

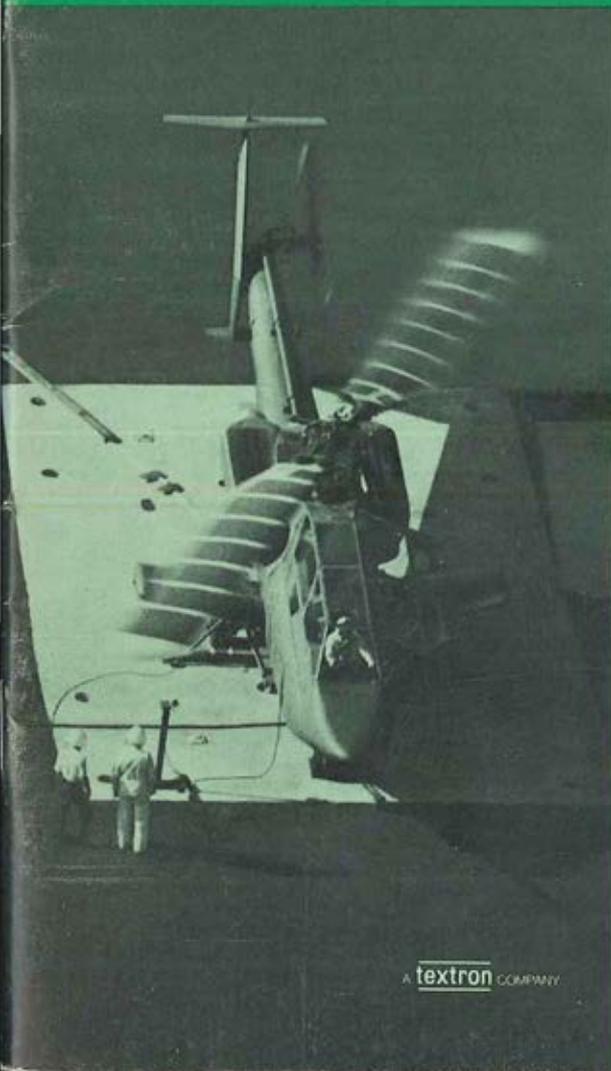
Army Aviation

JUNE, 1975

Page 8
DA Happenings - An Update
on New Aircraft Programs.

Page 4
'Something is clearly wrong!'
The enigma of no Branch.
Pages 26-31

Operations in the Field:
Reports on the 6th Cav Bde,
119th Avn Co, 73rd MI Co,
ADEWSM, AVSCOM



Bell's YAH-63 began tie-down ground testing 19 April 1975

A significant date . . .
an outstanding
achievement, for a
unique reason:

Bell's in-house capability

peacekeepers
the world over
depend on **Bell**
HELICOPTER

A **textron** COMPANY

GE's Linkless Feed Systems have passed inspection more than 8000 times.



**A logical, low-risk
ammunition feed system:
With proven performance for the Bell YAH-63.**

More than 8000 GE linkless ammunition feed systems have been performance-tested and performance-proven. Proven on aircraft like the F-105, F-111, F-4, A-37, A-7, F-14, F-15, and A-10. Proven on the M163 Vulcan Air Defense System.



That's experience. The kind that supports GE's linkless system for the Bell AAH. A system that two men can load to capacity—1200 rounds—in less than fifteen minutes. A system that can be mounted outside the primary aircraft structure and can also be jettisoned.

Survivability. Weapon interchangeability. Variable firing rates with growth potential up to 2000 spm. Longer, more sustained burst capability. And target engagement flexibility without penalty to the aircraft. That's what GE's linkless system means to the AAH.

And it's a system designed for low life-cycle cost . . . to reduce the Army's cost of ownership.

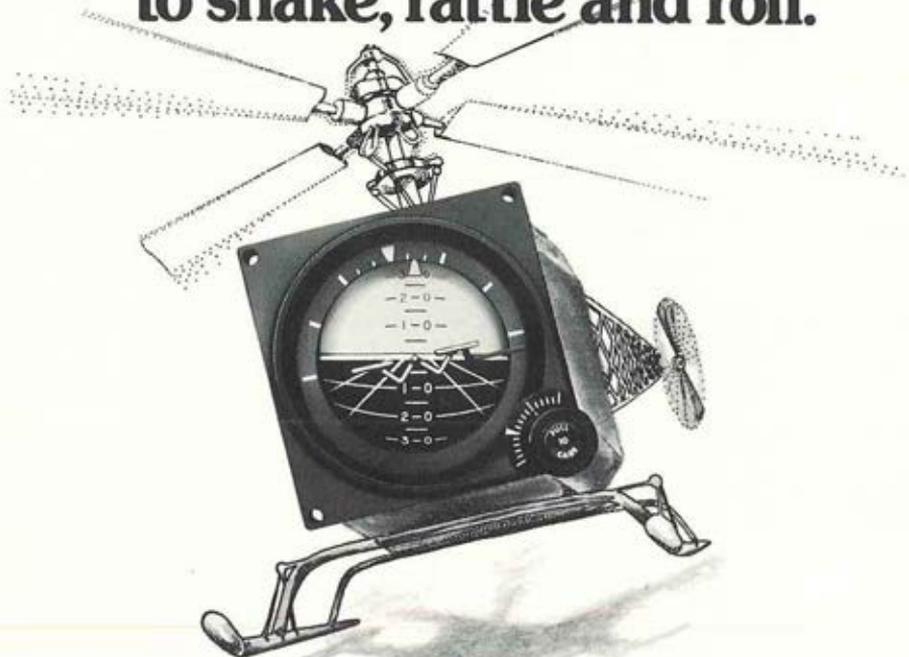
GE's linkless ammunition feed system. It's part of an integrated aircraft weapon system that's ready for the Army's winning AAH. Now.

170-20

For more information write:
Armament Systems Department
Lakeside Avenue
Burlington, Vermont 05401
Aircraft Equipment Division

GENERAL  **ELECTRIC**

Here's the DC three-inch gyro horizon that loves to shake, rattle and roll.



J.E.T.'s self-contained Model 903 DC 3-inch gyro horizon is designed exclusively to withstand the inherent stresses found in helicopter operating environments. Its special erection system eliminates gyroscopic precession induced by helicopter vibrations.

The pitch-trim adjustment is tailored for helicopters. 10 degrees nose down to 5 degrees nose up. The unique spherical display is internally lighted for easy readability. What's more, in the event of electrical failure, the Model 903 provides up to nine minutes of

reliable attitude information. That's enough time to get out of most critical flight situations.

The Model 903 performs to MIL-I-81606 and MIL-I-83336A. J.E.T.'s standard military warranty says a lot about its reliability, too. If you're looking for a long-life precision gyro horizon that loves to be shook, rattled and rolled, contact us: Jet Electronics & Technology, Inc., Military Marketing Department, 5353-52nd Street, S.E., Grand Rapids, Michigan 49508. Phone: (616) 949-6600.

Standard equipment on the Bell & Hughes AAH and the Boeing AWACS and AMST.

J.E.T.
Jet Electronics and Technology, Inc.

AFTER reading "Pandora's Box" by COL Samuel P. Kalagian in last month's issue, I surmise that Army Aviation must be the enigma wrapped within a riddle wrapped within a mystery.

If Army Aviation is neither a branch nor an OPMS specialty, by what authority or rationale do the Department of the Army personnel managers and selection Boards come up with an Aviation Command list?

What credit are the selectees to receive for command when aviation, in fact, DOESN'T exist as a branch or a recognized specialty?

Is this a ploy to keep aviators from being considered for "competitive" branch, non-aviation command slots?

Does an aviator Lieutenant Colonel still have to command a non-aviation battalion successfully as

A YOUNG AVIATOR ASKS SOME QUESTIONS By CPT Charles F. Nowlin, USAAAVS

Another question comes to mind . . . Why is it that every TOE company and battalion in EVERY division, whether they be Armor, Artillery, Infantry, Signal, Engineer, Transportation, Ordnance, Quartermaster, Medical, etc., are represented by a career branch at LDA, but the TOE aviation companies and battalions integral to EVERY division are not?

It almost appears from the foregoing that there is an Army-wide plot to keep Aviation and aviators down.

We aviators must be more than fish or fowl for our activities eat up more than one-half of the TRADOC training budget. This being so, we can't

Something is clearly wrong!

well as an aviation battalion to insure that his requirements for promotion to O-6 are completed?

It has almost reached the point now when in thanking your girlfriend for pinning on your wings, the action can be compared to thanking a hangman on his choice of hemp for your neck.

"COMMAND AND STAFF"

"Command and Staff" is a monthly column listing the forthcoming assignments and positions of those active and retired personnel who are in the rank of Colonel or higher. Residence information on those listed would be found in the "PCS" column.

Major General Jonathan R. Burton, to USET, 292 Bridge Street, S. Hamilton MA 01982.

Major General George W. Putnam, Jr., as Commander, Southern European Task Force, Vincenza, Italy.

Brigadier General John N. Brandenburg, to Hq, XVIII Airborne Corps, Ft. Bragg NC 28307.

Brigadier General John G. Hill, Jr., to Chief of Staff, III Corps, Ft. Hood TX 76544.

Brigadier General Harry McK. Roper, Jr., as Assistant Commandant, Engineer School, Ft. Belvoir VA 22060.

Colonel Jerry M. Bunyard, as Commander, USA Yuma Proving Ground, P.O. Box 3008, YPG, Yuma AZ 85364.

Colonel Ted A. Crozier, as Chief of Staff, 101st Airborne Division (Air Assault), Fort Campbell KY 42223.

Joseph W. Hely, as Director, Logistics Support, McDonnell Douglas Astronautics Company - East, St. Louis MO 63166.

be swept under the rug and out of sight.

Over 1,100 of our rated contemporaries make the 101st Air Assault Division; we have our own training center, BUT not our branch schools.

Something is clearly wrong! When are we to be told the truth about our future? Is there a valid place for us in the Modern Army as rated officers and warrant officers?

Our EM need guidance

What about our enlisted members? Who really looks out for them and insures that they have proper career progression?†

Our problems [within Army Aviation] must be aired and I, for one, am happy to see the AAAA magazine featuring such thought-provoking articles.

[†Ed. Note: Career progression for enlisted aviation specialists is the subject of a current series of articles prepared for this magazine by COL Frank L. Henry, Chief, EPMS Study Group, MILPERCEN, and Commander of the 1973-1974 AAAA "Outstanding Aviation Unit," the 227th Aviation Battalion. The second article of his series appears on Page 6 . . . CPT "Chuck" Nowlin was the 1974 winner of AAAA's "James H. McClellan Aviation Safety Award" and is a most articulate exponent of aviation safety having addresses numerous aviation and AAAA audiences in recent years.]

ARMY AVIATION is published monthly, except April, August, and December by Army Aviation Publications, Inc., 1 Crestwood Road, Westport CT 06880. Phone: [203] 227-8266. The views expressed in this publication are not necessarily those of Department of the Army or the publication staff. Second Class Postage paid at Westport, Conn.



A report on Boeing's UTTAS:
YUH-61A dynamic system
successfully completes Army/FAA
Preproduction Qualification Test.

Following completion of a 200-hr ground test vehicle (GTV) formal qualification run, the YUH-61A dynamic system (rotors, transmissions, and flight controls) was removed from the aircraft, completely disassembled, and subjected to a detailed scrutiny by U.S. Army and FAA representatives.

This Preproduction Qualification Test, a major contractual commitment in the UTTAS Development Program, was accomplished with the same components used in the preceding 50-hr Preflight Release Test.

One key to successful completion of this major milestone has been the outstanding performance of transmission gears formed from modified Vasco X-2 steel. Modified to Boeing specifications and used with a Boeing-developed heat-treat process, this steel pro-

vides a hard gear-tooth surface which resists wear, scoring, and marginal lubrication conditions—even at the high gear-tooth/surface contact temperatures which exist in helicopter transmissions—while the tooth core remains tough and ductile. Modified Vasco X-2 can operate at twice the temperature limits of common gear steel.

These same components have now been reassembled in the GTV for additional endurance and reliability testing aimed at demonstrating the on-condition characteristic of the YUH-61A system.

Boeing's YUH-61A dynamic system is already demonstrating that the Army UTTAS Program objectives for reliability, maintainability, and availability will be exceeded.

New technology for the Army of the 1980's.
BOEING HELICOPTERS
 BOEING VERTOL COMPANY



More about EPMS

By
COLONEL FRANK L. HENRY,
Chief, EPMS Study Group,
MILPERCEN

IN the previous article in ARMY AVIATION, I stated that every enlisted soldier in the Army would soon be guided by the *Enlisted Personnel Management System [EPMS]*.

The *Military Personnel Center [MILPERCEN]* has about completed work on the redesign of Career Management Field 67, *Aviation Maintenance*.

The recommendations and ideas of Training and Doctrine Command, the Transportation School, USAAVNS, and interviews with soldiers have all been integrated into the redesigned career field which will support *UTTAS* and the *Aviation Intermediate Maintenance [AVIM]* concepts in both the Tables of Organization and Equipment (TOE) and training. We view it as an Aviation career field designed today to provide an interesting and challenging profession for the established career soldier as well as the new soldiers who will join us in the future.

Let's take a closer look at what will happen to your career, including training, testing, promotion, and most of all — *your everyday tasks*. Did you ever look

at a helicopter or fixed wing and know you could handle the maintenance on it, but have your supervisor or commander tell you "hands off" since you have the wrong MOS?

Well, that will happen less frequently under EPMS. You fixed-wing mechanics stop fretting! You're going to be allowed to work on all fixed wing — and, furthermore, the Army is going to train you to do it!

Intention: To assist you

The same applies to helicopter mechanics, except not quite so broadly. There are just too many models and categories to train you on all of them, and expect you to continue your high level of professional performance. This approach is intended to assist you in passing your performance-oriented *Skill Qualification Test* which is necessary to attain the next higher skill level which, in turn, is required before you're eligible for promotion.

To keep you from becoming bored with the same model helicopter, you will be

[EPMS/Continued on Page 34]

Taking a closer look at what will happen in the Aviation Maintenance Career Field - The 67W MOS, Aircraft Quality Control Supervisor - Some upcoming changes for Aircraft Components Repairmen - New MOS 68E



The Sikorsky UTTAS leads the way in support of the mobile army.

Successful completion of tactical landing system flight test marks another major milestone.

The Sikorsky/Army UTTAS is continuing to prove that it can operate successfully where it counts—in the soldier's environment. The TLS flight test demonstrated the Sikorsky UTTAS' ability to perform instrument approaches and landings in minimally prepared landing sites. The new TLS itself, currently under evaluation by the Army, is portable enough to be used in any environment in which the UTTAS will operate. During the test, the Sikorsky prototype showed good glideslope and localizer pointer response, smoothness of movement and excellent stability. That's the kind of performance the Army will need

when it comes to getting in and out of where the action is—no matter what the weather or terrain.

It's also the kind of performance that's become a Sikorsky hallmark. Because when it comes to helicopter technological expertise and time-proven components, nobody outflies Sikorsky.

For over 30 years, Sikorsky has been successfully accomplishing one military and commercial mission after another. And it's that kind of record and experience that's keeping the Sikorsky/Army UTTAS out front. Sikorsky Aircraft, Division of United Technologies Corporation, Stratford, Conn. 06602.

SIKORSKY AIRCRAFT



Division of

**UNITED
TECHNOLOGIES™**

DA

Happenings

By Colonel William E. Crouch, Jr., Chief, Aviation Systems Division, ODCSRD&A



THE first year of operating under the new DA organization has passed rapidly and with a smoother than expected transition.

The significant paring down of the entire Army Staff and disestablishment of the Assistant Chief of Staff for Force Development (ACSFOR) resulted in Aviation functions being redistributed within the DA Staff and to the Army Materiel Command and the Training and Doctrine Command. Many of the functions of TRADOC have been most aptly performed under the continued Army Aviation leadership of **MG Maddox** at the Army Aviation Center at Ft. Rucker, Alabama.

Within the Army Staff, Aviation Staff personnel and spaces from the Office, Chief of Research and Development (OCRD), Deputy Chief of Staff for Logistics (DCSLOG) and ACSFOR were combined into what is now the **Deputy Chief of Staff, Research Development and Acquisition [DCSRDA]**.

The combining of the Aviation Systems management and acquisition process into one organization has streamlined the operation considerably, but not without the normal growing pains. The Department of the Army System Coordinators (DASC) have learned much in the past year of their total system responsibilities and are now becoming much more efficient in their staffing process.

A consolidated effort of the **Deputy Chief of Staff for Research, Development and Acquisition [DCSRDA]** Staff Officers provides the current status of the following major Army Aviation Programs:

Advanced Attack Helicopter (AAH)

The AAH competitive development program, with **LTC Don Wray** as the DASC, is well on its way to first flight now scheduled for September 75. Mock-up reviews were conducted last year of each contractor's design. These reviews provided a full scale representation of the physical arrangement of each contractor's design and permitted demonstrating the capability for servicing, maintenance, and other operational requirements of each helicopter. Contractor progress indicates that both will meet the Army's performance requirements.

Although manufacturing approaches differ between the contractors, either prototype design should give the Army a survivable, highly agile, and capable **Advanced Attack Helicopter** which will provide the ground commander a 24-hour capability to destroy point targets on the modern battlefield.

