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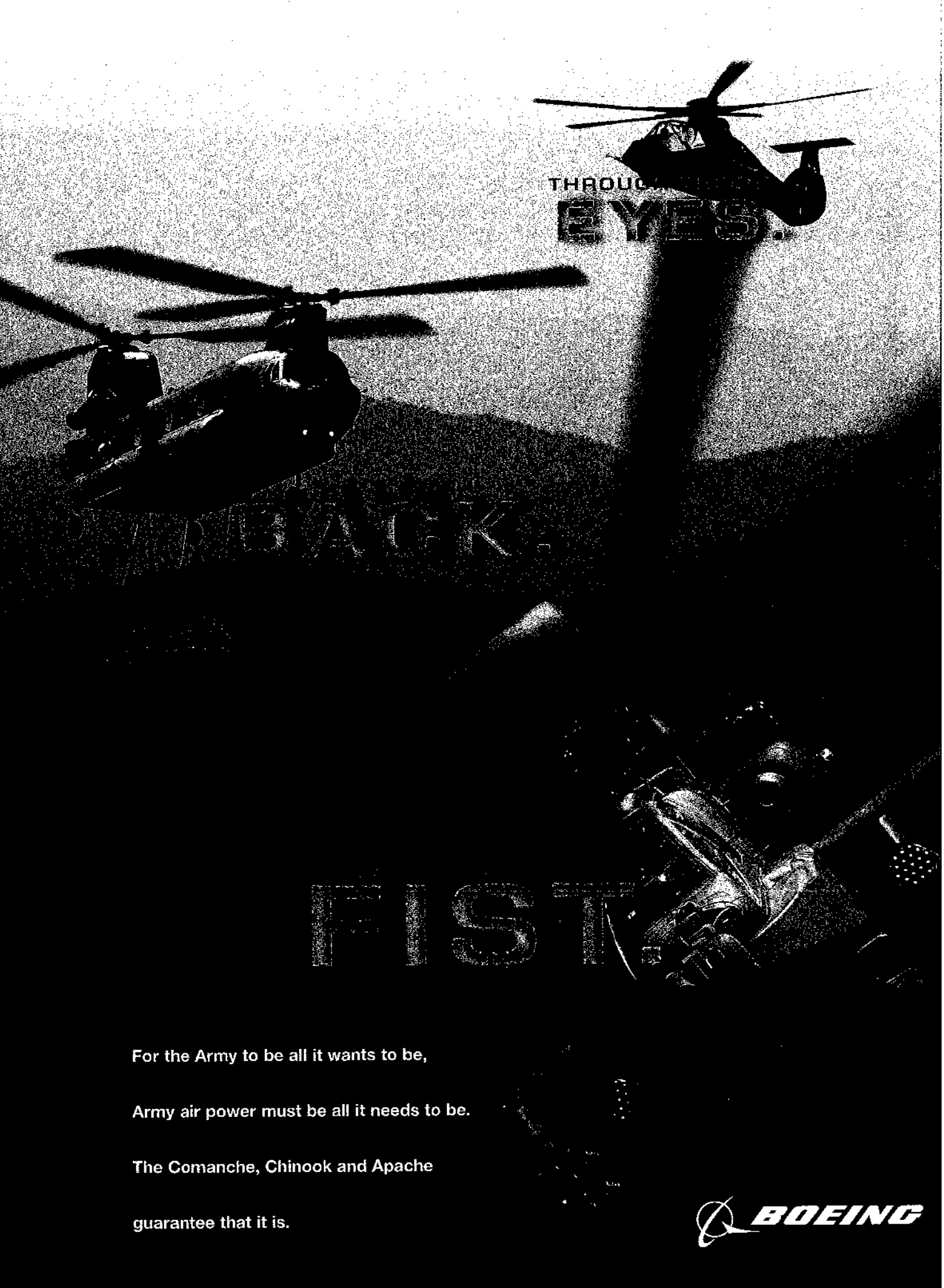

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briefings

The Boeing Company has named Michael M. Sears, a senior vice president of the company and a member of the executive council, as chief financial officer. He most recently served as president of the company's $13 billion Military Aircraft and Missile Systems unit. Gerald E. Daniels, vice president and general manager of the company's U.S. Navy and Marine Corps programs, will succeed Sears as president of Military Aircraft and Missile Systems, succeeding Sears. And Harry C. Stonecipher will remain Boeing president and chief operating officer for an additional year beyond his anticipated normal retirement date of May 2001.

The Army's Aviation Applied Technology Directorate has awarded Microvision an additional $7.8 million contract modification to continue work on the Virtual Cockpit Optimization Program and the Aircrew Integrated Helmet System. The total amount of the contract is now $9.3 million. The additional funding is a follow-on to a Phase III SBIR development, under which Microvision teamed with Boeing Phantom Works to develop high-performance helmet-mounted display systems and vehicle interface technology for use in military rotorcraft.

The Leland Division of Smiths Industries Aerospace has been selected by the Navy and The Boeing Company to design, develop and qualify an Improved Constant Frequency Generator (CFG) for the V-22 Osprey program. The firm, fixed-price contract covers a 40kVA CFG based on Leland's successful Variable Speed Constant Frequency generator system technology.

Sears Industrial Sales has published the 2000-2001 Sears Industrial Tool Book, which spans some 500 pages and covers 11,000 products. Sears Industrial Sales is the nation's leading supplier of Craftsmen and other industrial brands to the government, industry and education, and the latest book is free to qualified buyers. To request one, call toll-free (800) 776-8666 or visit the website at www. commercial.sears.com.

Maj. Gen. Richard A. Cody, a legendary figure in Army aviation, will become commander of the 101st Airborne Division and Fort Campbell, Ky. An aviator with more than 5,000 flight hours, Cody is best known for leading the deep attack that knocked out Iraqi air defenses during the opening hours of the 1991 Persian Gulf War.

CSM Jack L. Tilley will succeed SMA Robert E. Hall as the 12th sergeant major of the Army. Tilley had been command sergeant major for Headquarters, U.S. Central Command, at MacDill Air Force Base, Fla., since January 1998. Tilley is a 32-year veteran who served one combat tour in Vietnam as an armor crewman and scout driver in A Troop, 1st Squadron, 4th Cavalry, from 1967 to 1968, and has been an armored cavalryman for more than three decades.

In May, six members of the Fort Drum, N.Y.-based 1st Battalion, 10th Aviation Regiment, assisted local authorities in the search and rescue of an elderly Connecticut man believed to be lost in the woods. Operating from East Hampton, Conn., in conjunction with local and state law-enforcement officials and National Guard personnel and Connecticut State Police, the 10th Avn. Regt. UH-60 Black Hawk searched a heavily wooded area for signs of the elderly man, a victim of Alzheimer's disease. Despite an extensive search by 1st Lt. Michael F. Charnley, Warrant Officer Ernest A. Clemente, Warrant Officer Timothy L. Schmitz, Warrant Officer Fay D. Bard, Sgt. Joseph C. King and Spec. Arnel J. Moody the man was not found and remains missing at press time.

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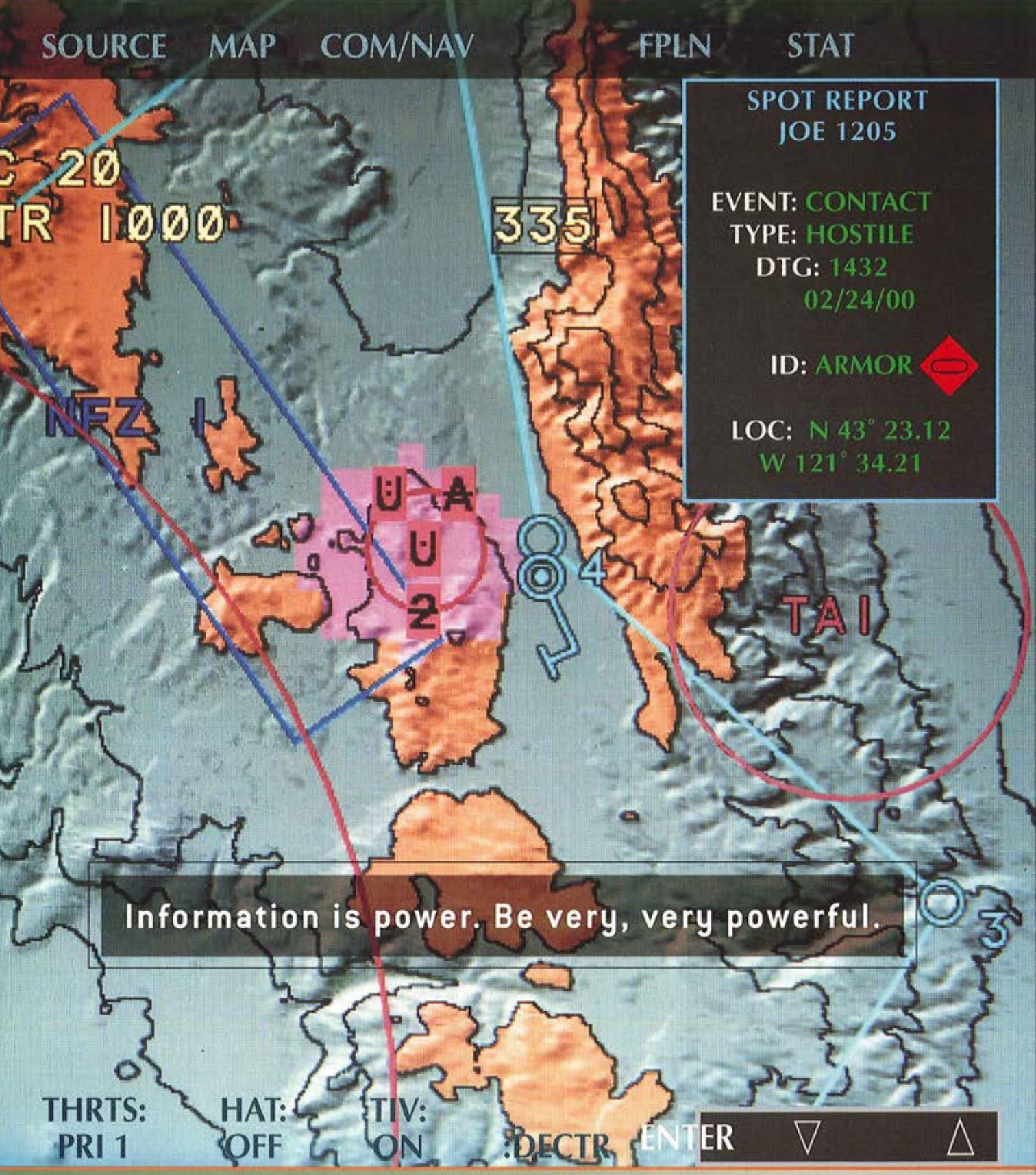

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Enhancing Readiness Through Simulation

By Maj. Gen. Anthony R. Jones

Modernized equipment is a key to success, but we can never achieve its full potential without realistic training

Modernized equipment is a key to success, but we can never achieve its full potential without realistic training. Training takes equipment and people and transforms them into a warfighting system. Poor training often marginalizes great equipment. Fortunately, today's technology has allowed us to develop simulators and simulations that bridge the realism gap that often exists between virtual/constructive and live training environments.

The Army's training doctrine as outlined in FM 25-100, "Training the Force," and FM 25-101, "Battle Focused Training," challenges leaders at all levels to understand, attain, sustain and enforce high standards of combat readiness through tough, realistic, multi-echelon combined-arms training designed to challenge and develop individuals, leaders and units. Although this training doctrine is basically sound, the realities of the training challenges in the environment of the 21st century are such that it is impossible to train a modernized aviation battalion to warfighting standards without the proper mix of training aides, devices, simulators and simulations (TADSS). Advanced weapon systems, an expanding multi-dimensional battle space, dramatically increased operational tempo (OPTEMPO) and increasingly ambiguous and complex missions, combined with less time to prepare, cost constraints and environmental restrictions, require leaders to take advantage of new and innovative high-technology training techniques.

Training with simulations and simulators is not a new concept for aviation soldiers, who have been at the forefront of the Army's use of simulators and part-task trainers for individual and crew training. For the past several years the Aviation Branch has extended its use of TADSS to support the preparation of aviation units for deployment to the Balkans. Directed by the Army's previous vice chief of staff, aviation units have participated in structured Aviation Training Exercises (ATXs) at Fort Rucker, Ala., to prepare them for certification for deployment to Bosnia and Kosovo. The ATXs focus on individual, crew and collective training in the Military Decision-Making Process (MDMP), staff synchronization and mission planning by maximizing use of the live, virtual and constructive environments within the Aviation Test Bed, the Army aviation Warfighting Simulation Center and the Collective Aviation Virtual Trainer (CAVT).

Feedback from soldiers who have deployed to these locations is that the training, such as was done during the recent brigade-level ATX conducted for the Aviation Brigade, 3rd Infantry Division, in preparation for its deployment to Bosnia, was some of the best battle-focused, highly realistic and challenging training they had ever experienced. From a resource perspective, 693 flight hours and 20 Hellfire missiles, 300 rounds of 30mm and 34 Maverick missiles were expended for a total cost avoidance of more than $9.5 million. This could only have been accomplished via simulations.

Realizing that the establishment of battle-focused, disciplined and realistic training, supported by the use of high-technology training techniques and mediums (including high-fidelity simulations and simulators) will be critical to unlocking the full potential of Army aviation on the future battlefield. It is imperative that we all work together with an understanding of our aviation battle-focused training strategy. The Aviation Modernization Strategy, briefed to and approved by the Army's senior leaders during the recent Aviation Functional Area Assessment (FAA), include the following major concepts:

- The aviation training strategy must be synchronized with the Army Training XXI campaign plan.
- The strategy will be a task-based, combined-arms training strategy focused on:
- Resourcing proficiency vs. curren-

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- Integrating aircrew coordination training into the aircrew-training program;
- Optimizing the mix of live, virtual and constructive training;
- Resourcing for trained companies;
- Insertion of high-technology training techniques and training mediums;
- Maximizing individual, crew and collective simulations to allow units to enter live training at higher levels.

The analytical foundations of this training strategy are combined arms training strategies (CATS). CATS are the Army's overarching training strategies, outlining how the Army will train the total force to standard. They are task-based, and include current and future unit, institution and self-developmental training. In addition, they identify, quantify and justify resources. Aviation CATS have been completed for the modernized battalions; they are linked to the Army's Battalion Level Training Model for resourcing; and they are linked to readiness via a new Aviation Commanders Guide and AR 220-1. In addition, aircrew training manuals and mission training plans have been completed to compliment the CATS, and are currently undergoing worldwide staffing.

An important aspect of the Aviation CATS was the detailed crosswalk of individual and crew tasks with available simulators, and collective tasks with the future Aviation Combined Arms Tactical Trainer — Aviation Reconfigurable Manned Simulator (AVCATT-A). These crosswalks highlighted the advantages of the use of simulators from a cost perspective, and laid the analytical foundation for decisions to dramatically increase the Army's flying hour program beginning in fiscal year 2000 and funding for the AVCATT.

Returning to my precept that it is impossible to train a modernized aviation battalion to warfighting standards without the proper mix of TADSS, let me outline a few priorities for the current and future development of aviation TADSS.

The training and combat development communities must work with the acquisition community early on to insure that TADSS are focused on tasks as outlined in the Aviation CATS, with an eye on providing the necessary fidelity to train these tasks to the standards and conditions as described in aviation aircrew training manuals and mission training plans. A special consideration is needed for training at the schoolhouses, at the CTCs and during deployments. Tasks capable of being trained must include the aircraft's mission-equipment package, gunnery, night operations, emergency procedures, aircraft survivability, instruments and digital tasks, all while operating in multi-echelon, joint and combined-arms operations.

Resources are limited, good ideas are everywhere, and the opportunities for misdirection abound. To insure that training is being developed concurrently with force-modernization initiatives, U.S. Army Training and Doctrine Command (TRADOC)and the Army outline responsibilities for the acquisition of TADSS. AR 350-1, "Army Training and Education," and the Warrior Modernization XXI concept of the Army Training XXI Campaign Plan define the responsibilities of this Army Modernization Training (AMT) process. The basic premise is that TRADOC determines all warfighting requirements; the system PM/manager is responsible for research, development and acquisition; and AMC NET managers support/execute AMT responsibilities as agreed upon. The challenge for us is to insure that we continue to foster the traditional trust and professional relationships that have existed among aviation training and combat developers and the Program Executive Aviation (PEO), U.S. Army Aviation and Missile Command (AMCOM) and U.S. Army Simulation, Training and Instrumentation Command (STRICOM) acquisition communities.

Where do we stand today? The rapid modernization of our aircraft fleet, declining budget allocations and the swift pace in technological advances have caused a divergence in simulator and aircraft capabilities. Concurrency between simulators and the aircraft they replicate is essential to ensure we provide the tools necessary to establish and maintain the best situational-training experience possible. The branch strategic plan for simulators will retire those no longer needed and field the fixes required to maintain realistic training capability. We are leading the charge to capture the funding necessary to bring simulators back to the standard required. Solutions are addressed in our Aviation Modernization Strategy and upcoming budget submissions.

As we look into our future and at the Army's transformation, we must consider how we will support full-spectrum operations. The development of new simulation and simulator technology will provide the essential tools we need to train our battle staffs, crews and units.

The introduction of the AVCATT-A will allow companies to conduct high-fidelity, full-spectrum aviation operations to a level not attainable in the live or constructive realms. AVCATT-A allows crews to integrate not only their crew skills, but the entire company's collective assets. The battalion commander will have near-perfect vision of training and can tailor his teaching, coaching and mentoring according to each of his subordinate commander's strengths and weaknesses. For a fraction of the cost of live training, AVCATT-A will provide realistic collective training that can be repeated until the standard is met. Our vision for the future is an environment in which collective and crew training can be blended, via a common system, to facilitate aviation staff training and integrated training with ground forces via the AVCATT-A.

Increased portability of current and projected constructive simulations has created a new training and operations support asset that allows commanders

Resources are limited, good ideas are everywhere, and the opportunities for misdirection abound.

Enhancing Readiness cont'd. on page 26

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Change in Progress

by CSM Edward Iannone

The Army has had its share of changes over the past 10 years. Many of these changes were part of the reduction-in-force initiative and changes in the way the Army will fight in the future. Technology has played a major role in how these changes affect soldiers in the field. It is often said that change is the driving force to success in the future, and that the method used is the process for success.

When changes are needed in Army aviation, the process starts with the aviation branch command sergeant major. He reviews information on new equipment and force projections in order to gain a prospective of what is needed to produce the desired result or solution. The aviation branch CSM directs the aviation proponency sergeant major and his team to start feasibility studies. Steering committees are formed to look at second- and third-order effects of any changes.

These feasibility studies and steering committees take into account what impact the change will have on active Army, National Guard and Reserve soldiers. As the aviation proponency sergeant major, I am responsible for ensuring the eight life-cycle functions are maintained in all soldiers' career paths. The eight life-cycle functions encompass structure; acquisition; individual training and education; distribution; development; sustainment; professional development and separation. The process to make changes to an MOS can take up to five years before the result is seen.

