HMLA’s first outing defines a new standard

By the HMLA TMS Team

Roughly five years ago, the Marine Corps began transitioning its fleet of AH-1W and UH-1N aircraft to more capable AH-1Z and UH-1Y aircraft. The greatest challenge of this transition has been converting the squadrons without a decrease in support from the Marine Light Attack Helicopter Squadron community (HMLA) to both I Marine Expeditionary Force (MEF) and the deployed forces in Afghanistan. In order to accomplish this feat, squadrons have been going through the transition / conversion process in strides without a corresponding downgrade of squadron operational status.

Defining a new standard

There is not a distinct moment when the new squadron ‘stands up’ and once again becomes a MEF asset. Instead, the H-1s continue to serve the MEF throughout its entire transition. The advantage of this approach has allowed upgraded platforms outfitted with ad-

(Outing continued on Page 4)
Reserves deploy to the MQ-8B’s capability

Written by Mass Communication Specialist 2nd Class Ron Kuzlik, Commander, Naval Air Forces Reserve Public Affairs

Editors’ note: This article, submitted by Commander, Naval Air Forces Reserve and the second one in four months, tells us about the role the reserves are playing in the introduction of one of the Navy’s newest platforms to the fleet, the Navy MQ-8B “Fire Scout.” The Naval Aviation Enterprise was briefed in April on the fielding of the unmanned aerial vehicle’s Bravo and Charlie variations, including their manning, manpower qualifications, training pipelines, and procurements.

When the guided missile frigate USS Simpson (FF 56) departed Naval Station Mayport, Fla., in mid-January for a six-month deployment, it was carrying a special payload in its hangar bay instead of the usual SH-60B LAMPS Mk III Sea Hawk helicopter.

Two MQ-8B Fire Scout Vertical Take-Off Unmanned Aerial Vehicles (VTUAV) were embarked aboard Simpson.

Although the Fire Scout is unmanned, it still needs a pilot and an aircrew to operate, and a cadre of support personnel including maintainers and administrative and logistics staff.

In this Reserve component-led detachment hosted by the “Jaguars” of Helicopter Anti-Submarine Squadron Light (HSL) 60, two full-time support, 17 selected Reserve (SELRES) and three active component Sailors went through specialized training to prepare them for operational testing and maintenance of the Fire Scout.

According to Detachment (Det.) 4 Administration Officer Lt. Cdr. Jeremy DeYoung, the Reserve personnel come from a variety of commands and from many different Navy Operational Support Centers (NOSCs).

There are a variety of different skill sets the Reservists bring to the mission.

There are aviation machinist’s mates, aviation electrician’s mates, aviation electronics technicians, an aviation ordnanceman, and an aviation maintenance administration man.

They come from as far away as NOSCs in Charlotte, N.C.; Corpus Christi, Texas; Knoxville, Tenn., Louisville, Ky., Pittsburgh, Pa., West Palm Beach, Fla.; and Wichita, Kan.

Some are from the “Jaguars” and others are from the “Proud Warriors” of HSL-42, the “Red Wolves” of Helicopter Sea Combat Squadron (HSC) 84, the “Seahawks” of Helicopter Maritime Strike Squadron (HSM) 41; the “World Famous Swamp Foxes” of HSM-74; the “Fighting Omars” of Fighter Squadron Composite (VFC) 12; the “Eagles” of Fleet Logistics Support Squadron (VR) 46, the “Skyliners” of VR-48, the “Conquistadors” of VR-57, and the VR-59 “Lone Star Express.”

“We have been recruited from across the country for this unique Fire Scout detachment and its mission,” DeYoung said. “We are different in that we are not performing a normal mission of the squadron (or command) that we are attached.”

Lt. Cmdr. Darrel Capo from Cross City, Fla., is attached to HSL-

(MQ-8B continued on Page 5)
Volume_10_Issue_1_Posted_January_2012.pdf), HSMWP tackled another readiness degrader identified by Current Readiness metrics: degraded troubleshooting expertise in its junior workforce. Further analysis revealed a more complex problem with several contributing and compounding factors.

