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## ARMY AVIATION

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### Army Announces Combat Readiness Center

At the end of January, the Army Staff approved the transformation plan for the Army Safety Center to transform to the U.S. Army Combat Readiness Center. The old Army Safety Center was primarily compliance-based, reactive and accident-centric. The new USACRC is now focused on all losses and will be the focal point where all loss-related action areas overlap. It is revolutionary, proactive and focused on the Soldier through investigation and predictive analysis. The Combat Readiness Center helps the Soldier manage risk and improve combat readiness.

### OSAA Conference Set

The Operational Support Airlift Agency's Army Fixed-Wing Conference is scheduled May 23-27 at the National Guard Professional Education Center in Little Rock, Ark. The conference is open to all components of the Army's fixed winged community (active, Guard and Reserves). For more information visit the OSAA website at <http://160.147.9.92>, call: (703) 806-7067, or email: [fwops@osaa-armg.belvoir.army.mil](mailto:fwops@osaa-armg.belvoir.army.mil).

### Served With Honor

The home of Army Aviation at Fort Rucker, Ala. celebrates its 50th anniversary this October and is offering a special anniversary cookbook entitled, "Served with Honor." More than just a 362 page cookbook filled with recipes from hundreds of active and retired aviation Soldiers and families, it is also a wonderful keepsake of the history and heritage of Fort Rucker and the branch. Produced by the FR Officer and Civilian Spouses' Club the cookbook is available from the Aviation Museum gift shop online at: [www.armyavmuseum.org](http://www.armyavmuseum.org) or call (888) ARMY-AVN. (See ad on page 43)

### Theme Parks honor U.S. Troops with Heroes Salute

Anheuser-Busch is offering free admission to its Sea World and Bush Gardens parks, now through Dec. 31, for active duty military, active reservists, U.S. Coast Guard and National Guardsmen. Any service member is entitled to free admission and need only register, either online at: [www.herosalute.com](http://www.herosalute.com) or at the park entrance plaza, with a valid Defense Department photo ID. Up to three dependents can be admitted free.

### Presidential Helicopter Fleet Selection

The U.S. Navy has selected the Lockheed Martin-Agusta Westland-Bell Helicopter Textron US-101 as the helicopter for future presidents. Agusta Westland, an Italian-owned company, won the \$1.6 billion, 23-helicopter contract by teaming with U.S. partners Lockheed Martin and Bell Helicopter Textron. The team announced that everything but the rotor blades and the transmission would be made in America, with contracts going to dozens of companies in 41 states.

### CONTRACTS

Bell Helicopter Textron Inc., Fort Worth, Texas, was awarded Feb. 16 a \$17.2M contract for the Kiowa OH-58D safety enhancement program. Work will be performed in Fort Worth and is expected to be completed by Feb. 28, 2007.

Fenn Manufacturing Corp., Newington, Conn., was awarded Feb. 10 a delivery order amount of \$8.4M as part of a \$24.7M contract for spare parts for the CH-47 airframe. Work will be performed in Newington with a completion date of Feb. 2010.

AAI Corp., Hunt Valley, Md., was awarded Feb. 9 a \$10.7M contract for contractor logistics support for the Shadow unmanned aerial vehicle system. Work will be performed in Hunt Valley and is expected to be completed by Sept. 30.

AeroVironment Corp.\*, Monrovia, Calif., was awarded Feb. 8 a \$7.9M contract for contractor logistics support to RESET 170 Raven small unmanned aerial vehicles. Work will be performed in Simi Valley, Calif., and is expected to be completed by Oct. 5.

DRS Technologies, Inc., Parsippany, N.J., announced Feb. 1 that it has received \$153M in new contracts to support the infrared sighting systems on the Army's OH-58D Kiowa Warrior helicopters. DRS will provide depot repair, spares and field service support services and also will manufacture the new thermal imaging systems for the mast-mounted sight on these helicopters.

Chicago Rawhide, Elgin, Ill., was awarded on Jan. 26 a \$5.9 million contract for 1,602 spindle bearing assemblies for the UH-60 aircraft. Work will be performed in Elgin and is expected to be completed by Nov. 30.

An "\*" by a company name indicates a small business contract.

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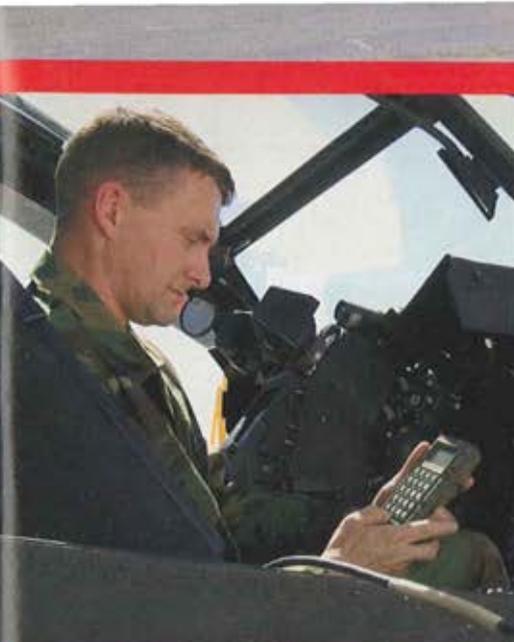
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INNOVATION THAT WORKS.™

# Synchronization and Synergy for the Aviation Soldier

By BG E.J. Sinclair

ARMY PHOTO BY MICHAEL MOSELEY



Aviation Senior Leader's Synchronization Conference group photo.

## Aviation Senior Leader's Synchronization Conference 2005

The annual Aviation Senior Leader's Synchronization Conference was held at the U.S. Army Aviation Center (USAAVC) at Fort Rucker from January 24 to 27. The four-day effort was an effective tool to share dynamic and critical information while also synchronizing efforts throughout the branch. This dialog allowed the Aviation branch's senior leadership (officers, warrant officers and senior non-commissioned officers) and key Aviation Soldiers throughout the Army to share ideas, concepts, policies, concerns and rapidly changing information. It is essential that a continuous dialog be maintained as the branch fights the global war on terrorism (GWOT), RESETs and PRESETs formations, and transforms. The top priority is to ensure our Aviation Soldiers have the best possible training and equipment to fight the GWOT. It was obvious throughout the conference that everyone shares this theme.

The first day of the conference a Branch Command Sergeant Major change of responsibility ceremony was conducted as we fare-welled CSM Walt Beckman and welcomed CSM Buford Thomas Jr. Within less than twenty-four hours of the ceremony, CSM Thomas

was actively engaged in the dialog with senior Aviation leaders. The conference provided a unique opportunity for his welcome and integration.

GEN Richard Cody, the Vice Chief of Staff of the Army, shared his insights and answered questions concerning Army operations and aviation transformation. He highlighted that there are currently 310,000 Soldiers deployed and with as high as 350,000 outside the continental United States. He also stressed that the complexity of our environment demands that we remain committed to resource an Army engaged and on the move. "We have a moral obligation not to send a Soldier to combat unless he's fully trained and fully equipped," GEN Cody said. Leveraging knowledge from the GWOT is critical. Every day we're learning lessons and pumping them back into the combat training centers. We're creating a modular Army that is brigade-centric, not division-centric. Additionally, we are making great strides in our effort to make the Active component and Reserve component look alike. It's the most ambitious restructure in 50 years. We're stabilizing the force and have four brigades already complete. Soldiers will be assigned to a unit or a base for longer tours and synchronized with Modularity where possible. In addressing Aviation

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safety and readiness, GEN Cody stressed the need to strike a balance. He highlighted that "Policy letters won't fix it. Engaged leadership fixes problems. The tougher you fly, the more disciplined you have to be."

MG Jim Pillsbury, the commander of the Army's Aviation and Missile Command, discussed Aviation RESET and PRESET. He described that turnaround times on RESET are accelerated thanks to cooperation from industry and great efforts by Aviation classification and repair depots. Creation of the Theater Aviation Sustainment Maintenance formation and the Life Cycle Management Initiative have proven very successful in getting products to the Soldier faster.

There was an informative update and productive discussion of Army National Guard (ARNG) readiness and the effects of the current operational tempo. The ARNG is reacting energetically to the mobilization process. This outdated process needs updating from the Cold War model by moving to a Train-Alert-Deploy model. As formations prepare for

deployment and have shortages, "commanders can't stop till you get to the person who has the authority to say yes."

COL Dan Stewart, director of the Aviation Proponency office, updated everyone on several key developments. The revised DA PAM 600-3 will be published in three months. This major revision, the first in seven years, changes the officer life cycle development model and includes warrant officers. The focus is a shift from the concept of "branch qualification" or specific career paths for officers. This concept tended to focus officers on a narrow channel of development. "Depth of experience and breadth of responsibility are metrics that reflect an officer's potential to serve in positions of increased responsibility," COL Stewart said. The focus will now be on experience versus grade in position. In other words, regardless of grade, seek critical experience and competency that will build the necessary knowledge, skills and abilities in each developmental position held.

LTC Joe Dunaway, chief of the Aviation Assignments branch at the



**GEN Dick Cody, the Army's Vice Chief of Staff, briefs aviation leaders on Army transformation.**

Human Resources Command, discussed the dynamic changes that guide Soldier assignment decisions. He noted the priority is to synchronize personnel with timelines for GWOT requirements with no criteria or limits concerning time-on-station. We are aggressively meeting the demands of the GWOT, transforming the branch, and executing RESET simultaneously. Permanent change of station guidelines are now based on skills, experiences and Army requirements. We must remember turbulence is a way of life, but rest assured every effort is made to reduce it.

CSM Roger Kingston, the commandant of the Non-commissioned Officer Academy at Fort Rucker, outlined the way ahead for the NCO Education System (NCOES). We are revising NCOES for the first time since Vietnam. The focus is to instill warrior ethos and sustain the quality of the force. The total revision of the Primary Leadership Development Course to become the Warrior Leader Course is being implemented immediately. Fourteen of the twenty-one day course will be in the field and will include extensive weapon familiarization.

COL Conway Ellers, deputy commandant of the U.S. Army Aviation Logistics School (USAALS) at Fort Eustis, Va., outlined the dynamic

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Retired LTG Ellis D. Parker poses with the 2004 award winners.

changes to advanced individual training for all thirteen military occupational specialties at the USAALS. Lessons learned from Operations Enduring Freedom and Iraqi Freedom have led to a re-emphasis on tactical training. Training is now in three phases: classroom with practical exercises, situational training exercises, and field training exercises (lasting five to seven days).

COL Chuck Yomant, director of the Directorate of Evaluation and Standardization at Fort Rucker, stressed the change in focus from a "black hat" mentality to a true training and assistance organization. DES is a USAAVNC-based mobile training team with the primary focus of assisting commanders deploying to OIF or OEF, and preparing for RESET. They offer a comprehensive training menu, while commanders decide "how" and "what" to train.

COL Mike Dixon, director of the Directorate of Training and Doctrine, discussed the implementation of the brigade aviation element (BAE). This critical organization will assist the

Brigade Combat Team integrate Aviation within the full spectrum of our capabilities. The 3rd Infantry Division and 101st Airborne Div. (Air Assault) are the first to execute, with the 10th Mountain Div. immediately following. Look for the new TC 1-400 BAE Handbook on the Army Knowledge Online website at the BAE Collaboration Center and review the wealth of information.

There were numerous other critical updates and discussions, including the Training and Doctrine Command System Managers, logistics transformation, air traffic services, Flight School XXI, improvised explosive devices (IEDs), tactical terrain visualization systems, simulations, SERE (survival, evasion, resistance and escape), Medical Evacuation Proponency, gunnery, and the full range of leadership and training initiatives. Each of these areas of interest provided a critical opportunity for extensive dialog and collaboration.

The LTG Ellis D. Parker Awards luncheon Jan. 26 recognized aviation excellence, leadership, training, main-

tenance and safety during the past year. The 1st Battalion, 227th Avn. Regt. from Fort Hood, Texas was the overall winner and Combat Aviation Unit of the Year. The 2nd Bn., 227th Avn. Regt., also from Fort Hood, won the Combat Support Unit of the Year award. The 421st Medical Evacuation Bn. from Wiesbaden, Germany won the best Combat Service Support unit and the 1st Bn., 145th Avn. Regt. from Fort Rucker, won the best Table of Distribution and Allowances battalion. Later that evening at the annual AAAA National Functional Awards banquet, 11 "best of the best" were recognized for the period between Sept. 1, 2003 and Aug. 31, 2004. All of the awardees depict the 'warrior ethos' in everything that they do, and the branch is extremely proud of every one of them.

The annual Aviation Senior Leader's Synchronization Conference allowed Aviation Branch's senior leadership and key Aviation Soldiers throughout the Army to share ideas, concepts, policies, concerns and rapidly changing information. Always remembering that our first priority is to provide the best training and equipment possible for our Aviation Soldiers, this conference proved invaluable as our branch pursues that objective.

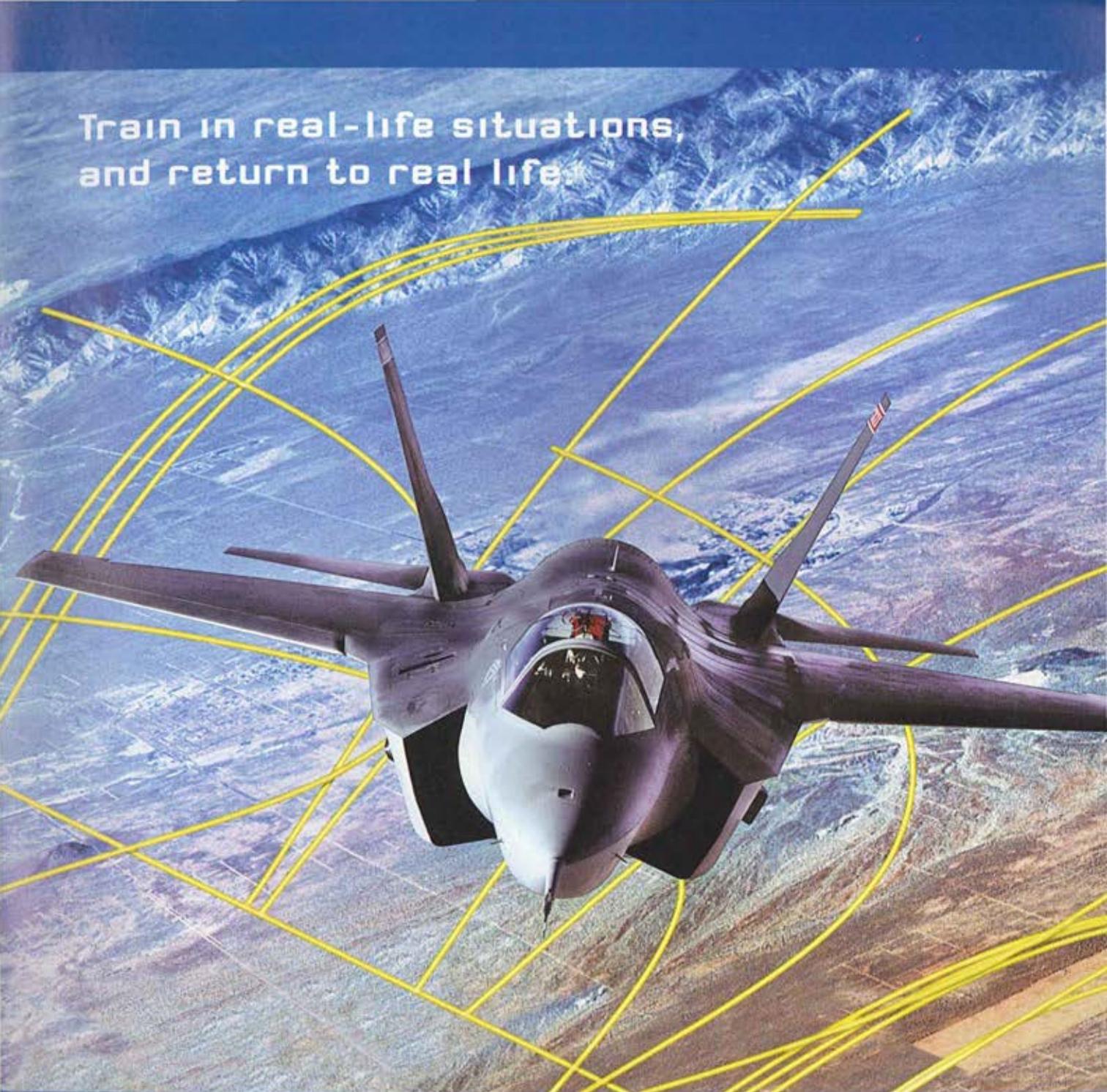
## Dragons in Iraq: 4th Brigade, 1st Infantry Division

The 4th Brigade, 1st Inf. Div., commanded by COL Wally Golden, arrived in the Iraqi theater of operations in early February 2004 in the wake of the capture of Saddam Hussein during a period of relative calm. The Iraqi people were holding their collective breath to see if real change was possible, the former regime elements were in disarray, and the foreign terrorist cells were still immature and not fully organized. Over the course of 2004, these conditions would change, presenting significant challenges for the brigade.