Changes may affect many things or they may only affect a single area, such as an Army regulation (AR). If we look at the proposal to change the Aircraft Crew Member Badge to the Aviation Badge, this change will affect all soldiers in the aviation branch. It would not cause changes to any acquisition, individual training and education; distribution; development; sustainment; professional development or separation.

The staffing process for this type of proposal is through Department of the Army headquarters and the proponent that governs the awards regulation. An action of this nature can be done in less than a year's time once it has been approved. When making a proposal to change an MOS, the process takes longer because many other factors come into play.

An analysis of the current structure is done when building a new MOS or merging existing ones. Recommendations are made on individual spaces using the Army Authorization Document System (TAADS). In the TAADS document the proponency office must ensure standard-of-grades tables can be maintained and not exceed the Army Average Grade Distribution Matrix (AGDM). Using the date from the TAADS document and the AGDM, a career progression chart is made to show the soldier's path of progression to the highest grade.

Preparation of a Military Occupational Classification and Structure (MOCS) proposal will require the proponent school to develop a training strategy to train the new MOS. This will include soldiers that are already in aviation MOSs and new soldiers entering the Army. The proposal must state the new MOS duties description and specifications to qualify so changes can be made to DA Pam 611-21.

All this information is placed in the MOCS proposal and the staffing process begins. The aviation proponency chief is the first to approve or disapprove the proposal. Once approved by proponency, the aviation branch command sergeant major reviews the proposal. If he agrees, the MOCS proposal is sent to the aviation branch commanding general for review.

If the branch CG approves the MOCS proposal, the document is released from local staffing. The staffing process at DA headquarters will direct the document through the Total Army Personnel Command, the major commands, the Army Staff and varies DA-level agencies. Once the final approval is submitted, the MOCS proposal can move forward to the next stage. If a MOCS proposal receives a nonconcurrence during the staffing process, the proposal is returned to the aviation proponency office for review and resolution of the nonconcurrence. Once this is accomplished the MOCS proposal starts the staffing process from the beginning.

The approved MOCS proposal receives its final review from the deputy chief of staff for operations and a decision memorandum is generated by the Office of the Deputy Chief of Staff for Personnel. This will allow documentation changes to be made to reflect the new MOS. Documentation changes are made during the MOCS cycle. MOCS cycle windows are from February to March each year. If a proposal has not completed the staffing process by the closing date of the MOCS cycle, then the proposal will have to wait until the window opens the following year.

There are exceptions to most rules, and this applies to MOCS proposals. There may be times when all approving agencies feel a MOCS proposal must be expedited to meet a requirement. When situations like this occur, DA headquarters will conduct an out-of-cycle MOCS action. As the changes are approved, the aviation proponency and managers from all agencies involved ensure that training seats are available in the targeted fiscal year. This event takes place at the Structure Manning Decision Review (SMDR), where training seat dollars, class size, students per year and other details are worked out.

The SMDR process is conducted yearly and all decisions are forecast to start three years from the current fiscal year. All the projection data is implemented into the Program Objective Memorandum (POM). The POM represents a five year projection of Army programs that will shape the Army of the future. At aviation Proponency we are committed to and focused on all the issues that will make a soldiers' career opportunity obtainable and realistic. We work to build a better future for aviation, so soldiers can meet and excel when facing tomorrow's challenges.

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Bridging the Training Gap to Support the WARFIGHTER

By Brig. Gen. William L. Bond and Maj. Neil Thurgood

The expanding interests in applications of new technologies across the Department of Defense and industry have enhanced both the fidelity of simulation and the speed it brings to support aviation training. The future development of new simulation and simulator technology will provide us the essential tools to train. That technology allows us not only to train individual aviators and crews, but also air and ground units, with their staffs, training a myriad of combat operations across a full spectrum of environmental conditions.

Army aviation's vision for the integration and use of current and new simulators and simulation technologies is simple:

"As the Army's premier leader in simulators and simulation usage, we will continue our efforts to reduce legacy standalone systems and create a single 'system of systems' that integrates individual and collective training seamlessly across the live, virtual and constructive domains. Our objective is to create a strong situation experience background to develop our leaders and to provide them those tools that will allow them to successfully plan and execute any mission given to them."

The future Synthetic Theater of War Environment (STOW) is an environment where collective and individual training can be blended, by a common simulation baseline, to facilitate aviation staff training, integrated with ground forces via any one of the fielded combined arms tactical trainers (CATT).

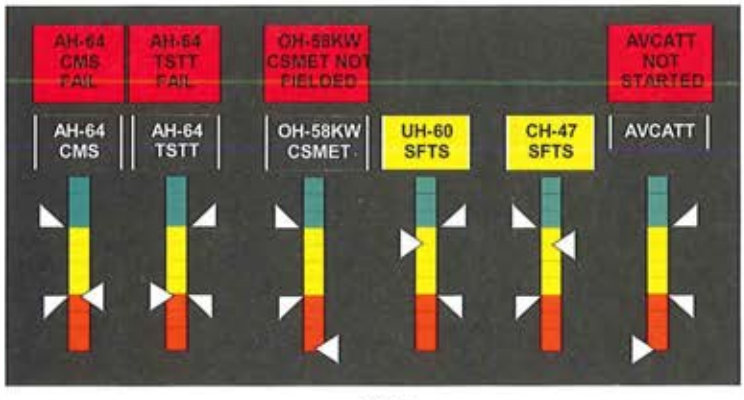

FIG 1

CURRENT FLEET OF TRAINING DEVICES

Developing the future of combined arms simulation includes addressing the issues with our current fielded systems. As a result of clear fiscal restraints and a rapidly modernizing aircraft fleet, the current fielded aviation simulation training systems have not stayed current with aircraft they replicate. Fig 1 is a graphic representation of our current fleet of training simulators.

It is quite evident that our legacy simulators, coupled with the rapid modernization of our aircraft fleet and declining budget allocations, have caused a divergence in simulation capabilities. As we reduce the level of concurrency between the simulators, the aircraft unrealistic flight parameters and procedures have appeared in our training base. If these differences are not completely understood, these differences may creep into an aviator's "bag of skills."

To make simulators affordable and viable as a training tool, we must accept a delicate balance between high fidelity and high cost. Of critical importance will be our

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	1973	UH-1 Iroquois
	1974	CH-47 Chinook
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Fortran in Flight Simulation	1980	
	1981	AB-205A
	1982	
Digital Motion & Controls	1983	
	1984	
	1985	
Blade Element Rotor Model	1986	Lynx Mk.27/88
	1987	UH-1H
		UH-1D
Complex Tactical Simulation	1988	
	1989	AH-64A
Advanced Ground Handling	1990	
	1991	
	1992	CH-146 Griffon
		A-109HA/HO
	1993	
	1994	EH-101 Merlin
Vibration Platform	1995	Lynx Mk.8
Roll-on/Roll-off Cockpit	1996	CH-53G
		UH-1D/AB-205
		S-70A
Level D Simulation	1997	CH-47 Chinook
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efforts to ensure the periodic upgrade and maintenance of our TADSS to support all aspects of mission readiness. We must ensure that we fully support and fund parallel efforts to maintain currency between fielded systems and the training devices they replicate. The Aviation Center is undertaking three key steps to ensure our current fleet of simulators meet the needs of operational commanders.

- Tail Number Assignment: Providing a recorded tail number for each flight simulator, providing visibility of the readiness status of the simulator. Tail number assignment increases the likelihood of upgrades to the flight simulator throughout the modernization process of the actual aircraft.
- Readiness Reporting. Reporting the readiness of flight simulators and other devices deemed critical to Army readiness.
- TADSS Accreditation: The initial TADSS accreditation process establishes a baseline for how well a training system simulates flight and/or ground training events/operator/maintainer tasks/mission tasks. The TADSS re-accreditation (triennial) ensures hardware, software and training baselines are being maintained, and training capability is not diminished due to changes in training requirements and/or hardware/software performance and concurrency.

STRICOM, along with PEO Aviation and the program managers of the respective airframes and the Aviation Center, must work together to ensure that the most current technology is used as an "enabler" to meet mission requirements across the spectrum of dramatic environments in the digitized era. As aircraft are being modernized, we must mandate these upgrades be accomplished concurrently for our training devices.

Live training is the essential piece of aviation training, from flight school to advanced task-level development.

FUTURE SYSTEMS

As we upgrade our current fleet of training devices, we also focus on the future to meet the training requirement. Future simulations must be interoperable and provide the capability to execute selected tasks across platforms. Additionally, we need to ensure that our system allows cross-domain access to support training and real mission requirements. We must ensure hardware and software standardization across all systems to reduce overall costs. Simulations must reach across all training domains, constructive, virtual and live, if we are to holistically and realistically train our future aviation force.

The live training environment provides the foundation for all training. These programs are accomplished through the flying-hour programs. Live training is the essential piece of aviation training, from flight school to advanced task-level development. We, as an aviation force, must protect this training in the declining budget environment.

The constructive environment can provide commanders, staffs and battlecrews varying levels of mission analysis, including digital "terrain walks" and limited "fly through" visualization. In most cases, these tools can be tailored for specific mission and environments to support operations scenarios. Simulations such as ModSAF (future OneSAF) can provide geo-specific terrain visualization in three dimensions. Course-of-Action analysis and limited mission rehearsal, via constructive simulations, can enhance the prospect of mission success. If we expand our scope of modernization, we could expand our training venues. In an upgrades TADSS environment, we could integrate WARSIM, executing various mission options to include evasive actions, multiple target engagements and actions on contact. (See Figure 2.)

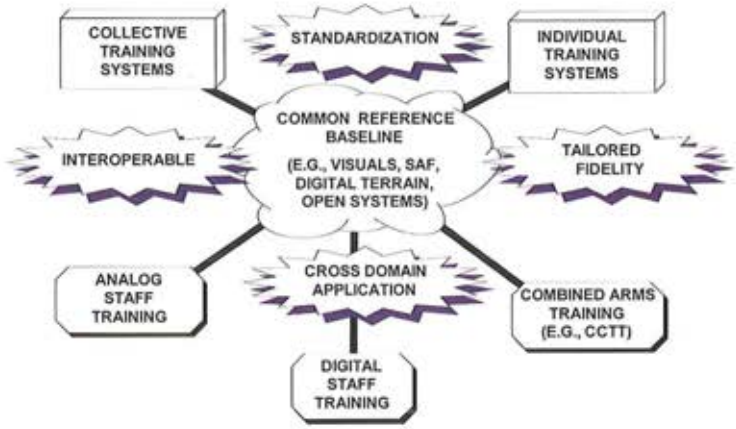

Fig 2

Specialized constructive simulations, such as CSSTSS, could be used to drive logistic-intense operations.

The virtual environment includes both the current fleet of TADSS and the future of applied technology. The Aviation Combined Arms Tactical Trainer-Aviation Reconfigurable Manned Simulator (AVCATT-A) and the suite of Combined Arms Tactical Trainers (CATT) will allow combined operations, within a high fidelity, full spectrum operations. Both ground and air crews can conduct combat operations as commanders and staff integrate support to ensure mission success. As we increase the fidelity of the virtual environment and tie in

***Training Gap** cont'd. on page 18* ☞

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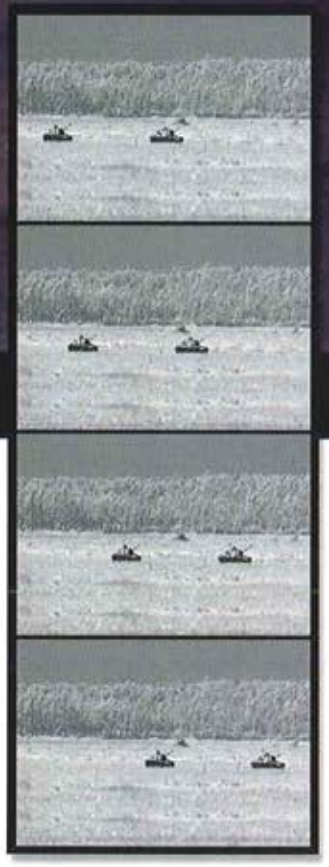

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UH-60 Army National Guard Maintenance Training

Enhanced Through Distributed Training

By SFC Pamela L. Shugart

With approximately half of the Army's aviation assets in the Army National Guard (ARNG) and the Army Reserve (USAR), the two components must be capable of executing critical mission requirements in current and future aviation operations.

ARNG UH-60 Black Hawk helicopters, one of those aviation assets, support operational requirements and provide a wide spectrum of airlift capabilities for both state and national missions. As aviation technology changed during the past several years, a transition was made from the aging UH-1 fleet to the UH-60s. This transition increased the number of ARNG crew chiefs and repair personnel required to maintain the UH-60, thus increasing the demand for the 67T 2/30 (UH-60 Helicopter Repairer) Transition Course. Unfortunately, the U.S. Army Aviation Logistics School (USAALS) at Fort Eustis, Va., was training at capacity, and the eight-week resident transition course often forced ARNG soldiers to choose between staying in the Guard or keeping their civilian jobs.

In order to meet the training needs of soldiers and the personnel requirements to maintain the UH-60, the ARNG had to develop alternative means to conduct the UH-60 Helicopter Repairer training. The solution — utilize Distributed Learning (DL) technologies through the National Guard Bureau Distributive Training Technology Project (DTTP) and the GuardNet XXI Asynchronous Transfer Mode (ATM) network available in all 50 states, three territories and the District of Columbia. The DTTP, a network of classrooms, courseware repositories, business operations and management tools, provided the infrastructure to deliver the transition course. The backbone of the system, GuardNet XXI, connects all DTTP classrooms and partner classrooms and facilities.

The first DL iteration of the 67T 2/30 Transition Course was developed in 1996 through the collaborative efforts of the USAALS, the Kansas Army National Guard, the Iowa Army National Guard and the National Guard Bureau. The first group of 15 soldiers graduated from the course in the fall of 1997. According to Maj. Brian Maloney, DL coordinator/commander, Flight Training Company, Eastern ARNG Aviation Training Site (EAATS) in Fort Indiantown Gap, Pa., the success of the first iteration and favorable response from the participants proved that the DL format was a viable way of training.

There was immediate interest from representatives in Kansas, Iowa and Ohio to conduct another iteration of the 67T 2/30 Transition Course via DL. According to Col. Craig Ceneskie, state Army aviation officer for Ohio, issues surrounding the resident course and the state of the art DL opportunity validated participation for soldiers in Ohio.

Col. Lyle Bender, state Army aviation officer for Iowa, agreed, stating that DL is an economical and efficient method of training an increasing number of soldiers. "We knew we were on the leading edge of DL technology and the Iowa ARNG leadership encouraged our continued participation," Bender said.

For the second iteration, the ARNG and USAALS provided input and oversight, but the course originated from the Army School System Aviation Training Battalion at the EAATS. The DL transition course again proved successful, graduating 13 soldiers from Kansas, Iowa and Ohio in the fall of 1999.

The 67T 2/30 Transition DL Course is designed differently for distributed learning, but the requirements needed to successfully complete the course remain the same as in the resident format. The DL course consists of four phases: Phase One — three weekends of IDT sessions; Phase Two — two-week AT session; Phase Three — three weekends of IDT sessions; and Phase Four — two-week AT session. Following the fourth phase, a graduation ceremony is held via video teleconference (VTC) between the EAATS and participating DTTP classrooms. The DL version maintained a standard 310 hours of instruction, an assistant instructor-to-student ratio of 1:4, and an equipment-to-student ratio of 1:6.

During the most recent DL iteration students were taught via interactive VTT at the DTTP classrooms in Kansas and two Army aviation support facilities in Ohio. Iowa utilized the Kansas site for its AT. Certified training facilitators, located at each of the remote classrooms, served as moderators for the course and provided technical resources. The EAATS primary instructors were located at Fort Indiantown Gap during the IDT sessions and attended the two weeks of AT at the Ohio and Kansas sites.

Using VTT, EAATS instructors facilitated practical maintenance exercises on the helicopters. A stand-alone PC was hooked to the GuardNet XXI network by a fiber-optic cable, which patched the VTT to the helicopter in real time.

"Most of the students had low expectations and some trepidation coming into the DL course," said SFC Dave Gross, the primary instructor at EAATS. "But we received nothing but positive feedback once the students became familiar with the technology and content-delivery methods."

"The DL course was the best Army training course I

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have ever attended," said Ohio's SSG Clint Byington. "The instructor quality was outstanding and it was a tremendous help to be able to work on flyable aircraft versus the grounded aircraft used in the resident course."

Since the DL course isn't a continuous eight-week obligation, soldiers have more time to handle personal obligations. Three students from the second group said they couldn't have completed the course if the DL format wasn't offered, said MSG Steve Heck, Iowa's primary instructor. Heck said students were able to keep in contact with employers and family, and build a camaraderie with their classmates who were members of the same unit.

The DL delivery of the 67T 2/30 Transition Course proved successful. A comparison of the first DL course conducted by the EATTS with its resident counterpart at USAALS provided the following data: 13 of 13 students who began the course graduated. This compares with 33 of 33 completing the resident course. The mean score for the five objective exams was 93 percent for the DL students, as compared with 98 percent for resident students. Both were well above the 70 percent required for passing Army course requirement.

Whether a student is learning to inspect hydraulic flight control systems or correct rotor-system vibrations, interactive hands-on training can be accomplished using distributed-learning technology. The DL format resulted in comparable test scores, reduced training costs and helped retain skilled soldiers in a critical aviation field who might have otherwise been lost when forced to choose between extended resident training and their civilian jobs.

Participation and interest in the DL format of the 67T 2/30 Transition Course continue to increase. Representatives from the ARNG, EAATS and USAALS have incorporated lessons learned from the iterations with Kansas, Iowa and Ohio into the planning for the fiscal year 2000 iteration. This iteration with Texas (one site) and California (two sites) will qualify 20 students in the 67T 2/30 Transition Course.

For more information on 67T 2/30 Transition Course Distributed Learning efforts, please contact SFC Pam Shugart via e-mail to **pam.shugart@ngb-arng.ngb.army.mil**, or by phone at (703) 607-7762 or (DSN) 327-7762. For more information on ARNG distributed-learning efforts, please contact LTC Craig Bond via e-mail to **craig.bond@ngb-arng.ngb.army.mil**, or by phone at (703) 607-7307 or (DSN) 327-7307. For additional information on the Distributive Training Technology Project, please contact LTC Dennis Donovan via e-mail to **dttp@pmorcas-arng.ngb.army.mil** or by phone at (800) 821-3097.

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SFC Pamela L. Shugart is the Aviation Enlisted Training NCO in the Operations and Training Branch of the National Guard Bureau's Aviation and Safety Division in Arlington, Va.

***Training Gap** cont'd. from page 14*

the constructive simulations, we can increase the skill set and situational awareness of our leaders.

