

# Army Aviation

June 30, 1976 Issue

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## HUGHES AAH DELIVERY

On 31 May 1976, on schedule, Hughes Helicopters delivered its two YAH-64 Advanced Attack Helicopters to the U. S. Army — another milestone in a top priority program.



**Hughes Helicopters**

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**Now another go-anywhere transport  
from de Havilland joins the U.S. Army...**

## **the UV-18A Twin Otter.**

The U.S. forces had already chosen the Beaver, the Otter and the Caribou—more than 1,300 go-anywhere planes from de Havilland. They knew our performance first hand. And they had a very demanding order to fill, selecting transports for "command administrative, logistical and personnel flights from battalion headquarters to remote village sites throughout western and northern Alaska on a year-round basis.<sup>6</sup>

It's no wonder they chose the Twin Otter. With their de Havilland experience. Plus these Twin Otter features:

It converts readily from wheels to wheel-skis, floats or high-flotation tires. (The U.S. is equipping each Twin Otter with all of these.)

It carries 19 troops in and out of rough, makeshift 300 m (1,000 ft) strips with room to spare.

In 15 minutes, two men can change

it to a cargo plane that will carry a payload of more than two tons.

On a hundred-mile-radius reconnaissance or search and rescue mission, it can stay aloft for more than 6 hours because of its exceptional fuel economy.

It cruises at 182 knots at 10,000 feet. Or handles easily at 70 knots for pin-point parachuting of men or supplies.

The de Havilland Twin Otter. The go-anywhere plane that has proved its dependability, versatility and economy with 18 other defence, police and government organizations. And with 135 civil operators.

*The de Havilland Aircraft of Canada Limited,  
Downsview, Ontario, M3K 1Y5.*

**Twin Otter: the standard of dependability  
and versatility in more than 50 countries.**

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Michael Walsh  
Richard Weaver  
Randy Welby  
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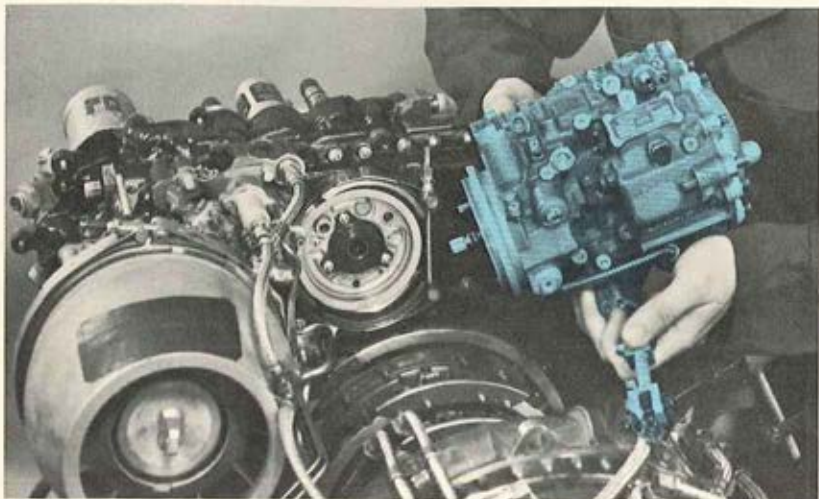
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Another T700 Maintenance Breakthrough

## 12 minutes flat in U.S. Army Time Trials.



The fuel control has been the most serviced component on current Army helicopter engines. It won't be on the UTTAS and AAH engine. The T700 fuel control is more reliable and one of the most easily serviced components on the engine.

As verified by Army maintenance personnel, 12 minutes is all it takes to remove and replace a T700 fuel control with a few simple tools. And once it is installed, that's it. *No adjustments,*

*no trimming, no rigging, no lockwiring necessary.*

The self-locking electrical connector and self-centering, quick-disconnect clamp reduce chance for error and help make what used to be a 2 hour-plus task, a very simple, fast job.

Twelve minutes for a complete T700 fuel control change. For the Army's UTTAS and AAH programs, that means fewer manhours, lower operating costs and greater aircraft availability.

205-126

The T700 now — For the Army of the 80's

GENERAL  ELECTRIC

**Some thoughts about AAAA as expressed by General Hamilton H. Howze, a highly respected commander and former AAAA National President, still ring true . . . .**



Why do our aviation people belong to AAAA?

There are a number of reasons, but one is compelling. I'll therefore devote all my words to that one.

The answer is simply the satisfaction of belonging to an association of the professionals (the military pros, plus those in the aviation industry) in what is still a new and unique endeavor.

Army Aviation is a development unmatched elsewhere in the world — it is a pioneer effort, following uncharted paths, upsetting all previous ground combat theory, building its own doctrine on its own experience because there is no other comparable experience.

Meanwhile, other military forces, world-wide, watch and learn. Our allies are carefully developing their own capabilities, much on the same pattern as ours and on the basis of what we demonstrate will work, and what won't. We may confidently assume that even our friends in Moscow study no other non-Soviet military development more closely than they do that of U.S. Army Aviation.

Airmobile tactics are revolutionary. No weaker statement will adequately present the case. Military history will never again record a major engagement (one or both adversaries being modern powers) in which vertical rising aircraft do not play a prominent — and frequently the decisive — part.

There are practically no combat or combat support units in the Army whose battle mission cannot better be accomplished by the addition of a few light aircraft; but more important than this is the combat potential of air cavalry formations and airmobile infantry divisions. The 101st Airborne Division (Airmobile) is the most powerful division, for most applications, in the world.

# AAAA.

# Why belong?

In spite of this, our Army has no aviation branch. We don't think it should have — an indispensable characteristic of our sort of aviation is its integration into practically all branches of the Army.

But for lack of an aviation branch something is necessary to hold together all who belong to Army Aviation, to afford them a society of their own and the strength and pleasure which comes from association with those who share, or have shared, the same exhilarations and dangers, who speak the same professional language, and who in their daily endeavors are changing, forever, the art and science of war on the surface of the earth.



## THEN...AND NOW

"One if by land, two if by sea" — the lantern signal from the Old North Church in Boston — worked fine in Paul Revere's time. But today's modern Army has a better way.

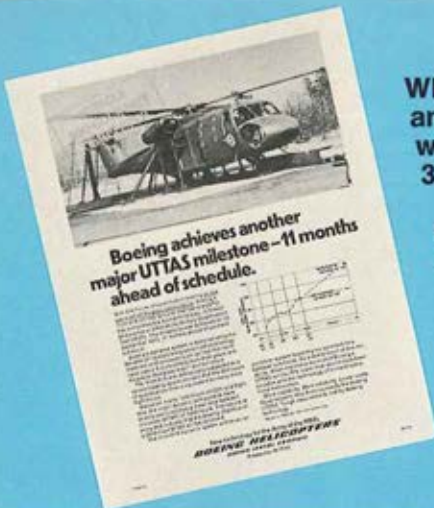
Over 200 years of improvements in the art of surveillance — with the latest photographic, electronic and

infrared sensor technology — are all together now in the U. S. Army's OV-1D Mohawk . . . being modernized in sufficient numbers to meet the demands of the next decade.

**MOHAWK . . . LOOKING OUT FOR TOMORROW'S ARMY**



**GRUMMAN AEROSPACE CORPORATION**



When you saw this announcement last October, we had just completed our 300-hr MQT.

Now we have finished 1200 hr of Military Qualification Testing on the same dynamic components.

## Boeing achieves another major UTTAS milestone—two years ahead of schedule.

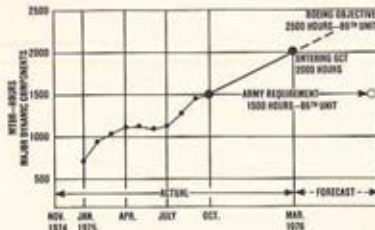
Boeing's YUH-61A UTTAS ground test vehicle (GTV) has now completed 1200 hr of endurance and reliability military qualification testing on the same set of dynamic components. This milestone was achieved on 26 March 1976, two years ahead of contract schedule.

Boeing's dynamic system is demonstrating the benefits of incorporating advanced-technology materials and concepts such as high-hot-hardness Vasco X-2 (modified) tool-steel gears and hingeless fiberglass main and tail rotors.

The YUH-61A was deliberately subjected to a severe loading spectrum such that the 1200 hours of qualification time is equivalent to many more flight hours.

Based on over 2500 hours of GTV and flight time, the major dynamic components have already demonstrated a mean time between removals (MTBR) of 2000 hours. The results of every test indicate that the Boeing objective of a 2500-hour MTBR will be surpassed.

The YUH-61A dynamic system will be an on-condition system requiring no specified time



between overhauls. As a direct result of this reliability, direct maintenance cost of Boeing's UTTAS will be 70% lower than would have been possible with the technology of current operational helicopters.

More capability. More reliability. Lower costs. Good reasons why America needs the Boeing UTTAS. Tough requirements met by Boeing technology.

New technology for the Army of the 1980's.

**BOEING HELICOPTERS**

BOEING VERTOL COMPANY

Philadelphia, PA 19142



**A** GREAT deal of time and effort is being devoted to developing tactics and hardware that are viable for the *high threat battlefield*.

The threat to Army aircraft operating in the vicinity of the FEBA consists of a balanced family of weapons systems, ranging from shoulder-fired guns, radar-directed guns, heat-seeking missiles, attack helicopters, and high performance aircraft. The primary threat is posed by air defense weapons systems which are organic divisional assets in the armies of countries that are potential adversaries of the United States.

Survivability of Army aircraft operating in this environment will be enhanced with the introduction of improved aircraft and weapons systems, such as the AAH, ASH, UTTAS, and modification or upgrade programs for the OH-58, CH-47, and AH-1.

### **Cobra Upgrade Program**

The *Cobra Upgrade Program* has been initiated to significantly improve the Army's near term antiarmor helicopter posture. The *Cobra Upgrade Program* will provide sufficient Cobra-TOW aircraft to meet the identified near term, high priority antiarmor helicopter requirement, while providing sufficient armament configuration flexibility to meet the other armed helicopter requirements of the modern battlefield.

The primary mission payload for the AH-1S will consist of eight antiarmor missiles and 500 rounds of 30mm ammunition. Alternate mission payloads will consist of 38-52 2.75" *Folding Fin Aerial Rockets [FFAR]* and 200-250 rounds of 30mm or some variant combination of TOW, 2.75" FFAR, and 30mm ammunition. The reconfiguration can be accomplished rapidly at the unit level to meet battlefield contingencies.

Aircrew proficiency and nap-of-the-earth tactics must receive continued emphasis not only for individuals, but to the point that units are totally proficient in

# IS ARMY AVIATION VIABLE ON THE HIGH THREAT BATTLE- FIELD?



**By BRIGADIER GENERAL  
CHARLES E. CANEDY,  
Deputy Director of Operations, &  
Army Aviation Officer, ODCSOPS**

NOE operations. The use of simulators is also an area requiring additional emphasis. The current UH-1 simulator and future simulators provide the Army the opportunity to improve individual proficiency, while avoiding the escalating cost of actual aircraft flight time. Our success on the battlefield will be directly proportional to the manner in which we learn to cope with sophisticated enemy capabilities.

The basic doctrine of the U.S. Army has been and will continue to be the combined arms concept — one arm cannot be dominant. Recent conflicts have overwhelmingly substantiated the accuracy of this doctrine. As an integral part of the combined arms team, Army Aviation offers dynamic new dimensions to the five land combat functions of Mobility, Command and Control, Firepower, Recon-

naissance/Intelligence, and Combat Services Support.

The multiple impact of today's aviation resources on ground operations is not limited to these capabilities. Army Aviation increases the effectiveness of ground forces overall, allowing maximum use of limited resources through rapid mobility.

In the final analysis, the *high threat battlefield* will clearly be the most formidable yet faced by Army Aviation. We must survive while accomplishing the mission. This can and will be done through the use of the proper tactics and techniques.

