ARMY AVIATION

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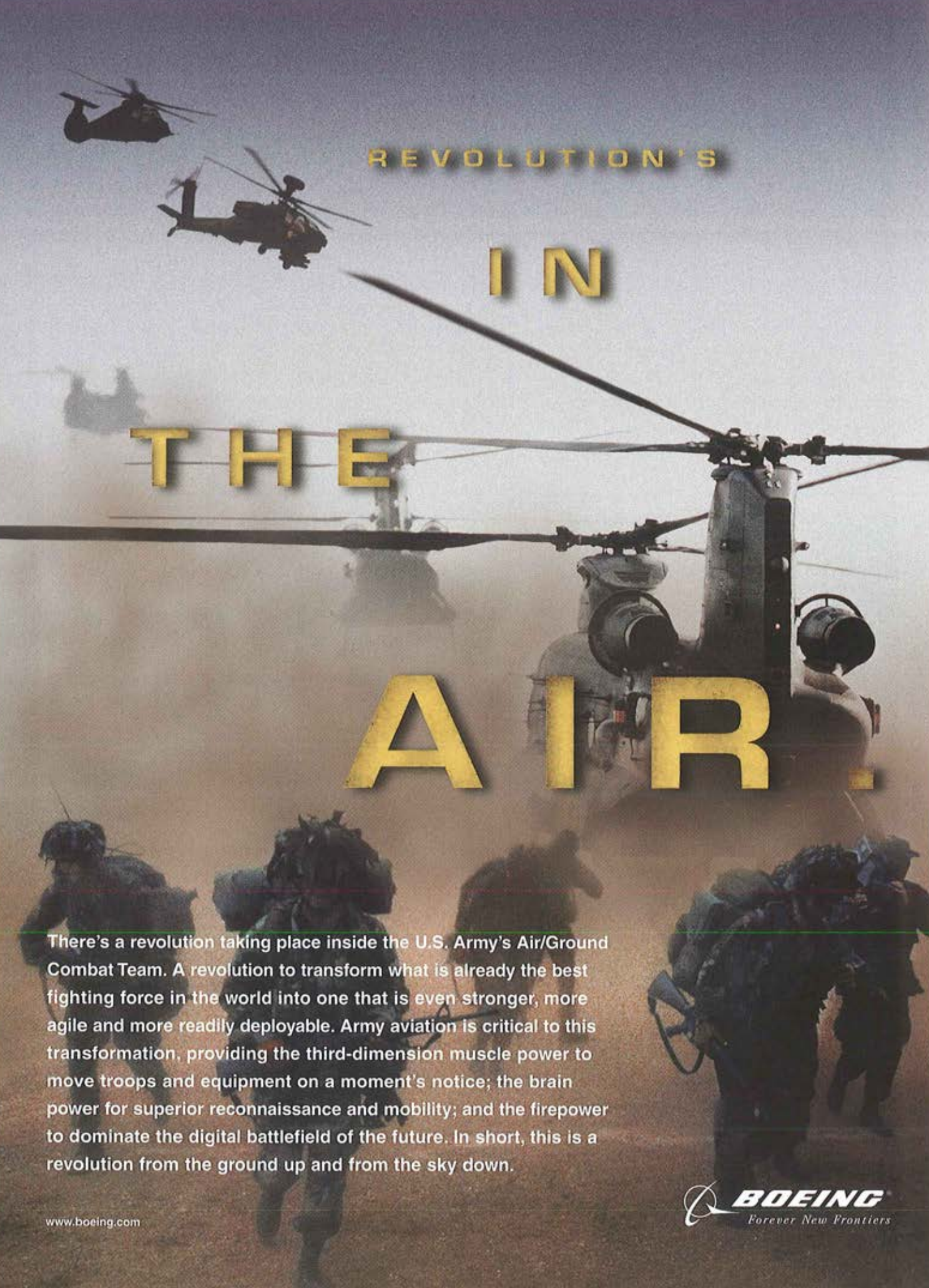

There's a revolution taking place inside the U.S. Army's Air/Ground Combat Team. A revolution to transform what is already the best fighting force in the world into one that is even stronger, more agile and more readily deployable. Army aviation is critical to this transformation, providing the third-dimension muscle power to move troops and equipment on a moment's notice; the brain power for superior reconnaissance and mobility; and the firepower to dominate the digital battlefield of the future. In short, this is a revolution from the ground up and from the sky down.

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on the cover

Paid Advertisement. An AH-64D Apache Longbow rises into the sky in the high desert near The Boeing Company's Mesa, Ariz., helicopter manufacturing facility. Working together, Boeing and the U.S. Army are keeping the Army's Apache fleet sustained at the leading edge of technology for the next 30-plus years. Photo by Bob Ferguson. *Caption provided by advertiser.*

briefings

All Army **AH-64 Apache helicopters** currently in Bosnia will be withdrawn as the United States reduces the number of troops and the types of heavy equipment taking part in the NATO-led peacekeeping mission in the Balkan nation. U.S. troop strength will drop from its current level of 4,400 to 3,500 by the end of April. The cuts are the result of NATO's latest six-month force-level review, done in December. As a part of that process, U.S. defense officials informed NATO allies they would reduce excess equipment, and people to maintain and operate that equipment, that they saw as "above and beyond" its needs in carrying out its SFOR mission.

The U.S. Army's Simulation, Training and Instrumentation Command (STRICOM) has awarded the **Link Simulation and Training Division** of L-3 Communications an indefinite delivery/indefinite quantity (ID/IQ) contract to provide virtual domain simulation of actual warfighting equipment, systems and munitions. The award is part of the Army's STRICOM Omnibus Contract (STOC). Programs awarded under STOC will support the Army's capability to deliver individual, crew and collective training, testing, experimentation and rehearsal in a specific environment. Link is headquartered in Arlington, Texas.

Two Army aviators were killed March 26 following the crash of their RC-12 reconnaissance aircraft in an unpopulated forest area near Nürnberg, Germany. CW4 George A. Graves and CW4 Lance L. Hill were assigned to **Company B, 1st Military Intelligence Battalion**, at Wiesbaden, Germany. The pilots were conducting a routine training flight when the accident occurred. The cause of the crash is under investigation by experts from the U.S. Army Safety Center at Fort Rucker, Ala.

The **244th Aviation Brigade** has a critical need for qualified personnel to fill Army Reserve technician positions at Fort Carson, Colo.; Fort Hood, Texas; Fort Eustis, Va.; and Conroe, Texas. Current vacant positions include GS-12 Helicopter Flight Instructor, GS-13 Supervisory Maintenance Test Pilot, WG-12 Electronic Integrated Systems Mechanic, and numerous WG-10 Aircraft Mechanics. For more information on these positions, contact Ms. Mindy Smouse at (847) 266-4459.

The U.S. Army Special Operations Command has selected **Rockwell Collins** Flight2 as the standard open-systems architecture for the Army's MH-60, MH-47 and A/MH-6 special operations helicopter fleets. The award includes service life extension and avionics upgrade programs for approximately 150 aircraft. In related news, Rockwell Collins has completed its acquisition of **K Systems Inc.**, parent company of Kaiser Aerospace and Electronics.

The **RAH-66 Comanche** prototype number one aircraft is now flying with a new empennage. The new design consists of vertical and horizontal stabilizers, and new vertical endplates on the horizontal structure. The new tail structure is a reconfigurable unit that permits adjustments of tail components to validate and optimize a final tail design for production aircraft. The aircraft, which made its first flight with the new empennage last December, flew in "full-up" configuration, with lowered exhaust doors, alternate main rotor system, main rotor hub fairing and the Comanche fire-control radar aero-dummy.

Skyline Industries has completed the qualification of a crashworthy aircraft troop seat for the Navy. The seat, which was tested at the U.S. Navy Horizontal Accelerator Facility at Patuxent River, Md., protects occupants weighing from 110 to 240 pounds.

The U.S. Army Communications-Electronics Command (CECOM) has awarded **DRS Technologies** a $3.9 million contract to develop leading-edge infrared focal plane arrays for the RAH-66 Comanche and AH-64D Apache Longbow helicopters. Successful performance under this contract will qualify DRS as the only domestic supplier of Standard Advanced Dewar Assemblies Type I focal-plane array technology for Army aviation-modernization programs. DRS has also won a $7.1 million CECOM contract to provide spare Horizontal Technology Integration Second Generation Forward-Looking Infrared sighting systems for several current Army vehicles.

Regents College of Albany, N.Y., the only institution in the country offering degree programs based exclusively on outcomes-based assessments of learning, has changed its name to **Excelsior College**. The college has enabled more than 89,000 people to earn associate, baccalaureate and masters degrees since its founding some 30 years ago, and currently has a student body of nearly 18,000.

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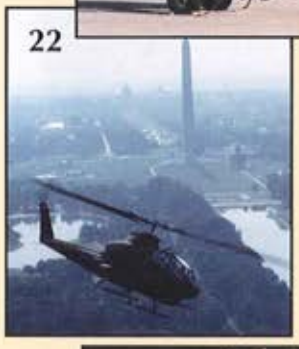

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Range Extension Fuel Systems

SAFETY IN TRANSFORMATION

By MG Anthony R. Jones

We are an army in transformation, and the leadership within Army aviation is prepared to move us from the legacy force, through the interim, to the objective force. Much remains to be done, and many critical decisions that will define what we will look like and how we will fight remain to be made.

Even so, it is not too early to take a look at safety in transformation. Will we continue to integrate safety into our training and operations in the same way we always have? With the changes in our organizational design, doctrine and materiel advances we will require new approaches, a significant departure from "business as usual."

Before we address the future we need to remember a couple of things about what safety is and what it is not. We need to think about safety, not as something we do, but rather how we do something. Safety is not a task we accomplish much as we do any other task. It is rather how we accomplish all our assigned tasks. We need to think of safety, not so much as a priority, but as a precondition — not what we do, but how we do it.

The manner in which the safety imperative is applied and integrated into the Army aviation organization of the future will remain the same — by the application of risk management into all training and operations, including combat. Risk management will still be the principal means by which we reduce accidents, because it remains the most effective means of balancing the often competing imperatives of potential benefit (mission accomplishment) and potential loss (accident risk or tactical risk).

We should begin with the premise that we need to improve, at every level, our skill, knowledge and expertise in applying the risk-management process to all operations. This is true even if we were not an army in transformation. That we are in transformation simply makes our improvement more urgent.

The bulk of that improvement will come in the leader-development courses in the schoolhouse. This means we must go beyond the lecture and require leader students to use and demonstrate their understanding of the risk-management process throughout the course. When these leaders graduate, they are expected to mentor their subordinates at the unit level in the application of risk management in everyday operations. We are doing that in aviation.

The biggest difference will be in the first and most important step in the risk-management process — hazard identification. It is the most important step for the same reason that the foundation of a multi-story building is the most important - it is the step on which all other steps are based.

Hazard identification is also the most difficult step, because the page is blank. When we identify hazards associated with a mission or operation we rely heavily, as we should, on previously identified hazards for similar operations. As we move toward the objective force, wherein we will be executing new missions in new ways with a different kind of organization in advanced aircraft, it becomes a lot more difficult to identify all the hazards these changes will introduce. We all know and appreciate that risk is always elevated when change is introduced into the equation. The risk is increased even more when many changes are introduced. Hazard identification will be key to good risk management in the objective force.

Even though many definitive decisions have yet to be made about what the objective force will look like, we can and should be thinking about the kinds of hazards it will introduce, because hazard identification and control begin long before the mission is received. It even begins before the aircraft is built. Beginning at the drawing board, and continuing today, system safety working groups were identifying hazards in the Comanche and designing/devis-

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ing controls for them. Risk management is similarly integrated into our training and doctrine publications. Hazard identification and control are an integral part of developing every ATM and ARTEP task. At the operational level, leaders are left to identify and control those hazards specific to the mission.

Some of the issues related to safety in transformation are more obvious. For example, the increased use of unmanned platforms will present new challenges to commanders, aircrews and the total force. Specifically, there will be new hazards associated with executing missions with different types of combat systems. Doctrine development is an iterative process, and a lot of what we learn is learned by doing, because all hazards are very difficult to identify before the fact, especially in new processes and new organizations.

Our advanced aircraft will surely introduce unexpected hazards, because we will be doing things in a different way. For example, we will have glass cockpits capable of providing pilots with enormous amounts of information. There is no doubt that this is a good thing, but does it present hidden hazards? Inasmuch as it introduces change, there will certainly be new hazards. For example, while glass cockpits provide much more immediately available information to pilots, they could also cause more "head-down" time for inexperienced crewmembers. Aircrew coordination dynamics probably will change. Crew communications may even decrease, but that isn't a bad thing if it's for the right reasons.

The Aviation Safety Investment Strategies Team (ASIST) accomplished a 100-percent analysis of all aviation Class A through Class C flight accidents for a five-year period. From their analysis, the ASIST developed a list of recommended safety investment strategies that addressed all doctrine, training, leader development, organizations and materiel (DTLOM) domains. Many of these recommendations will be incorporated into the Aviation Modernization Plan. The ASIST effort will continue to be updated with fresh data and will thus continue to be a valuable contributor in our continuing efforts to reduce aviation accidents in the future.

Aviation safety is a function of competent, confident and experienced crews. The safety and readiness of our units will be enhanced with the transition of flight school to the Flight School XXI concept. Those who have gone through the pilot program have made RL1 in five aircraft rides, a quantum improvement over the 90 days it normally takes to achieve the same level of readiness in our current system. Safety is inextricably tied to readiness, and the closer we can get to providing a fully qualified aviator to the field out of flight school, the more likely we are to reduce our aviation accident rates.

The systems are in place to ensure that safety is fully integrated into all we do in Army aviation. As long as we continue to operate as risk-managing leaders and soldiers, we will be ready to execute our missions safely.

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MG Anthony R. Jones is commanding general of the U.S. Army Aviation Center at Fort Rucker, Ala., and chief of the aviation branch.

The New BLACK HAWK Heat System

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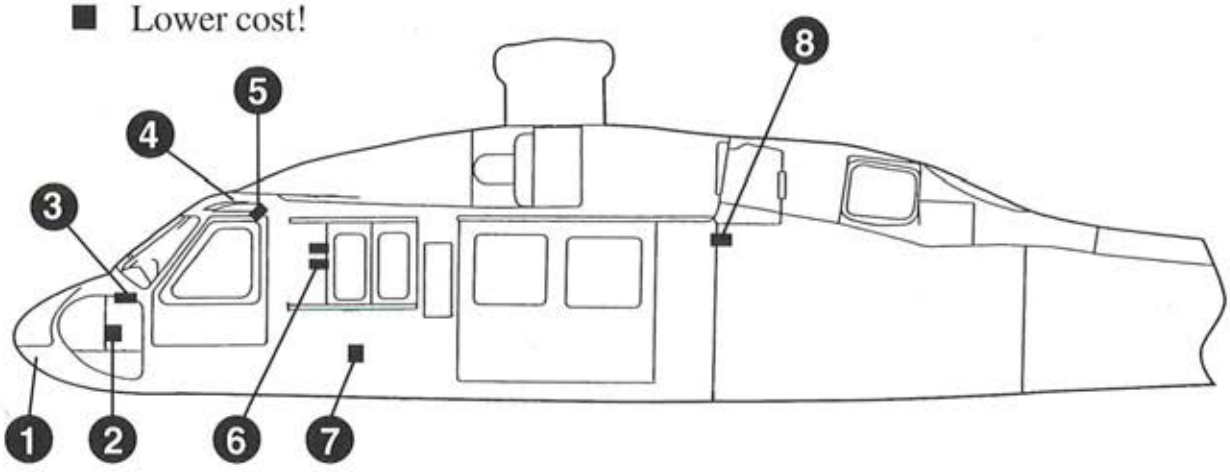

Locations of Mini-Ejectors

1. Chin window defoggers (2 each)
2. Cockpit heater outlets provide heat to cockpit floor – lower (2 each)
3. Cockpit heater outlets – upper (2 each)
4. Overhead viewing window defoggers (2 each)
5. Pilot and Copilot side window defoggers
6. Gunner's window defoggers (2 each, each side)
7. Cabin heater outlets – forward (2 each)
8. Cabin heater outlets – aft (2 each)

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The Common Engine Program

Mr. Gary L. Butler

Performance degradation has occurred in both the Black Hawk and Apache helicopters as a result of normal aircraft weight growth associated with new mission-equipment packages. In addition, increased lift and range requirements, as exemplified by the Operational and Requirements Document (ORD) for Modernization of the UH-60 [UH-60(X) ORD], are being sought to support future battle scenarios.

