Army Aviation

APRIL, 1974



The U.S. Army Heavy Lift Helicopter, now in the prototype phase, will minimize barrier crossing problems of the ground combat soldier.

BOEING HELICOPTERS

ARMY AVIATIO

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PLANT VISIT- Greeting Sen. Strom Thurmond, 2d from left, at Boeing Vertol's Philadelphia plant are COL Charles L. Calvert, USA Plant Activity Commander, as E.B. Kenney, far left, Staff Member, Senate Armed Services Committee, and Boeing Vertol President Howard N. Stuverude, 2d from the right, look on.

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A gun for all services.



While the Hughes 30mm XM-230 chain gun was initially developed for the Hughes prototype of the U.S. Army's Advanced Attack Helicopter, it holds great promise for many other requirements—especially for ground vehicles, amphibians, and small boats.

And because it is simple, compact, and lightweight, it can be built for half the cost of

competitive weapons.

Firing a "WECOM 30" round with an APDS projectile, it would give the XM-1, MICV, and LVTP-7 a superior armordefeating capability.

Helicopters and vehicles face a common enemy on the modern battlefield. A single gun is highly compatible with today's design-to-

cost environment.

HUGHES HELICOPTERS & ORDNANCE SYSTEMS

Opinion

N May 20 the Army will abolish the OACFSOR and with it the Army Aviation Directorate. Plans call for the personnel in the Directorate's Ops Division to be absorbed within ODCSOPS, and the Systems Division staffers to be shifted to the new OCRD&A.

The reorganization leaves the Army without an identifiable aviation coordinator at the DA level, a move bemoaned by many senior aviation specialists and all industry parties. Following a quick - but extensive poll of AAAA members in late March, President Ed Nielsen forwarded the following letter to the Secretary of the Army:

Honorable Howard H. Callaway Secretary of the Army Washington, D.C. 20310

Dear Secretary Callaway:

It is with the greatest concern that the 11,000 members of the Army Aviation Association of America [AAAA] have learned through the public media that the abolishment of the office of the Director of Army Aviation is being considered.

Knowing that Army Aviation is the heart of today's airmobile Army, we are distressed at the potential loss of a strong, central point in DA to coordinate and supervise the entire aviation program.

Over the past years, it has been a series of articulate Directors of Army Aviation who have been able to convince Congress of Army Aviation's vital supportive role in the defense posture of the nation, and who have represented the Army's aviation interest most capably in the JCS and DOD arenas.

Approximately 10% of the Army budget is spent on aircraft and related materiel. We feel strongly that our Army leaders, as well as industry, need someone on the General Staff to coordinate all of the many facets of the Army Aviation Program, someone who can pull it all altogether, rather than many individuals concerned with specific splintered functions.

Our allies have recognized the requirement, Eight countries have an Aviation Director heading their Army Aviation activities. This is a distinct advantage accruing to each in having a senior aviation specialist, in most cases called the "Director", represent its aviation element in its relations with other countries.

Reflecting that the Chief of Staff of the Air Force

is its "Director", and that the "Director of Navy Aviation", is its Deputy Chief of Operation [Air Warfare], a Vice Admiral, it would seem logical that the "Director of Army Aviation" be at a similarly effective organizational level in the Office of the Chief of Staff, and that his functions be staff coordination and supervision of all aviation activities throughout the General Staff and major commands.

Creation of such an office would perpetuate the staff efficiency and close supervision that had sped the quantum jump in the Army's airmobile

capability in the past decade.

I realize I am being presumptuous in writing where the information available is only through the media of the press. However, I feel obliged, as the national president of the Army Aviation Association of America, to bring to your attention the concern of our membership. If I, or any of our membership, which includes all of the past Directors of Army Aviation, may be of assistance in this matter, please do not hesitate to ask. With sincere good wishes and success in your endeavors, I remain.

Sincerely, EDWARD L. NIELSEN Colonel, USA [Ret.] President, AAAA

[Ed Note: On the inside back cover - page 39 - you will find additional thoughts on this subject as presented by MG William J. Maddox, Jr. His letter of 29 March is guite pertinent to the foregoing.]

News Briefs

ARAB ACE IN THE 20-DAY WAR—"Reports from Washington indicate that the Israel Air Force lost a total of 105 aircraft and two helicopters during the recent combat. These figures are double those sustained during the Six-Day War, however, was that only 10% of Israeli aircraft losses were the result of air combat, the remaining 90% being attributable to enemy anti-aircraft fire. Whilst relatively few kills were registered by the older SA-2 and SA-3 anti-craft missile systems, the more modern SA-6 and SA-7 missile systems and the ZSU-23-4 mobile quadruple 23mm AA mount accounted for the majority of the Israeli losses, the new SA-6 "Gainful" having the greatest success.

Israeli Air Force losses attributed to the SA-6 were correspondingly high, and according to a Dutch UN observer, the Israelis lost about 30 aircraft in one day over Syria solely due to SA-6 fire. .

Special observation helicopters were used to spot missile launches and give adequate warning to the attacking aircraft."

-Int'l Defense Review, Dec 1973



Delivered.

In March, ahead of contract schedule, GE shipped the first XT700 engine for UTTAS. In advance of this milestone, six prototype engines had already accumulated more than 1800 factory test hours including highly abusive vibration tests with Boeing and Sikorsky installation hardware.

Soon UTTAS ground test vehicles will begin the extensive testing required to insure successful flight, scheduled for later this year.

The mating of T700 engines with UTTAS and AAH aircraft should proceed smoothly. Close coordination with all airframers has been underway since before the competitors were chosen... coordination that will help assure technical and operational success.

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



This Month

Senator Thurmond checks UTTAS program in visit to Boeing, Sikorsky and G.E.

In mid-February, Senator Strom Thurmond, the ranking minority member of the Senate Armed Services Committee, and members of the committee staff visited the Boeing Bertol Company, Sikorsky Aircraft Division, and the G.E. division in Vermont. A report of this inspection trip appeared in the March 20, 1974 "Congressional Record" and appears below:

Mr. STENNIS. Mr. President. I ask unanimous consent that there be printed in the "Record" a report to me, as chairman of the Armed Services Committee, from the ranking minority member. Senator THURMOND dated February 13. 1974. The report summarizes in a very brief and informative way certain weapons systems he observed during a visit to the plants which are producing these items. This report represents a firsthand observation of Senator THURMOND, and I know it will be of great interest to all members of the Senate.

REPORT OF SENATOR THURMOND'S FEB. 13 TRIP

Mr. Chairman, I am submitting herewith a report concerning my one-day orientation trip to Inspect Army, Navy, and Air Force programs at Philadelphia, Pennsylvania; Stratford, Conn.; and Burlington, Vt. During this visit I was briefed and inspected progress on the following programs: UTTAS, HLH, CH-53E, GE T-700 engine and the GAU-8/A 30 mm gun. The following are some of my observations concerning these programs:

Utility Tactical Transport Aircraft System [UTTAS]—On this trip I visited both contractors in the UTTAS competitive prototype competition, Boeing Vertol and Sikorsky Aircraft. Each company



STRATFORD, CONN. — Sen. Strom Thurmond, R-S.C. [fourth from the left] examines a main rotor head for Sikorsky Aircraft's UTTAS [Utility Taclical Transport Aircraft System] during a February 13 visit to the company's Stratford, Conn. plant. With Thurmond were [I. to r.] Gerald J. Tobias, Sikorsky Aircraft Division President; Edward B. Kenney, Staff Member, Senate Armed Services Committee; Kenneth E. Horsey, Sikorsky's Vice President for UTTAS; and Ray D. Leoni, Program Engineering Manager. [Sikorsky photo]

has been authorized three flying prototypes. First flight is scheduled for November of 1974 although both expect to get their No. 1 aircraft airborne sometime during September.

Helicopters, with their complex rotor, drive and flight control systems, require longer flight periods than fixed wing aircraft so 14 months of contractor tests and six months of user tests are planned. This aircraft will replace the HUEY and will be used essentially to transport personnel into combat landing zones. It will be able to carry a full squad of 11 men, thus enabling the Army to maintain the organizational integrity of the infantry squad. Presently, the HUEY is too small and underpowered for this job. Essentially, the two aircraft appear very similar although the Sikorsky helo is about five feet longer and employs a tail wheel as opposed to the Boeing nose wheel design. There are also differences in the rotor systems and blades. Boeing uses a fiberglass base structure in the blade whereas the Sikorsky helo depends on titanium for its structural integrity.

It appears that the intense competgition is resulting in an outstanding design and production work, plus real cost savings. Experience in recent years indicates that the relatively low cost hardware programs such as the UTTAS are best developed in the comnetitive profutive environment.

- 2. Heavy Lift Helicopter [HLH] This program began with development of critical components and last year, the Congress approved one prototype. In the current budget the Army is requesting a second prototype on the grounds it reduces the rpogram risk and shortens the development period. The HLH is a totally new helo, using the fly-by-wire guidance method and a tandem rotor. It is designed to left 22.5 tons under stringent ambient conditions and over 30 tons under normal conditions. This requirement is based on the new container configuration used by the Army and independent shippers. First flight is scheduled for August, 1975.
 - 3. CH-53E (Not an Army Program.)
- 4. General Electric Engine, T-700 This engine was selected in competition for use on both UTTAS prototypes and will also be used on the AAH (Attack Helicopter). It has four major advantages over present helicopter engines. Briefly, they are:
 - a. Lower fuel consumption.
- Use of a new type integral foreign object separator to keep the engine free of sand and dirt associated with takeoffs and landings.
- c. Lower maintainability due to access and engine construction. (A small set of wrenches are used for field maintenance.)
- d. Built-in design life three times greater than any other heliconter engine.

