

Army Aviation

February 29, 1976 Issue

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Do you have a story in which ARMY
AVIATION's 10,300+ readers may
have an interest? ... Share it!

1976 HALL OF FAME BALLOT

During March each of AAAA's 10,300+ members will receive a 1976 Army Aviation Hall of Fame Ballot from the AAAA National Office together with a postpaid return envelope. Program continuation beyond 1976, the Hall's last authorized year, depends - in part - upon the general 1976 ballot response. The names of the 16 nominees chosen by the 15-member Selection Committee for placement on the 1976 membership ballot appear in the centerfold of this issue. ☐

AAAA NATIONAL, REGIONAL, AND CHAPTER ACTIVITIES CALENDAR

☐ JAN. 14 (Delayed). Hanau Chapter. Late afternoon business meeting; Chapter elections. Beacon NCO Club. Members only.

☐ JAN. 26 (Delayed). Schwaebisch Hall Chapter. Late afternoon business meeting; Chapter elections. Dolan Barracks NCO Club.

☐ FEB. 6. (Delayed). Rhine Valley Chapter. Professional-social business luncheon. CPT W.S. Reeder, guest speaker; welcome of COL Crawford Buchanan, USAREUR AvnO. Eppelheim Rhein Neckar Halle. Members and guests.

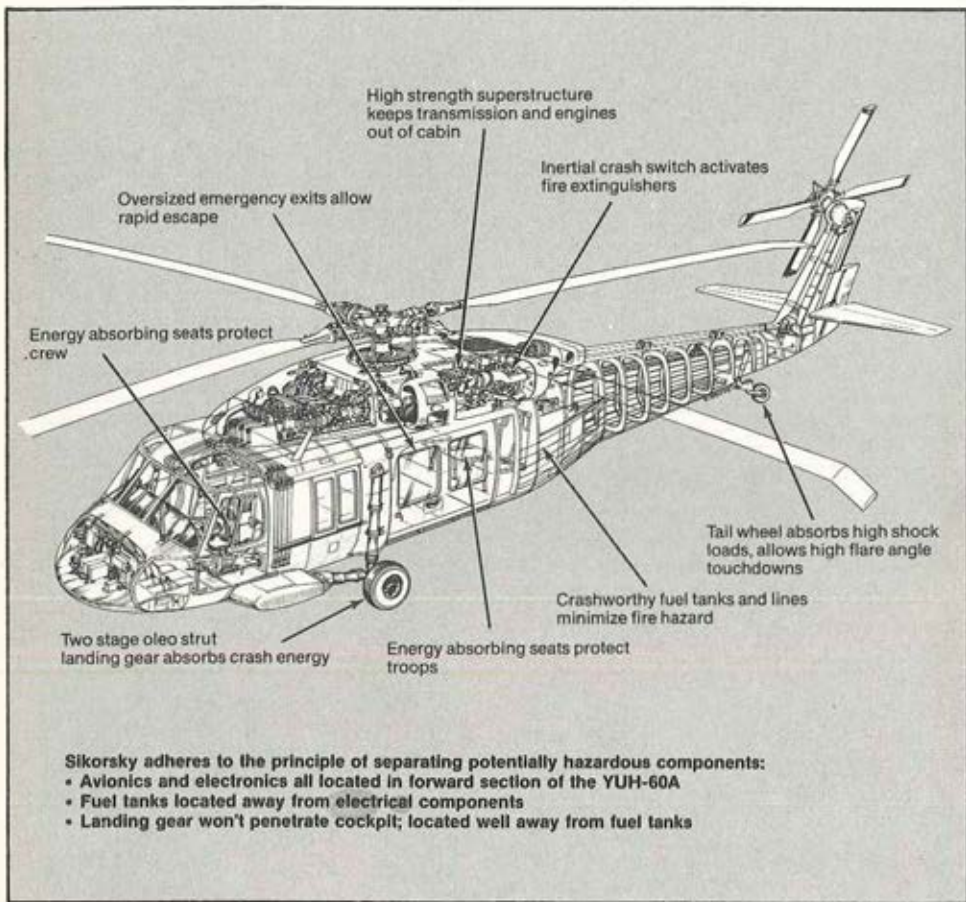
☐ FEB. 6. Sunbowl Chapter (El Paso). Late afternoon business meeting. Biggs Club. Members only.

☐ FEB. 13. Huntsville Area Chapter Activation meeting. MG William J. Mad-

[Continued on Page 28]

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Sikorsky YUH-60A protects the crew and troops — even after a 42 ft/sec crash, the men will fly and fight again.



From nose to tail, the Sikorsky UTTAS is designed for crash survivability. This means the crew and troops can survive a 42 ft/sec vertical impact—that is equal to a 2500 ft/min autorotation without cushioning pitch at the bottom.

More reasons why the Sikorsky UTTAS is the machine for the mission. Sikorsky Aircraft, Division of United Technologies Corporation, Stratford, Conn. 06602.

**SIKORSKY
AIRCRAFT**



Division of
**UNITED
TECHNOLOGIES.**

IN my first article I invited responses from the field, good or bad. Perhaps the single biggest response has been to my concern over the horrendous accident rate which we are currently experiencing.

The level of reader interest in my comments has ranged from "sympathetic" to sheer "irate" and demanding of a public apology. The exchange has been a healthy one and I certainly appreciate hearing from all of you.

Unfortunately, our accident experience **continues** to be bad and perhaps even more unfortunately, operator headspace remains the number one contributor.

Recent experience, for example, reflects an accident where a primary contributing factor was an alleged attempt by the pilot to extend the range of an aircraft without the addition of fuel. **Result:** One lost aircrew and aircraft for trying to make it just a little bit further.

(Some may not like my describing such poor flight planning as "dumb," so I'll contend that it just is **not** very smart. I'm certain those involved might share the same view of their actions were they alive today.)

ARCSA III

Perhaps the most important study of the year was launched on 28 January 1976 at TRADOC. The **Aviation Requirements for the Combat Structure of the Army [ARCSA]** has the task of determining the number and type of TOE aircraft and aviation unit, divisional and non-divisional, required by Army active and Reserve Component forces to support mid-intensity combat operations.

All divisional and non-divisional TOE units which have no organic aircraft will also be examined to determine and quantify any additional requirements for organic aircraft. This is truly a vital and long overdue task.

The last comprehensive aviation requirement study, **ARCSA II**, was completed in 1967 and addressed the period FY 68 through FY 77. It did not consider the Army's new family of helicopters [AAH, ASH, UTTAS], or NOE tactics that have been developed to meet current and future mid-intensity warfare threats. All of our structuring rules will be reexamined and will have a new basis for allocating our aircraft.

The study will be conducted by the

The readers respond!

By Brigadier General Charles E. Canedy,
Deputy Director of Operations and Army Aviation Officer
ODCSOPS, Department of the Army



Aviation Center with **Colonel Bob Sauers** as the study director. A study advisory group comprised of representatives from major commands and agencies has been appointed. **LTG Frank Camm**, Deputy CG TRADOC, is designated Group Chairman.

The DCSOPS has asked for the attack helicopter requirements by the end of June 1976 and requirements for other aircraft by August - a monumental task, but one that is desperately needed.

COBRA DILEMMA

Evidence of the real need for an **AR-CSA** type study is in the condition of our **COBRA** fleet. We are currently converting 290 or our 750+ fleet of **COBRAS** to TOW-equipped S models. Additionally, we are buying 305 new S's. This will leave us 450+ "plain vanilla" G models which have a very limited capability in the mid-intensity environment.

The obvious solution is to upgun these remaining birds; however, there is no official requirement to do so and, as you know, it takes a lot more than judgment and common sense to sell those kinds of decisions to OSD and Congress.

The other concern with respect to additional conversions is money, and in the year of major helicopter development programs like the **UTTAS**, **AAH**, **ASH**, and **CH-47** modification programs, the bucks are not only tight, but also extraordinarily scrutinized.

Through an extensive examination of the **COBRA** program called **Pass in Review**, TRADOC has proposed a billion dollar program to upgrade the **COBRA**. Included in the proposal are S and R model birds, improved fire control and gun, and stores management. No one questions the need; however, the resources simply are not in the budget.

I have organized a small task force to review the proposal in detail and to formulate a program that can be implemented. There are several opportunities for improvements within the program. One such area concerns the turret and gun. The TRADOC proposal recom-



CITATION—Wallace Doss, left, President of Doss Aviation, Inc., accepts plaque from COL Colin D. Ciley, former Director of the Dept. of Graduate Flight Training, USAAVNC, for the company's two-year record of 87,000 accident-free hours while instructing military pilots. □

mends that **COBRA** use the **AAH** 30mm gun when the **AAH** program selects a winner.

