

Army Aviation

APRIL/MAY, 1977



THE U.S. ARMY UTTAS: UH-60A

**SIKORSKY
AIRCRAFT**



Division of

**UNITED
TECHNOLOGIES**

Our WO Program

LTG [Ret.] Robert R. Williams,
National President of AAAA,
cites the reasons for retaining
the present AWO Program.

The True Professional Military Pilot — The Aviation Warrant Officer

The Army Aviation Warrant Officer Program has been one of the truly great successes during the past 25 years. It has produced an adequate number of exceptionally well qualified and motivated pilots to meet the Army's requirements in war and in peacetime.

At the same time it has provided the U.S. Army with an effective solution to a problem that has historically plagued all military services: that of providing a strong corps of experienced pilots while permitting broad professional military development of a commissioned officer corps to meet command and staff requirements.

To appreciate the success of the **Warrant Officer Program** one must go back to the beginning of Army Aviation. In 1942, when the present Army Aviation was born, its founders believed that the flying of aircraft could be left to enlisted pilots with a few supervisory positions

being filled by Commissioned Officers. It was also recognized that the standards for entry of individuals into flight training should be compatible with the standards set for pilots in civil aviation and the other services.

During 1942 many enlisted personnel entered flight training and graduated as Staff Sergeants. They were immediately sent overseas and into combat. Because the standards set for their entry into flight training were exceptionally high, and because they habitually filled the role of an artillery forward observer in combat - a Commissioned Officer's position requiring special knowledge - the majority were given battlefield commissions.

The Army soon found that although they were training enlisted pilots, the objective of 20% commissioned and 80% enlisted was defeated. Very few pilot graduates remained in enlisted status as artillery pilots. Recognizing this fact, the Army changed the program to all Commissioned Officers.

A similar situation prevailed in the Air Force and Navy. Both of these services had a few enlisted pilots at the beginning of World War II. As in the Army, many met the qualifications for commissions and were commissioned. Those who remained enlisted were found to have limited application. Eventually, all U.S. Services abandoned their enlisted pilot programs.

Below: By 1955, AWO's were taking transition training in the "bigger H-34's."



During the late 1940's while the Army was rapidly shrinking in numbers, studies were conducted of career patterns that must be followed by aviators to retain a viable Army Aviation Program.

Two conflicting requirements became evident: On one hand, if Army Aviation was to continue to expand and maintain its detail integration with the various arms and services, the officers must have repeated tours of duty in ground assignments with their individual branches. This would take them away from flying.

On the other hand, the Army recognized a requirement for a large group of highly professional aviators trained in ever increasingly sophisticated aircraft. This would require many to devote their entire career to flying to generate the necessary experience. Out of consideration for these two conflicting requirements came the solution of the Warrant Officer aviator.

PERFECT TIMING

The **Warrant Officer Program** was initiated in the 1949-50 time frame. The timing couldn't have been better. The Army, the Air Force, the Navy, and the Marines were all rapidly reducing in strength, and experienced, well-qualified commissioned pilots of all services were being released.

These were the men who had built up considerable flying experience during World War II. They desired to stay in the flying business and were happy to go into positions that promised them a life in the cockpit. The Army opened its doors to them to fill the initial positions of Warrant Officer aviators and the program thus started with a most commendable bank of aviation expertise.

These men had been Commissioned Officers. Their flying ability and other qualifications were well recognized. They, therefore, were never considered as second class or junior aviators. They belonged to the same fraternity of military aviators as the commissioned officer.

They had all the privileges of Commissioned Officers, and were a highly respected group. Respect for the Warrant

ABOUT THE AUTHOR

LTG Robert R. Williams, USA, Ret., serves as the current National President of the AAAA, and during his military career was the Director of Army Aviation, the Commanding General of the Army Aviation Center, and the Assistant Chief of Staff for Force Development at DA. A rated pilot since 1942 and the first to be designated as a Master Army Aviator, **General Williams** is familiar with the effects of various approaches to the question of grade structure and has been heavily involved in the areas of pilot utilization and retention since first donning wings in 1942. □

Officer pilots and the acceptance of their being, in fact, in officer status has continued to the present. This is a most important consideration in analyzing the **Warrant Officer Program**, and differentiates it in many respects from the previous enlisted pilot programs of all services.

During the 1950's and early 1960's the **Warrant Officer Program** continued to provide the Army with the competent pilots required to fly all type of missions, while it freed the commissioned officer in limited numbers for ground assignment.

The real proving ground for the **Warrant Officer Program** was Vietnam. Two aspects of the program were most significant. **First**, the combination of the lower age limit, nineteen years, and the high standards set for entry into the program brought in large numbers of the highest types of young men who were truly of officer caliber. They were, in my opinion, at least the equal of their older contemporaries who went to OCS.

Second, it was the Senior Warrant Officer with thousands of flying hours who provided the capability for the Army to absorb these fine young pilots, Commissioned and Warrant, and bring them from "peter pilots" to first pilot, to aircraft commander in combat. Most of the

Commissioned Officers, including the Senior Officers, will remember that it was the old Warrant Officer who gave them their indoctrination in combat flying and scraped the rust off their flying techniques.

Although in theory, and I suppose one would say by regulation, the Aviation Warrant Officer is supposed to be just a technician, not so in practice. Warrant Officer pilots have repeatedly, particularly in combat, functioned in positions of considerable responsibility that definitely included the aspects of command.

They flew missions requiring the knowledge and appreciation of the tactics expected of Commissioned Officers. They were able to do this not only because of their recognized qualifications, but also because in the perception of Army Aviation and the Army, they really fall in the officer category. Such utilization would not be accepted no matter what their qualifications might be as enlisted pilots.

COMBAT ROLE RECOGNIZED

The role of the Warrant Officer pilot in Vietnam was recognized by **General Bruce Palmer**, Vice Chief of Staff of the Army, in his speech during the 1969 AAAA Honors Luncheon.

He stated then, "The young Warrant Officer referred to in the letter at the beginning of my talk, wears the Silver Star and two Purple Hearts. He possesses courage typical of the roughly 22,500 aviators in the Army today of whom about 11,700, a little more than one-half, are Flying Warrants—the real workhouse of aviation."

In recent years many technical fields such as engineering test pilot and higher level maintenance positions have been opened to the Warrant Officer pilots. This has continued to enhance the prestige, broaden the potentials, and in-

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AWO's have received the AAAA's 'Aviator of Year Award' six times.

crease the morale of the Warrant Officer. Yet, their established career program continues to focus their education and utilization very specifically in the highly technical field of flying.

In the other services every young officer is encouraged to aspire to become the chief of his service. To do this he must look forward to a career with sufficient diversity to qualify him in many things, most of which detract from being a professional pilot. This is the problem I referred to in the beginning of this article as a conflict of requirements, and the problem that the Army has solved with the Warrant Officer.

Based on the success of the **Warrant Officer Program** there are those who propose that we add one more class of pilot - the enlisted pilot. Their proposal is based on the theory advanced in the early 1940's and proffered many times since by advocates of economy - that there is a place for less qualified pilots to accomplish missions that do not require the knowledge, skill, or responsibility of an Officer or Warrant Officer. The theory is unsound.

Let's look at some of the missions for which the "economy model" pilot has been suggested:

The administrative mission: Commonly referred to as the "ash and trash" mis-



CSM KENNEDY



BG LEICH



COL NEVINS



LTG NORTON



1977 INDUCTEES

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1977 Induction, Fort Rucker, Ala.
Saturday, 4 June 1977



CW4 SANDIDGE



COL SHEPARD



COL VANDERPOOL

Aviation Hall of Fame inducts seven

sion. The crew that flies this mission is the same crew that later in the day or the next day will fly the same aircraft on a combat mission. We can't afford two crews; that certainly wouldn't be economy. Also, in war not infrequently the aircraft on a simple "ash and trash" mission is diverted to a single ship combat mission requiring the greatest of expertise and responsibility.

The Med Evac or Crash Rescue Mission: This is a sensitive, high visibility mission. The Army has received many plaudits for the outstanding performance of this mission in Korea and Vietnam. The MAST mission and its accomplishments are the subject of national publicity. The mission frequently requires operations under extremely demanding and hazardous conditions. The best of the Army Aviators are required for this mission.

The Logistics Mission: For these missions the larger, more complex aircraft, such as the CH-47's, are used. Aircraft operators, military and civilian, normally select their most experienced pilots to be trained to operate their larger aircraft. The Army has always followed that policy. The established standards for crew selection for pilots of CH-47's and the concept of enlisted pilots are in direct conflict.



In 1965, in Vietnam, 'Flying Warrant' were the true workhorses.'

Transport flights: Some individuals have contended that the pilots for the PAT flights and similar flights supporting various Army Headquarters should be enlisted men since they really are just "sedan drivers". The "economy model" pilot appears ideal - except for those who must ride with him.

When the passenger climbs into an aircraft for a flight through bad weather or into a high density traffic area and sees an E-5 in the cockpit, I believe his reaction will be the same as the astronaut whose last words prior to launch were to the effect that he regretted that economy measures dictated use of the lowest cost bidders.

Just as co-pilots: The proposal that enlisted pilots be used just as co-pilots with the potential to become Warrant Officers or Commissioned Officers in later years would have limited merit if we were sure the Army was not going to war. The co-pilot idea probably was the concept of the enlisted pilot in the Army Air Corps and Navy before World War II.

The Army must base its organization and grade structure on what is needed to fight. In time of peace a pilot graduating from school as an E-5 could spend several years as a co-pilot and build up his flying experience at the rate of about 100 hours per year. Eventually, he would become eligible to become a first pilot and then an aircraft commander and an instructor pilot. He probably could not be effective as a first pilot as an enlisted man. He certainly would not be accepted as an aircraft commander. The assumption must be made that by the time he qualified for these higher positions (say in five years) he would become a Warrant Officer.

But what will the Army do with those who do not qualify? This was a problem the Air Force and Navy faced in World War II. The problem in wartime is different than in peacetime. The new pilot graduates and starts building his flying experience in combat at the rate of about

[WO PROGRAM/Cont. on P. 40]

DA Happenings

By **BRIG. GEN. CHARLES E. CANEDY**,
Deputy Director of Requirements and
Army Aviation Officer, HQDA



A change for the better!

In my last article, "Army Aviation in 1976 and 1977," I apprised you of a recent change that resulted in the consolidation of the Aviation Division, Operations, Operations Directorate, and the Combat Division, Requirements Directorate, both agencies within the Office of the Deputy Chief of Staff for Operations and Plans, Headquarters, Department of the Army.

In this article, I will expand my comments on our new organization for the purpose of providing you a reasonable insight regarding our activities as well as an introduction to our workers. Responsibility for the composite organization went to **Colonel Robert F. Molinelli**, Chief, Combat Division.

In essence, an agency very similar to 1973's Aviation Directorate, Office of the Assistant Chief of Staff for Force Development (OACSFOR) has been constituted. My own position, formerly designated the Deputy Director of Operations and Army Aviation Officer, has been changed to Deputy Director of Requirements and Army Aviation Officer, under which **Bob Molinelli's** agency directly falls.

I am happy to report in this most recent effort at reorganization we have been very successful. The consolidation of the two agencies physically draws together staff officers who on a daily basis address aviation problems.

This collocation in one division assures better coordination between those officers responsible for activities address-

ing the operational side of aviation such as training, standardization, the flying hour program and TDA authorizations, with action officers tasked to work hardware requirements such as AAH, UTTAS, or Aircraft Fire Control Systems.

The actual transfer of functions within ODCSPOS was one of moving the operational responsibilities out of the Operations Directorate into the Requirements Directorate. While fundamental rationale would support retention of "type" activities within the major ODCSOPS agency functionally responsible for them, the salient factor in the decision was the need for unity of effort.

The hardware orientation normally attributed to the Requirements Directorate was a fact of life; however, aviation operational activities likewise constituted a form of "operational requirement" and could be construed as a logical function of the Requirements Directorate. The same was not true conversely. This fact, when considered in the light of a "real world" need for unity in dealing with aviation matters, tipped the scales heavily in the direction to which we have now turned.

A substantial benefit, not previously addressed, accrued from the consolidation by also having the DCSOPS aviation action officers in the same division with the infantry and armor action officers, further facilitating aviation integration into the combined arms team.

[REQUIREMENTS/Cont. on P. 45]



Add your name to these Patrons' names enshrined in a Hall of Fame Plaque in the Aviation Museum at Ft. Rucker

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LTC David C. Ammons
CW2 Bruce W. Anderson
MAJ C.A. Archer
Mr. J.F. Atkins
COL George L. Ball
Mr. Russ Bannock
MSG Harold G. Baskins*
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COL William A. Bearden*
LTC L. Fred Belcher
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Be a \$10 Patron. See the P. 26 details.

By MAJ. GEN. JAMES C. SMITH,
Commander, U.S. Army Aviation
Center, Ft. Rucker, Alabama



Training

R/W Refresher Course set for "returnees"

The coined motto of the Boy Scouts, "Be Prepared," is a precept not limited exclusively to that organization in its application. We here at the Aviation Center also claim allegiance to the motto in preparing both individuals and organizations of the aviation force to "win the first battle of the next war," whenever and wherever it occurs.

In this vein, our most recent effort for the individual is the **Rotary Wing Aviator Refresher Training Course** for those who have been ordered back to a flying assignment after serving in a ground or staff position.

It is designed to reestablish rotary wing instrument proficiency and to provide a familiarization with current doctrine, tactics, and techniques developed for the aviation threat. This will be accomplished through academic and flight hours, with the maximum course length being five weeks.

There'll be 10 students in each class with the first beginning 25 April 1977. One will start each week thereafter.

ANNUAL WRITTEN EXAMINATION

A long-standing way to check aviator proficiency is the "annual writ." And at the direction of DA, the USAAVNC Directorate of Training Developments is now modifying that to make it more timely.

Three major changes are to be implemented:

(1) Only aviators with less than 1,500 hours flying time or those in operational

flying positions (regardless of hours) will be required to take the exam.

(2) It will be given during the 90-day period before the aviator's birthday and in conjunction with his standardization ride, and

(3) There will be a separate exam for each mission-type aircraft (utility and observation airplanes; and utility, scout/obsrvn, attack, and cargo helicopters).

To develop these mission-oriented exams for our different aircraft, the task lists going into the forthcoming **Aircrew Training Manuals** will be used as a basis. These lists identify tasks for which an aviator has to maintain a continuing level of proficiency for specific missions.

Plans are underway to have the revised annual writ in the field and ready for use by 1 March 1978. The new version will be a more relevant and useful quality control and review instrument than the present examination.

For this year the annual writ will be waived while our Training Developments personnel devote their full efforts to designing the new version.

GALLANT CREW

Some 130 members of the Center's 108th Quartermaster Company journeyed to Fort Hood, Texas, for "Gallant Crew 1977," a field training exercise conducted from 17 March to 7 April.

A joint exercise of the Army, Air Force, and Reserve Components, it was conducted by US Army Readiness Command to primarily test the tactical

capabilities of Reserve units. More than 25,000 military personnel were scheduled to participate.

The role of the 108th was to establish petroleum supply points for vehicles and helicopters at six locations throughout the exercise area.

MORE ON THE AAH

Contractors who will build prototypes of the **Target Acquisition Designation System [TADS]** and the **Pilot Night Vision System [PNVS]** for the Advanced attack Helicopter have been named. They are Northrop Corp. and the Martin-Marietta Corp.

It is not anticipated that the recent congressional decision to cut \$100 million from the current AAH program will delay the TADS/PNVS or the HELLFIRE missile system components of that program.

AH-1S DEVELOPMENT

The **AH-1S Retrofit Program**, involving 290 AH-1G aircraft, will be completed in July 1977.

New AH-1S helicopters are now in production with the first one having been delivered in March.

