

Current Readiness & Enterprise AIRSpeed Newsletter



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COMHSMWINGPAC uses CPI to increase readiness

By Lt. Christopher Moore, CHSMWP N8

Helicopter Maritime Strike Wing Pacific (HSMWING-PAC) began their initiatives for continuous process improvement (CPI) in January 2008. Faced with considerable challenges – an aging SH-60B fleet, high tempo transition to the MH-60R, and growing readiness gaps for deployed and home guard forces – the commander of the West Coast's HSM community needed to find solutions for the forces' growing costs and operational demands.

For more than eight years, the Naval Aviation Enterprise (NAE) has embraced process improvement and quality assurance through AIRSpeed at Fleet Readiness Centers (FRC) and Marine aviation logistics squadrons. HSMWINGPAC decided to pursue those tools as a holistic approach for improving maintenance practices and supply support at the organizational level (O-level).

Olga Keegan, a certified Naval Air Systems Command (NAVAIR) AIRSpeed Black Belt specializing in O-level processes, was hired in 2008 to assist HSMWINGPAC as their first continuous process improvement

officer. With a number of qualified Green Belts already at her disposal, the new department's first task was to tackle the readiness issues resulting from lengthy build times following H-60 Planned Maintenance Interval (PMI) cycles. Through careful data and trend analysis, they determined

that PMI was their number one ready basic aircraft degrader which affected readiness across the organization. The team delved into the entire process - from induction to post-PMI Functional Check Flight completion - to determine the root cause behind

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MAPping to a new fleet

By Jacquelyn Millham,
Current Readiness/Enterprise AIRSpeed Public Affairs

The process of "sundowning" legacy airframes and replacing them with a new Type/Model/Series (T/M/S) is not just a matter of procuring equipment. Getting a transitioning command to a level of required readiness on schedule depends on Naval Aviation Enterprise stakeholders working in tandem with each other.

The H-60B/F community, which is transitioning to the MH-60R/S, is one example. Helicopter Sea Combat Squadron (HSC) leadership must manage their manpower to ensure that the proper numbers of experienced Sailors with the correct Navy Enlisted Classification are in the workforce before new airframes are introduced into the fleet. Recruitment, training and retention are major components of this capability. HSC leadership must also address infrastructure, supply,

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Last bone yard CH-53E being reworked

By Dave Marriott, Fleet Readiness Center, East

The last CH-53E Super Stallion to be pulled from desert retirement, repaired, refurbished and returned to active service was inducted at Fleet Readiness Center East (FRC) on August 2008.

The arrival of the aircraft at FRC East marked the end of the depot receiving Aerospace Maintenance and Regeneration Group (AMARG) aircraft for special rework. Since the rework started in September 2005, FRC East H-53 artisans have inducted 10 of the heavy-lift helicopters.

Seven CH-53E's have been overhauled and returned to the Fleet. Two CH-53D's and one Super Stallion are currently "in work" on the production floor. All will be flying with active squadrons by early 2010.

"This has been a good program, but it wasn't without challenges," said Jerry Cox, AMARG manager in the Industrial Business Division.

"Most of the aircraft repaired at FRC East are in-service when they arrive. When these aircraft get here they haven't been flown in so long you

don't know which systems are going to work, so there are always a lot of variables. We still managed to complete all the aircraft ahead of schedule and under budget."

David Williams, H-53 aircraft production manager, said 18 months was allotted to complete the overhaul of each aircraft, and attributed the reduced turnaround time to the H-53 program's skilled workforce and the use of AIRSpeed, specifically the Theory of Constraints (TOC). TOC is a management methodology that when applied reduces process times and costs.

"We are using that program with great success on our other aircraft, so we wanted to mirror that with these AMARG birds," Williams said. "The success of TOC depends on your people being in tune with the program, and that is

exactly what we have on the H-53 line."

Sikorsky stopped manufacturing the H-53 in 1999, which made refurbishing AMARG aircraft the only way of adding to the Sea and Super Stallion inventories. The rejuvenation of the completed CH-53E's encompassed an average of 81 airframe modifications, hundreds of inspections and more than 25,000 work hours on each aircraft. It also encompassed sifting through dozens of bulletins – or changes – which had been issued since the aircraft were retired.

New bulletins are issued regularly. For example, 52 bulletins had been issued when FRC East started the first AMARG CH-53 and three additional bulletins were issued before work was completed. Subsequent AMARG aircraft required the same changes and bulletins worked on previous aircraft, plus any new ones.

Cox said the schedule calls for the aircraft to be completed in February 2010, but added it wouldn't surprise him if it too, was completed and sold ahead of schedule.

He credits the special rework program's success to the teamwork between people at PMA-261, AMARG, and FRC East.

"The artisans here know what they're doing and have done an outstanding job on every AMARG aircraft so far, and are still doing an outstanding job," he said. "But there are no superstars here – we're succeeding because of a good, solid, team effort."