Utility Tactical Aircraft System (UTTAS)

The UTTAS program monitored by **LTC Walt Rundgren** is on schedule. Both airframe contractors, Boeing-Vertol and Sikorsky, were given a release on 2 May 1975 to commence full flight envelope expansion. Initial flight tests of both designs, have been highly successful.

UTTAS FY 76 major milestones are: completion of the airframe 150-hour Military Qualification Test

(MQT) in August 75; engine 150-hour MQT in March 76; and commencement of the Government Competitive Testing in February 76. The selection of the **UTTAS** airframe contractor and award of a low rate initial production contract is scheduled for November 1976.

Advanced Scout Helicopter (ASH)

The **Advanced Scout Helicopter [ASH]** program formulation is nearing completion by the Army. **LTC Wayne Davis** is the DASC for this new program. The **ASH** will team with the **AAH** and other advanced weapons of the 1980's.

Equipped with **FLIR** for pilot's night vision and target acquisition, it will provide for the first time, a true night aerial scout mission capability. Handing off targets to attack aircraft and other weapons delivery means will no longer be a time consuming task — the **ASH** target handoff will be faster and more efficient with laser designation.

The **ASH** will be a capable **NOE** performer — sufficient power for pop-ups and extended hover tasks and highly agile to provide survivability. This helicopter will provide our aviators with the tools to fly the scout missions wherever our combat forces are deployed.

Improved Cobra-TOW (AH-1Q-S)

The **AH-1Q/S Program** is under the guidance of **LTC Jess Stewart**. Deliveries will start in June and build up to 15 per month. The first few aircraft will be used for training and test; thereafter units in Europe will begin receiving this tank killer.

The performance improvement program which upgrades the engine to 1,800 shaft horsepower and adds other upgraded dynamic components is on schedule. The first **AH-1S**, which is the designation of the improved **Cobra/Tow**, is scheduled for June 1976. All **AH-1S's** are planned to have the performance improvement package.

CH-47 Modernization Program

The **CH-47 Modernization Program** is under the able guidance of **LTC "Rip" Phillips**. This program has started with initial research and development contracts being awarded to Boeing-Vertol for new rotor blades, new transmissions, and a modularized hydraulic system. These new components are designed to eliminate existing deficiencies in safety, maintainability, vulnerability, and lift capability.

The program formulation package is being pre-



pared by a Special Study Group for presentation to **DA** and **DOD** this summer. The program presently calls for two prototypes to be constructed and tested.

The modernized **Chinook** will have composite material rotor blades; an integrally lubricated, self-cooled 7,500 hp transmission; modularized hydraulic systems; a redesigned electrical system with two oil cooled 40 KVA alternators; multiple cargo hooks for dual point suspension; an advanced flight control system and the **T-55-L-11** engine. Its lift capability will be 15,000 lbs. at 4,000'/95°F conditions for a 30 nautical mile mission.

Officer Personnel Management System

The Army Aviator under the Office Personnel Management System and the subject of aviation specialty proponency continues to receive much discussion, not only at the staff level, but throughout the Army. Some thoughts on the subject of the aviator under **OPMS** are provided below.

COMMAND

All officers who want to excel will do much the same as they always have. The young lieutenant will point toward platoon command in his basic specialty prior to attendance at flight school. Following flight training, he would normally become a section leader and, after promotion to captain, would command an aviation platoon.

Following attendance at his advance course, ground duty company command becomes the goal to achieve followed by an additional command opportunity at the grade of major in an aviation company. This foundation will cause the outstanding officer to be considered for, and be fully qualified for, battalion command of both aviation and basic specialty units.

SCHOOLING

The aviator can expect to receive consideration

for his specialty advance course, CGSC level education, and Senior Service College at approximately the same career points as his non-rated contemporaries. Civil schooling opportunities for all officers will be under tight control and be scheduled for officers only when Army needs dictate.

The aviator who is designated for specialty development which requires advanced civil education may sacrifice operational flight opportunities if that schooling is accomplished under fully-funded full-time programs.

To facilitate pay "gate" passage, these officers should use every opportunity to exploit off-duty education programs to meet specialty educational requirements. This added burden should be considered as acceptable when weighed against the future monitoring savings that would result.

GATES

A clarification of flight pay gates is appropriate. The "gates" established by Congress within the **Aviation Career Incentive Act of 1974** were meant to reward the career aviators of all Services and to assure that no one received a "free ride" by virtue of receipt of an aviation rating.

The gates are the same for all Services, but the circumstances within each Service are markedly different. The Army's requirement to field officer aviators who are well-grounded in basic specialties and aviation matters dictates a lesser operational flying opportunity for the Army flyer when compared to his Navy and Air Force counterpart.

Simply, the Army will have more rated officers per flying job due to non-aviation requirements for those same officers. "Gate" passage, therefore, becomes more difficult for the Army Aviator and his

assignment management problem more complex.

A simplistic approach might be to categorize those aviators seeking to pass "gates" as dollar-oriented vs. career-oriented. This attitude ignores the basic competitive nature of the American soldier and sells "short" his professional orientation. As long as there are "gates", (or goals) established as an indicator of success, the achiever will attempt to meet them.

Consider what terms are appropriate. You either "pass" a gate or you "fall" to do so. Few of us like to fail at anything.

KEY ASSIGNMENTS

The aviator who is aggressively pursuing basic specialty qualification and "gate" jobs and building a firm foundation for advanced specialty qualification will naturally have to be extremely selective in the jobs to be held. His career manager and the officer concerned must frequently assess the progress along the career path.

A job, normally held to be a "key" assignment by today's Army management, may have little to offer the aviator other than negative effects on operational flying experience and specialty qualification. Therefore, it is axiomatic that many "key" assignment areas will be denied the aviator in a de facto manner.

Examples might be recruiting duty, ROTC, Inspector General, and others. This situation can be accepted at face value or exploration of an alternative could be developed. If aviation expertise is required in an area now perceived as non-contributory to the individual aviator's requirements, the structure of that area might be re-examined and changed.

The ROTC instructor who also administers the ROTC flight program could certainly be considered to have a job that falls within the definition of operational flying found in the **Aviation Career Incentive Act**. The aviator in USARREC who flies his UH-1 to cities and towns to illustrate the excitement of the man-machine combination can also meet that definition.

We must make our requirements for aviators meet that which is depicted in authorization documents. If a flyer is needed for the job, **substantiate it!** A non-operation aviation prefix to the MOS compounds the problem for the individual and the system.

NON-SPECIALTY ASSIGNMENTS

Current evaluation of aviator requirements reveals a significant percentage that may be considered as non-contributory to either basic entry or advanced specialty development. Illustrations would include aviation school instructors, positions



LOOK FAMILIAR? — It should be! It's Sikorsky Aircraft's UH-60A UTTAS in Navy garb! . . . Shown is the full-scale mock-up of Sikorsky's proposed U.S. Navy LAMPS [Light Airborne Multi-Purpose Systems] helicopter. The ship, complete with under-slung [mock] torpedos, was unveiled May 13 at the opening of the 1975 American Helicopter Society annual three day forum in Washington, D.C. □

LORAS™ Answers The Attack Team Call.

THE ATTACK MISSION

NOE operations, 24 hours a day in the mid intensity environment . . . nobody has any illusions, it's a tough business. The scout and the attack helicopter are in it together as a team.

Combat crews must be prepared to scout and attack the enemy under adverse conditions . . . crosswinds . . . tailwinds . . . high density altitude . . . haze . . . rain . . . darkness. Under all conditions, operational success requires precision aircraft control and a margin of power available for agile maneuvers.

LORAS IS . . .

LORAS is an omnidirectional airspeed system. When the sensor is mounted on top of the main rotor mast, it can accurately measure flight path speed through zero knots up to about 200 knots in any direction . . . forward, rearward, sideward and any degree of quartering flight. The system is very responsive, there is no deadband about zero, and the indicator does not lag even the quickest speed changes. It is simple, reliable, rugged, lightweight, low cost, ready for service and proven cost effective.

LORAS FITS THE MISSION

LORAS provides the pilot with the information he needs to select the best attack site, aggressively attack and agilely maneuver to remask . . . the result is success with minimum exposure.

TOW ATTACK. The Omnidirectional Airspeed Indicator (OAI) mounts next to the Pilot Steering Indicator (PSI) for the TOW. The pilot can now learn which relative wind conditions are best suited for weapon release.

Referencing the OAI, he evaluates candidate attack sites before he exposes his aircraft. Selecting a suitable site, he attacks and quickly remasks, using **LORAS** to avoid settling with power, and to minimize exposure time.

ENVELOPE LIMITS. High-speed sideward flight is required for some evasive maneuvers and to maintain line of sight. The OAI is marked to provide a simple and quick envelope check. This prevents inadvertent

flight outside of the envelope, precluding possible loss of control, structural damage, or accelerated wear-out. Observing limits during training can reduce repair cost and increase readiness.

DISORIENTATION.

LORAS information can be presented on, or next to, the Attitude

Indicator. This format provides a very powerful stabilizing cue for pilots encountering spatial disorientation.

MANEUVER MARGIN DISPLAY.

The MMD cues pilots to the margin of power they have available at any given low airspeed. Caution lights warn of approaching limit conditions.

PROVEN CAPABILITY

LORAS has been accepted

internationally for military and commercial applications including helicopter and V/STOL aircraft.

LORAS has been proven during thousands of operating hours over a ten-year period. Its success has been demonstrated under the most severe environmental conditions including dust, heavy rain, snow and freezing rain.

During development, **PACER** compiled an extensive amount of data verifying the system's suitability for Army, Navy, Marine Corps, Air Force and Civil missions. We have also explored numerous specific applications including flight control, fire control and navigation. And we have designed and proven a number of main mast sensor installations.

READY FOR USE

LORAS is now in production. Our applications engineers welcome the opportunity to discuss your particular requirement and to develop a report showing how **LORAS** can meet your needs. Write or call Dave Green at 1755 So. Jefferson Davis Highway, Arlington, Virginia 22202 (703-920-8300) or Don Johnson at 87 Second Avenue, Northwest Industrial Park, Burlington, Mass. 01803 (617-272-5995).



 **Pacer**
SYSTEMS INCORPORATED

LORAS, the only proven OMNIDIRECTIONAL airspeed system with LOW and HIGH RANGE CAPABILITY.

in flight detachments, and duties in training units in addition to those mentioned in the previous category.

Two points are paramount. First is the fact that the same circumstances face the non-aviator in his quest for specialty development. No officer will be afforded the luxury of "Specialty only" assignments. This was not expected or intended in OPMS.

Para 2-22 of DA Pam 600-3 states:

"Factors which influence an officer's assignments are:

- Army requirements.
- Professional development needs of the individual.
- The officer's desires.
- Availability of officers with required qualification.
- The grade, specialty, education, and experience of the officer.
- Policy considerations such as stability of assignments and short tour equity.
- The officer's manner of performance and potential.
- Personal factors.

It is not anticipated that an officer's entire career will in practice be spent entirely within the confines of two specialties."

PROMOTION POTENTIAL

The promotion potential for the aviator can be expected to remain high. The old rules apply — "Give a job to a busy man if you want it done," — "The achiever will continue in the mold he has established."

The Army Aviator under OPMS and the Aviation Career Incentive Act will indeed be a busy individual. However, his opportunities for command are

SOME FACTS AND FIGURES!

The Aviation Systems Command [AVSCOM] retains procurement direction over 200,000 items, and received \$38,115 separate requisitions from the field in FY 74. The Command issues more than \$1 billion worth of repair parts annually, maintains an average inventory within the U.S. worth some \$1.6 billion, and had an FY 74 budget of approximately \$1.03 billion. □

greater as are his opportunities to demonstrate his abilities and potential. There are no road blocks, real or imagined, to the aviator's promotion possibilities.

I am confident that Army Aviators of the future will continue to be equally as successful as those of the past. In this regard my congratulations go to the 37 Army Aviators who were recently selected for Senior Service Colleges, and particularly those four in this Division: LTC John Zugschwert, National War College; LTC Jesse Stewart, Army War College; LTC George Ivey, Navy War College; and LTC Bill Corley, Industrial College of the Armed Forces.

Additional losses to the DA Staff that will be missed are Colonel Denny Boyle who will leave to command the Army Engineering Test Activity, Edwards AFB, California, and CW4 Bob Hamilton who retires in June.

LTC Nate Pulliam has recently been assigned to DCSOPS from Ft. Hood. Scheduled to depart are LTC [P] George Crook; LTC Dan Romig to the Army War College; LTC Jerry Childers to command the 25th Avn Bn; MAJ Nick Tragesser to 18th Avn Corps Artillery, Ft. Bragg; LTC Clancy Woliver from MILPERCENT to Air War College; and LTC Chuck Oram from DCSLOG to Ft. Campbell.

American Helicopter Society elects '75 slate; Ft. Rucker Annual 49'er Party nets \$54,125

The American Helicopter Society [AHS], with whom the AAAA has a close professional affiliation at the Chapter programming level, has announced its 1975-1976 slate of national officers.

Installed during the May 13-15 AHS Forum in Washington, D.C. were T.R. Stuelpnagel, V.P. and Gen. Mgr., Hughes Helicopter Division, Chairman of the Board; Gerald J. Tobias, President, Sikorsky Aircraft Div., as President of the AHS; and Charles C. Crawford, Jr., Chief, Sys. Devel. and Qualif. Div. Directorate, RD&E, Hq, AVSCOM, as AHS Secretary-Treasurer.

Newly-elected Regional Vice Presidents include Andrew J. Landgrebe, UTC (Northeast Region), Richard B. Lewis, Hq, AVSCOM (Midwest), Andrew W. Kerr, USAMRDL, Ames (Western), W. Euan Hooper, Boeing Vertol Co. (Midwest), BG Noah C. New, USMC Devel Ctr (Southeast), and Stanley Martin, Jr., Bell Helicopter Co. (Southwest).

Six newly-elected Directors-at-Large also joined the AHS

Board. They are Richard M. Carlson, USAMRDL, Ames; William J. Crawford, III, General Electric Co.; John C. Kidwell, Bell Helicopter Co.; CPT David L. Hughes, USN E&T Prog Devel Ctr, Fla.; Herbert F. Moseley, Enstrom Helicopter Co.; and Donald W. Robinson, Kaman Aerospace Corp.

WOW!

Fort Rucker's Annual 49'er Party was a resounding success! MG William J. Maddox, Jr., Center Commander, presented a \$27,062 check to Mrs. Neal Christensen and Mrs. Gerald Faulk, Presidents of the Officers' Wives Club and NCO Wives' Club respectively. The overall net was \$54,125 of which \$30,625 will go into the Central Post Fund; \$6,000 to OWC and NCOWC scholarships; \$5,000 to Army Community Services; \$4,000 to the Boy Scouts; and \$2,500 to the Girl Scouts. This year's function drew more than 12,000 persons on May 2 and 3. □

IN the February, 1975, issue of this magazine, the Army Aviation Systems Command [AVSCOM] provided a general overview of its Weapon Systems Management [WSM] program, and introduced the several systems managers.

The Command felt that publication has been of significant assistance in passing the word to the Army Aviation community of our recently implemented WSM concept, and we feel it appropriate to further publicize our management system by periodic articles concerning specific Weapon Systems Managers. We'd like to start with one that is familiar to many.

Aerial Delivery Equipment (ADE)

Aerial Delivery Equipment [ADE] enjoys unique status in the Army Aviation community due to the variety of equipment involved and the interface of airdrop equipment with Air Force cargo aircraft. It includes the special equipment used in both airdrop and air landed operations.

General categories of ADE are: Parachutes and related equipment for premed-

itated personnel drops; parachutes, containers, platforms and related equipment for airdrop of supplies and equipment; and helicopter external slings and carrying devices.

Basically, the Army has life cycle management for all ADE that departs the aircraft during joint airborne operations. Research, Development and Engineering support for airdrop equipment is provided by Natick Development Center.

ADE covers air transportability

The **Aerial Delivery Equipment Weapons Systems Manager [ADE WSM]** has executive management responsibility for total system integration of ADE. Additionally, the **ADE WSM** serves as the focal point for air transportability of Army helicopters in U.S. Air Force aircraft; he coordinates the actions of the appropriate aircraft product or system managers in resolution of air transportability problems.

The **ADE WSM** is chartered by the Commander, AVSCOM, and has full line authority for executive life cycle management for ADE



**LET'S TALK
ABOUT A.D.E.**

Systems. To "pull it all together", his efforts are concentrated in the areas of program and budget control, correlation of requirements, program integration, allocation of resources, and review of accomplishments to insure completed program actions.

He represents AVSCOM at AMC, DA, and Joint Service meetings and conferences pertaining to ADE matters. In addition, he is the focal point for users and commercial contractors.

The **ADE WSM** operates with a limited staff. He is not, nor is he expected to be, the expert on all phases of life cycle management and the complexities of the commodity command.

However, he has direct and immediate access to the expertise of the functional directorates: Maintenance, Materiel Management, Procurement and Production, Research, Development and Engineering, and Product Assurance. His internal management functions are accomplished with WSM team members assigned from the aforementioned functional areas.

