Army Aviation

JULY-AUGUST, 1975

COMMAND & STAFF

"Command and Staff" is a monthly column listing the forthcoming assignments and positions of those active and retired personnel affiliated with Army Aviation who are in the rank of colonel or above. Residence information on those listed may also appear in the "PCS" pages of this issue.

Major General George S. Patton, as Commander, 2d Armored Division, Ft. Hood TX 76546.

Brigadier General Charles E. Canedy, as Deputy Director of Operations and Army Aviation Officer, ODCSOPS, Washington DC 20310.

Brigadier General [P] John F. Forrest, as Director, Military Personnel Management, DA, The Pentagon, Washington DC 20310.

Colonel Robert G. Cooper, to USA Garrison, Ft. Sam Houston TX 78234.

Colonel Eugene F. Crooks, to Air War College, Maxwell AFB AL 36112.

Colonel Raphael J. DiNapoli, to Army Aeromedical Center, Ft. Rucker AL 36362.

Colonel Arthur J. Junot, as Commander, Tooele Army Depot, Tooele UT 84074.

Colonel Aaron Lilley, Jr., to HHC* DISCOM, 1st Cavalry Division, Ft. Hood TX 76545.

Colonel John W. Martin, to OLSD, The Pentagon, Washington DC 20301.

Colonel Chester W. McDowell, Jr., as Chief, Industrial Management Div., DR&P, Hq, AMC, Alexandria VA 22333.

Colonel John S. McLeod, to Stu Det, USA War College, Carlisle Barracks PA 17013.

Colonel John F. Moran, Jr., to Box 144, USA War College, Carlisle Barracks PA 17013.

Colonel Forest S. Rettgers, Jr., to Hq, Ft. Devens, Ft. Devens MA 01433.

Colonel Foy Rice, to MKAR, Hq, JUSMAG-K, APO San Francisco 96302.

Colonel Lloyd E. Spencer, to Headquarters, USEUCOM (ECMD), APO New York 09128.

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Keeping a close tab!

The superintendent of the United States Military Academy at West Point, N.Y., is known for keeping tabs on his cadets. And he came all the way to Alabama to prove it. LTG Sidney B. Berry visited Ft. Rucker in early August to see the 49 cadets currently receiving primary helicopter flight training.

One of LTG Berry's first visits was to Hooper Stagefield, where he participated in presenting "solo" wings to several cadets who had recently performed their first solo flights in the OH-58 "Kiowa".

Shown is West Point Cadet Mark Jacobson being congratulated by LTG Berry, right, and LTC Sylvan D. Hoyem, chief of Rucker's Rotary Wing Division, Department of Graduate Flight Training. The cadets have passed the halfway mark in their eight weeks of training.

CORRECTIONS

On P. 8 ("New Focal Point") BG Canedy's correct title is **Deputy Director of Operations and Army Aviation Officer, ODCSOPS, DA.** On p. 10 ("Optimum IERW"), the "ten hours of contact work in the UH-1" **costs $44.39 per hour;** the 20 hours of airways weather flying in the UH-1H **costs $238 per hour.**

On p. 15 ("Hardware Decisions"), the CH-47 Modernization Study was to proceed to an ASARC **on 4 August.** On p. 15 ("New Studies"), the HELLFIRE DSARC is **scheduled for January.**

On p. 16 ("Cobra Program"), the Army elected **to retrofit 290 G models;** the "remaining 290 helicopters will be produced as full S models" **should be changed to read "198 helicopters."**

Total Testing

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- Main rotor system whirl-tested to 120% of design rotor speed
- Positive control response at zero G confirmed
- Ground Test Vehicle has met initial operational goals
- Hughes-designed TOW pods test fired
- Hughes 30mm Chain Gun has fired over 75,000 rounds
- First flight test aircraft has undergone shake and vibration testing

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An Armor officer and 20-year Master Aviator believes a separate Aviation Branch would hurt rather than help the rated officer and asks the regular readers to . . .

Close Pandora's Box!

BY LTC (P) CARL M. PUTNAM, HQ, ARR-IV, ATLANTA, GEORGIA

"**Pandora's Box**" published in the May 1975 issue of **Army Aviation**, is a well named article and woe be unto Army Aviation should that box be opened!

Establishment of an Aviation branch would hurt - not help - the rated officer. "**Pandora's Box**" raised several questions and provided superficial answers, but ignored the crucial question of what an Aviation branch could do for the Army.

RIF

First, let me point out I am an Armor officer and a 20-year Master Aviator. I am proud of Aviation's accomplishments in Vietnam and especially so of those who served under me in 1st Squadron, 9th Air Cavalry. Those I served with were skilled professionals both in aviation and ground matters.

However, to infer that those aviators became effective air-cavalry men without training is poppycock. In air-cavalry, each aviator received 250-300 flying hours of on-the-job training before becoming an aircraft commander. The scouts received 50-60 flying hours of training also before becoming effective.

Law of Supply and Demand

When the war in Vietnam was over, the number of aircraft in the Army was reduced, of course, and the need for aviators became much less. Thus, many aviators became victims of the RIF. It should be noted that the law of supply and demand applies to every skill, not just aviators.

For example, Finance, Quartermaster, Signal, and a few other branches were short officers so some aviators avoided the RIF by transferring to these branches. The formation of an Aviation branch could only make matters worse and perhaps cause a further RIF of aviators.

Branch requirements based on cockpit seats would be short of the 15,000 aviators now on active duty. Under the present system, aviators in excess of requirements are absorbed by their branch using "ground" allocations. The branches are willing to do this because they recognize talent and the contribution of aviators to increased combat effectiveness on the battlefield.

Grade Structure

The same reasoning applies to the grade structure. Since there are relatively few senior rated positions within the Army, career progression would be unduly restricted by the formation of an Aviation branch. This potentially steep and pointed career pyramid is bypassed today because the branches absorb the senior grade aviators into their "ground" branch allocations.

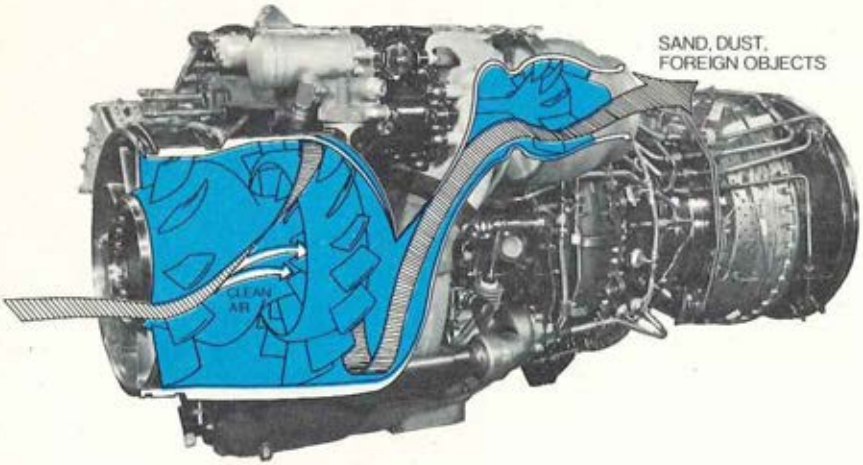
It doesn't make sense to restrict aviation to two or three general officers as in Signal, JAG, and other specialized branches. It's better to have an opportunity across the spectrum.

Other Career Considerations

In examining the record, it appears the aviator has been very competitive for attendance at senior service schools and for high level command. Aviator attendance at senior service schools has been higher than representative numbers and aviation totals exceed most branch allocations including Armor and Engineer.

While "**Pandora's Box**" invited the reader to examine the number of aviators on the "**other than Aviation Troop Command**" list, it should be noted

T700 Survivability



Sand Trap.

The T700's Inlet Particle Separator will eliminate most engine damage caused by sand and foreign objects. The same sand and FOD that accounted for nearly 60% of all unscheduled helicopter engine removals in Vietnam.

And because it's fully integrated with the engine front frame, it can't be removed, improperly fitted or turned off. It operates 100% of the time when the engine is running. This will reduce engine maintenance.

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The T700 Turboshaft. The Army's engine for UTTAS and AAH.

GENERAL ELECTRIC

PANDORA'S BOX (Continued)

that Army Aviators on that list are more than would be there, if there were an Aviation branch.

Aviators now compete for **both** aviation and troop commands while ground officers are more restricted. Why restrict aviators by killing the goose that lays the golden egg?

Airmobility

The crucial question is not what can the Army do for aviators but rather what can the proposed Aviation branch do for the Army. Since aviation is not an end to itself, the answer is **"nothing."**

The doctrine of airmobility, upon which aviation is founded, is defined as using aerial vehicles to better accomplish traditional Army missions; missions which are already a responsibility of the various branches. Branch schools currently teach the principles used in accomplishing these missions.

Therefore, if expensive vehicles are needed to accomplish a type mission, then the branch primarily responsible for that already established and assigned mission, should provide the expertise to operate and control those machines.

Branch qualification is, or should be, important to that concept. On the other hand, if branch expertise is not required to accomplish the Army's missions, then the branch school system is out of date.

A better solution for the Army is total integration of aviation into existing branches along the lines of the April 1970 DA decision on proponency of aerial fighting units. This integration would tie the mission, expertise, and machine into a more effective fighting element.

Since the rated officer would be serving in branch-designated units and accomplishing branch-related missions, branch qualification would be automatic. This integration would have been much farther along had there never been an **Executive for Army Aviation.** That office disregarded proponency in assigning aviators as evidenced by examining the branch mixture of officers in the various units in the field.

In contradiction to **"Pandora's Box"**, aviators have been well represented in personnel policy-making. Each branch had dedicated "rated" assignment officers. Armor branch handled my career well and honored my requests when possible. The only "shady" occurrence in my various assignments was a result of actions within Office, Executive for Army Aviation.

Finally, it is agreed that personnel policy for rated personnel needs improvement. Aviator authorizations should be based on branch-related requirements.

For example, **Artillery** should be authorized sufficient aviators to fill aerial artillery batteries and other aerial artillery units. The same applies to other branches. It's difficult to determine how present authorizations are established. However, the drain in the Army's officer talent is extremely heavy.

Present aviation organizations have absorbed and are wasting valuable officer talent. At the same time, officer aviators are dissatisfied because of the lack of responsibility commensurate with the grade held.

Perhaps it's time to re-examine the possibility of using noncommissioned officer aviators and establishing an officer-enlisted ratio in aerial units similar to ground units.

This would allow the Army to use more officer talent in ground combat units where there is a current shortage. Space does not permit a complete discussion of this concept, but before condemning the idea, read the details discussed in **"Flying Sergeant"**, [Armor, July 1973).

USAF AEROBICS - SLIM ARMY AVIATORS

After reading of the Army Aviators at the "Brand X" service colleges, I felt duty bound to report that Army Aviation was alive and well this past year at the Air War College. Receiving diplomas in May — after a year of defending the AAH against the A-10 — were AA Colonels Al Butler and the writer, and LTCs [P] Don Bills and Larry Honsinger. AA COL Pat Delavan serves currently on the faculty; COL Gene Crooks is due to join him this month.

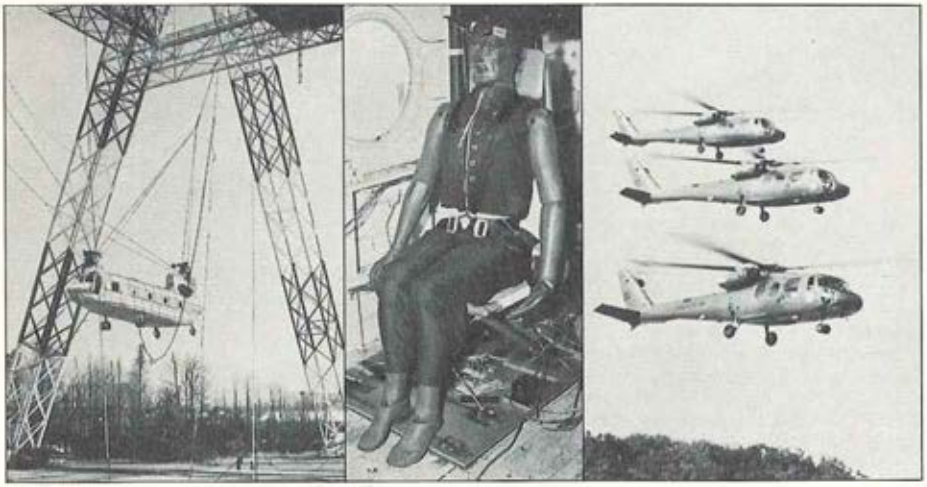
We decided NOT to send a group photo, as our year of exposure to the Air Force aerobics program has left our waist lines so slim that we were afraid that our middle aged, paunchy Army Aviator friends would just become too jealous.

COL "Bill" Sullivan
Box 253, Air War College
Maxwell AFB, Ala.

LETTER OF APPRECIATION

On behalf of the cadets and cadre of the 1975 Ft. Bragg ROTC Advanced Camp, I wish to express my appreciation for your thoughtfulness in providing us with copies of 'Army Aviation Magazine.' The cadets enjoyed reading the issues which helped these future officers increase their knowledge of the Army.

COL Ray Brackett, Pub Aff Off

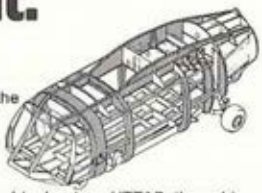


A report on Boeing's UTTAS:

For troop crash survivability, a unique spill-proof seat.

Recently, the U.S. Army and NASA drop-tested a CH-47 helicopter at 50 feet per second to evaluate the survivability performance of several troop seats—including a unique spill-proof seat design concept developed by Boeing Vertol and the Army for the YUH-61A UTTAS. Instrumented test dummies were strapped in each seat. The Boeing design met all test objectives, providing complete injury-free protection.

Boeing's spill-proof troop seat is unlike any other in that it is fully supported from the aircraft ceiling by crash-load attenuators. A unique Boeing-developed energy-absorbing system operates in three axes while *keeping the seat pan horizontal down to the floor.*



The occupant is not spilled, but is kept in the seat, fully protected by its energy-absorbing capability.

