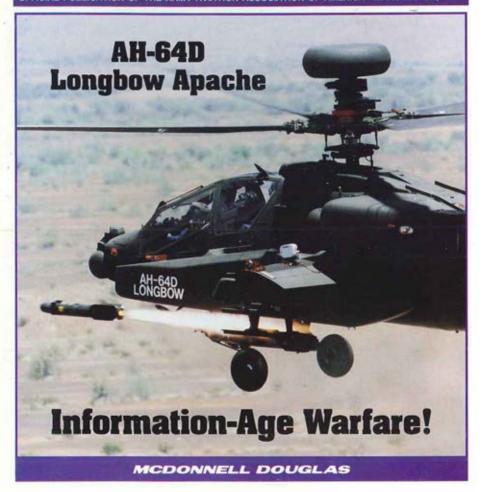
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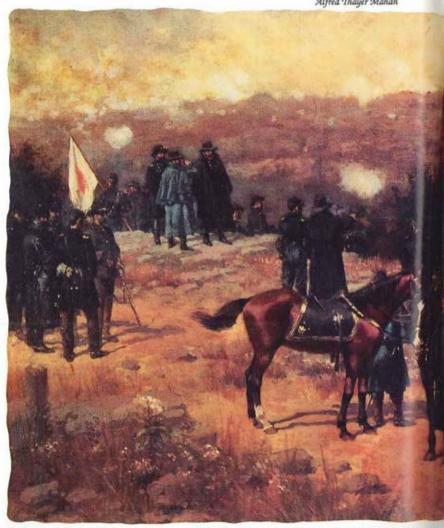
# ARMYAVIATION

OFFICIAL PUBLICATION OF THE ARMY AVIATION ASSOCIATION OF AMERICA . MARCH-APRIL, 1994



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#### **FORTHCOMING ISSUES**

May 1994 — AAAA Annual Convention Program Review and Photo Report with features on OH-58D Klowa Warrior and AH-64D Longbow Apache.

June 1994 — RAH-66 Comanche Update and Special Focus on Simulation.

#### Briefings :

Ten Nevada Army National Guardsman received Nevada's second highest state award last year for their actions in apprehending a convicted killer of a Nevada Highway Patrolman. Using UH-1 Iroquois and CH-47D Chinook helicopters, the Guardsman assisted the Nevada Highway Patrol and Reno Police Department in a night assault that successfully captured convict Michael Sonner. The helicopter crews used night vision technology, which permitted them to locate the suspect. The recipients of the Nevada State Medal of Merit are: CW5 Lynn M. Billow, CW4 Frank L. Swisher, SFC Charles H. Henry, SGTs Bryan Soule, Don R. Gable, and Brian S. Coalwell, CW4 Danny J. Olaivar, SSGs George L. Walden and James S. McNeill, and WO1 Darren F. Chrisman.

Benz Airborne Systems has announced the execution of an exclusive agreement with Fort Worth-based DynCorp Aerospace Operations. Aerospace Operations (AO) is one of the nation's largest Commercial and Government Services Companies with one billion dollars in annual revenues, 22,000 employees, and 200 sites worldwide. AO will provide marketing and installation support for the Benz-patented "Auto-Fault<sup>TM"</sup> Chip Detector System to both military customers and the commercial airline market. Benz is currently under contract to retrofit McDonnell Douglas AH-64 Apache attack helicopters at Ft. Rucker, with DynCorp performing the installations.

Control Products Corporation (CPC) of Grand Prairie, TX has acquired Anaheim, CA-based Specialty Lighting Inc.. Specialty Lighting manufactures a full line of exterior and cabin lights for commercial and military aircraft application. CPC currently manufactures all lighting requirements for crew station and cockpit lighting for both military and commercial aircraft, and is the world's largest supplier of NVG and other compatible aircraft lighting systems. Specialty Lighting will be moved to Grand Prairie in early 1994.

The sixth Longbow Apache prototype, manufactured by McDonnell Douglas Helicopter Systems (MDHS), made its first flight on March 4, flying for a total of 30 minutes at the MDHS facility in Mesa, AZ. It is the second of two AH-64D prototypes to fly without the millimeter-wave Fire Control Radar (FCR). Longbow Apache teammates will use the aircraft to evaluate tactics, techniques, and procedures for FCR- and non-FCR-equipped modernized Apaches. To date, the six Longbow Apaches have a combined total of more than 700 flight hours, and will participate in a Force Development Test and Experimentation exercise beginning in October.

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#### FRONT COVER

Paid advertisement: An AH-64D Longbow Apache launches a Hellfire missile. The U.S. Army plans to equip 227 of its modernized AH-64Ds with the Longbow Fire Control Radar (FCR). The remainder of the fleet will be equipped to receive the Longbow FCR should operation requirements dictate. Caption provided by McDonnell Douglas Helicopter Systems. See "Briefings" for more Longbow news.

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## ARMY AVIATION IN THE INFORMATION AGE

In the days of Columbus, commerce and the stature of nations was dependent on traversing the globe in sailing ships. The captains of these ships knew that more wind in the sails meant that the competition would be outrun. The logical evolution was

to increase the size and number of sails, which required larger masts. Sailing technology was focused on finding taller and more sturdy trees to accommodate greater sail area.

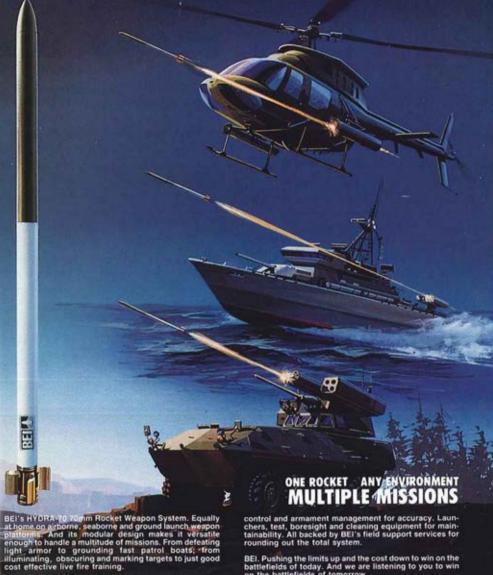
At the same time, an obscure engineer was pursuing a revolutionary notion. Probably a nonconformist and ridiculed by his contemporaries, he had the novel idea of using steam power and a propeller to power a ship. His concept was not bound by tradition nor limited by the acceptance of the current paradigms. In short order,

A look
ahead to
Army
Aviation's
contributions
on the
battlefields
of the
21st Century.

steam power and propellers became the standard. The obscure engineer's ideas changed the shipping industry and the world forever.

This historical anecdote is an example of an industry experiencing leap-ahead technology. In a similar

fashion, Army Aviation is at a watershed time in its evolution. With the end of the Cold War, America's Army has become a CONUS-based, contingency-oriented force. It is being organized and will be capable of rapid deployment anywhere in the world for a range of operations using all three dimensions of the battlespace. The Army must be capable of decisive, quick victories. The rapid transmission of information around the world has caused casualties to become a center of the gravity for the American people.



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The nation's Reserve Components must be harnessed in bold and creative ways to meet contingency needs; there is enormous potential in Reserve Component aviation. Change does not come easily and the Army is a very conservative organization. There is a tendency to proportionately downsize. However, there is a mandate to restructure and harness the technology of the Information Age. It is time to reset the course for the future decades — a time to attack and exploit success.

 ${
m T}_{
m o}$  its credit, the Army has embraced many opportunities in emerging technologies and proclaimed a desire to adopt more deployable, agile, leaner, and flatter organizations. The recent edition of FM 100-5 rightfully acknowledges the changed strategic environment, advances in technology, and the need for rapid projection to conduct a wide range of operations from warfighting to operations other than war. In effect, FM 100-5 sets the stage for change in doctrine but is not explicit on the architecture for the future. Without restructuring and changes in our overall investment strategy, we risk becoming a hollow force.

A vision for future conflict must include a major overhaul of the Reserve Components to more efficiently allocate functional responsibilities across the components. It will not be an easy task to make the Reserve Component totally relevant for contingency operations without sweeping policy, statute, and organizational changes. Rapid mobilization of these important national resources will be essential. The Reserve Component must be comprised of lean, ad hoc, multi-functional, modernized forces committed to readiness for contingency operations.

Regardless of the operational scenario, deterrence is fundamental to our National Military Strategy. Consequently, deploying force must have a real and perceived lethality tied to a capability for timely force projection. Joint force deployments will be needed for both opposed and unopposed entry operations. The Army must have great flexibility to quickly develop and deploy force packages consistent with the demands of the warfighting CINCs across a wide range of uncertain scenarios.

Early entry forces must have the requisite capability to secure a lodgement and conduct defensive operations that have an immediate strategic effect or establish operational conditions for the conduct of decisive operations by follow-on forces. Early forces should be multi-functional and include, as a minimum, intelligence-producing systems, communications, infantry, artillery, aviation, air defense, engineers, and the appropriate CSS structure. Heavy forces, should they be needed, would be introduced in



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follow-on contingents. The transition from the Cold War mobilization paradigm to a rapid contingency force projection capability could very well prove the most difficult of all obstacles to overcome in breaking through institutional resistance to change.

 ${
m D}_{
m ecisive}$  victory at minimum cost results from establishing effective battle command and then dominating the battlespace. Our Army accomplishes this by conducting simultaneous and continuous operations in depth supported by tailorable, flexible logistics. This will require agile-minded and intuitive commanders, well-designed organizations, and state-of-the-art digital communication links. Hyper-communications, intensely focused information provided globally and almost instantly, have the potential to instantly link the strategic, operational, and tactical levels. We have entered an age where it may be possible to have near ground truth on the physical attributes of an adversary. With such information available at every moment, we then have a significant capability to sense his intent.

The attributes of the combined arms team are well documented. As we transition to this new age, we need to critically assess which technologies really give us leap-ahead capability. While Branch proponents are advocates, the really tough job is to look across the proponents to decide how to integrate and apportion the investment for a desired capability. Intelligence systems, digital communication, agile and maneuverable armed reconnaissance, and attack platforms complemented with precision fires capabilities seem paramount.

The Army's aviation forces break friction with the ground and maneuver in the ground regime. Aviation is not part of the aerospace environment — its primary mission is combat and combat support. Aviation units are employed as combined arms units and use the terrain in the same fashion as ground units. While offering unique advantages to the commander, they are subject to many of the same battlefield dynamics and physics of warfare as ground combat units.

Central to fighting Aviation is the concept of Aviation maneuver — to place the enemy in a position of disadvantage through the flexible application of combat power in the third dimension. For a long time, the Army resisted this notion; but there seems to be a greater acceptance now.

Synchronizing aviation and ground maneuver through reconnaissance, security, and attack operations increases operational tempo and gains positional advantage in both time and space over the enemy. Aviation is best focused in operations in the deep and flank areas against





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low dwell time, high value targets, or, in the case of more traditional combat scenarios, against follow-on echelons before they can move into the close operations area. Digitization of the battlefield is essential — it is the application of "Third Wave" technology to the way we fight.

In future operations, there is significant potential in both manned aviation platforms and unmanned systems for reconnaissance and security operations. The advantages and limitations of each capability will greatly complement our ability to see and sense enemy intent. There is significant potential in the combined use of manned and unmanned systems to discern ground truth and improve our capability for battlefield damage assessments.

There is also potential from the combining of aviation and air defense systems to "fill the air defense gaps" against low-flying threat aircraft. Using the air defense command and control network, aviation assets can be cued by air defense radars and are sufficiently flexible to be deployed along likely avenues of approach to ambush ingressing aircraft.

We must pay close attention to sustainment for the entire Army as we enter the high technology arena. Much can be done to harness information technologies to sustain the force using state-of-the-art diagnostic equipment in the hands of highly trained technical specialists. In avia-

tion, modern systems drive down operating costs and the number of skilled technicians needed to maintain the fleet.

Aviation's "Stripes on the Flight Line" and Technical Career Track programs for our noncommissioned officers are exactly on target and must be promulgated. The notebook computer provides nearly limitless possibilities.

We have already developed electronic logbooks, and they will soon become commonplace; technical manuals and parts requisition processes have the potential to become paperless. Aircraft data buses will record usage data to help predict fatigue and failure parameters. Twisting, bending, and torsion moments experienced by the aircraft will be compared with engineering designs to determine when and if a component should be changed. In short, prognostic technologies will give us release from the component time change mentality, help protect the force, and save millions in operations and support costs.

The recent publication of FM 100-5 gives important insight into future warfighting with its focus on force projection, operations other than war, decisive combat power, versatility, simultaneous operations, and the joint, combined, and interagency dimensions of warfare. The Army must respond quickly to uncertain contingencies and quickly project lethal,

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4747 Hellyer Avenue, P.O. Box 7012, San Jose, California 95150-7012 Tel: 408-365-4150 FAX: 408-365-4364 TWX: 910-339-9271 flexible, expansible, and supportable forces. Concepts long associated with aviation such as "fighting in the spirit of the cavalry" and operational tenets like agility, initiative, depth, synchronization, and versatility are the way the entire Army must be capable of fighting in the next century. In a sense, Army Aviation is already well-acquainted with the precepts of FM 100-5 and can easily adopt the Army's emerging operational concepts of battle across the full range of military operations.

We are well along in rewriting A<sup>2</sup>C<sup>2</sup> doctrine. Recently, the Combined Arms Center (CAC) authorized the Aviation Center to lead in development of the concept and coordinate among all combined arms airspace users; this

will require joint coordination as well. Vertical airspace can be managed using a coordination altitude. However, the boundary between Army and USAF operations in the deep area will require considerable discussion.

The training base will be challenged to shift from "brute force thinking" to ways that will harness the power of the human brain. As more powerful sensors become available and lethal systems with greater precision and lethality emerge, training regimes must adapt to harness soldier intellect; we must train for intellectual flexibility. Information Age technologies will demand agileminded, intuitive leaders empowered to make quick battle decisions. Simulation is becoming increasingly important in training future warriors. Simulation can accelerate experience, compress learning time, and will become central in screening prospective young leaders.

As we move from the era of the

Huey and Cobra, significant investment must be made in the training base now to transition aviator and maintenance personnel from these mature systems to modern equipment.

There is no reason why traditional hierarchial staffs

cannot be streamlined and flattened. Information Age technology will provide greatly improved situational awareness and significantly alter traditional staff planning processes. We must be capable of identifying intuitive leaders and then train them to use the information produced in these new battlefield circumstances.

There is enormous potential for Information Age technologies to do much of the work currently done in

"The training base

will be challenged

to shift from brute

force thinking' to

ways that will

harness the power of

the human brain."





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7500 Maehr Road Waco, Texas 76705 817-867-4202 FAX 817-867-4230 the acetate and grease pencil environment. Many will resist such change because the computer has been intimidating for some. While Information Age technology will permit large amounts of information to be processed quickly, the question remains — will such a capability change the way we lead and fight?

Simulation technologies are increasingly being harnessed for both training and combat development purposes. Sophisticated networks will link combined arms elements in real, constructive, and virtual environments. Much of our individual. crew, and collective training will be done in a simulation environment: we can and should trade off some OPTEMPO to accomplish this. The simulation environment will permit mission rehearsal on terrain developed from a worldwide database containing natural and manmade terrain: dynamic terrain will be commonplace in our training environments. Sophisticated opposing forces with blue-gray technologies will offer significant challenges in these simulation environments.

It is not stretching too much to suggest we shall see it possible for aviators to go "on line" with their home personal computers and interact with other warriors on a simulation network. This has powerful implications for the National Guard and USAR components.

The Army will most likely increase

its investment in manned and unmanned sensors, intelligence-producing systems, space-age communications, joint precision fires, agile and maneuverable armed reconnaissance, attack and assault platforms, and missile technologies. In this high technology environment, the role of Army Aviation will greatly increase.

We will consummate the Aviation Restructure Initiative (ARI) and gain a streamlined force of fewer personnel equipped with the highest technology system possible. For ARI to succeed, the modernization plan must be executed: retaining old equipment is not a cost-effective investment strategy. Systems such as Longbow Apache, Comanche, Black Hawk, and the Chinook upgrade are pivotal in meeting the ground commander's needs in all dimensions of the battlespace. To fully reap the benefits of ARI, we must remain faithful to our modernization plan; it makes no sense to retain older, inefficient, and costly systems. Our R&D will focus on advanced composites, propulsion, sensors, missiles, avionics, visionics, electronic survivabiliequipment. and digital tv communications

Technology will increase our knowledge on how to protect the force. We are just beginning to understand risk and its impact on crew coordination and cockpit decisions. In the past 30 years, Class A mishaps have been (Info Age — continued on p. 114) 3-5 Micron 512 X 512 Staring Array Imager **Versatron Presents** 

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With Longbow, Apache and Comanche helicopter crews will be able to detect, classify and prioritize targets rapidly, day or night, in fair weather or foul. They can attack from stand-off distances with self-guiding missiles, or instantly pass the information to "friendlies" on the digital battlefield.

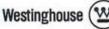
Recent combat experience proved once again how capable and efficient our armed forces are, and how much they can accomplish with advanced-technology equipment and support. It demonstrated the importance of being able to conduct successful operations anytime, anywhere, in any type of weather.

Now more than halfway through full-scale development, the Martin Marietta-Westinghouse Longbow system is on track for 1995 production.

