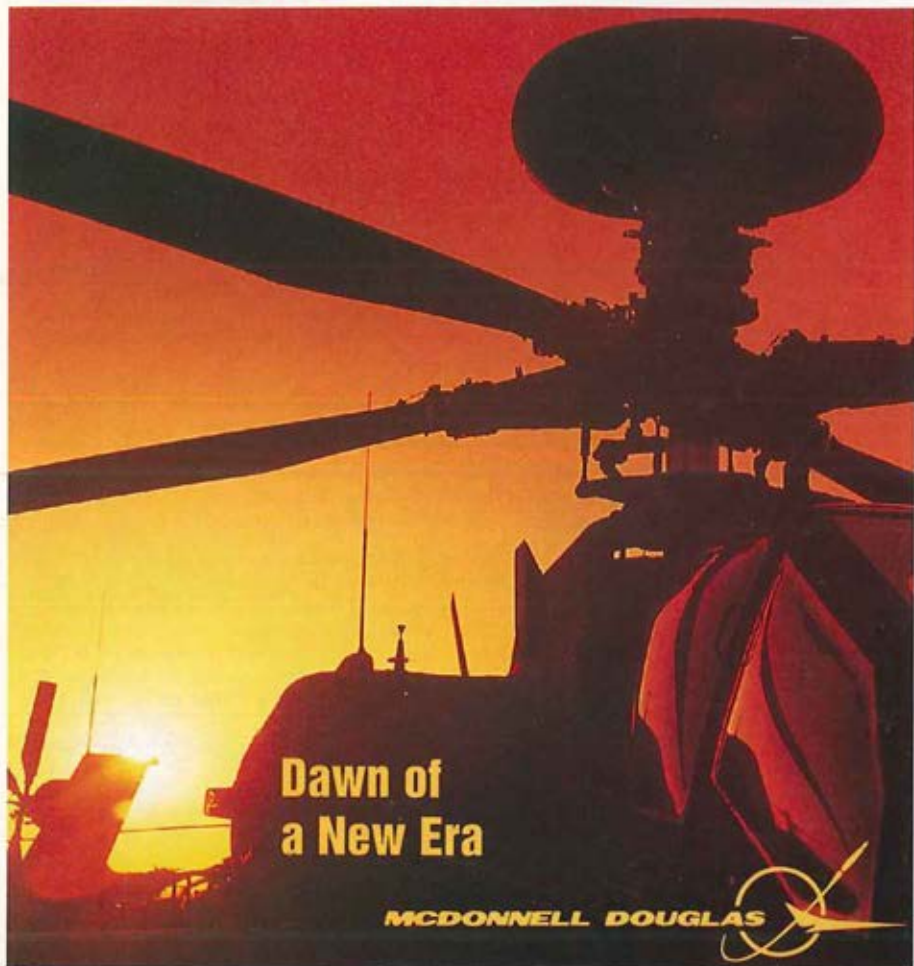


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# ARMY AVIATION

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**Dawn of  
a New Era**

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**FORTHCOMING ISSUES**

June 1996 — Special Focus on Unmanned Aerial Vehicles.  
July 1996 — Special Focus: Special Operations Aviation and Night Vision.

## Briefings

**LTG John J. Cusick**, former CG, U.S. Army Aviation and Troop Command (ATCOM) has been reassigned to J-4, Logistics, the Joint Staff. **BG Emmitt E. Gibson** has been named the new ATCOM CG, and will take command on 6 June 1996 when he takes the colors from **COL Danny Abbott**, acting ATCOM Commander.

The **Eagle Flight Detachment Memorial Monument** was dedicated at Giebelstadt, Germany on 14 April 1996. It honors the 26 international victims of the 14 April 1994 Black Hawk helicopter shootdown in northern Iraq. The eight-foot-tall monument features two meter-long helicopter models, eight engraved stones, four large plaques, trees and walkways, and is the result of a private volunteer effort that raised nearly-\$50,000 over the course of two years. Sales of a commemorative print by artist George Finley, a retired Army Lieutenant Colonel, titled "Eagle Flight", were responsible for the largest share of the funding. For more information, contact **David Nuss** at DSN 352-7498/7472, Com: 011-49-9334-99211, or E-Mail: 100407.35@compuserve.com.

**Raytheon Aerospace Company** has won an \$87M follow-on contract for logistic and maintenance support. Awarded by U.S. Army ATCOM, the contract covers funding for the fifth year of contractor logistic and maintenance support of the Army, Army Reserve, and National Guard fixed wing fleet. Raytheon Aerospace supports about 250 U.S. Army C-12 and U-21 airplanes at military bases around the world.

The Communications Systems Office of **Motorola Government and Space Technology Group (GSTG)**, Scottsdale, AZ has been awarded a contract for the U.S. Army's Light Ground Station Module (LGS) Low Rate Initial Production (LRIP) Program. Eight LRIP LGS systems will be delivered, with an option for two more systems. Potential value is expected to exceed \$53M.

The **Military Traffic Management Command (MTMC)** historical office is seeking memorabilia for display at the Army's Transportation Museum at Ft. Eustis, VA. Welcome are donations or loans of photos, patches, badges, coins, letters, flyers, posters, documents, or anything that will help tell the history of MTMC from 1965 to the present. Inquiries should be addressed to: Commander, MTMC, ATTN: History Office (MTCS-H), 5611 Columbia Pike, Falls Church, VA 22041-5050. For more information, contact **Mason Schaefer**, command historian, Comm: (703) 681-9336/DSN: 761-9336.

The **Smithsonian Institution Press** has just published a book by Army Aviation pioneer **GEN Hamilton H. Howze, Ret.** titled *A Cavalryman's Story: Memoirs of a Twentieth-Century Army General*. The book is available for \$24.95 from the Smithsonian Institution Press, P.O. Box 960, Herndon, VA 22070-0960, Tel: (800) 782-4612.



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**FRONT COVER**

**Paid Advertisement: McDonnell Douglas Helicopter Systems.** The AH-64D Longbow Apache, the U.S. Army's newest multi-role combat helicopter, is in production in Mesa, AZ, where McDonnell Douglas Helicopter Systems is under contract to remanufacture the first 18 Longbow Apaches for the Army and is finalizing a five-year, multi-year contract for not less than 232 Longbow Apache aircraft. Photo by Bob Ferguson. Caption provided by the advertiser.

## U.S. ARMY AVIATION: UNMATCHED

This morning I would like to share a few thoughts on our Army's budget challenges, and what this will mean to the Aviation community in the years ahead. But first, let me provide you a status report.

Some of you may know I just returned from Bosnia earlier this month, and I would report that our soldiers are doing great. They are performing their duties remarkably well and leave no doubt in anyone's mind, Bosnians, Croats or Serbs that American soldiers mean business.

Army aviators are one of the big reasons why we are, as Dr. Perry puts it, the meanest dog in that neighborhood. What U.S. Army Aviation brings to the table cannot be matched by any other army in the world. This has been proven time and again already in Bosnia.

The 3/58th ATS Battalion who will be awarded the Robert A. Leich Award later this morning, was the first aviation unit on the ground in Tuzla. Without them our Air Force would have been grounded. They helped turn an austere airfield at Tuzla into a word-class operation.

*Excerpted  
from the  
Keynote Address  
of the  
1996 AAAA  
Annual  
Convention,  
28 March 1996.*

In front of our armored forces the entire way from Hungary, through Croatia and into Bosnia were 1st Armored Division Apaches, providing cover and protection. But more importantly, these Apaches sent a strong message to the world that the U.S. Army was going in strong. As they say here in Texas — don't mess with us!

And who could forget this past December as Americans watched Engineers bridge the raging Sava River. Some may wonder at our sanity, for even trying. Floods, mud and God-awful weather. Engineers had big problems just getting their pontoons to the river's edge. No one will soon forget the picture on CNN of CH-47s above the river, lifting and dropping pontoons into the water which allowed our engineers to bridge that river.

Let me start with the bottom line on America's Army, because it is the most important observation I have shared with people after coming back to the Army after 14 years. I have said this every time I speak on behalf of the United States Army.

Your soldiers today are the most highly motivated, best led, best trained, and best equipped fighting force in the world. No one disputes that, even those who would like to. Day in, day out, our soldiers operate in 60-90 countries around the world. An average of over 21,000 American soldiers are on operational deployments. That's in addition to the 125,000 men and women permanently stationed overseas and the 18,400 soldiers in Bosnia with another 8,000 outside Bosnia, supporting the Implementation Force (IFOR).

The Army is as ready as it has ever been, even more ready than it was five years ago in DESERT STORM. It seems we just keep getting better. Take for example the 2/159th Aviation Battalion, to be recognized shortly as the AAAAA Aviation Unit of the Year (Active). They flew nearly 1,800 hours, 19,000 soldiers, and 1,900 tons of cargo without accident or incident in Haiti. An incredible feat and at the same time saved \$2M in cost avoidance, focusing their maintenance on repair versus replacement. This type of cost savings will become even more important to our Army, whose biggest challenge today is money.

We have some tough decisions to make. The Armored Gun System (AGS) programmed to replace the aging Sheridans in the 82nd Airborne Division is one such decision. An unquestionable Army need — no one disputes this. A program we have protected and nurtured for years. Hundreds of millions spent. The fact that a program of this stature is on the table dramatically underscores the gut-wrenching decisions your Army leadership faces.

I cannot tell you where we will end up. But ADM Bill Owens, former Vice Chairman, Joint Chief of Staff, who retired last month predicts that, unless

there is some major conflict that grabs the American public's attention, the defense budget could drop from \$258B to \$200B by the year 2005.

Our Army has been here before. During the Constitutional Convention, one of the delegates moved "That the standing army be restricted to 5,000 men at any one time." George Washington, as presiding officer, could not offer a motion, so he turned to another delegate and whispered, "That's fine as long as we can amend the motion to provide that no foreign enemy shall invade the United States at any time with more than 3,000 troops." But the fact is, General Washington knew that many delegates believed an army was not needed. And today, many Americans do not see the utility of spending for the national defense.

Secretary Perry's clear statement of budget priorities will guide us in the years to come. Priorities that make good sense. Our first priority is protecting readiness. We cannot afford to let this slip. After the Superbowl, the Dallas Cowboys get an off-season. They can eat, drink, and get fat for a few months. Some of those 350 pound Dallas Cowboy linemen may blow up to over 400 pounds. Your Army does not get an off-season.

When units are not out on operational deployment, they must be getting ready for their next mission and lately, for many units, their next missions are virtually turn-arounds. That is why we will continue to spend a great portion of our budget on training. The combat training centers and joint exercises are core elements of effective training and will continue to receive our highest priority.

I was in Egypt at BRIGHT STAR last November. A tremendous exercise, the benefits of these exercises are incalculable. You cannot duplicate this kind of

experience back at home station. The 1/111th Attack Battalion from Florida, to be recognized later as your top National Guard unit, operated in tough desert conditions while on BRIGHT STAR, with units from Egypt, France, and the UAE. And for this experience, the 1/111TH is more ready than ever.

Today, we cannot go anywhere without the Guard and Reserve, especially without their aviation units. We must continue to pump these units into our CTCs and big training exercises to keep them ready.

The 6/158th Aviation Battalion from Everett, WA, is the AAAA Outstanding Aviation USAR Unit for the Year. With little or no warning, it pulled two 179 day rotations in Haiti. We cannot afford to have units not ready. When the Army calls, as you well know, Aviation units are among the first to go.

We protect readiness not only through training, but through the quality of life for our force, which surprises some people, but I see it as a steel chain link to readiness. Quality of life relates directly to our ability to attract and retain quality soldiers. We face the critical challenge of finding and keeping quality people. The soldiers we have in uniform today are the best ever.

Easily the most important change in the Army in the past 25 years is the quality of our soldiers. Eighteen months ago, I had the opportunity to dine with General and Mrs. George Blanchard. As some of you know, GEN Blanchard was the Army CinC in Europe in the late 70s. He was also my division commander in the 82d Airborne Division.

About halfway through the meal, he turned to me and said, "Joe, it hurts me to admit this, but the soldiers today are better than when I served."

I agreed, but asked why he said that.

He said for two reasons:

- the all-volunteer Army, and
- the way we treat soldiers today — among other things, their quality of life.

I told him he should not regret anything because the quality of today's Army is his legacy. I also told him I had a different perspective, in one respect maybe, a better perspective than his. Rather than having lived through that change, I left the Army in the late 70s and was gone for 14 years.

Coming back in 1993, I had the benefit of not having watched that process of change in a slow, gradual way. The difference was like night and day. We must continue to recruit and retain quality soldiers. The Army has maintained current readiness in part by deferring modernization and redistributing modernized equipment across a smaller force. Your Army, best in the world, but only eighth in size, cannot afford to lose any more modernization dollars.

We are accepting some risk in this area for two reasons: one, our superior technology completely outmatches the entire world. We expect that no country will come close to competing with our existing systems for the next ten years. And two, we expect to achieve cost savings from BRAC and acquisition streamlining that will allow us to reinvest these savings into our modernization programs.

We must always maintain technological superiority. This remains one of our greatest challenges. Anyone who thinks it was decency or goodness that caused Saddam Hussein or General Cedras to back off when faced by American soldiers lives in a dream world. Deterrence by technology overmatch saves lives. It saves not only lives, it saves money by allowing us to maintain a smaller and more effective Army, and avoiding the prohibitive,

gut-wrenching costs of war.

I know there are concerns among many here about how we are going to keep this overmatch into the 21st Century, given the budget restraints. I believe the Army's portion of the five year defense plan puts us on the right track in recapitalizing our modernization accounts. I would like to see it go faster, but I see no way given the federal budget restraints and the need to protect readiness and force structure.

Two years ago when I addressed this convention, I said the future of Army Aviation looks bright. I still believe this. Army Aviation provides our Army a quantum increase in capability and the domination of the third dimension.

The world seeks to invest in this dominance. Everywhere I go — Sweden, Singapore, Holland, Great Britain and many other countries — my counterparts always want to talk about our aircraft. The Army and, I might add, OSD, are committed to maintaining this dominance by keeping our aviation fleet the best in the world. Two years ago, I said, "The Comanche and Longbow Apache are our top modernization priorities. And we could not afford not to have them." These two programs remain top priorities.

I know there is concern with schedule extensions and procurement reductions, but we have also had some good news stories recently. After delays and schedule extensions, we have been able to put the Comanche back on track through aggressive reprogramming. Comanche's maiden flight in January went well and we're on schedule for an Initial Operational Capability in 2006.

And Longbow testing went so well that

the IOTE was terminated ahead of schedule. We are still on track to upgrade our entire Apache fleet. We awarded a single year contract for the first 18 just last December and are now negotiating a five year multi-year contract.

And we have remained committed to our lift fleet as well. Based on a \$1.5B plus-up we received from OSD last fall for our Black Hawk program, we are able to extend production and will purchase 28 more Black Hawks in FY97, and 36 per year for four more years, beginning in FY98.

Our CH-47 fleet will hit the 40 year mark in 2002. For the near term, we are looking for enhancements on the existing airframe. Long term solutions will focus on a joint service rotorcraft.