The improved main rotor blade which



40 NATIONS—Some of the military attaches representing 40 countries who recently visited USAAVNC on an orientation tour listen as LTC Elmer E. Curbow explains the SFTS. Curbow is Chief of the Flight Simulator Division at the Center.

provides increased lift efficiency and greater survivability for this aircraft has been approved, and the first ones are expected to be available later this year. They will be integrated into the fleet replacing existing blades on an attrition basis.

SCOUT HELICOPTERS

Because of funding restrictions, the nation's defense force will probably not have a day-night, adverse-weather-capable **Advanced Scout Helicopter** for about 10 years.

The OH-58C, however, will have an improved engine, transmission, and communication system. It will also feature a vulnerability reduction package, a radar altimeter, and handheld optics.

Current plans are to produce 585 OH-58C's, with the work to begin in January 1978.

CH-47 MODERNIZATION PROGRAM

Under the **CH-47 Modernization Program** now underway at the Boeing facility, an A, B, and C model of the **Chinook** will be revised to produce three prototypes with the designation of CH-47D.

The prototypes are expected to be available for Army testing in December 1979. Delivery of the completed product will begin in mid-1983.

Advantages of the modernized **Chinook** will be increased survivability, reduced maintenance, and a reduced life-cycle cost. Also, its tandem-hook configuration with the sling-load suspended from two points will improve the stability, airspeed, and maneuverability.

It is expected that the CH-47D will fulfill the Army's need for a medium-lift helicopter well into the 1990's.

AVIATION MAINTENANCE

Correcting main and tail rotor vibrations by the prevalent trial-and-error method has always been a time-consuming job. For this reason alone aircraft maintenance crews and others

concerned with aircraft availability, should welcome the **Dynamic Balancing and Tracking System** when it becomes available next September.

The system will quickly identify the specific area where adjustment is required. It will be adaptable to all Army aircraft, fixed and rotary wing, and will be hand-portable.

2.75 INCH ROCKET SYSTEM

The 2.75-inch (now to be designated the 70mm) rocket system has been undergoing major changes in order to meet new and more demanding operational requirements. Future AH-1S and YAH-64 aircraft will be equipped with a sophisticated fire control system, a remote-set fusing capability, and a stores management subsystem. These capabilities will allow the rocket system to provide accurate selective terminal effects at ranges up to 6000 M from a hover thus enhancing operational efficiency and aircraft survivability.

Components of the revised rocket system will be an improved version of the Navy's Mark 66 rocket motor, a smoke screening warhead, an illumination warhead, a lethal multi-purpose submunition warhead, a chaff-dispensing warhead, and the current 10 pound HE with an electronic remote-set multi-option fuse.

Operational flexibility will also be improved by new 7 and 19-tube lightweight launchers. These are disposable, lighter weight, and will be compatible with both remote-set and fixed-range fuses. They can also be used as storage and shipping containers for the rockets. The launchers will be able to operate in moderate icing conditions and they will be compatible



TOP NCO — SSG Charlie J. Blake, 'NCO of the Year' at Ft. Rucker, is congratulated by MG James C. Smith, USAAVNC CG. Blake is a squad leader with Co C [Pathfinder/Airborne], 509th Inf, 46th Engr Bn.

with auto-boresighted stores rack and aircraft launcher self-loading devices.

AVIATION LIFE SUPPORT EQUIPMENT

A system for the development and fielding of **Aviation Life Support Equipment [LSE]** is urgently needed.

In an effort to accomplish this, the Center has compiled data for submission through channels to MILPERCEN, seeking a new MOS for a LSE technician to work at unit level. Also, a draft plan has been prepared for DA, requesting the establishment of a program manager for LSE under DA charter.

The requested technician job description would give units a trained person to inspect, maintain, repair, stock, and store LSE, while the single, high-level program manager would give strong control over the development, funding, acquisition, and fielding of current and new LSE.



ARNG LEADS IN FLIGHT SAFETY

Speaking at a recent USAAVNC graduation, **MG Charles A. Ott, Jr.**, cited the 335,000 hour/five accident flight safety record of the ARNG's 4,650 pilots in the previous FY. Pointing to the fact that the record also showed no fatalities, **Gen. Ott** noted that the Guard has a zero accident rate through 30 March of the current fiscal year.

By MAJOR MARION G. LONG, JR.
Dir. of Training Developments
USAARMS, Ft. Knox, Ky.



Wargaming

AGES offers realistic casualty assessments

To exploit the potential destructive capability of the attack helicopter against armored targets, it is necessary for the attack helicopter to fire fast and first.

In an engagement between armored vehicles and attack helicopters, firing first with accuracy while minimizing exposure time is critical to aircraft survivability. The paramount maximum in minimizing vulnerability to enemy fire is the proper use of concealment and cover.

Exposed attack helicopters will be destroyed unless they effectively employ their weapons at maximum effective ranges and use terrain to reduce vulnerability.

The necessity of mastering the ability to fire first with accuracy and the ability to maximize cover and concealment while maneuvering is most often acknowledged but not actually appreciated until the inevitable initial hostile rounds inflict their havoc.

Subsequently, the axioms are learned through the carnage of unnecessary and unacceptable losses of ir-

replaceable men and equipment. Axioms which could have been learned in the training environment are learned through the expenditure of courage and resources on the battlefield.

The salient issue is how to replicate the motivation of combat so that the skills of fire and maneuver may be learned in the training environment. During training exercises, crews have generally maneuvered with the confidence instilled by being impervious to the consequences of their own battlefield improprieties.

The Air/Ground Engagement Simulation System [AGES] is designed to provide a means of realistic real-time casualty assessment for aviation and ground units participating in engagement simulation training exercises. The system applies laser technology developed for the Multiple Integrated Laser Engagement Simulation System [MILES] to the spectrum of air and air-defense activities.

By mounting laser transmitters and detectors on aircraft, the inherent operational and lethality characteristics of



aviation weapon systems, to include the vulnerability of aircraft to opposing air defense weapons, may be employed with ground units. When ground maneuver units are equipped with similar MILES devices, a situation is created whereby aviation and air-defense units can effectively participate in battalion-level combined arms tactical training exercises.

The AGES system integrates Army attack, observation, and utility aircraft, and air-defense artillery weapons systems with combined-arms maneuver force weapons systems. This provides the commander the means to simulate air-to-air, ground-to-ground, and air-to-ground target engagement, along with the ground-to-ground target engagement.

The total engagement simulation program will provide an effective interface of the major weapons systems available on the modern battlefield so that targets may be engaged in a manner which simulates the characteristics and lethality of actual weapons systems.

The AGES system evolved from a tactical training effectiveness study conducted in 1970 under the supervision of the Board for Dynamic Training headed by then Brigadier General Paul F. Gor-

man. The study, conducted by a commercial contractor, concluded that the use of laser technology offered the optimum means of conducting weapons engagement simulation exercises in a tactical training environment.

This conclusion, as applied to the air-to-ground and ground-to-air environment, was validated by a joint U.S., Canadian, and Federal Republic of Germany Attack Helicopter Evaluation conducted at Ansbach, FRG. The evaluation utilized laser transmitters and detector devices on scout and attack helicopters and armor weapons systems. Along with the many lessons learned from the Ansbach Test, the evaluation demonstrated the potential value of laser technology for real-time casualty assessment as applied to the training environment.

Simultaneous Development

Simultaneously with the Ansbach Test, the Combat Arms Training Board was involved in developing a system (MILES) using low-power, eye-safe lasers for use in engagement simulation by combined-arms maneuver units. The potential value of the results of the Ansbach Test in relation to the Combat Arms Training Board MILES program was recognized; therefore, a weapons engagement simulator requirement for helicopters was combined with the MILES concept.

The AGES system is being developed as a joint TRADOC school effort among the U.S. Army Aviation Center at Fort Rucker, the U.S. Army Air Defense Center at Fort Bliss, and the U. S. Army Armor Center at Fort Knox. The Armor Center has been designated as the AGES system proponent with the overall project being supervised by the Engagement Simulation Program Manager, TRADOC. In addition to Army helicopters and air-defense artillery, the system is ultimately designed to include attack aircraft of the U.S. Air Force Tactical Air Command.

The Air/Ground Engagement Simulation System is about to enter advanced development divided into two phases. Phase 1 is designed to provide an interim,



What appears to be a slightly different version of the Army's C-12A personnel and utility transport is the second version of the Beechcraft King Air bought by the military. This one is the U.S. Navy's 254-knot T-44A advanced trainer to be operated at the Naval Air Station, Corpus Christi, Tex. Beech Aircraft is producing the T-44A for the Navy under a \$22.1 million contract. □

relatively low cost, low fidelity, non-laser system to the field by FY 77-78. The Phase 1 system is based upon the concepts and technology developed by the Army Research Institute (ARI), the U.S. Army Armor Center, and the U.S. Army Infantry Center for the REALTRAIN program.

REALTRAIN provides a means of casualty assessment by employing a system using controllers and requiring visual identification of numerical panels on Infantry and Armor targets. Controllers with appropriate units verify that the proper engagement sequence has been followed during engagement, confirm target identification panel number, and relay engagement simulation results to the target and controller information center.

Data collected in USAREUR during four months of platoon level training in Europe with REALTRAIN indicates that as exposure to REALTRAIN training increased, units became significantly more adept at detecting targets, engaging them first at greater ranges, "killing" more of the opposing force, and suffering fewer casualties of their own.

The Results of REALTRAIN

Despite the REALTRAIN limitations of day only engagement, platoon level only training, and training conducted within the confined training areas of West Germany, the following results were produced after three weeks of REALTRAIN training:

- 55% increase in first detection,
- 153% increase in first engagements,
- 26% increase in survivability of tanks, and
- 49% increase in tank-killing prowess.

The REALTRAIN concept is being modified to include Army helicopters and air-defense assets. The techniques and methodology which have proven so successful for REALTRAIN appear to have the same potential positive benefits for helicopter and air-defense unit training.

The 101st Airmobile Division has de-



□ Two Ft. Riley units, the 335th Avn Co and the 82nd Med Det, have received FORSCOM "Commanders Trophies" for outstanding FY76 aviation sesafety records. The former's last accident occurred in Nov. 1971; the 82nd has completed 4½ years of accident-free flying. Shown [unidentified] are Safety Officers and NCOs of the winning units.

veloped the **Vulcan Engagement Simulation [VES]** system which is being considered for the AGES Phase I system. A sealed beam, high-intensity spotlight is mounted coaxially on the 20-mm Vulcan sight support arm and a red warning light is mounted behind the radar reflector. The spotlight is electrically connected with the trigger mechanism of the Vulcan so that when an aircraft is engaged by the weapon, a visual cue is provided to the aircraft indicating an engagement is occurring.

Simultaneously, the red warning light is activated, altering the controller (normally a rated aviator) located with the Vulcan that an engagement is in progress. He then uses a score card to evaluate the crews performance and makes the appropriate casualty assessment assuming a successful engagement. The controller notifies the aircraft crew by radio and the aircraft is removed from the problem play.

The Phase I AGES system is considering the use of a controller-activated, radio link device which will activate smoke on the aircraft when a hit is assessed. Visual identification panels are being developed for the aircraft to assist in the identification and engagement

process. In addition, strobe light devices are being developed for use on the armament systems of the attack helicopter so that aircrews will have the capability to conduct engagements with its onboard weapon systems.

It is visualized that an airborne controller for the aircraft will function in the same capacity as the ground controller for the air-defense weapons. It must be emphasized that in the Phase I system, all weapons systems available will have the capability of mutual engagement. Armored vehicle weapons can engage aircraft with the same devastating results as air-defense weapons systems. Operational testing of the Phase I system is tentatively scheduled for the 1st quarter of FY 78 with distribution to the field programmed for the 4th quarter of FY 78.

The 1980 - 1981 Time Frame

Phase II is designed to use laser technology for real time casualty assessment. Two competitive laser systems, discrete detection and retroflection, are being considered for use in the Phase II system which will be in the field in the FY 80-81 time frame. The discrete detection system incorporates eye safe, low-power, gallium-arsenide laser transmitters which are pulse coded to provide a hierarchy of weapon effects.

Detection devices are located on each target (e.g., soldier, tank, aircraft) which include a logic package capable of decoding each laser engagement. The detector logic package decodes each received beam, determines if the weapon engaging the target has sufficient lethality to obtain target destruction, and finally,

assuming that the weapon is capable of target destruction, transmits a kill message to the target.

The kill message initiates a logic sequence whereby the probability of kill is determined for that munition in relation to the target engaged. When the logic package designates a kill, the target's weapon system laser transmitter is deactivated. A device is automatically activated to produce a cue for the target (individual or crew) and attacker that destruction has occurred (e.g., tank releases red smoke).

A second important feature of the Phase II program is that the laser transmitters transmit two beams simultaneously. The first beam (the narrower beam), assuming a hit, transmits a kill message to the target initiating the aforementioned logic sequence. The second beam (the wider of the two beams) provides a cue to the target that a near miss has occurred if the target is missed by the narrow beam but is illuminated by a wider beam.

The retroflection system uses a laser transceiver capable of transmitting pulsed laser beams and receiving laser radiation from the target. Using two laser beams, the first activates the logic device which discriminates lethal and non-lethal coded pulses. The second beam is initiated by the transceiver and sends a 'kill' code to the target logic package. The logic package determines the probability of kill and initiates the activation of the visual cues indicating a vehicle kill as appropriate.

The AGES system in conjunction with **MILES** provides the commander a real time means of casualty assessment without impeding the fluid-foreplay characteristics of mobile maneuver units. The AGES system, once deployed to the field, will allow the integration of aviation and air defense with other engagement simulation programs. An integrated, effective engagement simulation program will decisively increase the standards of performance and the status of combat readiness in Active, National Guard, and Reserve components.

ABOUT THE ARTICLE

The in-depth article on AGES, as written by **Major Marion G. Long, Jr.**, is reproduced from the March-April 1977 issue of **Armor Magazine**, a bi-monthly periodical published by the U.S. Army Armor School at Ft. Knox, Kentucky. □

A QUICK LOOK BACK INTO THE PAST AND
SOMETHING MORE THAN TRIVIA.



Yesterday

1934: The "Maxim Gorky" disaster

RUSSIA was not counted among the major powers after the 1917 revolution.

To offset this lack of luster, they decided to build a real eye opener, the **largest airplane in the world**. It was designed by A.N. Tupolev, the designer of today's jet-powered passenger planes of the Soviet Union.

The then **World's Largest Airplane** was completed in one year, and it weighed **40 tons**, had a wing span of 210 feet, and was 114 feet long. Eight engines, three on each wing, and two in tandem atop the wing powered the aircraft.

It was named "**Maxim Gorky**" in honor of a great Russian author.

The all-metal plane contained a dark room, rotary press, library, movie projector, loudspeaker to broadcast to the populace below, dining room, and **sleeping quarters and seats for 50 passengers**.

Its maiden flight took place in 1934, the "**Maxim Gorky**" achieving 150 mph in flight.

It flew throughout the nation to bolster morale, making loudspeaker broadcasts, rewarding the farm groups below, and taking meritorious workers for rides. As it flew over cities and villages it made a tremendous racket, and everyone for miles could not fail to be impressed. Even foreigners were awed by its great size, and the thunderous — almost quakelike — crescendo of its loud engines.