To develop these tactics and techniques is a matter of training, knowledge, threat awareness, and the ability to evaluate your action through the enemies' eyes.

## AHS Industry Representatives Compete for AAAA "Hot Pilot" Prizes

Well over 225 aerospace industry and military members of the American Helicopter Society (AHS) participated in the novel "Be a Hot Pilot!" coordination game ran by AAAA National Office staffers at its complimentary display booth at the recent AHS Annual Forum in Washington, D.C.

**Object of AAAA:** To get an association industry member booklet to many executives of subcontracting firms attending the AHS Forum. **Object of the Player:** To jiggle, wheel, and gyrate three magnetic "jumping beans" into the center of a circular maze as quickly as possible.

While most contestants got their beans center-target in 1½ to 2 minutes, "**Bob**" **Huston**, NASA-Langley Research Center (photo cen.), and "**Al**" **Meyer**, of GE-RESO, Phila. (not pictured) got home in **15 seconds flat!** "**They cheated!**", said the losers. Both won donated UTTAS models as shared first prizes.

"**Marty**" **Leff**, Avco VP, Mktg & Prod. Support and an AAAA Nat'l Board member (left in photo) draws the tie-breaking coupon as 1st Runner-Up "**Dick**" **Spivey** (right), Chief, Sales Engrg at Bell, gloats over his prize, a donated Hughes AAH model.

Other "Hot Pilots" included LTC "**Sy**" **Berdux**, USA (0:21), Ray Kvaternik, NASA-Langley (0:21), "**Herm**" **Waldman**, Boeing Vertol



L-r, Leff, Huston, Spivey

(0:21), "**Vic**" **Bray**, Northrop (0:25), LTC **Tom West**, FAA (0:25), Mrs. **Sandy Berdux** (0:26), **Philip G. Cooper**, Kaiser Aerospace (0:26), **William Hendrix**, Spar (0:27), "**Phil**" **Norwine**, Bell (0:29), and Dr. **H.K. Adenstadt**, Avco Lycoming former VP, (0:30).

A USMC aviator, **MAJ Merlin Huckemeyer**, centered his beans in 0:30 seconds. **John Garren**, NASA; **R.J.V.D. Harten** of KLM; and **J. Clay Staples** of Agusta tied at 0:31. **Paul Gardner**, Norton Co. went 0:32, and "**Chuck**" **Benton**, Corpus Christi, **Evan Fradenburgh** of Sikorsky, and "**Tom**" **Jobe** of IBM Federal Systems all tied at 33 seconds.

Some fun for a few well-coordinated individuals — much teeth-gnashing for most others.

**I**GUESS the word must be getting through. We are beginning to hear reactions from the field.

About six years ago, Army Aviation determined that new tactics and new skills were needed if we really expect to fight in a European combat environment. About five years ago, we levied a requirement that all aviators must have current instrument cards.

A year later, in the summer of 1972, Army Aviation announced that nap-of-the-earth would be the order of the day. A new training circular was published, which laid out the requirements for initial qualification. A little more than a year later, the October War in the Middle East validated the requirement for new tactics. Since that time, tactics, procedures, techniques, and SOP's have been pouring out of the training base.

In addition to nap-of-the-earth, we now have requirements for extensive night flight, night low level operations, tactical instrument flight, and operations in electronic warfare and chemical-biological environments.

In a very broad context, aviation is preparing itself to fight the first battle of the next war rather than to repeat the last battle of the last war. On the surface, aviators should be joyous they are being provided the tools to help them to survive and fight *effectively* the next time we go to the mat. They should grasp eagerly the new tactics and the modified hardware

that complements the new way to fight.

But, we expect too much if we anticipate a joyous welcome for the new ways of doing things. We ignore human nature. We forget that for every plus there has to be a minus. Now, we are hearing from the minuses.

### **The vocal sound off**

*The antis are counterattacking.* Pick up last month's *Army Aviation Magazine*, scan the letters to the editor in the May issue of *Army Magazine*, check your other professional publications. Those who do not understand, or do not want to change, or think they know better than the experts are sounding off. Obviously, the word is getting out and people are listening and responding.

But, all the mail is not hostile. While there are many professionals in the field who are waiting to be convinced, still others, fortunately, are writing to support the new procedures and to offer refinements to improve their effectiveness.

Still, there is a vocal number of antis who prefer to attack and to harass. Take nap-of-the-earth for instance — it was one of the *first* proposals for changing the traditional way of doing things. It wasn't a new idea because it had been practiced in the early 60's when we were testing the *Howze Board* concepts. However, we found we did not require NOE during most of the Vietnam war. Yet, when the SA-7 heat-seeking missile ap-

# **THE ANTI'S ARE COUNTERATTACKING!**

**By MAJOR GENERAL WILLIAM J. MADDOX, JR.**  
**Commander, U.S. Army Aviation Center and Fort Rucker**

peared in the 1972 NVA offensive, the picture of the next battlefield came clearly into focus.

Nevertheless, a number of aviators have attacked the concept on the basis that it violated safety restrictions and the normally accepted way of doing business. The question, reduced to its simplest terms, was whether the aviator should be safe but dead, or would he be better off flying the new, more demanding flight regime and live to fight another day. By now, the training base has produced enough literature and enough people training in NOE that the voice of the antis to this issue is dying out.

A newer tactic is called *tactical instrument flight*. The procedures are outlined in FM 1-5 now being published. Basically, *tactical instrument flight* involves flying instruments at very low level so that the crew can continue to function effectively in the forward areas of the battlefield. We are talking about flying only 400 feet above the highest terrain along our general route of flight from point A to point B.

*Tactical instrument flight* involves spiral letdowns to within 200 feet of the highest ground in the vicinity of a radio beacon. It is designed for people who are

caught out in conditions where they cannot function effectively nap-of-the-earth, or where they inadvertently enter instrument conditions and cannot rise to higher altitudes because of the enemy air defense threat.

*Tactical instrument flight* is an extension of the CONUS-type instrument flying with which most Army Aviators are intimately familiar. While the name is similar, the game is different from the old tactical instrument card that many people possessed during Vietnam. It is different because the new tactical instrument training not only gives the aviator a high degree of skill, but also the confidence that he can operate effectively in adverse weather conditions in the forward areas of the battlefield. If an aviator is well qualified at CONUS-type instrument flying, he can perform *tactical instrument flight* as soon as he learns the new procedures.

### The aviator creates his own way

In effect, the aviator creates his own airway and establishes his own letdown and descent minimums. Under CONUS instrument flight rules, he would have to send his letdown plate to the FAA for approval. Under the new rules, he can mark the letdown on his tactical map or on his windshield with a grease pencil.

However, the antis say, "Why not go NOE all the way?" Or, "Why should we fly instruments at all?" From my observations, the center for this point of view expressed by the antis is located at Fort Hood, Texas. But, remember that Fort Hood has some special flight conditions which make it different from Europe, Korea, or even Fort Rucker.

Fort Hood, normally, has excellent weather, but it may have such bad weather that nobody can fly in the whole state of Texas. There is not much in the way of weather between these two extremes. Europe, on the other hand, has lots of marginal weather when visual flight is not possible — at least on some portion of a flight profile. The ability to resort to



**SCIENCE FAIR WINNERS** — Five of the students who had the best aviation-related exhibits at Alabama regional science fairs this year visited Ft. Rucker as the special guests of MG William J. Maddox, Jr., post CG, and the Army Aviation Center Chapter of AAAA. Winners were, from left, Merrit L. Wikle, III [Huntsville], Bert Payne [Gadsden], Allen Smith [Tuscaloosa], Kenneth Hart [Cottonwood], and Kelvin Lawrence [Birmingham].

instruments increases our ability to stick with the tactical situation.

It is not hard to understand why Fort Hood aviators might feel that instrument flight is unnecessary. Aside from the generally good weather that prevails, most of the aircraft are not equipped *at this time* for actual instrument flight, so the aviator wonders why he has to train to fly instruments.

First of all, the aviator must train so that he can handle inadvertent instruments whether or not he dares to fly tactical instruments. Secondly, our aircraft are capable of flying instruments and for training. They just are not qualified for instruments by flight standards people because of lack of stability augmentation to reduce pilot workloads and some electrical redundancy in some models. Our new aircraft will be properly equipped and some aircraft will be retrofitted. The goal is to fly instruments on the battlefield when required.

### **Required: A confidence level**

Beyond this point, our aircraft and equipment of the future — the FLIR acquisition equipment, the complex navigation aids, and the fire control systems — require a precision and confidence level which can only be gained by the discipline of instrument flying. The aviator who can fly instruments will be so much better prepared to take on the new sophistication. Perhaps, the best answer to why we train to fly instruments can be provided by the crew at Fort Hood that inadvertently entered a cloud during a low level troop lift in April of this year.

According to the initial accident summary received here, the aircraft began a climb to altitude shortly after entering the cloud. The next contact with the aircraft was a visual sighting from the ground when the helicopter fell out of the cloud inverted. However, the crew is no longer able to express the lessons of their experience. They died — apparently because they couldn't cope with the inadvertent instrument condition.

#### **1977 AAAA CONVENTION**

The First Region—AAAA has selected Nashville, KY as the site of its 1977 Regional Convention with the Air Assault Chapter, the Association's largest membership activity, as host organization. □

For those who feel that there is no need to maintain instrument proficiency, I point out that there are more cloudy, miserable weather days in Europe than there are bright, clear days. And also, there are many opportunities to increase your staying power on the battlefield, that is, when you can continue to perform your assigned missions instead of grounding yourself.

### **The best that we can do**

That leads us to *night low level*. Notice, I do not call it night nap-of-the-earth. I believe NOE can only be accomplished in aided flight through the use of night vision goggles or some other night devices. Thus, low level is about the best we can do in response to the threat. Earlier articles in this series have described the experimentation that we conducted in 1974 and 1975. We can improve our survivability as well as our staying power by learning these techniques.

I guess the ants would rather work on a daylight-only basis and then retire from the battlefield during darkness. However, I would rather deny the enemy at least some of his freedom to operate at night, and I would rather make the helicopter more dependable in the next battle.

All of these new techniques can be performed by the average aviator, *if* he is properly trained and motivated. Each of these techniques can be performed in a safe manner *provided* the approved techniques are used and an appropriate degree of command supervision is applied. There is no suggestion in any of our training literature that safety be disregarded.

However, safety for the sake of safety is not the issue. We are talking safety within the context of effective military



Judge for yourself...

# More than 100 rotor patents make Sikorsky's UTTAS the one that flies on experience.

The single rotor is nothing new to Sikorsky. Because we pioneered it at the same time we pioneered the practical helicopter.

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But we've never stopped improving our original concept. For Sikorsky's UTTAS is provided not only with our single rotor, but with our advanced technology Elastomeric Rotor. And that contributes a host of benefits.

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rotor moments through the main transmission, particularly during maneuvers. It provides aero-elastic stability over the complete range of conditions, ruggedness that permits high maneuverability even in nap-of-the-earth environments, low rotor loads that do not impose structural limits on the system.

Sikorsky's UTTAS is the only one that's flying on proven experience. And as the saying goes, experience is one thing for which there's no substitute. Sikorsky Aircraft, Stratford, Conn. 06602.

**Sikorsky's UTTAS.**  
It's a fact, not a promise.

**SIKORSKY  
AIRCRAFT**



Division of

**UNITED  
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operations. We are talking safety within a context of new battlefield capabilities including some capabilities that are only dimly perceived by many of the antis.

Unfortunately, the Army can't spread the word with all of the speed and effectiveness that we would like. It would be far better to distribute the literature at the same time we are instructing commanders and unit instructor pilots. However, funding limitations have reduced our capability to conduct new training courses in the new techniques. Therefore, the word takes a little longer to get around and the antis have more opportunity to play their role as detractors.

