Army Aviation

MARCH 31, 1969

COMMUTING-R.V.N. STYLE

(See back cover . . .)

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ARMY AVIATION ASSOCIATION

GENERAL PURPOSES

To advance the status, overall esprit, and the general knowledge and pro-flency of those persons who are en-gaged professionally in the field of U.S. Army aviation in the active U.S. Army forces and in the Reserve Forces of the U.S. Army.

To preserve and foster a spirit of good fellowship among military and civilian persons whose past or current duties affiliate them with the field of

U.S. Army aviation.

To advance those policies, programs, and concepts of the Association of the U.S. Army, the National Guard Association, and the Reserve Officers Association that are of benefit to the AAAA membership.

SPECIFIC OBJECTIVES

Fostering a public understanding of Army aviation and arousing a public interest in this segment of the military

Exchanging ideas and disseminating Information pertinent to Army aviation through the media endorsed by the Association,

Inspiring Army-wide and nationwide interest in Army aviation careers.

interested in Army aviation in the active U.S. Army forces and the Reserve Forces of the U.S. Army.

Motivating Army aviation personnel to increase their knowledge, techniques, and skills.

Maintaining historical records of Army aviation.

Conducting meetings, seminars, symposiums, exhibitions, air meets, etc. Recognizing outstanding contributions

ithin Army aviation.

Providing special types of group plans of individual benefit to the membership. Stimulating good fellowship nationally, regionally, and locally,

PARTIAL PROGRAM LIST

standing individual and unit achievements receive National recognition.

A CHAPTER ACTIVITIES PROGRAM In which outstanding industry and military leaders address the widespread Chapter organizations on specific areas of Army aviation interest.

A FILM EXCHANGE PROGRAM in which the member is afforded the op-Cementing relationships between those portunity of viewing current develop-terested in Army oviation in the monts in the state of the art as port-tive U.S. Army forces and the Reserve trayed through the medium of industry films.

> A LOCATOR SERVICE PROGRAM In which the member is assisted in his efforts to keep abreast of the location of his contemporaries,

> A SCHOLARSHIP AWARDS PROGRAM in which the sons and daughters of members receive scholarship assistance annually is pursued in conjunction with the AAAA Scholarship Foundation, Inc., a separate, non-profit educational founda-tion that works closely with the Army Aviation Association.

A SCIENCE AWARDS PROGRAM conceived by the Washington, D.C. Chapter PARTIAL PROGRAM LIST in which the Association endeavors to an AWARDS PROGRAM in which out-interest young people in the aviation anding individual and unit achieve sciences by spensoring cash scholarship awards at the Annual Science Fair-International and numerous individual Certificates of Achievement at some 220 local and regional Science Fairs. AAAA Individual members serve as judges at local, regional, and national fairs.



DSC AWARD

BAN ME THOUT, Vietnam — A young warrant officer who took the lead in two daring air operations within 72 hours — including two sensational rescues — has been awarded the Distinguished Service Cross and the Distinguished Flying Cross. In addition, 22-year-old WOI Gilbert N. Terry of the 155th Assault Helicopter Company, 10th Combat Aviation Battalion, earned a Purple Heart.

The action came last August during the struggle to save the city of Duc Lac. Warrant Officer Terry, who has applied for a commission as a second lieutenant, was wounded in the first mission which began in the early morning hours of August 23rd. He had volunteered to replace a weary commander who had been flying all the previous night.

As Terry's aircraft neared the besieged city, the lead ship develop transmitter trouble, so he assumed the task of coordinating control with the forward air controller and ground troops. He began his gun runs, penetrating the entrenched enemy, his own craft attracting fire in return.

"On the second pass," Terry recalled, "I observed heavy fire originating from some buildings in a small village near the woodline. I requested and received permission to engage these targets."

Three rockets found their mark, but the run cost the officer's ship more damage. The engine's oil pressure gauge dropped.

"The ship was in extremely had shape and the rotor continued to bleed off," Mr. Terry said. "I flared and tried for a tail-first impact to cushion the rather fast sink rate we were experiencing."

After the chopper came to a halt, the officer managed to crawl out of the tangle and free the pilot. Together, they carried the crew chief who was wounded in the leg to the MACV compound, under a barrage of automatic weapons fire and mortars. When they

reached the post, they learned of a serious shortage of ammunition.

"There was a large supply of mini-gun ammo still on the aircraft," Terry said, "so I elected to go out with two people from the compound to recover it."

The flow of lead had not ebbed, nor had the impacting mortars, but *Warrant Officer Terry* went anyway. Moments later, he returned with the badly-needed resupply.

His sense of duty had blurred all thoughts of personal safety. Upon his return, he realized that a bullet had found its mark. Though in pain, he spurned medical attention until he saw that his crew chief had been treated. For this action, he was presented the Distinguished Service Cross and the Purple Heart by General Creighton Abrams, MACV commander.

A second action . . .

Less than three days later, the native of Raleigh, N.C., was to play a leading role in another thriller. The place and setting had not changed, but in this scene, Warrant Officer Terry was the pilot.

Despite thick enemy fire, he repeatedly scored his targets with attacks until his ammunition was spent. He flew his ship through a blanket of fire to a downed chopper whose pilot had been scriously wounded. He landed, picked up the man, and lifted off — all while under a hail of bullets.

The exposure to enemy fire had to have its effect sooner or later, and shortly, the aircraft's commander was wounded. Terry quickly grabbed the controls and received the ship, and taking complete command, he skillfully flew the damaged aircraft away from further danger. Enroute to the airfield, he contacted the medics on the ground and arranged for ambulances to receive his wounded passengers when he touched down.

Then, in another recent ceremony, Major General Robert R. Williams, commander of the 1st Aviation Brigade, awarded Terry the Ditstinguished Flying Cross for his actions during the second engagement.

Prior to his assignment to Vietnam in March, he trained with the Third Warrant Officer Candidate Company at Ft. Rucker, Ala. At present, he is an aircraft commander in the gun platoon of the 155th.



HYDRAULIC MANIFOLDS

by Chandler Evans Engineered and precision-produced by Chandler Evans are the hydraulic manifolds used in the main landing gear and loading door controls of Lockheed's huge new multi-purpose aircraft—the Air Force C-5 Galaxy.

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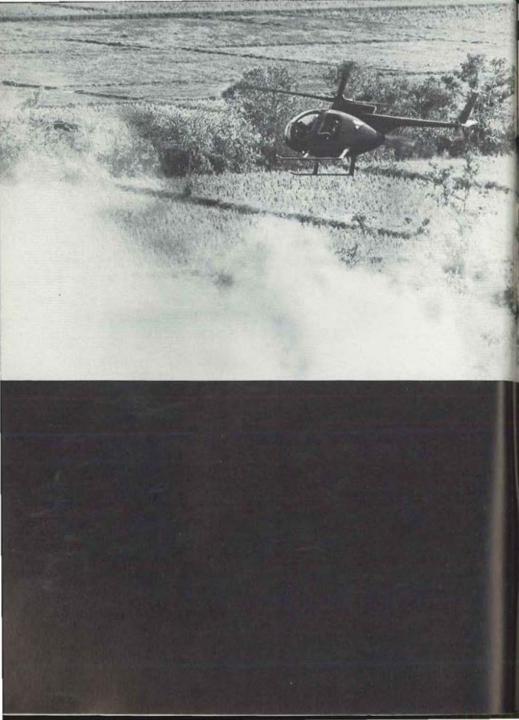
Chandler Evans is pleased to be "known by the company its products keep" and by the records those products establish.





Chandler Evans Control Systems Division

WEST HARTFORD, CONNECTICUT 06101



Reports from Vietnam keep on confirming the fact that the Army's new aerial scout, the OH-6A Cayuse, just does not know how to quit. Here are some recent quotes:

"A Cayuse the other day took hits in the belly section, in the flight-control linkage, in the main rotor controls, one through the FM radio control, three in the tail boom, and a three-inch hole in the tail rotor drive shaft. It flew home."

"Another OH-6A was hit in a landing gear strut, the battery compartment, the engine doors, the vertical and horizontal stabilizers, the tail rotor drive shaft. It flew home."

"Another Cayuse was holed in the left fuel cell. The bullet went on up between pilot and copilot, and out the windshield. It kept on and hit two blades. Shrapnel or shards from a struck blade hit another blade. The aircraft flew home."

Maybe one more quote summarizes the story: "This bird continues to fly under the most extraordinary conditions. It is the only ship to be in if you have to crash."

We at Hughes believe it's the kind of machine the men who fly it deserve. The Cayuse, built by Hughes Tool Company, Culver City, Calif.

Hughes Helicopters

At Hunter, representatives of all major agencies and commands discuss future hardware, safety, personnel and logistics at . . .

The **First** Total Army Aviation Program Review

By Brigadier General EDWIN L. POWELL, JR. Director of Army Aviation, OACSFOR, DA THE month of February in the Pentagon is the longest month of the year. In 28 days the Army Staff tries to fit all the tasks that were left over from the Christmas-New Year's period; pick up the lost threads of January; and in this year adjust to a new administration; and still celebrate Washington's Birthday.

We in Army Aviation did our part to add to the chaos by scheduling a complete review of the Army Aviation Program at Hunter Army Airfield during the 11th and 12th of February. It was quite an experience and quite an education. I believe everyone at

every level learned a great deal.

The conference was chaired by the Vice Chief of Staff and every major staff agency and CONUS command was represented by a General Officer. The program was ambitious and the schedule was rather hectic. The scope was indicative of just how big a business our program has become.

Classified briefings

I wish I could give you a summary of the entire proceedings, but most of the briefings were classified. (You will get the gist of the conference through official channels.) What I can report is that every issue that affects your future—personnel, hardware, safety, and logistics—was examined as a package by our most knowledgable people.

This was the first total Army Aviation

Program Review and I would like to thank our hosts at Hunter and all the dedicated officers who worked behind the scenes to make it a success. In my own shop, LTC Patnode did an exceptional job in pulling the entire program together, even though it probably took a few weeks (months?) off his expected life span.

I think it is accurate to say that one of the subjects that received major attention in all the discussions was people—their future, their problems, their families, their training, and their contribution to the aviation program as a whole. This is heartening for we have no more precious asset than our personnel, be they enlisted, warrant, or com-

missioned.

An Army tradition . . .

There is an old tradition "that the Army takes care of its own." We hope we can report to those that follow, that Army Aviation has "taken care of its own" in like manner. I am sure that DCSPER will be giving the most careful consideration to all the points raised during the conference. I want to assure you that this Directorate will be making every effort to help form the most positive policy for the long-range term.

One of the proposals that surfaced at the conference was a suggestion that those aviators in CAT II be required to fly only 48 hours a year vs the 80 hrs now required. Now I know this will generate a whole series of

debates (as it did here).

I could devote this entire issue to the pros and cons of proficiency flying. Indeed, this subject has filled volumes of the Congressional Record, JCS debates, and various ad hoc boards. Rest assured this wealth of reference material will not be ignored and the long-range future of the Army Aviator will be foremost in any decision that will be made.