AMARG is a one-of-a-kind specialized facility within the Air Force Materiel Command structure that provides customer services including aircraft regeneration (restoring aircraft to flying status) for Joint and Allied/Coalition warfighters, limited depot-level maintenance, and parts reclamation, in addition to its historic storage and disposal functions. ■



An H-53 artisan works on the last Aerospace Maintenance and Regeneration Group aircraft scheduled for special rework at Fleet Readiness Center East. The final H-53E helicopter undergoing AMARG was pulled from the "bone yard" at Davis-Monthan Air Force Base and inducted in August 2008. It should be back in the Fleet by February 2010. Photo by Dave Marriott.

AIRSpeed IT Trouble Call upgraded

By Jacquelyn Millham,
Current Readiness/Enterprise AIRSpeed Public Affairs

With the introduction of SharePoint to the Naval Aviation Enterprise as a new information technology tool comes additional features that improve communication among Buffer Management Tool (BMT) users and its managers.

“The servers that hosted BMT were taken offline in May. This presented the Maintenance and Supply Integration Performance Improvement Branch (MSIPIB) with the opportunity to give the fleet greater visibility into the status of their submissions and the ability to give better details concerning their problems,” said Trena Jackson, an operations research analyst who manages BMT.

The trouble call also allows users to submit problems on the Resource Sizing Tool (RST – is used during AIRSpeed implementations to determine resource capacity) and the Enterprise Logistics Analysis Tool (ELAT- an application designed to help sites analyze and understand the inter-relationship between historical demand pattern for each National Item Identification Number or Family Group Code and its time to reliably replenish) on one web page.

Other new features:

- BMT users can (and are encouraged to) read all previously submitted trouble calls before entering a new item;
- Users can include screen shots of the problem and attach them to their entry;
- Text can be formatted in “description” field, including color, indentation, bullets, font and font size. Tables, images and links can also be inserted. Users can also spell check their submissions;
- Users also have an option to be alerted when changes have been made to their trouble call.
- The new web site allows users to see submitters’

- contact information, enabling the fleet to share lessons-learned
 - Managers can add comments to trouble calls
- To access the site, users must have a common access card. Users should also update their bookmarks for easier access to the site. ■

Bookmark these sites:

BMT, RST and ELAT Trouble Call link

https://www.portal.navy.mil/comnavairfor/Naval_Aviation_Enterprise/current_readiness/MSCM/AirSpeed/Lists/HelpDesk/AllItems.aspx

BMT

https://www.portal.navy.mil/comnavairfor/Naval_Aviation_Enterprise/current_readiness/MSCM/AirSpeed/BufferManagementTool/Forms/AllItems.aspx

RST

https://www.portal.navy.mil/comnavairfor/Naval_Aviation_Enterprise/current_readiness/MSCM/AirSpeed/ResourceSizingTool/Forms/AllItems.aspx

ELAT

Users guide:

https://www.portal.navy.mil/comnavairfor/Naval_Aviation_Enterprise/current_readiness/MSCM/AirSpeed/IT%20Applications/ELAT%20Users%20Guide.pdf

Application:

<http://www.atoc-bst.com/>

The amphibious assault ship *USS Peleliu* (LHA 5) returns to home-port at Naval Base San Diego after completing a six-month deployment to the U.S. 5th and 7th Fleet areas of responsibility in this photo dated November 2008. Peleliu, the flagship of the Peleliu Expeditionary Strike Group, is scheduled later this month to be the first L-class ship to receive AIRSpeed training. (U.S. Navy photo by Mass Communication Specialist 3rd Class Michael C. Barton/Navy.mil.)



BoG/BoD site visits valuable to the NAE

By Mike Berkin, NAVAIR 6.8 Manpower Analysis Branch Head;
Current Readiness Maintenance and Supply Chain Management Action
Officer; and NAE Boots on the Ground/Deck Coordinator

Late in the afternoon, after a long day of listening to Naval Air Station Joint Reserve Base New Orleans junior Sailors and Marines and getting a first-hand look at their organizational- and intermediate-level maintenance and supply facilities, a large group of Naval Aviation Enterprise (NAE) senior leadership sits around a conference table awash in conversation, discussing and summarizing action items gathered from their just-completed tour.

That conversation is one of the last exercises to take place during a “Boots-on-the-Ground” (BoG) or “Boots-on-the-Deck” (BoD) site visit. The members of this august group, comprised of Navy captains, Marine Corps colonels and senior-level civilians, will leave the installation and return to their commands to address their compiled list of issues.

But BoG/BoD is more than just an exchange of information; it provides an opportunity for leadership to better understand the complex issues that drive Naval Aviation processes, to provide solutions that will improve readiness and to build rapport with deckplate supply and maintenance personnel.