Our struggle to keep our technological edge is a journey, not a destination, and we have a long way to go. It also is a team effort. We need everybody's help. There are two ways the Aviation community can

*"Our struggle to keep our technological edge is a journey, not a destination..."*

help:

- Support joint aircraft. I am asking you to do that. All the services have to neck down the types of aircraft we fly. We just cannot afford to support so many different kinds of aircraft. Ultimately, services will have to fly the same helicopters.

We see this trend with the Black Hawk in slowly being accepted by the other services. Why? Affordability, but more importantly, it does the job.

We are also working with the Marines to take a hard look at the Comanche.

The second way you can help is to keep supporting acquisition reform. Many processes in our acquisition system are Cold War relics where time and money



were not always of paramount concern. For us to better stretch our modernization dollars, the government and private sector must improve our team work in this area. And, we in the government, must do a better job providing continuity and predictability to our industry partners.

In closing, I ask you to remember one point. We can have the best technology and best equipment, but ultimately, it takes men and women of courage — prepared to fight and die for their comrades and their country.

If you want to think of commitment, think of those two Special Forces sergeants, Medal of Honor winners MSG Gary Gordon and SFC Randall Shughart, who went down ropes from their Black Hawk into the fight in Mogadishu. For one reason and one reason only. They put their lives on the line because their fellow soldiers were in mortal danger.

I would like to share a portion of the letter from Mrs. Carmen Gordon, wife of MSG Gary I. Gordon. A letter she wrote to her children.

"I hope that in the final moments of your father's life, his last thoughts were not of us. As he lay dying, I wanted him to think only of the mission to which he pledged himself. Your father has two families, one was us and the other, his comrades. 'I shall not fail those with whom I serve' became his simple religion."

To these two great soldiers, and to the soldiers of the 21st Century and to their families, we owe the very best weapons and equipment in the world.

★ ★

*Mr. Reeder is the Undersecretary of the Army, Washington, DC.*



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## ARMY AVIATION: THE FUTURE IS NOW

Our theme, "Army Aviation....The Future is Now!" reflects reality — we are bringing the future closer to us each day. We are doing that by shaping the future.

We have accomplished a lot in the past year and we continue to move very smartly into the future. We had a banner year in aviation safety. We developed new operational concepts for our future aviation force as we aggressively participated in the Army's Warfighting Experiments (AWEs). We continued progress with the Longbow Apache and cheered at the first flight of the RAH-66 Comanche.

The 6th Cavalry Brigade made important contributions to Theater Missile Defense through its participation in Roving Sands while members of the Aviation Brigade of the 10th Mountain Division were important contributors to Warrior Focus at JRTC. Elements of our Aviation Brigades in Europe plowed new ground in operations other than war by making essential, and often pivotal, contributions to forces in Bosnia; and contributions elsewhere in Operation Joint Endeavor.

*Excerpted  
from the  
Branch Chief's  
address at the  
AAAA Annual  
Convention,  
29 March 1996.*

And the list of our accomplishments goes on.

I would like to pass on a letter written by COL William L. Webb, III, Commander, Task Force Comanche, prior to the January Brigade Commanders Conference to give you a feel for how our aviation force is doing.

*Greetings from Bosnia to you and my fellow Aviation Brigade Commanders.*

*Your aviators are doing great things in Operation JOINT ENDEAVOR. We're doing challenging and important work here...implementing peace in a war ravaged land, and demonstrating the value of international coalitions and cooperation.*

*Aviators from six brigades have combined to fly together in bad weather, complex international airspace, and a hostile environment...and doing it safely. Army Aviation's solid standardization and training are paying off. Your aviators have sling-loaded the critical bridge pontoons, provided immediate emergency MEDEVACs and resupply, targeted anti-aircraft positions that were harassing strategic transports at Sarejevo and Tuzla Airfields, served as an Air Cavalry bri-*

gade conducting detailed and continuous reconnaissance of the Zone of Separation, and flown in support of the President, Secretary of Defense, Chairman of the Joint Chiefs of Staff, .... Helicopter mobility and flexibility have already proved invaluable, given the poor infrastructure, bad weather, and treacherous nature of our Balkan area of operations. Our maintainers have been superb, keeping our aircraft flying, despite an intense optempo and the snow, freezing rain, and mud of our austere field sites. To date, Task Force Comanche has flown over 1500 hours.

Colonel Robin Walker, Commander of the 11th Aviation Regiment, proactively coordinated the USAREUR aviation units that selflessly helped our international deployment and maintenance push. It was a great team effort...day and night...throughout the holidays....

Thank you all for what you've done to ensure the technical and tactical expertise of our aviators. This is another proud day for Army Aviation and our great Army. We are truly "Above the Best."

Our efforts in shaping for the future have led to advancements in developing sound aviation operational concepts. From participation in operations like Joint Endeavor, we have experienced the employment of aviation across the entire spectrum of conflict.

Shaping Army Aviation for future operations is creating a new synergy — a total integration into each of TRADOC's emerging Patterns of operation. These patterns are a useful construct for thinking about warfighting. They include Projecting the Force, Protecting the Force, Gaining Information Dominance, Shaping the Battlespace, Conducting Decisive Operations, and Sustaining the Force and Transitioning to Future Operations. We be-

lieve our versatility allows us to impact each.

In *Projecting the Force*, our future Aviation units will be tailorable, and deployable — providing joint force commanders with an agile and flexible force. And we've been working hard on making ourselves more modular.

The "Base/Team" modularity methodology — the preferred option for our future force — involves two parts: Split Operations and Base/Team Modularity. Our solution is to eliminate critical single tables of organization and equipment.

We made modularity an issue in the force design update process and will address it again during this year's Aviation Functional Area Assessment. Watch for details in ARMY AVIATION Magazine.

Beginning with deployment, Army Aviation contributes directly and significantly to *Protecting the Force*. We believe it can become the primary means to protect the force as ground units deploy into the initial lodgment. Aviation performs essential reconnaissance, security, and medical evacuation operations to enhance force protection.

Helping to *Gain Information Dominance* could well be one of aviation's most significant contributions. Our new Army Aviation Command, Control, Communications, and Intelligence Architecture, outlines conceptually how we will dominate the digitized battlefield with our future systems.

Our capabilities will also allow us to make important contributions to *Shaping the Battlespace*. By conducting armed reconnaissance and security missions, we can help the force commander rapidly confirm the enemy's intentions, disrupt the enemy's tempo, deny the enemy freedom of action, and get into the enemy decision cycle. Coupled with other joint and combined arms systems, our aviation

systems will allow us to provide immediate, real-time sensor to shooter linkage, and rapidly maneuver throughout the depth of the battlespace to deliver precision fires with devastating lethality.

Aviation's capabilities will enhance our Army's ability to *Conduct Decisive Operations*. Our ability to strike deep, provide accurate targeting information, and rapidly influence operations throughout the depth of the battlefield are essential to the process of decisive operations.

Lastly, *Sustainment and Transition to Future Operations*. Sustainment is a continuous process in which aviation plays a significant role, especially in the air movement of essential supplies, personnel and equipment to forward-deployed or other remote areas. Army Aviation has the ability to establish forward operating bases throughout the battlefield, providing combat support and combat service support at the critical time and place.

How about putting all this theory into practice on the battlefield? One method the TRADOC Commander employed to begin the process of validating our concepts, was to conduct a "Rock Drill", or a Commander's rehearsal, to test some of these ideas in a warfighting scenario. In the fall of this past year, General Hartzog's "Rock Drill" provided the opportunity to explore emerging Tactics, Techniques, and Procedures (TTP) for the battlefield employment of our 21st century force. It was a great opportunity for us to showcase the capabilities of Army Aviation, especially Comanche and Longbow Apache.

The Comanche air cavalry troops of this 21st century cavalry squadron have a dramatic improvement in capability over current air cavalry troops and, in reality, bring an additional attack helicopter battalion's worth of combat power to the

division. Deployed with UAVs to extend their range and coverage, and digitally cued by JSTARS, the Army Airborne Command and Control System (A<sup>2</sup>C<sup>2</sup>S) UH-60, and other ground-based command posts, the Comanche demonstrated the potential to provide commanders with real time intelligence and situational awareness, culminating in the delivery of lethal precision fires at the decisive time and place.

Comanche triggered the division's decisive attack on an enemy tank regiment. Maximizing its unique survivability, stealth, and advanced target acquisition systems, Comanche penetrated into the enemy's depth, detected and tracked enemy forces into an engagement area, employed other joint and combined arms assets to shape an engagement area, and digitally handed off targets to both extended range artillery and Longbow Apache attack helicopters. The Apaches fired their radar-guided Hellfire missiles from masked positions, at stand-off ranges, without being exposed to enemy fires. Remaining on station, Comanche was in position to provide and digitally transfer an immediate assessment of the engagement, which became the decision point to unleash the division's main attack. Comanche was, in effect, the "battlefield quarterback."

Another apparent benefit reinforced by the Rock Drill was the effectiveness of Comanche in conducting security operations in an economy of force role. Because of its survivability, digital connectivity with other battlefield systems, long-range acquisition capability, and lethal weapons systems, Comanche can be force oriented and cued to counter where the enemy is, or where the enemy is the most likely to be. One Comanche troop demonstrates the potential to perform

security missions that today would require an entire air cavalry squadron.

Let's walk our way through what took place. This scenario was played out on a real piece of terrain — although for scenario purposes, it was on a fictitious island in the Atlantic. Our EXFOR heavy division had the basic mission of destroying an enemy tank division and motorized rifle division in very rapid succession.

The Aviation Brigade consisted of its organic attack and assault helicopter battalions, with two 12 Comanche air cavalry troops OPCON. The attack battalion consisted of three companies of five Longbow Apaches and three Comanches each.

I want to emphasize that we were playing an experimental design. This force structure is still evolving and will undoubtedly change following further analysis and experimentation ... but the basic components are still in place.

The Aviation Brigade's mission was to destroy the trail regiment of the 15th Tank Division, support air assault operations, destroy the trail regiment of the 3d Motorized Rifle Division, and be prepared to conduct follow-on combat operations.

Note the air assault security task imbedded in the mission. When you consider the assets available to the brigade, we had a full plate.

The commander's intent was to destroy the trail regiments of two enemy divisions, setting the tempo and shaping the battlespace for the ground brigade's attack. It was also to support air assault operations with assault & command and control aircraft. Our initial attack was the trigger event for the entire division operation.

We must conduct an air assault security mission, and then rapidly posture our

force to take on another regiment using the newly established forward operating base to launch our attack. We completed our designated missions and reoriented for follow-on operations. The division relied heavily on our aerial reconnaissance and security capabilities during this transition to future operations.

In my earlier description of the patterns of operation, I discussed shaping the battlespace and gaining information dominance. As this fight gets underway, you will see the key role that Army Aviation performed in these functions as the division postured for the decisive operation.

One troop of the air cavalry was operating under division control, conducting a screen oriented to the west/northwest. This was necessary because two enemy divisions had already passed, and a third was postured in a way that it could potentially influence our division's fight.

The second air cavalry troop, working with UAVs to increase their coverage, had the mission to detect and establish contact with the enemy force, ultimately, drawing him into an engagement area. From our Intelligence Preparation of the Battlefield, we knew generally where this engagement area would be — but the precise location, in terms of terrain — was not important ... a change from our current doctrine. This "force oriented" engagement area was designed to allow us to attack the trail tank regiment at a time and place that would facilitate the ground brigades being in position to attack the enemy division's lead regiments. Let me further illustrate this distinction.

For a 1996 era attack helicopter engagement we plan for the employment of line of sight weapons systems. The engagement area is large and requires extensive shaping tasks to make it viable. There are

limited places on most battlefields where an engagement area of these dimensions can be established. Once planned, flexibility to change it is limited.

The engagement area of the future resembles, and — in cartoon form — closely replicates the engagement area we used for the Rock Drill. As the operation continued, the air cavalry troop OPCON to the aviation brigade, drew the enemy into the engagement area, and then digitally handed off the fight to two Comanche teams from the attack battalion. This digital connectivity coalesces the synergy of the Comanches, national and theater level assets, and our AVTOC and A<sup>2</sup>C<sup>2</sup>S UH-60s, to manage information "on the fly," ... creating real time situational awareness. This engagement area maximized the terrain, requiring minimal shaping. The enemy was trapped in canalizing terrain, in march column, with nowhere to go.

This future engagement area can be quickly established wherever we want it to be in time and space ... when and where it is most advantageous to us. The Comanches, using their superior stealth, acquired and designated targets, which they digitally transferred to Longbow Apaches, in masked positions at standoff range. The Apaches fired their radar-guided Hellfires, destroying the enemy regiment. Employing only two of our companies, we successfully destroyed the enemy regiment. This was not a precise simulation, but we used very conservative planning factors, which we believe are viable.

The Division Commander's guidance was to destroy the regiment, which he further translated to mean ... leave no

coherent battalion-sized unit capable of continuing operations. We interpreted this to mean that we needed to destroy approximately two-thirds of the regiment's combat power, or 130 of 185 principal combat vehicles. The new radar-guided Hellfire has a probability of hit/kill that exceeds our planning figures. We chose a conservative 70%, not wishing to overstate our capabilities. We configured our aircraft to maximize the stealth of some of our Comanches — the ones tracking and acquiring targets — not loading any external missiles. We went full up Hellfire on all of the remaining Longbow

Apaches and Comanches.

The bottom line: we had a throw weight of 228 total missiles, and required only 185 missiles to "hit" to achieve our desired results. With the engagement area 90 kilometers from our assembly area, we accomplished our mission in less than two hours, employing only two attack companies.

With the tank regiment destroyed, the third attack

company and an air cavalry troop began the air assault security mission in support of the light infantry brigade. The air cavalry Comanches conducted a route recon along the air assault air corridors leading to the objectives, again working UAVs ahead of their advance. The Comanches' mission was to set conditions for the air assault. Both the Air Assault Task Force commander and aviation brigade commander monitored the Comanches' progress in separate A<sup>2</sup>C<sup>2</sup>S UH-60s. When the division commander or Air Assault Task Force commander confirmed conditions were set, the UH-60 and CH-47 aircraft of the air assault task force commenced the operation.

*“Employing only  
two of our  
companies,  
we successfully  
destroyed  
the enemy  
regiment.”*

The air cavalry troop and attack company, employing both Comanches and Longbow Apaches, provided continuous security along the routes, in the LZ and immediate objective area — the inner ring, extended to an outer ring of at least 20 kilometers. Air Cavalry Comanches still under Aviation Brigade control assumed the primary outer ring mission, which was largely oriented on security and suppression or destruction of enemy indirect fire systems.

Following the air assault, Air Cavalry troop Comanches employing UAVs extended the outer ring to detect the lead elements of the second enemy division entering the zone, and began to track them in the same manner as they did against the initial division.

This information was critical to the division and heavy brigade commanders as they positioned their ground forces to attack the first two regiments. As the Comanches detected the trail tank regiment, they conducted battle handover with Comanches from the two attack companies, which began to set the conditions for the attack on the trail regiment. The third attack company, working from the FOB, continued to provide security for the air assault ground force.

The other air troop's focus remained with the heavy brigade fight, and from standoff ranges, they assisted ground units in gaining and maintaining contact with key enemy formations. Providing information to both the aviation brigade commander and heavy brigade or division commander in separate A<sup>2</sup>C<sup>2</sup>S UH-60s, Comanche contributed significantly to the

close fight, digitally acquiring, tracking, and handing off targets. Still working in conjunction with UAV, Comanche provided the means for all commanders to maintain a continuous real time picture of the battlefield.