### **What the '70's aviator looks like**

Now, in the *positive* vein. For the record, here is what the aviator of the late 70's should look like:

He will have to be nap-of-the-earth qualified. He must be an expert in hover out of ground effect and in making a split second decision for emergency situations encountered close to the ground. The threat dictates this.

He must understand his aircraft, his crew, and the team in which he operates. He must understand the mission and the part his aircraft and team play on that mission. He must understand the aviator maintenance aspects of his machine, aviation safety considerations, aircraft control procedures for his area, and he must appreciate the tactical situation. Professionalism dictates this.

The aviator will be expected to appreciate terrain and to take advantage of it as required by the tactical situation. Control procedures for his area, and he must appreciate the tactical situation. Professionalism dictates this.

The aviator will be expected to appreciate terrain and to take advantage of it as

required by the tactical situation. He must feel confident of his abilities to operate at night in terrain flight conditions. If he has night vision goggles or FLIR equipment, he will perform night nap-of-the-earth. Unaided, he will do the best he can as the result of progressive training to take him low level.

He must fly instruments. When he has learned the CONUS system, he will then progress to tactical instrument flight. He must be able to determine where he is and how he can reach his mission area or his rearming or refueling point, as the case may be. Then, he must be able to do the simple computations necessary to complete his flight successfully.

In the cockpit, he must have the confidence to operate all the equipment provided whether he be a scout, an attack helicopter driver, or a medium cargo sling loader. The requirements to service the battlefield on an around-the-clock basis dictate this.

### **An adept communicator**

He must be adept at operating in radio silence whether alone or in formation. He must be cryptic in his communications and speak in shorthand when communications are being interrupted by jamming. He must feel comfortable while operating with a gas mask and other chemical-biological protection. The black arts of the battlefield dictate this.

He must be prepared to fly as long as the tactical situation requires. He may be required to forego crew rest just as the infantryman fights as long as the situation requires. He must be prepared for frequent movement in the forward areas to reduce his vulnerability while on the ground. In the air, he will reduce his vulnerability not only by terrain flight, but by use of threat protection equipment and a thorough awareness of the capabilities of the enemy he fights. He must be prepared to share his skills and knowledge with less seasoned crew members. Survival dictates this.

Lastly, he must want to serve his flag,

#### **SIGNOFF**

Major General Maddox's final newsletter for ARMY AVIATION's readers will appear in the July, 1976 issue following his retirement on 30 June at Fort Rucker, Ala. □



his unit, and the ground elements he supports. He must possess the dedication that is traditional in the American fighting man and exude the zeal of Army Aviation to excel in every task undertaken. Of equal importance is a positive attitude toward his profession and the tasks he is asked to perform. This is an all-around professional fighting man.

If our people strive and train to fill this

role, then the antis don't have a chance. Their counterattack will be overwhelmed before they cross the line of departure.

## Distaff

The U.S. Army is not the only Army utilizing women in the cockpit. Fort Rucker has produced 15 young ladies who are now serving in the Army at large. How-

### The recent key position changes at USAAVNC, Fort Rucker, Ala.

**BG Jim Mapp's** promotion in March leads off a series of key position changes here at the Aviation Center and Fort Rucker. **Jim** leaves the position as my Chief of Staff and assumes duties as Chief of JUSMAAG, Republic of Philippines. Moving into his position as Chief of Staff is **COL Bill Ponder**, who as most of you know moves across post from his job as Deputy for Combat Developments. Moving up within the Deputy for Combat Developments to assume directorate responsibilities is **COL Bob Sauers**.

One other change within Deputy for Combat Developments that occurred on 31 May was the retirement of **COL John Lovett**. **John's** plans call for retirement in Selma, Alabama, where he will be the proprietor of the Selma Golf Center.

Headquarters of the Deputy for Training saw both the Director, **COL Ed Porter**, and his Executive, **LTC Russ Vaughn**, enter retirement on 31 May. **Ed** plans to assume duties as Director of Alumni Affairs at New Mexico Military Institute in Roswell, New Mexico, while **Russ's** plans are to settle here in the Wiregrass in Enterprise, Alabama.

Inbound to the Deputy for Training's position is **COL Ken Burton**, coming in from 1st Army Headquarters at Fort Meade where he was the Army Aviation Officer. **LTC Larry Pierce** moves up from XO, Department of Graduate Flight Training, to assume **Russ's** old job.

On the Center staff, **COL Jim Humphrys**, DPCA, plans to retire on 30 June and assumes duties as Director of Employee Relations and Systems Planning at Brevard Community College, Cocoa, Florida. **COL Daniel B. Plyer** coming on board from MDW to assume **Jim's** job.

**COL "Clem" Courtney**, our DFAE, by virtue of recent promotion, moves on 1 July to assume duties as Deputy Installation Commander of Picatinny Arsenal, Dover, N.J. **LTC**



Ponder.



Burton

**Jasper K. Champion** will arrive in August from the Army Engineer District, Vicksburg, Mississippi, to assume Post Engineer duties here at Rucker.

**LTC Johnny "AI" Phillips**, our IG, is our other headquarters loss. He plans to retire in July and establish his home in Auburn, Alabama. He'll be working out of Columbus, Ga., as a stockbroker with AG Edwards, Inc., NYSE. As of this writing, we have no replacement identified for the IG slot.

My retirement which I announced in the April-May issue will be effective 30 June and my plans at this point are to set up my base of operations here in the Wiregrass. Will let you know an address as soon as I've firmed it up.

**MG James C. Smith**, Chief of Staff, Eighth U.S. Army, has been announced as my replacement and he plans to arrive here on or about 19 July.

Our Class II activities are also in for some command changes this summer. **COL Bob Kellar**, President of the Aviation Test Board for the past four years, has announced his intent to retire this June and move to the Cocoa Beach, Florida, area. His plans for a second career are undecided at this time.

USAAVNS is also facing a change in command in July when **COL Norm Paulson**, its Commander, steps down after some 29 years of active service. **Norm's** plans call for retirement in Scottsdale, Arizona, where he will attend to family land development interests.

ever, France has had a female qualified helicopter pilot since 1950. She flew 120 helicopter missions, and rescued 165 wounded in a Hiller 260 helicopter during the Indo-China War.

Later in Algeria, she flew 365 more combat missions. Incidentally, she also is a qualified brain surgeon. Her name is *Dr. Valerie Andre* who was promoted to Brigadier General in April of this year.

### Aircraft Crewman Badge

MILPERCEN has issued a new interpretation on the award of the *Aircraft Crewman Badge*. The regulation specifies that it may be awarded to any individual who has served at least 12 months, not necessarily consecutive, as a crew member, or is school-trained for the duty.

In the past, school-trained individuals have been required to serve in a crew member position on orders before the

badge could be awarded. Now, it is necessary only that this training be completed successfully. Therefore, Ft. Rucker and other TRADOC centers will begin to award the *Aircraft Crewman Badge* at the time of graduation from a crew member course.

### Air Traffic Control Expansion

The Army will take control of the tower and air traffic control functions at Fort Campbell AAF on 15 December of this year. Up to this time, the Air Force has provided air traffic control service in the Fort Campbell area. Fort Rucker is developing a training program for Army controllers being assigned to Fort Campbell to include those who operate the radar approach facility. We expect to run six classes of four students each to prepare Fort Campbell controllers for facility rating.



ABOVE: Hughes Helicopters officially turned over its AAH's to the Army on 31 May at the company's flight test facility near Oceanside, CA. Participating in the on-schedule signoff were [from left] John N. Kerr, Hughes AAH Program Director; R.I. Mueller, Manager of Inspection; R.J. Hall, AVSCOM Contracting Officer; Norman B. Hirsh, Hughes AAH Program Deputy Director; and Raymond E. Deyo, Manager of Contracts and Pricing.



ABOVE: Harold Mabrey, the Contracting Officer's representative from U.S. Army Aviation Systems Command, St. Louis, Mo., accepts two YAH-63 Advanced Attack Helicopter flying prototypes at the Bell Helicopter Textron plant, Fort Worth, TX. Glenn Cordts, Manager, AAH Contracts Administration at Bell, and Clifford J. Kalista, right, Bell's Vice President-AAH, also participated in the 31 May turnover ceremony. □

**On Thursday, January 8 at 1:10 p.m. General Electric's XM-188, 30mm gun for the Bell YAH-63 fired a 600 round burst. On Friday 9:00 a.m. January 9, it did it again. At 2:00 p.m. again.**

**On Monday, January 12, twice again and on January 13, 14, 15, and 16 again, and again, and again, and again!**

170-26A

**That's staying power.**

For more information write:  
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**AIRCRAFT EQUIPMENT DIVISION**

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# BACK HOME!

**W**ITH the help of several AAAA old-timers at Hq, U.S. Army Aviation Systems Command (AVSCOM), a replica of the "Spirit of St. Louis" is up and flying high once again — not in the sky or through the clouds, but in the unrefined air of a new wing of the terminal at Lambert-St. Louis International Airport.

On April 15, a dedication ceremony was held at this airport site in memory of Charles A. Lindbergh, who made the historical flight from New York to Paris in 1927. The new home for the replica is in the International/Transporter Wing.

## Obtained in 1962

The full-size replica of the "Spirit of St. Louis" was built by the same manufacturer of the original "Spirit," the Ryan Aeronautical Co., of San Diego, Calif., for the 1957 motion picture biography of Lindbergh, appropriately titled "Spirit of St. Louis" and starring Jimmy Stewart.

In early 1962, MG William B. Bunker, Commander of USATMC (later AVSCOM), asked several key members† of AAAA's Lindbergh Chapter (See box.) to help organize an air show at Smartt Field to celebrate the 20th Anniversary of Army Aviation. Working in conjunction with the St. Louis Jaycees, the Chapter members coordinated the delivery and eventual turnover of one of the two replicas to the City of St. Louis.

## Mantz and Tallman come through!

Through Paul Mantz and Frank Tallman, well-known aviation movie stunt men and owners of the replicas, one aircraft was flown to Edwards AFB, disassembled, and then airlifted by USAF transport to Lambert Field. Reassembled at what is now known as the Army Aviation facility at Lambert, the "Spirit" was test-hopped by Tallman and flown to Smartt Field where it was flown by MAJ



### AAAA GIFT OF REPLICA

■ Vic Schulte (left), VPP of the Lindbergh Chapter of AAAA; Col. John L. Klingenhagen (center), representing USATMC, St. Louis; and Charles Sherry, President of the St. Louis Jaycees, view a photo of the replica of the "Spirit of St. Louis" later presented to the City of St. Louis by owners Paul Mantz and Frank Tallman. The replica was flown in the June 3 Army Air Show by Maj. Emil E. "Jack" Kluever. ■■

### BACK HOME (Continued)

(later COL Emil "Ace" Kluever) and became the "hit" of the well-attended city-wide air show.

After this event, local members of the AAAA and the Jaycees arranged for its display in the main terminal at Lambert Field. For some reason, airport authorities later moved the plane to an outdoor display area where, subject to the weather, it began to deteriorate.

### Joint drive to buy the replica

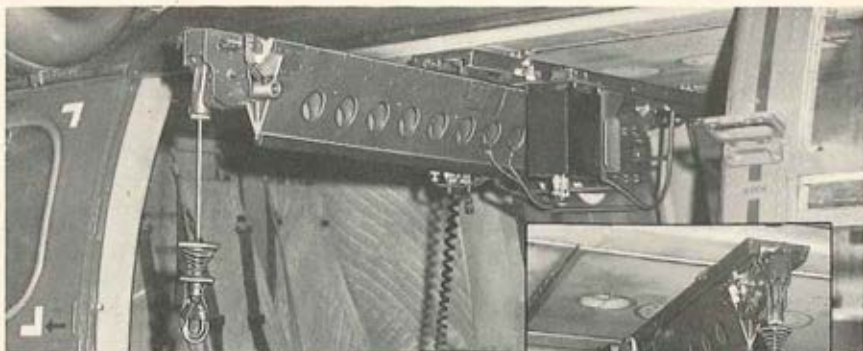
AAAA members were then joined by area members of the American Institute of Aeronautics and Astronautics (AIAA) in a drive to raise sufficient money to purchase the replica for the Missouri Historical Society.