First, in part due to the Top Six Roll Down (an initiative that reduced the percentage of Sailors in the E-4 to E-9 pay grades) and Navy Enlisted Retention Boards, HSMWP leadership found themselves to be working with fewer and more junior Sailors in an environment of increasing operational tempos. As a result, squadrons were unable to send Sailors to the two- to three-week training courses at the Center for Naval Aviation Technical Training Unit at North Island (CNATTU NI).

Due to Navy Personnel Command business rules, junior Sailors were ineligible to attend maintenance technician career courses. Career technicians who returned to the HSM community after an assignment outside of the H-60 Type/Model/Series also faced similar challenges. HSMWP required an expeditious solution that would increase maintenance knowledge and proficiency of its inexperienced workforce and qualify personnel quicker than traditional means.

**Tailor made**

CNATTU NI changed its training approach to meet customer requirements. Working with the Naval Air Technical Data and Engineering Service Command (NATEC), it began packaging its training based on the squadron’s needs. The training does not cover the entire curriculum, only the topics the Sailors need to increase technical proficiency and/or complete personnel qualification standard (PQS) requirements to become a collateral duty inspector. There are several benefits to the abridged courses. First, it provides the opportunity for CNATTU instructors and NATEC representatives to teach at the squadrons. Technicians are able to stay in their work centers. Sailors busy preparing to go on deployment can easily update their skill sets. Second, aircraft maintenance trainers which are equivalent to aircraft simulators are often used as a training aid, enabling the instructors to demonstrate the techniques they are teaching and keep aircraft online and available for sorties. Third, classes are also offered during evenings and on weekends, providing instruction to Sailors assigned to those shifts.

Squadron commanding officers have also authorized two-day stand-downs each quarter to provide H-60 training for all rates and personnel qualification standards sign-offs.

“The H-60 Program Office at the Naval Air Systems Command (NAVAIR PMA-299) has worked very hard with us with regards to training aids,” said Cmdr. Kevin Ferguson, CNATTU NI commanding officer. “This has resulted in substantial returns on investment in the production of NEC [Naval Enlisted Classifications] rated technicians and the monthly maintenance training for our H-60 warfighters.”

CNATTU NI has partnered with H-60 warfighters to train on the Naval Air System Command aircraft maintenance trainers and simulators when it is not being used for NEC production.

“There are tremendous resources available to the warfighter — trainers, simulators, laboratories and personnel. There are more than 60 H-60 multi-system targeting...  

(TRIAD continued on Page 6)
advanced capabilities to be introduced quicker, albeit in smaller numbers. This introduction has resulted in greater on-station time, significant increases in Hover Out of Ground Effect (HOGE) useful loads (39 percent for AH-1Z, 68 percent for UH-1Y), and impressive increases in sensor capabilities. (For more information, see sidebar: “Explain that to me and tell me why it’s important”)

The Ground Combat Element (GCE) is now very familiar with the UH-1Y’s capabilities, as it has supported sustained combat operations since November 2009. In November 2011 the AH-1Z made its maiden deployment alongside the UH-1Y with the 11th Marine Expeditionary Unit (MEU). As of February 2012, the AH-1Z and UH-1Y have supported Theater Security Cooperation exercises in five countries and the Yankee and Zulu have demonstrated outstanding readiness (89.9 percent and 94.4 percent mission capable, respectively) throughout the deployment.

Changing perceptions and defining their own path

Though thoroughly tested throughout a wide spectrum of environmental and climatic conditions, all new platforms will experience some level of “discovery learning” as they are operated in varying regions throughout the globe. The AH-1Zs and UH-1Ys deployed with the 11th MEU broke new ground recently when they operated in the tropical environments of Cambodia and Malaysia during the monsoon season. While the problems encountered were surmountable, the amount of humidity and rain water created new challenges for the H-1 team. Issues that were encountered were captured, documented and reported via established communications to key members of the H-1 Current Readiness Team, squadron commanding officers and maintenance officers. The challenges that were overcome during this three-week period proved the value of embarking dedicated civilian contractor support and gave credence to the creativity, adaptability and flexibility of the aircrew and maintenance personnel.

Discovery learning

The transition to the UH-1Y has had the positive effect of renewing the Huey’s utility role in the mind of the Marine Air-Ground Task Force. In the waning years of the UH-1N, both ashore in Afghanistan as well as afloat with MEU detachments, the older venerable Huey faced performance limitations. Introduction of the Yankee quickly resulted in a paradigm shift for those familiar with the UH-1N’s limitations.