Organizational review

Let me turn to a related subject. All of us who have been in the aviation business for any length of time will have to admit that our aviation program has grown like Topsy. The original aviation company had a UE of 21 aircraft. Research indicates that this number was picked because the first aviation com-





This is the versatile Beechcraft 99, now in production as a part of the Beech planned program of product growth. Powered by two Pratt & Whitney PT6A-20 reverse flow, free turbine engines, it will carry pilot and 16 passengers in comfort—will cruise over 200 knots. The spacious interior is readily adaptable in the field for high-density

Why production line modifications of this new Beechcraft 99 make it today's answer for tri-service indirect support:

The capabilities of the new Beechcraft 99 match basic tri-service Utility, Indirect Support and Air Attache requirements. Adaptation for specific service and function may be incorporated during production for true off-the-shelf economy. Available now as a direct replacement for older, reciprocating-engine transports, the

Beechcraft 99 offers these advantages:

- · Increases ton-miles per flight hour!
- Reduces cost per ton-mile!
- Will actually pay for itself in a few years!
- Offers turboprop speed and efficiency with quiet operation!
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- · Offers conference-room seating,



seating, cargo, air ambulance, or executive transport use. Has growth potential to match tri-service Utility, Indirect Support and Air Attache requirements of the future.

quickly convertible to high-density, cargo or aerial ambulance service!

- Has excellent short-field capability with new reversible propellers.
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Quickly convertible
for multi-mission versatility

....for transporting personnel

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Beech Aerospace Division

Beech Aircraft Corporation, Wichita, Kansas 67201, U.S.A.

ARMY AVIATION REVIEW

(Continued from Page 9)

panies were viewed as aerial truck companies and our transportation truck companies of that era had 21 trucks. No huge "data bank" of computer tapes was available to the early planners and there were very few experience factors. Using 20/20 hindsight, they did quite well and no one could fault their judgment.

However, time and contingencies have changed this "company" into a battalion-size unit and we have all seen examples of a Lieutenant Colonel commanding a company with perhaps 10 or more field grade officers in the same unit. Part of this situation was the pure demand to fill cockpit seats; part was the fact that our aviation organizations were not comparable to the rest of the Army.

We are taking a new look at all of our aviation organizations, their size, the skills required, and the support base. We hope that the study efforts will provide the answers — answers that have a better "data base" than the ancient TOE of a medium truck com-

pany.

The proper titles

Immediately related to the aviation units is the problem of proper titles. We have just finished a study at the Department of the Army to establish more descriptive and standardized unit identifications. In case you haven't received the General Order, I've asked the editor to print the entire list of designations.

We felt that unit designations should be descriptive of the unit mission; i.e., assault, assault support, and attack. It was agreed that titles, where appropriate, should be identified by the name of the parent: Assault Helicopter

THE KIOWA

The Army OH-58A, winner of the Army's re-opened light observation helicopter (LOH) competition, will carry the nickname Klowa, in accordance with the Army tradition of labeling its aircraft with the names of Indian tribes. The OH-58A is the Army's version of the Bell Model 206A JetRanger. Deliveries of the new helicopter will begin this summer and continue through 1972.

Company – Airborne Division, or Assault Helicopter Company – Infantry Division. The definitive adjective "combat" should be added to identify those units which directly engage the enemy and to differentiate the units providing support to a lesser tactical degree. Where possible we have maintained the familiar usage and common terminology that has evolved through unit employment in SEA.

A public "pat"

Like everyone who has preceded me in this position, I often wonder if the aviator in the field, who has not served on the DA staff, has a real conception of what the Office, Director of Army Aviation does in its day-to-day business. I sometimes wonder if they picture us as sort of an impersonal machine that grinds out regulations, demands a ceaseless flow of data, and lives in a world only remotely touched by real life.

Having been at the far end of the pipeline many times in my career, I am quite acquainted with the syndrome of "General Hardtack" who vainly looks in his mailbox for a letter from the Pentagon. Actually, if the author of "Beatle Bailey" knew the true facts, he would register happy surprise when someone at a remote outpost did not receive

a directive from the Pentagon.

I do not expect everyone to believe this, but we are in rather close touch with the problems of the field; we do our very best to avoid unnecessary reports; and occasionally, we do wish *our* mailbox was empty some

morning.

I say this not to evoke sympathy — I don't see one tear — but rather to publicly pat on the back my small staff who are dedicated to your interests and the interests of Army Aviation as a whole. One must serve a tour as a DA Action Officer to appreciate my comments. I know of no more demanding, time-consuming, frustrating, and challenging job. Believe me, these are the people who fight the biggest problems of Army Aviation every day, then fight the battle of Washington traffic every night. If that doesn't sound heroic — try it!

(Continued on Page 30)

PREVIOUS TITLE AND DESIGNATION NEW TITLE AND DESIGNATION

8 23 to 1	1000 THEE AND DESIGNATION		HEII THEE AND DESIGNATION
TOE 1-7G DESIG:	AVIATION OBSERVATION COMPANY	Desig:	RECONNAISSANCE AIRPLANE COMPANY
TOE 1-47G DESIG:	AVIATION COMPANY, SEPARATE INFANTRY BRIGADE AVIATION Company	Desig:	AVIATION COMPANY, SEPARATE INFANTRY BRIGADE
TOE 1-55G DESIG:	AVIATION BATTALION, AIRBORNE DIVISION	Desig:	COMBAT AVIATION BATTALION, AIRBORNE DIVISION
TOE 1-56G DESIG:	HEADQUARTERS AND HEADQUARTERS COMPANY AVIATION BATTALION, AIRBORNE DIVISION Headquarters, Aviation Battalion (Airborne Division) Headquarters Company, Aviation Battalion (Airborne Division)	Desig:	HEADQUARTERS AND HEADQUARTERS COMPANY COMBAT AVIATION BATTALION, AIRBORNE DIVISION Headquarters, Aviation Battalion (Combat) (Airborne Division) Headquarters Company, Aviation Battalion (Combat) (Airborne Division)
TOE 1-57G DESIG:	LIGHT AIRMOBILE COMPANY AVIATION BATTALION, AIRBORNE DIVISION Company(Airmobile),	Desig:	ASSAULT HELICOPTER COMPANY COMBAT AVIATION, AIRBORNE DIVISION Company (Assault Helicopter) Aviation Battalion (Combat) (Airborne Division)
TOE 1-58G DESIG:	AVIATION GENERAL SUPPORT COMPANY AVIATION BATTALION, AIRBORNE DIVISION Company	Desig:	AVIATION GENERAL SUPPORT COMPANY COMBAT AVIATION BATTALION, AIRBORNE DIVISION Company
TOE 1-75G DESIG:	AVIATION BATTALION, INFANTRY DIVISION	Desig:	COMBAT AVIATION BATTALION, INFANTRY DIVISION
TOE 1-76G DESIG:	HEADQUARTERS AND HEADQUARTERS COMPANY AVIATION BATTALION, INFANTRY DIVISION Headquarters, Aviation Battalion (Infantry Division) Headquarters Company, Aviation Battalion (Infantry Division)	Desig:	HEADQUARTERS AND HEADQUARTERS COMPANY COMBAT AVIATION BATTALION, INFANTRY DIVISION Headquarters, Aviation Battalion (Combat (Infantry Division) Headquarters Company, Aviation Battalion (Combat) (Infantry Division)
TOE 1-77G Desig:	AIRMOBILE COMPANY (LIGHT) AVIATION BATTALION, INFANTRY DIVISION OR AVIATION COMPANY (AIRMOBILE) Company		ASSAULT HELICOPTER COMPANY, COMBAT AVIATION BATTALION, INFANTRY DIVISION Company (Assault Helicopter) (Aviation Battalion (Combat) (Infantry Division) OR ASSAULT HELICOPTER COMPANY, SEPARATE (Aviation Company (Assault Helicopter)
TOE 1-78G DESIG:	AVIATION GENERAL SUPPORT COMPANY AVIATION BATTALION, INFANTRY DIVISION Company		AVIATION GENERAL SUPPORT COMPANY, COMBAT AVIATION BATTALION, INFANTRY DIVISION Company (General Support) Aviation Battalion (Combat) (Infantry Division)
TOE 1-87G Desig:	DIVISION AVIATION SUPPORT DETACHMENT ARMORED DIVISION OR DIVISION AVIATION SUPPORT DETACHMENT INFANTRY DIVISION (MECHANIZED) 	Desig:	DIVISION AVIATION DETACHMENT
TOE 1-97T	SURVEILLANCE HELICOPTER COMPANY	Desig:	RECONNAISSANCE HELICOPTER COMPANY Aviation Company (Reconnaissance Helicopter)
TOE 100T DESIG:	AVIATION GROUP, AIRMOBILE DIVISION Aviation Group (Airmobile Division)	Desig:	COMBAT AVIATION GROUP, AIRMOBILE DIVISION Aviation Group (Combat) (Airmobile Division)
TOE 1-101T Desig:	HEADQUARTERS AND HEADQUARTERS COMPANY AVIATION GROUP, AIRMOBILE DIVISION Headquarters, Aviation Group (Airmobile Division) Headquarters Company Aviation Group (Airmobile Division)	Desig:	HEADQUARTERS AND HEADQUARTERS COMPANY COMBAT AVIATION GROUP, AIRMOBILE DIVISION Headquarters, Aviation Group (Combat) (Airmobile Division) Headquarters Company, Aviation Group (Combat) (Airmobile Division)
TOE 1-102T Desig:	GENERAL SUPPORT AVIATION COMPANY AVIATION GROUP, AIR CAVALRY DIVISION	Desig:	AVIATION GENERAL SUPPORT COMPANY AVIATION GROUP, AIRMOBILE DIVISION