DEVELOPING FUTURE LEADERS

Our future warfighting force requires a foundation of live training. Simulators and simulations will never fully replace live training events. From a strong base of live training and operational knowledge, simulation can then be used to enhance this base knowledge. Once this solid foundation of situational experience is established we can begin to fully exploit the tremendous potentials of simulators and simulations.

Simulation can be used to expand the situational awareness level across a wide range of environments, in a relatively short period of time and at reduced costs. The combination of live, constructive and virtual environments can be a dramatic training opportunity to our warfighters. With the current and developing levels of technology, we can build and execute training events where the location and realism of users is transparent between the live, virtual and constructive environment. By demonstrating restricted mission profiles, via a high fidelity simulator or simulation, overall situational experience of the crew can grow. This is a key safety concept, especially when you consider the potential dangers that exist in most of our mission profiles. By creating an integrated relationship among live, virtual and constructive training tools, simulations and simulators can directly assist units in increasing combat readiness.

CONCLUSION

The increased enhancements in technology will ensure that simulation will continue to be critical to our overall individual and crew readiness. The use of simulation and simulation tools to training our warfighters enhances the live training foundation across multiple and advanced tasks. Training, conducted via the combination of live, constructive and virtual environments, can provide the solid foundation set of skills and situational awareness to increase our success across the dramatic environments in the modern battlespace. We must be committed to ensuring that our current fleet of TADSS is upgraded, and we must maintain their concurrency with the modernized aircraft fleet. As we upgrade the current fleet of simulators, a plan for reoccurring accreditation and validation will ensure we do not let the fleet fall behind in concurrency.

The future development of new simulation and simulator technology will provide us the essential tools, not only to train our individual aviators and crews, but to allow air and ground units, with their staffs, to train together for a myriad of combat operations across a full spectrum of environmental conditions. The link between the Aviation Center, PEOs, PMs and STRICOM is the key to bridging the training demands to support the warfighter.

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Brig. Gen. William L. Bond is commanding general of the U.S. Army Simulation, Training and Instrumentation Command. Maj. Neil Thurgood is the STRICOM project director.

Aviation at the NATIONAL TRAINING CENTER

By Maj. James R. Macklin Jr.

Providing general support, air assault and opposing forces aviation support to the National Training Center (NTC) at Fort Irwin, Calif., the NTC Aviation Company "Desert Hawks" perform a diverse and complex mission. The Aviation Company is assigned to the NTC Corps Support Battalion (CSB), which provides direct support and general support ground maintenance for the NTC's fleet of more that 1.200 vehicles and 15,000 items of equipment, and maintains equipment for NTC's tenant organizations, especially the 11th Armored Cavalry Regiment opposing force. In addition to the NTC Aviation Company, there is an air medevac detachment assigned to the battalion.

Although located 40 miles from the NTC at Barstow-Daggett Airport, the NTC Aviation Company deploys an average of six aircraft a day during each 14-day rotation. The NTC hosts 10 brigade-level rotations annually. This constant support results in the NTC Aviation Company operating at an extremely high operational tempo (OPTEMPO).

The NTC Aviation Company performs its mission with eight UH-60A Black Hawks, nine UH-1H Iroquois and five visually modified JUH-1 "Sokol" aircraft, for a total of 22 aircraft. The company is task organized into three platoons of general support (VIP), air assault and OPFOR.

Birds of Prey

The smallest of three platoons at the NTC Aviation Company, the Sokol (OPFOR) platoon has an Armywide reputation for excellence. Flying attack helicopters in one of the most demanding environments in the world, the Sokol platoon mission is executed nearly 24 hours a day during the "force-on-force" portion of the rotation.

Russian for "bird of prey," Sokol is by far the most visible and feared presence on the battlefield. The JUH-1 aircraft are "armed" with MILES AT-6 missiles, 57mm rockets, 30mm cannon and a .50-cal. machine gun, and replicate the Russian-built Mi-24E "Hind" attack helicopter threat.

Sokol crews routinely post impressive battle damage assessments using Soviet-style attack helicopter doctrine, which has been modified for today's modern battlefield environment. Aggressive tactics and individual pilot skills make the Sokol "Birds of Prey" a formidable adversary on the NTC battlefield. The OPFOR aviation threat replicated during force-on-force play greatly assists rotational units in force protection and air defense.

We Own the Night!

Flying over half of its assigned missions at night, the air-assault platoon motto comes to life during force-on-force operations. The air-assault platoon provides all non-attack, tactical support to the 11th ACR OPFOR. In addition to flying air assaults, the platoon conducts both OPFOR reconnaissance insertions and counter-reconnaissance missions. Consisting of five Black Hawks, the assault platoon is known for its multiship, night vision goggle air assault mission, code-named "Task Force Angel." While the operating areas may change, the objective remains the same: Insert light-infantry troops equipped with AT-5 anti-tank weapons behind the Forward Line of Troops (FLOT), undetected.

The air-assault platoon's high success rate in this challenging mission is the result of in-depth participation in an integrated planning process with the 11th ACR. This close operational relationship and the frequency of air assaults allows for greater air-ground integration. Additionally, the aircrews are extremely familiar with the NTC and all associated MILES systems, which subsequently gives the "Desert Hawks" the edge in "battle."

World Class Training for the World's Best Army

Posted proudly at the entrance to the NTC, these words signify the importance of this training center to the Army and its leaders. The general-support platoon routinely flies flag officers from Las Vegas, Nev., and Ontario, Calif., to the NTC. In addition to transporting such notables as the secretary of the Army, Army chief of staff and the commander of U.S. Army Forces Command, the platoon also daily transports the NTC commanding general and the operations group commander. In the last two years the GS platoon has also transported dignitaries from Saudi Arabia, Kuwait and Mexico. This high-visibility, zero-defect mission is accomplished routinely, allowing all visiting dignitaries to view and understand the NTC's tough training conditions.

Maintaining the Force

The NTC Aviation Company's flying-hour program is 3,607 hours annually for the 22 aircraft assigned. This OPTEMPO demands a higher level of preventative maintenance and a quick phase turnaround. Desert operations present many unique maintenance challenges. The sand and dust are constant erosive factors at the NTC. When combined with helicopter downwash, most landings at the NTC are in brownout conditions. This means that engines, rotor blades and windshields experience a significant amount of erosion. Through an extremely aggressive and proactive inspection program, problem parts are identified and replaced, enabling the company to meet its demanding mission load.

The NTC Aviation Company has a very tough and widely varied mission. The OPTEMPO and rotational schedule are the driving factors behind how the unit operates. Flying in one of the toughest environments for any aviation unit, the Desert Hawks significantly contribute month after month to the training of the force.

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Maj. James R. Macklin Jr. was commander of the NTC Aviation Company at Fort Irwin, Calif., at the time this article was written.

AVCATT Aviation Combined Arms Tactical Trainer — The Path TO THE FUTURE

By Col. James A. Herberg and CWO 3 Hal Ridley (Ret.)

The Aviation Combined Arms Tactical Trainer — Aviation Reconfigurable Manned Simulator (AVCATT-A) is a tool that will provide the bridge to the virtual reality simulation world of tomorrow.

AVCATT-A is the beginning of Army aviation operational collective training conducted in a virtual world; a controlled environment, in devices replicating actual cockpits, visionics and "out-the-window" and heads-up displays that accurately reflect the world as seen from inside the cockpit of a real aircraft. The noise, confusion, distraction of extraneous information and ongoing events, and cockpit coordination are problems inherent in the issues that are addressed by collective virtual simulation that ultimately make live simulation and actual operations successful.

AVCATT-A is also an argument for integrated research, development, test and evaluation (RDT&E) and operational training simulation devices (Simulation-Based Acquisition). It is the precursor to the future of virtual reality.

An issue that must be addressed today is how to use collective-simulation devices in the RDT&E phase of new system development and integration into the Army. Fielding of new units should be a total package. The force structure, manning, equipment, support and mission are determined and in place with the unit at Initial Operational Capability (IOC) and First Unit Equipped (FUE).

What are often missing from this package are the tactics, techniques and procedures (TTPs) for new equipment and organizations. TTPs should be developed and tested during the RDT&E phase and be ready for employment the day the unit is fielded. This drives a need for effective collective-simulation devices early in the system that will have service during both the RDT&E phase and after the system is fielded. TTP development is time-consuming, intensive work and must be done in conjunction with other system collective simulators to test their utility based on future doctrine and/or concepts. While initial development can be done in a stovepipe manner, only combined arms and joint connectivity can determine the doable vice the impractical.

A paradigm shift is required involving when the devices should be available, what organization is responsible for the development of the collective simulators, and how the new, reconfigurable devices are procured and fielded. Beyond this is the necessity of preparing for a possible future when virtual reality simulation devices are as plentiful as home computers. Reconfigurable (one of the anticipated benefits of Virtual Reality or Virtual Environment systems) collective training device concepts — such as AVCATT-A — are not captured in our current methods of procurement. In the case of the Comanche program, this has led to interminable squabbling over who is responsible for development and funding.

This is not just an Army training vs. RDT&E issue, but this issue

attacks the fundamental organizational process as technology makes current standard practices obsolete. In the RDT&E phase the Program Managers Office (PMO) pays for developmental items. Once a system is fielded, this responsibility lies with the Deputy Chief of Staff for Operations and Plans Training Directorate (DAMO-TR). However, only the total Army leadership — or perhaps the joint leadership — has the perspective to ensure that across the board, open architecture is incorporated into the design to maximize growth potential and advancing technological integration. In this case, the acquisition and the training agencies need to be melded together to ensure the successful development of a collective-training system that will be useful during RDT&E and after the system is fielded. We cannot afford to wait to determine the effectiveness of new TTPs. Neither can we field new major end-item equipment to old organizations and expect to maximize the capabilities these new systems bring to the force by constraining them with outmoded tactics and force structure. At the time the first unit is equipped (FUE), the unit must be fully mission capable. Experience has shown that new capabilities are not needed today-they are needed yesterday.

Constructive simulation will also be vital in the development of unit TTPs. At the macro level, how "we fight" will drive overarching concepts, deployability and sustainment needs. Virtual and constructive simulation are intrinsically linked to the development of operational procedures. During the RDT&E phase, virtual simulators linked with constructive simulation can experiment with new doctrine and system employment. This integrated approach can lead to a simulation-based training development for TTPs from the cockpit through corps level or higher.

AVCATT-A is vital to the Comanche training and testing program in the current engineering, manufacturing and development (EMD) phase of development. Cost constraints have caused trades to be conducted that, while greatly benefiting the program, have resulted in a loss of 3,300 training flight hours. Use of AVCATT-A will more than compensate for this loss, but only if it is available.

Providing AVCATT-A with the incorporated Comanche module in September 2002 is the answer. The funding dilemma is the hurdle that must be overcome. If this is not resolved, the ultimate loser will be the units and soldiers in the field that will receive the finest reconnaissance/attack helicopter ever fielded, but with inadequately developed TTPs for its operational use. Instead of training to fight, they will spend time developing operational techniques that should have been fielded with the aircraft. This is a problem with a known solution that is hampered by a burst of technological advances overcoming the old stovepiped acquisition and sustainment training systems, and requiring a blending of system development and sustainment training requirements. It is time to jump on the bandwagon called AVCATT-A and place it in use during the RDT&E phase in readiness for future sustainment training.

But solving today's problem is not enough. There are other issues and ongoing advancements that the Army must plan for and expect to incorporate into future training strategies. Haptic, or force-feedback interfaces, such as the Fakespace "PINCH" gloves, and the Binocular Omni-Orientation Monitor that Fakespace offers — the BOOM HF (hands free), with up to 140 degrees field of view in a head mounted system — are indicators of future simulation capabilities. The civil world is rapidly moving in the direction the military desires. Computer-driven games are driving virtual reality development and will advance most rapidly as they continue to facilitate human communications and interaction. Just as today we can expect the majority of soldiers entering the Army to possess driving skills, in the future we can expect new soldiers to enter the Army with certain skills — computer and computer gaming aptitude — which we currently have to teach.

Imagine signing into flight school and along with the current standard flight issue you also receive a virtual-reality helmet that provides for eyes-out and NVS capability; a tactile vest to simulate motion; gloves that allow you to "reach out" and "touch" the controls and provide feedback that enables you to "feel" the controls. Your virtual training world travels with you, wherever you go. Additionally, it is not only an individual and collective flight-training device, but also a classroom in which the entire gamut of aviation training can be conducted. External requirements would be a power supply, a computer, something to sit in or on and a network — hardwired or wireless — to interface with others for training worldwide.

Visualize, if you will, your first assignment to an attack helicopter battalion. In general, new pilots are often constrained from flying in collective training events. While you cannot fly collectively in the live world, you can be there in the virtual environment. Instead of sand tables or a rehearsal walk-through, the entire unit can rehearse the mission in the virtual world prior to actual execution. En route mission rehearsal during deployment is now possible. Time currently wasted in movement will be maximized for mission preparation. The dedicated simulation building is a remnant of the past. Much like "the entire world is a drop zone, just some places are better than others," so, in the future, the entire world is a simulation building, just some locations come with built in environmental distracters.

The ultimate home video game is just around the corner and the Army needs to leverage the technology that commercial industry leaders are implementing to make interactive gaming more realistic and exciting. Today it begins with solving the AVCATT-A problem. Tomorrow it means anticipating the best means to solve increasingly difficult training problems, and planning for the implementation and incorporation of readily available commercial solutions adapted for military use.

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Col. James A Herberg is the TRADOC system manager for Comanche. CWO 3 Hal Ridley (Ret.) is the senior system analyst for TSM Comanche.

Recon in the Stability Operations Environment

By Capt. Jimmy Barnett

When the 1st Infantry Division received the order to deploy Task Force Falcon in support of Operation Joint Guardian II, I was tasked to provide an OH-58D air cavalry troop to the aviation task force. Up to that time training in my troop had focused on high-intensity conflicts. Once I received the new tasker I asked myself "How do I conduct aerial reconnaissance in a stability-operations environment?"

As I began to conduct mission analysis and execute aerial reconnaissance missions I relearned an old lesson: The process of mission analysis, planning and execution of base tasks is the same no matter what kind of operations we're engaged in. However, in stability and support operations such as those in the Balkans, the information requirements, tactics and techniques are considerably different than they would be in wartime.

For example, in SASO we must understand the role played by Non-Governmental Organizations (NGOs). Is the NGO about to build new homes in a secure or non-secure environment? In addition, the peace agreement that led to the stability operation will always play a significant role in the IPB process. Typically, the agreement that led to the stability operation will also have some time requirements for weapons turn-in and weapons storage. Are the weapons being turned in.? Is there a curfew in the area in which we're operating? What is the extent of the curfew? Are the people holding violent or peaceful rallies? Is unusual activity occurring in the fields outside of town?

In stability operations aviators can observe individual vehicles across multiple sectors for extended periods of time. This extended tracking may be the only way an aviator can determine if a person, vehicle or farmer with a pack animal is actually doing something illegal. The aviator never knows if the people in a particular vehicle will burn down a home or transfer weapons to a hidden location. This tests the patience of the most talented aerial scouts. In order to determine what is or is not suspicious, aerial scouts have to understand all the questions asked earlier during IPB.

Air-to-ground coordination is also critical, and air-to-ground integration is a non-negotiable. Ground troop/company commanders must think in three-dimensional terms. Just as aviators must know and support the ground commander's plan, the ground commander must understand the planning, implementation and exploitation of aviation capabilities. Aviators and ground commanders must understand that the array of collection assets available and the ground tactical plan must be synchronized with air operations. My troop uses the following checklist to conduct pre-mission coordination with a ground unit.

1) Enemy/Indigenous situation.
2) Friendly situation (location of observation points and NAIs covered, patrols, etc.).
3) Mission statement (aviation unit and ground unit).
4) Concept of the operation.
5) Where should the aircraft focus?
6) Status of friendly and enemy air defenses.
7) Downed-pilot procedures.
8) Call signs, frequencies.
9) Friendly marking/identification system (IR laser, heaters, glint tape).

Finally, keep in mind that there is no need to develop a new doctrinal term or task for aviation operations conducted during stability and support missions. Let's not go back and releam an old lesson.

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Capt. Jimmy Barnett commands E Troop, 1st Squadron, 4th Cavalry.

"Must Be Present To Win"

By Lt. Col. Peter Curry and Lt. Col. William Gavora

"The Army's deployment is the surest sign of America's commitment to accomplishing any mission that occurs on land." — Army Chief of Staff Gen. Eric K. Shinseki

As we begin this century, being able to deploy and quickly execute a wide range of missions is the name of the game. Our country expects us to quickly get to the fight and win. America has called on her Army for increased strategic dominance across the entire spectrum of operations. Our Army's leadership has outlined a new vision, which requires Army aviation forces that are deployable, agile, versatile, lethal, survivable and sustainable.

Power Projection Imperatives:

- Disciplined, fit soldiers.
- Warfighting skills - individual and collective.
- Serviceable, modernized equipment.
- Strategic, operational and tactical mobility.
- Combat overmatch.
- Firepower.
- Information.
- Logistics (if it ain't ready, don't take it).

What We Have in Our Kit Bag Now

Our current capabilities with a rapidly deployable Kiowa Warrior-equipped unit include:

- Deployable/Agile: Scout/attack helicopters based in the continental United States (CONUS) can be loaded on strategic lift aircraft as small as a C-130 in less than 30 minutes. On the arrival end, the aircraft could be on a combat mission 30 minutes after the strategic lift aircraft rolled to a stop. In real-world terms, this means that the 1st Bn., 82nd Avn., can meet/exceed the 82nd Airborne Division's alert/load/ deploy/fight timetable. Also, it will take some time to mass our assets on arrival.

We must meet our Army's power-projection needs through positive actions designed to realize this new Army vision. This vision recognizes the fact that we can't win if we can't get to the fight. We must execute now, not later. If we want to dominate on land, then we "must be present to win."

Units in the field and the program offices supporting our force must reassess training and acquisition plans to meet these needs. Further, our mission analysis must address the equipment, tasks, conditions and standards, which support our vision. Here are some imperatives that we think Army aviation units must attain to meet the challenge:

We can't delay action while long-lead programs address these needs. The Army is a 24-hour-a-day operation. We have to assume that a deployment could occur today. Warfighters and industry must work together to make these imperatives a reality. Units must modify their tactics, techniques and procedures, while industry makes the necessary equipment changes to meet these new demands.

An unprecedented cooperative effort to address these imperatives has been established between the 1st Battalion, 82nd Aviation Regiment, and U.S. Army Aviation and Missile Command's Scout/Attack PM office. These soldiers took a hard look at what we have in our kit bag now, and how we can best use and improve these resources.

Even though our hardware gives us great deployablity, we still need to brief, prepare and rehearse for combat missions. This ties into having skilled, disciplined and fit soldiers manning these Kiowa Warrior units. Without the abilities of our highly trained soldiers, the units would not be able to get to the battle in time pre-

pared to fight and win.

