

ARMY AVIATION

OFFICIAL PUBLICATION OF THE ARMY AVIATION ASSOCIATION OF AMERICA • JULY 31, 2004 • \$3.00




CAE
The Essential Edge



TAKES THE HEAT, UNLEASHES THE FIRE.

Living up to their every promise, Apache helicopters are proving invaluable to combat forces every day. Under extreme weather and terrain conditions, Apaches are flying missions around the clock, often in place of other aircraft. From drawing rocket and artillery fire away from ground troops, to seeking and destroying enemy positions at high altitudes. Flying into hailstorms of enemy rounds, the Apaches will not be denied. No matter how many fires they need to put out.

Publisher

William R. Harris Jr.

Editor

Stephen Harding

Production Manager

Trudy Hodenfield

Contributing Editor

James R. Bullinger

Circulation Manager

Mary Ann Stirling

Circulation Assistants

Debbie Coley

Diane Grinsted

Mary Ellen Kother

Deb Cavallaro

Advertising

Robert C. Lachowski



on the cover

Paid Advertisement. CAE, the world's leading provider of military helicopter training systems, is currently designing a range of mission-rehearsal and training systems for the U.S. Army's 160th Special Operations Aviation Regiment. On the cover is a view from the cockpit of the world's first A/MH-6 Little Bird combat mission simulator, which will feature CAE's Medallion-S visual system. CAE is also designing new MH-47 and MH-60 combat mission simulators for the 160th SOAR, and is developing an innovative common environment/common database architecture to significantly enhance mission rehearsal capabilities. *Caption provided by the advertiser.*



WASHINGTON - With his two combat veteran sons helping to pin on new stars, LTG Richard A. Cody became GEN Cody just minutes before being sworn in as the Army's 31st vice chief of staff during a Pentagon ceremony July 2. Cody's sons, CPT Clint Cody (*left*) and CPT Tyler Cody, both Apache pilots who recently returned with the 101st Airborne Division from Iraq, attend their father's promotion and VCSA swearing-in ceremony. Cody leaves his position as the G3 on the Army staff and replaces GEN George W. Casey Jr., who departed in late June for Baghdad as the commanding general of the Multinational Force Iraq.



ARMY PHOTO BY SGT REEBA CRITSER

BAE Systems is developing the digital flight-control computer for the newest version of the CH-47 Chinook heavy-lift transport helicopter, the CH-47F. The digital control will replace analog flight controls on CH-47D helicopters as Boeing upgrades 300 of those aircraft to the F-model standard under contract to the Army.

During a February demonstration conducted aboard the aircraft carrier USS *Harry S. Truman*, **Northrop Grumman Corp.** successfully demonstrated a ship-board mission-control system that will allow unmanned combat aerial vehicles (UCAVs) to participate safely and autonomously in conventional manned, aircraft-carrier flight operations.

CAE has received contracts valued at approximately \$9.5 million from the U.S. Army Program Executive Office-Simulation Training and Instrumentation (PEO-STRI) to provide its CAE Medallion-S visual system for two additional upgrades to MH-47 and A/MH-6 combat mission simulators (CMS) for the Army's 160th Special Operations Aviation Regiment (SOAR).

The **FOD Control Corp.**, www.fodcontrol.com, has developed the FOD BOSS Rapid Response Airfield Sweeper to help pick up the stray materials that can cause foreign object damage (FOD) to taxiing aircraft. The portable FOD BOSS allows users to get close to buildings, equipment and aircraft without the noise and interference of vacuums or internal motors.

U.S. Army Forces Command, Aviation, is seeking a highly experienced aviation maintainer with experience managing contact maintenance. Overseas position representing a major command. Send resumes to sonya.youngblood@forscom.army.mil or call (404) 464-7745 for additional information.

The Department of Defense announced June 15 the death of PFC Shawn M. Atkins, 20, of Parker, Colo., deployed in support Operation Iraqi Freedom. Atkins, who was assigned to Headquarters and Hqs. Company, 4th Aviation Brigade, 1st Armored Division, from Hanau, Germany, died June 14 in Baghdad as a result of a non-combat injury. The incident is under investigation.

ASE and Avionics Awards Nomination Forms are Available

Visit the AAAA webpage at www.quad-a.org or Contact Diane Grinsted
Tel: (203) 268-2450 x120 E-mail: aaaa@quad-a.org
See additional symposium information on page 41.

contents

vol. 53 no. 7

JULY 31, 2004



FEATURES:

6 Training Aviation Forces Before They Deploy:
Advancements in Live, Virtual and Constructive Training
by BG E.J. Sinclair

10 Eyes of the Hawk:
The UH-60 in the Reconnaissance Role
by MAJ Frank P. Intini III

24 Oregon's Military Air Rescue Team
by LTC Dan Hokanson

27 Ready for the Fight Tonight and Beyond
by CPT Chris Reid and LTC Rich Juergens

34 Fort Rucker Witnesses New Chapter in Aviation History
by LTC James R. Bullinger



SPECIAL FOCUS: Simulation & Training

16 Simulation Makes a Difference!
by James T. Blake, Ph.D

20 ATX: Preparing Aviation Warfighters for
Global Deployment
by LTC Christopher Shotts

30 Taking Gunnery to the Next Level
by CPT Timothy M. Baer and LTC Reginald P. Mason

33 Helicopter Training Turns Blue
by Master Sgt. Julie A. Briggs, USAF

DEPARTMENTS:

Advertisers Index42

AAAA New Members40

AAAA News35

Briefings3

Calendar37

Hall of Fame43

People on the Move32

Legislative Report35



ARMY AVIATION is the official journal of the Army Aviation Association of America (AAAA). The views expressed in this publication are those of the individual authors, not the Department of Defense or its elements. The content does not necessarily reflect the official U.S. Army position nor the position of the AAAA or the staff of Army Aviation Publications, Inc., (AAPI). Title Reg[®] in U.S. Patent office. Registration Number 1,533,053. SUBSCRIPTION DATA: ARMY AVIATION (ISSN 0004-248X) is published monthly, except April and September by AAPI, 755 Main Street, Suite 4D, Monroe, CT 06468-2830. Tel: (203) 268-2450, FAX: (203) 268-5870, E-Mail: aaaa@quad-a.org. Army Aviation Magazine E-Mail: magazine@quad-a.org. Website: <http://www.quad-a.org>. Subscription rates for non-AAAA members: \$30, one year; \$58, two years; add \$10 per year for foreign addresses other than military APOs. Single copy price: \$3.00. ADVERTISING: Display and classified advertising rates are listed in SRDS Business Publications, Classification 90. POSTMASTER: Periodicals postage paid at Monroe, CT and other offices. Send address changes to AAPI, 755 Main Street, Monroe, CT 06468-2830.



**9 MEN. 1 CHANCE.
THEIR ONLY ESCAPE ROUTE IS UP.**

The Bell 210 delivers 15% more payload
with 28% more power than a UH-1H.

Which is why it can EVAC nine men from a fiery
6,000-foot mountain all in one shot. Combine that with
40% lower direct operating costs, FAA certification,
and a new aircraft warranty that includes Bell's legendary
worldwide service. All for about half the cost of any
comparable commercial-off-the-shelf helicopter.
The 210 is the easy choice for your toughest missions.

**Introducing the Bell 210.
Fly Smart. Fly Bell.**

© 2004 Bell Helicopter Textron Inc., all rights reserved.

Bell
Helicopter
A Textron Company

Training Aviation Forces Before They Deploy:

Advancements in Live, Virtual and Constructive Training

By BG E.J. Sinclair

Technological advancements in the combination of live, virtual and constructive (LVC) training continue to greatly enhance the capabilities of our aviation warfighters.

Several key contributors to aviation LVC training are the recently established Directorate of Simulation at the U.S. Army Aviation Center (USAAVNC) at Fort Rucker, Ala.; LVC training exercises conducted through battle simulation centers

briefed landmarks, and report "set" to the air mission commander (AMC). After checking your kneeboard data and the air tasking order, you make contact with the F-16s flying a high combat air patrol.

After the troops land, you monitor the company commander's reports from the ground. As you overwatch the ground force engaging a strongpoint, your wingman conducts close-combat attacks with rockets and 30mm fire on another threat.

To date, 15 ATXs have been conducted at Fort Rucker for units deploying to Bosnia, Kosovo, Afghanistan and Iraq.

throughout the country; and the national training centers such as the Joint Air-Ground Center of Excellence (JAGCE) in Arizona.

Capturing and implementing changes to tactics, techniques and procedures (TTP) from lessons learned during LVC exercises has proven to be essential to enhancing the training and warfighting capabilities of units preparing to deploy to Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF).

Simulations: Fighting the Enemy Before Engaging the Starter

You are the flight lead of a pair of AH-64D Longbow helicopters supporting the air assault of an infantry company conducting a cordon and search of the Iraqi town of Al-Ubaydi. You cross check your navigation system with Falcon View data and make a visual confirmation of the

Then the AMC clears a UH-60 into the landing zone for the evacuation of enemy prisoners of war. As soon as the air assault task force commander from his Army airborne command and control system aircraft determines all tasks are completed, he orders a return to base.

The execution of a mission similar to the one described above actually occurred before one aviation unit's deployment to Iraq. Company C, 1st Battalion, 10th Aviation Regiment, conducted such a mission during an aviation training exercise (ATX) at Fort Rucker, through the use of simulations and in a synthetic training environment, while their Task Force (TF) headquarters participated from Fort Lewis, Wash.

To date, 15 ATXs have been conducted at Fort Rucker for units deploying to Bosnia, Kosovo, Afghanistan and Iraq.

The 25th Avn. Brigade TF, deployed to

Networked
Training
Solutions

AGUSTAWESTLAND



DELIVERING SOLUTIONS FOR NETWORKED ENABLED CAPABILITY

- Proven Advanced Laser Technology for accurate, Class 1 eye safe, live and simulated gunnery
- Scalable and deployable training solutions for rotary and land platforms
- Common standards for networking in joint and coalition environments
- Combined accurate gunnery and maneuver training in combined arms and joint training
- Objective, real-time feedback and collective performance assessment
- Minimizes loss of skill and maximizes operational effectiveness
- Realistic, safe, live and virtual training environments, supporting operational readiness
- A value for money solution to maintaining individual and collective performance standards
- Delivers training for Effects Based Operations
- Integrates with battlefield planning and communications systems



SAAB

AgustaWestland, Yeovil, Somerset, England, BA20 2YB T: +44 (0) 1935 703835 F: +44 (0) 1935 702060 E: sackettj@whl.co.uk

www.agustawestland.com

Four AVCATT systems are already in the field, training units with another nineteen approved for acquisition.

Afghanistan, conducted its ATX at Fort Rucker's Seneff Aviation Warfighting Simulation Center in February 2004. Other units that have recently participated in ATXs include TF Phoenix (1st Bn., 137th Avn. Regt., from the Ohio Army National Guard) in June for its deployment to Kosovo; and the 42nd Avn. Bde. of the New York Army Guard (with the 1st Bn., 151st Avn. Regt., and 8th Bn., 229th Avn. Regt.) in July before deployment to Iraq.

These units maximized their preparation time and readiness by using a world-class virtual collective simulation environment. The ability to conduct operations using virtual helicopters, on geospecific terrain databases with realistic and robust joint and combined arms forces, has proven to be invaluable to deploying units.

New Organization to Meet Simulation Challenges

To enhance the aviation warfighting focus and address the quickly expanding scope of aviation simulation training, the USAAVNC established the Directorate of Simulations (DOS) in January 2004. The DOS mission includes the management of the \$1.4 billion Flight School XXI simulation-services contract, the development and support of training aids and devices, and providing simulation expertise to the branch leadership. More importantly, the DOS provides aviation and ground units with simulation expertise and experiences in preparation for deployment to combat theaters.

In concert with the 3rd Inf. Div., DOS is currently coordinating the development of virtual exercises specifically designed to support the division's training requirement for upcoming OIF deployments. Based upon 3rd Inf. Div.'s compressed training timelines, Fort Rucker will export the virtual training environment to Fort Stewart, Ga., maximizing available training time and resources.

A tailored and challenging training-support plan is being developed by subject-matter experts who have recently returned from the Iraq theater. The plan links the Aviation Combined Arms Tactical Trainer (AVCATT) to Fort Stewart's Close Combat Tactical Trainer (CCTT), and enables Soldiers and leaders to train air-ground integration tasks using a common terrain database in real time.

The AVCATT is a mobile collective aviation trainer



A 1st Aviation Brigade pilot conducts an aerial mission in the AVCATT Simulator.

consisting of two trailers that contain six reconfigurable cockpits linked together in the virtual world. The AVCATT currently supports the UH-60, CH-47, AH-64A and OH-58D, and will soon support the AH-64D. The AVCATT facilitates the collective training of aircrews and company and battalion commanders in a variety of scenarios. Four AVCATT systems are already in the field, training units with

another nineteen approved for acquisition.

Joint Training Proof of Principle

In June 2003 III Corps completed a Deep Attack Center of Excellence (DACE) bridging event to test LVC systems in support of Army aviation's mission profiles.

The concept of the DACE, later renamed the Joint Air-Ground Center of Excellence, or JAGCE, is to provide aviation brigades and attack-helicopter battalions a combat training center type of experience similar to that in which ground units participate at the National Training Center (NTC) at Fort Irwin, Calif., and the Joint Readiness Training Center (JRTC) at Fort Polk, La. Following the successful conclusion of the test, a larger scale joint proof of principle (POP) was initiated to further evaluate the concept of the JAGCE.

U.S. Army Forces Command (FORSCOM) and XVIII Airborne Corps (ABC) assigned the task of conducting this crucial POP to a combat-tested organization, the 1st Bn., 229th Avn. Regt., which recently returned from OEF III and completed the Longbow aircraft conversion.

The 1-229th Avn., assisted by XVIII ABC and FORSCOM, began planning its JAGCE mission in October 2003 and this spring deployed more than 1,500 soldiers to the Barry M. Goldwater Air Force Range Complex located between the Yuma Proving Grounds and the Gila Bend Air Force Auxiliary Airfield in Arizona, and to the Fort Bliss, Texas, training area in preparation for combat operations in the notional war-torn nation of Madera.

Aircraft were instrumented with the Tactical Engagement Simulation System [produced by Inter-Coastal Electronics (ICE)] for tracking and after-action review (AAR) feedback. The ICE instrumentation was

integrated providing real-time telemetry from the Goldwater range complex and Fort Bliss back to Fort Bragg, N.C., for inclusion into the simulation portion of the exercise.

During company- and battalion-level situational training exercises, the 1-229th refined its desert TTPs for diving and running fire; personnel recovery; forward area rearm/refuel point operations; and integration of the battle operating systems into its planning and execution sequences. The 1-229th conducted LVC operations with field artillery, air-defense artillery, Marine Corps fixed-wing aircraft, special-operations forces and combat service support (CSS) against a live and virtual opposing force (OPFOR). Each scenario incorporated realistic distances, harsh desert environment and the challenges of joint operations in an immature theater.

The training conducted during the JAGCE POP significantly added to the combat readiness of the 1-229th Avn. Regt. while laying the foundation for the development of future live, virtual and constructive aviation training opportunities. JAGCE is not meant as a replacement for the Combat Maneuver Training Center, NTC or the JRTC, but is a capability that can be used in home-station training to improve unit combat effectiveness.