While this engine has met or exceeded requirements to date, it faces a critical milestone in order to be cleared for the first UTTAS flight tests in September of 1974.

5. GAU-8A 30mm Gun - (This is not an Army program.)

TOP AWARD—William C. Schneider, Director of NASA's Skylab Program and the three Skylab crews have been designated as the recipients of the Robert J. Collier Trophy for their individual accomplishments in making Skylab the outstanding aerospace event in 1973.





Let's keep in mind **Our Supportive Role**

HILE recently studying proposed changes to regulations, I focused on the mission of Army Aviation as described in AR 95-1 and thoughts crossed my mind which I want to share with you.

The mission of Army Aviation is, as our regulation tells us, "..... to contribute to the capability of the Army to conduct prompt and sustained combat." I think that the word, "contribute", is of singular importance in maintaining the proper philosophy and perspective behind our continuing aviation programs.

Following a major conflict, such as the one recently concluded, a period of administrative mending of wounds, reorganization, "spring cleaning," if you'll permit the phrase, traditionally ensues. At such a point in time, thinking within every branch of service turns extremely

parochial.

How are we faring? What changes must be made to improve infantry tactics or artillery doctrine? What must be developed in weapons systems to enhance the performance capabilities of our aerial platforms? The danger in such thinking is that it can exceed the bounds of propriety when we find ourselves engulfed in mental exercises trying to determine how we in artillery or Army Aviation, for example, can best defeat an enemy in a mid-intensity environment without benefit of a combined arms team.

The important aspect during this evo-

lutionary period in which we find ourselves, the "now" time frame when we are turning from Vietnam to new scenarios, is to retain a constant awareness that, as we discuss the employment of aviation assets, we must not lose sight of our "contributory" or supportive role. The Cobra-mounted TOW is only one part of the assets available to the ground commander. It's his ground tactical plan that we support: they are his troops whom we transport in our ships. Our 2.75" rockets can do only so much in neutralizing an enemy force and the UH-1 (or soon the UTTAS) will be only one of a number of

BY BG JAMES H. MERRYMAN DIRECTOR OF ARMY AVIATION. OACSFOR, DEPT. OF THE ARMY

vehicles to take the soldier to the forward edge of battle. We must retain our perspective of support to the ground soldier.

Should this concept ever be lost we face an accelerated mission eroding parochialism, probable eventual centralization of aviation assets, and a general deterioration of our mission effectiveness on the battlefield. The point to remember in this current period of transition from Vietnam to mid-intensity philosophy is that, as has been the case throughout our program's relatively brief history, we must focus our every thought and our every alteration of operational procedure on the maximization of Army Aviation's ability to support our ground combat elements.

We're all aware of this in theory; I mention it merely since I so often find that the most obvious of concepts are most often forgotten.

Flight Standardization Conference

Two conferences were recently held on flight standardization, Sixth U.S. Army's in Denver and FORSCOM's in Atlanta. At both, interest was shown in the proposed changes to AR 95-64, our revised regulation addressing individual flight records and flight certificates.

First, its status — By the time this issue goes to press I expect the regulation will have completed its staffing among the DA staff agencies and will have gone to press. The effective date of the regulation is 1 July 1974, and by that date I expect it to be in the field ready for implementation.

The major change in 95-64 is that it rescinds DA Form 759, Part I, and 759, Part II. In preparing a new 759, we've captured only essential items of information required for management of each Army Avi-



MG Warren K. Bennett, FORSCOM Chief of Staff; BG James H. Merryman, Director of Army Aviation; and COL Ray Pollard, AvnO, FORSCOM, are shown prior to the Feb. 20 FORSCOM Aviation Standardization Conference held at Hapeville, Ga. MG Bennett gave the keynote address prior to introducing BG Merryman. [SP5 F.J. Hennings]

STATIC DISPLAY

The tiny Persian Gulf shelkdom of Abu Dhabi is buying 18 French-built Mirage III interceptors on top of an earlier purchase of 14 Mirage V ground attack aircraft. The country has no qualified pilots or mechanics.

YES, SIR!

"All right, you there," cried the cop, "why didn't you stop when I shouted at you?" "I'm sorry," said the motorist. "I thought you said. 'Hello, Mayor!"

"That's right, your honor," said the cop. "I just wanted to warn you of the detour ahead."

ator. For example, we've eliminated the old distinction between reciprocating engines and turbo props in fixed wing aircraft, as well as references to single or tandem rotors in helicopters. Our primary interest, of couse, is simply to identify single or multi-engine pilot qualification.

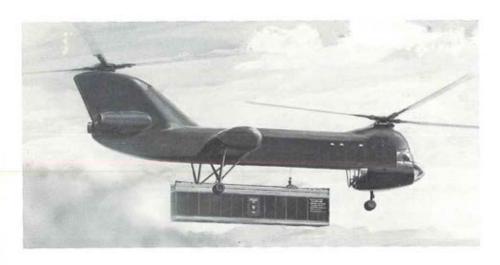
We've consolidated synthetic instrument trainer time to just one entry, discarding former references to "months" and "type" trainer entries. Additional changes fall into accrued time entries, wherein the total number of hours an aviator flies per month will be recorded. Responsibilities of unit commanders for flight record maintenance are also defined, as are the responsibilities of the Commander, USAAAVS and the Commander, Reserve Component Personnel Administration Center.

A final change addresses flight physicals. Under the new regulation only a copy of the current annual flight physical will be kept on file in an aviator's records folder.

Basically, what has been accompplished is a simplification in the process of recording information for an aviator's flight record. The revised AR will relieve many of the administrative burdens associated with the upkeep of 759s and 759-1s.

Having mentioned standardization conferences let me touch on one other matter. At these meetings, particularly during work group discussions, many items emerge which warrant consideration at higher levels of command and in

a LIFT for ARMY AVIATION



Sundstrand Aviation will feature its high technology components for US Army helicopters including the HLH pneumatic hoist drive system — at the AHS Annual Forum in Washington DC, May 7 thru 9.

Sundstrand Aviation Mechanical

ROCKFORD, ILLINOIS division of Sundstrand Corporation



the standardization chain. Though it certainly enhances our standardization program to surface problems at these conferences. I'm concerned that upon occasion some ideas of a given individual may not be addressed properly, developed fully, or perhaps may even "fall through the crack," so to speak.

I suggest that each of us interested in flight standardization submit his ideas formally on paper, so that good ideas may, in fact, receive the attention they deserve. When you feel strongly about a certain point or issue, let people know what changes you think may be made toward assisting you, the man in the cockpit, in achieving your goals.

Just off the press!

Colonel Max McCullar's USAAAVS recently published an excellent aviation safety pamphlet entitled Commander's Aviation Accident Prevention Plan Its purpose is to assist aviation unit commanders and safety supervisors in implementing an effective aircraft accident prevention program. It covers the responsibilities of the commander, the safety officer, and of aviation safety councils. It discusses safety meetings, suggests monthly accident prevention themes, and even tells how to submit hazard reports and FIRs.

It's an excellent product, in size almost identical with that of this magazine. It's handy, easy to carry, and an item which should be mandatory reading for every member of every command. If you have not received copies within your unit contact the Commander, USAAAVS, Fort Rucker, Alabama 36360, and he will provide the copies you need.

In lieu of a beer bust!

MAJ Charles A. "Tony" Robinson pens this note from Korea: "Please accept our \$100.00 donation to the Scholarship Foundation, I'm sorry it can't be bigger, but every little bit helps. Please credit the Morning Calm Chapter." - The Chapter has 107 current members.

Communications

A jazz musician attended church one day and after the service, complimented the minister.

"You really flipped me out, man," said the musician, "That was a groovy sermon,"

"I'm happy the sermon pleased you." the dignified pastor said, but could not resist adding, "I would appreciate it, though, if you could express your approval in less vulgar terms."

"Sorry, daddy," said the jazzman, "but that's just my way. I just want you to know that I dug your sermon so much I flipped a C-note into the money pot."

"Cool, man," said the minister,

Close Air Support

You may have heard by now of the Joint Chiefs of Staff Close Air Support (CAS) testing program. Since the Aviation Directorate represents the Army in this effort, it is appropriate to recap briefly what has been done to date and what we look toward in the future. In 1970. Congress asked the Defense Department to examine the methods of close air support provided by each service, the associated hardware, and to look for areas of improvement which could be made. In 1972, a Joint Study Task Force reported that there was a requirement for battlefield close air support to be provided both by fixed and rotary wing aircraft. However, the report also revealed that there were some uncertainties in CAS command and control, basing and logistics

To resolve these uncertainties, a JCS approved CAS test plan has been prepared by the Commander in Chief, U.S. Readiness Command. The first exercise to be used for CAS testing will be Exercise Brave Crew, to be conducted in June 1974, at Fort Hood, Texas.

The close air support command and control system of the Army and Air Force will be examined, including Army employment of attack helicopters. Additional exercises in which close air support will be studied are scheduled to be conducted both in Europe and the Pacific and will include all services.

Pioneering at CDEC

Next fall, a select group of Army Aviators from the Combat Developments Experimentation Command (CDEC), at Fort Ord, California, will have the opportunity to pioneer a new and exciting concept in night flying. Equipped with a unique, one-of-a-kind AH-1G that is being modified under the guidance of the Army Night Vision Laboratory, they will attempt to perform night antitank missions using passive infrared video as their sole reference to the outside world.