The 1st Inf. Div. and the 4th Bde. were responsible for one of the most complex areas in Iraq. The dangerous area of operation (AO) encompasses four provinces including parts of the Sunni Triangle, Kurdistan, and the



A 1st Bn., 1st Avn. Regt. "Gunfighter" AH-64A Apache conducts operations in Iraq.



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Shi'a dominated Diyala province. These provinces comprise roughly 22 percent of Iraq's total land space and nearly 20 percent of the population. The Kirkuk province, which contains half of the country's oil reserves, created an infrastructure security nightmare that only made the situation more difficult.

In this environment the 4th Bde. employed tactics, techniques and procedures (TTPs) that allowed the Big Red One to accomplish its mission of conducting simultaneous full spectrum operations to neutralize the anti-Iraqi forces (AIF) while setting the conditions for national elections.

The 4th Bde. used the nucleus of the TTPs passed down from the 4th Bde. of the 4th Inf. Div. The 4th ID's successes during their time in Iraq, and their experience in the AO served as a valuable starting point for the 1st ID to conduct combat aviation operations in OIF. 4th Bde., 1st ID also hosted the Army Shootdown Assessment Team in Germany prior to deployment – helping to understand the threat in the area. Based on this information, the brigade determined the greatest threat to Army Aviation was from surface-to-air missiles followed by rocket-propelled grenades and small arms. Within the first few months, enemy actions determined the direction TTP refinement would take.

Enemy strengths include decentralization and the rapid dissemination of information and successful TTPs through loosely affiliated groups throughout the AO. Additional strengths include extensive knowledge of the terrain and experience in dealing with the local populace, as well as the intricacies of tribal politics. The common theme in enemy TTPs is to change to fit the situation on the ground. The AIF change their TTPs based on weapon systems available to them and the targets with which they are presented. The AIF are a force-oriented enemy that seeks to create contact at the time and place of their choosing. For instance, AIF will target fixed-wing cargo aircraft along noted flight paths during periods of high illumination.

The answer to this AIF threat was to conduct a flight profile based on terrain, weather and current enemy situation. The AIF would have a lim-



The Colors of the 4th Bde., 1st ID.

ited chance to acquire 4th Bde. aircraft as long as they remained in this profile, and the accidental risk of wires was mitigated by deliberate mission planning and frequent hazards map updates. At night, the hard deck [flight altitude] was raised as the accident risk became a greater concern than the AIF's ability to acquire aircraft. Brigade UH-60 aircraft deliberately avoid linear terrain features that present greater exposure time, and crossed wires in a combat spread that doesn't expose the trail aircraft.

Flight following in theater is still in its infancy and the asymmetric battlefield severely restricts the responsiveness of a ground quick reaction force if an aircraft goes down in an isolated area. In order to provide quick reaction, the brigade's aircraft always fly with at least two aircraft — both for security and immediate downed aircrew recovery. Aviators flight-follow internally and are given the flexibility to provide over-watch for each other in tactical situations. This is a natural configuration for attack missions, but has provided greater security and utility for Black Hawk crews as well. Every platform is a recon asset (active or passive), and the brigade experienced great success with the second aircraft providing security while the first was investigating a suspected cache or IED.

On the attack side, security missions dictate flight along the same linear terrain features as oil pipelines, power lines, and main supply routes. The two-aircraft requirement naturally lends itself to a high-bird, low-bird formation that allows greater visibility of small objects like IEDs, but preserves the lethality and flexibility of the platform by keeping the high bird oriented on the enemy.

When close combat attack was required for troops in contact, the brigade provided unparalleled responsiveness. They preserved their combat power by limiting flights over dense urban areas during the day, and by pushing targeting and designation techniques to every supported Soldier on the ground. Close combat attack became more efficient once ground commanders integrated these TTPs and their Soldiers witnessed the effects. The brigade also provided the ground commander another incredible tool with the first integration of HELLFIRE targeting and designation from an Air Force Predator unmanned aerial vehicle.

The way the 4th Brigade flies and the reasons they do so are unique to the particular area of responsibility, but can provide valuable lessons in many other scenarios or threat environments. Thus far in their deployment they have successfully maintained contact with the enemy and provided reliable combat aviation support to the 1st Inf. Div. without a single Class A accident or serious injury. This success can be directly attributed to the skill of their pilots, the consistent adherence to high standards, and great command presence at all levels. Or as stated in the 1st Inf. Div. motto, "No mission too difficult, no sacrifice too great - Duty First!"

"Above the Best!"

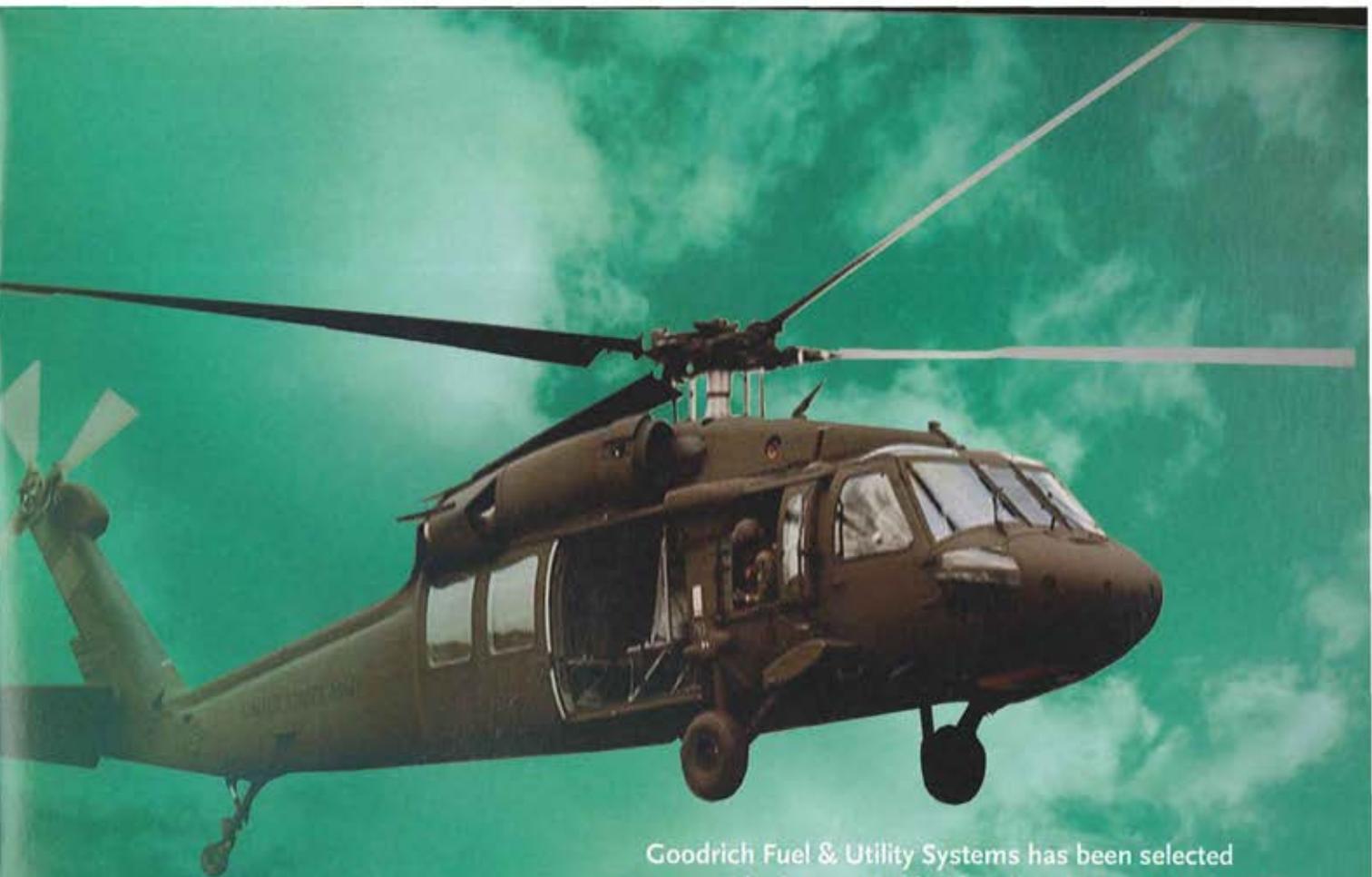


COURTESY ARMY PHOTO

OH-58D Kiowa Warriors of the 1st Sqdn., 4th Cavalry Regt. prepare to conduct operations in Iraq.



*BG E.J. Sinclair is the Army Aviation Branch Chief and the commanding general of the U.S. Army Aviation Center and Fort Rucker, Ala.*



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# Cargo Helicopter Update

By COL William T. Crosby

ARMY PHOTO BY SGT LORIE JEWELL



A prototype CH-47F lands at the Pentagon's helipad January 19. The new helicopter reduces the workload for both pilots and crewmembers.

**T**he U.S. Army's workhorse, the CH-47D Chinook helicopter, continues to excel in all aspects of its mission in both combat and peacetime. Thanks to exemplary work of aircrews and maintenance personnel, the Chinook helicopter has successfully served the Army for more than four decades. The Chinook will continue as a primary component of the Army's future force structure. As Cargo Helicopter's Project Manager, supported by many exceptional members of Team Chinook, I believe we have mapped out an extraordinary acquisition approach for the CH-47F program. Our plan not only allows the Army to upgrade the entire Chinook fleet with new avionics, digital flight control systems and many other system improvements, but also allows us to replace the old airframe components with completely new monolithic machined airframe components thru the service life extension program. The plan also provides for the manufacturing of 55 new CH-47F aircraft.

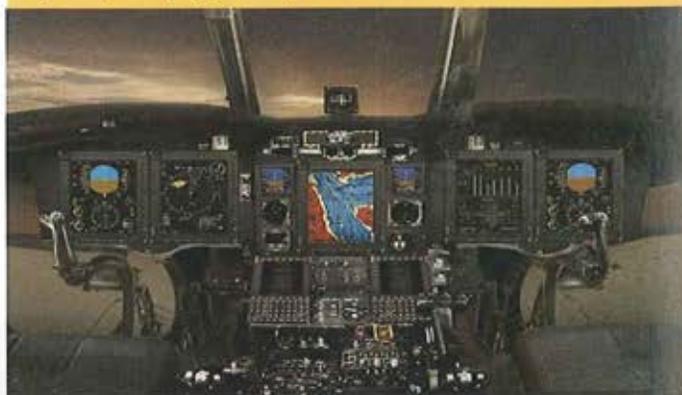
## The F Model

Recently, the Honorable Claude M. Bolton, Jr., Assistant Secretary of the Army for Acquisition, Logistics and Technology (ASAALT), approved entry of the CH-47F program into full rate production. His decision was based on the demonstrated success of the program during the engineering, manufacturing and development (EMD) and low rate initial production phases. Key to that effort was the success of the operational test in May 2004, supported by a dedicated team of professionals from the 7th Battalion, 101st Aviation Regiment at Fort Campbell, Ky., who served as the operational test unit. This program remains on track to begin fielding in the first quarter of fiscal year (FY) 2007 with the first unit equipped (FUE) completed by May 2007. Fielding



Above: In this prototype CH-47F cockpit, pilots have the opportunity to use multi-functional displays and other electronic gages which will be used to make the new CH-47F a fully 'glass' cockpit.

Below: The new CH-47F will have a common avionics architecture system (CAAS) digital cockpit.



ARMY PHOTO BY SGT LORIE JEWELL

GRAPHIC BY ROCKWELL COLLINS

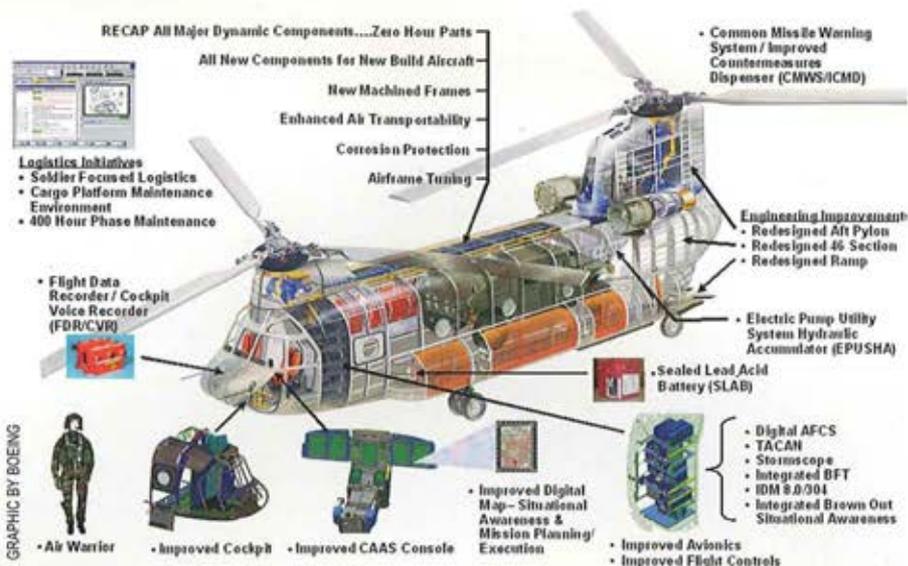
## CH-47F Improved Cargo Helicopter

to the rest of the fleet will quickly follow at two or three units per year culminating in a single configuration for the entire fleet.

Our improvements to this aircraft will amaze even the crusty old warrant who has "seen it all." We are not simply replacing the entire airframe with new monolithic machined frame components—thus avoiding yet another airframe life extension—but are significantly improving the avionics in a fully integrated digital cockpit and other mission equipment subsystems. Moving to a newly machined frame for both new build and remanufactured aircraft will allow us to develop one configuration across the F model fleet. Furthermore, our efforts to recapitalize all of the major dynamic and depot-level repairable components for the remanufactured aircraft and provide an improved maintenance management system will significantly reduce operations and support (O&S) costs and maintenance burdens.

### Cockpit Changes

Our program will leverage the development of the fully digital cockpit developed for the special operation's MH-47G. The CH-47F common avionics architecture system (CAAS)



The new CH-47F model Chinook incorporates many advanced technology applications.

digital cockpit will meet our current digital information exchange requirement and allow for future growth. This new cockpit will include both an Ethernet and 1553 data bus structure that permits installation of enhanced communications and navigation equipment for improved situational awareness, mission performance manage-

ment, and aircraft survivability. The CAAS cockpit will have five multi-function display units controlled by two CDU-7000 control display units and two general-purpose processing units. The avionics system will be linked via an Ethernet switch and two data concentrator units. Over the past year, we have sponsored several

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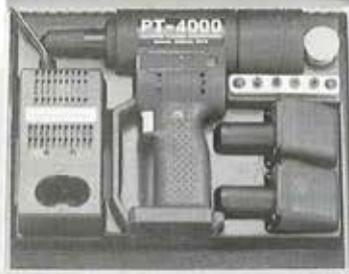
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## New CH-47F Fuselage

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The fuselage of the CH-47F will include improvements to the base structure as well as in manufacturing techniques.

events, including a limited objective user demonstration (LOUD) to examine the pilot-vehicle interface (PVI) requirements and ensure the information displayed to the pilot and co-pilot is suitable and effective. The CH-47F CAAS upgraded cockpit will provide commonality with the MH-47G and other selected Army aircraft.

### Situational Awareness

The new avionics architecture will also include a global air traffic management system, dual enhanced global positioning system (GPS) inertial navigation, ARN-153 TACAN, and a WX-500 Storm scope. The CH-47F will be digitally interoperable with the Army's Force XXI Battle Command Battalion/Brigade and Below (FBCB2) network via the advanced improved data modem (IDM) for digital messaging with integrated Blue Force Tracker capability. Additionally, the CH-47F CAAS cockpit has integrated a software-based digital map that provides exceptional situational awareness and mission planning capability. This digital map system provides aeronautical chart data and supports levels 0, 1 and 2 source data for digital elevation. Intervisibility patterns and rings will highlight threats within the map's center of interest.