- Versatile: The Kiowa Warrior is capable of naval transport, a capability demonstrated through extended sea duty and flight-deck operations. These aircraft have been transported by ships and conducted missions from ships under wartime conditions. We have operated across the spectrum of conflict from stability and support through small-scale contingency operations to major regional contingencies.
- Lethal: The Kiowa Warrior's weapon-system capabilities, combined with a sophisticated fire control and digital links to field artillery and C2 systems, give the commander the total lethal package he can focus on any tactical problem encountered on the 21st-century battlefield. Further, the Kiowa Warrior expands the division's lethality by increasing the accuracy of indirect fires and by increasing the division's situational awareness - and thereby the lethality of all the other weapons systems in the division. The Kiowa Warrior packs the hardest hitting, longest-range antitank weapon we have, the Hellfire missile system, as well as 2.75-inch Hydra aerial rockets with a versatile package of warheads, the air-to-air Stinger missile system and a .50-caliber gun capable of accurate short- to medium-range fires.
- Survivable/Sustainable: The operational tempo (OPTEMPO) maintained by Kiowa Warrior is the highest we have ever maintained in peacetime. The capabilities we have described are not years away, they exist today in our Army.

Clearly, Army aviation can provide true power-projection capabilities from a major theater scenario, through small-scale contingencies, to stability and support operations. These capabilities, when properly coupled with a combined arms/joint preparation, can meet the Army vision's requirements. However, we cannot simply "throw technology" at the issues.

We strongly believe that training is the key to success on the battlefield. Training transforms capabilities into warfighting realities. The skills that we develop are highly perishable. They must be sustained and rehearsed regularly. Training for our soldiers must be tough, realistic and battle focused on individual and collective warfighting skills that assist in integrating the lethality of the Kiowa Warrior into the total-force package. The latest and greatest hardware will do us no good if we allow these skills to languish.

In addition to training our soldiers to fight and win in today's combat environment, we must also be capable of sustaining operations wherever the fight takes us. Integrating support and logistical functions into the total-force package is paramount to winning in battle. If our soldiers do not have the proper logistical support (repair parts, tools and equipment, technical support of civilian LARS) to maintain and sustain the fighting capability of the unit's combat equipment, we will fail in our mission to fight and win.

The 82nd Abn. Div. expects its aviation assets to deploy anywhere in the world on short notice. If on mission cycle, the 1st Bn., 82nd Avn., would participate in this action as one of the combat elements of the division, working for a brigade combat team, and transitioning to division control for follow-on missions.

Currently the 1st Bn., 82nd Avn., works closely in a habitual relationship with one of the ground infantry brigades during peacetime and wartime operations. The scope of the training done in peacetime is all inclusive and fosters a mutual understanding of the capabilities and limitations of both the aviation and ground forces. To aid in this relationship is a Regimental Aviation (RAVN) liaison officer attached to the infantry brigade headquarters. The RAVN is a valuable resource for the ground brigade commander, advising him on all aviation operations planning and execution. The RAVN also is a link between the aviation task force staff and the infantry brigade staff during the mission-planning phase. The success of this relationship results in a cohesive and lethal plan integrating Army aviation into the ground force commander's main effort.

The implied task is that the battalion will have to integrate quickly into the joint fight. The battalion task force has the communications and optical gear, as well as trained crews, to seamlessly support both ground and air forces. Whether it's calling for naval gunfire or acting as final controller on air strikes, the Kiowa Warrior-equipped units in the 82nd Abn. Div. are the weapons of choice. In the "first battle" situation we must bring enough to the fight in terms of firepower, stamina and smarts to have a chance of success. The 1st Bn., 82nd Avn., assets must enhance the division's capability, not hinder it,

The primary challenge for the product manager is to procure and sustain the best possible equipment for the soldier.

either tactically or logistically. If it does not, it is inconsequential and will not be allowed into the fight. The lesson here is one from the Grenada conflict and the Cobra attack helicopters being in chalk 120 (a low priority in the sequencing of assets into the fight). The division did not need them for peacetime missions and had consequently not trained with them. The result was that they were not available, which significantly hampered aviation operations.

What We Are Doing in the Short Term

- Battle focused joint/combined training, to train the entire team and keep the edge.
- New production, to get the latest technology to the warfighters.
- Retrofit the OH-58D AHIP TO OH-58D Kiowa Warrior — upgrade where it's feasible.
- Safety Enhancement Program (SEP) — R3 engines, crashworthy seats and airbags to protect the force by design· Digitization. — New processors, new radios, the new improved data modem (IDM) and advanced joint variable message format (JVMF) software to ensure that all soldiers get "the word."

What We Are Doing in the Long Term

- Re-enlisting quality soldiers.
- Reviewing and revising doctrine.
- Recording and acting upon lessons learned.
- Developing combat aviation requirements which support the Army vision and forwarding them to the Aviation Center at Fort Rucker, Ala.
- Providing feedback to RAH-66 Comanche and Longbow Apache programs.
- Reviewing joint Air Force and Navy standard operating procedures that will fit our needs.
- Working with PO Scout/Attack to improve our equipment over time.

Product Manager Focus

The primary challenge for the product manager is to procure and sustain the best possible equipment for the soldier. The Scout-Attack PMO is pursuing a variety of efforts to sustain and maintain the capabilities of the OH-58D Kiowa Warrior.

One of the most important is the Safety Enhancement Program (SEP) which incorporates the Rolls Royce-Allison 250-C30R3 engine with Full Authority Digital Engine Control (FADEC) to preclude overspeeds and mitigate engine surging, crash attenuating seats for improved crew safety, and the Improved Master Controller Processors (IMCPU) for the Control Display System (CDS) along with software changes to provide digital capability for the future Digitized Army.

The PM is also pursuing efforts to address the lack of training capabilities and mast-mounted sight obsolescence, and is working on a Commercial Off-the-Shelf Operations & Support Savings Initiative (COSSI). These efforts will improve performance, reduce aircraft weight and reduce operating cost.

A cursory read of our ideas should make it clear that power projection is much more than just hardware and organization. Military success on the 21st-century battlefield will not be happenstance. We must be ready to go today and in the future. Decisions we make today and the training we do today affect the future. We submit that being tactically and operationally capable at the scene of the fight and in a position to win is what we must strive for. Further, a landpower maxim of "you must be present to win" will remain true in the foreseeable future. Our possible enemies have continued to improve their own capabilities and we conclude that our edge in aviation and ability to conduct power projection operations may only be temporary. We must invest in the hardware, soldiers and ideas required to maintain our edge. For now, the Army has the Kiowa Warrior, which is ideally suited to get to the fight and sustain operations until follow-on forces arrive. Highly trained aviation soldiers with a "go-to-war-today" focus, along with responsive industry and PM support, can execute the mission now and into the future.

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Lt. Col. Peter Curry commands the 1st Bn., 82nd Avn. Regt., at Fort Bragg, N.C. Lt. Col. William Gavora is Product Manager, Scout/Attack, at Redstone Arsenal, Ala.

Enhancing Readiness cont'd. from page 8

to rehearse their missions and review their course of action analysis. During deployment, this asset allows the battalion to conduct training while most of its other equipment is in transit. "Digital terrain walks" can be conducted and crews can see the terrain over which they will operate. Recently, aviation units of the 10th Mountain Division performed digital rock drills and mission-rehearsal exercises during their train-up at Fort Rucker prior to their deployment to Bosnia. The portable MPRT showed potential as a mission tracking and rehearsal tool for aviation training. The U.S. Army Aviation Center is working closely with TRADOC and the Command and General Staff College to define additonal user functionality for future systems.

By linking contructive and other virtual simulations — such as WARSIM, CATT or OneSAF — to the AVCATT-A, battlestaffs can train within simulated large-scale operations in real time. If a unit is equipped with Army Tactical Command and Control Systems (ATCCS), linked simulations can drive battalion-level missions that support digital system staff planning and execution. The 4th Aviation Brigade of the 4th Infantry Div. has used MPRT linked to ATCSS to drive brigade staff exercises. These missions can be rehearsed and reviewed until the commander is satisfied with the overall training level. With appropriate home-station instrumentation (HSI), "live crews" and "virtual crews" can conduct collective operations together when maintenance posture doesn't allow all crews to fly "live."

For you commanders in the field, today's simulation environment can be viewed as a half-empty glass or a half-full glass. Our challenge is to continually view it as the latter. Granted the simulators have not been fully upgraded with the modifications in the fielded helicopters, some units have access to simulators that other units do not, and some aspects of flight in the simulator do not fully replicate the actual aircraft. However, imagine the training challenges without our current set of simulators.

Commanders who have fully embraced simulation are reporting a large return on investment for their efforts. The keys are analyzing each task that supports the unit's METL, determining which tasks can be trained to standard in the simulator for that unit and then using the simulators to maximum advantage. This approach spares pilots from having to learn sometimes costly lessons the hard way — in actual flight. They have the opportunity to train to standard in the simulator and then refine those skills in the aircraft.

Approximately 85 percent of the emergency procedures for modernized aircraft can be practiced only in the simulator. Simulators thus offer our aircrews the only opportunity to practice before facing a real emergency. Additionally, the simulator offers the possibility of emergencies that result from hostile fire. Hostile fire adds to the realism of the training environment and creates a situation that really tests an aviator — multiple emergencies.

In many units check rides are given in the simulator only or in two phases: one in the simulator and the final phase in the aircraft. Most of you know that DES currently gives two-thirds to one half of its check rides in the simulator if a simulator is available.

Reports indicate that all units use simulators to some degree, but very few have a well defined simulator training program, complete with command supervision and challenging METL-based scenarios. More often, crews fulfill their required simulator hours by executing "individual training." In these units aviators are assigned simulation periods and must develop their own training objectives. Although scenarios may be available, they are not used or, if they are used, no one except the simulator operator is available to provide an after-action review. The challenge for the commanders in the field to maximize simulators is to establish a rigorous program that ensures each crew is accomplishing training goals established by the unit, not just the crew.

The current simulator is a great place for the company commander and platoon leader to observe each of their crews. It is also a place for senior instructor pilots to observe less-experienced instructor pilots as they execute their duties. It is a place for safety officers to view crews in action. It is a place for maintenance officers to work through the flying aspects of a maintenance test flight. It is a place for newly arrived crews to see how to do it right as they observe more seasoned crews work through training scenarios. And, it is also a great vehicle to reinforce skills and sustain proficiency between actual flights and exercises.

Here's my guidance to commanders as they work to establish rigor and unit perspective in the simulator program: Deploy to the simulator with a scenario, and fill every available seat. On this "deployment" every crewmember should have a duty to fulfill and an area to observe or to control. The end result is a deployment to the simulator where the leaders and senior instructor pilots observe every crew in a platoon and/or company as they work to accomplish the individual tasks associated with scenarios that are clearly tied to the unit METL/collective tasks. What better way is there for commanders and senior trainers to personally observe each crew as they accomplish a standardized mission?

A second method is to use a simulator period that is designed to grade proficiency in emergency procedures. With most critical emergency procedures confined to simulators (dual engine failure, multiple engine emergencies, tail rotor malfunctions, etc.) we cannot afford to wait until our next actual emergency situation to learn that our crews were not as ready as they should have been.

There are currently six seats in the CMS and four seats in the UH-60, UH-1 and CH-47 simulators. How many are your units filling for each ride? How well are you using simulators in your training program? Who supervises your pilots in the simulator? Can each of your pilots execute all emergency procedures to standard? Is your program doing what you want it to do? Is it focused on the combat readiness of your unit? What better place to find out than the simulator? The challenge is there, but we need the commanders in the field to put their arms around the challenges and develop better ways to maximize the training benefits of simulation. I am suggesting that structured, task-based training be planned for and executed to standard in all simulator flights, just as it is for all live flights.

Although the AVCATT-A for units is still on the horizon, an AVCATT-A prototype exists at Fort Rucker today. A great success for Army aviation forces has been the Aviation Training

Exercise (ATX), which is conducted for every aviation unit before it deploys to Bosnia or Kosovo. This exercise combines the use of simulations for the headquarters units and the use of simulators for the flight units. The end result is an exercise that brings the positive aspects of simulations and simulators together.

AVCATT promises to bridge the gap between flight simulators and simulations like JANUS and BBS. It is not designed to replace simulators, nor could it, as such an approach becomes rapidly unaffordable. However, it does a great job of determining whether the unit plans and orders can be executed. For example, we see that three deep attacks by one unit in a single night are not possible, whereas in current simulations, it can be accomplished.

I would suggest that commanders become familiar with the collective simulation training that has been conducted at Fort Rucker and at Fort Hood, Texas. The procedures used have utility for training your subordinate commanders, staffs and crews. Ask for the training support packages that have been built to support these exercises. They are available for your use. If possible, take advantage of the facilities at Fort Rucker should the opportunity provide itself. Most importantly, provide feedback on how we can make things better for you in the future.

Army aviation will play an active and vital role in the security needs of the United States and will continue to play a major role in all combined-arms events ranging from war to stability and support. Our units will be modular and deployable and they will provide joint-force commanders with a lethal and flexible force to rapidly deploy from the continental United States, or abroad, to any theater. The only way we can provide force commanders this capability is by conducting tough, realistic training to standard. The best way to train to high standards is to identify and implement a holistic training framework that fully integrates live, virtual and constructive training environments. By doing so, we will build the situational experience our aviators and soldiers need to meet the challenges of the future.

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

ARMYAVIATION mailbox

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Col. Bob Mitchel (Ret.), a member of the 10th Combat Aviation Battalion's 281st Attack Helicopter Company in Vietnam during 1969 and 1970, sent the following reflections on his recent visit to Fort Drum, N.Y., for a very special event.

On May 2 I traveled to Fort Drum to attend the 10th Combat Aviation Battalion dedication and memorial ceremonies. The 10th Mountain Division's 10th Aviation Brigade has adopted the lineage and heraldry of the 10th CAB that served in the Republic of Vietnam. Some unit members killed in Vietnam were honored by having headquarters buildings or hangars at Fort Drum dedicated to and named for them.

Twenty-five years, almost to the day, after the official end of the Vietnam war we had a meaningful ceremony and memorialization for our fallen comrades. The soldiers of the 10th Avn. Bde. of the 10th Mtn. Div. treated the veterans and relatives with the utmost dignity and respect. We were assigned drivers and escorts for the activities of the day.

The morning started with the dedication of the 10th Bde. headquarters building, which was followed by the dedication of the 2nd Bn. headquarters, the 3/17 Cavalry hangar, 1/10th hangar and 2/10th hangar. The very emotional ceremonies were somber and very professionally planned and executed. The young men and women of the various units involved were very accommodating and went about their duties with enthusiasm and purpose. Music for all of the ceremonies was provided by the 10th Mtn. Div. band.

The second ceremony of the day honored WO Don McCoig of the 281st AHC, who was killed in action on May 14, 1968, and who was awarded the Distinguished Service Cross and the Distinguished Flying cross for his actions in Northern I Corps while in support of the 5th Special Forces Group on the day of his death. The ceremony was opened by Lt. Col. Stewart Ramaly, commander of the 2nd Bn., 10th Avn. Bde. Col. Jack Mayhew (Ret.), former commander of the 281st AHC, spoke on behalf of the McCoig family and the 281st AHC Association.

The formal unveiling of the memorial plaque for Don McCoig was performed by Remaly, Lt. Col. Dennis Crowe (Ret.), Sgt. Ken Boling, Col. Bob Mitchell, Col. Jack Mayhew (Ret.) and CSM Bob Ohmes (Ret.).

The ceremonies ended with the dedication of "Vagabond Park," a small common area between the barracks and the dining facility. The park is a monument to the 10th CAB and its twelve companies. The centerpiece is a granite marker with the 10th CAB crest. It is surrounded by six smaller markers with two plaques on each marker representing the twelve units.

As I sat and listened to former commanders, crew chiefs, door gunners, pilots and relatives memorialize the lives of the remembered pilots and crewmen, I could not help but remember all of our fallen comrades. I looked around the ramp on the airfield and saw every one of them in the eyes of the young soldiers standing steadfastly at attention behind the seated guests. I felt honored to have been a part of the history of Army aviation, and to have participated in laying the groundwork for the young helicopter pilots and crewmen of today's Army. I am very proud to have been a member of the 281st, which has such a rich heritage and legacy. I am satisfied that the traditions will continue.

Welcome Home and Happy Trails

Social Security For Widows

If you are married, chances are good that you're going to live longer than your husband. You need to know how widowhood, divorce and career choices might affect your future Social Security benefits. Did you know that Social Security is the largest source of income for women in retirement years? Of the 3.3 million Social Security beneficiaries age 85 and older, about 2.5 million are women. Take responsibility for planning your financial future. Visit Social Security web site at http://www.ssa.gov/ policy/pubs/womenrs.htm.

Army Aviation's "HIGHEST" Level of Training

By Capt. Bob Lenz

In the last decade the U.S. Army has experienced a rapid increase in its operational tempo and number of deployments. Throughout every deployment, Army aviation has been an integral component of the Army's success.

When the Army has a mission that requires a rapid response, it knows it can turn to the 101st Airborne Division, which is postured to deploy in 36 hours to defeat enemy forces worldwide. The 101st is a one-of-a-kind organization that is the division of choice for mobility, flexibility and firepower — a true operational force that can strike quickly and deeply with unmatched combat power. As part of the 101st, our aircrews have a significant challenge in mastering a unique set of air assault skills that they must be prepared to employ anywhere in the world.

Most of the deployments the Army has conducted have been to austere geographic areas which possess mountainous regions or temperature and altitude patterns that combine to form high density altitudes (DA). Operating aircraft at or near maximum gross weight, combined with these environmental conditions, our aircrews require the highest level of proficiency to provide the tremendous level of support for which Army aviation is known.

Parallel to the increasing number of aircrews flying in mountainous and high DA regions, Army aviation has discerned a concerning trend. In the past two years accidents related to power management and crew coordination have resulted in 16 deaths, 5 destroyed aircraft and equipment losses exceeding $45 million. While investigating these accidents, a noted deficiency was that the vast majority of training performed by Army aircrews is conducted near sea level and at low density altitudes. At most Army installations, no training areas or formal programs of instruction are available to prepare aircrews for the conditions they will almost certainly face while deployed.

The mission of the 101st's 159th Aviation Brigade is to provide air-assault capability to the fight anywhere in the

world - to strike deep, provide support and to deny the enemy a chance to recover. Possessing this worldwide mission, the brigade realized its aircrews must be prepared to operate in mountainous environments. A thorough search for the best site to conduct this training landed the Eagle Thunder aircrews at the High Altitude Training Site (HATS) in Eagle, Colo.

HATS originated in 1986 as a Colorado National Guard school and its staff has since become the worldwide authority on rotary-wing mountain flying and power management. Fort Rucker requested that HATS conduct EURO NATO training in 1998, and the school trains aviators from the U.S. Air Force, U.S. Navy, the 160th Special Operations Aviation Regiment, Norway and the Netherlands. Located in the heart of the Rocky Mountains, HATS provides a training area of more than one million acres with altitudes ranging from 6,600 to more than 14,000 feet.

The purpose of HATS is to train aircrews to safely maximize aircraft performance in mountainous and high density-altitude terrain. It accomplishes this by focusing on three principles: performance planning; wind and terrain analysis; and power management.