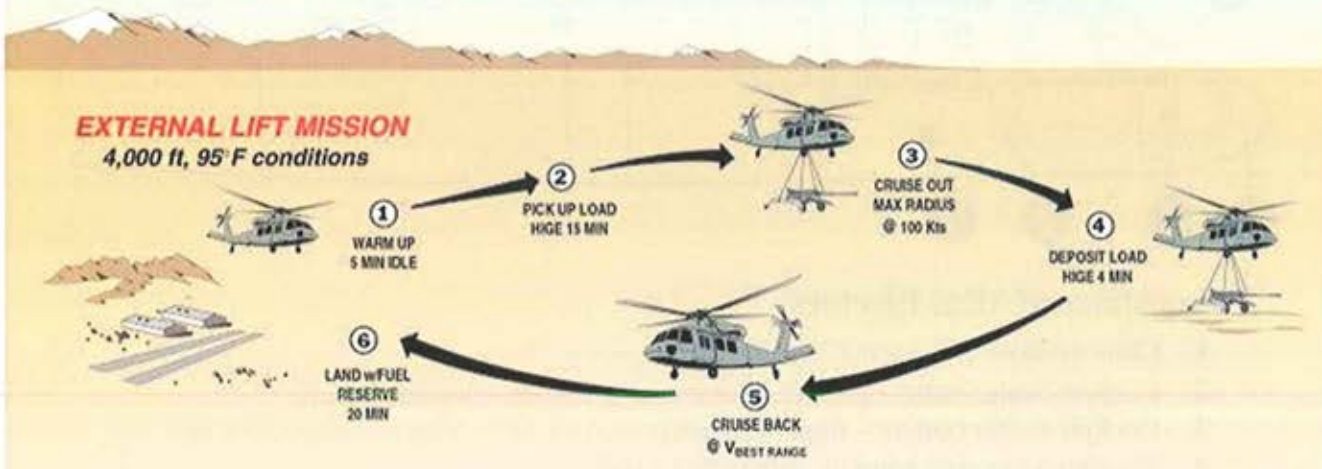
In addition to performance enhancements, there is a growing demand to reduce the logistical burden and costs associated with sustaining Army aviation. The Common Engine Program (CEP) approach for both the Black Hawk and Apache is a superior solution to meeting these demands to ensure these legacy systems can operate effectively within the objective force. The new engine technology can also be applied to support future Navy and Air Force UH-60 requirements.

The Common Engine approach is a new engine incorporating propulsion technology advances made over the last decade. In particular, the Common Engine development program will be able to either incorporate gas generator technology developed under the Joint Turbine Advanced Gas Generator (JTAGG) Phase I and Phase II programs and/or other advanced propulsion programs conducted under the Integrated High Performance Turbine Engine Technology (IHPTET) program.

The U.S. Army Aviation and Missile Command's Aviation Applied Technology Directorate at Fort Eustis, Va., has been working JTAGG programs for the past 12 years. The JTAGG I program demonstrated a 22 percent reduction in specific fuel consumption (sfc) and a 64 percent improvement in horsepower-to-weight (hp/wt) ratio. JTAGG phase II goals — which are a 30 percent reduction in sfc, an 80 percent increase in hp/wt and a 20 percent reduction in production and maintenance costs — are scheduled to be demonstrated in 2001.

The CEP will develop a new engine applicable to Black Hawks and Apaches that will enable achievement of

COMMON ENGINE WILL ENABLE 9,000 LB EXTERNAL LIFT CAPABILITY FOR UH-60(X)



ASSUMPTIONS

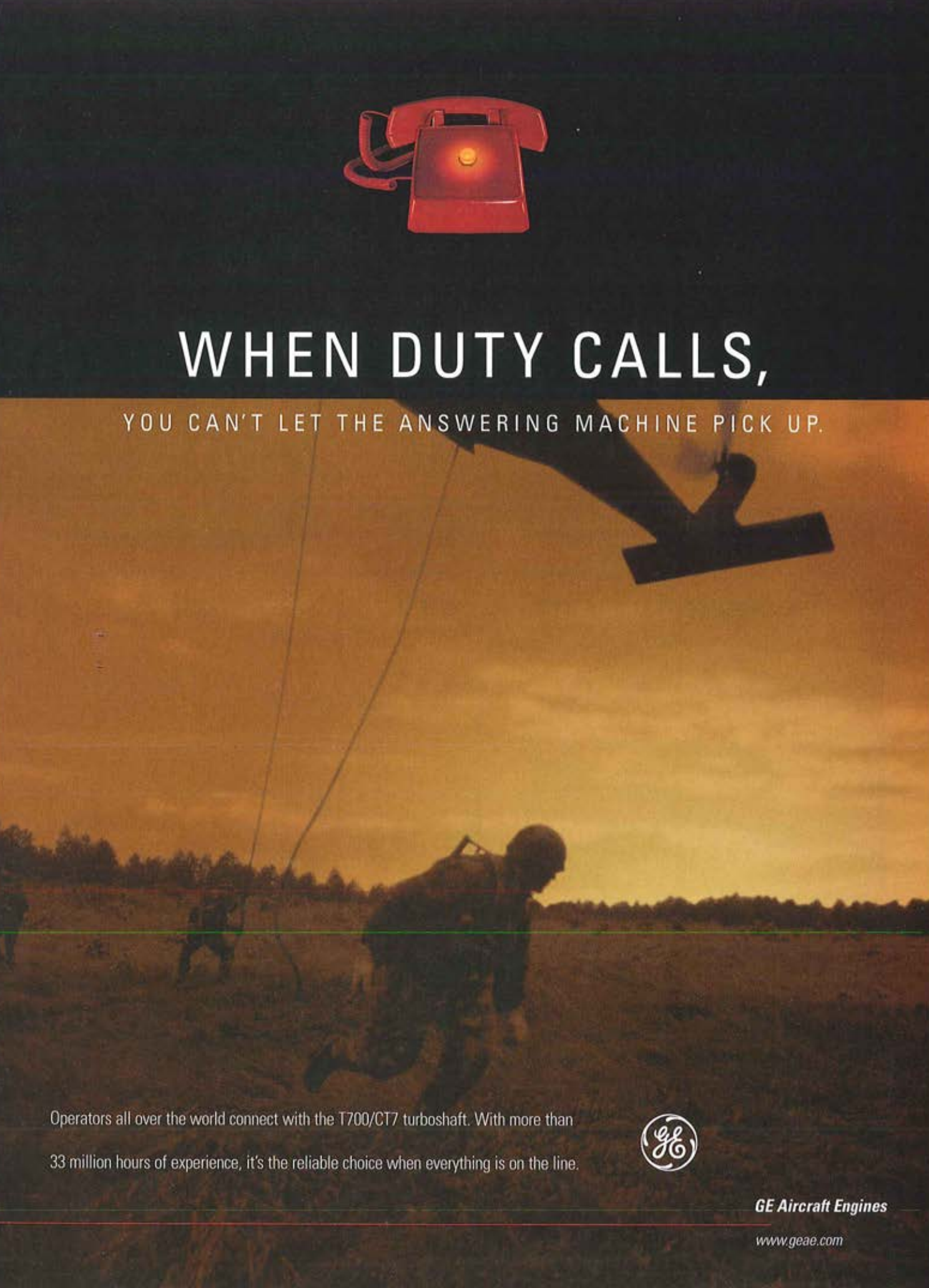
- Fuel Load: 325 gal (-25% SFC)
- Advanced Rotor Blade

* Engine sized for 26,500 lbs HOGE w/200 fpm ROC at 4k, 95 MRP (~ 3000 hp SLS)

CURRENT UH-60L 4k, 95 Capability

- 20,050 lbs HOGE @ MRP
- Payload ~ 5,000 lbs external with mission radius of 135 km

ENGINES	Growth HP - 0% SFC + 25% HP/wt	New Core - 25% SFC + 60% HP/wt
Mission Radius (km)	65	135
TOGWT (lbs)	26,500	26,500
Payload Capability (lbs)	9,000	9,000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future payload and range requirements. The CEP goals include a 25 percent reduction in SFC and a 60 percent improvement in hp/wt. These performance goals will be achieved while increasing the engine design life by 20 percent relative to the current T700-GE-701C engine. Figure 1 illustrates the significant performance payoff associated with incorporating new engine technology into a Black Hawk.

The CEP technology provides the required 9,000-lb lift capability with a radius of action of 135 km for the UH60(X) ORD external lift mission profile. This is significantly greater than the 65 km radius capability provided by a derivative engine approach and the performance available with current engine technology (5,000 lbs. with 135 km radius).

In addition to the significant performance benefits offered by the CEP approach, development of a Common Engine offers reduced logistics burden in terms of reduced operation and support (O&S) costs and reduced logistical footprint. The CEP program goal is to reduce O&S costs by 20 percent. The reduced O&S costs are realized in part due to a 20 percent increase in engine design life, reduced parts count, improved diagnostics and improved specific fuel consumption compared to the current engine. Since the engine has been identified as the top O&S driver for the Black Hawk and number three for the Apache, significant cost savings will result from its development.

More significant cost savings are realized when you compare the O&S costs of the modernized aircraft with Common Engines installed relative to either current engines or derivative engines installed to meet a more stringent mission scenario (i.e. carrying more payload over a larger radius). In short, the Common Engine allows the more stringent mission to be accomplished in substantially fewer flying hours, resulting in significant airframe cost savings.

Logistics burden is also improved by reducing the logistical footprint with certain mission scenarios. A good example is a notional Apache deep-attack mission. With current engine technology, a forward area refueling point (FARP) is required to achieve the mission objective. However, with the incorporation of the Common Engine, the FARP requirement is eliminated, freeing up aircraft and personnel and reducing the required mission fuel. This example is illustrated in Figure 2.

The CEP is scheduled to begin in 2003 with a three-and-a-half-year science and technology (S&T) demonstrator program. This S&T demonstrator will be followed by a three-year Preliminary Flight Rating Testing (PFRT) phase starting in fiscal year 2007. Qualification efforts will be completed in a two-and-a-half-year effort starting in 2011. The program will be able to leverage more than $140 million in S&T investment, including industry cost

***Common Engine** continued on page 16*

COMMON ENGINE TECHNOLOGY PROVIDES REDUCED LOGISTICS BURDEN

CURRENT

WITH COMMON ENGINE

MISSION: AH64D Company to Engage Tank Unit at 600 km and Return to Base

	TODAY	WITH COMMON ENGINE
Attack Aircraft		
FARP Support Aircraft		NONE REQUIRED
Mission Fuel	9200 gal.	6300 gal.
Crew Members	28	16

COMMON ENGINE GOALS

- 25% SFC REDUCTION
- 60% POWER TO WEIGHT INCREASE
- 20% REDUCTION IN PRODUCTION & MAINTENANCE COST

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The UH-60M Recapitalization/Upgrade Program: Utility for the Future

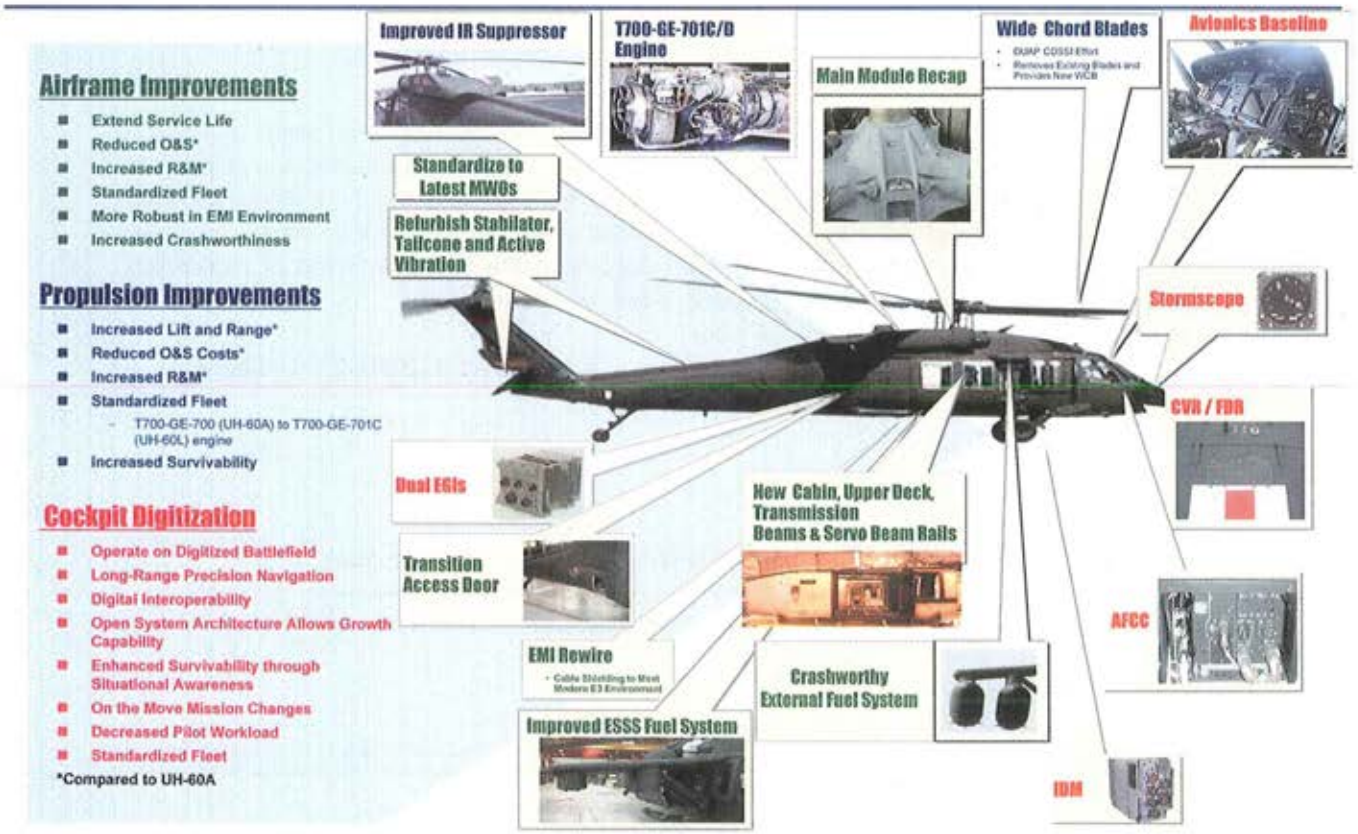
By COL William G. Lake

Army Transformation is bringing exciting times for Army aviation in general, and for the UH-60 Black Hawk in particular. The Aviation Modernization Task Force is hard at work charting the future for the Army's "fourth combat arm." The RAH-66 Comanche and the CH-47F Chinook models are well into engineering development, the AH-64D Apache is in the field, and the UH-60M is about to spring off of the drawing board.

The Army's utility helicopter fleet is the largest currently in service, with more than 1,500 aircraft supporting Army operations in more than 12 countries. The Black Hawk series, owned by 22 countries, is currently in its 24th year of on-time production with more than 19 models in service. Packing all of the meaning and then some in to the word "utility," the UH-60 fleet — with the lowest mishap rate of all rotary winged aircraft — is the backbone of the Army's battlefield tactical mobility operations. The UH-60M program will breathe new life into the current fleet of A and L model aircraft, recapitalizing and extending their service lives an additional 20 years and upgrading their cockpits to a digital configuration.

The foundation and driving force for the UH-60M Recapitalization/Upgrade (Recap/Upgrade) program is the Utility Helicopter Fleet Modernization Analysis completed in the spring of 1999. Sponsored by the Project Manager, Utility Helicopters, in coordination with Headquarters, Department of the Army (HQDA); Headquarters, U.S. Army Training and Doctrine Command (HQ TRADOC); and the U.S. Army Aviation Center (USAAVNC), the fleet analysis recognized that although other Army aviation systems had a modernization strategy, the utility helicopter fleet did not.

UH-60M Improvements



"It's about pride in the work we do."

"The technicians here are terrific, but their knowledge and experience doesn't make a difference if they don't have the parts they need. That's where I come in. There are thousands of parts and tools needed to repair and overhaul the T700 engine, and my team makes sure they're here when they're needed.

Sharon Morgan,
Material Supervisor

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Aware of the looming eventuality that requirements for the Army's utility fleet were going to soon far exceed its capabilities, the Directorate of Combat Developments at Fort Rucker, Ala., in cooperation with the Utility Helicopters Program Management Office at Redstone Arsenal, Ala., began work on an Operational Requirements Document (ORD) for what is currently known as the UH-60X.

The existing fleet of UH-60As and Ls will be recapitalized and upgraded to the M configuration.

Designed to buttress the ORD and support the Army Modernization Plan and its Aviation Annex, the fleet analysis set about determining the most economical and effective path to providing responsive and decisive aviation utility asset support through 2025.