Moreover, the CH-47F program is integrating the digital advanced flight control system (DAFCS). This sys-

tem significantly aids flight handling, especially in the flight profile below 20 knots during critical brownout or whiteout approaches and during difficult hover-hold and low airspeed maneuvers. The DAFCS replaces the existing analog automatic flight control system with a digital flight control computer (FCC) and provides the electrical interface, real-time processing and control of the CH-47 dual redundant partial authority automatic flight control system. There will be two FCC in each aircraft. The DAFCS panel will allow the pilot or copilot to override the DAFCS.

### Fielding CMWS

We are not waiting to field the improved cargo helicopter before getting needed capabilities to the warfighter. We are also integrating the common missile warning system (CMWS) on many CH-47D aircraft without delay. The CMWS provides missile warning to aircrews and cues to munitions dispensers. Component modularity permits product upgrades and modifications to reduce life-cycle cost and remain current with emerging threats as we move to the F model.

### Better Engines

Likewise, all the capabilities and improvements of today's D fleet will be incorporated in the CH-47F program. For example, the CH-47F will use the more powerful and reliable

T55-GA-714A engine and extended range fuel system currently being fielded to the CH-47D fleet. The T55-GA-714A increases power by 27 percent and reduces specific fuel consumption by five percent. Our new engines improve fuel efficiency and enhance lift performance by approximately 3,900 pounds. By reducing erosion from sand and dust, the improved engine air particle separator (EAPS), mounted with short rails, will extend the life of the engines.

The CH-47F program has made significant headway in reducing the vibration in the cockpit section, saving wear and tear on aircraft and aviator alike. To hasten helicopter transport to the theater, the CH-47F new aft pylon structure and internal systems will allow quick removal for loading into C-5 or C-17 transport aircraft. This modification reduces the time required for aircraft tear down and build by approximately 63 percent.

### Portable Trainers

To enhance pilot training, the Project Office has developed the transportable flight proficiency simulator (TFPS). The TFPS is a high fidelity, motion-cueing simulation system that will enable the crews to train and sustain critical flight skills that would otherwise consume valuable flight time. Moving with crews to the theater of operations, these simulators make training timely and adaptable to changing combat scenarios.

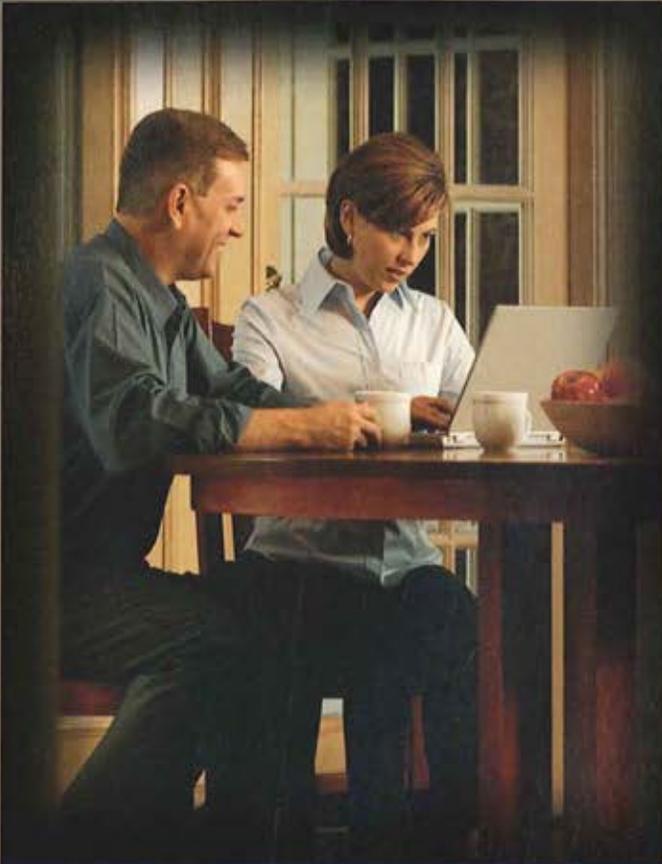
### Summary

Today our Cargo Helicopter program provides exceptional capability to Chinook crews. Whether in war or peace, the Chinook will be there to support our mission. The Cargo Project Office will continue to improve and sustain the CH-47D fleet, and we are well on our way to fielding the most capable cargo helicopter in history, the CH-47F.

For more information please visit our website at <https://www.peoavn.redstone.army.mil/cargo> or call COM: (256) 313-3396 or (DSN-897). Or email: [anthony.pelczynski@peoavn.redstone.army.mil](mailto:anthony.pelczynski@peoavn.redstone.army.mil)



*Colonel William T. Crosby is the Project Manager for Cargo Helicopters, Program Executive Office for Aviation, Redstone Arsenal, Ala.*



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# Utility Helicopters

By LTC Robert H. Lunn  
and MAJ Courtney Cote

## Strategic Adaptation

The UHPMO team travels to meet with warfighters to understand and resolve issues. Here pictured in Udairi, Kuwait are (l to r): Leon Hite, MAJ Courtney Cote, MAJ Brian Tachias, LTC Christopher Smith, COL Cory Mahanna, CPT Sean Donahue, Barb Quick, Ralph Smith and CPT Phil Robinson.

COURTESY ARMY PHOTO

PHOTO BY MAJ COURTNEY COTE



The T-701D engine will replace the T-700 on Army H-60 aircraft in the future.

train components, a protective Mylar film for windscreens, conversion to M-240 machine guns and the common missile warning system. Moreover, Andy and his team have cut the red tape to bring these enhancements to the Soldier.

### Supporting the War Fight

The Utility Helicopters Project Management Office has two contact teams on station in the Middle East today, and we have rotated personnel into theater repeatedly. LTC Christopher Smith is now converting the entire T-700 engine fleet to a common T-701D configuration in an effort to streamline the engine logistical tail. The Utility Helicopters Office manages the T-700 engine program as part of a Joint service agreement. The Utility Helicopters team visits every deploying aviation unit and follows up with teams during re-deployment. The resulting relationship with unit maintenance personnel precipitated a bottoms-up review of our scheduled maintenance program. Wally Newcomb peeled the onion by reviewing 20 years of "the way we have always done it." Wally and his team re-ordered and re-thought our

Our Army has charted an aggressive path toward more mobility and agility in the short term, and revolutionary fleet transformation in the long term. We have tempered our tactics, techniques, procedures and acquisition with an *expeditionary* mindset. The successes of our Stryker Brigades in combat have shown how mobility, coupled with information dominance, and a modicum of survivability can payoff in the niche battle space of our time.

Army Aviation has led the way with this adaptive strategic change. Not since the early 1960's have we made such an investment in the vertical dimension. Our adaptive strategy addresses an across-the-spectrum approach: wartime modifications, sustainment enhancements, survivability upgrades, additional performance and new acquisition. This means that our combat units are now receiving immediate support for existing aircraft and components; while we acquire two entirely new utility helicopter fleets.



An improvement to the engine inlet barrier filtration system is one modification being made by the Utility Helicopters Project Office to help reduce desert environmental impacts on Black Hawks.

### Cutting Red Tape

Andy Ksepka and his team are now modifying the UH-60 fleet with battle space enhancements, including survivability, sustainment and technical improvements. The engine inlet barrier filtration system (pictured above) is one example of over 35 desert environment modifications we have instituted. Some other modifications include: an infra-red anti-collision light, auxiliary power unit inlet barrier filtration, Blue Force Tracker, drive

PHOTO BY MAJ COURTNEY COTE

entire maintenance program, which resulted in an enhanced scheduled maintenance (ESM) program. The ESM program bought us a 25 percent reduction in scheduled maintenance.

ESM will give the Soldier more OPTEMPO and greater flexibility to plan maintenance around the mission.

The Department of the Army has given program managers a new hammer over distribution of repair parts entitled "Life-Cycle Management." Thus any commander with utility helicopters can look me in the eye and demand an explanation of a cancelled requisition. I am now able to focus our budget on an integrated master priority list.

We have two depot level initiatives called RESET and RECAP. COL Ray Woolery has the reigns on RESET and has returned more than 277 Black Hawk aircraft to the fight. Eric Edwards, Product Manger UH-60 A&L, has the recapitalization product line. He will turn out more than 20 UH-60A recapitalized aircraft this year. We just received the following comments from a CW4 test pilot, "We flew 80-23475 down to Puerto Rico in approximately 18 hours flight time, most of it IMC [instrument meteorological conditions]. The bird performed flawlessly to the point the avionics guy onboard slept the whole trip. Very strong engines, very sound airframe, like a new bird." A recapitalized Black Hawk is basically a zero (0) time machine.

#### Air Ambulance Improvements

Eric Edwards is also working closely with Wayne DelVecchio of Sikorsky Aircraft to turn out an impressive number of new UH-60L and HH-60 airframes. Sikorsky coordinates through Edwards to deliver quality products that are critical to the Army Aviation transformation and the ongoing global war on terrorism. Two new aircraft have been delivered to Thailand under the foreign military sales program. These aircraft will assist in the Tsunami relief effort. Sikorsky has gone to great lengths to institute lean manufacturing techniques and continue a remarkable record of life-cycle management.

According to LTC Pete Smart, assistant project manager for MEDEVAC, the HH-60 and its mission equipment package (MEP) will have a transformational impact on Air Ambulance units. The operational, patient assessment and treatment

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The next generation Black Hawk will be the UH-60M. Here prototypes M-1 and M-2 participate in an operational test flight.



PHOTO BY SIKORSKY AIRCRAFT

capabilities associated with the MEP installed in the HH-60 allows the flight medic greater access to patients for en-route care and monitoring, especially to patients requiring in-flight emergency interventions. Advanced technology FLIR, multi-function displays, and a 1553 digital data bus driven avionics management system provide aircrew members increased situational awareness and reduced cockpit workload. LTC Smart is also working component and systems qualification of the MEP for integration supporting acquisition of a number of new HH-60M aircraft. Additionally, the UHPMO MEDEVAC and the Integrated Materiel Management Center team has led the way in establishing a successful commercial overhaul and future re-cap program for the existing fleet of UH-60A/L high performance internal rescue hoists ensuring reliable emergency personnel extraction capabilities during the transformation process.



ARMY COURTESY PHOTO



The HH-60L MEDEVAC aircraft will include systems such as forward looking infra-red (FLIR) to aid crews during low visibility and night missions and a recovery hoist.

### Next Generation Black Hawk

Currently Sikorsky Aircraft is building the fourth prototype of the UH-60M aircraft. According to Mike Herbst, deputy product manager for UH-60M, the Army will make the low rate initial production decision early this spring to begin building 1,213 new M model Black Hawks. The "M" is not just another series of the original Black Hawk – it represents a whole new approach to combat. In fact, the "M" will become the most modern large utility helicopter fleet in the world. This aircraft will have greatly enhanced performance, built-

in situational awareness, enhanced survivability and much more durability. The differences between the UH-60A and the "M" are similar to the differences between the Black Hawk and the Huey. Space, weight, power, response and access to information have been dramatically improved.

Beyond performance, the "M" represents an acquisition breakthrough. Mr. Herbst has programmed a new

health usage monitoring system maintenance capability into the "M." This system of systems will monitor the aircraft and report the aircraft status daily to the unit commander. It will have the capability to play back the previous mission, report flight and ground time, and known aircraft faults. These actions will be seamless and will not detract from the operational mission nor take time away from the warfighter.

The Army Vice Chief of Staff has closely monitored the "M" program and provided impetus to move the program to the left and increase the quality of the initial system. This is a major change in the way we do business.

### LUH Coming

LTC Brent Horrocks has the Light Utility Helicopter product line. He will bring 322 light helicopters into service over the next few years. These aircraft will be assigned to various Table of Distribution and Allowance (TDA) units, like those found at the National Training Center. Further, the Army plans to provide these airframes to the National Guard and Reserve force for Homeland Defense, United States training and mission support.

### Summary

Overall, Utility Helicopters PMO remains on a full wartime footing. We are modifying our current fleet and building two new fleets. We are incorporating the lessons learned from OIF and OEF and other deployments. We are moving to an information based tactical and logistical system. We are sharing these enhancements with our allies. These changes will allow Army Aviation to operate and win in any niche environment. These combined actions will result in a major strategic adaptation of the utility helicopter fleet. The outcome of these changes will be mobility in the vertical dimension with a depth, breadth and power never before witnessed.



*LTC Robert "Chip" Lunn is the Product Manager for UH-60M and MAJ Courtney Cote is the Assistant Product Manager for UH-60M Preplanned Product Improvements (P3I). Both are with the Utility Helicopters Project Office, Program Executive Office for Aviation, Redstone Arsenal, Ala.*

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# Aviation Rockets and Missiles



## *Arming the Attack and Recon Warfighters*

By David Rausch



A HELLFIRE missile hits and burns through an armored target during testing.

A laser guided HELLFIRE missile leaves the launch rails of an AH-64A Apache.

### SPECIAL FOCUS HARDWARE PM UPDATE

**T**he Aviation Rockets and Missiles (ARM) Project Office, managed by Ms. Carlyn Frazier, is responsible for the HELLFIRE family of missiles and launchers, the family of 70 millimeter rockets and launchers, and the Advanced Precision Kill Weapon System (APKWS). The ARM Project Office is assigned to Program Executive Office for Missiles and Space located at Redstone Arsenal, Ala.

### HELLFIRE Missiles

The HELLFIRE (helicopter launched fire and forget) missile is the primary armament for the U.S. Army's AH-64A/D Apache and OH-58D Kiowa Warrior, and the U.S. Marine Corp's Super Cobra helicopters. During Operation Desert Storm, the HELLFIRE earned the reputation of being the U.S. military's formidable tank killer. Its multi-mission capabilities were also successfully demonstrated in combat against a diversity of targets, including radar installations, communications facilities, oil rigs and bridges.

The HELLFIRE family consists

of two different types of missiles: the semi-active laser (SAL) missile and the millimeter wave (MMW) guided missile. Both types share a common missile bus consisting of airframe, warheads, control actuation system and motor. The missile entered the Army inventory (the SAL version) in December 1985 and is truly of modular design. This modular design allows the missile system to spiral to meet new threats and technology insertions as they become available. This has been demonstrated by the number of models of HELLFIRE missiles developed and delivered to the Army

since the initial A model back in 1985. The C model HELLFIRE incorporated a minimum smoke motor and an increased low visibility autopilot.

When tank threats changed, an F model HELLFIRE missile with a precursor warhead was developed and fielded to defeat tanks with reactive armor. After the F model another change in requirements resulted in the development and fielding of the K model, also known as HELLFIRE II, in December 1994. The K model improvements hardened the laser seeker against countermeasures, improved the warhead, developed an electrical fuze, and restored the missile to its original weight and length.

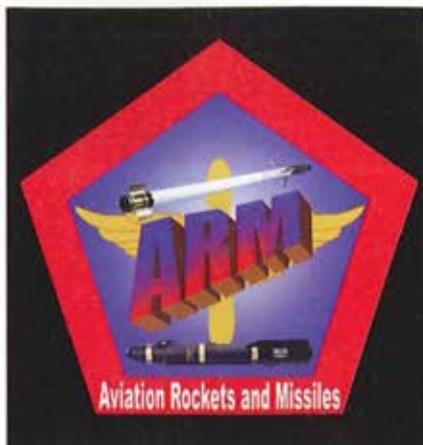
Further changes in requirements resulted in two additional models of HF II being fielded. The M model missile incorporated a blast fragmentation warhead and the N model missile introduced a metal augmented charge (MAC) or thermobaric warhead.

A special upgrade to the HELLFIRE was made for use on the U.S. Air Force's Predator unmanned aerial vehicle. The P model missile is a K model missile with modifications for high altitude launches and has a fragmentation sleeve to increase the effects radius of the missile.

The A model missiles have exceeded their shelf life and are being sold via the foreign military sales (FMS) program. The C model missiles are currently being consumed in training and are no longer part of the tactical inventory. Today the Army's tactical inventory consists only of F, K, M and N model missiles. The HF II missile currently meets the requirements for an air-to-ground missile for the Army, Navy, Air Force and Marine Corps, and 13 FMS customers. Current production today consists of the K, M and N model missiles.