The first BoG events began informally in 1999 by then Rear Adm. Wally Massenburg, Naval Air Systems Command (NAVAIR) Assistant Commander for Industrial Operations. He wanted to get a first-hand look at the logistic issues affecting our Sailors and Marines. By 2001, as NAVAIR’s commander, Vice Adm. Massenburg was able to convince a coalition of senior leaders from throughout the NAE to attend BoG events on a regular basis to get a real-time perspective of real-time issues affecting readiness and our naval workforce. Since that time, nearly 50 Navy and Marine Corps sites, including aircraft carriers and L-class ships, have hosted a BoG/BoD visit.

By attending these Boots events, provider commands (i.e., NAVAIR/PEO/PMA, Naval Inventory Control Point, Defense Logistics Agency, type commanders, Center for Naval Aviation Technical Training (CNATT), Commander, Naval Installation Command) receive candid and constructive insight on both working-level accomplishments, projects and “head hurters”. This is accomplished through work center tours and site briefs. Insight gained and actions assigned are used by participants to improve readiness quality of work-life and to reduce costs.

BoG/BoD participants are flag/general officers and senior military and civilian officers from the NAE, who bring specific functional expertise in NAE execution, logistics and supply chain processes, and total force management and training. For Navy shore stations, the host is typically the wing commodore for the lead squadron at that site. For



Above: Vice Adm. Tom Kilcline, Jr. (right), presents a coin to a Sailor during Boots-on-the-Ground aboard *USS Nimitz* (CVN 68) as the ship’s commanding officer, Capt. Michael Manazir (left), looks on in this photo dated February 2009. The site visits are opportunities for junior Sailors to brief their continuous process improvement successes and to present their concerns to senior leadership. Photo by *USS Nimitz* Public Affairs.

Below: Lt. Gen. George Trautman, Deputy Commandant for Aviation, talks with Marine Air Logistics Squadron 26 and 29 Marines during “Boots-on-the-Ground” in Marine Corps Air Station New River in November. Photo by Marine Corps Air Station New River Public Affairs.



Marine Corps shore stations, the host is usually the Marine Air Group commanding officer. For ships, the host is the ship air boss, and includes coordination with the Carrier Readiness Team (for carriers) and support from the aircraft intermediate maintenance officer and the supply officer. During the event, key briefers are the host leadership, the intermediate maintenance activity organizations (both maintenance and supply), and local AIRSpeed team representatives.

Vice Adm. Thomas Kilcline, Jr., Commander, Naval

(BoD/BoG continued on Page 5)

(BoG/BoD continued from Page 4)

Air Forces and the NAE’s “Air Boss,” recently stated that, “Boots on the Ground / Boots on the Deck events are productive leadership engagement opportunities linking NAE leadership to Sailors and Marines, and just as importantly, resolving Fleet issues in near real time.” NAE leadership relishes the opportunity to instruct and interact with Navy and Marine Corps technicians. Their feedback is consistently positive concerning their face-to-face interaction with the troops maintaining and supporting aviation aircraft, carriers, weapons and equipment.

NAE leadership receives overviews from the host community, highlighting AIRSpeed initiatives, accomplishments, challenges/issues and “head hurters”. Selected flag officers who participate provide overview of goals and missions of NAE, focusing on achieving ready-for-tasking aircraft and personnel, controlling costs, and exercising enterprise values.

AIRSpeed implementation is a strong aspect of BoG/BoD site visits, as it is one of the NAE’s main enablers of readiness. However, for those sites visited that have not yet received AIRSpeed training, the site visits still offer good-value insight to NAE leadership on logistics issues affecting readiness.

These events provide an opportunity for Sailors and Marines to meet and see that leadership is concerned about their issues. Action items captured at BoG/BoD have led to direct changes in overarching policy among NAE sites including:

- The testing policy for Joint Direct Attack Munitions tail kits was changed after a visit to the *USS Theodore Roosevelt* (CVN 71) in May 2008 and *USS Bataan* (LHD 5) in December 2008. Sailors now conduct tests in the magazine storage facility instead of transporting the kits for testing two decks up to the mess decks.
- Identification and sharing of best practices across Fleet Readiness Centers (FRCs). Artisans from FRC Southeast demonstrated a new repair process for the H-60

Sample questions asked by leadership:

- What is the work center responsible for?
- In what ways has AIRSpeed helped you do your job?
- How has AIRSpeed changed your work life? Your career?
- What are shop supervisors doing to prevent going back to the old way of doing business?
- What partnering is occurring in support of achieving ready for tasking (RFT) and reducing costs?
- How does the buffer management tool (BMT) support the work?
- Do you have pre-expenditure bins? What’s working? What isn’t working?
- What processes are not being improved? Why or why not?
- What process would you tackle next? Why?
- What is the biggest barrier you face to doing your job?
- What is the biggest problem in your work center? Biggest cost driver? Biggest time driver? Biggest readiness degrader?
- Are point-of-use cards in view?
- Has the work center established a visual workspace?
- What visual displays are evident? Do they support the work?
- How things are going? (Posed to artisans first, then Sailors and Marines)
- How do we know how we are doing in support of RFT?
- How do we know how we are doing in support of cost-wise readiness?
- What metrics are influenced by process improvement results?
- How do specific projects underway support improvement in those metrics?
- What is the AIRSpeed sustainment plan?
- How are AIRSpeed skills transferred from the AIRSpeed core team to everyone else?
- How are new personnel with AIRSpeed training being incorporated into your AIRSpeed processes?

