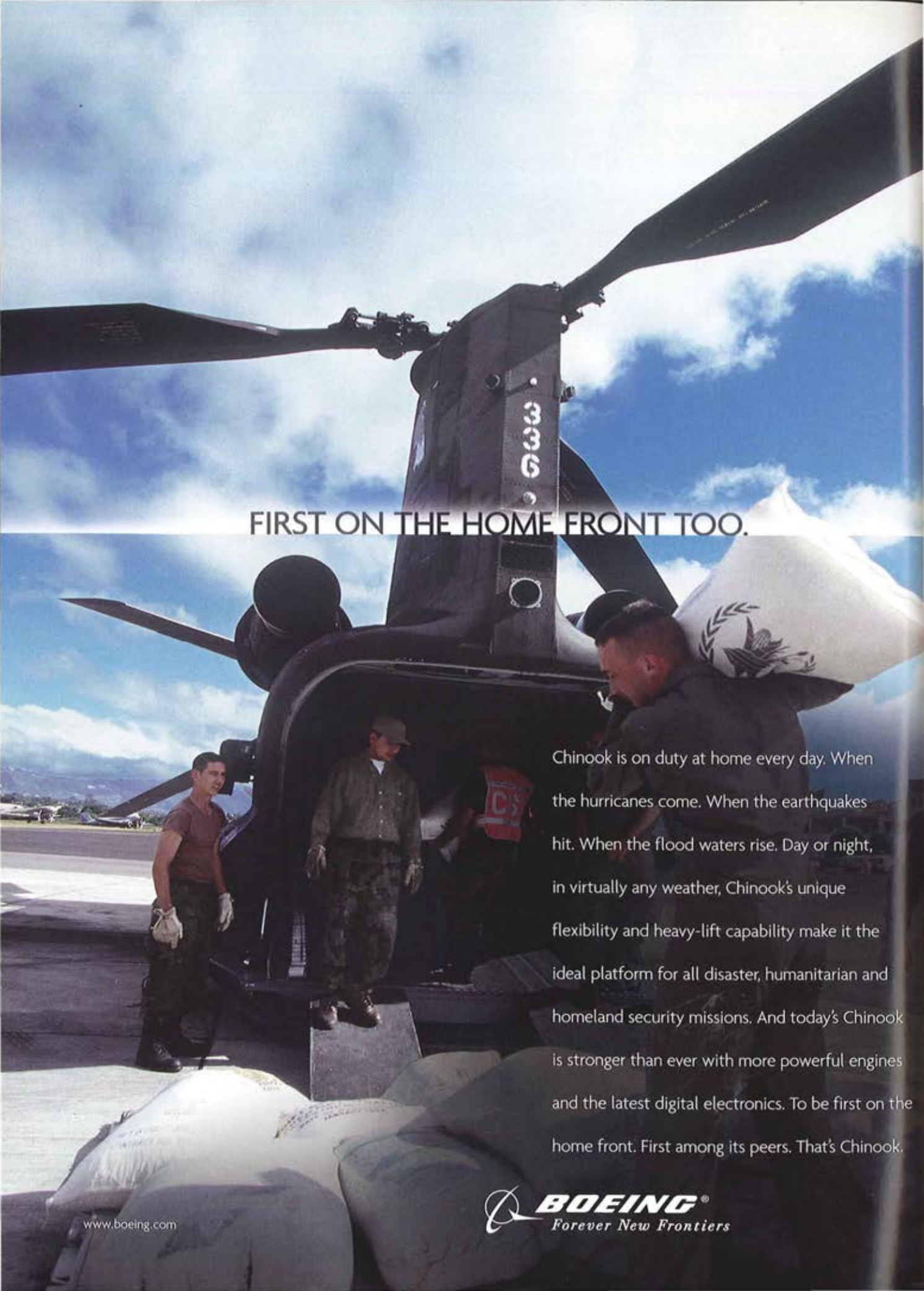
ARMY AVIATION

OFFICIAL PUBLICATION OF THE ARMY AVIATION ASSOCIATION OF AMERICA • DECEMBER 31, 2002 • $3.00

Convention Registration Package Inside


FIRST ON THE HOME FRONT TOO.
Chinook is on duty at home every day. When the hurricanes come. When the earthquakes hit. When the flood waters rise. Day or night, in virtually any weather, Chinook's unique flexibility and heavy-lift capability make it the ideal platform for all disaster, humanitarian and homeland security missions. And today's Chinook is stronger than ever with more powerful engines and the latest digital electronics. To be first on the home front. First among its peers. That's Chinook.
www.boeing.com
BOEING®
Forever New Frontiers

ARMY AVIATION

Publisher
Lynn Coakley

Editor in Chief
William R. Harris Jr.

Editor
Stephen Harding

Production Manager
Barbara Ross

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. The Goodrich Integrated Mechanical Diagnostic — Health and Usage Management System improves fleet combat readiness by providing unit commanders and maintainers with accurate condition information to facilitate optimum maintenance and dispatch practices. Following a successful UH-60A developmental effort, IMD-HUMS is being installed on operational UH-60L aircraft of the 9-101st Aviation Regiment at Fort Campbell, Ky. The same system is in low-rate initial production with the U.S. Navy. Call (800) 992-1036 for additional information. *Caption provided by advertiser.*

briefings

The U.S. government has awarded **GE Aircraft Engines** a $30 million contract to supply 32 T700-701C engines and four spares to power 16 Boeing AH-64D Apache Longbow attack helicopters being provided to Kuwait. Production and delivery information for the aircraft, which are being sold to Kuwait under a Foreign Military Sales deal, have not been disclosed.

The U.S. Army Aviation Center on Nov. 26 waived the existing requirement that Army aviators wear leather boots when performing crew duties. The waiver specifically allows the wear of the **U.S. Air Force tan combat boot** known as the Belleville 790 series boot. No other non-leather boot is authorized for wear. The authority for this waiver is AR 95-1, paragraph 8-9d. The Belleville 790 is the same construction as the infantry combat boot, with tan dye applied to the leather. USAAVNC officials said this provides Army aviation personnel a tan boot to be worn with the tan aviation battle dress uniform during flight operations in desert locations. For more information on this waiver contact the USAAVNC Directorate of Combat Developments at (334) 255-3203 or (DSN) 558-3203.

DynCorp has won a $31 million Defense Threat Reduction Agency (DTRA) contract to assist governments in the former Soviet Union, Eastern Europe and Baltic region develop programs that increase border security and detect, interdict and investigate incidents involving the trafficking of weapons of mass destruction. DynCorp will also educate U.S. government implementation personnel about the various arms-control agreements to which the United States is a party, help train American weapons inspectors, and prepare personnel for the on-site inspection of U.S. facilities.

In November, **Army Knowledge Online** became the official e-mail for all soldiers. U.S. Total Army Personnel Command replaced all soldier e-mail addresses currently in its database with AKO addresses. Officer record briefs, for example, now contain the us.army.mil address in the top left-hand corner, not what was previously listed. Enlisted soldiers' AKO addresses are also required on efficiency reports to shorten contact time when an NCO-ER requires a correction. Soldiers who do not currently have an AKO address should sign up for an account from the Army Knowledge Online Web site at www.us.army.mil, officials said.

The remains of three U.S. soldiers previously missing in action from the Vietnam war have been identified as those of **SFC Robert C. O'Hara** of Lost Nation, Iowa, and **MAJ David E. Padgett** of Washington, Ind., both crewmembers on a UH-1H helicopter, and one of their passengers, **CPT Ronald D. Briggs** of Philadelphia, Pa. On Feb. 6, 1969, Padgett and O'Hara were flying Briggs and three other soldiers on an emergency resupply mission in the Quang Tri province of South Vietnam when their aircraft went missing. A search was initiated, but was unsuccessful in locating the missing aircraft. The remains of the three soldiers were buried as a group at Arlington National Cemetery on Nov. 8.

The 1st Battalion, 4th Aviation Regiment, has become the U.S. Army's seventh **AH-64D Apache Longbow** attack helicopter battalion to be certified combat-ready after completing extensive training at Fort Hood, Texas, where the battalion will also be based. The unit completed eight months of training in AH-64Ds, built by Boeing in Mesa, Ariz. Pilots from the battalion received their initial training at Fort Rucker, Ala., and maintainers received training at Fort Eustis, Va., before regrouping at Fort Hood for battalion-level training. The Army fielded its first combat-ready Apache Longbow battalion in the United States in 1998. Included in the seven Army Longbow battalions deployed are five based in the United States and two based overseas. Eleven nations worldwide have selected the Apache for their defense forces.

AAAA Members: Don't forget to update your email address with the national office (aaaa@quad-a.org) to receive meeting notices, etc.

***Briefings** continued on page 23*

contents

vol. 51 no. 12 DECEMBER 31, 2002

FEATURES:

6 Your USAAVNC Gunnery Branch
by MG John M. Curran

16 Supporting the Force: TAIS Manages the Complexities of the 3D Fight
by LTC James W. Kelton (Ret.) and LTC Raymond J. Connolly (Ret.)

19 JSHIP: Everything You Ever Wanted To Know About Joint Shipboard Helicopter Operations
by CW4 Denver R. Sheriff (Ret.)

21 The Black Hole of Night: Shipboard Operations
by CW4 Mike Vandeveer (Ret.)

24 Interactive Media Instruction: Something Out of Nothing
by John C. Griggs

SPECIAL FOCUS: Warfighters & Weapon System

11 Effects Based Shaping & Decisive Operations
by LTG Burwell B. Bell III

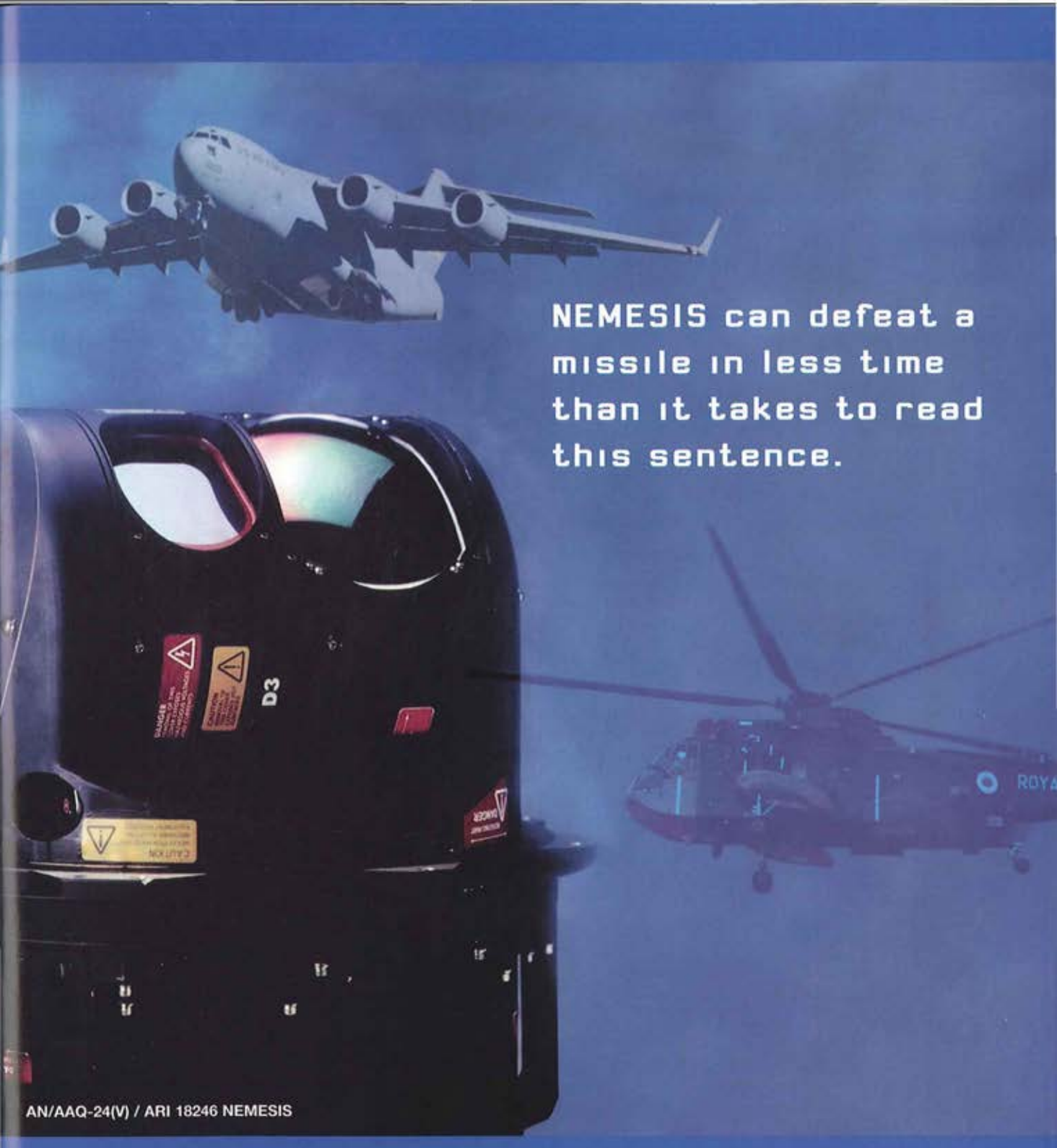
13 Tactical Missile Update
by BG Jeffrey A. Sorenson

15 Air & Missile Defense Update
by MG John M. Urias

DEPARTMENTS:

AAAA New Members.....27
AAAA News 26
Briefings 3
Calendar.....30
Hall of Fame.....31

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.



NEMESIS is the only directional infrared countermeasures system in production and protecting aircraft today. It's been chosen by the U.S. Air Force and Special Operation Forces, as well as defense units in the U.K. and Australia, to protect rotary and fixed-wing aircraft from infrared threats. And as the threat evolves, so too will NEMESIS. Northrop Grumman Electronic Systems is currently developing drop-in improvements, including the Viper mid-infrared laser, the WANDA all-laser transmitter and the Multispectral Multi-Image Two-Color IR Missile Warning Sensor.

www.northropgrumman.com

NORTHROP GRUMMAN DEFINING THE FUTURE™

Electronic Systems

Your USAAVNC Gunnery Branch

MG John M. Curran

"The delivery of timely, accurate fires at the point of decision is Army aviation's key contribution to the combined arms team. The Gunnery Branch will work to ensure Army aviation delivers that capability to today's forces and the future soldiers of the Objective Force." — MG John M. Curran

Army aviation gunnery has seen vast changes since the Vietnam War, when aviators gained and maintained proficiency by shooting large quantities of service ammunition. Tactics, Techniques and Procedures (TTP) changed, resulting in executing engagements from nap-of-the-earth (NOE) altitudes instead of diving fire. Target arrays changed considerably. Attack aviation transitioned from a close-combat role to one of anti-armor in a European environment over open, rolling terrain.

As a result, training changed to adapt to the new tactical environment. Aviators developed the skill of firing rockets from a hover, which presented new dynamics and coordination challenges. The rotary-wing aviation industry reacted and provided aircraft with basic fire-control computers that provided a fire-control reticle for rocket engagements. Aviators then began to maneuver the aircraft to a computer generated "release point," as opposed to an out-the-window (via grease mark) aim point.

As aviation matured in the 1980s we began to execute more missions at night, to both enhance the advantages that NOE tactics provided and counter increasing enemy anti-helicopter capabilities. Again, new aircraft were provided to Army aviators to meet the challenges of effective acquisition and targeting at night. The AH-64A and OH-58D provided enhanced capabilities for around-the-clock operations. These tactics and capabilities were validated in 1991, not on the European plains, but in the deserts of Iraq.

With the 1990s came a reduced force structure, shrinking military budgets and more complex weapon platforms. Again, Army aviation rose to the challenge to meet mission and successfully complete increasing deployments. Many of these deployments were in support of a new mission known as "peace enforcement" or Operations Other Than War (OOTW). Now, in the war on terror, running fire using out-the-window aiming has reappeared. Gunnery has come full circle, so who keeps track of these changes?

Gunnery Training

Gunnery training had to change in scope and concept to support the substantial shifts in tactics, missions and weapon systems. New ranges were developed to accommodate hover fire against armor targets. A new scoring system was developed and fielded to provide objective scoring of crew engagements. Training ammunition was designed and produced to be compatible with pop-up ranges, environmental requirements and scoring systems. The result was a huge leap in consistent scoring and standardization of gunnery training. It also became more complex and difficult to implement.

Army aviation took a page from the armor community's playbook and initiated the aviation master gunner position. While not an MTOE position, it enabled commanders to select highly experienced warrant officers (usually instructors) who focus on gunnery year round. This addition greatly aided the battalion/brigade level program, but there is a larger arena to consider.