The attack operation to destroy the trail regiment of the follow-on division was conducted in the same manner as the initial operation I described; however, our aircraft operated out of the Forward Operating Base, which decreased their en route distance to the engagement area by nearly 90 kilometers, reducing their exposure to remaining enemy forces and increasing their potential station time.

*“Comanche contributed significantly to the close fight, digitally acquiring, tracking, and handing off targets.”*

I've had to give you what is only a very cursory description of this operation ... but I hope this brief summary at least highlighted emerging concepts and why we are so excited about the future. Out of the rock drill experience we concluded that:

- Reconnaissance will become increasingly force oriented.
- that Air Cavalry has a vital and multifaceted role in future operations.
- that engagement areas will be based more on time and space factors than on terrain ... they will be more force oriented.
- that digital linkages and other enabling technologies, such as UAVs, contribute to economy of force and make our other systems more efficient as well as more effective.
- that it is feasible for this future aviation brigade to conduct simultaneous 24 hour operations, with units up to 300 kilometers apart.
- We concluded that the combat power



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**COL. DAVID HACKWORTH**

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of the 21st century Comanche-equipped air cavalry troops bring an additional attack battalion's worth of combat power to the fight. And that Longbow Apache is an awesome killer and Comanche/Longbow Apache combined make a formidable team.

While the Rock Drill was not a scientific test, other exercises and experiments will continue to provide more definitive, analytical analysis. It is clear that our 21st century aircraft provide the catalyst for exciting innovations in the development of combined arms doctrine and TTP and, as we look to the future, we are only limited by our vision and imagination.

The many events of the past year confirm we are on a true course and building a solid foundation for the future. Collectively, we are demonstrating new and evolutionary concepts and our progressive work in exercises such as the rock drill

give us a good indication of how we will fight our future force. The road ahead — aviation's involvement in the 1996 Army's Warfighting Experiments — will provide more new insights as we shape the future of Army Aviation.

The Aviation Center, PEO Aviation, ATCOM, STRICOM, industry and the Army Aviation Association of America are all working together to bring the future to us. Our new concepts and doctrine are here. Our quality soldiers of the future are here now. Our new warfighting systems are here or soon will be. Though much work lies ahead, for Army Aviation, we believe the future is now.

★ ★

*MG Adams is the Aviation Branch Chief and Commanding General, USAAVNC and Ft. Rucker, AL, and Commandant, U.S. Army Aviation Logistics School, Ft. Eustis, VA.*





## 1996 AAAA CONVENTION

The 1996 AAAA Annual Convention, held in Fort Worth, TX, officially began on the evening of 27 March 1996 with the ribbon-cutting ceremony opening the exhibit hall. At the NEB lunch earlier in the day, GEN Hamilton H. Howze, Ret., was presented with a Gold Order of St. Michael. Presentation of the colors marked the opening of the Professional Sessions the following morning, and MG Richard E. Stephenson, Ret., AAAA President, delivered the AAAA Annual Report. MG John D. Robinson, Ret., AAAA Senior VP and Chairman, AAAA Membership Committee, presented the 1995 Membership awards.



Net Member Gain winners were, below, left to right: AAAA Chapter Category (less than 80 members), Armadillo Chapter, Conroe, TX, accepted by LTC Charles B. Ladd, Chapter President; Senior Chapter Category, (80 to 169 members), Old Tucson Chapter, Marana, AZ accepted by the Chapter President, MAJ David A. Mitchell; and Master Chapter Category, (more than 170 members), the Aviation Center Chapter, Ft. Rucker, AL. COL Michael T. Mulvenon, Chapter President accepted the award.



The Top Gun Award was won for the seventh time by MSG John H. Bae, Ret. who recruited 683 new members in 1995.



Right: Following the Presentation of the Membership Awards, MG Stephenson presented COL Michael T. Mulvenon, President, Aviation Center Chapter, with the Top Chapter Award. This award goes to the chapter, regardless of size, judged to have delivered the most benefits to its members.



Left: The Honorable Joe R. Reeder, Under Secretary of the Army, was the featured Keynote Speaker during Thursday's Professional Sessions and presented the AAAA Unit of the Year Awards.

Right: Secretary Reeder joined MG Stephenson (far right) and BG Burt S. Tackaberry in presenting the Robert M. Leich Award to the 3rd Battalion, 58th Aviation Regiment (ATS), 12th Aviation Brigade, V Corps, USAREUR and Seventh Army. Accepting for the unit were LTC Michael T. Inman (second from left), Commander, and CSM Sanford C. Tanna (third from left), Senior NCO.



The Award for Outstanding Aviation Unit—ARNG went to 1st Battalion, 111th Aviation Regiment (ATKHEL), FLARNG, Jacksonville, FL. Left to right: Secretary Reeder, LTC David W. Starr (Cdr), CSM Gary L. Wingard (Sr. NCO), MG Ronald O. Harrison, Adjutant General, FLARNG, BG Tackaberry, and MG Stephenson.



Left: The Outstanding Aviation Unit of the Year Award—USAR was awarded to the 6th Battalion, 158th Aviation Regiment, 124th Reserve Support Command, Everett, WA. From left: Secretary Reeder, LTC Rosemary R. Loper (Cdr), CSM Robert T. Detchemendy (Sr. NCO), MG George L. Gunderman, DCG, U.S. Army Reserve Command, BG Tackaberry, and MG Stephenson.

Right: The Outstanding Aviation Unit Award—Army was presented to the 2nd Battalion, 159th Aviation Regiment, 18th Aviation Brigade, XVII Airborne Corps, Ft. Bragg, NC. From left: Secretary Reeder, LTC Richard D. Miller (Cdr), CSM Ronald W. Strahan (Sr. NCO), BG Tackaberry, and MG Stephenson.



Left: MG Robert S. Coffey, Commanding General, 4th Infantry Division (Mechanized) received a Silver Order of St. Michael Award after his presentation on the Experimental Force (EXFOR) for Force XXI on Thursday afternoon. Presenting the award was MG Stephenson (right), while Mrs. Coffey looked on.

Right: Thursday afternoon featured two break-out sessions. The first was presented by COL Gerald L. Crews, Ret., Deputy Director, The Retired Officer Association's Officer Placement Service. COL Crews's intriguing session dealt with the issues a retiring soldier is likely to face when trying to find employment in the civilian workplace.





Left: The second break-out session was presented by LTC Kathryn L. Ingram, Director of TRICARE Marketing for the Department of Defense, who briefed on the upcoming implementation of TRICARE to replace Champus.

Right: On Friday, 29 March 1996, MG Ronald E. Adams, Aviation Branch Chief and Commanding General, USAAVNC and Ft. Rucker, AL, and 1996 AAAA Annual Convention Presentations Chairman, made the first Professional Session presentation.



Left: Following MG Adams, Mr. Paul Bogosian, Acting Program Executive Officer, Aviation, delivered his update on acquisition and acquisition strategy.

Right: Then-MG John J. Cusick, Commanding General, U.S. Army Aviation and Troop Command, St. Louis, MO, made his presentation on aviation logistics and sustainment issues.



Right: Friday morning was also the occasion for the AAAA Individual Awards. MG Adams (left) and MG Stephenson (right), present CW3 Alfred Aponte, Jr., Safety Officer, HHC, 17th Aviation Brigade, APO AP with the McClellan Aviation Safety Award.



Left: MG Adams and Mr. Joseph P. Cribbins (second from right) present Mr. Robert W. Arden (second from left), Chief, Stress/Loads/Fatigue Branch, Directorate for Engineering, ATCOM, with the Joseph P. Cribbins Department of the Army Civilian of the Year Award as MG Stephenson looks on.

Right: MG Adams, CSM Marvin E. Horne (second from right), Command Sergeant Major, USAAVNC and Ft. Rucker, AL, and MG Stephenson present SPC Chad Douglas MacDonal (second from left), 5-501st Aviation Regiment, 17th Aviation Brigade with the Aviation Soldier of the Year Award.



Left: MG Adams and MG Stephenson join in the applause as CW4 Robert L. Wylie, HHC, 11th Aviation Regiment, V Corps, USAREUR and Seventh Army, receives the 1995 Aviator of the Year Award.



Left: Friday afternoon featured a presentation on Army Aviation operations in Bosnia by MG Daniel J. Petrosky, Deputy CoS for Operations, USAREUR and Seventh Army. MG Petrosky was followed by COL William H. Bryan, Director of Programs, U.S. Army Safety Center, Ft. Rucker, AL, who presented a briefing on aviation safety.

Left: Thursday evening saw the Reunion at Billy Bob's in the Stockyards, where fun was had by all.



Left: Friday evening the traditional President's reception was held prior to the beginning of the AAAA Chapter Receptions. A receiving line, plentiful hors d'oeuvres, and lots of camaraderie were the order of the night.

Left: Saturday morning featured the traditional Spouse Breakfast in honor of the AAAA National Awardees Spouses. Left to right are Mrs. Sanford Tanna, Mrs. Michael Inman, Mrs. Ronald Strahan, Mrs. Chad MacDonald, Mrs. Gary Wingard, Mrs. David Starr, Mrs. Robert Arden, Mrs. Richard Stephenson, Spouse Program Chairman, Mrs. Richard Miller, Mrs. Alfred Aponte, and Mrs. Robert Wiley.



Right: Saturday morning's First Light Breakfast featured an address by LTG Ronald V. Hite, Military Assistant to the Assistant Secretary of the Army for Research, Development, and Acquisition. Following the breakfast, three simultaneous forums were conducted to take questions from the audiences and brief on their areas of responsibilities.



Right: Saturday's Operations and Training Forum, chaired by MG Ronald E. Adams, consisted of senior officers/directors from USAAVNC, TRADOC, STRICOM, and major Army operational units.



Left: The Acquisition Forum was chaired by Mr. Paul Bogosian, Acting Program Executive Officer, Aviation and included the PMs of all major Army Aviation systems under the PEO umbrella.



Left: Then-MG John J. Cusick, Commanding General, U.S. Army ATCOM, chaired the Logistics Forum. Panelists included the Directors/Chiefs of major Aviation logistics centers, offices, and activities.

Right: Saturday evening saw the Annual Banquet, the final event of the convention. Here, Mr. William R. Harris, Jr., Acting Executive Director, and his wife, Nancy Jo, make their entrance.



Right: Cadets from the Virginia Military Institute present the colors, officially commencing the Annual Banquet.



Left: Banquet entertainment was provided by SFC Rick Runkle of the Texas Army National Guard, followed by the Texas Boys Choir.



Left: MG Stephenson presents banquet speaker LTG John Keane, Commanding General, XVIII Airborne Corps, Ft. Bragg, NC with a token of appreciation at the conclusion of his presentation. LTG Keane's heartfelt and inspiring speech capped off the best banquet in years. See you in Louisville, KY 23-26 April 1997.



## MARKETING FOR A CIVILIAN CAREER

In the uniformed services, loyalty is an absolute. Loyalty to your commander, your command, your service, and your country is never questioned and has been instilled in your culture from the first day you put on your uniform. As you prepare to leave the uniformed services for a civilian career, however, loyalty can become one of a number of challenges you'll face.

You cannot, for example, wait until the last day of service to begin preparing for a job hunt in today's highly competitive market. As you make the decision to retire, you need to direct some of your loyalty toward yourself and your family — those most often neglected during career transition — in the form of devoting time, resources, and attention to having a job when you retire.

Marketing yourself for a civilian career is another big challenge. Unlike loyalty, marketing yourself is not part of the culture of the uniformed services. Not so in the corporate world, where marketing yourself is a technique that must be mastered if you expect to compete with

*"Most military personnel have business sense but can't articulate it very well."*

your corporate contemporaries. This challenge will require considerable homework, for only a thin line separates being supremely confident in selling yourself to a potential employer and coming off as an overbearing egomaniac. Work at being humble, honest, and confident, but also work at being able to sell your

many skills.

Most military personnel have business sense but can't articulate it very well. Anytime you can execute requirements within a given time frame, with available resources, and not lose personnel or resources, you have a successful business proposition. Further, you had to plan the requirement, communicate the plan through the corporate headquarters, and then get approval from the corporate executive officer before executing the "business proposal." Anyway you look at it, you have conducted business but used a different vernacular. Your challenge is to conduct research, study, read, and learn the new language for what you have  
(CAREER — continued on page 50)

## Longbow: More Lethality With Less Fratricide

The U.S. Army's AH-64D Longbow Apache Attack Helicopter has enjoyed a highly successful, unprecedented year of Operational Testing (OT).

On the morning of 1 April 1995, six Longbow Apaches with U.S. Army flight crews departed the OT site of Ft. Hunter Liggett, CA, and after ferrying 800 miles landed at the McDonnell Douglas flight facility in Mesa, AZ. This historic flight brought to a close a four-year period of intense technical and operational testing consisting of more than 3,700 flight test hours on six Longbow Apache prototype helicopters. Their return from Gunnery and Force-On-Force trials marked the end of OT and started the transition to production.

In October 1995, after a 58-month Engineering and Manufacturing Development (EMD) life-cycle phase, the Defense Acquisition Board (DAB) approved the Acquisition Decision Memorandum (ADM) leading to a successful Milestone III Decision for Longbow and entry into the Production Phase.

During OT, Longbow clearly demon-

*Making sure  
the user's  
operational  
needs are  
being  
met.*

strated greater operational effectiveness and suitability than any other current or projected attack helicopter worldwide. Fighting against a very robust and digitally-linked ground and air-defense opposing force, Longbow proved to eliminate fratricide through significant advances in the pilot's battlefield situational awareness.

In 15 side-by-side force-on-force trials, Longbow Apache consistently demonstrated seven times more survivability and four times greater lethality than the leading A-model Apache in the field today. This means the force-exchange-ratio of Longbow Apache over the baseline A-model is 28:1, establishing Longbow as the leading combat force multiplier for the U.S. Army's modern digitized Force XXI battlefield.

Thorough testing of the Longbow Apache Weapon System (LBAWS) proved the strength and power of its totally integrated subsystems. The new airframe consists of Improved Forward Avionics Bays, Improved Electrical Power Management System, Enhanced Lighting System Controller, Lightweight Wiring, a

new Ammunition Loading System and Side Loader for faster one-man loading, a new Environmental Control System, a new communications suite, and improved navigation with dual Embedded Global Positioning Systems (GPS) and Inertial Navigation Units (INU). The new airframe significantly enhances combat capabilities with its new mission equipment and crew-station design.

The new, human-engineered and MANPRINT crew-station design includes Multi-Functional Displays (MFDs) and an Up Front Display (UFD) that provide independent and rapid access to all aircraft systems, tactical information, and communications and navigation equipment. A new ergonomic glass cockpit brings significant piloting improvements in automating and integrating the dual weapons, displays, and systems processors, enabling the crew to concentrate on performing the tactical mission, not on flying and managing the aircraft.

The Apache Attack Helicopter Project Management (PM) Office, headed by COL Stephen Kee, took a hard look at the U.S. Army user's operational needs. The PM's primary design objectives included reducing crew station workload and improving subsystems effectiveness. U.S. Army operational attack pilots from the 229th Attack Helicopter Battalion, Ft. Rucker, AL, participated in more than three years of crew station design, development, and evaluation resulting in two MANPRINT cockpits that are highly efficient, ergonomically logical, and human engineered for easy use by both pilot and copilot/gunner (CPG).