Conclusion

The rapidly changing and complex environments of current combat operations require new and responsive solutions for training that replicates real operations while reducing risk and extensive overhead requirements. By leveraging simulations, robust and challenging operational

environments are created for joint and combined-arms training, which accurately duplicate terrain, enemy situations and other specific threats in an affordable and effective manner.

Simulation ATXs provide realistic training to our soldiers, replicating the stresses and requirements of live training and combat. Our future depends on becoming more joint focused while responding quickly to evolving and emerging threats.

As we continue to refine Army aviation training and simulations, we will press the envelope of capabilities for individual, crew and collective training. We are committed to addressing the needs for more tough, realistic and demanding training in order to continue refining our tactics and procedures while capitalizing upon lessons learned for future operations.

Simulation will never replace the requirement for live training and can never imitate the friction of the live environment. The blending of the live, virtual and constructive environments enables us to train soldiers and their organizations in advanced skill sets, while creating more demanding operational and tactical environments than currently available in the traditional home station and combat training center environment.

Above the Best!



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

For an Army in Transformation

NAVIGATOR
Development Group Inc

**NAVIGATOR...
Leaders in Modeling, Simulation and Training**

Defense & Industry Consulting • Research and Analysis • Marketing & Economic Development • Information Technology • War Gaming
116 S. Main St., Suite 214 Enterprise, AL 36330 877.363.6344 FAX 334.347.2582 www.ndgi.com

Eyes of the Hawk:

The UH-60 in the Reconnaissance Role

By MAJ Frank P. Intini III

A UH-60 Black Hawk conducts a reconnaissance mission in urban terrain over Iraq.

PHOTO BY SSG STACY PEARSALL

The contemporary operating environment has challenged Army aviation's leaders to provide sufficient assets to meet mission requirements.

In an effort to meet the high demand with finite resources, many aviation task-force commanders have begun using the UH-60 Black Hawk as a reconnaissance platform. In Afghanistan, where high operating altitudes dissuaded aviation leaders from sending marginally powered OH-58D helicopters, the UH-60 has been called upon to shoulder much of the reconnaissance effort. In Iraq, UH-60s are an integral part of the "Eyes Over Mosul" observation mission, working in conjunction with their OH-58D and AH-64 counterparts.

The purpose of this article is not to argue the merits of the reconnais-

sance mission for the UH-60. In fact, such an argument is moot, since the utility-helicopter community is already conducting such missions in combat and has been doing so for better than two years. Instead, this article will highlight some critical issues that have been identified by the Aviation Division at the Joint Readiness Training Center (JRTC) at Fort Polk, La., in regard to unit preparation and conduct of these operations.

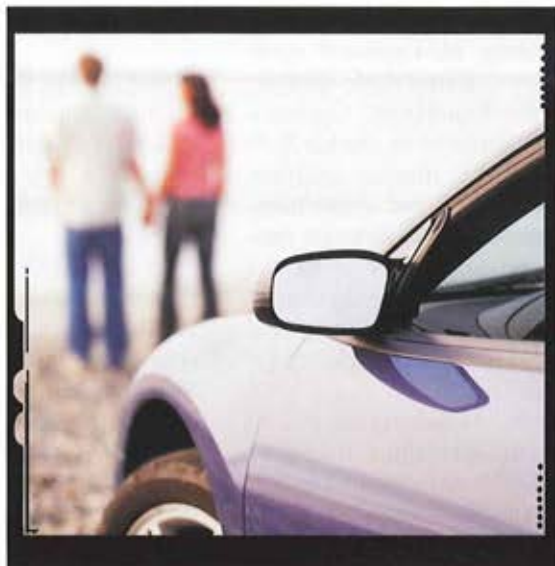
Preparing for the Recon Task

Despite a noteworthy level of success with the "OH-60," Black Hawk units that train at the JRTC are clearly unprepared to execute reconnaissance operations. To enable UH-60 units to properly conduct the operations habitually executed by their cavalry and attack

counterparts, company- and higher-level commanders must commit to the mission, train for the mission, and resource or equip their units for the mission. Furthermore, commanders at all levels must be aware of, and be willing to accept, the second- and third-order effects associated with such a commitment.

First and foremost, if a Black Hawk unit is to perform the "OH-60" mission, the company and battalion mission essential task list (METL) must include such operations. As stated in Field Manual (FM) 7-0, "Training the Force," the application of METL development "focuses the unit's training on essential tasks," and "leads to 'buy-in' and commitment of unit leaders to the organization's training plan." For those who disagree with making such "directed missions" part of

Save up to
\$365 a year*



by switching to USAA.

Find out why more than 3 million military members and their families trust **USAA** for auto insurance.

- **Flexible payment plans** to fit your lifestyle and budget
- **24-hour claims service**
- Towing and labor coverage that includes **free roadside assistance**
- **Superior customer service**
- **Coverage that moves with you**, even to many overseas locations

For a personalized quote, call our toll-free number

1-800-292-8758

or visit us online at usaa.com and select "Become a Member".



We know what it means to serve.®

INSURANCE • BANKING • INVESTMENTS • MEMBER SERVICES

* Average annual dollar savings are based upon November 2003 survey of new policyholders who reported savings through USAA, as compared to their previous carriers' rates. Savings not available in Hawaii, Massachusetts, North Carolina and Texas, and may not be available in all locations in every state. Property and casualty insurance products are provided by United Services Automobile Association, USAA Casualty Insurance Company, USAA General Indemnity Company, and USAA County Mutual Insurance Company. Applicants for USAA property and casualty insurance must meet group membership eligibility requirements before purchasing for the first time. All applications for property and casualty insurance are subject to underwriting. Some restrictions apply. Coverage descriptions are brief and subject to the terms and exclusions of the policy contracts. ©2004 USAA. All rights reserved. A3374-0504

their METL, FM 7-0 also states that:

"When an organization is directed to conduct a mission other than its assigned wartime operational mission ... the training management cycle still applies Using their wartime METL as the foundation, commanders who are directed to change their mission conduct a mission analysis, identify METL tasks and assess training proficiency for the directed mission. The mission analysis of the newly assigned mission could change the unit's METL, training focus and the strategy to achieve proficiency for METL tasks."

However, based upon recent operations in operations Enduring Freedom (OEF) and Iraqi Freedom (OIF), it would be difficult to claim that reconnaissance has not become an "essential task" for the UH-60 community. In virtually every JRTC rotation over the past 18 months, UH-60 companies were tasked with one or more reconnaissance and/or security missions. None of the UH-60 units had any of these operations on their METLs.

METL development, mission training, mission execution and, ultimately, mission success depend heavily on an understanding of doctrinal terminology. During a recent rotation members of a UH-60 crew stated that their mission was to "recon phase line purple." Their actual mission was to screen phase line purple. How can units expect to understand, communicate and execute operations if they do not know and use the correct terminology?

All aviation commanders, S3 personnel and aircrews must have a working knowledge of FM 17-95, "Cavalry Operations," and FM 1-114, "Air Cavalry Squadron and Troop Operations." These publications provide a basic knowledge of cavalry terms, definitions, operations and mission requirements. Furthermore, these publications arm the assault commander and staff with critical information necessary to create the appropriate METL tasks and execute a METL crosswalk. Assault helicopter battalion staffs consistently struggle with the requirements of planning basic cavalry operations and inevitably

assign unclear missions to the UH-60 aircrews (or attached cavalry or attack aircrews) and leave them to "figure it out on their own."

Training for the Mission

Once commanders add the METL tasks and complete the METL crosswalk, and thus commit to the mission, aircrew training begins in earnest.

At the JRTC, we often hear aviation task force commanders claim boldly that "all aircraft are reconnaissance platforms," and "all aviators should know how to conduct reconnaissance ... it is part of every pilot's basic training." Although there is some merit to these statements, there is great risk associated

from TC 1-211, "Aircrew Training Manual, Utility Helicopter, UH-1," into the commander's Aircrew Training Program (ATP).

Tasks such as conducting route, zone and area reconnaissance and calls for fire are part of the UH-1 training program, but were not transferred to the UH-60 training circular. Additional critical tasks, such as "Task 2054: target handover to [an] attack helicopter," are located in training circular (TC) 1-209, "Aircrew Training Manual Observation Helicopter, OH-58D Aviator/Aeroscout Observer." Assault commanders and SIPs need to review these publications and determine which tasks they need to incorporate into their Aircrew train-



PHOTO BY SGT TOM PULLIN

with oversimplifying the conduct of such operations.

Our observations as observer/controllers reinforce the idea that most aviation-related skills are perishable, and since the assault community does not routinely train, practice or evaluate reconnaissance and/or security tasks, the average UH-60 pilot lacks proficiency in even basic skills.

To improve the proficiency of assault pilots in the reconnaissance role, we recommend that assault commanders and standardization instructor pilots (SIPs) incorporate the appropriate 2000-series tasks

ing manual (ATMs). A greater emphasis on aircraft survivability equipment (ASET) training and vehicle identification is also necessary.

Aviation commanders in Iraq and Afghanistan frequently use attack and utility platforms or scout and utility platforms as "teams." From our observations at the JRTC, these communities are inexperienced in operating together. The lack of a common standard operating procedure (SOP) and insufficient coordination or rehearsals resulted in several incidents of conflicted airspace or confusion.

More often than not, units send



*DIFFERENT BRANCHES.
DIFFERENT MISSIONS.
DIFFERENT PLATFORMS.
DIFFERENT ENVIRONMENTS.
ONE DOMINANT FORCE.*

In today's battlespace, interoperability and situational awareness require a seamless network solution. Focus and technical leadership place us at the forefront. With an array of key, enabling building blocks to keep forces in the loop, From navigation, communications and avionics systems to advanced display technology. All delivered on time. As promised. 319.295.5100

www.rockwellcollins.com/gs

**Rockwell
Collins**

DESERT PROVEN.

AFS filters are the only engine inlet barrier filtration systems with demonstrated combat performance in the harsh desert environment of Iraq. Not only did AFS filters dramatically improve the ability of helicopters to operate in sand and dust — they boosted engine performance and life, too.

COMBAT PROVEN.

OH-58D Kiowas and AH/MH-6J Special Operations Little Birds deployed with AFS filters in Iraq, and the result has been flawless performance with no unscheduled engine maintenance and no replacements for erosion. While other aircraft were replacing engines, AFS-equipped aircraft were performing missions.



ARMY PROVEN.

Protect your high-performance helicopter engine with patented technology exclusively from AFS. We offer the only helicopter main engine barrier filtration system fully qualified by, and in service with, the U.S. Army on primary combat helicopters.



AEROSPACE FILTRATION SYSTEMS
1-636-498-6016 fax 1-636-498-6005
www.afsfilters.com

these two platforms out together, but have them operate independently to "increase safety." This technique manifested itself during the 101st Airborne Division's recent conduct of reconnaissance operations over Mosul, Iraq. OH-58D scout teams and UH-60 utility aircraft with quick-reaction forces (QRFs) on board operated in separate zones, delineated by prominent terrain features, and the UH-60 community never operated in conjunction with the AH-64 community.

If commanders intend to deploy UH-60s in a reconnaissance role,

Other than night-vision goggles (NVGs), the UH-60 currently has no onboard system to aid a crewmember in the observer role, and in the bright lights of the urban environment NVGs are virtually ineffective.

A Black Hawk crew's ability to perform reconnaissance is significantly limited without some form of supplemental optical equipment. The low end of the spectrum would be gyro-stabilized binoculars (we have also heard that some units have experimented with using TOW antitank sighting systems provided to the crewmembers). The high end



PHOTO BY SGT TOM PULLIN

UH-60 aircrews will need to train with their AH-64 and OH-58D counterparts. Units must develop tactics, techniques and procedures (TTPs) that enable utility, scout and attack helicopters to operate as teams which complement each other's strengths and minimize each other's weaknesses. Aviation leaders need to ensure that these teams train together frequently in order to reinforce staff planning drills, hone aircrew skills, develop TTPs and validate SOPs.

Creating the Platform

Equipping the Black Hawk for reconnaissance operations falls into two categories: optics and weapons.

would be a forward-looking infrared (FLIR) or other optical system mounted on the aircraft — perhaps a modified version of a system currently in use on unmanned aerial vehicles.

In urban environments, such equipment may be unnecessary since built-up areas restrict the aircrew's ability to observe from a significant distance. In fact, some OH-58D units have resorted to older methods of reconnaissance since the mast-mounted sight (MMS) offers little benefit to observation in urban operations. However, in areas outside of the urban sprawl, UH-60 aircrews without supplemental optics are

forced to get much closer to the potential threat in order to make positive identification — to a point well within the enemy weapon system's maximum effective range.

This brings us to the second issue — weapons of self-defense. The UH-60 is a lightly armed platform with limited lethality. Door guns are an effective area-suppression weapon against soft targets and a proficient gunner can minimize potential collateral damage.

While it may not be practical to heavily arm a Black Hawk, responsive firepower must be available to the UH-60 aircrew in the event of a hot situation. Artillery is generally not responsive enough to be an effective self-defense option, if it is available at all. One possible solution is to provide an armed aircraft (OH-58D or AH-64) to shadow the UH-60s that are conducting the operation. This single aircraft can provide immediate, suppressive firepower if necessary, without drawing so heavily from the reconnaissance/attack assets as to defeat the purpose of using the UH-60s. Again, the training of these platforms as teams with a common SOP is paramount to success.

Other Effects

Assault aviation commanders must understand and accept the second and third order effects associated with assault companies conducting cavalry-type operations.

Logic dictates that if you add tasks to the commander's task list (CTL), the proficiency over all tasks will be somewhat reduced. Additionally, reconnaissance mission planning and mission profile are very different from assault mission planning and execution. This implies that aircrews have to think in ways in which they are not accustomed. Additionally, commanders must accept longer periods to complete RL progressions and Annual Proficiency and Readiness Tests (APARTs) for both rated and nonrated crewmembers, a somewhat diminished proficiency in assault operations, and such insidious issues as an expected increase in tree strikes due to the mission profile.

The reconnaissance mission is already a reality for the assault community. Assault units are currently conducting reconnaissance operations and security operations without the benefit of structured, dedicated training for these operations. There will certainly be growing pains during the initial training period, but if assault commanders expect to conduct reconnaissance operations, they owe it to their aircrews to properly train and equip them for the mission.



MAJ Frank P. Intini III is an aviation observer/controller at the Joint Readiness Training Center at Fort Polk, La.

Place Your Supply and Support Operations on a Solid Foundation with **BRAVO Mats**



Don't let your mission get bogged down by mud, sand, and soft soils. Keep your troops and equipment dry, clean, and off the ground with BRAVO Mats. These lightweight, rugged mats can be interlocked to create a sturdy temporary surface capable of absorbing impact and distributing weight over a large area.

BRAVO Mats are ideal for temporary quarters and encampments, hospitals, maintenance and staging areas, walkways and roadways, as well as rotary aircraft landing pads and fixed wing aircraft parking and staging.

Step up deployment, heighten tactical flexibility, and maintain the fighting spirit of your forces. For further information, call: 877-MY-BRAVO.

A SOLOCO PRODUCT — The leader in temporary road and jobsite technology for more than four decades.

BRAVO[™]
MAT SYSTEM

TOLL FREE: 877-MY-BRAVO (692-7286)
www.bravomat.com

Simulation

Makes a Difference!

By James T. Blake, Ph.D

Simulation technology has played a major role in transforming Army training. The bottom line up front is that simulation saves lives by preparing our soldiers and pilots for the most extreme and demanding missions. Just ask the soldiers who prepared for Operation Iraqi Freedom by flying virtual combat missions in the Apache Combat Mission Simulator or honed their marksmanship skills on the Engagement Skills Trainer 2000.