Performance planning is the bedrock of a successful flight in high DA environments with high aircraft gross weight. Basic instruction on preparing a Performance Planning Card (PPC) is available to aviators as required, and a PPC is completed before each flight. Students and instructors analyze the PPC each morning, and discuss what they expect to see during that day's flight and what variations they might experience.

HATS spends nearly eight hours of classroom instruction teaching wind and terrain analysis. These classes demonstrate the theories found in FM 1-202 (Environmental Flight), making thorough use of video footage, terrain models and real-life examples. For in-flight wind and terrain analysis, HATS has expanded the ATM task of Select Landing Zone/Pickup Zone to an eight-step landing zone sequence:

1) Identify the LZ.
2) Determine power requirements.
3) Conduct wind assessment.
4) Conduct wind and terrain analysis.
5) Select routing (in/out).
6) Perform low reconnaissance.
7) Select target torque (in/out).
8) Conduct approach/departure.

This sequence will normally take up to four circles of the LZ to complete, although steps may be combined or abbreviated as required to fit the situation.

HATS teaches power management through a process known as target torque, which provides an objective means for evaluating aircrew performance. The target torque is the power that the aircrew believes will be expended on approach and departure; it is not an actual aircraft limitation. The target torque is derived from aircraft -10 Checklist Tabular Data tables and environmental conditions at the LZ. The advantage of identifying a target torque is that it provides two things: When measured against power available, it allows the aviator to identify whether or not an approach and departure can safely be made from any given LZ, and it allows the aviator an objective value to measure his performance against during approach and departure.

The combination of focused training with few distracters, realistic terrain and instructors with a tremendous wealth of experience allows HATS to succeed in its goal of providing aircrews the situational awareness required to safely conduct operations in power-restrictive environ-

ments. Each and every 159th crew member left the course with a much greater proficiency and confidence in the ability to maximize the performance of the aircraft, not only at high altitude in the mountains, but in any area where combinations of high temperatures, winds and gross weight are found. This training sharpened the skills of the 159th's aviators and even further increased the capabilities of the world's only air-assault aviation brigade.

The challenges of high-altitude training do not end with an aircrew's departure from Eagle, Colo.; HATS is a foundation for units to build upon, not an end unto itself. Tremendous discipline is required to continue to practice the techniques and principles taught at HATS, especially when an aircrew is back near sea level with seemingly unlimited power available. An even greater challenge is for the aircrew to determine how best to employ what was learned in a tactical scenario. Many of the safest procedures to follow in the mountains are not tactically prudent when faced with an enemy threat. Aircrews and units must find the right compromise between planning missions around environmental risks versus enemy threats. Once a unit has determined how best to incorporate the basic principles taught at HATS into the conduct of its tactical mission, it must train to these standards during all of its missions, regardless of the existing environmental conditions. When training of this caliber occurs, Army aviation will truly be trained to meet any mission, anywhere in the world.

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Capt. Bob Lenz commands Company A, 5th Battalion, 101st Aviation Regiment, at Fort Campbell, Ky.


[PHOTO UH-60L Landing "All-By-Yourself"

1-10th Aviation Trains in Vermont

By 1st Lt. Manuel Bartolini

Aircrews of the 1st Battalion, 10th Aviation Brigade, recently undertook a challenging situational training exercise in the Green Mountains of Vermont.

Under the command of Capt. Jim Nugent, Company A, 1-10th Avn. was joined by elements from Company B, 2nd Bn., 10th Avn.,; the U.S. Army Air Ambulance Detachment; and the division's Long Range Surveillance Detachment (LRSD). Maintenance augmentation from Co. D, 1-10th Avn. helped sustain the task force effort.

The exercise incorporated all of the division's aviation platforms and built a combined-arms training relationship with the division's highly specialized military intelligence assets.

This event also provided many of the Fort Drum aviators with their first opportunity to work closely with aviation elements from the National Guard. Soldiers from Vermont's 86th Medical Company (Air Ambulance) provided both flight operations and refuel support during this three-day, action-packed training event, which was a mutually beneficial exercise to help fulfill many of their annual training requirements.

Day one of the exercise focused on the deployment to Vermont and establishment of a headquarters. The task force deployed to Camp Ethan Allen, home of the U.S. Army Mountain Warfare School, and established a command post. The cross-country flight replicated a deployment to an ISB, and helped the aircrews hone their flight planning skills in unfamiliar terrain. Once on the ground, the crews established maintenance and logistical coordination that would support them throughout the week.

On day two of the exercise, Task Force Rogue initiated tactical operations. Teams Red and White each contained two OH-58D helicopters, and completed zone reconnaissance operations within the challenging Green Mountain Training Area. Blue team, comprised of one UH-60L, one UH-1V and two OH-58Ds for security, inserted SSgt. Richard Steinbacher's six-man LRSD team and a cache of equipment into an alpine landing zone. The team then began its uphill movement through the snow to establish an observation post, from which the team members were able to observe the target area throughout the night.

On the third day the LRSD's efforts paid off. The task force simulated an attack on two "enemy" vehicles. After the Red and White teams destroyed both targets, Blue team began extracting the LRSD. All units recovered to Camp Ethan Allen, and began the redeployment back to Fort Drum.

With the exception of one aircraft that developed mechanical problems, and the encroachment of bad weather that forced the exercise to end one day earlier than previously scheduled, the Mountain STX was a success. The pilots of Task Force Rogue gained valuable exposure to power-management techniques at a high density altitude, and familiarized themselves with wind and weather patterns that frequently develop in mountain ranges. The company improved its collective ability to plan and execute a combined-arms exercise while deployed away from Fort Drum, while minimizing cost through use of reserve component facilities.

JSHIP: The Future of Joint Operations

By John Padukiewicz

"It is now accepted with naval and military men who study their profession, that history supplies the raw material from which they are to draw their lessons, and reach their working conclusions. Its teachings are not, indeed, pedantic precedents; but they are the illustrations of living principles."

Rear Adm. Alfred Thayer Mahan

Joint shipboard helicopter interoperability has become a reality and operational requirement for military forces. Recent history has demonstrated a marked increase of shipboard operations by Army and Air Force helicopters aboard U.S. Navy, Military Sealift Command and U.S. Coast Guard ships. For instance, during Operation Support Democracy the Army operated OH-58 and CH-47 helicopters from the aircraft carriers USS *Eisenhower* and USS *America*. This contingency operation was challenged by ship and aircraft restrictions due to lack of helicopter-to-ship certification testing and standardized tactics, techniques and procedures (TTPs). Because joint special operations and regular forces with a maritime mission routinely operate from Navy ships during contingency operations and joint task force exercises (JTFEXs), shipboard compatibility is an important issue that is addressed in numerous helicopter and ship operational requirement documents for the Department of Defense (DOD).

Up to now, this shipboard helicopter interoperability joint requirement has been addressed by employing forces whose equipment, systems and operators have not been optimized to conduct these types of operations. Research, after-action reports, lessons learned and information provided by the warfighters indicate that capabilities within this operational environment must be improved.

Multi-service shipboard operations highlight some of the inherent challenges of joint operations. In many cases, units not regularly involved with joint operations have lost their "corporate" knowledge base through personnel turnover. Joint-operations knowledge and expertise have typically been passed down from those personnel who had experience and participated in joint operations to those members new to it. This holds true with each different unit involved in the operation. The unfortunate results were that many units had to "relearn" the lessons, methods and TTPs when they had to deploy and function as part of joint operation. In addition, flight clearances and ordnance waivers had to be granted to deploying units in order to operate from ships. The end result was degradation in unit efficiency, joint combat preparedness and effectiveness, ship vulnerability and safety margins.

As joint shipboard-helicopter operations become more commonplace, commanders need to better understand and define how these operations can be safely conducted without compromising joint helicopter-shipboard interoperability. To help solve these joint operational challenges, the Office of the Secretary of Defense (OSD) has chartered the Joint Shipboard Helicopter Integration Process (JSHIP) Joint Test and Evaluation Program (JT&E). JSHIP will address the issues involving compatibility, procedures and training during multi-service shipboard operations by developing a helicopter-shipboard compatibility process.

JT&E conducts tests and evaluations to assess the interoperability of service systems in joint operations and explore potential solutions to identified problems; evaluates and provides recommendations for improvements in

joint technical and operational concepts; validate testing methodologies having multiservice application; and evaluates technical and operational performance of systems under realistic joint operational conditions.

JT&E projects are jointly chartered by the undersecretary of defense for acquisition, technology and logistics); the director of strategic and tactical systems; and the director of operational test and evaluation. JT&E programs bring together two or more military departments to address warfighter requirements and improvements. Various types of actual field testing, as well as models and simulations, are used to obtain and validate data and produce "value added" legacy products that will improve U.S. joint military capabilities.

All joint test directors report to Mr. Richard Lockhart, the deputy director of developmental test and evaluation (DDDTE). DDDTE provides critical liaison with the Office of the Secretary of Defense (OSD) and promotes each JT&E program's legacy products to the warfighter. The JSHIP objective is to increase the operational flexibility and readiness of multiservice helicopters onboard Navy ships operating in a joint environment. JSHIP's primary focus is to develop a process for certification of Army and Air Force helicopters to operate onboard Navy ships. This program will provide joint-force commanders the much-needed information for an accurate assessment of joint shipboard-helicopter interoperability and capability aboard ships operating in the blue-water and littoral-water environments. The emphasis of JSHIP is on a comprehensive analysis that focuses on how warfighters can effectively and efficiently maximize joint interoperability in the shipboard environment.

JSHIP will conduct, over the course of its four-year program, a series of Dedicated At-Sea Tests (DAST) that will utilize resources from the Navy, Army and Air Force. In addition, JSHIP will capitalize on test opportunities surrounding scheduled exercises of Navy ships and Army and Air Force aircraft. JSHIP will utilize a four-pronged strategy to address the issues.

- Establish an existing capabilities baseline.
- Determine the necessary and potential improvements compared to the baseline.
- Design and implement appropriate changes where necessary and feasible.
- Test the results for effects on interoperability and capability and develop JSHIP Legacy Products for the warfighter.

DASTs will be conducted involving specific combinations of Navy ships and Army and Air Force helicopters. These tests will focus on addressing and providing solutions for such joint ship-helicopter issues as interoperability of Army and Air Force crews with Navy ship crews; compatibility of embarked unit aircraft and equipment with shipboard equipment; impacts of physical and electromagnetic environments; and procedures, tactics, techniques and training of embarked aircrews and ship's company personnel.

The Navy air-capable ships scheduled for testing include amphibious assault landing carrier (LHA),

amphibious assault landing deck (LHD), aircraft carrier (CVN/CV), amphibious docking ship (LPD), guided-missile cruiser (CG) and guided-missile destroyer (DDG). Army and Air Force rotorcraft involved with testing include the UH-60, OH-58D, CH-47, AH-64, MH-60, MH-53J, AH/MH-6 and MH-47. Army organizations earmarked to participate in JSHIP testing include XVIII Airborne Corps; Forces Command; Test and Evaluation Command; the Army Safety Center; the 160th Special Operations Aviation Regiment; the Army Technical Test Center (ATTC); the 4th Squadron, 2nd Armored Cavalry Regiment; Company D of the Texas Army National Guard's 3rd Battalion, 149th Aviation Regiment; and the air ambulances of the California Army Guard's 126th Avn. Co.

"Current joint helicopter operations lack coherent integrated and standardized tactics, techniques, and procedures which restrict joint force commanders options during contingencies. Waivers are routinely required for shipboard compatibility and interoperability."

The JSHIP Problem Statement

All of the testing JSHIP conducts will support legacy product development. These products are designed to enhance the ability and effectiveness of both deployed aircraft and ship's company to prepare for joint operations. JSHIP legacy products fall into three categories.

- The JSHIP Certification Process is the fundamental purpose of the JSHIP program and encompasses the procedures, planning, test methodology and events that comprise the program. When completed the program will become a template for future efforts similar in scope. Components of the process include the test data base; recommended enhancements to joint TTP manuals and service procedural documents; interactive CD for training and procedures for ship's company and embarked aviation unit; modified aircrew training syllabus; and development of a unit at-home training package.
- Waiver Reduction/Elimination focuses on the 12 dedicated tests of specific ship and helicopter combinations. The results of the tests include the reduction or elimination of waivers associated with expanding launch and recovery envelopes, obtaining ship and helicopter certifications and enhancing of electromagnetic effects databases. These products will be generated as the tests are completed and provided to the warfighter as quickly as possible.
- Dynamic Interface Modeling and Simulation System (DIMMS) is a twofold modeling and simulation effort designed to be used as an engineering tool and potential training tool. It will support helicopter/ship launch and recovery envelope expansion flight testing via modeling and simulation. DIMSS will define and demonstrate a modeling and simulation product that will accurately replicate the aircraft characteristics and pilot workload associated with landing onboard and launching from Navy ships. DIMSS will integrate and enhance eight manned flight simulator subsystem models: Ship Dynamic; Visual; Landing Gear; Body Force Cue and Motion; Airwake; Cockpit and Force Feel; Aerodynamic; Aural; and Aircraft Mechanical Characteristics. DIMSS will develop a process to integrate these subsystems into operational flight trainers to support warfighter training. DIMSS will be an excellent product opportunity for acquisition program managers and flight testers interested in flight test risk reduction and will become a key component in the process for Verification, Validation and Accreditation (VVA) as applied to modeling and simulation products.

JSHIP is currently collaborating with potential product owners and warfighters for concurrence, development, production and delivery of user-friendly ship and helicopter operational integration products throughout the course of the JT&E.

The JSHIP JT&E Program established its headquarters in July 1998 at Patuxent River Naval Air Station, Md. The Navy is the lead service, and the Army and Air Force are participating services. A total of 10 U.S. military and government civilian personnel and 31 contractor personnel make up the core of the JSHIP team.

As of this writing, JSHIP has completed two of the twelve Dedicated At-Sea Tests (DAST). Data from the testing involved UH-60A, CH-47D and AH/MH-6 helicopters and USS *Saipan*, an amphibious assault landing carrier, and USS *Essex*, an amphibious assault landing deck. The JSHIP program is currently analyzing test data and preparing for additional testing. Up to date events/test news and results can be found at the JSHIP website: www.jship.org

Additional information about the JSHIP JT&E Program can be found at the JSHIP website at **www.jship.org**, or by calling the JSHIP Program office directly at (301) 342-4936 x205 or (DSN) 342-4936 x205.

❖❖

John Padukiewicz is Product Manager, Joint Shipboard Helicopter Integration Process Joint Test Force, Patuxent River, Md.

Tips from TOPS

By Col. Jerry Crews, USA-Ret., Deputy Director, TOPS

Keeping Up With the Joneses

Cutting your consumption can ease the stress of your transition — and your life.

By the time you get this magazine, you should have at least started paying off your Christmas bills. The holiday spending frenzy ended a few months ago, and you are sitting at the kitchen table trying to figure out not only why you bought so much stuff you didn't need, but also, and more importantly, how you're going to pay for it.

If you are trying to keep up with the neighbors down the street, you may have "maxed out" your credit cards and will be doing well to have everything paid off by late summer - just in time to pay for your summer vacation, buy some books and clothes for children heading off to school, and begin some early Christmas shopping; then the cycle will start all over again.

How many of you reading this article have "been there, done that" over the last few years? Does there seem to be no end to this continual bankruptcy of your life? There can be, if you decide to take control of your and your family's future.

In my "Marketing Yourself for a Second Career" lectures, I often advise that if you have more than one credit card and more than $1,000 in credit card debt, you are headed for personal financial trouble. In fact, the average person has three credit cards and roughly $5,000 to $7,000 of credit card debt. (This debt is over and above the average family's home mortgage, car payment, grocery tab, and health care bill.)

If this sounds like you, you probably acquired - and keep - this debt by continually buying things that you don't need in order to keep up with the Joneses. Depending on when you charge an item to your credit card, how much unpaid balance you carry from month to month, and a few other hidden credit card factors, you easily could be paying more then $300 in monthly interest on a $5,000 credit card bill.

I share these numbers with you not only as a wake-up call about your finances but also as a reminder to think about your priorities when you start planning the transition from your life in uniform to your start in the civilian world. Large debts or an ambitious standard of living can make salary a disproportionately decisive factor in your career search, which can affect your ability to freely negotiate with a potential employer or narrow your career field choices.

When I lecture, I frequently pose these questions, "How much can you eat?" "How many Hummel or Lladro figurines can you store in a cabinet?" "How many Waterford glasses do you need to entertain your good friends?" "Do you really need a five bedroom home for you and your spouse?" Finally, "If the Joneses are not paying your bills, why are you trying to keep up with them?"

Behind these rhetorical questions, there are real issues to consider, which affect not only your long-term plans (can you afford to pursue the career you really want?) but also your short-term ones (will you make that trip to the mall this weekend?). If you have your health, do you really need a lot of money and material possessions to make you happy?

Army Announces Reserve Component Force Changes

Fifteen aviation units are among the reserve-component organizations affected by force-structure changes recently announced by the Pentagon. The changes will result in the inactivation of Army National Guard aviation units in Alabama, California, Florida, Georgia, Maryland, Minnesota, Mississippi, North Carolina and South Carolina.

The changes are principally the result of the 1997 Quadrennial Defense Review recommendations to reduce 20,000 RC personnel by fiscal year 2000, in addition to force structure decisions that support Army wartime requirements. These reserve component inactivations do not include the force reduction of 25,000 deferred by the Secretary of Defense in December 1999.

The fiscal year 2000 reserve component unit inactivations, when combined with ongoing unit activations and conversions, result in a net loss of 10,111 spaces in the Army National Guard and a net gain of 1,712 spaces in the Army Reserve.

The selection criteria used to determine unit inactivations include the ability of a unit to meet future readiness requirements in the following areas: deployability, recruiting, retention, facility support, training, geographic locations and personnel issues.

When possible, soldiers assigned to units programmed for inactivation will be given opportunities for reassignment.

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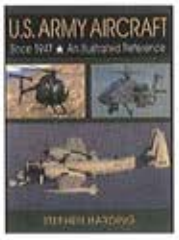
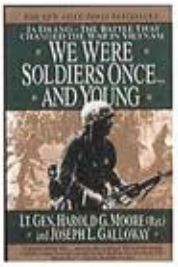


U.S. Army Aircraft Since 1947
An Illustrated Reference by Stephen Harding

This is the only comprehensive guide to the 124 types of helicopters, fixed-wing aircraft and experimental flying machines used by the U.S. Army since 1947. The author includes information on aircraft serials, markings, weapon systems, operational history and other technical data. Illustrated with more than 220 color and black and white photographs. [Schiffer Publishing Ltd. Size: 8 1/2" x 11", 264 pages, hard cover; ISBN: 9-7643-0190-X].