By integrating the Data Transfer Unit (DTU) with the Longbow Automated Mission Planning Station (AMPS), the pilots are ensured transfer accuracy of their pre-mission planning data. The DTU provides the flight crew with complete

in-flight mission display data for both primary and alternate missions. When the pilots finish their pre-mission planning, they take a solid-state Data Transfer Cartridge (DTC) to the aircraft. When loaded into Longbow's Data Transfer Receptacle (DTR), the glass cockpit displays to the pilots:

- the aircraft's exact present location inside a GPS three-meter circle (that's why pilot and CPG will often argue whose butt is really hovering over the exact battle position);
- the next and subsequent destinations and waypoints;
- the ingress and egress routes;
- the locations of all known friendly and enemy forces;
- unit engagement sectors for battlefield management and designated flight corridors;
- primary-fire zones;
- no-fire zones;
- refueling and rearming sites;
- known flight hazards;
- today's and tomorrow's communications frequencies, call signs, and security code authentications; and
- the identification of Friend or Foe status.

The MFDs exhibit on-demand automated checklists enabling both pilots to perform preflight, in-flight, and post-flight systems checks. Should a sub-system malfunction occur, the flight crew checklist will automatically display appropriate emergency procedures.

An automated performance planning system advises the crew of the current aircraft weight, including fuel and expendable ordnance inventories, and the flight limitations associated with current temperatures and pressure altitudes at the aircraft's current weight. By knowing its present weight, current temperature and pressure altitude, wind speed and direc-

## Longbow Season Is Always In.

Armies can't afford to wait for perfect weather or the right time of day to do their job.

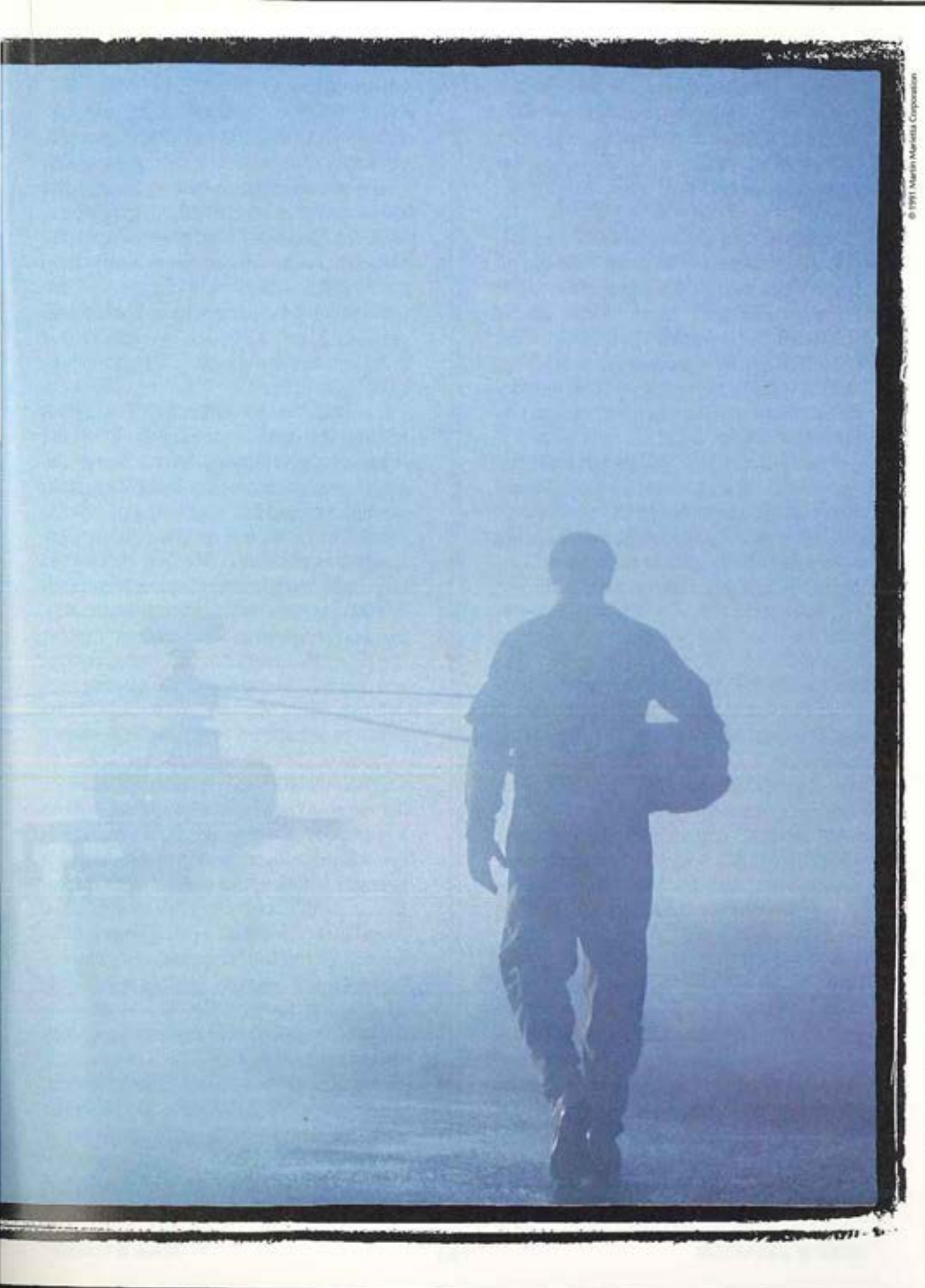
But soon, the combat mission capability of the U.S. and British armies will be increased tenfold — with the addition of the Longbow radar and missile system, developed and built by a joint venture of Lockheed Martin and Northrop Grumman.

With Longbow, Apache helicopter crews can detect, classify and prioritize targets rapidly, day or night, in poor weather — and attack them from stand-off distances with missiles that guide themselves to the target.

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

The Longbow team is proud to be part of 21st century armies on both sides of the Atlantic.





tion, and hover power, the dual Weapons Processors (WPs) constantly compute the rotor-disk's downwash vectors over rocket pylons and ties this data to the launcher's trajectory algorithms for improved rocket accuracy.

**M**ounted above the main rotor, the powerful FCR Dome and the 360° all-seeing Radar Frequency Interferometer (RFI) connect with four black boxes in the Extended Forward Avionics Bays (EFABs) and with the weapons, systems, and display processors to outgun any threat weapon system known or projected through the year 2004.

The FCR's rapid, automated multi-target ground- and air-targeting modes bring key capabilities to the AH-64D's combat effectiveness. In the Ground-Targeting Mode (GTM), Longbow carries the capability, in less than 30 seconds, to:

*DETECT* the precise 3-dimensional location of over 100 stationary or moving targets;

*CLASSIFY* the targets into one of five categories: tracked or wheeled vehicles, air-defense unit, helicopter or fixed-wing aircraft;

*PRIORITIZE* the 16 most dangerous targets in the target array;

*TRANSMIT* over the Improved Data Modem (IDM) digitized target data, priority-fire zones, and no-fire zones to sister ships for engagement and battlefield management; and

*INITIATE* a coordinated precision attack with first round accuracy on the target array without engaging the same target twice, all in less than 30 seconds.

As a phased-array receiver, the RFI detects emitting targets and computes extremely accurate target azimuth data for the FCR and weapons processors. The RFI provides continuous passive RF emitter detection and detailed threat emis-

sion signature libraries for exact threat emission source identification. The RFI threat library files include more than 100 different types of RF emission signatures to include early-warning and ground-targeting radars, counter-battery radars, and even fighter aircraft radar frequencies. This 360°, new and powerful capability presents vitally-needed pilot information on the MFDs showing exact target locations to plus-or-minus three meters and precise threat identification and threat radar emitter avoidance.

**M**erging the RFI's and FCR's target intelligence data and passing it to the Weapons and Displays Processors, the glass cockpit displays present the exact azimuth, range, 3D location, and precise identification of any emitting air defense weapon or radar site. Merging target data helps automate the target detection, classification, and the attack engagement prioritization sequence. This allows the air crew to effectively avoid enemy contact and rapidly engage and destroy the air defense while digitally reporting to the battle commanders the hostile emitter's location and battle damage.

When the RFI detects a threat emitter, the crew initiates a "Cued Search." With one push of a button, the FCR immediately performs a narrow scan of the emitter's azimuth location and locks on. Longbow automatically computes an inertial-nav ballistic solution and arms a Radio Frequency (RF) Hellfire missile for launch. At will, the pilot simply squeezes the trigger and forgets. He knows the missile's dual-seekers will adjust trajectory as necessary until impact. The threat targets, rather arrayed as stationary, accelerating, decelerating, or conducting evasive jinking maneuvers, will still result in a first-round direct hit.

By combining the Pilot's Night Vision

Sensor (PNVS) and Forward-Looking Infra-Red (FLIR) imagery with the radar's terrain mapping data, the FCR's Terrain Profile Mode (TPM) provides the flight crew with increased obscurant and adverse weather navigation and battle position penetration capabilities. Under very antagonistic weather in near zero visibility, Longbow avoids terrain, trees, and man-made obstacles, reaching battle positions that other helicopters cannot.

During OT, the Longbow Apaches proved their value in performing critical battlefield reconnaissance and intelligence gathering missions. With its FCR, GPS, enhanced communications capabilities, and the IDM, Longbow demonstrated the ability to effectively work as a key member of the digitized Force XXI battlefield. Battalion, Brigade, Division, and Corps commanders will use Longbow's intelligence gathering and communication networks for their tactical operation centers.

In September 1996, two Longbow prototypes will fly to Ft. Hood, TX, to train for participation in the U.S. Army's Force XXI digitized battlefield exercise. At Fort Hood, and again at Ft. Irwin's National Training Center, the Longbow Apaches will serve a primary role providing intelligence, conducting reconnaissance, and engaging in deep-strike and close-battle attack missions for the digitized Force XXI task force.

In January 1995, after completing 58 months of technical testing and 3,300 flight test hours on the six prototype helicopters, Longbow stood ready for its final exam, Initial Operational Test and Evaluation (IOTE). Establishing the criteria for scoring IOTE, the Test Integration Working Group (TIWG) and the Army Test Community of over 1,400 participants put in place the Critical Operational Issues and Criteria (COICs), evaluation

methodology, and Measures Of Performance (MOPs) to determine operational effectiveness and suitability.

Testers measured Longbow's performance, in terms of combat effectiveness (lethality and survivability) and operational suitability (reliability, availability, maintainability, and air transportability), against the world's strongest attack helicopter, the AH-64A baseline Apache.

The U.S. Army formed two company-sized aviation units for the IOTE; each with 35 enlisted soldiers and 16 pilots. The baseline Apache unit received refresher training and an independent evaluation by the Combat Aviation Training Brigade at Fort Hood, TX. The unit excelled and scored as one of the most proficient attack helicopter units in the entire Army. Meanwhile, the Longbow unit received transition training in Mesa on three prototypes augmented with intense classroom and simulator instruction.

A two-month Force Development Test and Experimentation (FDTE) exercise at Ft. Hunter Liggett provided time for A/229th AHB Longbow flight crews to conduct collective training and validate new fighting Techniques, Tactics, and Procedures (TTPs) in a battlefield environment. Extensive use of simulator training in Mesa provided battle rostering of pilot teams and solidified tactical procedures. Simulation training saved scarce flight hours and established a precedent for simulation in future Army aviation operational testing.

IOTE brought the two helicopter units to Fort Hunter Liggett where, over the next three months, OT would involve more than a thousand personnel and highly robust opposing forces making this \$28 million test the largest and most comprehensive in Army Aviation history.

The first phase of IOTE, conducted at

China Lake, consisted of day and night gunnery operations in full battlefield conditions. Green-suit pilots fired a total of 20 RF Hellfire missiles against moving and stationary T-72 tanks and air-defense vehicles. In all cases, the firings were conducted against one or more active and passive countermeasures to include bi-spectral and multi-spectral smoke, fog-oil smoke, radar-absorption rugs, conformal radar-scattering nets, and radar decoys. In the smoke-degraded environment, the Longbow helicopters quickly and easily detected, identified, engaged, and hit all targets in the threat array; while the baseline A-model detected only a few targets and identified and engaged none while smoke persisted (laser back-scatter easily occurs in a smoky or dusty environment, preventing a laser-guided missile from finding its target). Through battlefield obscuration or precipitation, FLIR only detects some hot targets but cannot identify and see all targets like the Longbow's FCR. The FCR encountered no false alarms throughout the Gunnery OT and performed perfectly as designed.

The second phase of IOTE, the Force-On-Force, consisted of two "Blue" attack helicopter teams: one company of eight baseline Apaches and one company of six Longbows. These teams flew a combined total of 30 battlefield vignettes approved by the Defense Intelligence Agency (DIA) based on a Southwest Asia scenario. Each team flew 15 comparative trials consisting of multifarious vignette scenarios on deep-strike attack missions, and deliberate and hasty close-battle attacks against an advancing highly robust "Red Force." Each Blue helicopter team took turns carrying out well planned attack missions against modernized opposing Red ground force. The Red team

included very high concentrations of air-defense units linked to early-warning radar systems, employing multiple countermeasures against the blue teams.

To prepare for the Force-On-Force evaluation, the U.S. Army developed an advanced and fully integrated threat array. Postulating the growth of threat capabilities, the opposing "Red" ground force armed itself heavily and digitally linked its tanks, APCs, and ADUs for rapid communication capable of quickly passing acquired "Blue" target locations for engagement. Red tanks were equipped with a four kilometer, direct-fire Anti-Helicopter missile. This extremely lethal missile scored many hits during every trial against the baseline Apache. However, because of Longbow's enhanced situational awareness, suite of improved electronic countermeasures, and reduced exposure time, the threat missiles hit the D series only once over 15 trials.

Acquiring Blue air-targets at over 50 miles, Red's early warning Target Acquisition Radar (TAR) demonstrated a very lethal threat to both U.S. helicopters. The TAR provided Red Forces accurate helicopter targeting data and alerted the Red air defense and ground forces of the Blue Force's movements. With the TAR handing targets over, the Red air-defense systems didn't waste time using their acquisition mode, but fought in their direct-engagement mode, thus Blue helicopters received little or no warning. An interesting note, test limitations prevented the Blue forces from targeting the threat's TAR, otherwise Longbow would have scored even greater lethality over the baseline Apache.

IOTE results concluded that Longbow teams detected more threat targets and eliminated moving and stationary ground targets at much higher engagement rates.



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This makes the Longbow a mighty combat force multiplier. Owing to increased battlefield management and situational awareness, the Longbow team didn't encounter any incidents of fratricide, compared to 34 fratricides committed by the baseline Apache team.

Longbow pilots flew over 400 OT hours bringing the total flight test program to 3,700. During this time, U.S. Army soldiers in the field environment successfully demonstrated full aircraft maintainability during a very high OPTEMPO by performing every maintenance task on all six helicopters without contractor support. Longbow's Operational Availability, or "A-sub-O," with or without the radar kit, exceeded their availability specification requirements by achieving 91.4 and 92.5 percent respectively. The Aircraft's Mission Mean Time Between Failure (MTBF) scored 22.2 hours, and the Fire Control Radar's Mission MTBF achieved 136 hours. Both airframe and FCR exceeded their operational reliability requirements.