Later, the Society spent \$8,000 refurbishing the "Spirit" to make it airworthy once again. Then, on May 21, 1967, Al-

bert W. Lowe, Chief Transport Pilot for the McDonnell Douglas Corp., flew the "Spirit" in St. Louis in a special ceremony commemorating the 40th Anniversary of Lindbergh's epochal flight.

Again, the plane was mothballed, being moved to a McDonnell Douglas hangar, when - for the third time - *Lindbergh Chapter* AAAA members and AIAA'ers became concerned with the condition of the replica. They initiated plans in 1972 to find a permanent home for the historical aircraft. Sites that were considered included the Gateway Arch, the Civic Convention Center, and the Lambert Airport Terminal.

Aided by Dr. John Lindenbusch, Executive Director of the Missouri Historical Society, the group finally succeeded in getting the replica back into its original site, the airport terminal, where it now is suspended from the ceiling of the new wing, where it is viewed in a flying attitude by all travelers who pass by. □



# UTTAS Hoist... Ready and Built by BREEZE

You would expect Breeze — with unequaled experience in airborne hoist design — to have an efficient, adaptable system both tested and ready for the UTTAS program.

And we do. Carried out and funded by BREEZE. Sized for growth of high performance requirements... light... retractable... unique — the hoist has been checked in aircraft for compatibility of size and operation.

It is ready when UTTAS is.

*For full information, write or phone Mr. Matthew Lyon,  
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# ARMY AVIATION MAINTENANCE

I WOULD like to discuss *Army Aviation Maintenance* in terms of an overview of interrelated concepts and plans. Our plans start with procurement of an aircraft model and proceed through the complete life cycle.

Some might think that *Army Aviation Maintenance* is essentially lubrication services, scheduled inspections for mechanical and electrical faults, and repairs as required. I agree that our program includes all that. However, it also includes much more.

How we do it, and how we make sure that our efforts are directed in the most effective way, is the subject of this article. Our program results from the following considerations:

Maintainability features in aircraft design.

Introducing a new aircraft model or

fixed and rotary wing aircraft. These separate plans are constructed to work together without overlap or interference with each other, as shown in *Figure 1*.

*Figure 1* is an overview of our maintenance concepts and plans for a typical aircraft over its entire life cycle. As soon as contract agreement for procurement is negotiated, as indicated by Event 1 in *Figure 1*, the *Integrated Logistics Support/Logistic Support Analysis [ILS/LSA]* program begins. With Event 2, the aircraft is delivered to a field unit where Project Hand Off guarantees satisfactory transition to military operations. Project Hand Off is committed to User satisfaction.

Maintenance during field operations is carried on by the combination of interdependent programs as indicated in *Figure 1*. Maintenance personnel units, and

**The second in a series of articles entitled, "Dedicated to Support", as written by Major General Eivind H. Johansen, Commander of the U.S. Army Aviation Systems Command, St. Louis, Missouri**

other major aviation materiel to field operations.

Structuring maintenance organizations for forward, rear, and remote military positions.

On Condition Maintenance method of evaluating condition of structure by weighted criticality indicators.

Phased System approach to scheduled maintenance.

Management control of efforts based on all foregoing considerations.

*Army Aviation Maintenance* is a complex matrix of separate plans which work together to maintain the Army's fleet of

support facilities which they require, are organized according to the three level plan. First level is designed to support forward military operations. Second level, Event 4, with capability for extensive repair and modification, is to be in a rear area.

Depot maintenance, Event 5, for most extensive repair and overhaul, is located away from military operations, if possible. On Condition Maintenance teams evaluate status of structural integrity of aircraft. Aircraft with the highest criticality ratings are sent to Depot for overhaul. Phased Inspections of aircraft provide

**The  
Bell  
YAH-63**

**We  
did it right  
the first time.  
Because we've  
done it so many  
times before.**



The YAH-63 was delivered to the Army with no major configuration changes between the proposal and the flying prototype. Years of gunship and systems integration experience, enabled us to spend more time perfecting our Advanced Attack Helicopter and less time redesigning it.

For maximum NOE visibility, the YAH-63 was designed with the pilot up



front. The flat-surfaced cockpit canopy reduced detectable glint by 75%.

The original design incorporated the two-position mast, facilitating both weapons clearance and air transport.

Our advanced I-tail was configured for improved flight stability and to protect the tail rotor. Forward avionics in our original design...

separated them from weapons blast and increased component accessibility.

**We build them better because we build them ourselves.**

At Bell, in-house capability enables us to design, tool, build, qualify and produce the YAH-63. Bell makes almost everything: fuselage, rotors, tailboom and the new technology "flat pack" transmission.



**Concern for the men who fly it.**

To prove survivability, Bell subjected components to "worst case" hits before they became part of the flying prototype. This vulnerability verification marks the first time such tests were conducted for any attack helicopter.

The wide-chord rotor tolerates a 23mm HEI hit. So does the ammunition container. So does the tail boom

structure. Every component passed the tests impressively.

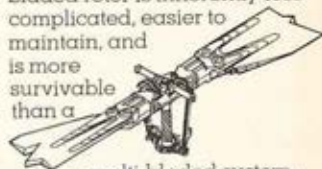
Critical components were designed for survivability. There is no parasitic armor on the YAH-63 except to protect the crew.

**A simple design for a complex technology.**

The YAH-63 will have high availability because its design is as simple as it is advanced.

The simplified drive train system makes maintenance easier, and uses 38% fewer components than conventional helicopter technology.

The wide-chord, two-bladed rotor is inherently less complicated, easier to maintain, and is more survivable than a



multi-bladed system.

In short, every bit of experience and capability that Bell has, brought the YAH-63 to this stage. And that makes all the difference in the world.

**The big difference is Bell.**



**Bell Helicopter** **TEXTRON**

Division of Textron Inc.

an efficient control system to preventive maintenance. An Army Oil Analysis Program, and lubrication services as specified for each aircraft model, provide our preventive maintenance and lubrication program.

### **Integrated Logistics System (ILS)**

The heart of the *ILS Program* is the *Logistic Support Analysis [LSA]*. *LSA* is a systematic comprehensive analysis that provides timely and valid data for all areas of *ILS*. *LSA* is now being performed by the competitive contractors on the *AAH* and *UTTAS*.

The *LSA* process is a source for logistical data applied to the system design effort for improving maintainability and supportability. The *LSA* data sheets provide qualitative and quantitative data used for provisioning, maintenance planning, support equipment, facility design, preparation of technical publications, supply support, packaging, new equipment training and storage and many other areas of logistic support.

### **"Project Hand Off"**

*Project Hand Off* begins with prepara-



**SPECIALIST!** - John T. Neher recently logged in his 6,001st flying hour in the OV-1 Mohawk, a singular honor. Neher, a civilian flight instructor at DGFT, USAAVNC, took his first Mohawk flight in June, 1960. □

tion for Materiel Release Certification. Certification includes preparation and approval of a Materiel Fielding Plan. Upon certification, implementation in the field begins. This is known as the Materiel Fielding Operation and is carried out by a Materiel Fielding Team.

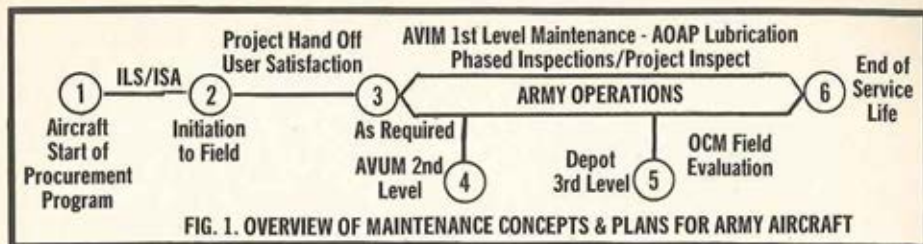
At the beginning of the field operation, the AVSCOM/User Fielding Agreement is reached. As soon as agreement is reached, the AVSCOM Materiel Fielding Team, including a member who represents the User, will implement the fielding operation. The fielding team will work closely with the user during the initial learning period. Where applicable, a Quality Assurance Team will also be formed. In some instances, the Materiel Fielding Team will perform the quality assurance function.

### **Three level maintenance**

The Army is implementing the three level maintenance program. Experience in Vietnam proved that changing maintenance organizational structure from the then current four level to a three level system resulted in more effective support of combat operations.

The Army discovered that the combat readiness factor was improved by moving more than half of the direct support capability up forward and combining it with the organizational unit. In 1969 the Army transferred 175 maintenance personnel to the 1st Cavalry Division, which had 424 helicopters and deactivated two of the four direct support companies. 60% to 70% of the old direct support resources were added to first level maintenance capability. This resulted in an increase of operational readiness from 64% to 85% and flying hour per aircraft per month from 63.5% to 88%.

Army Aviation maintenance in the field and at depot was studied by Department of the Army. The study was released in April 1974. Based on field experience and preliminary results of the study, the Army decided in February 1974 to replace



the old four level maintenance system with the three level system. Each level, in turn, is described below.

### Aviation Unit Maintenance (AVUM)

AVUM activities shall be staffed and equipped to perform high frequency "on-aircraft" maintenance tasks required to return aircraft to a serviceable condition. The maintenance capability of the AVUM will be governed by the Maintenance Allocation Chart and limited by the amount and complexity of ground support equipment, facilities required, and number of spaces and critical skills of personnel available. Maintenance shall cover the following areas:

- Scheduled preventive maintenance including simple repairs, servicing, functional adjustments.
- Unscheduled troubleshooting and repairs.
- Airframe repair which does not require extensive disassembly, major jigs, and structural alignment.
- Fabrication of parts using tools and equipment of airmobile tool and shop sets.

If the aviation element has less than ten aircraft, maintenance is curtailed to scheduled inspections, minor adjustments, and minor repairs.

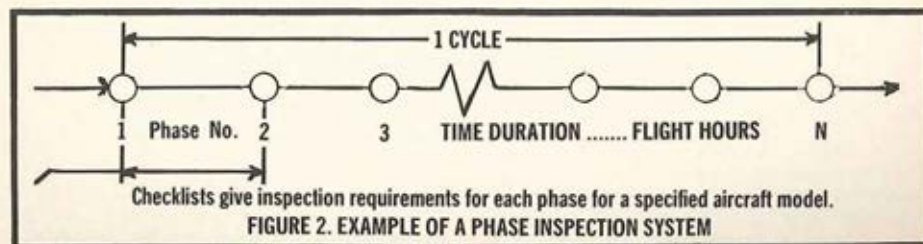
### AVIM

Aviation Intermediate Support Maintenance (AVIM) activities provide mobile, responsive, "one stop" maintenance support. Maintenance functions which are not conducive to sustaining air mobility will be assigned to depot maintenance.

Authorized AVIM level tasks, include all AVUM maintenance functions. Repair of equipment for return to user will emphasize support of operational readiness requirements. Authorized maintenance includes replacement and repair of modules/components and end items which can be accomplished efficiently with available skills, tools, and equipment.

The aircraft maintenance company within the maintenance battalion of a division performs AVIM functions consistent with air mobility requirements and conservation of personnel and equipment resources.

Additional intermediate maintenance



support is provided by the supporting non-divisional AVIM unit.

