

Aviation Consolidated Allowance List Inspection Process
Shortfalls
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to
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In times of crisis affecting national security abroad, the United States Marine Corps utilizes amphibious ships to project its combat power ashore. An essential component of this warfighting ability is the amassing of a floating organic supply capability able to respond to a material strain efficiently. Such a replenishment point is configured using current squadron specific data analysis. This is vital due to the intrinsic demands of sustaining a deployed aviation combat element and the significant burden encountered by the Global War on Terror. The current Aviation Consolidated Allowance List (AVCAL) inspection process should be redesigned to improve the quality and flow of aeronautical supplies to the aviation combat element attached to the Marine expeditionary unit.

Background

AVCAL is an organic supply source unique to the Amphibious Assault Ship, Dock / Multipurpose (LHD), and Amphibious Assault Ship, General Purpose (LHA) used by the United States Marine Corps' Marine Expeditionary Units (MEU) while serving aboard United States Naval Ships. These amphibious ships are also referred to as L-Class ships. To date, emplacement of a singular-formal inspection process has not been established by the Type Commanders (TYCOMs) or enforced; thus, the entire

validation / verification evolution has been the responsibility of a sole aviation combat element (ACE) maintenance officer.

The ability to source a MEU aviation supply requirements greatly depends on the abilities of trained professionals who are permanently assigned the duties of an AVCAL inspection team. The development of a strict set of guidelines and templates for the personnel assigned the responsibility of inspecting the material condition of each component is imperative. The primary focus should be the assignment of a trained set of technical eyes on board ship to inspect the AVCAL. This formal certification will lead to the correction of such discrepancies as technical directives, ready for issue tags, service record cards, and corroded & rusted material. The primary focal point is principally on all organizational level material, but should also encompass intermediate level requirements as outlined by further technical assessments.¹

Data Analysis

Currently, the AVCAL process is derived from a collection of data, which can be skewed due to historical ship and shore documentation. However, the data is not incorrect; it is just inaccurate because of the dynamic logistical parameters the Navy

¹ Barnes, Ladara, Master Sergeant, USMC. AVCAL Readiness SNCOIC, Commander Naval Air Forces, Norfolk, VA. Technical Assistance Team (TAT) Memo, 8 November 2006

and Marine Corps team are currently operating under within the Global War on Terror (GWOT). The expeditionary nature of the mission the MEU undertakes does not allow for strict continuity of a singular supply source; therefore, statistical misrepresentation can occur.

The analysis of supply usage data provides the logistic community with a factual account of both the consumable and repairable items required throughout the duration of a deployment, and data compilation is useful and purposeful but does not take into account the forward deployed logistical assets, such as a marine aviation logistics squadron's (MALS) support. The material assistance provided by the forward deployed MALS lessens the strain placed upon the supporting LHD / LHA. Therefore, the usage data does not accurately represent the materials ordered and consumed by the aviation combat element (ACE) afloat while attached to the L-Class ship.

The material strength of the MEU depends on the ability of the logistical process to transcend the entire MEU evolution during both the training and operational stages. To date, existing AVCAL processes and procedures do not allow for either stages to occur efficiently because of neglected data analysis and ineffective accounting procedures. Restructuring of the entire process from inception through execution needs to be reviewed by a material management technique such as LEAN or

AIRSPEED; this would ultimately increase awareness and void out any erroneous and duplicated steps. The ability of a MEU to project its force ashore by way of the ACE is one of the main fundamental elements of the Marine air ground task force (MAGTF). From a logistical standpoint, conducting the task of projecting forces ashore by way of airborne insertion is difficult, both in theory and execution, so having a superior supply package comprised of both repairable and consumable parts is important.

Sustaining the ACE

AVCAL is the primary logistical means of sustaining the ACE. The system places restrictions on the ACE's ability to operate throughout the training cycle; these limitations occur by way of two identifiable constraints. First, current operational guidelines dictate the AVCAL be kept at predetermined levels that are substantially lower than the MEU operational goals. Whereas, all readiness goals need to correlate to the event driven training stages; this parallel of mission essential requirements will allow for training evolutions to be conducted without interruption. The second constraint is the absence of a single-liaison point-of-contact. Understandably, this position may be difficult to staff due to the unique man-power structure of the AVCAL hierarchy.

There are numerous levels and entities to negotiate, and that fact alone adds to the complexity of the task. Inevitably, there are major field-specific factors to be considered by an officer who has been assigned this important duty. Therefore, if these potentially challenging areas are not properly identified during the earliest stages of the logistical build-up, then the already inherent strains placed upon the system will most likely create even more friction for the ACE and MEU. The AVCAL process is problematic and is met with mixed results by each MEU when it begins its work-up and deployment; thus, having the continuity of a liaison position will negate most commonly made errors and oversights.