The recommendation of the fleet analysis, given the present constraints of resource availability and engine technology, was for Army aviation to adopt an evolutionary, blocked approach to the modernization of the utility fleet. The objective capability, the hallmark of which is its 10,000lb lift, would be deferred until engine technology and resources were developed sufficiently. An interim capability, known as the UH-60M, would incorporate existing, low-risk technology to recapitalize and selectively upgrade the existing UH-60 fleet. Additionally, the venerable UH-1 Iroquois — perhaps the best-known of all Army helicopters - will be completely phased out of the fleet by 2004.

Given that the bulk of the UH-60 fleet (the UH-60A model) is past its service half-life mark and almost a quarter are past the 20-year service life mark, the findings of the fleet analysis served to underscore what many in the field and at HQDA were saying about the need for a utility fleet modernization strategy.

The first block of the fleet analysis-recommended approach, commonly known as the UH-60M (formerly the UH-60L+) takes advantage of existing aeronautical and digital technologies to add lift, range and digital connectivity. The existing fleet of UH-60As and Ls will be recapitalized and upgraded to the M configuration. This will include, among other improvements, the 701C-series engine and improved durability gear box (already flying on the L model); wide-chord rotor blade; airframe structural enhancements; and a digital cockpit.

In addition to the immediate increase in battlefield lift and range over the current A model, the M model will do its part to drive down operations and support costs, and will contribute to the achievement of an average fleet half-life of 10 years. The cockpit improvements will perhaps be the most visibly dramatic, as the digital avionics and communications suites will allow the UH-60 fleet entry to, and viability on, the digital battlefield — reducing pilot fatigue, providing situational awareness and improving survivability.

Block II, referred to as the UH-60X, is envisioned to be either a further, more significant, modification of the UH-60, or perhaps an entirely new airframe altogether. The Block II capability depends on the maturation of the Common Engine Program (CEP), an advanced-technology program currently funded within the Science and Technology (S&T) community. The CEP will provide the required 3,000 shaft horsepower and reduced fuel consumption that will allow the attainment of the objective lift and range capabilities as delineated in the user's ORD.

There is certainly no arguing that the future will be nothing but exciting for Army aviation in general, and the utility fleet in particular. From the advent of modern air-mobile and air-assault operations in the latter part of the last millennium to the operations on the digital battlefields of the next, the Army's utility helicopter fleet will be assured a decisive and encompassing role.

The recapitalization and upgrade of the UH-60A and L model fleet will allow the utility of the aviation workhorse of the battlefield to not only continue to deliver its contribution to the combat power of the maneuver task force, but also to ensure that that contribution has utility on the digital battlefield of the coming decades and beyond.

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COL William G. Lake is the U.S. Army Aviation and Missile Command's Utility Helicopter Project Manager, at Redstone Arsenal, Ala.

***Common Engine** cont'd. from pg. 12*

share, from work conducted under JTAGG/ IHPTET programs. The overall CEP schedule is sufficient to meet a 2017 first-unit-equipped date in support of the Army's current Black Hawk modernization plans.

In summary, the turboshaft engine technology developed over the past 12 years in IHPTET has made significant strides. Application of these technologies will provide significant improvement for Black Hawk and Apache helicopters, with regard to both increased range and payload capability. The reduced O&S cost of these engines also makes this a very affordable opportunity.

Although incorporating derivative engines into future systems will increase payload capability, helicopter range will significantly degrade. Is this the diminished capability we are willing to have the users live with, or is it not worth the investment to provide a significant capability, affordably to the user?

In short, without the incorporation of new engine technology as proposed under the CEP, the Black Hawk and Apache helicopters cannot meet future required or desired performance levels. The CEP offers a superior solution to allow the Black Hawk and Apache helicopters to remain operationally effective well into the 21st century.

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Mr. Butler is program engineer in the Aviation Applied Technology Directorate at Fort Eustis, Virginia.

Comanche Update: Vision Becomes Reality

By COL Robert Birmingham and Mr. Jimmy Hill

A significant milestone was passed on Mar. 2 with the first flight of one of the RAH-66 Comanche prototype aircraft outside of telemetry range from the Comanche flight test facility. The aircraft flew to the Association of the US Army spring meeting in Fort Lauderdale, Fla. This also marked the first time the aircraft was landed, shutdown and started away from its home station. This event represents a huge step in the maturity of the aircraft and its subsystems.

The next time you see a Comanche, you may notice significant visible progress toward fielding:

- Installation of a mast-mounted radar aero-dummy.
- New rotor blades.
- Main rotor hub and cuff fairings.
- Cut-down engine exhaust doors.
- A shortened, blunt trailing edge vertical pylon.
- Endplates on the horizontal stabilizer.
- Mission-equipment package component installation.
- New engines.

Other, not as visible significant progress:

- Engineering, Manufacturing and Development (EMD) is now in process.
- Installation and testing of an improved forward landing gear.
- New aircraft chine and fuselage core materials.

Visible Changes

Some call it ugly, but the capability added by the radar is significant. We started test flying the new main rotor hub fairing and radar aero-dummy during the first quarter of fiscal year 2001, and have already accumulated a significant amount of test data. Earlier aircraft testing revealed areas for some fuselage improvements, and those improvements are being installed and tested this year. Horizontal stabilizer end plates of various sizes and configurations are being evaluated to streamline the performance of the aircraft. Cut-down exhaust doors have been installed to facilitate cooling, and experiments have shown that a shortened, blunt trailing edge vertical pylon is a better configuration.

During the next eight months, new aircraft core processors will be installed and begin flight testing. Concurrently, Comanche will receive significant software upgrades and new controls and displays. These steps will start linking an unmatched helicopter airframe with the leading edge integrated digital capabilities required by the Objective Force.

Significant Engine Changes

We're upgrading the two prototype aircraft with the growth T800 engine, the T800-LHT-801, this summer. Growth engines were shipped to the Comanche Flight Test Center in West Palm Beach, Fla., for installation into Aircraft 1 in March. First flight was scheduled for April. This summer, growth engines will also be installed into Aircraft 2 for continued flight testing.

The Army is awarding a follow-on preproduction qualification (PPQ) contract to the prime vendor, the Light Helicopter Turbine Engine Company (LHTEC). LHTEC is a partnership between Rolls Royce Inc. and Honeywell. The purposes of this contract are to obtain Army qualification of the growth engine and to build preproduction engines to support Comanche flight testing through our scheduled Initial Operational Test and Evaluation in 2006. Plans call for a low-rate initial production contract to be awarded in the mid-FY 2004 timeframe to support Comanche initial fielding.

A preliminary study by LHTEC indi-

***Comanche Update** cont'd. on pg. 32*

Comanche landing at AUSA Spring Convention in Fort Lauderdale, Fla.

CCAD AND THE APACHE SWASHPLATE

By Helio Perez Jr.
Photos by Ralph Yoder

In the latter part of 2000 the pilot of an AH-64 Apache was performing a preflight analysis at Fort Bragg, N.C., when he noticed that the helicopter's tail rotor swashplate felt very unusual. The swashplate was subsequently removed and inspected, and was found to have a bad bearing. The bearing had been installed at Corpus Christi Army Depot (CCAD), Texas, in 1993 during the initial Apache T/R swashplate pilot program.

A Quality Directive Review (QDR) was submitted and a three-month investigation lead to the "Apache AH-64 Tail Rotor Swashplate Safety of Flight Program," which started in late December 2000.

The Army's Apache fleet consists of 760 helicopters, 94 of which were grounded by the swashplate safety-of-flight message. The projected schedule for repair/overhaul of the swashplates was 30 days, based on a six-day workweek, to produce four units per day. In fiscal year 2001 the remaining 220 units are to be produced on regular work-duty hours.

The AH-64 T/R swashplate safety-of-flight program is supported by, among others, the U.S. Army Aviation and Missile Command, the Defense Logistics Agency and several of CCAD's departments.

Naomi R. Turner, a parts expeditor, wheels a kit to a mechanic's bench. The mechanics have all the items they need and do not have to move more than two steps from their benches to work on the swashplate assemblies.

Rudy Lopez, an aircraft mechanical parts repairer/mechanic, reviews final paperwork after the swashplate's assembly and before the item is ready for final painting.

[Left to right] Carlos Pena, Charles G. Carter, Raul Martinez, Manuel P. Pena and Manuel V. Cabrera Sr. work in the program's Evaluation and Examination Operation. They also measure and inspect the items.

Richard C. Davila inventories and examines part of the kitting box before working on the swashplate as Project Manager Larry Simone demonstrates the process.

Benjamin Aparicio [in hat] masks a swashplate before it's painted. In the rear group are Oscar Rodriguez (left) and Eduardo B. Hinojosa.

Amando Vidal verifies the serial numbers and history of the swashplate bearings.

APACHE Update

by COL Howard T. Bramblett

As the Apache program marches into the 21st century, the Army is in the midst of the definitional stage of transformation. We are redefining the structure of our fighting force and, in our case, Army aviation and the Apache program in particular.

As a result, we have taken a hard introspective look at the Apache program. We have tried to do this from the perspective of how many Apaches the Army requires, and how we can best equip the Apache fleet to meet the mission requirements. Though the answers to all the questions are not yet available, a program of this size does not stop in its tracks while analysis is ongoing. As we move forward there may be program changes that range from little or no change to major program redefinition. Given these ground rules, I'll now provide a program status report with the understanding that significant changes may occur.

The bottom line is that Apache has made significant strides over the last 12 to 18 months. Our office is driving to the contracted procurement total of 501 Apache Longbows. We are currently accepting delivery of 232 from our highly successful Multi-Year I (MY I) contract. We have accepted 180 Apache Longbows to date, with final MYI delivery in February 2002.

The MY II contract for 269 Apache Longbows was signed last September, and Boeing has begun the execution of that contract. We are in the last couple of years of the Multi-Year contract that will ultimately deliver the 227 required fire-control radars, and we are on contract for the Modernized TADS/PNVS [M-TADS/PNVS, formally Second Generation FLIR (SGF)] development. The recapitalization effort has started and the Apache Longbow training-device suite is being delivered. The AH-64A is being maintained and supported in its role as our first-line fighting aircraft. Each of these efforts is of significant magnitude.

About a year ago, a Department of the Army-sponsored task force was formed to determine how best to address the reliability and sustainment (R&S) issues associated with the Army aviation fleet. Since that time, our team has been aggressively dealing with the identified Apache R&S issues, and we have made significant progress in defining, planning and funding the necessary fixes. The R&S issues are common within the Apache fleet and we have an integrated program to address them.

These initiatives fit under the larger umbrella of the recapitalization effort, which is Armywide. Funding for the R&S initiatives was not immediately available, but required special attention and action to support the soldiers in the field as rapidly as possible. Since we had identified common R&S items for the AH-64A and AH-64D Apaches, we are able to utilize

our current contracts to address the nonrecurring engineering and analysis efforts. To fund the initiatives we elected to reduce the quantity of the MY II buy from 298 to 269 aircraft.

The procurement dollars freed up by that 29-aircraft reduction will be used to pay for the nonrecurring engineering cost for AH-64A and AH-64D common challenges and application of the fixes during the MY II remanufacture effort. Additionally, we have funding in place for retrofit of the R&S fixes to the 232 MY I AH-64Ds and the remaining 240 AH-64As. These efforts will correct the current R&S issues that are known for the AH-64A, MY I AH-64D and MY II AH-64D.

The Apache Longbow remanufacture effort and R&S fixes define the initial stage of recapitalization. When an AH-64D rolls off the line, the airframe life is expected to extend 4,500 more flight hours (the equivalent of a 20-year life) and A/D model common components are replaced on the Boeing assembly line based on condition criteria. In a nutshell, with the remanufacture of the AH-64A airframe to an AH-64D, the total Apache fleet will meet the requirement for the Department of the Army aircraft half-life metric. This metric calls for the fleet-wide average aircraft age to be 10 years or less in 2010. However, the 240 AH-64As that will remain after we procure 501 AH-64Ds continue to age and the average age will exceed 20 years by 2010 and drive the fleet average above 10 years requirement.

To avoid this situation, we are considering inducting the oldest AH-64As into the Apache Longbow MY II remanufacturing line in order to keep the Apache fleet average airframe age as low as possible. Two other important elements fit into the recapitalization funding requirements. They are component recapitalization and application of selected upgrades. Our office, in conjunction with the U.S. Army Aviation and Missile Command (AMCOM) and the contractors, is in the process of defining a focused component recapitalization program.

The arrival of the Longbow Crew Trainer (LCT) has been much anticipated. This high-fidelity, transportable aircrew-training device is now part of Army aviation. The Apache Training Device Team accepted the first LCT from Boeing Helicopter Systems in December 2000. Four Army and one Royal Netherlands Air Force (RNlAF) LCTs are in operation. The first two are supporting AH-64D Aircrew Qualification Course (AQC) Training at Fort Rucker, Ala. The third Army LCT is operational at Fort Hood in support of the 1st Battalion, 227th Aviation Regiment, and the 21st Cavalry Brigade's Unit Fielding and Training Plan (UFTP), and the fourth device is owned and operated by 2nd Bn., 101st Avn. Regt., at Fort Campbell, Ky. The RNlAF LCT is fielded and operational in the Netherlands.

LCT operational-availability rates consistently exceed contract requirements while providing AH-64D units a greatly needed, high-fidelity training capability. Transportability tests conducted in conjunction with the Fort Campbell device fielding were very successful - fewer than 190 man-hours were required to place the system into operation, beating the required 7-day/300 man-hour requirement. More importantly, the feedback from AH-64D aviators using the system is very positive.

AH-64D Maintenance Training Devices are also in place and supporting valuable training. The Apache Program Office, working with Boeing Helicopter Systems, has accepted seven L-7 Multiplex Avionics/Visionics Weapons and Electrical System Trainers (MAVWESTs). Six L-7s have been delivered to the U.S. Army Aviation Logistics School (USAALS) at Fort Eustis, Va. The remaining device remains at Boeing's facility in Mesa, Ariz., for integration of Lot 4 configuration changes.

Upon successful configuration changes, the L-7s will be upgraded at Fort Eustis. The L-7s support 68X/Y maintainer training and began operation in August 2000. Seven L-6 Aircraft, Engine, Drivetrain and System Trainers (AEDSTs) were also fielded to USAALS. The L-6s support MOS 67R maintainer training, which began in May 2000. These trainers are high-fidelity devices, with the L-7 incorporating fault-insertion, detection and troubleshooting capabilities.

The Apache Training Device Team is not basking in its success. A great deal of work is ongoing to transition the LCT from the LOT 2 to the LOT 4 aircraft configuration while incorporating three geographic databases. The next challenges are accomplishing these upgrades in order to support full-up Aircrew Qualification Course Training; continuing to provide graduate-level training for AH-64D instructor pilots on the LCT Instructor Operator Station (IOS); and managing the continued development, fielding and upgrade of the Apache Training Device suite of systems. The Training Device Team is gaining momentum and making progress for the AH-64D Longbow aviator in the field.

Another of the revolutionary training systems developed as a part of the Longbow training device suite is the Tactical Engagement Simulation System (TESS). It was developed to provide Longbow operators with a high-fidelity, collective, force-on-force training capability, both at the unit's home station and at the combat training centers. TESS is a significant aviation training system designed to be highly mobile and a semi-permanent part of the aircraft.

Consisting of aircraft and ground-based components, TESS replicates the capabilities of all Longbow weapon systems and allows for real time casualty assessment with other TESS equipped aircraft and/or ground vehicles. This includes, for the first time, the ability to employ indirect weapons such as the RF Hellfire missile and 2.75-inch rockets.

The TESS Mobile Command and After Action Review Center can monitor force-on-force training in real time, or via memory cards located on each aircraft. The data recorded during flight can be merged for a meaningful after action review playback capability. The telemetry repeaters that are part of the ground-based system allow the TESS coverage area to be extended as necessary to support training.

To date, TESS has been integrated at the National Training Center at Fort Irwin, Calif., and the effort to integrate the system at the Combat Maneuver Training Center at Hohenfels, Germany, is ongoing. In support of the TESS testing program, the 2nd of the 101st has used this system at Fort Campbell, the NTC and the Joint Readiness Training Center at Fort Polk, La., with excellent results.

As this article is being written, the 1st of the 127th has deployed to the

***Apache Update** cont'd. on pg. 34*

Chinook Update

By James T. Caudle

CH-47D

The CH-47D Chinook remains the Army's heavy lift workhorse and the next generation Chinook, the CH-47F Improved Cargo Helicopter (ICH), is poised to continue the tradition as it prepares for its first flight, scheduled for this summer. The Cargo Helicopter PMO also continues to pursue other system improvements and initiatives that will enhance and sustain the Chinook's exceptional performance far into the future.