Two AVSCOM WSM teams have been organized by the ADE WSM. The **Aerial Delivery Team** serves as the nucleus for all actions on airdrop and helicopter external



A 155mm howitzer slides to a stop after a Low Altitude Parachute Extraction System (LAPES) drop from an Air Force C-130. LAPES is being introduced into the Army inventory. □

transport equipment. Significant actions currently in process include: Logistic planning for fielding the MC1-1B personnel parachute; introduction of the new M-1 and M-2 cargo parachute releases; requirements determination, budgeting, and related logistic actions required to field the new MC-3 Military Free-Fall System; and development of a family of slings and external carrying devices for helicopters.

The **Air Transportability Team** is the vehicle by which the ADE WSM causes resolution of problems related to the movement of the operational fleet of Army helicopters in Air Force cargo aircraft, and monitors and air transportability aspects of developmental aircraft systems. Each aircraft project, product, and system manager, plus packaging, engineer, and technical assistance offices are represented on this team.

The **Air Transportability Team** provides a forum for free exchange of information and the means for surfacing problems to the affected aircraft manager who, in turn, causes positive corrective action by utilizing the expertise of functional team members assigned to support his aircraft system.

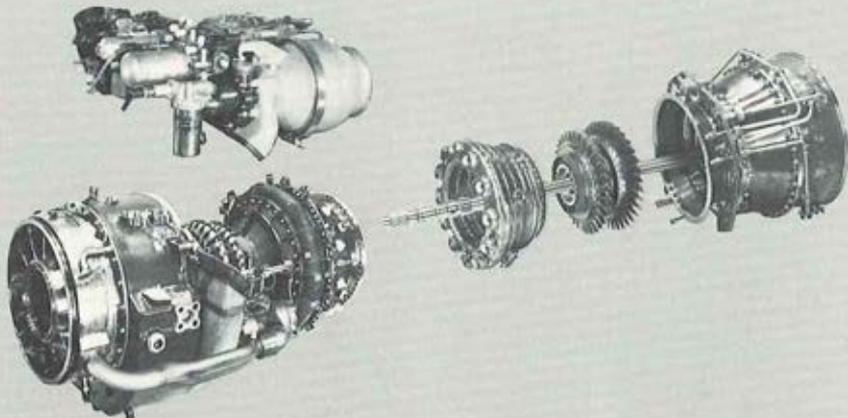
The usual day-to-day **Field Services Activity** operations with the users at installation level and the technical assistance direct line of communication to the functional elements have not changed. This activity has been complimented as the ADE WSM is the single system oriented manager at AVSCOM to whom the users can turn should existing channels of communication fall short of desired results.

"Your guy" at AVSCOM regarding **Aerial Delivery Equipment Systems** is Major James B. Wood (Autovon 698-3241, office symbol AMSAV-SID).



RIGHT: An MC1-1 Maneuverable Parachute is maneuvered to a predesignated rendezvous point. This static line-deployed personnel parachute is currently being phased into the 82d Abn Div. **LEFT:** Container Delivery System (CDS) is an excellent system for airdrop resupply of ammunition, POL, and rations to air-borne or any ground unit. Shown above are the G-12 cargo parachutes. □

T700 Maintainability



Four-Part Harmony.

With the T700's four-part modular design, maintenance personnel can completely replace a hot section in little more than an hour. A power turbine module in about half an hour, and even less time for the accessory module. The complete cold section changes in just two hours.

And modules are completely interchangeable with no field adjustments needed.

In addition, accessories can be changed in less than 22 minutes

each. All module and accessory changes can be performed in the field environment with only ten standard Army tools.

General Electric designed the T700 with ease of maintenance as a primary consideration. And modular design is one of the ways we've been able to cut maintenance time to less than 25% of what it currently takes. And that's important. To reduce operating costs. To increase aircraft availability for the Army aviation mission.

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

GENERAL  **ELECTRIC**

In the unlikely event you are swept by nostalgia for the days when you flew in South Vietnam, picture this setting:

You're in a small, bare floor room furnished with a desk and a few folding chairs. On the walls are maps with air-strips in your area of operations pencilled in. On the bulletin board are notices from higher headquarters and some newspaper cartoons.

There's a friendly game of Hearts in progress when the telephone rings. The call is taken. Details of what is obviously a mission are taken down on a clip board. That done, the game breaks up as mechanics move out to ready their aircraft and pilots suit up.

That could well have been at An Khe, the Plantation, Ban Me Thout, Soc Trang, or any one of a number of other spots in 'Nam. In this case, however, the base is Fairbanks, Alaska. The helicopters on the pad stand in nearly a foot of snow and the crews are all civilians, working to provide air support for the Trans Alaska Pipeline System (TAPS).

It's true crews aren't flying Huey slicks, Cobra gunships, or Chinooks over V.C. controlled swamps and jungles. Still, there are some striking similarities with the way things were back in Southeast Asia in those hairy years.

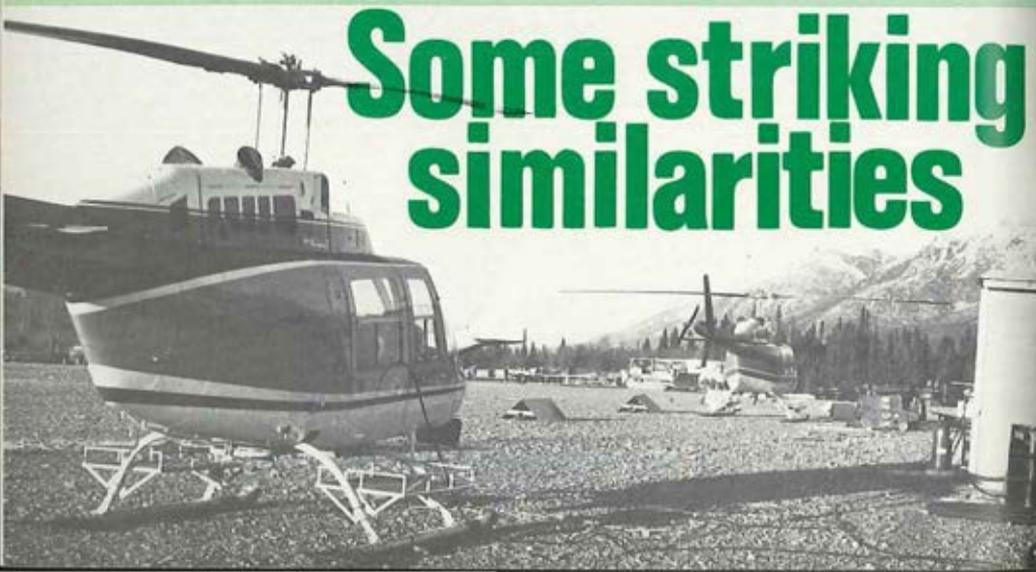
A Look at Alaskan Pipeline Operations by Norman Sklarewitz

For one thing, many of the same people are involved. In this case, Frank Hefferman, an Army Warrant Officer pilot and a Vietnam medevac vet, is the one who took the call. His title is base manager for Anchorage Helicopter Service, Inc., (AHS) a subsidiary of Cordon International Corp. "In terms of the way we operate, I could just as easily be an Army helicopter platoon leader," Frank says.

A typical mission

The mission he handed out went to Tim Fix, another ex-Army Aviator with Vietnam time under his belt. As it came from the Airlift Control Center, the "aircraft service order" called for Tim to load his 206-B with some gear being brought right to the AHS hangar by an engineer. By the time Tim had pulled on the multi-layers of his heavyweight flying suit, fur lined vest, down-filled parka, and insulated mukluk boots, and drew a survival bag, the mechanics had the ship ready on the line.

The engineer had needed some equipment at a bridge-building project on the



Some striking similarities

Yukon River. So the flight would be up river to Five Mile Camp which supported the bridge builders. With that delivery done, Tim was to fly on to Camp Livenhood where he'd pick up a survey party. For the rest of the day, Tim lifted that team in and out of the forest clearings, logging nearly five hours before the Bell came back to settle down in its own rotorwash snow storm in the evening gloom.

Flying may have been over for the day, but as usual the mechanics still had their work to do. Lee Cole drove the gas truck out to refuel the bird. Topped out, the tanks were less likely to have condensation. Next, he pulled out the aircraft battery and put it on the truck seat until he finished the rest of his work.

That involved pulling on a nylon cover over the transmission and forward fuselage and tying it down to adequately protect the Bell for the night. The battery would be moved into the hangar to keep it from freezing as the temperature slipped down below zero.

Interestingly, few of the mechanics employed by the helicopter operators in Alaska are Vietnam veterans. Most of them here now are too young to have seen military service. One theory why the armed forces contribute so few Alaska-based helicopter mechanics is that the military ground crews are highly specialized. In Alaska, the mechanics must be all-around men. They not only must maintain their aircraft, but do major repairs, overhauls, and such added chores as metalwork.



A Bell 206 lands at Camp Dietrich's airstrip along the route of the Trans Alaska Pipeline. □

The chief of AHS maintenance is an ex-Marine helicopter mechanic, however, with his share of Vietnam time. Walt Whitehorn has his hands full keeping the aircraft in first class shape despite the special problems posed by the climate and the land.

Military similarities

There are some logical reasons why the Trans Alaska Pipeline project has such a military character. For starters, the project itself is so huge that all past ventures of this magnitude could only be underwritten by the Federal Government. The Budget for the pipeline is now just a shade under \$6 billion (repeat billion).

Manpower, too, is equivalent to more than a division of troops. By this summer, more than 16,000 men — and women — will be on the job.

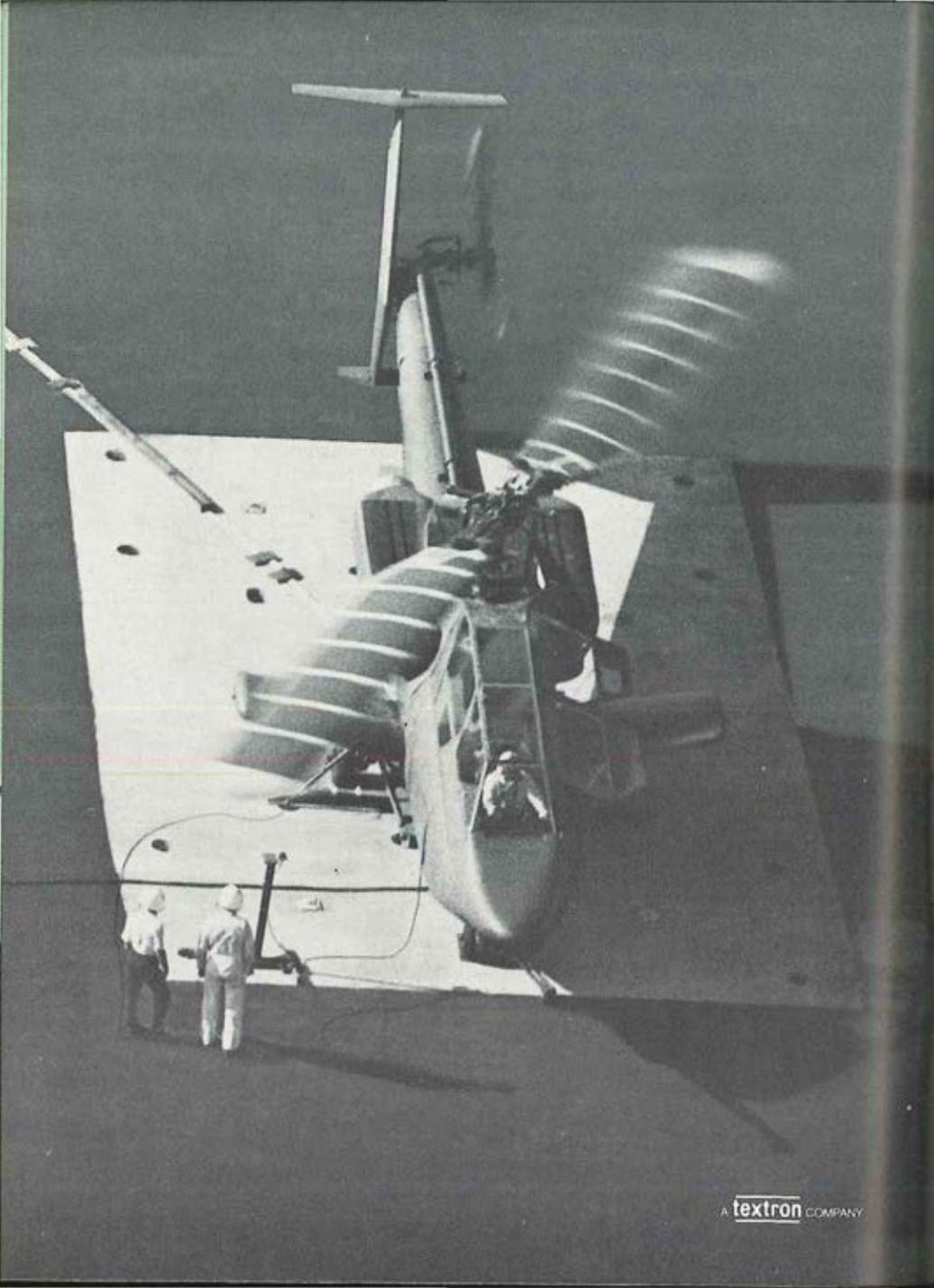
The logistics, for yet another reason, resemble those of a major military expedition. While the pipeline itself is concentrated along a relatively narrow corridor the length of Alaska, the necessary supply train stretches all the way back to Southern California and to "deep in the heart of Texas", to recall a song title.

And there are some more reasons. Many of the top executives of the companies directing construction and involved in the actual building have military background — as engineers, air OPNS specialists, logistics experts, even medics, among other skills. Some of these retirees and veterans don't have to be homesick for old Army camps, either. They have them here.

Main base at Ft. Wainwright

Headquarters for the construction of the pipeline is at Fort Wainwright, just outside Fairbanks. There, when military units were deactivated, more than two dozen buildings were declared surplus and leased to the Alyeska Pipeline Service Co., a firm that was formed by the oil producing companies to direct the construction and operation of the line.

Available to Alyeska are not only barracks where construction crews working in this immediate area can be housed,



Bell's YAH-63 began tie-down ground testing 19 April 1975

A significant date . . . an outstanding achievement, for a unique reason:

Bell's in-house capability

to design, tool, manufacture, and test at *one central site*.

What's in it for the Army?

At this stage of development, complete in-house capability means the ability to make changes . . . *fast* . . . and changes are inherent in any development program. At Bell, design changes, component rework and retesting are accomplished on-site. This means faster turn-around, less downtime and more testing per elapsed time.

And that, in today's economy, delivers a more proven product with lower development costs.

peacekeepers
the world over
depend on **Bell**
HELICOPTER

but also the Post Headquarters. There are so many ex-Army and Air Force types now in the old two-story building, in civilian clothes, that the place has been nicknamed the "Colonel's Club."

But it's in the helicopter companies working under contract and "on call" charter to Alyeska that you really see the Army types doing their thing once again.

Stanley Herring, a retired Aviation Warrant Officer, had no transitional problems in becoming a civilian after two Vietnam tours. He was already assigned to an Aviation Company at Fort Wainwright when his military career came to an end. He signed up with AHS and didn't have to do a thing but go from the post airfield to Fairbanks International Airport.

"Enemies just as deadly"

"In a lot of ways, flying in Alaska is like flying in Vietnam, only with snow and no V.C.," says Stan. Not having someone shooting at you certainly is a major fringe benefit of working here. But the weather and the terrain can be enemies just as deadly at times. "You must be prepared to live with what you're wearing and with the survival gear aboard your aircraft," cautions Stan.

He's not being dramatic, either. everyone here gives the weather plenty of respect — or should. In its official Air Operations Manual, the Alyeska says, "In this region, survival conditions can be thrust upon anyone at any time." Alyeska crews and passengers are required to wear or have available suitable cold weather clothes.

Additionally, survival gear, including a sleeping bag, blankets, tools, and an ELT and rescue strobe signal light are required on all Alyeska contract and charter planes.

"A professional, experienced pilot will not have trouble in Alaska," says Frank Hefferman. "But the immature pilot who thinks he has to act like a bush pilot is the one who gets into trouble."

"In no case shall a pilot have less than 500 hours flying time in Alaska . . . All pilots shall have previous North Slope



Left: Tim Fix models gear worn by the well-prepared pilot. Right: Drawing survival gear. □

winter flying experience, or an adequate company checkout prior to operating North of the Yukon River in the winter (October through May.)"

While aircraft can operate efficiently at the extremely low temperatures in Alaska, Alyeska officials have ruled that around -35° F. is a cut-off point, in part because of the physiological limitations on the crew and passengers should a plane go down, and partly because of aircraft limitations.

Things now are easier

Pilots now operating along the pipeline corridor have things far easier than those who were there even as little as a year ago. "Compared to things then, flying now is a piece of cake," says Craig Clark, an AHS fixed wing pilot who holds something of a record. He's flown the full length of the pipeline route from Valdez in the south to Prudhoe Bay 44 times.

"Back in the winter of '69 and '70," he recalls, "you had nothing to navigate by. One tree looked like every other one."

Joe Lieto, ex-Army AWO, with a 1968 Ninh Hoa address, recalls vividly how things have changed in terms of search and rescue. Joe was flying a JetRanger on the line before the construction camps were completed. Then a pilot would file a flight plan when he took off in the morning and only if he didn't close it out at the end of the day did anyone notice.