Additional assignments of permanent third party inspectors/custodians to manage the material readiness of the AVCAL can not be overstated. The permanent allocation of trained inspectors would allow each MEU to establish proven lines of communications early; therefore, assuring the formulation of a superior supply package preceding the deployment. Currently, procedures relegate the entire validation / verification portion to the marine medium helicopter (HMM) maintenance material control officer (MMCO) or assistant aircraft maintenance officer (AAMO). Instead the implementation and assignment of a validation / verification team consisting of specialized sailors and Marines would add a

much needed level of continuity to this critical deployment requirement.

The query of serviceability for AVCAL components should be delegated to a team which has a neutral role. The establishment of such a logistical inquiry team is vital because the process of assessing the ship's supply is intrusive. The rapport of the ACE supply officer (ASO), the ACE MMCO, and / or the AAMO of the hosting ship's crew should not be threatened when both officers are customers of the AVCAL process. Developing rapport and operating under a generic and structured set of guidelines would also alleviate potential duplication of efforts.

Numerous entities, such as TYCOMs, Commander, Naval Air Forces (CNAF), Commander, Naval Surface Forces (CNSF), Naval Inventory Control Point (NAVICP), and the reporting Marine Aircraft Wing contribute to the AVCAL system, and, therefore, in some-instances, either erroneously duplicate work completed or mistakenly over look important milestones because of miscommunications. As stated earlier, a single source point-of-contact, such as a Naval officer liaison assigned to the ACE while onboard ship, would benefit day-to-day efforts immensely while conducting AVCAL inquiries.

GWOT Material Demands

The GWOT has increased material usage and has placed great demands on every aspect of the aviation warfighting effort; therefore, as stated earlier, the usage data gathered to base current supply staffing goals are not as accurate as once thought. The "ship" and "shore" usage data are only as relative as the mission assigned to the squadron. For instance, Al Asad serves as Iraq's largest logistical hub for Marine Corps aviation, but lateral support for other contingencies is based upon geographic demands. MALS historical data should be utilized for each type/model/series (T/M/S) aircraft to alleviate erroneous and unneeded acquisition of assets.

There are numerous configurations of T/M/S aircraft within the Marine Corps. This fact contributes to the difficulty of supporting the squadrons' logistical needs. The implementation of an aircraft configuration message (ACM) should be requested by CNAF prior to the squadron going composite with all organic ACE rotary wing and fixed wing assets.

The ACM is often underutilized and rarely enforced and does not provide the required data source. Currently, similar requirements are set forth by Marine Weapons and Tactics Squadron One (MAWTS-1); this formal message enables MAWTS-1 to dictate through clear lines-of-communication the requirements

essential for mission accomplishment within the combat training environment.

Another tool available to meet the ACE's material demands is provided by the aviation logistics support ship (T-AVB). However, upon utilizing the T-AVB from an aviation supply perspective, the Marine Corps will be unable to deploy a functioning group supply department aboard the T-AVB successfully within the prescribed response time.² This initiative too will need to be met by the aviation supply planners with aggressive and imaginative supply procedures to assist in overcoming the inherent problems associated with such a robust supply pack-up.³

Counterargument

There is a potential argument that the end user of the aviation supply allowance should have some responsibility in the inspection of the pre-positioned repairable and consumable pack-up. The ACE possesses the technicians and mechanics whom have the knowledge and skill to make either an educated or final determination on the assets serviceability. The supply logistician must perform in-depth research to make the same determination.

² Seipel, Petra, Captain, USMC. TYCOM Control of Amphibious Shipping

³ Berens, R. J., Colonel, USA (Ret). The T-AVB: A Challenge To Aviation Supply Planners, 13 November 2007

The procurement of supply assets, and then the distribution of those same assets should involve an inspection process to eliminate wasted man-hours and erroneous dollars spent in the shipment and further management of those same unserviceable parts. Manpower shortages should be corrected to ensure a dependable supply product is managed and distributed by the TyCOMs, thus providing the MEU with a superior warfighting capability.

Conclusion

Undoubtedly, there is little maneuverable room in today's Navy and Marine Corps to create new billets for a duty that is already undermanned. However, the delay of inspections and, in some instances, duplication of work undercuts the cost saving advantage of having pre-positioned supply assets, so implementing even the clearest methods of inspection and quality assurance may not be the answer due to supportability. The inability of the fleet to staff a permanent AVCAL inspection team presents its own set of difficulties. The current operational tempo of the United States military coupled with the aging weapon systems it utilizes proves to be difficult enough. This inherent flaw in the supportability of the ACE and the unfocused acquisition of aircraft allowances significantly

degrades logistical responsiveness and therefore the mission capability of the MEU.

Generating ACM requirements and taking in to account a detailed analysis of each squadrons usage data would greatly reduce the need for inspectors to waste valuable man-hours inspecting assets not required by the MEU's ACE.

Understandably, the difficulty of inspecting parts for serviceability is time consuming and technically challenging, but not complying with this task is an inherent flaw in the sustainability of the ACE, and the time consumed by the ACE while afloat could be detrimental to the security of United States' interests abroad.

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