As the CH-47F program moves into 2001, anticipation and excitement builds as the CH-47F team prepares the first Engineering and Manufacturing Development (EMD) aircraft for its first flight. The first EMD aircraft has completed final assembly and only instrumentation and ground testing precedes the maiden voyage for the CH-47F. The second EMD aircraft follows closely behind the first, with its first flight scheduled for August.

The CH-47F is a CH-47D that has been remanufactured through both overhaul and rebuild processes. The two primary improvements are the integration of an upgraded cockpit avionics suite, and structural tuning changes to the forward section of the aircraft to reduce vibration. The T55-GA-714A engine upgrade will also be incorporated into the CH-47F.

The avionics upgrade will incorporate fielded government-furnished equipment (GFE) and contractor-furnished equipment (CFE) utilizing a communications/navigation MIL-STD-1553 data bus, a modernized pilotage suite and multifunction displays (MFDs). The avionics upgrade will include the hardware and software necessary for a Force XXI cockpit capable of improved sustainment and operations in the modernized digital battlefield environment. The airframe tuning will relocate the airframe's natural frequencies by stiffening the airframe to reduce its response and lower the vibration levels. This will result in improved subsystem reliability and reduced operations and support (O&S) costs.

Following a successful flight test program in 2001, the ICH program will begin production on the first of 300 CH-47Fs. The CH-47F will carry the Army well into the 21st century and, in doing so, will increase system reliability; decrease O&S costs; provide a digital communications and navigation suite; improve survivability; enhance transportability and extend the service life for another 20 years.

In the field, the two newest CH-47 enhancements, an engine upgrade and an extended range fuel system, are performing exceptionally. The CH-47D engine-upgrade program is moving forward with more than 50 aircraft modified to the new T55-GA-714A configuration. This program remedies many of the deficiencies plaguing T55-L-712 engines. The L-712 engines are aging, power margins have been deteriorating and, with the weight growth of the CH-47D, the engines can no longer meet lift requirements.

The CH-47D Requirement Operational Capability (ROC) required the CH-47D to lift and transport a 15,000 lb. external load for 30 nautical miles at 4,000 feet at 95 degrees (F) with a 30-minute fuel reserve. The current load capacity is approximately 12,860 lbs. In addition to restoring the required lift capability, the GA-714A will substantially reduce O&S costs. These costs will be reduced due to durability and reliability improvements, the elimination of thoriated magnesium and lower specific fuel consumption.

Previous acquisition actions have focused on converting the T55-L-712 to the new T55-GA-714A configuration. However, a cost-benefit analysis of operations and sustainment cost supported a transition from the conversion process to outright procurement. Conversion will continue until March 2002, when the production of new engines will begin. Overall, the program will upgrade some 300 engines while acquiring 850 new engines.

The aircraft modification is performed by OLR teams and takes about five weeks from induction to completion of the maintenance test flight. Extensive electrical work is required to incorporate the new Full Authority Digital Electronic Control (FADEC) system. Fielding started in March 2000 and has been completed in the Connecticut and Pennsylvania National Guards. Fielding efforts are ongoing with the 101st Airborne Division, the 160th Special Operations Aviation Regiment and XVIII Airborne Corps.

The PM Cargo Helicopters gained approval for Full Materiel Release on the new Crashworthy Extended Range Fuel System II (ERFS II) in August 2000. As of March 1, 2001, all active and National Guard Chinook units were fielded the ERFS II to a ratio of at least 1 B-Kit per eight aircraft. Army Reserve Chinook units are scheduled to receive their first issue in the third quarter of this year.

The ERFS II has received great initial reception from field users. The predecessor system's predilection for fuel leaks and seepage and fuel fumes has been virtually eliminated. The improved fuel-management control panel simplifies the performance of FAT COW operations

***Chinook Update** cont'd. on pg. 32*

Taking Your Legacy to the PEOPLE

By Sean M. Brady

From the first canvas-covered liaison planes of World War II to the high-tech, rotary-wing gunships of the present, Army aviation's contributions to our nation and its armed forces have been enormous. Yet few citizens recognize the important role that Army aviation has played in shaping our nation's history. The Army Aviation Heritage Foundation (AAHF) is working to change this historical lack of public knowledge and understanding by bringing the story of Army aviation to the American people.

> ***AAHF's primary mission is the education and inspiration of the American public through the sharing of the heritage of Army aviation.***

In the March/April 1998 issue of Army Aviation, founding AAHF member MG Morris J. Brady (Ret.) discussed the mission and potential of the AAHF. At the time, the initial AAHF organizational and acquisition efforts were underway, and membership and community involvement were just getting started. Now — three years, 622 members and 22 flyable Army aircraft later — the AAHF would like to report back to the members of the Army Aviation Association of America on the success of AAHF's mission and its multiple outreach programs.

Mission and People

AAHF's primary mission is the education and inspiration of the American public through the sharing of the heritage of Army aviation. The driving force behind the foundation is its diverse and talented organization of volunteers, currently numbering over 600 and located across the United States. The vast majority of the foundation is composed of current or former military personnel, many from Army aviation. Yet military service is not a requirement for participation - all that is necessary is a desire to help share the story of Army aviation.

AAHF is an all-volunteer organization and all vital functions — from maintenance to marketing to air assaults to air show narration — are performed by volunteers.

Air Shows and Aircraft

The AAHF team leads an extensive air show outreach program throughout the eastern United States and organizes a variety of educational opportunities with schools, civic organizations and Boy Scout troops. Each educational outreach effort gives the public an authentic demonstration of the soldiers, equipment and role of Army aviation in American military history, delivered with a meaningful and patriotic presentation to instill public pride and enthusiasm for the accomplishments of Army aviation and America.

The AAHF outreach program emphasizes the air show as its most effective method of educating the American public. By taking the story of Army aviation to the people via air shows, the AAHF offers an exciting and effective new method of sharing the story of Army aviation with the public.

The AAHF's current air show program is composed of three modules that represent the three main eras of modern Army aviation — World War II, the Korean War and the Vietnam War.

The World War II module includes an authentic L-4B "Grasshopper" aircraft and authentic WW II ground vehicles to relive the story of the birth of modern Army aviation.

The association's Vietnam-era AH-1 Cobra gunship flies over the Mall and Vietnam Memorial in Washington, D.C. Restored and maintained by the AAHF, the Cobra helps tell the Army aviation story at airshows across the country.

The Korean War module uses an OH-23 helicopter and borrows from the depictions of the popular movie and television series "MASH" to demonstrate the growth and development of Army aviation and illustrate the initial use of the helicopter in the Army.

The Vietnam War module combines seven of the AAHF's veteran Army helicopters and fixed-wing aircraft (AH-1, two UH-1s, an OH-6, a CV-2, an OV-1 and an L-19) with actual infantry assault teams to deliver a realistic and powerful portrayal of the use of Army aviation in a typical air cavalry troop action in Vietnam. The module includes multiple aircraft gun and rocket runs, artillery support, a low-level supply drop and an infantry air assault with a realistic ground "fire fight," complete with an opposing force and the use of blank ammunition by both sides. Realistic pyrotechnic effects support the action throughout this module to convey realistic weapons effects to the crowd.

The 2000 season saw the AAHF sharing the story of Army aviation with a combined total of 1,950,000 individuals at three static presentations and 13 flying programs. AAAA provided $13,000 in corporate sponsorship for three of the foundation's shows during the 2000 Season.

With the AAAA's assistance, several notable performances were achieved this season. At the Fort Rucker Armed Forces Day Air Show, the AAHF executed its entire three-era program after receiving a personal invitation from the chief of Army aviation. The foundation received a rare formal invitation from the board of directors of the Experimental Aircraft Association (EAA) to participate in the EAA Oshkosh Air Show — the largest annual aviation event in the world, with an estimated attendance of 950,000.

The AAHF's invitation represented the first known time that any representative of Army aviation — active, reserve component or civilian — had ever been asked to be a part of the official air show program at Oshkosh. During the Detroit (Selfridge) Air Show (the second largest civilian air show in the country, with an attendance of 700,000), the AAHF was asked to provide the closing performance in place of the Blue Angels demonstration team. The foundation's 1999 and 2000 air show seasons were covered by a variety of publications and featured on several national television specials, including the Discovery Wings program and on the SpeedVision cable channel.

The foundation's UH-1 Iroquois is one of its most popular display aircraft. Here it is seen saluting the crowds at the Experimental Aircraft Association airshow in Oshkosh, Wis.

Air show selection committees are able to choose from the three-module menu as desired. In combination, however, all three modules tell the unfolding story of Army aviation through Vietnam. With the recurring support of active and reserve-component units, however, the AAHF has been able to share the history of Army aviation through the present day at many air shows. The combination of exciting, realistic, live-action sequences and patriotic, informative narration has produced overwhelmingly positive reactions to the AAHF's efforts to share the story of Army aviation. The safety, professional presentation and effectiveness of the foundation's performances have also established the AAHF as a highly sought after air show organization.

The foundation's initial season, completed in 1999, reached a combined total of 380,000 members of the public through nine static presentations and one flying program. Based on this initial success, the AAHF was able to greatly expand its outreach efforts during the following year.

Perhaps the most moving event in which AAHF has been involved was the Independence Day 2000 fly-over of vintage helicopters conducted in Washington, D.C., during the annual meeting of the Vietnam Helicopter Pilots Association (VHPA). Eight aircraft — four UH-1s, two AH-1s, an OH-6 and an OH-58 — flew over the Mall near the Vietnam Memorial. Cheered by some 3,000 VHPA members, their families and guests, the helicopters were an airborne tribute to all of those whose names are inscribed on the memorial.

The Future

Based upon its early and quick success, the future of the AAHF is bright. Although the foundation has only committed to six major air show programs for its 2001 season, these six shows will reach an estimated 2,100,000 people. The AAHF has already been invited to begin the Army program at the annual Andrews Air Force Base, Md., Joint Services Open House on Armed Forces Day. The foundation will also lead the Army show during the private performance for the president of the United States, members of Congress and senior Pentagon officials.

Due to the increasing size of its airworthy fleet — currently more than 20 flyable Army aircraft — the AAHF is also beginning the process of expanding to a larger, permanent facility. And as the AAHF's size and capability continue to grow, new possibilities are being discussed. One such opportunity would be the reinstitution of a helicopter precision demonstration team, similar in mission to the Air Force's Thunderbirds or the Navy's Blue Angels.

The tremendous positive response to the foundation's efforts indicates that there is an emerging hunger in our country to recognize and remember the heritage and legacy of Army aviation, the Army and our armed forces. In its own way, the AAHF is helping to motivate the public to re-establish the American soldier as an active member of the American family. Our soldiers and their stories should not be forgotten when they are gone. Their machines should not be kept from the skies when they retire from frontline service.

The AAHF is helping to bring Army aviation's story to the American people unlike any other existing organization. If you would like to become a member of the foundation's team, or help support our efforts through your contributions, please call (770) 897-0444 or visit our web site at www. armyav.org. AAHF is an IRS-designated non-profit public education foundation, and all donations are fully tax deductible.

Whether active duty, retired or just a public-spirited citizen, help the AAHF bring the story of army Aviation to the American people. Having already reached, or secured commitment to reach, a combined audience of 4.4 million people in 36 aerial and static demonstrations during its first four years from initial conception — imagine what the Army Aviation Heritage Foundation's future may hold in support of Army aviation, the Army and our nation.

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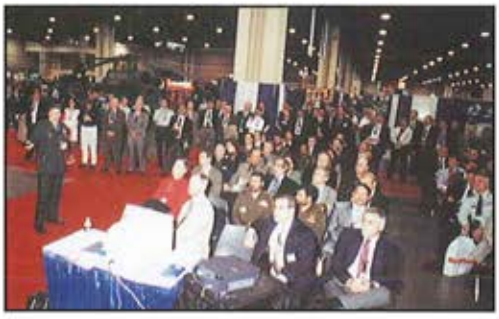
Sean M. Brady, grandson of founding AAHF member MG Morris J. Brady (Ret.), works with the foundation at its headquarters in Hampton, Ga.


2001
AAAA
Convention
Highlights
ARMY AVIATION ASSOCIATION

The 2001 AAAA Annual Convention was an outstanding success in terms of record number of exhibits, very strong attendance and dynamic professional sessions. The Early Birds reception in the exhibit hall on Wednesday night April 4, opened the event, but the show really got down to business the following morning when AAAA President, MG Carl McNair, (Ret.) *(near left)* introduced Aviation Branch Chief MG Tony Jones *(far left)* who kicked off the professional sessions focusing on the convention theme, "Aviation in the Army Transformation". Following MG Jones, LTG Dan McNeill, *(left)* commander XVIII Airborne Corps, Fort Bragg, N.C., delivered the Host Command Welcome.



Following the professional program the exhibit hall opened Thursday morning and featured program manager briefings on the floor among the static display aircraft *(above)*. Thursday's Membership Lunch *(left)* was highlighted by the presentation of the Gold Order of Saint Michael to Army aviation pioneer LTG Bob Williams. The 2001 AAAA National elections and membership awards ceremony also took place during the lunch.

One of the emotional highpoints of the entire convention was the Thursday evening Hall of Fame Induction Ceremonies. Twelve new members were inducted, including CSM Willie Wilson, (Ret.), who is seen with his family at the event.

Friday began with the "Army Initiatives that Affect the Future Panel" chaired by Jones. Panelists included, *(from left to right)* Mr. Seger, assistant deputy chief of staff for training, TRADOC; Mr. Wimpy Pybus, DCSLOG; LTG Paul J. Kern, military deputy to the SAALT & director, Army Acquisition Corps; and BG Craig Hackett, director of materiel, Office of the Deputy Chief of Staff for Programs. Friday's luncheon speaker was Army Vice Chief of Staff GEN Jack Keane, who gave a very clear and forceful presentation on recent Army developments including Transformation, the new Army recruiting theme and head gear.

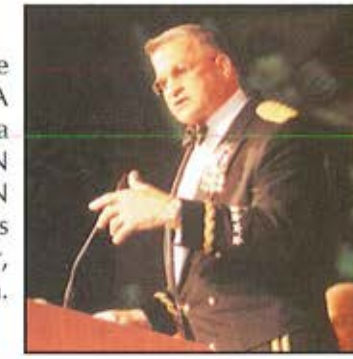
Friday wound up with a panel chaired by GEN John W. Hendrix, CG FORSCOM *(center)*, on Full Spectrum Operations which included, MG Anthony Jones *(far left)*; LTG Bryan D. Brown, CG, USA Special Operation Command *(second from left)*; LTG Daniel J. Petrosky, chief of staff, U.S. European Command *(third from left)*; LTG John M. Riggs, CG, First USA *(third from right)*; MG Thomas J. Plewes, chief, Army Reserve *(second from right)*; and MG Raymond F. Rees, vice chief, NGB.

Saturday started with the traditional First Light Breakfast and featured MG Jim Snider, DCSRDA, U.S. Army Materiel Command.

Saturday's Professional Program began with the Industry Panel featuring CEOs and executives from Boeing, Sikorsky, Bell, Lockheed Martin and Northrop Grumman chaired by LTG Paul Kern, military deputy to the ASAALT & director, Army Acquisition Corps. Immediately before the panel began, the AAAA President's Award was presented to representatives from DA Staff; HQ TRADOC; FORSCOM; USAREUR; EUSA; U.S. Army Aviation Center; Aviation and Missile Command; PEO, Aviation; U.S. Army Reserve, and the Army National Guard Bureau for their outstanding work on the 2000 Army Aviation Modernization plan.

Saturday's lunch was the occasion for the presentation of a $15,000 check from the AAAA to MG Dick Cody, CG 101st Airborne Division, Fort Campbell, Ky., and COL Ted Crozier, (Ret.), as our contribution to the new Fort Campbell Museum. GEN Bill Richardson, former TRADOC commander, was the luncheon speaker and gave an insightful presentation on Army aviation's leadership potential as the tip of the spear for more lethal, deployable and flexible Army of the 21st century.

The culminating event of the convention was the AAAA Awards Banquet featuring a dynamic address by GEN Tom Schwartz, CINC UN Command/ Combined Forces Command, and commander, U.S. Forces, Korea.



Awards included the US. Army Reserve Unit of the Year Award presented to 159th Aviation Regiment, Fort Eustis, Va., and Fort Lewis, Wash. Accepting the award are LTC Matthew S. Maney *(third from right)* and CSM Marshall A. Banks *(second from right)*. Joining awardees are MG Anthony Jones (far left), GEN Tom Schwartz *(second from left)* and MG Carl McNair *(far right)*.

