

Current Readiness & Enterprise AIRSpeed Newsletter



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USS George Washington (CVN 73) photo by Mass Communication Specialist Seaman Adam K. Thomas.



An exchange of ideas, visions

Vice Adm. Thomas J. Kilcline Jr., Commander, Naval Air Forces (left), is joined by Vice Adm. David J. Venlet, Commander, Naval Air Systems Command, as he offers opening remarks during Office of Naval Research-Naval Aviation Enterprise Day on Oct. 30. The event was part of the Office of Naval Research's (ONR) outreach effort to provide Navy and Marine Corps commands and organizations a forum to learn about ONR, discuss science and technology objectives, conduct gap analysis of current capabilities and explore future opportunities. Lt. Gen. George J. Trautman, III, Deputy Commandant for Aviation, also attended the event. The flag and general officers are Naval Aviation Enterprise co-leads. (Photo by John F. Williams, ONR)

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Transformation on the horizon

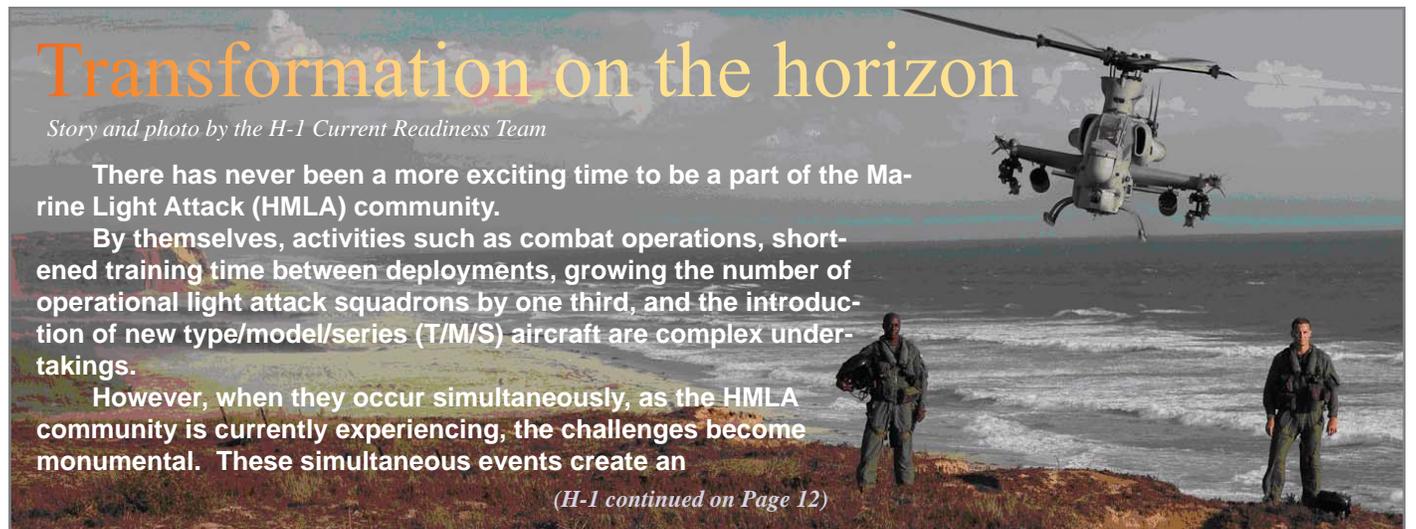
Story and photo by the H-1 Current Readiness Team

There has never been a more exciting time to be a part of the Marine Light Attack (HMLA) community.

By themselves, activities such as combat operations, shortened training time between deployments, growing the number of operational light attack squadrons by one third, and the introduction of new type/model/series (T/M/S) aircraft are complex undertakings.

However, when they occur simultaneously, as the HMLA community is currently experiencing, the challenges become monumental. These simultaneous events create an

(H-1 continued on Page 12)



BoG/D goes back to where it all began

Japan is considered by many to be the birthplace of continuous process improvement (CPI) in Naval Aviation. It is where a Marine assigned to Marine Aviation Logistics Squadron (MALS) 12, armed with a book on the Theory of Constraints and his leadership's support, helped increase flight line readiness at Marine Corps Air Station (MCAS) Iwakuni and set into motion the beginnings of what would become known as AIR-Speed.

More than a decade later, four sites in Japan – Aircraft Intermediate Maintenance Detachment (AIMD) at Naval Air Facility (NAF) Atsugi; USS George Washington (CVN 73) homeported at Naval Air Station Yokosuka, Japan; MALS-36 at MCAS Futenma; and MALS-12 located in MCAS Iwakuni – hosted “Boots-on-the-Ground” (BoG) and “Boots-on-the-Deck” (BoD) site visits in September.

Two Naval Aviation Enterprise (NAE) co-leads tag-teamed the event: Vice Adm. David Venlet, Commander, Naval Air Systems Command, visited NAF Atsugi and USS George Washington; and Lt. Gen. George Trautman, III, Deputy Commandant for Aviation, visited MALS-12 and 36. They were joined by representatives from Naval Inventory Control Point; Commander, Naval Air Forces; Commander, Naval Air Forces Atlantic; Office of Naval Research, Naval Air Systems Command; Headquarters, Marine Corps; and contract support.

And just like their counterparts in CONUS, the four commands presented their successes, their common and unique issues to NAE leadership. You will find accounts of the week-long tour below and on Pages 6 through 11.



Story, photographs and illustration by Jacquelyn Millham
Current Readiness/Enterprise AIRSpeed Public Affairs

Preparing for a change in scenery

Change and transition were two words that dominated Naval Air Facility (NAF) Atsugi's “Boots-on-the-Ground” site visit on Sept. 17.

That's because Carrier Air Group (CVW) 5, which is currently assigned to NAF Atsugi and deploys aboard USS George Washington (CVN 73) homeported at Naval Air Station Yokosuka, Japan, is sched-

uled to move to Marine Corps Air Station (MCAS) Iwakuni in 2014. The move will transform the way aircraft maintenance is conducted at several activities throughout Japan. Helicopter Maritime Strike Wing (HSL) 51 will remain in NAF Atsugi.