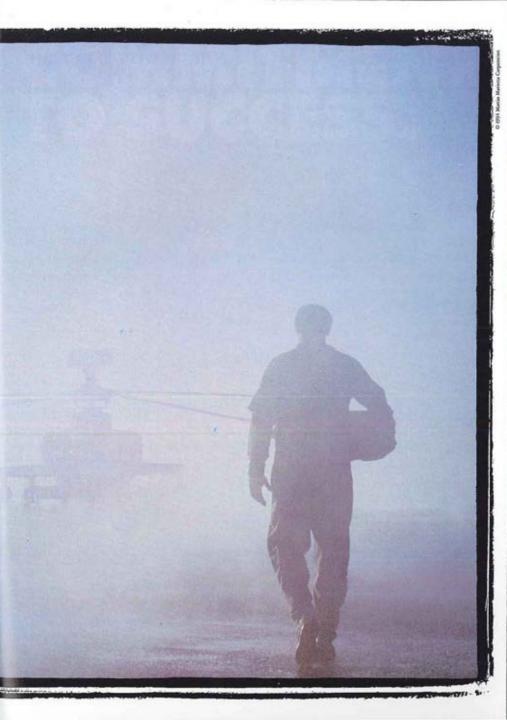
The Longbow Joint Venture is proud to be a part of the Army's Apache and Comanche team efforts, and its vision of a fully digital battlefield.

For us, as well as the Army, mission success is the only bottom line.









### ARMY AVIATION MODERNIZATION

We have made real progress in 1993 in focusing modernization efforts on the new National Military Strategy. Army Aviation's modernization complements the Army's mission of deploying forces and achieving land dominance through the

five modernization objectives: Win the Information War; Project and Sustain the Force; Protect the Force; Conduct Precision Strikes; and Dominate the Maneuver.

Winning the Information War — The main thrust in winning the information war is digitization of the battlefield. It allows the Army to see the battlefield, communicate via secure data links, and distribute information "real time". Major Army Aviation capabilities emerging in this overmatch area are:

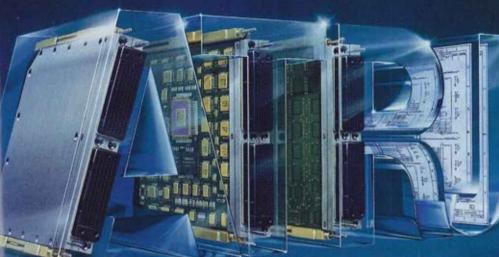
How PEO, Aviation initiatives support the new National Military Strategy.  Comanche. Comanche's design incorporates the voice and data-links to communicate reconnaissance observations, including aerial observation for artillery.

The primary datalink is an Improved Data Modem (IDM) which is compatible

with the Airborne Target Handover System (ATHS), used in OH-58D and A-10 aircraft. Working jointly with Air Force Airborne Warning and Control System (AWACS) and JSTARS aircraft and intelligence satellites, the Comanche air crew will be able to coordinate and communicate critical battlefield data to Bridge/Battalion commanders as they quarterback the digital battlefield.

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fication, battle management, secure digital communication, and chemical and radiological surveys, allowing commanders a situational awareness never before experienced. Comanche's mission computers will tailor vast quantities of information, thus enabling situational and battlefield awareness never before available to our tactical commanders.

• Longbow. The Longbow is the first generation of weapons using high-speed 32 bit processors and a secure digital information sharing system. The IDM is integral to the Longbow's ability to pass variable message formats around the battlefield. It allows the crew to gather and distribute battlefield information horizontally to the shooter and vertically through the command net.

Like a communications switching and relay station, the AH-64D can focus information from sophisticated sensors and high speed data communication and create a framework that can help maximize the numbers of kills made by members of the combined arms team. The Longbow provides near real time battle damage assessment, a key to optimization of resources and success on the digital battlefield.

 Aviation Electronic Combat (AEC). Winning the information war is the key to integrated ASE and Avionics mission equipment. New capabilities allow information to pass by voice or data, plus imagery, in modes which reduce its interception or exploitation. Winning the Information War implies use of all available information to extend the envelope of operations for all overmatch areas.

When integrated with avionics and other mission equipment, the onboard sensors provided by the Advanced Threat Radar Jammer (ATRJ) and Advanced Threat Infrared Countermeasure (ATIRCM) can be used to supplement and enhance other sensors or can provide independent remote sensors for the commander when offboard sensors are not available or are temporarily "blinded". Aviation's connectivity within the Combined Arms Team provides data to be shared and combined for a current, accurate picture of the conflict area.

 Kiowa Warrior. The IDM is also being qualified on the OH-58D. Other enhancements are Video Downlink, Charged Coupled Device (CCD) camera, and the Aviation Mission Planning System (AMPS). Video Downlink provides the capability to transmit TV or thermal images via secure VHF-FM. UHF, or HF communications to ground stations. The CCD camera, which replaces the Vidicon camera, provides better picture resolution, improved reliability, and improved detection range. The AMPS enables the crew to plan and rehearse missions.

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- · Black Hawk. Winning the information war and digitizing the battlefield requires installation of a state-of-the-art Command and Control (C&C) System on the UH-60. The Commander uses the C&C system to coordinate close air support, artillery, attack and maneuver elements. Enhancements include improvements to Maneuver Control System and AMPS: satellite communications: improved high frequency nap of the earth communications: SINC-GARS: Commander's Tactical Terminal: a digital display map; and near real-time video imagery.
- Chinook. On the CH-47, improvements are being made in the areas of situational awareness and C&C. Global Positioning System (GPS) and the AN/ASN-128 Doppler will be installed on some CH-47Ds. HF radios and Improved FM (IFM) amplifiers along with SINCGAR radios, will improve communications.
- Special Operations Aircraft.
   SOA aircraft are equipped with ATHS, SINCGARS, SATCOM, and HF radios. GPS, INS, Doppler, and digital map displays provide redundancy and accuracy in coordinating tactical details among involved units.

Project and Sustain the Force. Worldwide deployment of highly lethal forces on extremely short notice is fundamental to this overmatch area. Comanches are rapidly transportable and self-deployable. Comanche's range of 1,260 nautical miles (with auxiliary tanks) enables self-deployment to Latin America in 16 hours, Europe in 24 hours, Southwest Asia in 30 hours, and Korea in 48 hours.

An air cavalry troop or an attack helicopter company of eight Comanches can move in one C-5 and a Comanche can debark from the C-130 and fight in only 22 minutes. Two C-5s can transport a Comanche battalion. Comanche uses lessons learned from Operation DESERT STORM. Once in the fight, three people can refuel and rearm a Comanche in 15 minutes. a three-fold improvement. A Built-In Test (BIT) reduces false removals and provides quick, easy troubleshooting with efficient fault detection/fault isolation. Battle damage assessment and repair are major design considerations.

The Longbow can either self-deploy or be quickly airlifted to the fight with early entry units. Longbow's presence early in a conflict will provide combat power for the buildup. During transit to the operational areas, crews can update their operational plans and threat library by use of the MPS, assuring situational awareness and combat effectiveness on arrival. Longbow has improved BIT, reduced numbers of Line Replaceable Units to stock and transport,

### **ROTARY WING SIMULATION...**

- TRAINING COAST GUARD
   CONCEPT FORMULATION
  - TECHNOLOGY DEMONSTRATION
    - TEST AND EVALUATION

ARMY AVIATORS training requirements are among the most demanding in the world.

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Individual/crew simulators
for the schoolhouse: our
deployable sustainment
trainers for field units:
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Task Trainer (CTT) for
force-on-force training.

We've designed and built nearly a dozen different types of rotary wing simulators from the HH-53C to the TH-57C to the SH-60F.

Leadership, Integrity, Commitment... our hallmarks for over 53 years... The Army will accept nothing less.

Neither will we.



For more information about Reflectone simulators and supportive devices, call the Reflectone Marketing Office at 1-800-237-8414 and improved reliability of onboard systems.

AEC equipment, lighter and more deployable and automated MPS allows a quick launch toward a conflict area. Improved communications systems allow continuing enroute updates to mission planning and mission pre-flights over digital maps. Integration of ASE and Avionics systems allows updating of missions and threats. Real-time situation reports can be returned via the Improved Data Modem for pre-stationing of fuel and weapons for more rapid turnaround. The MPS also has a data transfer capability to pass back maintenance information.

The MH-60K and MH-47E are designed to rapidly deploy. Both are equipped with auxiliary fuel tanks and air-to-air refueling capability. These aircraft have deployment support kits which allow them to deploy on a self-sustained basis for 10 days. A "Go to War" kit supports the aircraft for another 30 days.

The UH-60L Black Hawk has auxiliary fuel tanks and has increased its Reliability, Availability, and Maintainability (RAM) by using sealed main rotor dampers and pitch change rod ends with elastomeric bearings, a higher reliability aircraft battery, and particle separators to protect the engines and auxiliary power unit.

Protect the Force, Comanche can operate in Nuclear, Biological. and Chemical (NBC) environments. Comanche crews can relay targeting information to air defense units and counter-fire artillery and quickly identify friend or foe. Rapid deployment enables Comanche to arrive early, quickly establishing a credible deterrent. Rapid force buildup expands the base lodgement, provides ground force protection, reconnaissance, security, and effective command. control, communication, and intelligence. Comanches can select routes and positions, provide surveillance and early warning, and enhance C3I and deep operations situations.

With its mast mounted radar in the air targeting mode capabilities. the Longbow can provide air overwatch for the ground commander during the early phases. Embedded GPS/inertial navigation onboard coupled with a non-cooperative target recognition radar and modern communications allows AH-64D to serve as a ground commander's mini AWACS. Longbow can detect and classify ground targets using a low probability of intercept radar. It can pass that information to the ground commander, via secure data link, enhancing battlefield situational awareness.

Protecting the deployed forces is



Left: The VITAL VII visual display combines photographic and computer-generated images for a high degree of realism.



# 21st century simulation - now.

Above: Unaffected by weather, traffic or operational delays, simulators like the C-12 offer real savings in training costs and time.

For over 15 years FlightSafety has provided the Army fixed-wing aviator with the very latest in simulator training technology. Taking the controls of FlightSafety's C-12C/D/F FAA approved Level "C" flight simulator is an exercise in precision reality. The C-12 simulator and visual system represents the very latest advances in simulation technology. FSI's VITAL VII MultiView visual provides training realism with day, twilight and night flight conditions, ranging from CAVU to extreme IFR. The simulator's advanced digital motion system, with aircraft manufacturer-tested flight dynamics, provides a smooth and realistic reaction to pilot inputs. This state-of-the-art simulator training system, along with FSI's premier military training expertise, prepares the Army pilot for both routine and abnormal eventualities. Not only are the C-12 aircraft's systems and flight dynamics accurately portrayed, the simulator, by virtue of its FAA Level "C" certification, and sophisticated visual system, provides both inflight and landing realism. For real-world training, the simulator's data base includes Cairns AAF, Dothan and most major U.S. airport facilities, and can be quickly configured for any civil or military airfield worldwide.

For more information, please give us a call or visit our booth at AAAA '94. With FlightSafety training, the future is at hand.



Daleville Learning Center, 24 Industrial Blvd, Daleville, AL 36322 Tel: (205) 598-4485 Fax: (205) 598-4488 enhanced with integrated ASE and Avionics equipment. Precise position information from GPS allows for real-time target and threat information through ATRJ precision DF and ATIRCM missile warning. Real-time mission planning and threat updates, through the C&C aircraft and digital communications, provides the flexibility for a quick response to pre-empt or counterattack threats.

On Kiowa Warrior, the ANVIS display symbology system attaches to the night vision goggles and provides pilots with critical heads up flight information. The Data Transfer System (DTS) allows preplanning three complete missions onto a data transfer cartridge. This increases the commander's flexibility in planning and reacting to battlefield dynamics. An additional system planned for installation on the Kiowa Warrior to aid commanders in protecting the fleet is the Battlefield Combat Indentification System (BCIS). The BCIS will increase situational awareness, providing aviators with a means of discerning friendly from threat forces.

The mission of SOA aircraft is insertion and extraction of Special Forces elements. An extensive array of ASE is provided to detect and help avoid particular threats. When avoidance is impossible, the ASE counters the threat and M-134 miniguns, mounted on each side of the aircraft, suppress the threat. The Terrain Following/Terrain Avoidance radar adds a new dimension to the protection equation by allowing the terrain to be used more productively for masking even under adverse weather conditions.

The whole mission of Project Manager, Aviation Life Support Equipment (ALSE) is to "protect the force". ALSE modernization uses the latest technology to enhance the survival of aircrew personnel. The single most important strategy is to integrate the ALSE in the Army's close combat aircraft (AH-64, AH-1, CH-47D, RAH-66, OH-58D, and UH-60).

Conduct Precision Strikes. Comanche will conduct precision strikes across the battlefield, at close or deep ranges. In concert with JSTARS and ground stations, Comanche will integrate a significant amount of targeting data to make combat decisions and enhance targeting capability. The pilotage system provides Forward Looking Infrared (FLIR) and Image Intensification (I2) sensors and increased field-of-view and resolution that is totally integrated with the weapons. The inherent flexibility of Comanche aircraft provides commanders the ability to tailor their forces for specific situations by substantially increasing the ability of commanders to support a variety of responses.

The Longbow conducts precision

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Rangefinders... Designators... Beamriders ... Awesome and accurate are these smart weapons of technology. They rely on an unseen beam of laser energy to guide weapons, unannounced, to their designated targets. That is, until now!

With Hughes' AN/AVR-2 Laser Detecting Sets now in the field, U.S. Army and Marine Corps helicopter crews will be forewarned about laser illumination and increase their ability to outsmart those precision-guided threats. The compact sensors in AN/AVR-2 detect the invisible energy and provide advance warning. Armed with knowledge about a laser weapon's type and point of origin, pilots can now maneuver out of harm's way, deploy countermeasures, or destroy the threat.

#### AN/AVR-2 LASER DETECTING SET

increased survivability for today's high-technology combat

attacks day and night, in all kinds of weather and battlefield obscurants. The ability to detect, classify, and prioritize targets and to coordinate the attack with other "shooters" in the area produces accurate steel-on-target results and assures devastating lethality against high-value targets whether moving or stationary. Combined with other assets, Longbow gives the force commander the ability to synchronize all available firepower to a point of convergence when operational requirements dictate.

Dominate Maneuver Battle. Comanche will dominate the battlefield through close combat overmatch, digitization, mobility, and counter-mobility. By conducting pre-mission planning, mission rehearsal, and terrain analysis, Comanche pilots will rehearse in advance of a mission. This ability improves situational awareness, the knowledge of friendly and enemy locations and dispositions, and battlefield focus to increase mission effectiveness.

Comanche's systems increase situational awareness, allowing the air crew to respond rapidly to changing situations. It will be harder to detect Comanche helicopters on the battlefield. They will be able to search on the move, reducing the chances of engagement. A tactics expert system, a digital map, and extended range sensors will reveal key information

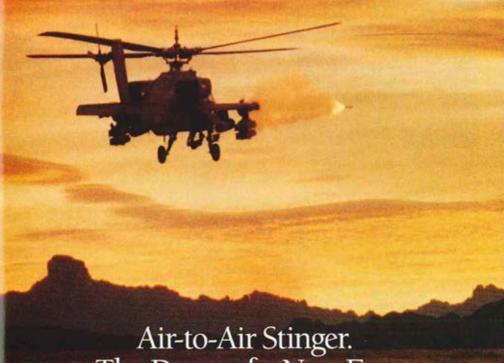
for better situational awareness. Comanche can display stored imagery in a masked position and sort and select targets with its aided target detection/classification system. Its radar frequency interferometer/radar warning receiver will help avoid engagement with the enemy until necessary and assist in locating targets.

 ${
m I}_{
m n}$  less than 30 seconds, the Longbow searches an area of 28 square kilometers, detects up to 256 targets. classifies those into one of five categories, and prioritizes those targets for attack. Longbow can pass that information by IDM or initiate an attack. Longbow is 16 times more lethal than the AH-64A. In some missions. Longbow is up to 40 times as effective. With its integrated digital communications suite, high-tech sensors. MANPRINT cockpit, and the ability to horizontally and vertically integrate the battlefield, the AH-64D is the dominating weapon system.

All five components of the Army's modernization objectives are at the heart of Army Aviation initiatives. These enhancements will ensure that the enemy can be met and defeated — now — and into the 21st Century with Army Aviation as an integral member of the Combined Arms Team.

\*\*

MG Irby is the Program Executive Officer, Aviation, St. Louis, MO



# The Dawn of a New Era.

Air-To-Air Stinger (ATAS) provides Army aviators a combatproven, lightweight solution for helicopter air combat.

In operation with Kiowa and Kiowa Warrior, ATAS is planned for integration on Apache and Comanche. Weapon system enhancements are under way to defeat the evolving threat well into the next century.

Air-To-Air Stinger plus Army Aviation. A lethal combination.

#### HUGHES

For more information, please contact Mr. S.J. Ignat, Stinger Program Development, Rancho Cucamonga Facility, P.O. Box 50800, Ontario, California 91761-1085, (909) 945-8189.

#### THE YEAR IN REVIEW: ATCOM

Contrary to rumor, the U.S. Army Aviation and Troop Command (ATCOM) was not washed down the Mississippi River and out to the Gulf of Mexico by the 500 Year Flood.

