellence by the subordinate staff for airlift support. In addition, the MEF and MAW leadership should not approve routine airlift inside the delineated timeline except for emergencies. The cancellation of airlift missions due to faulty planning will ultimately force subsequent planners to adhere to the published rules. A recommendation to capture mission regrets and immediate mission changes is vitally important to articulate airlift discrepancies. Furthermore, it is crucial to place both ATCOs, regardless of the command relationships, within

the same office to ensure dual oversight, maximize lift capacity integration, and prevent unnecessary costs with redundant aircraft employment.

In restructuring the OSA command and control, an immediate solution is MCIPAC's full adherence to MCO 4631.1, Marine Corps Bases Japan (MCBJ) Operational Support Airlift (OSA) Management, in processing and directing mission execution to both OSA squadrons. A short-term recommendation is for MCIPAC ATCO to incorporate an aviator from both MCAS Futenma and MCAS Iwakuni to work concurrently on airlift requests for streamlining mission requirements to the respective air stations. In addition, MCIPAC should demand Pacific experience and expertise in the OSA governing documents from its ATCO billet holders. The optimal and long-term resolution is to remove OSA assets from MCIPAC and place OPCON/TACON directly under the MAW. This provides the Marine Corps with a definitive unity of command within the MAW, realigns the operational support aircraft to maximize MAGTF integration, and allows MCIPAC to focus on installation assistance.

Procuring C-40 aircraft is critical in maximizing III MEF's ability to respond to today's crisis, to participate in PACOM TSC objectives, and to provide a timely solution to medium lift, medium range requirements into the future. The C-40 aircraft is the legitimate answer to the Marine Corps airlift demand in WestPac at an affordable cost margin. In addition, the acquisition of Marine-owned C-40 aircraft allows the KC-130 squadrons to focus on tactical training and execution of the range in assault support missions.

Conclusion

The Marine Corps' demand for rapid force projection is insatiable as a "first-responder" organization. Current global conflicts, a diminishing defense budget, and substantial

restructuring of Pacific Marine forces contribute to the complexity of timely response. The shift in national strategy and the presence of new fiscal realities will attempt to limit the maximum maneuverability of the forward deployed MAGTF. In order to maintain the self-sufficiency of the MAGTF and effectively respond to crisis, the Marine Corps must view its airlift capability as a spectrum. Successful crisis response is dependent on three fundamental attributes— speed, flexibility, and operational effectiveness.³⁹ Significant changes must occur within the FW transport communities to streamline airlift capacity and maximize airlift efficiency to fully exploit the attributes of crisis response. An improved frag process, redesigned OSA command and control structure, and the procurement of C-40 aircraft can positively influence the solutions for airlift demand. These changes proactively blend MAGTF decision makers and airlift capacity with the current fiscal environment. The Marine Corps needs an innovative and cost-effective aviation solution that can deploy forward with relevant and timely capabilities, maximizing speed and freedom of action.⁴⁰ A coordinated approach for streamlined KC-130 and OSA employment represents an untapped synergy and serves as the connective tissue needed for the MAGTF's survival.

Endnotes

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² “U.S. PACOM Facts.”

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¹⁴ Joseph G. Parker, Major, USMC (former Operations Officer for H&HS Futenma), interview by James Sconfiatti, Major, USMC, January 14, 2013.