Sailors and Marines won't be the only ones affected by the move: Twenty-eight percent of Japan's population lives within three nautical miles or less

of the installation.

The increase in distance and the creation of a satellite Aircraft Intermediate Maintenance Detachment (AIMD) to support CVW-5 in Iwakuni, said Lt. Cmdr. Stephen Kehrt, AIMD Atsugi's assistant officer-in-charge, makes optimizing maintenance processes through the use of continuous process improvement (CPI) tools even more crucial.

(Japan/Atsugi continued on Page 4)

Focus on excellence

This is the seventh in an occasional series that focuses on Sailors, Marines and civilians whose outlook, contributions and dedication are driving forces in the Navy and Marine Corps' continuous process improvement efforts. AZ1 Aron Davis, Fleet Readiness Center West Site Lemoore Performance Improvement Branch's leading petty officer and Gunnery Sgt. Thomas Hopkins, Marine Aviation Logistics Squadron 24 AIRSpeed chief, were named the 2009 Master Gunnery Sergeant John Evancho Innovator of the Year and 2009 Enterprise AIRSpeed Leadership Award winner, respectively. For the second time in a row, MALS-11 was named AIRSpeed Site of the Year. All award recipients will be recognized at the DoN Continuous Process Improvement Symposium scheduled for February 2010.

Making effective changes that count

By Jacquelyn Millham, Current Readiness/Enterprise AIRSpeed Public Affairs

Before the Marine Aviation Logistics Squadron (MALS) 24 AIRSpeed Site Core introduced continuous process improvement (CPI) methodologies into Aviation Life Support Systems (ALSS) in 2007, Gunnery Sgt. Thomas Hopkins, MALS-24 AIRSpeed chief, knew that it would be a hard sell. Not only was batch processing ingrained in their culture, maintainers insisted it was the safest way to conduct business.

And after the initial design, the ALSS division chief (Gunnery Sgt. Gregory Teague) insisted that the division's new time to reliably replenish (TRR), set at 17 days and 18 days, was too aggressive. Hopkins, a Six Sigma Black Belt, understood the chief's reticence: He too was skeptical of AIRSpeed when he first heard about it in 2005.

"As we went through the process of designing work centers and how

we do day-to-day business, I realized that we needed to change and this was the best approach to effect that change," he said. "It was really a tool to troubleshoot our own processes and figure out how to make them better."

So Hopkins spent an afternoon with the division chief, reviewing the proposed changes and role playing how repair items would flow through the work centers.

"The division chief started to feel like it was very possible and agreed to give it a shot. Now, he is so bought into the process he has moved his TRRs to six and seven days. At least 90 percent of the items go through the division in that time-frame easily.

"That was my most memorable event," he said.

As the number of positive results began to increase, so did the enthusiasm for AIRSpeed throughout the command. "As time went on and others saw the gains that were being

(Hopkins continued on Page 10)



Gunnery Sgt. Thomas Hopkins earned his Six Sigma Black Belt certification from Villanova University in 2007 and will retire from the Marine Corps in May after 20 years of service.

Black Belt gives, learns lessons

By Jacquelyn Millham, Current Readiness/Enterprise AIRSpeed Public Affairs

To AZ1 Aron Davis, the "P" in "CPI" doesn't always stand for process. His AIRSpeed experiences as Fleet Readiness Center West (FRCW) Site Lemoore Performance Improvement Branch's (PIB) leading petty officer have told him that it can refer to people as well.

People, he believes, are important in any management philosophy. "Focus on the improvement of the culture or people and the improvement of processes will come much more naturally," said Davis.

"If you can capture their hearts you

(Davis continued on Page 5)



AZ1 Aron Davis earned his American Society for Quality/Department of the Navy Black Belt certification after enrolling in Villanova University in April of 2008. While his first encounter with continuous process improvement (CPI) occurred before he joined the Navy when his employer experimented with the Toyota Production System, Davis' interest in CPI was especially piqued when he was assigned to Strike Fighter Squadron 147 and served as a subject matter expert on a phase inspection value stream analysis during AIRSpeed's aircraft carrier implementation prototype aboard USS John C. Stennis (CVN 74).

(Japan/ Atsugi continued from Page 2)



PR2 George Allen (left), Aviation Life Support Systems work center supervisor at Helicopter Anti-Submarine Squadron Light 51, shows Vice Adm. David Venlet, Commander, Naval Air Systems Command, some of HSL-51's flight gear. The work center used continuous process improvement toolsets to analyze its process of inspecting flight gear. Maintainers found that in addition to the inspection that the squadron conducts after receiving the gear from Aircraft Intermediate Maintenance Detachment (AIMD) Atsugi, the equipment also was inspected by the AIMD during its post-planned maintenance interval. After the rework was eliminated, its process time was reduced from 40 days to less than 19 days. During its Search and Rescue Evaluation conducted by Commander, Naval Air Forces, the work center was found to have zero discrepancies and was graded as qualified and outstanding.



Vice Adm. David Venlet, Commander, Naval Air Systems Command (center, in dress white uniform), listens to a representative from the NIPPI Corporation (right, in blue) describe the company's depot-level support for Navy aircraft in Japan.

Since its implementation in December 2007, AIMD Atsugi's overall time to reliably replenish (TRR) has been reduced by 50 percent. Only one Y code was reported from a squadron in 2009 to date, down from 10 in 2008. (A Y code indicates when a squadron returns an unusable component to supply that still requires maintenance.) Expeditious repairs (EXREPS) were down from 45 in calendar year (CY) 2008 to 17 to date in CY 2009.