A U.S. Army aviation maintenance platoon (A/229 AHB) successfully demonstrated the conversion of a Longbow aircraft without radar kit to a Longbow with radar kit (including two up-rated 701C engines). In a field environment using the unit's organic equipment, these soldiers took only 4.5 hours to finish the conversion. Army maintainers accomplished the aircraft conversion for just the radar system (without -701C engines) in less than one hour. These soldiers easily prepared the Longbow Apache for air transporting in a U.S. Air Force C-141, C-5, or C-17 aircraft in only 3.5 hours, less than half the time required by U.S. Army operational performance specifications.

With 58 months of successful testing completed, the PM moves forward to production. In October 1995, an on-time

Milestone III brought a DAB approval for entering the Production Phase. Over the 15-year fielding plan, we will produce 758 Longbow Apaches and 227 Fire Control Radar Kits. In December 1995, the PM's Contracting Officer signed the Lot 1 contract with McDonnell Douglas for the first 18 Longbow Apaches.

Over the next six months, the PM will be working to transition the Lot 1 contract into an accelerated five-year, multi-year contract for at least 232 Longbow Apaches. The multi-year contract shortens the Production Phases, saves funding, stabilizes the industry production base and delivers 50 additional Longbows in the 5-year contract period without requiring an increase in the Army's out-year production budget.

In March 1996, the PM started the pre-modification process on the first eight Apache airframes which includes disassembly and fuselage modifications prior to production-line induction. The Longbow induction process for the first two airframes begins third quarter FY 96. The first Longbow production model delivery to the U.S. Army will occur in March 1997 while army pilot and maintainer training continues at Mesa from January 1997. By mid-September 1997, the First Unit Equipped (FUE) Longbow Apache attack helicopter company will become operational at Ft. Hood, TX. Ft. Hood will receive its first Longbow Crew Trainer (LCT) in February 1999.

Based on the outstanding results of operational tests, we know Longbow Apache will serve as the commander's "Trump Card" Weapon System and will dominate future battlefields for many years to come.

★ ★

*LTC Nielsen is the Assistant Project Manager for the Longbow Apache Attack Helicopter over tech-development and testing, AAH PMO, St. Louis, MO.*

## THE CHALLENGE: "PROVE IT!"

### *Army Air Traffic Services support the needs of the warfighter.*

Since the conclusion of DESERT STORM, the Army has undergone fundamental change and endured turbulence in any number of areas — force structure, doctrine, communications, budget, information management, etc.

With the exception of operational requirements which seem to continue to multiply, it is difficult to identify any area of our service today that has not been touched by this drive to downsize with its hope for consequent budget savings. A corollary to this downsizing is the seemingly inevitable reaction to protect a particular capability or unit or weapons system. Every professional, regardless of his or her area of expertise, believes that the Army will suffer from the reduction in, or loss of, a specific capability.

Army Air Traffic Services (ATS) has not been exempt from the downsizing effort. But as further efficiencies are sought, as possible future force cuts loom, the present ATS force is at risk. "Ah ha," you say, "our corollary in action!" Yes, of course. But ultimately, the Army *does* need the operational capabilities which the

ATS community provides to a commander, whether that be a Joint Force Commander or a battalion task force commander. And, of course, as with any assertion, the challenge remains: "Prove it!"

Fine. Where shall we start? How about some facts and statistics? In one battalion, during the period 1990 to 1994, nearly 1,000,000 tactical aircraft

movements — predominantly tactical movements — were handled without accident nor incident in all mission scenarios under all weather conditions. Additionally, the controllers were never identified as a "contributing," nor as a "present but not contributing," finding in any accident investigation.

In another unit, during 1995, the controllers recovered five aircraft by GCA approaches during emergencies that occurred while the aircraft were under instrument conditions, including two UH-60 aircraft each experiencing an engine failure. That unit handled over 250,500 movements in 1995 alone. Two other units provide bilingual ATC services for allied operations. Throughout the world,

Army controllers staff our airfields that are critical to the smooth functioning of both military and civil aviation operations. One Army center handles roughly one million more aircraft movements per year than the next busiest center at Chicago.

How about controllers who are trained not to an Army standard, but who are trained to the demanding standards of both the Federal Aviation Administration (FAA) and the International Civil Aeronautics Organization (ICAO), and who then have trained host nation controllers to the same standard during mission execution? A Sergeant First Class 93C writing letters of agreement with nine allied nations for an airport's operating procedures during an MOOTW? Insuring strategic theater airheads remain operating by providing terminal tower and radar approach services? Winning numerous unit and individual national level awards — both military and civil? A Tactical Aviation Control Team (TACT) — representative of the capabilities of all tactical ATS personnel — recognized by an 82nd ABN DIV Battalion Commander for being, first and foremost, *soldiers* on whom he could count to perform not just their ATS duties, but those of any 11B soldier? Well, these statistics and facts are fine, but they capture only one piece of the entire picture.

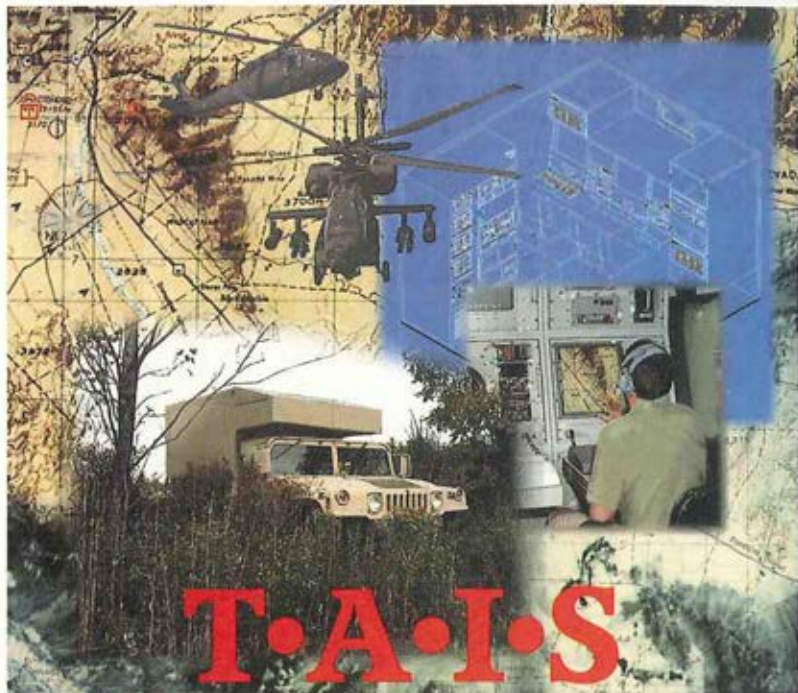
Does doctrine and emerging concepts to which our Army subscribe provide a means of capturing the operational capability requirement which ATC can fill? Some selected capability threads woven continuously through our many and varied strategic, joint, and service concepts, directives, and doctrine are force projection, force protection, simultaneity, and synchronization. Specificity of these capabilities increases, of course, from the national strategic level down to a service

execution level. ATS units and personnel are key and essential to providing these capabilities. Let's see how!

There is a significant body of doctrinal and conceptual materials which speaks to the need for a viable ATS capability. At the top of this pile are the National Security and National Military strategy statements which establish our Army as a strategic, CONUS-based, power projection force capable of responding to the uncertain world environment of today. How do we perform our power projection mission, especially in the early phases of any deployment? By air! ATS personnel man those power projection airfields in CONUS such as Hunter, Lawson, and Biggs AAFs which are so critical to our force projection army. Maintaining these many facilities is absolutely critical.

The manning of these facilities, though, is not the only consideration. These fixed base facilities are the means by which the ATS community certifies and maintains proficiency of controllers in terminal operations. Why? Because our early entry ATS personnel — whether airborne or air assault — initially provide tactical services tailored to the situation, and then routinely transition quickly into running an ICAO/FAA terminal control area handling the military and civil aircraft involved in the theater's follow-on strategic and intratheater lift operations.

Joint Publication (JP) 3-52, *Doctrine for Joint Airspace Control in the Combat Zone*, emphasizes the need to accommodate US, host-nation, and multinational airspace control activities within the joint combat zone. JP 3-52 goes on to state, "Service component air traffic controller training, which emphasizes military terminal air traffic control in peacetime operations, needs to be augmented by combat-specific air traffic control training. Combat zone airspace control procedures and



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able Tactical Airspace Integration System configured to meet mission requirements. Our system utilizes field proven off-the-shelf equipment for rapid fielding and a low life cycle cost solution to the Army's requirement.

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# AN AIR TRAFFIC SERVICES

Army Air Traffic Services (ATS), in a broad, generic sense, encompasses two functions: Air Traffic Control (ATC) and Army Airspace Command and Control (A<sup>2</sup>C<sup>2</sup>). The proponent for ATC is Aviation Branch; Combined Arms Command (CAC) is the proponent for A<sup>2</sup>C<sup>2</sup>.

ATC can be thought of as those positive and procedural control services provided to air traffic in terminal areas, along controlled routes, and throughout navigational aids systems. Facilities such as towers, IFR route structures, and departure, arrival, and enroute radar centers are examples of ATC.

A<sup>2</sup>C<sup>2</sup>, on the other hand, executes the integration, management, and deconfliction of the third dimension of the battlespace largely through procedural control means. Positive control, while an option (usually associated with USAF directed operations) is, for Army tactical operations, a choice of last resort. Procedural airspace control provides aircrews and other users of the airspace the broadest possible latitude in planning and executing their missions while allowing for the best use of the airspace by all airspace users. The more common, jointly promulgated airspace control measures are the coordinating altitude (CA), standard army aviation flight routes (SAAFR), restricted operations zones (ROZ), minimum risk routes (MRR), and high density airspace control zones (HIDACZ).

Though each of the present ATS groups (1AC/1ARNG) and battalions (2AC/2ARNG) in the Total Army are different due to theater and mission peculiarities, certain services at each echelon are common to all. There are also separate ATS companies. The following descriptions are general in nature, and are keyed to tactical ATS units. Some particulars may differ between units. (CONUS fixed base ATS operations are not included.)

**Tactical Aviation Control Team (TACT):** TACTs are 3-4 personnel with appropriate equipment and supplies to operate for up to 72 hours. Members are usually Airborne or Air Assault, Pathfinder, and increasingly, Ranger qualified. Each team may carry manpack SINCGARS, UHF/VHF, and HF radios, as well as a tactical Non-Directional Beacon (NDB). Their basic piece of equipment will be the Tactical Terminal Control System, AN/TSQ-198, just being fielded to the units. Until fielded, they use the dated AN/TSQ-97. These TACTs largely support the maneuver brigades in the divisions, and may also be required to establish divisional LZs, FARP, etc. They can convert a tactical landing strip into an FAA/ICAO-compliant terminal control area. As these soldiers progress in rank, they move on to fill positions within the other elements of the units.

**Tower Team:** These personnel are trained to install and operate a semi-permanent tower assembly to terminally control either a VFR airfield, or operate as the tower in an IFR control zone to FAA/ICAO standards. For long-term operations, they would follow-on to relieve the initial capability established by the TACT. Normally, this section will support a large brigade task force, or the divisional/corps/Echelons Above Corps (EAC) airfields. They also play a key role in disaster relief operations, replacing

# PRIMER (OF TACTICAL SORTS)

destroyed or damaged ATC towers until repairs are accomplished. This section uses the AN/TSW-7A Air Traffic Control Central.

**Radar Team:** These personnel install and operate the ground control approach equipment — a fully functioning precision approach radar facility. Again, these operations are fully certified by FAA Flight Standards, and operate under FAA/ICAO regulations. This team will normally be found at the same levels as the Tower Team. Their equipment is currently the 1950s era technology, the AN/TSQ-71B, Landing Control Central. However, PM ATC is working on its replacement, the Air Traffic Navigation, Integration and Coordination System (ATNAVICS) for fielding in the late 1990s.

**Flight Coordination Center:** (May also be referred to as the Flight Operations Center, depending on mission and echelon of assignment.) A section in great flux. Traditionally associated with voice flight following of Army aircraft, this section is being redefined to provide a maneuver commander full situational awareness of the third and fourth dimensions of his battlespace. A critical point here, though, is that not everyone in the world will be digitized. Thus, this section must retain the capability to execute voice flight following and C<sup>2</sup> of air traffic in MOOTW.

Currently using the AN/TSC-61B, Flight Coordination Central, with many home-grown fixes to stay operationally capable, the new objective system for this mission is the Tactical Airspace Integration System (TAIS). The ORD was approved in 1995, and PM ATC is working to field this system as quickly as possible. This section is key to the A<sup>2</sup>C<sup>2</sup> efforts of the supported unit. These sections are found at division and corps level, though emerging doctrine, if implemented, will place them also at brigade and EAC levels, as well as refer to them as Airspace Information Centers.

**A<sup>2</sup>C<sup>2</sup> Section:** Each division, corps, and EAC element has an A<sup>2</sup>C<sup>2</sup> team form the core of its TOC A<sup>2</sup>C<sup>2</sup> cell. While emerging doctrine will place A<sup>2</sup>C<sup>2</sup> teams at brigade level, there currently are no formal A<sup>2</sup>C<sup>2</sup> teams for brigades. However, for specific missions, an A<sup>2</sup>C<sup>2</sup> LNO team may assist brigade-size task forces to insure A<sup>2</sup>C<sup>2</sup> is coordinated. Additionally, A<sup>2</sup>C<sup>2</sup> LNOs from the battalions are routinely placed in the Battlefield Coordination Detachment (BCD) — the ARFOR's senior liaison element to the Joint Air Operations Center — at theater level.

Finally, the 164th ATS Group and the 3-58th Aviation Regiment, in Korea and Germany respectively, have associated TDA missions to support the many fixed base facilities in those theaters. Experience has shown, though, that often ATS personnel from the tactical echelons are used to meet these requirements. This "borrowed military manpower" dilemma is a mixed blessing in that it provides personnel an opportunity to gain the necessary training, skills, and experience required to perform their mission in a "come as you are" war.

personnel must be exercised in peacetime to be effective in combat." Only trained and certified controllers understand and can implement this requirement. This is one reason why the operational capabilities offered by ATS is important.

A second area identified in the trace from our national level documents down through our joint and service doctrine into our branch materials is force protection. Earlier, some specific statistics were cited which identify the direct contribution which ATS makes to force protection through the saving of lives and the conservation of scarce resources. Those statistics are tied directly to the terminal and enroute control environment. But when the Chairman of the Joint Chiefs, in his *Joint Vision 2010* statement, talks of "full dimensional protection" as one of four operational concepts, he also alludes to the challenge our commanders at all levels face as they struggle to *synchronize* their warfighting capabilities to achieve *simultaneity of effort* in their battlespace.

For our Army, this effort of integrating, managing, and deconflicting all users of the third dimension of the battlespace in the assigned Area of Operations so as to reduce and eliminate fratricide while allowing for the best and fullest possible use of that airspace falls under Army Airspace Command and Control (A<sup>2</sup>C<sup>2</sup>). Though the J/G/S-3 has staff responsibility for this function, senior ATS liaison personnel are the heart of the A<sup>2</sup>C<sup>2</sup> cell at most brigade task force, division, corps, and ARFOR TOCs. Airspace is ATS business, and there is not another community in the Army which understands the full spectrum of airspace integration and management — from the power projection bases in CONUS through domestic and international airspace systems through the transition zone into the JOA forward

through the various command echelons out to the furthest depths of the battlespace — like the ATS community.