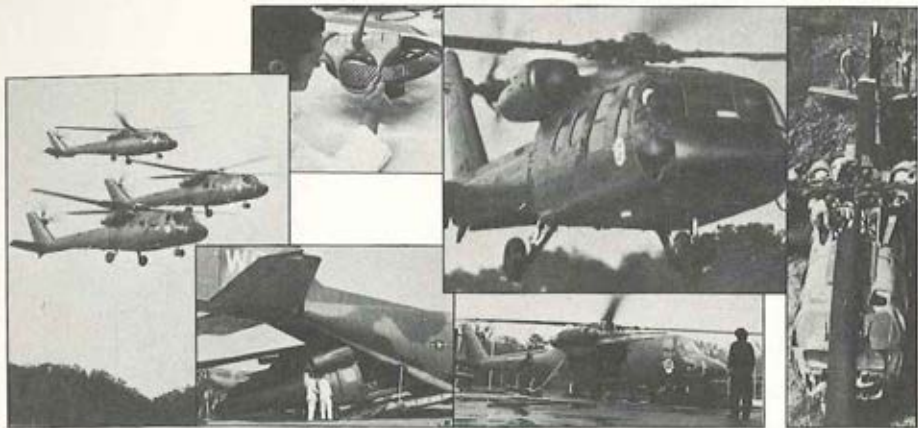
An alternative to this might well be the M-97 turret and M-197 20mm gun currently qualified and on the USMC "J" model. The point is we need more point target-killing helicopters and we have to do it as simply and as cheaply as possible.

PIP REVIEW

I just completed an extensive review of every proposed **product improvement program [PIP]** for all of our fleet. These programs range from total aircraft conversion as in the case of the **OV-1C** to D, to radar altimeters for scouts, and attack helicopters, to improved communications/navigation packages for the majority of the fleet.

All are nice to have items, and some are absolutely necessary, but again, expensive; and we simply can't afford them all. Many of the items are directly related to your EIR submissions, so you see the system does work.

My approach to the review was that if the proposal enhanced operations and availability of the system, I recommended approval. A good example of one



1975: year of achievement for Boeing's YUH-61A UTTAS.

- ✓ Flight envelope expansion completed
- ✓ Dynamic system qualified on GTV
- ✓ Transmission bench tests completed
- ✓ Reliability and maintainability demonstrated
- ✓ Army Preliminary Evaluation completed

Boeing's UTTAS first flew on 29 November, 1974. Since then, through more than a year of continued flight, ground, and bench tests, the YUH-61A has demonstrated again and again the remarkable benefits of Boeing technology. Low life-cycle cost. High reliability and maintainability. Compact size. And superior evasive maneuverability.

Throughout the UTTAS program, Boeing has achieved the U.S. Army objectives. Even a mishap involving our 001 aircraft had its positive side. It confirmed our survivability design: the two pilots walked away without injury, and the aircraft flew

again in February as scheduled.

Soon the YUH-61A will enter the most decisive phase of the program, the 1976 Government Competitive Test and Evaluation, culminating in the selection of a Utility Tactical Transport Aircraft System to serve the U.S. Army in the 1980's and beyond.

We have dedicated our best efforts toward making the YUH-61A best qualified for the Army's demanding mission. Work continues here at Boeing, even during the GCT, and we will continue to report significant new developments as they occur.

New technology for the Army of the 1980's.

BOEING HELICOPTERS
BOEING VERTOL COMPANY

Philadelphia, PA 19142

BOEING UTTAS UPDATE

A report on timely events
concerning the YUH-61A
and the U.S. Army
UTTAS program

YUH-61A status as of 31 January, 1976

Performance:

- 199 kt true airspeed
- 22,200 ft density altitude
- 55 kt rearward flight
- 55 kt right sideward flight
- 45 kt left sideward flight
- 21,900 lb lift demonstrated in tether
- 90° bank angle

Operational demonstrations:

- Slope landings to 14°
- Confined-area techniques
- Sling loads
- Restart of engines at 12,000 ft
- Engine and SCAS failures
- Rotor startup in 50-kt wind
- Tail-skid touchdowns
- Autorotational landings
- ADF, VOR, ILS, TLS approaches and landings
- Emergency conditions: single pilot, single engine, running approaches
- Evasive maneuverability

Accumulated flight time:

001	240 + hr
002	262 + hr
003	196 + hr
Commercial UTTAS	120 + hr
Total	818 + hr

Dynamic system qualification:

- Completed 11 months ahead of schedule, with 900 + hr on the same set of dynamic components.



which didn't meet the test was a super high intensity strobe light for mid-air collision avoidance. We will have selected application, but we simply couldn't afford the \$20 million program for total fleet application.

AI REQUIREMENT FOR MASTER WINGS

Recall that I had suggested to the DCSPER that we should drop the 50-hour actual instrument requirement from the **Master Army Aviator** criteria. The DCSPER canvassed the field and as one might anticipate, the vote came out split. FORSCOM and Europe agreed and AMC and TRADOC disagreed.

I intend to continue to push for the elimination of this requirement because I truly believe that we are doing a disservice to the majority of our aviators.

It is interesting to note that the USAF abandoned this requirement years ago. What I am afraid has happened is that the "I got mine the hard way" syndrome has prevailed in too many camps for too long.

AUTOROTATIONS: BENEFITS VS RISK

Perhaps this subject is as controversial as presidential candidates. We have long argued about the benefits derived from shooting actual autorotations **versus** the risk. I do not desire or intend to address that subject although a recent Rucker study has concluded that the practice should be continued since it can be demonstrated to show a savings in lives and equipment when emergencies are encountered.

What is evidently clear, however, is that the practice of shooting touchdown autorotations with the entire fleet, according to Corpus Christi Army Depot, may be costing the U.S. Government perhaps as much as 50% of depot level maintenance overhaul costs.

What is happening on the **UH-1**, for instance, is that cumulative stresses are **shortening** the service life of the aircraft — stresses, for example, on the alighting system and cross tube tunnel areas, transmission and pylon area, aft fuselage torque box affecting the engine deck, and lower forward skin and tail boom stinger.

All this translates into both fewer aircraft available in the combat ready inventory and dollars spent which could have been diverted to areas other than maintenance.

Therefore, I will be coming out with a message to USAAVNC soon, asking them, in conjunction with AMC and USAAVS, to evaluate a proposal **limiting** autorotations to **specified** aircraft. If we can hold the damage down to two or three aircraft within a Troop/Company/Battery we may be well ahead of the game.

[READERS/Continued on Page 23]

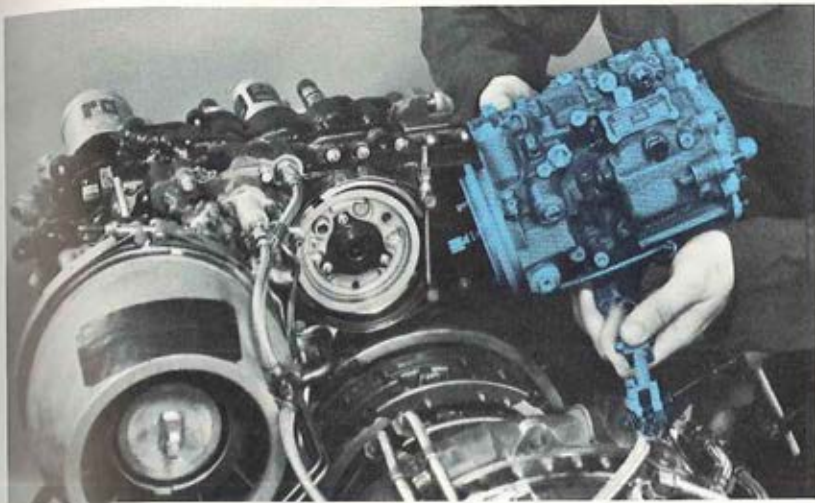
CY 1975 NOMINATIONS ARE NOW OPEN



1975 AAAA NATIONAL AWARDS
Submit nominations to 1 Crestwood Road
Westport CT 06880 before June 1

Another T700 Maintenance Breakthrough

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



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

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

no trimming, no rigging, no lockwiring necessary.