In Boeing's advanced-technology UTTAS, the cabin is surrounded by energy-absorbing structure to prevent crushing in rollover and intrusion of the main transmission and rotor into the cabin space. The high-energy-absorbing landing gear cannot penetrate the cabin, the engines are pod-mounted outboard of the cabin, and the fuel system is crashworthy.

Troop crash survivability is ensured in the Boeing YUH-61A by this unique combination of a spill-proof seat and crashworthy design.

Crash survivability: another reason America needs the UTTAS... another requirement met by Boeing technology.

New technology for the Army of the 1980's.

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Summer POTPOU

"Things are happening!" So says Major General William J. Maddox, Jr., in a comprehensive report on all facets affecting Army Aviation:

AS I survey the scene in this 201st year of the U.S. Army, aviation is **not** in the mid-summer doldrums and Fort Rucker is not a sleepy southern Army post.

Things are jumping. Progress is being made. In fact, so much is happening that I had better devote this column to a series of short snapshots.

School's Out!

On 1 July, the **Aviation School** ceased to exist as an entity. Its demise occurred in the interest of unity of effort. We now have an **Aviation Center** which teaches people, develops doctrine and tactics, serves as the world standardization center, and performs other aviation related functions.

There is no Commandant or Assistant Commandant anymore. The **Center** will be formalized in a single TDA (Table of Distribution and Allowances). The result is a much harder hitting organization with a Commander, Deputy Commander **[BG "Bob" Holloman]**, Chief of Staff **[COL Crawford Buchanan]**, and a normal coordinating staff.

The operating elements of the **Center** are a Deputy for Training **[COL "Jim" Mapp]**, Deputy for Developments **[COL "Bill" Ponder]**, Deputy for Standardization **[COL "Bill" Rathbone]**, and the Aviation Troop Brigade **[COL Carl McNair]**. The **Aviation Center** is the **first** Center to undergo such a consolidation. Thus, Fort Rucker is being watched by the rest of the Army for lessons which other Centers can adopt. The reorganization has resulted in an overall savings of authorized spaces and has brought a togetherness not heretofore achieved.

You may remember that we initiated this reorganization early in 1974 and it has been implemented in stages which culminated in the final dissolution of the Aviation School.

New Focal Point at DA

Just a little more than a year after the Office of the **Director of Army Aviation** was abolished, the Army has re-established a General Officer focal point for aviation on the Army General Staff. **Colonel [P] "Charlie" Canedy** arrived in Washington to take up his new duties on 25 July. His title will be **Deputy Director of Operations [Army Aviation Officer]** in the Office of Deputy Chief of Staff for Operations and Plans (ODCSOPS).

Colonel Canedy will inherit a small aviation nucleus now headed by **LTC Ben Pergerson,** which is scheduled for reinforcement by a Colonel this autumn. His charter for operation is being developed and will be carried in this column in the future.

OPMS

Over the several years that OPMS has been in existence, I have supported it strongly for aviators

because it offers the most practical route to promotion, schooling, and professional development. The management system, as do all new systems, has had problems getting established. Like other systems, it pinches some people who have been living under the old system and playing under the old rules.

Actually, OPMS provides **multiple routes** to success rather than a single command route that we traditionally have known. A specialist can be assured of progressing in his specialty line without having to play the generalist game. The recent promotion list to Brigadier General underscored this aspect of OPMS because a number of Colonels were selected for their first star who had not had all of the boxes on their tickets punched, but they were experts in their chosen specialty.

I still consider the framework of OPMS to be basically sound. When we talk about a three-track system for aviators, I can see little difference with the way the system worked before. Further, I can see no way that an aviator can work less than three tracks at least during the middle portion of his career, **if we are to preserve the keystone of our philosophy that aviators must be qualified in their branch or primary specialty.**

Aviation Specialty Proposed

However, the **Aviation Career Incentive Act [ACIA]** which regulates flight pay through the (gate) system has complicated the administration of OPMS. In fact, it has made normal career handling very difficult. If the aviator is to meet his branch requirements, perform normal aviation-authorized tours, and pick up an additional specialty after his eighth year of commissioned service, he must be handled very carefully.

A second problem with OPMS as it is administered now is the fact that the Army Aviator not only does not understand the system, but he also feels it is hostile to him.

For these two reasons, Fort Rucker has **recommended** — and TRADOC has **supported** — a proposal to create an aviation specialty within the OPMS system. This proposal would ensure that aviators receive very careful career handling which would be done by other aviators, thus providing him the feeling that the system understands his problems and concerns.

This proposal was briefed to **LTG Hal Moore,** Deputy Chief of Staff for Personnel of the Army, and is under study by the Army staff at the present time.

STARS AND BARS — Diane C. Dowd, the first woman member of the Army National Guard to earn Army Aviator wings, is pinned with the bars of her new rank, WO-1, by MG William J. Maddox, Jr., left, USAAVNC Commander, and MG John F. Freund, Adjutant General of the State of Connecticut. The Windsor Locks CT "Miss" is assigned to Connecticut's 143d Aviation Company in Hartford.

Fort Hood "Oktoberfest"

Last year, TRADOC and FORSCOM conducted a **tactics day** at Fort Knox. Senior officers from all over the Army attended to observe tank and mechanical infantry company tactics as conceived for the modern battlefield. This year TRADOC and FORSCOM will concentrate on **aviation tactics** and a similar **tactics day** will be held at Fort Hood on 8 and 9 October.

The Chief of Staff is expected to attend and watch a night demonstration in addition to daytime vignettes depicting aviation units operating in various tactical situations. A large amount of current hardware both U.S. and foreign will be displayed. Events will be captured on TV tape for the use of individuals who were unable to attend. The occasion is known popularly as the **Oktoberfest II**.

Commonality

The Secretary of Defense has indicated that the current **DOD inventory** contains about 10,000 helicopters representing 12 basic aircraft types. Only four of the 12 types are owned by more than one of the military services. He has directed that this apparent trend toward proliferation of types of helicopters be investigated to determine if development and operation of **fewer** types can meet military requirements while reducing costs. If greater

RRI

SUMMER POTPOURRI (Continued)

use of sufficient common helicopter types by all the services is feasible, substantial savings in development and support costs may result.

Accordingly, Fort Rucker has been tasked to provide a **study director** and other personnel to conduct the **interservice helicopter commonality study.** Fort Belvoir, VA., was selected as the study site at the request of the other services participating in the study.

The approach involves the formulation of a **base line family** of helicopters based on weight categories. The study has identified six capability groupings within which over all requirements of the services are stated. This grouping was briefed to representatives of the helicopter industry at Ft. Rucker on 18 July preparatory to additional study effort.

Conversion of USAAVNC Fleet

When the **Vietnamese Air Force training** was terminated last September as a result of Congressional action on foreign aid appropriations, Fort Rucker developed a **surplus of UH-1H training aircraft.** Because the **B model** fleet that is used in instrument flight instruction in the initial entry program is scheduled for phaseout from the active Army in the next several years, Fort Rucker has proposed the early elimination of **B models** from its fleet to take advantage of the **H models** on hand.

We recently completed this purification of the fleet and have turned in all the **B models** on our books. With the exception of a handful of **M model gunships** equipped with SS-11 anti-tank missiles, the remainder of the Fort Rucker utility fleet is now pure **H model.**

TACTICAL SAMPLER

In the past year the "Aviation DIGEST" has carried a series of articles under the general heading, "Tactical Outlook." These articles have been conceptual in nature and were written by a wide variety of military authors, including Center Commanders as well as cockpit aviators. These think pieces provide valuable input into the evolving tactics for the high threat battlefield. They've been incorporated into a bound volume by the "Aviation DIGEST" under the new title, "Tactical Sampler." Readers wishing copies of the "Sampler" should request them from the Deputy for Developments, Fort Rucker AL 36360. □

UPSA DAISY! — The MJ 15-D loader under TECOM test at Yuma Proving Ground installs a 2.75-inch rocket pod on a Huey Cobra during midday. The low silhouette vehicle is used in much the same manner as an industrial fork lift and allows its operators to work under the aircraft's wings and rotor blades. □

Optimum IERW

The **Optimum Initial Entry Rotary Wing Program** has been briefed to the Department of the Army by **LTC Ernest Wood** of the Dept. of Resident Training Management. This is a **proposed syllabus** which would place our initial entry training on the track for the new tactics and provide full utilization of the synthetic flight trainer.

It is considered to be the most advanced initial entry training course in the world and capable of providing a substantially better qualified aviator to the field than heretofore has been the case. We have proposed that it be implemented in November.

The program calls for 175 hours of aircraft flight time, plus 40 hours of synthetic flight training and ten hours in a cockpit procedural trainer for a **total of 225 hours** of cockpit time. Primary flight training has been reduced to 50 hours which covers basic flight maneuvers, but not the so-called tactics phase as we knew it as Fort Wolters.

The student would then take ten hours in the cockpit procedural trainer at a cost of about $8 an hour. He would then be given ten hours of contact work in the UH-1 before taking 40 hours in the synthetic flight trainer (2B-24) at about $18 per hour. This synthetic trainer work would be followed by 20 hours of airways weather flying in the UH-1H at $150 per hour.

Culmination of the course would be 95 hours of tactics which includes 34.5 hours of night time. The low level night flight to be included in the syl-

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The name our company has borne since 1934 is hardly descriptive of the activities in which we are now engaged.

While our traditional aircraft and aerospace businesses continue to grow, we've tapped the vast technology bank that's evolved from these operations to enlarge the company's business base in industrial and commercial fields.

Through the selective exercise of our abilities and skills over a wide spectrum of high technologies, we're now a multi-market corporation.

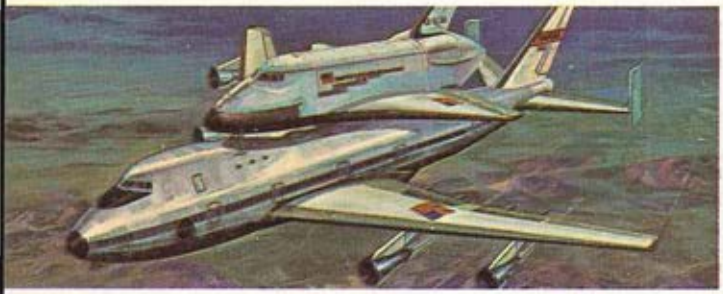
But one with the same solid, dependable virtues. A corporation with 1974 sales in excess of $3.3 billion, substantial financial strengths, a 39-year record of consecutive dividend payments, a truly international business with representation in some 120 countries of the world. And one that's a continuing major force in the world of flight.

We're also a corporation with a promising future. Because when all those technologies are United, there's no limit to our powers of invention. United Technologies Corporation, Hartford, Conn. 06101.

	1974	1964
Total Sales	$3,321,106,000	$1,235,918,000
Net Income	104,705,000	29,084,000
Business Backlog	3,577,000,000	1,200,000,000

UNITED TECHNOLOGIES™

Our Hamilton Standard Division provides the environmental control system for the 747 and is developing a life support system for the space shuttle orbiter.



The newest fighter to join the U.S. Air Force, the General Dynamics F-16 is powered by the F100 engine from Pratt & Whitney Aircraft.

Our Sikorsky Division is the pioneer in helicopter development for military, commercial and industrial use – with a notable list of "firsts" and more than 50 world records.

Two solid propellant rocket motors, manufactured by our Chemical Systems Division, provide the Air Force Titan III-C with 2.4 million pounds of initial thrust.

labus will be discussed in this article under **Night Hawk.**

Students would complete the various phases on a **proficiency basis.** Other major changes include a four-week expanded **pre-flight program** for both officers and warrant officers. This would include the survival, evasion, resistance, and escape training, and an improved academic lead-in to initial flying.

The **Warrant Officer Candidate** classes would undergo an additional eight weeks of military development training. This is intended to front-load the development work so that it can be reduced after the primary check ride takes place.

In addition to providing a student with substantially more tactical capability, he will have the confidence to get much more out of the aircraft than we have in the past. He will be more accustomed to **night flight, tactical instrument work,** and **operations in CBR environments.**

"Night Hawk" Completed

The final phase of the **Night Hawk** experiment was completed in May when 16 initial entry students were given a special course in low level night flight **without** night vision aids. Test results emphatically **confirm** that a student pilot properly trained in the techniques of night flying can attain a level of confidence and flying effectiveness approaching that which he possesses during daylight hours. The students perform all but the more sophisticated emergency procedures.

We found that night training should not exceed 1.5 hours per student or 3 hours per instructor because of the high degree of mental and physical stress. We also found that many aviators have deficiencies in their night vision.These were corrected either by the increased use of selected vitamins, or with spectacles. We're recommending that additional night vision eye tests be included in all flight physicals, both for qualified aviators and student applicants.

We detected several **hardware areas** that need upgrading. There is a need for more selective control of instrument lighting and the masking of certain emergency lights which tend to blind the aviator when he most needs his night vision. We have also recommended that non-glare paint be applied to all instrument panels. The paint will have to be extended to the complete cockpit.

The **Night Hawk** test confirmed the night flying content of the **Optimum Initial Entry Rotary Wing Program** described above.

Staying Power Symposium

While we have talked night flight and flight in adverse weather conditions, we really have not done enough in this discussion. Therefore, to focus attention on the important areas, Fort Rucker conducted a **Staying Power Symposium** for industry and military attendees in mid-July. While this symposium can be called a self-inflicted wound, it did much to educate and to increase the attention of specialist in the field.

I consider our ability to fight around the clock and in adverse weather to be a very important deficiency and one which we must solve if we are to be depended upon truly in a high threat environment. We studied three specific areas and came up with recommendations based on discussion group efforts in aircraft instrumentation, aircraft lighting, and de-ice-anti-ice. Group recommendations will be covered in a subsequent issue of this magazine.

Other Symposia

In early August we host a **Triservice 2.75 Inch Rocket Symposium.** It was attended by representatives from the Air Force and Navy which also use the aerial 2.75 inch rocket. Product Manager is **Colonel "Jim" Tow.** The future of the 2.75 inch rocket is being determined by the **Selective Effects Armament Subsystem [SEAS]** study now being conducted here at Fort Rucker.