### Longbow HELLFIRE

The Longbow HELLFIRE (MMW) is one of the most advanced medium to long-range anti-armor weapons on the battlefield today. The missile was developed as an integral part of the AH-64D attack helicopter, which is designed to defeat multiple ground targets and selected air targets through radar



acquisition, tracking and target engagement. The primary advantages of the millimeter wave guided HELLFIRE include: operational capability in adverse weather, such as rain, snow, fog, smoke and battlefield obscurants; millimeter wave countermeasures survivability; and fire-and-forget guidance, which allows the Longbow Apache helicopter to launch and then re-mask, thus minimizing exposure to enemy fire. Upgraded capabilities added to the Longbow HELLFIRE missile include a home-on-home/anti-jam capability, as well as many software upgrades to meet changing threats. A counteractive protection system capability was developed for the missile, but never fielded.

The last Army Longbow HELL-

FIRE missile is scheduled for delivery this August. Limited production continues with Longbow HELLFIRE being procured by four FMS customers.

### Rockets

The 70-millimeter rocket or HYDRA 70 is a 2.75-inch free flight rocket. This system of aerial rockets has become the standard ground attack rocket and was extensively used by Army, Navy, Air Force and the Marine Corps in the Korean conflict, Vietnam, Desert Storm and with current on-going operations.

The warheads for the HYDRA 70 rocket fall into three categories:

1. Unitary warheads with an impact detonating fuze.
2. Cargo warheads with an air-burst, range settable fuze, or a fixed standoff fuze.
3. Practice warheads.

The HYDRA 70 rocket is truly a modular design. A total of 11 different warheads can be mated with the Mark 66 rocket motor to match the rocket to the desired role. Currently the U.S. armed services are procuring approximately 230,000 motors and warheads annually. Seven FMS customers also procure the HYDRA 70 rocket.

In addition to being responsible for the HELLFIRE missiles and HYDRA 70 rockets, the ARM





The P model HELLFIRE missile (a K model with modifications) mounted on the Predator unmanned aerial vehicle.

Project Office also manages the launchers used to fire these munitions. The HYDRA launchers are the M260 (7 tube) and the M261 (19 tube). These aluminum launchers are inexpensive enough to be disposable, yet durable enough to be reused after as many as 32 firings. The HELLFIRE missiles are fired from either the M272 HELLFIRE launcher or the M299 Longbow HELLFIRE launcher (which is a modified M272 launcher). The M299 Longbow launcher can launch all configurations of the HELLFIRE missiles.

### APKWS

The advanced precision kill weapon system is currently in development and will fill the gap between the current unguided 70mm rocket system and the HELLFIRE anti-armor missile. The system will utilize 70mm rocket components, such as the rocket motor, warhead and point detonating fuze, with the addition of a semi-active laser lock-on-after launch guidance system. It will be employed from all aircraft currently using 70mm rockets. The APKWS will further meet the needs of the Soldier by providing a precision weapon effective against targets too light to be engaged by HELLFIRE and too heavy for HYDRA 70 rockets.

### Supporting Warfighters

The top priority of the ARM Project Office is supporting the Soldiers in the on-going conflicts by getting them what they need, and



A rocket briefly illuminates an AH-64D firing at night. An OH-58D employs a rocket during a diving fire maneuver. The 2.75-inch (70mm) rocket is standard ground attack munition in use by Army attack and recon aircraft.

PHOTOS BY JAMES BULLINGER / AAPI

supporting the hardware that is there. This includes preparing, negotiating and executing the many contracts for hardware, as well as support contracts. A challenge that was overcome with teamwork by the government and the contractor was the contract modification and delivery of 72 "M" model HELLFIRE missiles in less than 30 days to Soldiers in the field.

Another challenge is the engineering effort associated with assuring that ARM managed weapons meet the ever-changing user requirements. This has been demonstrated by the many model changes that have been fielded and the constant upgrades of Longbow HELLFIRE. Work is also continuing on improvements to the HYDRA 70 family of rockets. An engineering change is being developed to remove aircraft rocket firing restrictions as a result of the current rocket motor performance. Engineers are evaluating other technologies to improve the warheads, fuzes and launchers. The contractor and ARM Project Office are also working on restarting the white phosphorus line, which has been out of production for more than 10 years.

The acquisition community is also working to produce an affordable insensitive munitions solution (munitions that will not detonate under any conditions other than its intended target) for legacy systems. This is the class trade off of requirements versus cost for legacy systems. This issue will continually be reevaluated as new technologies become available.

Again, the only issue for the ARM Project Office is to continue to support the Soldier in the field.



*David Rausch is the acting chief of the Program Management Division of the Aviation Rockets and Missiles Project Manager's office, Program Executive Office for Missiles and Space, Redstone Arsenal, Ala.*



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# The Armed Reconnaissance Helicopter Meeting the Challenges of a Transforming Army

By LTC L. Neil Thurgood

DOO PHOTO BY USAF STAFF SGT SHANE CUOMO



**S**oldiers from across our nation have answered the call to fight and win the global war on terrorism. They deserve the very best available technology and the most modern equipment. Accordingly, the Program Executive Office for Aviation continues to embrace a key overarching pursuit: rapidly provide our Soldiers with the tools needed to get the job done and return home safely. We continue to assess emerging combat requirements and allocate available resources to acquire solutions. This process has resulted in a key, new aviation requirement.

## Defining A New Aviation Program

In February 2004, the Army Chief of Staff identified the need for 368 armed reconnaissance helicopters (ARH). The ARH program was quickly initiated to meet the time-sensitive requirement to fill the identified armed reconnaissance capability gaps, and replace the OH-58D Kiowa Warrior in service with the Army since May 1991. A provisional project office was established a year ago in March to design an acquisition program that could meet critical Soldier requirements and swiftly get the platform to the field. The Army leadership established three priorities for the ARH Project Office:

CW3 Bernd Knox and CPT David Hnyda (top), 1st Sqdn., 4th Cav. Regt., conduct a pre-flight inspection of their OH-58D Kiowa Warrior before a mission in Iraq. Eventually 368 armed reconnaissance helicopters will replace KW aircraft in the fleet.



OH-58D pilot CW4 James Kennedy, 3rd Sqdn., 4th Cav. Regt., flying a recon mission in Afghanistan last June. The future ARH will provide interoperability with organic and joint fires systems, and between manned and unmanned aviation platforms.

- 1) Provide a low cost platform.
- 2) Field *First Unit Equipped* (FUE) organizations beginning in fiscal year 2008.
- 3) Ensure that the platform has growth potential for new capabilities.

The U.S. Army Aviation Center at Fort Rucker, Ala. prioritized the materiel solutions and recommended that modification of an existing helicopter platform be the method of fulfilling the ARH requirement. In accordance with this guidance, the ARH system is defined as a modified off-the-shelf aircraft integrated with non-developmental mission equipment packages (MEP). The initial capabilities document for the ARH was approved last June and the Joint Requirements Oversight Council approved the capabilities development document in December, setting the conditions for the Army to move forward.

### What is the ARH?

The armed reconnaissance helicopter will be a relatively inexpensive armed aerial platform that will replace the OH-58D and will provide interoperability with organic and joint fires systems, and manned/unmanned aviation platforms. The system will be supportable and affordable within the planned logistics environment and level of resources, and be viable throughout its life cycle.

The ARH will be capable of operating worldwide in all airspace under visual (VFR) and instrument flight rules (IFR). The aircraft will be a dual-crew station, single-pilot aircraft with all systems operable from either pilot station. The standard armed reconnaissance configuration includes the sensor assembly, active and passive countermeasures, two fully loaded 7-shot rocket pods, and crew station armor. It will be capable of cruise airspeeds of at least 100 knots true (at 4000 feet and 95 degrees Fahrenheit) in the standard ARH configuration. The ARH MEP provides enhanced situational awareness and survivability through active and passive countermeasures, target acquisition, organic lethality, and robust Army and joint interoperability. The ARH will have a slewable target acquisition sensor suite (TASS) controllable from both pilot stations. The

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TASS will consist of the following equipment: infrared imaging sensor, color television, laser rangefinder and designator, laser spot tracker and laser pointer.

The ARH will be able to communicate on the battlefield with an advanced communications suite that ensures connectivity with Army, joint and coalition forces for clear and secure voice and secure data. The aircraft will have a global navigation system that provides accurate location information for intelligence purposes and reporting, quick response to mission changes, precise target handovers for engagement of targets, and with use of civilian and military precision approach landing structures.

### Acquisition Strategy

The challenge for PEO Aviation is to find an aircraft to fill the capability gaps and quickly get it in the hands of aviators and maintainers in the field. This is an ambitious program. However, Army Aviation leadership remains

committed to ensure ARH threshold requirements do not exceed industry's capability to provide the platform within cost and schedule parameters.

PEO Aviation is working very hard to streamline the acquisition process, and ensure close coordination with the Training and Doctrine Command, the Army and Joint Staffs, test community, and other key players in order to compress the delivery timelines for the ARH program. Market research shows that there are multiple vendors likely to enter the ARH competition. Several existing helicopter platforms potentially could be modified to meet the ARH required capabilities.

A source selection implementing full and open competitive procedures will be conducted in mid fiscal year 2005 to determine the Army's platform of choice. Industry partners have been and continue to be invited to assist with defining the existing technology to meet the aggressive timeline and production schedules. A successful Industry Day was held

## Remembering Aviation Pioneers – Dedication

Article and photos  
by James Bullinger

**I**n the history of the Army, February 3, 2005 will not be remembered as a dark, cold overcast day, but as one of honor and remembrance for a group of Soldiers and Department of the Army civilians who gave their lives in the line of duty for the safety of their fellow man.

More than 250 people gathered at Cairns Army Airfield, Fort Rucker, Ala. for the dedication of the Fallen Testers Memorial, the culmination of a four-year project by the U.S. Army Aviation Technical Test Center (ATTC) to honor 28 experimental test pilots and flight test engineers who died during operational test flight missions.

During his invocation, Chaplain (COL) Sonny Moore, the Army Aviation Center chaplain, framed the significance of the memorial and the day's ceremony.

"We remember Father, how when the people of Israel came across the Jordan [river], they marked that place and they said, 'when you see these stones, when the children ask what these stones mean... tell their story.' So Father we are here today with these families and a lot of other great Soldiers and comrades to tell the story of these great heroes," Moore said.

After the invocation, the 38 attending family members of seven of the



ARMY PHOTO BY PAUL REYNOLDS

The Fallen Testers Memorial erected by the Aviation Technical Test Center is located adjacent to the main entrance to Cairns Army Airfield at Fort Rucker, Ala.

fallen testers were presented with yellow roses and command coins as a welcome to the ATTC family.

COL Christopher C. Sullivan, the ATTC commander, stepped forward to welcome all.

"Today we gather to honor those who gave their lives in pursuit of the flight testing mission by dedicating this monument, which will forever represent their courage, their conviction, and their sacrifice. In March 1960, the Army's first experimental flight-testing organization, known as the Army Aviation Test Office, was established at Edwards Air Force Base, Calif. Its mission then was the same as our is today, to push the limits of man and machine and thereby provide this nation's aircrews with

the best possible aircraft to defend our freedoms," Sullivan said.

BG James R. Myles, the Army's senior tester and commander of the Army Test and Evaluation Command in Alexandria, Va., was guest speaker.

Myles credited the successful return of all of the AH-64 Apaches, except one, from the 11th Avn. Regt. mission on the night of March 23, 2003 in Iraq, against a well prepared enemy force, was due to the efforts and work of the aviation experimental test pilots and flight test engineers. He said it was the result of expanding the flight envelope of the aircraft so it will perform beyond what you see in the flight manuals.

"Somebody has to do that. You have to build in survivability and test

## Our team of professionals will explore every possible method to acquire, field and sustain those aviation platforms.

on October 8, two weeks after release of the draft request for proposal (DRFP). The Industry Day provided prospective contractor participants an overview of the draft requirements and program schedule, as well as valuable feedback for the Army ARH program team. Continuing with the streamlined acquisition procedures, the final RFP was released Dec. 8, with proposals due in by Feb. 7. Industry support and interest in the ARH program remains high.

### Path Ahead

The PEO Aviation remains committed to providing our Soldiers with the very best systems possible so that they can fight and win on any battlefield. Our team of profes-

sionals will explore every possible method to acquire, field and sustain those aviation platforms. We are very excited about the capabilities ARH will bring to the warfighter, and are making every effort to quickly progress through the acquisition process. PEO Aviation's goal is to field the right system, with required capabilities and growth potential, at the right time (FUE FY 2008) and at the right price within cost constraints.



*LTC L. Neil Thurgood is the product manager for the Armed Reconnaissance Helicopter program, Program Executive Office for Aviation, Redstone Arsenal, Ala.*

## of the Fallen Testers Memorial



MAJ Evan Brown (left) and MAJ Michael Olmstead uncover the stone monument to the 28 crewmembers that lost their lives during experimental test flights.



BG James R. Myles with Mrs. Kathleen Abbott (left) and Ms. V.J. Lammons, widows of DAC William Abbott and CW3 Hugh Lammons, present a wreath in remembrance of all fallen testers during the dedication ceremony.



Mrs. Patti Valle and Ken Jensen, widow and brother of fallen tester CPT Tim Jensen, pose for a family photo next to the stone monument.

it beyond its limits. The people who do that are our Experimental Test Pilots and Flight Test Engineers," Myles said, "Aircraft today are flying at sustained operational tempos in Iraq that are five times the normal flight rates."

"By the very nature of the mission our experimental [test] pilots are asked to perform, they have operated in areas that we now defined as high risk today. To purposely take an aircraft to the very edge of its limitations requires a special person, someone who believes deeply in the mission, deeply enough to put his or her life on the line to execute that mission. The

fallen experimental pilots and flight test engineers we honor today were just those types of people. Great Americans, great Soldiers, great aviators, and the best of the best pilots," Myles said.

DAC (and a retired LTC) Lynn Hanks, the ATTC's chief experimental test pilot, served as the narrator for the unveiling of the stone monument.

"The following personnel are honored here forever. The stone is cut with their names and the dates of their deaths," Hanks read. As he began, members of the 98th Army "Silver Wings" band played a somber melody. Hanks

then read aloud all of the 28 names.

A wreath was placed next to the stone monument in remembrance of the five DAC employees, one enlisted man, five warrant officers and 17 commissioned officers lost over the past four decades.

Then a lone bugler played "Taps" as a final farewell to the men being remembered.

**STONE INSCRIPTION:**  
"THIS MEMORIAL IS DEDICATED TO HONOR THE MEMORY OF ALL U.S. ARMY FLIGHT TEST CREWMEMBERS WHO LOST THEIR LIVES IN SUPPORT OF EXPERIMENTAL FLIGHT TESTING"

### FALLEN TESTERS

May 26, 1964 LOH-5  
DAC Robert N. Turk  
August 11, 1965 U-8  
MAJ Richard D. Johnson  
LTC Austin K. Veatch, Jr.  
January 22, 1971 UH-1  
MAJ Milton R. Roberts  
February 22, 1974 OV-1  
MAJ Frederick D. Daniloff  
CPT Kenneth Schrantz, Jr.  
March 27, 1976 B-214  
CPT Gary E. Hill  
DAC Emmett J. Laing  
May 26, 1976 T-42  
CPT Michael A. Hawley  
LTC William R. Horton  
PV2 Alan C. Schardijn  
April 5, 1979 OV-1  
CPT Donald G. Monk  
CW3 Michael L. Mooring  
February 21, 1980 T-2  
MAJ James D. Kelly  
June 12, 1981 AH-1  
MAJ Douglas L. Dowd  
November 15, 1982 OV-1  
CW3 Hugh A. Lammons  
DAC John D. Ottomeyer  
August 19, 1983 AH-1  
MAJ James N. O'Brien  
February 15, 1985 AH-1  
1LT Carey L. Beavers  
CPT Tim A. Jensen  
March 7, 1986 PA-32-300  
LTC (Ret) John C. Henderson  
April 24, 1986 L-13  
CW3 Peter G. Petersen  
May 16, 1988 AH-1  
CW2 Richard L. Demello  
2LT William H. Mixon, Jr.  
July 16, 1992 C-23  
DAC William Y. Abbott  
MAJ Michael B. Farmer  
DAC Robert D. Robbins  
July 20, 1992 V-22  
CW4 (Ret) Patrick J. Sullivan



The brown-out situational awareness upgrade (BSAU) provides pilots with landing cues to safely land aircraft in brown or white out situations. Here the system is demonstrated with a CH-47 aircraft landing with the BSAU assist in a series of shots.