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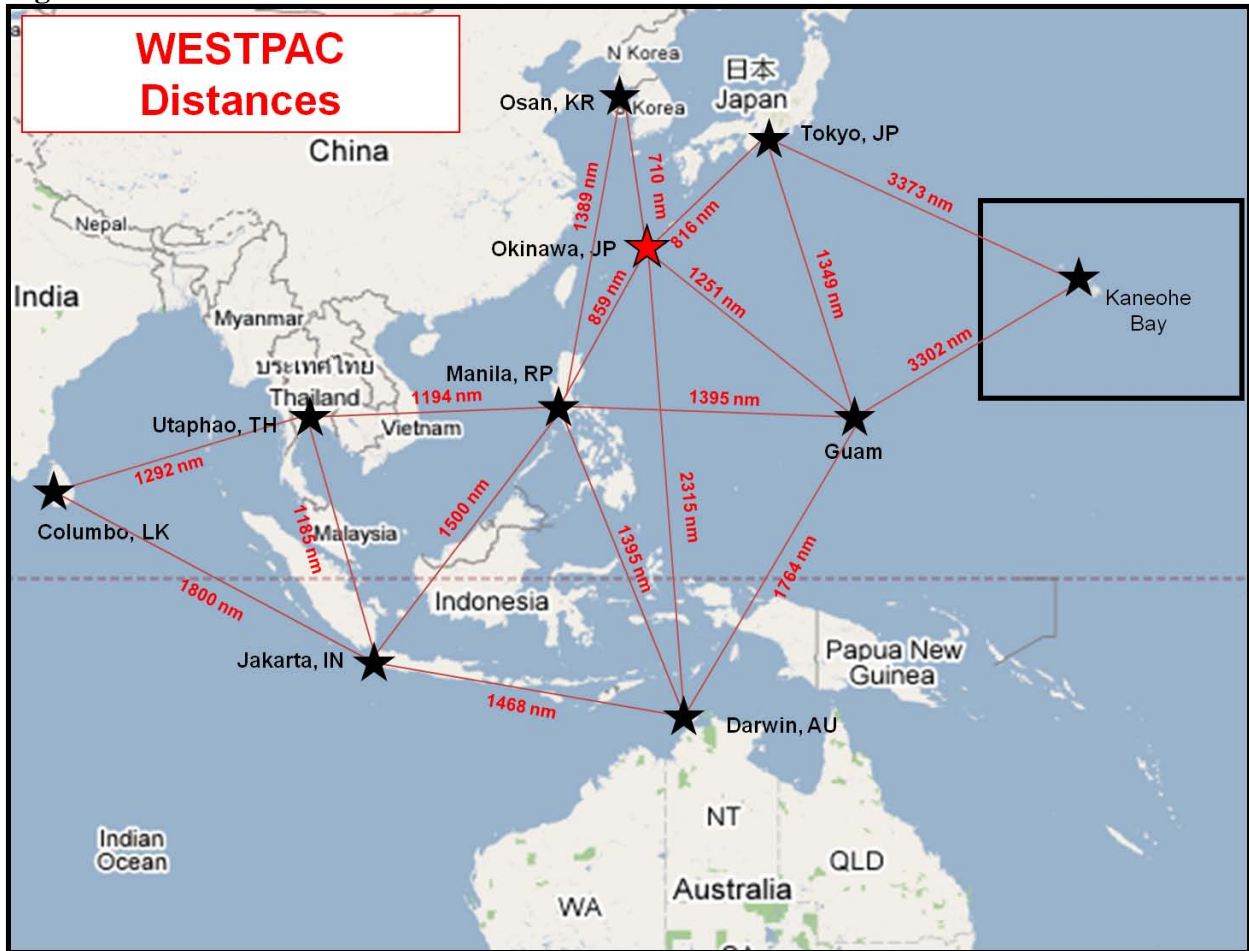