## Depot Maintenance

Depot maintenance of aircraft and aircraft modules/components is managed by the National Inventory Control Point in coordination with the Major Item Data Agency and DARCOM. This level of maintenance is accomplished in organic facilities, by contract with commercial firms, or through interservice agreements with other military services.

Depot maintenance capability includes the following functions: overhaul, conversions, major repairs, modification, and manufacture of items not supported by the supply system. Also, complete painting of the aircraft, and analytical, special, and non-destructive testing and inspections in support of the National Maintenance Point requirements for all aircraft, modules, and components.

## On Condition Maintenance (OCM)

The Army has a special OCM program for operational aircraft to maintain the integrity of aircraft structure.

AVSCOM has developed a series of indicators which describe the condition of the aircraft structure. These indicators are then ranked in order of criticality and a weight is assigned to each one. An *aircraft condition evaluation [ACE]* team inspects each operational aircraft once yearly. The aircraft, identified by serial

number, is given a numerical rating index as a result of the ACE inspection. Aircraft exceeding a minimum index number are scheduled for return to the depot for overhaul. Aircraft with the highest indexes are scheduled for overhaul first.

It must be emphasized that the OCM program does not specify requirements or set up quotas of OCM aircraft by Command. Only those aircraft exceeding the index threshold are considered as OCM candidates. Requirements for the aircraft overhaul program are based on the quantity of aircraft with profile indicators over the threshold.

## Phased Inspection Cycle

*Phased Inspection of aircraft (Project Inspect)* is a system of scheduled inspection as illustrated in *Figure 2*.

*Figure 2* shows one cycle of phased inspections for an aircraft. Each phase is a major scheduled inspection. Some number of phases make up one cycle. Because of different maintenance characteristics, different types of aircraft may have a different flight duration between phases. For instance, the CH-47 has fewer phases in one cycle than the UH-1 as shown here:

Acrt No.	of Phases	Time betw. Phases
UH-1 D/H.....	8	100 ft hrs
CH-47C.....	4	100 ft hrs

After a sequence of phased inspections, a cycle is completed, and the sequence repeats. By the time a cycle is completed, all parts and systems of the aircraft requiring inspection will have been inspected at least once.

Army studies of UH-1H and CH-47C aircraft component failure and maintenance characteristics, using a computer model, showed that components can be inspected much less often than is being done using the intermediate/periodic system. These studies were made in 1972-73. The computer model referred to is identified as Model for Analysis of Vehicle Inspection Systems. The study re-

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sults produced the Phased Inspection System, and a mathematical evaluation showed substantial advantages over the intermediate/periodic system.

To confirm and demonstrate the mathematical evaluation, field testing of the Phased Inspection System was conducted by Army and Reserve Components.

### Phased inspections in the field

Field testing and evaluation was conducted by the 101st Airborne Division at Ft. Campbell, KY. The time period was 20 August 1974 to 20 November 1975. Three control companies were maintained on the standard intermediate and periodic system, while three test companies were maintained on the *Phased Inspection System*. Twenty UH-1H helicopters were assigned to each company.

During the same time, testing proceeded on UH-1H's and CH-47C's at Ft. Hood, TX. In addition, testing and evaluation was conducted by the National Guard Maryland Unit and Army Reserves AMSA 44, Cahokia, IL, and AMSA 62, Tomball, TX, all on UH-1H's.

These field evaluations confirmed the results from the computer mathematical evaluations. Although both the computer and field observations were made on only the UH-1H and CH-47C helicopters, the nature of the inspection systems and evaluations are such that conclusions resulting from the evaluations can be extended to all aircraft. No substantial disadvantages of the *Phased Inspection System* have been found. Advantages are:

- More flexibility in managing maintenance operations.

- Significant increase in aircraft availability.

- Significant reduction in maintenance manhours.

- Significant reduction in spare parts usage.

- Some of the present intermediate/periodic inspections requirements can be eliminated because they are unnecessary.

### Army Oil Analysis Program (AOAP)

The *AOAP* is a coordinated Army-wide effort to detect impending component failures using the principle of spectro-metric analysis.

The key elements and goals of the Army program are short response time, improved methods of field sampling, more precise laboratory sample analysis and data evaluations, improved communications, more reliable and assessable data, timely recommendations to the submitting activities, and accurate maintenance feedback.

Samples of lubricating oil or hydraulic fluid are taken at regular intervals as part of the scheduled preventive maintenance program for a specific aircraft. The sample is sent to a designated laboratory where a spectrographic analysis is made. If results of the analysis show an abnormal concentration of chemical elements corresponding to elements in bearing or sliding surfaces of the component, the results can be correlated to metal wear-out in the component.

The laboratory evaluator determines if there is a potential impending failure. If so, the evaluator is required to make a grounding recommendation to the field unit by telephone or other expedited means, followed by a written recommendation. The field unit then replaces the component and sends it to a depot for teardown analysis. Results of the teardown analysis are transmitted to all concerned, namely, the evaluator, field unit, and AVSCOM.

I have discussed Army Aviation maintenance in terms of our interrelated concepts and plans presently in existence. We at AVSCOM are continuing to look for improvements, particularly in areas of reduction in maintenance costs and increased materiel survival ability and personnel safety.

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This is the second in a sustaining series of informative articles on the activities of the huge, 4,000-member+ AVSCOM complex. Your suggestions on subject areas are appreciated. □



## AAA's Monmouth Chapter sponsors '76 Symposium on Aviation Electronics



**HEADS TOGETHER!** - Colonel Lee M. Hand, AAA's Monmouth Chapter President and Project Officer of the 1976 Aviation Electronics Symposium, chats with Brigadier General Robert A. Holoman, III, left, Deputy Commanding General, U.S. Army Aviation Center and the Symposium's keynote speaker. The two-day symposium included 48 individual presentations in one General Session and three pairs of Concurrent Sessions.



**VIPS** - Shown at the Early Bird Reception held the night before the opening of the two-day Aviation Electronics Symposium are, left to right, Brigadier General Robert A. Cheney, Deputy Commanding General, Electronics Command; Dr. "Sy" Greenspan, Deputy Director of the Avionics Laboratory; and E. Feder of the Avionics Laboratory.



**COCKTAIL HOUR GATHERING** - Dr. R. Wiseman, standing center, Director of RD&L, Electronics Command, is shown chatting with several of the ladies in attendance at the cocktail party preceding the main Symposium Banquet. From left to right are Mesdames L. Carpen, L. Hand, R. Wiseman, N. Elliott, W. Dooxey, K. Kelly, and I. Celli.



**TRIO** - The "Industry-Military-DAC" aspects of AAA's professional programming are illustrated by three 1976 Symposium attendee-participants. Shown left to right are Henry A. Paladino, Director, Army Requirements, Litton Guidance and Control Systems Division; Colonel Chesley S. Maddox, Jr., Program Manager, NAVCON; and W. Dworzak, a DAC with ECOM's Avionics Laboratory.



**THANK YOU!** - Brigadier General Samuel G. Cockerham, right, then Program Manager, Advanced Attack Helicopter, HQ, U.S. Army Aviation Systems Command, and the guest speaker at the Symposium's main banquet, receives an "AAAA Certificate of Appreciation" from Colonel Hand, Monmouth Chapter President, following his outstanding audio-visual "update" on the AAH program.



**REGISTRATION** - Checking in at the AAAA Registration Desk at the Old Orchard Inn are G. Mooney, AEL Services Corp. (seated at left), and, standing, Leonard T. Donnelly, VARO, Inc.; Vince O'Donnell, Litton Industries, DSD; and Harry J. Smith, Singer-Kearfott Division. Registration assistants are, l-r, Ms. E. Hoffman, ECOM; Ms. I. Celli, TILO, ECOM; Ms. D. Fluhr, Singer Co.; and Ms. J. Young, Litton Industries. Well over 200 registered for the two-day professional sessions.



**PRIME MOVERS** - Key figures at the 1976 Army Aviation Electronics Symposium were, l to r., John F.X. Mannix, SrVP, Monmouth Chapter, AAAA; LTJG John M. Wright, Jr., AAAA Nat'l President and Nat'l Director of Program, Boy Scouts of America; COL Lee M. Hand, President, Monmouth Chapter, AAAA, and Commander and Director of ECOM's Avionics Lab; and Kenneth K. Kelly, Chairman, Program Committee, 1976 Army Aviation Electronics Symposium.



**CHAPTER BRASS** - Shown left to right are Monmouth Chapter officials Len Donnelly, VP, Public Affairs (VARO, Inc.); Alfred E. Smith, Treas (Republic Electronics); Harry J. Smith, VP, Programming (Singer-Kearfott); Vincent C. O'Donnell (Litton Systems, DSD); John F.X. Mannix, Sr VP (Chief, TILO, ECOM); and Conrad F. Rodriguez (Northrop). Scene: The Early Bird Reception prior to the Symposium start.



**KEYNOTER** - Brigadier General Robert A. Holloman, III, Deputy Commander, U.S. Army Aviation Center, Fort Rucker, AL, gives the keynote address, "The Users' View," at the opening General Session at the 1976 Symposium.



**FOLLOW-ON** - Colonel William E. Crouch, Jr., Chief of the Aviation Systems Division, Office, Deputy Chief of Staff for Research, Development Acquisition, DA, covers "Aviation Electronics - A Systems View" in General Session's second major presentation.

**More than 200  
hear 48 addresses  
during a full  
two-day program**



①



②



③



⑦



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⑤



**T**he recently-completed conference of the Fifth Region — AAAA was acclaimed by all attendees as being a great success. Approximately 275 AAAA members, their wives, and their children gathered at the Holiday Inn — Emerald Beach in Corpus Christi, Tex., from 6-8 May for two days of professional and social activities that won the praise of all.

All aspects of Army Aviation were reviewed during the two-day meeting in this beautiful Gulf Coast city. The theme of this year's

alry Division, presented some thought-provoking and timely remarks on Army Aviation from the commander's view. Winding up the morning session was a panel of experts who discussed the core subjects of maintenance, training, and personnel in Army Aviation.

BG Charles E. Canedy, DA Army Aviation Officer, was the moderator of the panel, and COL [P] "Jim" Patterson, 6th ACCB Commander; COL "Deke" Descoteau, DARCOM; and COL "Bill" Hornish and CW4 Lloyd

# Corpus Quad-A covers all aspects of aviation

convention — Fifth Region's second — was "Army Aviation - A Look at Where We Are Going."

Highlighting this year's AAAA convention were several social and professional activities, the affair being kicked off by an old-fashioned Texas Barbecue on Thursday night.

Friday's agenda included reports by the Regional President, COL Jack Dibrell, and by AAAA's National President, LTG John M. Wright, Jr. COL Dibrell then introduced a new film depicting the history of Army Aviation since 1942.

MG Julius W. Becton, Jr., CG of the 1st Cav-

Washer, MILPERCEN, were his panel mem-

Members and their wives were treated to an informative tour of the Corpus Christi Army Depot on Thursday and Friday afternoon as the guests of COL John Campbell, Depot Commander. All who made the tour agreed that the Army's aircraft rebuild facility is a model of efficiency and cleanliness. The wives were particularly impressed with the latter.

The Fifth Region — AAAA Honors Luncheon on Friday was attended by well over 200 members and wives who saw 1975 awards go to several units and individuals from the active and Reserve Components of the Army within Fifth Region — AAAA.