This has been verified consistently in after action reviews (AARs) from MOOTW, domestic support operations, combined, joint, interagency, and service exercises, and corps and division-level BCTP exercises. These AARs capture convincingly the operational necessity of ATS personnel in A<sup>2</sup>C<sup>2</sup>; quantifying their contributions, though, is difficult. Literally hundreds of coordination issues can arise during any given operation or exercise, depending on its complexity. But it is only when a failure in the system leads to a fratricide incident that A<sup>2</sup>C<sup>2</sup> personnel are called to task.

No fratricide incident is acceptable, and that, of course, is the goal of the A<sup>2</sup>C<sup>2</sup> cell personnel. A<sup>2</sup>C<sup>2</sup> personnel also assist the commander by working ICAO and host nation airspace issues. Assisting the operational commander in the execution of his A<sup>2</sup>C<sup>2</sup> responsibilities — deconflicting his battlefield operating systems to assure the maximum simultaneity of effects — is a natural task for ATS personnel.

The discussion here represents just a sampling of those required operational capabilities to meet our branch's "broad but operationally focused" vision as recently stated by the Aviation Branch Chief: "[our goal is to achieve] a balanced force with application across the entire continuum of full dimensional operations." ATS is a key element of this balanced force. ATS units provide corps and divisional commanders with the expertise, dedication, and capabilities necessary to deploy rapidly anywhere in the world and immediately establish those airspace management systems (A<sup>2</sup>C<sup>2</sup> and FAA/ICAO) and air traffic control ser-



VICES which are so vital to the warfighting force. ATS contributes directly to the maneuver, firepower, and force protection needs of the commander by deconflicting competing users of the airspace, ensuring that the maneuver plan is fully supported by firepower, aviation, logistics, and intelligence platforms while conserving precious soldier and materiel assets through the A<sup>2</sup>C<sup>2</sup> anti-fratricide process of coordination, integration, and deconfliction. ATS is fully engaged across the force and across the continuum of operations.

In conclusion, ATS supports the needs of the warfighter! And it is their evaluations which count the most. As the QRF Commander in Somalia and the Aviation Brigade Task Force Commander in Haiti stated following those operations, "Army ATC was invaluable to our efforts. They are simply the best!"

★ ★

*LTC Kaufmann is a Staff Action Officer in the Concepts, Doctrine, and Force Policy Division, Office of the Deputy Chief of Staff for Operations and Plans, Washington, DC.*

*Editor's Note: More ATS coverage will appear in the June and July issues of ARMY AVIATION Magazine.*

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## ARMY AIR TRAFFIC SERVICES IN EUROPE — A STATUS REPORT

"Tuzla Radar, this is Globemaster Three, requesting GCA." With this request, the soldiers of 3rd Battalion, 58th Aviation Regiment began their historical participation in Operation JOINT ENDEAVOR. The Battalion deployed a tactical Ground Control Approach (GCA) radar team to Tuzla, Bosnia-Herzegovina (B-H), to provide a GCA facility for the U. S. Air Force as part of NATO's Implementation Force (IFOR).

The early deployment of this section made it the first U.S. Army Aviation organization to establish operations in the former Yugoslavia on 18 December 1995.

The 3rd Battalion, 58th Aviation Regiment (ATS) provides all Air Traffic Services (ATS) to U.S. Army Europe and its major subordinate commands. From its forward deployed location, the Battalion also supports NATO and U.S. Air Forces Europe (USAFE) missions when requested. The Battalion, headquartered at Wiesbaden, Germany and assigned to 12th Aviation Brigade, consists of a Headquarters Company, two division ATS companies, and a corps ATS company. The

*The 1995  
Robert M.  
Leich  
Award-winning  
unit briefs  
its mission.*

Battalion is augmented with a Communications Zone (COMMZ) ATS company consisting of four terminal (IFR airfield) platoons.

These subordinate elements are dispersed geographically over nine locations in south central Germany, covering an area of 35,000 square miles. This alignment supports the Battalion's dual mis-

sion of providing tactical and installation ATS to USAREUR's subordinate commands.

3-58th AVN REGT has the MTOE capability to install, operate, and maintain seven fully instrumented airfields (Tower, GCA and NDB). It can also operate six VFR landing areas (Man-portable tower and NDB). Additionally, it can establish an enroute structure (VFR and IFR) with three Flight Coordination Centers (FCC) for airspace coordination and flight following, and up to six enroute Nondirectional Beacons (NDB).

The Battalion, augmented with a small TDA consisting mostly of local national controllers and maintenance technicians, operates 19 ATS facilities at nine installa-

tions, and maintains equipment for airport advisory services at six other facilities.

In addition to the traditional air traffic control functions, the Battalion also provides advice and assistance to commanders from brigade to theater on Army Airspace Command and Control (A<sup>2</sup>C<sup>2</sup>) issues. The battalion's four ATS liaison teams, each consisting of an officer and senior NCO, provide liaison to division, corps, and Echelons Above Corps (EAC) level headquarters.

The Battalion averages about 300,000 aircraft movements per year. During 1995, 5,110 safe aircraft movements during tactical training exercises or deployments were handled. The seven installation GCAs provide IFR recovery and instrument capability at USAREUR's busiest airfields, Grafenwoehr and Heidelberg AAFs. The often unpredictable weather in central Germany makes the unit's GCAs an essential tool for aviation training and force protection. In 1995, the Battalion recovered aircraft during numerous emergency situations. In particular, five aircraft during emergencies under instrument conditions, including two UH-60 engine failures, were professionally handled. In two instances, there were general officers aboard the aircraft.

The 3-58th AVN REGT (ATS), like the rest of V Corps, focuses its training program on contingency operations in support of U.S. European Command. Unlike most other V Corps units, the 3-58th AVN is not able to train full time for contingency missions. Its normal mission is to operate the installation ATS facilities. When alerted for a contingency mission, the unit must quickly adjust installation operating hours and pull soldiers from the entire Battalion to a central location to form an appropriate force to support the new mission. Never was this

more challenging than in 1995.

In May 1995, the Battalion was alerted for a possible contingency mission to support Task Force Lion, a force built around Southern European Task Force (SETAF), and including two corps aviation brigades. The Battalion immediately began reducing services at airfields to conduct the tactical training required for the mission. However, aviation units needed increased ATS at home station to support their training requirements for night and NVG qualified crews. All facilities went to emergency and extended hours to meet the support and training requirements.

These preparations culminated in Exercise MOUNTAIN SHIELD I, the largest aviation and ATS exercise conducted in Europe since the Gulf War, involving over 130 rotary wing aircraft. Grafenwoehr Army Airfield (GAAF) served as the Initial Staging Base (ISB), launching over 100 aircraft for the actual night assault. A tactical ATS platoon provided services at the former Kitzingen AAF, the Forward Operating Base (FOB). The platoon handled over 2000 movements in two days, including over 600 movements under NVGs and in the most intense and demanding scenario imaginable.

A key element of the Battalion's success was the role of the airspace specialists, senior NCOs sent out as liaison officers to TOCs at every level of command, including USAREUR's Battlefield Control Element (BCE), Allied Forces Southern Europe's Combined Air Operations Center (CAOC), V Corps, SETAF, 11th Aviation Regiment (TF Eagle), and 12th Aviation Brigade (TF Griffin). The Battalion's airspace experts coordinated and deconflicted use of airspace, developed airspace plans, and evaluated airspace aspects of the exercise.

In September, the Battalion deployed to the Combat Maneuver Training Center (CMTC) at Hohenfels to participate in Exercise MOUNTAIN SHIELD II. This exercise, with a scenario similar to its predecessor, required the deployment of six tactical ATS teams, controlling VFR landing areas and a FARP for over 100 aircraft. Hohenfels Tower handled the staging area for the aircraft as they formed into flights and departed for the FOB, located at a drop zone on Grafenwoehr Training Area and at GAAF. The Battalion again deployed teams of airspace specialists to coordinate airspace, prepare and manage airspace plans, and to evaluate the execution of airspace plans and ATS operations.

In the middle of the exercise, with very low illumination, a CH-47 crew under NVGs declared an emergency and landed on the Y in the FOB. At the same time inbound aircraft declared themselves short of fuel. Controllers expertly handled the emergency, quickly implemented emergency plans, and continued operations with only a 2 minute delay of flights. This event was particularly noteworthy because there was only one approach pad marked for night operations, and there were already over 50 aircraft on the ground in the landing zone. This is a prime example of the force protection value-added of ATC soldiers to any tactical operation.

In October, the Battalion was alerted for deployment to the former Yugoslavia to provide ATS for aviation forces supporting NATO's IFOR mission. This mission presented some unique challenges for the Battalion. First, Battalion strength had reached a low of 68% for controllers. The Battalion, due to the installation requirement and the fact that tactical operations had focused on towers only, did not have a single qualified GCA team; the mission

required two. The Battalion had not deployed an FCC team since January 1995, but the mission called for three.

The Battalion quickly reduced services at installation ATS facilities and formed a contingency company built around Company E, the COMMZ Company, at Grafenwoehr. The company went into an intensive maintenance and training period. In an unprecedented accomplishment, the unit's personnel flight checked four of the 1950s vintage radars within the space of one week, and completed a fifth the following week. The Battalion trained two terminal platoons and two enroute platoons to Mission Training Plan (MTP) standards and certified the soldiers and equipment to USAREUR's exacting deployment standard.

On 10 December, the first GCA team deployed by C-130 to Tuzla, Bosnia-Herzegovina, one of the first U.S. Army units to arrive on the ground in the former Yugoslavia. Within 8 hours of landing, the team's GCA was ready for flight check. Within 24 hours of the flight check, the team had performed 45 GCA approaches; they handled over 50 C-130 and C-17 approaches per day during the buildup of the U.S. portion of the IFOR. The battalion earned the distinction of providing the first tactical GCA approaches for the Air Force's new Globemaster C-17 aircraft.

In the meantime, the Battalion's contingency company deployed to Hungary and established IFR airfields at Kaposujlak, Hungary and Tuzla (West), B-H, and deployed two flight coordination centers, one to Homoksentgyorgy, Hungary, and another to Zupanja, Croatia. ATS LNOs traveled to Vicenza, Italy, Budapest and Taszar, Hungary, Zagreb, Croatia, and Sarejevo, B-H to coordinate and negotiate

(58th — continued on page 53)

## CONTROLLING THE SKIES OVER THE WIREGRASS

“Crusader two-five, report Goon; warrior one-six HUB Radio, report arrival Judy or next three-zero; PIC three-five, cleared to the Troy Airport via Clio One departure, BANBI transition ...”

These are words familiar to all of us who fly in the airspace surrounding Fort Rucker, AL. They may in fact be the first exposure that many rotary wing aviators have to air traffic control (ATC). What may not be as familiar is the fact that all ATC services, both military and civil, are provided by the 1st Battalion, 11th Aviation Regiment, Aviation Training Brigade.

Every training day, members of the 1st Battalion, 11th Aviation Regiment arrive at 18 separate airfields spread throughout Southeastern Alabama. At 0630, rain or shine, these air traffic controllers begin their duty day with operational checks of equipment in preparation for a full day and night in support of the primary mission at Fort Rucker — training Army aviators. The remote airfields are home away from home to these controllers. They must travel many miles to perform

*The 1st Battalion,  
11th Aviation  
Regiment lives  
its motto:  
“Squared  
Away”.*

their mission. A few of the airfields and the Army Radar Approach Control (ARAC) also support local civilian traffic operating in the area known as the Wiregrass. It is a stressful profession that requires mentally sharp and physically fit soldiers and Department of the Army civilians.

The 1st Battalion, 11th Aviation Regiment is organized into four air traffic control companies. Headquarters and Headquarters Detachment is responsible for providing air traffic services for the Simulated Flight Training System (SFTS) of the UH-1, UH-60, and CH-47 training devices, as well as administrative support for the Battalion. Alpha Company is responsible for the basefields of Cairns Army Airfield, Lowe Army Heliport, Hanchey Army Heliport, and Molinelli Aerial Gunnery Range. Bravo Company is responsible for 12 remote stagefields where daily helicopter training occurs, and Charlie Company is responsible for Andalusia/Opp Regional Airport, Troy Municipal Airport, and the HUB Flight Following Center.

The Battalion is also responsible for the Cairns Army Radar Approach Control (ARAC). The ARAC is the only U.S. Army radar approach facility with Level IV traffic. This is analogous to the daily volume of air traffic controlled by Nashville International Airport and its approach control. The ARAC is responsible for all instrument meteorological condition operations from the surface to an altitude of 10,000 feet, within a tri-state area, covering most of southeast Alabama as well as parts of Florida and Georgia. Since this airspace is controlled by an "Army" radar approach control instead of a Federal Aviation Administration (FAA) facility, the ARAC can tailor clearances to accommodate the high density of instrument training flights operating in the area each day.

All ATC maintenance in the Battalion is performed by the Navigational Aids (NAVAIDS) Maintenance Division. This division is responsible for the maintenance of 150 navigational aids, microwave communications links, ground-to-air radio systems, recorder/reproducer systems, weather reporting systems, a new flight-following repeater system, and ATC radar systems. The NAVAIDS Maintenance Division's responsibility covers over 8,000 square miles.

A special requirement performed by the Battalion is bilingual ATC services located at Toth Stagefield. Toth Stagefield is host to flight training conducted by Helicopter School Battalion, School of the Americas. The controllers must have mastery of both the Spanish and English languages, applied to controlling aviation

training aircraft. This is the only bilingual ATC facility in the United States.

The number of accident-free movements conducted by the Battalion annually constitute almost seventy-five percent of all air traffic movements Army-wide. During 1995, the 1-11th controlled over 2.5 million air traffic movements without an ATC-related incident. Considering this air traffic is predominantly low flight time, student training traffic, this accomplishment is quite significant. The busiest four basefields and stagefield towers in the Battalion, when compared to all other civilian airfields, rank as the 42nd, 69th, 77th and 86th busiest airfields in the United States. HUB Flight Following Center alone coordinated in excess of one million more movements than the next ranking center, Chicago, Illinois.

Safety records for the Battalion are truly impressive considering the diversity of training supported by the Battalion.

The aircraft controlled by the 1-11th Aviation Regiment's personnel are flown in every conceivable flight mode and environmental condition of flight: day, night, night vision device, visual and instrument meteorological conditions, low-level, contour, and nap-of-the-earth. The controllers are responsible for directing traffic involved in extensive emergency procedure training, performed only at Fort Rucker. Battalion controllers also work with pilots that vary from "day one" initial entry rotary wing students to advanced aircraft and instructor pilot training.