**SPECIAL
FOCUS
SIMULATION**

Effective training hones skills and builds confidence. Modeling and simulation is a significant enabler for individual and collective training. As we transform the Army, modeling and simulation will become even more important in maintaining readiness. There are a number of key challenges to training in the 21st century that simulation must address.

The first challenge is the diminishing amount of land available to the military for training. Urbanization and environmental concerns are restricting our ability to do live training.

Another major issue is the increasing sophistication of weapon systems. Devices such as our unmanned aerial vehicles (UAVs) — with both imagery and weapon payloads — are technical wonders. They are providing a whole new level of capability and are also bringing a new dimension of system complexity to small military units to which they're attached.

Finally, with the advent of worldwide terrorism, conflicts and operations are much different than what the U.S. military trained for 20 years ago. Unlike during the Cold War — which pitted us against the Soviet Union in Central Europe for 40 years — the U.S. military can no longer train to fight a single, monolithic enemy. Therefore, the military must have soldiers who can adapt to a wide variety of environments and tasks.

As the Army moves toward a modular organization with a focus on units of action, simulators and simulations allow the soldiers of today and tomorrow to design, test, refine and implement the new doctrines and tactics that will ensure success in even the most complex operational environments. The Army will be tailoring forces to meet the specific requirements of the combatant commanders, and forces will be operating in a joint environment as never before. In the world of simulation, soldiers on the ground

and in the air will be able to learn the challenges and nuances associated with this new way of warfighting.

Within the Program Executive Office for Simulation, Training and Instrumentation (PEO STRI), COL Kevin Noonan, an experienced aviator, manages our virtual simulation system programs. He directly supports Army aviation and the U.S. Special Operations Command (USSOCOM) with advanced training systems.

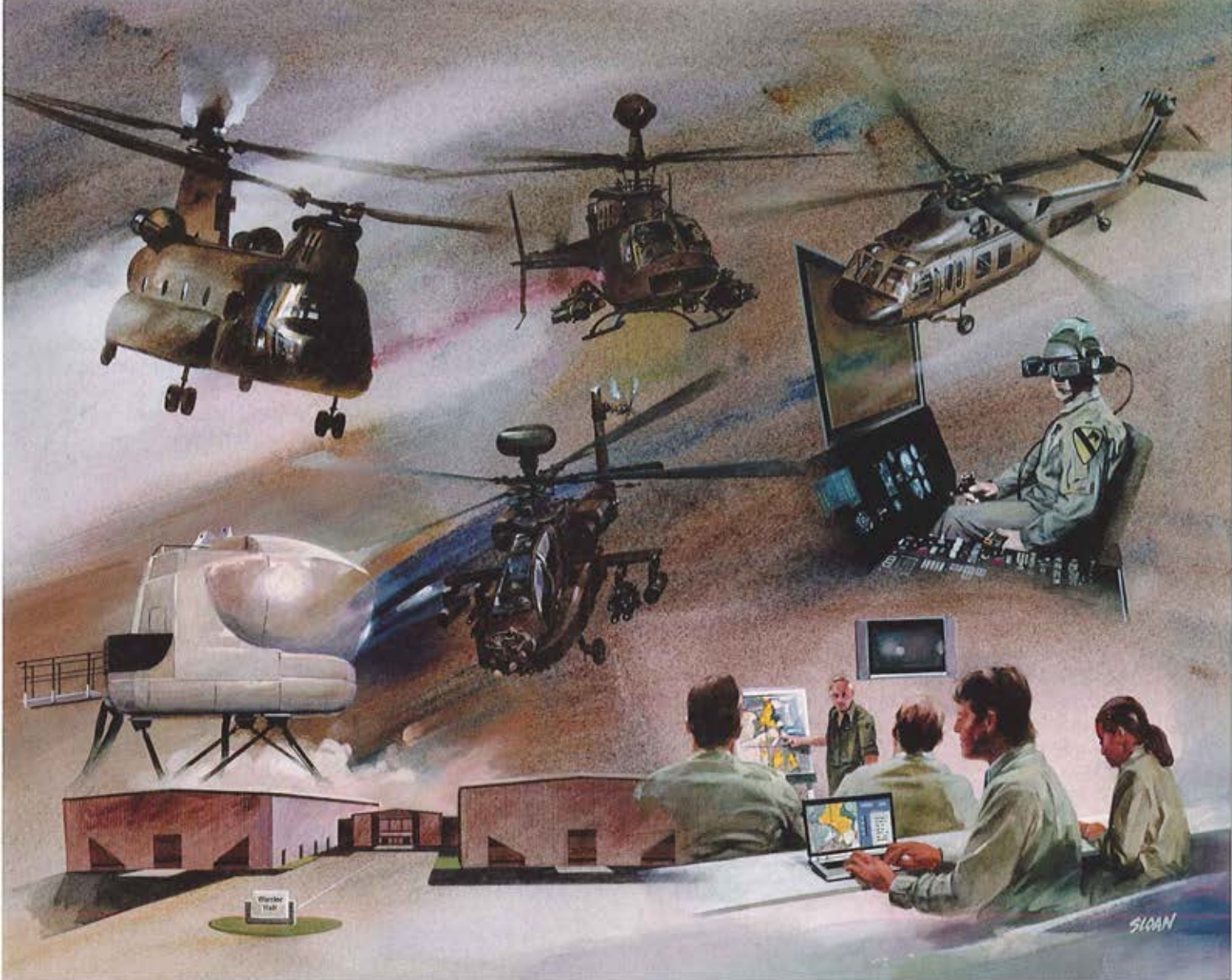
Let me highlight a few programs at PEO STRI which support Army aviation transformational efforts:

AVCATT

The largest single aviation program at PEO STRI is the Aviation Combined Arms Tactical Trainer Reconfigurable Manned Simulator (AVCATT). This magazine has published many articles on AVCATT, but I would like to add a few words about its future.

By the time you read this article, six AVCATT systems, or suites, will have been shipped from the factory. The first





Flight School XXI: Revolutionizing Army Aviation Training.

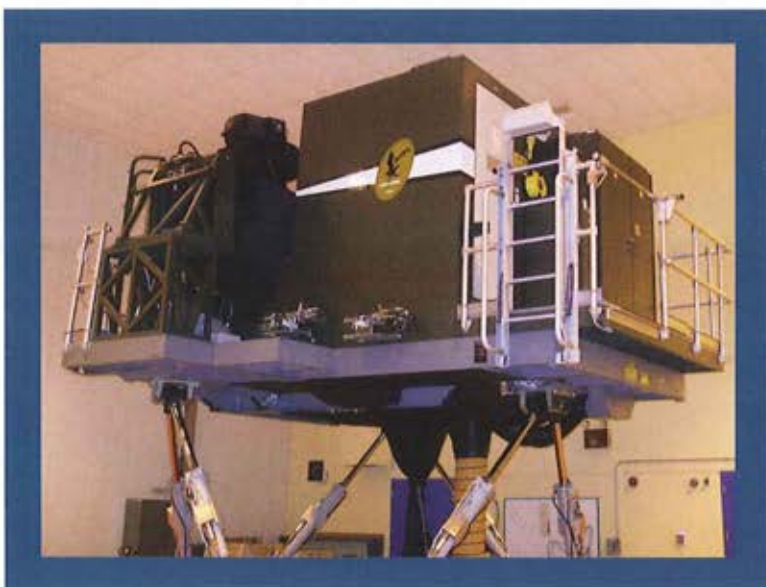
U.S. Army Aviation has always played a critical role in protecting our homeland and fighting our nation's wars far from home.

To produce the new aviators of tomorrow and hone the skills of combat veterans, our government and industry team is developing the ultimate training environment. A training system that will meet the demanding training challenges of an Army that is transforming while at war.

Flight School XXI brings together the best in industry to provide high fidelity devices, world class facilities and highly experienced personnel to join with the government team to enhance Army Aviation training.

Truly a partnership to prepare tomorrow's warriors, Flight School XXI will produce highly trained and proficient aviators for the field, enable them to attain mission ready status sooner and increase operational readiness.





other airframes currently supported by AVCATT will receive enhanced capabilities. Upgrades supporting the CH-47F, the UH-60M and future lots and blocks for the Apache Longbow will be designed and implemented over the next few years.

Black Hawk Flight Simulator

The Army is procuring additional Black Hawk simulators for Fort Drum, N.Y., the Eastern Army National Guard Aviation Training Site (EAATS) and the Western Army National Guard Aviation Training Site (WAATS). These new high-fidelity, full-motion simulators are being developed using feedback from aircrews flying in today's challenging environments. New visual effects allow for the traditional brown out/white out scenarios, and now incorporate "other ship" as well as "own ship" obscuration.

Apache Combat Mission Simulator (CMS)

Under current projections identified in the 2003 Army Modernization Plan, the Apache will remain a primary combat aircraft until at least 2030. Army recapitalization efforts will enhance aircraft capabilities and PEO STRI is moving forward in enhancing the Apache CMS. With improved image generators, the Apache CMS will provide more realistic mission scenarios with aircrews entering a high-threat environment against highly interactive targets.

Lift Simulator Modernization Program (LSMP)

This program supports both the UH-60 Black Hawk and CH-47 Chinook aircraft. Like the Apache, the Black Hawk

four went to Fort Rucker, Ala.; Fort Campbell, Ky.; Eastover, S.C. (for the Army National Guard); and Giebelstadt, Germany. Fort Stewart, Ga., and Camp Humphreys, Korea, will receive their systems this summer. Recently, the Army approved the acquisition of additional systems bringing the total to 23 AVCATT-A, and we are in the process of upgrading them to meet forecast aircraft modernization changes in the out years.

The AVCATT OH-58 Kiowa Warrior baseline is the Control Display System 2 (CDS2) version. With Kiowa Warrior forecast under current transition plans to be in the fleet until 2015, we are working hard on developing a CDS4 capability for AVCATT. Like the Kiowa Warrior, all the

AVCATT-A



The AH-64 reconfigurable manned module (*above*) and the UH-60 Black Hawk manned module (*right*) is one of five platform types that is being simulated by reconfigurable training devices built by Link Simulation & Training for the U.S. Army's Aviation Combined Arms Tactical Trainer — Aviation Reconfigurable Manned Simulator (AVCATT-A) program. Army aviators wear a helmet mounted display to view out-the-window computer generated imagery.

and Chinook will be involved in Army modernization programs that will allow them to be in the active fleet for decades to come. The LSMP upgrades to support these changes are quite numerous, and include new image generators, out-the-window monitors, geo-specific terrain databases and improved flight-planning software.

Lift Shipboard Helicopter Integration Simulator Modernization Program (LSHIP)

LSHIP is providing a front-end analysis to demonstrate the capability to enhance Army shipboard helicopter operations through simulation.

Nowhere else in the Army's multiple aviation simulation programs is there such a visible example of jointness. As the Army moves toward its modular unit structure, meeting the needs of the combatant commanders with unique supporting options, the idea of Army helicopters on Navy ships may well become the norm and not the exception. In the future, Army pilots will be ready to deploy to those surface ships, having prepared themselves through rigorous training in state-of-the-art simulators.

Support for USSOCOM

The aviation simulators mentioned so far support the Army's active and reserve components. As the single point of contact for USSOCOM training simulator requirements, PEO STRI executes aviation simulator acquisitions to support the unique and demanding requirements of the 160th Special Operations Aviation Regiment (SOAR). We have a major, ongoing development effort for the MH-6M Light Assault/Attack Reconfigurable (LASAR) CMS. This effort completes simulator development for the full range of special-operations forces (SOF) rotary-wing aircraft.

And in support of the 160th SOAR's expansion and modernization, we are delivering additional MH-47 and MH-60 CMSs, as well as a unique database to provide a full mission rehearsal capability.

The Future of Simulation

With all the changes taking place in the way our forces operate, it is imperative that Training Aids, Devices, Simulators and Simulations (TADSS) are effective and, with today's budgetary concerns, efficient. Upcoming simulators must support joint and combined-arms scenarios. We must (and will) leverage technology as we develop challenging simulations in the future. We must continue to push technology, while at the same time make full use of our past and current investments.

LTG Benjamin S. Griffin wrote about the irreversible course of building a transformed force. Today's Army aviation training, modeling and simulation solutions must follow that same irreversible course if tomorrow's systems are going to meet the needs of our future aviators.

As leaders who are focused on ensuring that our soldiers are ready for any mission, we must demand the best from our government/industry teams. Systems must be affordable, produced on time and capable of being upgraded with relative ease. They must be interoperable not only within our own service, but across the joint community. And lastly, they must be reliable, valuable training tools. At PEO STRI, we strive to do these things as we pursue continued excellence in acquisition — supporting the soldier!



James T. Blake, Ph.D., a former safety officer and dual-rated master Army aviator, is the Army's deputy program executive officer for simulation, training and instrumentation.

 <p>VISIONTRAK™</p>	<p>COMPLETE PROFESSIONAL</p> <h1>TRACKING SYSTEMS</h1>	
<p>VISIONTRAK™</p> <ul style="list-style-type: none"> > GLOBAL SYSTEM <p>Combines eye and head vectors for complete advanced analysis.</p>	<ul style="list-style-type: none"> > HEAD TRACKING SYSTEM <p>For complete eye and head tracking solutions.</p> <p>ADDITIONAL OPTIONS:</p> <ul style="list-style-type: none"> > BINOCULAR > WIRELESS > HIGH UPDATE RATE 	 <p>LIBERTY™</p> <ul style="list-style-type: none"> > 240 Hz Per Second Per Sensor > Up To 16 Sensors > Distortion Sensing
<p>POLHEMUS <i>First in the third dimension®</i></p> <p>40 Hercules Drive • PO Box 560 Colchester, Vermont 05446-0560 802.655.3159 • www.polhemus.com</p> <p> ISO 9001</p> <p>Copyright © 2003 Polhemus. VISIONTRAK and LIBERTY are registered trademarks of Polhemus.</p>	 <p>Image courtesy of Evans & Sutherland Computer www.esc.com</p>	<h2>A QUANTUM LEAP IN NEW TRACKING TECHNOLOGY</h2> <ul style="list-style-type: none"> > 3.5 millisecond latency > Multiple user definable profiles > Inexpensive, user friendly, mapping fixture available > USB and RS232 > SDK

ATX:

PREPARING AVIATION WARFIGHTERS FOR GLOBAL DEPLOYMENT

By LTC Christopher Shotts

As the rehearsal concludes, the aviation task force (TF) operations officer reviews last minute command-and-control (C2) tasks on the execution checklist with the aviation TF commander before they head to their command posts.

The aviation TF commander joins with the infantry ground-force commander and they head to the UH-60 C2 aircraft to fly top cover for the mission. Flight company commanders head back to their command posts to conduct mission briefing updates and review kneeboard packets with their aviators. The air is thick with anticipation of the pending

**SPECIAL
FOCUS
TRAINING**



Members of 1-137th Avn. complete a rehearsal.