Items under consideration are a **mark 66 improved rocket motor** and a **sub-munition war head** with anti-armor capabilities and smoke and chaff war heads to be used in air defense suppression.

The **National Security Industrial Association [NSIA]** will conduct a symposium entitled, **"Outfitting Army Aviation Units in a High Threat Environment."** It will take place at Fort Rucker during

HARD DOCTRINE

A new tactical manual setting the stage for operations in a heavy combat environment has gone to the printer. It's entitled FM 90-1, "Employment of Army Aviation Units in a High Threat Environment," and will be distributed for the first time to senior commanders attending the "Oktoberfest" at Fort Hood. Additional manuals prepared for distribution at the same time will be: FM 1-1, Terrain Flight; FM 1-5, Instrument Flying and Navigation; FM 1-50; Aerial Gunnery; FM 1-60; Army Air Traffic Management in the Combat Zone; and TC 1-50, Standardized Flight Evaluations. □

the period 9-11 September. We volunteeredd to bring the **NSIA** here and selected the title because our new tactical concepts demand new hardware approaches. While the **Staying Power Symposium** pate about 180 visitors from major defense related industries and think tanks when **NISA** meets here.

Hardware Decisions

This summer is **jumping** with activity on the hardware front. Decisions, once we have TRADOC approval, must go to **Army Systems Acquisition Review Council [ASARC]** and at least 30 days later go to the **Defense Systems Acquisition Review Council [DSARC]**.

The **Advanced Scout Study**, which was begun at Fort Knox and completed at Fort Monroe under the leadership of **Colonel Bob Sauers** from Fort Rucker, has been approved at DA level and is to proceed to its DSARC on 31 July. Results will be reported next month.

The **CH-47 Modernization Study** conducted at Fort Rucker under **Colonel Howard Williams** is to proceed to an **ASARC** on 23 July. Its **DSARC** is scheduled for 30 September.

The **Pass in Review Study [PIR]** concerning configuration of **Cobra Attack Helicopters** was sent to the printer on 22 July and required operational capability statements submitted to DA 10 days earlier. **ASARC** probably will take place in early September. The **SEAS ASARC** is now scheduled for October with a November **DSARC**.

New Studies Directed by DA

Because the **HELLFIRE seeker missile** could be a prime weapon on the **AAH** but is not now included as a requirement on that helicopter, DA has directed that this area be studied in preparation for the **HELLFIRE DSARC** scheduled in December. Ft. Rucker has established a special study group to extend the work of the **HELLFIRE Cost and Operational Effective Analysis [COEA]** is now being performed at Fort Leavenworth under **Colonel Bill Bayer**.

The **COEA** should be completed by the end of September. Fort Rucker study group will (1) validate the **HELLFIRE** military need document, (2) provide inputs to the **HELLFIRE** concept formulation package, (3) decision coordination paper and development plan, (4) recommend a single system or mix of systems to be installed on the **AAH**, (5) draft proposed changes to the **AAH** military need document, and (6) prepare coordination to the **ASARC** and **DSARC**.

The special study group will be chaired by **BG Bob Holloman** who also is serving as Chairman of the **AAH** and **UTTAS COEA Study Advisory Group**.

TAIL CUT — CW2 Ellery Sayers, l., UH-1H IP at the Berlin Bde's Avn Det, recently made his first solo flight in an Army U-6A, a part of his transition to F/W. He's shown with MAJ Alexander Woods, Jr., Det Cdr and AAAA Checkpoint Charlie Chapter President, who is trimming his tee-shirt to note the occasion as CW2 Delbert Hardiman, U-6A IP, looks on.

Expansion of the **SEAS COEA** now underway here also has been directed by DA. As the new study directive impacts heavily on the **Pass In Review**, precise details are being worked out and will be reported later.

Hardware Responsibility

During a recent visit here, **General William DePuy**, the TRADOC Commander, discussed hardware responsibility with **MG Donn Starry** of the Armor Center and me. We agreed on the transfer of responsibility for materiel actions on the advanced scout helicopter, attack helicopters and ancillary weapons equipment and subsystems being transferred from Fort Knox to Fort Rucker.

Organizational and doctrinal responsibility under the proponency concept would remain at Fort Knox. We determined that the full benefit of proponency as originally envisioned could be attained even though hardware responsibilities were placed with the Center having the best central team to handle such actions.

The Cobra Program

The **Cobra** situation is complicated by so many mixes that an explanation is in order. Our basic **AH-1G** was product-improved to become an **AH-1Q** when the TOW anti-tank missile system was added. Because the **G** and **Q** models were underpowered and under-equipped for the new tasks envisioned for them, a decision was made to beef up the **Q** with a larger engine and improved power

SUMMER POTPOURRI (Continued)

train. The **Q** thus became the **S** model. A similar beef up of the **G** model would result in the **R** model. Such decision is wrapped up in the **PIR** study now being printed.

At any rate, the Army elected to retrofit 300 **G models** with the TOW missile and to buy an additional 305 new **Cobra** aircraft beginning in FY 76. When the decision was made to beef up the **Q model** aircraft, the retrofit requirement already was in operation.

Therefore, in addition to the R&D test aircraft, the first 20 retrofit aircraft to be fitted with TOW's will be straight **Q models**. The next 72 will be **Q models** with structural modifications for easy conversion to **S model** status and the remaining 290 helicopters will be produced as full **S models**. The first **Q model** will arrive in Europe on 18 September to begin a new era for aviation in a heavy combat environment.

AH-1Q DELIVERY — COL Charles Drenz, AVSCOM Cobra PM, addresses the crowd at June ceremonies at Bell's Ft. Worth plant marking the Army's acceptance of the first of 290 AH-1Q Cobra/TOWs. From left are James F. Atkins, Bell President; MG Frank Hinrichs, AVSCOM Commander; and COL Orlando Gonzales, former PM, now stationed at Ft. Eustis. [Delayed photo received from MECOM 25 Jul]

Activation of USAR Unit

On the Army's 200th birthday, the Army Reserve activated the **282d Assault Helicopter Company** at Fort Rucker. The company is assigned to the **121st Army Reserve Command** under **MG Leonard Woody** with headquarters in Birmingham, AL. The company is co-located at Knox Field with the **376th Maintenance Company** of the Army Reserve which recently relocated to Fort Rucker from Dothan.

The **282d** was assigned to Rucker to assist in the summer readiness training program which we developed and tested a year ago with the **129th Assault Helicopter Company** from Fort Bragg. In April of this year, we put the **119th Assault Helicopter Company** from Fort Bragg under **Major John Dailey** through our two-week readiness program, and returned it to Fort Bragg where it is now assigned to the **12th Aviation Group** under **COL Joe Kastner.**

Our **program of instruction** was developed units to improve their readiness. This involves a one-week individual refresher session followed by unit training and an **operational readiness training test [ORTT].** The **ORTT** has been conducted with troops from the Infantry Brigade at Fort Benning, our **Chinooks,** and company lift ships. It took place at Fort Rucker and Eglin AFB training areas (See "Army Aviation", June, 1975).

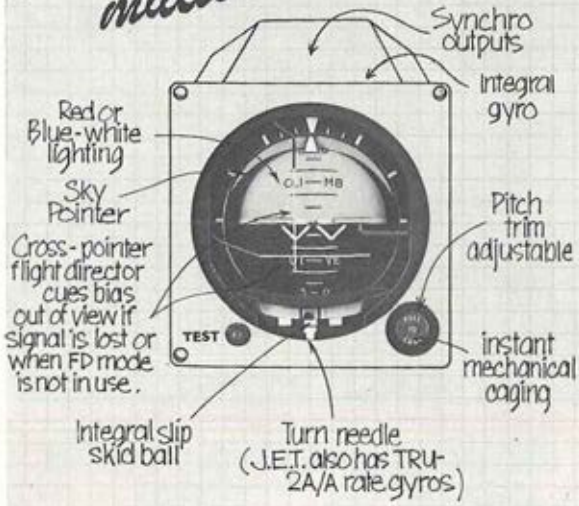
In July, we trained the first **National Guard Company** and its parent **Battalion.** The **450th Assault Helicopter Company** road marched to Fort Rucker with its aircraft and equipment from Tennessee. The Hq Co of the **130th Aviation Battalion** also was provided staff refresher training.

MG Carl Wallace, Adjutant General of the Tennessee ARNG, observed the training. The **130th Battalion** is commanded by **LTC H.A. Scott** and the 450th Helicopter Company is commanded by **MAJ Hayes Cathey.**

MEDICAL ASSOCIATION SEEKS AVIATION ARTIFACTS

WASHINGTON, D.C. — An extensive directory of significant medical artifacts related to aviation is now being compiled by the AEROSPACE MEDICAL ASS'N, Washington Nat'l Airport, Wash DC 20001. COL Roland H. Shamburek, M.D., U.S. Army member on the History and Archives Committee, asks Army Aviators to assist by forwarding any significant medical or medically related artifacts pertaining to aviation to the Ass'n. "Many times what appears to be a very insignificant item or bit of information will be the final key to document an otherwise incomplete historical event. Hopefully, a number of Army contributions will be evident when the directory is completed," COL Shamburek indicated. The type of material sought? . . Rocket sleds that John Paul Stapp rode . . A Henderson-Pierce rebreather used by pioneer flight surgeons . . Memorabilia, diaries, notebooks, photographs — anything having an aviation medical connotation is sought. □

Finally, a three-inch self-contained ADI that delivers more than most multi-box systems



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The fourth Sikorsky UTTAS is flying.

The Sikorsky UTTAS leads the way in support of tomorrow's soldier.

On May 23, the fourth Sikorsky UTTAS (foreground) lifted off for the first time to join the three other flying prototypes. Now, with four aircraft in the air, Sikorsky has an even broader base for its testing and evaluation. And that means a better aircraft for tomorrow's Army.

The continued smooth development and testing of the Sikorsky UTTAS should come as no surprise to the military. For over 34 years, Sikorsky has provided all branches with sound, cost-effective aircraft, developed from the ground-up to meet specific mission requirements. That kind of experience has meant low Engineering Change Proposals (ECP's) and life-cycle costs, and a high degree of technological expertise.

And it's that same tradition that has kept the Sikorsky UTTAS flying out front. Sikorsky Aircraft, Division of United Technologies Corporation, Stratford, Conn. 06602.

SIKORSKY AIRCRAFT Division of **UNITED TECHNOLOGIES**

THE progress and status of the major aircraft development programs [**AAH, UTTAS, ASH, AH-1Q/S,** and **CH-47 Modernization**] were reviewed in the June issue of **Army Aviation.**

Aviators know there are many other developments and subsystems which contribute to mission success and the survivability of the individual aviator. This month, I would like to review the multifaceted activities of the **Support Team, Aviation Systems Division, ODCSRDA.**

These activities may be less publicized but are extremely vital to the success of the Army's air mobility mission. They provide the mission essential capabilities to the major airframe itself and many times determine the configuration and the major requirements of these airframes.

Weapons

The experience of Vietnam and observations of the Mid-East conflicts have provided considerable influence and insight into the utilization of existing aircraft weapons systems as well as ongoing developmental efforts. We have come a long way from the door guns on **H-21's** and M-3 systems on **UH-1B's.**

The present weapons on the **AH-1G** represented quite an advancement in capability. The TOW missile system enjoyed considerable point target destruction success in the closing days of our involvement in Southeast Asia. These two proven weapon systems have been combined to produce the **AH-1Q** and provide our first heliborne antitank weapon system.

Two models of a 30mm gun, the **GE XM-188** and the **Hughes XM-230,** are presently being tested for the **AAH.** The 30mm gun will greatly extend the gun lethality and range of the armed helicopter system. We are also studying its application to the **Cobra.**

The **2.75" rocket** has been an effective system for a long time and it has experienced many improvements over the years. With advances in technology we are still finding additional ways of making the 2.75" more effective.

New efforts include an improved smoke round, an illumination round, and a High Explosive round with anti-materiel submunitions. The pilot will have the capability of selecting these rounds from the cockpit. A fire control system will improve accuracy and increase the affection range beyond 4000 meters.

The Mid-East conflict focused considerable attention on an extended range point target destruction capability for helicopters. The extended range TOW system on the **Cobra** will provide our initial answer to this battlefield requirement. Its extended range, and the improved performance of the AH-1, provide us a significant anti-tank capability in the high density tank target environment of a mid-intensity battlefield.

As a follow-on to the TOW system, the **Helicopter Fire and Forget Missile System ["HELLFIRE"]** development program is underway with **LTC Stan Cass** as the DASC. This system will provide an increased capability with ranges greater than TOW, and increased accuracy and lethality.

The initial phase of this effort is addressing laser guidance. This concept involves terminal housing of the missile on a target being designated by a laser source. Initial firings, indirect and direct, as well as multiple launches, have been extremely successful to date.

We are optimistic that this system, if chosen at

DA Happenings

By Colonel William E. Crouch, Jr., Chief, Aviation Systems Division, ODCSRD&A, Department of the Army

DA HAPPENINGS (Continued)

the December 1975 **ARARC/DSARC**, can be integrated on the initial **AAH's** and save a costly modification. Later phases of the **HELLFIRE** program address the development of missile seekers with a true fire and forget capability which would enhance helicopter survivability while providing a day/night anti-tank potential.

All these improved weapon systems in development should be available for field units in the not too distant future. They will contribute greatly to improving the existing offensive punch of Army Aviation.

Aircraft Survivability Equipment

The escalation of the AAA environment in Southeast Asia during the latter stages of that conflict approached what we can expect to find in the mid-intensity battlefield. The Army responded rapidly and provided infrared suppressors and low reflective paint, and flare decoys to counter the heat-seeking missile threat. We returned to NOE tactics to thwart the radar-directed threat.

Shortly thereafter a ROC was established and "suits" of **"Aircraft Survivability Equipment" [ASE]** were designated for each aircraft system. Considerable testing and development of the **ASE** have been conducted with several items installed in operational aircraft.

These items are consistent with the present Army Aviation philosophy of avoiding detection; if detected, avoid getting hit; if hit, continue the mission; if mission must be aborted, recover for repair and re-use.