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

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

205-126

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

GENERAL  ELECTRIC

**AAAA NATIONAL FUNCTIONS FOR THE
1976-1977 CALENDAR YEARS**

Thursday, March 4 through Sunday, March 7, 1976
First Region — AAAA Convention, Williamsburg, Va.
Williamsburg Conference Center

Wednesday, March 17 through Sunday, March 21, 1976
USAREUR Region — AAAA Convention - Garmisch, Germany
U.S. Army Recreation Center

Monday, April 19 through Wednesday, April 21, 1976
Monmouth Chapter — AAAA Aviation Electronics Symposium
Fort Monmouth, New Jersey

Wednesday, May 5 through Friday, May 7, 1976
Fifth Region — AAAA Convention - Corpus Christi, Tex.
[Hotel site to be announced]

Saturday, June 5, 1976
1976 Army Aviation Hall of Fame Induction Banquet
Fort Rucker, Alabama

Tuesday, June 29, 1976
Third Congressional Appreciation Luncheon [Tentative]
Washington, D.C. [Hotel site to be announced]

Wednesday, October 13 through Friday, October 15, 1976
AAAA National Convention, Washington, D.C.
Washington Hyatt Regency Hotel

First Two Weeks in November, 1976 [Tentative]
AAAA Product Support Symposium - St. Louis, Mo.
Chase Park-Plaza Hotel

Friday, February 18 through Monday, February 21, 1977
Sixth Region — AAAA Convention - Colorado Springs, Colo.
The Broadmoor Hotel

IN the June and July-August 1975 editions of **ARMY AVIATION** I reviewed the status of the major aircraft and aviation related development programs of the **Aviation Systems Division**.

This issue will bring you up-to-date on recent developments in these areas, describe some other technology programs underway, and mention the Division's expanding role in foreign military sales of aviation items.

ATTACK HELICOPTERS

The **AH-1Q/s Program** is now under the guidance of **LTC "Ron" Hill**. The Army is modifying 290 **AH-1G's** to the **COBRA/TOW** configuration. Deliveries of the "Mod Q" began last June, and deployment to Europe became a reality in January.

A performance improvement program, uprating the engine to 1,800 shaft horsepower and adding other upgraded dynamic components, will change the "Q" to the "S" model. The first "Mod" **AH-1S**, is scheduled for June 1976 delivery. The Army is also procuring 305 new **AH-1S's** with first delivery in March 1977.

Things have been happening in the **AAH Program**. Hughes successfully completed first flight on 30 September

and Bell flew the next day. Contractor flight testing is moving right along and at this writing Bell has completed more than 30 hours of flying and achieved speeds up to 142 knots.

Hughes has more than 50 flight hours and attained a speed of 155 knots. The competitive fly-off is still scheduled to begin in June 1976.

OBSERVATION & SCOUT AIRCRAFT

The **ROC** for the **Interim Scout Helicopter** has been approved by DA. The **Interim Scout Helicopter**, designated the **OH-58C**, will feature an upgraded 420 shp engine, a day-only stabilized optic target acquisition device, a radar altimeter, and various aircraft survivability improvements. The **OH-58C** will be operational in late Summer 1977.

Major John Goldtrap became the DA System Coordinator (**DASC**) for observation and reconnaissance aircraft after putting in a couple of years as the Avionics **DASC**.

The **Advanced Scout Helicopter [ASH] Program** continues its progress towards initiation of a development effort. OSD has concurred in the need for the **ASH** and approved the start of **ASH** development.

Colonel Ed Browne, **ASH Project**

DA Happenings

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



DA HAPPENINGS (Continued)

Manager, is putting the final touches to the program before obtaining OSD approval. DSARC Ia is currently scheduled for the end of February. When fielded, the ASH will provide a true day, night, and adverse weather aerial scout capability.

Capable of operating with the AAH and other advanced weapon systems, the ASH will enhance Army Aviation's contribution to the Army's combat power. In January LTC Pat Mellin replaced LTC Wayne Davis as the ASH DASC. Wayne is off to Ft. Polk to command the 7th Engineer Battalion.

UTILITY AIRCRAFT

The UTTAS Program (LTC Al Balberde is the DASC) finds both airframe contractors, Boeing-Vertol and Sikorsky, vigorously pursuing their flight test programs. Since last Summer, the airframe 150-hour Military Qualification Test has been completed.

The Army Preliminary Evaluation [APE], conducted by the Army Aviation Engineering Flight Activity (AEFA) with Army and Navy experimental test pilots participating, was completed in early December. The purpose of the APE was to evaluate handling qualities before user tests begin and to get a preliminary look at the performance of the aircraft.

We had a non-scheduled demonstration of UTTAS' crashworthiness when

one of the Boeing-Vertol prototypes had an accident on 19 November 1975, which will delay the start of the Government Competitive Test [GCT] from 1 February to 28 March 1976. As a result of this delay, the selection of the UTTAS airframe contractor and award of the production contract has slipped to January 1977.

On 5 January the Army contracted for two DeHavilland DHC-6 Twin Otter's to meet the operational requirements of the First and Second Scout Battalions, Alaska Army National Guard. The Twin Otter, designated the UV-18A, will provide command, administrative, logistical, and personnel flights from battalion headquarters to remote village sites throughout western and northern Alaska on a year round basis.

It can be equipped with skis or floats or be used in its normal wheeled configuration. The DASC for utility aircraft is LTC William [Bruce] Wilder.

CARGO HELICOPTERS

The CH-47 Modernization Program was approved by the Department of Defense following the Defense Systems Acquisition Review Council II [DSARC II] meeting in October. The recommended R&D program includes Engineering Development of composite rotor blades, a new transmission/drive system rated at 7,500 HP and having integral cooling and lubrication, modularized hydraulics, and a new electrical system rated at 40 KVA, and an improved APU with a 20 KVA generator.

This program also includes an advanced flight control system and multiple cargo hooks for dual and multi-point suspension of loads. TRADOC and AMC personnel are to be commended for their outstanding joint effort in preparing this program for the ASARC and DSARC. It was a well prepared and presented program and received many accolades from senior DOD officials.

The contract is being negotiated at this time and after signature three airframes for prototyping will be furnished

JOIN NOW AND SAVE SOME \$

Faced with programming cost increases, a rise in Regional underwriting, and higher administrative expenses brought on by normal inflationary pressures, the AAAA National Executive Board has approved a dues increase, effective 1 April. The new dues rate for officers, WO's, and DAC's will be \$12 a year, \$23, two years, and \$33, three years.

Boeing-Vertol. These will be overhauled and the airframe will be standardized in a configuration similar to the **CH-47C**.

DSARC III is now scheduled for 1st Quarter FY 80. If the program proceeds as planned, the Army will modernize 36 **CH-47s** per year until the entire fleet has been modernized. The program promises significant improvements in RAM, safety, vulnerability reduction, and fleet operational capability while extending the fleet life and reducing the operating costs.

HLH

Congress provided direction which caused the Army to terminate the **HLH Program**. Although the program had not reached its scheduled completion, a number of significant technological breakthroughs have been accomplished.

Based on testing results, the technical community is already adopting many of the technical advances to other aircraft programs. These "Spin-offs" have reinforced the validity of the program's initial objectives and serve to increase the government's return on its investment. A number of technical advances in drive systems, rotor blades and hubs, flight controls, and cargo handling systems are applicable to the **UTTAS**, **LAMPS**, **CH-47 Modernization**, and future helicopter programs of the Army, Navy and Marine Corps.

The XT-701, 8,079 SHP, engine developed by Detroit Diesel Allison for the **HLH**, is being considered for use in the NASA/Navy Lift Fan Prototype aircraft. As the technical reports are compiled I am confident that additional applications for uses for **HLH** program technology will be discovered.

WEAPONS

Efforts to improve the weapons and fire control of the **AH-1** fleet are crystallizing. Improvements being considered include outfitting the **AH-1** aircraft with a turret capable of housing the **AAH** 30mm weapon, and a fire control system



DELIVERY—CPT Matt Crane is met by Grumman V.P. Tom Kane, Deputy Director of Business Development, after Crane delivered an Army OV-1 Mohawk to Grumman's Product Development Center at Bethpage, N.Y., to begin infrared suppressor modification to the aircraft.

to permit more accurate delivery of cannon and rocket fires. This fire control system will include the capability to determine range, select the type rocket and to set the rocket fuze. **Major Don Fite** recently joined the Division and is the DASC for aerial weapons.

The **HELLFIRE** missile system passed a critical milestone of its development cycle with the January ASARC decision to mate it to the **AAH** program. The first production **AAH** will be so equipped. **HELLFIRE** brings to the **AAH** the benefits of added range, better lethality against armor, and reduced aircraft vulnerability — all adding to its combat effectiveness.