PHOTOS [Clockwise from top left]: AAAA Nat'l President LTG John M. Wright, Jr., extends a "Welcome!" to all. [2] SP5 Arthur J. Brinkerhoff, 445th Avn Co [OK-ARNG], accepts Fifth Region — AAAA's Reserve Component "Aviation Soldier of the Year Award" from MG Julius W. Becton, Jr., Cdr, 1st Cav Div, [3] CW3 Robert R. Hawkins, 7/17 Cav, Ft. Hood, receives the Region's "Aviator of the Year [Army] award" from LTG Wright. [4] The "Outstanding Reserve Component Aviation Unit Award" is presented by MG Spurgeon H. Neel, Cdr, Health Services Command, to Troop D, 1/124 Cav Sqdn, 49th AD, TX-ARNG, and accepted for the unit by CPT Robert D. Kohler, right. [5] MG Neel, right, also presented the "Aviation

Soldier of the Year Award [Army]". The recipient was SP5 Kenneth R. Rycie, 283d Med Det [Air Amb], Ft. Bliss. [6] A proud moment for LTC Herbert G. Purtle, left, of the 49th AD, TX-ARNG, as he receives the Region's "Aviator of the Year Award [Reserve Component]" from AAAA's Nat'l President LTG Wright. [7] COL [P] James H. Patterson, left, and CSM Max B. Ogas, Cdr and Senior NCO respectively of the 6th Cav Bdr [Air Combat], Ft. Hood, accept the 1976 Fifth Region — AAAA's "Outstanding Aviation Unit Award [Army]" from BG Charles E. Canedy, Deputy Director of Operations and Army Aviation Officer, ODCSOPS, DA, and a former 6th ACCB Commander himself. □

Honored as the Region's "Outstanding (Active Army) Aviation Unit of the Year" was the **6th Air Cavalry Combat Brigade** from Ft. Hood, Tex. Accepting the award for the unit was **COL [P] "Jim" Patterson**, its commander. The "Outstanding Reserve Component Aviation Unit of the Year" in **Fifth Region** was **Troop D, 1/124 Cavalry, 49th Armored Division, TXARNG**. **CPT Danny Kohler**, the unit commander, received the award on behalf of **Troop D**.

Recognized as the Active Army and Reserve Component "Aviators of the Year" in **Fifth Region** were **CW3 Bob Hawkins**, A Troop, 7th Squadron, 17th Cav, 6th ACCB, of Ft. Hood; and **LTC Herb Purtle**, Aviation Officer, 49th Armored Division, TXARNG, respectively.

The "Aviation Soldier of the Year" from the Reserve Components was **SP5 Art Brinkerhoff**, 445th Aviation Company, OKARNG. His active Army counterpart was **SP5 Ken Ryce**, 283d Medical Detachment, 70th Ordnance Battalion, at Ft. Bliss.

In addition to the depot tour, Friday afternoon was devoted to Regional and Chapter AAAA matters. On Friday evening, convention attendees gathered at a **Shrimp Boil**,



**NORFOLK, VA.** — Members of **Armed Forces Staff College Class 59** and aviator faculty are, from left, **MAJs George Coutoumanos, G.C. Leach, and Alexander Woods, Jr.**; **COLs Athol M. Smith and Reginald H. Corliss [S&F]**; **MAJ Gerald E. Thomas**; **LTC William A. Forster**; and **MAJ Thomas Buckley**. Not pictured, **MAJ William Sport**. □



**5,700 MILES!** — Six **73d Military Intelligence Co** aviators recently ferried three **OV-10's** from **Grumman Aerospace's Stuart, Fla. Plant** to **Stuttgart**. Outfitted with special **300-gal. drop tanks**, the three-plane flight flew to **Labrador**, and then across the **North Atlantic** to **Greenland, Iceland, Scotland**, and on to **Stuttgart**. Each crewmember logged about **30 hours' flight time** on the "great experience." Shown, from left, are **CPT James O. Erickson** and **CPT Ronald W. Faulkner, CW3 Theron Clark, CPT Thomas J. Dembowski, LTC Eugene R. Walsh** [who gave them their logbooks and sendoff at **Stuart, Fla.**], **CPT Donald W. Kerr**, and **CW3 James R. West**. □

hosted by **AAAA's Corpus Christi Texas Chapter**.

Saturday morning dawned bright and clear, following a real Texas "gully washer" on Friday. **COL "Bill" Crouch**, Chief of the **Aviation Division** in **ODCSRDA**, moderated a panel discussion concerning the modernization of the Army's aircraft inventory. Focus was on the new **UTTAS, AAH, and ASH**, and refinements to the **CH-47**.

Members and their wives were loud in their praise of the **Corpus Christi Texas Chapter** members for the outstanding job they did in preparing for and carrying out this second annual **Regional Conference**. Everyone is looking forward to next year's get-together in **St. Louis**, where the **AAAA's Lindbergh Chapter** — some 300 strong — has promised an all-out effort to make the **1977 Fifth Region — AAAA Convention** the most representative and professional, and "the best ever."



**Sikorsky RSRA Rolls Out; Research Aircraft Has Compound Capability and New Pyrotechnic Crew Escape System**

STRATFORD, Conn., June 7 — The first of two Rotor Systems Research Aircraft (RSRA) built by the Sikorsky Aircraft Division for the National Aeronautical and Space Administration and the U.S. Army was rolled out at the Sikorsky plant.

The first aircraft will fly in Sept 1976; the second in Dec of that year. Testing will initiate with the helicopter configuration; the first RSRA will undergo flight tests as a compound helicopter in March 1977. The RSRA will permit different rotor systems to be tested over a wide range of altitudes and at speeds up to 300 knots.

Because of its fixed-wing capability the RSRA will be able to test rotor systems that might otherwise be too small to support the aircraft. It will also be equipped with the first practical rotorcraft crew escape system, one designed to sever the blades pyrotechnically and then extract the three crewmen by ignited rockets tethered to their seat backs.

In clockwise order, the top left photo shows the actual rollout, while, top right, Dr. Alan M. Lovelace, Off. of Aeron. & Space Tech., NASA; Robert F. Stewart, Group V.P. - Fit Sys & Equip., UTC; LTG Howard H. Cooksey, DCSR&A, Pentagon; Rep. Barry Goldwater, Jr., Calif., and Rep. Tim Hall, Ill., members of the House Trans & Avn R&D Subcommittee; and Gerald J. Tobias, Sikorsky President, chat by the RSRA. At right: LTG Cooksey addresses the rollout assemblage, shown below in the rollout hangar (right) and the flight ramp (left).



Aircraft undergoing tests above Stratford, Connecticut.



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**PCS LISTINGS  
CONTINUED ON  
PAGE 44**

# LETTERS

Dear Editor:

The 158th Aviation Battalion, "The Challenge Battalion", has just completed a very successful AAAA membership drive. We now have 468 active AAAA members [82% of our assigned strength].

Two companies, Headquarters and C Company, 158th, have 100% membership of all assigned personnel. We now represent a significant percentage of the Air Assault Chapter, the world's largest and most active AAAA Chapter.

The "Challenge Battalion" issues a challenge to any other aviation unit in the world to beat our membership!

Until we are dethroned as the world's largest AAAA member unit, we will continue to defend freedom's frontiers from our strategic position astride the Tennessee-Kentucky border. A couple of hundred thousand other guys — and a few bombers, missiles, and submarines — help us some. AIR ASSAULT!

John A.G. Klose  
LTC, FA  
Commanding

## A strong objection!

Dear Editor:

I take strong objection to the article entitled, "Don't Restrict Me!" as penned by CW2 Frank H. Wright in this magazine's April-May issue.

The writer simply hasn't been around AA long enough to get the "BP", i.e., he doesn't understand how Army Aviation safety actually functions.

If your unit doesn't have an accident or an incident, your ASO and CDR are "doing their jobs." Should you unit suffer either accident or incident, it'll be proven that the

## SHARE YOUR VIEWS!

Letters to the editor on any Army Aviation subject are welcomed by the publication. Such letters should be brief, and should be signed by the writer. The publication will withhold the name of the writer on request. Letters should be directed to "Army Aviation Magazine", 1 Crestwood Road, Westport CT 06880. □

ASO and the CDR were not following SAFE flying policies . . . It's that simple!

Safety Officers are supposed to hang up posters and stick safety slogan decals in subtle locations [like latrines and water fountains], but they are NOT supposed to bug the pilots or crewmembers. Above all, they're supposed to stay off the MaintO's back!

I can only recall - with regard to our combat flying in Vietnam - that we did what had to be done to accomplish the mission. Each aircraft commander made his decision as to what procedure was safe and what procedure was unsafe as each situation arose.

Our AA's have a way of making the best of a bad situation . . . They did it then and I feel it'll be that way in any future war.

Believe me, Mr. Wright, an ASO is not as essential to a combat aviation unit as those who teach ASO's would imply. After all, every aircraft commander is a safety officer when he - or she - says, "I've got the controls."

William G. Grauling  
CW3, Ret.  
Baltimore, Md.

[Continued on the Next Page]

Dear Editor:

A quick message from the Armed Forces Staff College here in Norfolk: Army Aviation is alive and well, but on a small scale. Only eight rated students and two rated S&F. Nevertheless, Army Aviation, airborne operations, and aviation in general are big parts of the curriculum. Hope you can use the enclosed photo in a future issue [Ed. Note: The future is now! See p. 34].

Alexander Woods, Jr.  
MAJ, AFSC CI #59

Dear Editor:

Please accept my exchange first-year AAAA lapel pin in the same spirit as I accepted the recent article, "Down with Aviation Safety". If I had another pin I'd be more than happy to donate that to you for saying what should be said. Hope your treasury recovers rapidly.

Ludwig Burger [CW4]  
Fayetteville, N.C.



**UNIQUE** — A master of earth, sea, and sky - that's an appropriate description of CWO Jerry D. McKinney of the 10Tst's 17th Cavalry. A former Navy diver who, during his six-year Navy diving career, placed underwater nuclear charges in the waters off Eniwetok Island during scientific tests, McKinney transferred to the Army's Nike missile program prior to attending flight school in 1970. A talented illustrator, he's Troop C's test pilot, tech supply officer, and troop pet advisor, owning a pet shop just outside the Campbell main gate. □



### Northrop reduces AIDATS in both weight and size

The Northrop Corporation has successfully accomplished a significant "repackaging" effort of its U.S. Army In-Flight Data Transmission System [AIDATS], reducing the weight of the system by one-third.

The airborne equipment has gone from 270 lbs. to 139 lbs, with system size being reduced by 35% and the power required by 10%. The number of airborne electronic "black boxes" has gone from the nine shown above to the four units shown below. In addition, the ground system "boxes" have been reduced from 20 to 11.

Northrop's AIDATS is a data link system that provides for the transmission of reconnaissance imagery from an airborne sensor to a ground station in real time, and with a high degree of resolution. Although the AIDATS system has been designed for use in the OV-10 Mohawk's side looking airborne radar [SLAR], it's adaptable to other aircraft and can also process information from infra-red sensors. □







# READY IN RESERVE



BY LIEUTENANT COLONEL RICHARD R. NOACK, AVN OFFICER, OFF. CHIEF OF ARMY RESERVE

**T**HE 101st Aviation Group is "moving out" in providing training assistance and support to the Reserve Components through the rapidly expanding Mutual Support Program. Through July this year, the 101st is scheduled to host a Reserve Component HHC Combat Aviation Group, an HHC Combat Aviation Battalion, a Heavy Helicopter Company, an Assault Support Company, and two Assault companies.

Through the use of mobile training teams, the 101st provides advance coordination and training and upon arrival at Fort Campbell the units receive training as required to include; MOS training for members of newly activated units, NOE training, gunnery qualification; CPX's and FTX's.

An emerging plan calls for a Reserve Component HHC Aviation Group to collocate with the 101st Aviation Group and

control other Reserve Component aviation units during a Division FTX this summer. The Aviation Brigade S-3 says this expanded program has added a new dimension to training, "The Reserve Components learn from us and we learn from the Reserve Components".

## Outstanding USARFFAC - 1975

The 88th U.S. Army Reserve Command, St. Paul MN, has been selected as the recipient of the second annual *Reserve Officer Association Award* for the "Outstanding USAR Flight Facility." This award is presented annually to the USAR Flight Facility determined to have provided the most outstanding support to Army Reserve aviation units during the judging period.