To improve aircraft survivability, modifications that can be expected in the field are the low reflectance IR paint; final modification and installation of engine suppressors; and flat plate (low reflectance) canopies for the **AH-1** and selected **OH-58's**. These items, along with the **AN/APR-39 Radar Warning Receiver**, provide a considerable degree of survivability against most IR and radar-directed anti-craft weapons.

Vulnerability reduction [VR] efforts, i.e., a reduction of system vulnerability to hits, are also underway for the current fleet. The new development aircraft **AAH-UTTAS**, are the best example of VR efforts. They include completely redundant control systems, fail safe engine and transmission lubrication systems, composite materiel components such as rotor blades, and tail booms which are resistant to 23mm hits. **LTC Pat Nellin** is the ASE DASC who monitors the preceding activities along with additional classified efforts which are under development.

SOME FACTS AND FIGURES!

The U.S. Army Aviation Systems Command [AVSCOM] issues movement orders and crew notices for distribution and redictribution of aircraft, averaging 4,000 movements annually. It awarded 42,654 contracts in FY74 at a value of $745.1 million, of which $45.9 million was awarded to Small Business. Its annual payroll of $60,244,000 goes to 5,200 military and civilian personnel, including more than 3,600 in the Metropolitan St. Louis area. □

Avionics

Unconstrained tactical aviation operations in nap-of-the-earth (NOE) environment continue to provide the motivation of the Army's avionics development efforts. The completed **Low Level Night Operations Study**, with complementary investigations by many other Army agencies, such as MASSTER, CDEC, and the Night Vision Laboratory, have demonstrated that aircraft operations in the night, NOE, and adverse weather environments are achievable.

However, many of the potential technical solutions for a totally unconstrained NOE operational capability are relatively far term solutions with potentially high acquisition costs for fleet-wide applications. The cost effectiveness of these subsystems will have to be determined on an individual basis.

Near term avionics tasks to provide an Army-wide NOE capability include the development of secure, reliable NOE communications, aircraft navigation systems, adverse weather tactical landing capabilities, and improved air traffic control facilities. Existing developmental programs for **LORAN** and **Doppler Navigation Systems** will meet current aviation navigation requirements.

A tactical version of the civil and military sponsored **National Microwave Landing System [NMLS]** will provide a tactical instrument landing system for selected Army aircraft. Additional equipment in development or production include the AN/APN 209 Absolute Altimeter; AN/ARN-123 VOR/ILS/GS/MB equipment; AN/ARN-124 DME Equipment; AN/TRN-30 Low Frequency Beacon; AN/TSQ-97 manportable air traffic control facility; and AN/TSW-7A three man air traffic control tower.

All of these major end item equipments will be operational prior to 1980 , with the exception of the tactical **NMLS. LTC Bill Johnson** and LTC Bill Bosking **provide the expertise on the avionics programs.**

Life Support Equipment

The field of Aviation Life Support Equipment **[ALSE]** is continuing its busy pace. The added complexity of our new aircraft systems, and associated equipment and tactics, increases the importance of this area.

An in-process-review to address improvements for the **SPH-4 flight helmet** is scheduled for the Fall of 1975. The **crashworthy fuel systems** are now standard on all first line aircraft and modifications to the fleet are rapidly being effected.

The recently-developed **Crashworthy Pilot-Copilot Seat** for the UH-1 is being installed in the Bell Model 214A being procured by Iran. A product improvement proposal for retrofit of our UH-1H's has been submitted. Development of the crashworthy crewmember and troop seats is continuing.

The continued maintenance and training on **Aviator Life Support Systems** to include oxygen systems, ejection seats, flotation devicces, helmets, protective masks and clothing is a perpetual concern for aviation commanders. In many cases the facilities of other services or civilian contractors have been the only solution.

A proposal for establishing an **Aviation Life Support Equipment [ALSE]** career management field is presently under consideration at DA. This proposal envisions the establishing of an enlisted career field and MOS to provide continued support of **ALSE** in the field. **LTC Roger Waddell** is covering as the ALSE DASC now that **CW4 Bob Hamilton** has retired.

Synthetic Flight Training

Fort Campbell recently activated its **UH-1 Synthetic Flight Trainer System** (2B24), the first field location to become operational with the Army's most advanced trainer. The April delivery to the field climaxed a five year developmental and two year procurement effort.

The aviation units at Ft. Campbell are so impressed with its capabilities that they are using the facility in excess of the most optimistic predictions. Initial indications are that the equipment provides a new dimension for training that has **never** been available to Army field units.

Preliminary flights of the R&D prototype models of the **CH-47** and **Cobra trainers** have been very impressive. The addition to the visual capability to each of these trainers will further advance the state of the art in synthetic flight training for helicopters. Both models are forerunners of more advanced trainers that will be developed for the **Utility Tactical Transport Aircraft System [UTTAS]**, the **Advanced Attack Helicopter [AAH]**, and the **Aerial Scout Vehicle [ASH]**. **LTC Bob Machen** is the SFTS DASC.

Airdrop Equipment Program

This program is managed by **LTC Bill Dillingham**, a Master Parachutist with a wide range of airborne experience. Projects extend from exploratory development investigations for airdrop techniques and equipment through advanced development of parachutes and aerial delivery equipment. These efforts are included within the Aviations Systems purview of operations because of their obvious contribution to the air mobility posture of the Army.

Recent developmental results include the anti-inversion net for the personnel parachute which will virtually eliminate 90% of all malfunctions. The **G-11A pull down vent cargo parachute**, which allows reliable airdrop of equipment up to 15,000 pounds from 650 feet above ground level, has been tested and found suitable. Current programs include gliding decelerator studies, high altitude delivery of equipment for both low and high velocity recovery, and certification of rigging procedures for airdrop and **Low Altitude Parachute Extraction System [LAPES]** of newly developed equipment such as the XM204 howitzer and commercial versions of the bulldozer.

A new versatile platform is also being developed to replace both the current airdrop and LAPES platforms. Cargo handling equipment is also being developed to insure compatability with newly developed aircraft. Current programs also include test of nylon cargo nets and slings, external lifting devices for milvans, and cargo handling systems for NOE and adverse weather operations. **LTC Dillingham** is also responsible for Army inter-

DA HAPPENINGS (Continued)

face with the USAF in actions pertaining to air-transportability and airdrop developments. An active program here is the **Advanced Medium STOL Transport [AMST]** being developed by the USAF as a replacement for the C-130.

Comings and Goings

Personnel changes in the Division continue to provide a dynamic planning environment. After the last article went to press I learned that **LTC Walt Rundgren**, UTTAS DASC, was to be reassigned to Hq, AMC as **LTG Dean's** executive officer. **Walt** has been on the UTTAS program three years and a big share of the program's success is due to his personal efforts.

LTC Jim Brown will be reassigned as Deputy Program Manager for the **Army/NASA Tilt Rotor Research Program** at Moffett Field, California. In addition to his work on the Technology Team, **Jim** had the additional duty of Division XO. **Walt** and **Jim** will both be missed by the Army Staff and have our best wishes for continued success.

Two recent arrivals are **LTC Mike Hull**, who has replaced **COL Emmett Knight**, on the Budget Team and **LTC Sy Berdux**, who has filled the **HLH** shoes of **COL Denny Boyle. Emmett** has departed for Iran and Denny is **U.S. Army Engineering Flight Activity** at Edwards AFB. Other new arrivals in the area include **LTC Dewitt ["T"] T. Irby** at ODSCLOG who'll replace **LTC Chuck Oram**, and **LTC Bobby H. Freeman** who has replaced **LTC Clancy Wolliver** as Chief, Aviation Management Branch, Officer of the Chief for Professional Development, down at MILPERCEN.

The biggest DA news of all concerns the assignment of **BG "Charlie" Canedy** to ODCSOPS as the Deputy Director of Operations (Army Aviation). All Army Aviators look forward to having this central voice at DA to help ut everything in proper perspective.

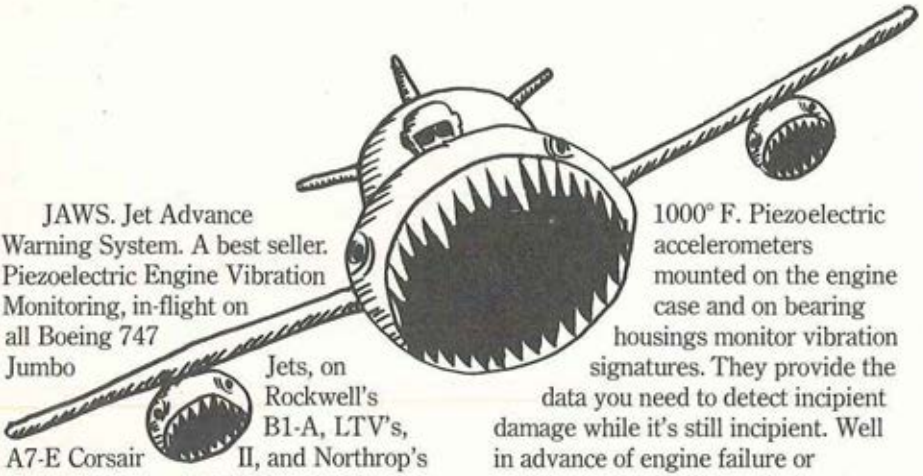
ONE MAN, ONE VOTE

"I'd like to express my appreciation to the AAAA for the many years of social and professional exposure to others in the field of Army Aviation, as well as thank you for the 15-Year Pin just received. Attached are two pins from the past for you to pass along to the newly-joined members." LTC Dan J. McBride, MSC [Ed. Note: 15-Year members turn in their 1st Year pins in exchange for the 15-Year Pin.]

ONE OF US! — Major General Henry Mohr, Chief of the Army Reserve, compeletes a "Why Belong?" AAAA Membership Application Form in June as MAJ "Dick" Noack, Aviation Officer at OCAR and a member of AAAAA's National Executive Board, looks on. A biographical sketch of AAAA's newest senior member appears on Page 38.□

ACCIDENT-FREE — BG John N. Brandenburg, left, CofS, XVIII Abn Corps & Ft. Bragg, presents a 5,000-hour accident-free flight safety award to CPT James J. Ulakovic, Flt Standzn Br, who accepts the award for his Section. Looking on are CWO James Davis, 1/17, and CWO Robert Whittaker, 129th Avn Co. □

JAWS



JAWS. Jet Advance Warning System. A best seller. Piezoelectric Engine Vibration Monitoring, in-flight on all Boeing 747 Jumbo Jets, on Rockwell's B1-A, LTV's, A7-E Corsair II, and Northrop's T-38. It's in the AIDAPS evaluation. It's mounted in the T700 engines being used in both Boeing and Sikorsky UTTAS fly-offs. It's on flight lines around the world, supporting the Northrop F5 and F5E. It has been retrofitted in Lockheed Electras.

Piezoelectric Engine Vibration Monitoring Systems by Endevco. Operating with an MTBF of 1,200,000 hours, in environments up to 900° F, with cable and connector system rated at 1000° F. Piezoelectric accelerometers mounted on the engine case and on bearing housings monitor vibration signatures. They provide the data you need to detect incipient damage while it's still incipient. Well in advance of engine failure or secondary damage to engine parts.

We usually call it EVM, piezoelectric Engine Vibration Monitoring. This time, we're calling it JAWS. We want to remind you that there's no better way to put real teeth in your on-condition maintenance program.

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NUMBER 1 - Robert L. Roots, new command sergeant major at Fort Rucker, Ala., is shown pausing during an inspection he made shortly after arriving on post. CSM Roots, a native of Sheridan, Ill., came from Ft. Jackson.

FORT RUCKER - Cadets from the U.S. Military Academy at West Point, N.Y., listen attentively to MG William J. Maddox, Jr., USAAVNC Commander, who welcomed the cadets to the post. The 49 members of USMA's Class of '77 are taking an 8-week Army Aviation orientation, including primary flight training in the OH-58.

FT. SAM HOUSTON - A highlight of the Army Medical Department's 200th birthday celebration on 27 July was a memorial dedication honoring Army aeromedical evacuation. Shown rendering the salute are LTC Patrick H. Brady, L, MOH holder, and MG Spurgeon Neel, r., Commander, U.S. Army Health Services Command.

LOOK-SEE - MG Carl Wallace, L, Tennessee's Adjutant General, inspects work being done by a Huey crewchief of the 450th AHC during that unit's two week training period at Fort Rucker. Unit nickname: White Lightning.

BERLIN - BG James H. Merryman, r., accepts a memento from MAJ Alexander Woods, Jr., the Checkpoint Charlie Chapter President, L, following his recent presentation to the AAAA Chapter. Mrs. Woods looks on approvingly.

WASHINGTON, D.C. - CW4 Robert L. Hamilton, ODCSRDA, DA, is shown being congratulated by MG Peter G. Olenchuk, right, on receiving the Legion of Merit at 30 June retirement ceremonies. A proud Carol looks on as the AAAA National Executive Board member is cited for his duties as systems coordinator in the fields of aviation safety & survivability. He's now with D.C.'s Nat'l Aviation Club.

Mission: Logistics

Do we have a night logistical capability? . . The author contends that we do not, but points to new concepts that will rectify the problem.

By
MAJOR TED A. CIMRAL
U.S. Army Transportation School
Fort Eustis, Virginia

EACH month in this publication high level spokesmen for Army Aviation tout, as they should, recent advancements in aviation tactics and training; yet, rarely are the logistical implications of these advancements addressed.

This is not to say that the group from Fort Rucker should be writing articles on aviation logistics, for this is truly the arena for the logistician from AVSCOM and/or Fort Eustis. What is being said is that any article that postulates operational advancements should tie in the logistical aspects to make the picture complete.

Too often today, it appears, senior commanders assume that the required logistical support will somehow magically appear at the right time, in the right place, and in the right quantities. We all know this rarely occurs, but it remains as the goal of Army Aviation logisticians.

The New Concepts

This article is written to inform the readers that new Army Aviation logistical support concepts **are** keeping in stride with the new operational concepts.