The pilot's system, known as the pilot's Night Vision System (PNVS), operates independent of the copilot/gunners System Observer Target Acquisition (OTAS). Pilots will use wide-angle black and white video to fly the aircraft during simulated engagements. The copilot/ gunner using similar video, but one with a narrower field of view and greater magnification, will detect, identify and simulate engagement of the targets. The CDEC test is a continuation of the Attack Helicopter Clear Night Defense Test (43.7), that was started in May 1971. Its basic purpose is to provide information necessary for development of Advanced Attack Helicopter (AAH) hardware.



MILESTONE PASSED

The Boeing Vertol Company passed a major Heavy Lift Helicopter [HLH] Program milestone in completing the testing of the HLH full-scale cargo handling system integrated test rig. Located at Boeing Center, the rig is used to verify physical and functional capabilities of the many HLH cargo handling system components. It's already tested 50-ton loads.

The big loudmouth at the office was bragging about being an expert on drinks. During lunch, a fellow executive slipped out and brought back a glass of colorless liquid.

"Okay," he told the braggart, "take a swill of this and see if you can tell us what it is."

The bigmouth took a sizeable swig, then sputtering and choking, he gasped, "That's gasoline!"

"Yeah, we know that," said the other fellow, "but is it premium or regular?"

Although we have tested and used various types of infrared equipment for years, we have never installed two systems on one aircraft. Of special significance is the fact that the OTAS/PNVS represents the latest state-of-the-art in night vision infrared equipment

It will provide a high quality video which has just recently become technically possible. Since the AAH will be equipped with devices that have similar characteristics, the results of the CDEC test will provide baseline data from which we will develop AAH night employment techniques.

The significance of the introduction of this equipment can be equated to the development of blind flying (IFR) aircraft instruments. If it proves successful, night vision equipment will open a new dimension for Army Aviation by providing us with a 24 hour nap-of-the-earth VFR capability. Army Aviation can then truly be counted as an around-the-clock member of the combined arms commander's tank killing team.

Fuel consumption and flying hours

Aviation fuel consumption by the Army for the first five months of FY 74 is down by nearly 30% compared to the same period in FY 73. Throughout the Army, the emphasis has been on flight procedures that save fuel and concentrate on flying to maintain readiness. By using the most economical aircraft and operating procedures, particularly adhering to fuel savings techniques outlined in your -10, you have achieved these fuel savings while reducing flying by only 18%.

The impact of reduced flying on aviation readiness has been minimized by continuous emphasis on the necessity of your maintaining the basic flying skills as individuals and the combat readiness of your aviation units. You have been accomplishing the training required to achieve and maintain skills such as NOE, night, and instrument flight.

We recently dispatched another fuel conservation message based on inputs received from the field which outlined additional procedures which should be included in fuel conservation programs. Fuel conservation measures should be incorporated in every phase of a mission from flight planning, preflight, hover or

taxi, and in-flight.

Fuel conservation measures will be discussed at forthcoming standardization conferences. We solicit any additional measures which have resulted in fuel savings and might be used by others. The goal is to conserve fuel with the minimum effect on aviation support and readiness.

Towards increased safety

In the April issue of "Army Aviation", I spoke of a study by Darwin Ricketson [USAAAVS] on pilot error as a cause of

Army helicopter accidents. That study found 96% of these accidents in CY 71-72 were caused by mistakes in *nine* basic flight skills. It was suggested these mistakes were caused by pilots being overloaded by out-of-tolerance conditions in the basic aviation system.

These results pose two further questions: First, what about pilot error in the years before and after CY 71-72; and second, what were the specific out-oftolerance conditions in our aviation

system?

The first question is answered in the results of a recent analysis reported by Mr. Ricketson (See Table 1). As you can see, the same nine factors that caused 96% of the CY 71-72 pilot error mishaps were just as prevalent before and after that time. Also, the proportion of pilots falling under each factor was about the same for each of the four periods analyzed indicating these nine problems areas are very persistent.

Concerning the second question, Mr. Ricketson's group is presently analyzing accident data that will pinpoint areas where the performance of our system can be improved and suggest measures for implementing the improvements. I plan to relay this information as soon as the

work is completed.

Table 1
Distribution of Helicopter Pilots Having Pilot-Error Mishaps Over
Types of Mistakes (Factors) by Calendar Year (CY)

		9	Proportion	of Pilots I	by CY (Percent)
	Factors	1969	1970	71-72	73 (Sep)
1	Disorientation	6.8	5.7	6.0	6.2
11	Overconfidence	9.1	11.0	7.9	8.9
III	Procedural Decisions	15.6	16.5	18.3	15.5
IV	Crew Coordination	10.0	7.7	10.2	8.9
V	Precise Multiple Control	17.1	23.8	20.2	18.9
VI	Limited Experience	9.7	7.7	8.4	10.0
VII	Task Oversaturation	10.6	4.8	7.6	9.3
VIII	Attention	11.5	14.3	12.5	11.7
IX	Other/Weather	8.8	4.7	5.1	3.8
	TOTAL	99.2	96.2	96.2	93.2



■ Frankfurt's Taunus Chapter is sponsoring a special tour to the Farnborough International Air Show, 2 through 8 September 1974.

The Farnborough International Air Show features a selection of the world's latest and most promising advances in civil and military aviation, space and missile technologies, and the products of the aerospace industries. Exhibitors from all over the world will participate in this unique exhibition of aerospace products.

Two specially-chartered Boeing 727's will fly the 300 participating USAREUR AAAA members from Frankfurt to London, where the group will be accomodated in a first class hotel for the week-long tour. The highlight of the week will include visits to the Air Show at Farnborough, approximately 30 miles southwest of London, where AAAA members will have the unique opportunity of inspecting static displays in the unhurried environment of non-public days.

Officially recognized by the Air Show organizers as a "special interest group".

the AAAA tour group will be able to view the flying display portion of the exhibition without having to "fight the general public" for a view.

In addition to the visits to the Air Show, tours have been planned to Windsor and Hampton Court Palace, Stratford-on-Avon (Shakespeare Country), and a full-day city tour of London.

This is the second international Air Show tour that the *Taunus Chapter* has sponsored. Last year, the Chapter toured the *Paris Air Show* as well as "Gay Paree" with over 100 Frankfurt area Army Aviators and their families.

An all-expense paid tour to the Farnborough Air Show, as well as other tour tickets will be given away in a drawing to be held during the chapter meeting in June.

This booking and payment deadline is July 15, 1974. For further information, reservations, and payment contact CPT Don Skipper, HHC, 3d AD, APO 09039, (2314) 7118 or CPT Mike Brandt, 503d Avn Co. APO 09093 (2314) 7246.



YEAR ago from the Aviation Directorate I wrote a spring column entitled "The Sap is Flowing".

This year, "The Pot is Boiling" is a more appropriate title because it's seething on

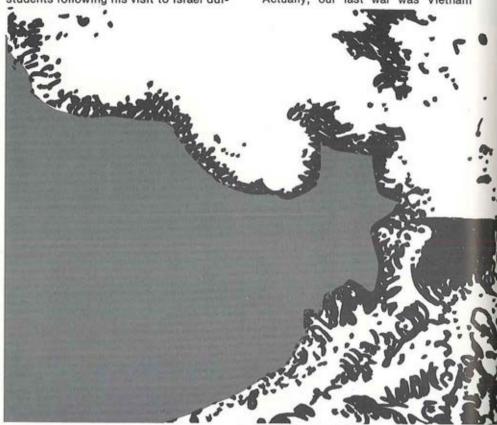
appropriate title because it's seething on training and capability problems generated by the October war in the Mideast.

Mr. Charles Black, the Sage of the Chattahoochee, in a recent article in the Columbus, Ga. "Enquirer", described a grilling that he took at the hands of the Command and General Staff College students following his visit to Israel dur-

ing the so-called Yom Kippur War.

He concluded by saying, "I think that the lesson for the day involved in this might be that the military mind, when faced with a problem of life or death, as about all of their problems really are when tracked to the final consideration, is really motivated towards being more flexible and responsive by the fact that it HAS to be. Sure they always study the last war — but it just happened in October".

Actually, our last war was Vietnam



MG WILLIAM J. MADDOX, JR. Commander, U.S. Army Aviation Center and Ft. Rucker, Alabama

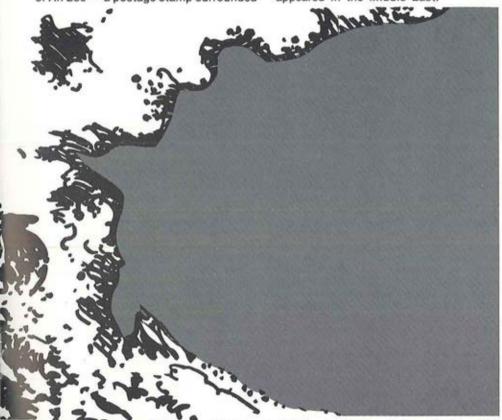
THE PO

which ended for us somewhat differently than it began in the early 1960's. The last year of the war began with the 1972 NVA offensive against the demilitarized zone. This was the period of greatest equipment sophistication. Not many of us flew in that kind of war.

Even the 1968 TET offensive was relatively unsophisticated, yet we formed our opinions on what it takes to win from the earlier days of the war. While airmobility accommodated to the special problems of An Loc — a postage stamp surrounded

by a knot of enemy air defenses — and of Hue — Quang Tri — a more linear conventional battlefield — most aviators are not acquainted with those lessons.