Until 2002, the U.S. Army Aviation Center (USAAVNC) Gunnery Branch was a small cell of professionals who did their utmost to represent the field and focus on gunnery issues. Senior aviation leaders realized that USAAVNC needed a branch adequate in numbers and experience to focus strictly on gunnery for the same reasons battalion and brigade commanders designate master gunners.

Your Gunnery Branch

In 2002 several new positions were included in the branch. The branch is now composed of a CW5 master gunner, an OH-58 instructor pilot (IP) and an AH-64D IP. A sergeant first class SI position was also added to ensure door gunnery issues are included and receive the proper focus

When you need

TECHNOLOGY LEADERSHIP

The U.S. Army Flight School XXI program has several goals – train aviators to meet the Commander's needs, reduce total training time and increase aviator time in their "go-to-war" aircraft. The key to meeting these goals is virtual flight simulation technology, and the team most ready to deliver is CAE-BOEING. CAE has pioneered many technologies specific to helicopter simulation. Boeing brings a range of simulation and aircraft-specific technology as the OEM for the Apache, Chinook, and new Comanche helicopters. Together, we've developed the most technically advanced training solution that addresses all Flight School XXI objectives. CAE and Boeing – the ideal training partner for preparing future aviation warfighters.

The Right Choice for Flight School XXI

CAE

BOEING

www.boeing.com

www.cae.com

warranted by the critical importance to the aviation mission. The GS-11 Department of the Army civilian training specialist will aid in providing the long-term continuity that is crucial to a successful gunnery branch. This cell of five will focus on all issues relating to aviation gunnery.

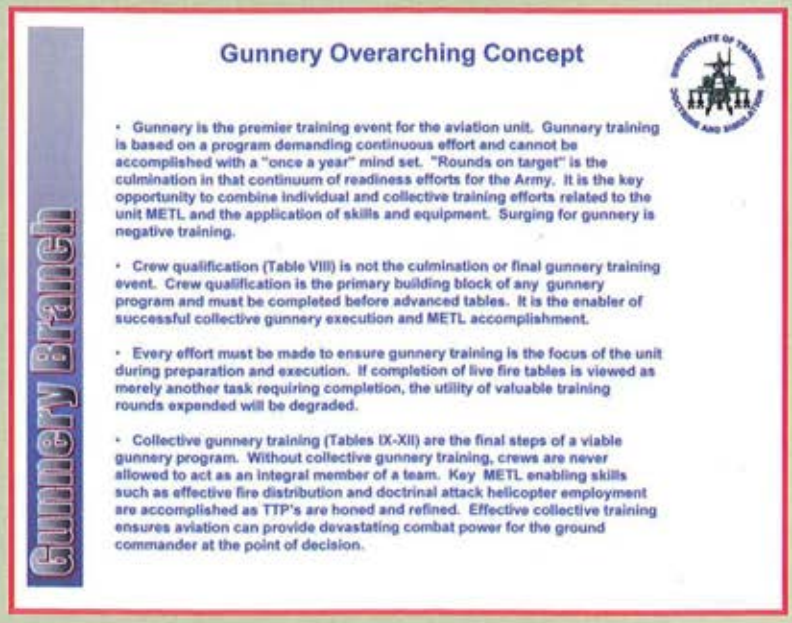
The Gunnery Branch is focused on improving the Army gunnery program while aggressively acting as the field's representative on all gunnery issues.

During the next year the branch will move ahead in several critical areas, including:

- publishing the Gunnery Manual;
- preparing and executing the fiscal year 2003 Master Gunner Conference;
- developing the Master Gunner's Course;
- assisting with the upcoming Army Research Institute's Gunnery Training Efficiency Study;
- developing a gunnery Web site; and
- continuing to represent the community on gunnery-related issues while providing critical information to the field.

The Master Gunner Conference will grow in scope, and include briefings by managers from numerous agencies and corporations. Changes to the Gunnery Manual will be reviewed and incorporated in preparation for publication in the spring of 2003. Key issues and resulting recommendations will be carried forward to the Aviation Conference to ensure concerns from the field are voiced to Army aviation's leaders.

The Master Gunner Course is under development and begins Oct. 20, 2003. Course development is keenly focused on those critical tasks that prepare a master gunner to execute a successful unit gunnery program. The two-week course will be taught at Fort Rucker, Ala. Instruction will be monitored by the branch master gunner and revised on a biannual basis to incorporate technical advances, new weapons and platforms. Implementation of the master gunner course will coincide with our efforts to incorporate the master gunner position into the brigade and battalion MTOE.

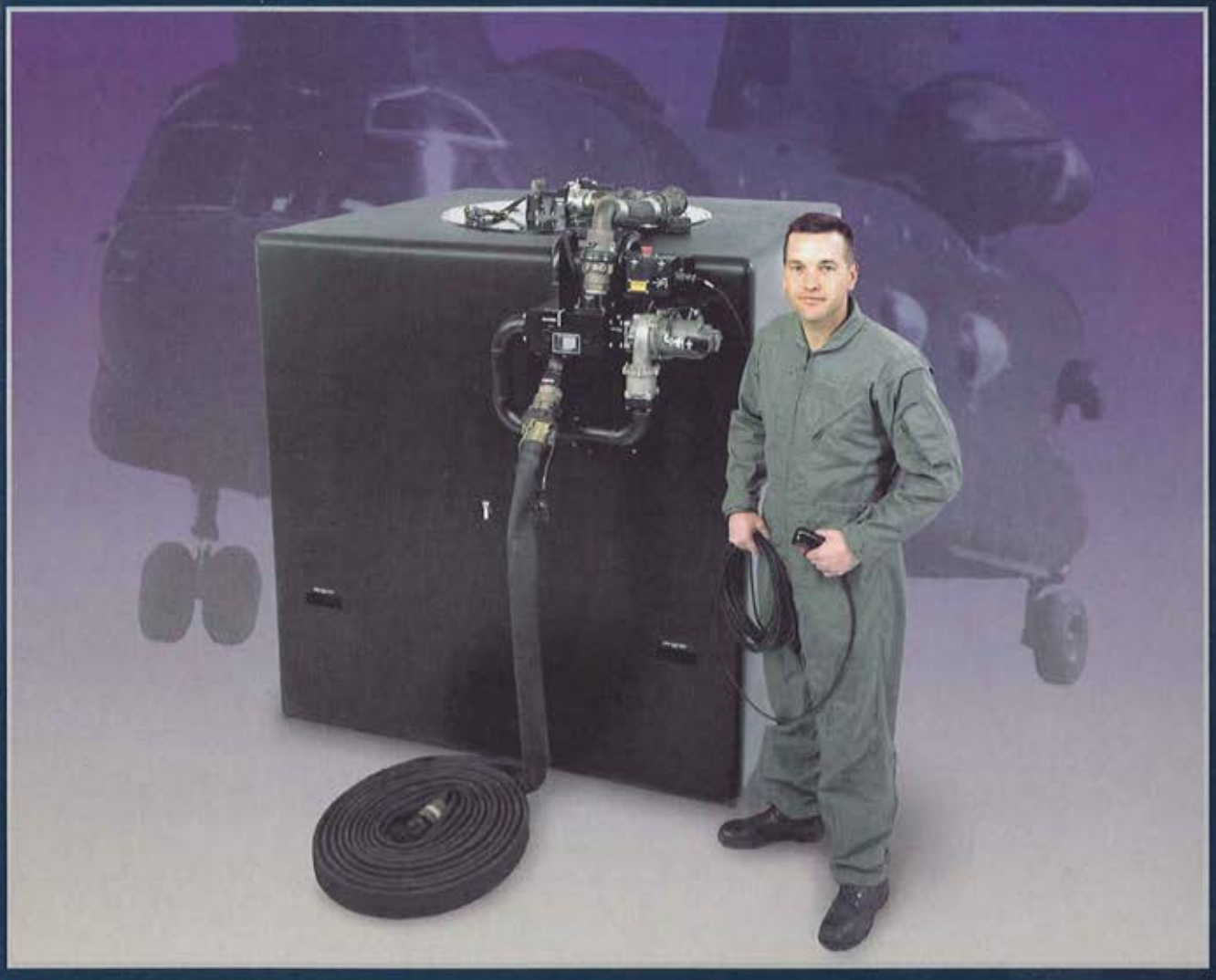


The Gunnery Efficiency Study will look at our gunnery program and compare it with those of other branches, services and countries. It will thoroughly evaluate aviation gunnery and incorporate technology improvements that improve training effectiveness. The position of the branch is simulation advantages will most likely aid in the collective arena while the threshold must remain live-fire through crew qualification.

Branch personnel are working to develop and establish a Web site that serves as an information portal for unit master gunner and door-gunner instructors. The site includes sample gunnery standard operating procedures (SOPs) and a gunnery program model. It also contains a one-stop location to find appropriate gunnery references and resources. Links to Branch personnel and appropriate gunnery POCs are also included. Additionally, the gunnery branch is developing a folder in the Army Knowledge On Line (AKO) Knowledge Collaboration Center (KCC) to allow unit master gunners a location to provide and receive gunnery related materials not suited for public release [i.e., after-action reports (AARs) and SOPs].

While concentrating on key objectives, the branch will continue to address unit questions on a daily basis. Branch personnel are scheduling visits to unit gunneries and ranges around the world to gain insights on innovative methodologies, emerging TTPs and weapon-system employment techniques. On critical issues, the branch will first research/discuss in-house and follow by canvassing DES and the U.S. Army Safety Center.

WE WON'T LET YOU DOWN.



Flexibility. It's what you can expect from Robertson Aviation's crashworthy extended range fuel systems for Army Aviation.

United States Army Extended Range Fuel System II (ERFS II) for the Chinook Helicopter

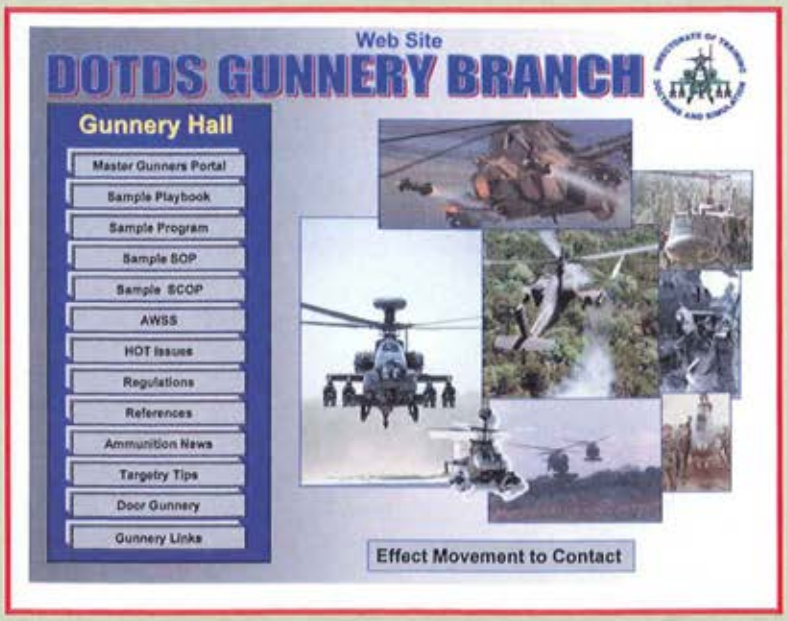
Up to three 800-gallon crashworthy self-sealing fuel tanks and a Forward Area Refueling Equipment (FARE) kit may be installed in the cargo compartment of the Chinook helicopter to provide up to 2,400 gallons of additional fuel for extended range or for offloading to other aircraft or combat systems on the ground using the FARE kit.

ERFS II tanks may be single-point pressure refueled simultaneously with the helicopter's main tanks. The complete ERFS II may be installed or removed by four personnel in less than 30 minutes.

For over 25 years Robertson has provided flexibility to the United States Army's war fighting capabilities and we will continue to search for new capabilities – We Won't Let You Down.

For more information visit our website at www.robertsonaviation.com,
call (480) 337-7050, fax (480) 968-3019, or write 1024 E. Vista Del Cerro, Tempe, AZ 85281

ROBERTSON
AVIATION
Crashworthy Extended Range Fuel Systems



Additionally, input from units with expertise in the area of the inquiry will be solicited. Information gleaned from this process will then be fused into a branch position and forwarded back to the requesting unit. The paramount objective will be to provide the unit with the information it needs to accomplish the mission safely and effectively.

Here's the bottom line: USAAVNC leaders directed the growth of the Center Gunnery Branch in personnel, scope and mission. As a result, the Gunnery Branch will provide gunnery focus in much the same way DES provides focus on aviation training and standardization.

The branch will:

- maintain active involvement in requirements determination for new weapon systems;
- provide timely responses to unit questions while working aggressively to ensure units have the required resources to successfully implement effective gunnery training; and
- articulate the field's gunnery-related concerns to senior military and industry leaders.

The branch's mission focus is gunnery and ensuring our crews can place timely, effective fire on adaptive enemy forces in an ever-changing environment.

❖❖

MG John M. Curran is the commander of the U.S. Army Aviation Center and chief of the aviation branch.

EFFECTS BASED SHAPING & DECISIVE OPERATIONS

By LTG Burwell B. Bell III

There is healthy doctrinal tension among warfighting professionals regarding the emergence of effects-based operations (EBO). One major source of this tension involves implications for the doctrinal concepts of task and purpose, and the decisive/shaping/sustaining (D/S/S) construct.

The Army embraces our doctrine of task and purpose and D/S/S like parents love their kids, and that's good because it works. We are all, therefore, justifiably hesitant to pursue the EBO concept without further experimental rigor. This professional concern is healthy. But, it may be unwarranted.

EBO can and should retain the concept of tasks such as defeat and destroy. More importantly, EBO should hold subordinate units accountable for achieving them and their associated purpose through both shaping and decisive operations. EBO can thus add clarity to task and purpose and is supportive of, rather than contrary to, D/S/S.

EBO can and should retain the concept of tasks such as defeat and destroy.

EBO was a hallmark experimental objective of the recent joint experiment, Millennium Challenge 2002 (MC02). During the experiment the approach was found to have merit for further concept development, and while it needs refinement, EBO will most likely find its way fully into our joint doctrine in the near future. The following definitions are necessary to lend clarity:

Effect — A physical, functional, or psychological outcome, event or consequence that results from military or nonmilitary actions. An effect is expressed in terms of an adversary's behavior.

Effects Based Operations — A process for obtaining a desired strategic outcome through the creation of effects by the synergistic application of the full range of military and nonmilitary capabilities at the operational level.

In layman's terms, and at the risk of oversimplification, an effect provides a needed quantification of purpose in terms of the enemy.

For example, an enemy independent armor brigade is acting as the reserve for a defending division tactical group. The U.S. commander determines that this brigade is to be the target of his shaping operation because it threatens a planned penetration. Today, the commander would tell his Deep Operations Coordination Cell (DOCC) to defeat or destroy the brigade (the task) in order to prevent it from counter-attacking penetrations of the enemy's main defense (the purpose).

However, under the EBO concept the commander would tell his Effects Coordination Cell (ECC) to destroy the brigade (the task) in order to prevent it from reinforcing penetrations of the enemy main defense (the purpose), and assign an effect or effects, such as: Enemy

armor brigade is unable to place direct fires or observed indirect fires on friendly forces penetrating the enemy battle zone.

As the example illustrates, task and purpose remain relevant. The question then becomes, why do we need effects? Effects provide a commander additional flexibility, while ensuring the application of combat power is most efficient and precise.

By prioritizing desired effects, the commander is able to rapidly concentrate relevant lethal or nonlethal combat power, and quickly shift from one priority to another. The commander can also better assess the mission by using effects to measure performance (are we achieving the desired effect?) and effectiveness (is an achieved effect producing the desired result?).

Additionally, subordinate commanders are provided increased freedom of action. In the above example, assume the brigade in question moved on its own away from the friendly force point of penetration and is no longer positioned to rapidly counterattack. Most commanders given only task and purpose would pursue and attempt to destroy the brigade to eliminate the possibility of failing to achieve the stated purpose. Those same commanders, armed with a desired effect, would recognize that the enemy no longer threatens friendly force penetration, and would thus have the freedom to direct shaping assets to a higher-priority effect such as the enemy's command-and-control capabilities.

Resisting EBO as new and unnecessary would be a disservice to our Army, the joint community and our profession.

In this case, enemy decision-making and subsequent actions were central in helping us achieve our purpose and effect. In this environment, EBO empowers the commander to shift combat power to other priority missions.