Such concepts as **On-Condition Maintenance [OCM], Forward Area Refuel and Rearm Point [FARRP],** and **Project INSPECT** are fairly well-known to the aviation community. Three other concepts, their implications and their status are perhaps lesser known — **three-Level Aircraft Maintenance, Night Aircraft Maintenance, and Aviation Supply Support.**

Three-Level Maintenance

In April 1974 the Logistics Evaluation Agency, an activity of DA DCSLOG, published a report titled **"Army Aircraft Maintenance Structure Study".** This study recommended the amalgamation of the current four-category maintenance structure into a three-level structure (Figure 1, next page), and was subsequetly approved by DA with TRADOC and AMC tasked to implement. Currently, AVIM-level units are found in Korea and in Germany.

The advent of three-level maintenance for aircraft, avionics, and aircraft armament systems will significantly reduce the redundancy of tools and equipment currently found in each category of maintenance. In addition, the responsiveness to operate requirements is significantly increased through the implementation of a remove-and-replace system (rather than remove-and-repair) and through the use of AVIM-level airmobile contact teams.

While the Transportation School was preparing the **AVIM TOE [55-459H],** currently at DA awaiting approval, and revising field manuals, AVSCOM was preparing new maintenance allocation charts

MISSION: LOGISTICS (Cont.)

insuring that the new fleet of aircraft (UTTAS, AAH, HLH) are engineered for modular maintenance, and assisting the Transportation School in the development of new tool and shop sets. Proponents for non-aviation materiel have also indicated that they may follow in our footsteps by creating an Army-wide three-level maintenance structure.

Night Aircraft Maintenance

In the Republic of Vietnam the absence of a significant air or artillery threat to aviation-related unit base areas allowed the use of semi-fixed installations with well-lighted hangars and ramp space for night maintenance operations. But what if the Army were facing a sophisticated enemy in a high air defense threat environment?

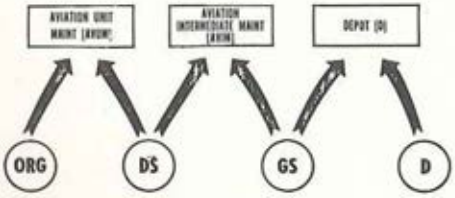
Fort Rucker has developed the tactics and techniques to exist in this environment, to include extensive use of night flying and nap-of-the-earth techniques.

Fort Eustis is developing techniques enabling our logistical support to continue to be effective on a 24-hour basis via the **concept of Night Aircraft Maintenance [CONAM]** Study.

Do we need a night logistical capability? Absolutely, for without it we not only **"Surrender the night to the enemy,"** but we also need to repair more aircraft in less time than we did in Vietnam just to meet operational readiness goals.

If we had to, could we maintain our aircraft from camouflaged and dispersed field sites at night under subdued visible light or blackout conditions? Absolutely, as evidenced by the seven-week **Night Aircraft Maintenance Test** conducted by project MASSTER in November and December 1974 (see MASSTER Test Report Number FM 285, dated 15 April 1975).

PROPOSED ARMY AIRCRAFT MAINTENANCE STRUCTURE
Levels of Aircraft Maintenance



Categories of Maintenance

A Daylight Garrison Activity

In general, is Army Aviation trained, organized, or equipped to perform logistical tasks under the above conditions? Unfortunately, no. Briefly stated, Army Aviation maintenance has become a daylight garrison activity. Night logistical training is nonexistent in service schools and is grossly inadequate in TOE units; field training of aviation units is limited and for aircraft maintenance units, almost nonexistent.

TOE for support units are staffed to provide a single 12-hour shift, making 24-hour operations **less than** efficient and difficult at best. Materiel support for tactical field operations is less than adequate: shelters are used that were originally designed for wheeled and tracked vehicles: camouflage screens are not authorized for issue to protect aircraft; generator cables and air compressor air hoses are so short that they preclude tactical dispersion; and available night vision devices (such as the AN/PVS-5 shown in Figure 2, opposite) which cause loss of color perception and depth perception hinder the accomplishment of complex, close range maintenance functions.

Fig. 2

AN-PVS-5

The doctrine of our potential enemies emphasizes continuous operations, and they **practice what they preach.**

Several corrective actions are readily available: First, require that aviation-related officer and enlisted personnel be intensively trained at Army service schools in both night logistical operations (in both garrison and field environments) and in camouflage and deception techniques.

Second, require that aviation-related units intensively train at night in field environments that require camouflage and dispersion.

Third, provide a wartime second shift augmentation of personnel to aircraft maintenance units' TOE.

Fourth, equip helicopter crew chiefs, maintenance contact teams, and aerial recovery personnel with the AN/PVS-5 night vision goggle (since it's the best currently available).

Fifth, equip remaining personnel with battery-operated electric head lanterns (unit cost: $6.49) fitted with red or green filters.

The Army has a long way to go before it will be able to operate logistically in an effective manner at night. The implementation of these few recommendations, however, will give the Army Aviation community a baseline from which improvements can be rapidly made.

Aviation Supply Support

Army aircraft are extremely maintenance-dependent and high-cost materiel. They — and their system components — to include avionics and armament, require sustained readiness and availability when employed in combat.

Keeping aircraft and their sub-systems operational requires that repair parts, special tools, TMDE, ground support equipment, and aircraft crew survival equipment be readily available. The advent of the **Echelons Above Division Concept**, the amalgamation of aircraft direct and general support maintenance categories, and the proposed elimination of general support repair parts

USAREUR AVERAGE OST [IN DAYS]
AIRCRAFT MAINTENANCE UNITS
[As of September 1974]

	Div Units	Non-Div.	Total Aver.
OST w/backorders	75.9	62.6	71.6
OST w/o backorders	71.3	53.8	64.3

supply units required the Transportation School to examine the aviation supply support structure.

With the exception of the Vietnam conflict, Army Aviation's past and present supply performances have been dismal. Two features of this supply system were, and are, poor demand satisfaction and demand accommodation rates, and excessive ordership times (Table 1, opposite).

Although the supply system is supposed to be responsive, rapid, and simple, it unfortunately, possesses none of these virtues.

In a study entitled **"Transportation Aircraft Supply Support Structure** (TAS3)," the Transportation School has recommended the following:

a. That a commodity-oriented intermediate distribution point be established in each COSCOM and TAACOM overseas. The headquarters controlling the aviation maintenance and supply activities in the COSCOM/TAACOM would be known as the Aviation Support Center. The center commander reports directly to the COSCOM/TAACOM commander.

b. That aviation unique requisitions leaving a theater of operations are passed to the Aviation

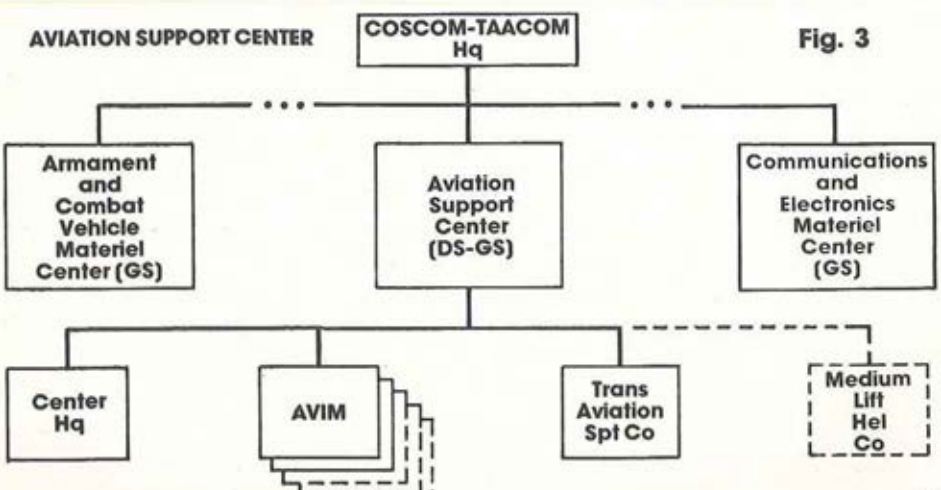


Fig. 3

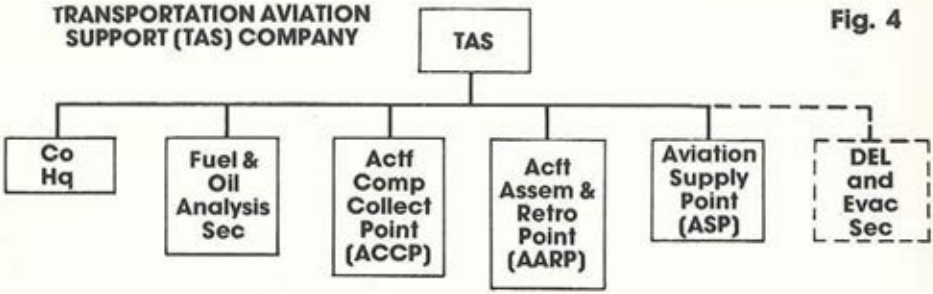


Fig. 4

Systems Command (AVSCOM) instead of as done today, to several AMC commodity commands (i.e., AVSCIN, ARMCOM, TROSCOM, and ECOM). Allow AVSCOM to coordinate the acquisition and shipping of the required supplies as they did in Vietnam [**Project STOVEPIPE**]. It worked extremely well then, and it can work equally well now.

c. That an air line of communications be established between CONUS and oversea theaters to expedite the delivery and retrograde of aviation unique supplies, regardless of priority. All such supplies meet the DA requirements for cost, weight, and cube.

The Aviation Support Center is shown below (Figure 3) as it will appear in its normal wartime configuration. Note that it consists of a headquarters element, two to five intermediate maintenance (AVIM) companies, a transportation aviation support (TAS) company, and an augmented medium lift helicopter company. Each of the units has a minimum, basic structure to which cellular teams can be added to precisely tailor the center to fit specific requirements.

The TAS company (Figure 4) is formed whenever it is desirable to free the AVIM units from performing tasks or stocking large quantities of supplies that would inhibit their mobility. The TAS receives and stores incoming supplies; it also ships supplies forward to divisional and nondivisional aircraft maintenance units whenever a medium lift helicopter company is not required and the TAS has been augmented by a delivery and evacuation section (consisting of from one to seven CH-47 helicopters).

The TAS also retrogrades to CONUS, by air, all aircraft and components requiring depot level maintenance. The fuel and oil analysis section performs the mission that the ASOAP laboratories performed in Vietnam. The aircraft component collection point (ACCP) inspects, tests, documents, packages, and retrogrades all aviation unique components; it also routes reparable components into AVIM units for repair.

The aircraft assembly and retrograde point assembles, test flies, and maintains in float stockage all incoming aircraft from CONUS. Only extremely high turnover aircraft are maintained in the AVIM float. This section also retrogrades all aircraft to depot. The aviation supply point receives, stores, and issues aviation unique Class II, VII, and IX supplies and acts as the COSCOM/TAACOM reserve source of supply for these items.

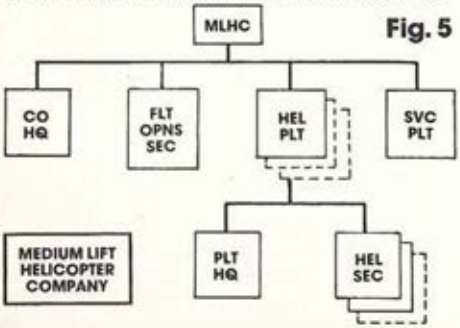


Fig. 5

Unit distribution of supplies

The medium lift helicopter company (Figure 5) performs the mission of unit distribution of aviation unique supplies from the TAS to divisional and nondivisional aircraft maintenance units. It also evacuates aircraft, recoverable components and repair parts, and fuel and oil samples to the TAS for further processing. The size of this unit varies between eight and 24 CH-47 helicopters, depending upon the needs of the theatre.

The implementation of this supply concept can be effected in peacetime, thus simplifying, speeding, and improving the support given to Army Aviation in peace or in war.

Intended to demonstrate that, although logistical problems are evident, the Transportation School has recognized these problems and is determined to provide logistical support that will keep Army Aviation **"above the best."**

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FIRST "GO" - On June 6 the Maryland-Delaware AAAA Chapterwas formed and attending members elected their Initial Executive Board. Shown seated, l-r, are CW3 Lawrence C. Messick (Pres); MAJ George W. Gorsuch, Jr. (ExVP); and LTC John C. Fordham, Jr., Ret. (Sec). Standing, l-r, are CPT Ronald R. Eaton (VP, RC Aff); CW2 Warren C. Beall (VP, Army Aff); CW3 William G. Grauling, Ret. (VP, Prog); and MSG Joseph J. Calandra (VP, Publicity). CW4 Patrick A. McCullagh (Trea) is not shown. The Chapter, in spinning off from D.C., signed up 29 new members at its first general membership meeting.

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A Co, 159th Aviation Bn
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P.O. Box 35
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Tampa FL 33614
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Gaffney SC 29340
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ASSOCIATES

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1604 Pintail Road
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THOMPSON, Darryl A.
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UNDIVIDED ATTENTION - Participants at the mid-July 'Staying Power Symposium' held at USAAVNC listen intently during one of the symposium's initial briefings (See page 14). From left are Archie T. Sherbert, Boeing Center; Steve Testa and William P. Craddock, Bell Helicopter Co.; and COL William E. Crouch, Jr., Chief, Aviation Systems Division, ODCSRDA, DA. The symposium covered aircraft instrumentation and lighting and anti-icing and de-icing equipment. (USA photo)

After an extensive trip, CW4 Robert E. Howard of the TSchool believes that when you mention to CO's that GSE problems affect a unit's operationally ready rates, you . . .

Get a quizzical stare!

ASK just about any unit commander why his aircraft **operationally ready [OR]** rates aren't higher and it's a safe bet he'll give you one of two reasons — or both:

. . . critical shortage of qualified maintenance personnel and/or slow response of the supply system in providing aircraft repair parts.

Invariably, he will have compiled comprehensive data to back up these claims. TOE "assigned" versus authorized, low experience factor of aircraft mechanics, manhours lost to other than primary mission duties, and supply receipt and requisitioning will all be presented in support of these claims.

But ask this same commander how aircraft **Ground Support Equipment [GSE]** problems are affecting aircraft **OR** rates and it's equally certain that you will receive a quizzical stare and a complete lack of research data in this area.