Due to the decision on the **AAH** and pending efforts on the **AH-1** program, the aircraft weapons DASCs have been integrated into the attack section of the Aircraft Team. They will continue to monitor exploratory development and advanced development weapon programs.

AVIONICS

Avionics development and procurement decisions continue to be driven by two key factors: the need to support around-the-clock NOE operations and spending hard-to-get dollars on needed,

DA HAPPENINGS (Continued)

rather than nice-to-have, functional capabilities. The **NOE environment** demands improvements to communications, navigation, and obstacle avoidance capabilities. A new TRADOC/AMC letter of agreement will lead to 1976 field testing of alternatives for a NOE Communications System.

To help solve the NOE navigation problem, **UTTAS** and the new production **AH-1S** will be equipped with a light-weight Doppler system providing a self-contained navigation capability. The **detection and avoidance of obstacles** (including wires) is a tough problem at any time but especially so at night or in adverse weather flight conditions. As part of the Avionics Laboratory's exploratory development program, a **laser system** for terrain and obstacle avoidance will be flight tested this year — lower cost solutions are being sought.

As we add functions to the cockpit and place the pilot in the more demanding NOE environment, the man-machine interface and the utilization of cockpit space become more critical. In recognition of this, a **single control panel** which will allow the pilot to tune and control a number of communications, navigation,

and identification "black boxes" is being developed.

LIFE SUPPORT EQUIPMENT

Considerable activity in recent months has been directed toward forming a **council for aviation life support matters**. The diversity of items considered to be **aviation life support equipment [ALSE]** causes the management of these items to be spread among several commodity commands and other agencies. This, coupled with the fact that the life support equipment program touches on training, doctrine, safety and organizational structure as well as equipment, has contributed to a lack of centralized control.

Formation of the aviation life support equipment council has been mainly through the efforts of the Aviation Center Team and will include members from HQDA, Office of the Surgeon General, USAAAVS, AMC, FORSCOM, and TRADOC.

The **functions of the council** will include review and coordination of requirements and product improvement proposals (PIP); preparation of and review of publications for maintenance, training, and logistic support. Individuals or organizations with problems or recommendations for the aviation life support equipment program can contact the AMC point of contact **Mr. A.B.C. Davis**, who is in the AVSCOM Directorate for Weapons Systems Management (Autovon 698-3241/3291), or **LTC Roger Waddell** of this office (Autovon 225-1362).

Funding limitations have delayed the **PIP** for the UH-1 crashworthy pilot and and copilot seats as well as the **PIP** for the **anti-collision beacon system, high intensity light [ABSHIL]**. Some good news, however, is that deliveries of the PRC-90 survival radio are picking up but it will take some time to clear up the backlog.

SYNTHETIC FLIGHT TRAINING

The Synthetic Flight Training System



NO. 1 — Accepting the FORSCOM Commander's Award for Aviation Safety for Category E [10 to 30 aircraft] for Los Alamitos' 336th ASH is LTC Donald R. Bausler, right, Sixth Army AvnO. GEN Bernard G. Rogers, FORSCOM CG, presents the award.

program for the CH-47 and AH-1 (Cobra) took a jolt when the building scheduled to house both trainers received severe damage from the hurricane that struck Ft. Rucker last Fall.

Both programs are on schedule and show tremendous potential for nap-of-the-earth visual flight using an advanced optics system designed to give the resolution necessary to permit flight at ten feet above the terrain. The delivery schedule is now tentatively for early 1977.

AIRDROP EQUIPMENT

The USAF **Advanced Medium STOL Transport [AMST]** program is moving on schedule. McDonnell Douglas has both of its prototype YC-15's flying. The Boeing YC-14 prototype is scheduled for its first flight in July 1976. An **Army OTEA/AMC AMST evaluation team** is on permanent site at Edwards AFB, California.

The **anti-inversion net** for the **T10 and MC1-1 personnel parachutes** has been added to all new parachutes which are being manufactured. AVSCOM has announced a modification program for field and depot stocks which will begin with

CONUS units in FY 76. The **G11B cargo parachute** has been type classified. The **G11B** will allow airdrop of equipment loads ranging from 2,250—15,000 lbs from 750 feet above ground level.

Low Altitude Parachute Extraction System [LAPES] rigging procedures are being developed for an additional 21 pieces of equipment and 39 ammunition loads at Ft. Bragg, NC and Yuma Proving Grounds. New 10,000 and 25,000 lb helicopter slings are being developed and are due for **DT II** in early 1976.

FOREIGN MILITARY SALES

Significant increases in **Foreign Military Sales [FMS]** of our equipment have taken place since 1970. These increases have involved major defense systems; and because some of these are still in the developmental stage, have been the source of numerous problems.

In FY 75, the Army was involved in reviewing and supervising **Foreign Military Sales** cases for the acquisition of military equipment and the provision of related services totalling over \$3.8 billion. A significant portion of this total involved the procurement of aircraft and

(Continued on Page 18)



NEW CAREER — SP4 Susan Baker [above], an air traffic controller at Cairns AAF, Ft. Rucker, Ala., will be trading in the radar-scope for books at the U.S. Military Academy Preparatory School at Ft. Monmouth, N.J., where she will prepare for West Point.

UNDER TEST — Sikorsky's ABC [Advancing Blade Concept] research helicopter, the XH-59A, is undergoing a test flight program at the company's Stratford CT plant. It has flown at 140 knots and 4,000 feet altitude to date.



Army Aviation



PRIOR TO 1942:
Directly below,
BG A.R. Chaffee,
W.T. Piper



**Period prior
to 1942**

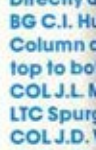
**1942-1949
Period**



1942-1949 PERIOD:
MAJ D.L. Bristol
MAJ R.M. Leich
MAJ J.W. Oswald
LTC C.L. Shepard, Jr.



**1950-1959
Period**



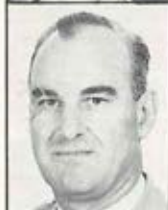
1950-1959
Directly above
BG C.I. Hu
Column of
top to bot
COL J.L. M
LTC Spurg
COL J.D. V
COL J.F. V

on Hall of Fame



PERIOD:
bove:
on;
left,
om:
linelli
n Neel
nderpool
ells

1960-1969 Period



1960-1969 PERIOD:
Directly above,
COL R.M. Hamilton;
Column at left,
top to bottom:
COL W.J. Maddox
COL J.W. Marr
BG G.W. Putnam, Jr.
BG J.C. Smith

More than 10,000 AAAA members will engage in worldwide March balloting to elect seven outstanding candidates for induction into the Hall of Fame in '76

ANTICIPATING increased membership participation in the 1976 elections, the 15-member Hall of Fame Committee expects one-third to one-half of AAAA's total membership to cast individual ballots for 1976 candidates. The names of 17 nominees appear on this year's ballot; seven will be chosen by the 10,300-plus AAAA members and inducted in formal ceremonies held at Fort Rucker, Ala., June 5.

Sponsored by the Army Aviation Ass'n (AAAA), the Army Aviation Hall of Fame "honors those military and civilian persons who have made an outstanding individual contribution to U.S. Army Aviation" during specific time frames, and "to record the excellence of their achievements for posterity."

With the installation of the seven nominees in '76, some 21 aviation greats will have been inducted into the Hall of Fame at Fort Rucker during the program's planned three-year existence. AAAA's National Executive Board is now reviewing proposals to continue the program beyond 1976 as implemented, to continue with a modified program, or to discontinue further inductions.

Some 60-odd military and civilian persons have been nominated from the field during August, 1973 through January, 1976, the Selection Committee choosing 17 nominees each year for placement on the membership ballot. Candidates are chosen for accomplishments in a specific time frame (Prior to 1942, 1942-1949, 1950-1959, and 1960-1969). The ranks shown are those held by the candidates at the end of the time period in which they are nominated.

Decade portraits, featuring the two winning candidates in each decade posed against a montage symbolic of the period, are hung each year in the Army Aviation Museum in a special "Army Aviation Hall of Fame" corridor. Chester Jezierski, a professional illustrator and former Army Aviator, has been commissioned by the AAAA to paint the 1974-1976 set of 12 Hall of Fame portraits.

DA HAPPENINGS (Continued)

related equipment.

Because of this increased activity, **LTC Tom Moritz** has been assigned recently to the Division to work in the **FMS** area. He is responsible for those portions of the DA materiel acquisition efforts relating to the research, development, and procurement aspects of **FMS** cases for Army aircraft and related support equipment.