Other successes include:

- improving the reliability of the Consolidated Automated Support System (CASS) bench from 45 percent to 97 percent, saving repair and return and unnecessary parts cost. This, the command's first Black Belt project, was accomplished by expanding

- its workforce skill sets, fixing maintenance assistance modules and performing weekly input/output pin checks;
- joining forces with Commander, Fleet Air Western Pacific AIMD's AIRSpeed office and Aviation Support Division Atsugi to improve pack-up kit (PUK) management for ships homeported in Yokosuka, Japan. The effort resulted in eliminating unnecessary steps in the requisition process and the development of a procedural guide for PUK management;
- creating and prototyping an electronic Monthly Maintenance Plan (eMMP) to standardize and streamline the process. In addition to eliminating non-value added and redundant steps, routing and approval time was reduced from more than 83 hours to less than 10 hours – an 88 percent improvement;
- working with HSL-51 to reduce its Shore Consolidated Allowance List and ensure the right parts were on the shelf in the right amounts;
- reducing TRRs in numerous shops by redesigning layouts and providing consumables, tools, and Individual Materials Readiness List (IMRL) items at the point of use;
- The AIMD credits the buy-in of its top and middle management to its AIRSpeed Office's proactive initiatives. "Khakis" are required to complete AIRSpeed courses during check-in and participate in Green Belt training and Lean Six Sigma events.

Three projects, generated by feedback from the customer, are currently in work. One is the installation of two mobile nitrogen gas generators to reduce the need for liquid nitrogen procurement and the associated

(Japan/Atsugi continued on Page 6)

(Davis continued from Page 3)

can capture their ideas,” he added.

Davis, who is AIRSpeed’s 2009 Master Gunnery Sergeant John Evancho Innovator of the Year, practices what he preaches.

From May 2008 to May 2009, the American Society for Quality/ Department of the Navy (ASQ/DoN) certified Lean Six Sigma (LSS) Black Belt has taught more than 380 Sailors and Marines, influencing the cultures of more than five commands, including FRCW Site Lemoore, FRCW Site Fort Worth and FRCW Detachment China Lake. He has facilitated Yellow Belt classes, Green Belt classes, and mentored three Green Belts in the application of Theory of Constraints (TOC) design and activation phases.

He was also personally requested by Center of Naval Aviation Technical Training Unit (CNATTU) Lemoore in November 2008 to teach the AIR-Speed Familiarization module of the Senior Enlisted Aviation Maintenance Course and instructed them on how to present it to others. He also helped them incorporate Buffer Management Tool training into the Production Control curriculum. Because of his involvement, FRC Site Lemoore PIB

PRIORITY SCALE SURVEY				
For each question below, circle the number to the right that best fits your opinion on the importance of the issue. Use the scale above to match your opinion.				
Question	Scale of Importance			
	Not at all	Not very	Somewhat	Extremely
Squadron customer demand?	1	2	3	4
Demand by ranking superior?	1	2	3	4
W/C customer demand?	1	2	3	4
Difficulty?	1	2	3	4
Could result in a NRFI or NRFU?	1	2	3	4
Technical Directive? Rank by category: K /R /U /I	1	2	3	4
Time consuming?	1	2	3	4
Awaiting QA follow-up?	1	2	3	4

Core Team members are now involved in all of CNATTU Lemoore’s continuous process improvement (CPI) instruction.

Davis also influenced FRCW Site Lemoore leadership’s decision to integrate the AIRSpeed Operational Training course into the command’s Naval Aviation Maintenance Program (NAMP) indoctrination training. “AIR-Speed was written into the NAMP as a program for Level 2 maintenance, so it made sense to me for it to be a part of NAMP indoctrination,” he said.

Based on student feedback, he

also improved the existing command AIRSpeed Operational Training and better integrated it with the DoN Yellow Belt curriculum.

In June 2008, Davis organized and led an off-duty study group to prepare for the ASQ/DoN LSS Black Belt examination. Thanks to his dedication, all of the candidates from NAS Lemoore passed the test, including three from FRCW Site Lemoore.

But Davis’ expertise isn’t just used to educate his fellow Sailors and Marines. He served as a consultant for CNATTU Lemoore as they were deploying their CPI initiatives. A rapid improvement event on student routing for leave chits and out-of-bound chits, resulted in a significant cost avoidance.

Davis also used his knowledge to apply TOC to Production Control. “While I was attending TOC design training, I was trying to figure out how to apply the concepts to an administrative function because I have a background in that area.

“At that time I was reading through a book required for NAE Black Belt certification – *Lean Six Sigma for Service* – and I learned about Triage Buffers (see sidebar). After I thought about it for awhile it all came together for me. I could see the system working as I was imagining it in my mind,” said Davis.

He designed a visual triage buffer filing system that used a priority scale (see above) to control the release of

(Davis continued on Page 11)

How to develop a triage buffer

- Define who the customer is – a work center, squadron, division officer or even the production control leading petty officer
- Know what your customer’s needs and requirements are
- Collect data to determine your baseline performance
- Know what your customers expect as an acceptable administrative turnaround. (This is where triaging takes place. Not all paperwork can follow the first-in first-out method.)
- Determine the lead time for your time buffer (the physical filing system) by applying Little’s Law which states that under steady state conditions, the average number of items in a queuing system (L) equals the average rate at which items arrive (A) multiplied by the average time that an item spends in the system (W):
L=AW; The inverse of the equation: W=L/A can be used to determine lead time
- A trigger (the “pull” of the system) is created by only releasing work in progress into the hands of workers when something exits the process. (It must be in the hands of the customer or filed away, not queued in an out-box)
- What is released, however, is based off of the priority scale, which in turn, is based on collected data and customer feedback.

Taking CPI into Asian waters

USS *George Washington* (CVN 73) faced a number of obstacles as it started out on its continuous process improvement (CPI) journey in April 2008: a conflagration, a change in homeport and an increased operational tempo.

But in a little more than a year, *George Washington's* CPI activities are well underway, achieving notable results that were showcased during its "Boots-on-the-Deck" site visit on Sept. 18.

The Aircraft Intermediate Maintenance Department (AIMD) saw its overall time to reliably replenish (TRR) reduced from 235 days to 125 days from April 2008 to September 2009. A value stream analysis (VSA) on consumable materials revealed that delivery of many items to the AIMD took more than 150 days. The AIMD team identified the top 50 high-demand consumables and inventoried the ship's supply. An 87 percent decrease in turnaround time was realized after the consumables were procured.