However, the whole aviation community has been shaken into thought by the experience of the Arabs and Israelis in the Golan Heights and along the Suez Canal. In fact, the whole Army, the Air Force, and the Navy, also, are studying the results with a view to adjusting tactics and equipment to the threat as it appeared in the Middle East.



TIS BOILING!

Study of the October war seems to validate the major curriculum changes already underway at Fort Rucker. If there is resistance to nap-of-the-earth (NOE) training (and there still appears to be at several areas of the Army), it is bound to lessen as people begin to understand the full impact of modern air defense weappons on aerial vehicles. (See a reprint of comments from the International Defense Review in this issue.)

From press reports, the Israelis were surprised at the Arab capability and their equipment for night fighting. This should come as no surprise to serious students of military affairs because the Warsaw Pact openly has stressed the doctrine of continuous day and night operations. When you couple sophisticated air defenses with a continuous offensive doctrine, you recognize that our aviators must learn not only to fight at night more effectively but also must learn to do this at low level.

The third major lesson which is a little more obscujre given the desert setting of the war is that aircraft must be prepared to perate on a continuous basis, rain or shine. This means that our people must feel at ease operating in and out of instrument conditions in the forward areas. Only if we do this well, will be depended upon as a full-time member of the Army combined arms team.

Rucker's response

The current program of instruction in the Initial Entry Flight Training Course has 65 hours of transition/tactics in the UH-1; 15 hours are devoted to night, and 15 to nap-of-the earth. We are examining alternatives to increase tactics to 85 to 95 hours. Night training will be at least doubled; NOE, up from six hours, may be increased beyond the present 15 hours. This appears to be a substantial dose of the right medicine; yet the changes will barely bring us into proper tactical balance.

The night training will give the aviator better confidence that he can operate

effectively at night without night vision aids but it will not give him an unaided low level capability. Also, it will only scratch the surface in tactical instrument flight. I had better explain tactical instrument flight because many people feel that the Stateside airways type of instrument flying we teach is adequate. This is only the first step.

Tactical instruments require landing to unimproved clearings through the use of back pack beacons set up by pathfinders. While normal stateside approaches are performed at 2-1/2 to 3° angles from the horizontal, a tactical approach may utilize a glide slope of 12 or even 15° to cope with trees, nearby hills, and other obstacles. The problems of moving into the window of the landing aid are considerably different than moving along the little blue lines on the CONUS omni-range charts.

Night low level training

Based on Combat Developments Experimentation Command [CDEC] tests early last year, the Aviation Center was given guidance to determine the Army's requirements for night training and to develop night training literature. To meet this responsibility. Fort Rucker sent four experienced helicopter aviators to Hunter-Liggett Military Reservation to receive night low level training from the CDEC Night Owls. Coordination was made with the other services and our allies to evaluate their night training programs. Unit training was scrutinized for flight technigues and problem areas. All available studies have been reviewed and referenced for future use.

Following additional night flights in the Fort Rucker training area during varying ambient light conditions at an absolute altitude of 200 feet, a draft outline will be developed into a manual. This will provide the world's most extensive night training program for the normal conduct of night helicopter operations. Once the training literature is completed, appropriate training courses can be engineered



and placed in the program of instruction. I consider that the Aviation Center *must* teach basic unaided night flight to produce the basic confidence and techniques prior to getting involved in sophisticated night vision devices.

"Required operational capability"

An accompanying effort is the proposed Required Operational Capability [ROC] document for night vision systems. This document was prepared here and has been transmitted to Department of the Army for approval. It calls for development of night vision systems for all Army aircraft for pilot and copilot/guner/observer functions. The systems should be based on a common mainframe with modules to be inserted for each functional requirement.

For example, there would be a wide field-of-view module for the pilot and an enhanced, high magnification imagery module for target acquisition. The modules in the form of black boxes would be placed on the shelf for project managers to select and integrate into particular air frames and aerial systems. We visualize

that the sensor systems will range from simple devices such as the AN/PVS-5 CAVNAV goggles to the more complicated forward looking infrared [FLIR] with cathode ray tube [CRT] displays.

Mapp consolidated their training requirement

into others, cutting many operational costs.

Plain everyday daylight training also is being examined. As you know, the Armor School has proponency for aerial scout doctrine, tactics, training literature, and hardware. It provides training and literature for aerial scout observers but not for scout aviators. While the Air Cavalry organization and function was one of the highpoints of the Vietnam war, the force structure and or preparation of aviators for cavalry duties are inadequate. The test edition of the Aerial Scout Handbook, TC 17-35-2, and Air Cavalry Battle Drill, Test Edition TC 17-37-I, should be available for distribution in the near future.

However, our product from the initial entry program is not trained to the point where he can participate in unit battle drill. Although the planned increase in in-

This is the combat experience that's helping



And that's what makes Sikorsky's UTTAS the

Our YUH-60A, the Utility Tactical Transport Aircraft System we're developing for the U.S. Army, is putting on muscle. And profiting every day from the combat experience of its brother copters.

But then, when you think of single main and tail rotor helicopters, you think of Sikorsky. Our technological experience and skills in this specialized field have proven beneficial to all branches of the Armed Services for the past 30 years. And that's the kind of training military people can appreciate.

The Sikorsky U.S. Army Flying Crane is a good

example. It proved its versatility time and time again in Southeast Asia. The H-53 series is another. This tough, dependable helicopter is in a class by itself. As an innovator in helicopter design and production, we have produced 16 different models at gross weights from 1,800 to 50,000 pounds. Our single main and tail rotor technology, in the laboratory and out on the flight line, is unequalled. And we have the ability to scale down proven systems and components, as we've demonstrated in the past.

So you see, the Sikorsky UTTAS will offer a

the mobile army take to the air.



one to watch.

dramatic improvement in performance, reliability and survivability over current utility helicopters. It will also be less costly to operate and maintain.

Let's get down to basics. Take performance. Our advanced rotor technology provides increased performance through features like elastomeric rotor head, titanium/fiberglass blades, alt-swept blade tips and canted tail rotor. We've designed our bird to be up to four times more reliable than current models. This is accomplished through such proven features as our Bifliar vibration absorber, the BIM® blade safeguard

system, fluidic Stability Augmentation System and solid state instruments. Other advantages you'd expect from Sikorsky are engineered in, like minimum maintenance, easy air transportability and enhanced landing and ground handling capability.

And with Sikorsky's single main rotor technological experience and engineering innovation, our UTTAS is fast acquiring the qualities it will need in real life. Which is what you'd expect from our kind of combat training.

Sikorsky Aircraft, Division of United Aircraft Corporation, Stratford, Conn. 06602.

Sikorsky Aircraft ---



itial entry NOE training should help, more attention must be given this area. The Aviation and Armor Schools, accordingly, will begin meeting shortly to develop the necessary recommendations

for improvement.

Last spring, the Army agreed to test and put on the shelf a man-portable Tactical Landing System designed for use in forward areas. It did this for two reasons despite its great need for such equipment. First, it was not compatible electronically with the new National Microwave Landing System which all services and the Department of Transportation have agreed to support. Second, the Tactical Landing System would not be available until approximately two years before the national system. Thus, it would soon be outdated.

While the Army does not intend to procure the system short of a new national emergency, the system in test quantities should be helpful in initiating the tactical instrument training program. Fort Rucker is considering this and other systems now available with a view to initiating tactical instrument training by this

autumn.

More NOE

To get a good handle on NOE, the Army Research Institute for Behavorial and Social Sciences met with me in Washington about a year ago. The result was a tasking letter to the Institute to initiate a study to (1) determine how efficiently pilots can navigate at NOE over unfamiliar terrain, (2) to determine the effects of flight experience level on performance, and (3) to determine whether additional training in terrain analysis utilizing visual aids will increase pilot flight effectiveness.

Fourteen aviators, varying in flight experience from 200 hours to 2,000 hours, were scheduled for evaluation. Those with 200 hours came from recent Fort Rucker graduates. Flights were conducted following a pre-mission briefing which consisted of a map analysis of the

route to be flown. UH-1 aircraft with no special instruments were utilized. Aircraft track was recorded by command and control aircraft with accuracy within 50 meters. Success of the flight was based upon whether the aviator found his assigned *initial point (IP)* and specified landing zones as well as remaining on course.

Preliminary results, based on flights by eight pilots of varying experience,

were:

 Mean probability of successful mission accomplishment (navigation) was .45.

 Probability of pilots finding the initial point and all landing zones was .77

and .69 respectively.

 Pilots given additional training in terrain analysis by map study found the IP more consistently and were off course less frequently.

 Pilots with greater flight experience performed less effectively than recent

graduates with NOE training.

Navigation needs improvement

Of particular significance is the fact that of 54 initial points to be identified at the start of the mission, finding 13 required instructor pilot assistance. Since the IPs were located while the pilot was flying at 800 to 900 feet, this difficulty at the start of the mission suggests that navigation capability at altitude also requires improvement. Assuming that the mission could not begin without finding the IP, 24% of the missions failed before they actually began.

Tentative conclusions from this limited sample were that pilots who had not received systematic NOE training cannot perform as well as those who have had that training regardless of the number of flight hours. Further, NOE training given as part of the undergraduate training is not sufficient for proficiency in this type of flying. Obviously, more map study and terrain analysis training is necessary.

Based on the Fort Rucker recommendation, TRADOC has approved an exten-



sion of the study and an increase of aviators to be evaluated from 14 to 28. Further studies will be complete by 1 September with final results available in mid-October.