With final preparations complete, the crews head to the flight line,

The importance of integrating air and ground forces in the urban environment is apparent to everyone involved as the exercise progresses.

mission. Enemy ground fire, shoulder fired surface-to-air missiles, dusty conditions in the landing zones (LZ) and high-tension wires crossing the outer cordon area all combine to make this mission particularly hazardous for the flight crews.

board their aircraft, conduct their commo checks and depart for the mission. The aircrews encounter no enemy activity as they traverse the desert terrain. The flight of UH-60s lands in the dusty LZ and drops off the infantry, though as it departs the LZ the trail UH-60 is

damaged by heavy ground fire. The infantry platoon is simultaneously pinned down by intense small-arms fire and sporadic mortar attacks. The AH-64D escort begins receiving nine-line requests for support from the ground forces. The Apache uses close-combat attack to suppress the enemy, allowing the infantry to establish the inner cordon checkpoint in the compromised area. The damaged UH-60 manages to fly for a short period before making a hard landing in a nearby field.

As the situation unfolds, the ground and aviation commanders in the C2 aircraft bring order to the chaos of battle, applying combat power at the appropriate areas, throwing the insurgents off balance and sending them retreating to the safety of the crowded city. Then coordination is made for the recovery of the downed UH-60. Back in the battalion command post, radios crackle with urgent reports from soldiers in close contact and aviators determined to defeat the insurgents with precision fires. The detail of the rehearsal pays off as branches and sequels of the original plan are put into effect by vigilant battle captains. The importance of integrating air and ground forces in the urban environment is apparent to everyone involved as the exercise progresses.



Train in real-life situations,
and return to real life.

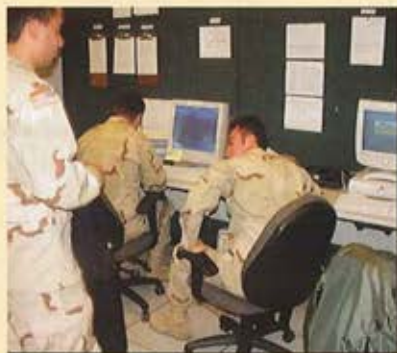
The goal is to become battle-hardened before the battle ever starts. At Northrop Grumman Electronic Systems, our electronic warfare (EW) simulation products are as vivid as the real thing. Specializing in RF and IR threat simulators, we enable pilots and shipboard operators to locate, identify and counter enemy missiles, employing the tactics they'll need to survive in actual combat. We also help the military test and evaluate new EW systems, as well as train EW systems operators. After 25 years of leadership in this field, Northrop Grumman Electronic systems is able to offer full EW solutions at affordable prices. So, when the battle starts and the threats are real, there won't be any surprises.

www.northropgrumman.com

© 2003 Northrop Grumman Corporation

NORTHROP GRUMMAN DEFINING THE FUTURE™

Electronic Systems



Soldiers from Co. C, 193rd Avn (Medium Lift) track the battle from their company TOC.

The location of this "battle" is not Iraq, but rather Fort Rucker, Ala. And the cockpits in which the aviators sit are not in real aircraft, but fully-reconfigurable experimental devices (FREDs). This battle is being executed over a virtual Iraqi terrain; against an enemy of semi-automated, computer-generated virtual forces, in the Combat Aviation Virtual Simulation facility, known as CAVSIM. The scenario just described is part of an Iraq-based aviation training exercise (ATX). These ATXs are being used to train units deploying in support of ongoing operations in Iraq, Afghanistan, Bosnia-Herzegovina and Kosovo.

Many active and reserve-component units include the ATX in their deployment training to augment Combat Training Center (CTC) rotations and mission-rehearsal exercises. The cost of an ATX is only a fraction of the cost to conduct a live exercise (such as a field-training exercise or CTC rotation), but the training value is equal or, in some cases, greater.

The ATXs at Fort Rucker are normally 10 days, and include three days of simulation training and battle-staff preparation, followed by seven days of intense aviation-focused training that combines brigade-, battalion- and company-level battle command with aviators flying in virtual collective simulators. The scenarios, developed and led by the Director of Simulations Exercises Division, are supported by a team of Computer Sciences

The location of this "battle" is not Iraq, but rather Fort Rucker, Ala.

Corporation contractors with years of combined aviation experience. The exercise is also supported by a small group of individuals from the training unit's higher headquarters who make up a brigade/division-level white cell as well as a team of observer/controllers (O/C) that evaluate unit performance and collect lessons learned.



Observer controllers and white cell players monitor the exercise from the stealth room

The ATX is driven using a modular training-support package (TSP) consisting of a base order to set initial conditions, daily intelligence summaries that create a common thread of enemy activity, and a full spectrum of missions in the form of fragmentary orders or FRAGOs. The FRAGOs range from deliberate cordon-and-search missions integrated with ground role play to general support mail runs that are a distraction to the battle staff but provide valuable area orientations to the flight crews. All FRAGOs mesh with the intelligence play for a common operational thread throughout the exercise.

The TSP is tied together with a master events list and includes special instructions for white cell role players to bring realism to the exercise. The observer-controllers (O/Cs) track the exercise using the master events list and are able to monitor, record and playback during the after-action review every round "fired" by an AH-64, every radio transmission made from the C2 aircraft, and every action directed by the ground-force commander. The ATX becomes a true learning experience for pilots, staff members and commanders alike.

The ATX is designed to put an aviation battalion- or brigade-level TF through mission scenarios they will likely encounter during their deployments. The virtual helicopter simulation cockpits in the CAVSIM are linked to brigade-, battalion- and company-level command posts in the Aviation Warfighting Simulation Center (AWSC). The virtual cockpits are also linked in a virtual world that closely resembles the operational environment the aviators will encounter after deployment.

The whole aviation TF is immersed in an operating environment corresponding to its theater of deployment. The virtual simulators fly over geographically specific terrain databases that match the Iraqi landscape as closely as possible. The aircraft are linked to their command and control headquarters by simulated radios (HF, TACSAT, FM) and by C2 systems that replicate the digital Army Battle Command Systems (ABCS) they will have available to them during deployment.



Gaining situational awareness in the battalion TOC during the recent ATX.

The advantage of using simulation-driven training is that the units have many more opportunities to learn valuable battlefield lessons in a low-cost, low-risk training environment. When soldiers die in live training accidents or in combat, we only learn the lesson if an accident-investigation team is able to determine the cause. When soldiers "die" in simulation, they learn and live to share the lesson with others. Using O/Cs to log lessons learned and to provide feedback gives the unit the valuable information it needs to sharpen its soldiers' collective skills to fight and win in any situation. The ATX experience has become an essential element in the training plan of many deploying units.

Simulation-based training for aviation using collective simulators has few limits. As Flight School XXI simulation services are put into place and the AWCS at Fort Rucker

is equipped with 18 floor mounted, Aviation Combined Arms Tactical Trainer (AVCATT) based, networked-collective simulators, units will be able to conduct battalion TF-sized missions.

As additional AVCATT suites are fielded across the Army it will be possible to link those suites together, allowing an aviation brigade unit of action to support joint exercises with a full compliment of aircraft simulators "flying" in support of virtual and constructive ground forces linked to Air Force and Navy flight simulators and battle-command systems. The Joint National Training Capability (JNTC) is not too far in the future, and Army aviation is well positioned to become an active participant.

Army aviation is leading the way in the use of virtual simulation for deployment training. Since the first ATX was conducted in June 1998 to prepare a unit for deploy-

ment to the Balkans, we have been perfecting the use of virtual simulators for collective training. Collective flight simulators are higher fidelity, the terrain data bases are more realistic, the training can be seamlessly integrated with the network centric Army Battle Command Systems and more virtual simulators are becoming available for use. Collective training is greatly enhanced by networked virtual aircraft simulators and, when properly integrated into a larger exercise, the training benefit is unsurpassed. Participation in aviation training exercises makes our combat forces better prepared to meet the challenges of the modern battlefield.



LTC Christopher Shotts is the chief of the Exercises Division in the Directorate of Simulations at Fort Rucker, Ala.

THE LINES BETWEEN VIRTUAL AND REALITY ARE OFFICIALLY ERASED.

Head-mounted display systems from Kaiser Electro-Optics, a Rockwell Collins company, deliver high-performance, compact display technology that sets a whole new standard. These systems maximize situational awareness for the soldiers of today and tomorrow by seamlessly combining critical virtual- and real-world information. 760.438.9255 www.keo.com

Rockwell Collins



A Military Air Rescue Team CH-47 conducting a hoist rescue in Yosemite National park at 13,400 feet. Notice litter basket below the aircraft.

OREGON'S MILITARY AIR RESCUE TEAM

By LTC Dan Hokanson

On May 30, 2002, the Oregon Army National Guard (ORARNG) received a call from Oregon's Emergency Management Agency (OEM) requesting immediate help on Mount Hood for a climbing accident. In the hours that followed, UH-60 Black Hawk air ambulances from ORARNG's 1042nd Medical Company successfully rescued all four critically injured climbers from an elevation of 10,800 feet in a rescue that received national attention when an Air Force HH-60 Pave Hawk crashed during the rescue operation. Although this incident was tragic, it marked the first mission of the ORARNG's Military Air Rescue Team (MART).

The MART's success during this mission was the result of coordinated planning and training that began eight months earlier. In October 2001

the Air Force announced that the 304th Rescue Squadron in Portland would transition to an aerial refueling unit. Even though the ORARNG had been performing search-and-rescue (SAR) missions for years, the state aviation officer (SAO) felt it was time to elevate the SAR program to the next level. The SAO appointed the commander of the Army Aviation Support Facility (AASF) as the Military

Assistance to Safety and Traffic (MAST) project officer to develop an integrated air-rescue program for the state. In the eight months from October 2001 to May 2002, the MART Program was developed to respond to any incident — and Mount Hood was its first test.



MART crews training with local emergency response personnel during an earthquake exercise.

The First Step — MAST Designation

The SAO and MAST project officer determined that the first step in legitimizing their involvement in civilian medical evacuation (MEDEVAC) and SAR missions was

to pursue Military Assistance to Safety and Traffic (MAST) designation.

The MAST program was developed in the 1970s by the Departments of Defense, Transportation, and Health and Human Services to allow military air ambulances to augment civilian emergency service organizations. The MAST program allows the use of military air ambulances in cases where life, limb or eyesight is endangered; for the transport of patients between hospitals; for the transport of blood or human organs; or the transport of essential medical personnel.

The ORARNG used the MAST program of the 54th Med. Co. at Fort Lewis, Wash., as a model for the MAST designation request. After meeting with Oregon's civilian air-ambulance providers and developing operating agreements, the request went forward through the National Guard Bureau to the Department of the Army. On Oct. 1, 2002, the 1042nd became the first National Guard unit to receive MAST designation.

The Need for MART

The MAST program was the first step, but a large portion of the missions executed by the ORARNG, like SAR, did not meet the specific MAST mission criteria. As a result, the ORARNG developed the Military Air Rescue Team (MART) Program as an overall air-rescue program that MAST would fall under. The MART Program is basically an aviation package "mission tailored" to a specific mission or event. Because each mission or event is different, the ORARNG utilizes not only the 1042nd's Black Hawks, but also the state's CH-47 Chinooks and OH-58 Kiowas.

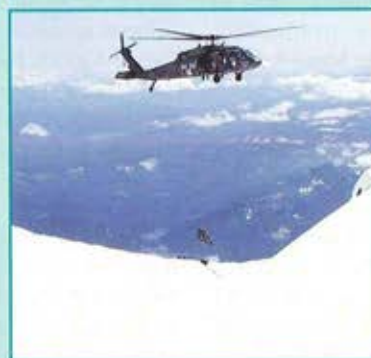
The ability to utilize all state aircraft gives the MART much greater flexibility to respond to missions. In addition, the MART can capitalize on the strengths of each airframe and the crews that fly them. As an example, the OH-58s and their crews are normally assigned to law-enforcement support duties and are most adept at FLIR operations in an urban environment. The CH-47s (with internal fuel tanks) can travel long distances without refueling and operate at altitudes above 13,000 feet. The CH-47s also provide "hot gas" to the Black Hawks so they can operate for extended periods in remote areas. All in-flight medical care is provided by the 1042nd's flight medics.



MART Aircraft hoisting victims from an aircraft crash at 7500 feet, in deep snow.



MART Flight Medics working with local Search and Rescue teams on a remote mountain aircraft accident site.



Flight Medic Frayne Fowler being lowered to the incident site on Mount Hood 30 May 2002.



Eight MART Flight Medics completing Swift Water Rescue certification.

Training for Change

The process of preparing the 1042nd for the MART Program involved not only training the aircrews and support personnel, it involved extensive agency coordination. MART representatives met with more than 15 agencies in Oregon and Washington to identify the best way to augment civilian emergency services, while at the same time giving aircrews the best possible training for their wartime missions. The biggest concern was the delay between the time an aircraft was requested and the time it actually launched. Many agencies had stories of requests taking three to four hours before air support was available, which in many cases was too late.

The MART's first focus was to improve response time by streamlining the request process. The MART worked with OEM as a clearinghouse for all but MAST requests, and was able to reduce the number of steps (agencies) in the alert process from seven to four, and MAST requests from seven to three. The result was the MART could now have an aircraft in the air within one hour after the first call. Although this is slower than full-time MAST units, the ORARNG relies heavily on its traditional National Guard soldiers because it does not have any full-time dedicated MART aircrews.

The ORARNG was able to support the one-hour response time by developing an aircrew call list based on response time from the State's Army Aviation Support Facilities (AASFs). The call list accounts for the time it takes aircrews to leave their civilian employment, or their homes after hours, and make it to the AASF in a timely manner to support the mission.

The Sales Program

Once the new request procedures were established, MART representatives hit the road to brief all regional agencies on the unit's capabilities. The Civilian MAST Coordinating Committee (CMCC), a local committee that provides recommendations regarding the MAST program, was held in conjunction with the state's quarterly Sheriff's Association meetings, which provided a captive audience of the MART's primary requestors.

MART representatives also became members of most agencies involved in

SAR to provide a representative at planning meetings, and to coordinate joint training events or basic classes on the MART's capabilities. Training programs with civilian agencies focused on the agencies training the MART crews on how to work with the agency, the agency's procedures, and how the MART crews could best support the mission. The result is that MART representatives now attend between three and four meetings per month with different agencies and meet with the regions, rural hospitals on an annual basis.

Identifying, Resolving, Educating and Training

In-depth after-action reviews (AARs) help improve the program by identifying issues, developing ways to resolve them, educating crews and the agencies they work with, and pursuing additional equipment or training where needed.

One example is over-water mission AARs. As a result of AARs, "dunker" and Helicopter Emergency Egress Device (HEEDS) training has been incorporated, as has additional FLIR training, and eight of the unit's flight medics have attended Swift Water Rescue Certification courses. AARs also identified the need for mountain survival gear, cold weather gear and water rescue equipment. The resultant training on the new equipment with civilian agencies improved the MART's capabilities and increased the scope of missions in which MART assets could be used.

AARs also indicated that one of the MART's greatest strengths is its flight medics. The medical capability onboard MART aircraft sets the unit apart from the Coast Guard and Air Force combat search and rescue (CSAR) units. Most of the 1042nd's flight medics have civilian jobs as paramedics, firefighters or emergency room nurses, and the MAST medical director is a distinguished trauma surgeon.

The AAR process continues with the MAST medical director, who works with the flight medics and reviews patient run sheets to identify areas where the flight medics could improve patient care. He then volunteers to bring the medics into the emergency room with him to train and certify them on advanced procedures to increase the level of care they can provide. The result is an increased level of care the flight medics can provide to patients on board the aircraft. The medical director also helps coordinate flight medic continuing education, such as Critical Care Transport certification.

