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Our Aerospace

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VADM Massenburg Takes the Helm of NAVAIRSYSCOM

NAVAIR Teammates,
I am honored and humbled to be selected as your 14th commander. Being asked to lead an organization of such intensely dedicated and talented professionals is an extraordinary privilege.

In recent conflicts, Naval Aviation has contributed significantly to the most precisely fought engagements in history. I'm proud to say that our work at NAVAIR has played an integral role in our warfighters' accomplishments.

Sailors and Marines in Iraq, Afghanistan, and all over the world are using NAVAIR products: aircraft, weapons, increasingly reliable support equipment, maintenance programs that reduce cycle times for keeping aircraft ready for training and operations and many others. You can be very proud of your contributions.

Now it is time for us to focus on the challenges ahead if we are to continue to provide Naval Aviation Enterprise the equipment and training our Warfighters, "our Sailors and Marines", need to fly, fight and win. My vision of NAVAIR is clear: We exist to provide cost-wise readiness and dominant maritime combat power to make a great Navy/Marine Corps team better.

Our goals are:

- To balance current and future readiness. We need to ensure that we provide our Naval Aviators with the right products to fight the Global War On Terrorism and other potential future conflicts.

- To reduce our costs of doing business. We need to pursue actual cost reductions, not so-called 'savings' or 'avoidance.' We need to return resources to recapitalize our Fleet for tomorrow. We must continue to introduce best business practices and remove barriers to getting our job done with greater efficiencies.

- To improve agility. Our ability to make rapid decisions in support of emerging Fleet requirements is essential if we are to continue to provide value to the nation. We must reinvigorate a solid chain of command that values responsibility and accountability in its leadership.

- To ensure alignment. We have come a long way aligning ourselves internally. Now it is time to ensure that we are fully aligned, internally and externally, with CNO's transformation initiatives.

- To implement Fleet-driven metrics. Single Fleet-driven metrics will ensure we directly contribute to the Naval Aviation Enterprise.

Everything we do must be linked to our vision and to NAVAIR's goals. I will hold our leaders accountable for achieving them, but that accountability goes beyond our senior leadership. I want each and every one of you to find a way to link your work to accomplishing those five goals.

As a command, we know where we have been. We know what we are. The question before us now is "What will we be?" Our CNO has challenged us to create and sustain a "culture of readiness" while we attempt to find the resources to recapitalize our future. It is up to us together to meet that challenge.

I am committed to report back to CNO in 100 days with recommendations and an initial set of metrics. I intend to build on and expand across the organization, the principles of successful programs such as NAVRIIP begun two years ago to remove local, program and systems level barriers to improving non-deployed readiness for training and operations.

I intend to implement changes like those already at our depots. I asked the people at our depots to focus on improving reliability, to reduce cycle times, and to strive to better connect budgets with production requirements. I am holding depot Commanding Officers and Executive Officers responsible and accountable for their production plans and improving their materials management. I intend the same journey for all of NAVAIR.

What we do really can be described in simple terms. At NAVAIR, we support today's readiness, we acquire tomorrow's readiness, and we develop future readiness. I am honored to accept the challenge of leading NAVAIR and I look forward to sharing with you the opportunity to leave our mark on the future of Naval Aviation and our Navy.

AIRspeed Enables the Framework for Achieving and Sustaining Naval Aviation Cost-Wise Readiness

By AIRSpeed Executive Steering Committee (ESC)

Adm. Vern Clark, Chief of Naval Operations (CNO), mandated the new Fleet Response Plan (FRP) to support emerging fleet and contingency operations in the Global War on Terrorism. The naval logistics community has focused its integration and modernization contributions to enabling FRP into a concept called AIR*Speed*.

FRP requirements are scheduled for implementation this month. In addition to the impact on the FRP with current funding levels, Naval Aviation leadership must innovatively continue supporting current levels of readiness despite a fiscal year 2005 budget shortage.

In order to meet the CNO's requirements, a unique capability that supports force protection and cost-wise flexibility and responsiveness is needed. Many Navy leaders agree that the Theory of Constraints (TOC) architecture that fits under the NAVRIIP umbrella is crucial to satisfying organizational, intermediate and depot maintenance and supply requirements.

This naval logistics integration and modernization solution is formally defined as AIR*Speed*. TOC for the Naval Aviation Enterprise is designed to integrate the decision-making processes of asset positioning and visibility with those of planning and scheduling across the entire logistics chain. In addition to TOC, Lean, Six Sigma and other process improvement tools will be introduced where appropriate to increase efficiencies and achieve cost-wise readiness.

AIR*Speed* will make a lasting and profound logistical and cultural change in the way Naval Aviation maintains and supplies the Fleet across Naval Aviation. AIR*Speed* provides for the expeditious repair and replenishment of critical items and assets needed to achieve and support cost-wise readiness

The scope of AIR*Speed* includes support for Naval Aviation maintenance activities (organizational, intermediate, and depot), naval supply activities (retail and wholesale), and associated headquarters functions. These include, but are not limited to Navy and Marine Corps aviation maintenance and supply facilities ashore, afloat (CVN/L-Class) and abroad (OCONUS), and NAVAIR Depots at Jacksonville, Fla.; Cherry Point, N.C.; and North Island, Calif.; NAMRA, NAPRA, and NAVICP. The information systems used in the enterprise will be assessed and gaps will be addressed. Those systems include the Naval Aviation Logistics Command Manager Information System/Optimized Operation Maintenance Activity (NALCOMIS/OOMA), R-Supply, SIGMA, SMART, and MRPII/MRO.

The AIR*Speed* initiative falls under Cross-Functional Team 2 (CFT 2) of the Naval Aviation Readiness Integrated Improvement program (NAVRIIP). An executive steering committee (ESC) will provide the overarching guidance for the AIR*Speed* initiative. The AIR*Speed* ESC is comprised of members from CNAF, HQMC, CNAL, NAVAIR 3.0 and 6.0, NAVICP, DLA and OPNAV. This group will provide oversight for the AIR*Speed* project office, which is housed in the NAVAIR Logistics competency and will provide updates to NAVRIIP via CFT 2.

AIR*Speed* training is scheduled to begin in December 2003 and the rollout will begin in January 2004.

To learn more about the initiatives under Air Speed (Theories of Constraint, Six Sigma, and Lean), you can go to the Navy Knowledge Online website at:
https://ile-lms.nko.navy.mil/logon.asp
After registering on the website, go to the E-learning section and select any of the available material.

T-38 A to C Modernization

By CDR Bob Blake, USN
PMA207Deputy Program Manager for USNTPS

PMA207 in conjunction with the USAF is in the process of modernizing the T-38 aircraft to close the gap between its avionics and today's fighter avionics. The USAF and the Air Education and Training Center (AETC) are currently upgrading 509 T-38 aircraft through an Avionics Upgrade Program (AUP) and Propulsion Modernization Program (PMP) for continued operation/training through 2025. The US Navy actually owns 10 T-38A's, which are used to support the mission of the United States Navy Test Pilot School.

Avionics Upgrade Program: The AUP serves to update the T-38A aircraft, which is deficient in that its 1960-vintage cockpit and supporting avionics systems no longer permit training elements of advanced avionics systems and cockpit management skills. A wide technology gap exists between the T-38 cockpit avionics and modern fighter cockpits. As might be expected, failure rates are increasing and spare parts are becoming harder and harder to find. Furthermore, since the T-38 entered service in 1962, avionics technology has been revolutionized and current combat aircraft have much more complex and capable systems. Lacking these systems in the T-38, AETC cannot train pilots in the basic avionics concepts and cockpit management skills they will need when they reach their final weapon systems. The Avionics Upgrade Program (AUP) will correct these reliability and training deficiencies by replacing old equipment with current-technology avionics. As T-38A and AT-38B aircraft are modified under the Avionics Upgrade Program, they will be re-designated T-38Cs.

The AUP upgrade includes a glass cockpit with a Heads Up Display (HUD) resembling current and proposed bombers and fighters, No Drop Bomb Scoring (NDBS), a Glass Cockpit (Multi-Function and Electronic Engine Display), improved Reliability & Maintainability, TCAS, dual communication and navigation suite, as well as GPS/INS to meet Congressional mandates. Any airframe structural corrosion/cracks found will also be repaired. It also includes 36 new Aircrew Training Devices (simulators), new computer assisted instruction courseware, redesigned vertical stabilizer tips, and an aircraft ballast modification.

Propulsion Modernization Program:
The Propulsion Modernization Program (PMP) includes internal engine modernization and airframe modifications to the inlet and exhaust nozzle ejector to improve engine reliability, decrease maintenance man-hours and increase aircraft performance. The net result of PMP will be an increase of nearly 20% to engine static thrust, translating to a 7-20% improvement in takeoff roll performance with no endurance penalty. In addition, the 332 Fuselage Station (FS) Former and 362 FS Bulkhead will be replaced during PMP due to stress corrosion cracking. Details of the PMP are as follows:

Engines
Internal modifications to the J-85-5 engine under PMP include an improved ignition system, turbine section improvements, a new long life combustor, replacing the existing stacked disk spacer compressor with a new spooled rotor compressor, and replacing several other engine components with improved components that have been specifically developed to correct J-85 reliability problems.