PREVIOUS TITLE AND DESIGNATION

NEW TITLE AND DESIGNATION

PRE	VIOUS TITLE AND DESIGNATION		NEW TITLE AND DESIGNATION
TOE 1-111T Desig:	AVIATION AERIAL WEAPONS COMPANY	Desig:	ATTACK HELICOPTER COMPANY
TOE 1-128T Desig:	AERIAL SURVEILLANCE COMPANY Aviation Company (Aerial Surveillance)	Desig:	SURVEILLANCE AIRPLANE COMPANY
TOE 1-156	HEADQUARTERS AND HEADQUARTERS COMPANY ASSAULT HELICOPTER BATTALION, AIR CAVALRY DIVISION	Desig	HEADQUARTERS AND HEADQUARTERS COMPANY ASSAULT HELICOPTER BATTALION, AIRMOBILE DIVISION
DESIG:	Headquarters, Aviation Battalion (Assault Helicopter) (Air Cavalry Division) Headquarters Company, Aviation Battalion (Assault Helicopter) (Air Cavalry Division)	uesig:	Headquarters
TOE 1-157T	AERIAL WEAPONS COMPANY ASSAULT HELICOPTER BATTALION, AIR CAVALRY DIVISION	Desig:	ATTACK HELICOPTER COMPANY, ASSAULT HELICOPTER BATTALION, AIRMOBILE DIVISION Company (Attack Helicopter)
DESIG:	Company (Aerial Weapons)	acaig.	Company
TOE 1-158T	ASSAULT HELICOPTER COMPANY, ASSAULT HELICOPTER BATTALION AIR CAVALRY DIVISION	Desig-	ASSAULT HELICOPTER COMPANY, ASSAULT HELICOPTER BATTALION, AIRMOBILE DIVISION Company (Assault Helicopter), Aviation Battalion (Assault Helicopter) (Airmobile Division)
DESIG:	Company	4.753758	
TOE 1-166T	HEADQUARTERS AND HEADQUARTERS COMPANY ASSAULT SUPPORT HELICOPTER BATTALION AIR CAVALRY DIVISION		HEADQUARTERS AND HEADQUARTERS COMPANY ASSAULT SUPPORT HELICOPTER BATTALION AIRMOBILE DIVISION
DESIG:	Headquarters,	Desig:	Headquarters,
	ASSAULT SUPPORT HELICOPTER COMPANY ASSAULT SUPPORT HELICOPTER BATTALION AIR CAVALRY DIVISION		ASSAULT SUPPORT HELICOPTER COMPANY ASSAULT SUPPORT HELICOPTER BATTALION AIRMOBILE DIVISION
DESIG:	Company	Desig:	Company (Assault Support Helicopter)
TOE 1-207E DESIG:	ARMY AIR TRAFFIC REGULATION AND IDENTIFICATION COMPANY Air Traffic Company (Regulation and Identification) (Army)	Desig:	AVIATION AIR TRAFFIC CONTROL COMPANY
	HEADQUARTERS AND HEADQUARTERS COMPANY AVIATION GROUP	15200000	HEADQUARTERS AND HEADQUARTERS COMPANY COMBAT AVIATION GROUP
DESIG:	Headquarters, Aviation Group Headquarters Company,	Desig:	Headquarters, Aviation Group (Combat) Headquarters Company, Aviation Group (Combat)
TOE 1-256G	HEADQUARTERS AND HEADQUARTERS COMPANY AVIATION BATTALION	225-51	HEADQUARTERS AND HEADQUARTERS COMPANY COMBAT AVIATION BATTALION
DESIG:	Headquarters, Aviation Battalion Headquarters Company,	Desig:	Headquarters,
TOE 1-257F DESIG:	AVIATION FIXED WING COMPANY	Desig:	UTILITY AIRPLANE COMPANY
TOE 1-258G DESIG:	AVIATION MEDIUM HELICOPTER COMPANY Aviation Company (Medium Helicopter)	Desig:	ASSAULT SUPPORT HELICOPTER COMPANY Aviation Company (Assault Support Helicopter)
TOE 1-259G Desig:	AVIATION HEAVY HELICOPTER COMPANY Aviation Company (Heavy Helicopter)	Desig:	HEAVY HELICOPTER COMPANY Aviation Company (Heavy Helicopter)

NOTE: The editors will endeavor to obtain a list of the authorized abbreviations for all new unit designations, and publish these abbreviations in the June 30, 1969 issue to be published as the "1969 Army Aviation Command and Staff Directory."



You don't have to like baseball to be METS fan

Up to now, for an engine test system to be effective, it

had to be big and virtually immobile.

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And METS can give you that, too! For more complete information about Avco Lycoming's Modular Engine Test System, contact Director of Marketing, Avco Lycoming—Charleston Plant, Charleston, South Carolina 29411.



USACDC Envisions Fireproof Outlitting

FIREPROOF clothing from the skin out for all Army aircrewmen has been proposed for development by the Aviation Agency, U.S. Army Combat Developments Command, Ft. Rucker, Alabama. Fireproof cloth is needed in the fabrication of this new clothing for aircrewmen to provide maximum fire protection. This development would be a major stride in improving safety and survivability for crewmen.

The clothing system envisioned by CDC under this effort includes helmets, uniforms, undergarments, gloves, down to socks and footwear. The cloth developed under this requirement not only would be fireproof but should provide thermal protection from ra-

diation.

A significant percentage of Army aircrewmen fatalities are a result of fires in normal ground operations and post-crash fires in otherwise survivable accidents. The clothing

would also lessen the effects of fire caused by small arms, mine detonation, and in-flight fires. Development of the clothing will improve the chances of survival in otherwise fatal accidents, crashes or incidents where burning is the prime cause of destruction.

CDC requirements specify that fireproof clothing should not prevent the crewmen from performing normal duties in severe temperature extremes. Thus the cloth has to be lightweight and pliable. Ideally, the fire-resistant material should be impervious to chemical or biological agents, and be waterproof too. The reliability and maintainability of the cloth must at least equal that of current uniform materials.

The search for a fireproof uniform is another prime example of the work done by CDC in its mission of improving today's Army while designing the Army of the fu-

ture.

THERE is nothing more vulnerable on the field of battle than man himself. Yet he has participated in and lived through hundreds of wars over the past 4,000 years.

There were those who said the helicopter could not live in Vietnam, who now say it cannot live in a conventional war or in a nuclear war. They are as wrong on the latter two views as they were on their dire predictions of destruction in Vietnam.

A good example . . .

On 18 December 1965, a command helicopter of an infantry battalion participated in an engagement wherein the battalion made an air assault, landing on top of a main force Viet Cong battalion. This was probably one of the best examples of invulnerability and

how a helicopter can live in battle.

During this battle a change of tactical plans made it necessary for the command helicopter to mark a new landing zone for an approaching flight of assault helicopters. The command helicopter flew in 100 feet above the ground to mark the new LZ. As it passed around a narrow neck of woods, 15 Viet Cong soldiers with rifles and automatic weapons commenced firing at the bird from 150 yards range. The helicopter continued its pass, dropped a smoke grenade to mark the landing zone, and gained altitude to continue its mission.

During the pass, the left door gunner engaged the Viet Cong returning their fire. The members of the command aircraft continued their job and while the helicopter was hit, not a single person was wounded.

A few minutes later, the command helicopter touched down in a landing zone, one that was still not securely held by the infantry and was under fire. In the course of landing to dismount the command party, a casualty was noted nearby. One of the members of the command party and the crewchief ran to assist the casualty and to load him in the helicopter.

In the process, the crewchief was seriously hit and later died. Other members of the party eventually got the crewchief and the casualty aboard the helicopter while the two courageous pilots held it steadily on the fire-swept field. In the course of this action, the bird picked up several more hits, one member of the command party receiving a slight nick as a round passed between his flak jacket and his chest.

It took 21 hits!

The aircraft finally took off after being on the ground for about 65 seconds. After returning the casualty to the aid station, the bird touched down at its refueling base for refueling. Here, a thorough check indicated the ship had a total of 21 hits including one in the compressor. The chopper was not permitted to fly any further, in view of the round in the compressor.

However, the main point is that the aircraft did fly and did perform its job despite its having received 21 hits, to include the one in the compressor. If this is an example of the vulnerability of the helicopter, I think it tends to show just the opposite view—one of invulnerability. When an aircraft absorbs 21 hits, including one in a vital component, and yet does not go down, we're talking about invulnerability!

There are many ways to whip the so-called

VULNERABILITY!

A Wide Variety of Factors Work in Conjunction to Keep Helicopter Vulnerability Down

Tomorrow's breakthroughs started yesterday... with Bell's R&D

We're not exactly newcomers in the V/STOL business

We built this flying V/STOL back in 1956.

And we've been pioneering in new V/STOL developments ever since.

When the rotor is used as a propeller the aircraft will travel at speeds up to 250 knots.

For flight above this speed, the

Our latest advance is a new high

speed rotor configuration.

We call it the tilt-stop-fold rotor and we are currently running it through a series of analyses and wind tunnel tests.

This new rotor gives the aircraft excellent vertical lift with low downwash.

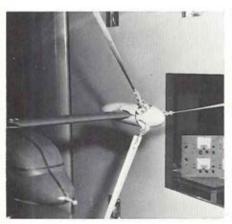
It also provides a high hover capability on hot days.

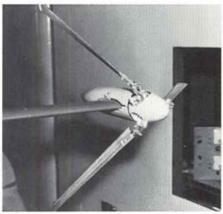
blades are folded back to a minimum drag configuration. Conventional jet aircraft cruise speeds of 400 knots or more can then be attained.

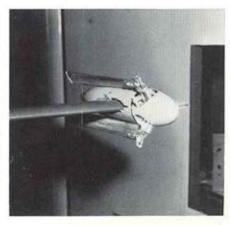
1 01 Illigitt above tills speed, the

When will this V/STOL with helicopter take-off and landing capability and jet speed cruising be ready?

At Bell, we're getting closer all the time.







BELL HELICOPTER

VULNERABILITY!

(Continued from Page 17)

problem of helicopter vulnerability in Vietnam and in any war. The factors that proved important in Vietnam should also be applicable in a conventional and nuclear war. For example, it's necessary to fly either flat on the deck in and out of the treetops to avoid enemy fire, or to fly at an altitude sufficiently high above the ground to prevent enemy ground weapons from effectively engaging the aircraft.

Factor of altitude

In Vietnam, this altitude was initially 1,500 feet above the ground. In certain other areas, the altitude was raised to 2,500 feet. At 2,500 feet there is relative safety. The best flight technique was to be flat on the deck for even though there were enemy weapons, the enemy did not have time to accurately bring them to bear.

There are other proven methods. First of all, the careful selection of routes assures that the flight will not pass near or over known enemy positions if they can be avoided. In this respect, a great deal of information is generally known about the enemy situation in any operation, and it takes little effort to plot enemy positions and to locate routes that will bypass them. In the selection of routes, the use of different routes to and from an LZ will reduce vulnerability to ground fire.

Dummy landing zones

Another deception that helps is the use of mock landing zones to make the enemy think that a landing is being conducted in one place when really it is not. This has been tried successfully in Vietnam, i.e. executing a mock landing in as many as two landing zones – perhaps going in to a mock landing zone for a few seconds to wait, as if letting the troops off, and then going into a second one where the troops are actually debarked, and finally going into a third landing, a second deception.

During any one of these three landings, a barrage of supporting weapons, artillery, aerial rockets, and even tactical air is employed or any combination thereof. Firepower is a necessary portion of the deceptive means employed.

Boon: Inclement weather

Inclement weather can reduce also vulnerability. The Army can fly in Vietnam in 95 percent of the weather, to include monsoon conditions. This was especially true in the Central Highlands where for one year the 1st Air Cavalry flew over 95 percent of the time, regardless of weather conditions and these included northeast and the southwest monsoons. Employing the cover of weather and with a minimum of instrument flying proficiency, flights can be assisted to and from a landing zone without a repetition of the same routing by guiding both on the terrain and in and out of the fog or the clouds.

In a nuclear war it is possible to time Hhour flight routes to the landing zones in conjunction with a nuclear strike, in order to take advantage of the protection that those strikes offer to conceal your presence from the enemy.