Vietnamese Training

The second wave of the Vietnamese program is in full swing. It began 1 November and will conclude by 30 June 1975. During this period, 432 Vietnamese Air Force junior officers and aviation cadets will be trained in a 36-week training period consisting of a total of 225 hours per aviator. The majority of the flight training will be conducted by civilian contract with the exception of a final six weeks phase of tactical instruction which will be handled by regular military instructor pilots.

Students arrive each two weeks from the Defense Language Institute in lots of 18. Shell Field, one of our four basefields, is being utilized for the training, and Skelly Field, west of Enterprise, is being reactivated to accommodate the latter phase of instruction.

Based on suggestions made by Major General Jim Smith, Army Readiness Region V at Fort Sheridan last December, Fort Rucker developed and hosted a semMARINES IN ATC — Three U.S. Marines from Cherry Point, N.C. graduated in late February from the Radar Approach Control Course at USAAVNS. They are, I-r, GSGT Dennis J Beauchamp, SSGT Robert B. Madison, and CPL Mark H. Amand. Seven instructors set up the complex similar to the Cherry Point radar facility. Three are shown, I-r, standing, Maynard Cox, Dirl Tindell, and James Hunter. [USA ph]

inar for Readiness Region aviation advisors in early March. The purpose was to update the advisors on aviation training and developments. A total of 109 personnel attended, representing the National Guard Bureau, the Chief of Army Reserve, local Class II activities, the U.S. Army Forces Command, and the Readiness Regions.

One of the main subjects reviewed was a Rucker-developed plan to host an aviation company during its two week active duty period. The company would be field stripped, cleaned and oiled, reassembled, and put into operation. This would be done by extensive standardization rides and individual training during the first week, followed by field exercises where the company would be employed as a unit. I have proposed to FORSCOM that we try the same medicine on active duty aviation company. The results should be good, both for the company and for Fort Rucker.

On Guard!

HE end of 1973 saw the ARNG Aviation Program at its highest level of strength in history. The Program has grown from 891 aircraft and 1.640 aviators in FY70 to 2.154 aircraft and 3.917 aviators as of 31 Dec. 1973. The aircraft assets have changed from H-23's. OH-13's, and H-34's to first line turbinedriven aircraft, including the AH-1G.

The transition to the first line aircraft is being accomplished within a flying hour program which exceeds 292,000 hours in FY74. Training, to include instrument and weapons qualification, is continuing with over 60% of the ARNG aviators instrument qualified. No small accomplishment since only 38% were so qualified at the start of FY74.

In addition to the 3.917 aviators in the program, there are over 1,800 enlisted crew and non-crewmembers on flight sta-

tus.

The aircraft inventory includes 141 fixed wing and 2.013 rotary wing aircraft. Three Mohawk units located in Georgia (2) and Oregon (1) spearhead the fixed wing fleet. The balance of the fixed wing aircraft are command and control or utility types. With over 1,030 in the States. the UH-1 is by far the backbone of the rotary wing fleet which includes OH-6's, OH-58's, CH-47's, and CH-54's.

The aircraft are assigned to one of the 270 ARNG units authorized aviation. Seventy-five of the units have ten or more aircraft assigned. This enormous mission of placing these aircraft in the appropriate units and ferrying the older aircraft to Davis-Monthan AFB required

Aviation program at highest level

BY LTC CHARLES R. JONES CHIEF, ARNG AVIATION DIVISION over 2.500 aircraft transactions. Each individual involved in this undertaking is hereby congratulated.

ALC Anniversary

The ARNG Aviation Logistics Center (ALC) is beginning its second year and would like to express their appreciation to all for the cooperation that has been shown. The theme for the first year was "Supply, Foundation of a Solid Maintenance Program."

The initiation of an Aviation Direct Exchange Program, the reduction of the NORS rate, and the direct assistance to resolve unusual aviation supply problems during the ALC's first year have resulted in increasing the operational readiness of

the ARNG aircraft inventory.

The theme for the second year is "Maintenance, Foundation for a Solid Training Program." While continuing to improve aviation supply procedures greater emphasis will be placed on assistance to the Maintenance Managing Program. Of critical importance is the methodology to utilize all potentially available maintenance man hours. This program will require the epitome of management at all maintenance levels to prevent deferred and delayed maintenance from reaching unmanageable proportions.

CONUS Conferences

ARNG aviators and NGB have participated in several excellent Standardization and Safety Conferences in the past few weeks, including the DA Standardization Conference, the FORSCOM Standardization Conference, and the First, Fifth, and the Sixth Army Standardization and Training Conferences.

Fifth Army ARNG aviators should be making plans to attend the Fifth Army Area Army Aviation Conference in San Antonio on 23 - 25 May 1974. Thanks go to CW4 Henry S. Luchner, IP and AAAA.

Question: That's a grease monkey? Yes.. and she's a pretty Nebraska-APNG redheaded one at that.

ACK up one more "first" for the women in the Army National Guard and the active Army as well: the first female to attend the aviation maintenance course at the U.S. Army Aviation Center, Ft. Rucker, Ala.

The welcome trail-blazer is red-haired, grey-eyed, 5'2" PVT Linda Plock of the

Nebraska ARNG.

Holding her own in an otherwise allmale environment, the pretty 24-year-old Guardswoman was allowed 97 hours to complete the first part of a self-paced course, and did it in 65, which is average, according to a press release from the Center. Then, she could take up to 255 hours for the second half, dealing with maintenance of the UH-1 "Huey" helicopter. She graduated with a 98%-plus average and 19 hours ahead of schedule.

Holding degrees in liberal arts, anthropology and geology, Linda says she intends to continue botany and Oriental studies upon return to her unit. She could have applied for a commission, but explains she always has liked mechanics, and "I wanted this job". But later on, she says, she wants to go to flight school. She had a year in Army ROTC, and eight years in the Civil Air Patrol as ground team leader and aircraft observer.

ON GUARD!

Chapter President from Davenport, Iowa who recently distributed information on the Conference to the States. The Conference will be held in conjunction with the Fifth Army Area AAAA Regional Meeting. (See details in this issue.)

An "ATTA BOY!" goes to the crews of the WA-ARNG who assisted in the disaster relief operations in Klickitat County,

WA.

Tping is easy, onec ouy get the namgi of iti?



RECLAMMA

Dear Editor:

First, may I commend you on the jam-packed magazine that you present in a handy, attractive format. The smaller size should be especially attractive to "green suit" aviators in that it can be stowed in their flight suit pockets, thereby giving you a lot of "air time" as well as readership mileage.

I was a bit disappointed, however, when you failed to mention in your January 1974 issue on pages 27 and 43 that the Army's first woman helicopter mechanic was and is an Army National

Guardswoman.

Just felt that I had to call this oversight to your attention, especially in light of the "One Army" and "Total Force" approach in vogue.

LUTHER L. WALKER Associate Editor

Dear Editor:

We need to reclamma the photo/squib on PFC Linda Plock. She's a member of the 24th Med Co [Air Amb], Nebraska-ARNG, a unit that has won AAAA's "Outstanding Reserve Component Aviation Unit Award." . . Then too, she was an honor graduate at USAAVNS [and has a B.A. degree from the Univ. of Nebraska as well].

This is an outstanding young woman who has made all of us in the Nebraska ARNG proud. She will continue in the Guard here at Lincoln, and will continue her college studies in Botany and Oriental Studies as well. Please give her the full pat on the back she merits.

JAMES L. SWEETMAN MAJ IN, NR ARNG Commander

(Ed. Note: Be at peace . . The full pat on the back appeared in "The National Guardsman" and we have reprinted it here in its entirety. The release from USAAVNS didn't give us many ARNG details)

PFC's Michael Sadler and Robert Montedonico are shown with the "field wheels" now being tested.



HEN a helicopter is flying, it can be swift and graceful as any bird. But put a helicopter on the ground and it becomes little more than a sitting duck, unable to move and hide under a tree or other cover. That's the problem currently being considered by testers at MASSTER [Modern Army Selected Systems Test, Evaluation and Review] at

West Ft. Hood - How do you move a helicopter when it's on the ground with the engine shut off??

Camouflage experts at MASSTER recognized a problem early when they were testing different materials to camouflage the distinctive shape of a helicopter. No matter what was tried, a camouflaged helicopter still looked like a helicopter. especially since it couldn't be moved under trees or other natural concealment.

"Of course, there are several methods now being used to move helicopters on the ground," said Captain Preston Forsythe, the test officer, "but all of the methods are for use on hard, smooth around. They're not designed to carry heavy helicopters over unimproved.

rough terrain.

On future battlefields in a mid-intensity conflict, helicopters may have to be refueled, rearmed, and repaired under combat situations in forward areas. Such a situation is different than action in the Vietnam conflict where helicopters usually operated from an improved landing zone at a protected basecamp.

This MASSTER test, then, is designed to evaluate six different helicopter ground movement systems and examine the mechanical capabilities, the repair requirements, and safety and human factors involved in operating each system. Also, the mobility and transportability of each device will be studied to determine how each can be moved to field sites where helicopters would be landing.

"All of the ground movement systems and devices we'll be looking at are prototype items - the only ones of their kind." Capt. Forsythe explained. So we don't have any idea what they can or cannot do when pulling or carrying a 9,500-

lb. helicopter."

Because of the unknown abilities of the different systems, the test will be conducted using unserviceable helicopter hulks that cannot be repaired. "This way, if the helicopter hulks are damaged by any of the experimental systems, nothing is lost and we can gain a lot of information about the equipment being used." he continued.