TECHNOLOGY DEMONSTRATION

The **Advancing Blade Concept (ABC) helicopter**, manufactured by Sikorsky Aircraft, resumed its technology demonstration flights in July 1975. The number two aircraft was retrofitted with a modified control system to correct the controllability problems which caused the crash of the number one aircraft in August 1973. More than 17 hours of envelope expansion flight testing have been completed. The maximum level flight speed attained is 120 knots with no significant problems encountered.

The **ABC** is designed to eliminate the retreating blade stall problem by having two counter-rotating rigid rotors which also maximizes the lifting capability of the rotor system. The counter-rotating rotors also provide a directional control capability, eliminating the requirement for a tail rotor.

The **ABC helicopter** is designed to achieve a maximum level flight speed of 280 knots with the addition of auxiliary

propulsion from two J-60 turbojet engines. The DA monitor for the **ABC program** is **Mr. Dick Ballard**, Chief of the Technology and Support Team.

LTC Jim Satterwhite is the DA Staff monitor for two joint Army/NASA research aircraft programs — the **Tiltrotor** and the **Rotor Systems Research Aircraft**. The **tiltrotor (XV-15)** aircraft program is proceeding toward a first flight planned for December 1976.

The program objective is to build and fly two demonstrator aircraft to verify that tiltrotor technology is sufficiently developed to allow consideration for military or commercial aircraft of the future. After completion of the initial flight test program by Bell Helicopter Company, the aircraft will undergo extensive flight testing by the Government.

The **XV-15** aircraft has a design gross weight of 13,000 pounds, a maximum cruise speed of approximately 300 knots, and two 25 foot diameter rotors. The aircraft will be powered by two Lycoming **LTCIK-4K** (modified T-53) engines with an interconnect drive shaft connecting the two propulsion packages. This interconnect shafting will permit continued operation in the event of an engine failure.

The **Rotor Systems Research Aircraft (RSRA)** will provide a flight vehicle for conducting flight research on promising new rotor concepts and for in-flight verification of rotorcraft prediction methodology. Two of these unique helicopters are being manufactured by Sikorsky.

The **RSRA** will be highly instrumented and is designed to allow tests of a wide variety of rotor systems without the requirement for extensive modifications to the aircraft. One of its unique features is an emergency blade severance and crew escape system.

The aircraft is designed to fly as a pure helicopter and, with the addition of a wing and two TF-34 auxiliary propulsion engines, as a compound helicopter. The maximum level flight speed is expected to be nearly 300 knots. The first flight has been scheduled for October 1976.

HELICOPTER HEROISM AWARD

The Aviation/Space Writers Ass'n [AWA] and the Avco Corporation are sponsoring the 10th Annual "Helicopter Heroism Award" to be presented at the AWA 1976 Annual Conference to be held this year on May 16-19 in Denver, Colo. The int'l competition has honored a distinguished roster of pilots and crew members, both military and civilian.

PROPULSION TECHNOLOGY

Propulsion technology is one of the very active technology areas and includes component development for both engines and drive trains. A major project in this area is **demonstrator engines**. This type project led to the development of the 1,500 HP demonstrator engine and subsequently the T-700 engine.

A current effort is the **Small Turbine Advanced Gas Generator (STAGG)** program which began with four contracts for development of gas generators — two for engines in the 200-300 HP range and two in the 500-800 HP range. Testing has been completed which showed significant improvements in specific fuel consumption and specific power.

A 800 HP class **demonstrator engine** program is the next major effort in this project. Goals of the program are 25-30% reduction in SFC, 40-60% improvement in specific power, and 40% reduction in vulnerable area. The Army is the lead Service for small engine development programs.

Efforts are also being devoted to improving gears, seals, bearings, and other drive train components. Goals of this program will be to develop components with a 20% weight reduction (lb/SHP), achieve 100% increase in mean time before removal, 20% reduction in recurring production cost, and a capability to operate for 30 minutes at limit torque without lubricant. Significant drive train noise reduction is also a goal of this program.

HELICOPTER ICING PROGRAM

The **UH-1** helicopter with **anti-icing and deicing equipment** has been successfully ground tested by AEFA personnel at Edwards Air Force Base. Tests conducted using the National Research Council Spray Rig, Ottawa, Canada started in mid January. This facility is a spray tower in which hovering helicopters can be subjected to icing in a controlled environment.

The results at Ottawa will determine



LOOK-SEE — COL Charles Drenz (in cockpit) briefs BG Arthur J. Gregg, DCSLOG, Hq, USAREUR, on the Cobra/TOW AH-1Q attack helicopter delivered 29 January at Ramstein AFB, Germany. Drenz is Cobra/TOW Project Manager at Hq, AVSCOM.

whether the next test phase will be artificial icing behind the **CH-47C Helicopter Icing Spray system (HISS)** or whether the system is ready for testing in natural icing conditions.

On 5 December a **PIP** was approved to provide helicopter improved ice protection equipment for 712 **UH-1** helicopters. This initial portion of the improvement program consists of heated glass windshields, a 30 KVA generator, an ice detector, and modification or relocation of the FM antenna.

COMINGS AND GOINGS

Recent personnel changes have been mentioned throughout this article; however, congratulations are in order to **LTC "Rip" Phillips**, Ch-47 DASC who reports to the Army War College next Summer.

Congratulations also to three former members of the Division, **LTC Bob Newton** now at CAA to ICAF, **LTC Walt Rundgren** from AMC to AWC, and **LTC "Gus" Cianciolo** from the 2d Armored Division to AWC.

LTC George Sibert is inbound from Ft. Carson and will become the DASC for Aircraft Survivability Equipment.

That takes care of all the personnel changes at this time — but it's only February! 1976 promises to be a very busy year for all in Army Aviation! □

Many are cau

IN the January issue of **ARMY AVIATION**, I noticed the small boxed correction modifying **Colonel [Ret.] Ken Mertel's** statement relative to **Master Army Aviator qualifications**.

Now to the point. Since the logging of flight time was modified drastically in 1972, many of our senior aviators have not been able to accumulate additional flying time, except in civil aircraft at their own expense.

Many of them were caught 200 to 300 or fewer hours short, having met all

other requisites, when the Master Aviator regulation was changed.

I am **not** arguing about the propriety of the regulation, but rather I am proposing that some consideration be given to lowering the **minimum time requirement** for the **Master Army Aviator Badge** from the current 3,000 hours downward to 2,500 hours.

My sole justification for this proposal is **"If they could fly, they would be very happy to do so."** But the government saw fit to restrict their flying in favor of cost savings, or at least cost avoidance,

Is 24 hours un

IHAVE been following the many articles in **ARMY AVIATION** and the **AVIATION DIGEST** on how to survive in mid-intensity warfare. I cannot argue with those who formulate doctrine and say that we cannot survive on the next battlefield unless we fly NOE. I assume they are correct.

What does concern me is that objective of being able to stay on the battlefield 24 hours a day in an weather indefinitely seems to **exaggerate** our capabilities and **minimize** our limitations with our present equipment.¹

MG Maddox has said there is more in the aircraft and people we have than we are actually getting out of them.²

When I think of Vietnam, all the units of which I had knowledge got all they could out of their equipment and people and still were effective. The general must mean that the day and night NOE and tactical instrument programs are designed to develop some heretofore **unused stamina** in our aircraft and people.

JUDGING THE RISKS

We are soldiers and we accept whatever risks are involved to accomplish our mission in combat. I just hope that when the tactical commander is weighing the vulnerability against our contribution to any given mission, he has the most reliable data on which to judge what risks are involved. Keeping in mind what **MG Brady** and others have said, the next

¹Opening and closing remarks by **MG William J. Maddox, Jr.**, to the National Security Industrial Association Symposium. Page 7, Nov 75 **Aviation Digest**.

²Same as #1.

ght short!

and I don't think they should be penalized. I'm sure you are well aware of this, but the USAF uses a variable requirement procedure.

I QUALIFY!

Obviously, I am one of the senior aviators who falls into this category. I left DA in May 1972 to attend a senior logistics course; then commanded a ground TO&E battalion; then on to my present desk job at Supreme Headquarters Allied Powers Europe; and, now, as a result of my selection to attend a senior

service school, on to the Air War College next year.

So the future possibility of my ever becoming a **Master Army Aviator** is rather bleak, to say the least, as it will be for the many others like me.

There is no malice, hurt, or jealousy in this letter. I simply want you to know how I feel on this matter. I'm sure others have similar feelings or the requirements would not be under review.