Mission Successes

In the past 16 months the MART has conducted 47 missions and made 49 rescues or recoveries. Although the numbers may not seem significant, the missions have been very challenging. Many of the missions involve hoist operations, night-vision goggles (NVGs), FLIR, high altitude, inclement weather or a combination of these conditions. The MART is often the last resort and is called upon when no other agency can perform the mission.

A few mission highlights include multiple hoist missions at 10,800 and 13,500 feet, an over-water rescue under NVGs in a snowstorm, three high-altitude hoists on one mission to two separate mountains, and a river rescue where the victim was submerged for five minutes and later fully recovered. During SAR missions for missing aircraft

and personnel, the unit has an incredible success rate and is often the first to bring the mission to closure.

The Future

The future lies in the planning being done today. As with all organizations, recruiting and retention is the key. Community involvement and publicity is not only a great recruiting tool, it helps retain soldiers because it gives them the opportunity to make a difference in their communities on a regular basis. In addition, MART training opportunities not only improve the soldier's military skills, in many cases they also improve the soldier's civilian job skills.

Key leader identification and training is also very important to the MART's future. In the effort to insure its future, the MART has developed a training program where leaders learn their job from current team members, become active members of the team, then mentor new members or their replacements. This three-phase training cycle insures the program gets "new blood" and new ideas; continues to improve; fills the organization with a cadre of soldiers experienced in air-rescue tactics, techniques and procedures; and gives the soldiers an understanding of the civilian agencies they interact with.

Another key to the future is integrating public affairs and media involvement. Video footage of rescues always makes the news and the attention not only opens the door to resources, it helps recruiting and retention throughout the Oregon National Guard. The ORARNG's Public Affairs Office is involved in every mission and its impact has been significant. In addition, the MART has developed an onboard hoist camera and is working with the U.S. Army Aviation and Missile Command on the latest airworthiness releases (AWRs) for onboard video recording. The Coast Guard has been able to document its value to the community through video; the MART is working to have the same capability of documenting its value to the community in the near future.

Wrapping It Up

The MART concept is not revolutionary. The MART is based on coordinating SAR and MAST operations under a single organization and developing a plan to make it work in the region. Oregon offers unique opportunities because it has many rural areas, it supports many outdoor activities, it has a lot of high mountains and it has only a few air-ambulance providers. The key to the MART, however, is the commitment by the ORARNG's leaders, support from the community and the dedication of the unit's soldiers.

The MART program is not an easy undertaking and requires a significant commitment. The planning, training, coordinating and continuation training are very time consuming and involve all aviation organizations in the Oregon Army National Guard. The commitment, dedication and after hours work by members of the MART offer their own rewards, however. One letter from a thankful parent, or the smile of a crewmember who just saved someone's life is a priceless memory soldiers will keep for the rest of their lives.



LTC Dan Hokanson is the Oregon Army National Guard's MART/MAST project officer.



2-52 aircrew with ROK SOF, prior to take off on a combined training mission

Ready for the **FIGHT** Tonight and **BEYOND**

By CPT Chris Reid and LTC Rich Juergens

Through 50 years of armistice the United Nations has maintained constant vigilance against the North Korean threat. Indeed, the motto of U.S. Forces, Korea, is "Ready to Fight Tonight."

Should the need arise to "fight tonight" the 2nd Battalion, 52nd Aviation Regiment — Eighth U.S. Army's heavy-lift helicopter battalion — can be called on to conduct any of several short-notice missions called Crisis Action Standard Operating Procedures, or CASOPS. One of the most important is the highly publicized noncombatant-evacuation operation (NEO) known as Courageous Channel. The NEO mission requires extensive assets from both of the battalion's 14-ship flight companies. Following execution of the CASOPS, 2-52 Avn. becomes the peninsular aviation workhorse.

Staying Ready

Currently, the battalion trains to complete these missions by planning, briefing, rehearsing and flying each mission on a regular basis. Flight planning is completed mainly at the company level; synchronization of all battalion operations is closely orchestrated by the battalion battle-staff and closely coordinated with 17th Avn. Brigade. Due to its complexity, the plan-

ning of Courageous Channel requires nearly every pilot in the tasked flight company. This is an effective training tool for the new pilots and young lieutenants.

The battalion has cross-trained the flight companies on each mission. In the past, each company was assigned a particular mission, and only a few pilots were trained on both. Now, with all pilots trained in both missions, the battalion has increased its operational flexibility and has more options for contingency planning.

When training to "fight tonight" 2-52 Avn. applies both a figurative and a literal translation. The "Nightmare" training objective is a straightforward one: execute its two initial missions immediately and stand ready to continue with follow-on missions. The battalion also trains literally to "fight tonight" using night-vision goggles — with more qualified NVG crews than at any other time in its history.

The most challenging aspect of the "fight tonight" mantra is being primed to fight tomorrow as well. Therefore, the battalion builds depth into its training. As mentioned earlier, each flight company cross-trains on the other's standard mission. Leaders within the flight companies develop training plans to create depth in their units. These training plans provide backups for each duty position, and they ensure everyone is trained on all missions they are expected to perform. Additionally, the battalion follows these major training missions with field training exercises in order to better simulate the transition to war.

Day or Night

For aviators, a key part of depth and the "fight tonight" principle is training each pilot on NVGs. It is common knowledge that the Army's capability to fight at night provides an advantage over nearly all of its ene-



Short final to the USS Juneau

mies. The battalion has developed the capability to execute all the CASOPS mentioned earlier during day or night. Equally important is the need to ensure that upon successful completion of their tour in Korea, all pilots and crewmembers can join their gaining unit and immediately make an impact. Any mission that can be flown at night is flown under NVGs, thereby supporting the battalion goal of conducting at least 35 percent of its flying hour program at night. This has resulted in a 300 percent increase in goggle hours flown and Chinook pilots no longer depart Korea without being NVG mission-trained.

The 2-52 Avn. has also increased its focus on planning and conducting joint and combined operations. The battalion has trained with the Republic of Korea (ROK) forces for years trading tactics, techniques, and procedures. As the U.S. armed forces work jointly more and more, 2-52 Avn. seeks opportunities to train with the U.S. Marine Corps, Navy and Air Force.

The battalion recently had the opportunity to train with the Marine Corps' medium helicopter squadron HMM-262. The unit was in South Korea for training and the Army pilots, unit trainers and instructor pilots briefed the Marine Corps pilots on local procedures and airspace. The soldiers also flew on the Marine Corps aircraft to provide local area orientations. In return, the Marine Corps aviators briefed the soldiers of 2-52 Avn. on their tactics. Of particular note was a training mission conducted by the Marines with their ROK counterparts, supported by 2-52 Avn. heavy lift. Finally the USMC aviators assisted 2-52 Avn. in preparing for and conducting deck-landing qualifications with the US Navy.

While the occasion for deck landing qualification (DLQ) and refresher training does not come often, the opportunity to land on a ship with the Marine Corps trainers on board is even less



EXEVAL ends with a Battalion Aircraft Scatter, return to base to Camp Humphreys

likely. The battalion trained multiple pilots on a task they had never performed before. The aviators of 2-52 Avn. landed two CH-47Ds on the ship, and the Navy hot-refueled them while on deck. Most sailors had not worked with Chinooks before, and some even got a chance for a ride. Future plans include semiannual DLQ proficiency training and an annual joint operation conducted with the Marine Corps and Navy.

The Importance of Logistics

The battalion has also made great strides in preparing logistically to "fight tonight."

The greatest challenge lies in keeping the complex CH-47 mission-ready. Units currently in combat already know that being prepared to fight immediately is not an easy task. The Army is designed to prepare for combat, but units must use forethought to apply the Army's system to their situations. Long lead times on CH-47 repair parts create a challenge to maintaining operational readiness in Korea. In order to com-

The greatest challenge lies in keeping the complex CH-47 mission-ready.



bat these difficulties, 2-52 Avn. has worked with the 23rd Area Support Group to ensure that the right parts are available, in country, at all times. Additionally, 2-52 Avn. has received permission to create a small aviation

parts package (A-Pack) consisting of the parts most notoriously difficult to receive — critical CH-47D drive train components. Already this effort has saved more than 270 days of NMCS time.

The intent here is simple: 2-52 Avn. is training for two wars. The unit trains to be ready for combat against North Korea tonight — however, with combat already taking place in the Middle East, each unit member has a good chance of deploying to a combat zone. Therefore, it is the battalion's responsibility to the Army and the aviators to train them to be ready to "fight tonight and beyond."

The battalion is always ready for another mission, whether it be the standard mission, a joint mission or something unique.



CPT Chris Reid is the maintenance officer for Company A, 2nd Battalion, 52nd Aviation Regiment. LTC Rich Juergens is the commander of the regiment's 2nd Avn. Regt. Both are stationed at Camp Humphreys, Korea.



Total Life Cycle Predictive Models to Support

- Performance Based Logistics (PBL)
- Advanced Workload Demand Forecasting
- Total Ownership Cost Management
- Contractor Logistics Support (CLS)
- Provisioning Requirements Optimization
- System of Systems Simulation

Specialized Supplier Services Coming Soon



Clockwork Solutions, Inc., 8310 Capital of Texas Hwy N, Suite 285, Austin, TX 78731, (512) 338-1945

www.clockwork-solutions.com

Taking Gunnery to the Next Level

By CPT Timothy M. Baer and LTC Reginald P. Mason

Last fall the squadron's members participated in one of their most challenging home-station gunnery and training exercises. The unit attempted to replicate the challenges of a Combat Training Center as closely as possible. This gunnery program started with troopers conducting small-arms qualifications and a demolitions range, to hone the troopers' individual skills. We also conducted the Scout Gunnery Skills Test and the Helicopter Gunnery Skills Test. The gunnery program also included air- and ground-crew qualification training, a convoy live-fire exercise and a squadron field training exercise (FTX).

**SPECIAL
FOCUS
TRAINING**

The 3rd Squadron, 17th Cavalry, is the reconnaissance squadron for the 10th Mountain Division at Fort Drum, N.Y. The squadron consists of a ground reconnaissance troop (A Troop), two air reconnaissance troops (B & C Troops), an aviation maintenance troop (D Troop), and a headquarters and headquarters troop (HHT). The ground reconnaissance troop consists of an 81mm mortar section and three combat platoons. Our Modified Table of Organization and Equipment (MTOE) provided us with a total of four ground scout platoons (two light platoons and two TOW platoons).

However, we task organized these four platoons into three in order to allow the crews to train as they would fight and to allow greater flexibility for the troop commander. Each platoon now has three vehicles armed with .50-caliber machine guns, two vehicles armed with TOW missile launchers and one vehicle equipped with a Mk. 19 grenade launcher.

The 3-17 Cav. conducts month-long semi-annual gunneries in the spring and fall of each year. The squadron has continued to "raise the bar" on each successive gunnery. Each gunnery has built on the previous one, increasing in complexity, challenging troopers and leaders at all levels to adapt to an ever-changing world and threat environment.

The comprehensive convoy live-fire program integrated the unit's combined-arms assets in a tactical operation during three daytime and one nighttime engagement. Each convoy included a ground scout platoon, a Scout Weapons Team (SWT) of two OH-58Ds, a four-litter ambulance (FLA), and a maintenance recovery team with wrecker. This exercise required that both HHT and D Troop commanders plan for and control ground, air and indirect fire assets in addition to controlling the movement and fires of their convoy and their personnel. The squadron executes the convoy live-fires to ensure that all the administrative and maintenance troopers are trained in convoy operations in a live-fire scenario.

Engagement one commenced with the convoy entering the range with the SWT forward, conducting a route reconnaissance for the convoy. A wire/mine obstacle was placed along the route to force the convoy to conduct a hasty breach. During the breach the first set of targets, consisting of both vehicle and personnel targets, was presented. All weapons — including soldiers' individual weapons, the vehicle-mounted weapons, and SWT's .50-caliber machine guns — were free to engage all targets based on the troop commander's fire-distribution plan. Concurrently, the scouts conducted a hasty breach of the wire/mine obstacle.

Engagement two was presented as the scouts continued to breach. Soldiers were "hit" by enemy fire and the commander and NCOs ensured that casualties were treated and, as required, air evacuated using a nine-line medical-evacuation (medevac) call and smoke to control and direct the support. The engagement continued as the casualties were moved to a landing zone (LZ) for helicopter evacuation.

The end state for this engagement had the breach completed, the wounded troopers evacuated, and all enemy targets destroyed or withdrawing.

Engagement three consisted of the convoy proceeding through the breach and moving to the farthest-north section of the range, where the convoy encountered numerous enemy vehicles and dismounted troops. During this engagement a vehicle was "disabled" by enemy fire. As the live-fire engagement continued, the maintenance recovery team moved forward, assessed the damage and towed it to the rear for repairs.

The night live fire had one engagement opportunity. This iteration was task organized as above to include squadron's 81mm mortars providing illumination for the night engagement, thus incorporating air, ground and indirect-fire assets.

The squadron's approach to the convoy live fire has ensured that all of our troop commanders are tactically proficient, and that the troopers and leaders are competent and confident in themselves and their equipment.

The culminating point for the 30-day gunnery training was the FTX. The squadron deployed to a tactical assembly area (TAA) as a combined-arms team that included our organic aircraft, ground scouts and mortars, as well as attached engineers, ground-surveillance radar teams and air-defense teams.

We surrounded the TAA with concertina wire and manned the fighting positions 24 hours a day.

The troopers were briefed that enemy forces would attempt to probe and breach the perimeter. The concept of operation for this mission had the squadron operating over a 12-kilometer-wide zone. This zone was further divided into the northern, central and southern zones.

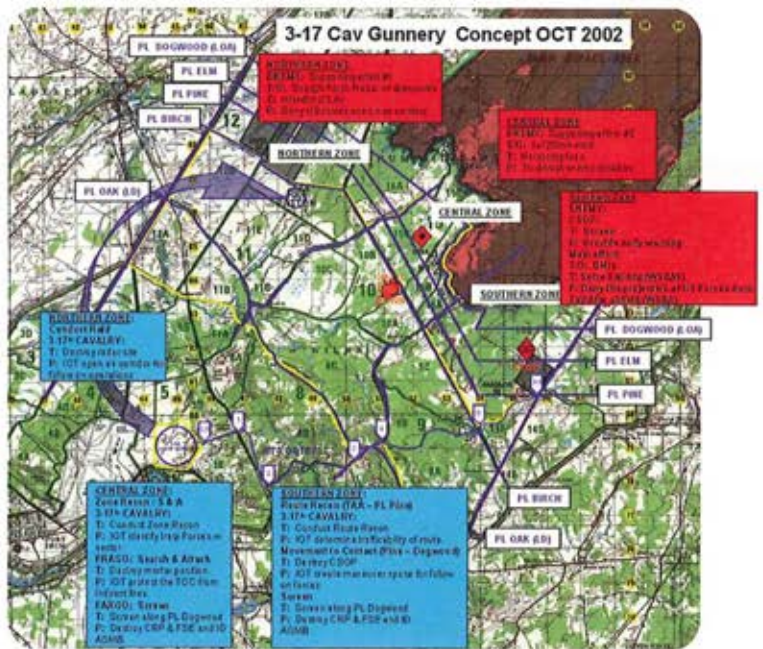
Each of the three ground platoons conducted operations in one of the zones each day and then transitioned to another zone the following day. The air troops also conducted operations in each zone. At the end of the day's mission the platoon and troop observer/controllers led an after-action review (AAR) to capture lessons learned. They then received a change of mission and began planning for the following day's operation. The three zones exercised the command-and-control and battle-tracking skills of the entire squadron staff, the ground troop and air troop commanders.