**SPECIAL FOCUS**  
Hardware Update

## TRANSITIONING TECHNOLOGY TO ENHANCE AND

# SUSTAIN AVIATION

By COL William M. Gavora

**T**he Aviation Applied Technology Directorate (AATD) located at Ft. Eustis, Va. is a subordinate command within the Aviation and Missile Research, Development and Engineering Center (AMRDEC) of the Research, Development and Engineering Command (RDECOM), under the Army Materiel Command. Our mission is to *transition technology that enhances and sustains Army aviation to Soldiers*. We accomplish this by developing, demonstrating and applying critical technologies that enhance the capability, readiness, safety and affordability of Department of Defense rotorcraft and tactical unmanned aerial vehicle (UAV) systems; providing quality and timely engineering services, and rapid prototyping support to Army Program Executive Offices, the U.S. Special Operations Command, and others.

AATD consists of approximately 200 civilian and military personnel, approximately two-thirds of which are professional engineers. The command is organized into three technical divi-

sions (Power Systems, Platform Technology and Systems Integration) and one Rapid Prototyping division that support each other on a variety of science and technology (S&T) and customer-funded projects. It is a vertically and horizontally integrated command that can design and fabricate solutions, then install and integrate these solutions on test aircraft. And with delegated airworthiness release authority and specially trained experimental test pilots, we can perform flight tests and communicate results to decision makers. AATD also possesses organic personnel, legal and contracting support that when combined with the command's small size, gives it the agility to complete missions expeditiously and relatively inexpensively.

Over the past year, AATD has had numerous successes supporting current operations, while our platform Project Managers (PM) have advanced a wide range of S&T initiatives. Our primary in-theater role has been the installation and integration of satellite communications equipment on UH-60 Black Hawks and CH-47 Chinooks, provid-

ing them with over-the-horizon communications. Likewise, this command integrated and flight-tested upgraded aircraft survivability equipment on the C-23B airplane, and deployed to Iraq to provide assistance when required.

AATD has worked closely with the PMs for UH-60 and CH-47, and others to develop a brown-out situational awareness upgrade (BSAU) for these platforms. The common Block I system consists of blended inertial-global positioning system hover symbologies, driven by an embedded global positioning and inertial navigation system, and displayed on a multi-functional display (MFD). The MFD replaces the analog horizontal situation indicators (HSI) in both cockpits.

The Army's current Aviation Modernization Plan specifies that S&T supports aviation by providing the knowledge needed to upgrade existing systems or develop new ones to meet mission requirements. The core mission of AATD has traditionally been and remains S&T, and we are currently involved in a wide variety of efforts and initiatives that will benefit Army aviation in the future. Those efforts include developing Army technology objectives

and conducting technology demonstrations in the areas of propulsion and drive systems, aircraft structures, flight controls, rotors and architectures, aircraft survivability and UAVs.

The Rotorcraft Drive System – 21st Century (RDS-21) program will develop face-gear technology and advanced manufacturing techniques to demonstrate major advancements in rotorcraft drive system technology. Work is currently ongoing with Boeing and Sikorsky to validate advanced methodologies, design tooling, and modeling in order to produce a lightweight, high-performance system with reduced production, and operations and support (O&S) costs. This is an Apache Block III technology and is applicable to all our helicopter platforms, the A-160 Hummingbird UAV, and the Future Combat Systems (FCS).

The Survivable, Affordable, Repairable Airframe Program (SARAP) leverages technologies from other structure programs. AATD has teamed with Boeing, Sikorsky and Bell Helicopter to develop new composites that will reduce aircraft weight, provide better ballistic tolerance, improve crashworthiness, increase affordability, and reduce development time through virtual prototyping, new processes and high-strength materials.

The objective of the Manned-

AATD has installed satellite communications equipment on CH-47 Chinooks (above right) and UH-60 Black Hawks aircraft for over-the-horizon communications in Iraq and Afghanistan.

AATD integrated and flight-tested upgraded aircraft survivability equipment for the C-23B cargo aircraft, including missile warning and flare/chafe dispensers.

Unmanned Common Architecture Program (MCAP) is to leverage off-the-shelf technology in order to demonstrate advanced common architectures that will reduce weight. By going to an integrated box, O&S costs savings are achieved. In addition, an open standard will counter obsolescence and allow for easier certification. MCAP has been designated as an FCS baseline technology and will be integrated into the Apache in 2006.

AATD is one of the Army's leading proponents of UAVs, and our primary areas of focus are manned-unmanned teaming and unmanned autonomous collaborative operations. One of AATD's most important efforts is the Airborne Manned-Unmanned System Technology Demonstration (AMUST-D). The objective is to demonstrate the teaming of manned helicopters and UAVs through the incorporation of cognitive decision aiding technology, precision targeting, and Level IV UAV

control. It is our intent to integrate this technology into an AH-64D Longbow Apache and an Army airborne command and control system (A2C2S) as part of the Hunter standoff killer team (HSKT) advanced concept technology demonstration (ACTD). The HSKT will demonstrate an increased operational capability by teaming a Hunter UAV with Longbow Apaches, USAF F-18s and the A2C2S. This is a six-year program that will culminate with a two year extended user assessment with the 1st Cavalry Division during FY 2005 and 2006.

We are currently leading an effort to improve aircraft survivability. Our objective is to pursue a holistic and comprehensive approach while leveraging technologies being developed by multiple Army, Joint and DOD agencies, and industry, in moving from our current platform-centric approach to one that will be team-based including UAVs. Our basic strategy will employ integrated technology demonstrations with opportunities to spin-off technologies directly to existing platforms.

Finally, DOD and the services recently agreed to conduct a two year concept exploration and refinement process to determine what is technically feasible and facilitate requirements completion that will drive configuration options for the development of a joint heavy lift (JHL) vertical take-off and landing (VTOL) aircraft. AATD has been assigned responsibility, under the leadership of PEO Aviation's Cargo Helicopter Project Manager's Office, to execute this process.

In summary, AATD has 60 years of experience developing innovative solutions, and will play an important role in shaping the future of Army Aviation. We will continue to support our customers and their immediate needs through our unique rapid prototyping capability, and in the long-term through the S&T process. At AATD, we are striving to be recognized as experts in the field of rotorcraft and tactical UAV systems and technology, known for the quality of our work, and the excellence of our people.



*COL William M. Gavora is the commander of the Aviation Applied Technology Directorate, with the Aviation and Missile Research, Development & Engineering Center, U.S. Army Research, Development and Engineering Command, Fort Eustis, Va.*



COURTESY ARMY PHOTOS



COMPOSITE ARMY GRAPHIC

# 2 LEVEL MAINTENANCE

## What Has Changed?

By LTC Eldon E. Franks



Left: The field maintenance level of 2LM emphasizes "on-system" and "repair and return to user." Here SGT David Wood with Co. F, 131st Avn. Regt., Georgia ARNG, replaces an engine on one of his unit's 14 CH-47D helicopters deployed to Afghanistan.

Right: 2LM helps to keep aircraft mission ready at the lowest level. SSG Bona Dyal with Co. B, 1st Bn., 171st Avn. Regt., prepares his UH-60 Black Hawk for a mission in Iraq.

from the field, "But we still have aviation unit maintenance (AVUM), aviation intermediate maintenance (AVIM), and depot when you look at the force structure, so how do you say we have two levels of maintenance?" This article will address this very question.

### A HISTORICAL VIEW

Let's begin with a little history. In 1986 the Army produced a new doctrine called Air-Land Battle. This new doctrine changed the terms of maintenance for Army aviation by defining them as three levels: AVUM, AVIM, and depot. Prior to Air-Land Battle doctrine we had four levels of maintenance defined as user, direct support (DS), general support (GS) and depot. The DS became the AVUM, the GS became the AVIM, while the depot remained static. The only thing that really changed was that Army Aviation didn't have a separate name for the crew chief or user level maintenance in the new doctrine. We changed command relationships around our maintenance structure.

Now let's clarify some of the terms framing our new doctrine. The key terms for this discussion are "echelon" and "level." Each of these terms has several different definitions according to Webster's, but for the sake of this discussion, we'll define "echelon" as a type of unit, like AVUM, AVIM, and depot. We'll use "level" to differentiate between the type of work accomplished by the unit, like organizational, direct support, general support and depot. Our ground maintenance doctrine is also changing to the 2LM concept as we transform. The new ground maintenance doctrine designates field and sustainment levels as on-system repair and off-system repair.

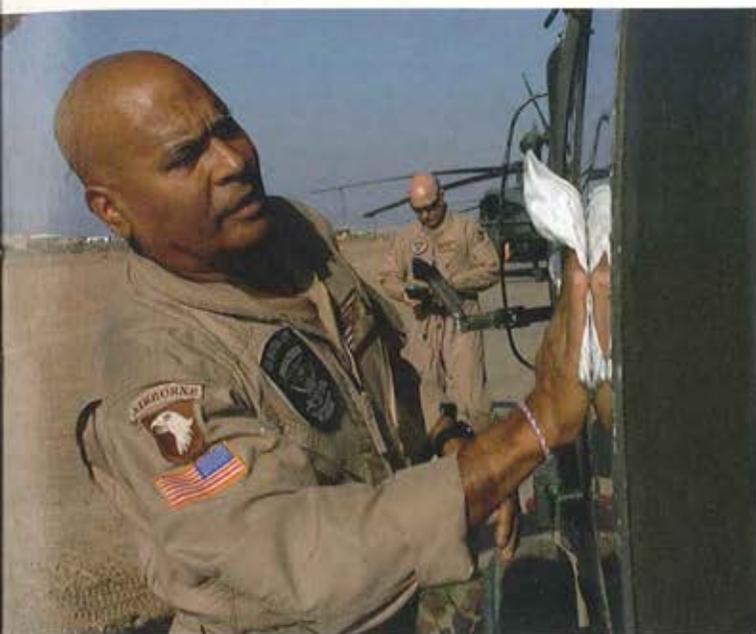
### TWO LEVEL APPROACH

The two-level maintenance system for Army aviation essentially combines the organizational and DS levels of maintenance, now called "field maintenance," and combines the GS and depot levels called "sustainment maintenance." Field maintenance is generally characterized by "on-system maintenance" while sustainment maintenance is characterized by "off-system maintenance." Stated another way, field maintenance is component replacement and sustainment

*Editor's note: This is the fifth in a series of articles on Aviation logistics transformation from the Aviation Logistics Division of the Office of the Deputy Chief of Staff for Logistics, G4. This month's article looks at the transformation to two level maintenance.*

**M**aintainers from across the Army aviation community have questions about the big doctrinal changes associated with transforming to Two Level Maintenance (2LM). The new doctrine states that we have two levels of maintenance: field and sustainment. The field level includes all the maintenance structure organic to a multi-functional aviation brigade. The sustainment level includes the depot, national maintenance program (NMP) providers and original equipment manufacturers (OEM) maintenance support. However, we continue to hear the same question

ARMY PHOTO BY SPC CLAUDIA K. BILLARD



ARMY PHOTO BY SPC LEAH R. BURTON

maintenance is component repair. Also, field maintenance supports repair and return to user, while sustainment maintenance is repair and return to the supply chain.

With this final delineation of the definition you can see that our AVUM and AVIM primarily repair and return to the user; where the depot and NMP providers repair and return to the supply system. Now keep in mind that maintenance is driven by money and due to the high cost and low density of some of our critical spares, we have to keep a component repair capability forward in the battle space. So for aviation, 2LM includes a limited component repair capability as a part of the field level.

## A NEED TO TRANSFORM

Transformation is dramatically changing traditional command relationships across the Army. The Army is rapidly shifting to the Unit of Action (UA) doctrine that provides brigade commanders more direct control over their assets. In the process of moving the ground DS and GS maintenance structure to the UAs, the division support command (DISCOM) was eliminated.

Army aviation is restructuring as recommended by the Aviation Task Force and approved by the Army's Chief of Staff into the UA concept. In this process we will eliminate six aviation brigades from the active force and six from the National Guard. This restructuring will bring a couple of very important changes to the way we do maintenance.

## THE BIG CHANGE

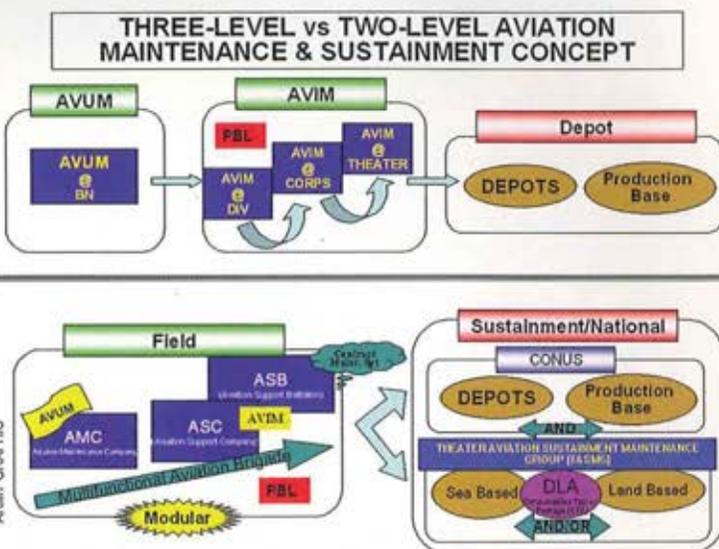
The first big change is each multi-functional aviation brigade (MFAB) will no longer pass maintenance back to a higher command's AVIM unit. The manpower from the six brigades that were eliminated will be spread across the remaining MFABs. This in-turn has increased the number of maintainers within the MFAB.

The second big change is who owns the aviation maintenance assets. The old aviation brigade commander owned his battalions and the AVUM companies within them. However the AVIMs and their battalion organizations were owned by the commanders of the DISCOMs, and the corps support command and the theater support

command. The corps and theater AVIMs also provided pass back support to the divisional AVIMs. You can see this relationship in the top half of the attached figure (below). Transformation aligns the aviation support battalions (the old divisional ASBs) with the MFAB commander who owns the aircraft. This shift in policy enables the MFAB commander to organize his aviation maintenance structure to better sustain combat power based upon mission, enemy, terrain, troops and time available or METT-T. The MFAB is no longer required to compete for assets within the DISCOM or area support group.

## OUT WITH THE OLD

Okay, so you're saying, "Nothing has changed, we still have the AVUM, AVIM and depot echelons." Well yes, for now. Although we use the familiar names of AVUM and AVIM in the discussion, we will soon change these names to fit our transformation initiatives. AVUM companies will be called Aviation Maintenance Companies (AMC), and AVIMs will be called Aviation Support Companies (ASC). As diagnostics, automation and component reliability improve, we move closer to the concept of condition-



ARMY GRAPHIC

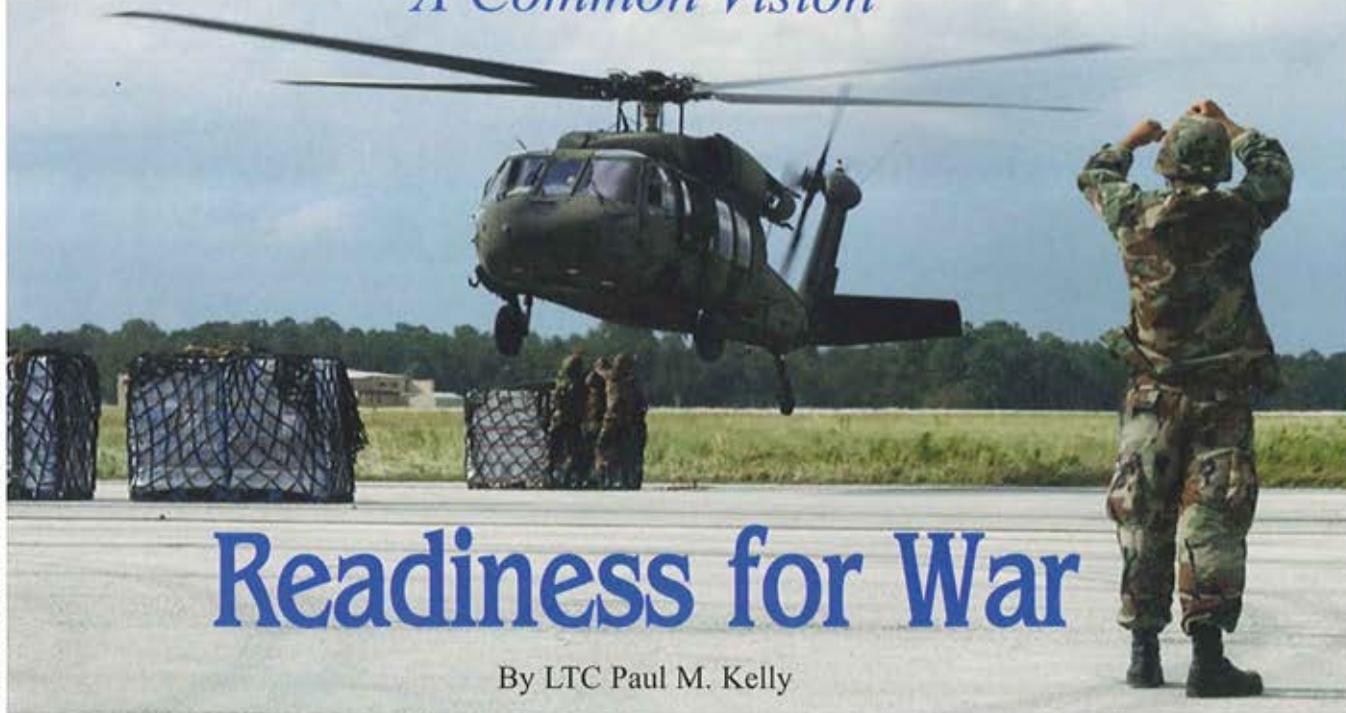
2 Level Maintenance strategy transforms from legacy organizations and doctrine.

based maintenance (CBM). With CBM we will achieve greater predictability, become more efficient, and reduce the reliance on forward component repair. For now however, we're a long way from that goal, but moving in the right direction.