That was the situation when Joe had to

make an emergency landing. He had an ELT aboard, but then no one knew he was down and while his own radios were working, there were no bases within range. So he just waited . . . and waited.

Frank Hefferman was up at a North Slope airfield and late in the day was told that Joe was overdue. While heading south, he began a check of the route tuning in on the ELT's 121.5 frequency and almost immediately picked up Joe's signal. Frank homed in on the beeping and shortly spotted Joe and picked him up. He had been down for about six hours.

A 20-minute wait at most

"You wouldn't ever have to wait more than 20 minutes if you went down now," says Frank. "For one thing, you rarely fly very far away from the road now that it's in. So if you do have to sit down, you can just hike over to the road and haul a ride into camp. Besides, there are camps every 60 miles with flight following. Someone knows where you are all the time. Operations where now are as safe as those anywhere in the world."

That's if the weather is good and no one is ever sanguine about the prospects for change. Along the North Slope, there's the dreaded wintertime danger of "white out" when conditions are comparable to flying in a bottle of milk.



Left: Supplies come directly from engineer's car.
Right: Mechanic removes battery for night. □

In mountain passes there are powerful, shearing winds that come off glaciers with dangerous consequences for the unwary. In the south, heavy fog, rain, and winds combine to make flying conditions anything but easy. In the summer, much of Alaska has 24 hours of daylight and aircraft can operate around-the-clock. To get in the maximum amount of work, planes are often double- or even triple-crewed.

In the winter, however, daylight slips to literally nothing, curtailing the amount of construction work that can be done. The extremely severe weather and the lack of daylight are calculated into Alyeska's work plans, of course.

Frank P. Moolin, Jr., Alyeska's Senior Project Manager for the entire pipeline project, says that from August and September when 100% effectiveness can be planned, the level drops to 85% in October, 60% in November, and down to 20% in December and January. Then, as the daylight begins to increase and the extreme low temperatures ease, operations pick up again.

A constant requirement

Even with the reduction in actual construction work during these winter months, there is still a requirement for helicopters, although operations go down substantially from peak summertime levels. For one thing, Alyeska tries to have one aircraft serve as a medevac plane at each of the 12 construction camps north of the Yukon River.

Some field work continues in advance of actual "stringing" of the 48-inch steel pipe along the 798-mile long pipeline route. Survey parties are still working, for example. Engineers and inspectors, too, need to get out areas where work is under way. As design changes are made and modifications ordered, technicians need to move out quickly to work sites.

For much of this transportation, the helicopter is required. Completion of the 360-mile "haul road" that leads from the Yukon River north alongside the pipeline route means that fuel and machinery can begin to go overland. But except for local



Mechanics re-attach Alouette blades each a.m.



Swirling snow can create a "white out" hazard.

movement of work crews from a camp out to a nearby job site over the haul road and then access roads, air will still be a primary means of Trans Alaska Pipeline project transportation.

Environmental considerations are involved in this situation. In years past, simple air strips could be put in for fixed wing aircraft. But using a grader now means damage to the delicate tundra soil, and that, in turn, could expose the permafrost layer beneath to melting. If that happens, there is a danger of lasting and accelerating erosion and a permanent scar on the landscape.

Use of "tundra boards"

A helicopter, however, can put down with a minimum of damage to the tundra in those areas where this a major concern. To make landings in those areas more effective, most aircraft operating for Alyeska are equipped with "tundra boards" which are wider than skis. Even so, one aviator describes putting down on tundra during the summer thaws as a bit like landing in sponge rubber. Float-equipped helicopters are used widely during the summers in those areas where ponds, streams, and marshes dominate the operating areas.

While spring and summer bring their own special weather and terrain problems, all here agree that it's the winter when all problems are magnified. Keep-



Chief mechanic checks the day's work details.



Camp Dietrich radloman maintains flight following.

ing aircraft warm is a never-ending challenge. Hangars are only available at Fairbanks; all other camp operations are fresh air enterprises.

Just to keep an aircraft in shape to fly in the morning, mechanics plug in small 850 watt, 120 volt, Canadian-made electric heaters and festoon them in the plane. Generally there's one such heater in the engine, one next to the transmission, and another in the cockpit. A shroud over the engine exhaust as well as the cockpit is also a good idea.

The exhaust cover was found to be necessary after an aircraft shut down at the end of the work day. When the exhaust faced the direction of the wind, snow blew into the exhaust, melted, and then as the engine cooled, the water turned to ice, freezing the turbine blades. Now mechanics are careful to cover intakes and exhaust ports, if only with rags.

Batteries, preheating

Battery blankets are used but often as not the batteries are removed and taken indoors. Some pilots end up with their aircraft batteries under their camp beds. All these precautions notwithstanding, preheating is necessary to start helicopters below -10° F. Heavy duty heaters, such as the Herman Nelson units, are used whenever possible, the hot air being ducted up to the transmission and engine as a pre-start procedure.

"If the temperature hasn't gone too low during the night, you can get an aircraft ready to go in an hour," says Dee Cole, one of the AHS mechanics. "Two hours is more common."

An APU can't be depended on always, either, since it's just as likely to freeze up and has to be worked on to get it started. Needless to say, doing any kind of repairs, or even simple maintenance out in temperatures well below freezing, as is the case all winter at the construction camp airstrips, is anything but a laugh.

How's the pay?

Is the money worth the relatively difficult flying conditions? Probably it is. Curiously, a helicopter pilot in a field camp was for some time among the lowest paid workers, not getting as much as a "bull cook", the handyman who makes beds and helps out in the kitchen. Given pay scales on the pipeline, such people can pull down \$700 a week and more; heavy equipment operators see gross pay checks up past \$1,100 a week. (And their room and board is free.)

In recent months, however, pilots have been granted some pay and fringe benefit increases that make grumbling less prevalent. Pay varies from company to company, but here's some typical salary scales.



□ The fire truck at the Camp Dietrich airstrip is a tracked Canadian-made vehicle. Such equipment is necessary since there is virtually no road access to the area in which the fire is located once one goes beyond the immediate camp ground itself. □

The base pay for a pilot just coming into the pipeline work is \$1,350 a month and with increments for proficiency and seniority, pay can go to \$1,990. The flight pay per hour is \$5 for single-engine aircraft — helicopter or fixed wing.

Anyone flying away from the company base gets \$30 a day "just for opening his baby blue eyes." That's referred to as "bush" pay. There is per diem pay, too, to cover meals. In most cases, the companies have apartments or have rented motel rooms for the mechanics and pilots to use at Fairbanks. When assigned to a construction camp, they stay at the camp with a comfortable room and board provided without cost.

"Oh, that camp food," comments Joe Lieto who keeps insisting he's going to diet. But steak, lobster, frog legs, and other gourmet-style fare are common at the camps where food is rated a necessary morale element.

In Alaska, pilots average about 70 hours a month, or 500 hours a year. During the busy summer months, they might go to 100 hours but during the dead of winter, they can fall to almost nothing. Winter lay-offs are, in fact, common because the Alyeska requirements are so reduced that operators have only to provide minimum service.

The pilot with a company for six months, has an annual average gross in the high \$20,000's while senior men earn around \$30,000. Under Alyeska regulations, a man may not spend more than 21 days at a camp before he is relieved. Leave time is accrued on the basis of one-third of a day off for every night away from base.

A shortage of mechanics

Generally speaking, there is no shortage of pilots desiring to fly in Alaska even though the experience requirements are high. "If you don't have 2,000 hours, nobody wants to even talk to you," says one flier here who has 3,000 hours in his log book of which 800 are in Alaska.

It's a different story with mechanics. "There's a definite shortage of trained, experienced mechanics," says Kent G.

[Continued on Page 38]

SALE. BAD VIBES



Our analyst is different from the spectrum analyzer you're used to. Ours is the Endevco Test Cell system (ETC). It analyzes bad vibes, and good ones, in jet engines, gas turbines, rotors, just about anything that turns and shakes. It gives you precise, engine order, narrow band, one-per-rev data. It costs 60% less than a spectrum analyzer.

How can we claim that? Have we lost our grip on reality? Not at all. An ETC system will not perform all the functions of a spectrum analyzer. If you really need all those functions, ETC is not for you. Read no further.

But if a spectrum analyzer represents more capability than you really need, at much more than you really should pay, read on.

We've looked at the spectrum analyzers. We've looked at the tracking filters. To the best of our knowledge, ETC is far and away the most cost-effective system for obtaining narrow band data on jet engines and rotating equipment. It provides a moveable band pass that follows the vibes of your specimen as RPM is changed. It's the most cost-effective approach to data analysis, when you want a quick and easy way to feed tape through a machine and locate the big peaks and valleys. For

ANALYSIS 60% OFF.



development. For production. For overhaul. The ETC system comprises: Piezoelectric accelerometers; a broad variety of specially designed hard line and soft line cable; a vibration amplifier that accepts data from velocity coil pick-ups, and piezoelectric accelerometers and also provides integral readout; and a tunable tracking filter with provision for slaving center frequency or harmonic from an externally applied reference signal, such as a tachometer.

It's all there waiting for you. But, of course, we can't help you unless you communicate with us. Tell us what's on your mind. We'll tell you all about ETC. Sessions with our bad vibes analyst will make you feel much better. Trust us. Write today to: James L. Higgins, Engine Vibration Monitoring-Marketing Mgr., Endeveco, Rancho Viejo Rd., San Juan Capistrano, Calif. 92675 (714) 493-8181.

ENDEVCO 

Fort Hood's new Sixth Cavalry Brigade . . . "The Blackhorse Brigade is rich in its cavalry traditions in exploring new frontiers in aerial tactics and equipment, and is proud to be a significant part of U.S. Army Aviation."

ARM Y Aviation has a new unit, one that has the distinction of being the "world's only" as well as being a unique combat unit.

It's the **6th Cavalry Brigade [Air Combat]**, activated in late February this year at Ft. Hood. Commanded by **COL [P] Charles E. Canedy**, the 6th is comprised of:

. . . an air cavalry squadron, the **4th Squadron, 9th Cavalry**, commanded by **LTC George D. Burrow**,

. . . an attack helicopter squadron, the **7th Squadron, 17th Cavalry**, commanded by **LTC Donald R. Martin**,

. . . the **55th Signal Company** commanded by **CPT Herbert Worff**.

. . . the **34th Support Battalion** commanded by **LTC Charles U. Vaughn**,

. . . and the **brigade Headquarters Troop** commanded by **CPT Kenneth R. Collins**.

Although the **6th Cavalry** is new to the Army as a separate brigade, the **Air Cavalry Combat Brigade [ACCB]** concept has been in existence since 1970. It began when the 1st Cavalry Division returned from Vietnam and reorganized as a TRICAP division. The triple capability of the division was reflected through three dissimilar brigades — Armor, Airmobile Infantry, and ACCB. Internal structuring of the ACCB brigade was different, but the doctrine and tactics, with respect to tactical employment, were the same as they are in today's **6th Cavalry**.

The muscle of the **6th Cavalry** is most prominent in the tank destroying helicopter, the AH-1Q. Basically, the "Q" model is the same as the "G", but with modifications for the tube-launched optically traced "wire guided missiles, known as "TOW". When fully operational with the aerial TOW missile

At Fort Bragg, the 119th Aviation Co [AHC] completes three full weeks of intensified field training in a two-step Operational Readiness Training Test at USAAVNC and a tactical deployment in USAF aircraft to Eglin AFB

WITH "Operational Readiness" their touchstone, the members of the **119th Aviation Company [AHC]**, 269th Aviation Battalion (CBT), 12th Aviation Group (CBT) recently completed three weeks of intensified training culminating in an Operational Readiness Training Test (ORTT) at USAAVNC and at Eglin AFB, FL in April.

Under the command of **MAJ John M. Dailey**, the 119th "Redhawks" departed from Fort Bragg, their home station, on 9 April in a self-deployment exercise designed to provide the unit training in moving itself utilizing only its organic aircraft, vehicles, and equipment and without external assistance.

Their successful completion of this phase of their training established an enviable pace for the duration of the exercise and proved one of many out-

standing highlights of the entire period. The Redhawks initiated their deployment with 100% availability of both aircraft and ground vehicles and equipment and was terminated without a single maintenance delay or vehicle breakdown.

During the next two days at USAAVNC, the organization, in-processing, and relocation of the different sections of the unit was accomplished. And by the end of the week the entire company was 100% operational in their field training sites, mission ready and well into their intensive training program.

The intensified training reached its peak during the second week with the Armed Helicopter Platoon completely qualifying twelve aviators in all associated aerial weapons systems at the Blackmill Firing Range. This training was conducted dur-



An article by
COL (P) CHARLES E. CANEDY,
Commander, 6th Cavalry
Brigade (Air Combat),
Fort Hood, Texas, the first to be
submitted from Fifth U.S. Army

system, the brigade will have 153 AH-1Q's, each with a basic load of 16 missiles. Realistic tests, administered by Modern Army Selected Systems Test Evaluation and Review [MASSTER], here at Fort Hood, have proven the aerial TOW to be an extremely effective weapon.

The teeth of the brigade are in the "Heavy Cav", the attack helicopter squadron. Organizationally there are three identical attack troops, each consisting of three attack platoons of 7 AH-1's each, and a scout platoon of 12 OH-58's. Integrated direct support maintenance is structured into the Headquarters Troop.

The "eyes and ears" are provided by the air cavalry squadron. The "Real Cav" is organized with three identical air cavalry troops, consisting of an aero-scout platoon of 10 OH-58's, an attack platoon
(6TH CAV/Continued on the Next Page)



An after action report on the
119th Aviation Company as
submitted to **ARMY AVIATION**
by **CW4 WILLIAM D. IVEY,** and
the first "field report" to be
received from a 1st Army unit

ing both day and night flying conditions with particular emphasis on the night firing.

In qualifying, the Cobra platoon utilized the M-35 system, 20mm cannon; turret mounted 7.62mm mini-gun and 40mm grenade launcher; the M-18 self-contained 7.62mm mini-gun; and ten and seventeen pound rockets as other wing stores.

Throughout this period, the utility helicopter platoons received intensive training in their specialties: nap-of-the-earth (NOE) techniques, external sling load operations, low-level navigation, night NOE training, tactical insertions and extractions, and redeployments. Again, additional emphasis was placed on practicing these type operations during periods of limited visibility and at night.

[119TH/Continued on Page 30]

Operations

USAREUR's 73rd M.I. Company [Mohawk] becomes first field unit to receive new rocket assisted ejection seat.

A RMY Mohawk aircraft of the 73rd Military Intelligence Company, 11th Aviation Group (Combat), are now equipped with a new rocket assist ejection seat.

In May, the 73rd MI Co became the first aviation field unit to go into operation with the new Martin Baker MK-J5D Escape System.

The new ejection seat features a 2,000-pound thrust rocket motor which assists a conventional powder charge to remove the occupant from the high-performance Grumman surveillance aircraft quickly and efficiently. In addition to its high altitude and airspeed capabilities, the MK-J5D operates at ground level at aircraft speeds as low as 40 to 60 knots.

The M-119 rocket motor is attached to the bottom of the new ejection seat and is ignited immediately after ejection. Rocket thrust sends the seat occupant an additional 40 feet higher to a peak height of 120 feet. In comparison, the earlier MK-J5B model of
[MOHAWK/Continued on Page 29]





Operations

of 9 AH-1's, and a reconnaissance platoon transported by 5 UH-1's. The basic change in the recon platoon over the old aero-rifle platoon is the MOS of its members. All 36 troopers are 11D scouts as opposed to 11B infantrymen. The squadron does not have a ground troop. Because of current asset limitations, "B" Troop is not filled; hence a bobtailed squadron of two line troops.

The "voice" of the brigade is provided by the signal company. With only 99 personnel authorized, they provide the RATT and multi-channel communications to link the brigade with the organic squadrons.

The largest unit is the 34th Support with 1,069 personnel authorized, and 157 different MOS codes. The tailoring of this battalion is such to keep the "tooth to tail" ratio as high as possible, and not burden the brigade with the wherewithal to make it a self-sustaining organization. The brigade cannot

live without someone's support. The concept, and in fact the present situation at Fort Hood, is to simply plug into a Corps Support Command (COSCOM). Today the brigade's umbilical cord is plugged into the 13th COSCOM. All finance, SIDPERS, and personnel actions are handled by the supporting COSCOM. The real benefit of the concept is that the brigade retains all of the organic killing power, is extremely mobile, both tactically and strategically, and can plug into any theater's support command. In the Headquarters and Service Company, there is a 30-man section responsible for the COSCOM interface.

Alpha Company is the Supply and Transport Company. Its mission is to provide the surface line haul capability for the movement of all classes of supply and to provide the forward area rearm and refuel points.

Bravo Company is the ground maintenance DS company that maintains the 640 vehicles organic to the brigade. **Company "C"** is the Aircraft Maintenance Direct Support unit. The concept of direct support maintenance envisions the squadron's performing 60% of the DS maintenance with the

[Continued on the Opposite Page]





6th Cavalry Bde has enormous combat potential

remaining 40% performed by the DS maintenance company.

Delta Company is the Assault Support Helicopter Company, with the mission to provide the air resupply of fuel and ammo. Equipped with the "Super-C" models, the lift capability is approximately 144 tons, assuming all 16 Chinooks are operational.