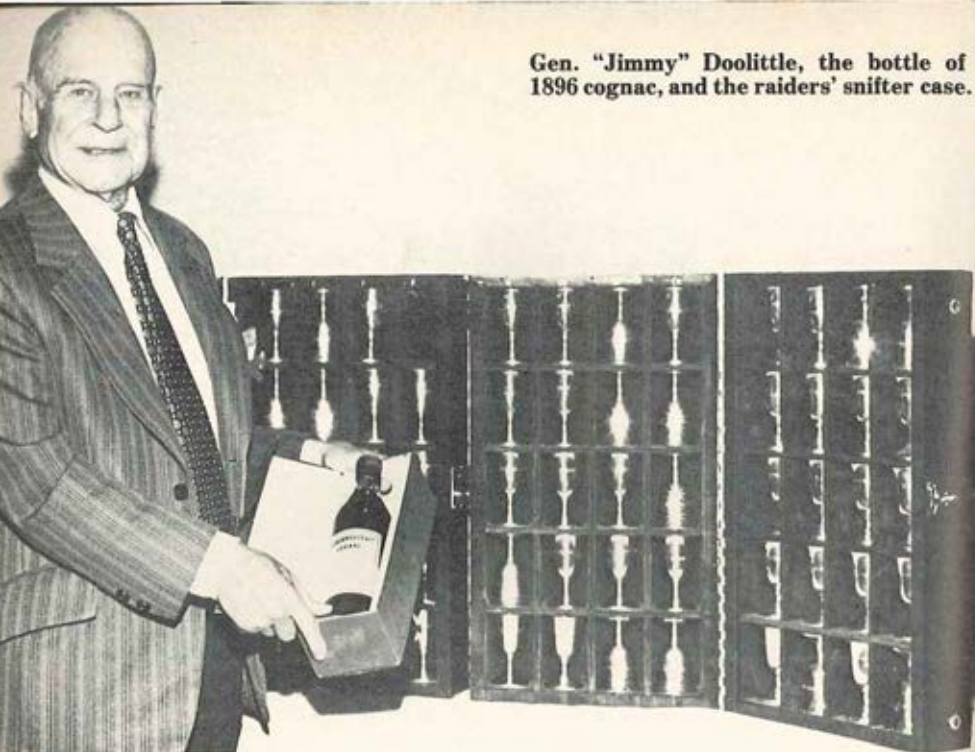
ACROBATICS FOR THE MILLIONS!

Two small fighter bi-planes usually accompanied the "**Gorky**" to emphasize its size. As it soared over Moscow one day at 2,000 feet, the escort aircraft began to cut up. They flew barrel rolls, Immelmans, and loops.

The millions on the ground were



Gen. "Jimmy" Doolittle, the bottle of 1896 cognac, and the raiders' snifter case.



thrilled . . and then stunned! One of the fighter planes completing a loop buried itself in the huge fuselage.

All 76 aboard were killed, the world's largest plane fatality total to that date.

Thus ended the saga of the "Maxim Gorky," one of the great "almost airliners" of aviation history.

—NAA News, April 1977

A RARE REUNION!

From all over the nation, 35 of the surviving 53 raiders (of the original 80) who bombed Tokyo on April 18, 1942, converged on Memphis. April 7-10, for their 35th reunion.

General James H. Doolittle, who led the 16 B-25 bombers on the raid, hosted the gathering, and presided over a toast to those present and to those departed, with cognac-filled snifters engraved with the name of each raider. The snifters of the living veterans stand upright, while

MODEST—Cited on retiring as Army Aviation Museum Curator, Bill Howell said, "When I took this job I initially intended to stay for three years and ended up staying 10, showing it takes me three times as long to do a job as it ought to." □

those of departed comrades rest upside down in a special display case.

A bottle of rare Hennessy Cognac from the 1896 pressing of grapes was presented to **Gen. Doolittle**.

Accepting the 1896 bottle of cognac, **Gen. Doolittle**, now 81, observed, "That was the year I was born — I wish I had aged as well."

CHANGE—MAJ Harry L. Davis took command of the 178th Avn Co (Box Cars), 14th Avn Bn, at 21 April Ft. Sill ceremonies, replacing MAJ James H. March.



By MAJOR DAVID C. WETZEL
101st Aviation Group
Ft. Campbell, Kentucky



Photo 2 — Light Stake

Equipment

101st Develops Low-Cost Night Landing "T"

CURRENT mid-intensity battlefield tactics dictate that helicopters fly close to the ground, and usually at night or during periods of reduced visibility when navigation is more difficult.

Then too, the enemy situation usually requires that friendly units move frequently to avoid detection and exploitation.

Locating LZ's under these conditions, then, is even more difficult, and almost always requires the use of some type of landing "T" lights or other illumination. Unfortunately, lights on the battlefield at night can compromise unit locations, and there you have the problem.

Here at the 101st Airborne Division [AASLT] we're using a system which reduces these problems, and provides many advantages over existing lighting systems.

Our goal was to reduce the size and the weight of the landing "T", one that would replace the five-lantern type bean bag lights currently in use. A remote control requirement was added, and the project was underway.

The first model used an electrical

relay for the remote control feature and five miniature bulbs to form the "T". The bulbs were mounted in sockets which were supported by stakes fashioned out of coat hanger wire (Photo 1).

The second model increased the reliability of operation and reduced the cost by employing a transistor switch circuit for the remote control feature. The lights were supported by nylon tent pegs and given weather protection by covering the bulbs with clear plastic pill bottles. A remote line-testing circuit was also included in the second model.

The production model improved the package by utilizing metal rod material and a bracket to hold a standard miniature light socket assembly. Weather protection for the bulb was provided for by an interchangeable lens cover, which is part of the light socket assembly.

HIGHLY COMPACT UNIT

The complete landing "T" (Photo 2) and remote control switch, less the battery, can be carried in the metal box (6-in. x 11 1/4-in x 4-in), which contains the circuit components, connecting jacks, and a press-to-test switch (see Photo 3).

The landing "T" weighs about 3 lbs. Because of its size, shape, and availability, the BA4386 (standard PRC-77 battery) is recommended, which adds 2 1/2 lbs. to the system. If the BA4386 isn't available, any 12- or 14-volt battery, or 12-volt combination of cells with enough electrical current capability, will operate the system.

Photo 1 — Deployed Landing "T"



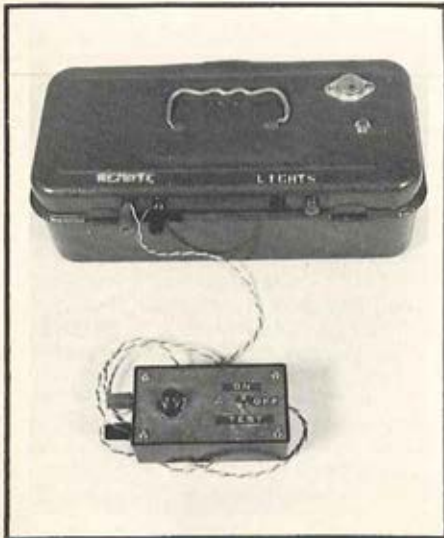
Installation is simple. The five lights on their metal stakes are inserted into the ground to form a "T", with spacing limited to about eight feet by the connecting wires. "T" orientation is made to point out a safe approach to the LZ. The string of five lights is connected to the appropriate jacks on the metal box. WD-1 (standard field wire) or similar wire is installed from the metal box to the remote control box.

If necessary, the distance between the two boxes can be as much as two miles. The BA4386 is installed in the metal box which is covered with a plastic bag for maximum weather protection.

To recover the landing "T" rapidly, coil up the wires and the five lights and place them in the metal box. For temporary storage the battery and the lights will fit into the metal box. However, care must be taken **not to break** the lens caps. The battery should then be removed for extended storage, allowing room to store the remote control switch and the five lights inside the metal box.

This remote control landing "T"

Photo 3 — Metal Box and Remote Control Box



ABOUT THE AUTHOR

Major David C. Wetzel is the current CommO of the 101st Avn Gp. He holds BS and MEE degrees from Penn State. A Senior Aviator, his most recent assignment was as Deputy Air Field Commander at Ft. Campbell. □

system is lightweight, easy to carry, inexpensive, and powered by batteries that are available in the supply system. Since the lights are **remote controlled**, they are only energized when an aircraft calls to have them turned on. This not only improves the tactical light discipline requirements, but it also reduces battery usage. One battery will operate the lights for several weeks if properly used.

To aid the pilots in identifying the proper landing "T" the lights can be **manually flashed on command**. During periods of radio silence one or more of the five lens caps can be replaced by a **colored lens** to identify a specific unit.

The remote control and test feature eliminate the need to have personnel on the LZ to constantly check operation. The convenience of operating the "T" from a Tactical Operations Center, or a remote location near a radio, reduces on-duty manpower needs.

The first two models were field-tested at Ft. Campbell in spring, 1976 on **Sovereign Eagle** exercises with outstanding results. Improvements were then incorporated in the **production models**; the Installation Maintenance Office at Ft. Campbell manufactured 100 units for use by the 101st during recent **Reforger** exercises in Europe; and use comments have been favorable.

The system is reliable and seems to function under adverse conditions. I've personally seen some of the systems continue to operate while partially under water and covered with mud. Some of the metal boxes received considerable abuse and were bent during **Reforger** but in all cases continued to operate.

The Nominations Are Open

Be a participant in the selection of the "Aviator of the Year" and the "Aviation Soldier of the Year." Write to AAAA for the one-sided, simple nomination form that will put your candidate into the hopper for national recognition at the coming AAAA National Convention.

Many deserving people are never cited with awards because they are never nominated.

AAAA's "Outstanding Aviation Unit Award" along with its "Outstanding Reserve Component Aviation Unit Award" recognize the finest unit performances during the previous calendar year. Does your unit measure up?

The "James H. McClellan Aviation Safety Award" singles out a major safety achievement. If you know of one, tell us about it. The nominations close July 1.



NATIONAL AWARDS

NOMINATION FOR THE AWARD TO THE ARMY AVIATOR OF THE YEAR

Organized by the Army, Budget Department, this award will be presented to the Army Aviator who has made an outstanding contribution to Army Aviation during the calendar year ending September 30, 1977.

RULES:

Nominations for AAAA are not a requirement. It is suggested that you submit a nomination for your candidate to the AAAA National Convention, 1-2 Crestwood Road, Westport, Connecticut 06880.

NAME OF NOMINEE _____

POSITION OR ASSIGNMENT _____

ADDRESS _____

BRIEF OUTLINE OF REASONS FOR NOMINATION (should be a detailed information, should be detailed as possible)

PLEASE TYPE OR PRINT IN
BLOCK IN THE SPACES PROVIDED

NAME _____

NAME/TITLE _____

ADDRESS _____

UNIT NOMINATIONS TO:

1. Outstanding Aviation Unit Award; 2. Outstanding Reserve Component Aviation Unit Award; 3. James H. McClellan Aviation Safety Award.

UNIT NOMINATIONS TO:

AAAA, 1-2 Crestwood Road, Westport, Connecticut 06880.

SUBMISSION DATE:

August 1, 1977

The form may be reprinted freely.

Please join in!

1977 AAAA National Awards

Submit your nominations to AAAA, 1 Crestwood Road, Westport CT 06880 by July 1

At Fort Ord, Calif. a six-member crew of the 155th Aviation Co has an astounding reaction time!



Operations

Can your crew be airborne in 55 seconds?

THE sound of sirens breaks the morning calm at the 155th Aviation Company's heliport at Fort Hunter Liggett, California. Suddenly a door flies open and six men make a mad dash for the helicopter 50 yards away.

Within **one** minute "Rescue One" is airborne and on the way to aid a stricken aircraft!

According to **CW2 Joe Jackson**, pilot-in-command, "Rescue One" is unique in the sense of being the **only crash and rescue team of its kind in the Army**. He said other posts have rescue units of some sort, but not with a reaction time quite as fast as the 155th.

"We have been airborne within 55 from the time the alert is called," he said.

The quick reaction team was created by the US Army Combat Developments Experimentation Command to help alleviate potential hazards aviators are exposed to while flying experiments under adverse conditions.

"Pilots really depend on us," Jackson said. "In fact, they don't like to fly unless we're on standby."

The team consists of a pilot, co-pilot, medic, two firemen, and a crewchief. Each member is highly trained in his specialty, but also knows each of the other jobs. The helicopter is equipped with fight-fighting equipment, medical supplies, and litters.

While "Rescue One's" pilot is starting the helicopter, the co-pilot is collecting information about the accident by radio. Most of the time the crew is airborne before knowing the actual crash location.

During the time the aircraft is on the ground, the medic and the firemen are donning their fire-fighting equipment. **Jackson** said the greatest danger in an aircraft accident is fire, but with the equipment "Rescue One" has on board, the medic and the firemen can walk through burning fuel and extract a crew with minimum danger to themselves.



USACDEC's 'Rescue One' team is shown at the standby. The crew are, from left, **SGT Joaquin Flores**, fireman; **CW2 Joe Jackson**, pilot; **PFC Steve Campbell**, medic; **SP4 Bill Nelson** [kneeling], crewchief; **CW2 Charles Ridenour**, co-pilot; and **SP4 Roscoe McMillan**, fireman. □

By Sergeant First Class John H. Pratt
U.S. Army Transportation School
Fort Eustis, Virginia



Careers

New Skill Level 3 Course to start in July

In July of this year the U.S. Army Transportation School at Fort Eustis, Virginia, will commence the first **Narrow Range Supervisor/Technical Inspector Course** under the EPMS Skill Level 3 program. The implementation of this course will mark another milestone toward the full realization of the EPMS and the new 67 **Career Management Field [CMF]**.

Skill Level 3 training will be conducted for individuals in both the 67 and 68 **military occupational specialties [MOS]**, resulting in more highly competent supervisors and technical inspectors for both allied shops and specific aircraft. Skill Level 3 resident instruction for some low density MOS's may not be offered; for example, MOS 68H.

Individual courses will be offered for the selected MOS; however, a common core of supervisory and management subjects will be included in each of the respective programs of instruction. Quite naturally, there will be a slight variation in subject matter between the 67 series and 68 series cores.

In general, the common phase will include instruction in the following areas: planning work flow, production and quality control procedures, maintenance

management principles, forms and records, reports, methods of conducting on-the-job training, cannibalization, and preservation and packaging methods.

After the core subjects, each MOS will specialize in the specific aircraft or component repair specialty where the applicable supervisory skills and technical inspection techniques will be taught.

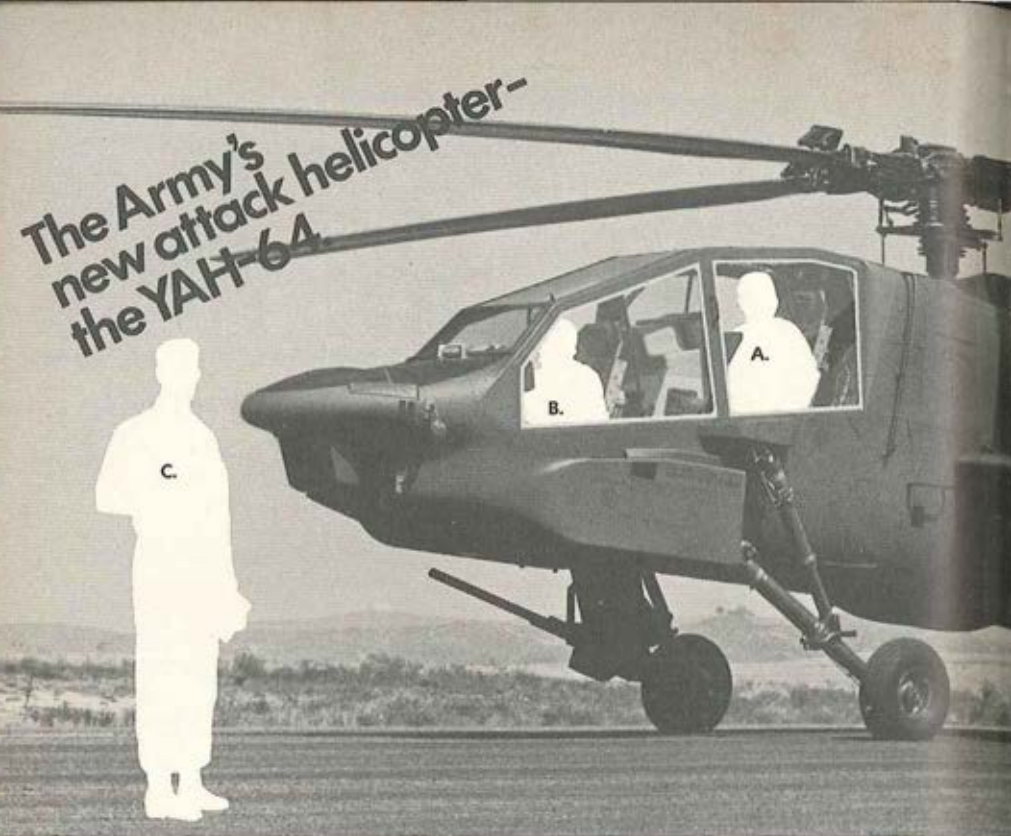
In addition to technical inspection techniques, the 67 series will receive instruction on performing maintenance operational checks (MOC), assisting in the completion of test flights, airworthiness certification, damage evaluation, and weight and balance. The 68 series will receive instruction pertaining to management of special tools, and calibration.