The systems involved in the test include field wheels, a helicopter transporter, an air cushion field dolly, power ground-handling wheels, a rough terrain system, and a ground-handling wheeladapter bar.

The field wheels are basically a series of 15-inch-wide tires equipped with either a manual or an electric hydraulic system. The wheels are attached to the helicopter's skids and the hydraulic system allows the helicopter to be lifted high enough to clear rocks and other small obstacles. A tow bar is then attached to the device and a group of men, a jeep, a truck, or other vehicle can pull the helicopter wherever it needs to go.

Battery-powered track

Another new piece of equipment, the helicopter transporter, is a battery-powered tracked vehicle that is less than two feet high. It is equipped with a winch and two metal roller conveyors that line up with a helicopter's skids. When the transporter is placed in front of the helicopter, the winch is used to pull the helicopter on the roller conveyors and onto the top of the transporter. The transporter can then be maneuvered by one operator.

A third device, the air cushion field dolly, is similar in principle to commercial hover boats that skim across the water on a cushion of air. The field dolly can work either on water or on land and consists of a 20-foot platform with two separate engines and fans that make the platform hover.

The air cushion field dolly can carry up to 10,000 pounds, but it has no means of propulsion and has to be pushed or towed to move across the ground. The power ground-handling wheels are also a series of wheels that are attached to a helicopter's skids. However, each set of wheels has a gasoline engine that propels the system. The wheels are then directed by a cable hook-up that one operator controls.

Another new item, the rough terrain system, also uses tracked units that look



PVT Dale Cole and Helicopter Transporter

like miniature tanks. A hydraulic lift system is used to place the helicopter onto the carrying tracks — one on each side of the helicopter — and a third wheel in front of the helicopter balances the entire system. According to test officials, the device is also self-powered with gasoline engines and can be driven into a sheltered position once attached to the helicopter.

The final system under study, the ground-handling wheel-adapter bar, is only for use with the OH-58 observation helicopter. Basically, the system is the standard ground-handling wheels that are used on the large UH-1 "Huey." However, when they are placed on the OH-58, they provide increased clearance and more flotation than the standard OH-58 wheels. The wheels are attached to the helicopter's skids on each side and tow bar is attached in front, so a vehicle can pull the helicopter wherever necessary.

Helicopter crewchiefs from the 1st Battalion, 9th Air Cavalry, of the 1st Cavalry Division, are assisting with the test and working with each of the six systems

After test officials at MASSTER determine which of the six systems can move helicopters safely, reliably, and effectively, the systems will undergo further testing and evaluation in day-to-day activity with the battalion. The end result may be that Army helicopters in the future may be able to scoot effectively on the ground when they're not sweeping through the air.

Plan to attend the 23-25 May 1974 Army Aviation Training Conference and Fifth Army Area Regional AAAA Meeting Palacio del Rio Hotel, San Antonio, Texas



TENTATIVE PROFESSIONAL-SOCIAL PROGRAM - SUBJECT TO CHANGE

THURSDAY, 23 MAY 1974

1200-1900 Registration.....Conference Committee
1300-1900 Sightseeing in San Antonio; visiting the
several industry exhibits in the conference hotel.
1400-1700 Meeting of AAAA National Executive
Board and Regional Executive Board.....Mr. Kesten
1900-2100 Get Acquainted Reception..Committee
2000-2200 Dinner along the San Antonio River
at a restaurant of your choice. The evening is open.

FRIDAY, 24 MAY 1974 Professional Program: "Army Aviation in the Field"

0800-0805	Welcome	COL Dibrell
0805-0820	Keynote Address	LTG Seneff
0820-0845 The impac unit training	t of this type of warfaring and hardware	e on individual and BG Merryman
0845-0905	The lessons learne	d in the Yom Kip-
0905-0930	Aircraft Survivabilit	y in a Mid-Intensity
	Panel Discussion or BG Me	
1000-1020	Program Break	All attendees
	The employment of VarMG S	
1040-1100	The employment of sity WarMG	Aerial Artillery in a
1100-1130 Training P	Development of a rogramMG Made	
1130-1300 tonio Rive	Break — Luncheon r; wives welcomeR	
1300-1345 ingM0	The Active Army's Shoemaker (1st Cav	
1345-1405 Earth Tra	Canada's Approad	

1405-1435 Reserve Component training in the 70's.....MG J. Smith & ARNG/USAR Representative 1435-1500 Panel Discussion on Training in the active Army, ARNG, and USAR...MG Smith, Moderator. Program Break.....All attendees 1500-1515 Update on Hardware Development 1515-1545 (AAH, UTTAS, HLH, Cobra-TOW, and advanced developments)......Project Manager, AVSCOM 1545-1615 Update on Testing....MASSTER, CDEC 1615-1645 Aviation Maintenance: Now and in the Future...BG Mackmull, AVSCOM 1645-1715 Panel Discussion and Summary on Hardware Development..BG Merryman, Moderator 1715-1730 Concluding Remarks.....LTG Seneff 1900-2000 Reception......Conference Committee Fifth Army AAAA Regional Awards 2000-2200 Dinner; presentations to the Regional "Aviator of the Year", "Aviation Soldier of the Year", "Outstanding [Active Army] Unit of the Year", and "Outstanding [Reserve Component] Unit of the Year."

SATURDAY, 25 MAY 1974

0900-1000	General	Membership	Meeting.	Fifth
Army AAA	A Region		COL D	ibrell
1000-1200	National	Guard attend	dees meet	with
NGB Repr	esentative	sMG	Greenlief,	NGB
1000-1200	USAR at	tendees meet	with Repr	esen-
tatives from	n OCAR	MG	Roberts, (DCAR
1000-1200	Latest P	ersonnel Deve	lopments	n the
Active Arm	y	MG Put	nam, ODC	SPER
1000-1200	Final bus	siness meeting	AAAA Na	tional
Executive	Board		COL N	elsen

NOTE: Wives are encouraged to participate in the Friday tour of San Antonio and luncheon. Saturday afternoon and evening is open for a (charter bus tour) and visit to Mexico with return on Sunday.



For additional information, write to: Fifth Army Area Region - AAAA P.O. Box 8631, Wainwright Station San Antonio, Texas 78208 or contact your Chapter Secretary.



THE PUSH FOR PARTICIPATION

THE ARMY AVIATION ASS'N (AAAA) IS ENDEAVORING TO SECURE CONGRESSIONAL AND DOD APPROVAL FOR THE BEST DOD PERSONNEL TO COMPETE IN THE 1976 WORLD HELICOPTER CHAMPIONSHIPS.

Colonel Edward L. Nielsen President, Army Aviation Association 1 Crestwood Road Westport, Connecticut 06880

Dear Colonel Nielsen:

Thank you very much for your letter of recent date regarding the World Helicopter Championships. I regret the delay in responding. but I was in Korea last month and have spent considerable time in writing a report on my trip. Also, the three subcommittees of the House Armed Services Committee of which I am a member have been very busy for the past few weeks.

I certainly agree with you that the United States. - the world's largest manufacturer and user of helicopters. - should make the very best showing possible in the international competition in 1975. I have written to the Secretary of Defense and suggested that - energy crisis permitting - we enter the competition in full force and with the determination to gain due recognition of our helicopter expertise.

I am also very interested in your suggestion that the Department sponsor a special competition during the summer of 1976 in in conjunction with our bicentennial celebration. I look forward to working with Mr. Ralph Alex in the preparation of legislation for this purpose.

With kindest regards, I am

Sincerely yours, WILLIAM L. DICKINSON 2nd District, Alabama

Honorable Strom Thurmond United States Senate Washington, D.C. 20510

Dear Senator Thurmond:

This is in further reply to your letter concerning DOD participation in the World Helicopter Championships and a special competition in conjunction with the forthcoming Bicentennial Celebration.

The DOD Interservice Sports Committee Secretariat has evaluated Colonel Nielsen's AAAA recommendations. The Committee concluded that U.S. military participation is feasible, provided the Armed Services are able to allocate the personnel, time, resources and petroleum necessary to train for participation in this relatively new sport.

A similar competition, called Aeronautical Pentathlon, which is designed to test the skills of jet pilots, is included on the annual 22event calendar of the International Military Sports Council. That event, for which the U.S. Armed Forces have never entered a team, includes competition in low altitude navigation, simulated air-toground attack, and timed arrival. These are similar to the events in the helicopter championship. Although we have no experience in

training teams for participating in or hosting these type events, it would be relatively easy to devise a system for selecting the best crews.

The Services, however, must make the basic decision to participate. To assist them in their deliberations, we would suggest that the AAAA provide each military department a set of the official regulations governing this competition, specifications for construction of prescribed courses, cost estimates on course construction, and other available information on this sport and its participation growth rate throughout the world.

With regard to Colonel Nielsen's proposal that you introduce a Joint Resolution calling upon the Defense Department to sponsor a special competition in conjunction with our nation's Bicentennial Celebration, we recommend that you defer action until the Services have made a decision on participating in the World Heliconter Championships. When this decision is made, we will notify you further.

> Sincerely, J.P. KINGSTON Brigadier General, GS Deputy Chief of Legislative Liaison ...

Dear Colonel Nielsen:

The invitation of the Army Aviation Ass'n of America (AAAA) to hold a 1976 World Helicopter Competition in the U.S. was presented to the International Helicopter Commission of the FAI on February 18 in Paris.