The Army National Guard Unit of the Year was 1st Battalion, 189th Aviation Regiment, Helena, Mont. Accepting the award are LTC Kevin M. Kepler *(third from left)* and CSM Kent C. Robinson *(third from right)*. MG Fred Rees, vice chief, NGB *(2nd from right)* joined in the presentation.

The Outstanding Aviation Unit (Army) award was presented to 1st Battalion, 58th Aviation Regiment, Fort Bragg, N.C. Accepting the award are LTC Joseph P. Mudd *(third from left)* and CSM Keith D. Wilbur *(second from left)*.

The Robert M. Leich Award was presented to COL William S. McArthur Jr. *(second from right)*.

The Joseph P. Cribbins Department of the Army Civilian of the Year was presented to Mr. John E. Marksteinier *(second from left)*. Mr. Joseph P. Cribbins, the award's namesake, is pictured third from left.

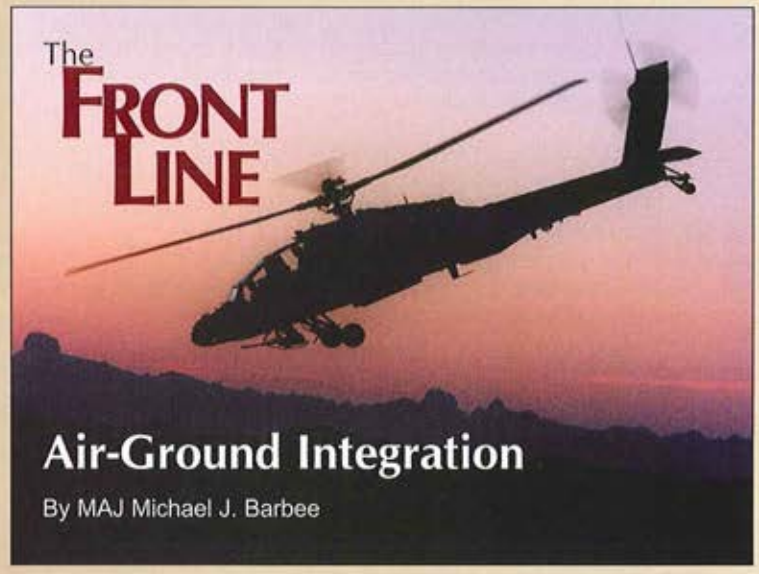
The James H. McClellan Aviation Safety Award was presented to CW5 Robert Scott Johnson of HHC, 17th Aviation Brigade, Korea *(second from right)*.

The Aviation Soldier of the Year Award was presented to SSG Melissa M. Mendoza, Headquarters & HQs. Company, Aviation Training Brigade *(third from right)*. Also included in the presentation *(second from right)* is Aviation Branch CSM Edward Iannone.

The final award of the night was the Aviator of the Year. The award was presented to CW3 William C. Ragsdale, Company C, 1st Battalion, 160th Special Operations Aviation Regiment *(second from right)*.

Following the award ceremonies, MG McNair handed over the AAAA Presidency to LTG Don Parker. Pictured at right, LTG Parker receives the gavel as a token of the change of command and delivered his acceptance remarks.

See you at the 2002 AAAA Convention in Nashville, TN May 11-15!



Air-Ground Integration

By MAJ Michael J. Barbee

Integrating Army aviation into a mechanized/armor brigade combat team's (BCT) operations is an extremely challenging task no matter what the venue. It's even more daunting when conducted at the National Training Center (NTC) at Fort Irwin, Calif., against the world's best opposing force (OPFOR). The inherent difficulty of execution, combined with the effects of the harsh desert environment, make successful air-ground integration a rare occurrence at the NTC.

However, the frustrating point of this from an observer/controller (O/C) point of view is that the reasons units struggle with this task aren't graduate-level issues. Instead, we fail to execute the fundamentals of planning and preparation required in doctrine, and therefore do not successfully integrate during the fight. The purpose of this article is to identify some doctrinal fundamentals of air-ground integration, and then recommend some methods of application of doctrine based on recent observations at the NTC.

Doctrine

While all aviation field manuals have some discussion of air-ground integration, Appendix K of FM 1-114, "Air Ground Integration," provides probably the best summary of the fundamentals required for successful execution. These are:

1. Understanding capabilities and limitations,
2. Use of standing operating procedures (SOPs),
3. Command and control (C2),
4. Maximizing available assets,
5. Employment methods, and
6. Synchronization.

Understanding the capabilities and limitations of available ground and air assets is absolutely essential to successful integration during mission execution. The inherent versatility of Army aviation provides the BCT tremendous flexibility, both in combat-arms functions (hasty attacks, security missions, etc.) as well as in combat service support (CSS) functions (non-standard casualty evacuation, aerial movement-supplies/personnel). However, we cannot oversell our branch, and must ensure the BCT understands our limitations (weather, reaction time from readiness condition levels, etc.). A key player in this fundamental is the Aviation Liaison Officer (LNO), whom I'll discuss in depth below.

SOPs are the second fundamental, and are intended to standardize operations. A unit's tactical SOP (TACSOP) is critical to air-ground integration, and should include air-ground coordination checklists, air-passage-of-lines procedures, recognition signals, liaison requirements and clearance-of-fires procedures. This information should be included in both the BCT and aviation battalion TACSOP, and should be routinely utilized in home station training to increase familiarity.

The next fundamental, C2, can be extremely challenging when both aviation and ground forces share the battlespace. However, clearly defined C2 relationships for air and ground must be established and understood by all to optimize combat capabilities while preventing "fratricide." Army aviation has a unique capability to

rapidly transition from one unit's battlespace to another's, and must possess the situational awareness of communications requirements (frequencies, call signs, etc.) to operate across the battlefield.

Maximization of available assets is the fourth fundamental, and obviously the ultimate objective of air-ground integration. While Army aviation can provide a tremendous increase in capabilities for a BCT, we certainly have our limitations (as mentioned earlier). Therefore, we must ensure that BCTs prioritize critical tasks for Army aviation on the battlefield to ensure mission success. This prioritization is especially critical for general support units, who are routinely tasked with multiple types of missions throughout the duration of the fight.

The next fundamental, employment methods, applies primarily to attack and cavalry aviation, and is directly correlated to maximization of available assets and synchronization. Whether employing cavalry/ attack aviation in simultaneous or sequential operations, the commander must ensure that sufficient combat power is available and is applied at the decisive time and location on the battlefield.

Synchronization is the sixth and final fundamental, with the objective being proper application of aviation capabilities in accordance with the BCT commander's intent. This takes many forms, including prepositioning multiple casualty evacuation (CASEVAC) aircraft at the ambulance transfer point expected to receive the most casualties, having sufficient aircraft and crews available to reposition personnel and equipment to defeat a penetration, or having attack aircraft at a readiness condition (REDCON) level facilitating their quick response to defeat a flank armor threat. Synchronization is basically merging both the air and ground fights into one.

Observations & Recommendations

The overall observation here at the NTC is that the aviation fight is not synchronized with the ground fight. While there are a myriad of reasons, I'll briefly discuss the following four:

1. LNOs,
2. Graphics and control measures,
3. Understanding the BCT commander's intent, and
4. Clearance of fires.

LNOs

Most aviation LNOs who deploy to the NTC are junior, inexperienced and unprepared to synchronize aviation maneuver with ground maneuver. Many are simply not familiar with the capabilities and limitations of the full spectrum of aviation operations, and therefore either undersell or oversell aviation's role in the fight. Attack aviators tend to understand planning requirements for attack missions, but have little knowledge of general-support aviation requirements, and vice versa.

A second common observation is that LNOs are not resourced to effectively perform their roles. Some do not have radios or vehicles, and are therefore totally reliant on Mobile Subscriber Equipment (MSE) for communications. How do we reverse this trend?

First, we must ensure our aviation LNOs are trained to standard at home station prior to operational/ combat training center (CTC) deployments. We recommend a certification program in which an LNO demonstrates proficiency in general knowledge across the full spectrum of aviation operations (attack, cavalry, general support, assault, medium lift). The "Aviation LNO Handbook" produced by the Army Aviation Center is a great start point for the general aviation knowledge required.

The LNO must also understand some basic BCT doctrine. As an example, an LNO working with a mechanized BCT should be familiar with the breaching acronym "SOSR" (suppress, obscure, secure, reduce). The LNO can then bet-

ter integrate the capabilities of Army aviation into critical points in the fight (2.75-inch smoke rockets from AH-64s as a backup method of obscuration for artillery, etc.). This certification must also include standardization of reporting requirements, including the commander's critical information requirements (CCIRs) and routine situation reports (SITREPs).

The culminating event in the LNO's certification is participation during both the planning and execution phases of BCT exercises, with performance feedback provided by senior officers. The endstate of LNO certification must be an aggressive aviator who knows his craft, and possesses the professional savvy to integrate aviation capabilities into the fight to support the BCT commander's intent, while mitigating the tactical risks to aircrews and potential "fratricide." As far as resourcing, we recommend the LNO, at a minimum, have an NCO (93P), a driver and a vehicle with FM communications. Additionally, the LNO requires dedicated MSE in the BCT Tactical Operations Center (TOC). This will provide 24-hour capability, as well as redundant communications with the unit.

Graphics and Control Measures

Graphics and control measures are routinely a source of friction for aviation units at the NTC. A common observation is aircrews flying in BCT battlespace with only aviation graphics on their maps.

I recently observed a great example of this as a UH-60 with infantrymen onboard conducted counter-reconnaissance in the BCT zone prior to an attack. The O/C onboard the aircraft noted that the aircraft had flown across the line of departure (LD), and asked the crew if they had permission to do that. The pilot-in-command (PC) responded, "I'm not sure whether we have permission. We didn't post the phase lines on our maps, so we're not sure exactly where the LD is either."

While this is an extreme example of cause and effect, it is indicative of a general reluctance (lack of discipline?) to post non-aviation graphics on our flight maps. As a little challenge, I would ask that the company commanders who read this article "confiscate" their aircrew maps following the next executed battle drill. You may be surprised (and disappointed) at what your aircrews are executing missions with.

Our recommendation to fix this problem is to standardize the graphics required to be posted on aircrew maps during mission execution. Units should identify the minimum BCT graphics required for operations (boundaries, phase lines, objectives, battle positions, engagement areas, etc.), and enforce the standard through precombat checks by leaders.

A second related observation is our failure to coordinate control measures for all possible contingencies during planning. Again, I'll use an example to demonstrate what I mean. The BCT is conducting a defense in sector. It has operational control (OPCON) of an attack battalion, which is tasked to conduct an attack across the forward line of friendly troops (cross-FLOT) to destroy a second echelon motorized rifle battalion (MRB) prior to its entering the main battle area (MBA). This same attack battalion is also tasked to be prepared to defeat enemy penetrations in the ground battalion task force sectors. The observation is that we do a great job planning the cross-FLOT attack; however, we do minimal planning for the possible hasty attacks against enemy penetrations. Therefore, when the call comes to execute the hasty attack, we're forced to develop control measures "on the fly" with the ground task force to engage the enemy while preventing fratricide.

The friction caused by lack of graphics and control measures can be solved by more aggressive premission planning and coordination with the BCT. If you're an attack battalion supporting a defense in sector, assume penetrations in all ground task force sectors, and coordinate control measures (routes, battle positions, engagement areas, etc.) with the corresponding units. If you're a general-support unit tasked to move a light-infantry company (BCT reserve) to defeat a penetration, plan and coordinate routes and landing zones (LZs) to support all feasible courses of action, and not just the most likely. The bottom line is that we must improve in aggressive premission planning and coordination to support all potential missions during the BCT fight. This will facilitate ease of execution for aircrews, while demonstrating the tremendous versatility and flexibility of Army aviation.

Understanding BCT Commander's Intent

To accomplish the aggressive premission planning and coordination mentioned above, we must understand how the BCT commander intends to defeat the enemy, including his scheme of maneuver. This is critical to successful air-ground integration.

At the NTC, aviation units tend to focus planning and preparation on the aviation missions only, with minimal effort to fully understand how the BCT commander plans to execute the fight. Therefore, we sometimes observe aviation units planning routes not integrated with the BCT scheme of maneuver, and in direct conflict with artillery position areas. We also see units slow to respond to fragmentary orders (FRAGOs) during the fight, due to lack of situational awareness of the ground fight.

How do we fix this?

The Eagles recommend coordinated premission planning and preparation. Build the aviation route structure around the BCT scheme of maneuver, taking advantage of friendly front line trace where possible. Avoid overflight of artillery position areas (PAA), thereby reducing risks to aircrews while not inadvertently causing check-fire conditions for the guns during the fight. Additionally, include ground task force schemes of maneuver in aviation rehearsals.

By having the LNO (here's that key player again) discuss task, purpose and general scheme of maneuver for each ground task force, aircrews walk away from rehearsals prepared for mission execution with much-improved situational awareness of BCT battlespace.

Regarding rehearsals, aviation units do not consistently execute rehearsals prior to fights at the NTC. We are notorious here for substituting crew backbriefs instead, with the result being crews going downrange with poor situational awareness. We need to conduct rehearsals in accordance with the standard defined in FM 101-5, Appendix G, "Rehearsals," in order to properly facilitate successful air-ground integration.

Clearance of Fires

Clearance of fires on the battlefield is critical to both defeating the enemy and preventing "fratricide." It is also extremely challenging, particularly for aviation supporting a BCT.

Air-on-ground "fratricide" is not uncommon at the NTC, and normally occurs for the same reasons. These reasons include poor target identification, lack of situational awareness of the ground situation, and clearance of fire procedures not standardized and known by all.

Most of the remedies for clearance of fires problems are embedded in the previous paragraphs. We have to understand the BCT scheme of maneuver, and battle track during the fight to know the current situation of both friendly and enemy forces. We must have procedures clearly stated in both the BCT and aviation TACSOPs for quickly and effectively clearing fires during the fight, enabling destruction of the enemy while preventing "fratricide." And we need to improve our target identification, particularly under night vision devices.

One focus of home-station target identification training must be on correctly identifying the friendly vehicles we can expect to see on the battlefield, with these vehicles varying based on types of organization (mechanized, light, air assault, etc.). These recommendations will all contribute to more successful clearance of fires for aviation units, with the end result being improved air-ground integration. Implementation will also increase the confidence levels of aircrews, who will then be able to operate much more aggressively because they'll have much better situational awareness.

Summary

Air-ground integration is an essential tenet of successful operations on the modern battlefield. It's also extremely challenging, and requires diligent planning and preparation by both aviation and ground staffs to effectively add the third dimension to BCT battlespace. However, by focusing on basic requirements as set forth in doctrine, we can successfully accomplish air-ground integration and maximize aviation's contribution to the BCT fight.

While the recommendations in this article are not all-inclusive, they should serve as a starting point for units in assessing their current effectiveness in air-ground integration. We on the Eagle Team are your aviation representatives at the NTC, and we stand ready to assist units in successfully integrating air and ground capabilities on the battlefield of "Mojavia."

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MAJ Michael J. Barbee is aviation S3/operations trainer at the National Training Center, Fort Irwin, Calif.

Comanche Update *cont'd. from pg. 17*

cates that the maximum rated power of the growth engine can be increased by 70 SHP at 4,000 feet/95 degree conditions with minimal effects on overall engine component life. This would result in an increase from 1,131 SHP to 1,201 SHP MRP at 4K/95 conditions and provide growth potential for the aircraft. The Army is planning to test and qualify the engine at the higher SHP during PPQ. Using the standard weight-to-power ratio of four pounds to one SHP results in an increased lift of approximately 560 pounds. Plans are to have the higher SHP growth engine available in time for Comanche flight-test of Aircraft 3, which is currently planned for February 2004.