A similar change is occurring as a result of the AH-1Z’s introduction. The Red Dragons of Ma-
60. He is the detachment officer in charge (OIC). He is also one of the AVOs, or air vehicle operator, who flies the Fire Scout.

“I wanted to do something different. This was an opportunity to get involved on the ground floor of an evolution in Naval Aviation. That sounded more interesting than doing the same ’ole thing one more time,” Capo said.

Aviation Machinist’s Mate 3rd Class David Magnus is from North Huntington, Pa. He is attached to the operational support unit at NOSC Pittsburgh.

“I am always looking for chances to make a positive impact on this world. The Navy provides a lot of chances to do that, and this was one of them,” Magnus said. “You can’t help make a positive difference in the world standing by.”

Chief Aviation Structural Mechanic (Equipment) Ronald Baker, from Lakeside, Texas, is from “The Lonestar Express” of VR-59.

“I volunteered to come to the detachment for the experience of working with the Fire Scout VTUAV and get the experience with a new program that will shape the future of unmanned aviation in the Navy,” Baker said.

“Although a program that is still in the testing phases for forward deployed shipboard operations it has been good experience to aid in the development of the program for the future of Fire Scout. With the capabilities that the Fire Scout brings to the fleet and troops on the ground it is a program that has potential to be one of the better tools for joint forces around the world.”

DeYounge explained that the big picture of the Fire Scout detachment goes beyond testing and evaluation of the system.

“We are tasked with supporting our ship with the Africa Partnership Station mission which is to increase regional and African partner nation capabilities, capacities and interoperability which will enable security of African national territorial seas and exclusive economic zones,” DeYounge said.

“Within the greater mission, the Fire Scout detachment concept allows the Navy to contribute to the Department of Defense intelligence, surveillance and reconnaissance mission by putting a mobile and flexible platform within easy reach of a target’s shorelines.”

Det. 4 is working hand-in-hand with Northrop Grumman Corp., the manufacturer, who has the lead on Fire Scout, and other civilian companies that are providing software support to the program.

The Navy is the military partner, with support coming from the Naval Air Program office for Multi-Mission Tactical Unmanned Aerial Systems (UAS).

Fire Scout is designed to operate from air-capable ships like the Simpson and will be followed by final integration and testing aboard the Littoral Combat Ships.

The aircraft is slightly less than 32 feet in length, and stands less than 10 feet tall. Powered by a single Rolls-Royce heavy fuel turboshaft engine, it has a forward speed of 115-plus knots and an operating ceiling of 20,000 feet. It can carry a payload of 600 pounds which could include an electro-optical/infrared sensor and laser designator.

While attached to Simpson, the Fire Scout detachment was responsible for maritime surveillance missions, including visual identification of targets and maritime boarding overwatch.

The detachment faced a variety of challenges that needed to be overcome, DeYounge explained.

“Challenges to training were
heightened by the various backgrounds and the experience levels of the personnel. We have active and SELRES, rotary wing and non-rotary wing, etc., as well as the newness of the system that we are working with.”

Prior to this deployment, HSL-42, an active-duty squadron from Mayport, had two hybrid detachments (one SH-60 helicopter accompanied by two Fire Scout UAVs) for six-month cruises similar to the Simpson deployment.

During flight, the Fire Scout is operated by an AVO and a mission payload operator (MPO). Instead of sitting in the cockpit of a traditional helicopter, the AVO and the MPO sit next to each other at control stations aboard Simpson.

The AVO is the pilot, responsible for navigation, safety, and the overall mission. The MPO is tasked with operating the Fire Scout’s built-in surveillance camera and maintaining operational communication with the AVO. Currently aboard Simpson, Det. 4 has four officers that function as AVOs and three enlisted Sailors as MPOs.

UAS perform a wide range of missions and are used by all branches of the military. They will continue to play an integral role in how the Navy conducts missions from the sea. UAS enhance capabilities and capacity by reducing operational costs and manpower through emphasis on system interoperability and commonality.

Furthermore, since the Navy announced earlier this year the decision to drop plans for a new Medium-Range Maritime Unmanned Aerial System the larger version of the MQ-8B Fire Scout might fill some of the requirements left unfilled.