LTC(P) George A. Brown
SHAPE-LANDA
APO NY 09055

realistic?

war will be won or lost with the resources we have on hand when the first shot is fired.³

AVSCOM — with help from the aircraft company engineers — can probably tell us how many hours of service we can expect from the aircraft components operating in the high stress environment of NOE.

Could not the **Society of U.S. Army Flight Surgeons** come up with the physiological limits for the crews under these same flying conditions? I would bet that **USAAVS** can make some fairly accurate projections on how many losses we could expect from non-enemy caused accidents in that environment.

From the articles I have read - and these were written by those who have

³AAAA Panel Presentation: Staying Power - MG Morris J. Brady, Page 19, Nov-Dec **Army Aviation**.



done the training - I get the impression that you must become a specialist in one of the three necessary combat flying skills, i.e., **day NOE**, **night NOE**, or **tactical instruments**. The articles point out that all three require intensive training to gain the necessary proficiency, and that the proficiency is rapidly lost if not continually practiced.⁴

I hope the tactical commander knows he must have **three** special types of flight teams to operate continuously on the battlefield, or that if he requires the **day NOE team** to continue into the night, their lack of proficiency at **night NOE** and fatigue will take their toll.

How many times in Vietnam did you have to fly day and night when you were near exhaustion? At least in Vietnam you were only critical during takeoff and landing. In the next war you'll be critical during all phases of flight.

This letter sounds like I'm bad-mouthing the tactic of flying NOE. I'm not and I have no alternatives to offer. I just want people to acknowledge that we have a very limited staying power because of the higher levels of stress on both aircraft and people when operating at NOE.

There is equipment made now which, according to the manufacturers, would

⁴Getting Started - CW2 Ralph S. Park, interviews with OWL Team members by Orval Right, Mar 74 **Aviation Digest**. Air Assault Update - MAJ John R. Mills, Page 28, Sep 75 **Aviation Digest**. Tactical Instrument Flying - Why? by CPT Lewis D. Ray, Page 22, Dec 75, **Aviation Digest**.

FAST! — CW2 Benny R. Easter has completed a USAAVNC correspondence course, the WO Senior Course, in record time! Although allowed at least three years to complete the course, CW2 blitzed it in just 32 days. He's Director of the Army Band at Ft. Rucker, Ala. □

greatly help our survivability . . . equipment like **radar altimeters**, **terrain avoidance radar**, and **navigational receivers** that can pinpoint one's present position at all times. The fact remains that if we are to be on the battlefield 24 hours a day in all weather, then we had better be able to spend the money to give us that capability.

A NEW BALL GAME!

Meanwhile, back in the peacetime Army, **GEN Rogers**, **MG Maddox**, and **BG Canedy** seem to have discovered that Unit Safety Officers and standardization boards (dominated by CW4's) have severely restricted realistic training.⁵

To correct this situation, commanders have been told they cannot, nor will they allow their safety officers to add any safety margins to the new AR 95-1 or AR 95-63, regardless of local conditions. At least this puts the responsibility for any increase in accident rates where it belongs.

We've told our people over and over again that safety is an attitude and to listen to their unit safety officer. We now say that safety people will unnecessarily restrict you, if you give them the chance. After training in high risk conditions for awhile, the pilot will accept the risks as normal.

This is what you are trying for in tactical training, except that now it will be hard for the local safety officer to convince the tactically-minded pilot that he must revert to his old fashioned ways when he flies administratively.

The unit commander is going to be faced with some hard choices about how much training time will be spent on each subject. Since all three of the essential skills [**day NOE**, **night NOE**, and **tactical instruments**] require concentrated training, and proficiency drops quickly with

⁵OFTCON 2 - GEN Rogers, Video Tape #77 0397. Personal notes taken at an AAAA Panel Presentation: Training and Standardization.

disuse, one or two of these skills will suffer depending upon how the commander sees his primary mission.

Now that VFR minimums have been lowered to 1/2 mile visibility and clear of the clouds, we must expect more instances of **inadvertent IFR**.⁶

If instrument training is one of the skills that suffers for lack of time, then the pilot that goes inadvertent IFR will not have confidence in his instrument flying and will be reluctant to go on the gauges.

Our accident files are full of cases of people who have tried to stay VFR in IMC conditions. Not only does the pilot operating VFR at 1/2 mile and clear of clouds **need to be psychologically prepared** to go on the gauges, but he must be assured there will be approach minimums somewhere close to his training area, if needed.

LIMITED MISSION LENGTH

The length of his mission - when operating under those conditions - should be limited so that if he went inadvertent IFR near the end of the mission, he would still have enough fuel to get to where he has approach minimums. There should also be some sort of agreement with the local ATC people about what you should do when you go popping up into their airspace unannounced.

I know there are some senior officers who believe that CW4's resist change because that is the nature of people who are growing old, but I would like to think that some of it can be attributed to experience and mature judgment.

As a W-4 who will retire soon, I am glad I will not be around to fight the next war at NOE. To borrow a phrase from an old friend, **"It scares the hell out of me and I'm fearless!"**

CW4 Ronald T. Garrison
CW4, USA
DUSAA, Ft. Belvoir, Va.

⁶Notes from DA Standardization Conference, Page 10 Oct 75 Army Aviation.

THE READERS RESPOND!

[Continued from Page 7]

SFTS UTILIZATION

The **Synthetic Flight Training System [SFTS] 2B24** is working out like gang busters. Utilization in those places which have them has been super (Germany, Rucker, Campbell).

For those of you who are not aware of the schedule, here is when you can expect to see yours:

Fort Lewis	9 July 76
Hawaii	3 September 76
Fort Stewart	29 October 76
Fort Bragg	24 December 76
Fort Hood	25 February 77
Korea	22 April 77
Fort Riley	24 June 77
Indiantown Gap	19 August 77
Fort Knox	21 October 77
Fort Benning	23 December 77

Additional devices for 1978 delivery programmed for Fort Eustis, Fort Ord, Fort Sill and Fort Belvoir. Follow-on systems are scheduled for Fort Carson, Fort Devens, Los Alamitos CANG, Fort Sam Houston, Midway - Illinois ARNG, Fort Bliss and Fort Polk.

CH-47 AND AH-1Q SIMULATORS

The **2B31 [CH-47]** and **2B33 [AH1Q]** development is coming along in good order. R&D prototypes are in the final stages. Both simulators will be equipped with visual systems, allowing VFR **Chinook** and **COBRA** operations, to include, in the case of **AH-1**, the firing of weapons systems.

The visual capability is provided through the use of an optical probe flown over an extremely detailed scaled terrain board. The probe is connected through computer systems to the controls of the aircraft. The pilot, in fact, while flying the aircraft, flies the probe over scaled down 400 and 1,500 square mile areas. Preliminary prototype simulator flights indicate exceptional fidelity.

The state of the art is expanding!



Details of the AAAA Charter Life Member Program



- At its August 9, 1975 meeting in Washington, D.C., the AAAA's National Executive Board approved a LIFE MEMBERSHIP PROGRAM, effective with a brief announcement in the Sept '75 issue of 'Army Aviation.'
- A member-applicant would make a one-time \$120.00 donation to the 'AAAA Scholarship Foundation, Inc.' and forward this donation directly to the Foundation at 1 Crestwood Road, Westport, Conn. 06880.
- The AAAA — on notification from the Foundation of the donation — would provide a Life Membership to the applicant with appropriate credentials signifying "Life Membership" to follow at a later date.
- The Foundation would retain the sum in the donor's name, and on his or her death would — together with all other funds received in memory of the donor — provide a Memorial Scholarship in the donor's name in
- the academic year following his or her death.
- The \$120.00 donation to the AAAA Scholarship Foundation, Inc. would be considered deductible for tax purposes.
- Charter Life Members would be those who enrolled in the Program on or before 31 March, 1976. A 'Life Membership Program' is planned to start after April 1, 1976. ☐



AAAA CHARTER LIFE
MEMBERSHIP FORM
Complete and return to:
AAAA Scholarship
Foundation, Inc.
1 Crestwood Road
Westport CT 06880

Application Form. Complete and Return to AAAA

I would like to enroll as CHARTER LIFE MEMBER of the Army Aviation Association, and have enclosed a check made payable to the "AAAA Scholarship Foundation, Inc." in the amount of \$120.00. I understand that my donation is tax deductible, that the donation - together with such other funds donated in my name - will underwrite an AAAA Memorial Scholarship in my name on my death, and that I hereby authorize the use of these funds for this purpose. When available, please forward my Charter Life Membership credentials to me at the address below:

Name

Address

City State ZIP

This Form is invalid on or after April 1, 1976

AAAA's Charter Life
Enrollment Continues



The AAAA's Charter Life Membership Program has been extended to March 31, 1976!