1993 was a high watermark year for the command's St.

Louis, MO headquarters in more ways than one. Its procurement, logistical, and technical centers overflowed with achievements including the acquisition of the New Training Helicopter (NTH), the completion of the Special Technical Inspection and Repair (STIR) program, and the beginning of the Rotorcraft Pilot's Associate (RPA).

In late March 1993, the Acquisition Center awarded a competitive contract to Bell Helicopter Textron, Inc. of Ft. Worth, TX for 102 TH-67

The past, present, and future of the Army Aviation and Troop Command (ATCOM). Creek aircraft with an option for an additional 55 aircraft. Total value of the contract, including the option quantity, is about \$140 million. The option will be executed when the fiscal year 1994 funding becomes available.

The NTH will be used for Initial Entry Rotary Wing (IERW) training at the Army Aviation Center at Ft. Rucker, AL. Currently, about 225 UH-1 Iroquois are used, but its flying hour cost, coupled with the maintenance burden of this older aircraft, is making it cost prohibitive for training.

Replacement of the UH-1 by the TH-67 is projected to save up to \$1 billion over the next 20 years. The savings result from a significantly lower flying hour cost and from a lesser number of aircraft required.



We all know the cost to put them in the aix...who knows the cost of

# AIRCRAFT ON THE GROUND

\$5M a day in last inventory value; 110,000 last flying loans; \$1,000 a day in labor costs; and the threat to combut readiness...immeasurable.

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The primary objective of the NTH acquisition is to reduce IERW training cost without degrading training effectiveness.

The first two aircraft were delivered to the Army Aviation Center in mid-October 1993, less than seven months after the contract was awarded. The last of the 102 TH-67s is scheduled to be delivered in November 1995.

 $m I_n$  late July 1993, the Omnibus Engineering Test Services contract was awarded for all Army aircraft. A single-year, indefinite-quantity type contract with four option years was awarded as a result of the formal source selection process. A cost-plus, fixed-fee contract with firm fixed-price provisions was awarded to Dayton T. Brown Co. of Bohemia, Long Island, NY so that aircraft parts from alternate sources can be tested to assure compliance with original qualification standards. It also promotes the expansion of competition in the acquisition of critical parts for all Army fixed and rotary wing aircraft. The minimum amount for this contract is \$1 million, the maximum amount is \$150 million over the five-year life of the contract.

Along with these contracts, the Acquisition Center and the Helicopters Division of Boeing Defense and Space Group of Philadelphia, PA signed a contract in August 1993 to modernize additional CH-47C Chinooks. The contract calls for Boeing to modernize 11 of the aircraft beginning this calendar year. These aircraft were operated for nearly two decades by the Royal Australian Air Force. The first four aircraft will be delivered to the RAAF; the Army will receive the final seven, which were purchased from Australia.

The value of the contract is \$67 million; however, this total does not include a substantial dollar amount of government-furnished equipment, primarily for engines and avionics equipment.

In October 1993, Paul Bogosian became the Acquisition Center's new executive director and by the end of Fiscal Year 1993, the center executed the following obligations:

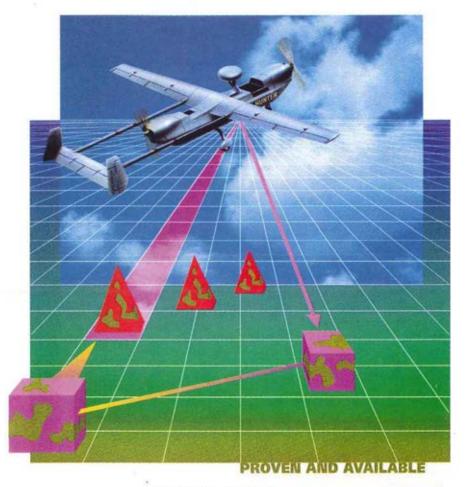
- Defense Business Operating Fund-R — \$310.6 Million
- Defense Business Operating Fund-C — \$97.3 Million
- Operation/Maintenance Army
   \$95.2 Million
- Other Procurement Army –
   \$120.1 Million
- Foreign Military Sales \$403.6 Million
- Total \$1,026.8 Million

While the Acquisition Center was achieving procurement excellence, our Integrated Material Management Center (IMMC) was excelling in logistics power projection.

(ATCOM - cont. on page 110)

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#### Purposes & Objectives

#### AAAA ORIGIN

The Army Aviation Association of America (AAAA) was formed in early 1957 by a small group of senior aviation officers in the active Army, the Reserve Forces of the U.S. Army, and industry. Following the incorporation of the AAAA as a membership corporation without capital stock under the laws of the State of Connecticut, this group took over control of the affairs of the AAAA from the incorporators on April 18, 1957.

Modeled after several of the professional-technical societies in existence, the AAAA has grown rapidly, receiving membership support of the majority of those military and civilian persons having an interest in this segment of the Armed

Forces.

#### PURPOSES

To advance the status, overall esprit, and the general knowledge and efficiency of those persons who are professionally engaged anywhere in the overall field of U.S. Army Aviation, including the Aviation Branch and all of its components; the aerospace industry, the various activities in the Department of the Army that support Army Aviation, such as the Army development, supply, and maintenance agencies, and all other activities. military and civilian, that contribute to the furtherance of Army Aviation.

To preserve and foster a spirit of good fellowship among military and civilian persons whose past or current duties affiliate them with the field of U.S.

Army Aviation.

#### **OBJECTIVES**

REPRESENTING membership interests to the

Army and the Legislative Branch.

FOSTERING a public understanding of Army Aviation and arousing a public interest in this segment of the military forces.

**EXCHANGING** ideas and disseminating information pertinent to Army Aviation through the media endorsed by the Association.

STIMULATING good fellowship nationally, regionally, and locally.

INSPIRING Army-wide and nationwide interest in Army Aviation careers.

CEMENTING relationships between those interested in Army Aviation in the active U.S. Army forces and the Reserve Forces of the U.S. Army.

MOTIVATING Army Aviation personnel to increase their knowledge, techniques, and skills.

MAINTAINING historical records.

CONDUCTING meetings, seminars, briefings symposia, exhibitions, air meets, etc.

RECOGNIZING outstanding contributions within Army Aviation.

PROVIDING special group programs of benefit to the individual membership.

#### SPECIFIC PROGRAMS

ARMY AVIATION MAGAZINE: AAAA's publication keeps members abreast of developments in Army Aviation.

AAAA CHAPTERS: Every member is assigned to an AAAA Chapter when possible Chapter meetings feature speakers who address topics of current interest in all fields: research and development, tactics, personnel, and equipment

AAAA AWARDS PROGRAM: AAAA presents awards annually at the national and chapter level recognizing outstanding achievement in Army Aviation.

AAAA SCHOLARSHIP FOUNDATION: The Foundation awards scholarships annually to members of the AAAA and spouses, unmarried siblings, and unmarried children of current and deceased AAAA members.

AAAA HALL OF FAME: AAAA's program to recognize broad, long term individual contributions to Army Aviation.

ARMY AVIATION INFORMATION NETWORK & VIDEO LIBRARY: AAAA's library and information center on Army Aviation developments.

ARMY AVIATION CAREER TRACK: AAAA's employment referral service.

AAAA ANNUAL CONVENTION: AAAA's annual meeting encompasses the latest developments in the Army Aviation community through professional presentations and exhibits.

CONFERENCES AND SYMPOSIA: AAAA sponsors several conferences and symposia annually that address specific subject areas such as ASE, Avionics, Electronics, Product Support, etc.

LOCATOR SERVICE: AAAA's program to assist the member in his efforts to keep abreast of the location and professional qualifications of his contemporaries.

AAAA COMMITTEES: AAAA's task forces report to the AAAA National Executive Board on issues having an impact on Army Aviation.

SUPPLEMENT CHAMPUS HEALTH INSURANCE: AAAA's CommandCare program is available to active duty or retired military AAAA members and their dependents.



D.A.V.

#### Warning and Surveillance System for Helicopters

The D.A.V. Warning and Surveillance system for helicopters detects, classifies, and identifies air threats. This covert pulse doppler radar system provides 360° coverage in a compact module designed for light helicopter installations. It detects and locates low flying air threats including hovering helicopters at safe distances. After detection, the D.A.V. classifies airplanes, and helicopters and identifies helicopters by type. The system is designed to operate in all weather and battlefield conditions and

provides very short reaction times. Its location accuracies are compatible with EO/IR devices including missile seekers. The D.A.V. installs easily on helicopter rotor hubs and is compatible with current and future helicopters such as the AH64, OH58D, UH60, AH6, MH6 and RAH66. By adding the D.A.V. to your helicopter, you provide the capability to find the threat, locate the threat, and identify the threat . . . before it finds you.

This program is a cooperative effort with Dassault Electronique.

Demonstration flights of the D.A.V. radar have been conducted in France for the U.S. Army. The demonstration was organized by the French Ministry of Defense and took place from 1-8 June 1993. The D.A.V. operated onboard a French Puma helicopter with one U.S. Army UH-1, one U.S. Army UH-60, and one French Army Gazelle as the target aircraft. U.S. Army representatives stated they were completely satisfied with the execution of the demonstration and data analysis is ongoing.



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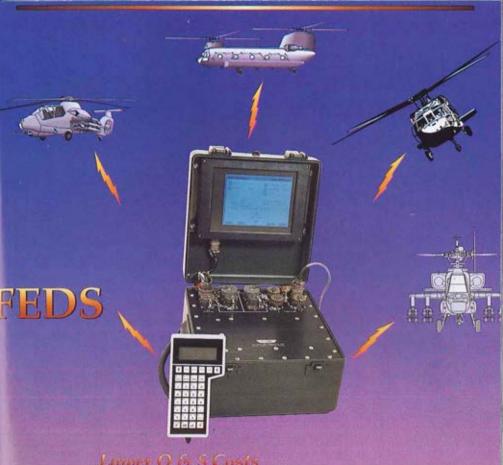
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### Is It Really Worth Spending Over A Billion Dollars On The Huey To Get Better Gas Mileage?

It's time we put this whole Huey upgrade program into perspective. It's time we stop talking about gas mileage and horsepower and which engine has what features.

And it's time we start looking at the big picture.

Replacing the T53 engine currently in the Huey will mean retro-fitting hundreds of helicopters. It will mean retraining thousands of mechanics, and building a new parts inventory. It's a process that will cost America over a billion dollars.

As for gas mileage? It will take a more fuel-efficient engine over thirty years of continuous flying to recoup this billion dollar investment. Thirty years, just to get us back to zero. Somehow it just doesn't add up.

Of course, there's more to the

Huey upgrade program than money. The T53

is the only engine that has a proven track record in a single engine environment. No matter how much you spend, you can't replace that.

All told, we think you'll agree: the argument for switching away from the T53 engine doesn't hold water. Or gas, for that matter.

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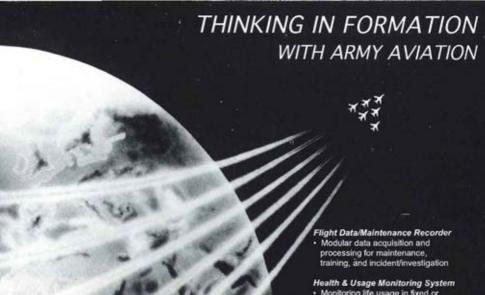
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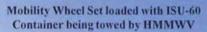
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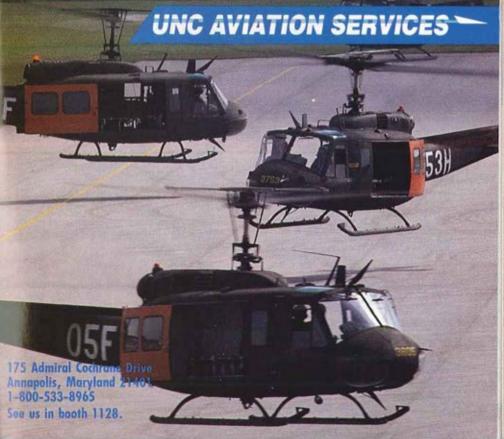


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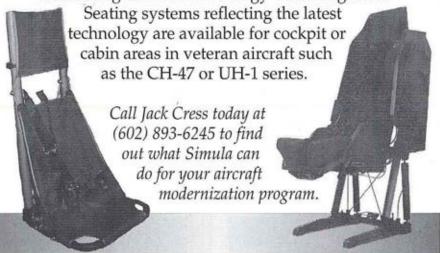
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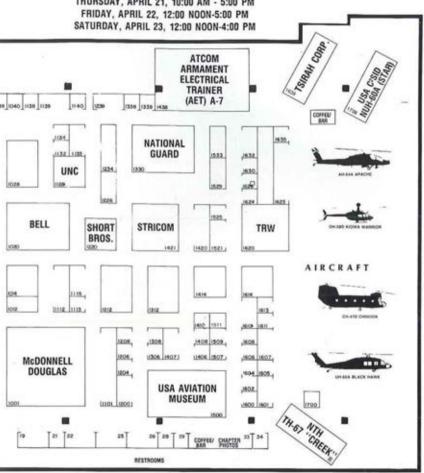


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ARMY AVIATION ASSOCIATION OF AMERICA ST. LOUIS. MISSOURI . APRIL 20-24, 1994 CERVANTES CONVENTION CENTER COFFEE/ AAR 736 MFG. 639 638 936 334 435 434 535 926 LOCKHEED PE<sub>0</sub> 532 332 435 432 535 B AVIATION BOEING 558 330 481 430 (PM SOA) SIKORSKY MH-47E 6 G 228 328 429 ITT MH-60K BZ# 526 ,326 RUMM 324 425 AEL ALLIED SIGNAL AAA LOUN ARE 414 515 615 SIKORSKY 512 513 USAR 410 511 (310 | 611 ) UH-60A AH-64A 408 MARTIN MAR CONCESS-ONS 306 407 406 507 ,506 304 HUGHES GSA 302 KAMAN FOOD AREA 9TH STREET ENTRANCE

#### **EXHIBIT HALL HOURS:**

WEDNESDAY, APRIL 20 EARLY BIRDS RECEPTION 7:00 PM-9:00 PM THURSDAY, APRIL 21, 10:00 AM - 5:00 PM FRIDAY, APRIL 22, 12:00 NOON-5:00 PM



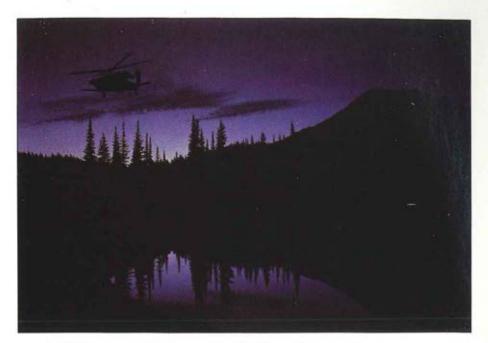
#### BUFFET LUNCHEONS: **HALL 4 & 5**

THURSDAY, APRIL 21, 12:00 NOON-1:00 PM FRIDAY, APRIL 22, 12:00 NOON-1:00 PM SATURDAY, APRIL 23, 12:00 NOON-1:00 PM

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Systems Division	Conax Florida Corporation1632
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## No moon. No horizon. No compromises.

He's a Special Ops pilot. A "Night Stalker." And when he talks about his job, he looks you straight in the eye.

"Our job as 'Stalkers' is simple. To get in. To get out. To complete our mission. And when we are done, no one even knows we were there.

"Just give me a grid coordinate. I'll get you there.

No compromises. At night. Low level. Over any terrain.

In adverse weather. How do we do it? With the MH60K."

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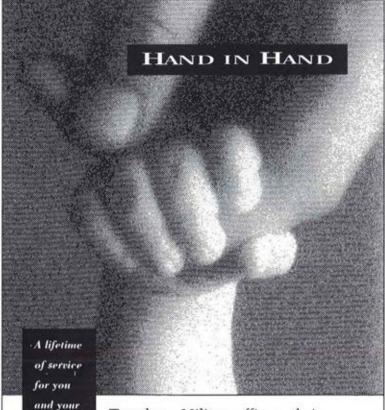
"It can do more than we ask it to," says the pilot,
his eyes boring into you. "How do you put a value on
always being able to say,
'we can get it done'?"

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#### AAAA ANNUAL CONVENTION

St. Louis, MO, April 20-24, 1994

#### ARMY AVIATION: ADVANCING ON THE 21ST CENTURY

WEDNESDAY 12:00 NOON - 5:00 PM CCC Room 132 Registration and Ticket Sales 7:00 AM - 6:00 PM - Clinton Hills Country Club AAAA Lindbergh Chapter Golf Tournament 8:00 AM - 9:00 PM CCC Room 132 Registration and Ticket Sales 18th Floor Adam's Mark 8:00 AM - 5:00 PM AAAA Lindbergh Chapter Racketball Tournament CCC Room 118 10:00 AM - 5:00 PM Press Room Open (Sponsored by GE Aircraft Engines) CCC Room 276 12:30 PM - 2:00 PM AAAA National Executive Board Luncheon 2:00 PM - 4:30 PM CCC Room 263 AAAA National Executive Board Meeting 4:45 PM - 5:45 PM CCC Room 130 Awardee Briefing 6:00 PM - 7:00 PM CCC Room 260 AAAA Exhibit Managers Briefing & Reception (By Invitation Only) 7:00 PM - 9:00 PM CCC Halls 4 & 5 Exhibit Hall Grand Opening & Early Birds Reception The First Gathering. Welcome to St. Louis!