Now that we have related task and purpose to EBO, we can examine the relationship between the FM 3.0 capstone concepts of decisive and shaping operations, as they would coexist with EBO (the length of this article precludes a discussion of sustaining operations for now).

The word "coexist" is critical because no element of EBO precludes the Army concept of decisive and shaping operations. In fact, the joint task force (JTF) headquarters for MC02 used a decisive and shaping construct for the operational design of the experiment. This design not only had no negative impact on the experimental objective regarding EBO, but actually facilitated its use and improved its application by lending clarity of purpose and providing unity of effort among components. This is particularly true in terms of operational fires.

For now, EBO is primarily a joint doctrinal concept. As a high-end tactical and operational organization, the Army corps is the first Army echelon to be potentially affected by EBO. This is important when one considers that the Army corps, as the operational headquarters at echelon above division, focuses enormous energy on the fires component of combat power. The corps can employ extremely effective fires (field artillery, attack aviation, nonlethal, etc.) as a decisive operation, shaped by maneuver forces to enable fires asset positioning and target acquisition. Fires can also be employed by the corps to shape the depth and breadth of the battlespace in order to move divisions to positions of advantage for decisive maneuver.

The experimental concept of EBO is mutually supporting of the capstone Army concepts of task and purpose and the D/S/S construct. Under EBO, units can and will continue to be given destroy, defeat and other doctrinal tasks. The supremacy of purpose will be retained and strengthened through the quantification added by the stating of desired effects.

The construct of D/S/S operations is completely compatible and interoperable with EBO and there is emerging evidence that EBO will provide opportunity for significant enhancement to future Army operations. We are a doctrine-based Army, and our transformation to the Objective Force will require new and innovative doctrinal approaches. EBO provides a potential path for harnessing the power of Objective Force capability and, as such, additional Army and joint warfighting experiments should aggressively pursue the transformation of our doctrine to an effects-based approach.

Healthy skepticism regarding new concepts is good for our service and our profession. With regard to EBO, we will be well served by focusing our energy on ensuring that the best of our doctrine shapes this future joint doctrinal concept. Resisting EBO as new and unnecessary would be a disservice to our Army, the joint community and our profession.

As we move forward in Objective Force development, let's take a good hard look at EBO. And as we pursue EBO, we'll inevitably have to consider the Effects Tasking Order (ETO), but that's another story!

❖❖

LTG Burwell B. Bell III is the commanding general of III Corps and Fort Hood, Texas.

UPDATE
Tactical Missile

By BG Jeffrey A. Sorenson

As a new century dawns for Army aviation, the Aviation Rockets and Missiles (ARM) Project Office continues to actively pursue system improvement efforts to Hellfire missiles and the Advanced Precision Kill Weapon System (APKWS).

These efforts will increase the combat effectiveness of existing systems, while providing Army aviation with an unparalleled overmatch capability.

Hellfire

Since its 1985 debut Hellfire has been evolving to keep up with technological advances and an evolving enemy threat.

For example, from its first time in combat in Panama for Operation Just Cause in 1989, through the Gulf War and now in Afghanistan, every Hellfire generation has added capabilities.

The ARM Project Office continues to actively pursue system improvement efforts to Hellfire missiles and the Advanced Precision Kill Weapon System (APKWS).

The basic Hellfire, models A, B and C, and the interim Hellfire were designed as laser-guided, anti-armor weapons that home in on a laser spot projected by ground troops, the launching aircraft or other aircraft. The Hellfire is primarily launched from the Army's AH-64 Apache and OH-58 Kiowa Warrior helicopters, as well as special operations aircraft. Hellfire is also qualified for use on the U.S. Navy Seahawk and U.S. Marine Corps Super Cobra.

In May 1994 the laser-guided Hellfire II was fielded with improvements that included electro-optic countermeasure hardening, increased warhead lethality, electronic fusing and software-controlled digital seeker with autopilot electronics. The switch to a digital seeker provided a low-cost ability to upgrade missiles through software changes.

The Hellfire II missile is combat proven and effective in its anti-armor role. Its latest improvement efforts focus on enhancing its effectiveness against other targets. For example, a blast-fragmentation warhead has been integrated into Hellfire II to increase its lethality against lightly armored vehicles, trucks, radar vans and light bunkers. The warhead penetrates the target before detonating, using a delay fuze that optimizes the internal damage to the target by capitalizing on overpressure and warhead

case fragmentation. The controlled fragmentation maximizes lethality, while incendiary pellets ignite flammable materials. The blast fragmentation warhead is in use by the Navy and Marine Corps.

The Longbow Hellfire fire-and-forget missile was fielded in 1998. The missile uses radar-aided, inertial guidance to provide the capability for both day and night battle, in adverse weather conditions and with battlefield obscurants present.

The missile is a component of the Apache AH-64D Longbow system, which also includes the mast-mounted millimeter-wave fire-control radar and associated electronics to greatly increase survivability. Although primarily an anti-tank weapon, Hellfire's secondary targets include radar installations, communications posts, bunkers, buildings, air-defense units, armored personnel carriers, oil rigs and bridges.

Ongoing product improvement efforts for the Longbow Hellfire are focused on maintaining the missile's low vulnerability and low susceptibility to existing and future countermeasures.

APKWS Block I

In addition to Hellfire efforts, the ARM project office also manages the Hydra 70, 2.75-inch free-flight rocket, the standard ground-attack rocket used extensively in the Korean War, Vietnam and Operation Desert Storm.

The warheads in the Hydra 70 perform a number of roles including anti-materiel, anti-personnel and area suppression. Smoke and illumination warheads are also used in a variety of roles. The family of Hydra 70 rockets is currently being transitioned to become the APKWS.

APKWS is an "umbrella" that will encompass all improvements to the Hydra family, as well as the development of precision rockets. APKWS will be fully interoperable with existing and planned 2.75-inch U.S. military rocket launchers and platforms. A full spectrum of warheads and motors will satisfy a variety of user requirements. Existing requirements will be added incrementally as block improvements, while users continue to refine additional requirements.

Ongoing product improvement efforts for the Longbow Hellfire are focused on maintaining the missile's low vulnerability and low susceptibility to existing and future countermeasures.

The Block I program couples the Army's Hydra 70 rocket components with a strap-on, laser-guided seeker and guidance package that requires no modification to the existing rocket or launcher. This design will provide a low-cost, accurate, surgical-strike capability against soft-point targets, while allowing greater mission flexibility for Army aviation warfighters.

The enhanced precision of the system also provides the potential for reduced collateral damage. APKWS will be fielded on AH-64D Longbow Apaches, beginning in 2007.

A recently completed Advanced Technology Demonstration (ATD) — featuring Raytheon and BAE — has provided "proof-of-concept" data designs, while laying the groundwork to mature the technology into a producible, operational design.

The Raytheon design mounts a seeker on the front of the rocket, while BAE developed a mid-body design. Both designs have exceeded ATD accuracy requirements.

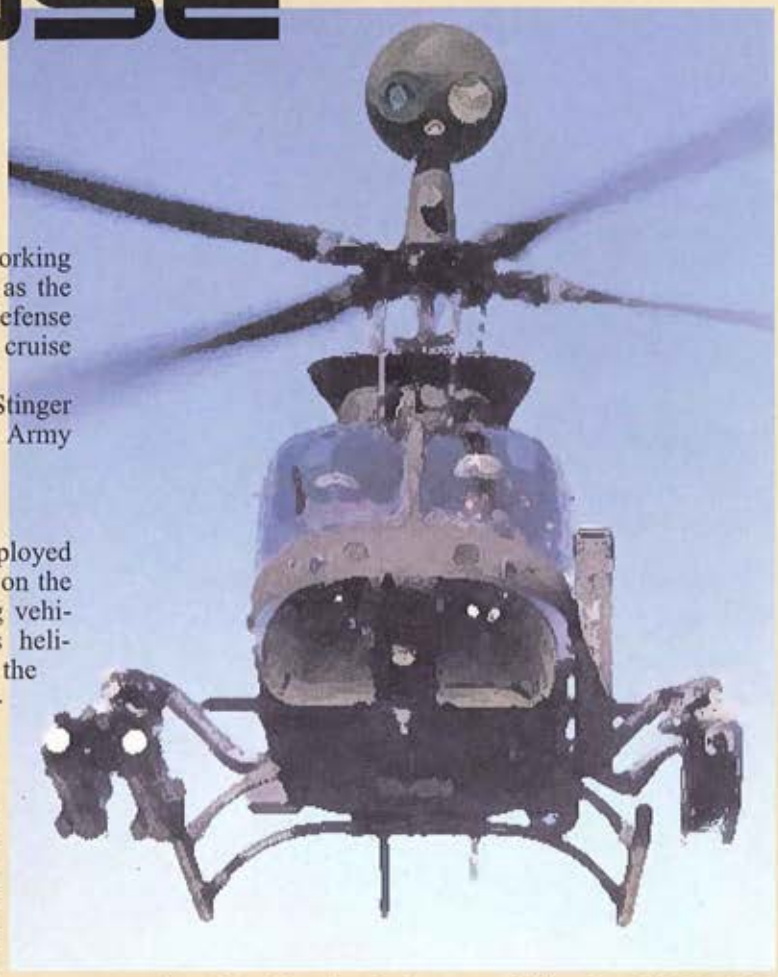
❖❖

BG Jeffrey A. Sorenson is the Program Executive Officer, Tactical Missiles.

UPDATE

AIR & MISSILE DEFENSE

By MG John. M. Urias



The Short Range Air Defense Project Office is working to make sure that the Stinger maintains its status as the Army's premier, short-range, low-altitude, air-defense missile, against unmanned aerial vehicles (UAVs), cruise missiles, helicopters and fixed-wing aircraft.
As the Army transforms to the Objective Force, Stinger and Stinger-based platforms will remain in the Army inventory until at least 2018.

STINGER

Stinger is operational in allied nations, and is deployed in the man-portable air defense (MANPADS) role on the Army's Avenger, Linebacker and Bradley fighting vehicles; on Army OH-58D and special operations helicopters; on Navy special-operation ships; and on the Marine Corps' Avenger and Light Armored Vehicle-Air Defense systems.

STINGER BLOCK I

The most current Stinger version incorporates the latest hardware and software into the Stinger-Reprogrammable Microprocessor (RMP) missile, which increases overall performance against low-observable targets, cruise missiles and unmanned aerial vehicles. The Block I missile incorporates a roll frequency sensor/seeker that eliminates the need for super-elevation on aviation platforms.

The Stinger Block I is compatible with all current and planned launch platforms. Stinger is a fire-and-forget missile, capable of all-aspect engagement, including head-on, using a dual-color infrared/ultraviolet (IR/UV) seeker and proportional navigation system to fly an intercept course to the target. The missile is externally reprogrammable, allowing upgrades without costly hardware changes as threats evolve. Stinger does not require field testing or maintenance, minimizing life cycle costs.

Air-to-Air Stinger (ATAS) is the cornerstone of the Army's air-to-air capability. Stinger has been in the field for the past 10 years on U. S. and foreign helicopters.
ATAS provides an effective, short-range, low-altitude air-to-air self and active defense capability for all OH-58D Kiowa Warrior-equipped units within the active Army and National Guard.

Stinger RMP BLOCK I has been fully integrated and successfully demonstrated on the AH-64D Longbow Apache, using a new lightweight, digital launcher system and the 1553 data bus. This new system will be compatible with the RAH-66 Comanche for the Objective Force. In addition, Stinger Block I is being integrated on the Predator UAV to provide an air-to-air, self-defense capability in the ever-changing, ever-increasing threat environment as the Army transforms to an Objective Force.

❖❖

MG John. M. Urias is the Program Executive Officer for Air and Missile Defense.

Supporting the Force: TAIS Manages the Complexities of the 3D Fight

By LTC James W. Kelton (Ret.) and LTC Raymond J. Connolly (Ret.)

It was the seventh inning as the Arizona Diamondbacks faced off against the San Francisco Giants on March 24, 2001, with Hall of Famer Randy Johnson on the mound. He released his blistering 95-mph fastball and, as the projectile crossed home plate, something unexpected happened. The fans, players and officials alike were mesmerized and shocked by the explosion of feathers at home plate as a flight of two doves crossed that lethal point of airspace at precisely the time of Johnson's deadly accurate pitch.

It wasn't planned. Most would say it was statistically impossible, yet it happened, providing a stark illustration of the high risk of operations in the third dimension of the battlespace. The flight of doves could have been a flight of Apaches. The baseball could have been a 155mm artillery round. And the results would have been even more horrific. It happened over home plate. It can happen over Pristina, or Jalalabad or anywhere America's sons and daughters are in harm's way.

The wartime problem of two flying objects (at least one being an aircraft) attempting to occupy the same space at the same time has existed since the implementation of the manned balloon as an aerial artillery observation platform. By the end of the 20th century, during Operations Desert Shield and Desert Storm, the United States military had developed procedures and documents to help alleviate the problem — the use of the Air Tasking Order (ATO) and the Airspace Control Order (ACO).

The ATO/ACO are large documents created to support the missions of the next air operation. These missions often involve cruise missiles and hundreds of aircraft, both manned and unmanned, from many nations. The ATO and ACO are designed to facilitate freedom of action in the third dimension of the battlespace to accomplish the joint force commander's intent and to minimize the potential for aircraft to unwittingly meet other airspace users "over home plate."

During Desert Storm these documents needed to be distributed rapidly and daily to

ARMY AVIATION BRANCH

Twenty Years of History
Transforming for the Future

20 Years

AAAA Annual Convention
Fort Worth Convention Center
Fort Worth, Texas, April 9-12, 2003

REGISTRATION FORM

AAAA ANNUAL CONVENTION

April 9 – 12, 2003 ● Fort Worth Convention Center ● Fort Worth, Texas

The Advance Registration Deadline is **FRIDAY, MARCH 7, 2003**. Registration forms received after March 7 will be held for Onsite Registration. Advance Registrations will not be processed unless accompanied by full payment of fees. I understand that I may receive a full refund of my registration and function fees if requested by phone call or written notification to AAAA made on or before **FRIDAY, MARCH 28, 2003**. Government fees apply only to Active Army and DAC personnel and to those Reserve Component and retired AAAA members who are **NOT** in the current employ of defense contractors or suppliers on a full-time, part-time, or consulting basis while attending the AAAA Convention. I understand that if I select the Government category and am not eligible, I will be charged for the difference in fees.

RANK/GS GRADE _____ NAME (FIRST, MI, LAST) _____

HOME MAILING ADDRESS OR NAME OF COMPANY, FIRM OR UNIT _____

STREET ADDRESS OR P. O. BOX NUMBER _____ ARE YOU A U.S. CITIZEN? ☐ YES ☐ NO

CITY _____ STATE _____ ZIP (IF U.S.) (OR COUNTRY) _____

OFFICE TELEPHONE NUMBER _____ FAX TELEPHONE NUMBER _____ SOCIAL SECURITY NUMBER _____

JOB TITLE AND AFFILIATION _____

E-MAIL _____ IS YOUR UNIT OR FIRM EXHIBITING? ☐ YES ☐ NO

YOUR NAME & RANK AS YOU WISH IT TO APPEAR ON YOUR BADGE _____

YOUR UNIT OR FIRM NAME AS YOU WISH IT TO APPEAR ON YOUR BADGE _____

YOUR CITY & STATE (IF U.S.) OR CITY & COUNTRY (IF NOT U.S.) AS YOU WISH IT TO APPEAR ON YOUR BADGE _____

YOUR SPOUSE'S NAME (IF ATTENDING) AS YOU WISH IT TO APPEAR ON YOUR SPOUSE' S BADGE _____

* IF YOU'RE NOT AN AAAA MEMBER JOIN AAAA NOW & PAY THE MEMBER RATE!	DAY OF EVENT	GOVT. AAAA MEMBER OR SPOUSE	INDUSTRY AAAA MEMBER OR SPOUSE	GOVT NON MEMBER OR SPOUSE	INDUSTRY NON MEMBER OR SPOUSE	ITEM TOTAL	OFFICE USE
① BADGE FOR PROFESSIONAL SESSIONS	Thu-Sat	☐ $ 20 ①	☐ $ 60 ①	☐ $ 50 ①	☐ $90 ①	$_____	_____
Spouse Program #1 Grapevine Heritage & Winery (Lunch Incl)	Thu	☐ $ 40	☐ $ 40	☐ $ 40	☐ $ 40	$_____	2_____
LUNCHEON & ANNUAL MEETING	Thu	☐ $ 26	☐ $ 26	☐ $ 26	☐ $ 26	$_____	4_____
Spouse Program #2 Cultural District Tour (Lunch Incl)	Fri	☐ $ 40	☐ $ 40	☐ $ 40	☐ $ 40	$_____	6_____
PROFESSIONAL LUNCHEON Speaker: LTG Bryan D. Brown, DC, SOCOM	Fri	☐ $ 26	☐ $ 26	☐ $ 26	☐ $ 26	$_____	7_____
PROFESSIONAL LUNCHEON Speaker: GEN Kevin P. Byrnes, CG, TRADOC	Sat	☐ $ 26	☐ $ 26	☐ $ 26	☐ $ 26	$_____	10____
② AWARDS BANQUET Guest Speaker: GEN Eric K. Shinseki, CSA Presentation of AAAA National Unit & Individual Awards	Sat	☐ $ 35	☐ $ 75	☐ $ 75	☐ $ 85	$_____	11____
SEATING REQUEST _____							
AAAA ANNUAL DUES (IF JOINING NOW) $15 rate for Full-Time Students, Enlisted, WO1s, GS-8 DACs & Below, Wage Board 12 DACs & Below		☐ $ 26*	☐ $ 26*			$_____	

METHOD OF PAYMENT Mastercard VISA American Express Diners Club Personal Check Business Check (Make checks payable to "AAAA") TOTAL $_____

CREDIT CARD NUMBER _____ EXPIRATION DATE _____

CARDHOLDER NAME AND SIGNATURE

① Spouse Badge for Professional Sessions is complimentary; ② Reserved Seating; Formal/Black Tie; Military Blues/Mess Jacket. Seating requests cannot be guaranteed.