Three finalists selected from the 43 USAR Flight Facilities included the 79th ARCOM Flight Facility, Hagerstown, MD; the 63d ARCOM Flight Facility, Los Alamitos, CA; and the winner, the 88th ARCOM. Each finalist was evaluated based on accomplishments of the flight facility in providing support to aviation units in the areas of flight training, standardization, accident prevention and aircraft maintenance.

The ROA Award was established in tribute to past achievements by USAR personnel in establishing a viable aviation program and in recognition of outstanding unit contributions in the future towards the achievement of combat readiness goals.

CPT Daniel L. Meyers, Flight Facility Supervisor in charge of the St. Paul operation, which provides support to aviation elements of seven major USAR units, will accept the award for the 88th ARCOM at



**MOST BEAUTIFUL** — WO1 LaVern "Ernie" Farnsworth, Utah-USAR, is best-looking Reservist by far. See add'l on the next page.

## READY IN RESERVE (Continued)

the National ROA Convention to be held at Bal Harbour FL, 29 Jun - 2 Jul 1976. Congratulations to all flight facility and unit members of the 88th ARCOM.

### Safety in Numbers

Army Reserve aviators in the Twin Cities area, who have collectively totaled over 89,000 accident-free flying hours, were commended by *MG Merrill B. Evans*, Commander of the 99th U.S. Army Reserve Command, in a recent ceremony.

The 42 aviators (100% of assigned), who fly out of the 88th ARCOM Flight Facility at St. Paul Downtown Airport, represented seven different Army Reserve Units. Each aviator was presented a *Fifth U.S. Army Certificate of Achievement* for attainment of 1,000, 3,000, and 5,000 hours of accident-free flying.

The 88th ARCOM, headed by *MG Evans*, a staunch aviation supporter, consists of 9,500 Army Reservists assigned to 80 units which are located in 40 communities of Minnesota, Iowa, and Wisconsin.

### The most beautiful USAR aviator

The award goes to *WO1 LaVern "Ernie" Farnsworth*, the Army Reserve's first — and only — female aviator. *Miss Farnsworth*, who could easily compete for more titles than "*Most Beautiful USAR Aviator*", currently resides in Sandy, Utah and is assigned to the 709th Transportation Company (Aircraft Maintenance, DS) located at Salt Lake International Airport. *LaVern* is all smiles since her childhood dream of becoming a pilot finally came true in September of 1975 when she graduated from flight school.

#### USAR AVIATION PHOTOS

Got a good news photo of USAR aviation in action? Let us publicize your activities among your world-wide aviation contemporaries.

She sums up the whole experience quite well, "It was the most fascinating and challenging thing I've ever done in my life and one of the most rewarding. It was tough physically, mentally, academically, and emotionally, but when I finished I was a better person and proud of it. 'Patriotism' had a new meaning and the flag had never looked so beautiful".

*Miss Farnsworth* is a welcomed "first" to the program and all wish her a successful future as an Army Aviator in the U.S. Army Reserve.

### First Army Aviation Conference

The *First U.S. Army Aviation Standardization, Training, and Safety Conference* was held at Fort Eustis, VA, 6-7 March 1976. Attending were 128 persons representing aviation elements of all major U.S. Army commands in CONUS and Reserve Components within First U.S. Army.

The highlight of the conference was the presentation of USAR fiscal year 1975 awards as indicated below:

First US Army Commander's Trophy, Cat. A  
99th ARCOM USARFFAC, Hagerstown, MD

First US Army Commander's Trophy, Cat B  
77th ARCOM USARFFAC, Newburgh, NY

Certificate of Achievement  
99th ARCOM USARFFAC, Washington, PA

Commander's Award of Merit  
LTC Doctor R. Crants, ARR II

Broken Wing Award  
LTC Doctor R. Crants, ARR II

### USAR Program Loss

The Office, Chief of Army Reserve would like to express its appreciation to *COL Kenneth J. Burton* for his loyal support and outstanding contributions to the U.S. Army Reserve Aviation Program during his tenure as Aviation Officer, Headquarters First U.S. Army. *COL Burton* is scheduled for reassignment to Ft. Rucker AL in June 1976.

## Command and Staff

"Command and Staff" lists the new official duty assignments and/stations of senior AAAA members in the rank of colonel or higher. Those listed may also have a residential listing in the "PCS" column elsewhere in this magazine.

**MG John N. Brandenburg**, DCG, First U.S. Army, and CG, U.S. Army Readiness Region III, Ft. George G. Meade, MD 20755.

**MG John W. McEnery**, CG, U.S. Army Armor Center and Ft. Knox, KY 40121.

**MG John K. Singlaub**, Chief of Staff, U.N. Command, U.S. Forces, Korea, and Eighth U.S. Army, APO San Francisco 96301.

**BG Charles W. Bagnal**, ADC, 101st Airborne Division, Ft. Campbell, KY 42223.

**BG Charles W. Dyke**, ADC, 3rd Infantry Division, APO New York 09031.

**BG Jack W. Mackmull**, Chief of Staff, XVIII Abn Corps, Ft. Bragg, NC 28307.

**BG Fred K. Mahaffey**, Assistant Commandant, U.S. Army Infantry School, Ft. Benning, GA 31905.

**BG James H. Mapp**, Chief, JUSMAG-Philippines, APO San Francisco 96528.

**BG James H. Merryman**, Chief of Staff, V Corps, APO New York 09079.

**BG Joseph T. Palastra, Jr.**, U.S. Army Element, Defense Intelligence Agency, Washington, DC 20301.

**BG William C. Rouse**, ADC, 2d Armored Division, Ft. Hood, TX 76544.

**COL Frank L. Henry**, Hq, 3d Bde, 101st Airborne Division, (AASLT), Ft. Campbell, KY 42223.

**COL Edward K. Johnson**, American Embassy, APO San Francisco 96404.

**COL Delyle Redmond**, as Senior Army Advisor, CA-ARNG, w/sta at Sacramento, CA.

### SECRETARY RUMSFELD VISITS 101ST

A non-stop, 6½-hour tour of Ft. Campbell was taken by Secretary of Defense Donald H. Rumsfeld in mid-May. 101st Division 'copters doing their stuff showed division tactics and power, after which Rumsfeld took off in a Huey to participate in a simulated attack. Barely clearing the tree tops in NOE flight, the former Navy flyer fired 2.75-in. rockets, and a turret system made up from the mini guns of an AH-1G Cobra.

### TWO ARMY TEST PILOTS KILLED IN A FIXED-WING CRASH IN CALIFORNIA

Lieutenant Colonel William A. Horton, the Test Director at the Army Aviation Engineering Flight Agency, Edwards AFB, Calif.; Captain Michael A. Hawley, an Agency YUH-61A Test Engineer; and PV2 Alan C. Schardijn were killed on May 26 while on a short flight from Bishop, Calif. to Bakersfield, Calif.

By request of the Horton and Hawley families, no open memorial service was held at Edwards AFB. Out of respect for these outstanding Army Officers, and in recognition of their contributions to Army Aviation, a memorial scholarship has been established in their name. Both families desire that expressions of sympathy and respect be made to 'The William R. Horton - Michael A. Hawley Memorial Scholarship', AAAA Scholarship Foundation, 1 Crestwood Road, Westport, Conn. 06880.

Checks should be made payable to the 'AAAA Scholarship Foundation' with a note identifying the contribution as one for the 'William R. Horton - Michael A. Hawley Memorial Scholarship.'

### SHANNON & LUCHS

REALTORS - EST. 1908

TAKES PLEASURE IN ANNOUNCING THAT

*G. W. (Wally) Adamson*

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AS SALES REPRESENTATIVE

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Corpus Christi TX 78412



# New members all!

**PFC's & E3's**  
Kenneth Ramirez  
Timothy Reed  
Larry Renegar  
Melvin Ringue  
Charles Roberson  
James Rollo  
Terry E. Scott  
George Smith  
Charles Stephens  
Koji Takemaka  
Alfred Thomas  
Joe Trull  
Jimmy Trussell  
Fred Turner  
Joseph W. Vinyard  
Clarence Voyles  
James Waddy

**PFC's & E3's**  
Anthony Wall  
Billy Wan  
Robert Wegner  
Obdia Whitmore  
Bruhus Whitley  
Lawrence Winstel  
Kenneth E. Wyall  
Mark Young  
Timothy Zoll

**PRIVATES & E2's**  
William Hughes  
Richard Laffler  
Irene Monaghan  
Anthony Pritchard  
Donald Anderson  
Francisco Arriaga

**PRIVATES & E2's**  
Dennis A. Bishop, III  
Hyland Brew  
Julius Brown  
William Caraway  
Gerald Carter  
Rayford Chapman  
David B. Collier  
Mark Collins  
Anita Colter  
Richard Connard  
Anthony Coomer  
Raymond Cota  
Jenny Dellins  
John Glyn  
Kader B. Hancock  
Billy Hannah  
Clifford Hendry

**PRIVATES & E2's**  
Gerald Hill  
Timothy Jackson  
Richard Kelley  
Ronald Krafft  
Norman Knight  
Donald Labrie  
Michael Langarica  
John Lau  
Harvey Leonard  
Steven Lewis  
Randall R. Lilly  
Mark Livingston  
Jordan Martin  
Wille McKinney  
Michael Moll  
James Myers  
Clifford Newman

**PRIVATES & E2's**  
Legat Nixon  
Joseph Nypaver  
Nicholas Pepe  
James E. Puryear  
Carey L. Radabaugh  
Jaime Rodriguez  
David Smith  
Roger Steen  
Alan Suttan  
Frank Stendrodi  
David Wagner  
Michael Walker  
Clifford Washington  
John Whitted

**MR.'s**  
Coy Baggett

**MR.'s**  
Thomas M. Bellan  
Harvey Brown, Jr.  
Richard Corbin  
George B. Davis, Jr.  
Fred DeBullter  
Jrd M. Fidler  
Charles Gentry  
James Givens  
Thomas J. Grealy  
Dallas Grimes  
W. Jeff Hammond  
Robert Hazel  
Ronald Hunter  
Ben Kimbrough  
David W. Knobloch  
Frank Lacy, III  
Donald Lamb

**MR.'s**  
Robert H. Marrell  
John Mastrobatistto  
J.Z. Miller  
Dewey Morris  
Tom Mulvey  
George Pinson  
Herbert R. Ponce  
Al Roffard  
Jack D. Rector  
James P. Silva  
H.H. Stattery  
Paul D. Smith  
Walton Smith  
Robert J. St. Onge  
George Stroth  
Robert Welch  
\*Retired

A new "Seven Year Longevity Pin" is now available for issuance to those AAAA members who have been continuous members of the Ass'n for seven through fourteen years. The lapel pin is being provided to qualified members on a "no cost, exchange" basis in which the member provides his First Year Pin to the National Office.

The Seven Year Membership Pin may also be obtained by direct purchase from the AAAA Nat'l Office at \$2 post-paid, in the event the member has mislaid his original First Year Pin.

The Association also provides a Fifteen Year Pin "on exchange". The issuance of Ten Year Pins was discontinued in early 1975. □



## AAAA Membership Activities

□ □ MAY 14. Aloha Chapter of Hawaii. 1976 Army Aviation Birthday Ball. State Senator Joseph T. Kuroda, former AA, guest of honor. Introduction of newly-elected AAAA Chapter officers. Schofield Barracks OOM. Members/guests and wives.

□ □ MAY 20. Rocky Mountain Chapter [Denver]. After-dinner professional meeting. COL Jack Keaton, Proj Mgr for Acrrt Surv Equip, AVSCOM, guest speaker. FAMC OOM. Members/guests and wives.

□ □ MAY 20. Air Cavalry Chapter [Ft. Knox]. Professional dinner meeting. COL Clair Potter, USAF [Ret.], Wing Commander, Confederate Air Force, guest speaker. Officers' Field Station Mess. Members/guests and families.