Night conditions

Another operation serving to reduce vulnerability is operation under maximum night conditions. This method employs the hours of darkness themselves as concealment for both the approach and the return trips, and clearly reduces helicopter vulnerability and the ability of the enemy to fire at our birds.

By using a combination of different routings, adverse weather, hours of darkness, and the blast from nuclear weapons, combat operations may be concealed from the en-

The proof of invulnerability in Vietnam lies in the relatively small number of birds shot down and even more so in the resulting small number of friendly casualties. A review

A great majority of these were recovered and flew after minor repairs. A few required more extensive repairs and were in operation at a later date. To quote a recent remark by

In this connection, one of the biggest benefits has been the CH-47 Chinook and the CH-54 Flying Crane, two aircraft employed

(Continued on Page 30)

M AJOR General Bob Williams always classed people in the Army Aviation program in three distinct classes — the "Workers", the "Shirkers", and the "Lurkers."

The first two categories need no explanation. You list them as easily as I. The third class, the "Lurker", is a bit more hard to pin down and identify; indeed, if you could readily identify him, he is automatically eliminated from this group.

Let me be clear; the "Lurker" in Army Aviation does not fall in the "Spy" or "hanger-on" category — he is not selling specifications to industry — he is not "cloak and dagger" in any sense.

On the contrary, he probably holds a very responsible, indentified position, observes all the rules of the Department, and, is probably identified by his immediate co-workers as a straight "Worker." The subtle difference is that he is a catalyst and the man behind the scenes in every action that really counts.

In the memo for the record he might be listed as recorder or secretary, or more

Lurkers, Cats, and a Navy Balloon!

Comments by a self-confessed minor league "lurker" . . . Colonel James J. Brockmyer, OACSFOR, Dept. of the Army likely not be listed at all. The fact remains that the meeting itself would not have been held without his push and the decisions will be largely based on alternatives he has prepared.

I trust this does not sound too Machiavellian, for such is not the case. The "Lurker", as General Williams defined him, is the man behind the scenes who doesn't pull any strings and doesn't manipulate the facts, but who does have a sense of timing, knows personalities, and is dedicated to the program.

All this is a preamble to my confession as a very minor league lurker in Army Aviation for over twenty years and as a collector of bits and pieces of Army history, memorabilia, and stories. In this last category, I have always promised to write an anthology that collected all the fascinating stories into a single volume and let the reader classify them into lies, exaggerations, or pure fact. (Two problems might immediately arise—I could be sued or court-martialed or both, if names, dates, and data were assembled on the very best stories.)

One of the better stories . . .

General W. W. Ford is a legend in his own right in the early history of Army Aviation. I am sure we could fill a volume of stores of his exploits alone. However, one of the better stories which I have been told so many times that I do not believe it is apocryphal, is the famous story of the mother cat.

In the mid-forties there was always an L-5 ready and waiting for General Ford at the back of the hangar at Post Field at Fort Sill. By nature the General always gave this a very careful pre-flight. On the day in question he had a sudden mission to fly a VIP to Tulsa and warned the tower that he was going to leave in just a few minutes.

They wheeled out his aircraft and General Ford and his VIP passenger took

LURKERS, CATS, ETC.

(Continued from Page 21)

off as fast as possible directly from the ramp. The tower operator noted that after achieving an altitude of approximately 200 feet, the aircraft performed several wild gyrations not included in any of the standard acrobatic manuals of the times, and essentially it reversed its course and came right back landing downwind on the field. General Ford skidded to a stop on the ramp he had only left a few seconds before, while all the mechanics ran out to check the nature of his problem.

The problem was readily apparent. Sitting on top of the General's head was a mother cat with all four claws dug firmly into the General's skull and it took two strong mechanics on either side of the aircraft to pry her loose. Fortunately, after appropriate tetanus shots, the wounds were considered to be minor.

Reconstructing what had happened, it appeared that the mother cat had searched for a quiet place to have her litter, and this particular aircraft in being in the far corner of the hangar had obviously not been disturbed for many days. Crawling back through the canvas she found a warm and cozy spot near the tail of the aircraft.

The sudden mission of the General disturbed her litter and herself, and as the aircraft taxied to the ramp she climbed over the shoulder of the VIP to investigate. He, in turn, being rather startled and afraid of flying in the first place, pounded General Ford on the back and indicated the intruder.

General Ford reached back, caught the cat by the nap of the neck, and decided that one of those nine lives would not be in jeopardy if he put it out the open window. The cat nonconcurred and returned up his arm to secure itself in the position in which the mechanics finally found it on the General's hasty return.

I will not bore you with the details of who got fired, the post veterinary's recommendations, and the countless checks that were made on the General's aircraft thereafter. To the best of my knowledge, the mother cat and litter were the only ones that went through this traumatic experience with no after effects.

Tradition-making

The second story that I think should be recorded somewhere is the attempt by the Army Aviation Association to tie Army Aviation to a 100-year old tradition at its annual convention in September, 1961. As you all recall, the Nation went beserk on Civil War history at about this time and each community that had any historical background had some sort of festival or re-enactment of a battle that had occurred the century before.

Those of us in Washington who were charged with the programming of the annual convention of the AAAA latched onto a similar ploy — the flight of Professor Thaddeus P. Lowe. This appeared to be an extremely timely theme because the Air Force was just getting ready to announce its 50th Anniversary.

We thought quite smugly that we had a new gimmick but we were not sure just how to exploit it. The Convention was to be held at the Sheraton-Park Hotel, and as one step we visualized the construction of a Civil War observation balloon in front of the hotel. Little did we know of the problems we would have.

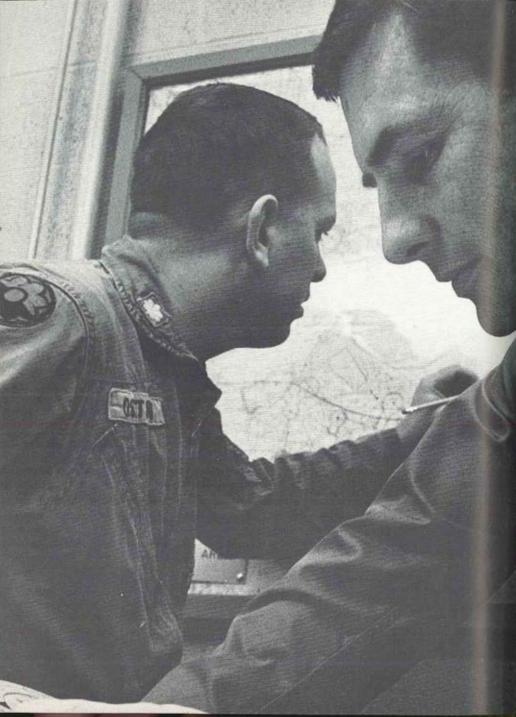
First of all, where does one find such a balloon? After many frantic calls we located a spherical balloon, complete with blanket, that was stored in the



corner of the Navy hangar at Lakehurst, N.J. The Navy agreed to loan this balloon to the Army providing we would pay the cost of transporting it and filling it with helium. After much negotiation, they also agreed to paint out the "U.S. Navy" and to add the title, "Enterprise", which was the name of Professor Lowe's original craft.

Our decorations committee* at that time had a budget of just over \$100 and we were quite shocked to learn that the Navy's price for filling this balloon with "USED" helium would be somewhat over \$900. Conversely, the Navy technicians were less than pleased when they learned we expected them to stand

^{*(}Ed. Note: D. P. "Gerry" Gerard who did a lot of running with the ball; and former AAAA national president, Bryce Wilson, who just happened to be a close friend and Stanford classmate of the project's potential balloon-deflater, "Jeeb" Halaby, FAA Administrator at the time.)



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FORD E. ALLCORN DIES IN ST. LOUIS

ST. LOUIS, MO. – The first Army Aviator to fly in combat in World War II died here February 15 from an apparent heart ailment.

Retired Col. Ford E. "Ace" Allcorn, 59, of Hazelwood, Mo., was buried with full military honors February 19 in Jefferson Barracks National Cemetery, following a grave-

side ceremony at 11 a.m.

A native of Boonville, where his mother, Mrs. H. E. Fiscus still resides, Col. Allcorn entered Army service from the Missouri National Guard prior to WW II. A barnstorming pilot friend had taught him to fly from a pasture near Boonville, so he was a pilot when he entered Army training at Fort Sill, Okla.

1942 Graduate

Graduating in October 1942, Col. Allcorn flew into Army aviation history a month later when he led a three-plane flight of L-4 Piper Cubs from the deck of the aircraft carrier USS Ranger during the invasion of North Africa. Radio silence enforced during the trip to Africa resulted in an unexpected hazard. Since other ships did not know the Cubs were from the invasion fleet, they were considered to be enemies.

Despite the efforts of Navy gunners to shoot them down, the flight reached Tunisia, where two of the crews were captured and held prisoner for a short time. Col. Allcorn was shot down by a Vichy French machinegunner and wounded in the right leg.

He thus became the first Army Aviator to fly in combat; the first shot down and the first to be wounded. Col. Allcorn believed he was the first Missourian wounded during the war. After being aboard two hospital ships which were torpedoed, he was evacuated on a third ship to Walter Reed Hospital in Washington, D.C.

Col. Allcorn later flew in Italy and included among his passengers Gen. Mark Clark and

British Field Marshal Alexander.

After flying in seven major campaigns in



WW II, Col. Allcorn became one of the Army's early helicopter pilots. By the time he retired in 1961, he held every Army flight rating, plus a commercial pilot's license and had about 6,000 hours in the air. Since retiring, he had been employed by the McDonnell-Douglas Aircraft Corporation here.

Director at AVSCOM

He was a member of what is now the Army Aviation Systems Command here some years ago, serving primarily as Director of Maintenance.

Col. Allcorn is survived by his wife, Lucille, and two children: Seth, serving with the Navy in the Pacific and Becky, a college student.

Among Army Aviators at the graveside service Wednesday were two contemporaries; Col. Delbert L. Bristol and Col. J. Elmore Swenson, both assigned to AVSCOM. Both were with Col. Allcorn in the early days of Army Aviation.

FT. SILL — LTC J. R. Stroud (2d from left) and LTC Richard F. Beck (2d from right) are shown shortly after receiving their Master Army Aviator Badges from MG Charles P. Brown (right), Ft. Sill commanding general, as COL Frederick C. Goodwin (left), CO, Arty Avn Comd, looks on.



MASTERS ALL!



SCHOFIELD BARRACKS, HAWAII (Photograph above). LTC Asa C. McCranie, U.S. Army, Hawaii, Aviation Officer and a charter member of AAAA, receives the designation of Master Army Aviator from MG Roy Lassetter, Jr., CG of USARHAW, as his wife, Yvonne, watches happily at his side.

FT. EUSTIS (Photo at left) — CW4 Curtis R. Hayter has his Master Army Aviator's Badge awarded to him by his wife, Ann, as LTC James F. Hill, USATCFE Aviation Officer, looks on.