The proposed course lengths for all 67 CMF Skill Level 3 courses have not yet been approved, but it is anticipated that they will range from five to 11 weeks in duration.

It is envisioned that in the field the majority of the Narrow Range Technical Inspectors will work under the overall supervision of an Aircraft Quality Control Supervisor (67W30), while the Supervisors will be responsible for the supervision and operation of their respective component repair shop or maintenance activity.

Specific prerequisites are in the final formulation stages, but it is anticipated that soldiers must be of the grades E-5 or E-6, qualified at the 20 Skill Level, [CAREERS/Cont. on Page 26]

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. Submit letters to: Editor, Army Aviation Magazine, 1 Crestwood Road, Westport CT 06880.



The Army's
new attack helicopter—
the YAH-64

Put yourself

The Army's attack helicopter is being built by Hughes. Integration of a Target Acquisition and Designation System (TADS), pilot night vision and HELLFIRE is underway. The YAH-64 provides technology of the 80s for the year 2000.

A. Built For The Pilot—Outstanding visibility. Near the center of gravity for best "feel" in nap-of-the-earth flying. The proven four-blade quiet main rotor and fail-safe stationary mast provide maximum agility, safety, negative-G control. Top forward speed, 204 knots. Sideward and rearward speed, 45 knots. Vertical rate of climb, nearly twice the Army's requirement. Low canopy glare, quiet tail rotor and small radar and IR profiles make the YAH-64 most difficult to

locate. Survivability: up to 23mm hits absorbed with only localized damage. Redundant systems to prevent loss of control.

B. Built For The Copilot-Gunner—Unobstructed front seat location for best visual target spotting. In front of weapons firing effects to avoid interference with IR target acquisition. Flight controls identical to the pilot's for safety, survivability, ease of training and interchangeability. Fully integrated weapon systems deliver a deadly barrage of Hellfire missiles, 2.75-inch rockets and 30mm fire under all operating conditions.

Pilot and copilot compartments enclosed with protective armor. Crew crash survivability at

The world's most advanced attack helicopter.



in their place.

impacts in excess of 30 mph.

C. Built For The Ordnance Crew—Easy access to all weapon systems. Interchangeable wing pylons accept rocket launchers, missile launchers, extended range fuel tanks. Prebore-sighted launchers loaded or unloaded in minutes. The Hughes XM230 Chain Gun, a small, lightweight, easily maintained, reliable cannon, is designed specifically for the AAH mission. It can be loaded to full capacity by two men in just 12 minutes—or to normal mission complement in only four minutes—without use of ground support equipment.

D. Built For The Maintenance Crew—Maintenance hours per flight hour have been

reduced 38% from Army requirements. Only standard tools required. Easy access to all dynamic components. Inspection and maintenance require no ground workstands. Upper deck access panels and engine nacelles serve as maintenance/inspection platforms. Easy maintenance features include two-man blade installation and removal; lubrication-free rotor system; grease-filled intermediate and tail rotor gear boxes; 20-minute engine change; slide-in/slide-out main rotor transmission without removing rotor, hub or controls.

Designed to Cost—The YAH-64 will be produced within Army cost objectives.



Hughes Helicopters

A Division of Summa Corporation

Built for the men who have to live with it.

How to put yourself into the "Hall of Fame"

Dear Fellow AAAA Member:

To underwrite the 1977 Hall of Fame Program, we turn to you for a modest **tax deductible donation**.

Make a minimum donation of \$10 to the AAAA at this time, and your name will be placed on a **1976-1977 Hall of Fame Patrons** plaque to be



hung permanently in the actual Hall with all inductee portraits. We'd need your donation postmarked by 25 May to prepare the **Patrons Plaque** in time for the 4 June 1977 Induction Ceremony.

Along with a donation acknowledgment, we'll also send you a distinctive **1977 Army Aviation Hall of Fame Patron** wallet card.

Your donation—whether one dollar, or \$10, or more—will be appreciated by the Hall and by the members of the Board of Trustees who have the responsibility for conducting this AAAA program.

Sincerely,
HAMILTON H. HOWZE
General, USA (Ret.)
Chairman, Hall of Fame
Board of Trustees



**Postmark this
form not later
than 25 May to:
AAAA
1 Crestwood Rd.
Westport CT
06880**

Dear General Howze:

Yes, I would like to support the **Army Aviation Hall of Fame** and become a lifetime **Patron** of the Hall. Please find enclosed my donation to AAAA for the **Hall of Fame** in the amount of \$10 or more.

Name

Address

City State ZIP

Careers

and should have twelve months or more active duty service remaining upon completion of the course. No security clearance will be required.

Due to the relatively early beginning date (July 1977), initial course starting dates will be furnished field commanders via TWX electrical messages. Initially, course input will be based on the needs

of field commanders who should respond to the class schedules provided in the TWX. The basis for further student input is yet to be determined.

The Narrow Range Supervisor/Technical Inspector is a highly skilled soldier who fills a vital role in the maintenance of Army aircraft.

As such, he or she can be justly proud of this newly created position and the role he or she will play in the Army Aviation Program.

15 years and some 3,000+ flying hours later, some AAAA members achieve Army Aviation's highest rating.



Masters All!



LTC Floyd Eberhard, right, receives his Master AA wings from COL Charles F. Drenz, Cobra Project Manager, during an AVSCOM ceremony in St. Louis. LTC Eberhard serves as Asst Project Manager for Materiel Readiness. □



COL Joseph C. Burns, right, is congratulated by MG Patrick W. Powers, TECOM Commander, upon receiving his Master wings. COL Burns is Director of TECOM's Avn Materiel Testing Directorate. [Delayed photo]



LTC Engle W. Scott, right, President, USAREUR Avn Saf & Standzn Board, really beams after receiving his Master wings from COL Crawford Buchanan, Chief of the USAREUR Aviation Division. [Delayed photo]



LTC C. Douglas Eady, right, Plans & Opns Div, LANDSOUTHEAST, Ismir, Turkey, receives his Master Army Aviator wings from Major General James B. Vaught, the Chief of Staff of LANDSOUTHEAST. □

A senior Army Aviation NCO takes issue with the waste of dollars and time by indifferent inspection teams



Opinion

There's a right way and a wrong way!

I AM writing this in reference to **Safety and Standardization Surveys, IG Inspections, CMMI Inspections, and the like.**

For about four years I was on a major command **Safety and Standardization Team**, one that I considered was and still is one of the best. Our responsibility was to help (not hurt) all aviation units in all aspects of Army Aviation.

We used many references as guides, such as **USAAVNS Resources Management Guides**, which came out periodical-ly; Army Regulations; and **USAREUR Regulations and Supplements**.

Our team consisted of aviators and senior NCO's with a good many years of aviation experience. We had **Standardization IP's, Instrument Examiners** (both fixed and rotary wing); **Maintenance Officers and NCO's; Technical Inspectors; Safety Officers; and Flight Operations Officers and NCO's.**

We surveyed everything from maintenance records, aircraft flight records, safety records, training SOP's, **NOE SOP's.** Our team also gave **IP spot check standardization rides and instrument check rides.**

The reason I'm writing this letter is

because I believe some of the individuals should not be on these inspection teams because they tend to make things worse, instead of better.

Before we went on a survey we would write a letter to the unit commander telling him when we were coming, how many people would be with us, and what we wished to survey.

We then asked if there was anything we could do to help them, or if there was any **AR** they needed. We stressed that all they had to do was call or ask and we would gladly help them.

Some units would call and say they had some aviators who needed instrument check rides so we would bring **Instrument Examiners** with us.

There weren't any surprises about our coming on the survey; they knew the day we would arrive and what we were going to look at.

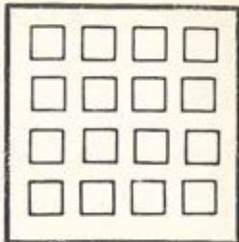
The first thing we did after arrival was to have an **inbriefing** with the Commander. Our commander would introduce us individually and tell everyone present what our job was.

We then went to work and told each section what we were going to survey. On minor items we'd discuss them directly with the person we were surveying. We would also write down the discrepancies and give each section surveyed a copy of our written report. Our purpose was to help them, and we would endeavor to do this in any way possible.

[OPINION: Continued on Page 30]

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. Submit letters to: Editor, Army Aviation Magazine, 1 Crestwood Road, Westport CT 06880.

Did you know that microfiche viewers are now available at installations world-wide?



Personnel

Personnel Files now available on microfiche

Reviewing one's official personnel records is a "must." The editor has reproduced a pre-Focus article to provide the readers with an update on the current "records review process."

•• Operation - General

The Records Review facility at MILPERCEN is located in room 5S33 in Hoffman II. Appointments can be made through the review unit for officer and enlisted personnel to review their **Official Military Personnel Files (OMPFs)** at this facility. Records specialists are available to assist personnel in answering questions regarding their **OMPFs**.

Appointments can be made by calling autovan 221-9618/9 or commercial 202-325-9618/9 Monday through Friday 0700-1530 (Eastern Standard Time). Appointments are accepted between 0830-1430. All personnel must complete their review NLT 1530 and clear the review fa-

cility at that time. During peak selection board periods the number of appointments accepted per day is limited to available seating capacity.

•• Officer/WO - Appointments

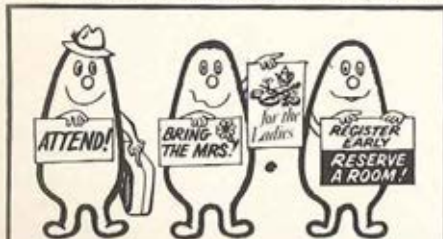
Due to personnel reductions in the review unit appointments must now be requested 72 hours or three working days prior to the date scheduled for the records review. All appointments are tentative dependent upon availability of **OMPF**. Each individual requesting an appointment is requested to leave a contact number which the records review personnel can use to call back if **OMPF** is not available on date requested.

•• Officer/WO - Review By Mail

Copies of those **OMPFs** converted to microfiche can be requested upon receipt of a written request to **DAPC-PSR-S***. Request should include individual's name and SSAN. A billing will accompany the **OMPF** at the time it is forwarded. The cost is \$2.00 for the first fiche and \$.05 for each additional fiche.

At the present time COL, CPT and warrant officer files are converted to microfiche. All other **OMPFs** are scheduled for conversion by end of present calendar year. Microfiche viewers are now available at installations world-wide.

*DA, MILPERCEN; ATTN: DAPC-PSR-S; 200 Stovall Street; Alexandria, VA 22332



AAAA's 1977 National Convention will be held in Arlington Va. during 14-16 October. Plan now to attend!

Greater use of this service eliminates the need for travel cost expenditures by the individual and reduces the overall impact on the records review facility, particularly during peak selection board periods.

●● Officer Records Brief [ORB]

Upon receipt of a request for appointment the review unit automatically requests an ORB to be available to be reviewed concurrent with the OMPF. ORBs are provided by the **Data Management and Reduction Branch [DM&RB]** of the DA Military Systems Division. ORBs are furnished at the time of the review appointment dependent upon system availability. A representative of DM&RB is available in the review unit to answer questions regarding the ORB and to process corrections as required to correct the ORB and update the **Officer Master File [OMF]**.

●● Official Photographs

In the near future MILPERCEN will

have the capability to take official photographs for OMPFs. Individuals making appointments to review their OMPFs where the official photograph is missing or outdated as prescribed by AR 640-30 are advised at the time the review appointment is made to bring a class A uniform to MILPERCEN and they will have their photograph taken prior to obtaining the OMPF for review. Instructions as to location on photo facility will be obtained at the review unit 5S33 and no appointment for this service will be required.

●● Enlisted Personnel - Appointments

Enlisted **Official Military Personnel Files [OMPFs]** are maintained at Fort Benjamin Harrison, Indiana. Approximately five working days are required to obtain these OMPFs. Enlisted personnel will call back after this interval to ensure that their **Official Military Personnel File** has been received, and can then confirm their appointment with the review unit.

Opinion

At the end of the day we'd give the Commander an outbriefing. We did our work thoroughly, and a complete survey never took us more than a day.

I'm now stationed in a desert area, and since I've been here we've had several visits from the next higher command. The personnel that visit us normally stay two to three days.

What happened? Some of the questions asked of me did **not** pertain to my job. We had "operations" ready, or more correctly, "Ready for inspection." Yet, we did not know what to expect or what was expected of us, or what they wanted to survey.

The visiting personnel, in my opinion, should have let us know beforehand in writing what they wanted to review, and what additional AR's we should have.

On the last day of the inspection, the inspectors were supposed to go somewhere for the day. However, I would guess that it wasn't in the line of duty for transportation was not furnished. The inspectors then decided to visit "Operations" and check certain things, which I believe were totally the responsibility of the aviators.

The time and money that was - and still is being - wasted on these inspections is ridiculous. The personnel go TDY for three days and **need only one day. Talk about saving money!**

I consider myself proficient in my job and do it to the best of my ability. Our "Operations" has conscientious aviators and enlisted men. Evidently the inspectors think that I am stupid and don't know anything about aviation. I have over 18 years of service and when my 20 years are in I am definitely getting out because of actions such as I've cited.

—MSG's name withheld on request

About Warrants

By CW4 LLOYD N. WASHER
WO Assignment Branch, WOD
OPD, MILPERCEN



All you need to know about assignments . .

Last month we discussed the basic mechanics of the assignment process—**Projected Requisitioning Authority [PRA]**, priorities, and preferences. These, however, did not tell the whole story.

When the assignment officer finally gets down to exactly **who** and **where**, subjective considerations affect his decision. On the one hand he has a list of requisitions, and on the other he has a group of people.

One of the recurring questions has to do with senior warrant officers (CW3/4). The younger guy wants to know why all the "plush" assignments are filled by CW4's. The company and battalion commanders want to know why all they have are WO1's and CW2's.

Absence of a PRA

Let's take a look at some factors that make this **appear** to be so. First of all, warrant officer positions on TOE/TDA's are not graded; consequently, there is no PRA established for grades. The absence of a PRA by grade places the responsibility of making an equitable distribution of senior warrants on the assignment officer. This is influenced by the following factors:

Type of assigned aircraft. The majority of CW4's (89%) and CW3's (71%) are qualified in advanced aircraft (CH-47, U-21, U-8, OV-1, AH-1G). The majority of CW2's (56%) and WO1's (94%) are qualified in only the UH-1 and OH-58. This is as it should be since the more ex-

perienced aviators should be flying the larger and more complicated aircraft.

As a result, installations having a high percentage of advanced aircraft will have a high percentage of CW4's and CW3's. This is the case in Alaska, for example, where all of the advanced aircraft are represented.

Density of aviation warrant officers.

In small isolated units such as Readiness Regions and MAAG's where the individual is required to function independently, we lean toward the experience, maturity, and judgement of a senior warrant officer. MAAG Saudi Arabia is a good example of this. The two assigned warrant officers are a CW3 and a CW4.

Mission. In units such as Davison Army Airfield, which have the mission of flying the Secretary of the Army, Chief of Staff, and other high ranking officers and dignitaries, the majority of the warrant officers will be CW4's and CW3's.