Expeditious repair (EXREP) processing time was down by 49 percent in S6; a rapid improvement event found that a large portion of the processing time was due to transportation. The analysis also found that the induction times were even longer on the weekends because young airmen on pier-side duty did not know what an EXREP was or how to handle it. To improve the process, the induction and delivery process for components was standardized, EXREPs were labeled with their status, and airmen were trained on the new policy. Five daily runs to and from Naval Air Facility Atsugi were also established. It now takes four hours for an EXREP to be delivered to S6 after its induction.

A 5S event yielded a reduction in the Armament Weapons Support Equipment Maintenance Bay's starting TRR from 177 days to nine days. This was accomplished by creating an open space in the work area and relocating tool boxes; developing a standard stowage list that prioritized material handling equipment according to size, weight and use; and designating a work station where personnel could process paperwork.

The Aviation Supply Department (ASD) consolidated RAM and rotatable pool assets, providing a one-stop shop for repairable items and eliminating the need to man the slow-moving items storage room. ASD reconfigured its spaces, repositioned shelving and equipment, and relocated the aviation depot-level repairs and AWP storage areas.

A rapid improvement event (RIE) revealed an inefficient beyond capable maintenance (BCM) routing process that forced technicians and supervisors to leave their duty station to hand-carry forms throughout the ship. Standardizing the routing process resulted in a 49 percent reduction in processing time, a 95 percent reduction in the amount of distance traveled and the elimination of 14 non-value

(Japan/Atsugi continued from Page 4)

process of storing and converting to gaseous nitrogen. The generators will save an estimated \$39,000 a year. The second is the renovation of a corrosion hangar. And a third is the realignment of armament weapons support equipment and assigned billets.

Future activities include:

- offloading legacy automated test equipment. Many of the test equipment's parts are obsolete. The command does not have anyone who possesses the necessary maintenance expertise;
- collaborating with the Support Equipment Division and Fleet Readiness Center West Pacific (FRCWP) Support Equipment Repair Facility on a joint Black Belt project to increase repair capability.

NAE leadership also visited HSL-51 and Strike Fighter Squadron 102. They also toured FRCWP's military and Japanese facilities which oversees aircraft level 3 rework, modification and repair. They also discussed supporting CVW-5 after its move and their need for technical representative support. ■

added steps.

Scheduled events for 2009 included relocating high-demand maintenance assist modules to their point of use; continuing to organize the ordnance department (a previous event more than doubled work-in-progress capacity in the work center from 2 to 5) and support equipment.

More than 15 RIE and VSA events also were conducted aboard ship, including Avionics Shops 8 (Controls, Displays and Indicators), 9 (Electronic Counter Measures), 10 (Electrical), Quality Assurance, and Power Plants in 2008. Technical directives, the APG-73 radar receiver and ALQ-99 transmitter repair processes also were analyzed.

Successfully completed projects also include: standardizing berthing cleaning lockers, reducing the time to muster for man-overboard drills to 12 minutes or less; reducing the APG-65 transmitter's TRR; and improving the routing process for support equipment licensing.

NAE leadership also learned about how a change in policy resulting from a "Boots-on-the-Deck" site visit to *USS Theodore Roosevelt* (CVN 71) in May 2008 had a positive impact aboard *George Washington*.

George Washington recently began to follow a new policy from the Naval Sea Systems Command Weapons System Explosive Safety Review Board (WSES RB) that allowed Common Munitions Bit/ Reprogramming Equipment Built-In Test testing and software upgrade programming on the Joint Direct Attack Munition in the 4th deck magazine areas instead of in the mess deck on 2nd deck. Because of the change, the division was able to produce more ready weapons and has less impact on the ship's crew during meal hours.

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(Japan/ GW continued from Page 6)

The Weapons Division is seeking approval from WS-ESRB to allow testing in the 2nd deck handling transfer areas and 4th deck universal stowage magazines due to increasing testing and space requirements on the 1760/ GPS weapons.

Ship's leadership also spoke about other George Washington successes that have been beneficial to others in the fleet:

- Because of its Sailors' expertise in the IM-2 Composite Shop, George Washington originates 30 percent of all Damage Engineering Dispositions submissions to engineers;
- The IM-3 Avionics Shop electricians were the first to successfully incorporate a critical point of regulation modification to the Aircraft Electrical Component Test Stand bench (AECTS). (AECTS is an integrated test system that provides the capability of dynamic testing of aircraft engine-driven accessories.) This modification not only enabled users to more precisely set generator control unit output voltages, but also helped Fleet Support Team members identify and develop test workaround procedures for fleet-wide incorporation;
- *George Washington's* generator shop was one of two

intermediate maintenance activities afloat to successfully use a flange tube heater and G1 puller to extract, repair and install the rotating mass inside F/A -18 generators;

- While working with Naval Air Technical Data and Engineering Service Command artisans on the APG-65 transmitter and APG-73 receiver, IM-3 Avionics Shop Sailors discovered a contamination problem with the bench's Polyalpha Olefin (PAO) coolant liquid. They found the biodegradable oil's excellent heat transfer properties were compromised when water was introduced and that the stock from the vendor was contaminated enough to produce problems. The work center implemented a procedure to filter incoming transmitters and Consolidated Automated Support System benches prior to testing these assets, leading to a significant decrease in transmitter and aircraft cross-contamination. George Washington's leadership and NAE representatives also discussed the need for an environmental-compliant waste operation aboard ship, temperature control in the catapult room and the scheduled move of CWV-5 to MCAS Iwakuni. ■

The "Bladerunners" of MALS-36 cut TRR

Marine Aviation Logistics Squadron (MALS) 36, located almost 900 miles to the south of Naval Air Facility Atsugi on the island of Okinawa, hosted its "Boots-on-the-Ground" (BoG) site visit Sept. 21.