FT. RUCKER — Five veteran aviators discuss their Master Army Aviator wings which were presented to them by MG Delk M. Oden (3d from right), Fort Rucker commanding general, during a recent ceremony at the post. The pilots are, from left to right, LTC Robert B. Jones of Amarillo, Tex.; LTC Harry G. Fox of Carpinteria, Calif.; LTC James E. Krueger of Malvern,

Ark.; LTC James D. Hays of Camillia, GA.; and LTC W. A. (Dick) Dixon of Kite, Ga. The five — who graduated together in one of the last flight classes conducted at Ft. Sill, Okla. before it was transferred to Ft. Rucker in 1954 — have a combined total of more than 99 years of military service and over 23,000 hours of flight time.

(All USA photos)

The devastating look of Cheyenne

Cheyenne's pilot can focus devastating firepower where he looks. With armament slaved to the movement of his head, he can accurately direct a veritable hail of fire.

The Army needs a specialized armed escort vehicle capable of efficiently protecting heliborne assault columns en route, suppressing hostile fire at landing sites, and directly supporting engaged troops.

The Rigid Rotor com-

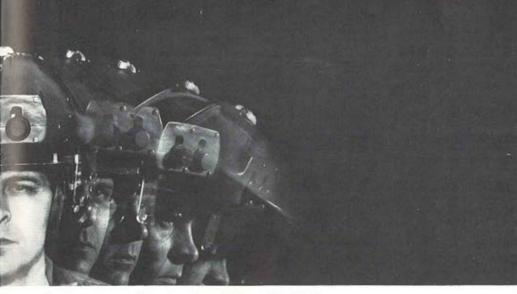
pound AH-56A is Lockheed's response to that need.

Cheyenne is more stable, more maneuverable and much faster than any previous Army rotorcraft. And armed to the teeth.

Readily interchangeable nose turret assemblies house a 40mm grenade launcher or a 6,000 roundper-minute 7.62mm Minigun. A 30mm light point weapon is mounted in the belly turret. Cheyenne can

carry up to 12,000 pounds of external armament stores (including TOW missiles and 2.75 inch FFARs), podmounted on wing and fuselage pylons.

Cheyenne's swivelling co-pilot/gunner's station rotates through 360°, and either or both armament turrets can be slaved to its motion. It is equipped with an open sight and a periscopic optical sight with selectable degrees of magnification up to 12X.



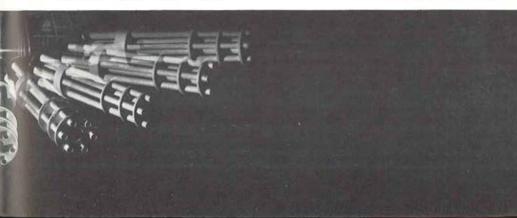
Sighting data is fed into Cheyenne's central computer. Additional inputs from Cheyenne's doppler radar system, inertial platform and laser range finder inform the computer of windage, vehicle attitude and speed, and target range and motion. Together with ballistics data stored in the memory core, these inputs enable Cheyenne's computer to maximize firing accuracy.

Under an Army contract,

ten prototype AH-56A Cheyennes have been built at Lockheed-California Company's Van Nuys facility. Preparation for large scale production of Cheyenne is under way.

The proven ability to understand present mission requirements and anticipate future ones, coupled with technological competence, enables Lockheed to respond to the needs of this nation in a divided world.





AAAA SCHOLARSHIP SELECTION PROCESS OUTLINED

WITH some 16 to 17 scholarship awards being awarded to the sons and daughters of members or deceased members of AAAA on 24 March, I felt that all Association members might like to know a bit more about the Foundation itself, and perhaps several of the details of the unique selection process pursued by the AAAA.

It now appears that an applicant's 1969 chances of winning a \$500.00 scholarship are



DISCUSSION

ST. LOUIS, MO. — The HueyCobra is a logical subject for discussion when Bell Helicopter Company President E. J. Ducayet, left, and MG John Norton, CG, Army Aviation Systems Command, get together. Mr. Ducayet stopped in St. Louis recently during a trip East. AVSCOM contracts for the majority of Bell's military production. Both gentlemen will meet again in St. Louis on 7-9 April on the occasion of the AVSCOM-AAAA Advance Planning Briefings for Industry.

one in 12 (72 applicants for 6 scholarships) or one in five (72 applicants for 16 cash

awards of all types).

A word or two about the Foundation . . . The AAAA Scholarship Foundation, Inc., is a separate corporate entity governed by a six-member Board of Governors. The primary tasks of the Board of Governors are to establish the requirements for a workable scholarship assistance program, to determine the number and dollar amount of scholarship aid to be given in any particular year (and this is dependent upon donations received), and to coordinate with the AAAA on the establishment and implementation of fundraising programs. The Foundation is a tax exempt organization under the IRS Code, and donations, bequests, etc. are deductible from income or estate taxes.

The Foundation Board of Governors does not select the annual AAAA Scholarship Winners. This task is performed by the National Awards Committee of the AAAA, the same committee that selects the AAAA National Awards Winners ("AA of the Year," etc.) each year. Colonel Robert M. Leich, USAR (Ret.) chairs this 10-member com-

mittee.

An Impartial selection

While the Governors recognize that several members of the AAAA National Awards Committee could know many of the parents of the competitors, it feels that adequate steps have been taken to assure an impartial selection — one that would meet with your personal approval.

This is accomplished in the following

manner:

- All applications for scholarship forms, and all completed forms (Personal, H.S., interview, etc.) are submitted to one source, the AAAA National Office, and
- The National Office censors all documents prior to their review by members of the Awards Committee, the censoring consisting of the removal of the names of all applicants, parents, and AAAA interviewers, and the substitution of a "file number" to identify all documents associated with a particular application.

The members of the Awards Committee review the records of the applicant, then, without knowing the applicant's identity. The actual process is a bit more complicated, but the fact remains that the members, in being unaware of the names of the applicants, may judge and compare their academic and personal qualifications, and do so without prejudice.

Having worked with "file number" only, the Committee does not know the names of the winners it selects, first learning these names after the selection of the last winner has been made. Here, the Committee Chairman directs a National Office representative to open a sealed envelope, and to provide the names of those applicants having the winning "file numbers." The Committee does not see the entire list of applicants at any time, Foundation policy calling for the names of the non-winners to remain confidential.

I hope that the foregoing has provided you with some insight into the process the Foundation pursues to assure an impartial selection of winners each year. Actually, the real problem is not one of guarding the identity of the competitors. An exceptionally large number of bright young men and women compete for these awards each year. The real problem is selecting the winners!

Suggestions solicited

Your comments on all facets of this AAAA program — initial forms, selection, notification, etc. — are welcome. Many of the program's refinements were initiated through suggestions made by members, applicants, and parents.

It is a source of some satisfaction to the Governors and to the AAAA National Awards Committee that several divisional units and Army posts — on initiating their own scholarship programs — have heard about the AAAA selection process and have written to the Association for details.

A final note, The general announcement of the 1969 AAAA Scholarship Foundation Award winners will be made in the April 30 issue.

> Bryce Wilson President, AAAA Scholarship Foundation, Inc.

TWO UNUSUAL PHOTOS



COVERAGE

VIETNAM — Specialist Five Christopher A. Miller, 20, receives the congratulations of his commanding officer, Major Joe M. Miller (no relation), CO of Company C, 227th Assault Helicopter Battalion of the 1st Cavalry Division. Specialist Miller, who resides in Jacksonville, Fla., had flown enough in his position as crew chief to have earned 43 — count 'em! — 43 Air Medals. That's a lot of flying for anyone!



DISTORTION

VAN NUYS — Although the camera lens distortion makes it look like a protective umbrella over the U. S. Army Cheyenne combat helicopter, the pictured 25-foot (7.5-meter) long rotor blade is actually only 28 inches (71 centimeters) wide. Almost undetectable to the untrained eye, blade twist, taper, and camber — a new rotary wing design combination — are expected to greatly improve the helicopter's flight performance. Seen in the Cheyenne's blade shade at Lockheed's Van Nuys, California, plant, flight-test engineer Jim Upton takes a long look from the thick rotor root to the thin tip.



AAAA Calendar

- FORT MONROE CHAPTER. Professional Dinner Meeting with guest speaker. Langley AFB Officers' Club. 1 March.
- USAREUR REGION CONVENTION. Professional-Social meetings with military-industry presentations, Regional AAAA awards. Host: 421st Medical Company (Hel Amb), "Outstanding Aviation Unit, USAREUR Region, AAAA, 1967-1968." Garmisch Recreation Area, Garmisch, Germany. 5-8 March.
- FORT BENNING CHAPTER. Business meeting for general membership. Stag. Fort Benning Main Officers' Club. 13 March.
- RICHARD H. BITTER CHAPTER (Corpus Christi, Tex.). Conduct of mail balloting for Chapter Executive Board office. 17 March closing date for ballots.
- STUTTGART CHAPTER. Business-Social meeting. Cocktails, Fingertip Buffet. Nellingen Officers' Open Mess. March 19.
- FORT BRAGG CHAPTER. General membership business meeting; election of Chapter officers. Pope AFB Log Cabin, 19 March.
- ALASKA CHAPTER. General membership business meeting and election. Wainwright Officers' Open Mess, 21 March.
- BLUEGRASS CHAPTER (Fort Knox). Professional meeting. LTC (COL-Designate) E. Ray Fitzgerald, USAAVNS, Fort Rucker, Ala., guest speaker. Subject: "The Aviation Warrant Officer Career Course." Fort Knox Officers' Brick Mess. Stag. 26 March.
- LINDBERGH CHAPTER (St. Louis, Mo.) Conduct of mail balloting for Chapter Executive Board office. 27 March closing date for ballots.
- ALAMO CHAPTER. General membership business meeting. Planning for Chapter's Handicap Golf Tournament in April. Fort Sam Houston Officers' Open Mess. 28 March.
- RHINE VALLEY CHAPTER. Professional dinner meeting. Albert R. Beeunas, Product Support Manager, Bendix International, guest speaker. Subject: Air Weather Radar. Hors d'oeuvres on the Chapter.

Dinner and dancing. Patrick Henry Village Officers' and Civilians' Open Mess. 28 March.

- SHARPE ARMY DEPOT CHAPTER. Professional dinner meeting. Captain M. W. Campbell, United Air Lines, guest speaker. Subject: "The Boeing 747." Miss Mary Taylor assisted by other UAL stewardesses are to discuss that career and Chapter members were asked to bring their daughters. Sharpe Officers' Open Mess. 28 March.
- FORT SILL CHAPTER. General membership meeting. Late afternoon. Free beer and snacks. Members only. Henry Post Army Airfield. 28 March.
- LINDBERGH CHAPTER (St. Louis, Mo.). Co-sponsorship of AVSCOM-AAAA Advanced Planning Briefing for Industry (APBI), 7-9 April; Reception for registrants and wives, and Chapter members. Chase-Park Plaza Hotel Starlight Room, 1830 hours, 8 April. Ladies' Program: Cocktails and luncheon at revolving restaurant atop Stouffer's Riverfront Inn, followed by a trip to St. Louis' Shaw's Gardens. 8 April.
- SOUTHERN BAYARIA CHAPTER. General membership business meeting, Gablingen NCO Club, Gablingen Kaserne, Augsburg, Germany. 9 April.
- ARMY AVIATION CENTER CHAPTER. Business-Social meeting honoring the Allied students in attendance at Fort Rucker. Installation of new AAAA Chapter officers. Cocktails (Dutch Treat); Fried Chicken Dinner (Served at table). Officers' Lake Lodge. 15 April.