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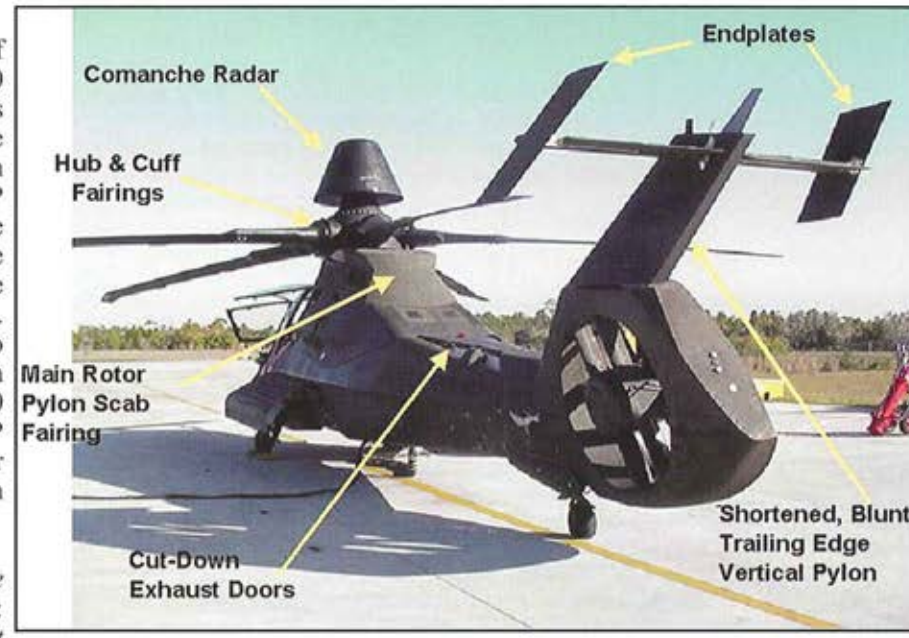
COL Robert Birmingham is the Comanche program manager, and Mr. Jimmy Hill is the T800 engine product manager.



Chinook Update *cont'd. from page 21*

(airmobile Forward Arming and Refueling Points) and is a real boon in the performance of ferry flights and increased tactical mission ranges. The program is fully funded through fiscal year 2004, at which time all Tables of Organization and Equipment (TOE) units will be fielded to a basis of issue approaching 1 B-Kit per three aircraft. As part of fielding, every CH-47D airframe is being modified to accommodate the installation of the ERFS II B-Kit.

The Cargo Helicopter PMO also continued development of the Low Maintenance Rotor Hub. The new Low Maintenance Rotor (LMR) will provide major cost and readiness benefits for the Chinook. The current CH-47D rotor head contains 400 parts in the hub-system assembly, including critical bearings that require lubrication. These bearings contain drain points that allow lubricants to escape, requiring inspection and repair and replacement of seals and other parts. The rotor-head assemblies are the number two and three O&S cost drivers for the Army's CH-47 fleet.

The LMR design replaces lubricated "wet" bearings with elastomeric "dry" bearings that require no additional lubrication. The LMR eliminates at least 10 days of unscheduled maintenance per aircraft each year translating into a greater than 2.7 percent readiness rate increase. The design also reduces parts count from 400 to 195 and will provide increased fatigue lives. The dry lubricant bearings located in the pitch and lead-lag hinges are required to last 1,250 hours, while the elastomeric bearings in the flap hinge are required to last 3,000 hours. All components can be replaced in the field and the new rotor head will be interchangeable with the existing Chinook hub while retaining the same rotor flight dynamics.

The program was made possible through a partnership with the United Kingdom. Fielding is scheduled to begin in FY 2004. Estimated O&S cost savings will exceed $200 million for the Army over the next 20 years.

The Chinook's engine air filtration system has been modified to increase its effectiveness and usability. Due to sand/dust damage experienced by turbine engines during operations Desert Storm and Desert Shield, an engine air filtration system, referred to as the engine air particle separator (EAPS), was developed for the CH-47D in 1990.

In the following years, field experiences identified problems with foreign object damage (FOD), seal leakage, stress cracks in the filtration module, and difficulty in installing and removing the air filtration modules. A follow-on effort was initiated to address the problems. The result was incorporation of an internal FOD screen, elastomeric P-seals, structural reinforcement, and a latch pin and hook latch locking mechanisms. The mounting feet were also modified to incorporate a micro-adjustment feature to improve fit. An upcoming flight-test program will provide performance data for the T55-GA-714A turbine engines with modified EAPS.

The Cargo PMO is also leading the way in the recapitalization of the Chinook fleet. Recapitalization is the maintenance and systemic upgrade of currently fielded systems to extend the service life; reduce operating and support (O&S) costs; and improve system reliability, maintainability, safety and efficiency. The PMO is collecting baseline reliability data to be used to establish and investigate candidates (major contributors to O&S cost) for focused recapitalization. In cooperation with other Army agencies, these components will be replaced during the conversion to the CH-47F model configuration and during depot overhaul to achieve the focused recapitalization objectives described above.

Through the initiatives above, the Cargo Helicopter Project Office is managing the program's past, present and future, and is ensuring that soldiers in the field have an effective and suitable system meeting all requirements. The CH-47 Chinook continues to fulfill the broad range of heavy-lift operations and the Cargo Helicopter PMO will ensure the Chinook remains the world's premier heavy-lift helicopter.

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Steiner, Keith, Air Comm Corp., 3300 Airport Rd, Boulder, CO 80301.

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Sullivan, Robert J., 2232 N. Gaylord Street, Mesa, AZ 85213.

Taylor, Michael M., P.O. Box 3422, West Point, NY 10997.

Tesmer, Michelle, Sears Industrial, 6762 Dana Ave, Hudson, OH 44236.

Thomas, Matthew J., P.O. Box 1379, West Point, NY 10997.

Thornton, Sarah D., P.O. Box 717, West Point, NY 10997.

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Wade, Brian M., P.O. Box 4515, West Point, NY 10997.

Watroba, Christopher, P.O. Box 385, West Point, NY 10997.

Wenzel, John A., P.O. Box 750, West Point, NY 10997.

Westerberg, Erik P., P.O. Box 0752, West Point, NY 10997.

RETIRED/OTHER

Kempster, John E. COL, P.O. Box 221, Melvin Village, NH 03850.EM: pops@prodigy.net or jack.kempster@itt.com

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Langenwalter, Kent W. 1SG, 5040-1C Samet Drive, High Point, NC 27265.EM: kentl@vvm.com

Rynne, Joseph M,Jr CSM, c/o JPPSO, 197 Littleton Road, Chelmsford, MA 01824.

Welch, Lawrence R. MAJ, 1635 Pinon Glen Circle, Colorado Springs, CO 80919.EM: lwelch@sikorsky.com

Apache Update *cont'd. from page 20*

NTC for the Division Capstone Exercise with 16 TESS-equipped Longbows. The first Battalion set of TESS was fielded to the 21st Cav. at Fort Hood in January to support the UFTP training activities. Fielding will continue this year at Fort Hood; Fort Campbell; Fort Stewart, Ga.; and Korea. Follow-on fielding will be to Germany; Fort Bragg, N.C.; and Fort Carson, Colo. Once fielded, TESS will be supported by U.S. Army Simulation, Training and Instrumentation Command, which will be responsible for the installation, removal and maintenance of TESS at every fielded location.

As always, we are doing everything we can to provide the best possible support to the fielded AH-64A and AH-64D units. This includes everything from working Engineering Change Proposals to supporting unit deployments. The soldiers in the field are running a world-class operation, which requires world class support. The AH-64A is expected to remain in the inventory for many years to come, so we must do everything we can to maintain it as a viable, survivable fighting force which provides significant combat power.

As you can see, there has been and continues to be significant activity with the Apache fleet. We believe that all these efforts will continue to provide and maintain the premier attack helicopter fleet in the world for the foreseeable future.

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COL Howard T. Bramblett, the Apache project manager, is based at Redstone Arsenal, Ala.

Military Aviation Turns 91

Story and Photo by Yolanda Hagberg

More than 100 members of the National Order of the Daedalians' Stinsons Flight Number 2, the Army Aviation Association of America's Dibrell Chapter, and others recently assembled at the Fort Sam Houston, Texas, Officers' Club to commemorate the 91st anniversary of the historic first military flight.

On March 2, 1910, after only 54 minutes of preliminary flight instruction, Army 1LT Benjamin Foulois began his pioneer flight at Fort Sam Houston. He took off at 9:30 a.m., attaining a height of 100 ft. and circling the area at the speed of 50 mph. He landed seven minutes later. This was the first flight following the government's purchase of the 1909 Wright Flyer, the military's first airplane.

The commemoration's keynote speaker was BG Virgil Packett II, deputy commanding general of the U.S. Army Aviation Center at Fort Rucker, Ala. His remarks on the historic first military flight were welcomed by the crowd, whose spirits were not dampened by cold and rainy weather.

"I trust that when LT Benjamin Foulois flew 91 years ago today, he had a little bit better weather out there," Packett said. "Today I want to honor Foulois, a pioneer in the truest sense of the word; a pioneer in terms of aviation and what he means to us by piloting Army Aircraft Number 1 91 years ago today."

Packett compared the similarities and difference of the beginning of the two centuries in terms of the nation's wars and campaigns, and talked about the technology of those days to better put in perspective the challenges Foulois faced.

"Clearly, LT Foulois lived in exciting times and was an exciting man. ... He took correspondence courses and communicated with the Wright brothers to learn how to fly via mail," said Packett, referring to Foulois' illustrious military career, which included the 1910 landing of the first Army airplane at Fort Sam Houston. Foulois later became the first chief of the Army Aviation Corps.

"As we continue to reach for those new horizons, and we recognize the birth of military aviation today, we clearly memorialize the past," said Packett. "Look to the sky, dream and let those dreams run. Let your curiosity run, let it run at full gallop, at full steam. Because there are no boundaries — the future is still ours. Thanks to the great people like the Foulois of the world, we have a great future ahead of us today."

Air Force Brig. Gen. Peter Sutton, captain of the National Order of the Daedalians' Stinsons Flight Number 2 (left), and BG Virgil Packett II, deputy commanding general of the U.S. Army Aviation Center at Fort Rucker, Ala., place the traditional memorial wreath at the site of the first military

After Packett's remarks, a solemn moment of silence was observed in honor of Foulois and his historic flight. Following the playing of the service song medley, Peter Sutton, captain of Stinsons Flight Number 2, joined Packett in visiting the site of the monument marking the birthplace of military aviation.

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Yolanda Hagberg works for the Fort Sam Houston Public Affairs Office.

Editor's Note: Army Aviation is seeking good-news announcements of aviation-related professionals who are on the move. If you or your organization have an upcoming change of leadership (at the battalion or squadron level, or higher for MTOE and TDA units), please forward the information to Barbara Ross, care of the AAAA National Office.

CY00 Command Sergeant Major, Sergeant Major, and USA Sergeant Major Academy Course Selection Board Results

Name	Grade	Seq#	NCOES	CSM
Aarons, Clifton G.●	SGM	67Z5		SEL
Aila, Antoinette K.●	SGM	93P5		ALT
Alcendor, Ralph R.	SGM	67Z5		SEL
Andrews, Ronald D.●	MSG	67Z5	00010	NRES
Balch, Stanley W.	MSG	67Z5		ALT
Burnside, Garnard W.	MSG	93P5	00007	NRES
Camacho-Colon, Angel	SGM	67Z5		SEL
Clark, Terrence	MSG	93P5	00002	NRES
Clarke, Jerry A.	SGM	67Z5		SEL
Cowling, Kenneth	MSG	67Z5	00003	NRES
Crosby, Ricky L.	MSG	93P5	00008	
Cullen, Terry M.	SGM	67Z5		SEL
Deere, Lisa M.	MSG	67Z5	00022	RES
Delgado, Jose G.	MSG	93P5	00001	NRES
Diaz-Rodriguez, Orlando	SGM	67Z5		SEL
Felder, Robert J.	MSG	67Z5	00011	NRES
Foster, Diane M.	SGM	67Z5		SEL
Fox, Robert A.	MSG	67Z5		ALT
Gallegos, Mark C.	MSG	67Z5	00014	NRES
Gay, Clark J.	MSG	93P5	00011	RES
German, Zackery	SGM	67Z5		SEL
Gonsalves, Jarrett	MSG	67Z5	00020	RES
Gray, Wrightington	MSG	67Z5	00007	NRES
Gregg, Donald J.●	MSG	67Z5	00019	RES
Harris, Eric J.●	SGM	67Z5		SEL
Hunter, Michael M.●	SGM	67Z5		SEL
Jallah, Dennis Jr	MSG	67Z5	00006	NRES
Jarman, Keith A.	MSG	93P5	00003	NRES
Kennedy, Homer L.	MSG	67Z5	00021	RES
Kingston, George R.	MSG	93P5	00009	NRES
Link, Shirley+	MSG	93P5	00006	NRES
Lord, Lonny D.	SGM	67Z5		SEL
Luckie, J. T. Jr	MSG	67Z5	00012	NRES
Mabrouk, Wagdi	SGM	67Z5		SEL
Marin, Hector G.●	MSG	67Z5	00013	NRES
McCoy, Herbert W.+	SGM	67Z5		SEL
Mendez-Velazquez, Fe	MSG	67Z5	00004	NRES
Miles, Marc A.	MSG	93P5		ALT
Morrison, Ivonne M.●	SGM	93P5		ALT
Moten, Alphonso ●	SGM	67Z5		SEL
Moton, Melvin V.	SGM	67Z5		SEL
Murray, Gordon F.	MSG	67Z5	00009	NRES
Neysmith, Errington ●	MSG	67Z5	00001	NRES
Ortiz, Juan J. Jr	MSG	67Z5		ALT
Parducho, Rollie R.	SGM	67Z5		SEL
Perdices, Laura L.	MSG	93P5	00010	NRES
Peterson, Steven L.	SGM	67Z5		ALT
Postell, Michael G.	MSG	67Z5		ALT
Reeder, Terry W.	MSG	93P5	00005	
Reynolds, Johnny	MSG	93P5	00004	
Rinde, Craig H.	SGM	67Z5		SEL
Romantosado, Carlos	SGM	67Z5		ALT
Ronsairo, Ronaldo N.	SGM	93P5		SEL
Seymour, Allen W.	SGM	67Z5		ALT
Steele, Thomas H.	MSG	67Z5	00017	RES
Stewart, Michael J.●	SGM	67Z5		SEL
Stidley, Richard D.●	MSG	67Z5	00018	RES
Stone, David	MSG	67Z5		ALT
Sturtevant, Jeffrey●	MSG	67Z5	00015	RES
Tart, Willie E.	MSG	67Z5	00023	RES
Thurecht, Danny G.	MSG	67Z5	00016	RES
Tonkphontong, Dumro	SGM	67Z5		ALT
Torres, Francisco J.	MSG	67Z5	00002	NRES
Troy, Jeffery	SGM	67Z		SEL
Vazquez, Eric	MSG	93P5		ALT
Webster, Fred W.	MSG	67Z5	00008	NRES
Weidhas, Paul N.	MSG	67Z5	00024	RES
Woods, Frankie L.	SGM	93P5		SEL

● = AAAA Member + = AAAA Life Member

FY00 Reserve Component Lieutenant Colonel Promotion Board Results

Name	BR	Name	BR	Name	BR	Name	BR
Aquino, Adolfo	AV	Ferrando, James E.	AV	Lourigan, George J.	AV	Righello, Joseph D.●	AV
Bishop, Brian E.	AV	Foshee, Alvin L. Jr	AV	MacMillan, Donald	AV	Ryan, Kevin C.	AV
Blohm, Daryl W.	AV	Garman, Gary G.	AV	Magerkurth, Brian W.	AV	Scott, Bernard	AV
Brewer, Thomas R.	AV	Garner, Martin	AV	McGee, Matthew B.●	AV	Seymour, Kenneth H.	AV
Brockman, J. Rudolph	AV	Gerena, Alfredo	AV	Medlin, Everett R. II+	AV	Silva, Vitelio N.	AV
Bryant, Mark S.	AV	Griffin, Harry F.	AV	Menke, Gary M.	AV	Smith, Mark C.	AV
Bryant, Paul P.	AV	Grigsby, Scotty D.	AV	Merritt, Paul A.	AV	Snellgrove, Craig C.	AV
Burke, Timothy J.	AV	Hagen, Robert D.	AV	Mobley, Raymond	AV	Szempruch, Robert J.	AV
Cahill, John A.AV		Hartbarger, Raymond C.	AV	Moffat, Randolph	AV	Tyler, Rocky J.	AV
Casmey, Michael L.	AV	Jennings, James F. Jr	AV	Oconnor, Jane K.	AV	Weaver, Michael E.●	AV
Cianfrani, Keith M.●	AV	Keenan, Kevin B.	AV	Palmer, Bryan K.	AV	Wells, Nancy E.	AV
Cosgrove, Mark A.	AV	Keener, Kenneth R.	AV	Peeples, Jennifer	AV	Whitebread, Carla A.	AV
Cummins, Michael D.	AV	Keeney, Patricia T.	AV	Pehanick, Albert P.	AV	Williams, Victor K.	AV
Currie, Michael J.●	AV	Kiesov, John M.	AV	Peterson, Gunnar B.	AV	Wong, Tezeon Y.+	AV
Dent, Daniel M.	AV	Kress, Raymond P. Jr	AV	Phaneuf, Alan M.	AV	Woodard, Gregory L.+	AV
Eckstein, Bryan S.	AV	Lea, Randall A.	AV	Plants, Jeffrey W.	AV	● = AAAA Member	
Elliott, Mayo	AV	Leblanc, David E.●	AV	Pound, Diane M.	AV	+ = AAAA Life Member	
Ferguson, Ronald M.	AV	Lewis, Timothy J.●	AV	Renner, Donald A. II	AV		

Briefings continued from page 3

The Army has awarded **L-3 Communications** two engineering change proposal contracts totaling $5.2 million. The contracts cover enhancements of CH-47D Chinook flight simulators used by Army units based in South Korea, and of a CH-47D and a UH-60A/L simulator at Fort Campbell, Ky. The upgrades will be performed by Link Simulation and Training's facility in Binghampton, N.Y., and are scheduled for completion during September.