Leadership will also follow up on specific discussion points from the initial briefings, ask Sailors and Marines to describe their next project and pose questions on improvement outcomes.

composite sliding overhead fairing using procured laminate panels for repairs instead of a wet layering of fiberglass and resin.

- Incorporating innovative continuous process improvement (CPI) procedures on L-Class-ships.
- The schedule is usually established during the October/November timeframe for the next calendar year. However, site schedules can change throughout the year, as shifting priorities precipitate changes. For shore stations, sites are visited in round-robin fashion, so a site visited early in the calendar year will likely not be visited for another 18 months. For ships, visits are dictated by ships’ schedules,

and are subject to change. Efforts to lock in visits are made as early possible.

Since January 2008, the following sites have hosted a visit: CNATT, Naval Air Station (NAS) Pensacola; Marine Corps Air Station (MCAS) Miramar; *USS Theodore Roosevelt* (CVN 71); NAS Patuxent River; NAS Oceana; MCAS New River; *USS Bataan* (LHD 5); NAS Mayport; *USS Nimitz* (CVN 68); NAS Joint Reserve Base New Orleans; and TACAMO (Take Charge and Move Out) at Tinker Air Force Base. Future events scheduled for later this year and early

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Transforming Marine Corps aviation familiar territory for new MALSP 2 lead

By Jacquelyn Millham, Current Readiness/Enterprise AIRSpeed Public Affairs

Change is no stranger to Lt. Col. Vince Clark.

The former Marine Aviation Logistics Squadron (MALS) 39 commanding officer who served from May 2007 to April 2009, arrived at the Maintenance and Supply Integration Performance Improvement Branch in late June to head the Marine Aviation Logistics Support Program 2 (MALSP 2) Project Office, replacing Lt. Col. Brad Martin. Martin retired in May after 25 years of service.

During Clark's 21-year career, he has had a hand in rolling out four new type-model-series aircraft, systems, logistics concepts and maintenance support plans to USMC aviation squadrons on several occasions.

The first time was as the Multi-service Operational Test Team aircraft maintenance officer and operational test director with Marine Helicopter Squadron 1 Detachment at Patuxent River, Md., in the summer of 2000 when he executed the transfer and introduction of the first MV-22s to the fleet.

The second time was during the transfer and introduction of the first KC-130Js while serving as a deputy assistant program manager for logistics and operational test liaison officer at Naval Air Systems Command, Program Manager 207, KC-130J Program Office.

The last time was during Clark's assignment as the H-1 Y/Z Fleet Introduction Team officer-in-charge where he executed the transfer and introduction of the first H-1 Y/Zs to the fleet. He also developed and proposed Marine Corps Aviation's

new Fleet Introduction Team's currently employed concepts of operation and structure.

Clark will again have an opportunity to play a major role in the future of Marine Corps Aviation as the new MALSP 2 Project Office lead. His stated first order of business is to rename the Project Office to Program Office with follow-on program of record authorization and approval.

With a bachelor's degree in Economics and Business from the University of Tennessee earned in 1985, Clark enlisted in the delayed entry program in June 1987. He reported to Parris Island, S.C., in February 1988, was selected to the Enlisted Commissioning Program in June 1989, and was commissioned in April 1990. Clark has served in MALS 39, MALS-16 (Fwd),

Marine Helicopter Training Squadron 303, Marine Light Attack Helicopter Squadron 267, and Marine Aircraft Group 39, Third Marine Aircraft Wing.

In August 1998, Clark attended resident professional military education

at the Amphibious Warfare School in Quantico, Va., and the Australian Command and Staff College in January 2003. He graduated from Embry-Riddle Aeronautical University in 2006 with a dual master's degree in Aeronautical Science (Aviation Aerospace Operations and Management). Clark is also a member of the Acquisition Professional Community where he is level 3 certified in lifecycle logistics and level 2 certified in program management. His personal decorations include the Meritorious Service Medal, the Navy and Marine Corps Commendation Medal with gold star and the Navy and Marine Corps Achievement Medal.

(MALSP 2 is transforming Marine aviation logistics from a "push system" to a "pull system". The MALSP 2 Project Office is currently working with Space and Naval Warfare Systems Command, System Center Atlantic to develop the Expeditionary Pack-Up Kit (EPUK). EPUK will provide expeditionary logistics chain managers with buffer management and decision support capabilities.) ■



Lt. Col. Vincent Clark

ELT course to be held in September

The AIRSpeed Executive Leadership Training (ELT) will be held Sept. 22-24 at the Navy College Learning Center in Oceana, Va.