1. BG Robert M. Leich, IGR
4. Bryce Wilson
7. LTG Harry W.O. Kinnard
10. COL Alexander J. Rankin
13. Paul L. Hendrickson
16. ISG Malcolm E. Leighton
19. COL Wayne N. Phillips
22. LTC James H. Proctor
25. LTG Richard D. Meyer
28. COL George G. Tillery
31. COL David G. Cogswell
34. LTC Lee R. Cantleberry
37. COL Robert F. Cassidy
40. LTC Kenneth C. Eaton
43. COL George W. Adamson
46. LTC Chester A. Dillahunt
49. COL William S. Hawkins
52. COL Gerald H. Shea
55. LTC Donald E. Chamberlain
58. COL John W. Marr
61. CW3 Willieoran Mason
64. LTC Harold O. Bourne
67. LTC David Larcomb
70. MAJ George W. Crofoot
73. SFC Montie Johnson
76. Joseph P. Cribbins
79. COL Ted A. Crozier
82. Ronald E. Krape
85. COL George W. Shallcross
88. COL Garrison J. Boyle, III
91. LTC James B. Thompson
94. MG Thomas F. Van Natta
97. COL William L. McKeown
100. MAJ James W. Mow
103. COL Charles R. Lehner, Jr.
106. LTC Morris G. Rawlings
109. COL A.T. Pumphrey
112. LTC Robert M. Tyson, Jr.
115. MAJ Wilford A. Baugh
118. LTC Warren C. Joyce
121. MAJ Frank L. Alverson, Jr.
124. LTC Leonard J. Sharp
127. CPT Eugene B. Phillips
130. COL William A. Roehl
133. COL Austin F. Epsaro
136. COL Arthur W. Buswell
139. LTC Thomas E. Hall
142. MAJ Ralph E. Riddle, Jr.
145. LTC C.M. Fyffe
148. BG Leo E. Soucek
151. COL Ambrose C. Shaw
154. CPT Ralph L. Marohn
157. LTC George J. Young
160. MAJ James A. Scott, III
163. LTC Robert A. Mangum
166. Michael S. Saboe
169. Bernard B. Mackell
172. BG Jack W. Hemingway
175. LTC William F. Simpson, Jr.
178. LTC William F. Armfield
181. CW4 A.P. Schanzenbach
184. COL Francis J. Toner
187. COL Billy L. Odneal
2. LTG John M. Wright, Jr.
5. MG John L. Klingenhagen
8. CW4 E.M. 'Mel' Cook
11. COL John T. Pierce, III
14. Donald F. Luce
17. BG O. Glenn Goodhand
20. COL Edward L. Nielsen
23. LTC Samuel Fregman
26. COL Joseph P. Smith
29. COL William E. Crouch, Jr.
32. COL Henry H. McKee
35. Eugene J. Tallia
38. LTC Neal R. Christensen
41. COL Raymond E. Johnson
44. BG Edwin L. Powell, Jr.
47. MG William J. Maddox, Jr.
50. Mrs. Dorothy Kesten
53. LTC Elbert B. Hill
56. LTG G.P. Seneff, Jr.
59. MG George S. Beatty, Jr.
62. COL Russell N. Pitts
65. COL Turner J. Trapp
68. COL George D. Shields
71. Albert W. Pollard
74. COL Robert R. Corey
77. LTC Norman W. Goodwin
80. LTC Richard R. Noack
83. LTC Frank H. Radspringer
86. LTC Charles V. Graft, Jr.
89. COL Arne H. Eliasson
92. MAJ Frederick P. Ritterspach
95. Darwin P. Gerard
98. CW3 Carl L. Amick, Jr.
101. LTC J. Thomas H. Denney
104. LTC Vincent P. Bailey
107. COL James L. Tow
110. LTC Robert L. Graham
113. Walter D. Sabey
116. LTC Rex M. Turner, Jr.
119. LTC John H. Anderson
122. Walter J. Bordiuk
125. COL James H. Mapp
128. COL Ralph H. Vohs
131. COL Lowell L. Ballard
134. LTC Harold D. Asbury
137. CW4 Michael J. Novosel
140. LTC Robert A. Wagg, Jr.
143. COL Byron P. Howlett, Jr.
146. CW4 Elmer G. Anderson
149. LTC Leroy V. Hester
152. LTC William R. Martin
155. COL John T. Stanfield
158. LTC Gerald E. Lethcoe, Jr.
161. LTC William Klim, Jr.
164. COL Gerald L. Kline
167. Willie Dale Harper
170. COL Jules E. Gonseth, Jr.
173. MG John K. Singlaub
176. LTC Leroy C. Spears
179. CPT Donald R. Byars
182. LTC Kenneth E. Kellogg
185. COL Charles F. Drenzo
188. CW4 Paul D. Sadowski
3. Arthur H. Kesten
6. LTG Robert R. Williams
9. GEN Hamilton H. Howze
12. Larry C. Franzoi
15. COL Delbert L. Bristol
18. LTC Leland F. Wilhelm
21. MAJ William R. Chaires
24. Carl D. Stephenson
27. MG Delk M. Oden
30. LTG Allen M. Burdett, Jr.
33. COL Nelson A. Mahone, Jr.
36. CW4 Robert L. Hamilton
39. COL Rudolph D. Descoteau
42. LTC Henry S. Wann
45. MAJ Michael R. Cullen
48. COL Sidney W. Achee
51. COL Warren R. Williams
54. CSM Ralph L. Bass
57. Kenneth E. Horsey
60. CW4 Donald R. Joyce
63. COL John S. Aufliff
66. LTC Dwight Lorenz
69. David Money
72. CW4 George L. Allen
75. LTC Glenn W. Lewis
78. COL Selmer E. Sundby
81. Thomas W. O'Connor
84. BG John N. Brandenburg
87. COL Richard J. Kennedy
90. LTC Norman G. Laumeyer
93. COL Pete Phillips
96. COL Milford Horwitz
99. LT John L. Priest
102. LTC Robert F. Sweeney
105. LTC Jack W. Brown
108. LTC Merle L. Mulvaney
111. CPT Earl W. Dennis, Jr.
114. Wayne R. Smith
117. MAJ Curtis J. Herrick, Jr.
120. MAJ Eldon H. Ideus
123. Marquis DeLaine Hilbert
126. CW3 John G. Russell, Jr.
129. COL Leo E. Bergeron
132. CPT Ralph B. Young
135. LTG John J. Tolson, III
138. COL James R. Sulpizi
141. CPT George P. McGee
144. COL Kenneth J. Burton
147. CW2 L.M. McGlamery
150. CW4 John F. Leonard
153. COL Robert M. Reuter
156. CW4 Frank D. Baldwin
159. COL Harry L. Bush
162. COL Samuel P. Kalagian
165. COL Robert K. Moore
168. Clifford J. Kalista
171. COL Lee M. Hand
174. LTC Carl A. Colozzi
177. LTC William D. Taylor
180. Jack H. Thompson
183. LTC Delano R. Brister
186. MAJ Douglas V. Garner
- ...and many more to come!

Join the 200+ AAAA Charter Life Members!

Operations

USAREUR RECEIVES ITS FIRST COBRA/TOW AIRCRAFT FROM BELL'S AMARILLO PLANT

THE U.S. Army in Europe has started to receive anti-armor attack helicopters. The first **Cobra/TOW** arrived at Ramstein Air Base on Jan. 25, and six more are ready for shipment from Amarillo, Tex., according to **MAJ Augustus D. Scott** of the Logistics staff at USAREUR Headquarters.

"They will be phased in on a weekly basis on a one-for-one exchange for regular **Cobras**," **Scott** said.

"The greatest conventional threat we face here in USAREUR is from Soviet tanks," said **BG Arthur J. Gregg**, Deputy Chief of Staff for Logistics in Hq, USAREUR, as he accepted the initial **Cobra/TOW** from **COL Charles Drenz**, the **Cobra/TOW** Project Manager from the Army Aviation Systems Command in St. Louis. "We know that this anti-tank weapon system has been proven to do the job."

BG Gregg turned over the highly-maneuverable aircraft to the 2nd Armored Cavalry Regiment. The **Cobra/TOW** is not a new production aircraft. The basic

systems of the existing **AH-1G Cobra**, were modified to incorporate the **TOW [Tube-launched, Optically-tracked, Wire-guided]** missile system.