The Aviation School, which needs experienced aviators to teach new aviators, will also have a high percentage of senior warrant officers. In areas where geography and weather have an adverse effect on flying, we again lean toward the experienced aviator.

Professional Development. We deliberately try to get the new aviators to a TOE troop unit where the training they receive in school-discipline, leadership, and tactics—can be expanded. We feel this early experience is essential to their professional development.

The following is a summary of the

NUMBER OF AWO'S ASSIGNED COMPARED TO ASSIGNMENT OBJECTIVE

ALASKA			FORT RUCKER			FORT BRAGG		
MOS	Total	CW4/3	MOS	Total	CW4/3	MOS	Total	CW4/3
	AWOs Assg	Assg Obj		AWOs Assg	Assg Obj		AWOs Assg	Assg Obj
100B	36	5	100B	160	21	100B	271	35
100C	44	23	100C	43	22	100C	44	22
100D	10	8	100D	43	3	100E	58	14
100E	31	7	100E	23	5	100Q	32	21
100R	5	3	100Q	31	21	160A	7	5
100Q	6	4	100R	3	2	Totals	412	97
160A	4	3	160A	6	4			
Totals	136	53	Totals	270	78			

number of WO's assigned to Alaska, Fort Rucker, and Fort Bragg. It illustrates the number of assigned WO's compared to an assignment objective which has been established based on the type of assigned aircraft. These objectives are tempered by the assignment officer who considers the four other factors previously mentioned.

Although this is our assignment philosophy, we sometimes have to compromise when the mix of available aviators does not match the mix of requirements during a particular assignment cycle. Most compromises are temporary and can be compensated for in later assignment cycles.

Let me emphasize that the CW4/3 as-

signment objective is the desired figure based on aircraft and aviator qualifications. This is **not** an absolute number because as mentioned earlier, mission, environment, and professional development also influence the decision making process.

Now we will go one step further and explain how the CW4/3 assignment objective is calculated. The chart below shows the number of warrant officers by PMOS and the percentage they represent of the 5469 aviation warrant officer force.

The chart also represents the aviation warrant officer population as of the end of December 1976. For example, of the 2,777 people who are just UH/OH-58

AVIATION BY PMOS

Acrft	MOS	CW4	%	CW3	%	CW2	%	WO1	%	Total	%
UH-1*	100B	49	2	306	11	1778	64	644	23	2777	50
CH-47	100C	155	22	206	30	324	47	5	1	690	13
CH-54	100D	34	30	56	49	22	19	2	2	114	2
AH-1	100E	59	5	230	19	862	73	33	3	1184	2
U-21	100Q	112	21	235	4	187	35	1	0	535	10
OV-1	100R	17	22	32	41	28	36	1	1	78	1
NRM†	160A	24	26	36	40	14	15	17	19	91	2
Totals		450	8	1101	20	3215	59	703	13	5469	100

*UH-1/OH-58

NRM†-Non-Rated Maint.

qualified, only 2% are CW4 (49 people). It follows then that only 2% of the UH-1/OH-58 seats in the Army will be filled by a CW4 who possesses PMOS 100B. Additional CW4's who fill 100B slots will have advanced aircraft qualifications. Moving on it can be seen that 22% of the Chinook seats can be filled by CW4's.

The Questions Most Commonly Asked on "Assignments" by Aviation WO's

Q - How long can I expect to stay at Fort Knox?

A - Minimum, mandatory time on station is 36 months and you normally will not move prior to that. Normal turn-around time is four years except for those who have been overseas (three to three and one-half years). Because of the current aviation reorganization in Germany, Cobra Aviators may spend less than 4 years in CONUS.

Q - How can I get a specific place overseas?

A - Fill out a DA Form 4187, Personal Action, and forward it as outlined in Chapter 2, AR 614-30. Remember you must have three years on station before we can move you and a volunteer statement does not protect you from involuntary overseas assignment if it's your time to go. Incidentally, we must have a requirement at the place you want to go in order for you to get there.

Q - What can I do to get the CONUS post I want when I DEROS?

A - Put in a current preference statement six or seven months prior to DEROS. Attach a note or letter to explain any special circumstances that you want to emphasize. Finally, call the assignment officer, but not prior to 90 days before DEROS.

Q - Can I get a school enroute?

A - If the requirement necessitates training, the assignment officer will coordinate for school. If not, then the Profession-

The foregoing discussion presents a broad view of a complicated process that involves your career; it doesn't answer every question. While we cannot possibly hope to answer all questions in this article, we can address some of those most commonly asked, and these are found immediately below.

Q - What about severe personal hardships? How can I be diverted from my current orders? How can I move to a specific place?

A - MILPERCEN must approve a compassionate or permissive assignment under the provisions of Paragraphs 3-3 or 3-2, AR 614-101 respectively. Your local personnel officer will help you get the required documents together. CW4 Valaer, Personnel Actions Branch, Autovon 221-7845, will process the paperwork in Warrant Officer Division. He is also available for advice and assistance.

Q - Can I go to the career course or senior course in conjunction with my next move?

A - Not unless you are selected by a DA Board. If chosen, you will be assigned to a designated class at Ft Rucker. Assignment officers have no control over who or when an officer will go.

Q - Where can I go and what is the possibility of getting there?

A - Shown below is a complete list of aviation warrant officer assignments showing location and PRA as of 1 January 1976, and type aircraft on hand. Since there are roughly 5,400 aviation warrant officers, you can figure your own odds. The various aircraft are represented by the following code letters:

Worldwide Aviation Spaces/Aircraft in Use

AWO Assignment Locations	Projected Requisition'g Authority	Type of Aircraft on Hand
---	--	---

CODE:

B = UH-1/OH-58; C = CH-47; D = CH-54;
E = AH-1; and P = F/W

Alaska	150	B-C-D-E-P
Aberdeen	4	B-E-P
Belvoir	36	B-C-P
Ben Harrison	2	P
Benning	87	B-C-D-P
Bliss	97	B-E-P
Bragg	391	B-C-E-P
Buchanan	2	B
Canal Zone	51	B-C-P
Campbell	556	B-C-E-P
Carson	92	B-C-E-P
China*	1	B-P
Corpus Christi	1	B-E-P
Devens	14	B-P
Dix	10	B-P
Dugway PG	2	B-P
Eustis	62	B-C-D-E-P
Ethiopia*	1	P
Edwards AFB	6	All types
Europe†	186	B-C-D-E-P
Gillem	1	B-P
Gordon	2	B-P
Hawaii	230	B-C-E-P

Hood	434	B-C-E-P
Huachuca	28	B-P
Iran	6	B-E-P
Jackson	12	B-P
Japan	8	B-P
Knox	52	B-E-P
Korea	327	B-C-E-P
Leavenworth	3	B-P
Lee	3	B-P
Lewis	260	B-C-E-P
Leonard Wood	5	B-P
McPherson¶	15	B-P
McClellan	3	B-P
Meade	22	B-C-E-P
McDill AFB	8	B-P
Monroe	7	B-P
New Cumberland	1	C
Ord	181	B-E-P
Polk	66	B-P
Presidio of SF	14	B-P
Pakistan*	1	P
Riley	105	B-E-P
Redstone	6	B-E-P
Ritchie	1	P
Rocky Mountain	7	B-P
Rucker	279	All types
Saudi Arabia	6	P
Sam Houston	31	B-P
Sheridan	4	B-P
St. Louis	7	B-P
Sill	74	B-C-D-P
Stewart	186	B-C-E-P
Thailand	1	B-P
Turkey	9	B-P
Ft. Worth TX	3	E
West Point	3	B-P
White Sands	7	B-P
Yuma PG	3	B-E-P

*MAAG

†Includes Belgium, Germany, Greece, Italy, and Berlin.

¶ Includes Patrick AFB.

The previous numbers reflect totals for all commands at a geographic location and should be used for determining authorizations or strengths for specific units. Some overseas areas include both short and long tours. □

PLAN TO ATTEND THE

CW4 REUNION

June 11-12, 1977 — Ft. Rucker, Ala.

Reservations are now being taken.

CONTACT:

Robert W. Meade	Larry Kelly
15 Pineway Dr.	415 Doug. Brown
Daleville,	Enterprise,
Ala. 36322	Ala. 36330

AN ANNUAL AWO GATHERING!
PLAN TO JOIN US!

By CW3 JAMES P. FAZEKAS
101st Airborne Division [AAslt]
Fort Campbell, Kentucky



E5 Aviators

"An ill-advised non-solution."

I'd like to address a recent Army proposal concerning the replacement of **Aviation Warrant Officers** with E5/NCO personnel. All **AWO's** everywhere solicit the support of **Army Aviation's** readers in defeating this proposal.

Disregarding the emotional reaction this poorly conceived study elicits, I feel there are concrete, realistic arguments against the proposal.

Quality of Aviators. The indisputable fact is that the quality of aviators would suffer drastically if this program were implemented. The rationale that quality individuals would continue to apply for aviator training — and remain NCOs upon graduation — is totally fallacious.

Of all the people I have contacted, not one has indicated he'd attend flight school under these circumstances. One of the primary reasons individuals attend flight school is the promise of graduating as a **Warrant Officer**. The bottom line here is that no one desires to remain a co-pilot throughout his entire career.

Loss of cockpit decision-making capability. If the NCO is to act only as a co-pilot and cannot participate in the decision-

making process, the effective leadership, or mission completion ability, is reduced by half. I find it hard to believe that commanders or aviators desire to function under this handicap, especially in a combat situation. The unforeseen circumstances inherent in combat dictate the proven decisionmaking abilities of no less than two Officers/Warrant Officers in each cockpit.

Flight Pay incentive missing. Under current public law, incentive pay for enlisted pilots is non-existent. If the public law is not altered to change this situation, it's extremely doubtful if anyone would apply for pilot training based on the current enlisted crew member flight pay rates.

Recruitment-Retention problems. In addition to flight training, a Warrant Officer Candidate now receives training on the responsibilities of an officer, leadership, and professionalism. This overall program produces a well-rounded **Warrant Officer** capable of performing Officer-related duties in addition to flying. Would this cross-training, career potential, and Warrant Officer professionalism be lost if all new pilots graduates were enlisted personnel?

As I understand the proposal, the only way for the NCO to achieve AWO status would be to progress to E6 or E7, advance to pilot-in-command, and be appointed WO1. What then?

A **Warrant Officer** only capable of pi-

An eight-year member of AAAA, CW3 James P. Fazekas is an occasional contributor to the magazine. He serves as the current President of the Kentucky-Tennessee Chapter of the Warrant Officers Ass'n. □

loting an aircraft? The Army would be the loser here both in Officer and leadership potential, not to mention, esprit, pride, and career progression.

Concurrent with the loss of career potential is a reduction of Officer strength in the unit. Currently, **Warrant Officers** accomplish a myriad of additional duties at both the unit and the higher headquarters levels. The loss of this experience, expertise, and assistance to the unit is incalculable.

In essence, **Warrant Officers** operate, maintain, and administer aviation units and other specialized units with Commissioned Officers in the positions of leadership. In fact, there are many instances of **Warrant Officers** assuming the leadership positions.

I question the ability of NCO's to be as flexible and valuable to any unit. We know that the NCO corps is already experiencing problems in retaining top notch senior NCO's, and the retention of quality Warrant Officers is also a real problem.

It's obvious that by reducing the grade structure and thereby reducing an individual's earning capacity, the retention of quality personnel will be next to impossible. There will be those who would use this program as a cheap and easy way to learn how to fly, stay in the required length of service, and then leave for a more lucrative civilian job. Actually, I'm sure this unfortunate attitude already exists to a certain extent.

Problems of rank. The relationship between the flying NCO and his crewchief could be a problem for it's entirely possible to visualize a crewchief outranking his NCO aviator.

Minimal savings. The money-saving potential this plan offers is minimal. The average estimated differential of \$150 per month per aviator that the proposed

NCO Flight Program provides is insufficient return to balance the expected drastic loss of morale, expertise, combat readiness, etc.

If the Army intends to reduce or curtail its Warrant Officer programs, I suggest they examine the Navy's **Limited Duty Officer (LDO) Program**. I understand it's highly successful, utilizes personnel effectively, and provides sufficient incentive to retain qualified Officers.

Past experience. I assume the military had cogent reasons for eliminating its **Flying NCO Programs** of the past. Perhaps this rationale should be re-examined to preclude our making the same mistake twice.

I am proud of my profession and the Warrant Officer corps, and deeply resent any attempt to degrade my status. The **Warrant Officer** is a highly-trained, highly-motivated, and skilled professional member of the Army team.

The **E5/NCO Plan** is an ill-advised non-solution for a continuing problem: **Money**. If cost reduction is the goal of this proposal, the stated rationale is invalid.

I submit that there are other more realistic cost-effective measures that can be initiated and can prove to be more productive:

... on-duty civilian education, exorbitant athletic and recreation programs, expensive and luxurious barracks that are not maintained, minor post/depot reductions, DA Civilian strengths, costly "Madison Avenue" recruiting programs, mileage quotas to justify retention of the use of motor vehicles, etc. The list is endless.

I cannot state too strongly the need to defeat this proposal, or any reduction of Warrant Officer positions.

If the Army intends to retain a highly-motivated and proud professional Warrant Officer force, the Aviation Warrant Officer and all Warrant Officer programs must be continued.

The Army Aviation Ass'n position on this issue appears on pages 2-6.

Permanent Changes of Address
as submitted by 'AA' subscribers



Takeoffs

GENERALS

CASEY, John P., Jr., BG
7471 Covent Wood Court
Annandale, VA 22003
BROOKS, James S., MG
4008 Tamarack Avenue
Boise, ID 83703
MERRYMAN, James H., MG
101 Bernard Road
Fort Monroe, VA 23651
NEEL, Spurgeon, H., Jr., MG
416 Dickman Road
Fort Sam Houston, TX 78234

COLONELS

BROWN, George A.
223 Inner Circle
Maxwell AFB, AL 3603
BURNS, Joseph C.
54 Plumb Point Loop
Aberdeen Proving Ground, MD 21005
DANIELS, G.M.
Quarters 24-2, SLASC
Granite City, IL 62040
JONES, John L., Jr.
71 Fenwick Road
Fort Monroe, VA 23651
MATHISON, Theodore E.
2820 Rose Valley Drive
Fort Washington, MD 20022
SHORE, Edward R., Jr.
12915 Kerrydale Road
Woodbridge, VA 22193

LIEUTENANT COLONELS

BEAUMONT, Marion E.
1972 Coggin Street
Petersburg, VA 23803
COZAD, Jack G.
607 Hardesty Avenue
Kansas City, MO 64124
CRAMER, Carl L.
12 Alexander Street
Fort Bragg, NC 28307
CRAWFORD, George S.
Maine Dir-Lex Base Grass
Lexington, KY 40511
CROWLE, James L.
Sang Modernization Prog.
APO New York 09038
EBERWINE, James A.
5714 De Loo-Te-Ra Drive
San Antonio, TX 78218

LT COLONELS

ESTES, Ernest F.
5963 Queenston Street
Springfield, VA 22152
GRAHAM, Charles M.
917 Alberta Street
Enterprise, AL
GRAYSON, Eugene H., Jr.
Hq. 11th Aviation Bn (CBT)
APO New York
HARRIS, Lyman B., Jr.
P.O. Box 93
Fort Ord, CA 93941
KLOSE, John A.G.
Box 31, Staff CINCPAC
FPO San Francisco 96610
LEONARD, Daniel R.
9801 Dunbarton Drive
Columbia, SC 29206
MCDONALD, Malcolm G.
P.O. Box 35
Pullman, WA 99163
MORTON, James O.
13 Buckner Circle
Fort McLean, VA 36205
MOTES, Clyde L.
2184 Sandy Lane
Las Vegas, NV 89110
MULVANEY, Merle L.
1537 Cole Park
Fort Campbell, KY 42223
MURPHY, Thomas W.
5306 24th Avenue, Northeast
Seattle, WA 98105
POWELL, Buell R.
12 Harneywood
Ferguson, MO 63136
RAETZ, Paul E., USA, CAA
2402 Nottingham Drive
Falls Church, VA 22043
RANKIN, Thomas C.
USAAVSCOM DRCPM-AE
St. Louis, MO 63166
ROBINSON, James E.
41 Shady Valley Drive
Chesterfield, MO 63017
SHERRON, Thomas H.
Box 402, MAAG
APO New York 09319
SMITH, Gerald H.
6460 King Louis Drive
Alexandria, VA 22312
STERNAT, Robert F.
10734 Laret Circle
Dallas, TX 75238