Return this form to the AAAA National Office

AAAA, 755 Main Street, Suite 4D, Monroe, CT 06468, (203) 268-2450, FAX (203) 268-5870, aaaa@quad-a.org

RegistrationForm-2003


Get Around Downtown
Fort Worth
415 Throckmorton
Fort Worth, Texas 76102-7410
1-800-433-5747
http://www.fortworth.com
2.5 miles to Stockyards
17.5 miles to DFW Airport
SH 121
Trinity River Trails
Trinity River
N. Main
Heritage Park Plaza
E. Belknap
E. Weatherford
Tarrant County Courthouse
Commerce
Fire Station No. 1
Sid Richardson Museum
Main St.
W. Belknap
W. Weatherford
Taylor St.
Renaissance
Etta's B&B
Bass Performance Hall
Jones St.
To 30/35W
15 miles north of downtown to Texas Motor Speedway
1st St.
2nd St.
3rd St.
Central Library
Bank One
Information
Clarion
Courtyard
Calhoun St.
Henderson St.
YWCA
YMCA
4th St
5th St
6th St
7th St
Chamber
Lamar St.
Burnett St.
Throckmorton St.
Houston St.
Ashton Hotel
Radisson Hotel
8th St
9th St.
Greyhound Trailways Bus Depot
Intermodal Transportation Center
Public Market
General Worth Square
5th St.
2.5 miles to Cultural District
7th St.
Municipal Courts Bldg.
Federal Building
Cherry St.
Burnett Park
10th St
Fort Worth Convention Center
Park Central
Cattle Raisers Museum
Henderson St.-SH 199
U.S. Courthouse
City Hall
Jennings Ave
Texas St
Texas Wesleyan Law School
15th St.
Burnett S.
Lamar St
Taylor St
13th St
Tarrant County Jr. College
Water Gardens
Ramada Hotel
---- The T Downtown Free Zone
Fort Worth Visitor Information Center
The T Bus Stops
Surface Parking Lot
Lancaster Ave. West
2.5 miles to Cultural District
Lancaster Ave. East
Post Office
T&P Station
30

"Army Aviation Branch.....Twenty Years of History, Transforming for the Future"

AAAA ANNUAL CONVENTION, APRIL 9-12, 2003
FORT WORTH CONVENTION CENTER, FORT WORTH, TX

Tuesday, 8 April 2003

800-1700 **AAAA Registration Center Open**

Wednesday, 9 April 2003

730-1800 **AAAA North Texas Chapter Golf Tournament**
800-2000 **AAAA Registration Center Open**
530-1730 **AAAA National Executive Board Meeting**

800-2000 **Early Bird Reception & Opening of Exhibits**

Thursday, 10 April 2003

700-1700 **AAAA Registration Center Open**
745-0845 **Eye-Opener Coffee**
745-0845 **Speakers Breakfast**
800-1700 **Press Room Open (Sponsored by GE Aircraft)**
830-1030 **Convention's Opening Presentations**

0830-0900 **AAAA President's Welcome**
*LTG Ellis D. Parker, Ret.

0900-0930 **Aviation Branch Opening Remarks**
*MG John M. Curran, Commanding General, U.S. Army Aviation Center & Fort Rucker

0930-1000 **Host Command**
MG Robert Wilson, Acting Commanding General, III Corps and Fort Hood, TX

1000-1030 **Keynote Address**
*GEN John M. Keane, Vice Chief of Staff. U.S. Army

000-1700 **Spouse Tour - Grapevine Heritage Center and Winery**

030-1130 **Professional Session Breakouts**

- Safety: BG James E. Simmons
- Special Operations Aviation: COL Richard L. Polczynski
- Enlisted Update: CSM Walter Beckman
- Warrant Officer Update: CW5 Stephen T. Knowles II
- TF 1-25 Aviation Bosnia Rotation
- Ongoing Operations in Afghanistan (OEF)
- Coalition Warfare: MG Dr. Dieter Budde, Division Commander Airmobile Operations, Germany

100-1630 **Exhibits Open** *(Continuous PM Briefings in Hall)*
JSHIP, Unmanned Aerial Systems, Comanche, Utility Helicopters, Cargo Helicopters, Apache, Scout Attack, Aviation Systems, AATD.

100-1630 **PERSCOM Career Guidance**
130-1230 **AAAA NEB & Chapter Presidents Session**
230-1430 **AAAA Annual Meeting & Luncheon**
President's Annual Report, National Elections, AAAA's Presentation of Membership Awards.

630-1830 **AAAA Scholarship Foundation Board Meeting**
830-1930 **Awardees Briefing**
100-0100 **AAAA Chapter Receptions**

Friday, 11 April 2003

800-1700 **AAAA Registration Center Open**
800-0900 **Eye-Opener Coffee**
800-1700 **Press Room Open (Sponsored by GE Aircraft)**
800-0900 **Speakers Breakfast**

Friday, 11 April 2003 (Cont'd)

0900-1110 **Professional Session:**
0900-0930 **Hon. Thomas White, Secretary of the Army**
0930-1000 **LTG Richard A. Cody, G-3**
1000-1030 **LTG John M. Riggs, Director Objective Force TF**
1030-1050 **MG Joseph L. Bergantz, PEO Aviation**
1050-1110 **MG Larry J. Dodgen, CG AMCOM**

1000-1600 **Spouse Tour - Fort Worth Cultural District**
1110-1500 **Exhibits Open** *(Continuous PM Briefings in Hall)*
1100-1500 **PERSCOM Career Guidance**

1200-1330 **Luncheon:**
Guest Speaker: LTG Bryan D. Brown, Deputy Commander SOCOM

1500-1600 **Panel #1 Professional Session: Heritage**
Chairman: *Dr. James W. Williams, Branch Historian
Panelists: BG(R) Charles M. Burke, MG(R) Thomas W. Garrett, LTG(R) Ellis D. Parker, LTG(R) James H. Merryman, LTG(R) William H. Forster, LTG(R) Daniel J. Petrosky

1600-1700 **Panel #2 Professional Session:**
Transforming the Combined Arms Team
Chairman: MG John M. Curran, Aviation Branch Chief
Panelists:
CAC – Unit of Employment (UE) – LTG James C. Riley
Armor – Unit of Action (UA) – MG R. Steven Whitcomb
Infantry – AASLT, LT INF, SOF – MG Paul D. Eaton
Artillery – Fires and Effects – MG Michael D. Maples
Military Intelligence – ISR – MG James A. Marks

1630-1800 **Cub Club Reception**
1830-2030 **National Executive Board Dinner**
2100-0100 **AAAA Chapter Receptions**

Saturday, 12 April 2003

0730-1600 **AAAA Registration Center Open**
0730-0900 **Eye- Opener Coffee**
0745-0900 **First Light Breakfast**
Speaker: LTG John S. Caldwell, Jr., Mil Dep, OASA(AL&T)
0800-1600 **Press Room Open (Sponsored by GE Aircraft)**
0900-1000 **Panel #3 Professional Session: Operation Anaconda**
Chairman: MG Franklin L. Hagenbeck, CG 10th Mountain Div.
Panelists: COL(P) Joseph A. Smith, 82 Airborne Division

1000-1100 **Panel #4 Professional Session: Industry Support**
Chairman: LTG John S. Caldwell, Jr., Military Deputy, OASA(AL&T). Panelists: CEOs Mr. Roger A. Krone, Boeing Helicopter; Mr. Dean C. Borgman, Sikorsky Aircraft, UTC; Mr. John R. Murphey, Bell Helicopter Textron; Mr. Vance D. Coffman, Lockheed Martin Corp.

1100-1500 **Exhibits Open** *(Continuous PM Briefings in Hall)*
1030-1500 **PERSCOM Career Guidance**
1200-1330 **Luncheon**
Guest Speaker: GEN Kevin P. Byrnes, CG, TRADOC

1745-1900 **AAAA Banquet Ticket Pickup**
1800-1845 **AAAA Banquet Reception**
1900-2200 **AAAA Awards Banquet**
Guest Speaker:*GEN Eric K. Shinseki, Chief of Staff, US Army, National Unit & Individual Awards Presentations

*** Speaker Confirmed**

FORT WORTH

Convention & Visitors Bureau

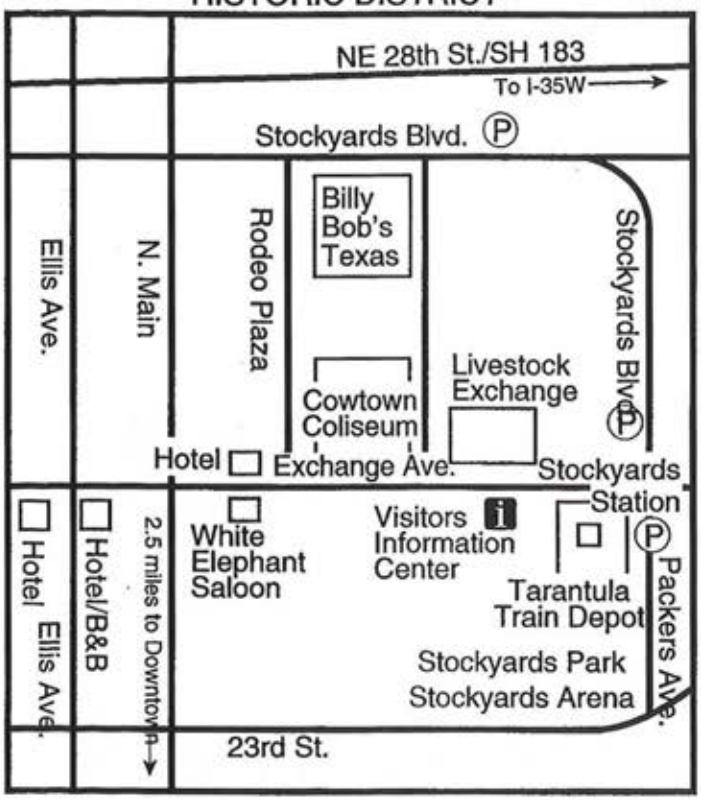
415 Throckmorton
Fort Worth, Texas 76102-7410
1-800-433-5747
http://www.fortworth.com

Visitors Information Center
130 East Exchange Avenue
in the Stockyards
National Historic District
817-624-4741

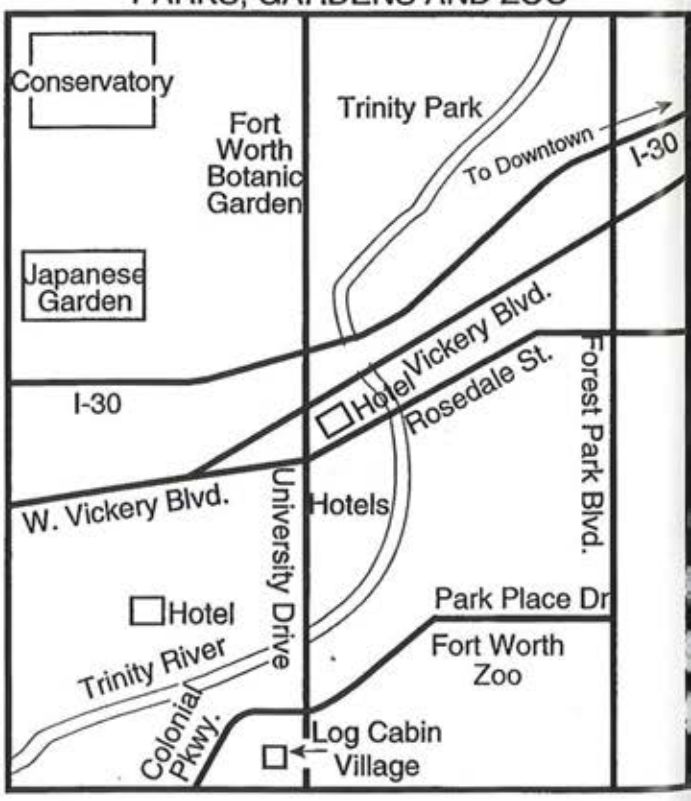
Visitors Information Center
3401 West Lancaster Avenue
in the Cultural District
817-882-8588

CULTURAL DISTRICT

STOCKYARDS NATIONAL HISTORIC DISTRICT



PARKS, GARDENS AND ZOO



THE 2003 AAAA CONVENTION GOLF TOURNAMENT

(Proceeds to Benefit AAAA Scholarship Fund)

Wednesday, April 9, 2003 ● Diamond Oaks Country Club

The AAAA North Texas Chapter is planning a golfer's outing to be held in conjunction with the AAAA Annual Convention, April 9, 2003, in Fort Worth, Texas.

Arrangements have been made with the Diamond Oaks Country Club – a Charles Akey and Mark Brooks designed course, located approximately 8 miles from Downtown Fort Worth, for a 4-person Scramble. Please note the Diamond Oaks Golf Club is a spike-less facility; please arrive in sufficient time prior to your flight start times for replacement of metal spikes.

There will be 2 flights, each limited to 140 players per flight. Each flight will "Shotgun" start; AM flight will start at 07:30; the PM flight will start 13:00. The cost will be $65.00 per player, which includes greens fee, cart, lunch, drinks, and prizes for each flight (1st, 2nd, 3rd, longest drive, etc.). The driving range will open at 07:00, buffet lunch will be served 10:30 to 13:30. Spaces available are limited to above numbers and will be on request - first-come, first-served. Please specify if you have a four-some participants preference – For participation information, contact: Mr. Terry Reininger, Tele: 972-606-4421, E-mail: terryreininger@compuserve.com.

The North Texas Chapter (NTC) Golf committee will complete all other details after receiving responses to this invitation. Your earliest possible commitment will be greatly appreciated. If required, inclement weather plan will be briefed April 8th.

The NTC and AAAA want this to be a fun day for all. National/NTC will do our best to see that it offers something for all golfers. Main prizes will be awarded randomly. If you have an established handicap, please annotate it; if not, please provide your normal score for 18 holes.

Your reply to the following is requested no later than March 1, 2003. Payment is due with the application; spaces will be allocated on a first-come, first-served basis; payment is fully refundable up to March 14, 2003. Organizations interested in general sponsorship information, please contact Malcolm Quon, Tele: 817-234-6755, E-mail: mquon@efw.com or Bob Brady, Tele: 817-234-6769, E-mail rbrady@efw.com.

----------(Please detach and return to address below)----------

I would like to play in the 2003 AAAA North Texas Chapter Golf Tournament.

I prefer: _____ AM Group; _____ PM Group; _____ Have no preference.

My handicap is _____; No handicap, but generally my score is _____.

____ Yes, my local AAAA Chapter/Company would be interested in information about sponsoring a hole.

Chapter: _____

Name and four-some /team preference: _____

Name: _____ Telephone: _____

Address: _____

City, State & Zip: _____

Return this form with check to:

Michael VanRiper, 2 Saint Robby Court, Mansfield, Texas 76063

Make checks payable to: NTC AAAA Golf Tournament.