Air Inlet
Changes to the air inlet are designed to produce more thrust and eliminate existing performance deficiencies, especially those affecting takeoff performance at high ambient air temperatures. Initial testing of a prototype enlarged inlet showed ground static thrust was increased by 20%, take-off roll was decreased by 12-15%, and Single Engine climb performance was increased by 250 ft/min at normal take off weights, however increased fuel consumption was also seen.

Exhaust Nozzle Ejector
Modifying the ejector will improve both fuel consumption and engine performance. For example, testing of a new prototype ejector with a standard air inlet showed a 10-12% improvement in fuel consumption in cruise flight at FL 400 and a 3% increase in MIL power thrust at low altitude and up to 8% at higher altitudes. Takeoff performance was improved by approximately 3%.

Inlet/Ejector Combination
In late 1999, the new enlarged inlet was tested with the new prototype ejector in a joint NASA/GE/USAF test series that also served as the Air Force's Concept Validation Test. The results of this first combined test of inlet and ejector were very positive. Static takeoff thrust was increased by 19% in MIL power and 19.5% in MAX power. The ground roll showed an improvement of from 6.8% at 39°F to 19.9% at 82°F. Operability testing also showed excellent results. All air starts were successful, all throttle transients were absorbed without problems, no engine rollback susceptibility was found and the engine exhibited stall free operation in maneuvering flight throughout the envelope. In summary, testing showed no adverse interactions between the new inlet and the new ejector. The inlet provides a significant improvement to static thrust and the ejector adds to it. Most of the increased fuel consumption caused by the new enlarged inlet was recovered with the new ejector. Therefore, it is clear that the full benefits of this program can only be realized if all components of PMP are integrated as a system.

Fuselage Station 332 Former and 362 Bulkhead
FS 332 Former and 362 Bulkhead are experiencing stress corrosion cracking similar to the bulkheads at FS 325, which are being replaced under the Pacer Classic Program. If this former and bulkhead are not replaced, cracking will continue and eventually ground the aircraft. As part of PMP, bulkhead modification kits will be shipped along with inlet kits to a Contract Field Team (CFT) for installation.

Supported by PMA207, the USN operates 10 T-38A aircraft at the United Naval Test Pilot School for the purpose of teaching test pilots, flight officers and engineers flying qualities and performance test techniques. Currently the USN relies on the USAF for engineering, maintenance and logistic support to operate the T-38. Once the USAF has transitioned its fleet of T-38A's to C's, they will no longer be capable of supporting Navy T-38A's.

A Business Case Analysis was conducted in August 2001 by Booz, Allen & Hamilton Inc. to evaluate the future supportability of the Navy T-38 aircraft. The analysis evaluated the most cost effective alternative for supporting the fixed wing curriculum at USNTPS. Three alternatives were considered. The first represented the minimum investment in a Navy unique T-38 that would ensure the T-38A's continued viability through the end of its economical life in 2025. The second represented the minimum near-term investment required to sustain the T-38A, recognizing that deferral of key upgrades now would result in an unsustainable Navy – unique aircraft requiring replacement by the end of the Future-Year Defense Plan (FYDP). The third alternative was to continue to maintain the same configuration as the USAF and to budget the T-38 for the upgrade to the T-38C configuration. The analysis concluded that, considering economical , supportability and reliability issues, the most cost-effective alternative for the Navy was to maintain the same configuration as the USAF.

Funding was approved for the upgrade in FY 2003 with the first T-38 scheduled to be inducted in FY 2004 for the AUP upgrade. PMP modifications are scheduled 2 years following AUP install. Planned completion date for the AUP & PMP upgrades is FY2008.

Additional sustainment and modernization projects in the planning and/or design stage include a new aircraft wing, an improved ejection seat, a better windscreen and several studies of the airframe and aircraft components. The T-38C upgrade represents a cornerstone in maintaining the quality of training in the TPS syllabus for years to come.

NAVRIIP Process Actively Engages Fleet

By NAVARIIP Communications Action Team

NAVAIR Depot Jacksonville recently applied the NAVRIIP process to isolate specific issues and solutions to improve the reliability of the T-56 engine.

Following the methodology of the Naval Aviation Integrated Improvement Program (NAVRIIP), NAVAIR Jacksonville intermediate level depot activities revealed processing, manpower, capability, and training issues that contributed to the low reliability of the reduction gearbox assembly (RGA) of the T-56 engine. In the past, maintainers

identified quick fixes or potential fixes for near-term and long-term reliability improvements.

"It was not until the NAVRIIP process was introduced to the T-56 engine maintainers that a structured and disciplined approach was used to identify and implement the most effective solutions," said Martha Irene, Fleet Support Team engineer at the depot.

The team began with the identification of a readiness degrader and the lowest reliability module developing from the T56 engine.

The team found the RGA to be the module with the lowest reliability. Data obtained from Fleet databases, such as aircraft engine management system decision support system (AEMS DSS) and logistics management decision support system (LMDSS), revealed a high number of RGA rejections with a very low Time Since Repair (TSR). A high number of RGAs were being rejected with less than 500 hours TSR.
By using the NAVRIIP Barrier Removal Team (BRT) process including Fleet members on the team, maintainers were able to completely understand the problem by addressing different factors such as manpower, material, processes and training. The BRT used cause-and-effect diagrams to address all factors contributing to low RGA reliability.

The team collaborated the efforts and expertise of the T-56 engine program managers, Fleet support team and Fleet members working on the engine to allow for discussion of possible solutions. The team approached the readiness degraders and solved the problem by eliminating the barrier completely. The BRT also addressed interim solutions and solutions which had not been previously considered.

"The NAVRIIP process helped to accelerate implementation of improved cleaning procedures for the RGA, and assisted with improving the procedures for oil draining and magnetic plug inspection," Irene said. "The team also developed a proposal to update the NATOPS (Naval Air Training and Operation Procedures Standardization) which will avoid future mission aborts."

"Overall, the use of the NAVRIIP BRT allowed us to follow a disciplined and structured approach to solving a readiness issue. It also incorporated the Fleet as active participants in the process and facilitated their acceptance of some of the change and improvements introduced," Irene added.

Thoughts on Civilian Work Relationships

By CAPT Diane Diekman, USN
Office of the Navy Inspector General

A Navy commander reports for duty at a shore command with a mostly-civilian staff. Knowing he has only three years to "make a difference," he wants to get started. The civilians see him as impatient and arrogant. They know from experience that the changes he contemplates as simple are actually quite complex. He misinterprets their hesitation as stodginess and therefore doesn't seek their assistance. They decide to wait him out. It's only three years, after all.

If the officer had made known his goals and relied upon the expertise of his civilian counterparts, he could have created an amiable working relationship instead of an antagonistic one. Poor communication is the root cause of many relational problems. Good leadership requires good communication, and military officers--who are expected to exemplify leadership--have a responsibility to initiate discussions and ask questions.

My three years in command of 400 civilians at Defense Contract Management Agency Van Nuys confirmed for me that government civilians are every bit as dedicated and professional as we military consider ourselves. The basic difference between military and civilian workers on most staffs is longevity. The assignment is one step on an officer's career path, but that command might represent a civilian's entire career. This mix of fresh blood and corporate knowledge provides balance in an organization, and each side must respect the contributions of the other.

I supplied leadership training because civilians frequently don't get much of that. The civilian workforce often promotes people into supervisory jobs based on technical knowledge rather than leadership qualities. Being a supervisor confers leadership responsibilities even if the ability to lead hasn't been developed. Supervisory training, when available, focuses more on procedures than leadership.

Although all supervisors are leaders, not all leaders are supervisors--whether military or civilian. The current proliferation of matrix teams places many non-supervisors in leadership roles.

One common military-civilian conflict arises from unfamiliarity with each other's personnel rules, such as leave policies. Military leave is measured in days and includes weekends. Civilian leave is measured in hours, and special liberty is not allowed. If absent, civilians are on annual or sick leave.

When we passed a major inspection at DCMA Van Nuys, I wanted to give the command a day off as a reward. But it was too hard. We would have had to prepare personnel action forms for every employee and document time-off awards in their records. I had to settle for a command picnic and an early secure with the "59-minute rule," which allows supervisors to give less than an hour of undocumented time off.

Although all civilians record a 40-hour week, those in higher pay grades frequently work additional hours without compensation. In commands that have unions, however, supervisors must insist their bargaining unit employees not come to work early or stay late voluntarily. If the worker later claims the supervisor knew about the extended hours, the command is obligated to pay overtime.

Supervisors must also be careful that assigned tasks fit within a worker's position description. Otherwise, employees could request promotions based on accretion of duties, if they actually have been working at a higher grade level.