The 6th has the necessary ingredients

The 6th Cavalry Brigade possesses the three necessary ingredients for any successful battlefield endeavor - "Mobility, Firepower, and Communications". It should be totally integrated into the combined arms team and optimum effectiveness will be achieved when employed in conjunction with the power of armor and the mobility of 80 mph airmobile infantry units.

This brigade can provide the corps commander a maneuver unit with enormous combat potential which can capitalize upon its inherent three-dimensional mobility and rapidly apply decisive combat power at any point on the battlefield.

Very basically, this is the 6th Cavalry Brigade [Air Combat]; the real story is on the flight line and in the cockpits—the hearts and minds of professional Army Aviation people. The "Blackhorse Brigade" is rich in its cavalry traditions, exploring new frontiers in aerial tactics and equipment, and proud to be a significant part of Army Aviation.

TOP — CAV COMMANDERS IN THE SADDLE - Holding the reins of the world's only air cavalry combat brigade, the 6th Cavalry Brigade [Air Combat] at Ft. Hood are, left to right, LTC Philip J. Haan, Deputy Brigade Commander; LTC Charles U. Vaughn, 34th Support Group Commander; COL [P] Charles E. Canedy, Brigade Commander; LTC Donald R. Martin, Commander, 7th Squadron, 17th Cav; and LTC George D. Burrow, Commander, 4th Squadron, 9th Cav . . . while in the photo at the **BOTTOM** of Page 28: The Command Sergeant Majors coordinate on Brigade matters Cavalry-style. Shown left to right in the saddle are CSM William McPherson, 7th Squadron, 17th Cav; CSM David B. Pulis, 34th General Support Group; CSM Max B. Ogas, Brigade CSM; and CSM James W. Reed, 4th Squadron, 9th Cav. □

REPORTS FROM THE FIELD!

* "Operations - in the Field" is a new column that will highlight the activities of worldwide units and agencies. Its purpose? To have the units tell you what's happening "in the field" for — in today's vernacular - "that's where it's at!" □

In the field*

MOHAWK [Continued]

the seat had conventional powder cartridges and required a ground level ejection speed of 100 knots to reach a safe propulsion height of 80 feet.

The new rocket assist ejection system accomplishes its task with 5 to 7 less "G" loads than the older seat which helps to reduce the possibility of back injuries. Also, it quickly positions the seat in the correct attitude for firing of the drogue chute and provides optimum seat position for withdrawal of the personnel parachute, resulting in safer low altitude, low airspeed ejections.

Instruction on the installation and use of the new MK-J5D seat was presented to aircrews and to seat maintenance personnel by a New Equipment Training Team (NETT) from the States. The NETT team was headed by 1LT Jim C. Reynolds from New Equipment Training and Field Service Activity Division of AVSCOM. Members of the team included SFC Samuel Mayfield, AVSCOM; SFC Robert L. Miller, Airborne Department of QM, Ft. Lee VA; and SFC Edward Podish, USATSCH, Ft. Eustis VA.

A new personnel parachute and harness assembly, tailored to fit the crewmember's body by height and weight measurements, is

[Mohawk/Continued on Page 31]

NETT Team assists in uncrating the MK-J5D Seat



Operations



119th personnel met demanding training schedule

Both enlisted and officer personnel received platform instruction in maintenance, safety, survival, evasion, resistance and escape, communications security, tactical operations, the utilization of airmobile units in high threat environments, and NBC warfare.

All Redhawk aviators and attached pilots were able to use the Synthetic Flight Training Simulator (SFTS) which proved a unique and stimulating experience, even surprising in some cases, for those who were not previously familiar with the simulator and its capability of reproducing almost every possible flight condition that an aviator might encounter.

Redhawk Aviators are 100% AAAA

The administration section, often forgotten in some aviation units and usually unheralded, continued to keep the company management activities running smoothly in their characteristic outstanding manner and was cited during the exercise debriefing for their 97% SIDPERS processing record, particularly under remote field conditions.

Also highlighted were the facts that no Redhawk personnel were AWOL during the last quarter; 100% of the unit aviator personnel are AAAA

UTTAS CHECKOUT — BG [P] Jerry Lauer, right, UTTAS Program Manager, AVSCOM, is checked out by Sikorsky UTTAS Program pilot, John J. Dixon, prior to the first of several flights he's made in the YUH-60A during his visits to the Sikorsky facility in Stratford CT. □



members; and, during the last four years, the AGI has never given an unsatisfactory rating to any of its sections.

A 19-Hour workday

With the training phase of the exercise operating at full speed, the maintenance crews worked around the clock to sustain the maintenance posture and to meet the demanding Flying Hour Program. A typical training day began at 0430 hours and terminated at 2300 hours or later.

Throughout the entire three-week period their outstanding work and dedication kept the Redhawks in the air and they were regarded by many persons at Fort Rucker to be one of the finest and most professional maintenance teams they had observed. Their accomplishment of their mission was greatly enhanced by the supply and availability of parts and the technical support of the maintenance departments at the home of Army Aviation.

The training portion of the three-week exercise ended on Friday of the second week and the Redhawks immediately began preparations for the examination that would prove their true professional ability and complete their welding into a solid team.

The deployment to Eglin AFB

Alert! Alert! Alert! At 0400 hours Monday, 21 April, the test began. All flight crewmembers reported to operations for their briefings and assignments while the aircraft were loaded with equipment and armament. The ground crews initiated their outload procedures and prepared the company for redeployment to the field test location.

Preparations continued throughout the day and by 1600 hours the ground element departed for Tac X with the Air Task Force deploying at 1900.

PROMOTION - BG R. Dean Tice, left, Berlin Bde Cdr, congratulates CW4 Harold Simpson on his promotion to W4, the ceremony being held while flying over East Germany's South Corridor. LTC Richard C. Kattar, Bde G-3, and MAJ Alex Woods, Jr., Avn Det Cdr, look on. □



In the field

Almost on the heels of the company's closing at Tac X, the Redhawks were hit with a simulated ground attack. The company defensive perimeter held and repulsed the Aggressor Force without loss to personnel or aircraft. The success of the company defensive security proved to be another of the many highlights of the exercise. The following morning, the air element received orders to conduct a tactical move to a location within the confines of Eglin AFB. From this location, the utility helicopters with their armed escorts from the Cobra Platoon conducted extensive airmobile operations under a simulated high-threat environment.

All troop movements conducted NOE

All of the troop movements, to include insertions, extractions, and redeployment, were conducted under NOE flight conditions. In addition to the airmobile operations, the task force was tested on its response to NBC warfare. Again, the Redhawks excelled and during the exercise debriefing, the outstanding capabilities of the NBC team and their professional knowledge and response was commended by the ORTT evaluation team.

Thursday—after three days and nights of continuous testing and evaluation—the ORTT Phase of the exercise was successfully terminated and the 119th again redeployed to Fort Rucker's Guthrie Field and made preparations for their return flight and ground move to Fort Bragg.

On Saturday, 26 April, after three weeks of strenuous, dynamic, and challenging training, the 119th Redhawks headed for home at Simmons Army Airfield content in the knowledge that they had done their job well and were truly "Operational Ready."

PHOTO BELOW: 1LT Jim C. Reynolds, NETT Team Commander, assists a unit pilot in fitting his harness while in the photo at the RIGHT crewmembers of the 73d M.I. Company are shown during the installation process.



MOHAWK [Continued]

also expected to contribute to lessening the chance of back injuries. The emphasis on reduction of back injuries stems from past studies which show that 35% of Army pilots who experienced an ejection have incurred this type of injury. This rate is substantially higher than that of the other military air services which have been using a rocket propulsion escape system.

Other improvements in the new seat include a more accurate barostat control for high altitude ejections which delays opening of the parachute until the occupant descends to 14,500 feet, and size increase in the main chute canopy from 24 to 28 feet.

The new seat has eliminated a 22-inch controller drogue chute which formerly extracted a 5-foot stabilizer drogue chute. Now, a single 5-foot drogue chute is ballistically extracted from the seat by means of a half-second drogue gun for faster drogue deployment and seat stabilization.

There is also a new quick disconnect system termed the guillotine which features a small, sharp blade which provides for manual parachute deployment.