Golfform-2003

2003 AAAA ANNUAL CONVENTION GENERAL INFORMATION

All forms available on the web www.quad-a.org

DOD APPROVAL: The Department of Defense, *"finds that the business portions of this event meet the minimum regulatory standards for official attendance by DoD employees. This finding does not constitute a blanket approval or endorsement for attendance. Individual DoD Component commands or organizations are responsible for approving or disapproving official attendance of its DoD employees based on mission requirements and DoD regulations. The propriety of attendance by DoD employees in their personal capacities at incidental social portions of this event shall be determined by the individual DoD employee's Ethics Counselor based on standards of conduct and community relations requirements."*

REGISTRATION & FEES: A Registration Form must be completed by each individual (excepting spouses) who wishes to attend the professional sessions or social functions. Badges for admission to the Professional Sessions for the spouses of attendees are complimentary. AAAA members, non-members, guests, and their spouses who only wish to attend the exhibits or social functions need not pay the Professional Session or Membership fees. **Admission to the Exhibit Hall is complimentary and will be by Badge. Photo ID is required.** Function fee refunds will be made if notification is received at the AAAA National Office by phone or mail on or before **Friday, March 28.** Individuals may pick up their badges and function tickets at the AAAA Registration Center in the Convention Center. See "SCHEDULE OF EVENTS" for hours of operation.

HOUSING: The Fort Worth Convention & Visitors Bureau is handling housing reservations for the AAAA Convention. Reservations will not be accepted before January 15, 2003. Housing reservations will only be handled by Internet, fax-in, or mail-in. The Bureau will not handle reservations over the phone. The housing cut off date is March 7, 2003. After the cut off date, the Bureau will **ONLY** accept reservations subject to room & rate availability. On March 7, 2003, all individuals utilizing this reservation system must be registered for the AAAA Convention; the housing reservations for those individuals who have not registered for the AAAA Convention by March 7, 2003 will be cancelled.

Hotel assignments will be made based on your listed preferences. If your preferences are not available, you will be assigned to the next available hotel. If no option is specified, the next hotel will be assigned based on availability.

You will receive a Hotel Confirmation from the Bureau either by e-mail or US Mail. If you do not receive an acknowledgement from the Bureau within 3 weeks, please contact the Bureau at 800-433-5747. The hotels will not receive the rooming lists until after the March 7, 2003 cut off date.

Government/Military/DAC room rates apply only to Active Army and DAC personnel and to those Reserve Component and Retired persons who are NOT in the current employ of defense contractors on a full time, part time, or consulting basis while attending the AAAA Convention. The AAAA will review all reservations made prior to the cut off date to determine rate eligibility. If you have made a reservation at the Government/Military rate and it is determined that you are ineligible, the rate will be changed to the Industry/Civilian rate if rooms are still available. If rooms are not available at that time, your reservation will be returned to you. Please do not make reservations at the Government/Military Rate unless you are eligible.

To make your reservations by Internet, visit the AAAA website at www.quad-a.org and click on the Fort Worth Hotel Reservation link; To make your reservations by Fax, complete one form for each room needed and fax back to 817-338-3538 or 817-336-3282 before Friday, March 7, 2003; To make your reservations by Mail, complete one form for each room needed and mail to Fort Worth CVB/AAAA Housing, 415 Throckmorton, Fort Worth, Texas, 76102 before Friday, March 7, 2003.

DRESS CODE: The AAAA suggests the following attire: Wednesday, April 9: Casual Attire. Thursday, April 10: Daytime - Class B/Coat & Tie; Chapter Receptions - Casual Attire. Friday, April 11: Daytime - Class B/Coat & Tie; Chapter Receptions - Casual Attire. Saturday, 12 April: Daytime - Class B/Coat & Tie; AAAA Banquet - Dress Mess/Dress Blues/Black Tie.

NOTE: The AAAA suggests that Army personnel who are daytime Professional Session speakers and other official participants wear Class A uniforms.

RENT-A-CAR SAVINGS: Call Hertz, AAAA's official Rental Car Company for outstanding discounts. Call **Hertz Toll Free at (800) 654-2240** or **Gaylord Travel TOLL FREE at (800) 677-9526.** Please cite **Hertz Meeting Number #022Q0730** when making reservations.

TRAVEL RESERVATIONS: Gaylord Travel (formerly known as Opryland International Travel) has been selected as AAAA's official travel agency. Gaylord Travel offers:

- 5% off all fares on American and US Airways
- 10% off if booked and ticketed at least 30 days prior on American
- 10% off if booked and ticketed at least 60 days prior on US Airways
- 10% discount on Southwest fares except M promotional fares
- zone fares that don't require Saturday night with a 2-day minimum stay
- $200,000 flight insurance at no cost
- will record frequent flyer miles.

Call Gaylord Travel at 800-677-9526 from 8:30 a.m. to 5:00 p.m. (Monday-Friday) Central Time or FAX to 615-871-5794. Please make every effort to use Gaylord Travel to make your travel arrangements for the AAAA Convention. If this is not possible, arrangements have also been made with **American Airlines, US Airways and Southwest** to serve as the official air carriers for the AAAA Annual Convention. Please cite the **American Airlines Group File Number A4543AH, US Airways Group File Number GF43652632 or Southwest Group File Number A0110** if you plan to travel on these airlines.

AAAA NORTH TEXAS CHAPTER GOLF TOURNAMENT: The AAAA North Texas Chapter is sponsoring a Golf Tournament on Wednesday, April 9; morning and afternoon flights are scheduled. See attached Golfing form. Corporate Sponsors for holes and prizes are also being sought. For information, contact Terry Reininger at 972-606-4421, E-Mail: terryreininger@compuserve.com.

SPOUSE PROGRAMS: The AAAA invites spouses to participate in planned activities on Thursday and Friday, April 10 & 11. Both programs will start at the Fort Worth Convention Center.

Thursday Grapevine Heritage Center and Winery: Buses will depart from the Fort Worth Convention Center at 10:00 a.m. for the Grapevine Heritage Center. The tour will feature a demonstration of leatherworkers and blacksmiths at work. The old depot houses the Grapevine Museum. Visitors will discover more than 75 restored homes and commercial buildings. Luncheon buffet (all you can eat) will be served at the wonderful, restored Willhoites Restaurant, built in 1910. After lunch, we'll visit a Winery located in a historical building downtown and give you the opportunity to try samples of their fine wines (which may be purchased). Finally, we'll visit the Grapevine Mills Mall, a large enclosed discount mall and return to the Convention Center by 5:00 p.m.

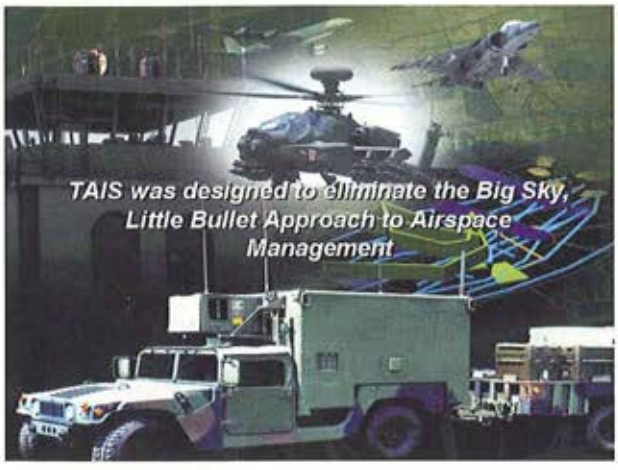
Friday Fort Worth Cultural District Tour:
Buses will depart from the Fort Worth Convention Center at 10:00 a.m. for a tour of two museums in the Cultural District of Fort Worth. The first stop is the beautiful Amon Carter Museum of Art, which has just reopened after a two-year, 39 million dollar expansion and features a fabulous collection of American 19th and 20th century paintings, photographs and sculptures. Also featured are major collections by Fredrick Remington and Charles Russell. Next, we will be stopping for lunch at the Botanical Gardens. Our final stop and newest museum is The Cowgirl Museum and Hall of Fame, that is the only museum in the world dedicated to honoring and documenting the lives of women who have distinguished themselves while exemplifying the pioneer spirit of the American West. Buses will return at 4:00 p.m.

AWARD PRESENTATIONS: The AAAA's National Unit and Individual Awards will be presented at the AAAA Awards Banquet on Saturday, April 12. The "Top Chapter" and Membership Awards will be presented at the AAAA Annual Meeting & Luncheon on Thursday, April 10.

PROFESSIONAL SESSIONS: The Professional Sessions taking place on **Thursday, April 10** through **Saturday, April 12** at the Fort Worth Convention Center, will be of special interest to all AAAA members, and is being arranged by **Major General John M. Curran**, Aviation Branch Chief, who serves as the Program Chairman. Admission to the Professional Sessions under the theme of **"Twenty Years of History, Transforming for the Future"** will be by Badge.

AAAA CHAPTER RECEPTIONS: The AAAA Chapter Receptions are a most important and unique part of every AAAA Convention and will be held on Thursday and Friday evenings at the Radisson Plaza Hotel.

many places over a 2,000-kilometer front. After the war, the Army concluded it must do a better job of receiving and disseminating the ATO/ACO, and must be able to do it digitally. Subsequently, the Army Aviation Center at Fort Rucker, Ala., wrote the requirement for a system that will enable Army airspace managers to effectively and efficiently manage the use of airspace over the battlefield while minimizing the potential for "fratricide." The new system was designated as the Tactical Airspace Integration System, or TAIS. The Mission Needs Statement was approved in July 1993 and the Operational Requirements Document was approved in June 1995.



The responsibility for materiel development of the TAIS was assigned to the Office of the Product Manager for Air Traffic Control Systems (PM ATC) at Redstone Arsenal, Ala. With no funds available for a new program in fiscal year 1996 and 1997, the program was scheduled to start in FY 98. In mid-1996, however, the Aviation Center implored PM ATC to accelerate the program so that the TAIS could participate in the Division XXI Advanced Warfighting Experiment (DAWE) scheduled to begin in July 1997 at Fort Hood, Texas.

With little time and no research-and-development funds, PM ATC restructured the "spend plan" to initiate the program. The acquisition strategy was to create the TAIS as a non-developmental item. A market survey found four potential candidate systems. With the urgency to "get on contract" as soon as possible, an intensive effort was made to "piggyback" the TAIS program within the scope of an existing contract.

The result was to procure and modify two Joint Surveillance Targeting and Radar System (JSTARS) Common Ground Station (CGS) shelters and to integrate additional off-the-shelf software. A contract modification of the JSTARS contract was made in January 1997 and the first TAIS (a prototype) was delivered to Fort Hood in June 1997 in time to participate in the DAWE.

In October 1998 a General Officer Steering Committee directed that the TAIS be acknowledged as the Army's digitized system to support the Army Airspace Command and Control (A2C2) mission. In January 1999 the Army officially recognized the TAIS as a principle component of the Army Battle Command System (ABCS).

Deconflicting airspace and the users of that airspace to prevent "fratricide," while concurrently ensuring freedom of action in the third dimension, is one of the key capabilities provided to warfighters by the TAIS. The system supports warfighters by automating A2C2 planning and operations functions, as well as air traffic services (ATS) tasks. It helps planners to build Army input for the joint ACO, to digitally disseminate the approved A2C2 overlay, and to electronically distribute the approved joint ACO to Army forces when received from the Airspace Control Authority (ACA) and the Joint Force Air Component Commander (JFACC).

The TAIS can display Airspace Control Measures in two or three dimensions while monitoring the real-time airspace situation, giving commanders and their staffs situational awareness and the ability to visualize the airspace in ways never before possible. As an ABCS Battlefield Automation System (BAS), the TAIS is interoperable with all other ABCS BASs and the U.S. Air Force Theater Battle Management Core System (TBMCS), providing a direct link to the JFACC/ACA.

The enthusiastic reception of the system by warfighters and the tactical ATC community is a direct by-product of soldier involvement. Soldiers have identified many improvements in TAIS functionality. The inclusion of soldiers in the design and spiral development process has been a principal factor in the successful evolution of the TAIS and its widespread acceptance. TAIS has been an active participant in testing and development of ABCS common software. The TAIS underwent final acceptance testing in August 2000 and the government officially accepted system #1 on 10 August of that year from the prime contractor, General Dynamics Decision Systems.

The "full" TAIS, the AN/TSQ-221, is comprised of two High Mobility Multi-Wheeled Vehicles (Humvees) — M-1113 Expanded Capacity Vehicles — two standard Army rigid-wall shelters containing the mission-equipment package, two soft-sided shelter extensions, and two cargo Humvees. The prime power source is the Tactical Quiet Generator, 15 Kw Power Unit, Model PU-801. The mission-equipment package consists of the necessary computers, communication equipment, interfaces, and peripherals required to support automated A2C2 and ATS operations. The "full" TAIS is fielded to the en-route platoons of ATS companies worldwide in direct support of division, corps and echelon-above-corps headquarters. Six TAIS have been fielded so far, with 31 systems to be fielded through FY08.

A subcomponent of the "full" TAIS is the TAIS Airspace Workstation (AWS). This integrated computer system comes in both a ruggedized, militarized version (green box) and a commercial-off-the-shelf (white box) version. It is specifically designed for command, control, communication, computer and intelligence (C4I) functions to support mission assessment, planning and execution with tactical displays, integrated information management systems, operational communication deci-

sion aids and planning aids. The TAIS AWS is designed to be fielded to elements that do not require the robust communications capabilities of the Humvee-based "full" TAIS, such as Battlefield Coordination Detachments, Combat Training Centers, schoolhouses and some echelon above corps-level commands.

The TAIS software provides Army airspace managers with a powerful tool for accomplishing their missions. The ability to digitally receive and display airspace requests, automatically identify airspace conflicts and digitally pass the Army requests to the JFACC/ACA, provides tremendous reduction of workload over the previous manual procedures and greatly reduces the possibility of human error. Soldiers in the field have reported more than a 10-fold reduction of processing time for these requests from the old way of doing business.

One of the most powerful and far-reaching additions to the latest version of TAIS software is a Web-based tool that permits any computer on a tactical local- or wide-area network (LAN/WAN) to submit requests for airspace to TAIS. This Web interface allows not only Army elements without a TAIS workstation to submit requests, but also other services, the joint forces land component command, alliance and coalition forces, and other governmental and non-governmental agencies.

After the September 2001 terrorist attacks, PM ATC began examining how TAIS could contribute to the homeland security mission. Several missions and capabilities were identified. With ability to receive and display air track information from FAA and other source radars, TAIS can support airspace-control operations in the event an FAA regional control center or airport control facility is disrupted or destroyed as the result of terrorist actions. It can also provide a CONUS interior point defense command and control capability for the National Airspace System (NAS), thus playing a key role in the management of airspace in the vicinity of potential terrorist targets — airports, power plants, petroleum plants, or other sites in remote areas.

A demonstration of these capabilities was conducted in February 2002 and validated the proof of concept for integrating TAIS capabilities with ground-based air defense assets to protect potential high-priority target sites.

In summary, the capabilities provided to the warfighter by TAIS are long overdue. The Army cannot afford to impede the application of combat power and possibly put mission accomplishment at risk because of inability to manage the airspace, and we certainly can't accept the loss of life and destruction of critical warfighting systems because of "fratricide" incidents in the third dimension of the battlespace. In that regard, much as the call to action embodied by the Korean War experience of "No more Task Force Smiths!" TAIS exists to ensure that there are "No more Randy Johnsons!"

❖❖

LTC James W. Kelton (Ret.) is employed by Dynamics Research Corporation as a senior analyst to the PM ATC with the TAIS program at Redstone Arsenal, Ala. LTC Raymond J. Connolly (Ret.) is employed by CAS Inc. as a senior analyst to the PM ATC with the TAIS program.

JSHIP: EVERYTHING YOU EVER WANTED TO KNOW ABOUT JOINT SHIPBOARD HELICOPTER OPERATIONS

By CW4 Denver R. Sheriff (Ret.)

During an October 2001 television news story about the possibility of deploying troops to Afghanistan, CNN news anchor Miles O'Brien asked if it was unprecedented to put helicopters on aircraft carriers.

Retired Air Force MG Donald Shepperd, a CNN analyst, replied: "No, it's not unprecedented at all. In fact, it took place as far back as Grenada. It went on into Somalia, Haiti and even in the Gulf War. What we're talking about is either army or special forces people deployed on the decks of carriers. ... This is something we've been working on ... for a long time in a program called JSHIP, or Joint Ship Helicopter Integration Program ... ."

JSHIP is in the last year of a five-year joint test & evaluation (JT&E) program and has proven its value to the warfighter as recently as the operations in Afghanistan. To support joint operations from the Arabian Sea, JSHIP personnel and products were dispatched to support the action in Afghanistan.

The JSHIP team comprises eight military members, two Department of Defense (DOD) civilians, and 34 contractor personnel — most of them former, reserve or retired military members — and is finalizing legacy products for the warfighters. When the JT&E program ends the legacy products will be as complete, current and usable as the team members can make them. Some information will not change for quite a while, and some information will change as each service changes regulations, tactics, training, ships, aircraft, ammunition and equipment.