Black Hawk Down
by Mark Bowden

Black Hawk Down is the gripping story of the October 1993 battle in Mogadishu, Somalia. Bowden captures the harrowing ordeal through the eyes and words of the young men who fought the battle, a battle that ultimately led to the posthumous awarding of two Medals of Honor. [Atlantic Monthly Press, hardcover, ISBN: 0-87113-738-0]

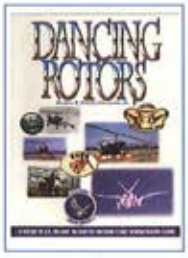


We Were Soldiers Once ... And Young
by Harold G. Moore & Joseph L. Galloway

We Were Soldiers Once ... and Young presents a picture of men facing the ultimate challenge, dealing with it in ways they would have found unimaginable only a few hours earlier. It reveals man's most heroic and horrendous endeavor. [Harper Collins Publishers, Size: 5 1/2" x 8", 483 pages, paperback. ISBN: 0-06097576-8].

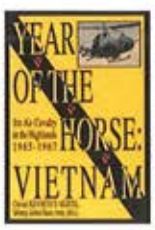
Year of the Snake
One Helicopter Pilot's Story of a Year in Vietnam's Mekong Delta, Vinh Long 1965-1966
By W. Bailey Jones

Based on the author's journal entries, Year of the Snake presents a gripping account of the daily activities of one of the first armed helicopter units to serve in Vietnam. Valuable for its insights on the war, its depictions of early gunship operations and its thoughtful analysis of armed helicopter tactics and techniques, Year of the Snake is both an important historical resource and an entertaining memoir. [Shade Tree Publishers, size: 8.5" X 11", paperback, ISBN: 0-967073-1-6.]



Dancing Rotors
by Harry E. (Ned) Gilliland, Jr.

Dancing Rotors documents the evolution of U.S. military helicopter precision flight demonstration teams from 1948 through 1976. A wealth of very unique helicopter history, heretofore untold, is now within the reach of every helo enthusiast. [Aerofax, Inc., size: 8 1/2" x 11", 483 pages, paperback. ISBN: 0942548-57-4].



Year of the Horse: Vietnam
1st Cavalry in the Highland 1965-1967
by Col. Kenneth D. Mertel (USA, Ret.)

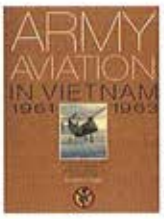
Year of the Horse: Vietnam is the day-to-day story of the 1st Battalion, Airborne, 8th Cavalry Division. Mertel pays tribute to the many acts of heroism of his men, who lived, worked and fought together in some of the world's most inhospitable conditions. [Schiffer Publishing Ltd., Size: 6"x9", 384 pages, hard cover; 59 color photographs, 9 maps; ISBN: 0-7643-0190-X].

The Forgotten Hero of My Lai: The Hugh Thompson Story
by Trent Angers

The true story of the Army pilot who refused to participate in a war crime, this book explains Thompson's actions during and after the My Lai massacre. It traces Thompson's life from his birth in Atlanta in 1943, through his adolescence in Stone Mountain, Ga., and his 20 years in the U.S. military, and examines in depth the less-the-honorable way the Army treated him following his courageous stand. [Acadian House, Size: 6" x8 3/4", hard cover, 247 pages, ISBN: 0-925417-33-5].

Breaking the Phalanx
by Douglas A. Macgregor

This work proposes the reorganization of America's ground forces on the strategic, operational and tactical levels. The analysis argues that a new Army warfighting organization will not only be more deployable and effective in joint operations; reorganized information-age ground forces will be significantly less expensive to operate, maintain and modernize than the Army's current Cold War division-based organizations. [Praeger Publishers, Size: 6" x 9 1/8", paperback, 283 pages, ISBN: 0-275-957942].



Army Aviation in Vietnam 1961-1963
An Illustrated History of Unit Insignia, Aircraft Camouflage & Markings by Ralph B. Young

Army aviation came of age in Vietnam and experienced an incredible proliferation of unit insignia and markings on both its fixed- and rotary-wing aircraft. This comprehensive volume surveys the vast array of camouflage schemes and official and unofficial markings that graced Army aircraft during the early years of American involvement in Southeast Asia. Army Aviation in Vietnam, 1961-1963 is a must-have work for any serious student of Army aviation history. [The Huey Company, Inc., Size: 8 1/2" x 11", 124 pages, hard cover and paperback. ISBN: 0-9671980-0-3].

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Year of the Snake - Jones	#___	$30.00*	$_____
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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.

Lieutenant Colonel Command Selection List for FY01

Combat Arms

RANK	NAME	BR	FA
4ER - AVIATION TSS			
LTC	Eberle, Joann Y. ●	15	48
LTC	Kelly, George G.	15	49
LTC	Ludowese, Jeryl C. ●	15	41
LTC	Lynch, Robin D. ●	15	
LTC	St. Jean, Albert C.	15	54
LTC	Thoma, Brian L. ●	15	54
MAJ(P)	Wild, Douglas A.	15	41
4EX - AVIATION INSTITUTIONAL			
LTC	Angevine, John E.●+	15	54
LTC	Pittman, Thurman M. Jr. ●	15	45
LTC	Steed, Roy D.●	15	54
LTC	Wood, Paul J.●	15	49
4L - AVIATION ATTACK/CAVALRY TAC			
MAJ(P)	Ball, Daniel L.●	15	49
LTC	Ball, Arthur T. Jr ●	15	54
LTC	Ballew, Robert S.●	15	54
LTC	Clawson, Michael N.●	15	54
LTC	Egbert, Jerry L.●	15	54
MAJ(P)	Farrington, Jessie O.●	15	54
MAJ(P)	Gehler, Christopher P.●	15	59
MAJ(P)	Hansen, John T.●	15	54
LTC	Harrison, John C.	15	54
MAJ(P)	Jones, Mark T.●	15	
LTC	Linderman, Timothy W.●	15	54
LTC	Thompson, Scott B. ●	15	54
4M - AVIATION ASSAULT/GENERAL SUPPORT TAC			
MAJ(P)	Bricker, Paul W.●+	15	41
LTC	Ferguson, Howard R.●	15	
LTC	Fields, Charles F.	15	54
LTC	Flewelling, Raymond T. ●	15	49
LTC	Jones, Jay R. ●	15	
LTC	Kelley, Yvette J. ●	15	53
LTC	Keogh, Michael H. ●	15	54
LTC	Leary, William John III	15	41
LTC	Lisenbee, Donald G. Jr ●	15	
LTC	Maher, Joseph E. Jr	15	41
LTC	Rice, William T.	15	54
LTC	Sabb, Anthony ●	15	
MAJ(P)	Welch, Robert P. ●+	15	54
LTC	Zegler, Scott D.	15	54
4N - AVIATION MEDIUM LIFT TAC			
MAJ(P)	Marye, James M.●+	15	54
LTC	Trouve, Christopher A.	15	41

COMBAT SUPPORT ARMS

RANK	NAME	BR	FA
5E - AERIAL EXPLOITATION TAC			
LTC	Effinger, Robert C. III ●	15	35
LTC	Fox, Roy W.	15	35
LTC	Montgomery, Robert J. Jr.	15	35
5ER - AERIAL EXPLOITATION TSS			
LTC	Joiner, Michael A.	15	

COMBAT SERVICE SUPPORT ARMS

RANK	NAME	BR	FA
6H - AVIATION MAINTENANCE TAC			
MAJ(P)	Dunaway, Joe D. ●	15	90
LTC	Stull, Alan M.●+	15	90
M4A - BATTALION/TROOP TDA			
LTC	Ippolito, Anastasia M.	MS	67 67J
M4C - EVACUATION BATTALION			
LTC	MacDonald, David L.	MS	67 67J

● AAAA Member
+ AAAA Life Member

Reserve Components Captain, RC/APL Promotion Board Results for FY99

NAME	BR
Anderson, Raymond K.	AV
Boone, Neil M.●	AV
Borer, Brent R.	AV
Brough, Angelique O.	AV
Colley, Charles D.●	AV
Davis, Jakie R., Jr	AV
Decuir, Darren A.●	AV
Deon, Roger F., Jr. ●	AV
Dickinson, Timothy D.●	AV
Ellington, Jason A.	AV
Fippinger, David J.	AV
Frederick, Christopher H.	AV
Geisen, Kurt M.	AV
Hahn, Christopher A.	AV
Hardin, William A.●+	AV
Hartman, Steve	AV
Hayes, Lee H.●	AV
Johnson, Mitchell G.	AV
Ladzick, David B.	AV
Laurel, Joseph C.	AV
McElwain, Eric D.●	AV
Misulich, Kristine A.	AV
Palmer, Ernest W.●	AV
Pendergrass, Alphonso W.	AV
Perschon, Walter M.	AV
Pieper, Keith A.●	AV
Pierce, Brian C.●	AV
Pierce, Sean P.	AV
Richards, Allen J.	AV
Sweeney, Lawrence C.	AV
Tedeschi, Frank A.●	AV
Tuttle, Todd J.●	AV
Vick, Dwayne E.	AV
York, Harry M.	AV

● AAAA Member
+ AAAA Life Member

Colonel Command Selection List for FY01

Combat Arms

Category/Name	BR	SP	Rank
Aviation Tactical			
Deverill, Shane M. ●	AV	54	LTC
Lawrence, David L.●	AV	54	LTC
MacDonald, Anne Fields●+	AV	41	LTC
Schisser, James S.●	AV	41	LTC
Wolf, William T.●	AV	54	LTC
Aviation Training and Strategic Support			
Eller, Douglas R.●	AV	54	LTC
Wilkinson, William M.●	AV	41	LTC
Zonfrelli, Michael A.●	AV	54	LTC
Aviation Institutional			
Summers, Kim L.●	AV	54	LTC
Aviation TRADOC System Manager			
Walker, Harold G.●	AV	54	LTC
Williamitis, Gregory M. ●	AV	54	LTC
Military Intelligence Tactical			
Francis, Thomas G. III ●	AV	35	COL
A/C Maintenance Depots Training And Strategic Support			
Budney, James J. Jr.●	AV	90	LTC

Acquisition COL/Gs-15 Command List

Category/Name	BR	SP	Rank
Project Manager			
Cripps, David B.●+	AC	51	LTC
Lake, William G. Jr.●	AC	51	LTC
Petty, Frank S.●+	AC	51	LTC

● AAAA Member
+ AAAA Life Member

THE PRESIDENT HAS NOMINATED THE FOLLOWING ARMY BRIGADIER GENERALS FOR PROMOTION TO THE GRADE OF MAJOR GENERAL:

Brig. Gen. Lawrence R. Adair
Brig. Gen. Buford C. Blount III
Brig. Gen. Steven W. Boutelle
Brig. Gen. James D. Bryan
Brig. Gen. Eddie Cain
Brig. Gen. John P. Cavanaugh
Brig. Gen. Bantz J. Craddock
Brig. Gen. Keith W. Dayton
Brig. Gen. Kathryn G. Frost
Brig. Gen. Larry D. Gottardi
Brig. Gen. Nicholas P. Grant
Brig. Gen. Stanley E. Green
Brig. Gen. Craig D. Hackett
Brig. Gen. Franklin L. Hagenbeck
Brig. Gen. Hubert L. Hartsell
Brig. Gen. George A. Higgins
Brig. Gen. William J. Leszczynski
Brig. Gen. Michael D. Maples
Brig. Gen. Thomas F. Metz
Brig. Gen. Daniel G. Mongeon
Brig. Gen. William E. Mortensen
Brig. Gen. Eric T. Olson
Brig. Gen. Richard J. Quirk III
Brig. Gen. Ricardo S. Sanchez
Brig. Gen. Gary D. Speer
Brig. Gen. Mitchell H. Stevenson
Brig. Gen. Charles H. Swannack, Jr.
Brig. Gen. Terry L. Tucker
Brig. Gen. John R. Wood

Secretary of Defense William S. Cohen announced at 1330, 6 June 2000, that the President has nominated 39 Army Competitive Category colonels for promotion to the grade of brigadier general.

THE PRESIDENT HAS NOMINATED THE FOLLOWING ARMY COLONELS FOR PROMOTION TO THE GRADE OF BRIGADIER GENERAL:

Col. Lloyd J. Austin III
Col. Vincent E. Boles
Col. Gary L. Border
Col. Thomas P. Bostick
Col. Howard B. Bromberg
Col. James A. Coggin
Col. Michael L. Combest
Col. William C. David
Col. Martin E. Dempsey
Col. Joseph F. Fil, Jr.
Col. Benjamin C. Freakley
Col. John D. Gardner
Col. Brian I. Geehan
Col. Richard V. Geraci
Col. Gary L. Harrell
Col. Janet E. A. Hicks
Col. Jay W. Hood
Col. Kenneth W. Hunzeker
Col. Charles H. Jacoby, Jr.
Col. Gary M. Jones
Col. Jason K. Kamiya
Col. James A. Kelley
Col. Ricky Lynch
Col. Bernardo C. Negrete
Col. Patricia L. Nilo
Col. F. Joseph Prasek
Col. David C. Ralston
Col. Don T. Riley
Col. David M. Rodriguez
Col. Donald F. Schenk
Col. Steven P. Schook
Col. Gratton O. Sealock II
Col. Stephen M. Seay
Col. Jeffrey A. Sorenson
Col. Guy C. Swan III
Col. David P. Valcourt
Col. Robert M. Williams
Col. W. Montague Winfield
Col. Richard P. Zahner

arrivals/departures

COLONELS

Mason, Bradley J., CMR 450 Box 734, APO AE 09705.
Scherrer, Kevin G., HHT, 6th Cav Bde, Unit 15711, APO AP 96271.

MAJORS

Cooper, Curt S., AAAA Natl Member-at-Large, 5809 Waldwick Rd., Fayetteville, NC 28311.EM: themayor @janrix.com
Crozier, William E., OMC-MCS, Unit 64901, Box 29, APO AE 09839.
Seitz, Stephen S., 456 S. Dobbsdell Street, Terre Haute, IN 47803.
Senters, Michael, P.O. Box 26, Bryants Store, KY 40921.EM: saberxod@yahoo.com

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Bailey, George D., 116 W. Rexford Avenue, Newport News, AL 23608.EM: baileyd@monroe.army.mil
Chase, Kenneth D., HHC CMTC, CMR 414, Box 1142, APO AE 09173.
Cole, Kenneth C., 1500 Shellfield Road #528, Enterprise, AL 36330.EM: kcole@infoave.net
Kimball, Raymond A., 8720 Windsor Lake Blvd., Columbia, SC 29223.EM: Raymond.Kimball@ us.army.mil

1ST LIEUTENANTS

Adams, John D., 5709-20 Ivanhoe Court, Fayetteville, NC 28314.

2ND LIEUTENANTS

Deeter, Jonathan P., 9846-B Sandy Creek Road, Fort Drum, NY 13603.

CW5s/MW4s

Mason, Robert A., 424 Granada Dr., Chesapeake, VA 23322.

CW4s

Mull, Jr., Lawrence A., CMR 467, Box 4682, APO AE 09096.EM: larry_mull@hotmail.com

CW2s

Adams, Curtis P., 1567 Churchill Court, Clarksville, TN 37042.EM: adamsc@usit.net

WO1s

Cottrill, Chris A., 16205-A Richmond Place, Fort Polk, LA 71459.
DiMona, Nicholas P., 21 E. Harris Road, Fort Rucker, AL 36362.
Glasenapp, Gavin W., A Troop 1/6 Cavalry, Unit 15665, Box 217, APO AP 96297.
Grogan, Travis, 15 Johnson St., Fort Rucker, AL 36362.

SERGENTS

Albee, Harold E. SSG, 4625 45th Ave., SE, Apt. A-4, Lacey, WA 98503.

DACs

Bazzetta, Jerry M. Mr., 12749 Alswell Lane, Sunset Hills, MO 63128.EM: bazzettj@wood.army.mil
Rosell, James A. Mr., Army Research Laboratory, AMSRL-CS-IO-FI, Wht Sands Missile Rge, NM 88002.EM: jrosell@arl.mil

RETIRED/OTHER

Hill, Rollin A. CW4, 383 Highway 167, Daleville, AL 36322.
Nakazawa, Nobue Captain, Rm D404, 1-1-32 Fuchinobe, Sagamiharashi Kanagawaken, Japan 229-0006.

AAAA NEWS

New Chapter Officers

Black Knights:
Maj. James E. Whaley, President.

Iron Eagle:
CWO 3 Darrel Smith, President;
Maj. John F. Dowd, Treasurer.

Jimmy Doolittle:
CWO 5 Lemuell E. Grant, President; Ssg Ruppert G. Baird, Secretary; Mr. Donald T. Munsch, Treasurer; Col. Lester D. Eisner, VP Membership; CWO 2 Kent B. Puffenbarger, Historian.

Ragin' Cajun:
1Lt. David M. Weese, VP Scholarship.