1969 "WHO'S WHO IN AA" TO BE PUBLISHED IN JUNE

The third edition of the worldwide Army Aviation Directory (Official title: U.S. Army Aviation 1969 Command and Staff Directory) will be published as the June 30, 1969 issue of "Army Aviation Magazine."

The Directory features name, address, and phone listing information for more than 3,000 military and Department of the Army civilian employees holding staff and command assignments within Army Aviation.

Unit, school, and aviation agency commanders will be forwarded reprints of '68 listings on April 1 for review and updating. Commanders of those units and agencies not listed in the 1968 Directory are requested to write for an appropriate Directory Form in care of "Army Aviation," 1 Crestwood Road, Westport, Conn. 06880.



MONMOUTH CHAPTER — Shown receiving an Honorary Membership in the Monmouth Chapter is BG Richard C. Horne, III, (right), Commandant of the Signal Center and School, The newly-assigned general officer received his certificate on 18 February from COL James L. Burke (I.), Chapter president and Special Assistant for Aviation and Aviation-Electronics at ECOM.



BLUEGRASS CHAPTER — New AAAA officer slate at Ft. Knox includes L-R (front): MAJ James D. Rockey (Secy); LTC William Klim, Jr. (Pres); and LTC Willis Pratt (ExVP). In rear row L-R are CWO Fred Lieb, Ret. (VP, Pub Aff); CPT Gary Lewis (Trea); Cy Reitman (VP, Indus Aff); and LTC Herman Bishop (VP, Reserve Aff).



AAAA IN PHOTOS



BLUEGRASS CHAPTER — MG James W. Sutherland, Commanding General of the U.S. Army Armor Center at Fort Knox, Ky., is shown addressing the Chapter membership as guest speaker at a recent professional-social dinner meeting. A Chapter Honorary Member, General Sutherland gave one of the major presentations at the '68 AAAA Annual Meeting in Washington.



MONMOUTH CHAPTER — Shown prior to the 18 Feb. AAAA dinner meeting are, I-r, Arthur H. Kesten, national Executive Vice President; COL J. J. Moran, Dep for Plans & Programs, ECOM; MG James Dreyfus, USA (Ret.), VP, Industrial Aff, Monmouth Chapter; and BG R. C. Horne, III, Commandant of the U.S. Army Signal Center and School.



NURNBERG CHAPTER — COL Kenneth D. Mertel, president of AAAA's USAREUR Region for '68-'70, is shown addressing a mid-February professional dinner meeting of the Nurnberg Chapter. COL Clarke T. Baldwin, Jr., Assistant Division Commander (Maneuver), 4th Armored Division, received an Honorary Membership during the meeting.

OBITUARIES

- ALEXANDER In Vietnam, Chief Warrant Officer Nicholas R. Alexander, 145th Combat Aviation Battalion, due to hostile action on November 27, 1968; husband of Mrs. Julie A. Alexander, 725 North Garfield Street, Algona, Iowa.
- BARKER In Victnam, First Lieutenant Dana R. Barker, 198th Infantry Brigade, due to hostile action on February 13, 1969; husband of Mrs. Brenda J. Barker, 4923 Twain Avenue, San Diego, California.
- BARNES In Vietnam, Warrant Officer Jackson D. Barnes, 145th Combat Aviation Battalion, due to an aircraft accident on February 1, 1969; husband of Mrs. Linda S. Barnes, 981 Sarazen, Rockledge, Florida.
- BOLHOUSE In Vietnam, Warrant Officer Dean F. Bolhouse, 269th Aviation Battalion, due to an aircraft accident on January 2, 1969; husband of Mrs. Lana J. Bolhouse, 32 South 50th Street, Lawton, Oklahoma.
- BURKHART In Vietnam, Warrant Officer Willard H. Burkhart, 9th Infantry Division, due to an aircraft accident, on February 5, 1969; husband of Mrs. Betty J. Burkhart, Sun Lake Ranch, Daleville, Alabama.
- CARLIN In Vietnam, Captain David A. Carlin, 1st Cavalry Division (Airmobile), due to an aircraft accident on January 16, 1969; husband of Mrs. Sue H. Carlin, 12508 West 52nd Street, Shawnee Mission, Kansas.
- COLLETT At Fort Worth, Texas, Chief Warrant Officer Benson M. Collett, assigned to the U.S. Army Bell Helicopter Plant Facility, due to an aircraft accident on February 2, 1969; husband of Mrs. Bettye A. Collett, 3532 Ruth Road, Richland Hills, Fort Worth, Texas.
- COX In Vietnam, First Lieutenant Sterling E. Cox, 7th Squadron, 17th Air Cavalry, due to hostile action on January 15, 1969; husband of Mrs. Joyce G. Cox, 5504 Inwood Road, N.W., Knoxville, Tennessee.
- CURRENCE In Vietnam, Captain William A. Currence, 212th Aviation Battalion, due to hostile action on January 15, 1969; husband of Mrs. Marianne C. Currence, AM Schuss 8, 817 Bad Toelz, Germany.
- DAVIS In Vietnam, Warrant Officer Sylvester Davis, 283rd Medical Detachment, due to hostile action on January 23, 1969; husband of Mrs. Roselyn A. Davis, Lot 18, 186 Hillview Court, Radcliff, Kentucky.

- ELLINGSON In Vietnam, Warrant Officer James E. Ellingson, 13th Aviation Battalion, due to hostile action on January 18, 1969; son of Mr. and Mrs. Herbert R. Ellingson, 22 Pleasant Street, Milo, Maine,
- EVERSOLE At Fort Wolters, Texas, Specialist Fifth Class William R. Eversole, assigned to the 2d Warrant Officer Company, due to an aircraft accident on February 18, 1969; son of Mr. and Mrs. Edwin M. Eversole, 1610 Lake Avenue, Pueblo, Colorado.
- FERRELL In Vietnam, Warrant Officer Walter L. Ferrell, 101st Airborne Division (Airmobile), due to an aircraft accident on January 27, 1969; son of Mr. and Mrs. Enoch E. Ferrell, Route 1, Box 630, Vashon, Washington.
- GILLES In Vietnam, First Lieutenant Alan C. Gilles, 52nd Aviation Battalion, due to hostile action on January 8, 1969; husband of Mrs. Nanci L. Gilles, 10372 Haddon Street, Pacoima, California.
- GRIGGS In Korea, First Lieutenant Richard J. Griggs, assigned to I Corps (GP), due to an aircraft accident on November 27, 1968; husband of Mrs. Sharon L. Griggs, 664 1st Avenue, Williamsport, Pennsylvania.
- GRISWOLD In Vietnam, Warrant Officer Scott C. Griswold, 52d Aviation Battalion, due to hostile action on January 24, 1969; son of Mr. and Mrs. Maurice D. Griswold, 1713 Silverwood Drive, San Jose, California.
- HAMILTON In Vietnam, Warrant Officer George K. Hamilton, 1st Cavalry Division (Airmobile), due to hostile action on February 12, 1969; son of Mr. and Mrs. George Hamilton, 7840 Northwest 26th Street, Hollywood, Florida.
- HARRISON In Vietnam, Warrant Officer William M. Harrison, 268th Aviation Battalion, due to hostile action on February 6, 1969; husband of Mrs. Brenda J. Harrison, 2201 Nebraska Street, Pecos, Texas.
- HAYWARD In Vietnam, Warrant Officer George E. Hayward, 101st Airborne Division (Airmobile), due to hostile action on February 5, 1969; son of Mr. and Mrs. George J. Hayward, 6248 Brooks Boulevard, Mentor, Ohio.
- HIGLEY In Vietnam, First Lieutenant Lynnford H. Higley, 223d Aviation Battalion, due to an aircraft accident on January 9, 1969; husband of Mrs. Shirley M. Higley, Route 1, Cummings, Kansas.
- HIX In Vietnam, Warrant Officer William C. Hix, Jr., 45th Medical Company, due to hostile action on February 5, 1969; son of Mr. William C. Hix, Sr., 7354 60th Street, South West, Miami, Florida.

- HUMPHRIES In Vietnam, Captain Gary D. Humphries, 1st Cavalry Division (Airmobile), due to hostile action on January 26, 1969; husband of Mrs. Betty M. Humphries, 5523 Beech Valley Drive, San Antonio, Texas.
- INGRAM In Korea, Chief Warrant Officer Julius H. Ingram, assigned to I Corps (GP), due to an aircraft accident on November 27, 1968; husband of Mrs. Mary A. Ingram, 2031 Gibson Street, Montgomery, Alabama.
- JANTZ In Vietnam, Warrant Officer Robert W. Jantz, 269th Aviation Battalion, due to an aircraft accident on January 2, 1969; son of Mr. and Mrs. Alvin Jantz, Box 278, Syracuse, Kansas.
- KAY At Fort Rucker, Alabama, Chief Warrant Officer Steven F. Kay, assigned to the US Army Aviation School Regiment, due to a Vehicle Accident on February 14, 1969; husband of Mrs. Patricia G. Kay, Townhouse Apartments #213, Enterprise, Alabama.
- KIRBY In Vietnam, Warrant Officer James E. Kirby, 223d Aviation Battalion, due to hostile action on February 11, 1969; husband of Mrs. Ruth A. Kirby, 1344 Marlboro Drive, Ann Arbor, Michigan.
- LAPAN In Vietnam, Chief Warrant Officer George F. Lapan, 1st Cavalry Division (Airmobile), due to an aircraft accident on January 16, 1969; husband of Mrs. Carol A. Lapan, 43 Mary Jane Lane, Florence, Massachusetts.
- McCRARY In Vietnam, Warrant Officer Ronald S. McCrary, 10th Aviation Battalion, due to an aircraft accident of January 3, 1969; son of Mr. and Mrs. Joe E. McCrary, Sr., 615 N. McCrary Road, Columbus, Mississippi.
- McDONNELL In Vietnam, Warrant Officer William H. McDonnell, 52d Aviation Battalion, due to hostile action on January 24, 1969; son of Mr. and Mrs. William J. McDonnell, Spring Garden Mill Drive, Newtown, Pennsylvania.
- MITCHELL. In Vietnam, Warrant Officer Mark D. Mitchell, 25th Infantry Division, due to hostile action on January 17, 1969; husband of Mrs. Susana I. Mitchell, 548 S. 5th Avenue, La Puente, California.
- PETERS In Vietnam, Warrant Officer Kenneth W. Peters, 13th Aviation Battalion, due to hostile action on January 18, 1969; husband of Mrs. Judith M. Peters, 6114 North Fairhill Street, Philadelphia, Pennsylvania.
- PETTEYS In Vietnam, Warrant Officer James B. Petteys, 7th Squadron, 17th Air Cavalry, due to hostile action on January 15, 1969; son of Mr. and Mrs. Lloyd W. Petteys, Route 3, Shippensburg, Pennsylvania.