APRIL 20 APRIL 20

APRIL 20

VIATION

A RMY

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MADDOX

THURSDAY

7:00 AM - 5:00 PM — CCC Room 132

Registration and Ticket Sales

7:00 AM - 8:30 AM — CCC Hall 5 Foyer Eye-Opener Coffee Break

7:00 AM - 8:30 AM — CCC Room 130 Speakers' & Awardees' Breakfast

7:30 AM - 5:00 PM — CCC Room 118

Press Room Open

(Sponsored by GE Aircraft Engines)

- OPENING PROFESSIONAL SESSION

8:30 AM - 9:00 AM — CCC 120 Complex "Welcome to St. Louis"

The 1994 Professional Program

"Army Aviation: Advancing onto the 21st Century" MG BENJAMIN L. HARRISON, RET.

President, AAAA

9:00 AM - 9:30 AM — CCC 120 Complex

"Keynote Address"
GEN DAVID M. MADDOX

Commander-in-Chief, U.S. Army Europe and Seventh Army

9:30 AM - 10:00 AM — CCC 120 Complex

Presentation of AAAA

Aviation Unit of the Year Awards

10:00 AM - 5:00 PM — CCC Halls 4 & 5
Army Aviation
Technology Exhibition Open

10:00 AM - 12:00 NOON — CCC Halls 4 & 5
Exhibit Hall Coffee Break

(Cash Bar Open 11:00 AM - 5:00 PM)

ARMY

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THURSDAY Spouse Tour			
THURSDAY Buses depart CCC at 11:45 AM			
THURSDAY Buses return to AAAA Hotels by 5:00 Pl	M		
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THURSDAY	-		
THURSDAY 1:00 PM - 2:00 PM - CCC 120 Cc	Contract Contract		
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FRIDAY Press Room Open			
FRIDAY (Sponsored by GE Aircraft Engines)			

ARMY

APRIL 2 APRIL 2



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FRIDAY FRIDAY



REEDER

FRIDAY FRIDAY

PROFESSIONAL SESSIONS

CCC 120 Complex 9:00 AM - 9:35 AM

MG IOHN D. ROBINSON

Army Aviation Branch Chief and Commanding General, USAAVNC and Ft. Rucker, AL

9:35 AM - 10:05 AM CCC 120 Complex Presentation of Individual Awards

CCC 120 Complex

MG DEWITT T. IRBY, JR.

10:05 AM - 10:40 AM

Program Executive Officer, Aviation, St. Louis, MO

10:40 AM - 10:55 AM CCC Hall 5 Fover Refreshment Break

10:55 AM - 11:30 AM - CCC 120 Complex

MG IOHN S. COWINGS

Commanding General, U.S. Army Aviation and and Troop Command, St. Louis, MO

11:30 AM - 12:00 NOON -CCC 120 Complex THE HONORABLE JOE R. REEDER

Under Secretary of the Army, Washington, D.C.

- CCC Halls 4 & 5 12:00 NOON - 5:00 PM Army Aviation Technology Exhibition Open

12:00 NOON - 1:00 PM - CCC Halls 4 & 5

AAAA Exhibit Hall Buffet Luncheon

SPOUSE TOUR

12:15 PM - 4:30 PM - CCC 7th St. Plaza Entrance

Grant's Farm

Buses Depart CCC at 12:15 PM Buses Return to AAAA Hotels by 4:30 PM

1:00 PM - 2:00 PM CCC Halls 4 & 5 Exhibit Hall Coffee Break

(Cash Bar Open Until 5:00 PM)

1:00 PM - 3:00 PM CCC Room 263 AAAA NEB/Chapter Presidents Session

VIATION

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The OH-58D Kiowa Warrior is the most versatile armed reconnaissance helicopter in the world. No other has the air transportability, survivability, weapons capability and marinization so neatly packaged into one multimission aircraft. • A model of simplicity and sophistication, the Kiowa Warrior has the highest readiness rate in the U.S.

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helicopter, a low acoustic signature steady turret supports TV and Two armed OH-58Ds can be ready Warrior improvements include a

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FRIDAY FRIDAY	6:30 PM - 8:30 PM—St. Louis Ballroom Preconvene
FRIDAY	President's Reception Registration/Ticket Sales
FRIDAY	7:00 PM - 8:30 PM — St. Louis Ballroom
FRIDAY	Adam's Mark
FRIDAY	AAAA President's Reception
FRIDAY	9:00 PM - 1:00 AM — Promenade Ballroom
FRIDAY	AAAA Chapter Receptions
FRIDAY	Bus Service to and from AAAA Hotels
FRIDAY	from 9:00 PM-1:00 AM
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SATURDAY	Registration and Ticket Sales
SATURDAY	
SATURDAY	7:30 AM - 9:00 AM — CCC Hall 5 Foyer
SATURDAY	Eye-Opener Coffee Break
SATURDAY	7:45 AM - 9:00 AM — CCC Room 276
SATURDAY	First Light Breakfast
SATURDAY	By Invitation Only
SATURDAY	Guest Speaker: LTG WILLIAM H. FORSTER
SATURDAY	Military Deputy to the Assistant Secretary of the Army
SATURDAY	(Research, Development, and Acquisition), OASA (RDA).
SATURDAY	
SATURDAY	8:00 AM - 12:00 NOON — CCC Room 118
SATURDAY	Press Room Open (Sponsored by GE Aircraft Engines)
SATURDAY	PROFESSIONAL SESSIONS
SATURDAY	9:00 AM - 12:00 NOON — CCC Room 120
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SATURDAY	Operations/Training Forum MG JOHN D. ROBINSON
SATURDAY	Commanding General, USAAVNC and Ft. Rucker, AL
SATURDAY	Panelists Include: COL Russell E. Adams, Directorate of
SATURDAY	Evaluation and Standardization, USAAVNC; CSM Fredy
SATURDAY	Finch, Jr., Command Sergeant Major, USAAVNC; COL(P)

Thomas W. Garrett, Commander, U.S. Army Safety Center; LTC Robert L. Johnson, Jr., Chief, Aviation Proponency, USAAVNC: COL Thomas E. Johnson, Asst. Commandant, USAALS; BG John F. Michitsch, Commanding General, U.S.

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Army STRICOM; COL Palmer J. Penny, Directorate of Simulation, USAAVNC; BG John M. Riggs, Deputy Commanding General, USAAVNC; COL Robert M. Stewart, Director of Combat Developments, USAAVNC

9:00 AM - 12:00 NOON — CCC Room 121

#### Acquisition Forum

MG DEWITT T. IRBY, JR.

Program Executive Officer, Aviation

Panelists Include: MG Ronald E. Adams, Director of Requirements (Combat), ODSCOPS; COL Robert C. Atwell, PM, Longbow; COL Edwin P. Goosen, PM, Kiowa Warrior; MG Ronald V. Hite, Deputy for Systems Management, OASA (RD&A); BG Orlin L. Mullen, PM, Comanche; COL Roy P. (Pat) Oler, Chief of Simulation; COL Chester L. Rees, Jr., PM, Utility Helicopters; COL Thomas E. Reinkober, PM, AEC; COL James R. Snider, PM, Advanced Attack Helicopter.

9:00 AM - 12:00 NOON — CCC Room 123

## Logistics Forum MG JOHN S. COWINGS

Commanding General, U.S. Army ATCOM

Panelists Include: Paul Bogosian, Executive Director, Acquisition Center, USAATCOM; COL Robert J. Hoppes, Chief, Aviation Logistics Office, ODCSLOG, HQDA; Thomas L. House, Executive Director, Aviation Research, Development, and Engineering Center, USAATCOM; Daniel J. Rubery, Executive Director, Integrated Materiel Management Center, USAATCOM; COL Julian A. Sullivan, Deputy Commander, USAATCOM; COL Amold E. (Sandy) Weand, Director, Weapons Systems Management, USAATCOM.

9:00 AM - 11:00 AM — Rose Garden Room Spouse Breakfast

Spouse Breakfast

In Honor of the Awardee Wives

12:00 NOON - 4:00 PM — CCC Halls 4 & 5
Army Aviation Technology Exhibition Open

12:00 NOON - 1:00 PM — CCC Halls 4 & 5

AAAA Exhibit Hall Buffet Luncheon

1:00 PM - 4:00 PM — CCC Halls 4 & 5 Exhibit Hall Social/Chapter Photos

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#### DOWNING

#### SATURDAY SATURDAY

SATURDAY SUNDAY 5:30 PM - 7:30 PM—St. Louis Ballroom Preconvene Adam's Mark

#### AAAA Banquet Registration and Ticket Sales

5:45 PM - 6:45 PM—St. Louis Ballroom Preconvene

#### **AAAA Banquet Reception**

6:45 PM - 9:30 PM

St. Louis Ballroom Adam's Mark

#### AAAA BANQUET

Guest Speaker:

#### GEN WAYNE A. DOWNING

Commander-in-Chief, U.S. Special Operations Command, MacDill Air Force Base, FL

9:00 PM - 1:00 AM

Promenade Ballroom Adam's Mark

#### AAAA Farewell Dance

8:00 AM - 8:30 AM — St. Louis Ballroom F & G

#### AAAA National Executive Board Meeting

8:30 AM - 9:00 AM

The Marker Suite Adam's Mark

#### AAAA Farewell Champagne Toast

8:30 AM - 10:30 AM

St. Louis Ballroom E Adam's Mark

AAAA Get-Away Breakfast

## CAREER TRACK

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Active AAAA members may have a 30-word classified employment ad published in two consecutive issues of ARMY AVIATION MAGAZINE free of charge. Write to the AAAA National Office, 49 Richmondville Avenue, Westport, CT 06880-2000, or call (203) 226-8184 for Career Track applications. Inquiring organizations contact the National Office.

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APRIL 23

APRIL 24

#### 1993 AAAA NATIONAL AWARD WINNERS



AVIATOR OF THE YEAR CW2 Gerhard P. Turner A Company, 3d Battalion, 227th Aviation Regiment APO AE



SOLDIER OF THE YEAR SGT Joseph T. Ebuen B Company, 1st Battalion, 58th Aviation Regiment (Corps) Fort Bragg, NC



Rickie L. Barron Directorate of Evaluation and Standardization U.S. Army Aviation Center Pt. Rucker, AL



JOSEPH L. CRIBBINS DAC OF THE YEAR JAMES H. McCLELLAN AVIATION SAFETY CW5 James H. Raiford Aviation Branch Safety Office U.S. Army Aviation Center Fort Rucker, AL



ROBERT M. LEICH U.S. Army Aviation Logistics School (USAALS) Fort Eustis, VA COL Thomas E. Johnson



ROBERT M. LEICH U.S. Army Aviation Logistics School (USAALS) Fort Eustis, VA SGM Alan A. Gott



AVIATION UNIT (ARMY) 10th Aviation Brigade 10th Mountain Division (LI) Fort Drum, NY COL Lawrence E. Casper



AVIATION UNIT (ARMY) 10th Aviation Brigade 10th Mountain Division (LI) Fort Drum, NY CSM Dwight J. Brown



AVIATION UNIT (USAR) 7th Bn, 158th Avn Regt (CBT) 146th Avn Group (CBT) Scott Air Force Base, IL LTC James M. Richey



AVIATION UNIT (USAR) 7th Bn, 158th Avn Reat (CBT) 146th Avn Group (CBT) Scott Air Force Base, IL CSM Warren O. Berry



AVIATION UNIT (ARNG) 1st Bn, 106th Avn Regt ILARNG Peoria, IL LTC Michael A. Marvin



AVIATION UNIT (ARNG) 1st Bn, 106th Avn Regt ILARNG Peoria, IL. CSM Frederick A. Lane

#### OUTSTANDING AVIATION UNIT AWARD

BACKGROUND—Sponsored by the McDonnell Douglas Helicopter Company, this award is presented annually by the AAAA "to the Active Army Aviation unit that has made an outstanding contribution to or innovation in the employment of Army Aviation over and above the normal mission assigned to the unit during the awards period encompassing the previous calendar year." Any Active Army Aviation unit that has met the foregoing criteria is eligible for consideration.

1959—First Recon Squadron (Sky Cavalry), 2nd U.S. Army Missile Command (Medium), LTC Robert F. Tugman, Commander.

1960—937th Engineer Company (Aviation) (Inter-American Geodetic Survey), LTC Jack W. Ruby, Commander.

1961—45th Transportation Battalion (Helicopter), accepted by MAJ Milton P. Cherne for LTC Howard B. Richardson, Commander.

1962—USA Utility Tactical Transport Company, MAJ Ivan L. Slavich, Commander.

1963—11th Air Assault Division and attached 10th Air Transport Brigade, MG Harry W.O. Kinnard, CDR, 11th Air Assault Div., COL Delbert L. Bristol, 10th Brigade Commander.

1964—13th Aviation Battalion, LTC Jack V. Mackmull and LTC J.Y. Hammack, Co-Commanders, 13th Aviation Battalion.

1965—1st Cavalry Division (Airmobile), MG Harry W.O. Kinnard, Commander, and SGM Kenneth W. Cooper, the Senior NCO.

1966—1st Aviation Brigade, MG G.P. Seneff, Jr., Commander, and Brigade SGM Douglas W. Sims, Senior NCO.

1967—52nd Combat Aviation Battalion, LTCs Raymond G. Lehman, Jr.; Edward P. Luckert, Jr.; Paul C. Smithey, Co-Commanders, and SGM Ernest J. Winters, Senior NCO.

1968—25th Aviation Battalion (Infantry Division), LTC Kenneth J. Burton, Commander, and CSM William H. Bennett, Senior NCO.

1969—101st Airborne Division (Airmobile), LTG Melvin Zais and LTG John M. Wright, Jr., Co-Commanders; CSM Robert A. Young and CSM William T. Mixon, Co-Senior NCOs.

1970—1st Squadron, 9th Cav, 1st Cav Div (Airmobile), COL Robert H. Nevins, Cdr, and CSM John F. Adams Jr., as the Senior NCO.

1971—F Battery, 79th FA, 3rd Brigade, MAJ Lawrence E. McKay, Jr.—Commander, with SFC Lionel S. McDonald as the Senior NCO.

1972—227th Aviation Battalion, 1st Cav Division, LTC Frank L. Henry, Commander, with CSM James W. Reed as the Senior NCO.

1973—155th Aviation Company (Attack Helicopter), MAJ Kermit E. Larson Jr., Commander, and SFC Ray M. Teer, Senior NCO.

1974—210th Aviation Battalion (USARCARIB), LTC Joseph R. Koehler, Commander, and CSM Stephen M. Cole. Senior NCO.

1975—334th Aviation Company (Atk Hel), MAJ Gary F. Ramage, Commander, and 1SG Charles Lewis, Senior NCO.

1976—7th Squadron (Atk Hel), 17th Cavalry, 6th Cav Brigade (Air Combat), LTC Gary F. Dolin, Commander, and 1SG Leon S. Wozniak, Senior NCO.

1977—242nd Aviation Company (ASH), MAJ Gary D. Johnson, Commander, and 1SG James E. Fuller, Senior NCO.

1978—17th Aviation Group (Combat), COL George F. Newton, Commander, and CSM Albert P. Liwang, Senior NCO.

1979—146th ASA Company (Aviation) (Forward), MAJ Kenneth Loudermilk, Commander, and 1SG James Jones, Senior NCO.

1980—59th Air Traffic Control Battalion, LTC Albert E. Hervey, Jr., Commander, and CSM Johnnie M. Byram, Senior NCO.

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#### **OUTSTANDING AVIATION UNIT AWARD (continued)**

1981—U.S. Helicopter Team, MAJ Roy Mann, Coach, and SGM John P. Traylor, Senior NCO.

1982—70th Transportation Bn (AVIM), LTC William E. Turner, Commander, and CSM Hulon Jackson, Senior NCO.

1983—160th Aviation Battalion (AHX Reinforced), COL Terence M. Henry, Commander, and SGM Mitchell G. Yahner, Senior NCO.

1984—210th Combat Aviation Battalion, LTC Theodore A. Duck, commander, and CSM Everett Grundon, the Senior NCO.

1985—210th Combat Aviation Battalion, LTC Michael H. Abbott, Commander and CSM Everett Grundon, the Senior NCO.

1986—238th Aviation Company, 24th ID (M) MAJ Jesse M. Danielson, Commander, and 1SG Frederick G. Jaehn, the Senior NCO.

1987— 17th Assault Helicopter Co., Avn Bde, 25th Infantry Div, CPT Christopher A. Acker, Commander, and SFC Michael G. Whittaker, the Senior NCO.

1988— 9th Cavalry Brigade, 9th Infantry Div, COL Joseph D. Carothers, Commander, and CSM Markfast S.E. Bess, Senior NCO.

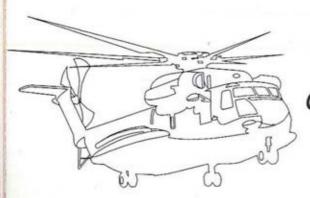
1989—Aviation Brigade, 7th Infantry Division (Light), COL Douglas R. Terrell, Commander, and CSM Claud W. Sisco, the Senior NCO.