I was surprised to learn I could not counsel or discipline my employees. My job was to stay above the fray so I could rule on disciplinary measures initiated by the direct supervisor. Getting involved sooner would remove my impartiality and elevate the review to the district commander. My deputy and I took great pains to maintain these separate levels. In some ways, it felt like shirking my responsibilities and expecting a GS-13 to do my job. On the other hand, I enjoyed being an arbitrator instead of a hammer.

Favoritism is commonly cited in command climate surveys, and I think that will always be the case. It's human nature to find fault elsewhere. If you don't get selected for a job, it couldn't be due to shortcomings on your

part--it has to be favoritism toward the other person. We developed a comprehensive notification and selection system to ensure impartiality. In my weekly e-mail to the command, I once defined how to get "preferential treatment" from me:

Show expertise in your job and be willing to listen and improve. Come up with new ideas and present "this needs to be done" before I think of it myself. Complete suspenses early, and never let me worry about whether the job will get done. Submit quality work. Take care of subordinates, while also holding them accountable for their performance. Keep me informed of impending problems and your proposed solutions. Ask for help when you need it. Show a sense of humor. Treat others with respect and courtesy. Tell me when you think I'm wrong, and offer suggestions for better ways to do things. Support me even when you don't personally agree with the action. Give me the feeling I can trust you in all things.

That's basic leadership. Sailors and civilians alike work better when treated with respect and professionalism. Hold them accountable for their actions, be generous with praise, and work as a team.

Above all, communicate. A Van Nuys clerk had a reputation for being late, and her coworkers felt forced to tolerate her. A new supervisor initiated disciplinary action with counseling as the first step. The clerk said no one had ever explained that she was expected to be at work on time. One counseling session ended the problem. Sometimes matters that appear self-evident aren't.

An officer who treats civilian workers with respect and appreciation might hear expressions of regret that the end of his tour is approaching. Isn't that better than coworkers waiting for you to leave?

Transformational Communications Architecture (TCA)

By CAPT Vic See, USN, Director, Acquisition and Engineering Group in the Communications Directorate of the NRO, and Mr. Cal Laurvick, National Intelligence Division Program Director for Advanced Technologies

Introduction

The Transformational Communications Office (***TCO***) was established in September 2002 at the request of Mr. Peter B. Teets, Under Secretary of the Air Force for Space and Director, National Reconnaissance Office, with the goal of developing an architecture which would inter-connect satellite and terrestrial communications programs that are operated by the DoD (MILSATCOM and Global Information Grid - ***GIG***), the Intelligence Community (***IC***) (Relay communications and High Speed Networks - ***HSN***) and NASA (TDRSS & NASA Information Systems Network - ***NISN***). The initial head of the TCO is ***RADM Rand Fisher, USN***, who also serves as the Director of NRO Communications and the head of the Space and Naval Warfare Systems Command (SPAWAR) Space Field Activity (***SSFA***). His deputy for TCO is Ms. Christine Anderson who is also the Director, MILSATCOM Joint Program Office – ***MJPO***. Both the NRO and DoD space programs report to Mr. Teets, so the TCO Director and Deputy Director from those two domains were natural choices to head this effort. The Transformational Communications Architecture (***TCA***) now in development, is the follow-on to a previous related study called the Transformational Communications Study (***TCS***) performed by the National Security Space Architect (***NSSA***) in early 2002. Both the previous ***TCS*** and current ***TCA*** efforts confirm that there is great benefit to synchronizing emerging programs across the ***DoD***, ***IC***, and ***NASA*** domains. Each of these government entities were planning separate "stovepipe" acquisitions to enhance their future communications capabilities. It is clear that by working together and leveraging technology and expertise across the TC community that a multiplier effect of delivered, connected capability is possible. Investments in spacecraft, space-ground infrastructure, user terminals, and terrestrial networks can all be harmonized, including large technology investments, to "connect" the segments through proactively defined standards and interfaces.

Industry and Government Involvement

From the Fall of 2002 to Summer 2003 time frame, three aerospace industry teams led by Lockheed-Martin, Boeing, and Spectrum Astro have been performing architecture development under an activity known as Transformational Studies with Industry – ***TSI***. A companion team of government, military, and civilian personnel along with FFRDC and SETA personnel under the TCO worked to synthesize the "best of breed" architectural features that became the Government Reference Architecture (***GRA***). Upon approval of the architecture by DoD (SwarF and JROC), the Intelligence Community - IC (MRB), and NASA approval boards by August 2003, the GRA officially became the TCA. The GRA forms the baseline for how the interoperable space and ground systems will work. The TCA development has been a complex undertaking just by the sheer number of stakeholders that must be coordinated with. Personnel have largely been voluntarily provided by the IC, Army, Navy, Air Force, Marine Corps, NSA, DISA, NASA, USSTRATCOM, Air Force Space Command, Navy COMNETWARCOM to make sure that the needs of the constituent users/operators and acquirers are considered in this process. It is critical that wartime survivability, space radiation, robust command and control, alternate communications path routing, and network-of-networks operations and management be provided for in this transformational communications system-of-systems development. The TCO is the chief architect, but all of the incumbent acquisitions will be performed by organizations with existing acquisition authority.

The Role of the Military Services in TC

The DoD space assets are procured largely by the Air Force (EHF/SHF) and by the Navy (UHF) and the satellite user terminals are procured through military service budgets in the Army (e.g. MIST), Air Force (e.g. FAB-T) and Navy (e.g. NMT) and the Marine Corps who largely leverages SATCOM terminal buys from other service terminal programs. The Navy works with the Coast Guard and an enlarging role for Homeland Defense is emerging as a future user of TCA systems in support of counter-terrorism and other threats to U.S. national security interests. The military services also procure deployed mobile tactical networks (e.g. Army – WIN-T, Navy – FORCEnet) that can connect in an ad hoc manner through line-of-sight (LOS) operation within combat units and into/out of theater via a MILSATCOM terminal to/from a geosynchronous satellite system (e.g. UFO/MUOS UHF, Milstar/AEHF/TSAT - EHF, or DSCS/WGS - SHF). A key goal for TCO is to fully coordinate and synchronize with the Navy's plans for implementing FORCEnet. The Advanced Polar System (APS) is a key TCA satellite constellation that

will provide polar strategic SATCOM for military units conducting those missions.

The Global Network

The global network of military, IC, and NASA satellites provide connection, in theory to any users, at any time, crossing security boundaries where policy, priority, and need-to-know dictate that the connection should be made. Current satellites operate via circuit-based connections and the new TC-era satellites will in some cases employ packet-based protocols (Internet Protocol – IP) to support Internet-like connection from source to destination with advanced routing protocols between space assets, user terminals, and terrestrial networks. ASD-NII with DISA as their acquisition and engineering arm are busy upgrading the Global Information Grid (GIG), GIG Bandwidth Expansion – BE, and beginning in 2007 the GIG 2.0 network that will feature a Net-Centric Operations and Warfare model (NCOW) that will be unprecedented in terms of global government capability. The network edge-to-edge and user domain end-to-edge, all the way from deployed base band terminals to the National Command Authority will, when needed, communicate with one another. Pentagon-to-foxhole communications will no longer be enabled as a matter of heroics but rather based on policy, operational need and automated system execution.

TCA Enablement

The TCA Baseline Version 1.0 was defined by May 2003 and underwent a review and approval cycle involving the TC-Senior Leadership Team (SLT) (representing all the stakeholders) 11 June 2003, the Senior Warfighter's Forum (SWarF) 23-24 July 2003, NASA Steering Board – July 2003, DoD Joint Requirements Oversight Council (JROC) 14 August 2003, the IC Management Requirements Board (MRB) 15 August 2003, and DoD and IC CIO examination – late summer 2003. A government-wide decision will be made to find mechanisms to maintain the architecture over a 20-year life cycle and to synchronize multiple space and terrestrial acquisitions. This long-term program development, execution, integration, test, operations and maintenance of TCA cross-government systems will require strong multi-level systems engineering and integration (SE&I) support to orchestrate the evolution of the architecture across multiple acquisition organizations. This will only come about if in the post 9/11 world; there is an over-arching demand for unprecedented cooperation and "connectedness" across the DoD, IC, and NASA communities with strong policy, leadership, and political will. The nation as a whole will benefit when the transformational communications vision becomes a reality in the next decade.

AEDs in TCO

RADM Fisher, as the Director TCO, leads a broad team of government, military and industry partners in executing the studies and recommending acquisition decisions. ***CAPT Vic See***, Dir., Acquisition and Engineering Group, NRO Comm. Directorate, leads the space and terrestrial acquisition team for NRO and IC communications. ***CDR Jack Nicholson***, formerly assigned to PMW-146 (UHF and MUOS) in San Diego, will take the first IC acquisition, the future NRO/IC relay called ORCA (Optical Relay Communications Architecture utilizing laser comm links), to the NRO Acquisition Board (NAB) in January 2004. In SPAWAR San Diego, ***CAPT Dave Porter***, as the Deputy for PMW-146, will continue acquiring the Mobile User Objective System, MUOS, which is the follow on system to the Navy's UHF program. MUOS will enter Key Decision Point B in early FY-04 and will be linked to the TCA system. ***CDR Brian Bowden*** as the lead systems engineer for PMW-146 continues to work MUOS SE issues.