Maximum utilization vital

It is an irrefutable fact that in these days of "tightening the belt," personnel and supply austerity programs are posing significant managerial challenges to the Army in the field. Maximum utilization of all available assets is becoming increasingly vital in maintaining unit readiness postures at acceptable levels. In terms of aircraft maintenance operations, prime assets may be categorized as availability of qualified personnel, supply parts, tools and equipment.

As mentioned above, personnel and supply problems receive a high degree of emphasis and attention from field units. On the other hand, recent studies have revealed that a frequently overlooked but significant factor contributing to reduced aircraft OR rates concerns shortcomings in the use and maintenance of **aircraft GSE**.

Aircraft GSE, by definition, includes all items of tools and equipment required on the ground to make an aeronautical system or subsystem operational in its intended environment. This includes anything from a common screwdriver to the complex **Modular Engine Test System**, also including electronic **test, measurement and diagnostic equipment [TMDE]**.

Included in this classification are such items as **auxiliary power units [APU]**, hydraulic mules, ground handling wheels, maintenance platforms, aircraft jacks, towing vehicles, and numerous other items of ground handling and servicing equipment.

Obviously, GSE is developed and fielded to facilitate expeditious and efficient performance of specific maintenance support functions. When an item of GSE does not operate properly, alternate and less efficient means must be sought to accomplish the task for which that item was designed. Nonavailability of an aircraft-towing vehicle results in necessity to remove aircraft repairmen from assigned maintenance jobs each time an aircraft must be moved within the maintenance area. This disrupts job continuity and costs valuable manhours.

Example: Insufficient APU's

If a maintenance support unit has only one of four assigned APU's operational, only one aircraft requiring powered maintenance can be worked on resulting in only one aircraft becoming OR instead of the possible four. Serviceable ground handling wheels become a premium item because they are abused by ground crews and replacements parts are difficult to obtain, causing further work delays. Example after example could be cited reflecting the impact of GSE on day-to-

day maintenance operations. In the final analysis it becomes readily apparent that, all other aspects being constant, aircraft OR rates are directly proportional to GSE OR rates.

DA study reveals major problems

Unfortunately, Army-wide aircraft GSE shortcomings are numerous and far reaching, ranging from problems generated at the user level to vagueness of and voids in logistical support doctrine guidelines and policies. Major problems found by recent DA worldwide studies include the following:

1. Many aircraft GSE items currently in the inventory were purchased "off-the-shelf" to satisfy urgent needs generated by our Vietnam operations. Consequently, maintenance support plans, normally integral to new equipment development programs, were not provided with the equipment. This resulted in logistical support voids in terms of repair parts, manuals and trained repair personnel which we are now experiencing.

2. Confusion exists regarding TOE responsibility for support repair of aircraft peculiar GSE. It has generally been assumed that, under the functionalized maintenance concept, Flight Equipment Maintenance Companies have been providing this support for aviation and aircraft maintenance units. However, a review of mission statements for these TOE's reveals that maintenance support of aircraft peculiar GSE is specifically eliminated from the mission requirements.

It is also noted that aviation and aircraft maintenance units are authorized to perform only organizational maintenance or organic GSE. For lack of an alternate solution, many aircraft maintenance officers absorb the responsibility of providing support maintenance for this equipment "in house," using aircraft repairmen to do the work and obtaining repair parts from whatever source available.

FT. WORTH — MG Delk M. Oden, USA [Ret.], left, receives a Certificate of Appreciation for his services as the first President of Bell Helicopter Int'l. The presentation to the current AAAA Board member was made by James F. Atkins, Bell President and BHI Chairman, during a banquet honoring those recently completing two-year tours of duty in Iran. □

Since GSE repair manhour factors are not addressed when computing manpower authorizations for aircraft maintenance units, it follows that an adverse impact on aircraft OR rates must result whenever aircraft repairmen are diverted from their prime aircraft repair mission to repair GSE.

3. Aviation and aircraft maintenance units are not informing higher headquarters of existing GSE problems. Aviation personnel tend to accept GSE inadequacies as a way of life and do not extend appropriate priorities to management of this equipment. Although numerous complaints were expressed during recent Army-wide field research citing inadequacies and unreliability of many items of aircraft GSE, the EIR submission rates were almost nil.

Lack of documentation

It was also brought to light that the countless manhours being expended by aviation personnel in repair of GSE were not being documented or formally accounted for in any manner. Because basic management tools have not been used by field elements to process GSE complaints, trend analysis could not be performed and no basis for higher level interest was generated.

Aircraft peculiar GSE is not included in formal school Programs of Instruction (POI) for functionalized equipment repairmen. Although these repairmen possess many of the skills necessary to repair aircraft-peculiar GSE through transfer of knowledge, a human element factor comes intd play when they are tasked to repair an item of equipment that they've never seen before and for which they have no repair parts or manuals on hand. This situation tends to lower priorities for repair of aircraft GSE in comparison with common GSE work ordered to the same shop.

The extensive variety and complexity of aviation GSE, and the magnitude of problems identified as being peculiar to this equipment, have resulted in a determination to categorize aircraft GSE as an entity in itself, requiring dedication managerial control. As a result, TRADOC Regulation 702-1 (19 June 1974), has assigned logistics material proponency and support planning responsibilities for aviation GSE to the Transportation School, Fort Eustis, Virginia. This is a significant step in that a focal point is now established to process all data pertinent to this equipment so that rapid corrective action can be implemented as problems surface.

[Continued on Page 47 - Inside Back Cover]

Advance Registration Form for the 17th AAAA National Convention Arlington, Va.—October 22-24

I plan to attend the functions of the 1975 AAAA NATIONAL CONVENTION indicated below and have enclosed a check made payable to "AAAA" to cover the costs of my attendance. I understand I may receive a refund until October 13.

FUNCTION	QUANTITY DESIRED	MILITARY MEMBER	CIVILIAN MEMBER	NON-MEMBER	TOTAL AMOUNT
Registration [AAAA Professional Sessions]		$ 3.00	$ 8.00	$10.00	$
Wednesday, October 22, 1130-1355 AAAA General Membership Luncheon		$10.00	$15.00	Members Only	$
Thursday, October 23, 1030-1355 AAAA-Industry Member Luncheon		$10.00	$15.00	$25.00	$
Thursday, October 23, 1030-1200 AAAA Ladies' Brunch		$ 5.00	$ 5.00	$ 5.00	$
Thursday, Oct. 23, 1900-2030 The President's Reception		$ 6.00	$10.00	$15.00	$
Friday, October 24, 1100-1400 Honors Luncheon & Reception		$12.00	$15.00	$25.00	$

Total Payment [Make Check payable to "AAAA"] ..... $

Name ..... Rank/Grade .....

Unit or Firm .....

Address .....

City ..... State ..... ZIP .....

NOTE: *"Military Member" rate covers Active Army, Retired, Reserve Component, and DAC personnel. All wives' tickets are to be purchased at the "Military Member" rate and are not required to pay a Registration Fee. Members who 'advance register' prior to October 6 will receive preferential seating at all AAAA luncheon functions having reserved seats. Please complete this form and return with your check to: AAAA, 1 Crestwood Road, Westport CT 06880. For direct information on any foregoing, phone AAAA at Area Code [203] 227-0948/8266.

The time of your life!

At AAAA
National Conventions :

WE LEARN TOGETHER!

. . DINE TOGETHER!

. . REMINISCE TOGETHER!

. . HONOR TOGETHER!

. . CONTRIBUTE TOGETHER!

. . EXAMINE TOGETHER!

. . ROAST . .

BRAINSTORM TOGETHER!

. . LAUD TOGETHER!

. . ENROL TOGETHER!

. . CRITIQUE TOGETHER

. . INSTALL TOGETHER!

. . PLAN TOGETHER

. . PLAY TOGETHER!

. . RISE AND . .

. . FALL TOGETHER!

17TH AAAA
NATIONAL CONVENTION
October 22-24, 1975
Arlington, Virginia

Having the time of their lives! That's what some 600 AAAA members do annually at the national convention in Washington each fall, and the photographer has only captured a part of the many activities at "National." Put yourself into many of these scenes! Complete the coupon and join us for three rewarding days in October!

AAAA Membership Activities

AAAA Meetings during May-October, 1975

☐☐ **JULY 19. David E. Condon [Ft. Eustis] and Fort Monroe Chapters.** Joint AAAA Summer Picnic. Warwick Pier. Special Raffle & Prizes. Members, guests, and families.

☐☐ **JULY 19. Chicago Area Chapter.** Family Day at Langendorf Park. Bar-B-Q, Rock Music, Door Prizes. Barrington, Ill.

☐☐ **JULY 25. Richard H. Bitter [Corpus Christi] Chapter.** Quad-A Bar-B-Que and Dance. Door prizes, BYOB. "Farewell Roast" for LTC Parish. K. of C. Pavillion.

☐☐ **AUG. 1. Mississippi Valley [Davenport, Iowa] Chapter.** Fly-In to the Experimental Aircraft Ass'n Fly-In. Air transport, military bus, billeting, depart on Friday, return on Sunday. Members only.

☐☐ **AUG. 2. Fort Hood Chapter.** Third Annual AAAA Picnic. Rides, static displays, band music, Fly-Bys, Parachute +glider+Air Cav+Firebird demonstrations. Sponsored by 13th Avn Bn (Cbt).

☐☐ **AUG. 13. David E. Condon [Ft. Eustis] and Ft. Monroe Chapters.** Joint meeting. **COL William E. Crouch, Jr.,** Chief, Avn Sys Div, ODCSRDA, DA, guest speaker. Professional luncheon meeting at Ft. Eustis OOM. Door prizes. AAAA members only.

☐☐ **AUG. 16-17. Schwaebisch Hall Chapter [Germany].** Rodeo at Dolan Barracks; two shows daily, 1300 & 1600 hours. Food, beverages, dancing. Bring the children.

☐☐ **AUG. 22. Mainz Chapter.** Late afternoon General Membership Business Meeting. Election of 1976-1978 Officer slate. Muha O-Club. Members only.

☐☐ **AUG. 27. Army Aviation Center Chapter.** Professional luncehon meeting. Update on New Aircraft Programs by **MG William J. Maddox, Jr.,** Commander, USAAVNC. Discussion 1975 AAAA Nat'l Convention; selection of Chapter Delegates. Wives welcome; Ft. Rucker O-Club.

☐☐ **AUG. 27. Schwaebisch Hall Chapter.** Late afternoon business-social meeting. Update on Rodeo's financial results and plans for AAAA Nat'l Convention. Prospective members welcome.

☐☐ **AUG. 28. Activation Meeting of Denver Area Chapter. MG John K. Singlaub,** President, Sixth Region — AAAA, guest speaker; selection of Chapter name, goals, and Executive Board slate; discussion of Region's March 1976 Convention at the Broadmoor Hotel in Colorado Springs. Buckley ANGB NCO Club, Denver, 1930 hours. Prospective members are most welcome. Chips & dips.

☐☐ **SEPT. 3-5. FIFTH REGION — AAAA.** 1975 Annual Meeting in conjunction with Fifth Army Area Aviation Training and Standardization Conference.San Antonio Convention Center. See page 45 for additional details.

☐☐ **SEPT. 5. Bonn Area Chapter.** Rhein River Cruise aboard the Stadt Konigswinter. Bad Godesberg pier departure & return at 2300 hours. Buffet dinner and mixed drinks included in the fare. Members, families, and friends.

☐☐ **SEPT. 5. "Maryland Area" Chapter.** Professional-business-social meeting. **CW4 Robert L. Hamilton, Ret.,** AAAA Nat'l Board member, guest speaker. Selection of Chapter name, Convention Delegates, and forthcoming schedule of events. Inexpensive dining and dancing. Edgewood Arsenal O-Club.

☐☐ **SEPT. 6. Taunus Chapter.** Heidelberg Castle Illumination Tour & Neckar River Cruise. Members and guests.

☐☐ **SEPT. 24-26. Lindbergh [St. Louis] Chapter.** Third Annual Aviation Product Support Symposium. St. Louis. By invitation.

☐☐ **OCT. 22-24. 17th AAAA National Convention.** Sheraton-National Hotel. Arlington, Va. Additional details appear on pages 36-37.

AAAA GUEST SPEAKERS, JUNE-AUGUST

BG Donald F. Packard, CDEC
Monterey Bay Chapter, 20 June

James Lefler, Beech Aircraft Corp.
Golden Gate Chapter, 21 June

MG James C. Smith, UNC/USFK/EUSA
Morning Calm Chapter, 28 June

MG Robert G. Moorhead, 38th Inf Div
Indy Chapter, 25 July

COL William E. Crouch, Jr., ODCSRDA
David E. Condon/Ft Monroe Chapters
Joint Luncheon Meeting on 13 August

MG William J. Maddox, Jr., USAAVNC
Army Aviation Center Chapter, 27 Aug.

MG John K. Singlaub, Pres, Sixth Region
Denver Area Chapter, 28 August

100% — GEN Hamilton H. Howze, USA [Ret.], presents the CWO Paul C. Stewart AAAA Award to MAJ Max Baldwin, Cdr, B Btry, 4/77th AFA, for that unit's 100% membership in AAAA. The unit is based at Fort Campbell. ☐

From: 2d Lieut. Henry H. Arnold, 29th Inf

TO: CO Signal Corps Aviation School, Washington, D.C.

Subj: Report upon test of aeroplane in connection with artillery fire.

Don't look now but they were observing artillery bursts from the air a long, long time before we thought they were . . .

Due to the bad weather practically no flying was done from the 28th October to the 3rd November... On the 2nd of November the weather was good all day. Machine No. 10 went up with the wireless equipment; Lt. Arnold as pilot and Lt. Bradley as wireless operator made a 33-minute flight — went to Ogden 6 miles from the post sending messages both going to and returning from Ogden.

These messages were clearly heard by receiving set on the ground. Flight was made at an altitude of about 1,000 feet. It was the intention of the pilot to go farther but the cold was intense and he was forced to return after reaching Ogden. Flight was made between 10:00 and 11:00 o'clock in the morning.