1990—377th Medical Company (Air Ambulance), 52nd Medical Battalion MAJ Richard H. Agosta, Commander, and 1SG Albert L. Johnson, Senior NCO.

1991—Aviation Brigade,\_101st Airborne Division (Air Assault) COL Thomas H. Garrett, Commander, and CSM Richard A. Howard, Senior NCO.

1992—12th Aviation Brigade, COL Thomas M. Hayes, Commander and CSM Timothy L. Fosque, Senior NCO.

1993—10th Aviation Brigade, 10th Mountain Division (LI), COL Lawrence Casper, Commander and CSM Dwight J. Brown, Senior NCO.



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#### **OUTSTANDING AVIATION UNIT (RC) AWARD**

BACKGROUND—The Reserve Component
Aviation Unit Award was sponsored by Textron
Lycoming and was presented annually from
1969 through 1984. In late 1985, the
Association established separate "Aviation Unit
Awards" for both the Army National Guard and
the U.S. Army Reserve. The trophies are
sponsored by Textron Lycoming.

1969—1105th Aviation Company (Assault Helicopter) Iowa-ARNG, MAJ Robert C. Cummings, Commander, and 1SG Arnold J. Newsum, Senior NCO.

1970—24th Medical Company (Air Ambulance) Nebraska-ARNG, MAJ Roger W. Fosbender, Cdr., and 1SG Andrew M. Alexander, Senior NCO.

1971-997th Aviation Co. (Assault



Helicopter) AZ-ARNG, MAJ James H. Cowan, Cdr., and 1SG Dale S. Swensen, Senior NCO.

1972—307th Aviation Co. (Heavy Helicopter) Alabama-ARNG, MAJ Arthur E. Fleet, Commander, and 1SG John F. Hoskins, Senior NCO. 1973—445th Aviation Company (Assault Helicopter) Oklahoma-ARNG, MAJ Karl M. Frank, Commander, and 1SG Kenneth Inman, Senior NCO.

1974—536th Aviation Co. (Assault Support Helicopter) Texas-ARNG, MAJ Joe E. Harry, Commander, and SGT Joseph Kimball, Senior NCO.

1975—1042nd Military Intelligence Company (Aerial Surveillance) Oregon-ARNG, MAJ Loren W. Franke, Commander, and 1SG Donald MacPherson, Senior NCO.

1976—300th Aviation Co. (Assault Helicopter) Texas-USAR, MAJ Jerry Stokely, Commander, and 1SG Jack Powell, Sr. NCO. 1977—Troop E, 19th Cav/29th Brigade, Hawaii-ARNG, MAJ Bernard M. Watson, Commander, and MSG Richard Y. Tabe, Senior NCO.

1978—49th Transportation Company (Medium Helicopter) California-ARNG, MAJ Lawrence Faller, Commander, and 1SG Sidney G. Richards, Senior NCO.

1979—Brigade Aviation Section, HHC, 92d Sep. ID Puerto Rico-ARNG, CPT Anibal Torres, Commander, and 1SG Hector Doran, Senior NCO.

1980—190th Aviation Company (Medium Helicopter) Kansas-ARNG, MAJ Thomas A. Staadt, Commander, and 1SG Paul M. Green, Senior NCO.

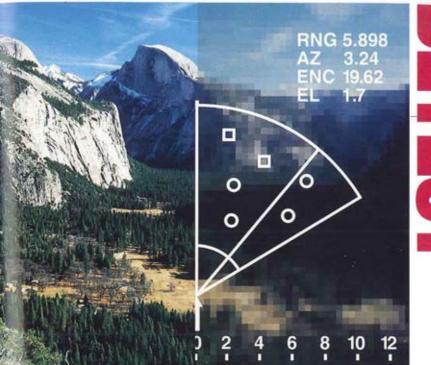
1981—717th Medical Detachment, New Mexico-ARNG, MAJ George B. Faulhaber, Commander, and SFC Nancy J. Reutner, Senior NCO.

1982—138th Aviation Company (EW), Florida-USAR Orlando, Florida, MAJ Arthur S. Johnson, Commander, and SFC James E. Dennis, Senior NCO.

1983—D Company, 28th Combat Aviation Battalion, North Carolina-ARNG, MAJ Julius H. Avant, Commander

1984—40th Combat Aviation Battalion, CA-ARNG, LTC James Ghormley, Commander, and CSM William J. Selling, Senior NCO.

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#### OUTSTANDING USAR UNIT OF THE YEAR AWARD

BACKGROUND—During the 1969-1984 period, the Army Aviation Association presented an "Outstanding Reserve Component Aviation Unit Award" that recognized annual outstanding unit accomplishments within the Army National Guard and U.S. Army Reserve. The award was won by Army National Guard aviation units in 14 of the 16 years in which it was presented by the AAAA. In late 1985, the Association established separate "Aviation Unit Awards" for both the Army National Guard and the U.S. Army Reserve, with each trophy being sponsored by Textron Lycoming.

1985—219th Transportation Co. (Aircraft Maintenance) (IS), 102nd ARCOM, Scott AFB, IL, MAJ Gilbert E. Boen, Commander, and 1SG Ronnie G. Greeling, Senior NCO.

1986—282nd Aviation Co. (Combat Support) (Corps), 787th Maintenance Bn (GS), Ft. Rucker, AL MAJ Gregory N. Beaman, Commander, and 1SG Jackie J. Bradley, Senior NCO.

1987—C Co., 2d Battalion, 158th Aviation Regiment, Olathe, KS, MAJ Thomas W. Meisenzahl, Jr., Commander, and 1SG Jerry W. Clemmer Senior NCO

1988—185th Trans. Co. (AVIM), Glenview, IL, MAJ David C. Roberts, Commander, and 1SG Richard C. Beatty, Senior NCO.

1989—HQ, 244th Theater Aviation Group, Glenview, IL, COL Charles V. Nolan, Commander, and CSM Richard T. Koralik. Senior NCO.

1990—2nd Battalion (Attack Helicopter), 123rd Avn. Rgt., 6th Infantry Div. (Light) (Round Out), 88th ARCOM, St. Paul, MN, LTC Kenneth A. Sorensen, Commander and CSM Bruce F. Lohn, Senior NCO.

1991—7th Battalion, 158th Aviation Regiment (Combat), Scott Air Force Base, IL. LTC James M. Richey, Commander, and CSM Ronnie G. Greeling, Senior NCO.

1992—2-123 Attack Helicopter Battalion, 6th Infantry Division (L) (Roundout), Saint Paul, MN, LTC Daniel J. McGraw, Commander, CSM Gary C. Gustner, Senior NCO.

1993—7th Battalion, 158th Aviation Regiment (CBT) 146th Aviation Group (CBT) Scott Air Force Base, IL, LTC James M. Richey, Commander and CSM Warren Q. Berry, Senior NCQ.

#### OUTSTANDING ARNG UNIT OF THE YEAR

BACKGROUND—During the 1969-1984 period, the Army Aviation Association presented an "Outstanding Reserve Component Aviation Unit Award" that recognized annual outstanding unit accomplishments within the Army National Guard and U.S. Army Reserve. The award was won by Army National Guard aviation units in 14 of the 16 years in which it was presented by the AAAA. In late 1985, the Association established separate "Aviation Unit Awards" for both the Army National Guard and the U.S. Army Reserve, each trophy being sponsored by Textron Lycoming.

1985—Company C, 26th Aviation Battalion, Florida Army National Guard, MAJ David J. Cook, Commander, and 1SG Billy R. Cowart, Senior NCO.

1986—45th Aviation Battalion (Light Helicopter Combat), Oklahoma Army National Guard, LTC Leroy A. Wall, Commander, and MSG Charles B. Connell, Senior NCO.

1987—1st Battalion, 111th Aviation (AH) Florida Army National Guard, Jacksonville, FL, LTC Donald L. Adkison, Commander and SGM Billy R. Cowart, Senior NCO.

1988-1st Battalion, 130th Aviation Regiment,

449th Avn Group, Morrisville, NC, LTC Duncan M. Stephens, Commander, and CSM Clarence L. Hodges, Senior NCO.

1989—1st Battalion, 131st Avn Regt., 167th Support Command (Corps), Montgomery, AL, LTC Don E. Stagg, Cdr., and CSM Harold M. Johnston, Senior NCO.

1990—Company G, 3rd Battalion, 149th Aviation Regiment, Texas Army National Guard, Grand Prairie, TX MAJ Richard B. Keene, Commander, and 1SG Thomas B. Lewis, Senior NCO.

1991—1109th Aviation Classification and Repair Depot, Mobilization AVCRAD Control Element, Connecticut Army National Guard, Groton, CT COL Paluel J. Flagg, II, Commander, and CSM George H. Allard, Jr., Senior NCO.

1992—1st Battalion (Attack Helicopter) 211th Aviation Regiment, West Jordon, UT, LTC Robert G. Holt, Commander and CSM Travis R. Heywood, Senior NCO.

1993—1st Battalion, 106th Aviation Regiment, ILARNG, Peoria, IL, LTC Michael A. Marvin, Commander and CSM Frederick A. Lane, Senior NCO.



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#### ARMY AVIATOR OF THE YEAR AWARD

BACKGROUND-Sponsored by the Sikorsky Aircraft Division of UTC, this Association award is presented annually at the AAAA Annual Convention to the Active Duty or Reserve Component Army Aviator who has made an outstanding individual contribution to Army Aviation during the previous calendar year.

1958-CPT James T. Kerr, U.S. Army Transportation Test & Support Activity, Ft. Rucker, AL. 1959-CWO Clifford V. Turvey, U.S. Army Aviation Test Board, Ft. Rucker, Alabama.

1960-CWO Michael J. Madden, U.S. Army. Transportation Board, Ft. Eustis, Virginia.

1961—CPT Leyburn W. Brockwell, Jr., HS, XVIII Airborne Corps, Ft. Bragg, N.C.

1962—CPT Emmett F. Knight, 57th Aviation

Company, U.S. Army, Vietnam.

1963-MAJ Marquis D. Hilbert, John F. Kennedy Center for Special Warfare, Ft. Bragg, NC. 1964—MAJ Paul A. Bloomguist, 57th Med. Det. (Helicopter Ambulances), U.S. Army, Vietnam.

1965-CPT James A. Scott, III. 219th Avn

Company, U.S. Army, Vietnam.

1966-CWO Jerome R. Daly, 121st Avn Co., U.S. Army, Vietnam. 1967—CPT Robin K. Miller, 114th Assault Helicopter Company, U.S. Army, Vietnam.

1968—MAJ Patrick H. Brady, 54th Medical Det. (Hel. Ambulances),

U.S. Army, Vietnam.

1969-CWO John I. O'Sullivan, 174th Avn Co., U.S. Army, Vietnam. 1970-LTC Robert M. Molinelli. 2d Squadron, 17th Cav, 101st Abrne Div. (Airmobile), U.S. Army, Vietnam. 1971-CPT Ronald A. Radcliff, F Troop, 4th Cavalry, 1st Aviation Brigade, U.S. Army, Vietnam.

1972-MAJ Theodore J. Dolloff, Company D, 227th Aviation Battalion, 1st Cavalry Division, Fort

Hood, Texas.

1973—CWO Norman E. York, 71st Aviation Company, (Assault Helicopter, APO New York.

1974-MAJ Eugene Richardson, HHD, Military Bureau. Maine Army National Guard.

1975—CWO Robert R. Hawkins, 7th Squadron (Assault Helicopter), 17th Cavalry, Fort Hood, TX.

1976—CWO Randy F. Dyer, 155th Aviation Company, (Attack Helicopter), Ft. Ord, CA. 1977-MAJ William S. Reeder, Jr., 334th Aviation Company (Attack Helicopter), APO NY. 1978-CWO Michael B. Farmer, Air Troop, 2d Armored, Cavalry Regiment, APO NY. 1979-CWO Ernest W. Rickenbacker, 60th Co., 6th Battalion, 1st Aviation Brigade, U.S. Army Aviation Center, Ft. Rucker, Alabama. 1980-CWO Richard S. Seefeldt, Project Manager's Office (BLACK HAWK), U.S. Army Materiel Development and Readiness Command, St. Louis, MO.

1981—CWO George D. Chrest, D Troop, 1st Squadron, 9th CAV, 1st CAV DIV, Fort Hood, TX. 1982-2LT Richard G. Hatch, 2d Staff and

Faculty Company, Fort Eustis, VA.

1983-CWO Anthony G. Kraay, C Company, 3rd Combat Aviation Battalion, APO NY, 1984 - COL Robert L. Stewart, NASA Astronaut, Johnson Space Center, Houston, TX. 1985—CWO Roger W. Duprey, HHC, 229th Attack Helicopter Battalion, 101st Airborne Divi-

sion (Air Assault), Ft. Campbell, KY.

1986-LTC Kenneth R. McGinty, 3/6th Cavalry, 6th Cavalry Brigade (AC), Fort Hood, TX.

1987—CW4 James M. Call, 237th Medical Detachment, Ft. Ord, CA.

1988—CW4 Myron F. Babcock, C Co., 228th Aviation Regiment, Ft. Wainwright, AK.

1989—CW3 Jon A. Iseminger. U.S. Precision Helicopter Team, Ft. Rucker, AL.

1990-CW2 Jim M. Sandberg, C Company, 1st Battalion, 149th Aviation Regiment, 49th Armored Division, Texas Army National Guard, Houston, TX.

1991-CW3 James C. Kalahan, 4th Squadron, 17th Cavalry Regi-ment, XVIII Airborne Corps, Ft. Bragg, NC.

1992-MW4(P) Randolph Wise Jones, B Company, 1/160th Special Operations Aviation Regiment (Airborne), Fort Campbell, KY.

1993—CW2 Gerhard P. Turner, A Company, 3rd Battalion, 227th Avn Regt, APO AE.



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#### AVIATION SOLDIER OF THE YEAR AWARD

BACKGROUND-The AAAA's "Aviation Soldier of the Year Award" is sponsored by Bell Helicopter Textron. It is presented at the Annual Convention of the Army Aviation Association.

1960—MSG Robert R. Young, Airfield Operations Command. Fort Rucker, AL.

1961-SFC James C. Dykes, 225th Signal Detachment U.S. Army, Vietnam.

1962—SFC James K. Brock, First Aviation Company (Caribou), U.S. Army, Vietnam.

1963-SFC Robert M. George, Utility Tactical Transport Company, U.S. Army, Vietnam.

1964-MSG Cyril G. Manning, 13th Aviation Battalion, U.S. Army, Vietnam.

1965—SFC Donald MacNevin, 114th Aviation Company, U.S. Army, Vietnam.

1966-SP5 Dennis L. Falo. 1st Cav Division (Airmobile), U.S. Army, Vietnam.

1967-SFC Jesse J. Dodson, Jr., 405th USA Transportation Maintenance Detachment, U.S. Army, Vietnam.

1968-SFC William R. Baum, 122nd Maintenance Battalion, 3d AD, U.S. Army Europe.

1969—SFC Dennis L. Jantz, 240th Aviation Company (Assault Helicopter), U.S. Army, Vietnam. 1970-SP5 Dennis M. Fujii, 237th Medical

Detachment (Air Ambulance), U.S.

Army, Vietnam.

1971-SP5 Richard G. Hatch, 3rd Brigade, 1st Cavalry Division (Airmobile), Fort Hood, TX.

1972-SFC Robert H. Vaughan, 4th Battalion, (Aerial Field Artillery), 77th Field Artillery, 101st Airborne Division (Airmobile) Fort Campbell, KY.

1973—SFC Robert J. Coleman, C. Co., 159th Aviation, (ASH), 101st Airborne Division (Airmobile), Fort Campbell, KY.

1974-SP5 Gregory J. Maurakis, B Company, 101st Aviation Battalion, 101st Airborne Division (Airmobile), Fort Campbell, KY.

1975-MSG John R. Montgomery, USA Aviation Precision Demonstration Team, Fort Rucker, AL.

1976-SP5 Charles W. Ball, 146th Medical Detachment (Helicopter Ambulance), West Virginia ARNG.

1977-SGT Chris B. Archer, 236th Medical Detachment (Helicopter Ambulance), APO NY. 1978—SEC James L. Fielder, 129th Aviation Company (Assault Helicopter), Fort Bragg, NC. 1979—SFC Leland E. Hinely, Co A, 501st Aviation Battalion (Combat), APO NY,

1980—SFC James D. Glendinning, Air Trp. 11th

Armored Cavalry Regiment, APO NY.

1981-Staff SGT William G. Patterson, 54th Medical Detachment (Helicopter Ambulance), Fort Lewis WA

1982—SFC Ronald L. Boese, Platoon Sqt. Aeroscout Platoon, Combat Aviation Troop, 11th Armored Cavalry Regiment, APO NY.

1983—SP4 David T. Amos. 196th Aviation Co. (ASH), 269th Combat Aviation Battalion, Fort Bragg, NC.

1984—SSG Ronnie Garrett, 11th Combat Aviation Squadron, 11th Armored Combat Aviation Squadron, APO NY.

1985-SP4 James A. Clement, 568th Transportation Company, 222d Aviation Battalion (Air Combat), Ft. Wainwright, AK.