The course, which is required for all Naval Aviation Enterprise (NAE) leadership, will provide an executive-level introduction to continuous process improvement initiatives and methodologies including the Theory of Constraints, Lean and Six Sigma. Attendees also will learn about the NAE, its various functions and how it supports current readiness efforts.

Sea and shore triads and their leaders are strongly encouraged to attend the training as a team. The class size is limited and early registration is recommended.

For more information, call 301.757.4875 or send an e-mail to AIR-SPEED.OPS@navy.mil (Subject line: ELT – September 2009) ■

In their own words: From Reservist AS2 Noe Hernandez

Understanding the NAE's risk-informed decision-making process helped my professional, personal development

I first heard about the Naval Aviation Enterprise around the year 2004 when AIRSpeed introduced the concept of Lean in the aviation support equipment at Naval Air Station North Island. Initially, I felt I was just following policy, but then I was pleased to see the improvements in my work-station. I received Yellow Belt training and participated in a rapid improvement project on ground support equipment.

As a junior Sailor, I knew I was a part of the organization but I didn't fully understand it. I did not see the NAE as I envision it now.

After serving as an aviation support technician for eight years, I joined the reserves. I wanted to increase my experiences while serving in the Navy and saw working with the NAE as an opportunity to do just that. I was excited knowing that I would be on the "inside" and see the decision-making process during my two weeks on active duty.

After two weeks of attending meetings and working alongside NAE personnel, I have learned how it conducts its activities and that it has a detailed and efficient method to analyze Navy and Marine Corps data and facts.

It's impressive to observe. It coordinates a great number of people for common goals based on the idea of doing business with fewer resources through collaboration and standard measurements. Achieving and maintaining a higher productivity and consistency is a priority, which the Naval Aviation does extremely well.

The intensity of the commanders as they analyze data provided by lower-level commands shows their commitment to improve readiness. Senior leadership's dedication also is

reflected in the success of the NAE.

Seeing their hard work made me understand even more that the future of our Naval Aviation is not only our aircraft but our future leaders. They must be eager to produce a better future, aim toward accessible goals while at the same time using fewer resources. We must continue to understand and put the NAE's processes into practice. Leadership is there to help us with productivity and to enable the different communities to be even more successful.

Thanks to my two weeks at the NAE, I have learned to have a forward

vision. It has also shored my drive to implement those visions for the improvement of our Naval Aviation and armed forces. I have obtained the knowledge I was committed to obtaining. I will improve and for sure share this with my unit and encourage them to improve as a whole. I will constantly use all I have learned in these two weeks and will apply them in my naval career.

I am pleased to have seen a part of the NAE. It gave me a better understanding and sense of being a part of a greater community which produced a vision for self and constant improvement. ■

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next year include: MCAS Beaufort; Western Pacific (including MCAS Futenma, MCAS Iwakuni, Naval Air Facility Atsugi, and *USS George Washington* (CVN 73)), MCAS Camp Pendleton, *USS Peleliu* (LHA 5), NAS Norfolk and *USS Enterprise* (CVN 65).

NAE leadership is committed to enterprise behavior and the work of the individual within the Enterprise.

NAE members are both consumers and providers. Balancing this dual role helps us define the right level of readiness for our aircraft communities. These events give leadership the opportunity to communicate directly to our Sailors and Marines and goes a long way in contributing to efforts that result in fully functioning ready for tasking and core competency Navy and Marine units. ■

Click on the links below to read about recent BoG/BoD site visits

NAS JRB New Orleans

<http://www.cnaf.navy.mil/airspeed/default.asp?PressReleaseID=53889>

USS Bataan

<http://www.cnaf.navy.mil/cr/main.asp?ItemID=1373>

NAS Mayport

<http://www.cnaf.navy.mil/cr/main.asp?ItemID=1392>

MCAS New River

<http://www.cnaf.navy.mil/cr/main.asp?ItemID=1372>

USS Nimitz

<http://www.cnaf.navy.mil/cr/main.asp?ItemID=1406>

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technology, support equipment, modifications to the new airframe and other issues – all of which must be done while maintaining legacy aircraft.

To manage these complex challenges, eight Navy transitioning communities and Commander, Naval Air Forces, Force Readiness (CNAF N40) are using the Master Aviation Plan (MAP), a long-term planning document that is based on operational schedules and readiness requirements.

Putting the elements together

While CNAF provided guidance to transitioning T/M/S through the Transition Support Process Action Team (TSPAT - which looks at the schedules of carriers, squadrons, schools, and any other organization that will be affected by the transition in order to come up with the best schedule to phase out legacy airframes), requirements and readiness were found in several documents maintained by different organizations.

Until 2006, the TSPAT only showed the F/A-18E/F transition plan. But with the unprecedented transitions of nine T/M/S in less than 20 years, CNAF replaced TSPAT with the MAP and expanded its scope.