With the use of continuous process improvement (CPI) methodologies, the command realized:

- a reduction in the maintenance department's overall time to reliably replenish (TRR) average from 27 days to 10 days;
- a two-day and six-day TRR in S1 (time ordered) and S2 (time inducted), respectively, down from seven and 11 days. The engine repair cycle TRR is currently 51 days; the dynamic component repair cycle's TRR is 10 days and the engine test facility's TRR is four days;
- a reduction in the Electrical/Instrument Branch's



Navy Capt. Michael Kelly, Commander, Naval Air Forces Force Aviation Maintenance/Material Officer (left, in khaki uniform), describes how CONUS Fleet Readiness Centers support Marine Corps Air Station Futemna's aircraft maintenance activities to Lt. Gen. George Trautman, III, Deputy Commandant for Aviation, and "Boots-on-the-Ground" attendees.

TRR from its initial 43 days to 12 days.

A building renovation provided airframe maintainers an opportunity to redesign work spaces. Using data from a value stream analysis, rearranging pre-expenditure bins and relocating work centers, the Marines were able to reduce the TRR in the structures shop from 31 days to seven days, beating the original target TRR of 18 days.

The Tire/Wheel shop's TRR is currently 17 days, down from 37 days. This was accomplished by allowing direct delivery of tire and wheel parts to the shop instead of Main Production Control.

The T-58 Engine Shop's TRR is now 43 days, down from its initial TRR of 71 days. Consumable Management Division now delivers to the work center instead of Production Control, eliminating no-value-added trips

(Japan/MALS36 continued on Page 8)

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to supply due to incorrect parts. The Communication/Navigation Branch's TRR was reduced from 44 days to 19 days. This was accomplished by redesigning tool boxes and placing point-of-use tools in the work centers, setting up work centers' assembly lines according to volume of gear, and by removing obsolete test equipment and unneeded individual materials readiness and individual component repair lists.

The Modular/ Microminiature Repair Branch was moved between the Communication/Navigation Branch and the Electrical Instrument Branch to improve the flow of repairs among work centers.

Cyrogenics reduced its contractor's servicing time from 1-1/2 hours to 20 minutes by manufacturing a longer servicing hose and relocating its 400-gallon liquid oxygen tanks to where squadrons off-load and store their equipment.

Supply developed a standard operating procedure for organizational-level (O-level) expeditors to improve service to the customer. The document will help O-level maintainers increase their material control effectiveness and reduce errors. MALS-36 Marines plan to continue to work with the squadrons to streamline their aviation logistics processes.

BoG attendees also visited Marine Aerial Refueler Transport Squadron (VMGR) 152, one of three squadrons in the first type/model/series to undergo End-to-End implementation. (Go to <http://airspeed.ahf.nmci.navy.mil/end2end.asp> for more information on End-to-End.) VMGR-152 leadership spoke about the need for experienced Marines in ordnance, spare parts for the KC-130J and the squadron's temporary move during its hangar upgrade and NAS Futenma's runway repairs.

MALS-36 leadership and NAE

MALS-12 continues a legacy

Marine Aviation Logistics Squadron (MALS) 12 prides itself in being the birthplace of continuous process improvement (CPI) in Naval Aviation. (See <http://airspeed.ahf.nmci.navy.mil/history.asp> for more information). The same drive possessed by CPI's plank owners ten years ago to better service the customer through the use of AIRSpeed toolsets still resonates throughout the command. Naval Aviation Enterprise (NAE) leadership saw this first-hand during MALS-12's "Boots-on-the-Ground" site visit on Sept. 22.

MALS-12 Commanding Officer Lt. Col. Jonathan Gackle said a strong foundation, "LEAD-Speed" as he characterizes it, must be set before the full, widespread benefit of AIRSpeed can be realized. The most important component of that foundation is having the proper attitude. Gackle said another foundational element that transcends AIRSpeed successes at MALS-12 is empowerment of the non-commissioned officer and the mentoring of his or her workforce. Finally, Marines must also have the right skill sets.

To ensure a properly-trained workforce, the squadron developed a "MALS Core Competency" model that establishes a standard for qualifications, certifications and licenses required to complete the entirety of its aviation logistics support mission, to include operations planning and execution, embarkation, ordnance, maintenance and supply. The development of a core com-

petency standard has increased the squadron commander's visibility into the health of the workforce, identified areas of potential vulnerability, and increased leadership's overall engagement in the aviation logistics support process.

By definition, the MALS-12 mission is to provide aviation logistics expertise, planning, and material to Marine Air Group (MAG) 12 and its subordinate tactical aircraft squadrons in order to support operational contingencies, theater security cooperation

(Japan/MALS12 continued on Page 9)



Lt. Gen. George Trautman, III, Deputy Commandant for Aviation, shakes the hand of Pfc. Eric Boerschinger, GE F404 jet turbine engine collateral duty inspector, during a tour of Marine Aviation Logistics Squadron 12 Power Plants Division.

representatives discussed the short tours of junior Marines; the knowledge base and qualifications of incoming Marines; the accessibility of hazardous material facilities onboard ships; managing logistics aboard L-class ships; transportation of materials to

the island via sea van; thresholds for ordering low-volume materials; multiple web sites used by Aviation Life Support System to maintain gear; and the limited number of seats at the welding school. ■

(Japan/ MALS12 continued from Page 8)

plans and training exercises in the Pacific Command area of responsibility (AOR). Their AOR stretches across 13 million square miles, from Alaska to Australia and Hawaii to Bangladesh. The distances between deployment sites combined with an increasingly high operational tempo creates unique challenges in delivering parts and aviation support equipment.

To achieve operational objectives, MALS-12 has embraced the continuous process improvement methodologies of *AIRSpeed*. Not limiting their application of *AIRSpeed* methodology to simply maintenance and supply, they have successfully applied CPI to all aspects of readiness and deployability throughout the MALS.

Since the Enterprise Project



Sgt. Jonathan Cauthers, work center supervisor for aviation weapons support equipment at Marine Aviation Logistics Squadron 12 (right), describes required maintenance for the Joint Direct Attack Munition (JDAM) during “Boots-on-the-Ground.” Two JDAMs attached to a BRU-55 Bomb Rack are pictured in the forefront of the photo. More than 16 different types of gear and 1,381 pieces of armament equipment can be tested by the MALS’ Common Rack and Launch Test Set (CRALTS). The wear and tear on its testing equipment due to constant use was discussed during the site visit.