In summary, the new shift in doctrine and the term 2LM is primarily focused on the changes to the command structure of Army aviation as we transform. The field level maintenance is performed by Soldiers in the multi-functional aviation brigades and the sustainment level maintenance is performed by the depots, NMP providers and the OEMs. These changes are now being captured in our maintenance manuals, regulations and doctrine. Hopefully this article has cleared away some of the fog in regards to 2LM.



*LTC Eldon E. Franks is the Deputy Chief, Aviation Logistics, for Current Operations and Transformation in the Aviation Logistics Division, Office of the Deputy Chief of Staff for Logistics, G4, Washington, D.C.*



# Readiness for War

By LTC Paul M. Kelly

**Editor's note:** In an effort to address relevant issues of interest to members of Army National Guard and Army Reserve aviation units, Army Aviation magazine has invited the National Guard Bureau Headquarters to contribute articles of interest. This is the first article in a series to be published. We would like to hear your comments on what you would like addressed and to get your feedback on what we publish.

It is my privilege to serve as the current Chief of the Aviation and Safety Division for the Army National Guard. Much of the most timeless experience of Army aviation is now based in the two resourced reserve components. I'm proud to say that many successes in current theaters of operation are due directly to the tenacity, dedication and personal sacrifice of our National Guardsmen and women operationally deployed in support of the war on terrorism throughout the United States and overseas in Kosovo (the NATO KFOR mission), and in combat operations in Afghanistan and Iraq.

In this inaugural article, I thought it important to emphasize an issue, which Army Aviation magazine readers may hear about regularly – that of the Army National Guard's unquestioned readiness for war. Although we are resourced in a different manner and have separate peacetime missions, National Guard aviation remains committed to the one-Army concept, the prosecution of the war on terrorism, and the successful transformation while we fight. The differences in how we accomplish our mission in peacetime are important to highlight, but those "core strengths" that collectively bind us, as combat multipliers for the commander in the field, always remain our prime focus.

An important difference between the Active and Reserve component, which can sometimes have lesser visibility to strategic thinking and goals at the major command level, is the inherent "all volunteer" status of the

National Guard. Although the Active Army is an "all volunteer" organization, once you are in – you are in "for the duration" and are mostly subject to world-wide assignment at any point in your career. These are acknowledged, important factors and strengths in a standing Army, which allow for career growth and service in numerous assignments in different theaters and at increasing levels of responsibility, contributing to a well-rounded aviation warfighter.

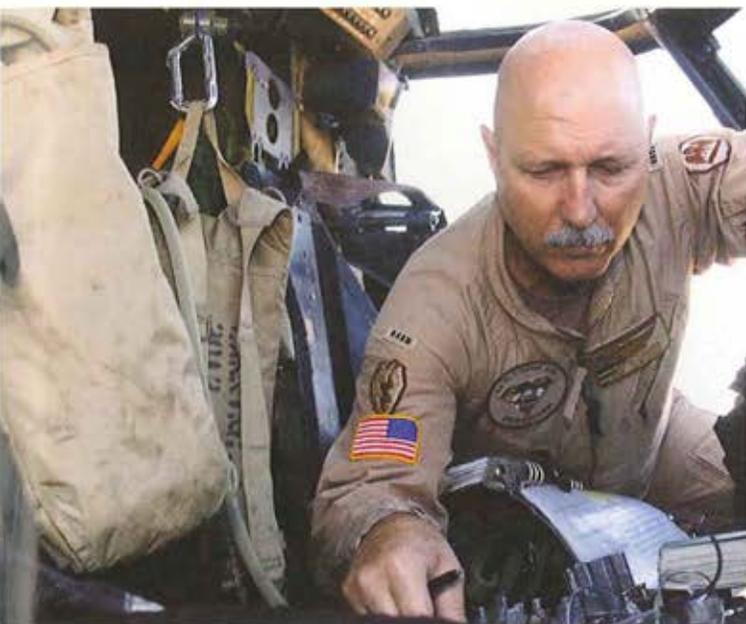
On balance, National Guard Soldiers have a comparable history of excellence and centuries of success as deployable warfighters. Even with Army aviation's transformation to new organizational constructs, reduced or delayed modernized-aircraft fielding, legacy-system retirements, establishment and activation of new modified tables of organizations and equipment, Guard Soldiers mobilizing for deployment continue to meet and exceed Army training and readiness standards for war.

It's important to note that Guardsmen meeting muster-for-war are typically doing so on a 40 organized-training-days-per-year basis (on average) and are expected to perform on par with their Active Army component counterparts. Their leaders accomplish the same level of military education and fly all of the same flying-hour minimums for the systems in which they perform their crew duties. They meet the same simulation minimums as all other comparable Army aviators do and are subject to all of the same external assistance visits. Additionally, they balance their National Guard duty time with full-time civilian employment in all walks of life, and more often than not, from excessive distances from their places of recurring military duty.

Although National Guard aviation units have different peacetime missions, their role and service is important to their respective states. After three hurricanes devastated large parts of Florida in 2004, it was Guard aviation lifting crucial supplies of food, water and other materials into affected areas.

## How Do Guard Soldiers Do It?

Traditional Army Guard aviators serve one weekend per month and two weeks during the year and must meet aircrew training program (ATP) flight hour standards toward their annual flight minimums in their aircraft. They likely did so using additional flight training periods or AFTPs, rather than during their monthly drill periods. These AFTPs are four hour periods of inactive duty for training (IDT) military duty that are telephonically scheduled by the Soldier at their State's Army Aviation Support Facility (AASF). Typically these AFTPs occur in the evening hours, after the Soldier has departed his or her primary place of civilian employment. They commute to the AASF for mission-briefings, pre-flight and mission execution. A minimum of 1.5 flight hours must occur in order for the four hour AFTP to be "counted" towards annual duty minimums. Members of the National Guard in a non-alerted, non-mobilized status are the acme of volunteerism. Their recurring participation in military training at all levels is accomplished in a spirit of camaraderie and a genuine desire to be of service to their country and their community.



ARMY PHOTO BY SPC LEAH R. BURTON

National Guard aviation units are deploying to support combat operation during the global war on terrorism. Here CW4 John Lanning, Co. A, 1st Bn., 244th Avn. Regt., Louisiana ARNG, adjusts radio frequencies prior to a flight to Fallujah, Iraq. Lanning was part of Task Force 185 Aviation during a yearlong mobilization.

## How Does The Unit Do It?

National Guard aviation units are managed through a multi-year training cycle that culminates with their highest readiness level. As a unit increases from post-mobilization and RESET through ready-deployable, it will likely participate in several key events. These may include participation in unit collective training events or an overseas duty for training rotation, such as a Bright Star exercise in Egypt or a Team Spirit in Korea. A unit may also spend an annual training (AT) period one year in a nation-building exercise, such as New Horizons in

Central or South America. A major indicator of success for any Guard aviation unit is completion of a rotation at one of our nation's combat training centers (CTC) at Fort Irwin, Calif., or Fort Polk, La.

## How Do We Do It?

As commanders in the field make battlefield requirements known to the senior leadership of the Army, the call goes out to the major command (MACOM) headquarters of each component to assess their ability to fill that need. At the National Guard Bureau, that means my team of mobilization, operations and logistics specialists and force structure organizational integrators come together, along with representatives from safety and standardization, to review all available data and make their recommendation to the ARNG senior leadership as to who is best-suited to meet the need in the timeline requested. Factors considered include unit status reporting data, successful participation in a CTC rotation, the nature of the unit's last deployment, most recent aviation resource management survey results, and any known, forecast or pending change to the unit's force structure, mission or assigned major combat weapons systems. Once approved, our leadership submits the aviation Unit of Action (UA) nomination (or other structure) to the U.S. Army's Forces Command (FORSCOM) for their consideration.

Once FORSCOM looks across all components for available forces and determines who is best-suited to fill that need, they notify Headquarters, Department of the Army for the issuance of the alert and/or mobilization order, and also inform the affected MACOM so coordination can be accomplished with (in the Guard's case) the State's senior leadership, to provide as much lead-time as possible. Once notifications are made, the NGB assists the selected units and states complete preparations for mobilization and deployment. Factors which may require special attention, include filling-out selected occupational qualification training needs, rounding-out any noted equipping shortages where possible and identifying any collective training shortfalls which could be scheduled or corrected prior to the mobilization date. Once decisions are finalized at the HQDA level, the entire process of mobilizing a unit for war is dynamic and fast moving.

## Summary

The Army National Guard aviation community remains dedicated to helping all components of the Army develop a stronger Army aviation focus. With the added voice of the Army National Guard and our increasing membership in professional organizations such as AAAA, comes considerable congressional visibility on Army aviation's common goals. Our combined voice and common vision for the future of Army aviation, along with continued support from industry, help to ensure that our warfighting needs are well represented and our future aviation fighting force remains "Above the Best."



*LTC Paul M. Kelly is the chief of the Aviation and Safety Division, National Guard Bureau, Army National Guard Readiness Center, Arlington, Va.*

# POTM

## People on the Move

**Editor's Note:** Army Aviation is seeking good-news announcements of aviation-related professionals who are on the move. If you or your organization have an upcoming change of leadership (at the battalion or squadron level, or higher for MTOE and TDA units), please forward the information to James Bullinger, e-mail: editor@quad-a.org.

### Army Aviator Commands Navy Test Pilot School



NAVY PHOTO BY KURT LENGFIELD

LTC Steven W. Kihara became the first Army commanding officer of the U.S. Naval Test Pilot School after relieving Navy CDR Paul A. Sohl during a change of command ceremony Jan. 13 at Patuxent River Naval Air Station, Md. Sohl had commanded the USNTPS since April 2003, when Kihara was assigned as his executive officer. Kihara, a master aviator and a 1994 graduate of USNTPS Class 106, is certified as an experimental test pilot and has approximately 3,800 flight hours in over 60 aircraft. The USNTPS is a joint training command which provides instruction to experienced pilots, flight officers and engineers in the processes and techniques of aircraft and systems test and evaluation. The school investigates and develops new flight test techniques, publishes manuals for use of the aviation test community for standardization of flight test techniques and project reporting, and conducts special projects. USNTPS maintains its staff as a focal point of expertise providing the aviation test community with engineering and training consultation. Pictured above: LTC Kihara shakes hands with Navy CAPT Thomas P. Phelan, Commander Naval Test Wing Atlantic, after assuming command of the Naval Test Pilot School from CDR Sohl (center).

Fiscal year 2005 Captain	2613	Chetcuti, Steven*	2820	Gastellum, Miguel*	
Active component Selection	3157	Chojnacki, Kip M.	3612	Geffert, John M.	
Board results released Feb.	1327	Chong, Edmund K.	4277	Goodwin, Michael*	
3. Congratulations to the following 267 Aviation branch officers.	2968	Cibik, David C.*	1038	Horacke, Brande L.	
2322	Aardappel, Lauriene	918	Clark, Michael J.	2016	Gourgues, Michael*
2659	Adams, Jerrod C.*	3317	Cleveland, Trent A.*	2446	Grant, Aaron J.*
1803	Albert, Cameron L.	3180	Colvin, Nathan M.*	3109	Greenwood, Richard
411	Aldrich, Matt M.	1430	Corrado, Lawrence J.	3017	Gregoire, Nicholas
1924	Alexander, David I.	529	Craven, Samuel L.*	3182	Griesmer, Timothy*
829	Anderson, Jason E.	3412	Crouse, Robert L.	845	Gysler, Suzanne K.
3175	Andreson, Kevin P.	3361	Cryer, Ryan A.*	4064	Hambrecht, Allison
3164	Andreson, Tiffani A.	4011	Daigle, Paul J.	1762	Hambrecht, Erik C.*
1614	Andringa, Brett E.	3262	Dansberger, Sean C.	4036	Hanna, William F.*
396	Archer, Daniel L.*	2809	Darling, Howard K.	2756	Harloff, Timothy A.
3798	Arney, Ashley M.*	2264	Davis, Erin P.	1320	Harris, Letetia M.*
2839	Artino, Daniel S.	4	Davis, Joseph H.	2153	Hedberg, Ryan C.*
1175	Ashley, Beau J.	2856	Davis, Kenneth V.	1862	Hedderly, Mitchell
1436	Atkins, Ryan S.	1658	Davison, Wesley W.	2770	Heppel, Adam D.*
3446	Ault, William T.	2242	Deforest, Andrew*	3257	Hill, Grant H.
3308	Baker, Miles A.*	1714	Deforest, Patrick M.	2188	Holcroft, Robert S.
3326	Baker, Spencer C.*	1422	Demonstranti, James	3267	Holden, Darrell P.
3333	Bakke, Peter C.*	490	Dietz, Alicia	1653	Holland, Joseph P.
2677	Beale, Robert K.*	3503	Dinehart, Jacquelin*	3233	Holten, Nicholas*
3076	Bell, Joseph C.*	2065	Dominguez, Gerardo*	2759	Hommerding, Dale*
2612	Bergstresser, Sid*	3850	Driscoll, John T.	2752	Horn, Nicholas W.*
35	Bock, Adam R.*	3531	Duncan, Clayton J.*	4176	Hughes, Kevin M.*
503	Boisvert, Nicholas*	3192	Duncan, Nickolas*	447	Hughes, Roger E.
862	Bonanno, Laura L.	1397	Dunford, Myron T.	3133	Hull, Richard E.
3309	Boni, Joseph J.	1330	Duplin, Roderick S.	3430	Humble, Michael J.
1911	Bonner, Dianne L.	2290	Dyer, Michael F.*	1069	Hummel, Brian M.
1800	Brant, James E.	157	Easter, Kevin M.*	3002	Humphrey, Matthew
1075	Brice, William D.*	1944	Echeverria, Nestor*	2078	Huneycutt, Joshua R.
3176	Brown, Brian L.	1193	Eisenhauer, Ryan L.	3610	Isa, Scott R.
558	Brown, Jordan A.	2842	Emery, Jason B.*	3419	Isaac, Nathan T.*
3638	Brown, Ronald S.*	1759	Erdman, Elizabeth *	3426	Izzo, Daniel D.
738	Brown, Tobin A.	3473	Ewing, Jonathan P.*	3420	Jackson, Samuel*
1822	Buchholz, Aaron J.*	319	Ferguson, Kenneth	3839	James, Eric A.*
2990	Buckner, Sean M.*	788	Ferris, Scott M.	1669	James, Jason D.*
3331	Bughman, Robert*	3349	Fett, Garret D.	2803	Jin, Sam S.
2170	Burke, Krispin J.	2132	Fischer, Lucas M.	3071	Johnson, Hiram R.
1087	Burrow, Ryan Y.	2193	Flanagan, Allison M.	3387	Johnson, Kimberly D.
3020	Burton, Daniel J.*	2815	Fontaine, Gregory D.	3994	Kafer, George S.
2096	Burton, Dustin R.*	1923	Forgeng, Joseph T.	1756	Kain, Brian T.
2497	Byrnes, Bridget E.*	212	Forsyth, David J.	586	Kane, Tina L.*
1616	Cain, Phillip B.	1630	Fugere, Paul M.	1667	Keenan, Kevin D.
2386	Calvert, Damion*	2172	Fugit, Ryan D.*	1003	Kelly, Ryan G.*
3355	Canterbury, Justin*	1084	Fuller, Ian M.	2730	Kennedy, Kathryn A.
4121	Castro, Juan C.	3995	Funderburg, Robert	1414	Kennedy, Stephen P.
		3275	Gallardo, Vijay M.	2864	Killoran, James P.
		3624	Garcia, Pablo M.	3086	Kim, Simon Y.*

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AIRBUS



EUROCOPTER



SOCATA



C-295



METEOR



GALILEO



ARIANE

# PROVEN WORKHORSE FOR THE US ARMY AND ARMY NATIONAL GUARD

The C-295 medium airlifter – tried, tested and proven – offers best value for tactical transport to deployed forces. Long range, large payload and rugged field operations enable rapid deployment to austere locations worldwide. The C-295 is the right answer for the Army's current needs and Future Force missions.