The acceptance of this officer by the Helicopter Commission was deferred until June 5 when a special meeting is scheduled to resolve the following actions germane to this matter:

- 1. The French offer to hold the next competition (1975) at Dax in Southern France was regretfully withdrawn due to the energy crisis and the severe flying hour curtailment for the French helicopter fleet.
- 2. Austria has decided not to make a counter offer to hold the 1975 Championships in deference to the French. As Austria was not present at this meeting, it was decided to ask Austria to reconsider its position in view of the French withdrawal at an FAI meeting in Austria the week of March 4.
- 3. A letter will be sent to all participating National Aero Clubs advising them of the U.S. offer for 1976 and either a yes or no from Austria for 1975. The member clubs will also be polled to determine the number of participants that intend to compete in the 1976 championship, if held.

I respectfully request your indulgence and patience to delay seeking DOD, Joint Congressional, and Bicentennial Committee approval and endorsement until my return from the June 5 CIG FAI special meeting in Paris.

With kindest personal regards.

RALPH P. ALEX

President, Int'l Helicopter Commission (CIG) Federation Aeronautique Internationale (FAI)

PCS - Changes of Address

GENERALS

BRADY, Morris J., 8G 605 Scott Ft Leavenworth KS 66027

COLONELS

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TURN-IN—Pilots and crews from the 180th Avn Co (ASH) "Big Windy", stationed at Schwaebisch Hall, Germany, are in the process of retiring their CH-47A model fleet, and USAREUR's first and oldest Chinooks "arrive" at Bremerhaven (photo above) for their return trip to the U.S. The first of the "C" model Chinooks were due incountry during March.

The CH-47A's arrived in Germany during July, 1970, to make "Big Windy" (then the 4th Avn Co) the first Chinook company in Germany. The 4th was operating CH-37 Mohaves at the time, and was stationed at Nellingen, near Stuttgart.

DOWN!—John K. Tabor, an Under Secretary of Commerce, said the U.S. trimmed its trade delicit with Japan in 1973 by almost \$3 billion to \$1.3 billion. More U.S. jobs, less SONY, no baloney. PURKS, Stuart K. HHC. 8th Inf Div G-3 Opns APO New York 09111 RAINES, Austin M. 399 Westover Circle Hamilton AFB CA 94934 SHABRAM, Robert M. 309 South 14th Street Hot Springs SD 57747 THACKER, James H. Hos. V Corps. AETVAN (Avri) APO New York 09079 THOMAS, Gerald E. 110-B Charlton Street APO San Francisco 96557 THOMAS, James R. 3381 Shirehill Lane Columbus GA 31904 VENTI, George W., Jr. 6901 Cinnamon Loop Columbus GA 31904 WEBSTER, Robert L. 74 Endl Ft Rucker AL 36360 WHITWORTH, David C. 2541 Edge-O-Lake Drive Nashville TN 37217 WOLF, Thomas R. 3104 Cypress Drive Muncie IN 47302

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News Briefs

SOLID SUPPORTER—MG Francis S. Greenlief announced in February that he is resigning as Chief, National Guard Bureau, effective 1 July. Personal reasons were assigned for the relinquishment of the post a year ahead of his tour's normal expiration, and less than a month short of his 53d birthday. General Greenlief was appointed Asst Chief, Army (NGB) and got his first star in '62; became Deputy Chief in '63, received his second star two years later, and was



GREENLIEF

named the Chief in 1971. He earned his Army Aviator wings in 1971. (Extract, National Guardsman, Mar 1974)

(Ed. Note: General Greenlief has been a "working" member of AAAA's National Executive Board since 1970, and has been instrumental in developing the Association's Reserve Component Awards and heightened interest in ARNG Chapter activities.)

Two Hats!

Did you know that BG Robert M. Leich, Chairman of AAAA's National Awards Committee, is a baseball magnate on the side? The commander of the Indiana Guard Reserve is a rabid baseball fan and recently joined the ten-member Board of Directors of the Evansville Triplets, A Triple-A ball club. Active in many local organizations, the Ilkable AAAA Past President has been the Civilian Aide to the Secretary of the Army foir Indiana.

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APO New York 09133



ITS TIME AGAIN

Annual CW4 Reunion!

AT FORT RUCKER, ALABAMA

Two big days of fun! . . 15 and 16 June . . Make plans now!! . . More into to follow . . For into, call: CW4 Kelley (Ft. Rucker), 558-2918,6114; CW4 Ferranti, 3701; CW4 Gagnon, 3818 or 2690; or CW4 Henry, 5605 . . . Two big days of fun!

Classified Advertisements

HELICOPTER PRIMARY & INSTRUMENT FLIGHT INSTRUCTORS WANTED. Must have 250 hours of R/W instructing time to train Army pilots. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin. Doss Aviation, Inc.; Box 725; Fort Rucker, Ala. 36360. Phone (205) 255-6556.

REQUIREMENTS FOR THREE PILOTS-HELICOPTER. Federal Aviation Administration (FAA) Commercial Pilot Airplane, Single and Multi-Engine Land, Rotor Aircraft-Helicopter, Instrument, Certified Flight Instructor (CFI) desirable, Class II medical. Education: BS technical desired; BS non-technical major acceptable or equivalent. Experience; 1,500 hours total pilot time: 1,000 hours pilot helicopter. Some maintenance test experience required. Off-site assignment and travel required. Please write to: Boeing Vertol Company; ATTN: Mr. Renard; P.O. Box 16858; Philadelphia PA 19142.

WANTED, Contact with COL Harry L. Bush, or any member of the 1965 "Bush Board" Research Project 7234. Bell AH-1G. Write to: American Aviation Historical Society; ATTN: James D. Sprinkle; 8516 E. 11th St.; Tulsa OK 74112.

Angel Derby

FORT LAUDERDALE-The energy crisis apparently behind us, a record field of entries mark the "1974 Angel Derby", the All Women's Interna-tional Air Race, to be held April 25. Some \$7,000 plus trophies will be awarded to the top six finalists who'll make the 2,458 statute mile flight from Acapulco to Ft. Lauderdale. Intermediate stops include Uruapan. San Luis Potosi, Monterry, McAllen and Austin (TX), Shreveport, Meridian, Tallahassee, and Vero Beach. Ex-AA LTC "Bob"Rawls is Executive Manager at Ft. Lauderdale's Executive Airport, the end of the line.

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MEMORY LANE-It was time for nostalgia and memories of many aviation "greats" when Sergel Sikorsky [2d from right], aviation executive and son of Igor Sikorsky, spoke to the assembled members of the David E. Condon [Fort Eustis] Chapter of AAAA and their wives. Among his hosts at the dinner meeting were, I. to r., COL William L. McKeown, outgoing President; COL Paul F. Anderson, incoming President; and MG Jack C. Fuson, Fort Eustis Commander. [USAP/PFC Francine Hall]

Campbell AAAA Chapter Renamed

The "Airmobile Chapter" - That's the ne w name for the Ft. Campbell, Ky., AAAA chapter. The switch came during a meeting of about 150 members on Feb. 13 at the Ft. Campbell OOM. A presentation by LTC "Bud" Patnode, AVSCOM, highlighted the late afternoon Quad-A professional-business meeting. Patnode briefed the attendees on the general and technical aspects of the future "APC of the Sky". He indicated that the reviewed process would be extremely thorough, insuring Army purchase of the best helicopter for the least money.

AAAA Activities 🗆 🗆 🗆

REGIONAL AND CHAPTER ACTIVITIES **DURING MARCH-JUNE, 1974**

The March, 1974 issue covered the following AAAA Chapter meetings/actions:

MARCH 1. Embry-Riddle Chapter Professional Meeting: Connecticut Chapter balloting: Lindbergh Chapter Turbo-Train Outing/Ride.

MARCH 2. Schwaebisch Hall Chapter Professional-Social Dinner Meeting, MARCH 8: Morning Calm Chapter balloting. MARCH 9: Monterey Bay Chapter balloting; Golden Gate Chapter reactiva-

tion Meeting/Dinner-Dance.

MARCH 16: Cleveland Area Business Meeting. Latin American Chapter Professional Meeting. MARCH 18: Monterey Bay Chapter balloting. MARCH 19: Lindbergh Chapter balloting, MARCH 23: Monterey Bay Chapter Installation Social.

MARCH 25: Army Aviation Center Chapter balloting. MARCH 26: Leavenworth Area Business Meeting; Greater Chicago Area Chapter Professional Meeting. MARCH 27: Army Aviation Center Chapter Business Luncheon. MARCH 28: Air Cavalry Chapter Professional Luncheon.

Many additional Quad-A meetings were held in March and information on these meetings was not received in time for publication in the March, 1974 issue. They are as follows:

MARCH 17. Morning Calm Chapter Brunch and 1974 Officer Installation. Eighth U.S. Army Offi-

cers' Club.

MARCH 19. Delaware Valley Chapter Professional Dinner Meeting. Captain D.L. Hughes, C.O., Pensacola NAS, guest speaker. Media Townhouse. Mt. Rainier Chapter late afternoon general election meeting, discussion of '74 Chapter plans. FLOOM.

MARCH 21. Southern California Dinner Meeting. MG William J. Maddox, Jr., CDR, USAAVNC, as guest speaker. Airport Marina Hotel, Plaza del Rey.

MARCH 26. Monmouth Chapter Professional Luncheon Meeting. Ralph P. Alex, Sikorsky Aircraft, guest speaker. Rosie O'Grady's - Greater Chicago Area Chapter after-dinner professional meeting. VFW Hall - Airmobile [Ft. Campbell] Chapter Professional Meeting. John Nafix, FAA Regional Administrator, guest speaker. O-Club.