Lear Siegler Services Inc. has created an Army Aviation Association of America perpetual scholarship fund that will benefit members of AAAA's Fort Rucker, Ala., Aviation Center Chapter and their dependents. LSI's scholarship is part of the AAAA Corporate Matching Fund Scholarship Program, which allows a company to contribute a donation, over five years, with a maximum of $10,000 matched dollar for dollar by AAAA's General Fund.

Logicon Inc. has been selected by the Department of Defense to lead the team that will conduct vulnerability assessments of Army Reserve facilities worldwide. The work will be performed as a task order under the General Services Administration's Safeguard program, and has a potential value of $10 million over three years.

The **Longbow Limited Liability Company**, a joint venture of Lockheed Martin and Northrop Grumman, has won a firm, fixed-price contract modification worth $118.1 million to provide the Army with Longbow fire-control radars (FCRs), spare parts and logistics support services. This contract raises the funded value of the Longbow FCR multiyear production contract to $442.9 million. In related Apache Longbow news, Israel has signed a letter of offer and acceptance for the purchase of nine AH-64D helicopters.

The **National Aeronautics and Space Administration** has informed the Army that the Astronaut Selection Board scheduled for June has been cancelled. NASA said the move was prompted by its decision to delay the intake of new astronauts buy at least one year, owing to a revision in agency plans for flights to support the International Space Station. The already announced Army Astronaut Candidate Screening Board will therefore not be conducted. The U.S. Total Army Personnel Command will no longer accept applications for the board and will return any applications received. As soon as NASA notifies the Army of the rescheduling of Astronaut Selection Board, application information will be posted on PERSCOM's website.

"Lockheed AH-56A Cheyenne,"

by Tony Landis and Dennis R. Jenkins. (Warbird Tech Series, Vol. 27, Specialty Press, North Branch, MN, 100 pages, $16.95.) Reviewed by COL Stephen G. Kee, U.S. Army (Ret.)

ARMY AVIATION BOOK REVIEW

"Lockheed AH-56A Cheyenne," the first book in the Warbird Tech Series about a helicopter, is richly illustrated with photographs and technical sketches.

The first third of the book simultaneously traces the technical development of helicopters and their evolution as warfighting machines, culminating with the Cheyenne. The short tutorial enables the reader to better understand the technical challenges faced by the Cheyenne's developers. The remainder of the book portrays the struggles of the developers to meet the cost, schedule and performance demands of a program that was technically years ahead of its time.

The authors interviewed many of the original members of the contractor's team and accurately portray the feelings of the team that the technical solutions were there, if only the government had stuck with the program. Although the book is well worth reading for its technical overview of the program, I greatly appreciated the authors' recognition that a program is more than the sum of its technical struggles. Politics, changing military requirements, cost, schedule and inter-service rivalry can be just as deadly for a program. The authors chronicle how these factors combined to kill the Cheyenne.

Indeed, Don Segner, a Lockheed test pilot, is quoted as saying: "What killed it? No one thing. The excuse given was roles and missions. It died because of the changing political rules, the Army's naivete, the McNamara total-package procurement approach, interference from within the Army from people that did not know what they were doing, and people in industry who did not want us to succeed." (Pg. 82).

The timing of this book's publication is interesting. As the new administration struggles to define the military's role in the new century and thus reexamine the programs of the last decade, the points made by those that lived through the extraordinarily similar conditions of today and the late 1960s and early 1970s should be noted. Stretching programs due to funding constraints combined with technical challenges serve to radically increase cost. Any analyst or program manager recognizes that reality.

However, in an era when the very necessity for certain programs is called into question — whether it is due to the lack of urgency of post-Vietnam or the post-cold war — these factors will combine to result in cancelled programs. The lesson here for all of us is that the promise of revolutionary technology is not sufficient to sustain a program in changing times. Limited funding forces choices among sustaining the mature technology of current systems, upgrading current systems with new technologies, and fielding new systems with new technologies. The authors recognize the factors that combine to result in cancelled programs. The real challenge is to correctly ascertain how limited funds should be spent.

Tips from TOPS ☑

By LTC Charles A. Hall

School Administration

Military leadership skills can bring success in this second career.

Education is at the top of every politician's agenda these days. Faced with diminishing funding and demands for accountability and public participation, school boards are looking to leaders with successful track records in the business and military communities to lead their school districts. Many skills learned in the military easily transfer to the public school community, and many retired officers are entering this satisfying field. But remember what I tell all my employees: If you don't like kids, get a job somewhere else!

Some former servicemembers have gone directly to the top. In 1995, Maj. Gen. John Stanford, USA, assumed leadership of the Seattle school district at a low point in its history. Before an untimely death from cancer, Stanford made his mark as an innovative leader with a vision for the future of Seattle's children.

Two other retired officers currently run school districts in the state of Washington. Col. Jim Coolican, USMC-Ret., recently took the helm of the 9,500-student Peninsula school district in Gig Harbor. Through communication with the community and improved relations with the staff, Coolican has brought stability to a district with a history of mediocre leadership. Col. Raymond F. Arment III, USA-Ret., assumed the leadership of the 2,000-student rural Eatonville school district two years ago. Arment's even-handed leadership style has brought community support to a district with a troubled past.

After a 20-year Army career, I followed the more conventional route from teacher to principal to superintendent. I received my master's degree while completing my last assignment in the Pentagon, then taught at a high school in Washington state and was asked to be principal after my second year. Five years later, I moved to a school, and three years after that I was made superintendent. Although I took the job without benefit of certification, I received my credentials a few months later. (In many states, certification is not required for school superintendents, though I know of no state that doesn't require certification of principals.)

When I first went into school administration, I was concerned that I did not have the requisite background. But I found my Army training more useful than my educational training. Basic leadership skills such as mission orientation, looking out for your people, and problem solving aren't usually addressed in education degree programs, and no one outside the military ever told me that integrity is one of the most important traits of a leader. Civilian institutions didn't teach me about long-range or backward planning. This leadership training provided by the military prepares former officers to be successful leading school districts.

If you would like a second career in education, contact state education departments to determine certification requirements. Subscribe to education magazines (I recommend either *Principal* or *The School Administrator*). Job postings can be found on the American Association of School Administrators' Web site, accessible through TROA's links page (www. troa.org/magazine/ links.asp).

Most of you completed a military career to serve your country. Now you can have the satisfaction of serving your community in a worthwhile and satisfying career. Good luck!

Lt. Col. Charles A. Hall retired from the Army in 1978. An intelligence specialist, he served tours of duty in Vietnam and Korea and spent more than six years at the Pentagon. He received his doctorate in 1991.

AAAA NEWS

New Chapter Officers

Aloha Chapter:
CPT Jonathan D. Bulseco, Treasurer.

Central Florida Chapter:
Ms. Angela C. Thissen, Secretary; Ms. Laurie A. Concilio, Treasurer.

High Desert Chapter:
CPT Shannon T. Miller, VP Awards.

Mid America Chapter:
MAJ Francisco C. Paulino, Jr., Sr. Vice President; CPT Eric A. McEldowney, Treasurer.

Monmouth Chapter:
Mr. Ronald V. Kurowsky, President; COL Edward L. Carnes, Ret., Sr. Vice President; Ms. Catherine C. Roache, Secretary; Mr. Edward F. Wuyscik, Treasurer; SPC4 John G. Klubnick, Sr., Ret., VP Membership Enrollment; Mr. Joseph G. Ruggiero, VP Programs; CW4 Peter A. Lawrence, VP USAR; COL Theodore T. Sendak, Ret., VP Industry Affairs; LTC William E. Pohlmann, Ret., VP Scholarship; Mr. Paul M. Olson, VP Professional Devt., & R&D; Mr. Richard E. Pribyl, VP Professional Devt., LRC; LTC Thomas F. McNamara, Ret., VP Government Affairs; Mr. Kenneth B. Capolongo, VP Community Affairs; Mr. Alexander Cortez, Jr., VP Sports Events.

North Texas Chapter:
LTC Terrance L. Reininger, Ret., President; Mr. Robert A. Brady, Sr. Vice President; LTC Brennon R. Swindell, Ret., Sr. Vice President; Mr. Wally Herzog, Secretary; Mr. Thomas J. Daley, Treasurer; Mr. John Ryan, VP Membership Enrollment; LTC Gary A. Barber, VP Military Affairs; Mr. LeRoy L. worm, VP Scholarship.

Ragin' Cajun Chapter:
CPT Lars A. Wendt, Treasurer.

Talon Chapter:
COL Rick L. Rife, President.

Taunus Chapter:
CPT Philip P. Speth, Treasurer.

AAAA Honorary Member

Stephanie Piazza
Joseph A. Tijerina

AAAA Soldier of the Month

A Chapter Program to Recognize Outstanding Aviation Soldiers on a Monthly Basis

SSG Debra T. Mumma
December 2000
(Fort Indiantown Gap Chapter)

SPC Antavia M. Striveson
February 2001
(Tennessee Valley Chapter)

PFC Eric J. Farrar
March 2001
(Tennessee Valley Chapter)

AAAA Soldier of the Quarter

A Chapter Program to Recognize Outstanding Aviation Soldiers on a Quarterly Basis

PFC Anthony Allsop
1st Qtr. 2001
(Washington-Potomac Chapter)

AAAA NCO of the Quarter

A Chapter Program to Recognize Outstanding Non-Commissioned Officers on a Quarterly Basis

SGT Anthony S. Coplin
1st Qtr. 2001
(Washington-Potomac Chapter)

SSG Robert A. McNeely
1st Qtr. 2001
(Washington-Potomac Chapter)

New AAAA Life Members

Mr. Robert E. Dean, Jr.
Mr. Dana Griffin
COL(P) James A. Kelley
CPT Stephen W. Miles
1LT Katherine A. Oleksiak
CW2 Patrick W. Rader

Aces

The following members have been recognized as Aces for their signing up five new members each.

MAJ Alex G. Covert
LTC Garnett E. Crask, Ret.
CW5 Lemuell E. Grant
CW2 Matthew R. Nicol
COL Scott D. Wagner
Ms. Pamela D. Woolery

New AAAA Industry Members

Advanced Engineering & Research Assoc.
Aero Aire Corporation
American Competitiveness Institute
AVALEX Technologies
Avionica, Inc.
Brownell & Company, Inc.
Everest VIT
General Dynamics Communication Systems
Kipper Tool Company
Onboard Systems
Raytheon Technical Service Company
Research Triangle Institute
Stanley Vidmar
Westinghouse Safety Mgmt.

In Memoriam

COL Gerar J. Mialaret
CW4 George P. Perry
COL Richard F. Ropp
LTC George D. Shonerd
Joseph L. Wittstrom

New AAAA Order of St. Michael Recipients

CW4 Jay Bellamy (Bronze)
SFC Lydia N. Gause (Bronze)
1SG James F. Hayes (Bronze)
SFC Carter L. Holt (Bronze)
LTC Warren E. Phipps, Jr. (Bronze)
CW4 Charles R. Szad (Bronze)
CW3 Keith Yoakum (Bronze)
CW3 Jonathan L. Wagner (Bronze)
CW4 Duane D. Stanislaw (Bronze)
21SG Glenn S. Soule (Bronze)
1SG(P) Hector G. Marin (Bronze)
CPT Kenneth Kliethermes (Bronze)
LTC Elvin K. Gunter (Bronze)
CW3 Albert M. Gomez (Bronze)
1SG Robert Fosyth (Bronze)
1SG Daniel Dennull (Bronze)
1SG Richard Crane (Bronze)
CW3 Jeffery E. Brummer (Bronze)
MAJ Denbnis W. Brozek (Bronze)
COL Glenn K. Reith (Bronze)
LTC Paul Ciervo (Bronze)
James T. Maguire (Bronze)
SFC Charles T. Silver (Bronze)
MAJ Scott P. Kubica (Bronze)
LTC Kevin W. Brown (Bronze)
CPT Paula S. Alberto (Bronze)
MAJ Michael J. Negard (Bronze)
SFC Henry Bentley (Bronze)
Henry B. Peterson (Bronze)
CPT(P) Kevin K. Zurmuehlen (Bronze)
CPT Andrew D. Gignilliat (Bronze)
MSG Michael W. Bateman (Bronze)
CW4(R) James C. Barnes (Bronze)
LTC Charles O. Koons (Bronze)
CW3 Daniel R. Autrey (Bronze)
Ronald W. Bryant (Bronze)
LTC Emmett E. Shaffer (Bronze)
COL Kurt A. Andrews (Bronze)
MAJ David E. Salter (Bronze)
CW3 William P. Rosser (Bronze)
LTC William C. Carter (Bronze)
MAJ Charles J. Packard (Bronze)
SGM Ernesto Rios (Bronze)
SGM Herman Hawkins (Bronze)
SFC Ricky Jackson (Bronze)
SFC George R. Murch, Jr. (Bronze)
SSG(P) Gregory S. Riggs (Bronze)
SSG Larry B. Gillead (Bronze)
1SG Monshi R. Ramdass (Bronze)
CW4 Luis F. Carnejo (Bronze)
CW3 Robert C. Butler (Bronze)
CW3 Christian A. Larson (Bronze)
CW3 William A. Fisher (Bronze)
CW3(P) Michael L. Scheller (Bronze)
CW4 Donald J. Page, Jr. (Bronze)
1SG John H. Rowe (Bronze)
CW4 Robert D. Petty (Bronze)
CPT Jayson D. Aydelotte (Bronze)
CW3 Richard E. Malvarose (Bronze)
LTC Corwyn B. Tiede (Bronze)
MAJ Stephen A. Toumajan (Bronze)
CPT Daniel M Ruiz (Bronze)
CPT Frederick M. Hinshaw III (Bronze)
CSM Charles M. Richarson (Bronze)
CW4 Gerald W. Burton (Bronze)
CW John E. Prendergast (Bronze)
LTC Peter D. Anzulewicz (Bronze)
LTC Allen L. Peterson (Bronze)
CSM Larry E. Simon (Bronze)
1SG Joseph L. Hawbecker (Bronze)
CSM Gabriel Villasenor (Bronze)
CW3 Russell O. Stark (Bronze)
CW3 James A. Reid (Bronze)
COL James G. Pierce (Bronze)

Iron Mike Chapter

COL William M. Jacobs, president of AAAA's Iron Mike Chapter and commander of the 18th Aviation Brigade, presents the Order of Saint Michael to CW4 Dewayne Rudolph. The ceremony took place at the brigade's Feb. 15 hail-and-farewell ceremony.

The annual Aviation Leaders Training Conference took place Jan. 29 through Feb. 2 at Fort Rucker, Ala. One of the event's annual highlights is the post run led by Aviation Branch chief MG Tony Jones, who is joined the attending brigade commanders and their sergeants major. Pictured above after the run are some of the survivors: (from left to right) COL John MacDonald; then-COL Melvin Roberson; Jones; COL John Braun; COL Stephen Mundt; then-AAAA President MG Carl McNair (Ret.), who helped cheer on the troops; and COL Rick Bowman.

LEGISLATIVE REPORT

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

Senate Approves Concurrent Receipt Funding

Thanks for the grass-roots support. A three-day barrage of e-mails and phone calls convinced senators to take a significant step in support of disabled military retirees by amending the Senate's fiscal year 2002 Budget Resolution to allow funding for concurrent receipt of military retired pay and Department of Veterans Affairs (VA) disability compensation.

Since The Military Coalition (TMC) and The Retired Officers Association (TROA) put out a special alert on this issue, TROA's website has been humming as members and others generated more than 20,000 e-mail messages to Congress in support of the concurrent receipt amendment.

Sen. Harry Reid (D-NV), sponsor of Senate concurrent receipt bill S. 170, offered the final budget resolution amendment on behalf of himself and senators Tim Hutchinson (R-AR), John Warner (R-VA), Patrick Leahy (D-VT), Tim Johnson (D-SD), Susan Collins (R-ME), Carl Levin (D-MI) and Gordon Smith (R-OR). There was no separate vote on the amendment; it was agreed to by unanimous consent of the senators present on the floor at the time.