The mission of the ground platoon in the northern zone was to conduct a raid on an enemy air-defense artillery radar emplacement protected by an enemy infantry squad. This raid was the beginning of operations in the squadron's zone and it set the conditions to allow the aircraft to commence operations throughout the squadron's entire zone. The platoon conducted an air assault to an LZ well outside the radar site. An air troop was given the tasks of conducting LZ reconnaissance and air-assault security. Flight at nap-of-the-earth (NOE) altitudes was critical to air assaulting into the LZ.

The ground platoon then conducted a reconnaissance patrol to confirm and report the location of the radar site and to report the composition and disposition of the enemy force within the town. The squadron commander then gave permission to execute the raid and destroy the radar site. If any of the platoons sustained casualties, the platoon leader called for a medevac helicopter that was on stand-by in the TAA prepared to evacuate the wounded.

The central zone started with a detailed route reconnaissance from the TAA to a release point (RP) short of the air/ground teams' area of operations. The ground platoon was to classify the road as well as the one bridge along the route. Soon after departing the TAA the platoon ran into civilians on the battlefield (COBs). The platoon had to determine whether or not these civilians were hostile and how to assist them, if feasible, while staying focused on the mission.

Upon arriving at the RP the ground platoon conducted a mounted zone reconnaissance supported by an SWT from one of the squadron's air troops and the mortar section from the ground troop. The mission was to identify enemy forces in zone. As the mission proceeded the platoon received instructions to conduct a search and attack in order to identify and destroy a reported enemy mortar position in the northern portion of the zone.



The 3-17 Cav. conducts month-long semi-annual gunneries in the spring and fall of each year. The squadron has continued to "raise the bar" on each successive gunnery.

As the platoon transitioned to the search and attack, one of the OH-58Ds was "shot down" by enemy fire. The helicopter landed in an area too remote for the scout platoon to assist the crew, and the crew was required to move to a predetermined pick-up point. To make this scenario more challenging, an enemy squad and a police canine unit were used to track the pilots in order to provide them with a sense of urgency.

Concurrently, D Troop soldiers conducted the downed aircraft recovery operation. The Downed Aviator Recovery Team (DART) flew to the crash site, assessed the condition of the downed aircraft and determined whether to salvage it or destroy it in place. The downed pilots moved to the PZ using their survival radios to contact the unit's attached Black Hawk recovery helicopter as it searched for them using the Pilot Locator System (PLS).

Meanwhile, the ground scout platoon continued its search and attack mission. The platoon then received instructions to conduct a screen along a phase line to identify and destroy the combat reconnaissance patrol and forward security element. The unit transitioned to a mortar live fire during the screen. The ground scout platoon, SWT and mortar section occupied observation posts (OPs). They called for fire and the mortars executed the fires, using hard targets in the impact area to simulate the enemy forces.

The southern zone was a combined arms live-fire exercise and had no force-on-force play. The ground platoon and SWT conducted a route recon up to PL Pine, the base line of the multi-purpose range complex, at which point they transitioned to a movement to contact. The most challenging and unique aspect of executing the range was that the platoon

Gunnery cont'd on next page

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 Editor, care of the AAAA National Office.



Below is the fiscal year 2005 Lieutenant Colonel command Selection List

COMBAT ARMS

4ER-Aviation TSS

- MAJ Bellson, Steven D.
- * MAJ Carlile, Christopher B.
- * LTC Crozier, William E. III
- * MAJ Fassl, Mark F.
- MAJ Lamb, Samuel E.
- * MAJ Taylor, Mark C.

4EX-AVN Institutional (Garrison/BSB)

- * MAJ Coffman, Carl R. Jr.

4L-AVN Attack/Cavalry Tactical

- MAJ Barker, James T.
- + LTC Blum, Gustavo E.
- * LTC Brown, Robert S.
- * MAJ Devito, Timothy P.
- MAJ Fee, David M.
- MAJ Jamison, Terry J. Jr.
- MAJ Novalis, John E. II
- * LTC Parmentier, Albert G. II
- MAJ Pyott, Michael D.
- * MAJ Royar, Kenneth T.
- * MAJ Walach, Christopher E.

4M-AVN Assault/Gen. Sup. Tactical

- * MAJ Bird, James E. III
- MAJ Cassidy, Robert M.
- + LTC Cooper, Curt S.
- * MAJ Fish, Charles A.
- * MAJ Flood, Albert L. III

4M-AVN Assault/Gen. Sup. Tactical

- MAJ Huggins, George D.
- * LTC Joslin, Christopher A.
- * MAJ Little, Manfred L. II
- * LTC Metheny, William P. III
- * LTC Miller, Michael D.
- * MAJ Patterson, Mark C.
- * MAJ Tate, Frank W.
- * MAJ Zero, Guy M.

4N-AVN Medium Lift Tactical

- * LTC Covert, Alex G.
- * MAJ Kubica, Scott P.

COMBAT SUPPORT ARMS

5E-Aerial Exploitation Tactical

- LTC Coyle, Tristan P.
- MAJ McIntosh, Kirk E.
- MAJ Sanborn, Scott E.

5ER-Aerial Exploitation TSS

- * MAJ Farnell, Angela D.

COMBAT SERVICE SUPPORT

6H-AVN Maintenance Tactical

- * LTC Crogan, Richard E. II
- * LTC Heitkamp, Dean D.
- MAJ Jessen, Frederick H.
- MAJ Kiser, Robert R.
- LTC Tarutani, Jerome M.

* AAAA Member + Life Member

The calendar year 2003 Aviation Branch Command Sergeant Major and Sergeant Major selection list has been released. Congratulations to the 22 Aviation Branch selectees.

NAME	PMOS	CSM
* Aila, Antoinette K.	15P5	ALT
Babb, Scott D.	15Z5	ALT
Beckman, Charles J.	15Z5	ALT
* Chandler, John L.	15Z5	ALT
* Crosby, Ricky L.	15P5	SEL
Dawson, Keith C.	15Z5	SEL
Dobs, Michael R.	15P5	ALT
Farmer, Larry D.	15P5	ALT
* Gordon, Thomas W.	15Z5	SEL
Haynes, Mickey	15Z5	SEL
Johnson, Carolyn B.	15Z5	SEL
Little, Keith C.	15Z5	SEL
* Meehan, Charles V.	15Z5	ALT
Mione, Lawrence V.	15Z5	ALT
Mitchell, Richard A.	15P5	ALT
Perdices, Laura L.	15P5	ALT
Perkins, David L.	15Z5	ALT
Samuels, Anthony L.	15Z5	ALT
* Smith, Marlin J.	15P5	ALT
Sowers, Scott O.	15Z5	ALT
Waller, Stephen B.	15Z5	ALT
* Westergart, Chester	15Z5	ALT

Gunnery continued from previous page

leader was not supposed to talk to the tower; all reports and direction came from the troop commander, as they would in an actual tactical operation.

When the platoon entered the range it was up to the platoon leader to give the order to lock and load their weapons and begin engagements. This allowed the squadron to remove the range artificiality from the exercise. The range officer in charge, safety officer and observer/controllers remained in constant communication with each other to maintain positive control of the situation while allowing the scout platoon and air troop maximum latitude to execute the live-fire.

The mission was executed on a timeline that ensured that the final engagement of the live-fire was conducted in darkness. This was achieved by building the scenario in a manner that had realistic time/distance relationships between the echelons of the "enemy forces," and the ground scout platoon and supporting aircraft therefore spent a large amount of time on the range in a hasty defense waiting to identify the approaching enemy forces. This approach forced the crews to exercise discipline in covering their assigned sectors since it was not just a "roll on the range, shoot, and roll off" scenario.

The targets were planned in a depleting scenario, meaning that if a target was destroyed it stayed down. However, if it were missed it would come up in the next band of targets that were in closer, until all enemy targets were destroyed or until enemy forces overran the platoon. The targets were also equipped with Hoffman firing devices and rocket simulators to add realism. All this combined to produce a realistic and challenging training event for leaders and troops alike.

This entire gunnery program was designed to create a Combat Training Center type of environment. It caused the squadron headquarters to command and control all attached combined arms assets simultaneously. It further caused the ground troop commander to operate over a dispersed area of 12 km. Finally, it caused the air troop commanders to conduct multiple missions while tracking downed aviators.



LTC Reginald Mason is commander of Task Force 3rd Squadron, 17th Cavalry, which is now supporting the 3rd Brigade, 2nd Infantry Division, in Iraq. CPT Timothy Baer is commander of A Troop, 3rd Sqdn., 17th Cav., which recently returned from Afghanistan.

Helicopter Training Turns **BLUE**

By Master Sgt. Julie A. Briggs, USAF

Air Force helicopter training is now "blue" thanks to an agreement with the Army.

The Army is retiring its UH-1H Iroquois fleet at Fort Rucker, Ala., and is transferring some of its aircraft to the Air Force's Air Education and Training Command (AETC) for undergraduate helicopter training, said Maj. Larry Walker, the Specialized Undergraduate Pilot Training-Helicopter program manager for AETC.

When the transfer is complete in September, the 23rd Flying Training Squadron at Fort Rucker will own about 40 UH-1H helicopters, 24 for flight training and 16 for spares and future

modification to twin-engined Huey IIs.

For 35 years Air Force helicopter pilots trained at Fort Rucker flying Army helicopters and using the Army's curriculum for half the course, Walker said.

That era ended May 6 when the Air Force received six Hueys from the Army. The 23rd FTS had its first training flight May 24 in an Air Force UH-1H using its own training syllabi.

All Air Force helicopter pilots arrive at Fort Rucker following graduation from joint specialized undergraduate pilot training, where they fly either the T-6A Texan II, T-37B Tweet or the Navy's T-34 Turbo Mentor. Before the helicopter transfer, helicopter training was split into two phases.

"In Phase I they used Army contract instructor pilots, and those contract pilots used Army instructions and procedures," Walker said. "In Phase II we used Air Force instructor pilots, using Air Force instructions and procedures."

Air Force pilots will still receive training in two blocks, but will now use Air Force procedures and instructions throughout.

"This syllabus change means the Block I instructor pilots — mostly retired Army warrant officers with about 10,000 hours flying experience each — must learn Air Force procedures and instructions," Walker said. The change also gives instructors the ability to add more training to the syllabus because instructors don't have to retrain the students through a transition phase from Army to Air Force procedures in Block II. That time will instead be used for more mission training, like night-vision goggle formation flights.

Block I training will last three months and begins with ground school for three to four weeks, during which students learn rotary-wing academics and aerodynamics. Block II

training will also be three months long.

"We're not doing things better than the Army," Walker said. "The Army trains great pilots. We just train our pilots for different missions. Their pilots are doing more troop movements and attack. More than half our pilots go off to combat search and rescue and special ops."

"The Army has been great for 35 years training our guys. We're not going our separate ways. We're staying with Rucker and taking the best from both services."

The Air Force will continue to use the Army's maintenance contract for its Huey fleet in addition to the contract instructor pilots for Block I training. They will also continue to use

**SPECIAL
FOCUS
TRAINING**



Once an Army aircraft, now with Air Force markings, a UH-1H Iroquois taxis for take off at Lowe Army Helipoint, Fort Rucker, Ala. It is one of six Hueys recently transferred to the 23rd Flying Training Squadron for Air Force undergraduate helicopter training. (Courtesy photo)

the Army's helicopter training areas, stage fields and facilities at Fort Rucker.

"The only thing that's changing is we own the Hueys, and we'll have a 'blue' syllabus throughout undergraduate training," Walker said.



Master Sgt. Julie A. Briggs is an Air Force public affairs specialist with the Air Education and Training Command at Randolph Air Force Base, Texas. This story is reprinted courtesy of the AETC Public Affairs Office.

Fort Rucker Witnesses New Chapter in Aviation History

by LTC James R. Bullinger



COL Mark Hayes holds his TSM-Recon & Attack charter with BG E.J. Sinclair and COL Greg Williamitis. Williamitis, the departing TSM-RA, received the Legion of Merit award for his leadership and achievements.



COL Theresa L. Barton (above) accepted the charter activating TSM-Lift and COL Jeffrey T. Kappenman (shown below with BG E.J. Sinclair) accepted the charter for TSM-UAVS.

The U.S. Army Aviation Museum served as the backdrop July 1 for the activation of two new Training and Doctrine Command System Managers (TSM) and the change of charter of another TSM. Before an assembled audience of more than 350 people, BG E.J. Sinclair, the commanding general of the U.S. Army Aviation Center and Fort Rucker, Ala. presided over a simple ceremony to mark the change of charter for TSM-Reconnaissance and Attack and the activation of TSM-Lift and TSM-Unmanned Aerial Vehicle Systems.

"The TRADOC system manager performs as the Army's centralized manager for all combat development user activities for their system," Sinclair said.

COL Gregory M. Williamitis passed responsibility to COL Mark M. Hayes for TSM-RA. Williamitis, who previously served as the TSM-Comanche, formed TSM-RA with resources from TSM-C and TSM-Longbow after the Army cancelled the RAH-66 Comanche helicopter program in February.

Sinclair had high praise for Williamitis and his efforts concerning the three TSMs.

"As the new TSM Recon-Attack director, Greg [Williamitis] led the effort to gain approval of the Apache Longbow Block III and also the Armed Reconnaissance Helicopter initial capabilities



document," Sinclair said. "Greg also created the organizations, charters, resources and missions of TSM Lift and UAVs which mark their beginnings here today."

Williamitis departs to be the chief of the Capabilities Integration Division at TRADOC's Futures Center, Fort Monroe, Va.

COL Theresa L. Barton accepted the charter activating TSM-Lift and COL Jeffrey T. Kappenman accepted the charter for TSM-UAVS.

"The official standup today of these TRADOC system managers reinforces Fort Rucker's commitment to consolidating proponentcy for aviation systems at the home of Army Aviation," Sinclair said.

MOAA TALKS SBP FIX TO PRESIDENT ABOARD AIR FORCE ONE

Thanks to Senators Landrieu and Snowe, who joined forces to push Landrieu's SBP amendment through, TMC and MOAA have a provision in the Senate-passed bill as well as in the House bill, pretty much guaranteeing that we'll get some kind of SBP fix this year.

The Republican leadership did not want to do this. Both Senators Warner and Frist twisted Landrieu's arm to get her to withdraw her amendment, but she refused. Pressed to get the bill done by June 23 and not wanting to put Republican cosponsors in the position of having to vote against it, the leadership caved, but managed to extract a price.

Instead of the 3.5 year phase-out of the age-62 benefit cut (like the House's) that Landrieu was seeking, the Senate approved a 10-year phase-out. And instead of the House-approved open season provision (which lets nonparticipating retirees enroll for a relatively modest premium penalty, proportional to how long they've been retired), the Senate-passed provision includes an open-season requirement proposed by Senator Ensign that would make open-season enrollees pay all back premiums since their retirement, plus interest.

Obviously, TMC prefers the House's provisions, and we now have a couple of months to convince the joint Senate-House conferees. But it's a huge victory to have provisions in both bills.

Col. Steve Strobbridge, USAF (Ret.), The Military Coalition's (TMC) co-chair and director of government relations for the Military Officer Association of America (MOAA), rode with President George W. Bush to MacDill Air Force Base, Fla., aboard Air Force One last month. During the trip, Strobbridge had the opportunity to ask Bush to support TMC and MOAA's top legislative issue, ending the military widow's tax that cuts Survivor Benefit Plan (SBP) annuities by one-third for survivors age 62 and older.