MARCH 29. Aloha Chapter. Officer Installation-

Finger Buffet. SBOOM.

MARCH 30. Mississippi Valley [Davenport, Iowa] Chapter Professional Dinner Meeting. Officer Installation/slide-film presentation. Ramada Inn.

APRIL 3. David E. Condon [Ft. Eustis] Chapter Professional Luncheon Meeting. HLH Presentation by COL Paul F. Anderson and LTC William L. Welter. FEOOM - Midnight Sun [Ft. Richardson] Chapter Professional Luncheon Meeting. Mr. J.L. Lee, guest speaker. O-Club.

APRIL 5.. Embry-Riddle [Daytona Beach] Chap-

ter Spring Dinner-Dance. BG James M. Leslie, Dep CDR, USAAVNC, guest speaker. Holiday Inn.

APRIL 6. Fort Hood Chapter Annual Spring Ball. BG James H. Merryman, Director of Army Aviation.

guest speaker. FHOOM.

APRIL 10. Fort Benning Chapter Professional-Social Dinner Meeting, Ralph P. Alex, Sikorsky Aircraft Division, guest speaker. Flight Standards Building — Fort Monroe Chapter Professional Luncheon Meeting. John McMinn, Boeing Vertol Company, guest speaker. O-Club.

APRIL 11. Air Cavalry [Fort Knox] Chapter Profsional Luncheon Meeting. Ralph P. Alex, Sikorsky Aircraft Division, guest speaker. Brick Mess.

APRIL 17. Fort Sill Chapter Professional Luncheon Meeting. Ralph P. Alex, Sikorsky Aircraft

Division, guest speaker, FSOOM.

APRIL 18. Bonn Area Chapter Professional Dinner Meeting. Ministerialrat Christian Tilenius as guest speaker. American Embassy Club - Washington, D.C. Chapter Professional Luncheon Meeting. BG James H. Merryman, guest speaker. Fort Myer Officers' Open Mess — Richard H. Bitter Installation Dinner. Del Mar Tech Cafeteria.

MAY 23-25. Army Aviation Training Conference and Fifth Army Area Regional AAAA Meetging. Palacio del Rio Hotel, San Antonio. [See page 28.] National Executive Board Meeting, Palacio del

Rio Hotel, San Antonio, Texas.

JUNE 6. 1974 Army Aviation Hall of Fame Induction Banquet. By invitation only. Ft. Rucker, Ala. OCTOBER 17-19. Seventeenth AAAA National

Convention. Shoreham-Americana and Sheraton-Park Hotels, Washington, D.C.

12 Women lead 20-Member 8-Day AAAA tour of Russia

Some 20 Quad-A members and/or their wives departed Bradley Int'l Field, Hartford, CT, on Feb. 14 for an eight-day visit to Russia. Arranged by AAAA through Covenant Travel of Hartford, the group tour cost \$409, and included all meals, lodging, sightseeing, ballet and circus tickets, an evening at a nightclub, Leningrad-Moscow airlift, and other items. The AAAA plans a repeat tour in November, 1974.

Breaking black bread together on the February tour were COL and Mrs. Lee M. Hand, COL and Mrs. John W. Marr [AAAA's national Secretary-Treasurer], MAJ and Mrs. Raymond C. Daikeler, MAJ and Mrs. Charles Snavely, Mr. and Mrs. Gary P. Kohler, Mrs. James H. Merryman, Mrs. John P. Casey, Jr., Mrs. Clifford Crosmun, Mrs. Edith M. Todd. Mrs. Rita Todd, Mrs. Gloria Hall, and Miss Ruth Weldon. Escorting the seven ladies on the tour was CW2 Mike Roberts of Ft. Campbell, Kv., the lone bachelor on the Pan Am 707 tour.

USAREUR AAAA Convention honors its outstanding aviators and units

GARMISCH, Germany — Indicating NATO forces in the Mediterranean were still dependent on the nuclear deterrent, LTG John Norton, Chief of Staff of Allied Forces Southern Europe [AFSOUTH] told some 750 members of the USAREUR Region "the enemy is mainly interested in force reduction to get our tactical nuclear weapons out of Europe. He knows we can close borders to conventional forces with atomic demolition."

General Norton addressed convening Quad-A members in attendance at the Region's 1974 Convention. After his address, the conference continued with presentations by members of the German and British aviation units in Germany, and reports from key Army and industry representatives on the current status and future trends in Army Aviation.

At a banquet finale, MG John L. Klingenhagen, USAREUR's logistics chief and highest ranking aviator, presented AAAA Regional awards to the year's outstanding individuals and units.

Honored were CWO Norman E. York as the command's "Aviator of the Year." He was cited by COL Nicholas G. Psaki, USAREUR's aviation chief and Quad-A Regional President, for "designing and operating the instrument flight school for the 71st Aviation Company at Wertheim." Psaki said, "Over 300 of the 1,300 aviators in Europe took the course under York's leadership.

USAREUR's 'Aviation Soldier of the Year Award' went to SP6 Marvin L. Briggs for his work as a quality control inspector and crewchief with the 582d Aviation Company. The 582d at Coleman Barracks, Mannheim, was also selected as the command's "Outstanding Aviation Support Unit."

COL Edward L. Nielsen, AAAA's National President, and John A. McKenna, National Member-at-Large, represented the national organization at the convention with the former providing a 15-minute update on AAAA programs and plans.

In attendance and making presentations during "Industry Day" were representatives from Grumman Aerospace, Northrop, Martin Marietta Aerospace, Bell, GE, Boeing Vertol, Hughes Aircraft, and Sikorsky. COL Ted A. Crozier, Chief of the Aviation Warrant Officer Branch, OPD, met with area AWO's on three separate occasions.



ALL SMILES: '74 Garmischers included MG John L. Klingenhagen; COL Nicholas G. Psaki; MAJ Paul J. Wenzel, host unit CDR; LTG John Norton; LT John Norton, Jr.





AT LECTERN: Ed Nielsen, left, AAAA Nat'l President; Right: LTG John Norton, keynoter in 1974.





AWARDEES: CWO York, '73 "AA of Year", with COL Psaki, Regional President, in rear; CPT Jack Harris accepts "Best Aviation Detachment" trophy for the 34th Signal Battalion Aviation Section.





TOP UNITS: MAJ Charles N. Yongue, I., receives AAAA's "Aviation Company of the Year Award" from MG John L. Klingenhagen, guest of honor; MAJ Augustus Scott, right photo, accepts "Outstanding Aviation Support Unit Award" in representing Mannheim's 582d Aviation Company.

Lindbergh AAAA nixes aviation & rides rails

On March 1, Lindbergh Chapter members participated in an Ass'n "lirst" — a train excursion-dinner program. Paul Hendrickson, President of the St Louis area chapter, writes: "Attendance was most gratifying - a 64-ticket count! - and "A great time!" was the unanimous verdict. From departure at historic Union Station in St. Louis at 1625 to arrival at Springfield, Ill., two hours later, through dinner at the celebrated Statehouse lan, and return to St. Louis at 2000 hours, camaraderie and pleasant conversations were the order of the evening, each helped along, of course, by liquid spirits liberally dispensed by "The Doctor" [Program Chairman Don Luce] and assisted by "The Nurse" [Program Chairman-Elect Jack Pierce]. Each was quite naturally differentiated by the size of the medicinal bags he brought. Yes, there were Nurses' Aides.

The Chapter was honored to have COL "Ed" Nielsen, AAAA National President, along as a fellow-passenger. At dinner, he briefed us on USAREUR Region AAAA Convention he'd just attended in Garmisch and thanked our Chapter for its support of the National's Resolution on Flight Pay Equalization and its establishment of three CONUS Regions in the First, Fifth, and Sixth Army Areas.

It was a pleasure to give verbal bouquets to our current Chapter officials, and to welcome our new officer nominees, and lastly, based on the resounding success of the 1973 Army Aviation Product Support Symposium, we plan a second for early September, 1974 — with the added sponsorship of the Regional and National bodies.

We think we had a unique meeting, one that proved to be most enjoyable to all attendees. Don't discount a railroad excursion - if you can negotiate one in your Chapter area, try it . . You'll like it."



The powerhouse! - The engine of the Amtrak Canadian Turboliner.



Lindbergh members, Mr. and Mrs. Maurice Schneider, ready to board.



Rolling through Missouri with aisle-wandering a major activity for all.



Doctor Don Luce and elixir - "How to commit interstate quackery!



President Hendrickson perks up his tired fellow travelers with a 'gem'

Hardy Quad-A group shivers in Red Square



HUDDLE — Claiming "it wasn't cold" on their return home but looking alightly frozen in front of Kremilin are a tightly-packed group of AAAA members who group-toured to Moscow-Leningrad in February L. to R. are Jane Merryman, COL Lee Hand, Odette Hand, CWO Mike Roberts, Gloria Hall, Ruth Weldon, Betty Casey, MAJ Gary Kohler, Sally Kohler, Edith Todd, Rita Todd, Cecile Crosmun, COL John Marr, & Willa Marr. The other six in the group were at a sidewalk cafe at the time of the photo, reputedly heating coffee on the group's lone Coleman stove.

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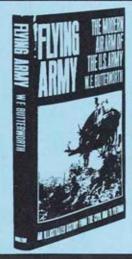
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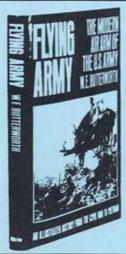
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FLYING ARMY

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