JSHIP IS IN THE LAST YEAR OF A FIVE-YEAR JOINT TEST & EVALUATION (JT&E) PROGRAM AND HAS PROVEN ITS VALUE TO THE WARFIGHTER AS RECENTLY AS THE OPERATIONS IN AFGHANISTAN.

Even with a highly qualified team devoted to the goal of solving the problems associated with joint shipboard helicopter operations, all the issues have not been and probably will not be resolved by the time the doors are closed. It is imperative that the momentum of the JSHIP program be capitalized upon by DOD to solve the unresolved issues and to aid the warfighter with current information associated with joint shipboard helicopter integration.

JSHIP has produced an incredible amount of data and legacy products to support warfighters. Analysis of data from previous testing and the testing done specifically by JSHIP was combined to produce a range of valuable products.

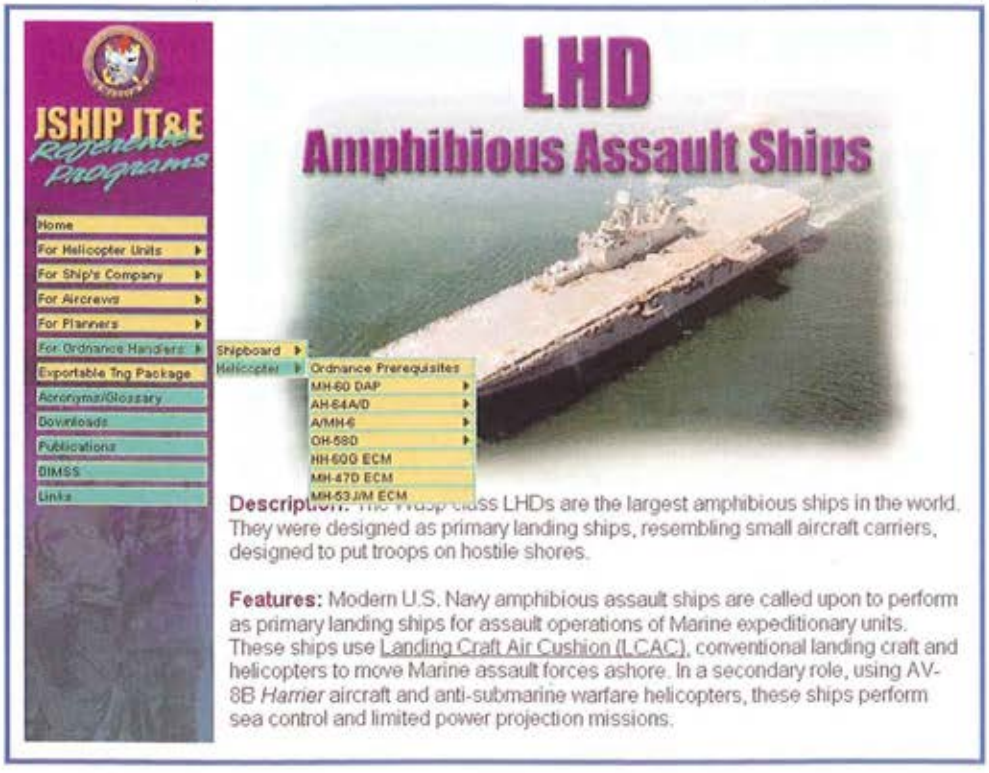
ACCOMPLISHMENTS AND PRODUCTS

As part of the JSHIP effort, the Dynamic Interface Modeling and Simulation System (DIMSS) team developed a process using simulation to establish wind-over-the-deck (WOD) flight envelopes for helicopters, and to provide a high level of fidelity simu-

lation for training aircrews specifically for launch from and recovery to aviation-capable ships. The fidelity of the simulation was good enough to demonstrate that simulation could be used to extend Deck Landing Qualification (DLQ) currency and enhance DLQ training overall. Models from this high-fidelity simulation are currently being integrated into Army simulators with the 101st Airborne Division at Fort Campbell, Ky.

JSHIP products developed under the compatibility label include basically all products dealing with the form, fit and function (physical interaction) of various non-Navy helicopters with several types of Navy aviation-capable ships. In addition, this "compatibility process" developed by the JSHIP team can be used for future combinations of aircraft and ship types, and can be a valuable resource for future aircraft and ship designers with an eye for joint operations. The products generated by compatibility issues include:

- DLQ Training.



- Aircraft Compatibility Documents.
- Compatibility Lessons Learned.
- Joint Planners Guide.
- EMV Graphical Database.
- Joint Planners EMV Guide (in progress).
- Spotting Templates for Army Helicopters.
- Ship Operations Sections for Army and Air Force Aircraft Operator's Manuals (in progress).
- Expanded Launch/Recovery Envelopes (delivered and in progress).
- Similarity Study of H-60 Aircraft (to support recommendation for common L/R envelopes for joint H-60 aircraft).
- Similarity Study of H-64 Aircraft (to support recommendation for common L/R envelopes for AH-64A and D aircraft).
- Ship Tiedown Guide/ Report for Non-Navy Helicopters.
- Joint Helicopters Operations Appendix for LHA/ LHD NATOPS (delivered).
- Joint Helicopters Ops Appendix for CV/CVN NATOPS (in progress).
- Certification Upgrade Recommendations.
- Alternate Spotting Recommendations.
- Hazard Reports.
- Joint Aviation Ordnance Compatibility Matrix.
- Joint Ordnance Checklists.
- Publication Change Proposals to Various Service and Joint Pubs.
- JSHIP Dedicated At-Sea Test Reports

PROCEDURES AND TRAINING PRODUCTS

Procedures and Training (P&T) products developed under JSHIP provide warfighters with specific tools to improve their interoperability and operational efficiency during shipboard helicopter operations. These products focus on crew (both deployed aircrew and Navy ship personnel) preparedness, training, procedures and planning for the multiple aspects of joint operations and issues. Specific products developed include:

- Embarked Unit Pre-Deployment Planning Guide.
- JSHIP Exportable Training Hand Signals (Aircrew, Ordnance, LSE).
- Shipboard Ordnance Loading Checklists For Army and Air Force Helicopters.
- Shipboard Ordnance Training Package For Army and Air Force Helicopters.
- Joint Rotorcraft Pilot's Handbook.
- Joint Aircrew Ground School Syllabus For Shipboard Training.
- Pre-Deployment Planning Checklist for Navy Type/ Class Ships.
- Joint Pre-Deployment Conference Planning Checklist.
- DLQ Simulator Training Syllabus.
- U.S. Armed Forces Uniform Rank And Insignia Reference.
- Special Refuel/Defuel Issues For Army and Air Force Helicopters Aboard Ship.
- Aircraft Movement Checklist For Shipboard Operations.
- Flight Deck Familiarization Checklist.
- Embarked Unit Safety Briefing.

JSHIP WEB SITE

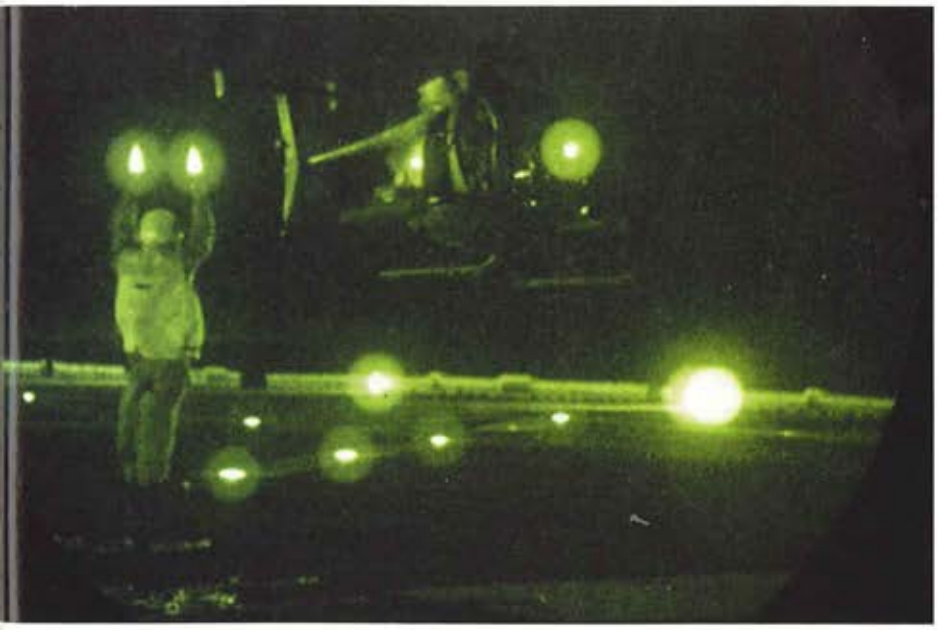
The JSHIP Web site (www.jship.jcs.mil) was created to quickly deliver the information demanded by units in the field. The demand for information and JSHIP products was such that individual units in the field were asking for them in any and all formats available — including CDs, e-mail

JSHIPs continued on page 23

The Black Hole of Night: SHIPBOARD OPERATIONS

By CW4 Mike Vandeveer (Ret.)

Most aviators realize the risk inherent in flying helicopters, especially at night. Yet one of the missions that the Army finds itself thrust into more often these days is operating helicopters aboard Navy ships. In reality, the Army has been conducting shipboard operations for decades and several Army units around the world are currently executing this joint mission.



All things being equal, ideal, well planned and prepared, just flying to a ship is a relatively simple task. Of course, elements such as the size of the ship, the size of your aircraft, the sea state, the weather, the wind, night flight over water, and countless other variables combine to complicate the process and make the challenge a quite formidable one.

Deck Landing Qualifications (DLQs) aboard ships require that a series of aviation training issues be addressed. For the most part these issues are addressed in Navy standards, since the Navy and Marines operate to, around and from ships. Navy and Marine Corps pilots are taught from "day one" to treat all nighttime departures from the deck of a ship as an instrument take-off, and that nighttime ship traffic patterns are to be treated as "instrument patterns."

The Army should not hesitate to benefit from the Navy/Marine Corps experience with shipboard helicopter operations, since a great deal of knowledge has been documented and recorded over the years. Navy standards for shipboard helicopter operations exist for good reason, and it only makes sense for the Army to utilize that invaluable information.

The modern Army fights at night and flies at night and, for those reasons, also trains at night. Aided and unaided flight at night is normal ops for the Army. However, the nighttime maritime environment poses special challenges for helicopter crews.

Army commanders must evaluate risk and risk mitigation in detail for night flight aboard ship. This risk assessment becomes extremely critical during periods of low illumination and/or periods of reduced visibility. Aboard ship there may also be a requirement for a visible horizon in three or more quadrants, in addition to weather, wind-over-the-deck flight envelopes, and ceiling and visibility requirements. Most Army aviators believe they know the darkness of night better than anyone else.

The seas often produce a "wet haze" just above sea level and sea fog often forms in conjunction with this haze, compounding the already extremely limited visibility prevalent in the night over-water environment. Even with visibility, limited or otherwise, a visi-

ble horizon is oftentimes nonexistent in the night over-water environment. When ships are close to shore and visible lights from the shore fill up part of a quadrant, there may be some visibility and orientation enhancement. However, ships most often operate "over the horizon" and well away from visible shorelines.

Another potential danger of over-water flight and artificial lighting involves the "Black Hole Effect." This occurs when the aircraft flies from an environment rich in visual cues immediately into a cue-poor environment. The sudden loss of primary visual cues may have devastating effects on maintaining situational awareness and aircraft control.

The first opportunity for experiencing this effect is immediately after crossing the coastline going out to sea, or going "feet wet," from a highly textured, artificially lit, overland environment. The effect is exacerbated by a flight path that goes from overland with ample visual cues to over water with low visibility, low illumination, and little or no visual cues. The second case occurs immediately upon departure from a lighted flight deck and into an over-water environment with reduced visibility and loss of visual cues.

Aviators must familiarize themselves with all the visual and sensory illusions associated with night flight, and particularly night flight over water. Overland, artificial light often enhances the total available illumination, a phenomenon that rarely occurs when flying over water. During night over-water flight, artificial light is usually associated with the coastline, but a lighted coastline can actually cause negative effects on night situational awareness because it offers a "false horizon" that may actually disorient the aircrew.

Even within visual meteorological conditions (VMC), the natural horizon is seldom discernable at night over water, due to the "sea haze." This may lead to the "ping-pong-ball effect" in which everything looks the same and "up" cannot be distinguished from "down" by outside visual reference alone and the aircraft attitude cannot be safely maintained without the use of aircraft instruments. Adding to this effect are greatly reduced surface texture and a lack of normal terrestrial visual frames of reference.

During reduced visibility flying overland, pilots use a variety of night-vision techniques to fly "outside the aircraft." They use visual cues closer in their field of view to judge relative distance and closure rates in horizontal and vertical planes. However, when visibility is reduced at sea, the surface of the water does not present these visual cues. When flying VFR with reduced visibility, the pilot must descend toward the surface to bring out usable cues and maintain situational awareness. While flying over water, in calm seas, more than one pilot has flown into the water searching for visual texture cues to judge rate of descent. The more placid the water the less texture available and the fewer visual cues that may be gained from the surface.

Another illusion associated with calm water is caused by the reflection of the sky off the surface. Aircrews have mistaken the reflection of the sky for the actual sky on numerous occasions, sometimes with deadly consequences.

Visual cues from natural and man-made surface objects provide known frames of reference over land. These cues allow pilots to estimate distance and perceive depth in their field of view. When flying with reduced range of view due to visibility or low cloud cover, these frames of reference help pilots maintain attitude and altitude.

Similar frames of reference are seldom available at sea to assist pilots in maintaining situational awareness. Army FM 3.04.301, "Aeromedical Training for Flight Personnel," provides excellent examples of night flight techniques, though the main emphasis of the text is on over-land topics.

The use of flight simulators is highly recommended to both improve identification and perception of visual cues, as well as to reinforce instrument flight training proficiency. Aviators that fly aircraft not "fully" equipped for instrumented meteorological flight (e.g. AH-64- and OH-58-series aircraft) must be prepared and be extremely proficient at transitioning to instrument flight during night shipboard takeoffs.

Most traffic patterns for ships are flown at 300 feet above the water. Some Army units prefer to "fly on the waves" at 50 feet above the water in order to maintain visual reference to the water or for tactical reasons. The Navy is very uncomfortable with this practice for many reasons. Real-world tactical situations may require over-water flights at very low altitudes, but in the training environment this allows very little reaction times for aircraft emergencies.

To meet the challenge posed by shipboard helicopter operations, Army aviators must start their planning well in advance of embarkation. Commanders must evaluate the risks associated with shipboard helicopter operations, especially at night, and consider the following:

- Not all ships are night-vision device (NVD) compatible. [See Shipboard Aviation Facilities Resume as published each January by the Naval Air Warfare Center, Aircraft Division, Lakehurst, N.J., 08733-500. (DSN) 634-2592 or commercial (732) 323-2592].
- Not all ship's personnel are NVD trained.

• Individual ships may not have adequate quantities of NVDs on hand, and it may be necessary for the embarked unit to provide NVD gear to ships from which it is operating.

• Not all ship's personnel are familiar with Army aircraft.

• Not all ship's personnel are familiar with Army night helicopter operations.

• The landing zone (the deck) is moving across the surface of the sea with variations in vertical and horizontal planes.

• The landing zone rolls and pitches with the movement of the sea.

• Depth perception and visual cues are less defined.

• Not all ships have weather forecasting/monitoring capabilities.

• Electromagnetic vulnerability may limit a ship's capability to provide air traffic control information to aircraft.

• Space aboard ships is often extremely limited. Rotor-blade clearance from obstacles and other aircraft may be as little as 15 feet, and on some aircraft-capable ships clearance can be even less than 15 feet.

Night flight, aided or unaided, from the deck of a ship (and hence over water) is an unforgiving and perilous mission with little room for error. Proper prior planning and coordination will aid in minimizing risk, maximizing safety and ensuring successful mission accomplishment. Factors to consider include:

• The inherent challenges associated with flying to and from ships at night should be stressed during shipboard operations ground school and DLQ school.

• Use simulators to practice transitioning from visual meteorological conditions to instrument flight conditions.

• Review visual illusions for night aided and unaided flight.

• Maintain positive control of the aircraft at all times, in flight as well as on the deck.

• Practice precision NVD takeoffs and landings.

• Reinforce constant crew coordination.

• Establish a rapport with ship's personnel early on in the planning and, if instructions are not clear, ask questions. NEVER ASSUME ANYTHING!