The MAP is a compilation of the requirements, policies and schedules that affect a T/M/S' readiness, including the Global Force Management and Navy's Expeditionary Strike Group schedules, Request for Forces requirements, the Fleet Response Plan, transitions, aircraft upgrade requirements, aircraft attrition, T/M/S sundown plans, required ship modifications, Immediate Superior in Command changes, Prepare to Deploy Order requirements, homeport

changes and permanent duty station changes. A risk analysis component was added; transitions that will occur in the Navy Reserves are captured in



A Boeing P-8A Poseidon test aircraft T-1 conducts a test flight in April 2009. The aircraft completed a series of tests during the 3 hour, 31 minute flight and reached an altitude of 25,000 feet before landing at Boeing Field in Seattle. The P-8A is replacing the P-3C; initial operating capability is scheduled for 2013. (Photo courtesy Boeing/Navymil)

the document as well.

An automated software system was developed to produce the MAP and provide tools to help leadership understand the impact on readiness that comes with each decision. The system combines the power of three software applications, Pro-Model, Slider, and Excel, to produce the MAP and readiness risk analysis tools for leadership.

"MAP provides a template that looks at the commonalities associated with transitions, captures unique requirements of each T/M/S and gives a 10-year outlook for each," said Cmdr. James Nichols, Commander, Naval Air Forces Atlantic (CNAL) Air Wing Readiness officer, CNAF Transition Readiness Integration Cell. "Some communities have no experience in transitioning from one airframe to another. They can get guidance from the TRIC and leverage best practices."

The Transition Readiness Integration Cell (TRIC), established by CNAF N40, develops policy recommendations, oversees readiness during tran-

sitions and operational unit movements, maintains T/M/S transition teams' standardization and develops the MAP. The TRIC also advises the T/M/S Executive Steering Committees on CNAF and Naval Aviation Enterprise transition standards and requirements, and briefs CNAL and CNAF on the status of the transitions and each new MAP.

One common issue that all T/M/S are addressing is the future composition of the workforce. Both legacy T/M/S and new Fleet Readiness Squadrons (FRS) must have qualified technicians and pilots to maintain and fly aircraft. Identifying maintainers to train on legacy systems is a challenge. In addition, manning for the new airframes are

growing and/or changing and some have higher security requirements.

Other challenges include:

- The shortening of legacy systems' lifecycles due to operational tempo;
- Scheduling the modification of aircraft carriers;
- Equipping the Ford-class carrier;
- Supporting legacy aircraft;
- Timing the introduction of new airframes (In some cases, Operational Evaluation (an aircraft's final test phase before fleet introduction and delivery) overlaps FRS standup (transition must happen at the FRS 12-18 months before squadrons receive the new airframes));
- Identifying correct basing requirements;
- Identifying funding for non-programmed transition costs for facilities.

"The MAP will give guidance to leadership responsible for a T/M/S transition and help expedite the decision making process," said Nichols. ■

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Maintainers from the Naval Air Technical Data and Engineering Service Command North Island and Naval Air Systems Command attach cables to the number two engine of an SH-60B for an evaluation of the wiring test set.

this staggering issue.

Depending on the type of work initiated, squadrons continued to report and maintain records for their aircraft while it was in PMI, reducing the effectiveness of flight line operations and impacting the quality of work at the O-level. Additionally, aircraft typically entered the depot in a flying status and left on a “stretcher,” leaving O-level technicians to tackle the time-consuming rebuild process. Technical directives and periodic maintenance were the responsibility of O-level technicians – essentially stopping work at the depot while they waited for the reporting squadrons’ maintainers to complete their work. The process was flawed, strangled by work-in-progress, wait time, readiness degrading outsourcing, and an inability to deliver the desired product to the customer.

Using CPI toolset to close RFT gaps

Keegan and her team began an

in-depth analysis of the entire process, using the tools of Lean Six Sigma methodologies, as well as the Theory of Constraints. After designating important metrics that could accurately quantify the shortfalls of the PMI process, her team determined that the current system contributed to a continuous ready for tasking (RFT) gap of seven aircraft, contained as many as nine in-progress builds, and resulted in an average post-PMI O-level build time of 45 days. The monumental levels of work in-progress seriously degraded the ability of squadrons to send out detachments with properly-groomed aircraft.