AAAA Soldier of the Month

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

Spc. Latny L. Llamazales
April 2000
(America's First Coast Chapter)

Spc. Arvin C. Dewberry
May 2000
(Tennessee Valley Chapter)

Sgt. Roderick L. Dawkins
May 2000
(America's First Coast Chapter)

Sgt. Norman G. Commack
June 2000
(America's First Coast Chapter)

New AAAA Life Members

Maj. Michael C. Aid
Lt. Col. Paul W. Bricker
Maj. James D. Burke
Lt. Col. William C. Childree, Ret.
Lt. Col. Michael F. Corbin, Ret.
Lt. Col. David B. Cripps
Capt. Christ A. Durham
Maj. Frederick E. Ferguson, Ret.
Col. Robert E. Filer, Ret.
CWO 3 Gregory D. Fix
Capt. James C. Geiser
Col. Leslie H. Gilbert, Ret.
CWO 4 Joseph Gonzalez III
Capt. Richard H. Gurley
Maj. Robert F. Gwiazdowski
Capt. Brett G. Jackson
Lt. Col. Arlo D. Janssen, Ret.
CWO 4 William A. Johns
1Lt. Tracy L. Kennepp
Maj. Steven A. King
CWO 3 Jon M. Lane
Capt. Theodore M. Leblow
Col. John A. Macdonald
Maj. Mark W. McLemore
CWO 3 Michael F. Monaghan, Ret.
Mr. Raymond F. O'Neill, Jr.
Lt. Col. William E. Pohlmann, Ret.
Lt. Col. John A. Rainey, Ret.
CWO 4 James F. Reeves
2 Lt. Michael P. Rogowski
Mr. Thomas M. Seaman
Maj. Daniel E. Sellers
Mr. Gary L. Smith
Col. Shelby T. Stevens
Lt. Col. Richard C. Stockhausen
WO 1 Gabriel A. Torney
CWO 4 John A. Zimmerman

New AAAA Order of St. Michael Recipients

Maj. Gen. Thomas W. Garrett (Gold)
Daniel J. Rubery (Gold)
Col. James R. Correia, Jr. (Silver)
Col. Thomas M. Harrison (Silver)
CSM Lawrence J. Owens (Silver)
Col. Michael W. Rogers (Silver)
Col Alfred J. Naigle (Silver)
Lt. Col. James P. Coates (Bronze)
Maj. Howard E. Arey (Bronze)
Col. John M. Braun (Bronze)
Maj. Thomas W. Crouch (Bronze)
Maj. Jimmy E. Downs (Bronze)
CWO 4 William P. Harris (Bronze)
CWO 4 Robert F. Holcomb (Bronze)
Maj. Michel J. W. Jimerson (Bronze)
Capt. James A. Bamburg (Bronze)
Maj. Joseph Ciampini (Bronze)
CSM Terrel R. Barlow (Bronze)
SGM Terry L. Brown (Bronze)
CWO 3 Kyle R. Smith (Bronze)
MSG James F. Daniel, Jr. (Bronze)
Lt. Col. Gary R. Grimes (Bronze)
Col. James M. Castle (Bronze)
Lt. Col. Frank Veselicky (Bronze)
Maj. Michael P. Naughton (Bronze)
Maj. William R. Jones, Jr. (Bronze)
Maj. David M. Krall (Bronze)
Maj. Paul J. Ambrose (Bronze)
Maj. Steven T. Koenig (Bronze)
CWO 4 Robert E. Miles (Bronze)
Lt. Col. Anton E. Massinon (Bronze)
Maj. Joseph M. J. Kools (Bronze)
Maj. Kevin R. Bishop (Bronze)
CSM Kurt K. Pinero (Bronze)
Lt. Col. Jeffrey T. Kappenman (Bronze)
CWO 4 Carl R. Martin (Bronze)
Maj. Timothy M. Ward (Bronze)
1SG Jose V. Parra-Almonte (Bronze)
Maj. Kenneth J. Biland (Bronze)
Lt. Col. Gregory K. Herring (Bronze)
Maj. Richard E. Crogan II (Bronze)
Lt. Col. Andrew N. Milani II (Bronze)
Lt. Col. Eugene A. Pawlik, Jr. (Bronze)
Maj. James R. Hevel (Bronze)
Maj. Douglas H. Rombough (Bronze)
Maj. Michael A. DiGennaro, Ret. (Bronze)
CWO 3 Mark A. Sutton (Bronze)
CSM James H. Robinson (Bronze)
Lt. Col. Leonard W. Pardue (Bronze)
Lt. Col. Stephen T. Mauro (Bronze)
Lt. Col. John J. Sullivan (Bronze)
Maj. Samuel S. Evans (Bronze)
CWO 3 Charles T. Szar
Capt. Robert A. Peden (Bronze)
Capt. Michael J. Crossett (Bronze)
Maj. Bobby G. Crawford (Bronze)
Capt. William W. blackwell (Bronze)
Capt. John E. Burger (Bronze)
Capt. Marlo A. Kankel (Bronze)
Lt. Col. Roberta A. Woods (Bronze)
Lt. Col. James B. Hickey (Bronze)
Lt. Col. Bradley W. may (Bronze)
Lt. Col. Joseph P. DiSalvo
Maj. Layne B. Merritt (Bronze)
SGM Charles Hl. Momon (Bronze)
1Lt.(P) Mario D. Ochoa (Bronze)
Capt. Mikael R. Ash (Bronze)
Msg. Linda F. McLean (Bronze)

Aces

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

Mr. David E. Boyken
Capt. Robert Shane Kimbrough
CW2 Matthew R. Nicol

In Memoriam

Col. Lewis E. Kauffman

Lost Members

Help us find our Lost Members. We'll give you an additional month on your AAAA membership free for each member you help us locate. Simply write, call or E-mail us with the Lost Member's current address. AAAA, 49 Richmondville Avenue, Westport, CT 06880-2000. Tele: (203) 226-8184; FAX:(203) 222-9863; E-Mail: aaaa@quad-a.org.

Adams, John H., PVT
Anderle, Kenneth J., 2LT
Anderson, John S., CW2
Anglim, George P., WO1
Animalulu, Ilajika, SPC
Baker, Barry L., CW4
Barefoot, Bruce L., CW4, Ret.
Barker, Brandon W., 2LT
Basse, Alexander J, CPT
Beach, Ronald L., CPT
Benson, Claude E., Mr.
Berry, Derrel R., SGT
Bolin, Kevin L., SPC
Brandli, Thomas S., CW5
Braufigan, Thomas R., WO1
Brooke, J. Lynton, COL
Brown, Troy B., PFC
Bugner, Robert E., 2LT
Buhrow, Brian N., 2LT
Bullard, James H., SFC
Burough, Quinton A., 1LT
Bussell, Gene H., WO1
Campbell, Colleen, 2LT
Carr, Joseph B., SPC
Cercone, Richard G., LTC
Cesar, Ramos-Cruz, WO1
Chen, Michael L., Mr.
Cheney, II, David R., CPT
Cherot, Bevin K., CPT
Citarella, Robert J., SSG
Clark, Chuck, Mr.
Clyde, Brian K., WO1
Coteum, Victoria, SSG
Connolly, John E., Mr.
Connors, Scott P., MAJ
Crownover, Jeffery T., WO1
Cubbia, Joseph L., Mr.
D'Amato, Irma A., Ms.
Davis, Eddie, MSG
Davis, Royal A., 1LT
Delany, Lawrence SFC, Ret.
Den Beste, Edwin J., COL
Diggs, Ralph S., PV2
Duffer, Paul A., WO1
Dupre, Albert L., WO1
Ely, Patrick D., SPC
Erickson, Heather E., SPC
Fei, Pablo, SPC
Fellman, Craig W., CPT
Fellmer, Mark J., 2LT
Fleming, Clyde L., 2LT
Flores, Augustine, SFC
Flynn, Thomas, CW5
Ford, Jamika L., PFC
Ford, Sam, MAJ
Fuseller, David C., Mr.
Fuseller, Juliet K., 1LT
Garrido, Gaspar, SFC
Gass, Gregory P., 2LT
Gerold, Jon R., CPT
Granz, Gerhard, COL
Gratton, Mike, CPT
Gunning, Bill, Mr.
Hadley, Shane L., SPC
Hammond-Armstr, Faye, SSG
Hanan, Frank R., SSG
Hanks, Tommy W., CW3
Hawes, Michael M., Mr.
Hawkinson, Kory G., WO1
Helten, Paul R., 2LT
Helwig, Edward R., CW2
Heyward, Eric J., SSG
Hoffman, John C., 2LT
Hoover, Matthew J., WO1
Horton, Derek M., WO1
Hughes, Michael S., CPT
Hutson, Michael F., 2LT
Ince, Nichole C., SPC
Jayne, Robert K Jr, COL
Jenkins, Gregory R., MAJ
Johnson, Jeremy K., WO1
Johnson, Philip A., WO1
Joshua, Joshua, SSG
Kadur, Stephen, WO1
King, Jason M., 2LT
Knight, Steven W., CW5, Ret.
Koch, Dustin, SGT
Kralovec, George W., Mr.
Lasser, Thomas E., LTC
Latson, James L., WO1
Leet, John C., CW2
Lehr, Derek W., WO1
Levi, William E., PVT
Lewis, Roland G., WO1
Lincoln, Troy K., 2LT
Lozier, Jeremy P., SPC
Lyons, John I., CPT
Macaspac, Marc R., WO1
Maczek, Steve M., WO1
Mallette, Pierre J.R., MAJ
Marashlian, Bedros Z., 2LT
Marchand, Dale P., CPT
Marubu, Maryann, PFC
Mason, Robert A., CW5
Mason, Willeoran, CW3, Ret.
McCoy, Esquire, SGM
McCoy, Michael G., MAJ
McGill, Jason M., SPC
McPeake, Aaron M., 2LT
McWilliams, Richard, SGT
Mellendez, Pablo I., SGT
Mercanto, Lisa M., PFC
Middenstein, David A., SSG
Monk, Angelo, SGT
Moore, Isaiah, PV2
Morales, Rodolpho, SPC
Moyer, Randy G., SFC
Munoz, Benjamin, SGT
Murphy, Robert L., WO1
Nasby, Rich, WO1
Nichols, Jason C., SPC
Niemi, Michael C., WO1
Norton, Kenneth R., SGT
ONeil, Steven P., CPT
Osgood, Mike C., Mr.
Padilla, Vivianne M., PFC
Palin, Harry, Mr.
Panganiban, Vic R., SPC
Pate, John W., SPC
Paul, Harley V., SSG
Paul, Keith, Mr.
Peck, Eric C., LTC
Perez, Christopher, SGT
Petraitis, Mathieu H., 2LT
Pettigrew, Gregory A., CW4
Phillips, Nickolas M., PFC
Presley, Peter J., 1LT
Rainwater, Shannon, WO1
Randolph, Harvey Dr, MAJ, Ret.
Rastall, Jonathan R., 2LT
Ratley, Sandra, Ms.
Raush, Mark A., 2LT
Ray, Eric E., WO1
Reeves, Junius M., SFC
Reimers, Richard D., MAJ
Restucci, Marc S., SSG
Reynolds, Brent A., WO1
Rojas, Jose V., SGT
Rosa, Samuel, SPC
Rowe, John H., SFC(P)
Royal, Shannon, PFC
Santos, Marc D., 2LT
Scalia, John C., 2LT
Schade, Christopher, PFC
Sehler, Jeremy L., WO1
Simpson, Chad D., SPC
Simpson, Jeremiah J., 2LT
Slade, Bob, Mr.
Smith, Jodi, SSG
Smith, Kenneth E., 2LT
Smith, Leon W., SGT
Spinks, George D., WO1
Spratlin, Ken, Mr.
Steffen, John J., CW4, Ret.
Stoin, John H., CAPT
Sullivan, Eddie L., CW4
Sung, Matthew Y., 2LT
Thornton, William D., MSG
Thresher, John D., 2LT
Tomlinson, George W., WO1
Truscott, Thomas H., SSG
Valdes-Rivera, Lucy M., SFC
Viles, Floyd W., WO1
Villena, Judge P., PFC
Wilczynski, Eric C., WO1
Wiley, Carl D., LTC
Wiley, Christopher, WO1
Wiley, Ryan A., 2LT
Williams, Kurt A., CPT
Williamson, Myrna H., BG, Ret.
Williams, Robert L., CPT
Wilson, Ronald R., WO1
Wise, Malcolm L., 1LT
Woodson, Marla A., WO1
Worstell, Barry A., CW4
Wright, John R., Mr.
Young, Troy M., SPC
Zaldumbide, Eduardo, MAJ

LEGISLATIVE REPORT

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

Warner's TRICARE Amendment Approved

Sen. John Warner (R-VA), chairman of the Senate Armed Services Committee (SASC), offered an amendment to the Senate's fiscal year 2001 National Defense Authorization Act (NDAA) that restores TRICARE to all Medicare-eligible retired beneficiaries provided they are also enrolled in Medicare Part B (Medical Insurance). The amendment, which passed 96-1, would take effect on Oct. 1, 2001. The amendment provides:

1. TRICARE Prime, with no enrollment fee (although the language is unclear that the $230 per person annual enrollment fee for under-65 retirees wouldn't apply, it is the Senate's intent that the fee will be waived).

2. TRICARE Standard as second payer to Medicare, with no premium (a major improvement when compared to the $576 per person annual fee for the TRICARE Senior Supplement test, which started in April 2000 at two sites). TRICARE will pay the standard copays that are required under Medicare.

The amendment also would extend the TRICARE Senior Prime (Medicare Subvention) test an additional year, through Dec. 31, 2002, to allow for a smooth transition this new program.

Clearly, the Senate's intent is to make this a permanent program, and the leadership commitment expressed in the floor debate would certainly indicate that next year's budget resolution would be constructed to accommodate that. As written, the Warner amendment would give Congress another year to come up with a permanent funding fix.

Following through on this funding commitment will be imperative, and The Military Coalition (TMC) will work to help ensure that happens.

Warner's initiative:

1. Establishes the principle of guaranteed lifetime health care for Medicare-eligible service beneficiaries in law;

2. Provides a nationwide program (not a test);

3. Provides a major upgrade in Department of Defense-sponsored health-care benefits; and

4. Reduces the out-of-pocket cost for many Medicare-eligible beneficiaries by replacing the need for Medicare supplemental insurance.

The full pharmacy benefit (mail order and retail), with no annual fee and only standard TRICARE copays, is already provided in S. 2549. Coverage would begin in early 2001. Warner's provisions will have to be addressed in conference between the House and Senate, since no similar provisions exists in the House version of the FY 2001 NDAA.

Johnson's Amendment Fails By Close Vote

In a major disappointment, Sen. Tim Johnson's (D-SD) amendment came up 8 votes short (52-46). Johnson's amendment contained identical provisions to those in S. 2003 (TRICARE or FEHBP for life with no FEHBP premiums for individuals who entered service prior to June 7, 1956. Individuals who entered after that date would pay the same premiums as federal civilians currently do.) To succeed, Johnson needed to garner 60 votes to override a budget point of order.

Please extend your appreciation to Johnson for his leadership and untiring efforts in championing the cause of retirees through S. 2003.

Although this setback means that a worldwide FEHBP initiative will not be addressed in the House and Senate conference on the NDAA (because it is not included in either version), the battle is not over. Rep. Shows (D-MS) still is considering a discharge petition on the House floor seeking passage of H.R. 3573. In order to bring the matter to a full vote, he needs 218 House members to sign his petition, out of 291 cosponsors. If he decides to proceed with his discharge petition, we will notify you to generate maximum grassroots support. This will be a tough row to hoe, because even if HR 3573 passes the House, favorable Senate action and presidential approval will be required before it can be enacted into law.

Senate Approves Additional Important Amendments

The following is a summary of selected other important amendments of interest that the Senate adopted as part of the defense bill.

Concurrent Receipt: Sen. Harry Reid's (D-NV) amendment (S. 2357) would authorize full concurrent receipt of military retired pay and VA disability compensation for ALL military retirees, including both longevity and military disability retirees, and regardless of years of service (i.e., it would include disability retirees with less than 20 years of service).

SBP Age-62 Annuity: Sen. Strom Thurmond's (R-SC) amendment (S. 763) would raise the minimum Survivor Benefit Plan (SBP) annuity for survivors age 62 and older from 35 percent of SBP-covered retired pay to 40 percent immediately, and then to 45 percent on Oct. 1, 2004. This would apply to all current and future survivors. Participants already paying for supplemental SBP coverage to increase the post-62 benefit would see a proportional reduction in their supplemental premium.

GI Bill: Sen. Max Cleland's (D-GA) amendment (S. 2402) would authorize members with 10 or more years of service to request transfer of their Montgomery GI Bill (MGIB) benefits to a spouse and/or children, with certain restrictions, subject to the service secretary's approval. In addition, it would allow all active-duty members a new opportunity to enroll in MGIB, including participants in the Veterans Educational Assistance Program (VEAP) (1977-1985 entrants). Such enrollment would cost the normal $1,200 for VEAP participants and $1,500 for those not previously enrolled in either VEAP or MGIB. It would also extend the 10-year MGIB usage period for Selected Reservists still serving at the expiration of that period. The extension would be for five years after separation from the Selected Reserve.

Active Duty Survivor Issues: Sen. John McCain's (R-AZ) amendment would authorize SBP coverage for survivors of members who die on active duty as if the member had been retired for 100 percent disability on the date of death. It would also authorize optional Servicemen's Group Life Insurance coverage for spouses (up to $100,000) and children (up to $10,000) of active-duty members.

Enlisted Pay and Allowances: Two additional amendments by McCain would (a) provide additional basic pay raises of $31 to $56 per month to enlisted members with more than eight years of service in grades E-5 through E-7, and (b) authorize a special $180 per month allowance for enlisted members otherwise eligible for food stamps.

September 30 Pay Date: Another amendment by Warner would repeal last year's legislation that would have delayed active duty members' September 30 pay date to October 1. This eased Congress' budget problems last year by moving the pay date to a different fiscal year. But because these dates fall on a weekend, it meant members' checks actually would be slipped from September 29 until October 2. With the new Warner amendment, the troops won't have to wait an extra three days for their money, and DOD will have more budget headroom next year (since restoring the September pay date spends the money in FY 2000, not FY 2001).

Reserve Benefits: A further McCain amendment would increase maximum annual reserve retirement points for drill, education and training from 75 to 90, authorize Selected Reservists the same space-available travel benefits as members eligible for retired pay, and authorize government billeting for Reservists traveling more than 50 miles to an inactive duty for training location.

Absentee Voting Rights: Sen. Phil Gramm's amendment would guarantee active duty members' absentee voting rights in state and local elections. Currently, federal law only guarantees such rights for federal elections.

The Military Coalition and TROA will be working hard to convince the conferees to adopt the best provisions of each bill, but this will require major grassroots support from all members of the uniformed services community. In the weeks ahead, we'll be asking for your specific support in contacting your legislators on several of these major issues.

Veteran's Affairs Nursing Home Care

Public Law 106-117, The Veterans' Millennium Health Care and Benefit Act, amended the Department of Veterans Affairs' (VA) statutory authority for providing nursing-home care to eligible veterans. The new law requires that:

a. VA provide nursing-home care to any veteran in need of such care for a service-connected disability.

b. VA provide nursing-home care to any veteran who is need of such care and who has a service-connected disability rated at 70 percent or more.

c. VA ensure that a veteran described above, who continues to need nursing-home care, is not, after placement in a Departmental nursing home, transferred from the facility without the consent of the veteran or, if the veteran cannot give informed consent, the veteran's designated representative.

d. VA shall provide nursing-home care, either directly or through contracts, when clinically indicated to a veteran who needs nursing-home care for a service-connected disability, and to any veteran needing such care who has a service-connected disability rated at 70 percent or more.

e. Patients should be placed in home- and community- based care when clinically appropriate and patients receiving VA nursing home or community nursing-home care will be transferred to appropriate assisted living or home and community-based care settings when nursing-home care, at any level, is no longer clinically indicated.

f. VA facilities will determine the need for nursing-home care based on a comprehensive interdisciplinary clinical assessment.

g. After admission to a VA nursing home, veterans described above may not be transferred or discharged from the home unless the patient no longer needs any nursing home care, or the patient, or the patient's designee, has given informed consent to the discharge.

NOTE: Nothing in this new law authorizes VA to displace, transfer or discharge a veteran who was receiving nursing-home care in a departmental nursing home as of Nov. 30, 1999.

Long-Term Care Picks Up Momentum

The Senate Governmental Affairs Committee, on a voice vote, approved a bill (S. 2420) authorizing the Office of Personnel Management to set up a proposed long-term care program. The vote sent the measure to the Senate floor.

Under the legislation, government employees and dependents could buy private insurance at group rates 15 percent to 20 percent below market rates. Participants would pay the full cost of the premiums, although the government would absorb the program's administrative costs.

Tricare Region 1 Ombudsman Program

The contractor that manages TRICARE in the Northeast has launched a walk-in ombudsman program to improve customer service.

The Region 1's 32 TRICARE service centers are located within five miles of a military medical treatment facility; some service centers and treatment facilities are co-located. Photos and name plaques of local ombudsmen will be posted prominently in service centers for patients' convenience.