Exciting and challenging times are ahead for the Navy in Space, and AEDs are a key space cadre component of the new National Security Space (NSS) Community. AEDs interested in working in the NRO and space community, should contact ***CAPT Al Scott*** (NRO IMINT Directorate), (703) 808-6640, or CAPT Vic See at (703) 808-5529.

T-45 Program Undergoes Major Simulator Downsizing

By Mr. Brett Hansen, Mr. Jim Cook and LT Derick W. Diaz, USN
NAVAIRSYSCOM
PMA-205

The Navy's advanced Strike Training System (TS), T-45TS, is undergoing a major simulator downsizing. Through an effort coordinated between NAVAIR (PMAs 273/205) and CNATRA, the T-45 simulators are replacing their expensive "mainframe" computers and will become the first PC-based simulators in the Training Command and one of the first in Naval Aviation. The original T-45TS concept, stated in the 1982 specification, is to "provide an effective and supportable Strike training system at a low Life Cycle Cost (LCC)." This mandate is still held in high regard and has been the driving force behind many of the technical and acquisition innovations that have come out of T-45 program.

The T-45TS consists of the T-45 Goshawk, the Ground Training System (GTS), and Contractor Logistics Support (CLS) Maintenance for the TS. The GTS provides an information management system (Training Integration System - TIS), as well as Academics consisting of computer based training, and both instrument and visual simulators.

T-45 GTS purchasing decisions within the austere funding environments have not been based on performance versus dollars trade-offs, but more of maximizing performance for the assigned dollars. This factor and the TS concept all equate to the T-45 GTS purchasing technology on a point-in-time concept. However, the T-45 GTS has been very successful in leveraging and integrating cutting edge developments and gradually inserting technology and open standards into the mid 1980s design. This success is directly related to the T-45TS Program's acquisition strategy based upon Acquisition Innovation. This has allowed GTS Program Management to establish quality-working relationships with leading contractors, providing for negotiated risk sharing and technical guidance as well as significantly lowering the costs of the simulators.

Over the last three years, the T-45 GTS has been taking its boldest step to date in advancing the technology base of the simulators as well as managing LCC. In 2000, the government team agreed that the technology was emerging which would allow the T-45 simulators to move to a design of Open Architecture and Commercial Off-The-Shelf (COTS) PC-based systems. Linux was the clear choice as an operating system (OS), due to it's commonality with existing UNIX and maturity as a viable open source PC OS. To identify technical risk areas and to prove the ability of a Linux PC to run the full simulation a re-host design was needed. The re-host would assure that a full and open competition to produce a COTS based simulator could be achieved with minimal risk and costs. The PC-Rehost was released for bid and; Quantadyn Corp. of Herndon, VA,

was awarded the effort, which took the existing T-45 visual simulator hosted on Encore 'mainframes' and re-hosted it on PCs running Linux. This was a major stepping-stone in being able to manage LCC of the simulator suite; this effort eliminated the previous proprietary nature of simulators, opening both the hardware architecture and software as well, limiting the future impacts of obsolescence.

	Existing T-45 Simulator	**PC-Rehost**
Operating System (OS)	Encore UMAX V – UNIX	Red Hat Linux
Host Computer	Infinity RT200 (4 Motorola MC 88110 RISC microprocessors, 1 MB cache, 144 MB DRAM on board)	Single Pentium III 1Ghz, 133Mhz Bus, 256MB RAM
Input/Output (I/O)	Encore Specific	VME Intelligent Input Output Controller, PCI Counter-Timer Board
Reflective Memory	POSIX with some proprietary interfaces	POSIX Compliant
Compilers	Encore Specific	ANSI Standard, GNU
Programming Language	Gould/Encore FORTRAN 77 Non-ANSI	FORTRAN wrapped in C++, ANSI Standard - Preprocessed
Network	Ethernet/SCRAMNet (visual)	Ethernet
Instructor Operating System (IOS) Computer	SGI Iris Indigo Workstations running UNIX	Single Pentium III 1Ghz, 133Mhz Bus, 256MB RAM Running Linux
IOS Software	SGI Specific Extensions and libraries, X/Motif, License Requirements.	COTS based X-Windows

One of the more significant challenges that Quantdyn faced in the re-host was the lack of Linux drivers in COTS products required for the simulation. This was managed by working closely with vendors to mature their drivers, where that was not successful, Linux drivers were written for the re-host. This demonstrated the benefit of Linux as an open source OS, having available freeware / shareware debuggers, user interface tools, drivers, etc. The T-45 simulator is a closed-loop environment, therefore security concerns with open source are minimal and the benefits of "group knowledge" related to open source software could be maximized.

To reduce the on-site requirements and minimize the impact to operational training, Quantadyn developed system emulators that simulated the various simulator subsystems, e.g. Aural, Digital Control Loader, and Visual. These emulators allowed the developer to test Host and I/O systems development without actually being connected to the simulator. This was a cost savings from the contractual side in reduced travel and on-site time and from the operational standpoint as there was less impact to flight training schedules. The emulators can now be used to support maintenance and improvements to the simulator as this can be accomplished without actually taking valuable training time, an investment well worth the cost.

This re-host effort had to determine what to do about the original late 1980s software code. Written in FORTRAN 77 the simulator code effectively trains students, but should it be re-written as it was re-hosted to PC? This decision was that of fiscal choice; rewriting the code would be expensive in cost and schedule and it was unsure if the outcome would produce better simulation. The answer lied not in rewriting the software but in "wrapping" the code and reorganizing data structures. The wrappers are C++ interfaces to the original FORTRAN code; this allows the code to be run on various hardware and OSs, promoting portability. The wrappers and FORTRAN are "preprocessed" when the code is compiled to executables, the preprocessors organizes the data blocks and variables, as well as translates non-standard ANSI code to ANSI standard usage. The wrappers also allow future code to be written in FORTRAN or other languages.

The success with the Re-host provided confidence that a full COTS PC-Based T-45 simulator could be economically produced. A full and open production competition was held to ensure that costs would provide "best-value". Not wanting to limit further innovation, a Statement Of Objectives (SOO) was used to set the requirements for the development. The SOO explicitly stated the requirements for open architecture, no proprietary hardware or software, and COTS. The government, in an effort to keep costs and risk low, provided the re-host and existing simulator code to the bidders as a "means to control initial development costs and establish a minimum system fidelity." The NLX Corporation of Sterling, VA with Quantadyn as a subcontractor, won the competition presenting the "best value" solution and providing a fully COTS based simulator with a satellite imagery visual. The first PC Based simulator in Naval Aviation Training should be realized and ready for training in Spring '04.

News from COMNAVAIRFORCE

By CDR Dean Peters, USN
CNAP N421C

For those interested in logistics, configuration management, and aircraft maintenance, a tour at COMNAVAIRLANT or AIRPAC affords the AED/AMD Officer an opportunity to manage these aspects of readiness where it really matters - at the seawall. The billets available at CNAL and CNAP are located within the N42 Force Material Department. Most 1510 officers will fill T/M/S Class Desk jobs or depot coordinator jobs, while 1520's fill Support Equipment, Shore Readiness, and Deployed Readiness billets.

After 3 tours in acquisition, a job at CNAP as the Helicopter Class Desk has allowed me to regain my fleet perspective. As a 1510, this tour has also been my first opportunity to work closely with Supply Officers and the often-colorful "green shirts", who have experience as AIMD Officers, CAGMOs and squadron MMCOs. On any given day, a Class Desk will work directly with Type Wings and Carrier Air Wings to manage assets and solve emergent problems. At the same time, the Class Desk also works closely with Program Offices, Depots and NAVICP, effectively providing a bridge between the fleet and NAVAIR. The Class Desk communicates frequently with APMLs regarding logistics issues, and NAVAIR Class Desks regarding flight clearances and aircraft bulletins. As is customary, calls regarding Redstripes are normally received on Friday afternoons.

The TYCOMs are now at the forefront of Naval Aviation. Under a lead/follow arrangement, the TYCOMs now speak with one voice and work cooperatively to improve all aspects of Naval Aviation. Among the initiatives that N42 is implementing, in cooperation with NAVAIR 3.0, is the Naval Aviation Readiness Integrated Improvement Program (NAVRIIP). This program provides a process for tracking those metrics that are most important as snapshots of readiness, such as C-rating on the ops side and Ready for Training (RFT) aircraft on the maintenance side. These metrics are plotted against Wing-determined entitlements and any subsequent gaps can be easily identified. Once gaps are identified, the contributing factors can be analyzed and any barriers to meeting entitlement can be attacked at the working level or elevated to higher authority. In many cases, gaps can be traced back to a specific ILS element and resources can be directed accordingly. The argument that "it's a parts problem" can now be justified or refuted. The program is similar to Naval Aviation Production Process Improvement (NAPPI), a highly successful program used at the training command and Fleet Replacement Squadrons.