LT COLONELS

TOWER, William E.
5705 S. Geo. Mason, #1818
Falls Church, VA 22041
MAJORS
CARTER, Willard T.
P.O. Box 2769
Balboa, Canal Zone 22003
CASEY, Shaun R.
GSN Mil Com
APO New York 09169
COUVILLON, Donald A.
9 Ross Street
Lumberton, NJ 08048
DEUKER, Robert C.
Box 95A, Route 2
Cedar, MI 49612
ECHOLS, Eugene W., Jr.
649 Sheppard Road
Stone Mountain, GA 30083
FAIRWEATHER, Robert S., Jr.
8 Cockrell Street
Alexandria, VA 22304
FITZGERALD, Henry E.
Quarters "G"
Nas Lakehurst, NJ 08733
GLEASON, Robert A.
HHC, 130th Engr Bde
APO New York 09165
GRAHAM, Roger D.
Box 3080
Fort Leavenworth, KS 66027
HILL, Carl D.
34 Ruffedge Road
Newport News, VA 23601
HORTON, Richard A.
1st Aviation Det, Box 48
APO New York 09359
JONES, Donald E.
4374-L White Street
Fort Wainwright, AK 99703
KENNEDY, John P.
2009 Septiembre Drive
El Paso, TX 79935
KLEIBER, Donald G.
3728 Armour Ave K-8, #303K
Columbus, GA 31906
KONKLE, Thomas E.
28 Andrews Drive
Daleville, AL 36322
McKINNEY, Samuel D.
164 Wilderness Road
Hampton, VA 23669

MAJORS

MELENDEZ, Carlos J.
HHC, V Corps, Avn Division
APO New York 09079
MERRILL, Robert K.
1659 7th Avenue
Langley AFB, VA 23665
MOSCRIP, John Jr.
13231 Poplar Tree Road
Fairfax, VA 22030
O'CONNOR, James C.
Route 1, Box 104-1
Hollywood, MD 20636
PELFREY, Kenneth R.
1305 Duke of Gloucester
Colonial Heights, VA 23834
PRAWITT, George F.
P.O. Box 1709
Cheyenne, WY 82001
RAGSDALE, Jack D., Jr.
MILPERCENUR-OPD
APO New York 09081
RICE, Robert R.
3165 Colchester Brook Lane
Fairfax, VA 22030
RITTERSPACH, Frederick P.
6515 Jackson Drive
San Diego, CA 92119
SCHERER, Robert J.
2 Painted Bunting Road
Hilton Head Island, SC 29928
TEAGUE, Gene A.
1616 Westheimer Drive
Norman, OK 73069
WILLIAMS, Lewis R., Jr.
5605-A Gilkey Loop
Fort Knox, KY 40121
WOOD, Norman M.
Hq 4th Trans Bde (SPO)
APO New York 09451
CAPTAINS
ALEXANDER, Gary J.
1429 Entrada Verde
Alamo, CA 94507
ANGER, Hugh F.
421 Wilshire Boulevard
Savannah, GA 31406
BALL, Calvin E.
HQB 2D BN, 33rd FA
APO New York 09035
BEADLE, Everett T.
C/o C. Evans, East Acres
Troy, NY 12180

CAPTAINS

BISHOP, James M.
35 North Harris Drive
Fort Rocker, AL 36362
BLUWORTH, Robert S.
USASG NDL
APO New York 09069
BOLLES, John M.
4444 Baltimore
Lawton, OK 73505
BRENDEL, Marlin D.
P.O. Box 117
Baltic, SD 57003
COSTELLO, Joseph A., Jr.
1909 Henry Street
Copperas Cove, TX 76522
CURRAN, Guy K.
USD/K, 4th MSL CMD
APO San Francisco 96208
DALLAS, Michael D.
6710 Twin Hills Dr., West
Tacoma, WA 98467
DANIELSON, Jesse M.
1111 Westview Drive
Ozark, AL 36360
DEETER, Donald W.
PSC #1, Box 887
APO Seattle 98742
DOBSON, Ronald W.
5333 Baltimore Drive, #142
La Mesa, CA 92041
EIDSON, Robert B.
142 Jeffords, NBU 67-1
FL Huchuca, AZ 85613
EVANS, Timothy A.
1404 Post Oak Drive, #H
Clarkston, GA 30021
FICHTER, Thomas A.
205 Cosky Drive, #22
Marina, CA 93933
FLATT, Kevin N.
Co. B, 501st Cbt Avn Bn
APO New York 09326
FULLER, Marvin E. Jr.
USAED ME
APO New York 09038
GARNER, Walter M.
HHC, V11 Corps, CG-3 Avn
APO New York 09107
GLASS, Len E.
1115 Clearview Drive
Kingfisher, OK 73750
GOFORTH, James T.
10606 Verlin Drive
Parkville, MO 64152

CAPTAINS	CAPTAINS	CAPTAINS	CW4'S	CW2'S
GREER, David L. 2075-A Werner Park Fort Campbell, KY 42223	NELSON, Michael A. 2nd Avn Det, USMA Newburgh, NY 12550	VOSTERS, James B., Jr. 15500 S.W. 86th Avenue Miami, FL 33157	TINSETH, Warren D. SFTS Det, HHC, 11th Avn Bn APO NY 09165	GRAMANDO, Allan F. 144-M Treetop Drive Fayetteville, NC 28301
HARVEY, Vivan J., II 4087-7 9th Street Fl. Wainwright, AK 99703	PARR, Bernard A. 1038-8 Dogwood Street Fort Wainwright, AK 99703	WALTON, Benny B. 3073 Truman Street Englewood, FL 33553	CW3'S	GILULICK, Michael A. 311 Hawkins Road, Apt. G6 Clarksville, TN 37040
HATCHER, Daniel P. 295th Avn Company APO New York 09185	PATRIACCA, Samuel J., Jr. EOAC, Class 77-2 Fort Belvoir, VA 22060	WARRINGTON, Thomas G. 7502 NW Morrocco Drive Lawton, OK 73505	BAKER, Roger A. 860 Cedarwood Street Orange, CA 92669	GLICKS, Robert J. 414 Jeffrey Lane Copperas Cove, TX 76522
HATTON, Edward T. Bldg 15 R552, P.O. Box 37 Melbourne, FL 32901	PAYNE, Jan E. 1113-C Thompson Circle Fl. Eustis, VA 23604	WHITELEY, William R. 1307 Upton Rd., #5 Fort Sill, OK 73505	CALL, James M. 114th Aviation Company APO New York 09827	HEDGES, John R. 3610-B Cadet Sheridan Road APO San Francisco 96557
HENDALL, William J. 1000 Montreal Rd., #8B Clarkston, GA 30021	PEARCY, Thomas Love Sr. 2000 19th Street Parkersburg, WV 26101	WIGGINS, Richard A. 2348 Ahapule Street Pearl City, HI 96782	DEAN, John W., Jr. 1805 Gaylor Killeen, TX 76541	HOOPER, Claude L. B Trp, 2/10 Air Cav Fort Ord, CA 93941
HENEVELD, George A. Verna Lee Harker Heights, TX 76541	PINKHAM, Martin C. TOAC 8-55-C22, Ct. #3-77 Fort Eustis, VA 23604	WOOD, Carl W. Route #2, Box 12 Spicewood, TX 76689	HODDER, Allen J. 343rd Avn Det (Hh) APO Seattle 98731	HUTCHISON, John 130 Red Cloud Road Fort Rucker, AL 36362
HOLLAND, Charles A. 109 Marie Street Jacksonville, AL 36265	POOL, Thomas C. 243 E. Miller Avenue Garden City, NY 11530	WOOLNUGH, Kenneth K. 1634 Chippeway Lane Austin, TX 78745	LIETZAU, Larry L. 63d Company, USAAVNS Fl. Rucker, AL 36362	LUCIUS, John E. 1750 S. Chickasaw Trail Orlando, FL 32807
HOOPER, Roger W. Quail Hollow Ctr, Holly Ridge Sandwich, MA 02563	REES, Chester L. 8834 Hatch Drive San Antonio, TX 78240	WYLAND, Stewart W. 740 Andrea Drive Columbus, GA 31907	MARBURY, James T. 25th Avn Co APO New York 09359	MCKESSACK, Thomas 105 Evergreen Ozark, AL 36360
JACKSON, David C. 10420 Crete Drive El Paso, TX 79924	RICHARDSON, Charles E. 213 Aviation Co APO San Francisco 96271	YOUNG, James S. 2113 Monaco Columbus, GA 31903	MCMALEY, Thomas H. 3408 Ft. Worth Nat Bank Bldg Fort Worth, TX 76102	MIRE, Evance C., III 1802 Hooten Street Killeen, TX 76541
JENKINS, Glenn A. 385 Atlantic Street, NW Warren, OH 44483	RICHTER, Henry J., Jr. 718 NE Bolands Ct Port Charlotte, FL 33952	LIEUTENANTS	ROE, Floyd T. B Co, 394th Trans (AVIN Bn) APO New York 09061	NELSON, Ervin 926 Derbyshire Road Holly Hill, FL 32017
JOLLEY, Beverly C., Jr. 2313 Jim Dent Court El Paso, TX 79936	ROSENBERG, Terry L. 620 West 400 South Cedar City, UT 84720	GANDY, Paul R. 377th Medical Company (AA) APO SF 96301	SIVERLY, Robert E. 94-462 Hokualea Street Mililani Town, HI 96789	OWENS, Max W. 101 Yeaker Avenue Fort Benning, GA 31905
JOYNER, Gary W. 2714 Lake Arrowhead San Antonio, TX 78222	RUSCOLELLI, Philip C. 558th Arty Gp (WAUJYAA) APO New York 09253	HAROLDSON, Harry P. 11115 105th Ave. CL SW Tacoma, WA 98498	WELCH, George G. P.O. Box 3474 McDavid, FL 32568	GONZALEZ, Raul A. Perez Chile Crystal Reparto Hartell Arecibo, PR 00612
KING, Bob J. Support Co Comb Arms Tng Ctr APO New York 09114	SAVELLI, John A. 62 Raintree Drive Imperial, MO 63052	McKEON, Thomas C. Box 325, R.D. #1 Wiliston, VT 05495	CW2'S	PETERSEN, Peter G. E/702d 2d Avn Bn APO San Francisco 96224
KLINK, Ralph R. 901 Fridemore Court Fayetteville, NC 28303	SCHULTZ, Terry Route 2, Box 126 Manor, TX 78653	MURPHY, Richard O., 2LT 1815 Lakehurst Drive Norman, OK 73069	AMODT, Richard C. B Co, 235th Aviation Co APO New York 09036	PIPER, Ronald B. 2048-A Indiana Avenue Fort Campbell, KY 42223
LARSEN, Kris E. 2020 Deborah Place Boise, ID 83705	SCHUSTER, Michael W. 1019-3 Apple Street APO Seattle 98731	CW4'S	BARRON, John E. 3296 Troy Street Aurora, CO 80011	PRAZINKO, Frank W. 6517-E Reilly Road Fayetteville, NC 28304
LECHE, Harry B., Jr. Hq Det, WTA APO New York 09026	SCHWIEGER, Robert A. 608 South Washington Butte, MT 59701	DICKEY, Kenneth E. BOQ, Bldg 1582, Rm 104 Fl. Campbell KY 42223	BENSON, Dana G. 8659 Broadway Street Fl. Lewis, WA 98433	SHEEHAN, John P. D Troop, 3/8 Cav APO New York 09185
LEMING, Joe A. 553 Mc Morrow Drive Apt. 3 Newport News, VA 23602	SEIBERT, Gary D. 10817 Havencrest El Paso, TX 79935	DUNCAN, Kenneth E. 1017-4 Beechurst (Wainwright) APO Seattle 98731	BILLS, Allen C. D Troop, 4/7th Cavalry APO San Francisco 96251	THOMPSON, Paul J. 945 N 42d Street Lincoln, NB 86503
LORENZE, Craig D. P.O. Box 5690 Fort Hood, TX 76544	SIMCOE, Darwin D. 901 Old Mill Road Savannah, GA 31406	HUDSON, Jon W. Aviation Company, 1st AD APO NY 09326	BRUNSTING, Clifford D. HHC, 172d Infantry Bde APO Seattle 98749	TUCKER, Stanley K. 19011 Eddington Drive Carson, CA 90746
MANUEL, Philip K. 1028-6 Chestnut Fort Wainwright, AK 99703	SMITH, Alan M. 4011-7 Pine Fort Wainwright, AK 99703	McDONALD, Fritz J. 114th Aviation Company APO NY 09827	CERVANTES, Stephen D. AAHT, 11th ACR, Box 835 APO New York 09146	VARNER, Lonnie R. 9803 N.E. 208th Avenue Vancouver, WA 98662
MARTIN, Larry K. Fl. Greely, Alaska APO Seattle 98733	SMITH, Harbert W. 706 Garland Road Natchitoches, LA 71457	McLEISH, Ronald W. 530 Chapin Street Ludlow MA 01056	ELLISON, Billie Box 67-A, Route #1 Farmington, WV 26571	WEBSTER, Bruce J. P.O. Box 261 Lovettsville, VA 22080
MARTIN, Ronald S. Rt. 1, Box 204 Ozark, AL 36360	SOUSA, Bert F., Jr. 343d Aviation Detachment APO Seattle 98731	NICHOLSON, Bruce C. 343d Aviation Detachment APO Seattle 98731	FRIES, Alan D. 2057-B Werner Park Fort Campbell, KY 42223	WHISLER, Lester A., Jr. 2921 Strauss Lane, Apt. #4 Colorado Springs, CO 80907
McFARLAND, Thomas J. 3125 Shaffer Street Manhattan, KS 66502	THOMAS, David L. 1986-A Van Voorhis Street Fl. Eustis, VA 23604	SPALDING, Kyle J. 4301 Prairie Killeen TX 76541	GANN, James P. AAHT, 11th ACR, Box 825 APO New York 09146	YOUNG, James A. 901 Olmstead Drive Hinesville, GA 31313
MOULDER, E. Dennis HNB, 1st Bn 40th FA APO New York 09165	TILDEN, Robert J. Quarters 2454-B Fl. Lewis, WA 98433	SUAREZ, Jose A. 120 Martin Drive Fl. Bragg NC 28307	GENDRON, Roger S. Rt 1, Box 120-C Killeen, TX 76541	YOUNG, Max A. 878 Titan Drive Duluth, MN 46176



BUSTED BIRD—When a NASA T-28 made a wheels up landing at Patrick Henry Airport, an Army CH-54 Sky Crane from nearby Ft. Eustis' 355th Trans Co came to the rescue. The damaged T-28 was lifted gently and deposited 15 minutes later in front of the Langley Research Center for repairs. Service! □

MILESTONE—SP4 Mark Garcia (below), the 150,000th student to utilize the Learning Center at Ft. Rucker, Ala., studies a slide presentation on UH-1H repair. A member of the Minnesota ARNG, Garcia's on active duty at USAAVNC to attend school in his occupational specialty. □