AAAA NEWS

War College

Pictured at right are the Army aviators of the War College class of 2000. Pictured in bottom front row *(left to right)*, Col. D. Takami, Col. K. Crook, Lt. Col. B. Daugherty, Lt. Col. C. Acker, Col. R. McWethy, Lt. Col. B. Wiley and Lt. Col. C. Potts. In the middle row *(left to right)* are Lt. Col. D. Cripps, Lt. Col. P. Barth, Lt. Col. W. Forrester Jr., Ltc. Col. G. Rhynedance IV, Lt. Col. G. Williamitis, Col. G. Adams and Lt. Col. C. Breslin. In the rear row *(left to right)* are Col. R. Richardson Jr., Lt. Col. D. Shaffer, Lt. Col. S. Deverill, Lt. Col. M. Mudd, Lt. Col. D. Lawrence, Lt. Col. J. White, Lt. Col. K. Norris (absent: Lt. Col. G. Griffin and Lt. Col. S. Hamilton.)

Talon Chapter

In a January hail and farewell ceremony in Illesheim, Germany, Lt. Col. Rich Enderle *(second from left)*, vice president of AAAA's Talon Chapter, presented the Order of Saint Michael Bronze Award to departing CSM Larry Jeffcoat *(left)* and battalion maintenance officer CWO 4 Steve Tronnes (second from right) of the 7th Battalion, 159th Aviation Regiment. Assisting in the presentation was the battalion's acting command sergeant major, MSgt. Hector Marin *(right)*.

U.S.M.A. Cadet of the Year

Cadet of the Year Hartleigh A. Richard accepts her award from former AAAA president Lt. Gen. Jack Wright *(right)* and Lt. Gen. Bob Williams *(left)* at the 23 May ceremony. Both officers were attending their 1940 class reunion at West Point.

Command and General Staff College Class of 2000 celebrated the 17th birthday of the aviation branch with a banquet on April 7 at Fort Leavenworth, Kan. Seen at left cutting the birthday cake is AAAA President Maj. Gen. Carl H. McNair and Maj. Gen. Dick Cody, now commanding the 101st Airborne Division, who was the banquet speaker.

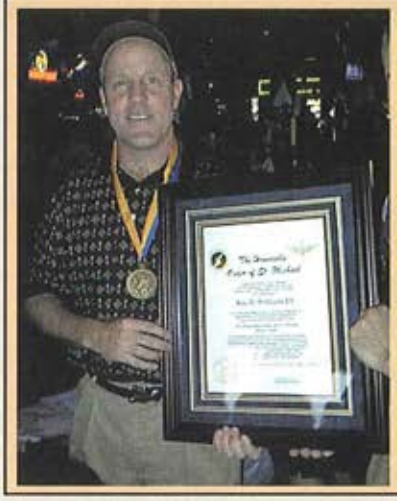
Taunus Chapter

At the most recent general membership meeting of the Taunus Chapter in Wiesbaden, Germany, chapter President Col. Jeffrey J. Schloesser emphasized the importance of keeping the chapter active following the departure of 12th Aviation Brigade units from Wiesbaden Army Airfield (WAAF). He pointed out that the effort to sustain the chapter would require the unstinting efforts of all members, and emphasized the importance of electing a new president and executive board at the next general membership meeting.

The chapter's vice president for membership renewals, Lt. Col. Vernon Campbell, informed the members about the July 12 dedication of the 1st Military Intelligence Battalion's WAAF hangar, during which the structure was named in honor of the 1st MI Bn. soldiers killed in the November 1998 crash of a unit RC-12.

Lt. Col. Michael Scott *(right)*, Aviation Center Chapter vice-president for programs, presents a memento to Maj. Gen. Anthony R. Jones *(left)*, aviation branch chief and commanding general of Fort Rucker, during the chapter's May 23 membership meeting at the Aviation Museum. More than 300 attendees heard Jones speak about the Aviation Modernization Plan.

Photo by Ted Walls



Flying Tigers Chapter

On June 1 Lt. Col. Ben H. Williams III, senior vice president of AAAA's Flying Tigers Chapter, was presented with the Bronze Order of Saint Michael Award by the chapter secretary, Maj. Scott Hollingsworth. Williams recently relinquished command of the 1st Battalion, 337th Regiment, at Fort Knox, Ky., and assumes command of the 1st Bn., 11th ATS Regt., at Fort Rucker, Ala., this month.

Functional Award Nominations

See our website www.quad-a.org or contact the AAAA National Office at (203) 226-8184 for nomination forms for these awards. Membership in AAAA is not a requirement for consideration.

Suspense August 1
(Awards period encompassing August 1 through July 31):

Aircraft Survivability Equipment (ASE) Award
Avionics Award

Suspense October 15
(Awards period encompassing September 1 through August 31):

Army Aviation Air/Sea Rescue Award
Army Aviation Fixed Wing Unit Award
Army Aviation Medicine Award
Army Aviation Trainer of the Year Award
Army Aviation Air Traffic Control Manager of the Year Award
Army Aviation Air Traffic Control Controller of the Year Award
Army Aviation Air Traffic Control Facility of the Year Award
Army Aviation Air Traffic Control Company of the Year Award
Army Aviation Air Traffic Control Maintenance Technician of the Year Award

Suspense November 7
(Awards period encompassing November 1 through October 31):

Army Aviation Logistics Support Unit of the Year Award
Army Aviation Material Readiness Award for Contributions by an Individual Member of Industry
Army Aviation Material Readiness Award for Contributions by an Industry Team, Group, or Special Unit
Army Aviation Material Readiness Award for Contributions by a Small Business Organization
Army Aviation Material Readiness Award for Contributions by a Major Contractor

AAAA NEWS

NEW MEMBERS

AIR ASSAULT CHAPTER
FORT CAMPBELL, KY
COL Carl R. Merkt
CW5 Edward H. Munkres
CPT Curtis L. Pierce, II
CW4 Timothy I. Roderick
CPT Gregory A. Williams
CW3 Paul F. Williams

AMERICA'S FIRST COAST CHAP.
JACKSONVILLE, FL
SGT Norman Commack
SGT Roderick L. Dawkins

AVIATION CENTER CHAPTER
FORT RUCKER, AL
WO1 Benjamin S. Arps
2LT Sheldon K. Atwood
1LT Kris E. Bast
WO1 Lewis W. Blase
2LT Corey R. Boudreau
2LT Paul A. Cockrell
WO1 Michael K. Eckhardt
WO1 Alton H. Farris
PV2 Zachary H. Feveran
WO1 Daniel T. Findahl
WO1 Jason G. Franzen
WO1 Clint S. Gessner
WO1 Michael P. Gill
WO1 Benny Gonzalez
2LT Thomas J. Gregory
WO1 Tracy S. Hobbs
WO1 Clinton E. Jones
2LT Grace H. Kim
2LT Brian A. Klear
WO1 Clayton P. Latiolais
WO1 Shawn D. Malara
WO1 Scott A. McCrosky
WO1 Beth A. McCune
WO1 Shawn R. McFarland
WO1 Brian P. Moore
WO1 Sean P. Muckleroy
CW2 Gregory A. Newhouse
2LT Lani J. Owens
WO1 Edgar Q. Palafox
WO1 Brian K. Pankey
WO1 Dane W. Pedersen
WO1 Martin A. Randall
WO1 Adam S. Reid
Cadet Hartleigh Richard
WO1 Michael T. Robello
WO1 Michael J. Roman
2LT James B. Smith
2LT Jeremy P. Springall
WO1 Brian C. Sutton
WO1 Christopher J. Tamburello
WO1 Tamarsh T. Thompson
WO1 Patrick A. Tiffany
LTC James A. Towe, Ret.
WO1 Matthew D. Triplett
WO1 David A. Webster
WO1 Travis L. Workman

BIG RED ONE CHAPTER

ANSBACH, GERMANY
CW3 Angel L. Reyes, Jr.

BLACK KNIGHTS CHAPTER
WEST POINT, NY
2LT Bryan M. Bogardus
2LT Rebecca A. Jarabek
Cadet Jacob M. Wallace

INDIANTOWN GAP CHAPTER
INDIANTOWN GAP, PA
SPC Becky A. Butler

IRON EAGLE CHAPTER
HANAU, GERMANY
SFC Scott D. Burnett
MAJ Andrew F. Mahoney
CW3 Darrel Smith
SSG David B. Weber

IRON MIKE CHAPTER
FORT BRAGG, NC
CPT Stephanie Means

LEAVENWORTH CHAPTER
FORT LEAVENWORTH, KS
CW2 Bart A. McPeak

LINDBERGH CHAPTER
ST. LOUIS, MO
SGT L. Kay Miller

MONMOUTH CHAPTER
FORT MONMOUTH, NJ
Mr. Mark D. Davis
CW4 Rodney S. Dyess, Ret.

NARRAGANSETT BAY CHAPTER
N. KINGSTOWN, RI
Mr. Francis M. Kemp

NORTH TEXAS CHAPTER
DALLAS/FORT WORTH
1LT Earl T. Rhodes

NORTHERN LIGHTS CHAPTER
FORT WAINWRIGHT/
FAIRBANKS AK
CW3 Bradley R. Keough

PHANTOM CORPS CHAPTER
FORT HOOD, TX
CW4 Daniel O. Coulter
CPT Bradley C. Hilton
SFC Travis Chad Morgan, Ret.

RAGIN' CAJUN CHAPTER
FORT POLK, LA
SFC Roy S. Land II

RHINE VALLEY CHAPTER
MANNHEIM, GERMANY
CPT Michael L. Ogden

SAVANNAH CHAPTER
FT STEWART/HUNTER AAF, GA
SPC(P) Nancy A. Cherubino

SHOWME CHAPTER
JEFFERSON CITY, MO
SGT William V. Jones

SOUTHERN CALIFORNIA
CHAPTER
LOS ANGELES, CA
LTC Henri A. Guidry
CW2 J. T. Price

TENNESSEE VALLEY CHAPTER
HUNTSVILLE, AL
SSG Lloyd M. Hopkins
Mr. Fred Kilgore
Ms. Patricia E. Lindquist
Mr. Dennis A. Mack

VIRGINIA MILITARY INSTITUTE
LEXINGTON, VA
CDT Alex D. Haseley

WASHINGTON-POTOMAC
CHAPTER
WASHINGTON, DC
Ms. Tammie McCladdie

MEMBERS WITHOUT
CHAPTER AFFILIATION
CW2 Stephen P. Frost
CPT Mel Jetter
CPT Adiletta Luigi

SILVER EAGLES

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

40 Year Members
Ackerley, James M., Mr., Ret.
Baldwin, Frank, CW4, Ret.
Berta, Thomas L., COL, Ret.
Bosking, William H., Mr.
Bourgeois, Randolph, LTC, Ret.
Brophy, Edward R Jr, LTC, Ret.
Burleson, Carl L., COL, Ret.
Cargen, Alfred J., CW3, Ret.
Chin, Bak Y., LTC, Ret.
Christensen, Neal R., BG, Ret.
Chunn, Don C., Jr., COL, Ret.
Cropp, Ralph C., Mr., Ret.
Doyle, John P., LTC, Ret.
Fitch, John B., COL, Ret.
Furney, Robert M., COL, Ret.
Fyffe, Carroll M., COL, Ret.
Gorman, Mary H, Miss, Ret.
Greene, Robert P., LTC, Ret.
Harber, Bobby D., LTC, Ret.
Harper, William H., COL, Ret.
Harris, Lyman B. Jr, LTC, Ret.
Hays, James D., LTC, Ret.
Hendrickson, Paul L., Mr., Ret.
Holmes, Ernest L., LTC, Ret.
Kelly, James J., COL, Ret.
Kibler, Robert A., MAJ, Ret.
Koslow, Norman, Mr., Ret.
Layne, Leslie A., COL, Ret.
Leins, David V.,Jr, LTC, Ret.
Leonard, Jesse W., CW4, Ret.
Lilley, Aaron L. Jr, MG, Ret.
Marr, John W., COL, Ret.
Martin, Geary D., COL, Ret.
McNamee, Vernon D., LTC, Ret.
Miller, Richard E., LTC, Ret.
Moore, Peter W., LTC, Ret.
Mye, Edward F., BG, Ret.
Neel, Spurgeon H., MG, Ret.
Noack, Richard R., COL, Ret.
Osborne, Walton Hill, LTC, Ret.
Peele, William G., LTC, Ret.
Powell, Buell R., LTC, Ret.
Rackley, Robert L., LTC, Ret.
Reynolds, Charles W., Mr., Ret.
Rogers, George, COL, Ret.
Sharp, Leonard J., LTC, Ret.
Shoemaker, Robert M., GEN, Ret.
Shonerd, George D., LTC, Ret.
Smith, Richard A., COL, Ret.
Stiles, Howard J., COL, Ret.
Taylor, William D., COL, Ret.
Turner, Hollis C., CW4, Ret.
Webb, Charles L., COL, Ret.
Weinstein, Leslie H., COL, Ret.
White, Jewel G., LTC, Ret.
Winslow, Roger D.,Jr, Mr., Ret.
Wirthlin, Floyd R., LTC, Ret.

30 Year Members
Abell, James M., LTC, Ret.
Allen, Thomas S., LTC, Ret.
Amick, Carl L., Jr, CW4, Ret.
Armour, Arthur A., COL, Ret.
Bean, Robt. A, Jr, LTC
Bertelkamp, John N., COL
Bradley, Gregory D., CW3, Ret.
Brown, Tommie C., Mr., Ret.
Browne, Harvey S., LTC, Ret.
Burbank, Richard W., CW5, Ret.
Chavis, Thomas N., COL, Ret.
Cherry, James F., LTC, Ret.
Clark III, Egbert B., COL, Ret.
Coenson, Martin, Mr.
Culwell, Kenneth L., COL, Ret.
Cumbie, Donovan R., COL, Ret.
Cummings, Robert C., COL, Ret.
Davis, Thomas G., Mr.
Glass, Charles W., LTC, Ret.
Gross, Don A., COL, Ret.
Hill, Howard D., COL, Ret.
Hodes, Robert W., Mr.
Jonas, Larry M., COL, Ret.
Jones, Charles R., COL, Ret.
Julien, Junius H., CW4, Ret.
Kane, Ray, LTC, Ret.
Koch, John F., Mr., Ret.
Koehler, William F., COL, Ret.
Lowe, Thomas R Jr, MAJ, Ret.
Mason, Kenneth A., LTC, Ret.
McEnery, John W., LTG, Ret.
McGee, Clifford L., CW5, Ret.
Meredith, K. C., LTC, Ret.
Mitchell, Richard R., COL
Nichols, Alfred G., LTC, Ret.
Oglesby, Carmen S., Mrs., Ret.
O'Leary, Arthur J.Jr, Mr.
Peyton, Richard A., LTC, Ret.
Poe, Gerald D., COL, Ret.
Powell, Ralph J., COL, Ret.
Reese, Wesley D., MAJ, Ret.
Richmond, Charles D., MAJ, Ret.
Ruth, III, Henry C., COL, Ret.
Schuster, Michael W., LTC, Ret.
Singlaub, John K., MG, Ret.
Smith, James D., CW4, Ret.
Swinehart, Jack K., MAJ, Ret.
Thurgood, Leon C., LTC
Turner, William E., COL
Vasko, John, Jr., CW4, Ret.
Vessey, John W., Jr, GEN, Ret.
Wheeler, Charles D., CW5, Ret.
Woolverton, Harry T., Mr.

- **Aug. 8.** Army Aviation Hall of Fame Board of Trustees Meeting, National Guard Readiness Center, Arlington, VA.
- **Sep. 22-24.** National Reunion of the U.S. Army OV-1 Mohawk Association, Atlanta, GA. Call 1(888) 7-MOHAWK, or visit homepage at www.ov-1mohawk.com for further information and directions.
- **Sep. 26-28.** AAAA Avionics and Electronic Combat Symposium, Sheraton Eatontown Hotel, Eatontown, NJ.
- **Oct. 16.** AAAA National Executive Board Meeting, Marriott Wardman Park Hotel, Washington, D.C.
- **Oct. 16.** AAAA Scholarship Foundation, Inc. Board of Governors Meeting, Marriott Wardman Park Hotel, Washington, D.C.
- **Oct. 16-18.** 2000 AUSA Annual Meeting, Marriott Wardman Park Hotel, Washington, D.C.
- **Oct. 31-Nov. 2.** American Helicopter Society (AHS) and the Army Aviation Association of America (AAAA) Ninth Helicopter Military Operations Technology (HELMOT IX) Specialist's Meeting, Williamsburg, Virginia.

Army Aviation Hall of Fame

The Army Aviation Hall of Fame sponsored by the Army Aviation Association of America, Inc., recognizes those individuals who have made an outstanding contribution to Army aviation. The actual Hall of Fame is located in the Army Aviation Museum, Fort Rucker, Ala., where the portraits of the inductees and the citations recording their achievements are retained for posterity. Each month Army Aviation Magazine will highlight a member of the Hall of Fame. The next triennial induction will occur in the spring of 2001. Contact the AAAA National Office for details at (203) 226-8184

Frank N. Piasecki
Army Aviation Hall of Fame 1974 Induction

Frank N. Piasecki received a bachelor of science degree in aeronautical engineering from New York University in 1940. His interest in rotary-wing aircraft led to his first helicopter flight in 1943. Subsequently, his efforts were directed toward the development of a tandem-rotor cargo helicopter — the first such aircraft, a prototype of Piasecki's H-21, flew in 1945. In the late 1940s and early 1950s Army aviation first felt Piasecki's influence when the tandem-rotor H-25 and H-21 helicopters entered the Army fleet.

The H-21 became the Army's standard lift ship and was used extensively in that role during combat in the early years of American involvement in Vietnam. Through his development of tandem-rotor cargo helicopters, Piasecki was largely responsible for the Army's first capability to form airmobile combat forces, and provide responsive and reliable airmobile logistical support of those forces.

The current CH-47 Chinook and on-going development of heavy-Lift helicopters evolved from Piasecki's pioneering efforts. He continues to influence Army aviation as president of Piasecki Aircraft Corporation.

A down-to-earth approach to simulation

Many visual simulation companies can deliver high-quality imagery at 30,000 feet, but when you fly close to the ground, the terrain loses important features.

At Evans & Sutherland, our down-to-earth approach is all about detail. Ensemble™, our latest generation of mid-range image generators, provides hardware-accelerated, simulation-specific features usually found only on high-end systems. The system offers LOSR, height above terrain, ownship lights, and sensor capability – all designed to give you the clearest detail right down to the ground. This makes Ensemble the perfect choice for demanding simulation requirements like the Close Combat Tactical Trainer.

Ensemble represents a significant advancement in visual systems for simulation. A turnkey hardware and software system that uses E&S REALimage® high-performance graphics technology, it is the first truly scalable, affordable, flexible simulation solution to make ultra-realistic, highly detailed simulation available on a PC platform.

For powerful, yet affordable, PC-based visual simulation solutions, look to E&S, the REAL simulation company. To find out more about the hardware and software that produce highly realistic, 3D synthetic worlds, visit our web site at www.es.com or call 801-588-1000.

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