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- MULTI-MISSION CAPABILITY
- MILITARY AND FAA CERTIFIED
- BEST VALUE – LOWEST LIFE CYCLE COST



## People on the Move *continued from page 36*

### Captain Active component Selection Board results

3643 Koontz, Jeffrey T.*	1823 Peters, Derrick A.	170 Smith, Archie L.
1775 Kurtts, Robert L.*	3616 Peterson, Matthew	523 Smith, Luke M.
1331 Lanzafama, Michael	3843 Phillips, William L.*	2152 Smith, Matthew J.*
1206 Leblanc, Kenneth M.	1839 Philyaw, William M.	682 Smith, Terrence N.
933 Lewis, James B.	1180 Pierson, David C.	3363 Snowden, James M.
929 Luecke, Nathan C.*	2962 Pikner, Stephan J.	931 Snyder, Joshua P.
1661 Macharrie, John R.	2879 Ploetz, Nicholas J.*	2600 Spitzack, Cole A.*
3185 Magennis, Matthew	1815 Polen, Richard A.	3100 Springer, Adam C.
1020 Magnussen, John T.	495 Porter, James R.	2196 Spry, Tanner J.*
1744 Mann, Lucas A.	3221 Powers, Joshua S.*	4143 Squyres, Daniel J.*
2477 Marcato, Paul C.*	2239 Quinn, Peter D.*	2891 Steadman, Benjamin*
3259 Marchetti, Michael	3072 Rains, Matthew C.*	4381 Stelker, Raymond*
444 Marvin, Christopher	4355 Rainwater, Derrick*	3388 Stone, Jeffrey B.*
3250 McBride, James M.	3358 Rariden, Matthew J.	4171 Templeton, Steven B.
2627 McClain, Anne C.*	741 Reeves, Adam J.	2772 Thomas, Hans J.*
3238 McCoy, Brian T.*	3447 Reihner, George A.	2851 Thompson, Nathan*
4020 McGraw, Matthew M.	2995 Reynolds, James B.	3152 Torres, Joseph A.*
1599 McKinney, Paul L.*	3279 Riedel, Nathan A.	3254 Trippodo, Dominic*
1757 McMannes Matthew	2976 Ryan, Nicholas D.	3762 Tullos, Jonathan R.
1866 McNulty, Keelan P.*	3033 Sabourin, Adam C.*	2134 Tye, Erica J.*
3227 McRay, Brandon G.	1650 Sage, Ann M.	1810 Underwood, Clinton
310 Megerdoomian, Eric	2246 Sage, Joseph D.*	3190 Unger, Curtis J.
2427 Milas, Michael J.*	1443 Sanders, Craig A.	3230 Utzig, Nicholas M.
1906 Miles, Brian J.	2090 Sartori, Timothy E.	1597 Veneberg, Ryan L.*
2390 Mills, Casey D.*	4077 Sarver, Aaron D.*	2481 Villa, Adrian
2917 Minear, Matthew*	2186 Sauer, Jeremy L.*	3197 Walker, Luke S.
4178 Mitchell, Kim A.*	4343 Sauter, Edward B.*	1617 Walters, Olin L.
4383 Mondido, Jennifer*	2250 Schell, Joshua D.	2723 Waters, David E.
698 Morgan, Timothy L.	1312 Schmitt, Peter V.*	3862 Welch, James P.
3409 Morris, Daniel C.*	2272 Scott, Ryan J.	2938 White, William G.*
3038 Moshier, Timothy*	1902 Seibert, Robert P.*	4384 Winston, Jeffrey R.*
3007 Murphy, Brendan P.	2959 Seitz, John D.*	569 Witty, Justin M.*
3652 Nelson, Jeffrey P.	570 Sescilla, Andrew B.	2813 Wolfe, Gabriel M.*
2939 Nesrsta, Ryan C.	2244 Seward, James A.	481 Wolfe, Jeffrey J.*
3064 Nilsen, Karl M.	482 Shattuck, Howard V.	1737 Woolf, Kevin L.
2285 Noonan, Michael*	3285 Sheble, Tyler J.*	3836 Wright, Nicholas A.*
240 O'Neill, Ryan C.	2954 Shimp, Scott N.*	2278 Yopps, Robert O.*
1707 Owens, Kenneth*	1026 Sims, James S.	1246 Zesiger, Bryan C.*
2198 Paladini, Bryan J.	3609 Sims, Joseph E.	592 Zugay, Angela S.
4109 Paulus, Jeffrey L.	1771 Sinn, Jason R.*	
3087 Pearson, Timothy D.	2852 Slominski, Lukasz B.	
2589 Pedregon, Viterbo D.	932 Small, Frank J.	

\* = AAAA Member  
+ = Life Member

### Fort Rucker Names NCO of the Year

SSG Sandra T. Rodriguez, a 91W health care specialist with the U.S. Army Aeromedical Center, has been named the 2004 Non-Commissioned Officer of the Year at Fort Rucker, Ala. The 29-year-old Rodriguez from Niceville, Fla., is the NCO in Charge of the Aviation Medicine Clinic. No Soldier of the Year was selected due to a turnover of personnel during the past year.



Fiscal Year 06 Lieutenant Colonel, Army competitive category, Command and Key Billet selection list released Feb. 8. Congratulations to the following 29 Aviation officers.

### COMBAT ARMS DIVISION

#### 4ER-AVIATION TSS

MAJ Brown, Randall K.\*  
MAJ Lindsay, John J.\*  
LTC Madkins, Lawrence H. III

#### 4K-AVIATION RECON/ATTACK (OH-58D)

##### TACTICAL

LTC Baker, James E. Jr.  
MAJ Hibbard, Lonnie G.  
MAJ Ratliff, Abe R. Jr.\*

#### 4L-AVIATION RECON/ATTACK (AH-64) TACTICAL

MAJ Corson, Michael E.\*  
MAJ Fallin, Donald G.  
MAJ Hedegaard, Michael L.\*  
MAJ Marnon, Paul V.\*

#### 4M-AVIATION ASSAULT TACTICAL

MAJ Carroll, Richard C.\*  
MAJ Farrall, Adrian R.\*  
MAJ Macklin, James R. Jr.\*  
MAJ Stote, Paul E.\*

#### 4N-GENERAL SUPPORT AVIATION TACTICAL

MAJ Arey, Howard E. IV\*  
MAJ Bradley, James H. Jr.  
MAJ Chronis, Nicholas P.\*  
MAJ Evans, John R. Jr.\*  
MAJ Reese, Frances V.\*  
MAJ Tetu, Michael T.\*

#### 4X-INSTITUTIONAL (GARRISON/BSB)

LTC Coffman, Carl R.  
MAJ Rountree, Derek R.

### COMBAT SUPPORT ARMS DIVISION

#### 5E-AERIAL EXPLOITATION TACTICAL

MAJ Hersey, Neil S.\*  
LTC Peavie, Barrett K.\*

### COMBAT SERVICE SUPPORT DIVISION

#### 6H-AVIATION MAINTENANCE TACTICAL

MAJ Bonnell, Brett L.\*  
MAJ Fisher, William O.  
LTC MCGarrity, William D.\*  
MAJ Nitti, Donald R.\*

#### 6HR-AVIATION MAINTENANCE TSS

LTC Enderle, Kimberly A.\*

\* = AAAA Member  
+ = Life Member

# 2004 Parker Aviation Awards Presented

by James Bullinger

The best of the best aviation battalions were recognized at Fort Rucker, Ala. on January 26.

The winners of the 2004 LTG Ellis D. Parker Aviation Unit Awards were honored at the annual awards luncheon held during the Aviation Senior Leaders Synchronization Conference.

In 1992, Army Chief of Staff GEN Gordon R. Sullivan announced during the retirement ceremony for LTG Parker, then Director of the Army Staff, the establishment of a Department of the Army level award in honor of Parker, the third Aviation branch chief and former commanding general of the U.S. Army Aviation Center and Fort Rucker.

The Parker awards recognize excellence in the areas of leadership, training, maintenance and safety during the preceding fiscal year. Competition is open to all active and reserve component aviation battalions.



**Combat Service Support Unit**  
LTC Kyle Campbell, CSM Shirley English-Massey and CW4 Glen Beck accept the best Combat Service Support awards from Parker and Sinclair.

The overall top battalion and winner in the best combat unit category is the 1st Bn., 227th Avn. Regt., 4th Brigade, 1st Cavalry Division, Fort Hood, Texas. The unit senior leaders are LTC Ronald F. Lewis and CSM Ismael Medina Jr. CPT J.B. Worley and CW4 David Larson represented the command.

The 1-227th Avn. deployed as Task Force Attack in support of Operation Iraqi Freedom II in February-March of 2004. They flew missions in every region in Iraq (sometimes from split-bases of operation) and participated in every major battle. From Al Kut to An Najaf, to Fallujah and Sadr City, TF Attack answered every call, support-



## Overall Aviation Battalion & Combat Unit

Retired LTG Don Parker presents the 2004 Aviation Battalion trophy to CPT J.B. Worley and CW4 David Larson representing the 1-227th Avn. Regt., assisted by BG E.J. Sinclair.



## Combat Support Unit

Parker presents the trophy and Sinclair presents the certificate for best Combat Support unit to CPT Patrick Hemmer and SSG James Borzansky.

ing troops in contact and saving lives. Through constant attention to detail and technical proficiency, the maintainers in this unit enabled the Task Force to fly more than 30,000 hours in OH-58D and AH-64D aircraft. TF Attack truly set the bar by which all other Air Cavalry units will be judged for years to come.

The best Combat Support unit is the 2nd Bn., 227th Avn. Regt., also with the 1st Cav. Div. The senior leaders are LTC William K. Mooney Jr. and CSM Francisco J. Melo. CPT Patrick Hemmer and SSG James Borzansky represented command.

The 2-227th Avn. flew more than 8,000 hours with no class A, B or C accidents in support of the 1st Cav. Div. and the interim Iraqi Government during Iraqi Freedom II. The battalion was recognized for its exceptional leadership and unwavering professionalism when it received the Army's 2004 Deployment Excellence Award. In preparation for deployment to OIF the unit became the first general support aviation battalion to qualify on the fast rope insertion and extraction system. The 2-227th was able to accomplish this while maintaining an operational readiness rate six percent above the DA standard.

The best Combat Service Support unit is the 421st Medical Evacuation Battalion, 30th Med. Bde., V Corps, Wiesbaden, Germany. The senior

leaders are LTC Kyle Campbell and CSM Shirley English-Massey.

The 421st Med. Bn. in one year deployed and redeployed three companies to OIF and two companies to Operation Enduring Freedom. They also supported many training and real world missions throughout Europe. As a further testament to this unit's exceptional leadership, they maintained 100 percent accountability of all equipment during all of these operations. Despite this battalion's hectic schedule they maintained a fully mission capable rate of 97 percent for ground vehicles and 79 percent for aircraft.



**Table of Distribution & Allowances Unit**  
LTC Jimmy L. Meacham and SGM Mary M. Edwards receive the trophy and certificate for best Table of Distribution and Allowances unit from Parker and Sinclair.

The 1st Bn., 145th Avn. Regt., 1st Avn. Bde., Fort Rucker, is the best Table of Distribution and Allowances unit. The senior leaders are LTC Jimmy Meacham and SGM Mary Edwards.

The 1-145th Avn. continues to be the bedrock of Army aviation leadership throughout the world. This battalion set the professional example on a daily basis and teaches the fundamentals of leadership essential to the development of all Army aviation officers. Its exemplary safety and maintenance record is even more noteworthy when you consider the size of the battalion and daily volume of training conducted. The success of Army aviation is directly linked to the outstanding performance of this unit and its ability to train Soldiers. ♦



## VETERAN ORGANIZATIONS AND ASSOCIATIONS MEET WITH HOUSE MINORITY LEADERS & COMMITTEE STAFFS

February was "meeting month" on the hill, as legislators and their staffers and your TMC and AAAA association representatives worked to prioritize legislative goals in preparation for hearings and development of draft authorization bills.

Lobbyists from TMC and other associations met with the House Military Personnel Subcommittee staffers to discuss a long list of initiatives needed to assist returning wounded members and their families, and survivors of members killed on active duty. Initiatives discussed included survivor benefit upgrades, special needs for wounded Guard/Reserve members, continuation of combat pays during hospitalization for combat wounds, and improved casualty assistance for survivors and families of the severely wounded.

## BIPARTISAN GROUP ANNOUNCES BILLS

In January a bipartisan group of Senators and House members announced bills to expand TRICARE coverage for Guard and Reserve families and lower the reserve retirement age. The Senate and the House spoke to the need to extend access to TRICARE to all members of the National Guard and Reserve forces to ensure the readiness and retention of these forces and their families and introduced S. 337, "The Guard and Reserve Readiness and Retention Act of 2005," which would allow Guard and Reserve members to enroll in TRICARE, for an annual premium without regard to their status of activation. Rep. Tom Latham (R-IA) announced introduction of his companion bill, H.R. 558. The bills also would reduce the age at which a Guard or Reserve service member could retire under an age - service formula. Reservists with 34 years service could retire at age 53, rising to age 60 for those with 20 years service.

## SENATE PANELS EXAMINE SURVIVOR BENEFITS

The Senate Armed Services Committee (SASC) and Senate Veterans Affairs Committee (SVAC) each held hearings in January to explore what more should be done for survivors of members killed on active duty. The SASC heard testimony from the Vice Chiefs of Staff, specifically concerning the provisions of Sen. Jeff Sessions' (R-AL) S. 77, which would raise the death gratuity from the current \$12,420 to \$100,000 for service members killed in combat and increase the maximum SGLI coverage to \$400,000 (currently \$250,000). Sessions' bill would have the government automatically pay the premium on \$150,000 of SGLI for members assigned in a combat zone. It would make the changes retroactive to Oct. 7, 2001 - the official start date of the war on terrorism.

## TRICARE RESERVE SELECT DETAILS UNVEILED

TRICARE Reserve Select (TRS) is gearing up to roll out April 28. TRS



# LEGISLATIVE REPORT

Col. Sylvester C. Berdux, Jr. (Ret.),  
AAAA Representative to The Military Coalition (TMC)

extends premium-based access to TRICARE Standard (DOD's fee-for-service health plan) to certain selected Reservists (SELRES) and their families.

To qualify, the member must have been mobilized on a contingency operation for 90 days or more since Sept 11, 2001. Each 90 days served provides eligibility for one year of TRS coverage—one year of deployment could earn a SELRES member and their family four years of TRS. The member must continue to participate in the select Reserve in return for TRS benefits.

While TMC is most appreciative of efforts to extend TRICARE Standard access to Reservists, several issues remain: First, TMC believes that all drilling Guard and Reserve members and their families should be eligible for TRS. Further, Guard members who complete 90 or more days of "homeland security" duty under Title 32 as requested by the President are not eligible to purchase TRS. Eligibility for mobilized SELRES members should be provided regardless of where they serve during the war on terrorism. Recently the Army and Marine Corps have had to rely upon members of the Individual Ready Reserve (IRR) to fill critical positions. Under current TRS rules, despite their service and sacrifice, these individuals will not be able to take advantage of TRS should they return to IRR status post mobilization.

Gray-area Reservists have also been called out of retirement, but are precluded from TRS unless they commit to SELRES service after mobilization.