Improved shore readiness results in improved training and surge capability, as evidenced by the unprecedented recent deployment of all 5 west coast Carrier Air Wings. In achieving this feat, many innovations were required, including execution of non-standard Inter-Deployment Training Cycles (IDTC) and highly flexible depot maintenance periods. This is a feat that all agree would not have been possible even 1 year ago.

In short, a job at the TYCOM involves helping squadrons maintain high levels of readiness for training at home, and getting them over the horizon with sustainable readiness. It provides the 1510 officer with an opportunity to get back to the seawall and work closely with fleet operators and maintainers, while maintaining ties with NAVAIR.

Integrated Maintenance Concept/ Plan (IMC/P) Teaching An Old Dog New Tricks

LCDR Scott Senay, USN
NAVAIRSYSCOM AIR 3.2

Any Squadron Maintainer can remember sending an aircraft to SDLM when he/she first reported onboard and transferring before the aircraft comes back. This was done after the plane failed its tenth ASPA and was barely held together with 100 mile-an-hour tape and safety wire. The Navy's aircraft were degrading at an alarming rate. The CNO saw the need for some serious damage control to better readiness and material condition.

In 1996, NAVAIR undertook an initiative that was designed to meet the CNO's goals. Primarily, implement sustained maintenance planning based on Reliability-Centered Maintenance (RCM) analytical techniques that would allow for a more stable Depot maintenance schedule to include fixed Period End Dates (PED). IMC is an opportunity to integrate tasks across all maintenance levels, as well as balance the operational, engineering, and fiscal aspects of a platform's preventive maintenance program, helping to reduce the amount of out-of-service time for scheduled maintenance. IMC was designed to aid in the transition from ASPA/SDLM to a fixed Depot induction schedule. IMC/P is based on best commercial practices and has the following three elements:

- RCM analysis that includes the review of all maintenance tasks without regard to specific levels of repair. It relies on decision logic for defining PM tasks that are applicable and effective for a specific set of failure modes and effects.

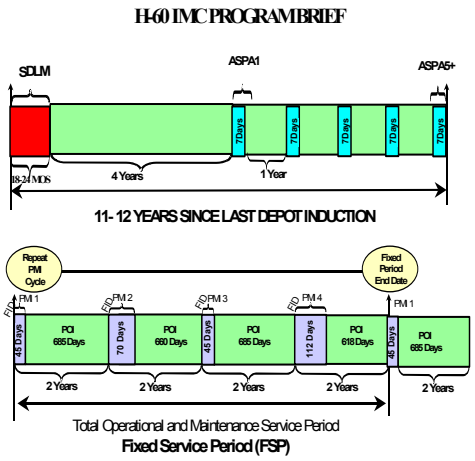
- Consolidation of maintenance tasks that safely minimizes the duplication of effort among Organizational (O), Intermediate (I), and Depot (D) levels. Reducing the number of tasks and combining multi-level tasks may yield significant reductions in aircraft down time, an important objective of (IMC/P). The initiative no longer binds depot artisans to specific depot locations, moving them closer to the war fighter, improving readiness and training of the fleet personnel.

- Fixed Operational Service Periods that are established by Type/Model/Series (T/M/S) according to RCM PM task, operational, safety, and economic analysis.

For a more complete description of RCM see ***Our Aerospace***, December 2002. Integrated Maintenance targets improvement in overall material condition of the aircraft, reduced life-cycle costs, and reduced out-of-service time while retaining safety considerations. Additionally, the concept was designed to have all of the events performed on shore, never at sea thereby increasing deck time.

Initially this transition was met with criticism, as is any new process. After the early growing pains, the Fleet realized that a fixed Depot Schedule was a good idea. In many aircraft platforms, the extensive one time Depot event was divided into smaller planned maintenance intervals (PMI).

Many scheduled inspections were being rolled into the PMI events thereby reducing squadron level maintenance and ultimately leading to less down time for scheduled maintenance on deployment.



The life cycle is a continuous process to ensure that the maintenance specifications are constantly updated as the aircraft ages and new technology is developed. Currently, all legacy aircraft are involved in some stage of transition. The AV-8B is the last aircraft to develop and prototype a plan.
As seen in the figure below, the anticipated and in some platforms actual benefits are proof that the process is working.

FLEET BENEFITS (examples):

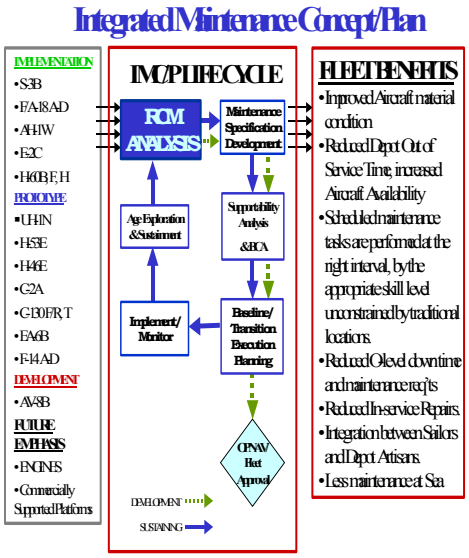
S-3B: Reduced O-level down time by 25 days per year
Eliminated 19K maintenance man-hours per year
Elimination of Calendar day inspections beyond the 56-day (benefit underway)

AH-1W:
"SDLM" Cost Avoidance of $830K per A/C inducted
Reduced Phase Maintenance tasks 50% (100hr intervals to 200 hr interval)
Reduced OTS by 126 days (SDLM 310 days, IMC 184 days over full cycle)

EA-6B:

Out of service time due to scheduled inspection decreased by 67% (28, 56 and 224 day inspections rolled to the 364 day)
Post Cruise Inspections revealed that aircraft that have been through a PMI event had a better material condition and less corrosion than was historically noted.

Fixed Depot inductions are here to stay, they have proven themselves to provide better quality aircraft and reduce out of service time. The Integrated Maintenance Plan is a means to achieve this goal.



Starting Your Career Off on the Right Foot

By CDR Art Pruett, USN
AMDO Community Manager

If you think, that as a Junior Officer (JO) in the Aviation Maintenance Duty Officer community, you need a well-rounded, maintenance experience in your first squadron, then you are correct. In fact, you need to express this to the leadership in your command. You need the different maintenance jobs available during your JO tour to be competitive within the AMDO community when it comes time for promotion or even those critical LCDR Sea Duty billets. Doing the same job as a JO for 2-3 years without exposure to any other maintenance billets is not career enhancing.

As the AMDO Community Manager, I quite often get asked the question, "Is it okay to start out as the AMO? It's a position normally for the senior maintainer!" Well, it is okay to start as AMO, just don't become the "Permanent" AMO. You need to remind your leadership that you need to expand your horizons. In order to accomplish that, you first need to be the best AMO in the WING. Know each and every one of your people in the maintenance department, their past tours, their hometowns, their families, their records (check out two or three records a day until you have read all of them). Know their experience levels; who is a CDI and who isn't. Know the PRDs of all your CDIs; know who needs to or should be a CDI and how they are progressing. Make sure that the CDIs going away on TAD assignment or PCS have qualified replacements that can fill in. Track the PRDs and/or EAOS of everyone in the command. Never let anyone decide to get out of the Navy or get within 9 months of terminating without first talking to you, then the MO and then the XO/CO to try to retain them. Know your people better than anyone else.... including your divisional CPOs. AMO is fine to start out if that's where your chain of command decides to put you. You want to work yourself into another job in about a year to 18 months. And the above ramblings are one way in which to do it.

Another question that is often asked is, "Will it hurt my career not to be the MMCO in the squadron?" The answer is "Certainly NOT!" As far as getting a chance to be the MMCO..... you're going to have earn that one. How you ask? Here's some very direct advice from some senior AMDOs that has been compiled over the years by the community management office:

Learn the aircraft inside and out. Ask an aircrew to give you a cockpit familiarization tour. Go out and watch the maintenance being performed...i.e. see an engine pulled from start to finish. Watch a stab actuator change from start to finish etc.... Read all procedures prior. Read all the requirements for a 42-day conditional inspection and then observe one. Know what the big element of each of the special inspections is. Do a daily and a turnaround with the squadron's best Plane Captain. Learn the airplane mission. Read the tactical notes on your duty days. Talk with the MMCO, MMCPO and Maintenance Chiefs when you've got a free minute. Go to every morning and evening maintenance meeting...don't miss one and just listen...sit back and be quiet unless asked a question...it is the MMCOs meeting and if you want to be one, you'll need to be as smart as him/her. Volunteer for CQ dets, advance dets, and to be the offload and onload Officer. Show your stuff. Prove that you are the best maintenance officer in the squadron and should be given more, including a shot at MMCO.