OBITUARIES

- POOLE In Vietnam, Captain Otha L. Poole, 45th Medical Company, due to hostile action on February 5, 1969; husband of Mrs. Donetta D. Poole, RR 3, Box 53-C, Kilgore, Texas.
- ROCHE In Vietnam, Warrant Officer Jon P. Roche, 52d Aviation Battalion, due to hostile action on January 8, 1969; son of Mr. and Mrs. Richard M. Roche, 12 Bennett Street, Canisteo, New York.
- SELLNER In Vietnam, Warrant Officer Charles E. Sellner, 269th Aviation Battalion, due to an aircraft accident on January 2, 1969; husband of Mrs. Connie M. Sellner, 4041 Wooddale Avenue, St. Louis Park, Minnesota.
- SHAFER In Vietnam, Captain Thomas J. Shafer, 223d Aviation Battalion, due to an aircraft accident on January 9, 1969; husband of Mrs. Patricia A. Shafer, 5340 Rimrock Court, Fayetteville, North Carolina.
- SILVERBERG In Vietnam, Warrant Officer Arvid O. Silverberg, Jr., 283rd Medical Detachment, due to hostile action on January 23, 1969; son of Mr. and Mrs. Arvid O. Silverberg, Sr., Ragged Hill Road, West Brookfield, Massachusetts.
- SWIDONOVICH In Vietnam, First Lieutenant Nicholas J. Swidonovich, 212th Aviation Battalion, due to hostile action on January 15, 1969; son of Mr. and Mrs. John Swidonovich, 22 East Street, South River, New Jersey.
- TAYLOR In Victnam, First Lieutenant David E. Taylor, 3d Squadron, 17th Cavalry, due to hostile action on January 20, 1969; husband of Mrs. Rocklyn Taylor, 1110 East Railroad Street, Sandwich, Illinois.
- TAYLOR In Vietnam, First Lieutenant Deane A. Taylor, Jr., 198th Infantry Brigade Americal Division, due to hostile action on January 15, 1969; husband of Mrs. Hattie L. Taylor, c/o Mr. and Mrs. Deane A. Taylor, Sr., 2593 Circlewood Road, Northeast, Atlanta, Georgia.
- THOMAS At Fort Monmouth, New Jersey, Chief Warrant Officer Frank M. Thomas, assigned to the Avionics Laboratory, US Army Electronics Command, due to an aircraft accident on February 6, 1969; husband of Mrs. Lucy M. Thomas, 155 South Pemberton Avenue, Oceanport, New Jersey.
- TRONERUD In Vietnam, Warrant Officer Stephen L. Tronerud, 1st Cavalry Division (Airmobile), due to an aircraft accident on January 7, 1969; husband of Mrs. Nam Sun Sin Tronerud, 830 North Union Boulevard, Colorado Springs, Colorado.

ARMY AVIATION REVIEW

(Continued from Page 12)

Most of their battles are unsung. Most of the effort is labor unnoticed, except in-house. Most of their effort will not see fruition in their tour. Few of their families will understand. Before I get maudlin and before you get bored, I wish to merely state you are being served by some of the finest officers with whom I have ever had the privilege to be associated.

At times we identify a single officer so intimately as the single expert in a particular field, that it is hard to ever conceive of his departure, even though we have lived with the thought that no one is indispensable. Fortunately, Army Aviation has great depth in most areas and Colonel Marr at OPO is always able to find an excellent replacement for the so-called "indispensable man."

If you are selected for a DA Staff position, you may be assured that you will be facing a great challenge. You can also be confident that your records were most carefully

LURKERS, CATS, ETC.

(Continued from Page 23)

by dressed in Army uniforms of the Civil War era.

A slight safety problem also arose when the Federal Aviation Administration considered the possibility of some drunk cutting himself loose in front of the Sheraton-Park Hotel and enjoying a free-flight over the White House, National Airport, and other Washington obstacles.

. . . and more problems

Mr. Halaby had to be convinced that the balloon would be so anchored and guarded that this possibility could not occur. I will not go into the insurance disclaimers and other problems that we had to fill out before the "Enterprise" finally sat in all its glory in front of the Sheraton-Park.

There was a sequel, too, that was rather important. Having gone to all that trouble, we felt it most appropriate to screened by many people. An assignment to the Pentagon has often been described as a "hardship tour" – and in a sense, it is. However, it is a special opportunity and will be an education that cannot be received any other way.

VULNERABILITY!

(Continued from Page 20)

to evacuate helicopters which heretofore might have been destroyed, but, which can now be recovered within a few minutes after being knocked down or deliberately landed due to emergency conditions. Damaged birds are quickly evacuated and returned to a repair facility where they can rapidly be put back in operation.

As far as casualties are concerned, the number of pilots, co-pilots, crewchiefs and gunners wounded and killed is small compared to other casualties in the Vietnam War.

Man still lives on the battlefield. Helicopter vulnerability simply is not proving to be the bugaboo one would think it would be.

send a message to President Kennedy from the balloon just as the Professor sent a message by telegraph to Abraham Lincoln 100 years before.

With great effort we connected the telegraph key to the balloon and sent off an appropriate telegram quoting Lowe's comments when he ascended from the lawn over the White House to the effect "that he could see 50 miles in all directions." (Since then, no one has had 50 miles visibility in the Washington area).

The message having been dispatched; the Convention being over; the Navy having been paid for their helium; and, everyone having gone back to work, the story should have ended. However, still another footnote has to be added. Two weeks after the event, I received a package of action papers marked "Most Urgent" and buried under initials from the President's Military Attache, and through the Department of Defense on down, at the bottom of the pile was our telegram to the President with the comment, "Prepare Appropriate Reply."

mantha talzaaffa

PCS - GENERALS

POWELL, Edwin L., Jr.BG 2111 Jefferson Davis Hwy Arlington VA 22202 WILLIAMS, Robert R., MG OACSFOR (DA) Washington DC 20310

COLONELS

DILLARD, Robert J. 414 Iron Lantern Drive Ballwin MO 63011 DRUENER, Hanz K. 16th Avn Gp, Americal Div APO San Francisco 96374 LAMBERT, Robert O. Libertytown Maryland 21762 MAHONE, Nelson A., Jr. Box 474 Sunnyside FL 32461 MAHONE, Worthington M. 8030 Lynnfield Drive Alexandria VA 22306 ROGERS, George 4111 Breezewood Lane Annandale VA 22003 SCHAAD, Carl W. I.L.Dir. ODCSLOG (DA) Washington DC 20310 SMITH, James C. HHC, 101st Abn Division APO San Francisco 96383

LT COLONELS

ADESSA, Anthony J. S-F BRISUPCOM) USAADS Ft Bliss TX 79916 ANDERSON, Julian A. Hq USARV (Aviation) APO San Francisco 96375 ANDERSON, Nils B. 4 Wheeler Place Ft Stewart GA 31313 ARTHUR, Cecil D. HHC, 8th US Army APO San Francisco 96301 AUFILL, John S. 548 North 77th Street Omaha NB 68114 BAKER, Wallace I. DA (AMC) AAFSS Office Washington DC 20315 BEARDEN, William A. 2300 S.E. 10th Street Mineral Wells TX 76067 BEASLEY, Lewis E. 7311 Statecrest Drive Annandale VA 22003

PCS - LTCS

BLUNCK, Stanley R. 34 Goff Street Daleville AL 36322 BRADSHAW, John N. Doc-Sys Dir.OACSFOR Washington DC 20310 BRANDENBURG, John N. 201 Oklahoma Drive Portales NM 88130 BUSH, Franklin D. Hg USCONARC Ft Monroe VA 23351 CASPER, Donald T. 81 3d Infantry Road Ft Leavenworth KS 66027 CHAPPELL, James H. 31 Astor Drive Newport News VA 23602 CLARK, Paul E. 2782 Tracy Place Ft Eustis VA 23604 COCHRAN, John R. 3 Dickman Avenue Ft Leavenworth KS 66027 COOPER, Robert G. 302 College Street Albertville AL 35950 DAVIS, Willie L. 4590 Dawn Court Columbus GA 31903 DELOACH, William W. 4391 14th Street, N.E. St. Petersburg FL 33703 DIAL, David M., Sr. 7735 Hunt Club Road Columbia SC 29206 DUKE, Walter, Jr. 2066 Wyandotte Avenue Owensboro KY 42301 DUNCAN, William L. Hq USARV (Aviation) APO San Francisco 96375 DUNNE, Robert V. 7256 Wynterway Indianapolis IN 46250 FALLS, John USA Elet Sup Cmd Avn Det Lakehurat NAS NJ 08733 FELLERHOFF, John H. USAREUR 7th Army Trps. APO New York 09102 FORD, Eddie L. 1350 Magruder Road Ft Sill OK 73503 GARTEN, Lynn W. 5720 North 52d Street Omaha NB 68104 GILLINGHAM, Richard I. 414 Grant Avenue

Ft Leavenworth KS 66027

PCS - LTCS

LEWIS, Glenn W. GLIDDEN, Harry R. 468-B Gulick Drive Pt Monroe VA 23351 GROW, Robert M. 405 Baltzell Avenue Ft Benning GA 31905 HANNON, James P. 346th ASD APO San Francisco 96357 HANSON, Gerald H. Sup-Maint Agency A-E Div APO New York 09052 HARBISON, Hunter G. 1880 Cornelia Lane Memphis TN 38117 HATTON, Richard R. Sharpe Army Depot Lathrop CA 95330 HAWTHORNE, James D. Alligator Point, Box 109A Crawfordville FL 32327 HEUER, Martin USA Adv Gp., Rt 2, Bx 41 West Bend WI 53095 HODGES, George A., Jr. P.O. Box 685 Ft Rucker AL 36360 HUMPHRYS, James G. Hq 24th Infantry Division Pt Riley KS 66442 JACKSON, William B. 8516 Cherry Valley Lane Alexandria VA 22309 JACOBS, Norman P. 3902 25th Avenue Phenix City AL 36867 JOHNSON, Benjamin C. P.O. Box 214 Pt Monroe VA 23351 JOHNSON, Flavil L. 7 Marvin Drive Newport News VA 23602 JONES, Charles R. 17 Dickman Ft Leavenworth KS 66027 JONES, Isaac R. 1527 Cunard Road Columbus OH 43227 JONES, Robert N. 5617 Broadmoor Street Alexandria VA 22310 KALLESTAD, Richard D. 1313-C Schofield Brks. APO San Francisco 96557 KENNINGTON, Edward R. P.O. Box 832 Ft Huachuca AZ 85613 LEWIS, Charles J. G-3 A.A., CMR 2094 APO San Francisco 96576