Alignment Tool (EPAT) was introduced to MALS-12 in September 2008, they’ve made deliberate efforts to link each *AIRSpeed* project with the commanding officer’s goals. Using Gackle’s “Pyramid to Success” and with input from department heads and other process owners, they have developed a list of viable, value-added projects for the next 12 months. These projects span the aviation logistics continuum, from decreasing time to reliably replenish (TRR) to increasing individual and embarkation readiness. Each is geared to the ultimate objective: mission success at MAG-12.

From a maintenance department perspective, the squadron is committed to providing the best aviation logistics support to the service members who maintain, operate, and arm the aircraft assigned to MAG-12. Resolved to affect increased readiness on the MAG-12 flight line, the Maintenance Department aggressively pursues four major goals: 1) zero expeditious repairs; 2) zero critical items due-in-from-maintenance; 3) meet or beat design TRR, and; 4) maintain inspection-ready programs.

Until recently, the Maintenance Department had only pursued *AIRSpeed* projects aimed at improving process performance and reducing TRR. Focusing attention on these four goals and applying drill down methodology based on equipment operability code and work unit code, the maintenance leadership believes the resultant benefit will be reduced gaps in aircraft ready mission sets.

Success stories within the MALS-12 Maintenance Department that were showcased during the BoG included the following:

- Power Plants Division conducted a rapid improvement event (RIE) that reduced TRR and increased F404 engine productivity.
- Ground Support Equipment (SE) Division applied *AIRSpeed* principles and methodologies to manage scarce support equipment assets against a very dynamic Training Exercise and Employment that requires critical SE to be

spread across an expansive AOR.

- The Ordnance Department collaborated with MAG-12 and the Station Continuous Process Improvement Office to produce a classified inert ordnance storage solution that saves time, money and manpower.
- The Avionics Division completed an *AIRSpeed* project that decreased delivery time of classified and Electronic Key Measure Systems assets from CONUS.

In the MALS-12 Aviation Supply Department BOG participants were briefed on success stories in the following areas:

The Supply Shipping Branch conducted an RIE to reduce and eliminate carcass charges that would otherwise reflect as costs against the MAG-12 flying hour program. The improved process flow and routing of retrograde assets beyond local maintenance capability has resulted in zero carcass charges for three consecutive months since the RIE was completed.

The Material Delivery Unit was created after an *AIRSpeed* event revealed the inefficiency in manning two separate delivery units—one for consumables and one for repairables—within the same Supply Department. By combining the Repairables Delivery Branch and the Consumables Delivery Branch into a single delivery unit, they eliminated redundant processes, saved manpower and improved delivery times to their customers aboard the base.

The Deployment Support Unit has the daunting task of supporting multiple and simultaneous deployments throughout the Pacific AOR. Here, another RIE produced a result that cut packaging time, incorporated use of detachment location flip charts and improved coordination with the Station Transportation Management Office for shipment of gear.

The MALS-12 *AIRSpeed* Office was established in the fall of 2005. Since its inception, 54 events have been conducted mostly focusing on

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(Hopkins continued from Page 3)

achieved, they began to seek the AIRSpeed Site Core out, looking for our assistance,” said Hopkins.

His ability to gain buy-in throughout his command is one reason why Hopkins was named the 2009 Enterprise AIRSpeed Leadership Award winner in July.

Hopkins also was recognized for his work in helping MALS-24 meet Headquarters Marine Corps’ guidance requiring 10-day TRRs for its work centers. Items that failed to meet TRR were reduced from 694 to 173 items. Under his guidance, MALS-24’s overall TRR for completed items has been reduced from 32 days to nine days.

In addition, MALS-24’s operational TRR has decreased from 222 days to 117 days and on-aircraft performance TRR was reduced from 35 days to 17 thanks to Hopkins’ management of the command’s Buffer Management Tool (BMT).

Hopkins also played a major role in the employment of the Enterprise Alignment Tool (EPAT) in MALS-24.

(EPAT is a planning and implementation process tool that aligns organizational- and intermediate-level maintenance CPI activities to the Naval Aviation Enterprise strategic objectives and initiatives.)

His accomplishments and management skills garnered the attention of NAE leadership, leading to the hand-selection of MALS-24 as the pilot for Current Readiness’ “O” (organizational) to “I” (intermediate)-Level Integration.

“We took much of the CH-53D data and used Excel to match and marry the data,” he said. “Right now we pull it from the deckplate, EPAT, and BMT. We also look at aircraft subsystem capability impact reporting hours and what type of maintenance action forms (MAF) generated those hours.”

While analyzing readiness gaps may seem complicated, he said, determining root causes requires nothing more than asking the “five whys.”

There is a lot of detective still work to be done, admitted Hopkins. “How

something is assigned to an equipment operational capability needs to be better defined. The ability to enter additional information on MAFs needs to be expanded. Right now those are our barriers to properly identify readiness gaps,” said Hopkins.

Hopkins said his CPI experiences have not only given him the opportunity to meet people and to have fun, but it also taught him a great deal about group dynamics and the importance of making effective changes that count.

CPI, he said, improves the work life of Marines, but they must ultimately focus on the mission. “Many have said to me that they don’t want to become so efficient that we are not effective. The truth is we need to become efficient at being effective,” said Hopkins.

“I like to tell them that it’s not about making the job easier, it’s about supporting the warfighter better.” ■

(Japan/ MALS12 continued from Page 9)

TRR reduction. All of these projects were recently back-fitted into the Continuous Process Improvement Management System (CPIMS) for historical filing and for shared use by the entire Marine Corps.

Beginning in October 2008, after the Enterprise Project Alignment Tool and MALS-12 Goal Alignment Chart were put into use, the squadron shifted focus to a broader application of AIRSpeed methodologies that aligned with the commander’s unit level strategic priorities—most specifically, core competency in all mission essential tasks and related functional areas of the MALS. The premier AIRSpeed project example that was showcased during the BoG visit was a series of value stream analyses and RIEs conducted to assess MALS-12’s ability to de-complex, pack and prepare mobile

facilities (MFs) for embarkation on short notice.