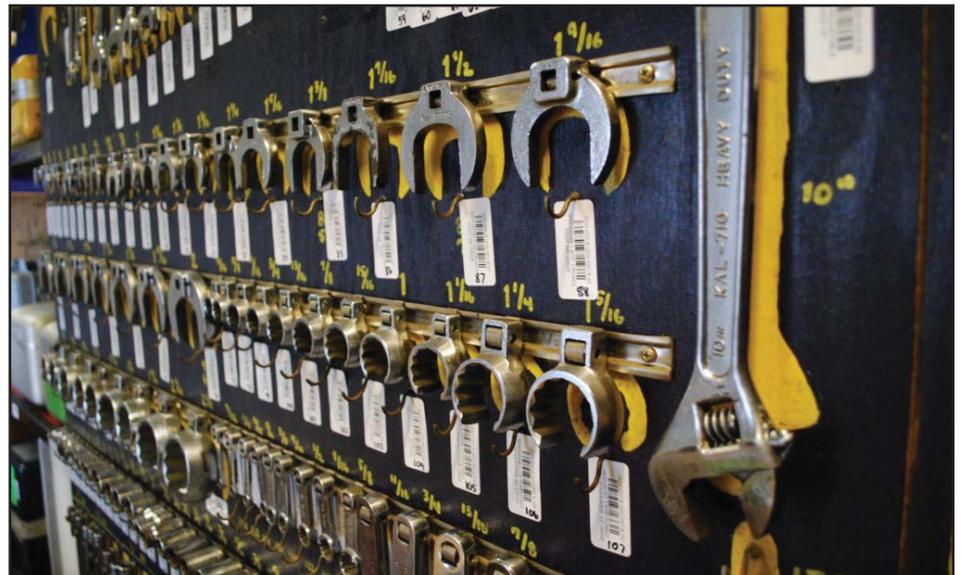
One of the first steps in correcting the problem was to determine what the O-level could do to reduce their cycle time. They educated themselves on use of the Maintenance Repair Card exclusion list and, in conjunction with FRC Southwest, found the best times to perform concurrent maintenance – i.e., special inspections, phase maintenance, and pending technical directives. These efforts, in addition to an active participation by the squadrons and wing, enabled everyone to strive for the same goal - return post-PMI

aircraft to a flying status in less than 21 days. The most important reason for meeting this goal was to ensure post-PMI aircraft did not contribute to an RFT gap.

Planned Maintenance Interval (PMI) is an in-depth two-part inspection of an aircraft’s various systems. PMI 1 is conducted after 40 months of an aircraft’s operational life, at which time engineers inspect all functions of an aircraft. PMI 2 is much more rigorous and is conducted 40 months after PMI 1 is completed. During both phases of PMI, aircraft undergo inspections and repairs to prevent excessive damage and to correct problems before they make an aircraft non-flyable.

The team’s final product was a data-based simulation that predicted the outcome of a refurbished PMI process, one where depot technicians performed more “over and above” work and took custody of the process from start to finish. By revising the technicians’ responsibilities, as well as extending the interval between inspections from 36 to 48 months, the wing

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Equipment in HSM-41’s Tool Room is organized using a barcode system to ensure perfect accountability.

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could expect to gain eight months of additional operational availability over the lifetime of the airframe, an additional 3,500 O-level man-hours reinvested to the flight line, and a RFT gap reduction of 85 percent. For a nominal increase in baseline cost, the team made some simple adjustments that provided significant readiness gains and returned post-PMI aircraft to a flying status in under 21 days. More concrete numbers suggested that the effort will provide Type 2 savings of more than \$350 million over the lifespan of the entire fleet of aircraft.

The focus of HSMWINGPAC doesn't necessarily follow the traditional measure of success for Lean Six Sigma implementations. Although cost-efficiency is a driving force, the

ing what changes they can implement now that will save money and man-hours over a long period of time.

Since their first success, numerous initiatives have begun at both the organizational and operational level. HSMWINGPAC has made it a priority to introduce all Sailors to the foundations of *AIRSpeed*, and has mandated Yellow and Green Belt training for a percentage of personnel in every squadron. With this policy, they are looking to further align their command strategic objectives with those of the NAE, and instill a motivation for process improvement at the squadron level.

At HSM-41, the MH-60R Fleet Replacement Squadron, the tool room recently underwent a massive over-

haul. There were noticeable deficiencies in the legacy process, specifically ones that caused 45-minute wait times at the beginning of shifts and a logbook tracking system that left accountability to the whim of the operator. However, before they could fix the problem, they needed to get to the root of it.

After using the *AIRSpeed* toolset, they acquired a barcode scanner tracking

system for all tools and hazardous materials, ensuring accountability and reduced variation in their process. They used 5S housekeeping to design the tool room ergonomically, reducing operator processing time and further decreasing variation. Over an eight-month introductory period, the average customer wait time (ACWT) at the beginning of shifts dropped an average of 75 percent; to date, a single

tool hasn't been lost.

In the theme of continuous process improvement, more features were added to the tool room's barcode software – alerts for low levels of consumables, triggers sent to custodians responsible for equipment, as well as prompts for certain equipment that required completion of pre-operational checks. Because HSMWINGPAC was so pleased with the experiment at HSM-41, they have begun to implement the barcode tracking system in every squadron. They expect to avoid costs of up to \$800,000 per year, per squadron on military and contract man-hours that will be reinvested into maintenance. Based on its success, more aviation squadrons could soon be using a faster, more reliable system to maintain tools and hazardous materials with perfect accountability.