Soldiers and civilians assigned to the  
(WIREGRASS — continued on p. 57)

*"HUB Flight  
Following Center  
alone coordinated  
in excess of one  
million more  
movements than  
the next ranking center,  
Chicago, IL."*

## 1ST BATTALION, 58TH AVIATION REGIMENT (CORPS)(AIRBORNE)

*It's 0001 hours. The Division Ready Brigade (DRB) of the 82nd, already in flight, receives the warning, "20 minutes!" The DRB is about to conduct an airborne assault to seize an enemy airfield and establish the airhead. Follow-on forces from the 10th Mountain Division will receive battle hand-off from the 82nd DRB. The DRB will then be extracted by air assault forces from the 18th Aviation Brigade. The drop zone (DZ), simulating the enemy airfield, will then be sectorized into multiple pick-up zones (PZs). It will require several PZs to extract all personnel and equipment. Helicopters conducting sling load operations will have to be separated from aircraft picking up soldiers for the air assault. Additionally, a landing zone (LZ) to air-land the 10th Mountain forces will have to be designated.*

*The four-man Tactical Aviation Control Team (TACT or "TAC team") from 1-58th Aviation Regiment, habitually aligned with the 82nd DRB package, goes about every move with a purpose. Noticeably, each of their rucks are heavier than most of the*

### **How ATS battalions can enhance your operations.**

*others. The TAC team is "jumping in" two man-pack SINCGARS (FM), two VHF/UHF radios, four NVGs, an ANCD, their personal weapons, and other mission essential equipment. Every member of the team is trained and ready for their mission to provide tactical air traffic services (ATS) at DZs, PZs, and LZs. The jump-master announces, "10 minutes...get ready...outboard personnel, stand up..."*

*The airborne assault, airfield seizure, and establishment of the airhead are successful. One of the TAC team members sustains an injury from the jump. He is quickly cared for and the remainder of the team drives on with their mission. They immediately energize their equipment, prepare to "frequency hop" on FM, and take initiative to develop the situation. The TAC team prepares to coordinate directly with the USAF Combat Control Teams (CCT) as the 10th Mountain forces air-land onto the DZ on C-130s. Several unexpected contingencies occur. The TAC team demonstrates its flexibility and delivers effective ATS services throughout*

*the remainder of a very complex, but common, operation.*

This scenario is not fictitious. It occurred in the weeks prior to this writing. The ATS support delivered by those soldiers is representative of any of the units assigned to the 1st Battalion, 58th Aviation Regiment (Corps) (Airborne), headquartered at Fort Bragg, NC.

The purpose of this article is to inform commanders on how ATS units can enhance their operations. Every commander in the XVIII Airborne Corps, and the 1st Cavalry Division, has access to an ATS unit. The 1-58th offers aviation commanders at all levels one of the most versatile assets for enhancing force protection, command and control, real-time battlefield information links, and expertise in the deconfliction and synchronization of airspace. All this assists in the prevention of fratricide. This report details the 1-58th, its capabilities, and the nature of the ATS soldier that comes with it.

The 1-58th provides ATS support for the XVIII Airborne Corps. It has companies located at Ft Bragg, Ft Campbell, Hunter Army Airfield, Ft Drum, and Ft Hood. Each company is in direct support (DS) of each of the Corps' divisions, and the 1st Cavalry Division. One of the companies at Ft Bragg is in general support (GS) of the XVIII Airborne Corps. The 1-58th established fully instrumented airfields, DZs, PZs, LZs, FARPs, and logistics bases in Saudi Arabia, Somalia, Haiti, and in Florida during the aftermath of Hurricane Andrew. Here's what you get with each of our ATS companies:

**"TAC teams" (the lightest and most versatile)** — The most flexible element within the ATS battalion is the TAC team. It deploys in two configurations. The first consists of three or four soldiers equipped with man-pack FM, UHF, and

VHF radios, and is employed primarily during airborne and air assault operations. They provide support at DZs, PZs, and LZs. The second uses the same complement of soldiers equipped with a vehicle mounted radio system capable of providing secure communications, including secure HF. It can also provide limited on-site weather information vital to mission success. All TAC team members are certified air traffic controllers. Most of them are airborne, pathfinder, and air assault qualified. Many are Jumpmaster and Ranger qualified. By regulating air flow in busy FARPs and during air assault operations, TAC Teams significantly increase the speed, efficiency, and the force protection factor of an operation.

**Instrumented Airfields (follow-on forces)** — As the combat theater matures, the need for division and corps airfields, and forward logistic bases arise. Each of the 1-58th's six line companies can operate a fully instrumented airfield. This includes a mobile control tower, ground controlled approach (GCA) radar, and navigational aids. These services become invaluable as the need to sustain the force grows. A desired end state in most combat theaters or peacekeeping operations is to re-establish commercial air traffic into the host nation or affected area. ATS units make that happen.

**Airspace Information Centers (AIC) (keeping airspace users informed)** — Recent doctrinal changes have expanded our flight following role and redesignated our facilities as AICs. These facilities are powerful communications packages that include FM, VHF, UHF, HF radios and the MSE Tactical Local Area Network (MSE-TACLAN). Depending on terrain, three of these facilities can provide overlapping flight following coverage for up to 150 miles. In addition to its flight following mission, the AIC outfitted with



MSE-TACLAN, can interface directly with division and corps command posts (CP). This was demonstrated successfully during the recent 82nd Airborne Division Warfighter Exercise (WFX). The AIC can send, receive, and disseminate Airspace Control Orders (ACO), Air Tasking Orders (ATO), vital airspace deconfliction information, assist in combat search and rescue, and relay other real-time battlefield information.

**A2C2 Liaison Teams (airspace integration and management)** — One of the 1-58th's most critical Mission Essential Task List (METL) areas is the integration and coordination of airspace. This includes combined and joint user airspace. Very few people understand the complex Theater Air Ground System (TAGS). Yet, if one of the pieces is just a little out of place it could spell disaster for friendly forces in the form of fratricide. Our Army Airspace Command and Control (A2C2) personnel are graduates of the Air Ground Operations School (AGOS). They are the subject matter experts at the Corps and Division level.

The 1-58th provides an officer/NCO A2C2 liaison team to the G3 (Air) of the XVIII Airborne Corps and to each of the Corps' Divisions, including the 1st Cavalry Division. Their expertise plays a vital role in the safe integration of our air assets with other battlefield operating systems during major exercises conducted throughout the Army and in the joint environment. They also play an active role in educating Corps and Division airspace managers via seminars and OPD/NCOPDs.

**The ATS Soldier (a cut above)** — With your ATS package you get outstanding soldiers and NCOs. The 1-58th has always attracted the brightest and most versatile young men and women in the Army. Seemingly a technical field, our

people pride themselves on being soldiers first. This attribute is recognized by every command we support.

In the last 12 months, 1-58th soldiers have won the 24th Infantry Division Soldier of the Year, the 1st Cavalry Division Soldier of the Quarter, the III Corps Soldier of the Quarter, and numerous other battalion and brigade level soldier competitions. The XVIII Airborne Corps NCO of the Year for 1994 was from the 1-58th.

These soldiers consistently make honor graduates, commandant's list, and leadership awardees for NCOES courses and other service schools. Several have been inducted into the Sergeant Audie Murphy and Sergeant Morales Clubs. Many of our soldiers are airborne, pathfinder, air assault, AGOS, jumpmaster, and ranger qualified. They display the same initiative, pride, and professionalism while performing their tactical air traffic services missions.

**Recent "real world" usage of ATS.** TAC teams are used in almost all JRTC and NTC rotations. In DESERT STORM, a TAC team was sent forward to supplement the Long Range Surveillance Detachment (LRSD) in the first cross-FLOT operation. TAC teams were part of JTF-180, the 82nd forcible entry plan, for UPHOLD DEMOCRACY in Haiti. Tactical instrumented airfields were used in the re-opening of the Port-Au-Prince International Airport. AICs of the battalion provided flight following for Army aircraft between Port-Au-Prince airport and Cap Haitian in the North. A2C2 liaison teams from 1-58th were utilized at virtually all echelons during the planning and execution of this operation. Elements of the 1-58th were also instrumental in the restoration of commercial air traffic in areas devastated by Hurricane Andrew.

**SUMMARY:** As our forces get small-

er, combined and joint operations will become the norm. All commanders in the XVIII Airborne Corps have access to air traffic service elements from 1-58th Aviation Regiment. They are one of the most versatile assets for enhancing force protection, command and control, real-time battlefield information links, and expertise in airspace matters. All this contributes significantly to the prevention of fratricide.

The soldiers in our ATS units are of the best quality found anywhere in our Army today. From OPERATION DESERT STORM until the present, the battalion has controlled over one million accident free aircraft movements. In the last 12 months the 1-58th has supported 8 JRTC and 7 NTC rotations, 3 Divisional and Corps level WFXs, numerous JCS level and JTF exercises (BRIGHT STAR, ULCHI FOCUS, FUERTES DEFENSAS), support of Interagency counter-drug operations (JTF-6 missions, OPBAT [Bahamas]), civil relief support (Hurricanes Andrew, Opal, and Marilyn), several EDREs and SEDREs, and a myriad of local training area exercises. How can maneuver commanders not gain from tapping into this proven resource?

CLEAR THE WAY — AIRBORNE!

★ ★

*LTC Topete is the Commander, 1st Battalion, 58th Aviation Regiment (Corps)(Airborne), Ft. Bragg, NC.*

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## CAREER

(Continued from Page 25)

been doing your entire military career.

If you do not have a computer at home

and a good working knowledge of popular word processing programs, spreadsheets, and graphics, you face a huge obstacle. Computers are a necessity for information gathering, preparing résumés and other correspondence in the job search, and in communicating with most other areas of the business community. These electronic marvels allow you to e-mail your résumé, "surf" the job bulletins, explore business opportunities, and enter communication rooms, often call "chat rooms," with others who share similar career interests and goals. Computers are also a fixture in any place you'll work.

Networking, yet another challenge, is the key to a successful job search — 85% of all jobs are found this way. You must get out, shake hands, meet people, get involved in organizations, and ask for help in finding a job. Take this challenge and make it work for you.

Finally, deciding what you are qualified to do will probably be your greatest challenge. You do not have to pay someone to test you or tell you what interests you most. Simply sit down and list those things you enjoy most, what you have done successfully, and what you will do if you have to, and what you will not do. Apply this short exercise to any number of potential career opportunities, and think in terms of managing resources, meeting deadlines, accomplishing tasks as the "team leader"; things you have been doing all of your military career. Throw in a lot of hard work and enthusiasm and you will succeed in your transition to civilian life.

★ ★

*COL Crews is the Deputy Director, TRDA Officer Placement Service (TOPS), Alexandria, VA. Reprinted with permission of The Retired Officers Association, 201 N. Washington Street, Alexandria, VA 22314. © 1996.*

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## 58TH

(Continued from Page 44)

agreements with air defense commands and air traffic control agencies. This work culminated in a 50 page Aviation Procedures Guide (APG) published by the Battalion to support U.S. Army, U.S. Air Force, and allied aviation units supporting Operation JOINT ENDEAVOR.

The blistering tempo of operations in USAREUR during 1995 provided opportunities for the 3-58th AVN to experiment with new concepts in providing ATS support. From developing concepts for FOB and ISB operations, to streamlining a GCA section to fit into a C-130 but still be mission capable on arrival, to speeding production of APGs, to establishing an IFR enroute structure with tactical NDBs, the battalion continues to innovate. As GEN William W. Crouch, CINC USAREUR, recently commented, "Major mili-

tary exercises, new personnel training, ground breaking air traffic control efforts in Bosnia, and much more demonstrated [the battalion's] versatility."

While the battalion is actively engaged in supporting NATO's forces in Hungary, Croatia, and Bosnia, the dedicated and professional soldiers and local national civilians remaining in Germany continue to operate and maintain the Battalion's nineteen facilities, although at a reduced level. The Battalion continues to support the tactical training programs of 1st Infantry Division, 12th Aviation Brigade, and 11th Aviation Regiment, and supports NATO and VIP aviation missions.

The soldiers and civilians of 3rd Battalion, 58th Aviation Regiment (ATS) are dedicated to the motto of the Regiment: "Safe, Orderly, Expeditious."

★ ★

*LTC Inman is Commander, 3-58th Aviation Regt (ATS), Germany, the 1995 AAAA Robert M. Leich Award winning unit.*

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SFC Stephen P. Garmache  
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LTC William Burnham  
CDT Richard Campbell, II  
Mr. Kenneth D. Cates  
MAJ Robin D. Cofer  
LTC Michael H. Davis  
CW4 Robert E. Davis  
CW2 Charles R. Ellison  
1LT Issac W. Ellison IV  
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Mr. Rusty Knox  
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1LT Shulchi Satoh

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SFC Terry R. Pennington  
SFC Donald R. Rhodes  
SFC Willie C. Robinson

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Mr. Marc J. Jacobson  
LTC Walter E. Lorcheim, Ret.  
Mr. Barry Price

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Mr. Regan M. Baldwin  
Cadet Michael F. Belenky  
CDT Adair M. Graham  
CDT Janet V. Kreckman  
CDT Christopher W. Magee  
CDT Ryan D. McCarthy  
CDT Jessica L. Ortega-Bradford  
Cadet Connor M. Powell  
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LTC Hans Smit  
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Mr. William H. Switzer  
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Mr. Robert M. Wall  
SFC Tanya R. Whitney

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Mr. Graham Hodge  
CW4 Stephen D. Hope  
Mr. Thomas Irwin  
Mr. Michael T. Jackson

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COLUMBUS, OHIO**

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LTC Lewis C. Rhodes  
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MAJ John Allen, Ret.  
MAJ Bloo Anderson  
Mr. Chris Bader  
Mr. Peter Ballard



## WIREGRASS

(Continued from Page 46)

Battalion have received special recognition in many different areas for their achievements. Soldiers have deployed to Saudi Arabia and Bosnia in support of recent contingency operations. Battalion soldiers have proudly earned recognition spanning from local Soldier of the Month and Fort Rucker NCO of the Year, to the Air Traffic Controller of the Year Award for the Army in 1995. Controllers of the Battalion have earned recognition as national body builders of the year, to a current U.S. Olympic wrestling team member. The ARAC was recently awarded the Air Traffic Control Facility of the Year in 1995, as well as the Air Traffic Control Association Chairman Citation of Merit.

The 1st Battalion, 11th Aviation Regiment plays a vital role in supporting not only the aviation training base at the United States Army Aviation Center, but air traffic services world-wide. Controllers assigned to the Battalion develop valuable skills in controlling a high density of traffic on a daily basis, including civil traffic operating in the National Airspace System (NAS). These precious skills carry over to future assignments in other ATC battalions throughout the Army, both CONUS and overseas.

The daily accomplishments of the 1st Battalion, 11th Aviation Regiment are legendary. The operations of the Battalion support Army Aviation and the mission of the Army Aviation Center, ensuring training is of the absolute best quality possible.