The MF Rapid Deployment AIRSpeed event revealed two major points of concern. First, there was insufficient hardware to properly prepare the mobile facilities for transport; and second, there was an overall deficiency in trained manpower to complete the task scenario – which was to embark 200 mobile facilities aboard an aviation logistics support ship in a 30-day period.

In response to the hardware and training deficiencies noted, the team produced two items:

1) an MF Packing Kit that consists of a packing instruction brochure, shoring rods, nuts, bolts, tie-downs and other materials required to ensure successful preparation of MFs for embark, and;

2) an MF rapid deployment training video that enables large group familiarization and instruction on de-complexing, packing and preparing MFs for embarkation.

In summary, the emphasis at MALS-12 has been to pursue an expanded application of AIRSpeed principles—to take AIRSpeed to the next level. The squadron has used Lean, Six Sigma, and the Theory of Constraints to help solve the most difficult and unique challenges they encounter as the only permanent, forward-deployed Tactical Air Support MALS in the Marine Corps. The wider application of AIRSpeed has clearly benefited MALS-12 and postured them to better support MAG-12 in its objective to BE the “Ready Group.” ■

Note: MALS-12 contributed to this article.

AIRSpeed IS the normal course of everyday business

By Jacquelyn Millham, Current Readiness/Enterprise AIRSpeed Public Affairs

Almost as soon as Pfc. Roberto Meza, Jr., an aviation ordnance technician with less than a year in the Marine Corps, checked into the Ordnance Department at Marine Aviation Logistics Squadron (MALS) 12, he was ready to work and contribute to flight line readiness without constant attention from his mentors or supervisors.

That's because everything he needed to know about his day-to-day duties within the Ordnance Department's satellite Production Control was in a standard operating procedure (SOP) manual for Production Control.

"It made it easier for me to learn my job," he said, "and get the mission done."

Sgt. Brian Howell, Racks and Launchers Department non-commissioned officer-in-charge, said the SOP, which was recently revised as a

result of a rapid improvement event (RIE), was written so that an incoming Marine can immediately become productive and require only minimum assistance from other

Marines in the office. "Not only are Marines on their first tours unfamiliar with how the command operates, Production Control is not covered in 'A' School. The SOP is color-coded, indexed and gives Marines step-by-step instructions. We also created new AAE [aviation armament equipment] and AWSE [armament weapons support equipment] request forms based on what we learned during the RIE."

Meza, who has always operated in a continuous process improvement environment at MALS-12, didn't know that what he thought was the normal course of business in Marine Aviation maintenance was a result of an AIRSpeed

(Japan/Meza continued on Page 12)



Lt. Gen. George Trautman, III, (left) talks with then Pvt. Roberto Meza (right), an Aviation Ordnance Technician, during a tour of the MALS-12 Ordnance Department. Later that day, Meza, who works in Production Control as an aircraft armament equipment clerk, was meritoriously promoted to private first class and was pinned by Maj. Gen. Raymond Fox, 1st Marine Air Wing commanding general, and Sgt. Maj. Drew Benson, MALS-12 sergeant major.

(Davis continued from Page 5)

work in progress into the department's workload.

One AIRSpeed event that gave him the most job satisfaction was the Support Equipment Tow Tractor Availability Project because of its high impact to the customer. The Define, Measure, Analyze, Improve and Control (DMAIC) project conducted from April to September 2008 determined that the tow tractor's frequent discrepancies were caused by missed repair opportunities during the pre-operational inspection. Davis created a checklist for the inspection and incorporated it into the tractor's issue and receipt process.

Within the next four months, the tow tractor's mean time between failure was increased from 19 days to 30 days and parts costs were reduced. The reduction in maintenance on the

tractor lowered Support Equipment Division's time to reliably replenish by three days.

Davis has also contributed to FRC Site Lemoore's fiscal successes. The PIB Core Team exceeded Commander, Fleet Readiness Center's (COMFRC) projected Fiscal Year (FY) 08 savings by more than 300 percent, realizing a Type 2 cost avoidance of almost \$40 million. To date, they have achieved \$27.2 million in savings surpassing COMFRC goal of \$10 million for Fiscal Year 09.

Davis' experiences and successes have taught him a few professional lessons as well. "Don't count your chickens before they hatch," is one. "We conducted a depot artisan integration value stream analysis in the Artisan Solder Shop. We found a way to reduce a process step that

took 12 hours to 7 seconds. Later we found out that we would not be able to implement the improvement at the command," he said.

"Rely on the facts," is another lesson he has learned. "Manage by the data and not so much by the traditional gut instinct that we usually rely on," he said.

CPI has impacted Davis personally, teaching him to continuously improve himself for those that rely on him.

"I also have more patience to listen to others' needs," he said. "Improvement in my organization is about meeting the needs of our people and our customers.

"We are just lucky that our customers are the people at sea defending our nation." ■

(H-1 continued from Page 1)

advantageous environment for the introduction of Current Readiness into the H-1 program and an opportunity to capitalize on its benefits.

Today HMLA squadrons are actively engaged in Operations Iraqi Freedom and Operation Enduring Freedom (OEF) while still supporting Marine Expeditionary Units with HMLA detachments. To meet the increased wartime demand for Light Attack support to ground combat elements, the Marine Corps added two new HMLA squadrons to its operational forces in 2008 and 2009 and plans to add a third in fiscal year 2011.

The new squadrons, which increased the number of operational squadrons by one-third, will need to be equipped and staffed – including aircraft and support equipment. Adding these units to the fleet is part of an initiative to grow the Marine Corps to an end-strength of 202,000 Marines.

The H-1 Current Readiness Team was established in October 2008 to maneuver through the myriad of demands and requirements that accompany this transformation.

Since then, the enterprise behavior of stakeholders, which include active and reserve forces, Naval Air Systems Command, Commander, Naval Air Forces, Defense Logistics Agency and the Naval Inventory Control Point has enabled the Light Attack community to address readiness issues with a unified effort.