Beyond the frontline

The HSM community must partner with other organizations to achieve its desired goal of holistic process improvement, mainly because it relies on so many entities to provide its supply support, systems integration, and logistical needs. When confronted with the task of improving the ready basic aircraft (RBA) rate for deployed units, the organization needed to look beyond its frontline personnel.

By focusing on one of the root causes of RBA degraders – supply deficiencies in the Pack-Up Kit (PUK) for deployed detachments – HSMWINGPAC partnered with Fleet Readiness Center Southwest (FRCSW) and Aviation Supply Depots in Atsugi, Japan; Kaneohe Bay, Hawaii; and Bahrain to determine the shortfall of supply support to deployed units. Average customer wait time for detachments with non-mission capable/partial mission capable supply issues exceeded the model set by the Naval Inventory Control Point, partially due to the uneven distribution of available parts. By recalculating the allowances for Atsugi, as well as increasing the range and depth of the PUKs in Bahrain, the



In the HSM-41 tool room, AM1 Elwin Gill scans the ID card of AD3 Von Albano to verify custody of his tool request. Gill is wearing the year-round service uniform for Sailors E-6 and below that (along with the Navy Battle Dress Uniform) is replacing the utilities, wash khaki, coveralls, woodland green, aviation green, winter working blues and summer whites. The transition to the new uniforms will be completed by December 2010.

organization is measured on its ability to provide combat-ready units to strike group and fleet commanders. Cost effectiveness plays a part when HSMWINGPAC is able to provide the right force, at the right time, for the right cost. Many of their measures are focused on total ownership costs – capturing data that evaluates the true cost of doing business over the lifecycle of an airframe, and determin-

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wing yielded \$25 million in cost avoidance and a decrease in ACWT of 4 days.

The real win? A 13 percent increase in the rate of fully mission capable aircraft – a tough feat considering the numerous factors that contribute to readiness metrics.

Resolving a “head-hurter” and RFT degrader

Still, HSMWINGPAC must look toward improvement for the entire community, not just the squadrons under their purview. One of the more frustrating issues is the time spent troubleshooting aircraft electrical problems as a result of aging wiring in the airframe. This has been a constant battle for all naval aircraft which paved the way for the NAE’s “Tired Wire” initiative. HSMWINGPAC began its work with stakeholders in the H-60 community and is now pursuing an electrical test set that can analyze individual wires for faults, an incredible tool that will



Capt. Don Williamson, HSMWINGPAC commander (right, in flight suit), speaks to the stakeholders of the HSL-49 Paraloft 5S improvement project.

eliminate the need for trial-and-error equipment cannibalization and save significant amounts in aviation depot-level repairable costs. The program is still in its infancy, but NAVAIR engineers have already adapted the test set for use on the SH-60B. The test set should be available for use on the flight line and during depot-level repairs, enhancing the ability of operational squadrons to groom their aircraft before heading out on long

deployments and the abilities of depot-level activities to discover wiring issues while an aircraft is already torn apart.

As part of a community at capacity and in transition, HSMWINGPAC has a long road ahead. By 2017, the HSM community will grow from 17 to 24 commands and increase their total number of aircraft by 90 percent. Without oversight to ensure quality and readiness objectives are achieved, the road will also be a rocky one. However, their efforts in streamlining

and optimizing their current processes will not only make the transition easier, it will create a culture that strives to constantly improve. Capt. D.E. Williamson, HSMWINGPAC commander, has laid out a strategy that will allow all of the community’s stakeholders to understand the road ahead. With the help of AIRSpeed and an environment of CPI, those goals will become a reality. ■

Links of interest

1. The Navy is recognized as a Top 50 Employer
A Daily News Update video on the American Society for Training and Development recognition.
<http://www.navy.mil/swf/mmu/mmplyr.asp?id=12717>
2. Naval Aviation Soars in Podcast, Blogs
http://www.navy.mil/search/display.asp?story_id=46118
Carrier-based aviation is the featured topic in the Commander, U.S. Pacific Fleet Rat-Pac Report podcast posted June 10 and was a topic of discussion among Hawaii bloggers.
3. CNP Releases Podcast on Enlisted Learning and Development Strategy
Learn about the initiative to reinforce the proper education and training at the right time in a Sailor’s career to ensure upward mobility.
http://www.navy.mil/search/display.asp?story_id=46116
4. All Hands magazine – June edition
This issue focuses on Total Force
<http://www.navy.mil/media/allhands/acrobat/AH200906.pdf>
5. Fleet Readiness Center Southwest Nominated for Robert T. Mason Award
The recognition is presented to a depot-level maintenance program which has distinguished itself through innovative and outstanding support to DoD operating units
<http://www.cnaf.navy.mil/airspeed/default.asp?PressReleaseID=53884>