Being a division officer in the squadron is usually the way that most new AMDOs start out. Actually, it's a great way to start. You'll get exposed to a tremendous amount of maintenance related issues right off the bat and get placed in all kinds of leadership challenges that will make you a better Naval Officer and AMDO later on in your career. Get pumped up and show energy! Most importantly, get to know your people (see AMO notes above if you missed this part). Ask the AMO to explain the EDVR to you and understand it. You can learn a lot about your people just by understanding this document. Your people are your best assets and if you're not taking care of them, then you're not doing your job. Spend time with them, see what they do everyday. Watch the maintenance that they perform during the day. Talk to your Corrosion Control guys and find out what there problems are. Learn how to treat corrosion and paint an airplane and where the problem corrosion areas are. If something (i.e. unique maintenance) is being performed by night check from your division, then go in at night and watch. **Never, ever ask for COMP time.** Officers don't rate COMP time so don't make yourself look foolish by asking for it. Work so much that no one cares if you take a couple hours off.

Here are some other words of wisdom from our senior leadership that I have compiled for you:

Ask to go with the squadron LSO during a night FCLP or CQ evolution. Sit and listen to him and talk to him...see what he does. You can learn a lot about maintenance issues from an aviator that is trying to deal with aircraft problem while landing at night on a pitching deck in the middle of nowhere.

And believe it or not, there is time in the day to learn other positions while still staying on top of your present duties. Learn the Material Control Officer's job. Spend time with the AKs when they complete daily, weekly and monthly financial reports. Read all outgoing/incoming financial message traffic and understand it. Read the TYCOM

governing instructions regarding financial obligations and know what can and cannot be bought using 7F funds.

Learn the QAO job. Talk to your Quality Assurance Representatives. Read the 4790.2 series concerning QAO responsibilities - talk with the QAO. Lots of AMDOs have performed the duties as QAO so don't assume that it has to be an aviator.

Be involved with personnel decisions involving your divisional personnel. If you're the AMO, that is the entire maintenance department! Whether you are the AMO or the Division Officer, go visit all your people that are TAD at least once a week to see how they are. Go to the barracks at the air station and berthing on the ship routinely to see the conditions and hear the complaints. Ask the squadron LCPO to take you or go with you. Routinely means once a week at home and every day on the ship. You only need to go for 5 - 10 minutes and walk around and observe. Clean berthing on the ship is critical.

Introduce yourself to the shore AIMD Officer when you're at your air station and the AIMD Officer afloat. Tell him/her that you are new in the community and just wanted to say hello to one of the senior AMDOs in the area. Use them as a sounding board and for mentorship when it comes to your community and career. They have the "**Been There, Done That**" T-shirt and will be more than glad to offer career advice.

If you done all of this stuff in the first three weeks, here is a little more.....

Complete the rating manuals for all rates that work for you. Then do the rating manuals for those who don't work for you. Do the AIRMAN correspondence course. Know when people are eligible to take the rating exams and make sure you are helping them. By you doing the courses you can run study/gouge sessions...make like Jeopardy. Ask for inputs from you Division LCPOs. If one of your LCPOs is a marginal guy and doesn't have energy, bounce your ideas off the CMC or a Maintenance Control Chief...Interview all new people as soon as they check in. Ask them about advancement, personal goals and any problems they have. Tell them what you expect. Make sure all your "fatboys and fatgirls" are working on meeting the Navy's standards and you are tracking their progress. Know the PRT instruction cold.

If you spend a lot of time in the Ready Room (either ashore or afloat), you're doing yourself a disservice. That is not where the rubber meets the runway. Don't get caught up talking about aviator stuff unless it directly impacts maintenance. Even on your duty day when you're stuck in the Ready Room as the Squadron Duty Officer, you should be in touch with the activities in the maintenance department and specifically, in your division.

Respect comes from being a good leader. Being a good leader takes work...and having intelligence and common sense. And to be a good leader, you need to know what the people you lead are up against.

DAWIA and APC Gouge

By: CAPT Tom Glass, USN
NAVAIRSYSCOM PMA 202

Editor's Note: *CAPT Glass is a former AMDO detailer. The below article was authored by him while in this position. The website links have been updated for the reprinting of this article.*

What is DAWIA? DAWIA stands for the Defense Acquisition Workforce Improvement Act. DAWIA, passed in 1990, was enacted to improve the overall effectiveness and professionalism of military and civilian personnel charged with management and administration of Defense acquisition programs. DAWIA emphasized improving the education, training and experience levels of acquisition professionals.

What is the APC? The Acquisition Professional Community (APC) is a subset of the Department of the Navy (DON) acquisition workforce. The APC consists of a select group of highly skilled military and civilian acquisition professionals. DON Critical Acquisition Positions (CAPs) must be filled with members of the APC.

What is the difference between APC and DAWIA certifications? Being "APC" merely means that you are a member of The Acquisition Professional Community. A member of the APC has an Additional Qualification Designator (AQD) of APM assigned. DAWIA certifications indicate what level of training and experience an officer has attained. These are "apples and oranges."

Do I really need to become a member of the APC? YES! There are several reasons to apply for APC membership as soon as you are promoted to LCDR. (1) Many of our billets, especially our CDR and CAPT billets are coded as "critical" acquisition billets. An officer must be an APC member to be assigned to one of these billets. **You cannot be assigned to a critical acquisition billet if you are not APC.** (2) As a member of the APC, you will receive a higher priority when trying to register for DAWIA training. (3) As a member of the APC, you are eligible for DAWIA funded travel for DAWIA training.

How do I become a member of the APC? A Selection Board convenes twice a year to select officers into the APC—normally in September and February. You must be at least a LCDR (you must be wearing it prior to the Board convening), should be at least level 2 certified in your career field, should have a minimum level of business education and acquisition training, and at least four years of acquisition experience (one year can be credited for education). A NAVADMIN is released announcing the board which details the specifics of the application process. The most recent NAVADMIN announcing the next APC Board is available on the web at www.bupers.navy.mil under the Messages link. The latest APC Board results can also be found at the same site.

What are DAWIA certifications? DOD implemented DAWIA by establishing a certification process. All personnel working in acquisition positions must be certified. Certification is the process through which the DON determines that an individual meets the minimum mandatory education, training, and work experience requirements established for an acquisition career field and position. Each acquisition career field and position category is divided into three career levels for the purposes of establishing education, training and experience standards.

What are the three levels of DAWIA certification? The career levels can be described as follows:

Level I (Basic Level): This level is for individuals in the civilian grades of GS-05 through GS-08 (except for civilians in the

purchasing career field) and military grades of O-1 through O-3. Basic level training standards are designed to establish fundamental qualifications and expertise in the individual's job series, functional area or career field. Development at the basic level lays the foundation for career progression and is designed to prepare qualified, motivated personnel for positions of increasing responsibility.

Level II (Intermediate Level): This level is for individuals in the civilian grades of GS-09 through GS-12 (except for civilians in the purchasing career field) and military grade of O-4. At the beginning of the intermediate level, specialization is emphasized, then an individual should later begin to broaden his or her background toward a more general expertise in the overall processes of their career field. Development of the experience in the individual's primary career field should optimally be followed by a lateral movement to a related specialty.

Level III (Senior Level): This level is for individuals in the civilian grades of GS-13 (except for civilians in the purchasing career field) and above and military grades of O-5 and above. By the time an individual reaches Level III, he or she should have completed all the mandatory training and education requirements up to that level and should have advanced through a career pattern that has given them an in-depth knowledge in their career field and breadth of knowledge across the entire acquisition process.

What are the requirements for DAWIA certifications and how do attain them? Certification checklists are available on the web at: http://www.dau.mil/career/appc.htm and detail the requirements for each certification level of each career field. Once you have completed the requirements for a certification, fill out an application (found at http://dacm.secnav.navy.mil/appendk.htm) and have your supervisor sign the form (the supervisor must be certified to at least the level of certification to which you are applying.) Fax the completed form to PERS-447 (DSN 882-2677, COM (901) 874-2677). Detailed certification procedures are available on the web as well at: http://dacm.secnav.navy.mil/chapter3.htm.

How do I know what certifications are in my service record? Your level of certification for each career field is entered in your service record as an Additional Qualification Designator (AQD). AQD's appear on your OSR/PSR cover sheet and on your ODC. Your first five AQD's are also included in our AMDO E-Directory, updated monthly and available on the web at: http://www.persnet.navy.mil/pers446/amdo_directory.htm. There is also a MS Word document available on the web that you can use to decode your AQD's. It is located at: http://www.persnet.navy.mil/pers446/Community Briefings/AQD Codes.doc.