WO'S	ENLISTED	RETIRED	ASSOCIATES	ASSOCIATES
CLARK, James M. PO Box 101 Fort Rucker, AL 36362	OSBORNE, Ingomar R., PFC Route #3 Baxley, GA 31513	KERN, Wade C., Jr., CW4 1209 Marlborough Drive Fort Worth, TX 76134	BACKES, George M., Solar 2200 Pacific Highway San Diego, CA 92138	NIKKEL, E. C. 7516 Norfolk Circle Wichita, KS 67206
IANNARINO, Thomas Read Reg Atlanta, Ft. Gillem Forest Park, GA 30050	RETIRED	KIGER, John W., MAJ Rt #4 Box 855 W Panama City, FL 32405	COSCINA, Michael A., Solar 2200 Pacific Highway San Diego, CA 92138	OWEN, Wm. M., Solar 2200 Pacific Highway San Diego, CA 92138
SCHNEIDER, Michael R. 1721 NE 17th Avenue Fort Lauderdale, FL 33305	ANKENBRANDT, Wm. R., LTC 4455 Confederate Pl Rd. 6-K Jacksonville, FL 32210	KING, Edward J., Jr., LTC PSC R-113 APO New York 09202	DELVERS, Peter A. 2140 So Palmto Ave #8 South Daytona, FL 32019	PERRY, Carl D., Hughes Centinela & Teale Streets Culver City, CA 90230
ENLISTED	BOWLER, Joseph L., MAJ 197 Dock Street Schuylkill Haven, PA 17792	LEISTER, Richard W., LTC 5821 Antigua Blvd. San Diego, CA 92124	DUDINE, F. Michael, Solar 7777 Bonhomme Suite 910 St. Louis, MO 63105	PHILLIPS, J.R., Solar 2200 Pacific Highway San Diego, CA 92138
RURY, Orland W., Jr., 1SG 6940 Ryan Drive Austin, TX 78757	BURK, Friedrich, CW4 6110 Killarmet Drive Corpus Christi, TX 78413	McDERMOTT, A.J., Jr., COL Box R BHI FASC Opns APO New York 09202	DUSSAULT, J.C., Cessna Box 9 PR Dunbar Sta Dayton, OH 45417	RAINEY, John A. 1244 East Meadowmere Springfield, MO 65804
HAWKINS, Willis A., III, SSG 828 Blevins Hereford, TX 79045	CAMPBELL, James T., MAJ Route 2 Box 139 State Road, NC 28676	NAIL, Donald W., LTC 2785 Russell Road Las Vegas, NV 89108	FORD, John J., Jr., Solar 2200 Pacific Highway San Diego, CA 92138	WAGNER, John D., PAW Tower Bx 54 2101 Exec Dr Hampton, VA 23666
UDING, Manfred W.F., SSG 1st Bde 26th Inf (Wabato A) APO New York 09137	CARRILLO, Arnold R., LTC 2705 S. Lands End Road Tucson, AZ 85713	NORTON, Jerry J., MAJ SRA Box 372P Anchorage, AK 99507	GANSER, John P. 110 Raven Terrace Stratford, CT 06497	WHIPPLE, Theodore W. Ecom Ofc. 32d ADCOM APO New York 09175
BUTTERWORTH, Allen, Jr. SP5 21 Verna Circle Daleville, AL 36322	CARROLL, John E., MAJ 1321 Soto Grande Blvd. Euless, TX 76039	RAWLINGS, Meerris G., LTC 59 Millwright Drive Newark, DE 19711	GARDNER, David C. COR Army PO Box 115 APO New York 09230	WHISLER, K.W., Cessna PO Box 1977 Wichita, KS 67201
GILLUM, Gilbert, SP5 310 Waskow Avenue Fort Hood, TX 76544	CHAMBERS, Stanley L., MAJ 165 Willow PO Box 1441 Lake Havasu City, AZ 86403	TILLERY, Samuel E., LTC 469 Ead Rd Apt 2601 Honolulu, HI 96815	IANNOLLO, Frank, Solar 2200 Pacific Highway San Diego, CA 92138	YOUNG, Ronald F. 840 Country Hgts Court Manchester, MO 63011
HANSON, Harvey, SGT C Trp 4th/9th Cav 6th ACCB Fort Hood, TX 76544	HOLZER, James R., CW3 PO Box 305 Newton, KS 67114	WATSON, Ronald J., LTC Rt 1 Box 73 Aiken, SC 29801	KEY, Clarence E. IAP-PM-FD, Box 701 APO New York 09205	
VINCENT, Curtis J., SGT HHC 7th Signal Bde (Avn) APO New York 09028	JESSUP, Morris M., LTC 628 8th Avenue Yuma, AZ 85364	WILSON, Stokely L., LTC 44104 Sarcroft Lancaster, CA 93534	LAMAR, R.E., CW4, Dynalect 10637 Edgemere Apt A 10 El Paso, TX 79925	
JAYNE, Ronald, E-4 Rural Divy 1 Box 74A Leraysville, PA 18829	JOLLEY, Oran B., MAJ Route 3 Box 647 Granbury, TX 76048	ZAIS, Melvin, GEN 12-B Marsh Harbor Beaufort, SC 29902	MAYER, Mitchell 6 Willow Dr., Apt 2A Ocean, NJ 07712	



WO Program

100 hours per month. In a short three months he will be a first pilot. In from six to nine months he will be an aircraft commander. It makes little sense to start out as an E-5 if he must be promoted to Warrant Officer in from three to six months (as the enlisted pilots of World War II were promoted to Second Lieutenants) to carry out the responsibilities expected of him.

The economy-minded should carefully consider the cost of training vis-a-vis the probable impact on retention the introduction of a reduced grade for pilots might have. The cost of Initial Entry Rotary Wing flight training is approximately \$70,000. Any additional training such as qualification on **Cobras**, **Chinooks**, **AMOC**, or Instrumental Flight Examiner easily runs this over \$100,000. To this can be added the cost of the flight experience the pilot has acquired during his service for which the Army has paid at the rate of about \$16,000 per year in flight hours.

At the end of six years service, the Army has invested approximately \$180,000 in a typical pilot in training alone. A small decrease in the retention

NASHVILLE — 1977
Full details of the First Region—AAAA Convention to be held at the Sheraton-Nashville Hotel during the 25-27 August period may be obtained by writing: First Region—AAAA, P.O. Box 4046, Ft. Eustis, Va. 23604, or AAAA at the address appearing on the back cover. □

rate can quickly equal equal the savings in money achieved by the lower pay of the enlisted grades. It is my personal opinion that dilution of the grade structure for Army Aviators will significantly affect retention.

The door to a career as a pilot must remain open to the enlisted personnel now involved in Army Aviation. Many of the most competent Army pilots started their careers as enlisted men in Army Aviation. Experience in maintenance, supply, air traffic control, operations or other skills related to Army Aviation provides ideal background for an Army pilot.

Individuals with demonstrated skill and interest in Army Aviation should receive priority considerations for training as Warrant Officer pilots. Their continued employment in Army Aviation at levels of increasing responsibility will permit the Army and the individuals to capitalize on their practical experience and training while motivating others to remain in the service and seek similar advancement.

IN GOOD HANDS

When I climb into an aircraft and see that the pilot who is flying me (particularly if the mission is being conducted under adverse conditions) is a WO3 or WO4, I can sit back and relax knowing that I am in the best of trained hands. He is neither a part-time pilot, nor a second class pilot. I am sure my feelings are shared by all of those who have knowledge and experience in aviation matters. The Army can be justly proud of its aviation **Warrant Officer Program** and its Warrant Officer pilots as a group and as individuals.



In 1975, three of the four ferry pilots on a trans-Atlantic delivery of two OV-1C's were Aviation Warrants, a routine Stuart, Fla.-Hanau flight of 24 hours' duration. □

By COL JOHN J. STANKO, JR.,
Chief, Army Aviation Division,
National Guard Bureau



On Guard!

NY-ARNG boasts first father-daughter AA's

FATHER and son combinations have been prevalent in the Army National Guard for generations. However, the new opportunities for women in the ARNG are developing interesting combinations.

Proud fathers are beginning to pass their heritage in the Guard to future generations through their daughters. In the accompanying picture, **LTC Kenneth Mason**, AASF Commander at the NY ARNG Ronkonkoma Facility and a Master Army Aviator, has just completed a flight with **PFC Lyn Mason**.

Daughter Lyn, a recent graduate of the 67N20 course at Fort Rucker, is a

crew chief with Co E, 42d Maint Bn, NY ARNG, parent unit of the facility her father commands. She is majoring in architecture at New York Tech and hopes to become the first aviatrix in the NY ARNG.

PILOT PROGRAM FOR AVUM

During February, maintenance personnel at the Missouri ARNG Aviation Support Facility (AASF) located at Whiteman AFB, MO, received the first Aviation Unit Maintenance Tool Set (#2) fielded by the Army. The new AVUM #2 set, LIN W60206, is housed in three S280 shelters and will replace the following airmobile company size DS sets: T17090, T17011, T17009, and T17093.

LTC Bobby A. Pierceall (Cmdr-AASF) consented to use his facility and personnel to conduct the test. Basically, the test will assure AVSCOM that proper tools in proper quantity are within the set to accomplish the intended level of maintenance. Personnel at the AASF have been utilizing only the AVUM #2 to perform maintenance on their supported aircraft.

CW4 Chris Grateke, AASF Maintenance Officer, tells us that several 'bugs' have been uncovered and corrected. **First Sergeant Speas** and **SFC Raynes** have been the 'watch dogs' of the program and have been in continuous contact with USAAVSCOM to resolve problems. Although the test is aimed at maintenance, the supply function is in-

TOP INDIVIDUALS, UNITS NOW SOUGHT FOR AAAA AWARDS

Nominees for the "Outstanding Reserve Component Aviation Unit Award", the "Reserve Component Aviator of the Year", and the "Reserve Component Aviation Soldier of the Year" are being sought by the Fifth Region—AAAA (covering the Fifth Army Area), the First Region—AAAA (covering the First Army Area), and AAAA National Hqs (covering the Sixth Army Area and Alaska, Hawaii, and P.R.).

The individual nominees need not be members of AAAA. Nomination forms may be obtained by writing: AAAA, 1 Crestwood Road, Westport CT 06880.

herent and is the responsibility of SFC James Briggs.

While this test is being conducted, a parallel test is concurrently ongoing. Its purpose is to identify tools, sets, and test equipment that could be withdrawn from fixed base shop sets when three echelons of maintenance is fully implemented. The importance and significance of this test can be best appreciated by the fact that the second AVUM #2 tool set is being sent to Korea for field evaluation.

A ZERO ACCIDENT RATE

The National Guard Bureau has been closely monitoring the process of the three echelons of maintenance concept so that implementation will occur in the Guard and the Active Army concurrently. Primary consideration is to minimize any turbulence to the ARNG's premobilization aviation maintenance program which has kept the operational readiness of the Guard's fleet above

Department of the Army's standards for the past 23 consecutive months.

A major project in preparing for the advent of the new concept is the restructuring of the tool sets from the current organizational (Org), direct support (DS) and general support (GS), to the new aviation unit maintenance (AVUM) and aviation intermediate maintenance (AVIM).

CW3 Jerry Nowicki, NGB's resident expert on aviation tool sets, and a member of the DARCOM-TRADOC-AVS-COM Ground Support Equipment Council, was instrumental in setting up a field test for the AVUM #2 tool set.

FIRST CAV REUNION

The First Cavalry Division Ass'n will hold its 1977 Reunion at the Hollywood Roosevelt Hotel, Los Angeles, Calif., during 5-7 August. For info, contact the Ass'n, ATTN: COL Robert F. Little [Ret.], Executive Director, 302 N. Main, Copperas Cove, Tex. 76522 □

Col. Jack H. Dibrell killed in car crash

Colonel Jack H. Dibrell, 49, an AAAA National Vice President and President of the organization's Fifth Region, died April 2 in Brooke Army Medical Center, Ft. Sam Houston, Tex., of injuries sustained the day before in a three-car collision near the military post. A veteran of the Korean and Vietnam Wars, he was a Master Army Aviator and held the Combat Infantry Badge, Legion of Merit, and Bronze Star Medal among other decorations.

Colonel Dibrell was a 1949 graduate of Texas A&M University, and held an MBA from Troy State University.

Widely known and respected within the Army Aviation community, he'd served with distinction at ODCSPER and USAAVNC prior to joining the Aviation Division, Headquarters, Fifth Army.

Within AAAA, he championed the cause of Regional meetings, activating the 13-State Fifth Region in May 1974, the AAAA's first, and being primarily

responsible for the direction of its subsequent Regional Conventions in 1974 and 1976, and this year's Regional gathering in St. Louis.

He is survived by his widow, Anne Sisk Dibrell (of 9118 Windview Drive, San Antonio 78239), and three sons, Harry Neal, Jack Carter, and Mark Wayne. Interment took place at the Ft. Sam Houston National Cemetery on April 6.

His family has indicated that if his friends so desire, contributions may be made to a permanent memorial scholarship established in his name in care of the AAAA Scholarship Foundation, 1 Crestwood Road, Westport, Connecticut 06880.

The initial "Jack H. Dibrell Memorial Scholarship" award is planned for 1978.



Calendar



APRIL						
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4	5	6	7	8	9	
11	12	13	14	15	16	
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24	25	26	27	28	29	30

APR. 12. Monmouth Chapter. Professional luncheon meeting; Nomination of officers. **COL Darwin Petersen**, speaker. Rosie O'Grady's. Members only.

APR. 15. Leavenworth Area Chapter. Annual Army Aviation Ball. Ft. Leavenworth Officers' Club. Members/wives/guests.

APR. 15. David E. Condon Chapter. Professional Open Luncheon. Briefing Team, 6th Cav Brigade, headed by **COL Bobby Maddox**. Ft. Eustis Officers' Open Mess. Members/guests.

APR. 16. Morning Calm Chapter. Professional dinner meeting. **GEN John W. Vessey, Jr.**, Commanding General, 8th US Army, speaker. Frontier Top-5 NCO Club Yongsan. Members/guests.

APR. 26. Lone Star Chapter. Professional membership meeting. **COL James O. Hivner, USAF [Ret.]**, guest speaker. Austin Army Aviation Support Facility. Members only.

APR. 28. Rocky Mountain Chapter. General membership meeting, after dinner. Fitzsimons Officers' Club. Members and potentials.

APR. 29-30. 1977 Product Support Symposium (Lindbergh Chapter-AAAA, sponsor). Red Carpet Inn, Bridgeton, Mo.

APR. 29-30. Fifth Region-AAAA Convention. Red Carpet Inn, Bridgeton, Mo.

MAY 25. Tennessee Valley Chapter. Professional luncheon meeting. **Ray F. Larson**, VP Advanced Programs, Rockwell International, speaker. Redstone NCO Club. Members and potentials.

JUNE 1. Aloha Chapter. Professional membership meeting. **COL William E.**



Recently installed Lindbergh Chapter officers are: Mike Dudine, Vice President, Publicity, and Colonel Jeff Daniels, Senior Vice President. Not pictured is Ms Mary Gorman, Treasurer. The ceremony took place in the Pershing Room at the AVSCOM, St. Louis.

Hornish, chief of Professional Development, MILPERCEN, speaker. Wheeler AFB Officers' Club. Members and guests.

JUNE 4. 1977 Army Aviation Hall of Fame Induction Ceremony. Physical Fitness Center, Ft. Rucker, Ala. Members and guests.

JUNE 4. Army Aviation Center Chapter. "35th Anniversary Birthday Ball." Ft. Rucker Officers' Club. Formal. Members and guests.

AUG. 25-27. First Region-AAAA Convention (Air Assault Chapter, Sponsor). Sheraton Nashville Hotel, Nashville, TN.

OCT. 14-16. AAAA 20th National Convention. Stouffer's National Center Hotel, Arlington, VA.

AMRDL REVIEWS SURVIVAL FROM HIGH EXPLOSIVE PROJECTILES

Modern Army aircraft must survive the threat presented by high explosive projectiles. In addition to the threat of fragmentation, the high explosive projectile presents a severe overpressure threat to closed-shell structures such as tailbooms.