“Our progress in the realm of unmanned systems permits us to re-imagine naval warfare where manned and unmanned systems work hand-in-hand with the fleet we have today and the fleet we will have tomorrow,” former Chief of Naval Operations Adm. Gary Roughead said.

Chief of Navy Reserve Vice Adm. Dirk Debbink pointed out the unique role that the Navy Reserve has in these new capabilities.

“You look at some of the capabilities hitting our Navy and you find the Navy Reserve is in many ways leading those, including some of the high end things. The first Fire Scout deployments (are) Navy Reserve Sailors who have come together to form that unit to deploy that capability,” Debbink said.

“I am very confident that the Reserve Sailors are involved because they are innovative, because they are agile, because they are ready.”

“I am proud of the role our Navy Reserve component Sailors have been playing in the development and operation of unmanned aerial systems,” Commander, Naval Air Forces Reserve Rear Adm. Chris Sadler said. “These platforms are a growth area where we can add value and support the fleet on a permanent basis for years to come. [These are] Exciting times.”

system/subject matter experts/Navy instructors in every rate from E-5 to E-8 that are here onsite,” said Ferguson.

“CNATTU NI and [Marine Corps Air Station] Miramar also have just finished conducting 5S events on all H-60 labs in the recent year,” he said. “NAVAIR-supplied components from ‘sundowning’ legacy aircraft have been relocated into revamped H-60 labs and fleet training rooms. The Sailors are getting hands-on, practical, real-life training and are becoming comfortable with the components before they reach the fleet.”

The new paradigm is bearing fruit. Recently, CNATTU NI and NATEC representatives taught an informal detachment maintenance officer/chief petty officer class at Helicopter Antisubmarine Squadron Light 49. The training helped to decrease the time to acquire safe for flight (SFF) qualifications for chief petty officers (CPO) who are assigned to detachments and working outside of their community.

An HSM squadron also completed two days of tailored maintenance training in each of their top ranked areas of concerns as identified by the NAE metrics: ready basic aircraft, ready for tasking aircraft, military personnel appropriation and audits, Decision Knowledge Programming for Logistics Analysis and Technical Evaluation data, junior aviation maintenance administration (AZ) training, and SFF qualifications for out-of-community aviation maintenance/production chiefs. It is important to target training at all levels; from the maintenance CPO to the junior AZ with a large amount learning to accomplish.

Plans are underway to replicate the success at other CNATTUs.

“This is just amazing teamwork. The TRIAD process is working,” said Ferguson.
Today’s readiness; tomorrow’s capabilities

Jeff Lewis, Prototyping & Manufacturing Division (PMD) head (with microphone), describes the operational characteristics, overhaul requirements, and performance upgrades to the arresting engine cooler during a site visit by Naval Aviation Enterprise leadership to the PMD facility at Naval Air Warfare Center Lakehurst. Members of the NAE visited Lakehurst in April to discuss the sustainment of the Aircraft Launch and Recovery Equipment system, the transition to the Electro Magnetic Aircraft Launch System, the training and skill sets associated with maintaining the systems, and the future requirements of air wings. Photo by Lakehurst Public Affairs Office.

Submit initiatives for POM-15 to Future Readiness CFT

The NAE Future Readiness Cross Functional Team (FR CFT) is kicking off its annual cycle to gather, score, and champion Future Readiness initiatives for this year’s Program Objectives Memorandum 15 budget submission. Submitted initiatives should credibly demonstrate the ability to improve readiness and/or reduce sustainment costs associated with fielded weapons system platforms and associated infrastructure, now and in the future.

FR CFT initiatives focus on two specific areas:

- Platform-specific initiatives that use credible data to demonstrate a significant readiness impact and/or quantify reduced total ownership cost.
- Big-picture, systemic, cross-platform initiatives that use quantifiable projections to demonstrate a positive readiness impact and/or reduced total ownership cost.

The investment must be within the Future Years Defense Program, proposals must be Technology Readiness Level 6 or higher, and the initiatives must not be a replacement for routine Program Related Logistics/Program Related Engineering and funding, studies, or military construction.

Initiatives should be submitted no later than July 16. Subject matter experts from Naval Air Systems Command and the FR CFT will review inputs. The review is scheduled to be completed by Aug. 15 and a prioritized list of initiatives will be presented to NAE leadership. Initiatives will also be briefed to the Type Commander (TYCOM) Priority Panel for consideration on the TYCOM Priority List. Supported initiatives will be championed in POM 15 budget submission.