The Current Readiness Team understands the importance of exploiting efficiencies as more is being

(Japan/ Meza continued from Page 11)

event. “The first time I realized that the binder was an AIRSpeed improvement project was when I started getting ready for the “Boots-on-the-Ground” site visit,” he said.

He said MALS-12’s preparation for the site visit also showed him how CPI transformed the entire command. “I first realized the value of AIRSpeed when Chief Warrant

Officer 4 Richard Bowers, MALS-12 assistant aviation ordnance officer, took me to practice the Saturday before the BoG. I got to see how it made a big impact on every work center I went to,” he said.

“I learned that AIRSpeed really does help improve work centers,” he said. ■

required of personnel, fiscal, and aircraft resources. It provides an open forum and assists in the coordination of cross-training events. Key team members leverage training opportunities in an attempt to close deficiencies and improve readiness. The metrics and best practices used by the Current Readiness team assist in the efficient management of these limited assets.

Current Readiness has been successful in increasing operational readiness through the improvement of Maintainer Core Competency (MCC). Although operations departments have been tracking the training and qualifications of aircrew for years, maintenance departments did not have the same visibility and emphasis to assess training and qualifications of its maintainers. Preparing the units to meet the dual shift capability standard is crucial as current combat theater requirements require multi-site operations. This can only be accomplished with Marines that possess the proper training and experience.

Another part of the transformation that is equally as exciting is the

introduction of new aircraft – the UH-1Y and the AH-1Z – both of which will increase the capabilities of the HMLA squadrons and their support of Marines in combat. HMLA-367 was recently the first squadron with UH-1Y aircraft to deploy to Afghanistan in support of OEF.

As part of the transition to new aircraft, the Current Readiness team is actively engaged in coordinating the “sundowning” of the UH-1N and AH-1W aircraft. This effort is directed at managing the fleet’s operational aircraft requirements with the overall plan from the program office.

Without a doubt, many challenges remain ahead in Marine Corps Aviation, and in particular the HMLA community. With these come tremendous opportunities to improve the capabilities and practices of HMLA units, which in turn, will serve to benefit Marines on the ground. Our participation in the Current Readiness construct has become an outstanding part of the HMLA transformation and we look forward to continuing actions for improvement. ■

Links of interest

1. The NAE Charter and the NAE Organizational Structure and Guidance (OSAG)

These documents define the roles and responsibilities of NAE leadership and members and contains information intended to codify the structure and operations of the NAE. (CAC required for access)
<http://n1.fcc.navy.mil/tools/get.aspx?ID=74>

2. VAQ-132 Becomes First Operational Growler Squadron Safe for Flight

The “Scorpions” became the first operational EA-18G Growler squadron to be designated “Safe for Flight.”
http://www.navy.mil/search/display.asp?story_id=48821

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3. Centennial of Naval Aviation Newsletter

The Centennial of Naval Aviation is a year-long celebration of the Navy, Marine Corps and Coast Guard's 100 years of flight. This nationally-sponsored series of events, which will take place throughout 2011, will focus on all aspects of aviation, including aircraft, people, ships and significant events. Click on the links below to learn more about the history of Naval Aviation.

Issue 2: <http://centennial.ahf.nmci.navy.mil/downloads/Centennial%20Newsletter%20Issue%202.pdf>

Issue 1: http://www.aoptero.org/downloads/1st_Centennial_Newsletter.pdf

4. F/A-18 engine team wins Fliedner Trophy

Fleet Readiness Center Southeast and Navy Air Systems Command F/A-18 F404 Engine Team was recognized for developing a risk mitigation strategy to address unrecorded cycle counts on legacy F/A-18 Hornet aircraft engine rotating components.

http://www.navair.navy.mil/press_releases/index.cfm?fuseaction=press_release_view&press_release_id=4202&site_id=7

5. FRCSE restores S-3 Viking for test/evaluation squadron

The S-3B Viking finds new life as a Naval Weapons Test Squadron 30 asset.

http://www.navair.navy.mil/press_releases/index.cfm?fuseaction=press_release_view&press_release_id=4201&site_id=7

6. Rhumb Lines

- **Life Work Integration**

This issue highlights some of the life-work balance initiatives the Navy is undertaking.

<https://n1.ffc.navy.mil/tools/get.aspx?ID=42>

- **Deploying Littoral Combat Ship: Focused-Mission Capability for the Fleet**

This document discusses the decision to deploy USS Freedom (LCS 1) in early 2010 to the Southern Command area of focus and Pacific Command area of responsibility.

<https://n1.ffc.navy.mil/tools/get.aspx?ID=44>

7. DoN CPI-Gram

Learn more about the new version of the software for Continuous Process Improvement Management System in this issue.

<https://n1.ffc.navy.mil/tools/get.aspx?ID=43>

8. Aviation Support Equipment team wins DoD award

The team was recognized for its Consolidated Automated Support System.

http://www.navair.navy.mil/press_releases/index.cfm?fuseaction=home.view&Press_release_id=4205&site_id=29

9. Test Results Promising that Navy Hornet Can Fly on 'Green Fuel'

Read about the successful test of an F404 F/A-18 Hornet engine running on jet fuel made from the camelina plant.

http://www.navy.mil/search/display.asp?story_id=49272

10. Space and Naval Warfare Systems Command Vision Document

Read about the people, systems, and fielded capabilities of C4ISR (Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance), the backbone for both Navy and Marine Corps warfighting readiness and the enabler of needed business processes.

http://enterprise.spawar.navy.mil/cmt_uploads/18/SPAWAR_FIN_linksMED.pdf

11. NAVSEA WOW – October edition

This edition focuses on the Naval Undersea Warfare Center (NUWC) Division, Newport Combat Systems Department's (Code 25) Reliability, Maintainability, and Availability (RMA) follow-up Value Stream Analysis that focused on improving the Readiness Based Sparing (RBS) Part Input File Creation Process and other continuous process improvement activities.

<https://n1.ffc.navy.mil/tools/get.aspx?ID=83>