No. 11, Lt. Milling as pilot, made two short flights, both of which were terminated by engine trouble. On the 3rd of November a 25-mile wind blew all day.

The first test in connection with artillery took place on the 4th of November; both machines took part in the test. There was no firing by the battery; the flying was done for the purpose of testing out different kinds of signals.

There was a wireless station put up in the immediate vicinity of the battery and No. 10 with Lt. Arnold pilot, Lt. Bradley operator sent the messages down to the battery. No. 11 with Lt. Milling pilot, Lt. Sands observer was equipped with a smoke signal device made at this place.

Smoke signal device

No. 11 sent signals from this device and also dropped cards. The smoke signal device, although improvised, showed that such a device could be used to signal from the aeroplane to the battery. However, on account of the manner in which it was constructed the dot and dash system of signals could not be used. A system of dots alone had to be used.

Firing for effect from an aerial OP. Yes, but in 1912?

AERIAL FIELD ARTILLERY

On the 5th of November the aeroplane was used for the first time with the battery actually firing at a target. The target was about 3,200 yards from the battery. It was a dark day, a dark target, and a dark background for the target. In spite of this the target was picked up by the aeroplane very easily.

No. 10, equipped with wireless, went up first sending back by wireless the location of target and afterwards the position of the shots with reference to the target. This data was sent back by using the code, a copy of which is enclosed herewith.

These observations put the guns on the target after about four volleys; then this machine returned to the ground, and No. 11 went up equipped with the smoke signal and sufficient cards for sending back data. The observer relocated the target and plotted position for the target and the battery on the cards. Then he plotted the position of each salvo fired with reference to the target, range and deflection being changed in each case by the data received from the aeroplane.

It was found by using the wireless that aeroplanes could be started out in rear of the battery, a salvo being fired just before they reached the battery. Return could be made by the machine as soon as they saw where the shots struck, the message sent back by wireless from the machine while it was making its circle, in order to get to its place to come up in rear of the battery for the second shot.

When the machine used the card system it was found necessary for the machine to make a figure 8 with the point of the crossing directly over the battery, the machine coming up from the rear, the battery firing just before the machine reached the battery.

After observing where the shots struck the machine turned, making a circle so as to come over the battery. While the machine was making this turn the observer plotted the position of the hits on the card with reference to the target and dropped it as he passed over the battery.

Then, the machine made a second turn in order to get to its place to come up from the rear to observe the second firing.

Motor trouble

The above is the method of procedure [in use] at the present time, although we expect to change it so the firing can be done while the machine is in rear of the battery, the observations being made and the location of hits being plotted on the card in time to be dropped as the machine passes over the battery on its first trip. In this way time could be saved and it would only be necessary for the machine to make a circle instead of a figure 8.

The motors have been giving us considerable trouble. However, at the present time they seem to be doing fairly well. Yesterday, while returning from the place of

TILT! — Sikorsky Aircraft's YUH-60A UTTAS recently performed slope-angle landings at the company's Stratford CT plant. The UTTAS landed on slopes with angles of 3° to 15° at a gross weight of 16,500 lbs. The landings were part of a series of tests conducted by the company prior to a Government Competitive Test.

The First Region — AAAA will conduct its Second Convention at Williamsburg, Va., during 4-7 March 1976. Accommodations and professional sessions are being made at the Williamsburg Conference Center with rooms available at the Inn, Lodge, and Motor House. The Sixth Region — AAAA will hold its initial multi-State convention at the Broadmoor in Colorado Springs during 17-20 March 1976.

firing of the battery, machine No. 10, with Lt. Arnold pilot and Lt. Sands passenger, had some trouble.

The machine was spiraling down to land near the camp from a height of about 400 feet. The spiral was not steep and was of a very large diameter at that time. The engine was fully throttled. Suddenly the machine turned a complete circle of 360° in spite of the fact that the rudder was turned hard over the other direction.

Then, for some unaccountable reason the machine plunged head foremost in a vertical line down towards the earth. I was afraid my imagination made the drop steeper than it actually was, but at that time Lt. Nauborgne was on the opposite side of the wireless tower and had the machine on a line with the tower and he states that the machine plunged down in a vertical direction.

In any event, the machine was out of control from the time it took its first turn of 360° until the bottom of the drop when I pulled it up and landed. There is no explanation of this occurrence for after landing I found every control wire intact and no wires cut or entangled in any manner. I am unable to account for it.

A request for leave

At the present time my nervous system is in such a condition that I will not get in any machine. That being the case it appears that my work here must simply be a matter of supply officer. From the way I feel now I do not see how I can get in a machine with safety for the next month or two.

I am, therefore, accompanying this report with request for a 20 days' leave of absence which I hope you will forward approved. I am requesting this leave to take effect about the date of my return to College Park.

CHECKOUT — Maintenance personnel of the US Army Aviation Test Board at Ft. Rucker, using the newly-developed Test Set Guided Missile System, perform a ground operational check of the TOW missile system. □

Today, there was one machine with Lt. Milling as operator and Lt. Sands observer used to observe fire. This machine used the dropping card system with good success. The target was about 3,400 yards away from the battery and at the 3rd volley had the battery hitting the target.

The President of the Field Artillery Board does not expect to get through with these tests until the 14th of this month, that is, if the weather is good until that time. If the weather is not good it will take much longer. I, therefore, request information concerning the shipment of the aeroplanes from this station.

Lt. Milling does not care to fly No. 10 to Leavenworth by himself. I personally do not care to get in any machine, either as passenger or pilot for some time to come. I therefore request instructions concerning the shipment of that machine.

/s/ HENRY H. ARNOLD

WHO'S WHO ON THE ALASKAN PIPELINE

□ I read with interest the June 75 article in 'Army Aviation' on the Trans-Alaska Pipeline. It alluded to the Ft. Wainwright Colonels' Club involved in the Project — Colonels, I'm not so sure — Army Aviators, I am sure! We are well represented here with both ex-AA's and retired AA's. Clyde Klick, MAA, Ret., has the Transportation Dept's Air Operations Group; Dick Bergstrom, SAA [R], is the Senior Transportation Planner; Paul Miller, AMO [R], has the Camp Transportation Group. There are a number of others including Lou Jeffers, Charlie Bussey, Chuck Johnson, etc. This is quite a dynamic operation and - in a way - it does parallel things done in Vietnam. I'm happy to be with it. —Jack W. Brown, Fairbanks, AK

The Personal Side

PERSONAL ITEMS SUBMITTED BY AAAA MEMBERS

AAAA HONORARY MEMBERSHIPS
Presented by the Ft. Bragg AAAA Chapter
(Listed alphabetically by rank)
Lieutenant General Henry E. Emerson
Lieutenant General Richard J. Seitz
Major General Michael D. Healy
Major General Sidney M. Marks
Major General Thomas H. Tackaberry
Brigadier General James F. Cochran, III
Brigadier General Otis C. Lynn
Brigadier General Guy S. Meloy
Brigadier General James B. Vaught

Presented by the Mt. Rainier AAAA Chapter
Brigadier General George L. McSpadden, Jr.

AAAA CERTIFICATE OF APPRECIATION
Presented by the Mainz Chapter of AAAA:
CW2 Reginald Murrell, Chap Trea, 16 May

100% UNIT MEMBERSHIP CERTIFICATES
Presented to AAAA's Air Assault Chapter Units on 24 July 1975:

B Battery, 4th Battalion, 77th Field Artillery
accepted by **MAJ Max R. Baldwin.**
1st Platoon, B Battery, 4th Bn, 77th FA
accepted by **CPT Forrest B. Snyder.**
2nd Flt Platoon, B Btry, 4th Bn, 77th FA
accepted by **CPT Guy K. Curran.**
3rd Flt Platoon, B Btry, 4th Bn, 77th FA
accepted by **CPT John C. Wells.**
Hq, C&S Platoon, B Btry, 4th Bn, 77th FA
accepted by **CPT Leroy E. Golly.**
1st Flt Platoon, A Btry, 4th Bn, 7" ..A
accepted by **CPT Vincent P. Jones.**
2nd Flt Platoon, C Co, 101st Aviation Bn
accepted by **CPT William H. Bryan.**
1stFlt Platoon, A Co, 158th Aviation Bn
accepted by **CW2 John D. McWaters.**
2nd Flt Plat, A Co, 158th Aviation Bn
accepted by **CPT Charles E. Pyatt.**
1st Flt Platoon, B Co, 158th Aviation Bn
accepted by **CPT Michael I. D'Andries.**
2nd Flt Platoon, B Co, 158th Aviation Bn
accepted by **CPT Michael I. D'Andries.**
1st Flt Platoon, D Co, 158th Aviation Bn
accepted by **WO Larry A. Bock.**
2nd Flt Platoon, D Co, 158th Aviation Bn
accepted by **CW2 Brian R. Swenson.**

FLIGHT SAFETY AWARDS [INDIVIDUAL]
MAJ Norman M. Wood, Jr., 2,000 hrs.
CW2 Robert L. Grove, 4,000 hours.
CW4 Donald R. Joyce, 6,861 hours.

DEGREES AND HONORS

MAJ Robert M. Baugh, MBA, Inter American University, Puerto Rico.
SSG Mary B. Denney, Ft. Rucker, "NCO of the Month" (July).

HONOR GRADUATES

U.S. ARMY AVIATION SCHOOL
2LT John C. Keller, USAF, ORWAC, Jun 17
1LT Mark E. Byers, ORWAC+Night, Jul 1
1LT Stephen E. Dickens, ORWAC, Jul 1
WO Earl R. Haddix, WORWAC+Night, Jul 1
WO1 John J. Mulhern, WORWAC, Jul 1

USA TRANSPORTATION SCHOOL
SP5 Stephen Brasier, AMNCOBC 10-75, 11 June.
CW2 John D. Brady, AMORTC 9-75, 19 June
SFC Michael Schneider, AMNCOAC 6-75, 24 June.
SP5 Bob J. Johnson, NCOES Acrft Maint Basic Crs 11-75, July 9.

U.S. NAVAL WAR COLLEGE
COL Franklyn C. Goode, Summa cum laude.
LTC Robert E. Oberg, Summa cum laude.

TOP NCO — Staff Sergeant Mary B. Denney, daughter of Mr. and Mrs. William E. Brewer of Millbrook, Ala., was selected as "Noncommissioned Officer of the Month" for July at Fort Rucker, Ala. Sergeant Denney is an air traffic control supervisor working at Fort Rucker's Lowe Army Airfield. The first woman soldier to earn the NCO title at USAAVNC. Entering the Army in Jan., 1971, she graduated ATC School in June, '71.

TWOSOME — CW3 James C. Schoene and his wife, 1LT Kathleen Schoene, wear Army Commendation Medals rec'd July 14 in probably the first dual husband and wife Army presentation.

MERITORIOUS SERVICE MEDAL
(Following presented at Ft. Eustis, Va.)
LTC Lucien R. Garneau
LTC Richard A. Hartert
MAJ William R. Ankenbrandt
MAJ Robert W. Muschek
CPT Glenn A. Salger
CW4 Curtis R. Hayter
CW4 Donald R. Joyce

OBITUARIES

Brigadier General Joseph B. Starker, 46, died July 20 of injuries received in an automobile accident in San Antonio, Tex. General Starker was an Assistant Division Commander of the 1st Cavalry Division, Ft. Hood, Tex., and was undergoing medical treatment at Ft. Sam Houston at the time of his death. His survivors include his wife, Sallie, who resides at 517 Wheaton Road, Ft. Sam Houston; a son, Tom; and two daughters, Susan and Sallie. Interment took place on July 22 at the National Cemetery at Ft. Sam Houston.

* * *

Colonel Paul F. Anderson, 47, died July 12 in Bethesda Naval Hospital, Md., following earlier open heart surgery. The Deputy Commandant for Combat and Training Development at the Transportation Center, Ft. Eustis, Va., Colonel Anderson is survived by his wife, Lois; a son, Paul; two daughters, Donna and Carol; and his father, Paul F. Anderson. Interment took place in Williamsburg on July 14. Colonel Anderson served on AAAA's National Executive Board and as President of Ft. Eustis' David E. Condon Chapter. Just prior to his death he had spearheaded the move to conduct the 1976 First Region — AAAA Convention in nearby Williamsburg, Va.

READY IN RESERVE

ARMY RESERVE

BY MAJOR RICHARD R. NOACK, AVIATION OFFICER, OFFICE, CHIEF OF ARMY RESERVE

OCAR would like to express its gratitude and appreciation to **MG W.J. Maddox, Jr.**, and all members of the **"One Army Team Aviation Team"** at Fort Rucker for their acceptance and full support in the stationing and activation of the **282d Assault Helicopter Company [USAR]** at Ft. Rucker on 14 June 1975 in conjunction with **"Army Aviation Day."**

It is doubtful that this activation ceremony will ever be equalled amidst the atmosphere created by the **1975 Army Aviation Hall of Fame Inductions, the 200th Birthday of the Army, the 33d Birthday of Army Aviation,** and the remarks of **Generals Maddox** and **Woody.**

Congratulations to **CPT Donald Byars** and **CPT Anthony Hutson** for their selection as Unit Commander and XO from the many applicants in the Wiregrass Area. Briefings by these personnel to First Army and OCAR representatives prior to the activation were filled with praise for the outstanding support received from the Aviation Center in getting the unit off the ground.

Thanks also to **MAJ Rex H. Peterson**, Director, Reserve Components, Ft. Rucker, for his assistance is making 14 June a memorable day for the U.S. Army Reserve.

ACTIVATION — CSM Calvin H. Baldwin, left, and MG Leonard S. Woody, of the 121st ARCOM, unfurl the colors of the 282d Assault Helicopter Company during unit activation ceremonies held at Ft. Rucker on June 14.

Fifth Army Conference

The **Fifth Army Reserve Components Standardization and Training Conference** will be held again this year during 3-5 Sep 75 concurrently with the **Fifth Region—AAAA Annual Meeting and Awards Luncheon** in San Antonio TX.

Professional activities will include proponent and tactical training seminars, an Army Aviation Program update, the Reserve Components' view of Army Aviation, and panel discussions and presentations in the areas of maintenance, personnel policy, and research and development.