□ □ MAY 20. Rhine Valley Chapter. General membership business luncheon, installation of new Chapter slate. PHV O-Club. Members only.

□ □ MAY 21. Activation of AAAA Chapter in Greater Ft. Polk, La. Area. Main Ballroom. Ft. Polk O-Club. Members/non-members are welcome to attend.

□ □ MAY 25. Monmouth Chapter. General Membership Business Luncheon. Nomination of new Chapter officers, report of '76 Avionics Symposium. Squires Pub. West Long Branch, N.J. Members only.



### GEN. ZAIS RETIRES; COL. E.M. BROWNE NEW PROJECT MANAGER

The AAAA's only four-starred active duty member, General Melvin Zais (above left), Commander, Allied Land Forces Southeastern Europe, retired June 1 after 39 years of federal service. Gen. Zais was rated in Oct., 1968, and acquired 1,200 hours in helicopter, most as CG of the famed 101st. Commissioned at the Univ. of N. Hampshire in ROTC, he was a Master Parachutist and held two DFC's and 26 Air Medals.

Colonel Edward M. Browne, right, immediate Past President of AAAA's Lindbergh [St. Louis] Chapter, has been assigned as the new Project Manager for the Advanced Attack Helicopter [AAH], replacing Brig. Gen. Samuel G. Cockerham, who has been assigned to OJCS. A Distinguished Graduate of the Air War College, the OCS graduate also holds an MPA [Auburn] and Masters in Procurement Management and Systems Management [Fla. Inst. of Tech.]. Earning his wings in 1954, he later served successively as Project Manager for the LOH and Quiet Aircraft Systems.

□ □ MAY 25. Mt. Rainier [Ft. Lewis] Chapter. Late afternoon professional-business meeting. LTC Lawrence Dawson, guest speaker, "Warrant Officer Selection Board Proceedings". Election of Chapter officers for '76-'78 term. Ft. Lewis O-Club. Members/non-members.

□ □ JUNE 2. Golden Gate Chapter. Late afternoon business-social meeting. Election and installation of 1976-1978 Chapter officer slate. Presidio OOM. Members only.

□ □ JUNE 4. Checkpoint Charlie [Berlin] Chapter. Wine Tasting Tour. Maximum of 40 people. Members only.

□ □ JUNE 5. Ft. Benning Chapter. Good Times Picnic at 1013 Standing Boy Court. Election of '76-'78 officers. Members and families.

□ □ JUNE 5. Army Aviation Center Chapter. Bicentennial Ball honoring 1976 Hall of Fame Inductees. GEN William C. Westmoreland, Ret., and LTG Harry W.O. Kinnard, Ret. guest speakers. Ft. Rucker OOM. Members/guests and wives.

□ □ JUNE 11. Lindbergh [St. Louis] Chapter. Fourth Annual Chapter AAAA Scholarship Golf Tournament/Tournament Awards Dinner. Clubhouse. Granite City Army Depot. Members/guests and wives.

□ □ JUNE 12. Morning Calm [Seoul] Chapter. Professional dinner meeting. MG James C. Smith, CoIS, UNC-USFK-EUSA, guest speaker. USOM Club. Yongsan. Members/non-members.

□ □ JUNE 12. David E. Condon Chapter

[Ft. Eustis]. "Togetherness Family Picnic". Warwick Pier, Ft. Eustis. Members/guests and families.

□ □ JUNE 17. Chicago Area Chapter. Joint professional dinner meeting with Windy City Illini Roost of Ass'n of Old Crows. COL Jack Keaton, Proj Mgr for Acrrt Surv Equip, AVSCOM, guest speaker. O'Hara Officers' Club. Members/non-members and wives.

□ □ JUNE 24. Fort Sill Chapter. Late afternoon professional-business meeting. Ralph P. Alex, Chief, R&D Marketing, as guest speaker; election of Chapter officers for '76-'78. Blade 'n Wing. Members/non-members.

□ □ JUNE 25. Franconia-Marne Chapter. Late afternoon professional-social meeting. Oberst Leutnant Hans A. Kiesewetter, Cdr, PZ BTL 364, on "The Yom Kipper War". Schweinfurt O-Club. Members and guests.

□ □ JUNE 25. Monmouth Chapter. Ninth Annual Dinner & Birthday Ball. Installation of Chapter officers for '76-'78. Barclay Hotel, Belmar, N.J. Members/non-members and wives.

□ □ JUNE 26. Washington, D.C. Chapter. Eighth Annual Picnic & Air Show. Anderson Park, Ft. Belvoir, Va. Members/guests and their families.

□ □ JUNE 30. Stuttgart Chapter. Late afternoon General Membership Business Meeting. Election of '76-'78 Chapter officers. Snoopy's Lounge. Stuttgart Airfield. Members only.

□ □ JULY 16-18. AAAA National Executive Committee Meeting. AAAA National Office. Westport, Conn.

□ □ JUNE 17. Connecticut Chapter. Summer Social and L.I. Sound Cruise aboard the "Lady Joan". Cove Marina. East Norwalk. Members/guests and wives.

□ □ OCT. 13-15. 1976 AAAA National Convention, 20th Anniversary Dinner-Dance and 1976 Annual Honors Luncheon. Hyatt Regency Washington. Members/guests and wives.

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# The Personal Side

PERSONAL ITEMS ABOUT AAAA MEMBERS AND AAAA AWARDEES

## AAAA AWARDS

### CHAPTER HONORARY MEMBERSHIPS

- MG William W. Palmer**, CDR, 4th Inf Div (Mech), Ft. Carson, CO, by Pikes Peak Chapter, 2 June.
- BG Richard X. Larkin**, ADC-S, 4th Inf Div (Mech), Ft. Carson, CO, by Pikes Peak Chapter, 2 June.
- BG William J. Livsey**, ADC-M, 4th Inf Div (Mech), Ft. Carson, CO, by Pikes Peak Chapter, 2 June.
- BG Sinclair L. Melner**, ADC-M, 4th Inf Div (Mech), Ft. Carson, CO, by Pikes Peak Chapter, 2 June.

## AWARDS AND HONORS

**'Outstanding Civilian Instructor Pilot in DUFF'** for July-Dec., 1975: Craig S. Cameron.

**'Decoration for Distinguished Civilian Service'**, Theodore J. Shulsen, flight commander, Doss Aviation, Inc., Ft. Rucker.

## FLIGHT SAFETY AWARDS [UNIT]

**Army Aviation Section, Allied Land Forces Southeastern Europe**, 4,100 hours in a three-year period.

**Dept. of Graduate Flight Training, USAAVNC**, Ft. Rucker, AL, 26,808 hours in a one-year period.

## DISTINGUISHED GRADUATES

### U.S. ARMY AVIATION SCHOOL

(AAAA presents engraved silver wings)

- 2LT John R. Combs**, ORWAC, April 27.
- WO1 Travis L. Humphries**, WORWAC, Apr 27.
- 1LT Robert E. Newcomer, Jr.**, ORWAC, May 11.
- WO1 Michael G. Hesley**, WORWAC, May 11.



**REWARD FOR HEROISM** — Theodore J. Shulsen, right, a USAAVNC flight commander for Doss Aviation, Inc., accepts the Decoration for Distinguished Civilian Service from LTG Frank A. Camm, DCG, TRADCOM, at a Ft. Rucker ceremony. The highest public service award the Secretary of the Army may bestow upon a private citizen was made to Shulsen for his Nov., 1974 actions in saving a student's life in a helicopter crash. □

- 2LT John W. Barton**, ORWAC, May 25.
- WO1 Lawrence J. Endres**, WORWAC, May 25.

## DISTINGUISHED GRADUATES

### U.S. ARMY TRANSPORTATION SCHOOL

(AAAA presents Cert. of Achievement)

- SP5 Gerald W. Hornal**, Acrlt Maint NCO Basic Course, Class Number 10-76.
- SP6 Lynn A. Mahanna**, Acrlt Maint NCO Advanced Course, Class No. 6-76.
- CW2 Thomas I. Cahill**, Acrlt Maint Off & Repair Tech Course, UH-1, CI No. 7-76.
- SGT Charles R. Sage**, Acrlt Maint NCO Basic Course, Class Number 11-76.

## MEDALS

**GEN Melvin Zais**, Turkish Distinguished Service Medal.

**COL Robert A. Bonifacio**, Legion of Merit (Second Oak Leaf Cluster).

**COL Edward Porter**, Legion of Merit (Second Oak Leaf Cluster).

## OBITUARIES

**CW4 Robert B. Harr, Ret.** Died May 7 in the Veterans Administration Hospital, Newport News. He is survived by his widow, Mrs. Jimmie Lee Harr of 406 St. Tropez Drive, Newport News, Va.

## RATINGS

**CPT Jerry L. Wisdom**, Senior Army Aviator.

**CW2 Edward E. Bohlke**, Senior Army Aviator.

## No Plaques! Only Cash!

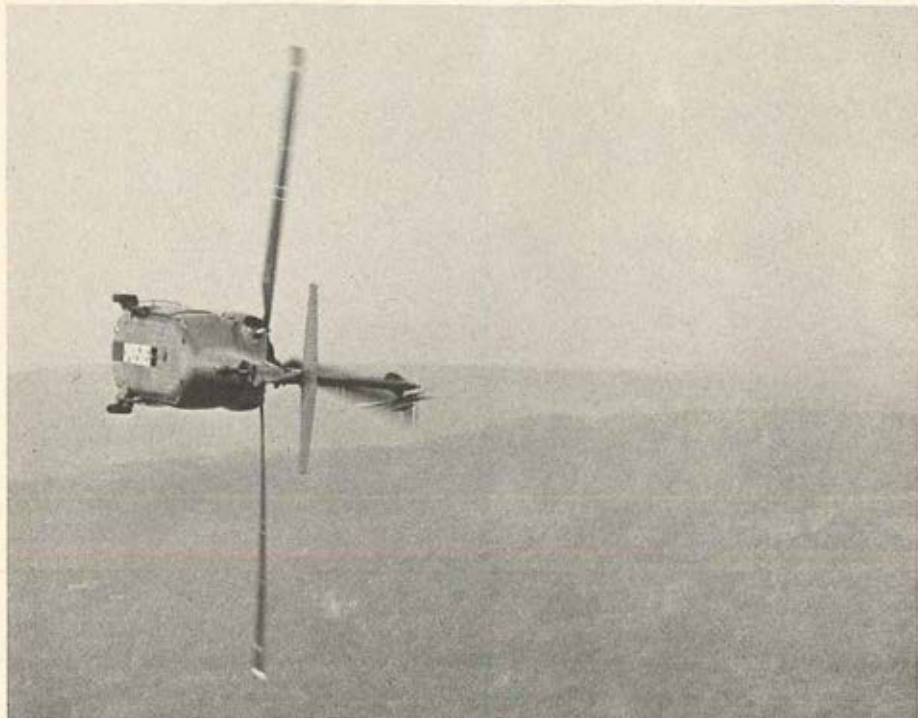
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**TOP GUN** — 2LT Rosemary R. Loper is the 14th woman to be rated as an Army Aviator, and the first one to be an Honor Graduate in her class. On receiving her wings she was congratulated by guest speaker, MG Norris E. Silts, left, CDR, 310th Support Command, Ft. Belvoir, Va., and BG Robert A. Holloman, III, Ft. Rucker's Deputy Commander. □

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**NEXT MONTH**

The July, 1976 issue of ARMY AVIATION will feature the 1976 Induction Ceremonies at the Army Aviation Hall of Fame at Fort Rucker, Ala., and report on 34th Birthday activities throughout Army Aviation.

The delayed report on the Garmisch-'76 Convention of AAAA's USAREUR Region will also appear in the July issue, together with such unit and individual award photos as are received.