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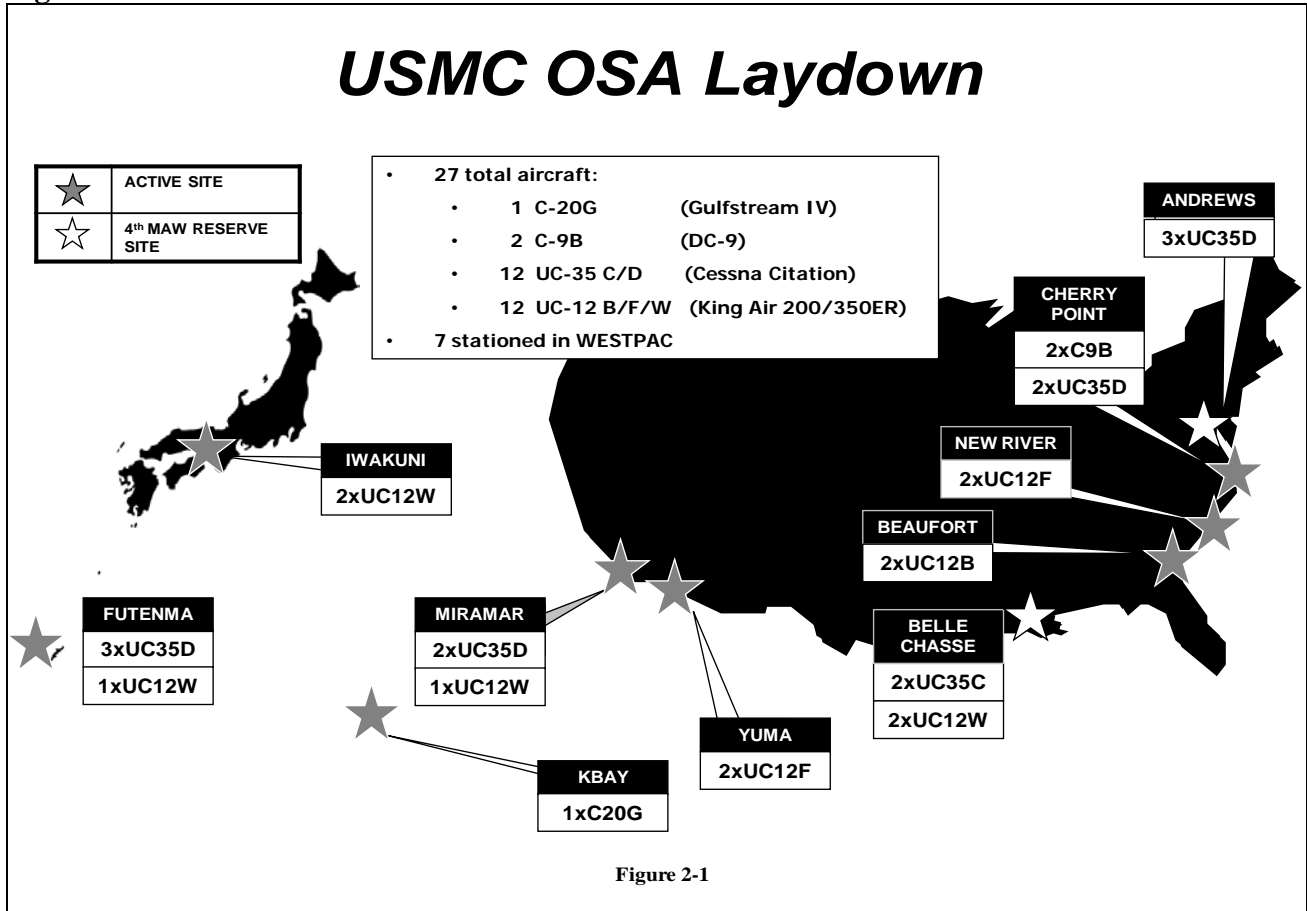
APPENDIX A