PCS - Changes of Address

COLONELS

AINSLIE, Robert E.
Quarters H-C
Copcus Christi TX 78419

BUSH, Harry L.
Qtrs 24-1 US Army Instl
Granite City IL 62040

DOTY, Benjamin E.
8613 Queen Elizabeth Blvd
Annandale VA 22003

ELIASSON, Arne H.
Gen Det., USPO Belle View
Alexandria VA 22307

HOWLETT, Byron P., Jr.
11058 East Mexico Avenue
Aurora CO 80012

KIRKLIGHTER, Gerald W.
214 Mimosa Lane
Lawton OK 73501

MIERSWA, Myles H., Sr.
3904 Chelsea Street
Orlando FL 32803

SARGEANT, Edward W.
13443 Beaulac Drive
Creve Coeur MO 63141

TODD, John A.
9533 Saluda Court
Lorton VA 22079

WILSON, Frank R.
222 South Helix Avenue
Solana Beach CA 92075

LT COLONELS

BARRECA, Nicholas E.
10430 Grand Park Drive
San Antonio TX 78239

BITTINGER, Robert C.
3022 June Apple Drive
Decatur GA 30034

BURBULES, John G.
USAWC
Carlisle Brks PA 17013

BURNS, Joseph C.
8543 Electric Avenue
Vienna VA 22180

CALDWELL, Richard D.
6346 East Acampo Road
Acampo CA 95220

CLARK, David
1225 Vienna Drive, #339
Sunnysvale CA 94086

COLELLO, Joseph, Jr.
P.O. Box 3119
Ft Leavenworth KS 66027

FLEMING, Jerry L.
1458-A 5th Avenue
Ft Knox KY 40121

FUGITT, Billy W.
531 Lindsay Avenue
Ft Sill OK 73503

GLOVER, Leo M.
704 West Marion Street
Winnboro TX 75494

HALEY, Robert H.
48 Shoshoni Drive
No. Little Rock AR 72116

HATTON, Richard R.
1914 Delta Drive
Lacey WA 76012

HENNIGAN, William J.
6910 Ashbury Drive
Springfield VA 22152

HILEMAN, Jerome G.
250 Mt Lebanon Blvd
Pittsburgh PA 15234

HOFFMAN, Glenn F.
211-6 Kawaihae Street
Honolulu HI 96825

JOHNSON, James C.
234 2d Avenue
Leavenworth KS 66048

JUDY, Jerry E.
USA Elm ALFSEE
APO New York 09224

LEONARD, Daniel R.
8421 Tollhouse Road
Annandale VA 22003

LOCKWOOD, Roy L.
2000 Stimson Road
Stockton CA 95207

NORTHBRIDGE, Henry R.
RFD 1, Box 8000-A
Black River NY 13612

OKSA, Reino O.
7900 Wynnboro Drive
Oxon Hill MD 20022

OSTERMEIER, William F.
4795 West Braddock Road
Alexandria VA 22311

PETERSON, Kenneth H.
AA Spl Fac. 2079 Hy 33 E
West Bend WI 53095

STEWART, John P.
USAWC, Class of 1976
Carlisle Brks PA 17013

STILES, Howard J.
ROTC Det UW
Platteville WI 53818

STROM, George C.
9313 Bales St., Apt 302
Kansas City MO 64132

TREAT, Robert B., Jr.
8707 Triumph Court
Alexandria VA 22308

WALL, Walter F.
6805 Park Blvd
Wildwood Crest NJ 08260

WOLFE, Rodney D.
1115 Houston Street
Killeen TX 76541

MAJORS

AMIDON, Bert C.
12818 Colby Drive
Woodbridge VA 22192

BAUER, Daniel R.
205 Whitehall Street
Elizabethtown KY 42701

DOTER, Frederick S.
3915 Cole Porter Drive
Temple TX 76501

FOURSON, George R.
610 Third Street
New Cumberland PA 17070

FREDRICK, Gilbert H.
P.O. Box 280
Ft Meade MD 20755

FRENCH, John R.
Box 350, RFD 3
Esmond RI 02917

GOODFREY, Thomas J.
324 East Third Street
Maryville MO 64468

GRAHAM, James G.
53 Timber Lane
Brownsburg IN 46112

HARMAN, Robert J.
312 Antietam Street
Ft Devens MA 01433

HENNIES, Clyde A.
45 Bonney Street
Steilacoom WA 98388

HERVEY, Albert E., Jr.
Hq. DA DCSDRA
Washington DC 20310

HORVATH, Leroy L.
103 Robin Drive
Enterprise AL 36330

JONES, Lewis M.
14015 Shippers Lane
Rockville MD 20853

KUMMER, David W.
511 Special Troops
APO San Francisco 96358

LAWSON, Leoi, III
445 Baldwin, R.R.
APO San Francisco 96557

MILLIGAN, Charles W.
HHB, 28th Trans Bn
APO New York 09166

MITCHELL, Peter H.
4117 Curry Street
Columbus GA 31904

PAASO, Thomas H.
Hq. USAREUR, DDCSLOG-TH
APO New York 09403

PARUTI, Alexander, Jr.
8713 Pine Needles Court
Vienna VA 22180

PRAWITT, George F.
PSC Box 7647
APO San Francisco 96328

SHAVER, Frank
6238 Newberry Rd., Apt 1306
Indianapolis IN 46256

SMITH, John E.
8612 Chestnut Cir., Apt 3
Kansas City MO 64131

SZYMANOWICZ, Philip B.
1929 East 7th Street
Erie PA 16511

WHITWORTH, David C.
USA Mil Pers Ctr. DAPC-OPD
Alexandria VA 22332

WISSBY, James M.
USMILMIS
APO New York 09155

MAJORS

CAPTAINS

ABELL, James M.
6118-A Glen Mary Drive, S.E.
Lacey WA 98503

ANDERSON, David B.
2510 South Anderson
Urbana IL 61801

ANDREWS, Zolph H., Jr.
6802 Whitland Drive
San Antonio TX 78239

ANGERT, Hugh F.
13th Co, 1st Bn, TSB
Ft Benning GA 31905

BARBER, Theodore M.
1310 N.W. 30th Street
Gainesville FL 32605

BLAMEY, John A., Jr.
P.O. Box 146
Dadeville MO 65635

CASLER, Paul M.
171 Tall Drive
Clarksville TN 37040

CORDER, Phillip
Director of Maint Ops
APO San Francisco 96248

CUPP, Charles W.
226 Aviation Det
APO New York 09189

CURTIN, Stephen J.
3919 Forge Drive
Woodbridge VA 22193

DURN, James C.
901 Joy Rd., 49G Hiltos Ests.
Columbus GA 31906

DURR, George W., III
CSC, 2d Bn, 68th Armor
APO New York 09034

ELLIOTT, James E.
HHB, 3 Bn, 13 FA, 25 Inf Div
APO San Francisco 96225

FORD, Lewis
HHC, 3d Bde, 2d Ad
APO New York 09355

FORD, Milton L.
HHB, US Mil Com Act
APO New York 09162

GIBES, Ronald C.
115 Osprey Ct., Apt 202
Daytona Beach FL 32014

GILLIAM, John W., Jr.
3505 Camarie
Midland TX 79701

GLASS, Len E.
YHT, 3/11th ACR
APO New York 09141

HANNAN, Michael
875 Derbyshire, Apt 115
Holly Hill FL 32017

HARDY, Joseph N., Jr.
130 Janice Drive
Athens GA 30601

HENSON, Jimmie H.
5678 Z Carter Street
Ft Hood TX 76544

HOBBS, Jesse L.
4369 L 9th Street
APO Seattle 98731

CAPTAINS

JARVIS, Roland B.
2191 Memorial Dr., Apt H101
Clarksville TN 37040

JOHNSON, Clyde T.
3510 Stratfield Drive
New Port Richey FL 33552

KIRK, Johnny L.
Hq. AFCEM Sup Act, US
APO New York 09011

LAMBRIGHT, Odys J.
312 Beto
Huntsville TX 77340

LEWIS, Arthur R.
Route 1, Box 336
Kempner TX 76539

LONGHI, Fred A.
1004-B 67th Avenue, West
Bradenton FL 33507

MASSIEU, Raymond W.
A Co, 3d CAB, 3D ID
APO New York 09033

MAZUR, Richard
415 N.E. 46th Street
Lawton OK 73501

McCABE, William L.
2527-B Hagoood Street
Ft Eustis VA 23604

McCLOY, Michael N.
3065 Meadow Lark
Sierra Vista AZ 85635

MURPHY, William F.
4019 Riverview Av., Apt 206
Tampa FL 33607

MYERS, Anthony E.
HHC 1/6th Inf, 1 Arm Div
APO New York 09140

NEWLAND, Michael E.
2495 S. Memphis Way
Aurora CO 80013

OGLE, Glenn A.
Route 2, Box 255
Temple TX 76501

PIKUL, Walter J.
HHC, DISCOM
APO San Francisco 96224

PURVIS, Joseph H., Jr.
1601 Kingsway
Savannah GA 31406

RUF, David R.
8 Anderson Street
Ft Stewart GA 31313

RYAN, Larry E.
Lot 52 Hillcrest Trl Courts
Oak Grove KY 42262

SITHER, Charles R.
HHC, 3d Arm Div, Attn-AM
APO New York 09039

SKIPPER, Donald B.
5642-B Gilkey Street
Ft Knox KY 40121

SNECKENBERGER, Alvin R.
HCSC, 3d CAB, 3d Inf Div
APO New York 09031

STEELE, Donald W., Jr.
2919 Flintridge Square
Coto Springs CO 80907

CAPTAINS

THOMAS, Harry W.
HHC. 11th Avn Group
APO New York 09025

TUTTLE, Thomas L.
6813 Bellrose #14
El Paso TX 79925

WILLIAMS, Clinton L.
Route 2
Dechard TN 37324

WILLIAMS, Stephen J.
2624 N.E. Lake Avenue
Lawton OK 73501

WOOLARD, Claude E.
1191 Eden Isle Drive, N.E.
St. Petersburg FL 33704

WOTKINS, Anthony L.
S 1 Officer
Ft Shory VA 23459

ZEIER, Timothy M.
HHC, 2d Avn, 2nd Div
APO San Francisco 96224

LIEUTENANTS

BOWLES, Raymond S.
271st Avn Co (ASH)
APO San Francisco 96271

CHING, Ronald S.
623 Crenshaw Street
Mobile AL 36606

CONNERY, James J.
6525 Council Street, N.E.
Cedar Rapids IA 52404

CUSHING, Clayton
1121 Alta Vista
Killeen TX 76544

LIEUTENANTS

GEIGER, Victor S.
1008 Sublett Avenue
Copperas Cove TX 76522

HINTZE, Charles
HHC. 130th Engr Bde
APO New York 09165

O'BRIEN, Michael
51784-1 Comanche Cr. Bx 4-1
Ft Hood TX 76544

PIERNICK, Kenneth R.
5201 Rockingham Court
Fayetteville NC 28301

SALISBURY, Sandra L.
272 Monroe Avenue
Newport News VA 23602

CW4'S

DUMAS, James K.
118th Aviation Company
APO San Francisco 96225

FRANKLIN, James W., Jr.
5th USA Ft Det
Ft Sam Houston TX 78234

KEAN, Robert J.
2946-A Summerall
Ft Eustis VA 23604

NEWMAN, Donald N.
3809 Longley Road
Abingdon MD 21009

CW3'S

CASE, Conrad F.
116th Aviation Company
Ft Lewis WA 98433

CW3'S

DAVISON, Lee F.
2777-D 4th Street
Santa Rosa CA 95405

KING, Clifford C.
48th Aviation Company
APO New York 09177

LIONBERGER, William D.
Route 1, Box 316
Mineral Wells TX 76067

RUSSELL, John G., Jr.
170 Lexington St., Apt 5159
Clarksville TN 37040

SMITH, Robert C.
P.O. Box 281
APO San Francisco 96213

WHITE, James M.
235-B Nibilo Drive
Redstone Arsnl AL 35808

WILLS, Earl R.
HHC, 3d Bde, 2d AD
APO New York 09355

WINNER, Noel J.
215 Munson Drive
Columbus GA 31903

CW2'S

ALLMAN, Darrell
CMR 2, Box 5227
Ft Rucker AL 36360

BERRY, Herbert, Jr.
5483-D Jamison Street
Ft Knox KY 40121

BIBLE, Michael L.
Quarters 7202-A
Ft Carson CO 80913

CW2'S

BOGER, Paul D., Jr.
221-A Kings Mountain Street
Clover SC 29710

BOTZ, Ronald I.
196 Pamela Drive
Bolingbrook IL 60439

BOZARD, Guy S.
511 Beulah Avenue
Belleville SC 29841

BRANCH, Calvin L.
1802 Dennis
Copperas Cove TX 76522

KILBORN, David C.
James Robertson Bldg., Apt #7
Clarksville TN 37040

LENT, Victor A.
8327 Garfield Court
Springfield VA 22152

McGEE, Michael F.
42 W. Bel Air Blvd
Clarksville TN 37040

NISLER, Paul A.
156th ASA Co (Ave)
Ft Bliss TX 79916

PROCTOR, Steven V.
271st Aviation Company
APO San Francisco 96271

SATTERFIELD, Larry L.
HHT, 2d ACR
APO New York 09093

SLAGLE, David W.
P.O. Box 2366
Ft Benning GA 31905

SMITH, William L.
4312-7 Wolford Drive
Ft Riley KS 66442

SOWELL, Tommy S.
355th Aviation Company
Ft Eustis VA 23604

TOOLE, James L.
8 Btry, 4th Bn, 77th FA
Ft Campbell KY 42223

URWILLER, Charles E.
700 Lyndhurst St., Apt 244
Dunedin FL 33528

VASQUEZ, Gilbert
100 Red Cloud Road
Ft Rucker AL 36360

WALL, Donald R.
155th Aviation Company
Ft Ord CA 93941

WO'S

BIGAUQUETTE, George J.
103 Springdale Av., Apt 7A
Enterprise AL 36330

LEVESQUE, Peter L.
605-B Brittany Place
Fayetteville NC 28304

MOSELEY, Richard L.
7401-B Gardner Hills
Ft Campbell KY 42223

ENLISTED

CONKLIN, Hugh, SP5
48th Trans Co (GS)
APO New York 09454

ENLISTED

GUILLIAMS, David, SP5
235 36th Street, S W
Barberton OH 44203

RAMSDALL, Lane, SSG
443 Manor Road, Apt 12
Newport News VA 23602

TANNER, Charles, Jr., SSG
1709 Ft Campbell Blvd., #44
Clarksville TN 37040

VOLPITTA, Robert J., MSG
HHC, 22d Aviation Bn
APO New York 09061

RETIRED

ALLGOOD, Charles N., COL
Bendix, Snyanco 01
APO New York 09038

BOWMAN, James E., LTC
1177 Cardenas S.E., Apt 239
Albuquerque NM 87108

MOORE, Howard M., COL
Box R-BH1 Tehran
APO New York 09205

OAKLEY, Harold G., LTC
P.O. Box 385
St Cloud FL 32769

O'CONNOR, Thomas W., LTC
Rockwell Collins Radio Group
Dallas TX 75207

PANZITTA, Val, LTC
3 Canterbury Court
Savannah GA 31406

PEGUES, Michael P., CPT
704 Long Drive
Mineral Wells TX 76067

PERSCH, John T., LTC
603 North Airport Road
Dothan AL 36301

PRICE, Frank H., CW4
P.O. Box 11
River KY 41254

SHAFFER, George E., WO1
Rural Delivery 2, Box 453
Everett PA 15537

SHATTUCK, Ames B., COL
BHI, P.O. Box 44-1363
Tehran, Iran

WASSON, James C., III, CPT
P.O. Box 3341
No. Myrtle Beach SC 29582

ASSOCIATES

CARDWELL, William P.
SRA Box 83
Anchorage AK 99507

CARLSON, Donald J.
13381 Coral Reef Road
Tustin CA 92680

FITHIAN, Walter
P.O. Box 867
Brachetville TX 78832

LAKIN, Eugene C.
1047 Cactus Wren Lane
Sierra Vista AZ 85635

SANDBERG, Tom G.
12 Granite Drive
Norwalk CT 06851

20-Year Reunion for Cargo Helicopter Class 55F

REUNION — Members of Cargo Helicopter Class 55F reunited at a recent AAAA meeting at Fort Rucker, Alabama, are standing, from left, CW4 Bob Delker, LTC [Ret.] Alton J. Mangrum, CW4 Jack Williams, LTC Raymond E. Smith, MAJ's Jack C. Snipes and Louis L. Share, and LTC Willie M. Dixon, all retired; CW4 Bobby G. Bruce, MAJ [Ret.] Donald F. Lusk, and CW4 Michael J. Madden, MAJ's Waddell Avery and George H. Lawrence, and CW4 William L. Ruf, all retired; and CW4 Donald R. Joyce. Fifteen of the original 17 members in the class, which graduated 20 years ago, were at the AAAA meeting. □

MORE ABOUT EPMS (Cont. from P. 6)

trained to perform maintenance on one of the following major categories — *Observation/Scout — Utility — Attack — Medium Lift — Heavy Lift*. Your training will prepare you for maintaining all models found in a particular category.

With the reduction in MOSSs, there should be fewer classifications and this will allow soldiers to serve in more varied assignments. This will do much to assist you in assignment flexibility and to enhance your promotion prospects because of your varied experience.

The 67W, *Aircraft Quality Control Supervisor*, should be a real professional since he will concentrate and be trained in the details of advising and assisting the commander and maintenance officer on application of MWOs, current EIR information, engine overhaul application, and those areas which are helpful to tech inspectors in the decision-making process. Of course, he can do this on BOTH fixed and rotary wing. The 67W MOS is only available to E6 and E7 soldiers.

The repair of GSE

For sometime now the Army has studied the pros and the cons of a new MOS to repair and maintain all Ground Support Equipment (GSE). This has been an area of concern since the maintenance responsibility has not been clearly defined in TOEs and soldiers' job descriptions.

A new MOS will be established to take in all those tasks your supervisor now "details" you to do, such as maintenance and operation of generators and all other major items of equipment that are used to test aircraft components.

Aircraft Components Repairmen will see a few changes in addition to the new GSE repairman. MOS 68E [*Aircraft Rotor and Propeller Repairman*] is deleted but the tasks are transferred to other MOSSs in the 68 series [*Component Repair*].

Another new MOS, 68J [*Aircraft Com-*



"Aeronautical" is the adjective to describe the Dibrell family. Jack C. Dibrell, an ARMY ROTC Cadet Major at the University of Alabama, recently completed ROTC flight instruction at the University as well as Airborne/Ranger School at Fort Benning in the summer of '74. SP4 Mark W. Dibrell of the 145th Avn Bn [CBT] at Hunter AAF completed Air Traffic Control School at USAAVNC. Their father is COL Jack H. Dibrell, the Aviation Officer at Hq, Fifth U.S. Army in San Antonio. □

ponents Repair Supervisor] has been established to provide an overall components repair supervisor and give the soldiers broadened career development in preparation for advancement to MOS 67Z.

Throughout the redesign of CMF 67, one concern stood far above all others — the soldier and his professional development. Your new career field will be one which is challenging and shows logical career progression all the way to the top.

We'll keep you informed!

Aviation Maintenance will be a career field that gives you an opportunity to acquire skills you can use when you retire — but above all a career field which enhances your professional development while in the Army, and directly supports the Army in the accomplishment of its missions.

In later issues of this magazine, we will keep you informed of any recent developments in the *Aviation Maintenance* career field. It will be about another year before these changes are actually made so don't go down to the flight line tomorrow looking for all the changes to be made.

We here on the *EPMS Task Force* are working and listening very closely to your representatives at the "T" School and at Fort Rucker. All of us are approaching this project like porcupines making love — *very carefully*.



AAAA Membership Activities

AAAA Meetings during May-October, 1975

□□ MAY 29. Richard H. Bitter [Corpus Christi] Chapter. Late afternoon "social" meeting — "Happy Hour." Sun Room, NAS O-Club. Members and ladies.

□□ JUNE 12. Pikes Peak [Fort Carson] Chapter. Late afternoon business-social meeting; discussion of Summer Meeting plans. Free beer. Ft. Carson OOM.

□□ JUNE 13. Checkpoint Charlie Chapter. Late afternoon business-social meeting. Harnack House. Members & guests.

□□ MONTEREY BAY [FT. ORD] CHAPTER. Professional-social-business meeting. BG Donald F. Packard, guest speaker. "CDEC Aviation Experimentation." Installation of Chapter's 1975-1977 officer slate. Hors d'oeuvres; wives & dates encouraged to attend. Presidio of Monterey O-Club.

□□ JUNE 20. Lindbergh [St. Louis] Chapter. Third Annual AAAA Scholarship Tournament Awards Dinner. Members and guests. Clubhouse, Granite City Army Depot.

□□ JUNE 21. Washington, D.C. Chapter Annual AAAA-DUSAA Air Show & Picnic. Noon to 5 p.m. Members and guests, and families. Anderson Park, Ft. Belvoir.

MILESTONE — MG Jack C. Fuson, left, Fort Eustis Commander, presents Master Aviator Wings to LTC Kenneth E. Eaton, Aviator Officer of Felker Army Airfield. LTC Eaton serve AAAA as Executive V.P. OF THE David E. Condon Chapter. □



BRIEFING — John McMinn, I., and Frank Duke, both of Boeing Vertol, and COL Loren C. Strange, r., Avn Ctr Chapter Pres., discuss UTTAS rotor blades following Duke's April 30 professional presentation to the Ft. Rucker membership.

□□ JUNE 21. Golden Gate Chapter. Professional-social dinner meeting. Jim Lefler, Beech Aircraft Corp., guest speaker. Presidio of San Francisco OOM. Members and wives.

□□ JUNE 21. Mississippi Valley [Davenport, Iowa] Chapter. Joint AAAA & 1105th Aviation Company Party (Softball, volleyball, keg beer+, dancing). National Guard Armory at Davenport.

JUNE 23. Richard H. Bitter [Corpus Christi] Chapter. "Take a Mid-Day Break with Quad-A1" Hamburgers & french fries at the O-Club; roasting of local personalities while you munch. Door prizes. O-Club. For members only.

□□ JUNE 25. Latin American Chapter. Late afternoon business-social meeting.

Nominating Committee for '75-'77 Chapter slate. Members only.

□□ JUNE 27. Monmouth Chapter. Annual Dinner and Birthday Ball. LTG John M. Wright, Jr., AAAA National President, guest speaker. Installation of new Officers; entertainment dance music. The Barclay, Belmar, N.J. Members and guests.

□□ JUNE 28. Morning Calm [Korea] Chapter. Professional Dinner Meeting. MG James C. Smith, Chief of Staff, UNC/USFK/EUSA, guest speaker. Friendship Village Arcade Club (RGH). Members and guests.

□□ JUNE 28. Air Assault [Ft. Campbell] Chapter. Annual AAAA Awards Picnic. "Outstanding Soldier, Aviator, Company, Battalion" and "Safety Award." Clarksville Base Picnic Area. Members, guests, families, and friends.

□□ JULY 17. Connecticut Chapter. Professional dinner meeting. MG William J. Maddox, Jr., Commander, USAAVNC & Fort Rucker, guest speaker. Site to be announced in local AAAA flyer. Members and wives.

□□ JULY 19. Connecticut Chapter. Sixth Annual AAAA "Summer Skirmish." 35



AAAA Membership Activities



MG William J. Maddox, Jr., COL William E. Crouch, Jr., and Gerald J. Tobias, Honorary Team Captains for "A Day at the Races, Reel II." AAAA National Hqs. Westport, Conn. Limited to members and wives.

JULY 25. Indy Chapter (Indiana). Professional Meeting & Steak Fry. MG Robert G. Moorhead, Commander, 38th Infantry Division, guest speaker. Awards presentation, Army Aviation Support Facility, Shelbyville IN. For members, guests, and wives.



FT. HOOD — Over 200 professional Army Aviation men and women met at the Main O-Club on 22 May at an AAAA professional-social luncheon at which Howard N. Stuverude, shown at right above, President of the Boeing Vertol Company, was luncheon guest speaker. Here he discusses the CH-47 with SSG Jerry G. Peoples, D Trp, 34th Spt Sqdn, 6th Cav Bde.

AUG. 8. AAAA National Awards Committee. Business meeting to select 1975 AAAA National Award Winners. Sheraton National Hotel, Arlington VA.

AUG. 9. AAAA National Executive Board. General business meeting. Sheraton National Hotel, Arlington VA.

SEPT. 3-5. Fifth Region - AAAA Meeting held in conjunction with the Fifth Army Training Conference. Palacio del Rio Hotel and San Antonio Convention Center, San Antonio TX.

SEPT 17. Second AAAA Congressional Appreciation Luncheon (or Dinner). Washington, D.C.



AVIATION-ORIENTED — Students whose aviation-related won in Alabama junior and senior high schools received AAAA engraved medallions and Certificates of Achievement during their mid-May visit to USAAVNC. Shown, l-r, are BG Robert F. Holloman, III, Post Dep Cdr and host; Terri A. Porter, Eufala; James E. Bailey, Jr. and Peter D. Llewellyn, Tuscaloosa; and Russell Kaemmerer, Foley. Clarence C. Newsom, the AAAA Chapter's Vice President for Science Fairs, is shown at the right.

SEPT. 20. AAAA Northeast Regional Fly-In and Professional Briefings sponsored by the Connecticut Chapter. Briefings, open luncheon, plant tours of the Sikorsky Aircraft and Avco Lycoming Division plants. ARNG and USAR aviation personnel are especially invited to attend.

OCT. 22-24. 17th AAAA National Convention. Sheraton National Hotel, Arlington VA.

MAR. 4-6, 1976. First Region — AAAA Convention. Williamsburg, VA.

MTFC CH-47 COURSE GRADUATES

A major change to the CH-47 Test Flight Handbook is presently being printed and will be available to CH-47 Test Flight graduates o/a 15 July. If a graduate, send your current unit or home address to: Director, AMTD, Test Fit Div; ATTN: CH-47 Track, Ft. Eustis VA 23604.

MASTER — LTC Robert E. Filer, r., a 17-year AAAA member, receives Master AA wings from COL Charles F. Drenz, Cobra Product Manager, during an AVSCOM ceremony in St. Louis, MO. LTC Filer joined AAAA while a "Blue Hat" at Camp Gary, Texas, Fixed Wing Class 59-7.