A major objective of this year's conference will be discussions of the changes in the training and doctrine to 'meet the threat" of mid- to high-intensity warfare.

AAAA social activities will include receptions, a **Membership Luncheon**, and an **Awards Luncheon**, as well as a shopping tour to "old Mexico." All activities will be held in the San Antonio Convention Center; accommodations are available at the **Palacio del Rio Hotel** adjacent to the **Hemisfair Plaza,** and the nearby **TraveLodge.**

Required Reserve Component conferees will receive additional conference information from Hq, Fifth Army. All AAAA members, active and Reserve Component, of the eleven Chapters in the **Fifth Region** are invited to both the professional meeting and AAAA functions and may make reservations through AAAA National Office mailouts or through their respective Chapters. Make your plans now to attend.

USAR Aviation Safety Awards

First U.S. Army Aviation Accident Prevention Awards will be presented annually to USAR Flight Facilities and to individuals in First Army for outstanding achievements and contributions in aircraft accident prevention. The awards will be in three categories:

Category A for flight facilities with ten or less

NEW AWARDS — The First U.S. Army Commander's Aviation Accident Prevention Trophy, Commander's Award of Merit [right], and Certificate of Achievement [left] are shown.

aircraft (Trophy and Certificate).

Category B for flight facilities with more than ten aircraft. (Trophy and Certificate).

Category C for USAR and active Army individuals, including DAC's. (Certificates).

Eligibility, nominating procedures, and specifics concerning these awards are contained in **1A Supp 1** to **AR 385-10.**

COL Kenneth J. Burton, 1A Aviation Officer, reminds all that nominations are due 15 Aug 75 with presentation of the first awards planned for the First Army Reserve Component Standardization and Training Conference to be held in the Oct-Nov 1975 time frame at Ft. Rucker AL.

In closing, I'd like to point out that the Army Aviation Association's (AAAA) national awards will be presented in October at AAAA' National Convention, to include the **"Outstanding Reserve Component Aviation Unit Award"** to be presented by **GEN Weyand**, the Army Chief of Staff.

OCAR STAFF 100% AAAA

All Army Aviators assigned to Office, Chief Army Reserve, Pentagon, Washington, D.C. [five active Army and two Reservists] are current members of AAAA. In addition to the Chief, MG Henry Mohr, the seven aviators are COL John A. Thomas, Jr., Chief, Logistics Div; LTCs Donald R. Ley, Ch, Orgn & Mob Br, William J. Lumpkins, Jr,m Ch, Tng & Readi Br, and Donald D. Wilkes, Ch,m Req Br, Personnel Div; MAJs Richard R. Noack, AvnO, and Paul R. Wurst [USAR], Avn MaintO, Logis Div; and CPT Richard R. Bergagna [USAR], ActionO, Tng & Readi Br. □

MAJ. GEN. HENRY MOHR NEW CHIEF OF ARMY RESERVE

NEW ARMY RESERVE CHIEF

By Presidential appointment, MG Henry Mohr assumed duties as Chief of the Army Reserve on 1 June 1974 and as such becomes the third statutory Chief of Army Reserve with responsibility for more than 230,000 Reservists in units throughout the country and for programs involving approximately 500,000 other Reserve personnel.

General Mohr, a native of St. Ann, MO, comes to the Office, Chief Army Reserve with many years of distinguished Active and Reserve service. He enlisted in the Regular Army as a private in September 1941 and was assigned to the 11th Field Artillery Battalion, 24th Infantry Division, Oahu, HI, where he saw his first day of combat in the Battle of Pearl Harbor, one day after his completion of basic training.

In May 1942, he returned to the mainland and after attending OCS, was commissioned as a 2d Lieutenant, Field Artillery. He was then assigned to the Sixth Division, participating in the Phillipine and New Guinea campaigns during World War II. He was released from active duty in 1946 and returned again in 1951 for the Korean War, serving as assistant G1, Fort Sill, OK, followed by assignments with the 18th Field Artillery Group at Sill and in Europe and Headquarters, Seventh U.S. Army at Stuttgart, Germany.

In 1953, General Mohr left active duty and was assigned in 1954 as assistant to the Chief of Staff, 102d Infantry Division. He later became the Division G3 and served in that assignment until the Division was inactivated in 1965. The next assignment was with the Office, Chief Army Reserve where he was instrumental in the planning for, and establishment of, the current Army Reserve Command [ARCOM] structure.

When the 102d ARCOM was activated in St. Louis in 1967, General Mohr was assigned as ARCOM G3 and progressed to Chief of Staff and Deputy Commander. In 1973, he was promoted to Brigadier General and in the summer of 1974 was named to command the 102d. He was promoted to Major General just before assuming the duties of Chief, Army Reserve.

General Programming Details for 1975 Annual Meeting of Fifth Region — AAAA

CONVENTION CENTER, SAN ANTONIO, TEXAS — WEDNESDAY, SEPTEMBER 3 THRU FRIDAY, SEPTEMBER 5

WEDNESDAY, 3 SEPTEMBER 1975

Arrival and Registration 1000-1800
Standzn/Safety Conference 1330-1800
AAAA Mixer, Hilton Hotel 1830-2100
Dinner on the Boats in San Antonio River by Individual Reservation 2000-2200

THURSDAY, 4 SEPTEMBER 1975

Professional Program, "Meeting the Threat"
Introduction-Announcements 0830-0840
[COL Dibrell, Fifth USA]
Welcome 0840-0855
[LTG Burdett, CG, Fifth USA]
Army Aviation Update 0855-0935
"Yesterday-Today-Tomorrow" [MG Maddox]
Reserve Components' view of Army Aviation
[MG Brooks, Idaho NG] 0935-1000
Break 1000-1020
Proponent Seminar 1020-1150
"Aviation On-Going Activities and Employment Doctrine" [Approx. 10 min. for each speaker]
USAAVNC ..... MG Maddox [Moderator]
USA Infantry School ..... To be announced
USA Armor School ..... MG Starry
USA Artillery School ..... MG Ott
USA Trans School ..... To be announced
AAAA Membership Luncheon 1150-1315
[River Room, Convention Center]
FORSCOM Aviation Training Objectives, Readiness, and Mobilization 1315-1345
[COL Pollard, FORSCOM]
Break [Set up for Seminars] 1335-1400

TACTICAL TRAINING SEMINARS

"Air Cavalry Operations" 1400-1445
[Seminar to be held in the Mission Room.]
Panel Moderator: LTG Shoemaker, III US Corps
Panelists: MG Maddox, MG Starry, MG Becton, BG Jaggers, and ARNG Representative.
"Assault/ASH Operations" 1445-1530
[This seminar to be held in the Fiesta Room.]
Panel Moderator: To be announced.
Panelists: MG McEnery, MG Ott, USATSch Commander, and USAR Representative.
Break 1530-1545
Policy Discussion Groups 1545-1700
Mission Room:
"OPMS & Personnel Policy .. DCSPER/DA Rep.
Fiesta Room:
"Army National Guard" ... NGB Representative
Fiesta Room:
"US Army Reserve" ... OCAR Representative
AAAA Regional President's Reception in the River Room 1830

FRIDAY, 5 SEPTEMBER 1975

Aviation Medical Support, Employment Doctrine, and Aeromedical Research .. 0830-0855
[MG Neel, HSC]
Update on Testing 0855-0935
[MG Meyer, MASSTER]
The Maintenance Challenge 0935-1000
[BG Eicher, AMC]
Break 1000-1015

R&D & MATERIEL ACQUISITION SEMINAR:

ODCSRD&A & Industry Reps 1015-1120
Concluding Remarks 1120-1130
[LTG Burdett, CG, Fifth USA]
Cocktails & Luncheon 1130-1400
Fifth Region — AAAA Awards Luncheon
River Room, Convention Center

Registration information may be obtained from Fifth Region — AAAA, P.O. Box 8631 - Wainwright Station, San Antonio TX 78208. Hotel accommodations at the Hilton Palacio del Rio [$23 single, $30 twin, $36 triple] or the TraveLodge [$19 single, $24 twin, $26 triple] may only be obtained by writing to the San Antonio Convention & Visitors' Bureau, P.O. Box 2277, San Antonio TX 78298 on or before August 22. Advance payment is not req'd.

Dear Editor:

LETTERS TO THE EDITOR AS SUBMITTED BY READER-CORRESPONDENTS

"TO BE AN AVIATOR IS A WONDERFUL THING"

☐ Enclosed you'll find a check for $19 for a renewal membership for two years. In addition, I would like to point out that I'm very proud to have been an Army pilot for the last six years, and from this comes the following suggestion:

Recently, while touring a portion of Europe I met some people in a little town in Spain.

A quick friendship developed and in trading histories and swapping personal information, my friend remarked, "You know, to be an aviator is a wonderful thing, but it is sad you don't have any identification saying such."

I showed him my AAAA card but he said, "That's close to it, but no Spaniard will understand this."

My suggestion: Why not use the forgotten side - the back of the AAAA membership card - and print "Army Aviation Professional" or "Army Professional Pilot", and print it in several languages besides English just to show other nations we respect their opinions, too. For my part it would add that much more value to an already valued membership.

ship . . Thanks.

CW2 A.L.D. Aston
236th Medical Detachment
APO New York 09178

"WE ONLY DAMAGE OURSELVES . . "

☐ I rec'd the 15-year pin and will, in fact, "wear it with pride." Sorry, I don't have my original pin to return in exchange to the Ass'n.

Would like to make a comment, however. Recent actions have convinced many of our aviator colleagues that the heyday of Army Aviation has ended and that many aviators are being discriminated against individually in terms of promotions, school selections, command assignments, and RIFs. MILPERCEN officials deny that such is the case.

Whatever the facts may be, I think we only damage ourselves by using the AAAA magazine to trumpet our gripes. Within our ranks, we have a number of influential people - both military and civilian - who could probably find out the truth and take appropriate steps to correct the situation if justification exists.

This type of activity would not only be welcomed by present members but would help answer the prospective member's question, "What will AAAA do for me"?

COL Robert S. Patton
PMS, Kent State Univ.
Kent, Ohio

(Ed. Note: The writer is correct in assuming that within AAAA's ranks influential people have 'worked behind the scenes' to aid in correcting certain situations. He's wrong in assuming that these actions can be publicized as a "membership benefit." The magazine is nothing more than a wide open suggestion box (Note the suggestion just made by CW2 Aston). Sanitized and couched in civil language, the 'gripe' becomes a palatable suggestion. For the record, we only publish 'suggestions.' Poorly couched perhaps, and sometimes inflammatory, but 'suggestions' nevertheless.)

Decked out in helmet, goggles, and scarf, LTC David E. Baeb has logged 17 years of flying, and at age 40, "hardly passed for an old aviator" when he presented himself for his Master Army Aviator Badge ceremonies. The giggles were many! . . LTC Baeb is the current Director of the Enlisted Personnel Directorate in MILPERCEN. ☐

WHEN DID YOU START KEEPING RECORDS?

☐ Thanks for the 15-year pin, but I BOUGHT mine long ago . . I've been a Quad-A member for over 20 years now — Class of 55-1 (Yellow Hats) at Camp Gary (TX).

I thought most of my Class joined but I don't have any record of this. When did you all start keeping records? . . Thanks.

COL Will Bennett
Hq, ARR V
Fort Sheridan IL

(Ed. Note: The bound volumes of **'Army Aviation'** indicate that the magazine started as a separate entity in March, 1953, and that the **Army Aviation Association [AAAA]** was incorporated on April 18, 1957, approximately four years later. We've been keeping detailed AAAA membership records since the latter date.

Don't expect, covet, holler for, or count on an AAAA **20-Year Membership Pin** until April 1, 1977, and then only if Daddy Warbucks, the national Secretary-Treasurer, says, "Do it."

For the record, less than a thousand of AAAA's current 10,760 members wear **"The 15-Year Pin."**)

GET A QUIZZICAL STARE!

[Continued from Page 35]

Alternative solutions to the doctrinal and logistical support problems listed above are currently undergoing intensive study at the Transportation School. A particular noteworthy area of concentration is research being conducted into the practicality of adopting a specialized system of maintenance support as opposed to the current functionalized concept. The specialized system involves incorporation of GSE repair sections within aircraft support maintenance TOE's, staffed with specially trained personnel identified by MOS for repair of aircraft GSE. The specialized concept has proven highly successful in the sister services.

Specific areas of concern

In addition to the steps being taken at the Transportation School, it is imperative that field commanders and supervisors take appropriate action to eliminate problems correctable at the user level. Specific areas of concern are:

1. **Proper operation of equipment.** Continual supervision must be employed to insure that all equipment is utilized in accordance with design specifications and operator instructions.

2. **Proper maintenance of equipment.** Aircraft GSE must be given maintenance priorities appropriate to end item equipment. It must be realized that aircraft maintenance efforts are seriously hampered when support equipment is not available resulting inevitably in lower aircraft OR rates.

3. **Reporting of GSE problems.** Field supervisors must insure that timely action is taken to inform higher headquarters of problems encountered in the support of aircraft GSE. Maintenance personnel must be educated to use to advantage such management tools as the EIR and suggestion programs when GSE failures occur or when the need for a new item or the modification of an existing item is identified.

Dedicated efforts to improve the status of aircraft GSE must be expended at all levels if the readiness posture of our aircraft fleet is to be improved. In order for the U.S. Army Transportation School to properly fulfill the requirements associated with proponency for aircraft GSE, continual input from the field is necessary, with new impetus toward effective management, operation and maintenance of this equipment.

ABOUT THE AUTHOR

Chief Warrant Officer [W4] Robert E. Howard, since retired and a former member of the Aviation Logistics Training Department at the T-School, is now employed by Bell Helicopter Int'l in Iran. □

THIS MONTH

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CONTENTS

NEXT MONTH

In the Sept, 1975 issue, COL "Sam" Kalagian, President of the Flight Gate Review Board, writes about the problems olf receiving more than 10,000 aviator files while COL Carl H. McNair, Jr., decries the recent articles and letters which might lead our young aviators to believe their futures are in jeopardy . . and a photo-story covers the 1975 Army Aviation Hall of Fame Inductions at Fort Rucker.