Figure 1:



(Sourced from Richard Roberts, Major, USMC and Walt Murphy, Ctr, USMC, "Operational Support Airlift Program Overview & OSA to Marine Air Wing OPT/CFT Debrief" (Operational Planning Team PowerPoint Presentation, APW-61, Alfred M. Gray Research Center, Quantico, VA, March, 29-30, 2012.)

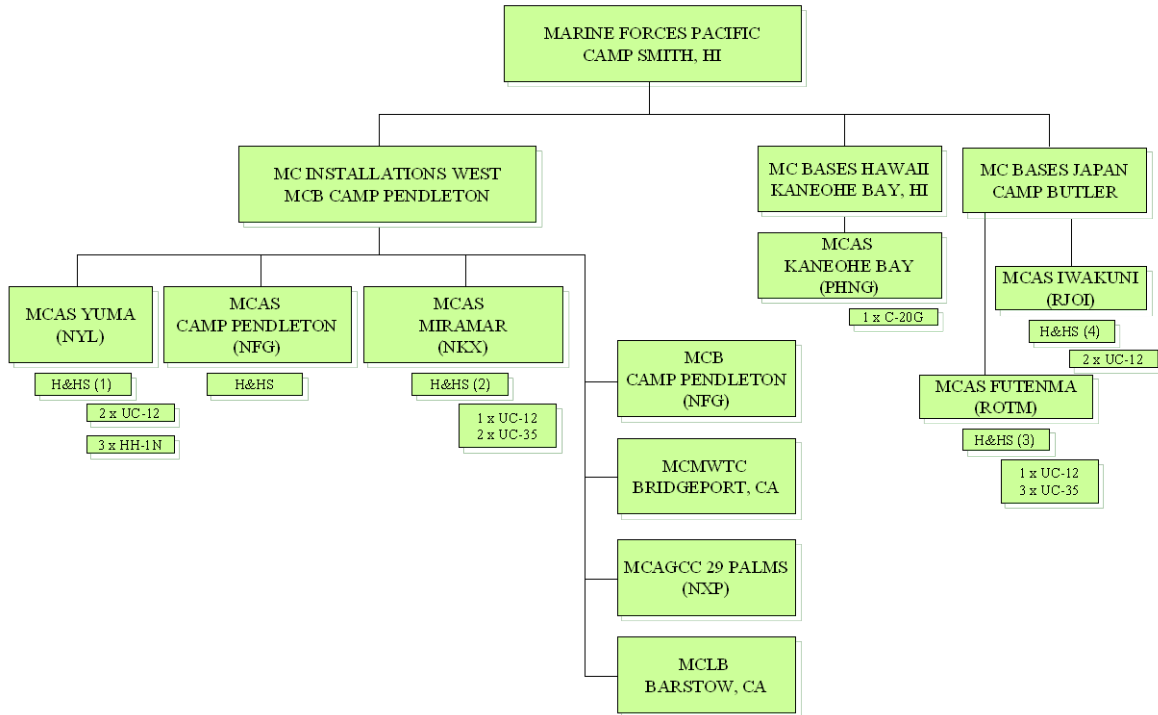
Figure 2:



(Sourced from Headquarters U.S. Marine Corps, *Operational Support Airlift*, MCWP 3-27 (Draft) (Washington, DC: Headquarters U.S. Marine Corps, September 22, 2011), 9.)

APPENDIX A

Figure 3: Marine Corps Bases, Pacific Organizational Chart



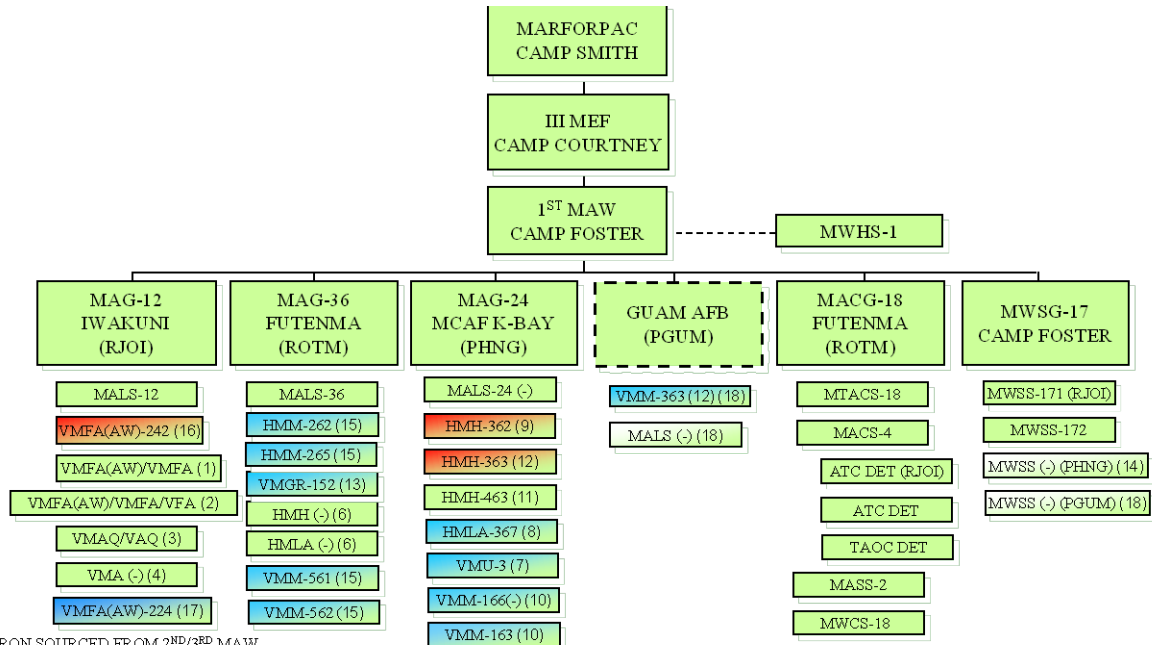
NOTES:

- 1) H&HS MCAS YUMA TRANSITION TO UC-12F AIRCRAFT IN CY 2011. HH-1N ARE SAR AIRCRAFT, AND WILL BE TRANSITIONED TO THE UH-1Y IN FY14.
- 2) H&HS MCAS MIRAMAR TRANSITION FROM 1 X UC-12F TO 1 X UC-12W OCTOBER 2010-NOT EQUIPPED WITH EXTENDED RANGE TANKS.
- 3) H&HS MCAS FUTENMA TRANSITION TO 1 X UC-12W EQUIPPED WITH EXTENDED RANGE TANKS JANUARY 2011.
- 4) H&HS MCAS IWAKUNI TRANSITION TO 1 X UC-12W NOT EQUIPPED WITH EXTENDED RANGE TANKS SEPTEMBER 2010, AND 1 X UC-12W EQUIPPED WITH EXTENDED RANGE TANKS DECEMBER 2010.

(Sourced from Deputy Commandant for Aviation, *FY2011 Marine Aviation Plan*. (Washington, DC: Deputy Commandant for Aviation, September 16, 2010), 1-5.)

APPENDIX A

Figure 4: MARFORPAC / 1st MAW Organizational Chart



NOTES:

- 1) UDP SQUADRON SOURCED FROM 2ND/3RD MAW.
- 2) UDP SQUADRON SOURCED FROM 2ND/3RD MAW OR STRIKE FIGHTER WING PACIFIC.
- 3) UDP SQUADRON SOURCED THROUGH GFMP (USMC/USN SQUADRON).
- 4) UDP SQUADRON (-) ISO 31ST MEU SOURCED FROM 2ND/3RD MAW.
- 5) SQUADRON DETACHMENT TYPICALLY SOURCED FROM 3RD MAW, BUT 2ND MAW CAN ALSO SOURCE.
- 6) VMU-3 RELOCATION FROM 29 PALMS TO 1ST MAW SUBJECT TO REVIEW BY COMMARFORPAC.
- 7) HMLA RELOCATION FROM CAMP PENDLETON IN FY13 SUBJECT TO MCAF KANEHOE BAY MASTER BASING PLAN AND ENVIRONMENTAL REVIEW.
- 8) HMH-362 ZERO-STAFFED IN FY13 AWAITING CH-53K TRANSITION RETURNS TO TRANSITION TO CH-53K IN FY18 ON THE EAST COAST.
- 9) VMM-166(-) AND VMM-163 RELOCATION TO K-BAY FY14 & FY15, RESPECTIVELY, DEPENDENT ON MCAF KANEHOE BAY MASTER BASING PLAN AND SUBJECT TO ENVIRONMENTAL REVIEW.
- 10) HMH-463 TRANSITIONS FROM CH-53D TO CH-53E DURING FY12 AND WILL BE THE LAST CH-53E SQUADRON TO TRANSITION TO CH-53K.
- 11) HMH-363 CADRES IN FY12 AND TRANSITIONS TO VMM VMM-363 WILL HAVE THE CAPACITY TO ACT AS THE HQ FOR A COMPOSITE SQUADRON REPORTING TO MAG-24.
- 12) VMGR-152 IS SCHEDULED TO RELOCATE FROM FUTENMA TO IWAKUNI IN Q2 FY13. RELOCATION IS SUBJECT TO THE COMPLETION OF THE CONDITIONS IDENTIFIED IN THE AGREED IMPLEMENTATION PLAN (AIP) BETWEEN THE US GOVERNMENT AND THE GOVERNMENT OF JAPAN.
- 13) MARINE WING SUPPORT SQUADRON (-) PARTIALLY ACHIEVED THROUGH FY08 UNCOMPENSATED REVIEW BOARD; STANDS UP IN FY12 MWSSG-17 ISO MAG-24.
- 14) VMM-561 AND VMM-562 WILL REPLACE HMM-265 AND HMM-262 IN FY13 AND FY14 RESPECTIVELY, SUBJECT TO ENVIRONMENTAL REVIEW. HMM-265 AND HMM-262 WILL RELOCATE TO MAG-16.
- 15) VMFA(AW)-242 WILL RELOCATE AND ASSIGN TO MAG-11 AT MCAS MIRAMAR IN FY18. VMFA(AW)-242 WILL SUBSEQUENTLY TRANSITION TO F-35B IN FY18.
- 16) VMFA(AW)-224 WILL TRANSITION TO F-35B WHILE ATTACHED TO MAG-31 IN FY14. SQUADRON WILL THEN REASSIGN TO MAG-12 AT MCAS IWAKUNI IN FY17.
- 17) TRANSITION AND MOVE DATE TO GUAM TBD DEPENDENT ON PROGRESS OF AGREED IMPLEMENTATION PLAN (AIP) AND SUBJECT TO ENVIRONMENTAL REVIEW.
- 18) TRANSITION AND MOVE DATE TO GUAM TBD DEPENDENT ON PROGRESS OF AGREED IMPLEMENTATION PLAN (AIP) AND SUBJECT TO ENVIRONMENTAL REVIEW.