But this should not be construed as guaranteeing strong Senate support during conference action with the House. Notably, only one of the amendment's cosponsors (Johnson) is on the Budget Committee that will be doing the negotiating.

The provision would allocate $2.9 billion in FY 2002 (and $40 billion over the next 10 years) to eliminate the dollar-for-dollar offset of retired pay and VA disability compensation for regular, Reserve and Guard retirees. It would include chapter 61 (military disability) retirees with at least 20 years of service and all nondisability retirees who subsequently receive disability compensation from the VA.

This marks the first time this issue ever has been addressed by either the House or the Senate in a budget resolution. That's important, because the budget resolution defines the spending ceiling Congress agrees to live by for each fiscal year. It would give the Armed Services committees authority to propose changing the law to eliminate the retired-pay offset. Without such authority, the committees' hands effectively would be tied, and it would take a 60-vote majority to win Senate floor action.

The Senate Budget Resolution action is only a first step. Next, House and Senate negotiators must agree to retain the provision during the Budget Resolution conference committee action that will take place after Congress returns from its Easter recess. If the conferees agree, that will give clearance for the change to be included in the FY 2002 Defense Authorization Act.

Now, the same energy that went into convincing the Senate needs to be put toward convincing the House and Senate Budget Resolution conferees to retain the Senate-passed provision allowing concurrent receipt of military retired pay and veterans disability compensation. There are two ways to do this:

1. Visit House and Senate Budget Committee members in their home district offices to bolster their support during the next two weeks while Congress is in recess. A list of House Budget Committee members can be found at www.budget.house.gov/members.htm. Senate Budget Committee members can be found at www.senate.gov/committees/committee_detail.cfm?COMMITTEE_ID=415

2. Use TROA's website to send a message to House members in support of the Senate proposal. Just visit http://capwiz.com/troa/home/ and enter your ZIP code, then click on the "Budget Resolution-Disabled Military Retirees" link above the photos.

Survivor Benefit Plan Improvements

TROA chapter presidents swarmed Capitol Hill recently visiting their senators' and representatives' offices. They provided a fact sheet and charts illustrating the need to increase the Survivor Benefit Plan (SBP) age-62 annuity. The handouts highlighted how older retirees were inadequately briefed on the SBP age-62 annuity reduction, how the current government subsidy has dropped well below the 40 percent subsidy level intended by Congress, and how military SBP coverage falls considerably short of that the government provides for federal civilian retirees.

Second, they made the case that the current 10.9 percent military pay gap needs to be eliminated as soon as possible. TMC and TROA believe a $1 billion pay raise "plus-up" for FY 2002 is a good first step, but it will offset less than 25 percent of the current gap. In the early 1980s Congress closed the then-7.3 percent pay gap over two years. TMC and TROA would like to see a plan to close the gap over a relatively few years.

Health Supplemental Moves Forward

The Senate adopted an amendment offered by Sen. Pete Domenici (R-NM), to the FY 2002 Budget Resolution adding $8.5 billion in budget authority. It passed the Senate 84-16. The amendment adds $3.1 billion for the Defense Health Program in 2002.

Budget resolutions only set the "top-line" for the authorization and appropriation committees. The resolutions only offer advice, but they cannot compel the other committees to spend the money in the manner that the budget resolution prescribes.

Now that the Senate has passed the budget resolution, it heads to a conference committee where the Senate version will be reconciled with the House version. There is always a risk that the defense spending amendment might be dropped during this process. We will keep you updated on any changes.

Policy to Cut Health Care Costs for Active-Duty Reserve, Guard Employees

On March 14, 2001, the Department of Defense (DOD) announced a new personnel policy, established by Deputy Secretary of Defense Paul Wolfowitz, which mandates that DOD organizations, agencies and the military services will pay the employee's share, in addition to the government's share, of the Federal Employees Health Benefit Program premium.

Wolfowitz has asked the undersecretary of defense for personnel and readiness to develop specific implementation procedures to ensure consistency among the services and agencies. The policy is expected to be in effect by the start of FY 2002. The policy will affect members who have been called up to support on-going contingency operations in Bosnia, Iraq and Kosovo, and those who may be called up for future operations.

For more information, contact Lt. Col. Marty Hauser, Office of the Assistant Secretary of Defense for Reserve Affairs, (703) 693-8617. The e-mail address is **www.defenselink.mil/news/Mar2001/b03142001_bt109-01.html.**

Tricare Pharmacy Off to Big Start

The TRICARE Senior Pharmacy Program officially began on April 1, and early indications are that it is a huge success. One beneficiary indicated that he saved $900 when he ordered a 90-day supply of prescription drugs. The pharmacy information phone line was busy almost continually. Some 10,000 prescriptions had been processed on the first day, and three days later that number had reached 150,000.

If you need further information call (877) DOD-MEDS. You can also check the web site at www.tricare.osd.mil/pharmacy.

DOD Hearing Aid Program

The Retiree At-Cost Hearing Aid Program (RACHAP) provides retired service members the opportunity to purchase hearing aids at government cost. The hearing aids are purchased directly from the manufacturer at substantial savings, often as much as 300 percent, over the cost for the same hearing aids sold and fitted in the civilian community. Unfortunately, the RACHAP is not available to family members.

Retirees are encouraged to call and check availability of the RACHAP at their nearest military treatment facilities.

Servicemembers' Group Life Insurance (SGLI) Increase

Eligible service members will automatically be insured for a maximum $250,000 in coverage through the military's life insurance program, starting April 1. The new coverage marks a $50,000 increase over the previous maximum provided for SGLI.

The premium for maximum coverage will be $20 monthly. Participants can then decrease or maintain their levels of SGLI coverage. Servicemembers who want less than $250,000 of coverage after April 1 must apply for it through unit finance or personnel officials.

If you don't want the increased insurance, you have a 30-day grace period to decline it, otherwise, you'll have to pay at least two months of increased coverage.

The government and commercial insurers underwrite SGLI, which has been in existence since 1965. It has been more than eight years since the last increase in maximum coverage. Ninety-eight percent of all service members are covered by SGLI and 80 percent have maximum coverage.

At 80 cents for each $10,000 of coverage, SGLI rates are competitive, and coverage is guaranteed. Servicemembers can also convert their SGLI policies to the Veterans' Group Life Insurance program after they leave the service.

Free Parkinson's Disease Treatment Through the VA

Parkinson's disease is a serious health problem in the United States. About 1.5 million Americans have the disease and approximately 50,000 new cases are diagnosed each year, according to the National Parkinson Foundation. VA medical centers treat at least 20,000 patients each year who have Parkinson's. More than 600 veterans receive disability compensation for the illness.

To better address the needs of veterans with the illness, in February VA announced creation of six centers specializing in Parkinson's disease.

The centers, called Parkinson's Disease Research, Education and Clinical Centers (PADRECCs), will be established at VA medical centers in Houston, Philadelphia, Portland, Richmond, San Francisco and West Los Angeles. The new centers are scheduled to open October 1.

The Parkinson's centers will develop education and training programs for patients, families, students and health-care professionals. Additionally, each site will conduct a clinical care demonstration program for evaluating new models of care delivery for veterans with Parkinson's disease and movement disorders. Plans call for information to be shared electronically.

DCAOs and BCACs to Assist TRICARE Beneficiaries

To assist TRICARE beneficiaries with resolving debt-collection issues, the undersecretary of defense for personnel and readiness established Debt Collection Assistance Officer (DCAO) Programs at every Lead Agent office and at every military treatment facility worldwide. DCAOs provide priority assistance when presented documentation verifying that collection action has been started, or that negative information is reflected on a beneficiaries' credit report as a result of late or nonpayment for medical or dental care received through TRICARE. While DCAOs cannot provide legal advice or act as beneficiary advocates, they will take all measures necessary to ensure each case is thoroughly researched and that beneficiaries are provided with written findings and assistance in the minimum time possible.

Should you experience undue payment delay for any TRICARE claim that has not been presented to a debt-collection agency, the Beneficiary Counseling and Assistance Coordinators (BCACs) at your Lead Agent or military treatment facility are available to assist in preventing these issues from becoming debt collection concerns.

Contact information for DCAOs and BCACs can be found on the TRICARE web site at **http://tricare.osd.mil/dcao/DCAO_Dir.doc** and **www.tricare.osd.mil/tricare/beneficiary/bcac_dir.doc.**

Army Aviation Center Chapter

Annual Awards Banquet

Fort Rucker Officer's Club
Jan. 31, 2001

The Annual AAAA Fort Rucker Awards Banquet took place Wednesday evening 31 January 2001.

This event was the venue for all the Air Traffic Control awards, as well as the Trainer of the Year, Aviation Medicine, Fixed Wing Unit, Air/Sea Rescue, and Outstanding ROTC Cadet of the Year awards.

The first presentations of the evening were the ATC awards. Helping to present the awards were MG Tony Jones, Aviation Branch Chief, MG Carl McNair, then AAAA President, and Mr. Curtis E. Carter, Director U.S. Army Air Control Activity.

Top left, the ATC Company of the Year award was presented to C Company, 3d Battalion, 58th Aviation Regt. Accepting for the company from MG Jones *(left)*, was the commander, CPT Bryan K. Phillips *(middle)* and 1SG Joseph L. Hawbecker, Senior NCO, *(right)*. Top right, the ATC Facility of the Year, Team 38, 3-58th, Camp Bondsteel, Kosovo, was honored. LTC Eric M. Nelson, *(center)* and CSM Charles A. Momon, *(right)*, Senior NCO accepted the award. The ATC Maintenance Technician of the Year was SGT Phillip A. Schmauch, C Co., 3d Battalion, 58th Aviation Regiment, Wiesbaden, Germany, pictured above left. The ATC Manager of the Year for 2000, *(above right)* was SFC Bobby Griffin, E Company, 1-58 Aviation Regt, Fort Drum, NY. Left, the ATC Controller of the Year, SSG Scott E. Nutter, D Co, 1-58 Aviation Regiment, Hunter AAF, GA accepts his award.

Other National Awards presented included the Fixed Wing Unit award sponsored by Flight Safety International. Right is pictured CW5 William Schaller accepting the award from MG Jones for the 204th Military Intelligence Battalion (Aerial Reconnaissance), Fort Bliss, TX. The next award was the Air/Sea Rescue award sponsored by Lucas Aerospace and presented to the 571st Medical Company (Air Ambulance), Fort Carson, Colorado. Left, MAJ Joseph G. Eckert, commander and 1SG Michael Brennan accepted the award on behalf of the crews and unit. On 25 March 2000 the unit conducted an extremely dangerous 13,500 foot life saving hoist rescue mission to rescue an injured hiker. Right, the 2000 AAAA Medicine Award sponsored by the Gentex Corporation went to LTC Walter J. Lawrence, USAAMC, Fort Rucker, AL. Bottom left, the Trainer of the Year award, sponsored by L-3 Communication, Link Simulations and Training, was presented to CW3 Robert B. Rainer, B Company, 1st Battalion, 160th Special Operations Aviation Regiment, (Airborne), Fort Campbell, KY.

Also during the event, the 2000 ROTC Aviation Cadet of the Year was honored. Pictured bottom right is 2LT Katherine A. Oleksiak who is now attending flight training at Fort Rucker.

The entire evening was an outstanding effort by the Aviation Center Chapter of AAAA. Hats off to all the awardees and especially Chapter President COL Terry Peck and his crew for another job well done.

AAAA NEWS

NEW MEMBERS

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CPT Cort W. Andrews
CPT Miguel A. Aponte
CW2 Carl B. Barber
MAJ Bryan S. Bean
MSG William L. Beard, Ret.
CPT Daniel V. Berger
CPT Craig S. Besaw
CPT Richard M. Bratt
CPT John B. Broam
CPT H. David Brooks
SFC Anthony N. Brown
CPT Darren W. Buss
Mr. Michael R. Carey
CPT Christopher Cassibry
CPT David F. Coy
CW3 Jeffrey S. Curd
CPT Marc C. Dorrer
CPT Eric S. Durham
WO1 Timothy J. Edgette
CPT Jodi L. Eppler
SFC Thomas M. Evans
CW3 Ralph E. Ferrell
CPT Stephen E. Gauthier
CW4 Chuck Gehring
CW4 Thomas W. Gerrish
CW3 George C. Goodman
CPT Steven D. Gunter
SSG Roy W. Henderson
1SG Benjamin F. Hughes Jr.
SPC Mark Jaminet
CW4 Stephen W. Jaspering
CW4 Ronnie L. Johnson
CW3 Michael E. King
CPT John H. Knightstep
SGT Jeffrey J. Levesqus
CW3 Troy Mercier
CW4 Jimmy E. Michael
SFC Michael D. Nance
CW2 Rickey L. Nichols
CPT Michael E. O'Neil, Ret.
CPT Gabriel A. Pennone
CW3(P) William C. Ragsdale
CPT Chuck R. Rambo
CPT Christopher G. Reid
CSM Clifford M. Roderiques
MSG Carl G. Rosenberger
CPT William A. Ryan
CW4 Mark E. Shaughnessy
CPT John W. Shields
WO1 Anna Smith
SFC Wilson Staubitz
WO1 James C. Stockton
CW2 James B. Thomas
SFC Ricky G. Thornton
CPT Stephen D. Zamarro

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CW2 John M. Glen
Mr. Fred L. McCollum

ARIZONA CHAPTER MESA, AZ
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LTC Peggy R. Carson
Mr. Joe C. Koch
Mr. Shane LaPlante

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Mr. Fred A. Etheridge
CW4 Michael J. Plankis

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2LT Clifford R. Anders
Mr. William A. Anderson
WO1 John D. Andrus
CPT Joel K. Aoki
WO1 Matthew M. Ardaiz
2LT Eric E. Artemis
2LT Michael C. Athanasakis
2LT Justin Avery
2LT David M. Baker
WO1 Shad T. Baldwin
WO1 Raul A. Banueios
MAJ Mindy G. Barbe
Ms. Billie Jean Beaver
MAJ George S. Belin
WO1 Marcus R. Bennett
CW3 Charles R. Bledsoe, Jr.
CW5 Randy Lee Bolding
2LT Darisse D. Bowden
2LT Ragenea M. Bradeen
2LT Shawn A. Bromley
WO1 Roy E. Brown
MSG Ruben Burgos, Ret.
WO1 John E. Burke
Mr. Caesar A. Cantu
2LT Edward W. Cardinale
Mr. Carvil E.T. Chalk
1LT Kevan S. Crawley
WO1 Kevin H. Daniel
2LT Wesley A. Darland
Mr. Gene A. Davis
WO1 Shane W. Davis
CPT Sean F. Demeule
WO1 Eric T. Dillman
WO1 Lisa Y. Dixon
WO1 Steven A. Doss
CPT Johnathan B. Frasier
2LT Samuel L. Fricks
WO1 Jon A. Fuller
2LT Corley D. Furr
MAJ Jason L. Galindo
WO1 David H. Gardner
WO1 Curtis R. Gomey
2LT Matthias E. Greene
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2LT Daniel J. Gross
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2LT Theron T. Ritzman
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LTG Allen M. Burdett Jr.
Army Aviation Hall of Fame 1980 Induction

LTG Allen M. Burdett Jr. served successively during two decades of dynamic Army aviation growth and achievement in increasingly demanding aviation command and staff positions, thus bringing great credit upon himself and greatly enhancing the role of Army aviation on the modern battlefield.

From his June 1960 rating as an Army aviator to the time of his retirement as commanding general of Fifth Army, Burdett did it all and did it well, setting standards of excellence along the way for all who lead and follow the helicopter, flying to the "sound of the guns."

His 1960s tenure as director of aviation combat developments at Fort Rucker, Ala., saw the development of much of the thought and planning on equipment, organization and doctrine that later led to the tests of the Air Assault Division. Later, while Burdett was principal assistant on air mobility to the assistant secretary of the Army for research and development, the Department of Defense made some of its most significant aviation development and acquisition decisions.

With the close of his initial Vietnam tour as 11th Aviation Group commander, Burdett returned to the Office of the Secretary of Defense as military assistant to the director of tactical warfare programs. In that position he again lent his expertise and wisdom to key defense hardware decisions vital not only to the Army's efforts in Vietnam, but also to the Army for years to come.

From 1968 to 1970 Burdett commanded the 1st Aviation Brigade in Vietnam, and as "Hawk 6" was known throughout Southeast Asia for his astute planning and tactical acumen.

Moving onward and upward Burdett became the director of Army aviation and later the commanding general of the U.S. Army Aviation Center. In each of these positions he played key roles in not only training and readying the force of the day, but in preparing the force of tomorrow through key studies and doctrinal developments.

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