Strobbridge was one of seven representatives of military and veterans' organizations invited aboard by the White House to hear the president's views on military and veterans issues, as well as on the progress of the war on terrorism.

In addition to reaffirming his commitment to stay the course in the war on terrorism, Bush took the opportunity to express his intent to make sure the nation keeps its promises to veterans. He particularly noted Department of Veterans Affairs (VA) Secretary Principi's success in reducing veterans disability claims backlog, reduced waiting times for care in VA medical facilities, and the great efforts to expedite care and rehabilitation for service members wounded in Iraq, Afghanistan and elsewhere.

Bush indicated his familiarity with our SBP initiative, as well as with several other issues raised during the discussion — which included Guard and Reserve health coverage, GI Bill improvements and veteran's health care funding, among others.

Bush said he understood association concerns with Pentagon and White House budget office letters to Congress opposing some of these personnel and benefit initiatives, and stressed that initial positions taken by his budget people were just that — initial positions. He said he intends to work with Congress and the associations on these issues, and noted that he signed a significant concurrent-receipt provision into law last year despite the concerns previously expressed by other administration officials.

TMC is very grateful to the president for putting such a high priority on meeting with military and veterans groups to provide his personal inputs and hear our concerns with his own ears.

PENTAGON ASKS CONGRESS TO RETAIN WIDOWS' BENEFIT CUT

The Department of Defense (DOD) has stooped to a new low in disseminating papers to Congress that employ erroneous assertions and misleading arguments to claim that military widows deserve to have their military Survivor Benefit Plan (SBP) annuity cut by one-third when they attain age 62. This last-ditch effort to sabotage a legislative SBP fix is so off-base that we want to address it in detail.

DOD Assertion 1: Military retirees have been fully informed about the age-62 benefit cut since the start of the program in 1972.

Retirees didn't get good information on the so-called "Social Security offset" to SBP for at least the first 10 years of the program. When the program started in 1972 the formula for the Social Security offset was so complicated that benefit counselors couldn't even calculate it. Since benefits counselors had no idea what the benefit reduction would be for any individual, most didn't even mention it in the early years. Even today, when older (pre-1985) retirees call the military finance center to ask how much their survivor's individual benefit will be reduced by the Social Security offset, the finance center doesn't calculate it for them. MOAA members have to get that calculation from MOAA (after providing extensive pay history data).



LEGISLATIVE REPORT

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

■ The SBP election forms members used to sign up for the program, at least from 1972 through 1982, made no mention of any benefit reduction at any age. The forms (an example can be found on MOAA's Web site in the Fight for Fairness brochure at http://www.moaa.org/Legislative/SBP/SBP_FFF_2004.pdf) asserted that the SBP annuity is 55 percent of covered retired pay, with no mention of any lesser amount.

■ Service briefings have been much better since the mid-1980s, when the age-62 benefit was changed to a flat 35 percent of covered retired pay for members attaining retirement eligibility after 1985.

■ But that doesn't change the reality that hundreds of thousands of older retirees were led to believe (and built their estate plans on the assumption) that their survivors would get 55 percent of covered retired pay for life, plus Social Security.

DOD Assertion 2: Retiree groups wrongly claim retirees pay more for SBP than promised, and wrongly claim the government promised to subsidize 40 percent of the benefit, when many SBP groups already have subsidies above 40 percent.

This is truly misleading in the extreme. DOD's claim is an unseemly effort to deny history and change the originally intended subsidy rules on retirees and survivors after the fact. Legislative history clearly indicates that Congress set military premiums in law with the assumption of a 60/40 cost share for newly retiring, non-disabled retirees.

■ It's true that the subsidy is higher (and should be higher) for certain other groups such as retirees with service-connected disabilities that affect their longevity and their ability to purchase other insurance. People who die on active duty obviously have (and should have) a 100 percent SBP subsidy. The 40 percent basic SBP subsidy was intended to apply to the normal, non-disabled retiring member.

■ When the 40 percent subsidy declined substantially by 1990, Congress acted to restore the intended subsidy (by reducing SBP premiums), further vouching Congress' original intent. DOD provided Congress the information on what premium levels were needed to restore the 40 percent subsidy.

■ Now the subsidy for newly retiring, non-disabled retirees has again declined (to 19 percent, by DOD's own admission, due to increased longevity and other factors). Congress needs to act again to restore the intended subsidy by ending the age-62 benefit reduction.

DOD Assertion 3: There is no inequity between military and federal civilian SBP programs, and the two programs aren't even comparable. Military retirement is much better because military people retire at a younger age, and military people don't contribute to their retirement like federal civilians do. And military survivors get Social Security in their older years, while some federal civilian survivors don't. Military retirees also have the option to purchase a supplemental SBP benefit to prevent benefit decline at age 62.

The inequities and aptness of the comparisons are obvious to any reasonable observer. DOD is trying to mix apples and oranges by comparing retirement plans, when the issue is survivor benefits. Even the retirement contribution issue is grossly misleading, and we're appalled that DOD leaders would seek to characterize military retirement in this way.

■ Military people contribute to their retirement at least as much as any civilian, but their contribution is in something far more dear than money — it's through 20 to 30 years of personal and family sacrifice, arduous service conditions and limits on their freedoms that few civilians are willing to endure (as indicated by headlines every day).

■ Military retirement (and the SBP benefit) is based on only the basic pay portion of military "salary" (basic pay is about 65 percent to 70 percent of full pay and allowances); federal civilian retirement is based on full pay and locality pay.

■ No federal civilian SBP program has any survivor benefit decline at any age.

■ The federal subsidy for both federal civilian programs (33 percent for the Federal Employees Retirement System, FERS, and 48 percent for the Civil

Service Retirement System, CSRS) is far higher than the military's 19 percent.

- The fact that military people retire younger is actually a disadvantage for SBP, because it means military people often pay SBP premiums twice as long as federal civilians, even though their spouses receive survivor benefits for about the same length of time (thus the far higher federal civilian SBP subsidies).

- The fact that some federal civilian survivors don't get Social Security is not applicable to the military SBP situation, because their retiree spouses didn't pay Social Security taxes.

- Federal civilians who paid for both SBP and Social Security (under FERS, which was enacted in 1984) receive benefits from both programs without any reduction, and military retirees who paid for both deserve the same treatment. Pre-1984 military vs. civilian SBP rationales no longer apply.

- Including Supplemental SBP in the comparison is equally erroneous because it has no government subsidy whatsoever and is so expensive that less than 2 percent of military retirees take it. No federal civilians are required to pay additional premiums to maintain their survivor-benefit levels.

DOD assertion 4: MOAA defends the age-62 reduction in one of its own publications.

The MOAA SBP brochure was written to answer member questions as to why Congress enacted the SBP age-62 Social Security offset in the original program. It cited Congress' rationale, as expressed in 1972. At that time, the program had a 40 percent government subsidy and there were no federal civilians drawing both SBP and Social Security.

- Since then, the very large subsidy decline has saved the government billions of dollars, to the point where retiree premiums are covering 81 percent of program costs, rather than the intended 60 percent.

- DOD's reference to the MOAA brochure out of its original context doesn't change the reality that the subsidy is now less than half its original value and hundreds of thousands of federal civilians now get both Social Security and SBP without any reduction.

Once again we ask you to take a moment to call or e-mail (better yet, call AND e-mail) your senators' offices to let them know that you are counting on them to stay the course and vote FOR the Landrieu amendment. Our SBP Action Alert is available at <http://capwiz.com/moaa/issues/alert/?alertid=5850581&type=CO>, or our toll-free Capitol Hill hotline [(877) 762-8762]. Just ask the operator for your senator's office.

TRICARE PHARMACY GLITCHES DECLINING

There were numerous implementation glitches surrounding the June 1 transition to the new TRICARE Retail Pharmacy (TRRx) contract to Express Scripts International (ESI). Reports that the issues would be resolved quickly proved overly optimistic, but eligibility determination and claims processing problems have gotten steadily better. ESI now is successfully processing 180,000 claims per day.

NEW PHARMACY CONTRACT BLINDSIDES BENEFICIARIES ON GENERIC SUBSTITUTES

One of the most problematic issues in the DOD pharmacy program has been the policy requirement to substitute generic drugs for brand-name pharmaceuticals whenever a generic version exists. The problem got worse with the implementation of the new pharmacy contract on June 1, when DOD arbitrarily voided all previous medical necessity rulings, making those beneficiaries jump through the same hoops again, even for refills of previously approved brand-name drugs.

On one hand, generic substitution is a normal cost-control policy that is a key element of almost all pharmacy plans. If the generic doesn't work for the beneficiary, causes adverse side effects, or under certain other circumstances, the beneficiary's doctor can assert that there is a medical necessity to prescribe the brand-name drug. If DOD approves the medical necessity determination, the beneficiary can get the brand-name drug for a \$9 copay.

DOD doesn't make it easy to get a medical necessity determination. It requires the doctor to call a specific TRICARE phone number and justify the decision to TRICARE pharmacy contractors. But DOD hasn't made that number widely available, and frustrated doctors sometimes find themselves having to make several calls.

Meanwhile, beneficiaries often have to make another appointment with their doctor (and pay another copay) to discuss the generic vs. brand-name issues and ask the doctor to make the "medical necessity" call, if appropriate. Providers often charge an extra fee (up to \$100 in some cases) for these administrative efforts.

TMC was very disappointed with the policy decision to void all previous medical-necessity decisions on several counts. That change was never discussed in any of DOD's meetings with beneficiary groups. Beneficiaries who have been getting brand-name drugs received no advance notice — learning of the brand-name

denial at the pharmacy — and found themselves forced into accepting an inappropriate generic or paying the full cost out. Worse yet, beneficiaries haven't been told how to obtain new medical necessity determinations.

TMC and MOAA have complained to senior DOD health officials that, at the very least, prior medical necessity determinations should be honored until completion of any necessary verification review. Further, DOD needs to broadly disseminate the specifics of the medical necessity approval process in every DOD pharmacy publication.

To their credit, DOD leaders acknowledged the inequity and have initiated both short- and long-term fixes. The computer systems have been updated to override the "generic substitute" rejection for any brand-name drug that has been dispensed to the beneficiary within the last six months. This grandfathering will be good for 120 days, to allow affected beneficiaries time to renew the medical-necessity determination. For the longer term (in two to three months), DOD will send individual notifications to the affected beneficiaries with the information on the medical necessity determination process.

Here's a synopsis of the process to obtain medical necessity documentation: If you have a brand named prescription that has a generic equivalent — you can obtain the brand named drug at the \$9 brand-name copay with documentation of medical necessity.

Your doctor must provide the following information:

- Beneficiary's name
- Date of birth
- Sponsor's Social Security Number
- Home address

Most important, the doctor must provide the specific reason why he believes you need the brand-name medication instead of the generic (i.e., generic medication has proven ineffective; the patient experienced adverse reaction to the generic; the patient has been successfully treated on the brand-named medication and is stable, etc.).

Your doctor can call ESI at (866) 684-4488 to get an immediate decision, or the information can be faxed to (866) 684-4477 for a decision within 24 to 48 hours.

Beneficiaries and providers should be aware that merely writing a note on the prescription is NOT sufficient to successfully process the prescription.

If the medical-necessity request is denied, you have the right to an appeal. Call (866) 363-8779 to inquire about the denial and find out how to file the appeal.

SENATE BACKS TRICARE FOR RESERVE FORCES

During debate over the fiscal year 2005 Defense Authorization Bill, the Senate approved (by a substantial 70-25 margin) a TMC-supported initiative to expand health-care eligibility for drilling members of the National Guard and Reserve. Sponsored by Senators Lindsey Graham (R-SC) and Tom Daschle (D-SD), the Guard and Reserve TRICARE amendment is similar to a measure the Senate approved last year. The new amendment would permit Selected Reservists to participate in TRICARE Prime by electing single or single and family coverage and paying a premium equal to 28 percent of the cost of the coverage. Premium payments stop during periods of mobilization.

A National Guard or Reserve soldier could expect to pay an annual premium of about \$530 for individual coverage or \$1,860 for family coverage. Reserve service members with employer-based health coverage could elect to continue that coverage, with the government paying part or all of the premium during periods when the member is mobilized.

Unlike the one-year authority approved last year, the Graham-Daschle amendment would make this provision a part of permanent law.

Later this summer, Armed Services Committee leaders will have to resolve differences between the House- and Senate-passed provisions in this area.

The House version of the defense bill includes authority only for a three-year test of providing premium-based TRICARE for members of the Selected Reserve who don't have access to employer-provided health coverage. Last year, the General Accounting Office (GAO) reported that about 20 percent of the reserve forces had no health-insurance coverage. That means about 174,000 of the 870,000 members of the Selected Reserve— those who routinely train — have no health benefits.

TMC and MOAA have made "continuity of health insurance" options for the reserve forces a priority. We are pleased to see the strong support of the Senate for this initiative.

DOD policy now calls for the routine activation of National Guard and Reserve units at least once every five or six years over the course of a reserve career. Most Reservists never expected to serve four or more years on active duty over a 20-year career. Some have served three or four tours already since the first Gulf War. Government-supported health insurance options are needed to buttress the enor-

EYES OF THE



COMMANDER



Tactical Unmanned Aerial Vehicle (TUAV) systems from AAI Corporation are "The Eyes of the Commander," performing reconnaissance missions that enable warfighters to see first, understand first, and act first - decisively.

Over Iraq, our newest Shadow™ TUAV systems support U.S. Army units, including the rapid-deployment Stryker Brigade.

From air vehicles to ground control stations, Shadow TUAV systems shorten the distance between sensor and shooter, providing accurate, sustainable, over-the-horizon surveillance, visual high value target acquisition, and battle damage assessment.

We are a proud partner with the world's most respected soldiers.



INNOVATION THAT WORKS.™

aaicorp.com

Shadow is a trademark of AAI Corporation.
Innovation That Works is a service mark of AAI Corporation.

NEW MEMBERS

**AIR ASSAULT CHAPTER
FORT CAMPBELL, KY**
CPT Edgar Ahzaldua
COL Robert E. Jones, Ret.
COL Art P. Lombardi, Ret.
CPT Hunter M. Marshall
1SG David R. Paul
CW4 Timothy I. Roderick
1LT Jeffrey B. Stone
LTC Louis A. Vogler

**ALOHA CHAPTER
HONOLULU, HI**
SP5 Dennis M. Fujii, Ret.
Mr. Melvin B. Pobre
**ARIZONA CHAPTER
MESA, AZ**
CW4 Robert L. Baird, Ret.