READY IN RESERVE



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

PLANS are underway to activate the 282d Avn Co (AH) at Fort Rucker, Alabama on 14 June in conjunction with the Army Bicentennial-Army Aviation Birthday Celebration at Fort Rucker.

The new unit will co-locate at Knox Field with the 376th Transportation Company (Aircraft Maintenance-GS) (USAR) and will become a subordinate command of the 121st U.S. Army Reserve Command, Birmingham AL, commanded by **MG Leonard S. Woody**. Prior service aviators and enlisted personnel desiring to join this new unit should contact the 121st ARCOM Recruiting Specialist, **Johnny A. Potocki** at (205) 794-0766.

77th ARCOM is top USAR unit

Congratulations to personnel of the 77th ARCOM Flight Facility, Stewart Field, Newburg NY on their selection to receive the Reserve Officers Association "Outstanding USAR Flight Facility Award for 1974." This award, instituted by **MG J. Milnor Roberts [Ret.]**, former Chief of the Army Reserve, and the ROA, was established in tribute to past achievements by USAR Aviation personnel in developing a viable aviation program and in recognition of outstanding contributions in achieving established training goals and objectives.

Of the 43 USAR Flight Facilities, the 77th ARCOM USARFFAC was selected to receive this initial award based on the accomplishments of the flight facility over the preceding year in providing support to assigned aviation units in the areas of flight training, standardization, accident prevention, and aircraft maintenance.

Captain Alfred J. Bevilacqua is the Stew-

art Flight Facility Supervisor. Other key personnel at the facility are: **CPT Robert A. DiPavoda**, Aircraft Maintenance Supervisor; **Joseph Esposito**, Shop Foreman; **CPT David Jarrett**, Standardization Officer; **CW2 Andrew Jacobson**, Safety Officer and Instructor Pilot; and **CW2 William Grant**, Flight Dispatcher.

The "Outstanding USARFFAC Award" will be presented to representatives of the 77th ARCOM at the ROA National Convention to be held in San Diego, California on 18-22 June 1975. Commander of the 77th ARCOM is **MG George W. McGrath, Jr.**

A word from the Sixth Army AvnO

All major Sixth Army USAR Aviation units will complete Army Training Tests this summer. The 190th Avn Co (ASH), stationed at Olathe KS, will take their ATT during annual training at Fort Chaffee AR, 31 May to 14 June '75. The 336th Avn Co (AH) Los Alamitos CA will accomplish theirs at Camp Roberts CA, 12-27 July '75, and the 92d Avn Co (ASH), Everett WA, will try a different method for their ATT, through the use of five consecutive unit training assemblies in September '75 at Fort Lewis WA.

USAR Aviation units must complete appropriate Army Training Programs (ATP's) and attain company level proficiency (successfully complete ATT) within three training years. Annual Training Objectives include maintenance of this company level proficiency attested by successful completion of an ATT every three years.

To a USAR Commander, this means he has approximately 117 training days to attain company level proficiency and pass an ATT and 39 training days annually to main-

tain that level of proficiency. Quite a challenge! Good luck to the above units. The Sixth U.S. Army Aviation Officer is LTC Donald R. Bausler.

USAR Aviator Profile

In the February '75 issue of *Army Aviation* "Ready in Reserve" discussed the USAR Aviator flying hour requirements and stated that "this amount of flying time, coupled with the prior service experience of most USAR Aviators, produces a proficiency level competitive with the best in Army Aviation."

The following profile of 431 aviators, recently developed by the Aviation Division, First U.S. Army, typifies the experience level of USAR Aviators:

	Avg Tot Flying Time	Average Combat Time	Average Age	Years Rated
Fld Grade	2,784	178	40	14.0
Co Grade	1,957	607	31	6.4
WO	2,239	740	30	7.0

ALASKA PIPELINE OPERATIONS: SOME STRIKING SIMILARITIES

[CONTINUED FROM PAGE 23]

Averett, operations manager for Merric Inc., which has its headquarters at Fairbanks International Airport. One reason, industry officials agree, is that the pay for mechanics has been too low to attract the right men up from the "lower 48." That's changing now with pay hikes at a point now where a man with an A&P rating and experience can make \$2,500 or better a month.

With the long winter now behind them, the pace of operations along the pipeline corridor is accelerating. The haul road, a necessary first step, has been completed and brought up to grade. Access roads are being pushed out to the right-of-way.

On March 27, crews actually put in the first sections of pipe, beginning the two-year effort to install the giant pipe that will bring the precious crude oil down

TOP USAR AVIATION UNIT



ON THE LINE — MAJ Thomas J. Owens, AO of the 77th ARCOM, winner of the USAR's "Outstanding USAR Flight Facility Award" for 1974, is shown on the flight line at Stewart Field NY with CPT David A. Jarratt, IP, 77th ARCOM. [See details on Page 37]. □

from the North Slope fields to the port at Valdez. And the whine of helicopter turbine engines and the aerodynamic smack of rotor blades will again be a sound that sets the pace of pipeliner transportation in Alaska.

"It's a routine of work, eat, and sleep," says Matt Kato, Vietnam veteran. "But camp living is great." And a colleague sums up the feeling of most pilots up here: "I'd rather fly the pipeline than have any other job."

JOB OPPORTUNITY

MARKETING MANAGER [HELICOPTERS] for LATIN AMERICA — The Vertol Division of Boeing is seeking an individual to plan, direct, and coordinate all activities associated with the international marketing of helicopters in Latin America. Candidates must be fluent in Spanish and possess a well-developed technical vocabulary. Excellent compensation; benefits package. For prompt consideration please send detailed resume and salary history to C.M. Gilpen, Manager of Personnel Administration (P 36-01), Boeing Vertol Company, P.O. Box 16858, Philadelphia PA 19142. An equal opportunity employer M/F. □

The Personal Side

PERSONAL ITEMS SUBMITTED
BY AAAA MEMBERS

AAAA HONORARY MEMBERSHIPS

Mrs. Jean T. Eastman, Director, Army Aviation Museum Association (Presented by Aviation Center Chapter).

COMMAND AND STAFF

GEN George S. Blanchard, as Commander, U.S. Army, Europe & Seventh Army, P.O. Box 209, St. Louis MO 63166.

MG Eivind H. Johansen, as Commander, U.S. Army Aviation Systems Command, P.O. Box 209, St. Louis MO 63166.

COL Edwin M. Aguanno, to Granite City Army Installation, Granite City IL 62040.

COL James H. Patterson, as Commander, 6th Cavalry Brigade (Air Combat), Fort Hood TX 76544.

COL Harold I. Small, to HHC, DISCOM, 101st Airborne Division (Air Assault), Ft. Campbell KY 42223.

COL Paul C. Smithey, as Commander, Wheeler Army Activity, APO San Francisco 96557.

COL [P] Story C. Stevens, to U.S. Army Aviation Systems Command, P.O. Box 209, St. Louis MO 63166.

FLIGHT SAFETY AWARDS (INDIVIDUAL)

CW3 Theron O. Clark, Hanau, 4,000 hours.

CW3 Roger L. Dunsford, USAREUR, 5,000.

CW4 Leonard A. Warren, USAAVNC, 11,000.

FLIGHT SAFETY AWARDS (UNIT)

335th Aviation Company [AH], Ft. Riley.

HONOR GRADUATES

U.S. ARMY AVIATION SCHOOL

1LT Michael A. Smith, ORWAC, May 6.

WO1 Bruce A. Jones, WORWAC, May 6.

1LT George P. Howard, ORWAC, May 20.

2LT Walter S. Smith, ORWAC, June 3.

WO1 Shannon Stebbens, WORWAC, June 3.

USA TRANSPORTATION SCHOOL

1LT Herbert D. Strasser, AMORTC UH-1, Class Number 8-75, May 22.

HONORS

MAJ Eugene L. Richardson, Maine Army National Guard, 1975 recipient of the **Frederick L. Feinberg Award** sponsored by the American Helicopter Society.

MEDALS

DISTINGUISHED SERVICE CROSS

CPT Ronald A. Radcliffe, for action on 28 April 1972, while a member of Troop F, 4th Air Cavalry, 1st Aviation Brigade.

LEGION OF MERIT

LTC Donald S. Galla, USAAVNC, first Oak Leaf Cluster*.

LT Donald M. Vose, USAAVNC, on retirement.*

MERITORIOUS SERVICE MEDAL

LTC James W. Phillips, Jr., USAAVNC*.

MAJ Charles R. Ledford, USAAVNC*.

*At retirement ceremonies.

OBITUARIES

Major Virgil E. Blevins, 37, died July 22, 1974 in Brooke Army Medical Center after a short illness. Interment was in Beaville, TX. He was survived by his wife, Pamela; daughter, Lesley; and son, Jason, who now reside at 1929 Mt. Vernon, Sequin, TX 78155.

LTC William A. Richards, 53, a former Aviation Officer of the Ohio-ARNG and a past member of AAAA's National Executive Board, died May 17, 1965. He is survived by his wife, Marcia; sons, Bill, Matthew, and Ben; and daughter, Salesa, all of 949 E.



PRESENTATION — Major General Manouchehr Khosrowdad, Commander of Iranian Army Aviation, right, pins Master Army Aviator Wings on LTC Clare F. Beames, III, MAAG Advisor, at a recent awards ceremony held in Isfahan, Iran. □

Cooke Road, Columbus, Ohio. Interment was at Nova, Ohio.

Colonel Jesse F. Van Sant, 49, died January 28, 1975, at Fort Gordon, Ga. He is survived by his wife, Claire, of 8 Knollwood Boulevard, North Augusta, S.C., 29841, and three daughters. Burial was at Marietta, Ga. National Cemetery.

RATINGS

SENIOR ARMY AVIATOR RATING

(None reported for this month's issue)

MASTER ARMY AVIATOR RATING

LTC Clare F. Beames, III, MAAG Advisor at Isfahan, Iran. (See photo this page)

LTG Allen M. Burdett, Jr., Commander, Fifth U.S. Army, Ft. Sam Houston TX. (See photo this page).

LTC Kenneth C. Eaton, Aviation Officer, Felker Army Airfield, Ft. Eustis VA. (See photo on page 36).

LTC Robert E. Filer, U.S. Army Aviation Systems Command, St. Louis Mo. (See photo on Page 35).

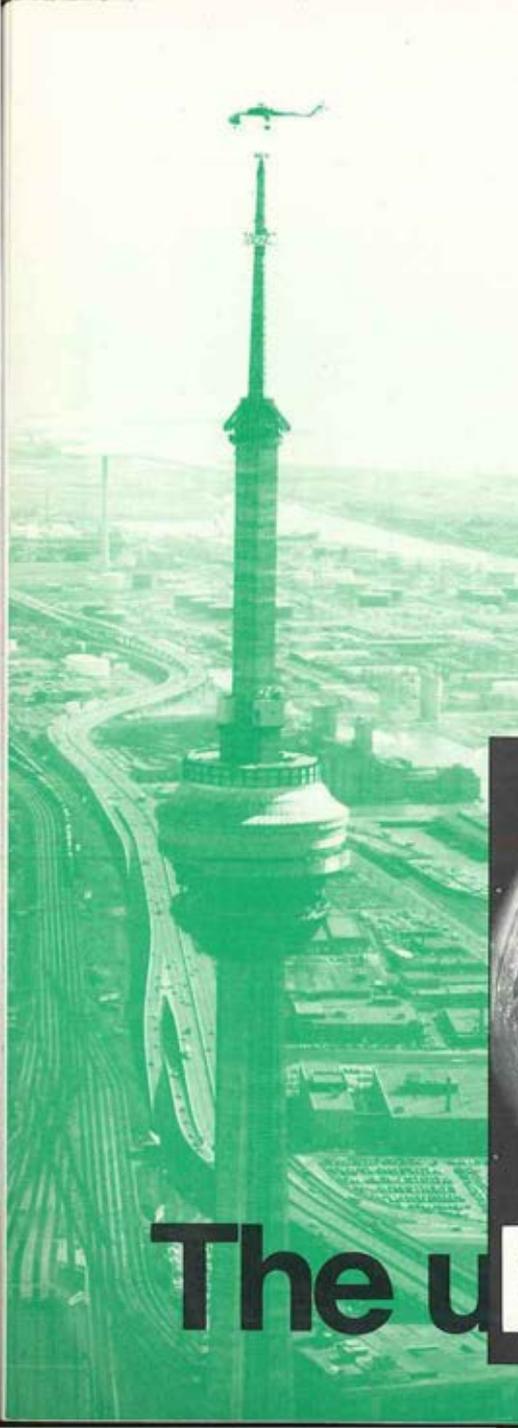
AUTO ACCIDENT CLAIMS FOUR LIVES

Six teenage dependents of U.S. Army Aviation Center personnel were involved in an auto accident near Fort Rucker on April 17. Of the six, four died and interment took place in April.

The names of the deceased and their families are: **Richard Davila**, 18, son of SFC and Mrs. Margarito A. Davila; **Philip D. Seery**, 18, son of Major and Mrs. Joseph P. Seery; **Rodney D. Lester, Jr.**, 17, son of Major and Mrs. Rodney D. Lester; and Mrs. **Vivian Micklon Courtney**, 17, daughter-in-law of LTC and Mrs. Clemon G. Courtney.



MASTERS ALL! — LTG Allen M. Burdett, Jr., 3d from right, just pinned with Master AA Wings, poses with other Master AA's in the San Antonio area. Shown in front row, l-r, are: COLs Leslie A. Layne and Jack H. Dibrell; WO Enrique A. Bustamante; LTG Burdett, Fifth Army Commander; and LTCs Charles S. Kittles and John D. Vaile. Rear row: LTCs James R. Reed and Roy R. Steves; COL Larry J. Baughman; CWO Clemuel Womack; and LTC James H. Miller. The presentation ceremony took place at Hq, Fifth Army, 13 May.



A giant Sikorsky S-64E **Skycrane** with the nickname "**Olga**" made construction history when it successfully completed the loftiest construction project ever attempted by helicopter this April.

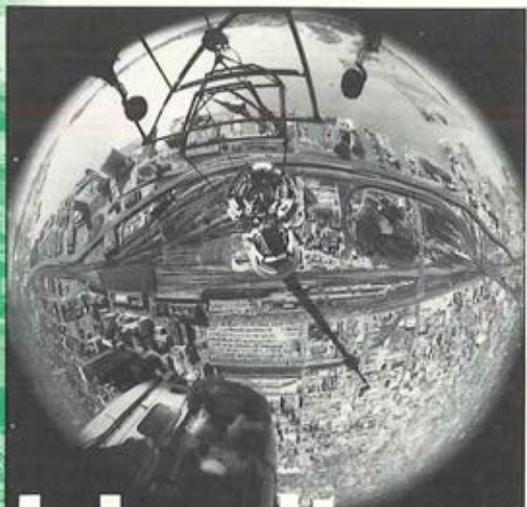
The crane, operated by **Erickson Air Crane**, of Medford, Oregon, and similar to the Army's **CH-54**, was used to erect a 335-foot, 300-ton communications mast atop the new **CN Tower**, a reinforced steel and concrete spire that now soars 1,815 feet into the sky above Toronto.

The \$40 million tower, scheduled for completion in early '76, is the tallest freestanding structure in the world, eclipsing Moscow's 1,748-foot Ostankino Tower, which held the record until "**Olga**" went to work. Statistics:

- .. Use of the **Skycrane** cut construction costs by 80%.

- .. The job took 26 days, the **Skycrane** flying on 14 of them in making a total of 55 lifts to the tower. Without the 'copter, the job would have taken six months.

- .. The average time per lift was seven minutes. Twice, the Erickson crews made three lifts in less than 15 minutes. . . . Each of the pre-assembled antenna sections called "cans," weighed about seven tons — well within the crane's 10-ton lifting capacity.



The ubiquitous s

THE U.S. ARMY LIFTS A TRAILER AT FT. RUCKER . .



***UBIQ-UI-TOUS. YU-BIK-WAT-US. ADJ: existing or being everywhere at the same time. SYN see Omnipresent. Presence everywhere simultaneously.**

.. MOVES A GERMAN STOL PROTOTYPE TO A REMOTE FLIGHT TEST CENTER . . .



... HELPS TO BUILD A DAM IN HOLLAND BY TRANSPORTING AND DROPPING MORE THAN 8,000 CONCRETE BLOCKS ON A 400 METER LONG JETTY.



Crane



On Guard!

BY COLONEL CHARLES R. JONES, CHIEF, AVIATION DIVISION, ARMY NAT'L GUARD

AN ARNG aviation update on the major training programs shows that all states are actively engaged in reaching the goal of 100% instrument qualification by Dec 75.

Currently there are 3,043 instrument rated aviators in the Guard out of the total of 4,039 currently on flight status. (There were 4,238 aviators assigned to the ARNG as of 31 Mar 75.

The *Instrument Program*, for those not previously instrument rated, is usually 30 days in length and is conducted as a local area school. These schools are established and supervised by the states with flight examiners as the officers-in-charge.

Many states have been spot checked by USAAVNC standardization instructor pilots during safety inspections and standardization visits and have received excellent evaluation ratings. Economy of time and money has been greatly affected through conduct of this program at the local level and has enhanced course attendance since most ARNG aviators might not otherwise be able to participate due to conflicts with civilian occupations.