I noticed in my record that I have a level "zero" certification. What does that mean? When an officer is detailed into a non-critical acquisition billet, the Acquisition Professional Advisor (Pers-447) at the Navy Personnel Command screens the billet AQD against the officer's actual AQD's. If the officer does not have any level of certification in the required area, Pers-447 enters an AQD for the officer with a zero as the third digit. This allows him to track the officer's certification progress – within 18 months the officer must attain certification commensurate with the billet AQD. So, if you have an AQD ending in a zero, it means that you are/were in a billet and have not attained (or did not attain) the proper acquisition certification. Bottom line is that an AQD in your record that ends with a zero is not a good thing. Does it matter? Do Selection Boards know this? Do Selection Boards care? Does anyone from the Acquisition Professional community go back to see if required certifications were attained? The answer to all of these questions is, "Maybe, maybe not...." However, it's probably wise for all of us to try not to have any of these zeros in our records.

Where do I start? First you should take ACQ-101, LOG-101 and PQM-101. These are available on line. You can register for these courses on the web at: http://www.dau.mil/registrar/apply.asp. ACQ-201 is also partially available on the web. Once you have completed these basic courses, you should work to complete the remaining requirements for career field certification to the level commensurate with your paygrade. You should also aim to become a member of the APC as soon as you are a LCDR.

Can I get DAWIA training enroute between duty stations? First, ensure your detailer knows what DAWIA training you want enroute. If the detailer indicates that the training is possible considering funding and other time constraints, go to the DAU "Register Now" web site at: http://www.dau.mil/registrar/apply.asp and register for the class you desire—in the remarks indicate that this will be enroute between PCS duty stations and include PERS-447 as your supervisor. Once your quota is confirmed, the detailer will include the intermediate stop on your orders.

NAVRIIP leaders revisit the E-2C Type/Model/Series to find successes

By NAVRIIP Communications Action Team

Leaders of the Naval Aviation Readiness Integrated Improvement Program (NAVRIIP) returned to Naval Base Ventura County (NBVC), Point Mugu, California in early December 2003 to observe improvements for the E-2C type-model-series (T/M/S) since their last visit in October 2002.

During the last visit, 102 barriers to E-2C readiness were identified across four systems – radar, indicated friend or foe (IFF), joint tactical information distribution system (JTIDS), and nose landing gear door (NLGD) assembly. Immediately, 20 barriers were resolved by the local Aircraft Intermediate Maintenance Detachment (AIMD) and subsequently, 50 others were resolved. The remaining barriers were either solved by the Type Commander (TYCOM), Program Managers and support staffs, or the return on investment was determined miniscule.

Since then, the support for each squadron has also increased due to the implementation of the "Relevant Information For Leadership" (RIFLe) philosophy. RIFLe incorporates the Theory of Constraints (TOC), and works to alleviate the impact of bottlenecks within the operations process. By horizontally integrating stovepipe logistics, RIFLe evaluates procedures at the operational level for improvements that will employ less effort, less resources, and increased effectiveness.

"The results have been outstanding," said CDR Carolynn Snyder, Point Mugu AIMD, Officer-In-Charge. "We have a 50 percent decrease in items waiting for repair, a 75 percent decrease in due in from maintenance items (DIFM) and our average customer wait

time (ACWT) has decreased from eight days to one and a half days."

"One of our major success stories is radar communication (RADCOM) availability," said CDR Snyder. "RADCOM was one of the first barrier removal teams (BRT) launched because it affected two other systems and only had an average of 30 percent availability. The BRT identified 45 barriers and removed each one resulting in an increase to 95 percent availability. This increase allowed for overall radar ACWT to decrease by 15 days."

Hosted by NBVC and Capt. Roger Jaskot, commander, Airborne Early Warning Wing, Pacific Fleet (COMAEWWINGPAC), the NAVRIIP leadership group, lead by VADM Wally Massenburg, Commander, Naval Air Systems Command, toured the Point Mugu AIMD and Aircraft Supply Department (ASD) to meet with Navy and civilian personnel in the shop spaces. The leaders spoke with maintainers throughout the work spaces to collect feedback on readiness solutions implemented over the past year, and to learn of unique readiness improvements initiated. Since the last visit, no new barriers to readiness were identified. The Fleet maintainers have been using the process improvement tools to continually increase AIMD readiness rates by analyzing the current procedures to make necessary adjustments.

"One of these best things that NAVRIIP has done is get all of the players in the Naval Aviation Enterprise talking to each other and focused on the same issues," said CDR Snyder. "Rather than a number of disjointed and fragmented initiatives, there are now a smaller number of focused, resourced and researched efforts to tackle the T/M/S readiness issues."

"Since the NAVRIIP visit a year ago, we gained insight on how to determine the appropriate number of trained manpower, and we learned how to locate the primary cost drivers that were preventing us from achieving our goal of getting the right quantity and quality of Fleet members we need at the operational level," said CAPT Jaskot.

"The sea/shore rotation at Point Mugu is limited and it is sometimes difficult to get the people we need," said CAPT Jaskot. "The squadron is trying to enhance opportunities for maintainers to rotate to Point Mugu as well as to ensure that they receive the proper training before their assignment begins. Ultimately, we're trying to achieve the optimum number of aircraft ready for training and operations (A-RFTO). The NAVRIIP process has helped us to get closer to achieving the proper entitlement," CAPT Jaskot continued.

A specific example of the NAVRIIP process is the recent resolution of the E-2C shipping barrier that was identified during the previous visit to Point Mugu. "In the past, the shipping process caused damage to the engines. We suffered financially as well as lost maintenance time," said CAPT Jaskot. "We built a container which will be incorporated into the delivery system this year to prevent the engines from being damaged."

"Engines have a direct effect on A-RFTO availability. By eliminating unnecessary workloads caused by damaged engines, we improved overall aircraft cost-wise readiness," continued CAPT Jaskot.

CAPT Jaskot and other wing officers have shared cost-wise readiness initiatives and goals with their staffs. "We are aligning to the CNO's construct to have the right amount of aircraft and the right amount of manpower for each specific task. We are utilizing the appropriate supplies and training for the mission," concluded CAPT Jaskot.

Vice Admiral Massenburg reiterated the importance of identifying cost drivers to increase current and future readiness. "NAVRIIP is a program designed to make fundamental process changes to the way the Navy provides manpower, equipment, maintenance, supply and training to stateside Naval Aviation commands between deployments," said Admiral Massenburg. "NAVRIIP's focus is expanded to expedite the development and implementation of cost-wise solutions to readiness barriers as Naval Aviation changes its processes."

Suggested Books on Leadership and Management

By CAPT Terry Merritt
Head Detailer, AEDO/AMDO Communities

This is a new addition to the newsletter that will focus on professional reading. This month, we are featuring one of the books on the CNO Required Reading list, The Power of Alignment. Some other required readings on leadership and management are listed below. The complete list of CNO Required Readings can be found at: http://www.chinfo.navy.mil/navpalib/cno/reading.html

The Power of Alignment
by George Labovitz and Victor Rosansky

Alignment, one of the CNO Top Five Priorities, holds the key to building and sustaining a world-class organization. The Power of Alignment is a short but powerful text that provides insight on how great companies have become leaders in a constantly changing and challenging environment. Filled with real life examples, it provides the roadmap to bridge the gap between strategic planning and customer satisfaction. The text identifies key elements of an organization – people, process, customers, and strategies - which when balanced create a self-aligning and self-sustaining culture that distributes leadership and energy to every member. These elements must be centered on what the authors have identified as *The Main Thing*, the single most powerful expression of what the organization hopes to accomplish. Alignment of the four elements to the Main Thing, as well as to each other is essential for success. Alignment is examined along two dimensions - vertical and horizontal. Vertical alignment links the people in the organization with the business strategy. Horizontal alignment links the processes that provide products or services with the customer who determines their value. The pathologies of misalignment are outlined in detail as well as the specific steps to get an organization back on track toward a focused shared vision of its goals. In the final chapters it is easy to recognize the underpinnings of NAVRIIP, as the authors delve into the attributes of distributive leadership and the characteristics of a self aligned organization. As you read this book, you will find many tools and strategies that can be applied in your everyday activities to achieve CNO Guidance for 2004, NAVAIR Vision and Goals, and improve the Naval Aviation Enterprise.

Other recommended readings:

Good to Great – Jim Collins

Primal Leadership - Daniel Goleman

Execution – Larry Bossidy et,al

Leadership Is An Art - Max Depree

The 7 Habits of Highly Effective People - Stephen R. Covey

Leading Change -John P. Kotter

The Psychology of Winning - Denis Waitley

Values of The Game - Bill Bradley

The 21 Indispensable Qualities of A Leader - John C. Maxwell

In Search of Excellence - Thomas J. Peters and Robert H. Waterman Jr.

Faith of Our Fathers - John McCain

From the Desk of the AMDO Detailer

By CDR Marty Sherman, USN
AMDO Detailer

The Major AIMD selection board convened in mid-October. During this board, all Commanders and Commander (selects), who have not previously been selected for a major AIMD, were screened for assignment to this important professional milestone – equivalent to URL Commander Command. As this milestone represents the 1520 "Gateway to O-6," it is extremely important that everyone understands the process.