## DOD AIMS TO IMPROVE TRICARE STANDARD

The Defense Department now has a provider directory for Standard users available on the TRICARE website at: [www.tricare.osd.mil/standardprovider](http://www.tricare.osd.mil/standardprovider).

## VA HOME LOAN PROGRAM HIGHER LIMITS

Recent legislation signed by President Bush makes home ownership more affordable for many veterans. Changes under the law mean veterans will be able to get home loan guaranties of \$89,912 to qualify for the Freddie Mac conforming loan limit for a single family home of \$359,700. The previous ceiling was \$240,000. See more information at: [www.homeloans.va.gov](http://www.homeloans.va.gov).

## NEW SBP BILLS INTRODUCED IN HOUSE

Rep. Henry Brown (R-SC) and 23 other original co-sponsors introduced HR 808, which would end the dollar-for-dollar deduction of Dependency and Indemnity Compensation (paid by the VA when the member's death is due to service-caused conditions) from the survivor's military Survivor Benefit Plan (SBP) annuity.

Because most SBP annuities are relatively low, the SBP/DIC offset often eliminates most or all of the SBP, leaving many surviving spouses with only the \$993 monthly in DIC annuity.

Rep. Jim Saxton introduced his bill (number not yet available at press time), which would change the effective date of 30-year, paid-up SBP from Oct 1, 2008 to Oct 1, 2005. Congress authorized paid-up SBP coverage in 1998 for any member who attains age 70 and has paid at least 30 years of SBP premiums. But the effective date was delayed for 10 years to save money. In effect, this imposed a "Greatest Generation tax" on the oldest military retirees who enrolled when SBP was first enacted in 1972. Before that, many paid premiums under the earlier Retired Servicemen's Family Protection Plan. By this fall, those enrollees already will have paid almost 20 percent more premiums than a 1978 enrollee will ever have to pay.

## PRESIDENT'S BUDGET CONTENTS

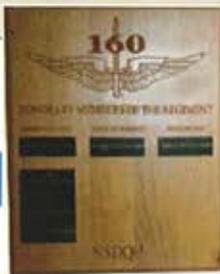
President Bush's recently released FY 2006 budget proposal contains a number of provisions of interest to members. Topping the list is a 3.1 percent pay raise for active duty, Guard, and Reserve members and additional bonuses to support recruiting and retention. (Retiree pay adjustments are governed by COLA adjustments announced each October.) The President's budget does not propose any co-pay or other fee increases for TRICARE or TRICARE for Life.

In all, the budget calls for \$109 billion for personnel including:

- Full payment (for the first time) of total median housing costs (by grade and locality) for service members living off-base.
- Changing the Army from a division-based structure to one based on new, more agile "modular" brigades.
- Boosting the number of Special Operations forces by 1,400 and increasing spending for language training.
- Continued re-basing activities aimed at returning 70,000 military personnel from overseas bases to CONUS installations.
- Conversion of several thousand non-deployed medical positions to civilian billets.

## DEPENDENT ID CARDS AT AGE 75+

The 2005 National Defense Authorization Act grants dependants age 75 and older permanent military identification card (ID) status. However, DOD informs us the permanent ID card program will not be available until later this year. In the interim, the Defense enrollment eligibility system (DEERS) considers these dependents eligible for benefits so long as a death or divorce has not been reported.



## 160th SOAR Bestows Honorary Membership

Three significant contributors to the success of the 160th Special Operations Aviation Regiment (Airborne) were inducted as Honorary Members of the Regiment during a December 9 ceremony at Fort Campbell, Ky.

Pictured with COL Andrew N. Milani, commander of the 160th SOAR, are the 2004 inductees (l to r): John L. Shipley, AMCOM Director of Special Programs (Aviation); Dr. S. Harry Robertson, founder and chief executive officer, Robertson Aviation; and William R. Harris Jr., AAAA Executive Director.

The Honorary Membership is presented to an individual in recognition of his or her service and contributions to the Regiment over an indefinite period of time. The program is designed to promote the history and traditions of the Regiment, promote the war-fighting ethos among Soldiers, and to create cohesion among members of the Regiment.



PHOTO BY MICHAEL SAFAREWITZ / AAPI

## ARMY AVIATION mailbox

Share your opinion on matters of interest to the Army aviation community. The publisher reserves the right to edit letters for style, accuracy or space limitations. All letters must be signed and authors identified. The publisher will withhold the author's name upon request. The opinions expressed are those of the authors, and do not reflect the opinion of ARMY AVIATION Magazine. Send letters to AAAA MAILBOX, 755 Main Street, Suite 4D, Monroe, CT 06468-2830, Tel: (203) 268-2450, FAX: (203) 268-5870, E-Mail: editor@quad-a.org.

### Battle Damage Repair Story

Dear Army Aviation Magazine:

I was happy to see the Wire Maintenance and Battle Damage Tools article in the January issue. Since retiring from the Army, I have often wondered what happened to many projects I had the pleasure of working on while assigned to the Combat Developments Directorate at Fort Eustis, Va. By far the most challenging and rewarding was the aircraft combat maintenance and battle damage

repair program, later known as the battle damage assessment and repair (BDAR) program. As the Aviation system manager for this program, I'm glad to see it is still being supported. There were a lot of challenges in the early development, from getting support within the Army, to the fielding of the system.

The initial program focused on the assessment, determining repair procedures and the development of repair kits for electrical wire, fuel cell, fluid line and structures. The repair kits were the essence of the ACM/BDR program. They were suitcase size, man portable, with all the tools, adhesives, consumables and BDR manuals containing the instructions to perform all of the necessary repairs.

The ACM/BDR program was a joint effort on the part of the Aviation Technology Laboratory, later the Aviation Applied Technology Directorate (AATD) and the U.S. Army Aviation Logistics School (USAALS). The program was also part of the tri-service BDR effort with the Air Force and Navy.

I would be remiss in not mentioning the following people who played a major part in the program: COL Dan Rubery and CPT Alan Yeske with the Aviation Systems Command; Mr. Ming Lau with AATD; CSM Richard Jackson, and Mr. Richard Ordway and LTC Thomas Cole with Combat Developments, at USAALS.

Sincerely,  
CW4 Charles H. Brady  
U.S. Army, Retired

## See You in Orlando At Disney's Coronado Springs

AAAA Annual Convention \* May 5-11, 2005

See our web site [www.quad-a.org](http://www.quad-a.org) for Convention Registration Forms  
or call National Headquarters (203) 268-2450



## PRESIDENT'S MESSAGE



We are rapidly approaching the AAAA Annual Convention May 5-11 at Disney's Coronado Springs Resort in Orlando, Fla. It is going to be a good deal different than previous events, even more family focused and more casual. The headquarters hotel's 2000 rooms are already sold out, but we have plenty of overflow rooms at the Disney's Port Orleans Resort. If you have not yet made your reservations, you can still go to our website: [www.quad-a.org](http://www.quad-a.org) and join us for this great annual gathering representing all elements of our Army Aviation community. Take advantage of our outstanding professional program organized by our Aviation Branch Chief, BG E.J. Sinclair; see the latest developments from industry in the exhibit halls, and bring the family to enjoy all of the marvelous Disney venues as well.

In addition to preparing for the convention, we have also been busy traveling to a number of great AAAA events like the National Functional Awards banquet at Fort Rucker in January during the Aviation Senior Leaders Synchronization Conference, up to the Joseph P. Cribbins Aviation Product Symposium in February hosted by the Tennessee Valley Chapter at Redstone Arsenal, Ala., and the AAAA awards committee meeting to select our Soldier, NCO, Aviator and Unit award winners for the national convention.

During the Aviation Center leaders conference, our AAAA Senior Vice President BG Tom Konitzer had a chance to meet with brigade commanders, senior warrants and senior NCOs during an AAAA sponsored breakfast to get feedback directly from the field on what the Association should be doing to better support our Soldiers. Don't hesitate to contact the AAAA national office (at [aaaa@quad-a.org](mailto:aaaa@quad-a.org)), any AAAA board member directly, or through your local chapter leadership on what you think we should do to better serve the needs of you and your family.

And speaking of support, the AAAA National Executive Group has just authorized the purchase of over 500 sets of sweat suits for our wounded personnel being treated in Landstuhl, Germany. Thanks to COL (Ret.) Bob Birmingham, President of the Tennessee Valley Chapter, and his people who brought this need to our attention and have funded half of the cost from their own chapter funds.

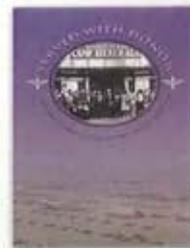
This is what AAAA is really all about, people helping people. See you in Orlando!

MG Andy Andreson  
President

## NEW CAVALRY LEADERS COURSE

As the Army's transformation to force modularity gains momentum, the structure and role of Cavalry units will also undergo revision. One of the latest changes is the redesign of the Cavalry Leaders Course (CLC) at Fort Knox. The CLC assists officers, regardless of branch, assigned to brigade combat team planning staffs or assigned to reconnaissance squadrons, understand changing reconnaissance and security operations. The Armor School encourages CLC enrollment for officers serving in non-Armor branches, who find themselves assigned as planners or commanders of Unit of Action RSTA/Cavalry organizations. Attendance at CLC is open to graduates of any officer career course from 1LT(P) through MAJ. Enrollment is available through ATRRS. For more info contact MAJ Dooley at [matthew.dooley@knox.army.mil](mailto:matthew.dooley@knox.army.mil), COM: (502) 624-7617 or DSN 464-7617.

The Fort Rucker Officer and  
Civilian Spouses' Club presents



**SERVED WITH HONOR**  
*The Fort Rucker 50th Anniversary Cookbook*



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[www.armyavnmuseum.org](http://www.armyavnmuseum.org)  
or call 1-888-ARMY AVN

## NEW MEMBERS

**AIR ASSAULT CHAPTER  
FORT CAMPBELL, KY**  
CSM Dexter N. Brown  
Ms. Laurie Hadley  
CW5 Kevin D. McLemore  
CPT Jacob W. Miller  
Mr. Kirk Shaffer  
SGT Michael P. Sparks

**ALOHA CHAPTER  
HONOLULU, HI**  
1SG Zaochaeus H. Hurst  
SFC Michael A. Kohlhorst  
SFC Paul W. McGrew  
Mr. Jimmy R. Sawyer

**AMERICA'S 1ST COAST CHAPTER  
JACKSONVILLE, FL**  
Mr. Bill D. Lowery  
Mr. Dale Smith  
CW4 Christopher B. Tenaro

**ARIZONA CHAPTER  
MESA, AZ**  
Mr. Chris Alix  
Mr. Richard Bass  
Mr. Brian E. May

**AVIATION CENTER CHAPTER  
FORT RUCKER, AL**  
2LT Andrew C. Alexander  
MAJ Paul B. Anderson  
2LT Ryan S. Anderson  
WO1 William S. Anderson  
2LT Cameron A. Baker  
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## FALLEN HEROES

AAAA is saddened to announce the loss of the following Soldiers with Aviation units serving in support of the global war on terrorism.



BONILLA

### Operation Iraqi Freedom

Two OH-58D pilots assigned to Task Force Baghdad died Jan. 28 when their helicopter crashed at about 8 p.m. in the southwestern portion of Baghdad in Iraq.

Both were members of the 1st Sqdn., 7th Cav. Regt., 1st Cav. Div., Fort Hood, Texas.

They were:

**CPT Orlando Antonio Bonilla**, 27, of Killeen, Texas, assigned to F Troop.

**CW2 Charles Stacy Jones**, 34, of Lawtey, Fla., assigned to E Troop.

The cause of the incident is under investigation.

*(Information from Dept. of Defense news releases and media sources.)*

## ARMY AVIATION

### Upcoming Special Focus:

#### April/May Issue

#### Annual Convention Issue

Invited Guest Editorials:

- BG E.J. Sinclair, Aviation Branch Update
- MG James H. Pillsbury, AMCOM Update
- Mr. Paul Bogosian, PEO Aviation Update
- CW5 Brent Driggers, Warrant Officer Update
- CSM Thomas Buford, Jr., Soldier Update

#### June Issue

#### Special Operations Aviation

Invited Editorials:

- 160th Spec. Ops. Aviation Regt. Update
- **Night Vision Devices**
- Aviation Product Update

**Contact: Bob Lachowski**  
**Advertising Director**

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## UPCOMING EVENTS

### APRIL 2005

- ☞ April 22 Colonial VA Chapter & Hampton Roads Chap. of the American Helicopter Society (AHS), Golf Tourn., Pines GC, Ft. Eustis, VA.
- ☞ April 23 Colonial VA Chapter & AHS Aviation Branch 22nd Birthday Ball, Williamsburg Marriott, VA

### MAY 2005

- ☞ May 5-11 AAAA Annual Convention, Disney's Coronado Springs Resort, FL

### JUNE 2005

- ☞ June 1-3 AHS 61st Annual Forum & Technology Display, Grapevine, TX

### JULY 2005

- ☞ July 15 AAAA Scholarship Executive Committee Meeting, NGRC, Arlington, VA
- ☞ July 16 AAAA Scholarship Selection Committee Meeting, NGRC, Arlington, VA

### SEPTEMBER 2005

- ☞ Sep 17-19 NGAUS 127th General Conference, Honolulu, HI

### OCTOBER 2005

- ☞ Oct. 3-5 AUSA Annual Meeting, Washington Convention Center, Washington, DC
- ☞ Oct. 3 AAAA Scholarship Board of Governors Meeting, Washington Convention Center, DC
- ☞ Oct. 3 AAAA National Executive Board Meeting, Washington Convention Ctr., DC
- ☞ Oct. 17-20 AFCEA Infotech 2005 Conference & Exhibition, Dayton, OH

### APRIL 2006

- ☞ April 9-12 AAAA Convention, Gaylord Opryland Conv. & Res. Ctr., Nashville, TN

### AAAA 2005 Annual Convention Housing is Still Open

Please call directly to the Disney's reservations office at (407) 939-1020 and mention AAAA convention attendance. Then follow the signs to the Animal Kingdom Resorts and we'll see you at the Coronado Springs Resort and Convention Center this May 5-11.

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# Army Aviation Hall of Fame

*The Army Aviation Hall of Fame sponsored by the Army Aviation Association of America, recognizes those individuals who have made an outstanding contribution to Army aviation. The actual Hall of Fame is located in the Army Aviation Museum, Fort Rucker, Ala., where the portraits of the inductees and the citations recording their achievements are retained for posterity. Each month Army Aviation Magazine will highlight a member of the Hall of Fame. The next triennial induction will occur in the spring of 2007. Contact the AAAA National Office for details at (203) 268-2450*

## **CW2 Ronald J. Tusi Army Aviation Hall of Fame 1983 Induction**

CW2 Ronald J. Tusi is one of Army Aviation's most outstanding attack helicopter pilots. One specific action best illustrates his tactical skills. On April 15, 1972 at An Loc, Vietnam, a number of enemy tanks had penetrated through friendly lines and were within a few meters of the South Vietnamese Army's Fifth Division Headquarters. As conditions deteriorated rapidly, U.S. advisors to the division headquarters urgently requested AH-1 Cobra gunship support.

Tusi responded immediately and despite extremely intense anti-aircraft fire, he single-handedly attacked the threatening enemy force, killing four tanks, damaging a fifth, and forcing the others to withdraw. At the time of his Hall of Fame induction, Tusi's record of killing ten tanks with helicopters had never been equaled, and he was considered to be Army Aviation's leading tank killer.

During five tours in the Republic of Vietnam, he earned the Distinguished Service Cross medal, four Silver Stars, eight Distinguished Flying Crosses, three Bronze Star medals (one with "V" device for valor), 67 Air Medals, the Vietnamese Cross of Gallantry with Gold Star, and the American Legion Aviation Award for Valor in 1972.

Tusi's brilliant aviation career was cut short by his untimely death in a Cobra accident on the night of August 6, 1974, while participating in the dangerous "Night Owl" experiments, which were used as a basis for today's night fighting techniques.



# There is something new in the air: Alenia Aeronautica and L-3 Communications.



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GMAS' C-27J is designed to meet the op tempo of today's modular forces – in a diverse and dispersed battlefield. The C-27J is a true military airlifter with unsurpassed performance and flexibility. GMAS is built upon a partnership that commenced with the C-27A in the 1980s, a team with proven capabilities and performance that will meet the needs of the U.S. military – today and in the future. Anytime. Anywhere. Our troops deserve the best.

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