1986—SSG Richard E. Frve, 377th Med Co (AA). APO San Francisco (before being assigned to the 82d Aviation Brigade, Fort Bragg, NC.).

1987—SSG Beau A.H. Tatsumura, B Co. 2d Aviation Battalion (Combat), APO SF.

1988—SSG John E. Rhodes, Task Force Phoenix, 4th Brigade, 1st AD, APO NY

1989-SSG Eric J. Harris, 4th Sauadron, 2d Armored Cavalry Reat. Feucht Army Airfield, APO NY.

1990—SSG Robert Martinez, C Company, 3rd Battalion, 1st Aviation Regiment, APO New York.

1991—SSG Everett F. Smith, III, 1st Battalion, 24th Aviation Regiment, Hunter Army Airfield, GA.

1992—SSG Donald C. Maddox, E. Troop, 4th Squadron, 17th Cavalry 18th Aviation Brigade, Fort Bragg, NC. 1993-SGT Joseph T. Ebuen, B Company, 1st Battalion, 58th

Aviation Regiment (Corps), 159th Combat Aviation Group (Airborne). Fort Bragg, NC.





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#### JAMES H. McCLELLAN AVIATION SAFETY AWARD

BACKGROUND—Sponsored by General Electric Aircraft Engines in memory of James H. McClellan, a former Army Aviator who was killed in a civil aviation accident in 1958, the award is presented annually to a person who has made an outstanding individual contribution to Army Aviation safety in the previous calendar year.

1958—MAJ Ame H. Eliasson, Aviation Safety Division, Headquarters, 7th Army, APO NY.

1959—COL John L. Inskeep (Co-Winner), U.S. Army Primary Helicopter School, (USAPHS), Fort Wolters, TX.

1959—Raymond L. Thomas, (Co-Winner), Southern Airways Company (Manager, Contract Operations).

1960—No award given by the AAAA in Calendar Year 1960.

1961—COL Spurgeon H. Neel, Jr., U.S. Army Hospital, Pt. Rucker, AL.

1962—COL James F. Wells, U.S. Army Board for Aviation Accident Research (USABAAR), Ft. Rucker, Al

1963—COL Conrad L. Stansberry, Hqs, U.S. Army, Europe, APO NY.

1964—Ralph B. Greenway, Army Aviation Directorate, OACSFOR, Department of the Army.

1965—Gerard M. Bruggink, U.S. Army Board for Aviation Accident Research (USABAAR), Ft. Rucker, AL.

1966—CPT Gary R. Ramage, 228th Assault Helicopter Battalion, U.S. Army, Vietnam.

1967—Francis P. McCourt, U.S. Army Aviation Laboratories (AVLABS), Ft. Eustis, VA.

1968—COL Russell P. Bonasso, U.S. Army Board for Aviation Accident Research (USABAAR), Fort Rucker, AL.

1969—COL Robert W. Bailey, U.S. Army Aeromedical Research Laboratories, Ft. Rucker, AL.

1970—COL Eugene B. Conrad, U.S. Army Board for Aviation Accident Research (USA-BAAR), Pt. Rucker, AL.

1971—BG William W. Spruance, Air National Guard, Wilmington, DE.

1972—CWO Ralph S. Park, 155th Aviation Company (Attack Helicopter), Fort Ord, CA.

1973—CPT Charles F. Nowlin, U.S. Army Agency for Aviation Safety (USAAAVS), Pt. Rucker, AL.

1974—CWO George L. Allen, Simmons Army Airfield, Pt. Bragg, NC.

1975—CWO Alfred J. Cargen, Ret., Hqs, Fifth U.S. Army, Fort Sam Houston, TX.

1976—MAJ Arthur M. Mountcastle, 101st Aviation Group, 101st Airborne Division (Air Assault), Fort Campbell, KY.

1977—CWO Fate (Jim) Hutchins, 129th Aviation Co. (Assault Helicopter). Pt. Bragg. NC.

1978—CWO Frankie C. Wilson, 207th Aviation Company, APO NY.

1979—CWO Harold D. Hintze, Student, U.S. Army Warrant Officer College, Ft. Rucker, AL.

1980—CWO Peter D. Maskunas, B Troop, 4th Squadron, 7th Cavalry, 2d Armored Div., APO SF.

1981—SFC Gerald L. Johnson, U.S. Army Aeromedical Research Laboratory, Pt. Rucker, AL.

1982—No award given by the AAAA in Calendar Year 1982.

1983—CW2 Richard L. Williams, Headquarters & Headquarters Detachment, 2d Combat Aviation Battalion, Camp Casey, Korea.

1984—CW4 Ralph V. Tolbert, 6th Cavalry Brigade, (Air Combat), Ft. Hood, TX.

1985—CW4 Thomas M. Cloud, D Company, 7th Aviation Training Battalion, Aviation Training Brigade, Ft. Rucker, AL.

1986—CW3 Dean R. Coder, HHC, 4th Brigade, 1st Armored Division, APO NY.

1987—CW2 Gary D. Braman, S Troop, 4th Squadron, 11th Armored Cavalry Regiment, APO NY.

1988—CW3 Henry M. Yerger, 377th Medical Company (Air Ambulance), APO SF.

1989—CW2 William K. Manuel, 1-212th Aviation, Aviation Training Brigade, Lowe Army Airfield, Ft. Rucker, AL.

1990—CW4 Lawrence R. Burbank, Aviation Division National Guard Bureau, Aberdeen Proving Ground, MD.

1991—CW4 Stephen V. Rauch, Combat Aviation Brigade, 3rd Infantry Division, APO AE. 1992—CW4 Michael S. Olin, A Company, 1/501st Aviation, 17th Aviation Brigade K-16 (Seoul Air Base) Unit #15238, APO AP.

1993—CW5 James H. Raiford, Aviation Branch Safety Office, U.S. Army Aviation Center, Fort Rucker, AL.



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#### IOSEPH P. CRIBBINS DAC OF THE YEAR AWARD

BACKGROUND—This AAAA Award is sponsored by Boeing Helicopters. Named for Mr. Joseph P. Cribbins, the award's first recipient in 1976, this award is presented annually to the Deptartment of the Army Civilian who has made an outstanding individual contribution to Army Aviation in the previous calendar year.

1976—Joseph P. Cribbins, Special Assistant for Aviation Logistics; Office, Deputy Chief of Staff for Logistics; Department of the Army, Washington, D.C.

1977—John B. Greenwell, Deputy Director of Materiel Management, U.S. Army Troop Support and Aviation Materiel Readiness Command, St. Louis, MO.

1978—Sherman C. Hines, Equipment Specialist, U.S. Army MIRCOM Field Maintenance, 2d Armored Cavalry Regiment, APO New York.

1979—M. Margaret Brown, Aircraft Equipment Manager, Aviation Office, USA Troop Support & Materiel Readiness Command, St. Louis, MO.

1980—John J. Stanko, Jr., Chief, Army Aviation Division, National Guard Bureau, Aberdeen Proving Ground, MD.

1981—Michael J. Hoffman, Aerospace Engineer, U.S. Army Troop Support and Aviation Materiel Readiness Command, St. Louis, MO.

1982—Frank Soliz, Chief, Engine Shops Div, Corpus Christi Army Depot, Corpus Christi, TX.

1983—Carolyn Chapman, Aviation Program Specialist, Office of the Deputy Chief of Staff for Logistics, Dept. of the Army, Washington, D.C.

1984—Robert D. Robbins, Test Pilot, U.S. Army Aviation Engineering Flight Activity, Edwards AFB, CA. 1985—Paul L. Hendrickson, Aircraft Systems Division, Directorate for Materiel Management, U.S. Army Aviation Systems Command, St. Louis, MO.

1986—Charles C. Crawford, Jr., Technical Director, U.S. Army AVSCOM, St. Louis, MO.

1987—Daniel M. McEneany, Director of Engineering, U.S. Army Aviation Systems Command, St. Louis, MO.

1988—John L. Shipley, Deputy Director, U.S. Army Aviation Applied Technology Directorate, U.S. Army Aviation Research and Technology Activity, AVSCOM, Fort Eustis, VA., and John A. McLaughlin, Deputy Project Manager, Army Helicopter Improvement Program, (AHIP), St. Louis, MO.



1989—John K. Shannon, Chief, Logistics Management Division, Advanced Attack Helicopter AH-64 (APACHE) Program Management Office, PEO Aviation, St. Louis, MO.

1990—Daniel J. Rubery, Logistical Director, U.S. Army AVSCOM, St. Louis, MO.

1991—James R. Ray, Chief, Logistics Assistance Branch, U.S. Army Aviation Systems Command, Europe.

1992—James E. Speigner, Chief, Airfield ALERT Section, Headquarters and Headquarters Detachment, 1st Battalion, 212th Aviation, Aviation Training Brigade, Fort Rucker, AL.

1993—Rickie L. Barron, Directorate of Evaluation and Standarization (DES), USA-AVNC, Fort Rucker, AL



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#### ROBERT M. LEICH AWARD

BACKGROUND—This AAAA Award is named in memory of BG Robert M. Leich, the AAAA's first president (1957-59), and Awards Committee Chairman for 23 years. It is sponsored by the Grumman Corporation and is presented to a unit or individual for sustained contributions to Army Aviation, or for a unique one-time outstanding performance. 1973—34th General Support Group (AHM&S).

1973—34th General Support Group (AHM&S). Accepted for the unit by MG Alton G. Post and COL Donald H. Jersey, and CSM Samuel Ring. (For 1965-1972 Period).

1976—101st Airborne Division (Air Assault). Accepted for the unit by MG John A. Wickham, Jr., Commander (For REFORGER 1976)

1978—Corpus Christi Army Depot. Accepted for the Depot by COL Charles F. Drenz, Commander (For 1961-1978).

1979—U.S. Army Aviation Board. Accepted for the Board by COL Robert A. Bonifacio, President,

USAVNBD. (For 1976-1980).

1980—U.S. Army Aviation Development Test
Activity and all Predecessor Units. Accepted
for the Activity and Units by COL William E.

Crouch, Jr. (For 1945-1981). 1981—Aviation Applied Technology Laboratory. Accepted for the Laboratory by COL Emmett F. Knight. (For 1957-1982).

1982—U.S. Army Engineering Flight Activity, Edwards AFB. Accepted for the unit by COLLews J. McConnell, Commander (For 1960-1983). 1983—Mississippi Aviation Classification Repair Activity Depot, MSARNG. Accepted for

the unit by COL James H. Burns, Commander, (For 1971-1984).

1984—U.S. Army Safety Center. Accepted for the unit by COL Joseph R. Koehler, former Com-

mander. (For 1955-1984).

1986—Davison Aviation Command. Accepted for the unit by COL John A. Lasch, III, Commander, and CSM William H. Fountain, Sr. NCO.

1987—CSM William H. Fountain. U.S. Army Davison Aviation Command, R. Belvoir, VA. 1988—Task Force 118, 18th Aviation Brigade Ft. Bragg. NC. Accepted for the unit by LTC Ed-

Ft. Bragg, NC. Accepted for the unit by LTC Edmund E. Hughes, Commander and 1SG Danny L. Elzie, Senior NCO.

1989—U.S. Precision Helicopter Team, Ft. Rucker, AL. Accepted for the Team by LTC Robert E. Harry, Commander, CW3 Jon A. Iseminger, Pilot, CW3 Rudolph V. Hobbs, Co-Pilot, and SSG John L. Degand, Crew Chief.

1990—Mr. Richard L. Ballard. Office, Assistant Secretary of the Army for RDA, Washington, D.C. 1991—Army Aviation Systems Command. Accepted by MG Donald R. Williamson, Commander, and CSM Richard P. Mullen, Senior NCO.

1992—U.S. Army Combat Aviation Training Brigade, III Corps & Fort Hood. COL. Gerald D. Saltness, Commander and CSM Jerome G. Chappelle, Senior NCO.

1993—U.S. Army Aviation Logistics School (USAALS), Fort Eustis, VA. COL Thomas E. Johnson, Commander and SGM Alan A. Gott, Senior NCO.

#### AAAA TOP CHAPTER AWARD

BACKGROUND—This AAAA Award is presented annually to the AAAA Chapter deemed "Top Chapter" based on its meeting activity, to include unusual, innovative, and successful programming; membership growth; pursuit of a local AAAA Awards Program; participation in community affairs; maintenance of a full Executive Board slate; and its interface with the National Office in the administration of its Chapter affairs.

1973—Aviation Center Chapter

1974—Lindbergh Chapter 1975—Air Assault Chapter

1976—Monmouth Chapter

1977—Air Assault Chapter

1978—Lindbergh

1979—Aviation Center Chapter

1980—Franconia-Marne Chapter 1981—Corpus Christi Chapter and

Lindbergh Chapter (tie) 1982—Morning Calm Chapter

1983—Morning Calm Chapter 1984—Air Assault Chapter

1985—Morning Calm Chapter

1986-Lindbergh Chapter

1987—Redcatcher Chapter

1988—Lindbergh Chapter

1989-North Texas Chapter

1990—Morning Calm Chapter

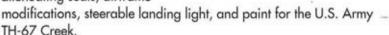
1991—Morning Clam Chapter

1992—Corpus Christi Chapter

1993—Colonial Virginia Chapter

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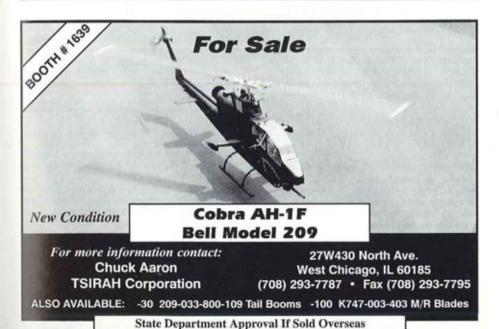


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#### AAAA OUTSTANDING ROTC CADET AWARD

BACKGROUND—The selection of the most outstanding ROTC Cadet who has been selected for the Army Aviation Branch is accomplished by a Selection Board under the leadership of the Commander, U.S. Army ROTC Cadet Command, Fort Monroe, Virginia, in November of the year prior to the Cadet's graduation. The selection is based upon the following criteria:

Overall College Board scores - Advanced Camp performance - Grade Point Average - Leadership qualities and Ranking by PMS (Professor of Military Science - usually an 05 from his/her university).

1988 — Pedro G. Almeida

1989 — Michael A. Flynn 1990 — Gregory T. Lang

1991 - Louis A. Birdsong

1992 — Victor S. Hamilton 1993 — Roy R. Trumble, IV

#### AAAA OUTSTANDING USMA CADET AWARD

BACKGROUND—The selection of the most outstanding U.S. Military Academy Cadet who has been selected for the Army Aviation Branch is accomplished under the leadership of the Commandant immediately following the Branching of a USMA Class in the January before graduation. The selection is based on the following criteria: 1) Academic: Four year academic performance (GPA); 2) Military Leadership: Four year military training performance and leadership including Basic Training, Field Training, Advanced Military Training as well as military specialty schooling/training such as air assault, ranger or airborne training. Also included are peer and officer leadership

evaluations for leadership positions held throughout the academic year; 3) Physical Aptitude: Four year physical education performance including military physical aptitude evaluations such as the Army Physical Readiness Test (APRT) and the indoor obstacle course; and 4) Extra Curricular Activities: Participation as a class officer or in intercollegiate athletics, clubs, and associated activities involved in cadet life.

1988 — Kenneth S. Prygoski

1989 — Charles T. Tully, Jr.

1990 — H. Dave Wood

1991 — Christopher J. Watrud

1992 — Michael D. McKay

1993 — Marc A. Wehmeyer

#### AIRCRAFT SURVIVABILITY EQUIPMENT AWARD

BACKGROUND—Sponsored by Loral Electronics Systems, this National Award is presented annually to the person who has made an outstanding individual contribution to Army Aviation in the area of Aircraft Survivability Equipment during the awards period encompassing August 1 through July 31. Prior to 1992, the awards period encompassed the calendar year.

1985—MAJ Michael F. Blacker, Chief, Aviation Division, Ft. Huachuca, AZ.

1986—CW4 Perry M. Smith, Systems Manager, Directorate of Training and Doctrine, U.S. Army Aviation Center, Ft. Rucker, AL.

1987-Mr. Richard Paolella, Project Leader, In-

frared Countermeasures U.S.A. Communications and Electronics Command, Ft. Monmouth, NJ. 1988—MAJ Steve L. Ash, Assistant Program Manager, ASE Project Manager's Office, PEO Aviation, St. Louis, MO.

1989—Mr. Joseph N. Graziano, Director, Tactical Systems, ITT Avionics, Nutley, NJ.

1990—CW3 Stephen L. Woods, Brigade ASE Officer/Pilot, Fort Riley, KS

1991—Mr. Larry Johnson, an Electronic Warfare Integration Engineer with the Naval Air Warfare Center, Point Mugu, CA.

1992-1993—CW4 Bradford A. Powell, CH-MH47 Project Officer, System Integration and Maintenance Office, 160th SOAR(A), Fort Campbell, KY.

#### AVIONICS AWARD

BACKGROUND—Sponsored by Cubic Defense Systems, Inc., this National Award is presented to the person who has made an outstanding individual contribution to Army Aviation in the area of Avionics during the awards period encompassing August 1 through July 31.