*LTC Williams is the Commander, 1st Battalion, 11th Aviation Regiment, Ft. Rucker, AL.*

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LTC Min-Hua Chang  
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Mr. Gary Gist  
Mr. Larry Green  
Mr. Edward P. Goettl  
BG Celal Gurkan  
Ms. Alison Hall  
Mr. John L. Hamm  
CW2 Gilbert G. Harper  
Mr. Richard E. Hayden  
Mr. Ronald R. Holweger  
Mr. James A. Howard  
MAJ Stephen J. Huebner  
WO1 Patrick James  
WO1 Joseph A. Jenkins  
COL Robert G. Johnson  
LTC Alan Jones  
Ms. Jane Kass  
Mr. Dary Khosrovshahi  
Mr. Keenan J. Kline  
MAJ Jim R. Kreutz, Ret.  
Mr. Jake Kuhn  
LTC Yin Hsuan Lai  
Mr. George J. Latherow  
Mr. Barry LeBlanc  
LTC Pierre-Yves LeGuen  
LTC Ching-Lin Liu  
LTC Ruperto N. Martinez  
Mr. Carlton Matson  
Mr. R. Steve McCarter  
Mr. Bill McCollum  
LTC Julian McDonnell  
CPT Edward McKee  
WO1 George E. McMakin  
Mr. Sebahattin Meta

Mr. Mark P. Milden  
Mr. Steve Moffatt  
Mr. Thomas O. Mueller  
Ms. Vickie J. Nash  
Mr. Angelo Nichols  
Mr. Art Nichols  
MAJ Daniel Nicholas  
CPT Bruce W. Olstein  
Mr. Donald P. Pashke  
ZLT Timothy J. Paterson  
Mr. Paul C. Perovich  
Mr. Richard Pether  
Mr. Levan M. Phelps  
Ms. Patricia L. Phelps  
Mr. Ron Penland  
Mr. Paul Pisaro  
Mr. Stuart F. Platt  
Mr. Val Policky  
Mr. Michael J. Quinlan  
Mr. Raymond G. Quist  
Mr. Stuart A. Rafos  
Mr. Rasheed Reda  
Mr. Brad Remmich  
Mr. Joseph G. Riter  
Mr. Charles Rustocil  
Mr. Steve Rudolph  
Mr. Thomas J. Ruescher  
Mr. Steve A. Russell  
CPT L. M. Sawyer  
Ms. Martha M. Scott  
CDT Brent A. Schultz  
Mr. Russell Schwarzer  
Mr. Richard C. Serkland  
Mr. Brent L. Sherrill  
CW4 Dennis P. Shipman  
COL Michael A. Smith  
Mr. Frank Sova  
Mr. Paul D. Stoner  
MAJ I-Shee Tang  
Mr. Michael A. Thanasiu  
Ms. Tracy Thomas  
Mr. Charles C. Torrey  
ZLT John E. Troyer  
CW4 Benjamin K. Tschuur, Ret.  
Mr. Gregory E. Turos  
Mr. David L. Vogel  
Mr. Michael R. Vogel  
COL Hsizin-Chao Wang  
Ms. Sieta Ward  
Mr. Grant Ware  
Mr. Richard H. Warfel  
Mr. Barry Wells  
LTC Shih-Chang Weng  
Mr. Alfred S. Weser  
Mr. Jackie White  
CW3 Eddie H. Whitt  
Mr. Marcel L. Widmer  
Ms. Peggy L. Wilson  
Mr. Thomas G. Wilson  
Mr. Roger Woehl  
Mr. Richard B. Wolfe  
Mr. Brent Woychesin  
LTC Sheng-Mao Wu  
BG Alptekin Yapackci  
Mr. Alexander J. Yarrnie  
Ms. Judy A. Zarloss  
SGT Mark W. Zeitter  
Mr. Joel M. Zuleback

# AAAA President's Message

*(Eighth in a Continuing Series)*

**MG Richard E. Stephenson, Ret.**

The 1996 AAAA Convention in Fort Worth was a significant success on virtually all counts. Some marginal accommodations and services and some questions on the overall duration of the event have been noted. There will be an after action review of the convention to capture the lessons learned for future planning. Please keep in mind that video coverage of all proceedings (including the NEB meeting, if you can spare the time) are available via the AAAA National Office and should be invaluable in your Chapter's professional sessions for at least a year from now, when the 1997 Louisville, KY convention products will be available.

From the NEB luncheon with GEN Hamilton H. Howze and Mary Howze and his Order of St. Michael Gold Award, through to the stirring, inspiring message by our closing banquet speaker, LTG Jack Keane, the convention seemed to be alive with energy, interest, and enthusiasm. Sincerest thanks to our industry partners, our professional program leadership from MG Ron Adams and BG Burt Tackaberry of USAAVNC and Ft. Rucker, and the panels which were outstanding open forum venues for the cross talk and cross walk that bonds and binds the Army Aviation community so very well. LTG John Cusick and Mr. Paul Bogosian were key panel chairmen. The Saturday afternoon exhibit walk-through by the Chief of Staff, GEN Dennis J. Reimer and by LTG Ron Hite, Military Deputy to the Army Acquisition Executive (on Friday), were both significant expressions of interest and support by the top leadership of our Army.

The AAAA NEB voted to have the AAAA Executive Director become a direct employee of AAAA as soon as practicable. This change moves the Executive Director from being a direct employee of AAPI, the contractor supporting AAAA. This will cause a recycle in the search for an Executive Director, since the job changes in several significant respects. We hope to have this change executed to include completion of the related changes to the AAAA-AAPI Contract, as well as the AAAA By-Laws by July 1996. The new Executive Director will be a key player in the long range future of AAAA and will be one of our best and brightest.

Thanks to all hands for the 1996 Convention success, it suggests that the declines seeming to dominate our metric trends may have bottomed out and we can realistically look to growth in the future. Why should we not have a steady state membership at the 20,000 level? We may also be looking at a relatively minor increase in individual annual membership dues, which have not been increased since 1991. When we get the individual and chapter services and support staff right, no one will have cause for concern over increased dues. That's our plan, help us to help you. Again, sincerest thanks for a super convention. Clean your boots and move on!

## AAAA Executive Director Search

**History** — On 27 March 1996, the National Executive Board of your Association voted to transfer the Executive Director position from our supporting contractor (AAPI) to the Association as soon as practicable. While the contracting implications of this action are being worked between AAAA and AAPI, we are moving ahead to search for and select an AAAA-hired Executive Director. This effort should in no way be confused with an earlier search executed by AAPI for an executive director.

**Position Description** — The Executive Director will be the Association's Chief Operating Officer (COO) with broad executive level responsibilities for the development and execution of programs enhancing the goals and objectives of AAAA and Army Aviation. The Executive Director will report directly to the AAAA Executive Group, the National Executive Board, and the AAAA Scholarship Foundation, Inc. while coordinating responsibilities with the contractor, AAPI. The Office of the Executive Director will remain in Westport, CT and administrative support will be provided by AAPI.

**Qualifications** — *Required:* broadly experienced, respected, high energy, Army Aviator or an individual with experience in Army Aviation possessing an undergraduate degree and desire to serve AAAA; results-oriented leader, manager, and team player; experience in directing complex organizations; has administrative, fiscal management and editorial skills; and is able to analyze, conceptualize, prioritize, communicate, and execute programs. *Desired:* graduate-level degree in business administration, management, or public relations; investments and budget experience; aerospace industry or non-profit professional organizations expertise.

**The Search Group** — comprised of your Senior Vice President, MG John D. Robinson, Ret., Secretary-Treasurer MG Carl H. McNair, Jr., Ret., and several AAAA Chapter Presidents selected to represent our larger chapters and provide balanced regional representation.

**How to Make Contact** — Résumés or inquiries by mail or e-mail are requested by 21 June 1996 to:

Dave Robinson  
Sr VP, AAAA  
Raytheon Aerospace  
555 Industrial Drive South  
Madison, MS 39110-9073  
drobinso@misnet.com

Carl McNair  
Sec-Treasurer, AAAA  
DynCorp  
2000 Edmund Halley Drive  
Reston, VA 22091-8486  
mcnairc@usva1.dyncorp.com

**The Selection Process** — Acknowledgement of your interest will be made as soon as possible after receipt. The most promising candidates will be given a recruiting package and asked to respond within two weeks. Limited orals will be held by the Search Group for the most promising candidates. The Search Group will provide its assessment and a recommendation for nomination to the President, AAAA for appointment subject to NEB majority approval. This process should be complete this Summer. Initial contract will be for two years, with three one-year options thereafter.

This selection concerns the future of AAAA and Army Aviation  
... be a part of these exciting times!

## 1996 PRODUCT SUPPORT SYMPOSIUM

The 22nd Annual Joseph P. Cribbins Product Support Symposium, sponsored by the Lindbergh Chapter, was held January 31-February 2, 1996 in St. Louis, MO.

The Professional Sessions began Thursday morning with a greeting by Daniel J. Rubery, President of the Lindbergh Chapter. John P. Capellupo, President, McDonnell Douglas Aerospace, delivered the Industry Keynote address, and the Government Keynote Speaker was the Honorable Paul G. Kaminski, Under Secretary of Defense for Acquisition and Technology.

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 the 7th Battalion, 159th Aviation Regiment. The 7th Battalion's exceptional performance enabled units it supports to maintain some of the highest readiness rates in the Army for UH-60, AH-64, and CH-47 aircraft. The award was accepted by LTC Larry Roberson, Battalion Commander, and CPT James R. Hevel, Battalion Maintenance Officer.

The AAAA Army Aviation Materiel Readiness Award for Contributions by an Individual Member of Industry went to Mr. Frank Gordon, COBRO Corporation, Earth City, MO, in recognition of his superb personal support and management of the Materiel Returns Services for PEO, Aviation programs and projects. Mr. Gordon's efforts have significantly enhanced this nation's warfighting capabilities.

UNC Lear Seigler, Incorporated was awarded the AAAA Army Aviation Materiel Readiness Award for Contributions by an Industry Team, Group or Special Unit. Accepted by Mr. John Moellering, Senior Vice President, Lear Seigler, the award recognized UNC's distinguished support as the Army Aviation maintenance support contractor for the 10th Mountain Division, AH-1 Refurbishment Program, Operation UPHOLD

DEMOCRACY in Haiti, and Somalia Aircraft Refurbishment Program.

Parker Hannafin Corporation was awarded the AAAA Army Aviation Materiel Readiness Award for Contributions by a Major Contractor. In early 1995, the UH-60 primary servo cylinder had 172 back orders. Parker Hannafin served as the support mechanism for the U.S. Army Aviation and Troop Command's dual acquisition strategy. Parker Hannafin's professionalism, responsiveness, and quality of product and service resulted in the complete supply readiness recovery of ATCOM's number one critical spare part. The Award was accepted on behalf of Parker Hannafin by Mr. W. Robert Dickie, Director, Customer Support.

COBRO Corporation was awarded the AAAA Army Aviation Materiel Readiness Award for Contributions by a Small Business Organization. COBRO's Materiel Return Team developed an automated tracking and processing program which ensured timely return of depot level reparable to support overhaul and repair programs, securing credit of \$36M and expediting the return of over 4,800 reparable to the wholesale supply system. Accepting the award on behalf of COBRO was Mr. James Durney, President and CEO, COBRO Corporation.

Also honored at the Symposium were the winners of the Lindbergh Chapter's Annual AAAA Membership Drive. The star recruiter was once again Susan E. Barnes, who won round trip airfare to the AAAA Annual Convention in Fort Worth, TX. LTC Mike McClellan, Ret. placed second and won a \$100 award for his efforts. In third place was Jan Garmon, who netted a \$50 award. Special thanks to the Committee: COL Kenneth E. Kellogg, Ret., Chairman; Co-Chairmen COL Norbert Pada, Ret. and LTC Robert Vlasic, Ret.; Administrator Nancy Vermillion; Awards, LTC Gary R. Butler, Ret.; Committee Member LTC Mike McClellan, Ret.; Registration, Susan Barnes, Gary Boltralik, Jan Garmon, Bridgette Murphy, and Vicki Schmitz.

Left: The AAAA Army Aviation Materiel Readiness Award for Contributions by a Major Contractor went to Parker Hannafin Corporation. Standing from left to right are then-MG John J. Cusick, Commanding General, U.S. Army ATCOM, Mr. W. Robert Dickle, Director, Customer Support, Parker Hannafin Corporation, and Mr. Daniel J. Rubery, Lindbergh Chapter President.



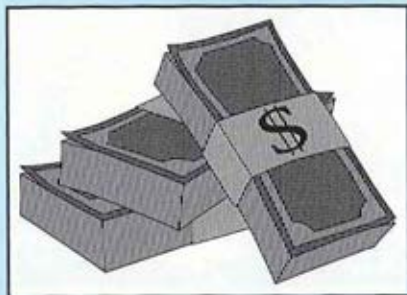
Mr. Frank Gordon (center) receives the AAAA Army Aviation Materiel Readiness Award for Contribution by an Individual Member of Industry from Daniel J. Rubery (right), Lindbergh Chapter President, as MG Cusick (seated) and Mr. Paul Bogosian (left), PEO, Avn, look on. COBRO also won the AAAA Army Aviation Materiel Readiness Award for Contribution by a Small Business Organization.

John H. Moellering (center), Senior Vice President, UNC Lear Seigler, accepts the AAAA Army Aviation Materiel Readiness Award for Contribution by an Industry Team, Group or Special Unit from Mr. Rubery (right) and MG Cusick (left).



The 7th Battalion, 159th Aviation Regiment was awarded the AAAA Outstanding Aviation Logistics Support Unit of the Year Award. From left to right: BG Stuart W. Gerald, Deputy CoS, Acquisition, AMC; Joseph P. Cribbins, Special Assistant, Safety, DynCorp; LTC Larry Roberson, Cdr, 7/159th Aviation; CPT James R. Hevel, 7/159th Maintenance Officer; and MG Richard E. Stephenson, Ret., AAAA President.

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The AAAA Scholarship Foundation, Inc. (AAAASFI) is now part of the Combined Federal Campaign (CFC), a workplace charitable fund drive conducted by the U.S. Government for all federal employees. It is the single largest workplace fund drive in the country, raising approximately \$195M in pledges annually.

Please consider making a CFC-sponsored contribution to the AAAA Scholarship Foundation this year.

## \$500 First Prize!

### AAAA Annual Essay Contest

Suspense 1 July 1996.

\$300 and \$200 for second and third places. Contact the National Office for details at Tel: (203) 226-8184 or e-mail: 74023.3400@compuserve.com

## AAAA CALENDAR

A list of upcoming AAAA Chapter and National events.

### July 1996

- Jul. 19. AAAA Scholarship Executive Committee Meeting, National Guard Readiness Center, Arlington, VA.
- Jul. 20. AAAA National Scholarship Selection Committee Meeting, National Guard Readiness Center, Arlington, VA.

### October 1996

- Oct. 14. AAAA National Executive Board Meeting, Sheraton Washington Hotel, Washington, DC.
- Oct. 14. AAAA Scholarship Executive Committee Meeting, Sheraton Washington Hotel, Washington, DC.
- Oct. 29-31. AAAA Colonial Virginia Chapter and AHS Hampton Roads Chapter, Helicopter Military Operations Technology Specialists Meeting (HELMOT VII).

### November 1996

- Nov. 12-14. AAAA Avionics/Electronic Warfare Symposium (formerly AAAA AEC Symposium), Ocean Place Hilton, Long Branch, NJ.

### January 1997

- Jan. 29-31. Joseph P. Cribbins Product Support Symposium sponsored by AAAA Lindbergh Chapter, Stouffer Concourse Hotel, St. Louis, MO.

### February 1997

- Feb. 7. AAAA Scholarship Executive Committee Meeting, National Guard Readiness Center, Arlington, VA.
- Feb. 8. AAAA National Awards Selection Committee Meeting, National Guard Readiness Center, Arlington, VA.

### April 1997

- Apr. 23-27. AAAA Annual Convention, Kentucky Fair and Exposition Center, Louisville, KY.

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