Questions and inquires on the submission process should be directed to NAE@navy.mil, Subject Line: FC CFT POM-15 Initiatives.
rine Medium Helicopter Squadron (HMM) 268 Reinforced (REIN) capitalized on their tacit role as the first MEU Aviation Combat Element (ACE) to employ a fully upgraded H-1 detachment (AH-1Z and UH-1Y), by developing new Tactics, Techniques and Procedures for the Marine Corps’ newest aviation platforms. The improved sensor systems and increased payload of the AH-1Z enabled the Red Dragons to build flexible and responsive plans which increased overall support to the GCE. Additionally, the stability, payload and sensors of the UH-1Y led to the refinement of Sniper/Aerial Reaction Force tactics. The new model for raid operations uses one UH-1Y in the traditional Command and Control role and an additional UH-1Y as either a sniper platform, aerial reaction force platform, or a combination of the two. The sniper platform provided a combination of situational awareness through sensors and communication capabilities and precision fires through embarked snipers. The aerial reaction force provided the flexibility of rapid reinforcement insert if required.

As the combat proven AH-1W continues to secure its outstanding reputation with the GCE in Afghanistan and the MEUs, the AH-1Z has already made its mark. Due to its performance throughout the spectrum of MEU missions, the AH-1Z has begun to forge a superlative reputation. The Target Sight System (TSS) on the AH-1Z has significantly increased standoff within an objective area, allowing for earlier “eyes on”, enhancing situational awareness for a raid package without audible compromise. For strike missions, the TSS allows the AH-1Z to maximize the stand-off of their weapon systems and the increased payload allows a section of AH-1Zs to carry the equivalent of a division of AH-1Ws with greater on-station time. The enhanced sensor capability has also contributed to integration between the Blue-Green team in the form of Maritime Interdiction and Defense of the Amphibious Task Force.

The increased capabilities of the UH-1Y and AH-1Z allowed the Red Dragons to exceed expectations during Visit, Board, Search and Seizure (VBSS) and Gas/Oil Platform (GOPLAT) missions. The TSS on the AH-1Z allowed the Cobras’ early acquisition of target vessels well outside audible and visual range. The increased power and agility of the UH-1Y allowed for safer and more flexible employment of the aerial sniper within the VBSS/GOPLAT template, thereby providing a higher level of security and response to the Maritime Raid Force (MRF). HMM-268(REIN) used this template in seven VBSS missions and GOPLAT exercises, completing the most robust VBSS/GOPLAT training package any MEU ACE has encountered to date (Source: Evaluator during the CERTEX out brief).

The future

The first all H-1 Upgrades deployment is approaching the halfway point with a solid record of success through workups and multi-national exercises while deployed. It is expected that the record of success and documentation of lessons learned will continue through the remainder of the deployment and beyond. This valuable information will be passed to the next all upgrades detachment that joined the 15th MEU in February 2012. As the detachment breaks new ground, the ripple effects of the first H-1 all upgrades deployment will be felt and built upon throughout the fleet. The era of the all H-1 Upgrades MEU ACE detachments has begun with an impressive and truly groundbreaking first outing.

A section of AH-1Z conducting ordnance operations aboard USS Makin Island (LHD 8).

An AH-1Z preparing for night operations
Links of interest

1. **Navy's Newest Squadron Prepares for New F-35 Fighters**
   Strike Fighter Squadron 101 is training aviators, maintainers on the Navy’s newest aircraft.

2. **DoN CPI Gram**
   - **April** - In this issue, learn about the first project to be endorsed by the DoN Continuous Process Improvement (CPI) Executive Advisory Board and sponsored by the CPI Executive Committee — Improving Base Support Vehicle and Equipment Management.
   - **May** — Three Marine aviation logistics squadrons took first place in the DoN’s Project Competition. To find out which categories and learn about the other commands that placed, go to: [https://www.portal.navy.mil/comnavairfor/Naval_Aviation_Enterprise/AirSpeed%20NewslettersNewsletter_Repository_2012/DoN_CPI_Gram/May_2012.pdf](https://www.portal.navy.mil/comnavairfor/Naval_Aviation_Enterprise/AirSpeed%20NewslettersNewsletter_Repository_2012/DoN_CPI_Gram/May_2012.pdf)

3. **FRCSE trainer repair team ensures aviator pipeline far into future**
   The modifications to the T-44 required artisans to launch an extensive reverse-engineering effort and replacement of components.