1993—CPT Keith J. Kranhold, Brigade Signal Officer, 128th Aviaton Brigade, U.S. Army South, APO AA.

#### Air/Sea Rescue Award

BACKGROUND—Sponsored by Lucas Aerospace, this AAAA National Award will be presented "to the crew or crew member who has performed a rescue using a personnel rescue hoist that saved the life or eased the suffering of an individual or individuals during the awards period encompassing September 1 through October 31.

1991-CW3 Scott Berrier, Standardization

Instructor Pilot, and CW3 Julian Council, Instructor Pilot, A Troop, 4th Squadron, 17th Cavalry (AIR)(RECON), Fort Bragg, NC.

1992—WO1 J. Tucker Rojas, WO1 Christopher S. Latin, SGT Anthony Robinson, and SPC Dwane Means, 377th Medical Company (AA), APO AP.

1993-50th Medical Company (Air Ambulance) Ft. Campbell, KY.

#### Army Aviation Trainer of the Year Award

BACKGROUND—The AAAA's "Army Aviation Trainer of the Year Award" is sponsored by the CAE-Link Corporation, Link Flight Simulation Division, and is presented annually to "the trainer who has made an outstanding individual contribution to Army Aviation during the awards period encompassing September 1 through August 31."

1984—SFC(P) Walter D. Smith, Dept. of NCO Training, USAALS, Ft. Eustis, VA.

1985—CPT Michael R. Rampy, 1st Battalion, 1st Avn. Bde. (Air Assault), Pt. Rucker, AL. 1986—CW2 William H. McCollister, 7th Aviation Training Brigade, Ft. Rucker, AL. 1987—MA.I. James D. Thurman, Apache Training

1987—MAJ James D. Thurman, Apache Training Brigade, Ft. Hood, TX, and SSG Bobby W. Eades, Academic Branch, Air Operations Division, DOET, USAAVNC, Ft. Rucker, AL.

1988—MAJ Mark S. Wentlent, Task Force 118, 18th Aviation Brigade, Ft. Bragg, NC, and CW4 Robert J. Monette, D Company, 1st Battalion, 14th Aviation Regiment, Aviation Training Brigade, Ft. Rucker, AL.

1989—CW4 Russell A. Hunter, Instructor Pilot, E Company, 160th SOAG (Airborne), Fort Campbell, KY.

1990—CW4 Michael S. Kather, Company Standardization Officer, B Company, 1-14th Aviation, Aviation Training Brigade, Fort Rucker, AL.

1991—CW3 John S. Moltenberry, Track Chief, OH-58D Maintenance Test Pilot Course, USAALS, Pt. Eustis, VA, and SGT Christopher M. Pakutka, Aeroscout Observer, Palehorse 4/2 Armored Cavalry Regiment, Feucht, Germany.

1992—CW3 William Oates, SIP and MTFE, P Troop, 4th Squadron, 3rd Armored Cavalry Regiment, Pt. Bliss, TX.

1993—SFC Alexander A. Tejada, Senior Instructor/Writer, U.S. Army Aviation Logistics School, Fort Eustis, VA.

1989-CW2 John S. Van Buren and 1LT Michael

J. Blatz, of B Company, 1st Battalion, 3rd Aviation

Regiment, 2nd Armored Division, APO New York.

1991-WO1 Jose E. Trejeda and CW2 John L.

Kercheville, AH-1 crew, C & D Trps, 1-7 Cavalry, 1st Cav Div, Pt. Hood, TX; CW2 Jarrett R. Brewer

#### Howze Gunnery Award

BACKGROUND—The AAAA's "Howze Gunnery Award" is sponsored by General Hamilton H. Howze, Ret., and is presented annually to "the top AH-1 and AH-64 crew in the annual GEN Hamilton H. Howze Gunnery Competition. Individual replicas of the permanent trophy are sponsored by Rockwell International Corporation, and are presented to the top three crews.

and W01 Kevin E. Smith, AH-64 crew, C Troop, 6th Cav Regt, Ft. Hood, TX.

Outstanding Aviation Logistics Support Unit of the Year Award

BACKGROUND—The AAAA's "Outstanding Aviation Logistics Support Unit of the Year Award" is sponsored by the Army Aviation Association of America, and is presented annually to "the Active Army or Reserve Component Aviation Unit that has made an outstanding individual contribution to or innovation in the logistic support of Army Aviation during the awards period encompassing the previous calendar year."

1987—Corpus Christi Army Depot (CCAD), Corpus Christi, Texas.

1988—3rd Battalion, 9th Aviation Regiment, Ft. Lewis, Washington.

1989—B Company, 3rd Battalion, 501st Aviation Regiment, APO San Francisco.

1990—8th Battalion, 158th Aviation Regiment,
Operation DESERT STORM, APO New York; 8th
Battalion, 101st Aviation Regiment, Operation

Battalion, 101st Aviation Regiment, Operation DESERT STORM, APO NY.

1991—8th Battalion, 101st Aviation Regiment, Ft. Campbell, KY, and CT AVCRAD, Groton, CT. 1992—D Troop, 2nd Squadron (Recon) 9th Cavalry, Fort Ord, CA. 1993—E Company, 228th Aviation Regiment

(AVIM), Albrook Air Force Station, Panama, APO AA.

#### Army Aviation Materiel Readiness Awards

Contributions by an Industry Team, Group, or Special Unit

BACKGROUND—The AAAA's "Army Aviation Materiel Readiness Award for Contributions by an Industry Team, Group, or Special Unit" is sponsored by the AAAA Lindbergh Chapter, and is presented annually to "the Industry team, group, or special unit that has made an outstanding contribution to the Materiel Readiness (Logistic Support) of Army Aviation during the awards period encompassing the previous calendar year."

1983—Boeing Vertol Tech. Publications Group 1984—Bell Helicopter Textron, Customer Support Services Division. 1985-Sikorsky Support Services.

1986—Dynalectron.

1987-DYNCORP.

1988-Bell Helicopter Textron Inc.

1989-Lockheed Support Systems, Inc.

1990-GE Aircraft Engines.

T700 Customer Support Operations

1991-Lockheed Support Systems, Inc.

1992-Lockheed Support Systems, Inc.

1993—DYNCORP. Contract Field Team 10-2S

#### Contributions by a Small Business Organization

BACKGROUND—The AAAA's "Army Aviation Materiel Readiness Award for Contributions by a Small Business Organization" is sponsored by the AAAA Lindbergh Chapter, and is presented annually to "the small business organization that has made an outstanding contribution to the Materiel Readiness (Logistic Support) of Army Aviation during the awards period encompassing the previous calendar year."

1983—COBRO Company. 1984—General Mechatronics. 1985—COBRO Company.

1986—AviBank Manufacturing.

1987—Aerodyne Investment Casting, Inc.

1988—(co-winners) Kent Associates & The Stalker Corporation.

1989—Schweizer Aircraft Company. 1990—Associated Company, Inc. and

Clamshell Buildings, Inc. 1991—Southern Aero Corporation

1992—Realtime Digital Inc.

1993—Sabreliner Corp.

#### Contributions by a Major Contractor

BACKGROUND—The AAAA's "Army Aviation Materiel Readiness Award for Contributions by a Major Contractor" is sponsored by the AAAA Lindbergh Chapter, and is presented annually to the "major defense contractor that has made an outstanding contribution to the Materiel Readiness (Logistic Support) of Army Aviation during the awards period encompassing the previous calendar year."

1983—GET-700 Product Support Operations 1984—No Award Given. 1985-Grumman Aerospace.

1986—Bell Helicopter Textron.

1987—COBRO Corporation. 1988—Beech Aerospace Services, Inc.

1989—DYNCORP.

1990—Lockheed Support Systems, Inc.

1991—DYNCORP.

1992—Lockheed Support Systems, Inc.

1993-Sikorsky Aircraft Div., UTC

#### Contribution by an Individual Member of Industry

BACKGROUND—The AAAA's "Army Aviation Materiel Readiness Award for Contribution by an Individual Member of Industry" is sponsored by the AAAA Lindbergh Chapter, and is presented annually to "the individual member of industry that has made an outstanding contribution to the Materiel Readiness (Logistic Support) of Army Aviation during the awards period encompassing the previous calendar year."

1984—John R. Myers, VP & General Manager, Avco Lycoming Division.

1985—Bill Lauth, President, Bodine Tool & Machine Co.

1986—Dick Deichman, Structures Eng., Sikorsky. 1987—Victor Conner, Senior Apache Fielding Rep., Ft. Hood, McDonnell Douglas Helicopter Company. and David M. Carpenter, Senior Logistics Administrator, General Electric Co.

1988—Donald P. Manahan, Chairman of the Board, COBRO Corporation.

1989—Richard D. Walter, President, Beech Aerospace Services, Inc.

Aerospace Services, Inc. 1990—Mr. Cebie Strickland, Director, Operations,

DYNCORP, Fort Rucker Division.

1991—Mr. Harry Frazier, Saudi Arabia Site Supervisor/Director of Operations, DYNCORP.

1992—Mr. Earl West, Chief, Advanced Helicopter Avionics Systems, DynCorp, Pt. Rucker Division, Pt. Rucker, AL.

1993—Mr. Dennis R. Weaver, Field Service Rep., Martin Marietta Corporation, Illesheim, Germany.

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### ATCOM (continued from page 36)

STIR, the largest Army Aviation field maintenance effort ever undertaken, continued throughout last year. The total program budget was \$438 million and performed maintenance on 911 force modernized aircraft.

This effort was a Department of the Army approved program funded by the Office of the Secretary of

Defense to perform an enhanced phase maintenance inspection with integration of Maintenance Work (MWOs) Orders and Engineering Change Proposals on Southwest Asia aircraft to repair the environmental caused damage

Operations DESERT during SHIELD and STORM. Its ultimate objective is to extend the life of the Army's modernized fleet of ro-

tary-wing aircraft.

The STIR program began in 1993 with a budget of more than \$197 million. The STIR program was 100% obligated in fiscal year 1993, with \$65 million for labor and operation, and more than \$132 million for repair parts and supplies.

STIR is centrally located at AT-COM headquarters and as of October 1993, there were two military, six government, and about 32 contractor personnel responsible for processing repair parts requests and managing the worldwide production flow of aircraft.

At the peak of the program there were more than 2,200 personnel, but this number has steadily declined as the program reaches completion. A significant mile-

> stone was reached on 30 August 1993 when the last aircraft was inducted. Currently, 95% of all STIR aircraft have been returned to operational units. It is anticipated that the program will be completed late in the second quarter

of Fiscal Year 1994.

The following are the types of aircraft inducted and the number completed:

- AH-64A Apache 262
- CH-47D Chinook 170
- OH-58D Kiowa Warrior 51
- UH-60A/L Black Hawk 428
- Total 911

In addition to STIR, the Operations Logistics Readiness (OLR) Program was scented with the sweet smell of success in 1993.

"Currently, 95% of all

STIR aircraft have

been returned to

operational units ...

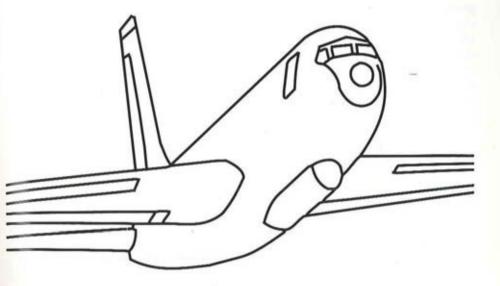
the program will be

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OLR is a modification work order application program with a mission to supply MWOs to all ATCOM supported equipment. Under IMMC management, our goal is to obligate all expiring funds and utilize the money to apply appropriate modifications to specified equipment. During FY93, the application program for aircraft included a total of more than 13,000 MWO applications funded at more than \$45 million. All monies were obligated and the program completed 9,000 appli-

Meanwhile, the IMMC's Foreign Military Sales (FMS) program continued to be highly active and successful in 1993. Foreign Military Sales totaled 529 with a combined value of more than

cations.

\$4 billion. Eighty-five letters of agreement were received during the past year while the caseload reached 616, which is a 27% increase compared to the previous year. Amendments and modifications were also on the increase during FY93 totalling 161, an increase of 73%.

Among the FMS cases for 1993 were:

 22 AH-1P Cobras delivered to Turkey in November;  24 UH-1H Iroquois delivered to Greece in June:

• 14 UH-1H Iroquois delivered to Singapore in August;

 15 OV-1D Mohawks delivered to Argentina: seven in March, and eight in September;

 12 AH-64A Apaches were delivered to Saudi Arabia: six in March, and six in April;

 and four OH-58Ds were delivered to Taiwan in November.

A major change in the IMMC occurred in August 1993, when the

Weapon Systems
Management Center came under its
control as a directorate with COL
Arnold E. "Sandy"
Weand as its director. In October
1994, the CH-47
office will transition from the Program Executive
Office for Aviation

to ATCOM's IMMC as fielded systems.

Not to be outdone by other centers, the Aviation Research, Development, and Engineering Center (AVRDEC) produced a deluge of advances in technology generation and application.

After a competitive evaluation, the RPA contract was awarded to McDonnell Douglas Helicopter Systems of Mesa, AZ in June 1993. The 58 month, \$70.5 million effort

"In October 1994.

the CH-47 office

will transition from

the Program

Executive

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for Aviation to

ATCOM'S IMMC

as fielded systems."

will design, fabricate, and test a knowledge-based system for application to a Comanche-like scout and attack helicopter.

This year, the RPA system concept design will be finalized. The initial system software build and the preliminary design for the core architecture, cockpit modifications, mission equipment models, the testbed helicopter and mission simulators will also be initiated.

The AVRDEC's Crew Station Research and Development Facility linked with the Aviation Test Bed at Ft. Rucker in March 1993 to demonstrate the Distributive Interactive Simulation connectivity between two Army sites. This networking capability will be utilized during the RPA simulation, allowing manned simulators from geographically dispersed locations to participate in the full mission simulation.

In addition to the RPA contract, the low signature Terrain Following and Terrain Avoidance flight test was completed in 1993. This is part of the Aided Pilotage Program, which uses Digital Terrain Evaluation Data to create pilotage cues showing a safe "pathway" at a specified altitude. The program will also integrate obstacle and threat information, and eventually lead to automated flight capability at nap-of-the-earth.

Another AVRDEC milestone in 1993 was the design and fabrication completion of the Shop Equipment Contract Maintenance (SECM). Contract maintenance takes a team of mechanics with a tailored tool load and repair parts and moves them to the site of a disabled aircraft as far forward as the tactical situation allows. The SECM will provide electrical power for lights and power tools and to start the aircraft, compressed air for pneumatic tools, seating for additional soldiers, and tool storage for tool boxes, battle damage repair kits, the aviation footlocker and aerial recovery hardware.

Although ATCOM was high and dry in the year of the flood, the preceding text confirms the command was awash in procurement, logistical, and technical accomplishments. And like Old Man River, ATCOM will just keep rolling along in 1994.



MG Cowings is the Commanding General, U.S. Army ATCOM, St. Louis, MO.

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### INFORMATION AGE (continued from page 18)

reduced from 30 per 100,000 hours of flying to less than two. While system reliability has increased, we are flying smarter. In the coming decades, we must push the envelope of knowledge to reduce risk by lessening cockpit workload with better avionics and improved visionics. Much was said earlier about intuitive thinking; such thought can be applied in preventing avoidable accidents. Safety must dominate to protect our expensive personnel and equipment investment from needless mishaps.

The current strategic environment calls for a force projection Army. Our doctrine is in pretty good shape and we are moving ahead in training and leader development programs. However, we have a way to go in restructuring the force and bringing a Total Force concept into reality.

The Army needs to boldly proclaim the Nation's need for Landpower in the Information Age. The Army's staying power across the range of possible operations are in sharp contrast to Global Reach — Global Power and ... From The Sea claims. The power in America's defense forces has always been in their versatility. So it shall be in the future.

\*\*

MG Robinson is Chief, Aviation Branch and Commanding General, U.S. Army Aviation Center and Ft. Rucker, AL and Commandant, U.S. Army Logistics School.

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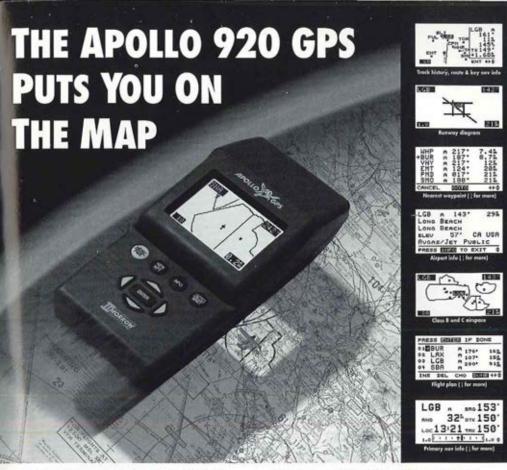
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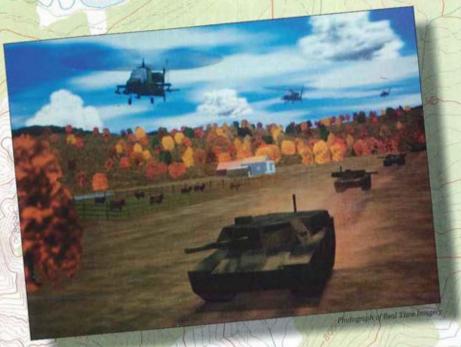
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Hyndman, William HHC, 7-1 Avn Regiment CMR 454, Box 2985 APO AE 09250 Jayaram, Jayanth 1211 King George Blvd.