**AVIATION CENTER CHAPTER
FORT RUCKER, AL**
2LT Elizabeth A. Allen
2LT Kermit L. Baumgartner
1LT Gerard J. Berthelot, Jr.
2LT Marc T. Bitner
2LT David J. Blunier
WO1 Travis M. Boes
WO1 Patrick D. Braman
MAJ Evan J. Brown
2LT Jordan L. Burfield
CPT Christopher J. Butler
LTC Edward P. Carroll, Ret.
1LT Carl A. Catone
2LT V. Aaron Contreras
Mr. Ronald Cox
WO1 Preston S. Dean
2LT Chad DeVere
LTC Carroll A. Dexter
WO1 Jerry C. Dickerson
2LT Travis J. Easterling
WO1 Lamarius J. Failles
WO1 Paul C. Haverhals
WO1 Tyler D. Hobbs
2LT Nathaniel N. Hude
WO1 Thomas B. Johnson
1LT Sean C. Keefe
2LT Geoffrey D. Leonard
2LT Mitch L. Lohman
WO1 Shane M. Lutgen
WO1 Daniel L. Mackey
2LT Nathan Madins
2LT Patrick F. Magill

2LT Zachary S. Marfell
Ms. Brenda G. Miller
MAJ Thomas G. Moore
WO1 Charles R. Morton
WO1 Joanne M. Mulder
2LT Eric M. Nelson
2LT Joseph A. Nydegger
2LT Joshua J. Owens
WO1 Kenneth G. Pariona
2LT Ronald A. Reynolds
2LT Christopher E. Peterman
2LT Brady A. Phillips
2LT Betty S. Pina
2LT James L. Pridgen, Jr.
2LT Ronald A. Reynolds
2LT Laura J. Rogers
WO1 William C. Rollerson
1LT Sean M. Roughneen
2LT Christopher M. Ruff
2LT Jason R. Sanjurjo
2LT Kelly A. Stagle
2LT Sean A. Spencer
2LT Nicholas J. Stachler
WO1 Bunnaro Sun
WO1 Samuel W. Sutton
LTC Sheri L. Tonner
2LT Joseph E. Trevino
2LT Andrew T. Ueland
2LT David A. Wagner
WO1 Jeffrey L. White
2LT William S. Whitesel
CW3 Pedro O. Yi Perez
WO1 Kendall H. Zabel

**BIG RED ONE CHAPTER
ANSBACH, GERMANY**
CW2 Brent S. Cole
CPT Robert J. Holcombe

**BLACK KNIGHTS CHAPTER
WEST POINT, NY**
2LT Adam Cerniglia

**CEDAR RAPIDS CHAPTER
CEDAR RAPIDS, IOWA**
CW5 Robert J. Dickinson

**CENTRAL FLORIDA CHAPTER
ORLANDO, FL**
Mr. Fred W. Breuche

**COLONIAL VIRGINIA CHAPTER
FORT EUSTIS, VA**
LTG John M. Curran
CPT Lacy Dodd
Mr. Ben Morris

**CORPUS CHRISTI CHAPTER
CORPUS CHRISTI, TX**
LTC Edwin E. Kellam, Ret.
Mr. Steven G. Webb

**GREATER ATLANTA CHAPTER
ATLANTA, GA**
Mr. Bobby J. Bradley
COL Harry Q. Davis, Ret.
MSG Allen T. Morgan, Jr.
CPT Aaron C. Tolson

**GREATER CHICAGO AREA CHAP.
CHICAGO, IL**
CW4 Chip Beltchenko, Ret.
SGT Matthew M. Kephart

**HUDSON-MOHAWK CHAPTER
ALBANY, NY**
SPC James Duffy, Ret.

**IRON MIKE CHAPTER
FORT BRAGG, NC**
CW4 Todd S. Blake
MAJ Robert J. Carroll
MAJ Scott T. Fleeher
CPT Jonathan B. Warr

**LAND OF LINCOLN CHAPTER
PEORIA, IL**
CDT Norvel Taite III

**LINDBERGH CHAPTER
ST. LOUIS, MO**
WO1 Tobin D. Viehland

**MICHIGAN GREAT LAKES CHAP.
GRAND LEDGE, MICHIGAN**
Mr. Michael B. Tiedel

**MONMOUTH CHAPTER
FORT MONMOUTH, NJ**
Ms. Maureen D. Altenau
Mr. Dylan Chung

**MORNING CALM CHAPTER
SEOUL, KOREA**
Mr. Yong Kil Kim
MAJ Steven L. Morris
Mr. Kyong Jin Shin
MAJ Stacy S. Townsend

**NORTH TEXAS CHAPTER
DALLAS/FORT WORTH**
Mr. Anthony Baker
Mr. Pat Crippen
Mr. Del Livingston
Mr. Pierre Nardelli
Mr. Marc Paganini
Ms. Kelley Parlier
Ms. Brenda Reuland
Mr. Larry Roberts
Mr. Eric Walden
Mr. Bruce Webb

**OLD TUCSON CHAPTER
MARANA, AZ**
MSG Robyn L. Fowler
Mr. Warren O. Wilderson

**PHANTOM CORPS CHAPTER
FORT HOOD, TX**
LTC Frank L. Franklin
SFC William L. Jarrell II

**RAGIN' CAJUN CHAPTER
FORT POLK, LA**
SFC Larry R. Hazelton
SFC Michael T. Stoddard

**RHINE VALLEY CHAPTER
HEIDELBERG, GERMANY**
LTC David S. Long

**RIO GRANDE CHAPTER
EL PASO, TX**
CW3 Chad M. Butters
CPT Gregory P. Hardy

**RISING SUN CHAPTER
CAMP ZAMA, JAPAN**
CW3 Theodore A. Betterley

**SAVANNAH CHAPTER
FT STEWART/HUNTER AAF, GA**
COL Ronald D. Tuggle

**TALON CHAPTER
ILLESHEIM, GERMANY**
1SG Jason E. Speede
CSM Eduardo G. Timas

**TENNESSEE VALLEY CHAPTER
HUNTSVILLE, AL**
Lt Col James P. Crawford
Mr. Mike Kizziah
Mr. Alan R. McCandless
MSGT Woodrow R. Mosher, Ret.
Mr. John C. Pitcher
COL John B. Smith
Ms. Lisa C. Stewart
Mr. Michael D. Ward

**WASHINGTON-POTOMAC CHAPTER
WASHINGTON, DC**
LTC Victoria A. Calhoun, Ret.
LTC Douglas P. Habel, Jr.
LTC Orlando W. Spalding, Ret.

**WINGED WARRIORS CHAPTER
SOTO CANO AB, HONDURAS**
SGT Timothy J. Matter

**WINGS OF VICTORY CHAPTER
GIEBELSTADT, GERMANY**
CPT Thomas Austin
1SG Scott A. Bailey
CPT Matthew P. Brewster
SFC Herivan Figueroa

**WRIGHT BROTHERS CHAPTER
COLUMBUS, OHIO**
MSG Robert L. Geiger
Mr. Raymond L. Robb

**MEMBERS WITHOUT
CHAPTER AFFILIATION**
CW4 Steven E. Bowyer, Ret.
LTC Theodore L. Cook, Ret.
CW4 Jeff Crandall
Mr. Michael D. Crandall
COL Randall K. Crew, Ret.
COL James R. Holder, Ret.
Mr. M. George Kerr
LTC John N. McNair, Ret.
1LT John C. Rigdon
SFC Steven K. Robertson
COL Jack O. Shafer, Jr., Ret.
COL Albert E. Van Pelt, Ret.

SILVER EAGLES

The Silver Eagles program recognizes those who are marking their 30th and 40th years of membership in AAAA this year.

40 YEAR MEMBERS

Anderson, Richard K., LTC, Ret.
Anzalotta, Orlando, CW4, Ret.
Bacon, William E., COL, Ret.
Balmos, E. J., LTC, Ret.
Bookman, Edmund B. Jr., LTC, Ret.
Borgstede, Charles A., CW4, Ret.
Butler, Billy C., COL, Ret.
Estores, Sofronio J., LTC, Ret.
Harrison, William T., COL, Ret.
Hay, James R., COL, Ret.
Herrick, Paul A., CW4
Heyman, Raymond W., SSG, Ret.
Hilbert, Marquis D., Mr.
Hipp, Gerald T., COL, Ret.
Horsey, Kenneth E., Mr.
Jernigan, Cecil L., COL, Ret.
Kennedy, John P., COL, Ret.
Knofs, Norman, MAJ, Ret.
Larcomb, David J., LTC, Ret.
Lethcoe, Gerald E., COL, Ret.
Maxwell, Willard G., CW4, Ret.
McMillan, Donald J. Jr., MAJ, Ret.

Miller, Stuart A., LTC, Ret.
Miller, Terry L., MAJ, Ret.
Mouw, James W., LTC, Ret.
Newcomer, Samuel K., SFC, Ret.
Niamtu, John E., MAJ, Ret.
Paruli, Alexander, LTC, Ret.
Pepe, Michael J., BG, Ret.
Pullano, Joseph F., MAJ, Ret.
Quattlebaum, Harold D., CW4, Ret.
Quesenberry, John R., LTC, Ret.
Rice, Charles E., CW3, Ret.
Rivera, Felix, Jr., CW4, Ret.
Scavo, Sam A., COL, Ret.
Smith, Albert L., LTC, Ret.
Spisak, John J., Mr.
Truscott, James J., COL, Ret.
Welch, Terry J., LTC, Ret.
White, Roy, COL, Ret.
Witcher, Robert A., LTC, Ret.
Woods, David L., Mr.
Worthington, Gerald R., LTC, Ret.
Wright, John M., Jr., LTG, Ret.
Young, Marcella S., Ms., Ret.

30 YEAR MEMBERS

Acreback, James R., COL, Ret.
Adams, Ronald E., LTG, Ret.
Barnett, Charles, LTC, Ret.
Bissell, Norman M., BG(VA)
Brady, Charles H., Mr.
Breithaupt, Michael P., COL, Ret.
Brown, George P., COL, Ret.
Burke, Jr., Donald S., COL, Ret.
Champion, Charles H., COL, Ret.
Clark, Michael B., LTC, Ret.
Davis, Gary R., LTC, Ret.
De La Cruz, Juan G., Mr., Ret.
Dillingham, William B., COL, Ret.
DiMaggio, Joel L., Mr.
Dodson, Frank A. Jr., Mr.
Duffy, John P., Mr., Ret.
Dvorsky, Paul A., LTC, Ret.
Egan, Paul R., MSG, Ret.
French, John R., LTC, Ret.
Garza, Amado S., Mr., Ret.
Gibson, Emmitt E., MG
Hall, Kerry D., 1SG, Ret.
Hansen, Richard N., CPT

Harless, Joe E., Ret, SFC, Ret.
Hausman, James H., CPT, Ret.
Haworth, Loran A., MAJ, Ret.
Hinson, Joel H., COL, Ret.
Hubbard, Robert D., Mr., Ret.
Johnson, Douglas C., Mr.
Johnson, Michael, CW5
Johnston, Fletcher S., CW4, Ret.
Johnston, Jimmy B., CW4, Ret.
Larrabee, Mark E., LTC, Ret.
Leuty, Ray S., LTC, Ret.
McVey, Robert D., LTC, Ret.
Meis, Emil F. III, COL
Moran, Homer L., CW5
Mowery, James L., COL
Myers, Paul J., LTC, Ret.
Naigle, Alfred J., COL, Ret.
O'Connor, James C., MAJ, Ret.
Petrosky, Daniel J., LTG, Ret.
Plasky, Alan, SSG, Ret.
Pollard, William, Mr.
Powell, Douglas L., LTC, Ret.
Priest, John L., MAJ, Ret.
Pybus, Wimpy D., Mr.

Russell, Jerry W., LTC, Ret.
Ryan, Dennis A., CW4, Ret.
Sadowski, Paul D., CW4, Ret.
Scipioni, Louis, Jr., LTC
Severance, Paul M., Mr.
Sexton, Charles D., Mr.
Shafer, Jack O., Jr., COL, Ret.
Shoopman, Denny K., CSM, Ret.
Simone, Lawrence, Mr.
Stanko, John J., COL, Ret.
Strange, James A., CW4, Ret.
Stratman, Cortney J., MAJ, Ret.
Sullivan, David E., COL, Ret.
Sutherland, William B., MAJ, Ret.
Swank, David W., COL
Taylor, Edward J. Jr., COL, Ret.
Ventrella, Gerry F., Mr., Ret.
Whittenbury, Clive G., Dr.
Willingham, John M., CW4, Ret.
Wilson, Kenneth E., COL
Wilson, Paul R., CW5, Ret.
Wise, James F., CW5, Ret.
Wyland, Stewart W., COL, Ret.

GROUND, AIR, SEA & SPACE

2004 NETWORK CENTRIC OPERATIONS SYMPOSIUM

September 20-23, 2004

Atlantic City Convention Center, New Jersey

Supporting Operations Abroad and in the Homeland

Sponsored by the Fort Monmouth Chapters of
AAAA, AFCEA, AOC, AUSA

This year's Aviation Survivability and Mission Equipment Symposium has been incorporated into the TEAM C4ISR symposium to give you a broader perspective, a greater opportunity to network and have some fun in beautiful Atlantic City.



The format has been adjusted to accommodate the material normally presented on Wednesday and Thursday afternoon, with classified sessions on Wednesday and EWO-only sessions on Thursday morning.

Golf ★ Exhibits ★ Sessions ★ Tutorials

For more details and to register, go to:

www.netcentricops04.com

Army Aviation Hall of Fame

The Army Aviation Hall of Fame sponsored by the Army Aviation Association of America, Inc., 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

Dr. Harry S. Robertson Army Aviation Hall of Fame 2001 Induction

Dr. Harry S. Robertson has made unique contributions to Army aviation and aviation in general. These contributions can be summed up in three words — "They saved lives!" Thousands of Army pilots, crew members and passengers who might otherwise have died in helicopter accidents are living tributes to Robertson, who pioneered crashworthy fuel systems.

Robertson was commissioned in the Air Force and flew trainers, fighters and bombers. He also participated in many aircraft accident investigations. These led to his treatise that provided the fundamentals for self-sealing breakaway valves, frangible fasteners, and puncture- and tear-resistant fuel bladders. An Army study of survivable helicopter accidents covering the period 1967 to 1990 concluded that since the first installation of a crash resistant fuel system in 1970, these installations saved more than 8,000 lives.

Robertson continued to fly with the Air National Guard and later with the Army National Guard. He joined the engineering faculty to develop an Aviation Safety Center. His Crash Survival Investigators School has trained thousands of investigators for the military, other agencies of government and the aviation industry.

In 1976 he founded Robertson Aviation to develop crashworthy auxiliary fuel systems, initially for Army and Air Force special-operations helicopters. These are now available for extending the range of all military helicopters.

Robertson is an experimental test pilot, member of the OX 5 Aviation Pioneers Hall of Fame, Arizona Aviation Hall of Fame and the National Guard's Legion de Lafayette.



0800 Receive updated satellite imagery

0815 Add new imagery to training database

0900 Begin training with new database



Ready for Training

Military training requirements are changing. Missions, locations, and scenarios can change frequently, and to ensure effective training, simulator environments need to reflect those changes. Rapid changes create a problem for most visual systems, which use pre-compiled databases that can require months to update, often at great expense.

With its revolutionary new architecture, Evans & Sutherland's Environment Processor Technology with Military Extensions, or EPX™, provides the solution. EPX allows you to create, edit, and store database components individually, combining them during real-time rendering. This means that new aerial or satellite imagery can be inserted and incorporated into a fully 3D database in just minutes—the entire database does not need to be recompiled every time something changes.

So, if new satellite imagery arrives at 0800, the database can be updated and ready for training by 0900.

EPX Technology is available on three hardware platforms, EPX-5000, EPX-500, and EPX-50, from E&S's most advanced image generator to a commercially available PC. Compatible with other E&S image generators, EPX allows customers to maintain the value of existing investments in databases and training when upgrading.

EPX products are ready for training now. Visit our Web site, www.es.com, or call us at +1 801 588 1000, to learn more.



EVANS & SUTHERLAND

the POWER behind the scenes