4. **Naval Aviation S&T SITSUM**
   - **April**
     Read about the Jet Noise Reduction Project’s effort to develop noise-reduction technologies, as well as measurement and prediction tools and noise source models to dampen the noisy jet plumes that emanate from naval aircraft.
   - **May**
     This issue features information on the FY12 Rapid Innovation Fund Program and the FY13 Naval Aviation Basic and Applied Research Call.

5. **Rhumb Line - Continuum of Service - Transitioning Between Active & Reserve Components**
   The goal of a continuum of service, one of the five areas of 21st Century Sailor and Marine initiative, is to recruit Sailors once and retain them for life through flexible service options that also provide opportunities for service in the Navy Reserve and as a Department of the Navy civilian. This issue of Rhumb Lines shows how the Navy is fully committed to providing transition assistance to Sailors whether a Sailor is departing the naval service after just one term or a 30-year career.

6. **FRCSE resurrects demolished Seahawk for Navy squadron**
   FRCSE artisans and support personnel spent two years rebuilding a Sikorsky HH-60H Seahawk Helicopter that crashed in Virginia during a night training exercise at Fort Pickett in 2009.

7. **FRCSE investigates Prowler problem, hydraulic spike likely culprit**
   The EA-6B Fleet Support Team Subsystems engineers use a Prowler aircraft struck from the Fleet to recreate landing conditions to test for an elusive nose landing gear problem caused by either a mechanical or hydraulic

(Links continued on Page 10)
Gentlemen, start your engine:
U.S. Navy, Air Force develop engine modification that may save billions

The Navy, the Air Force and industry worked together to develop and field a modification to CFM International’s CFM56-2 (F108) engine, allowing them to restore exhaust gas temperature margins, increase fuel economy and extend their time between overhauls from 10 to 15 years. From left, Petty Officer 2nd Class Jason Perreault, Petty Officer 2nd Class Michael Richards and Seaman Recruit William Cumming, from Fleet Air Reconnaissance Squadron 4 located at Tinker Air Force Base, Okla., preflight one of four CFM56 engines on the E-6B Mercury on the flight line at Naval Air Station Patuxent River, Md. For more information, go to: http://www.navair.navy.mil/index.cfm?fuseaction=home.NavairNewsStory&id=5002

Photo by Kelly Schindler/NAVAIR

(Links continued from Page 9)

8. Flight Pattern - Q&A with the first military test pilot to fly the X-35 and F-35
Get a warfighter’s perspective on the Joint Strike Fighter.

9. F-35 Team Hits Weapons Testing Mark
The Joint Strike Fighter underwent two weeks of testing nine different weapons combinations inside of its two internal weapons bays.

10. X-47B gears up for summer milestones
The X-47B will perform arrested landings and catapult launches at Naval Air Station Patuxent River to validate its ability to conduct precision approaches to the carrier.

11. U.S. Marine Corps F/A-18 simulator hits the road in Japan
The move from Naval Air Station Atsugi, Japan to Marine Corps Air Station Iwakuni, Japan increases pilots’ access to training crucial to honing critical plane tactics.

12. Marine helicopters deploy with laser-guided rocket
The APKWS II (WGU-59/B) is a semi-active laser guidance section that integrates with current 2.75-inch rocket motors and warheads. It provides precision engagement of soft, lightly armored targets with low collateral damage.

A thank you

Each month the Naval Aviation Enterprise (NAE) recognizes one or more Sailors, Marines and civilian employees with the Outstanding Performance Award for their contributions to Naval Aviation and for serving as positive examples of enterprise behavior. Navy Capt. Frank Simei, Program for Aircraft Carriers, Program Executive Office for Aircraft Carriers; and Rebecca Ahne, NAE Science and Technology Program, Naval Air Systems Command, were the recipients of the award in March and April, respectively.

*- Site is CAC-enabled. Some readers may not be able to access the link.

Content in this publication has been cleared for release.