(Sourced from Deputy Commandant for Aviation, *FY2011 Marine Aviation Plan*. (Washington, DC: Deputy Commandant for Aviation, September 16, 2010), 1-3.)

APPENDIX A

Figure 5: II MAW KC-130 Prioritization Codes

PRI 1	HQMC, MARFORCOM, OR II MEF DIRECTED EVENTS.
PRI 2	PTP OF II MEF UNITS DEPLOYING TO OIF/OEF WITHIN 6 MONTHS; PTP OF II MEF UNITS DEPLOYING ISO UDP OR OTHER COMMITMENTS WITHIN 6 MONTHS; MOS PRODUCING SCHOOLS; MSOC PTP ALIGNED WITH MEU (E-360 TO E-181/E-91). **NOTE: AT E-90, MSOC FIXED WING SUPPORT REQUESTS SHALL BE SUPPORTED BY MEU ACE.**
PRI 3	SUSTAINMENT TRAINING FOR II MEF UNITS OUTSIDE 6 MONTH PTP; MSOC TRAINING NOT ALIGNED WITH MEU.
PRI 4	UNITS/AGENCIES EXTERNAL TO II MEF.

(Sourced from Andrew S. Roberson, Captain, USMC, "VMGR Frag Process" (PowerPoint Presentation, Marine Aviation Weapons and Tactics Squadron-1, Spring, 2011)

Figure 6: I MEF KC-130 Prioritization Codes

- 0: HHQ directed HQMC, MARFORPAC**
- 1.A: PTP of I MEF units deploying to OIF/OEF w/in 6 months (Mojave Viper, including TECG support of those units)**
- 1.B: PTP of I MEF units deploying ISO GFM w/in 6 months (11th, 13th, 15th MEU workups & MSOC, including SOTG support of those units)**
- 1.C: PTP of I MEF units deploying to GFM w/in 6 months (units assigned to join 31st MEU, including SOTG support of those units)**
- 1.D: PTP of I MEF units deploying ISO UDP or other commitments w/in 6 months**
- 1.E: PTP of non-I MEF units deploying to OIF/OEF, GFM**
- 2.A: MOS producing schools (EWTGPAC - TACP/JTAC)**
- 2.B: MOS producing schools (SOI, FRS)**
- 2.C: MOS producing schools (MAWTS-1 & others)**
- 2.D: MOS producing schools (Division Schools & other I MEF schools)**
- 3.A: Sustainment Training (I MEF units outside the 6-months deployment window)**
- 3.B: Sustainment Training (MSOC outside the 6-months deployment window)**
- 4.A: External Commands (USMC FMF but Non-I MEF)**
- 4.B: External Commands (USMC but Non-FMF)**
- 4.C: Other External Support**

(Sourced from Andrew S. Roberson, Captain, USMC, "VMGR Frag Process" (PowerPoint Presentation, Marine Aviation Weapons and Tactics Squadron-1, Spring, 2011)

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