The following nine AMDO Commanders were slated in the corresponding Major AIMD Officer billets:

CDR Miguel Ortiz
CV 67 USS JOHN F KENNEDY

CDR Mark Wassil
CVN 70 USS CARL VINSON

CDR Bart Grossman
CVN 72 USS ABRAHAM LINCOLN

CDR Charlie Chan
CVN 73 USS GEORGE WASHINGTON

CDR Dan Van Orden
CVN 74 USS JOHN C STENNIS

CDR Ellen Moore
AIMD OCEANA

CDR Kate Erb
AIMD WHIDBEY ISLAND

CDR Stu Alexander
AIMD JACKSONVILLE

CDR Greg Munning
AIMD PT MUGU

CDR Mike Zarkowski
BANK

Congratulations to all of the selectees on this major milestone

Community Manager's Corner

CAPT Terry Merritt, USN
CDR Art Pruett, USN
CDR(s) Tom Popp, USN
LCDR Darrell Lack, USN

CDR (s) Tom Popp will be transferring in February 2004 to PMA 273 to work as the JPATS IPT. For the past 20 months, Tom has superbly led the AEDO Community and has positioned the community for continued success in the 21st century. The community management team will sorely miss his knowledge of the Defense Acquisition Workforce policies and responsibilities as well as the advice on the education, training, and experience requirements for every AED Officer.

Without question, CDR(s) Popp's extraordinary contributions will ensure long term stability for the AEDO Community. We appreciate the incredible support that he ALWAYS provided.

Welcome aboard LCDR Darrell Lack who is Tom's replacement. LCDR Lack is completing his VX-20 department head tour as the Safety, Security and Standardization department head as well as the VS Project Officer within the command. Welcome aboard Darrell!

CONGRATs to our new APC members:

LCDR Joe Blank 1520
CAPT Steve Clarke 1505
LCDR Chris Couch 1520
LCDR Duane Decker 1520
CDR Anthony Ferrari 1510
LCDR John Gailey 1510
LCDR Milton Greene 1527
LCDR Michael Harman 1510
CDR Thomas Hole 1510
LCDR John Rousseau 1510
LCDR Brent Sebring 1520
LCDR Eric Simon 1520
LCDR Charles Stuart 1510

CONGRATs to our newest AEDOs and AMDOs:
May 2003 Lateral Transfer Board

LCDR Michael Abreu 1510
LCDR(s) John Blocker 1510
LCDR Robert Fuller 1510
LCDR Darryl Lenhardt 1510
CDR John Martins 1510
CDR John Mawhinney 1510
LCDR John Pamer 1510
CDR Patrick Porter 1510
CDR(s) Kevin Quinn 1510
LCDR Chad Reed 1510
LT Lisa Sullivan 1510

LT Thomas Ball 1520
LTjg Steven Bryant 1525
LTjg Victor Feal 1520
LTjg Suzanne Richardson 1525

Nov 2003 Lateral Transfer Board

LCDR Christopher Carroll 1510
LT Christopher Desena 1510
LCDR Michael Earl 1510
LCDR George Franz 1510
LCDR Mark Kempf 1510
LT Adam Krause 1510
LCDR Kurt Muller 1510
LCDR Jennifer Nicholls 1510
LCDR Douglas Phelan 1510
LCDR(s) Michael Supko 1510

LT Danilo Evangelista 1525
LT Ramiro Flores 1520
LT Grant Gorton 1520
LT Christopher Haas 1520
LT Michael Marrero 1525
LT Erich Stertmann 1525
LT Jay Toribio 1520

NAVAIR SLATE (24 APR 03) Results:

PMA-275 - F/A-18
COL Craig Olson, USAF

NAVAIR SLATE (31 JUL 03) Results:

PMA-261 H-53
COL Paul Croisetiere, USMC

PM, Deployable Joint Command & Control

COL Andrew P. Dwyer, USMC

DPM, Deployable Joint Command & Control
CAPT(s) Patric K. Roesch, 1510

CO, DCMA Sikorsky
CAPT Dorothy Freer, 1510

CO, NAS Patuxent River MD
CAPT Glen R. Ives 1310

CO, NAWS China Lake, CA
CAPT Michael K. Gleason, 1510

CO, NAES Lakehurst, NJ
CAPT Leonard B. Gordon, 1520

CO, VX-31
CDR Timothy J Morey 1510

NAVAIR SLATE (16 OCT 03) Results:

PMA-203 Sigma/ Manufacturing Resource Planning
CAPT(s) Michael S. Paul 1310

PMA-208 Aerial Target Systems
CAPT(s) Richard W. Walter 1510

DCMA Southeast Aircraft Operations Center
CAPT James W. Trueblood, 1510

CO, NADEP North Island CA
CAPT Fred E. Cleveland, 1520

Commander, Test Wing Pacific
CAPT Alexander B. Hnarakis, 1310

CO, U.S. Naval Test Pilot School
CDR Thomas W. Huff

CO, VX-23
LTCOL Arthur Tomassetti, USMC

CO, VX-30
CDR Richard A. Burr 1510

DCMA Northop Grumman, Bethpage NY
LTCOL William S. Lang

DCMA Lockheed Martin Systems International, Owego, NY
CDR Michael J. Cerneck

NAVAIR Pacific Repair Activity (NAPRA)
CDR Mark Mlikan, 1520

Points of Contact

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Bldg. 440, Suite 18
Patuxent River, MD 20670-1549

Reference Corner

**Fitness reports. If missing a fitness report from your microfiche send a copy to:

(via regular mail)
NAVY PERSONNEL COMMAND
PERS-311
5720 Integrity Drive
Millington, TN 38055-3110
DSN 882-3316/COMM(901)874-3316

(via Certified Mail/FEDEX)
NAVY PERSONNEL COMMAND
PERS-311
Bldg 769 – Wood Hall
5751 Honor Drive
Millington, TN 38055-3110

**Photograph. The official requirement to submit a photograph is within three months after acceptance of each promotion. At minimum you should be in your current paygrade. Photographs can be submitted on NAVPERS 1070/10 to:

NAVY PERSONNEL COMMAND
PERS-313C
5720 Integrity Dr.
Millington, TN 38055-3130

**Personnel Records are now on CD ROM: Order your CD ROM online at BUPERS Access It will be mailed to your command - (to your command's official address) No fax or signature required! Log on to BUPERS Access, click Programs and then Microfiche Req.

BUPERS Access should be your primary source for obtaining your Microfiche. Only if you cannot access BUPERS Access should you fax or mail in the Microfiche Order form and mail or fax it to: (Don't forget to sign the form!)

NAVY PERSONNEL COMMAND
PERS-313C
5720 Integrity Dr.
Millington, TN 38055-3130
DSN 882-3415/3596
COMM(901)874-3415/3596
FAX 882-2664 COMM (901) 874-2664

**Performance Summary Record (PSR)
Officer Summary Record (OSR)
Officer Data Card (ODC)

Go to the BUPERS Home Page
www.persnet.navy.mil/index.html
and click on "BUPERS On-Line" link;
log in using your SSN and password,
click Performance Summary Record,
click View Now!
**Have you updated your contact information on the AEDO /AMDO web site lately? If not, please click on the appropriate website and update your contact info. It will only take a couple of minutes and will greatly assist your Detailer! Thank you for your support!

** Download the latest AEDO or AMDO E-Directory at the respective website. User Name "aed-p446"
Password "engineering"

**Medals. If missing an award send a copy of signed citation to Navy Department Board of Decorations and Medals (print or type your SSN in upper right corner).

(SECNAV Awards Board & Unit Awards)
Navy Department
Board of Decorations and Medals
Attn: N09B13
2000 Navy Pentagon
Washington, DC 20350-2000
COMM (202) 685-1770 DSN 325

(CNO Awards Board & Personal Awards)
Chief of Naval Operations
Board of Decorations and Medals
Attn: N09B13
2000 Navy Pentagon
Washington, DC 20350-2000
COMM (202) 433-4992 DSN 288

**Letters to the Selection Board:

President, FYXX (Grade) (Competitive Category) Promotion Selection Board
Department of the Navy
NAVY PERSONNEL COMMAND
PERS 80
5720 Integrity Drive
Millington, TN 38055-0000
FAX 882-2746 COMM(901) 874-2746

**Educational Achievements:

NAVY PERSONNEL COMMAND
PERS 313G
5720 Integrity Drive
Millington, TN 38055-3120
FAX 882-2660 COMM(901) 874-2660

Web Sites:

AEDO/AMDO info:
http://www.persnet.navy.mil/pers446/p446_webpage.htm

AMDO info:
http://www.amdo.org

DAWIA and APC info:
http://dacm.secnav.navy.mil

The semi-annual AED/AMD Newsletter, Our Aerospace, is published by the Career Management Office of the Aerospace Engineering Duty (Aerospace Engineering and Aerospace Maintenance) communities. The purpose of this newsletter is to provide information of general interest to officers of both the AED and AMD communities and to serve as a forum for the publication of technical papers and articles. Contributions and comments are solicited and should be sent to:

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