• Learn as much as you possibly can about the ship's capabilities and the capabilities of the crew.

The Army must realize that at all times the captain of the ship must protect the ship from all hazards. Ships must maneuver to gain favorable winds during aircraft launch and recovery operations, while at the same time maintaining a combat posture to protect the ship. Returning to the ship at night, following missions ashore or over the horizon, presents a completely separate challenge.

When a ship is used as a forward support base for joint contingent operations, tactical requirements will dictate the time to strike. The illumination and visual quadrants requirements may or may not be met when the tactical situation dictates launching the assault. Flying from the deck of a ship at night, under all conditions, may be the challenge of a lifetime. Being prepared for the worst case scenario will go a long way toward contributing to mission success.

❖❖

CW4 Mike Vandeveer (Ret.) is the Procedures and Training Lead in the Joint Ship Helicopter Integration Program.

***JSHIPS** continued on page 20*

and downloadable files. The ships and units wanted the most current information to aid them in accomplishing short-notice joint shipboard operations. The Web site was the most expeditious way to get the information to the warfighters to meet the immediate need for current information.

THE FUTURE OF JSHIP

Army MG Geoffrey C. Lambert, director of the Center for Operations, Plans and Policy at U.S. Special Operations Command, and Lt. Cmdr. Mark M. Huber, an air allocations officer at U.S. Special Operations Command, summed up the future of JSHIP in this way:

"Joint commanders will lead more joint ship-board helicopter operations in the future. These efforts will be short-fused and highly visible, but variable or unpredictable in both their mission and scale. They will be demanding because of interoperability challenges presented by hardware and procedural differences among the services... .

The Department of Defense realizes that lessons can be learned ... joint shipboard helicopter operations can be improved ... joint shipboard helicopter integration will allow for improvements ... . But additional steps must be taken to ensure that those improvements are available to joint force commanders in the future."

❖❖

CW4 Denver R. Sheriff (Ret.) is a former Standardization Instructor Pilot/Instrument Flight Examiner currently working as a computer scientist with Information Spectrum Inc. for JSHIP Legacy Products. He is also the JSHIP webmaster.

***Briefings** continued from page 3*

In late September the **Army** and **Northrop Grumman Corp.** conducted simulant drop tests that demonstrated the feasibility of releasing Bat submunitions from a Hunter unmanned aerial vehicle (UAV). The drops were conducted at Fort Huachuca, Ariz., and paved the way for an October series of tests at White Sands Missile Range, N.M., that demonstrated the Hunter-dropped Bat's ability to engage large moving targets. The Bat — an autonomous munition that uses passive acoustic and infrared sensors to seek, identify and destroy armored targets — is produced at Northrop Grumman's Land Combat Systems facility in Huntsville, Ala.

Quantum3D Inc. has announced that its AAlchemy advanced, open architecture image generators and OpenGVS realtime scene management software will be used in the U.S. Army's Fort Rucker, Ala., Air Traffic Control Training Facility. Earlier this year, Quantum3D announced that Adacel Inc. had selected AAlchemy and OpenGVS for the largest ATC training and simulation program ever awarded — the U.S. Air Force Tower Simulation System program. The Fort Rucker facility will include realtime synthetic environment ATC simulators.

On Sept. 24 the Boeing-Sikorsky **RAH-66 Comanche** made its first flight using the Helmet Integrated Display Sighting System (HIDSS). The HIDSS was developed by Kaiser Electronics, a Rockwell Collins company, and integrated by the Boeing-Sikorsky Comanche Team. The device is a miniature, CRT-based, bi-ocular display system worn by the pilot for night pilotage and targeting operations. The two-piece design weighs 3.8 pounds and attaches to standard aviator helmets.

Interactive Media Instruction: *Something* Out Of *Nothing*

By John C. Griggs

USAALS

In 1998 the U.S. Army Aviation Logistics School (USAALS), Department of Aviation Trades Training (DATT), Electrical and Electronics Division (EED), had a real problem instructing the MOS 68N10 Avionic Mechanic Course in the UH-60 Automatic Flight Control System (AFCS) and Command Instrument System (CIS) due to the antiquated trainers.

Not only did the existing panel trainers not adequately support the student loads, but the trainers were consistently malfunctioning, and locating repair parts to sustain the trainers was becoming increasingly more difficult. There had to be a solution to the problem and the school had to find one quickly.

The school established a requirement with the Utility Helicopter Program Manager (PM) and asked for assistance. The requirement established a need for five full-scale helicopter trainers incorporating AFCS and CIS systems to replace the seven panel trainers that the school was currently using. The Program Manager's Office notified the school that the trainers were programmed but unfunded. The UH-60 PM recognized the critical need for an interim fix and was able to offer the school an option of computer-based training.

The school was back to where it started, with nothing to take the place of the dilapidated trainers. Or was it? The PM had offered an interim fix to the problem. Was there any way of getting some training device to instruct the classes? Could USAALS make a computer train the same tasks that were currently being trained by the panel trainers? The students currently trained at USAALS are considered to be "information-age" students. They are more comfortable with information age education and training technologies. USAALS already knew the answer to this question was a resounding "yes." The answer lay in Interactive Media Instruction (IMI).

EED ultimately received two full classrooms with IMI courseware; 12 student computer stations; an instructor computer station; a classroom server; a multimedia projector; an interactive whiteboard; and a classroom controlling system. This gives EED the ability to train 24 students on all the tasks that were taught previously to 12 students, and the full-scale helicopter trainers could only train 10 students at a time.

Each classroom has the IMI courseware (CIS or AFCS), which is a computer program that allows the student to perform the maintenance operational checks (MOCs), fault-isolation procedures (FIPs) and maintenance tasks in accordance with the technical manual. The courseware is installed on the networked computers and the programming on the instructor's station displays each student's information.

The information includes the ID number, number of errors committed, the number of wrong paths taken and time that the student has been on that specific lesson. With this information the instructor can determine if the student or the class is having a problem utilizing the program. The instructor station allows the insertion of the same fault, a different fault or a computer-generated fault to each of the student stations. The instructor may also tailor the difficulty of the fault or faults to the ability of the student, and can force the student to request assistance after four consecutive errors.

The instructor has the option of allowing the student to make incorrect decisions at any time or can restrict the student to only inputting the correct action in order to complete the lesson. The maximum number of faults that can be given is 137. The courseware automatically archives all lessons that have been started; how much time was spent on each lesson; how many errors and wrong paths; and the date that the lesson was completed by each student's identification number.

These are not only great resources to have as an instructor; it allows each student the ability to learn at his or her own pace within the parameters set by the instructor. The system can also be used by the course leaders to identify a problem area in specific lessons, and can assist them in the correction of those lesson plans.

The software is only part of the equation that makes these classrooms such an outstanding training environment. The controlling devices installed in each classroom enhance the learning experience for the student by empowering the instructor with the following capabilities:

The software is only part of the equation that makes these classrooms such an outstanding training environment.

- Students are unable to use the computers unless the instructor wants them to use the computers; this forces the student to focus on the instructor and minimizes distracters.
- The instructor can scan each of the students' computers for progress.
- The instructors can broadcast the information they want to the students' computers and through the projector to the whiteboard.
- The instructor can control classroom lighting.
- The instructor can assist one student or several students with the same problem, without embarrassing the student or students, and without the knowledge of the rest of the class.
- The instructor can randomly access students' computers to see who is having a problem, who is not "on task" or where repetitive problems are occurring.
- The instructor can "broadcast" the students' work as examples and/or take control of the students' computer and lead the class through a potential problem.

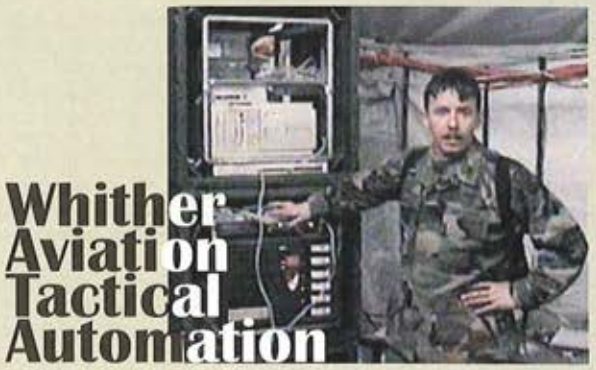
Without the classroom controlling system, the instructor would have to race from one student's computer to another in order to help them with differing problems. If the instructor is addressing the same problem repeatedly with different students, the instructor might want to show, as a positive example, a particular student's work. He will then lock out all students' control of the equipment, project the problem to the Smart Board, and review the procedures with the class.

These classes will not by themselves teach the 68N students what they need to know to be good avionic mechanics in today's Army. However, the computers are vital in ensuring that the students understand how, when and where to use the different parts of the technical manual, and give the students a great foundation upon which to build their avionics skills.

Although this is not the preferred method of instruction for MOS 68N, this was and still is the best alternative to live trainers or actual aircraft that USAALS has so far discovered, and is the model for the training to be conducted under future budget constraints. And with these systems, the end result is a more positive learning experience for both the students and the instructor.

❖❖

John C. Griggs is the instructor for EED, DATT, at USAALS, Fort Eustis, Va.



Whither Aviation Tactical Automation

Editors Note:

CW3 William R. Clemons received the following information too late to include in his November article, "Whither Aviation Tactical Automation, Part II."

"The AMPS 5.3 software has been renamed PFPS-Army 3.3, and will begin fielding in July 2003 in conjunction with the new AMPS ruggedized laptop, which replaces the AMPS LCU. This laptop is the MILTOPE and not the Panasonic Toughbook.

PFPS-Army 3.3 is Army functionality extensions on top of the Air Force's PFPS 3.3. AWEs for all Army aircraft will be shipped with PFPS-Army 3.3 and the new hardware.

AMPS regional Site Support Reps (SSRs) will be providing PFPS-Army and new hardware training beginning in the winter 2003 timeframe, and continuing through the shipment of the new hardware and software in the late summer/fall of 2003. This process will continue in the winter of 2004 for some National Guard units.

In December 2002 the AMPS Project Office will be making available, through the SSRs, PFPS 3.2 with AWEs which will support the loading of AH-64A Mod, UH-60A/L and CH-47D from the AMPS LCU. As always, the PFPS software runs on standard PC laptops and desktops, allowing mission planning flexibility, though those platforms are not certified to load aircraft. Mission files will need to be transferred to the LCU for aircraft loading."

LEGISLATIVE REPORT

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

Veterans Lose Health Care Suit Against Pentagon

On Nov. 19 a divided and reluctant federal appeals court denied claims by World War II and Korean War Veterans, and those who served through June 7, 1956, who said the government reneged on promises to provide free lifetime health care if they stayed in the service 20 years or longer.

Although the government conceded that military recruiters made the promises, the Department of Defense (DOD) convinced the U.S. Court of Appeals for the Federal Circuit in Washington, D.C., that there was no valid contract because law did not back up the assurances. This was a 9-to-4 decision. COL "Bud" Day, the veteran's lawyer, stated he would seek a Supreme Court Hearing.

The veterans received free benefits until 1995, when the Pentagon ended those benefits for veterans 65 and over because they were eligible for Medicare. This has been a roller-coaster ride for those of us who are affected. A federal judge in Jacksonville, Fla., ruled against us in 1998. In February 2002 a three-judge panel of the appeals court ruled in our favor. The government appeal and yesterday's ruling is one more step in the process.

Interestingly, even the judges in the majority acknowledged that they were uncomfortable with the ruling. They wrote that they "can do no more than hope Congress will make good on the promises made in good faith" to soldiers entering the service between 1941 and June 7, 1956.

Bush Signs Defense Authorization Act

Congress finally completed and approved the fiscal year 2003 Defense Authorization Bill during the Lame Duck session that began November 12. President George W. Bush has signed the Bill.

Highlights of the Defense Authorization Bill include:

- Concurrent Receipt: After House-Senate negotiators worked out final details, the deal was approved by voice vote on the House floor and the Senate. This action ended an impasse with the Bush administration, which had threatened a presidential veto of the original proposals.

This action creates a new disability payment by the Department of Veterans Affairs (VA) for all military retirees who received the Purple Heart, and particularly those retirees who were severely disabled in combat-related incidents. Recipients would qualify for disability payments awarded without forfeiting a dollar-for-dollar amount from their military retired pay under a compromise reached by congressional lawmakers.

Monthly payments would range from $103 to $2,100, depending upon the level of disability, and would represent a partial to full offset of the reduction in retired pay required by current law on concurrent receipt. The bill also continues the existing DOD payment of a special stipend for severely disabled military retirees (those with a VA disability rating of 60 percent or higher).

- Reforming the TRICARE and TRICARE FOR LIFE Process: A prohibition of DOD from denying health-care benefits to TRICARE Prime enrollees who receive service connected care through the VA, if the VA cannot meet DODs access standards.
- Expanding TRICARE Prime Remote: Under current law, a dependent whose sponsor is assigned to a remote location (more than 50 miles or one hour's drive from the nearest medical facility) is entitled to TRICARE Prime Remote benefits only if they also reside with the service member. However, this benefit does not apply to those dependents whose sponsors are reassigned to an unaccompanied permanent duty station, such as Korea.

Therefore, the House and Senate conferees extended TRICARE Prime Remote benefits to dependents of remotely located service members when they cannot accompany their sponsors. In addition, they authorized TRICARE Prime remote benefits to dependents of reserve personnel ordered to active duty for more than 30 days.

- Reforming the Claims Process: In response to growing concerns about the stability of TRICARE provider networks and the requirements of TRICARE claims processing, the bill requires that TRICARE claims requirements be substantially the same as the Medicare claims requirements.
- TRICARE Provider Certification: Currently, certified Medicare providers who treat TFL patients (over 65) cannot treat TRICARE patients (under 65) unless they are further certified as TRICARE providers. This administrative requirement deters some providers from participating in the TRICARE program. As such, conferees required that Medicare-approved health-care providers be treated as approved TRICARE providers for new and existing TRICARE contracts.
- Defense Prisoner of War/Missing in Action Office (DPMO). DPMO carries out the important mission of accounting for and recovering military personnel lost during the nation's past conflicts, and preparing to locate and recover those who may be lost in future conflicts.

Despite congressional concerns about declining funding and personnel levels at DPMO, the secretary of defense appears poised to cut 15 percent of DPMO's staff in FY 2003 as part of his plans to reduce the number of headquarters staff personnel. The conferees prohibited the secretary of defense from reducing personnel and funding in FY 2003 below levels requested in the budget, and required him to increase DPMO's personnel and funding levels in FY 2004 and beyond.

- Korea Defense Service Medal. The conferees authorized a Korea Defense Service Medal for military personnel who served in the Korean theater after July 28, 1954, and an undetermined date in the future.
- Funeral Honors Duty Compensation. The Authorization Bill authorizes the secretary of defense to establish a flat-rate daily stipend for military retirees and certain others participating in funeral honors detail duties.

Tax Relief Package

As the 107th Congress wound to a close, the Senate passed H.R. 5557, a tax-relief package for uniformed service and Foreign Service members. The bill, "Armed Forces Tax Fairness Act of 2002," provides more time for uniformed service and Foreign Service members to qualify for capital gains tax exclusions on the sale of their homes, retroactive to 1997. They would be exempt from taxation of the full $6,000 death gratuity paid to survivors of members who die on active duty. It would authorize a tax deduction of up to $1,500 for drill-related travel and lodging expenses for Reserve and Guard members who must drill at a location more than 100 miles from their home.

The Military Coalition (TMC) is glad to see continued attention to the issue of military tax relief and is pleased that the House and Senate finally reached agreement on this important Bill.

TROA and TMC Meet with Defense Secretary

The Retired Officers Association (TROA) President VADM Norb Ryan Jr. (Ret.) and representatives from several of TMC organizations met with Secretary of Defense Donald Rumsfeld recently to discuss concurrent receipt, health care, and the war on terrorism.

The two-hour meeting featured briefings by senior Defense Department leaders, followed by a wide-ranging round-table discussion with Rumsfeld.

Ryan expressed TROA's deep disappointment with the department's lack of dialogue on the concurrent receipt provisions passed by the House and Senate. Additionally, he expressed concern about the perceived tone of public language from certain DOD officials that implied that disabled veterans were adequately compensated. Many disabled retirees viewed these statements as devaluing their service and portraying them as greedy. Rumsfeld expressed dismay at such perceptions, and his staff talked of establishing a dialogue on the issue next year. Ryan responded that retiree groups are prepared and prefer to undertake those discussions immediately.