"The **Cobra/TOW** will provide U.S. Army, Europe with an increased anti-armor capability," said **GEN George S. Blanchard**, USAREUR Commander-in-Chief. "To get the most out of our aviation personnel and equipment we must develop and implement first class aviation training programs."

All arriving **Cobra/TOW**'s will come through Ramstein, where they will be readied for operational use by aircraft maintenance personnel of the 1st Support Brigade.

"When it hits the tank, the high explosive anti-tank round blows a hole in the armor about the size of a softball," said **MAJ Lowell Mooney**, Chief of the **New Equipment Training Team** which has instructed aviators and maintenance personnel in the operation of the aircraft. "That causes a lot of metal to blast inside, which blows up the ammunition and knocks out the crew. With a trained gunner and a well-maintained system you can get better than a 90% kill rate," **Mooney** said.

The ground version of the **TOW** missile has been in the USAREUR ground troop arsenals for several years.

ARMY'S NEW BEECH C-12A LOGS FIRST 100 HOURS AT IZMIR

THE new **Beech C-12A** twin turbo aircraft assigned to NATO's Allied Land Forces, Southeastern Europe in Izmir, Turkey, recently completed its first 100 hours of in-country service.

Locally replacing the **U-8**, the high altitude, long endurance **C-12A** permits the Commander of **LANDSOUTHEAST** to span his entire area of responsibility without having to stop for refueling.



CLASSROOM — Mrs. Linda Wise of Enterprise, Ala., listens to a lesson on the headset while following along in the class workbook. She's attending classes on helicopter repairs and hopes to become the first female civilian instructor to teach the **USAAVNC** course. □

The aircraft, fifth off the Beech assembly line, was piloted by CWO's **George Tomei** and **Matthew Yeck**, both of whom spent 2½ weeks of intensified familiarization instruction at Beech headquarters in Wichita, Kansas, before departing on their 7,767 mile journey. The trip lasted six days and included stops at Labrador, Greenland, Iceland, Scotland, Germany, Italy, and Greece.

The crew was met on their arrival at Cigli (pronounced Chilly) Airport in Izmir by their families and by **MG James B. Vaught**, LANDSOUTHEAST Chief of Staff. □



CLASS OF 76 — Shown are the only two Army Aviators presently attending the National War College at Ft. McNair. LTC Fletcher H. Maffett, left, and LTC John F. Zugsschwert represent a 200% increase over the Class of 1975, 33 years in Army Aviation, and over 30 years in the AAAA. □

In the field

**WELCOME TO ALBROOK
ARMY AIRFIELD
HOME OF THE 210th AVN. BN.**

1975 **WINNER AAAA OUTSTANDING
AVIATION UNIT OF THE YEAR**



PRIDE! — AAAA's massive "Outstanding Aviation Unit Award" silver bowl is now installed in the terminal building at Albroom AAF in the Canal Zone, the home of the awardwinning 210th Aviation Battalion. Shown, l-r, are CPT Warren Spencer, Cdr, 352nd USAAD; MAJ Billy Taylor, Cdr, 590th Maint Co; LTC Joseph R. Koehler, Cdr, 210th Avn Bn; CSM Stephen Cole, CSM, 210th; and MAJ Richard Adams, Cdr, 114th Avn Co. The unit will retain custody of the AAAA trophy until September of this year. □

KEY PERSONNEL CHANGES

MG John A. Wickham, left, is the new commander of the Army's only air assault division, the 101st Airborne Division (Air Assault), replacing **MG John W. McNery**, who is to command the Armor Center and Fort Knox. **COL James H. Mapp**, right, is the new Deputy Installation Commander and CofS, Ft. Rucker, replacing **COL Crawford Buchanan**, new USAREUR AvnO.



AAAA Membership Activities



FEBRUARY-MAY, 1976 CALENDAR [CONTINUED FROM PAGE 2]

dox, Jr., USAAVNC commander, guest speaker. RSA Officers' Open Mess. Members and non-members.

□ **FEB. 18. Coastal Empire Chapter [Hunter AAF].** Professional dinner meeting. **BG Charles E. Canedy**, Deputy Director of Operations and Army Aviation Officer, ODCSOPS, DA, guest speaker. Hunter AAF Officers' Club.

□ **FEB. 19. Bonn Area Chapter.** Professional dinner meeting. **Polizeirat Helmut Frieber**, Rheinland Police Staff, guest speaker. American Embassy Club.

□ **FEB. 20. Lindbergh Chapter [St. Louis].** Late afternoon business-social meeting. Drafting of '76-'78 Chapter officer slate. AVSCOM Officers' Club. Members only.

□ **FEB. 21. Fort Bragg Chapter.** 1976 Army Aviation Ball; installation of '76-'78 Chapter officer slate. FBOOM. Members and guests.

□ **FEB. 23. David E. Condon Chapter [Ft. Eustis].** Professional luncheon meeting. **BG Charles E. Canedy**, Deputy Director of Operations & Army Aviation Officer, ODCSOPS, DA, guest speaker. FEOM. Members and guests.

□ **FEB. 23. Corpus Christi, Tex. Chapter.** Chapter Membership Luncheon and "Annual Roasting" with Director of Quality, CCAD, as 1976 Roastee. NAS O-Club Ballroom. Members and guests.

□ **FEB. 26. Connecticut Chapter.** After dinner professional meeting. **Charles**

C. Crawford, Jr., Chief, Sys Dev Qualif Div, AVSCOM, guest speaker. Avco Lycoming Engineering Auditorium.

□ **FEB. 27. Mt. Rainier Chapter [Ft. Lewis].** Late afternoon professional-business meeting. **Bill Pollard & Jim Foulk**, Sikorsky Aircraft Division, guest speakers; Chapter update of past activities & future plans. Ft. Lewis NCO Club. Members and guests.

□ **MAR. 3. Awards Committee.** Selection of 1976 AAAA National Scholarship Award Winners. Pentagon Building.

□ **MAR. 4-6. First Region - AAAA 1976 Convention.** Williamsburg Conference Center, Williamsburg, Va.

□ **MAR. 11. Fort Hood Chapter.** Late afternoon professional-social meeting. **Sergei Sikorsky, V.P.**, Sikorsky Aircraft Division, guest speaker, following cocktails & hors d'oeuvres. Main Ballroom, Ft. Hood Officers' Club. Members, wives, and guests.

□ **MAR. 13. Chicago Area Chapter.** Professional dinner meeting. **Sergei Sikorsky, V.P.**, Sikorsky Aircraft Division, guest speaker. Glenview NAS O-Club.

□ **MAR. 18. Persia Chapter.** Professional meeting & Chapter Dinner-Dance. Installation of '76-'78 Chapter slate. Imperial Iranian Lavazan Officers' Club. Members and guests.

□ **MAR. 19. Lindbergh Chapter [St. Louis].** Spring Dinner-Dance. St. Louis Army Officers' Mess, HISA, Granite City, Ill. Members and guests.

□ **APR. 19-21. Aviation Electronics Symposium** conducted by the Monmouth Chapter, Ft. Monmouth, N.J.

□ **APR. 20. Connecticut Chapter.** Professional dinner meeting. **LTG Sidney B. Berry**, Superintendent, U.S. Military Academy, guest speaker. Site to be announced.

□ **MAY 5-7. Fifth Region - AAAA 1976 Convention.** Corpus Christi, Tex.

□ **OCT. 13-15. 1976 AAAA National Convention.** Hyatt Regency Washington on Capitol Hill, Washington, D.C.

LONGEVITY PINS

Effective 1 April 1976, the AAAA will no longer provide a 10-Year Membership Pin, but will award gratis 7- and 15-Year Longevity Pins.

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A MAJOR CONTRACT! - Colonel Charles F. Drenz, left, Cobra Project Manager, looks on as Mrs. Brenda Klier, Contracting Officer, signs a \$40.5 million contract at Hq, U.S. Army Aviation Systems Command (AVSCOM). The contract, recently awarded to the Bell Helicopter Company, calls for the production of 44 AH-1S Cobra helicopters. The AH-1S Cobra is to be equipped with the TOW missile system, and will also have an improved engine and transmission. The contract is to be completed by Dec 1977 with the Army having an option to buy 22 additional AH-1S aircraft in the future. (USA photo)

CHANGE OF ADDRESS PROCEDURE

Your ONE change of address notice to "Army Aviation Magazine," the AAAA, or Ladd Agency will serve to change your address records for ALL THREE organizations. Verification of receipt is by appearance in the magazine's PCS list.

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