Savannah, GA 31419

Johnson, Ellie O. 94-946 Meheula Parkway Apt. 459 Militari, Hii 96789

Ridley, Jeffrey 1204 Bacon Ranch Hoad Apt. D Killeen, TX 76542

### CW4s

Costello, John A. PO. Box 5545 Fort Hood, TX 76544

Mott, Kenneth J. 950 Ridge Top Road North Pole, AK 99705

### CW3s

Braun, Donald T. APO AA 34001

Sandner, Tom O. 715 W. Airwood Drive East Alton, IL 62024

Sickler, Andrew E. A Co. 4/228th Avn Bn Unit 5704 APO AA 34042

Taulbee, Robert A. 1943 Brownell Roa Daylon, OH 45403

### CW2s

Beck, Glenn A. 503 Grand Pine Avenue Enterprise, AL 36330

Curadi, Richard J. 170 Byrain Road Greenwich, CT 05830

Lucas, Kley A. Festherstone Apt. 204 417 Bellows Way Newport News, VA 23602

### WO1s

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Green, Sean W. 7228-A Attu Drive Fort Carson, CO 80913

Hotton, Andrew L. 1 Bitterroot Savannah, GA 31419

Moment, Benjamin R. 6th Aviation Company CMR 427, Box 2941 APO AE 09630

### SFCs

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Herris, Erlo J. SFC 940 Layette Court Fort Walnwright, AK 99703

### Staff Sergeants

Stearnes, Michael G. 5SQ 113 N. Main Street

Pice Lake, WI 54868 Wirlck, Ernest J., Jr. 95Q 422 Middlesown Avenue Wethersfield, CT 06109

### Sergeants

Smith, Duane E. SGT 535 Inver Lane Clarksville, TN 37042

### **Privates**

Best, Brant W. PV2 D floop, 4/6 Cav Fort Hood, TX 76544

Cahilli, Todd W. PV2 D Troop, 2/6 Cav CMR 416, Box 291 APO AE 09140

Hillburn, Chade T. PV2 B Co, 7/159th Avn Regl Unit 26405, Box 232 APO AE 09182

Holloway, Hurl D. PV2 P.O. Box 324 Cordova, NC 28330

McDonald, Matt S. PV2 2905 E. Louisville Broken Arrow, OK 74014

### DACs

Polson, John D. Mr. CMR 454, Box 3559 Avn Troop Support Cmd APO AE 09250

Ray, Peggy L. Ma. 70 White Oak Drive Smithton, IL 6228

### Civilians

APO AP 98271

Gray, Jimmy L. 546 Via Appla Walnut Creek, CA 94598 Ingrem, Frank C. 377th Med Go (AA) Unit 15461

### Retired/Other

Black, John D. LTC 101 Gwyndaiya Drive McMinrylle, TN 37110

Duck, Theodore A. GOL Fraser, Robert E.II CW3

Guthrie, David R. 15G

900 Cirride Drive Harker Heights, TX 76543 Johnson, Edward B. MAJ

Loveless, Kenneth D. COL 2900 Conez Court College Station, TX 77845

Soderlund, Paul R. COL 40 High Street Clarksville, TN 37040

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Funds also available for spouses, siblings & children of AAAA members.

Contact the AAAA Scholarship Foundation, Inc., 49 Richmondville Ave., Westport, CT 06880-2000 Tel: 203-226-8184 Fax: 203-222-9863 for complete details.

Application Deadline May 1, 1994

### 1994 PRODUCT SUPPORT SYMPOSIUM



Pictured from left to right: Terrence M. Coakley, AAAA Executive Director, COL Julian A. Sullivan, Chief of Staff, U.S. Army ATCOM, Anthony J. Farrington, Director, Military Customer Support, AlliedSignal Aerospace, MG Dewitt T. Irby, Jr., PEO, Aviation, MG John D. Robinson, Chief, Army Aviation Branch, G. Dean Clubb, President, Defense Systems Electronic Group, Texas Instruments, and BG Orlin L. Mullen, RAH-66 Program Manager.

The 20th Annual Joseph P. Cribbins Product Support Symposium, sponsored by the Lindbergh Chapter, was held 2-4 February 1994 at the Stouffer Concourse Hotel, St. Louis, MO.

The Professional Sessions began Thursday morning with a greeting by MG Dewitt T. Irby, Jr., President of the Lindbergh Chapter and PEO, Aviation. MG Thomas L. Prather, Deputy Chief of Staff, Research, Development, and Engineering, Army Materiel Command, delivered the Government keynote address. He was followed by Anthony J. Farrington, Jr., Director, Military Customer Support, AlliedSignal Aerospace, the Industry Keynote Speaker, and Mr. G. Dean Clubb, Defense Systems Electronics Group, Texas Instruments, who made a special presentation on

quality control entitled "Six Sigma".

The presentations over the next two days focused on acquisition and fielding issues, led by MG Irby on Thursday, and logistics and sustainment on Friday led by MG John S. Cowings, CG, U.S. Army ATCOM. Thursday's luncheon featured MG John D. Robinson, Army Aviation Branch Chief, as guest speaker.

The National Award Presentations were made at the Thursday evening dinner. The AAAA Outstanding Aviation Logistics Support Unit of the Year Award was presented to E Company, 228th Aviation Regiment (AVIM). E Company supported the highest operational tempo in Army Aviation while assisting the 128th Aviation Brigade in maintaining the highest operational readi-

ness rates. This was even more significant in that it was accomplished in the remote environment of Central and South America. E Company not only had the best record of any Aviation logistic support unit, but was also a model of innovation and versatility. The award was accepted by MAJ Paul Poulson, unit commander.

The AAAA Army Aviation Materiel Readiness Award for Contribution by an Individual member of Industry went to Mr. Dennis Weaver, Field Service Representative, Martin Marietta Corp., Republic of Germany, in recognition of his superb personal support of maintenance and readiness of the 11th Aviation Brigade. Using his maintenance expertise, superb management skills, and dedication, Mr. Weaver made an outstanding contribution to the combat readiness of the AH-64 Apache.

DynCorp Contract Field Team 10-2S was awarded the AAAA Army Aviation Materiel Readiness Award for Contributions by an Industry Team, Group, or Special Unit. Accepted by Mr. Paul Lombardi, President, Government Services Group, the award recognized distinguished support to the Special Technical Inspection and Repair (STIR) program and the accomplishment of 1937 modification work orders. DynCorp quickly responded to the short term needs of Army Aviation while continuing to excel at their long term commitments. With their expertise and knowledge, they were able to save the government over \$2.2 million in cost avoidance and \$.7 million in direct cost.

Sikorsky Aircraft Division, United Technologies Corporation was awarded the AAAA
Army Aviation Materiel Readiness Award for
Contributions by a Major Contractor. This
award recognized the Division's outstanding
support of Army Aviation programs,
especially during Operation RESTORE HOPE
in Somalia when Sikorsky quickly responded
by readying a large number of Black Hawks
for deployment and established a command

center to support the flight operations. Additionally, Sikorsky repeatedly demonstrated the willingness to stand behind its company's products even in situations when the Government did not have a contract provision requiring specific performance. The award was accepted on behalf of Sikorsky by Mr. Gary Rast, VP, Government Business Development.

Sabreliner Corporation was awarded the AAAA Army Aviation Materiel Readiness Award for Contributions by a Small Business Organization in recognition of outstanding support and responsiveness to Army Aviation Readiness. Sabreliner lost its headquarters. St. Louis Service Center, and its Perrysville. MO Modification Center during the flood of 1993. However, advance planning, sheer determination, and team and individual spirit led to the protection and recovery of 99.1% of the Army's T53 Engine Rebuild inventory. Despite the problems caused by the flood, Sabreliner's other Army contracts remained at the highest level of quality and production remained ahead or on schedule. Accepting the award on the corporation's behalf was Mr. F. Holmes Lamoreux, President.

Also honored at the Symposium were the winners of the Lindbergh Chapter's Annual AAAA Membership Drive. The star recruiter this year was Susan E. Barnes, who recruited a total of 47 members. She won two nights free lodging at the AAAA Annual Convention in St. Louis, MO and a \$100 award. LTC Mike McClellan, Ret. placed second with 17 members and netted a \$100 award for his efforts.

Special thanks to the Committee: Chairman Ken Kellogg; Co-Chairmen Norbert Patla and Robert Vlasics; Administrator Nancy Vermillion; Awards, G.R. Butler; Committee Member Mike McClellan; Registration, Vicki Avenevoli, Susan Barnes, Gary Boltralik, Midge Kellogg, Jan Garmon, Bridgette Herschell, Sharon Kaltenbach, and Gena Mager for another outstanding Lindbergh Chapter event. E

### New AAAA Chapter Officers

Aloha:

1LT Michael W. St. Clair (VP, Membership).

Central American:

CW4 Albert J. Finocchiaro (VP, Prog); LTC Richard B. Bowman (VP, Prog. South); MAJ John F. Kendall (Secy).

Corpus Christi:

Dennis L. Briley (VP, Prog); Joseph P. Nilles (VP Memb. Renew); Joanne E. Sijanksy (VP, Publicity).

Giebelstadt:

LTC Gary S. Coleman (Pres); MAJ Alva L. Pace (SrVP); Betty Brown (Treas); 1LT Michael G. Gray (VP, Memb); SFC Kevin K. Gaston (VP, Enlist Affs); CPT William L. Howard (VP, Pub).

Phantom Corps:

CW5 Ronald W. Gerner (VP, Publicity).

Wings of the Warriors: COL John M. Curran (President).

### New AAAA Industry Members

AAI/ACL Technologies, Inc. Santa Ana, CA

Frasca International, Inc. Urbana, IL

Korry Electronics Company Seattle, WA

SBS Engineering, Inc. Albuquerque, NM

### AAAA Aviation Soldiers of the Month

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

SGT Garibaldi J. Laranang Air Assault Chapter January 1994



Above: On 18 December 1993, the Morning Calm Chapter held its annual Christmas Ball. LTC Jerry V. Proctor (left), Commander, 3rd Military Intelligence Battalion (Asrial Exploitation), is presented with the Morning Calm Chapter's Aviation Unit of the Year Award from GEN Gary E. Luck, Commander-in-Chief, United Nations Command, U.S. Forces Korea, and Combined Forces Command.

Below: LTG Ellis D. Parker, Ret. is presented with the "Freedom's Eagle" statuette from Chapter President CO: William J. Elder, Commander, 17th Aviation Brigade. LTC Parker was the 1993 Christmas Ball's Keynote Speaker and Guest of Honor.



### 1993 Chapter Membership Contest

The results of the Calendar Year 1993 AAAA Chapter Membership Contests are in...

"AAAA Chapter" category (25-84): The High Desert Chapter, Ft. Irwin, CA, won with a net gain of 13 members. The Cedar Rapids Chapter, Cedar Rapids, IA, tied for second with the Rochester Chapter, Rochester, NY. Both Chapters had a net gain of 11 members.

"Senior Chapter" category (85-174): The Mid-America Chapter, Ft. Riley, KS led the way with a net gain of 87 members. In second place was the Central American Chapter, Ft. Clayton, Panama, with 52 members. Third place was the Leavenworth Chapter, Ft. Leavenworth, KS, with 18,

"Master Chapter" category (175 or more): The Colonial Virginia Chapter, Ft. Eustis, VA took first place with a net gain of 379 members. The Phantom Corps Chapter, Ft. Hood, TX claimed second place with a net gain of 134 members. Third was the Monmouth Chapter, Ft. Monmouth, NJ, with a gain of 108 members.

The presidents of the three winning chapters will receive plaques at the 21 April 1994 AAAA Annual Membership Meeting at the Annual Convention, St. Louis, MO.

### Army Aviation Hall of Fame Nominations Open

### Suspense Date for Nominations: July 1, 1994

An AAAA-sponsored Army Aviation Hall of Fame honors those persons who have made:

- an outstanding contribution to Army Aviation over an extended period;
- a doctrinal or technical contribution:
- an innovation with an identifiable impact on Army Aviation;
- efforts that were an inspiration to others, or
- any combination of the foregoing, and records the excellence of their achievements for posterity.

All persons are eligible for induction, except active duty Generals and Colonels. Membership in AAAA is not a requirement.

Contact AAAA National Office (203-226-8184) for Nomination Documentation requirements. All nominations must be postmarked not later than July 1, 1994.

An eight member Board of Trustees is responsible for selecting a specific number of candidates from all nominations received for placement on the Army Aviation Hall of Fame ballot. The ballot will be mailed to AAAA members with two or more years of current, continuous membership in the Fall of 1994.

### MSG Bae Does It Again!

MG Richard E. Stephenson, Ret., AAAA Senior Vice President and Vice President Membership, announced that MSG John H. Bae, Ret., Vice President Membership, Morning Calm Chapter, Seoul, Korea, has won the Calendar Year 1993 "Top Gun" award. This award is given annually to the member who sponsors the greatest number of new members during the contest year ending 31 December.

MSG Bae, who placed first last year with 827 members, continues his trend with 514 new members for 1993.

MSG Bae wins an expensepaid trip to the AAAA Annual Convention in St. Louis, MO, including airfare, hotel accommodations, registration, tickets to all social functions, and a \$300 cash award. He will receive a plaque at the AAAA Membership Meeting, 21 April 1994.

MAJ Glenn K. Reith (Monmouth) placed second with a 108 member effort: CW3(P) L.C. LeBlanc (Mid-America) produced 60; Ms. Susan E. Barnes (Lindbergh) had 47; CPT Layne B. Merritt (Colonial Virginia) came in with 41; LTC James E. Sutton and Ms. Mary M. Akers (Colonial Virginia) both raised 35; 18G Luther D. Kibler (Colonial Virginia) produced 30; MAJ Mark A. Reisweber (Black Knights) produced 25; SGM Edward Wall and 18G Willie Lucas (Colonial Virginia) both came in with 23 each; and CPT Joseph E. Hicks (Lindbergh) produced 22.

### AAAA Soldiers of the Month

SPC Jean A. Stone-Hampton

Air Assault Chapter February 1994

SGT Damon A. Hoffman Mid-America Chapter September 1993

### AAAA Soldier of the Quarter

Aviation Center Chapter 1st Quarter 1994

### NCO of the Quarter

SSG Ronnie T. Demmons Aviation Center Chapter 1st Quarter 1994

Honorary Member

The following individual has been selected by his Chapter as an Honorary Member. He will receive a complimentary one year membership citation in these pages, and a "Certificate of Honorary Membership."

MGen James M. Myatt Wings of the Warriors

### Aces

The following members have been named Aces in recognition of their signing up five new members each.

Ms. Faith H. Batson
MAJ Lisa A. Black, D.O.
CW4 Thomas J. Davis
SSG Jody Egnor
CW4 Ronald J. Ferrell
Mrs. Charlotte Glance
LTC Michael J. Gough
SGM Michael J. Robinson
CW2 Nathan S. Rud
MAJ Alfred Viana
CPT Donald M. Wix, Jr.

### **AAAA** Annual Essay Contest

The second Annual AAAA Essay Contest is underway. The contest is designed to encourage the writing of original essays on topics that further the general knowledge of U.S. Army Aviation. Suspense Date is 1 July 1994.

- ■ DOCUMENTATION: The official application form should be used and is attainable from the AAAA National Office, 49 Richmondville Avenue, Westport, CT 06880-2000; Telephone (203) 226-8184; FAX (203) 222-9863. The form may be reproduced locally.
- ■SELECTION: The essays will be reviewed by members of the AAAA Awards Committee appointed by the AAAA Awards Committee Chairman.
- ■■AWARD PRIZE: The essays will be selected for prizes. First prize earns a \$500 honorarium; second prize earns a \$300 honorarium; and third prize earns a \$200 honorarium.
- ■ PRESENTATION: The three winning essays will be published in ARMY AVIATION Magazine. Essays not awarded prizes may also be published in ARMY AVIATION. The winning essay may also be considered for presentation at the AAAA Annual Convention.

### CALENDAR

A Listing of Recent Chapter Events and Upcoming National Dates.

### March, 1994

✓ March 25, AAAA USAREUR Region Professional Sessions.
✓ March 26, AAAA USAREUR
Region Ball.

### April, 1994

April 20-24. AAAA Annual Convention, Cervantes Convention Center, St. Louis, MO.

April 20. AAAA National Executive Board Meeting, Cervantes Convention Center, St. Louis, MO.

April 21. AAAA Scholarship Board of Governors Annual Meeting, Cervantes Convention Center, St. Louis, MO.

### July, 1994

July 18. AAAA Scholarship

Board of Governors Executive Committee Meeting, Best Western, Arlington, VA.

July 16. AAAA National Scholarship Selection Committee Meeting to select 1994 scholarship recipients, Best Western, Arlington, VA.

### August, 1994

➤ Aug. 15-18. Army Aviation Electronics Symposium, sponsored by the AAAA Monmouth Chapter, Gibbs Hall, Ft. Monmouth, NJ.

### October, 1994

Cot. 17. AAAA NEB and Scholarship Board of Governors Executive Committee Meetings, Sheraton Washington Hotel, Washington, D.C.

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