115 IP-SIPs NOE-qualified

It is estimated that all states are now participating in the *NOE Program* and have successfully accomplished Phase I as prescribed by FORSCOM. At present, there are over 115 IP's/SIP's qualified, and projections indicate approximately 140 more will be IP/SIP-qualified by July 75.

States such as Oklahoma, Pennsylvania, Arizona, and Washington have reported more than 25% of assigned aviators as being NOE-qualified and are

proceeding with Phase II at an exceptional pace, ahead of FORSCOM target dates.

No serious problems have been experienced relative to the program and no accidents have occurred as a result of this training. It appears that the *NOE Program* objectives can be met successfully as programmed.

Update: Aerial Gunnery Program

In the area of *aerial gunnery*, all aviators assigned to the 30 aviation units required to qualify annually have successfully completed this requirement without accident. Many units have conducted aerial gunnery exercises more than once last year and some have fired three or four times. Most states have received and are using the *M-22 Missile Simulator*, and at least five units have scheduled M-22 missile firing exercises. Most states have received and are using the M-22 missile simulator.

Technical assistance provided by active Army NCO's assigned to the *ARNG Aviation Division* has been outstanding and has contributed immensely to the success achieved in the aerial gunnery program. Competitive firing exercises are being arranged between states and this can be further expanded to include all Army Components.

Shift to tactical night flying

To meet *night tactical training* requirements, draft POIs are being reviewed at this time. Many states have shifted emphasis from normal night proficiency flying training activities to tactical operations and training. Use of minimum lighted areas with lighted "T" and use of

the VASI system have been incorporated in this training.

Troop pickups, insertions, extractions, and drops during night tactical operations are being accomplished during weekend training and AFTP status as well as in annual training status.

Transition training is being conducted on a limited basis, R/W to F/W, and has been successful without accident or incident and with no degradation of standards of quality. Also, local transitions in the CH-54 are being conducted in the ARNG.

Recently, the first four aviators completed a course in Kansas and were qualified as CH-54 pilots. Quality of the course graduates was evidenced by an evaluation report of *Excellent* rendered by USAAVNC standardization instructor pilots.

Oregon - An enviable record!

It was with understandable pride that Oregon recently reported the completion of 50,000 accident-free flying hours. *Congratulations* and accolades are hereby extended along with the challenge to other states to come forth if they have a longer accident-free record; and, if they haven't, they are challenged to meet or exceed this fine record of outstanding performance.

New Training Circulars coming

Department of the Army, through the Deputy for Standardization, USAAVNC, Ft. Rucker AL, is in the process of developing and publishing a new series of *Training Circulars* [TC's] pertaining to qualification training and standardization. These new TCs will replace the *Flight Training Guides* and the *Standard Maneuver Guides* that are part of the training packet presently used for qualification training.

The new TCs will give the standards for qualification training and evaluation flights. There will be a separate TC for the following aircraft: OH-6, OH-58,



TOP MAN — AAAA's Mainz Chapter President, CW3 Alvie Cook, r., is shown presenting a Chapter Award to AE-3 Cadet Dan Moroso, for "Best Individual Drill". CW2 Don Wood, left, flanks the Air Force Jr. ROTC Cadet, one of three honored by the Quad-A Chapter at recent ceremonies at H.H. Arnold High School in Wiesbaden, Germany. □

UH-1, AH-1, CH-47, CH-4, OV-1, T-41, T-42, U-8, and U-21, and are to be used in conjunction with AR 95-63, TC 1-34, and the applicable *Operator's Manual* [dash 10] for the conduct of qualification training.

There will also be a *Training Circular* for the conduct of the periodic standardization flight evaluation. This TC will be used for all flight evaluations and it will also provide a uniform grading system.

The *Operator's Manuals* [dash 10's] for the various aircraft are in the process of being rewritten. The main objective is to standardize all the dash 10's for the aircraft in the Army inventory. Each dash 10 will consist of nine chapters with the same type of information found in the same chapter in each dash 10. Performance charts in the dash 10's are also being standardized.

SFTS training at Ft. Campbell

Members of the TN ARNG recently began utilizing the *Simulator Flight Training System* at Ft. Campbell. This is the first utilization of this type device for ARNG aviators outside of the school environment at Fort Rucker. Initial indica-

tions are that while the 60-mile trip from Smyrna, TN to Ft. Campbell is a drawback, the training received in the SFTS is well worth the trip.

The ARNG is presently scheduled to receive and operate two SFTS's and possibly three facilities: IGMR, PA; Midway, IL; Los Alamitos AFRC, CA. These regional facilities will serve all Army Aviators (ARNG, USAR, and Active) located within a radius of the facility.

Finalized utilization criteria for ARNG aviators who will be using simulators is presently being determined. It appears this criteria will be in two phases: FY76-FY77 and FY78 and beyond. Regardless of the final criteria used, a two to three trade off in actual flying hours versus scheduled simulator hours is programmed. A portion of the savings realized from the flying hour reductions will be used to justify the *SFTS Program*.

A steady increase in our OR rate

The ARNG has experienced a slow, steady increase since October's 1974 low of 60.7%. The OR rate for May 1975 was 74.13%. This is the second month in a row that the ARNG has met or exceeded the DA Standard composite OR rate of 70.00%.

The associated *Not Operationally Ready Supply [NORS]* rate of 7.90%, and the *Not Operationally Ready Maintenance [NORM]* rate of 17.97%, were well within the DA Standards of 10% and 20% respectively.

These figures reflect a significant achievement for the ARNG and a worthy complement to the Active Army's readiness posture, particularly since most ARNG aviation units are low priority.

Now let's improve on that . . .



Dear Editor:

Having published photos of this year's Army War College and Naval War College Army Aviator-students, I'd like to have you complete the sweep by publishing the enclosed photo of Class 57 at the Armed Forces Staff College here in Norfolk, Va. All of us here are proud of the significant contribution we are making to the joint procedures taught at the College.

The students pictured are, from left to right, Majors William P. Stubbs, Walter

E. Fernandez, Ernest L. Isbell, Sidney E. Lyons, Gary F. Laughman, Ronald Piche, Carl M. Jones, and Ronald Sheffield.

Two Army Aviators, Colonel Dale Dobson and the writer, serve on the College Faculty. For your information, the aviator-students who are Quad-A members affiliate with the Fort Monroe Chapter during their stay at the Staff College.

W.P. Gillette
LTC, USA

UPON my departure as Chief of the *Aviation Warrant Officer Branch* - and as the *Branch* becomes a part of the *Warrant Officer Division* - a few thoughts of the *Warrant Officer Branch* past and future come to mind.

The tour with the *Branch* over the past 2½ years has been most productive and interesting for me. The *Branch* has made much progress, but much remains to be

since they're coupled with several outstanding WO action officers you have nothing to worry about.

This *Division* is off and running now! Its office arrangement is first class, and better plans and programs will be forthcoming for all warrant officers as a result of this collocation of warrant officers from all Branches.

The personalized treatment will continue

BRANCH BRIEFS

A SUSTAINING NEWS COLUMN FOR AVIATION WARRANT OFFICERS

accomplished in my view, such as increased promotion percentages and WO flight pay, to mention a few.

These items are under annual review by OPD, MILPERCEN, and DCSPER so we can hope for some logical changes in the future.

Full program support from AAAA

The *Army Aviation Association* has been on record over the years as supporting many *Aviation Warrant Officer* proposals and continues to support them. Additionally, the *Warrant Officer Association* has also taken the charge, and we welcome to the support of this professional organization.

Colonel "Bob" Joyce, an ardent supporter of the warrant officer, will do an outstanding job as Chief of the *Warrant Officer Division*. Colonel Joyce's second-in-command is LTC "Bob" Lenderman who was my Executive Officer — and

continue and even improve on what was accomplished in the past. Yes, I will miss visiting with and briefing the *Aviation Warrants* on *Branch* trips . . . also, the wonderful wives during "coffee call briefings."

New job, but same enthusiasm!

But I look forward in July to an assignment with my old division, the 101st Airborne Division (Air Assault) at Ft. Campbell, Ky. I will *not* have the ready association with all of you — some 6,000 *Aviation Warrant Officers* — of the past, but I will be associated with over 600 "Screaming Eagle" aviation warrants, and that is great!

Never forget that *you* are the professionals! Until we meet again, soft touch-downs!

[Editor's Note: Colonel 'Crozier is to become the new Chief of Staff of the 101st Airborne Division. He'll continue to serve as a National Member-at-Large on AAAA's National Executive Board, a position he's held for three of the past four years. His pencilled signoff: "You can be certain that the professional activities of the 101st's aviators and crewmen will be covered in sustaining articles in ARMY AVIATION. The 'field' is where it's all at, and we at the 101st intend to tell everyone in this business what we are doing.]



BY
COLONEL
TED A.
CROZIER,
CHIEF,
AWO BRANCH

Dear Editor:

LETTERS TO THE EDITOR
AS SUBMITTED BY
READER-CORRESPONDENTS

March 5, 1975

6 April 1975

Mr. Hans Lehmann
548 Remagen [Rhein]
Am Romerhof 68
West Germany

Editor of the
Army Aviation Magazine
1 Crestwood Road
Westport, Conn. 06880 U.S.A.

Dear Mr. Lehmann:

Thank you for your letter of February 27 enclosing some interesting material on your unbreakable rotor blades.

In the United States, helicopters are largely the province of the U.S. Army and, therefore, I suggest that you send this material to ARMY AVIATION MAGAZINE, Attention: The Editor, at the following address: 1 Crestwood Rd., Westport, Conn. 06880. Thank you for your interest in AIR FORCE Magazine.

Charles E. Cruze
Director of Development
AIR FORCE Magazine
Washington, D.C. 20006

24 April 1975

LTC Herbert M. Webber
President, Bonn Area Chapter, AAAA
MAAG - Germany, Box 340
APO New York 09080

Dear Colonel Webber:

Enclosed is a letter we've received that is written in German. Could you assist us by having this letter translated at your convenience and returning it to us for action?

With every good wish,
[Mrs.] Dorothy Kesten
National Office, AAAA

6 May 1975

Dotty:

Translation inclosed. Have fun!

Webber

A brief letter to the editor is welcomed on any subject. Letters must be signed; however, the writer may ask to have his name withheld.

Gentlemen:

On basis of a recommendation of the Air Force Magazine [Washington DC 20006] I sent you a letter on 10 March 1975. Due to a recently effected prior art reference by a German aircraft factory I want to demonstrate the following additional points:

Rotor blades that consist exclusively of cemented glas-fiber are known to me. They show certain advantages vis-a-vis conventional rotor blades. However, they are by no means as fracture-resistant as the rotor blades consisting of flexible rods that I conceived. Helicopters equipped with them would be slightly more expensive but all the safer.

Besides, it was my idea to equip a rotor with four blades in such manner that it can - if necessary - continue the flight with two blades only [the other two blades will be completely separated]. Practical tests are being executed in your country.

I submitted this idea for re-instating the rotor balance [in case one blade should break away in flight] already in 1970 to the Fed. Armed Forces [BWB, 54 Koblenz, AT II 7, File: 74-10-10, June 1970, signed: Dr. Schmid]. But I consider the execution of my previous idea superficial since it has been overridden by my new concept for fracture-resistant rotor blades.

Perhaps you could insert the contents of this letter into the possible publication of my new rotor blade concept. Thanking you in advance for your attention I remain

Very sincerely yours,
Hans Lehmann

P.S. If you gentlemen should find my rotor blade concept interesting and advantageous and should publish it in your magazine, it would later also offer you my idea for a submersible missile for publication. This missile would be pressure-proof under water [even in great depth] and yet light in the air [in flight]. Propulsion under water and in

flight by a gas jet power unit that should be specifically developed.

Further, I developed a concept of an automatically penetrating deep-well drilling plant with a long-phase capacity [Langschrittvermoegen?]. Automatic sinking at the respective phases of 20, 30 or 50 meters is possible. These phases are also automatically advancing.

[I wonder] whether this deep-well drilling plant could also be of interest to the U.S. Army? Which magazine should I then contact with a demand for publication?

I would be grateful if you would also not deny your esteemed attention to these P.S. lines. First of all I would be very happy about your granting my first request: [Publication of my fracture-proof rotor blades].

25 May 1975

Dear Mr. Lehmann:

Your letter to ARMY AVIATION will be published in our June issue. Among our readers are many executives of helicopter manufacturing firms, a large number of whom have extensive engineering backgrounds. These gentlemen should be in a position to evaluate your proposal of fracture-resistant rotor blades, and contact you directly through their representatives in Bonn.

Submersible missiles and deep-well drilling plants are beyond our sphere of interest.

The Editor

OH, MY GOSH!

Dear Editor:

Reference the article in the May issue on the records set by the Bell 214A in Iran. It probably should be noted that another record was set IF that crew flew the helicopter at 88% below zero. This may be in error though, because my rule of thumb for converting minus 31° Centigrade to Fahrenheit comes out as MINUS 24° F which, as the man said, "is actually not too cold at that altitude."

Here in Fort Lauderdale, Fla. we cannot even imagine MINUS 88° F.

John G. Swan
Manager, Army Programs
Bendix Avionics Division

[Ed. Note: John Swan is one of six ARMY AVIATION readers who have pointed out the blooper to us. We copied Bell's '5.5.75 Release No. 048' verbatim, having forgotten the Fahrenheit/Centigrade conversion formula we learned in high school. This goof indicates we have many who read the magazine fine print, and perhaps Bell's P.R. Department was doing some mining itself.]



CHANGE OF COMMAND — MG Eivind H. Johansen, left, 48, the present Director of Supply, Hq, AMC, will replace MG Frank A. Hinrichs, right, 57, who retires July 31 after 35 years of military service. A South Carolinian, General Johansen served as an enlisted man during 1945-1948, resuming his education and graduating from Texas A&M in 1950. At the same time, he was commissioned in the QM Corps. During his career, he's served in Germany, Korea, Japan, and Alaska, as well as such state-side posts as Ft. Lee, Ft. Carson, and the Pentagon, where he aided in organizing DSA. □

Dear Editor:

This is to inform you that I will not renew my flight pay insurance. As long as I was flying I felt a desire and an obligation to support the Association. However, my flight pay was cut from \$245 to \$185 a month; I was told that after 25 years it would stop altogether; and I have now been stopped from flying by having my slot redesignated "non-flying."

The Aviation Program was not made a specialty under OPMS, and I believe Army Aviation is in a terminal condition. All the experience is removed from flying — young warrants have taken over and are making the same errors we made 15 to 20 years ago.

The program is dead. Flight pay doesn't mean anything anymore. I won't insure it and if I lose that, so be it.

LTC William S. Perrin
Hampton, Virginia

[Ed. Note: We're disappointed that the writer's only tie to Quad-A was the insurance, and agree with him that flight pay doesn't mean as much to today's young aviator — the FPP Program confirms this itself. . . We disagree that Army Aviation is "in a terminal condition" — its malaise, and there is one present, can be cured once the doctors spend more time with the patients. In a nutshell, Army Aviation is more equipment-oriented today than people-oriented, and having more brand new UTTAS's, AAH's, and ASH's on tomorrow's flight line than we have people to fly 'em isn't as far-fetched as its sounds.]

THIS MONTH

VOLUME 24 - JUNE 20, 1975 - NUMBER 6

CONTENTS

PERSONNEL:

Something is clearly wrong!
By CPT Charles F. Nowlin, USAAAVS4

More about EPMS!

By Colonel Frank L. Henry, MILPERCEN 6

RESEARCH & DEVELOPMENT:

DA Happenings

By Colonel William E. Crouch, Jr., ODCSRD&A .. 8
Current Status Reports:

Advanced Attack Helicopter [AAH]8

Utility Tactical Aircraft System [UTTAS]8

Advanced Scout Helicopter [ASH] 9

Improved Cobra/TOW [AH-1Q/S] 9

CH-47 Modernization Program9

WEAPONS SYSTEM MANAGEMENT:

Let's look at Aerial Delivery Equipment

By Major James B. Wood, Hq, AVSCOM 13

OPERATIONS:

The Alaska Pipeline - Some Striking Similarities

By Norman Sklarewitz 16

Fort Hood's new 6th Cavalry Brigade

By Colonel (P) Charles E. Canedy 26

Fort Bragg's 119th Aviation Company [AHC]

By CW4 William D. Ivey 26

USAREUR's 73rd MI Company

Mohawk unit gets new ejection seats 27

READY IN RESERVE:

282nd Avn Co [AH] to be activated on 14 June

By Major Richard R. Noack, OCAR 37

ON GUARD!

ARNG seeks 100% instrument qualification

By Colonel Charles R. Jones, NGB 42

BRANCH BRIEFS:

A productive period at the AWO Branch

By Colonel Ted A. Crozier, MILPERCEN 45

DEAR EDITOR:

An exchange with Herr Hans Lehmann

An inventor outlines his rotor blade concept 46

AAAA:

Last Call for Nominations for AAAA Awards

August 1 suspense date established by AAAA .. 47

DEPARTMENTS:

Command and Staff 2

Letters to the Editor 46

Obituaries 39

PCS — Changes of Address 32

The Personal Side 39

ADVERTISERS:

Bell Helicopter Company Cover I, 18-19

Boeing Vertol Company 5

Endevco 25-26

General Electric Company 2, 15

Jet Electronics & Technology, Inc.3

Pacer Systems, Inc. 11

Sikorsky Aircraft Division7