During the discussions on health care, Ryan expressed his view that the primary health-care problem is the lack of adequate numbers of doctors who will take TRICARE patients. He urged Defense Department leaders to work with all concerned to make it a priority to reverse this situation, especially in currently underserved areas.

TMC and TROA Push for Medicare/TRICARE Rate Increases

Congress recessed for the Nov. 5 election and did not take up the issue during the lame duck session, which began Nov. 12. They adjourned without passing much-needed legislation to increase Medicare payments to physicians, hospitals and other health-care providers. Despite a full court press from influential groups such as the American Medical Association, action to reverse recent provider payment cuts and forestalls future ones.

Medicare provider reimbursements already were cut an average of 5.4 percent earlier this year. Absent legislative action to reverse additional economy-driven cutbacks specified in current law, Medicare officials are preparing to announce an additional 4.4 percent decrease in January 2003.

Unless the law is changed, additional cuts up to 12 percent are expected over the next four years.

This issue is important to all uniformed services beneficiaries, Medicare-eligible or not, because TRICARE payment rates are linked to Medicare's. So any Medicare rate cut further depresses the already low TRICARE reimbursement schedule. With doctors increasingly reluctant to see Medicare and TRICARE patients, we must reverse the payment cuts, not add to them.

Savings Plan Limits Raised for 2003

Scheduled increases in Thrift Savings Plan (TSP) limits will let service members invest more in their plans in 2003.

The federal TSP-extended to military members last January has limits on members' annual deposits, but these limits are scheduled to increase annually until 2006. Deposits are limited to a specific percentage of basic pay and also a specific dollar maximum.

In 2003, members will be able to deposit up to 8 percent of basic pay. This limit will grow by one percentage point each year until 2006, when the percentage limit will end.

The maximum amount that can be invested in these tax-deferred accounts will be $12,000 in 2003 (a $1,000 increase from 2002). This may include deposits from basic pay (up to the percentage limit) or from special pays or bonuses. The maximum deposit will grow by $1,000 a year until 2006, when it will remain capped at $15,000. TSP participants age 50 or older can make slightly larger additional "catch-up" contributions, as outlined in last week's legislative update.

There's one exception to the $12,000 limit on deposits. Members who receive tax-free income in a combat zone can invest a maximum of $40,000, but not more than 100% of their annual compensation. (Any deposit exceeding 8% of basic pay must come from special pays or bonuses.)

This is a positive way for service members to invest in their future. Visit the TSP Web site at **www.tsp.gov** for more information.

NEW MEMBERS

AIR ASSAULT CHAPTER
FORT CAMPBELL, KY
CPT Jeffery S. Dahlgren
CW3 Brendan D. Kelly
CW2 James D. McCrum

ARIZONA CHAPTER
MESA, AZ
CW4 Andrew E. Sickler, Ret.

AVIATION CENTER CHAPTER
FORT RUCKER, AL
WO1 Cory T. Anderson
CW3 Susan L. Bowen
2LT Daniel J. Burton
WO1 Steven R. Coddington
WO1 Daniel R. Denton
WO1 Dennis Eelkema
2LT Elizabeth A. Erdman
WO1 John A. Estes
WO1 Ryan M. Falcone
WO1 Charles L. Folk
CW3 Robert C. Frey
WO1 Joshua F. Friederichs
2LT James C. Geddie
CW3 Joseph M. Gregory
2LT Letetia M. Harris
2LT Adam D. Heppe
WO1 Robert J. Heywood
2LT Dale J. Hommerding
2LT Nicholas W. Horn
WO1 Todd R. Jacobson
2LT Jason D. James
WO1 Russell E. Juart
WO1 Stephanie L. Koob
2LT Robert L. Kurtts
WO1 Joseph E. Leger
WO1 Alfred J. Liggins
WO1 William N. Ludiker
2LT Matthew R. Minear
WO1 Richard O. Paul
2LT Nicholas K. Pianalto
SFC Cameron V. Porter
WO1 Eric M. Radakovitz
WO1 Clay T. Randles
2LT Adam C. Sabourin
2LT Peter V. Schmitt
2LT Scott N. Shimp
WO1 William R. Sims
WO1 Brien E. Smith
Mr. Andrew R. Stamer
WO1 Andrew M. Steffensmeier
2LT Nathan I. Thompson
WO1 Zachary J. Thompson
WO1 Lance S. Thurston
WO1 Jason D. Vollmer
WO1 Aaron D. Walker
WO1 Travis N. Westfall
WO1 Matthew G. Wilson
WO1 Michael A. Yanez
2LT Robert D. Yucas
CW4 Matthew A. Zeman

BIG RED ONE CHAPTER
ANSBACH, GERMANY
CW2 Patrick A Francis

CENTRAL FLORIDA CHAPTER
ORLANDO, FL
Mr. Ken L. Collyer

COLONIAL VIRGINIA CHAPTER
FORT EUSTIS, VA
Ms. Lynette F. Harris
COL Daniel D. Imholte
SFC Alan H. Miller
SFC(P) Neil A. Robinson

CONNECTICUT CHAPTER
STRATFORD, CT
Mr. Charles W. Hughes, Jr.
Mr. Andrew G. Keith
CW4 Gordon W. Lester, Ret.
Mr. Frederick A. Stone, Jr.

CORPUS CHRISTI CHAPTER
CORPUS CHRISTI, TX
Mr. Edward R. Escareno
Mr. Jerry D. New

DELAWARE VALLEY CHAPTER
PHILADELPHIA, PA
COL Ronald M. Graham
Mr. James Keane

EDWIN A LINK MEMORIAL CHAP
BINGHAMTON NY AREA
Mr. Robert M. Haefner

FLYING TIGERS CHAPTER
FORT KNOX, KY
Mr. Lanny D. Brooks

GREATER ATLANTA CHAPTER
ATLANTA, GA
CPT Larry W. Thomas, Ret.

HIGH DESERT CHAPTER
FORT IRWIN, CA
MAJ Thomas E. Baker
CW3 Anthony W. Church
CPT Daniel E. Gallagher
1SG Randy D. Porter, Ret.
LTC David M. Williams

JACK H. DIBRELL/ALAMO/
FORT SAM HOUSTON, TX
MAJ Gary E. Madden

MAGNOLIA CHAPTER
JACKSON, MS
SGT Peepsie Y. Butler

MONMOUTH CHAPTER
FORT MONMOUTH, NJ
Mr. Edward T. Bair
CAPT Michael R. Brunskill
MSgt Michael D. Lewis
Mr. Daniel Naif
Mr. John M. Siliato

MORNING CALM CHAPTER
SEOUL, KOREA
CPT Greg W. Guimont

NARRAGANSETT BAY CHAPTER
N. KINGSTOWN, RI
CPT James C. Rae, Jr
CSM Thomas P. Rezendes
CW4 Paul J. Tilley

NORTH COUNTRY CHAPTER
FORT DRUM, NY
SPC Dustin A. Birge
CW2 Scott D. Newmyer
SPC Juan I. Ramirez-Cossio
CPT William A. Wyrovsky

NORTH TEXAS CHAPTER
DALLAS/FORT WORTH
CW4 Michael S. Harris
LTC Robert S. Tekell, Ret.

OLD TUCSON CHAPTER
MARANA, AZ
MAJ Kenneth G. Campbell
CW2 Richard M. Gollner, Jr.
SPC Michael E. List

PHANTOM CORPS CHAPTER
FORT HOOD, TX
LTC Bryant E. Harp
1LT Robert L. Holenchick
CPT John S. Pearson
CPT Terry D. Simms

RAGIN' CAJUN CHAPTER
FORT POLK, LA
SFC Curtis A. Lyter

RISING SUN CHAPTER
CAMP ZAMA, JAPAN
CW3 John W. Daniel, Jr.
CPT Barry L. Dille
LTC Kotaro Higashi
CW3 Karl E. Jones
Mr. Takeshi Kawaguchi
CPT Masaji Kawakami
CAPT Toshio Kondo
Mr. Norimitsu Kurumada
1stLT Hiroyuki Mikami
CPT Sotoo Oku
Mr. Hideto Onaya
SFC Annette R. Ortiz
CW3 Daniel A. Painter
Ms. Catherine Rodgers
Mr. Osamu Sato
Mr. Toshiaki Sato
MAJ Yasuto Sato
1SG Dwayne A. Tigs
CPT Kei Udo

SAVANNAH CHAPTER
FT STEWART/HUNTER AAF, GA
MAJ Kelly P. Donna

TALON CHAPTER
ILLESHEIM, GERMANY
1SG Lebert O. Beharie
CPT John H. Cochran
CW2 Jeffery T. Crownover
CPT Scott Dickey
CW2 Michael F. Hutson
CW4 Scott C. Small
CW4 Ronald R. Thompson

TARHEEL CHAPTER
RALEIGH, NC
MAJ William L. Ratliff, Jr.

TENNESSEE VALLEY CHAPTER
HUNTSVILLE, AL
SGM Bobby L. Brown
Dr. Holger M. Jaenisch

VMI/VWIL CHAPTER
LEXINGTON, VA
CDT Jason D. Devine
CDT Timothy A. Fairchild
CDT Julia A. Ireland
CDT Seth H. Parker
CDT Robert V. Ricadelo
CDT Jared C. Shiley
CDT J. B. Thompson III

WASHINGTON-POTOMAC
CHAPTER
WASHINGTON, DC
LTC Michael W. Schneider

WINGED WARRIORS CHAPTER
SOTO CANO AB, HONDURAS
SFC Marion E. Arnett
CW4 James M. Hamilton
CPT Edward F. Mandril

MEMBERS WITHOUT
CHAPTER AFFILIATION
Mr. Jonathan B. Cory
COL Mark C. Dugger
MAJ Michael D. Fearing
Mr. Larry V. Gulledge
Mr. Karl D. Kankel
CW4 John P. King, Jr.
SSG Mike F. Skweres
CW4 Albert B. Smith, Jr.
Mr. Samuel D. Smyth

SOLICITATION NOW UNDER WAY FOR CY02 AAAA NATIONAL AWARDS

Suspense: Jan. 15, 2003

- **Non-Commissioned Officer of the Year**, sponsored by Lockheed Martin.
- **Joseph P. Cribbins Department of the Army Civilian of the Year**, sponsored by The Boeing Company.
- **James H. McClellan Aviation Safety Award**, sponsored by GE Aircraft Engines.
- **Aviation Soldier of the Year**, sponsored by Bell Helicopter Textron (CY01 presentation pictured at right).
- **Army Aviator of the Year**, sponsored by Sikorsky Aircraft Corporation.
- **The Robert M. Leich Award**, sponsored by Northrop Grumman Corporation, ESSS.
- **Outstanding Army Aviation Unit of the Year (USAR)**, sponsored by Honeywell.
- **Outstanding Army Aviation Unit of the Year (ARNG)**, sponsored by Honeywell.
- **Outstanding Army Aviation Unit of the Year (Active)**, sponsored by The Boeing Company.

Nomination forms are obtainable from the AAAA National Office, 755 Main Street, Suite 4D, Monroe, CT 06468-2830. Telephone: (203) 268-2450; FAX: (203) 268-5870, as well as on the AAAA Website: **www.quad-a.org**. **Suspense is 15 Jan 03.**

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 2004. Contact the AAAA National Office for details at (203) 268-2450

MG Richard D. Kenyon (Ret.)
Army Aviation Hall of Fame 2001 Induction

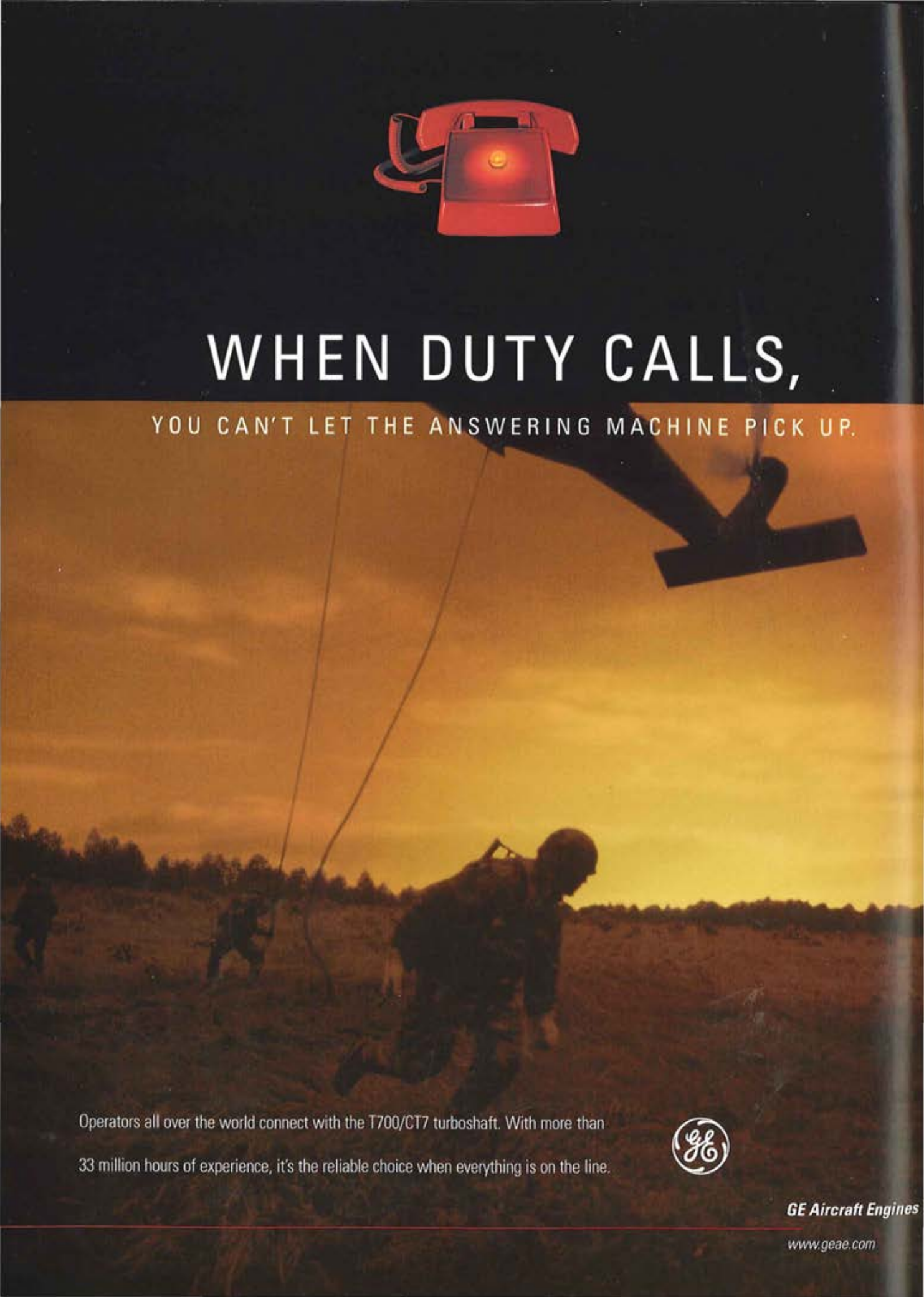
MG Richard D. Kenyon set an example of excellence from commanding combat aviation units in Vietnam, project manager of the Black Hawk, the Army's spokesman to the Congress for aviation systems to becoming chief of legislative liaison, primary representative of the secretary of the Army and chief of staff for all Army matters with the Congress.

He served two combat command tours in Vietnam, the first in a gun platoon in the 197th Attack Helicopter Company, and the second with the 145th Combat Aviation Battalion. In both he excelled.

During three years as project manager of the Black Hawk he handled source selection, initiation of production and building the new helicopter — the three toughest parts of the program — with great success.

In 1979 he became the Army aviation officer, primary point of contact on the Army Staff for Army aviation matters. He was next assigned, but for only a few months, as deputy commander of the Aviation Center. His exceptional ability to organize, manage and articulate aviation programs resulted in his reassignment to the office of Director of Research, Development and Acquisition with responsibility for managing all large weapons systems, including Army aircraft. He was also the Army's spokesman to the Congress for these weapons systems. Because of his remarkable success in communicating with the Congress, the secretary of the Army selected him to be chief of legislative liaison. There are those of high rank at the time who believe that without him in these assignments some Army aviation programs would not have succeeded.

Following retirement he has been a dedicated volunteer with the Army Aviation Museum Foundation for 13 years and chairman of its Executive Committee for three.


WHEN DUTY CALLS,
YOU CAN'T LET THE ANSWERING MACHINE PICK UP.
Operators all over the world connect with the T700/CT7 turboshaft. With more than
33 million hours of experience, it's the reliable choice when everything is on the line.
GE Aircraft Engines
www.geae.com