Conventional airframe structures, whether made of metal or composites, act as pressure vessels which resist the blast of the projectile. Such structures often fail due to the overpressure because designing them as pressure vessels would result in an unacceptable weight penalty.

But if structures were designed to include a number of safety valves, which could quickly vent the overpressure, it is expected they would survive the high explosive projectile threat.

Recognizing this approach, AVSCOM has awarded a \$66,410 contract to Fiber Science, Inc. The firm will investigate the potential of their "space-wind" structural concept — an open weave wet filament winding process that's expected to provide improved blast tolerance to high explosive projectiles.

This feature will be achieved while maintaining or improving the cost and weight benefits of conventional honeycomb core-composite skin sandwich construction.

DAMAGE-TOLERANT CROSS BEAM TAIL ROTOR UNDER R&D AWARD

Sikorsky Aircraft Division will design, make, and evaluate a survivable four-blade cross beam tail rotor **severance system** applicable to UTTAS under an 11-month, \$98,327 AVSCOM contract.

The **blade severance concept** will consist of blade damage detectors (to sense ballistic impact), a logic unit (to differentiate between partial survivable damage

AVIATION VETERAN DIES

James H. Lefler, 55, an AAAA Charter Member and the Army's second Master Army Aviator, died in Wichita, Kan. Feb. 26. The Manager of Aerospace Products for Beech Aircraft, he'd been employed at Beech since 1966. A retired lieutenant colonel, he served as pilot and aide to Secretary of Defense George C. Marshall in the '50s. He is survived by his widow, Earlene (of 6715 East Rockwood, Wichita 67206); and daughters, Patricia, Jennifer, and Mrs. Linda K. Lang. The family has indicated that an AAAA Scholarship in his memory will be established, and that if they so desire friends may make a donation to his scholarship fund at the AAAA Scholarship Foundation, 1 Crestwood Rd., Westport, Conn. 06880. □

and the loss of a significant portion of the tail rotor), and proximity sensors (to control blade separation direction).

IMPROVED SHOCK ABSORBING LANDING GEAR SOUGHT

Fiber Science, Inc., will make and test an experimental crescent-shaped, crash load absorbing helicopter landing gear under a recent AVSCOM contract of \$93,323.

The firm has developed a uniquely shaped landing gear which allows a shock absorber to lessen the force of a crash landing by **first extending** and then compressing. The landing gear is constructed from composite materials using the "Geoform" technique which is proprietary to Fiber Science, the composite materials also lending to the absorption of crash energy.

The double crescent shape of the design minimizes the number of moving parts, making possible a lightweight gear with low aerodynamic penalties. The end result of the contract is expected to be a landing gear that contributes significantly to the crashworthiness of Army helicopters.

DA Happenings

CONT.
FROM
PAGE
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I want to take publication of this article as a lead-in to introduce to you, the Army Aviation community at large, the members of the ODCSOPS "first string." Photos of these officers, as well as the members of the Infantry and Armor Team, to include their major areas of responsibility, will appear in the coming June issue. This will afford you an opportunity to see who is responsible for actions in which you may have an interest.

Also, since frequent temporary duty draws many officers away from the building, the Combat Division has further been organized on a team concept basis. This assures a back up/continuity capability for each of our programs in the event one or another of our officers is absent.

Thus far I am pleased with the manner in which the reorganization has been implemented. I am confident that not only have we taken a major step toward greater efficiency, but also that we have better prepared ourselves for managing aviation in the future.

POLICY BOARD CONFERENCE

I would like to mention one program in which I feel you'd have an interest. The recently published "Minutes" of the DA Aviation Standardization Policy Board Conference were approved by the Chairman of the Policy Board, **LTG Edward C. Meyer**, Deputy Chief of Staff for Operations and Plans, in early January. The minutes were then forwarded to MACOMs for distribution through Standardization Board channels. I urge you to at least review the Policy Board recommendations since they encompass areas covering nearly the full spectrum of aviation activities.

It is significant this year that for the first time the Board recommendations were incorporated into a **Chief of Staff**

Takeoffs

Change of Address notifications sent to "Army Aviation Magazine," the AAAA, or Ladd Agency are processed on receipt, and assure an immediate change in the records of one or more of these activities. "Posting" of all changes that utilize residential addresses may be checked in the "Takeoffs" column of each issue. ☐

People

An insufficient number of "Personal" items on AAAA members were received during April, and the "People" page listing Awards, Births, Degrees, Honor Graduates, Marriages, Obituaries, and Ratings will appear in the next issue. ☐

Memorandum (CSM) which is an internal Army Staff document. This CSM tasked the heads of the primary DA Staff agencies with accomplishments of such actions as were recommended by the Policy Board, and which fell within the scope of the Staff Agencies' respective responsibilities.

For example, the DCSPER has been assigned the responsibility to examine the inequities in crewmember pay provided crew chiefs on varying aircraft, and the DCSOPS has been assigned the responsibility for the development of "Annual Writs" for each type "standard" aircraft.

I particularly want to point out the level of attention or visibility which the recommendations of the Policy Board and the standardization program in general now receive. I emphasize this because items or issues surfaced at even the lowest level standardization board conferences, if valid, have the potential to reach Chief of Staff level for action by the Army Staff. This is a major step forward and amplifies the importance of aviation standardization conferences at all levels.

Industry

SIKORSKY APPOINTS BUCKLEY AS NEW VICE PRESIDENT-UTTAS

The appointment of **Eugene Buckley** as Vice President-UTTAS for the Sikorsky Aircraft Division of UTC has been announced by Sikorsky Aircraft President **Gerald J. Tobias**. In his new position **Buckley** will be responsible for complete management of the firm's UH-60A UTTAS production program.

Buckley, 46, has served as manager of industrial engineering since February 1976. Prior to joining Sikorsky, he served as Director of Industrial Engineering and Production Control for Rohr Industries, Chula Vista, Calif.

He began his aerospace career following his discharge from the USAF in 1955 when he joined Republic Aviation as an analyst. Leaving Republic in 1963, he joined Grumman Aerospace's industrial engineering department and when he left in 1974, he held the position of Director of Planning.

A graduate of Brooklyn College, **Buckley** is a native of Brooklyn, New York.



MINNEAPOLIS, MN—**Tony Team Industries [TTI]** will soon unveil a supersonic styled corporate jet that will operate at a planned nine cents per mile for fuel. The **Foxjet ST-600**, about half the exterior size of a Lear jet, is a four- or five-place fan jet configuration. Designed to meet FAR 23 regs for single-pilot jet aircraft, the **Foxjet** has a maximum speed of 376 mph (330 mph at 39,000 ft.), and - completely fitted out - will go for about \$350,000, just out of the Father's Day classification.



Buckley



Tallia

"GENE" TALLIA APPOINTED VP - GOV'T RELATIONS BY SIKORSKY

Well known in Army Aviation circles, **Eugene J. Tallia** has been appointed to the newly created position of Vice President - Government Relations of the Sikorsky Aircraft Division. In this capacity he'll be head of Sikorsky's Washington, D.C. office.

Tallia, 40, a member of AAAA's National Executive Board, has served as a manager in Sikorsky's UTTAS program since January 1975. The 40-year-old executive joined Sikorsky Aircraft in August 1954 and has served as YUH-60A assistant program manager, senior marketing representative, and in various other management positions.

A native of Bridgeport, Conn., **Tallia** graduated from Central High School and attended the University of New Haven where he earned a degree in Business Administration.

\$22 MILLION IN HELICOPTER ENGINE CONTRACTS LET

Detroit Diesel Allison was awarded an \$11.3 million contract, and Avco Lycoming received a \$10.9 million contract from AVSCOM under an Army research program called the "800-Shaft Horsepower Advanced Technology Demonstration Engine."

The program is aimed at providing a low weight, low fuel consumption engine with good reliability and maintenance features. Fuel savings of 20% are expected. The program culminated over 10 years of R&D on the component parts of small helicopter engines by AMRDL.

New Members



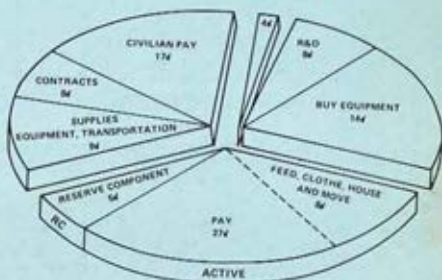
March-April 1977 AAAA Enrollees

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WO1 Chris A. Acker, Ft. Bragg, NC
Mr. Clinton C. Aiken, APO New York 09202
Mr. Harry Allen, Jr., APO New York 09202
CSM Leroy Acceneaux, Redstone Arsenal, AL
CPT Thomas D. Baca, Colorado Springs, CO
COL John C. Bohnsen, Ft. Monroe, VA
PFC Eddie Bailey, APO New York 09757
MAJ Charles W. Barnes, APO New York 09031
Mr. John Basarab, Jr., Clark, NJ
CPT Larry Bales, Esfahan, Iran
MAJ Mark L. Bellamy, Ft. Benning, GA
CPT Zbigniew B. Biernacki, Weatogue, CT
MAJ Jerry P. Bijold, Colorado Springs, CO
CPT Robert C. Bishop, Fayetteville, NC
SSG James Boyd, Ret., APO New York 09230
COL James H. Brill, Redstone Arsenal, AL
Mr. Arthur W. Brown, Esfahan, Iran
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LTC Carl Carter, APO New York 09230
CW2 Russell W. Chappel, Ft. Sill, OK
Mr. A.L. Charipar, Lawton, OK
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SP5 Charles Chornichle, APO New York 09061
Mr. Darrell A. Cole, Seattle, WA
CPT William R. Collins, Port Orange, FL
CW2 Robert Connor, Tehran, Iran
CPT James W. Cooper, Jr., Lawton, OK
CPT David M. Cowan, El Paso, TX
CPT Steven E. Craver, Colorado Springs, CO
CPT Justin D. Crockett, Arlington, VA
Mr. M. A. Cronie, Philadelphia, PA
CPT Michael L. Cressett, Colorado Springs, CO
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MG J.J. Davies, Ottawa, Canada
MAJ Harry L. Davis, Lawton, OK
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Mr. Glenn Dean, Esfahan, Iran
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Mr. Donald G. Dehaenen, APO NY 09205
Mr. Claude W. Delk, Lincoln, NJ
CPT George M. Dent, Woodbridge, VA
CPT Robert Dingley, Columbus, GA
Mr. S. D. Dodge, Philadelphia, PA
Mr. Frank Donohue, Bad Godesberg, Germany
Mr. R. K. Donovan, Northport, NY
SGT Richard E. Downey, Ft. Benning, GA
CPT Gary Dubois, Fayetteville, NC
CPT Roger L. Duckworth, Lawton, OK
CW3 Roger Duprey, Columbus, GA
MAJ William B. Durand, Ft. Benning, GA
Mr. J. C. Dussault, Dayton, OH
SP4 Randall Dyer, Coal Valley, IL
Mr. James Elliott, Corpus Christi, TX

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Mr. William Garner, Grant, AL
Mr. Rolf Gefrom, San Diego, CA
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Mr. Steven W. Glassy, Esfahan, Iran
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BG Charles F. Gordon, Ft. Sill, OK
CW2 Henry V. Groce, Columbus, GA
1LT William R. Hall, APO New York 09137
LTC Thomas Haepel, Corpus Christi, TX
Mr. Steven Hauch, Esfahan, Iran
PVT Joseph C. Hawkins, Ft. Campbell, KY
CW2 Richard T. Hensleien, Tacoma, WA
1SG Donald Herrmann, Toney, AL
Mr. Eric Herzlich, Waterbury, CT
CPT Richard C. Horne IV, Lawton, OK
MAJ Robert L. Howe, Fairfax, VA
CPT Franklin D. Jasper, APO New York 09031
Mr. Albert L. Johnson, Warner Robins, GA
CPT John W. Johnston, Jr., Washington, PA
Mr. Robert Johnston, Corpus Christi, TX
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CW2 Garland B. King, APO New York 09146
CW2 Gary L. Knapp, Columbus, GA
CPT Larry R. Kreps, APO New York 09056
Mr. Leonard D. Kulik, Washington, DC
Mr. Richard W. Lacy, Bridgeport, CT
MAJ Gary W. Lassetter, Frankfurt, KY
1LT David W. Ledford, APO New York 09033
CW2 Rodrigo Loiza, Ft. Polk, LA
GWO John Lockwood, Ret., APO NY 09202
CPT Dennis J. Lott, Clarksville, TN
1LT David W. Lowery, APO New York 09047
CPT John F. Lucas, Hopkinsville, KY
CPT Jon W. Mabrey, Ft. Campbell, KY
Mr. Theodore G. Macklin, Los Angeles, CA
Mr. Steve Malo, Pompton Plains, NJ
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CPT James Mapes, Paris, TN
Mr. Edwin McClain, Esfahan, Iran
Mr. Roy McDonald, APO New York 09205
Hon. Edward A. Miller, Alexandria, VA
Mr. John V. Moellenhoff, Ballwin, MO
SFC George Nelson, Ret., APO NY 09230
Mr. Gary J. Moore, Daytona Beach, FL
Mr. Kenneth Mosley, Esfahan, Iran
Mr. Kenneth E. Mull, Orange, CT
CPT Lauren G. Mullendore, Clarksville, TN
Ms. Carol C. Murta, Crestwood, MO
CW3 William M. North, Columbus, GA
SP5 Terrance O'Brien, Milan, IL

COL Ralph A. Olson, New York, NY
MAJ John W. Owens, Ft. Rucker, AL
Mr. Thomas M. Pallad, Chatsworth, CA
Mr. J. Harry Parker, Tehran, Iran
CPT Charles C. Parks, III, APO NY 09068
CPT Craig Pearson, Ft. Benning, GA
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1LT Eddie E. Polk, San Antonio, TX
CPT Randall K. Pollard, Ft. Campbell, KY
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LTC Edward P. Presindendorfer, Ret.,
Playa Del Rey, CA
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Mr. Robert J. Reschak, Ft. Worth, TX
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Mr. Ben Smith, Esfahan, Iran
Mr. O.H. Smith, Philadelphia, PA
Mr. W. Darden Smith, Esfahan, Iran
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Mr. E.D. Sommers, Wichita, KS
LTC John J. Spisak, Ft. Carson, CO
Mr. John J. Sporeckmeyer, Indianapolis, IN
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CPT Fletcher Stille, Esfahan, Iran
Mr. Harry A. Striker, Arlington, TX
Mr. Sherman E. Tale, Harrislee, AL
Mr. Tom Taylor, Esfahan, Iran
Mr. Robert Thomas, Esfahan, Iran
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1ZLT John Trachok, Ft. Bragg, NC
Mr. Francis L. Tucker, APO New York 09205
CSM Roland Vandyne, APO NY 09165
Mr. Christoph von Barner, West Germany
Mr. John O. Wagner, Hampton, VA
Mr. J.A. Watts, Corpus Christi, TX
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CPT Larry W. Wilcox, Oak Grove, KY
CW2 James R. Wilke, Ft. Eustis, VA
CW2 Richard L. Williams, APO SF 96557
Mr. Robert E. Williams, Highlands, NJ
MAJ K.L. Wronke, Homer, IL
MAJ Mark J. Wuensch, Manhattan, KS
SP4 Fred Young, APO NY 09359
Mr. Sidney J. Zywotow, Middletown, NJ
[List to be continued in next issue]

How the Army Dollar was spent in FY 1976



Operating/Maintaining the Army .. \$0.34
 Construction .. \$0.04
 Manning the Army .. \$0.40
 Equipping the Army .. \$0.22

The Army's FY 77 Request



Operating/Maintaining the Army .. \$0.35
 Construction .. \$0.03
 Manning the Army .. \$0.36
 Equipping the Army .. \$0.26

NEXT MONTH:

In "Divided Loyalties" a senior aviator says that we're spitting into the wind everytime we bring up the bi-annual bugaboo of "a separate branch." ☐