PCS - LTCS

1331-D Wickham Street APO San Francisco 96557 McDONALD, James A. P.O. Box 652 Albrook AFB, Canal Zone McGUFFIN, Robert F. Route 5 Paris TN 38242 McHENRY, Paul M. P.O. Box 127 New Llano LA 71461 MILLER, John J. 56 Ticknor Drive Columbus GA 31905 MILLER, Nesbert L. US Army Cmbt Surv. Sch. Ft Huachuca AZ 85613 OAKLEY, Harold G. Hq 1st Support Bde APO New York 09086 PEPPARD, John J., Jr. 8th Army Aviation Section APO San Francisco 96301 POOLE, Joseph H. 15 Baker Street Ft Rucker AL 36360 POTTER, Floyd E. 7988 Crainmont Drive Glen Burnie MD 21061 PROSSER, Eugene K. 556A South Trenton Ave. Pittsburgh PA 15221 REESE, Neil 3390-B Monroe Street Carlsbad CA 92008 REYNOLDS, Robert H. 532 Miller Avenue, Apt 2 Trenton NJ 08610 ROSE, Harold L. 1430 Lawrence Avenue Leavenworth KS 66048 SALT, Terry C. 209 Rome Road Ft Ord CA 93941 SANDIDGE, Charles R., Jr. HHC, 8th Infantry Division APO New York 09111 SEMMENS, Phillip D. 105 Monta Vista Pullman WA 99163 SISBARRO, John R., Jr. 7613 Crawford Court Alexandria VA 22310 SMITH, Courtney E., Jr. 10101 Little Road Bloomington MN 55431

Father-Son I

FORT WOLTERS, TEX. — MG Anthony T. Shtogren, USAF, congratulates his son, Army Captain Thomas A. Shtogren, who was one of the 314 flight students completing primary rotary wing flight training at the Army Primary Helicopter School in mid-February. General Shtogren was the guest speaker for the graduation exercises. He serves as deputy director, Communications-Electronics, Joint Chiefs of Staff, The Pentagon. Behind Captain Shtogren is COL Lloyd G. Huggins, School commandant, and at the left is COL James D. Bowen, assistant commandant.



PCS - LTCS

SMITH, John R. P.O. Box 1448 Ft Benning GA 31905 STANDLEY, Robert J. 6717 Old Chesterbrk Rd. McLean VA 22101 STEARNS, Robert D. East Side Avenue Mattituck NY 11952 THOMAS, John W. 11305 Cypress Vlg Dr.,#4 St. Ann MO 63074 VASSEY, Lyman W. 31 Goff Street Daleville AL 36322 WALKER, Ronald T. 8304 Accotink Road Newington VA 22122 WHEELER, Robert J. STAE-FO, 12th & Spruce St. Louis MO 63166 WHITTEN, Millard Quarters T-496 Ft Belvoir VA 22060 WILKES, Donald D. 67 Endl Avenue Ft Rucker AL 36360 WILLIAMS, Clemontene USAREUR DCSLOGMob) APO New York 09403 WILLIAMSON, Wiley T. 305 Oak Ridge Road Cary NC 27511 WOODMANSEE, Donald R. 2865 So. 93d Plaza, Apt 2D Omaha NB 68124 WOODRUFF, Albert R. 128 Diggs Drive Hampton VA 23366

MAJORS

ANDREWS, Raymond G.
905 Lincoln
Copperas Cove TX 76522
AUTH, Richard W.
316 Pasture Lane
Hampton VA 23369
BALL, Eldon K.
5926-1 Dupas Street
Ft Hood TX 76544

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PCS - MAJORS

BIRELEY, Judson L. 513 Upper North Lauman Ft SIII OK 73503 BISBEY, Jay B. 35 Johnson Street Ft Rucker AL 36360 BISSELL, Norman M. 114 Union Street Marshfield MA 02050 BOERNER, Dennis H. 9604 Caltor Lane Oxon Hill MD 20022 BORTH, Alfred G. 45th Medical Co (AA) APO San Francisco 96491 BOSKING, William H. 118 Valley Road Neptune NJ 07753 BRAFFORD, Robert T. 16 Lemoy Street Ft Bragg NC 28307 BRYANT, Carlie E., Jr. 5561 Eisenhower Drive Lawton OK 73501 BUTLER, Billy C. 27 Irwin Ft Rucker AL 36360 CALVERT, William E. 205 Loch Lane Columbia MO 65201 CANFIELD, James D. 1953 Bryn Mawr Drive Stow OH 44224 CARROLL, William F. 421 Pacific, #203 Alameda CA 94501 CARTER, Norman D. 2116 Bulla Street Greensboro NC 27406 CHRISTOPHER, Harry G. 76 Rexford Drive Newport News VA 23602 CLARK, Thomas J., III 1761 Carr Avenue Memphis TN 38104 COBB, Edward R., Jr. Avel Co-N, 14th Trans Bn APO San Francisco 96240 DANTZLER, William D. Bx 57,Svc Det (USAAVNS) Pt Stewart GA 31313 DAVIS, Marion L. 9309 Westview Dr., S.W. Tacoma WA 98498

PCS - MAJORS

DENNISON, Gary V. Hq USARSO, Ft Amador APO New York 09834 DEW, Donald L. MAAG, Iran APO New York 09205 DILLARD, Hugh B. 25 Wheeler Avenue Ft Stewart GA 31313 DOYLE, John P. 304-3 Third Street Ft Leavenworth KS 66027 DUGAN, Daniel C. 10265 Bayo Avenue El Paso TX 79925 DUNAGAN, Clarence M. 416 Marvle Court Newport News VA 23602 ESTEP, William H. 3654 Honeycut Road Salt Lake City UT 84106 EVANS, Wallace M. TUSLOG, Det 4, Box 507 APO New York 09133 FILER, Robert E. US Army Arctic Test Ctr. APO Seattle 98733 FISHER, William R. 5680-B Brett Drive Ft Knox KY 40121 FORD, Jimmie S., Sr. 3335 Keith Avenue Killeen TX 76544 FOURSON, George R. 12005 Avenue "D", NAS Corpus Christi TX 78419 GARNEAU, Lucien R. 4006 Winfield Court Bowie MD 20715 GARNER, John L. USATSCH, TOAC 2-69 Ft Eustis VA 23604 GILLETTE, William P. Hq 7/1 Cavalry APO San Francisco 96357 GILLHAM, John N., Jr. 101 Mayer Drive Savannah GA 31409 GOODIN, Donald K. 4336B Warhawk Street Ft Knox KY 40121 GREENE, Robert P. P.O. Box 424 Hollis NH 03049

PCS - MAJORS

HARPMAN, David A. 1809 Kingman Street Leavenworth KS 66048 HARRELL, John W. 35 Logan Street Ft Rucker AL 36360 HARRIS, Bruce R. HHC 11 Avn Gp., 1 Air CD APO San Francisco 96490 HOGAN, James H. 601 South 15th Street Copperas Cove TX 76522 HOWELL, Thomas R. HHC 1st Aviation Brigade APO San Francisco 96384 JACOBSON, Charles H. 53 Andrews Drive Daleville AL 36322 JENKINS, John J. 311 Salem Salina KS 67401 KELLIM, Ronald R. 1150 Vultee Blvd., #J105 Nashville TN 37217 KIDD, David D. 4307 Williams Lawton OK 73501 KNEISS, Richard F. Route 2, Box 10 Chipley FL 32428 LAGRANDEUR, Ken. W. 15th Support Brigade Ft Lewis WA 98433 LEISTER, Glenn A. 301 South 6th Street Kingfisher OK 73750 LETHCOE, Gerald E., Jr. Box 423 Ft Rucker AL 36360 MARSHALL, Thomas J. 309 Mockingbird Lane Weatherford TX 76086 MARTIN, Francis B. 410-9 Kearney Ft Leavenworth KS 66027 MARTIN, Geary D. 12409 Largo Dr., Apt 47 Savannah GA 31406 McGLAUN, Harold N. 68 Stanley Drive Newport News VA 23602 McGOWAN, John J. 377th Medical Co. (AA) APO San Francisco 96220





Father-Son III

VIETNAM — Specialist Four James A. Ellsworth "just happens" to bump into his father, Captain Johny E. Ellsworth, a member of the 346th Bomber Squadron, in front of the 1st Cavalry Division Headquarters. Captain Ellsworth visited the First Team with 11 other B-52 crew members to get a ground-level view of the contribution made by the B-52 strikes. The group was briefed on the airmobile concept and given a tour of the aviation facilities at the headquarters. Specialist Ellsworth is assigned to the 11th Aviation Group at present.

PCS - MAJORS

McKENZIE, Robert C. 101-B Running Avenue Ft Benning GA 31905 MILLER, Charles L. 1320 Ponderosa Drive Petaluma CA 94952 MILLER, Ronald A. 45 Germain Street Calais ME 04619 MORGAN, Glenn E. 7513 Buchanan St., Apt 26 Landover Hills MD 20784 MORGAN, Lloyd H. 2105-A Irwin Street Ft Eustis VA 23604 MURPHY, Donald G. 247th Medical Det. (HA) APO San Francisco 96370 NAUMANN, Ralph E. HHC 12th Cmbt Avn Gp APO San Francisco 96266 NEAL, Robert L. Hq XXIV Corps, Avn Sect. APO San Francisco 96308 NEWTON, Robert W. 31 Liggett Avenue Pt Leavenworth KS 66027 NORTHRIDGE, Henry R. 56 Salisbury Street Manchester NH 03104 OKANE, Robert F. 17 Kirby Street Ft Rucker AL 36360 PARKER, Purvis L. 816 9th Avenue Leavenworth KS 66048 PETERSEN, Loren N. 201st Aviation Company APO San Francisco 96350 PETERSON, Richard N. 10 Howard Pt Rucker AL 36360 PHILSON, Maurice N. 187 Corinthia Drive Newport News VA 23602 PORTER, Gerald E. USA Flt Opn Facility EUR APO New York 09102 PRATER, George F. 1768 Laine Avenue Santa Clara CA 95051 RAETZ, Paul E. 135th Asit Helicopter Co APO San Francisco 96530

PCS - MAJORS

REED, James R. 2422 Jackson Parkway Vienna VA 22180 RICE, James M. 67th Aviation Company APO New York 09061 RICHTER, Edwin L. Star Route, Box 110A Mineral Wells TX 76067 RIXON, M.D. P.O. Box 159 Brookdale CA 95007 ROBERTS, Donald A. 94 Red Cloud Road Ft Rucker AL 36360 ROCHE, Gregory F., Jr. 1921 Pottawatomie Street Leavenworth KS 66048 SALIGA, Richard P. 304 Briar Cliff Road Ozark AL 36360 SANTULLI, John F. Hqs, Svc Co, 1 Sch.Spt Bn Ft Stewart GA 31313 SCHRAND, Gregory J. 1988-A Van Voorhis Pt Eustis VA 23604 SEERY, Joseph P. Hq 194th Armored Bde Ft Knox KY 40121 SIEGLING, Wm. A., Jr. 4521 Foreland Place Orlando FL 32806 SILVEY, Bruce D. 715 S.W. 49th Street Lawton OK 73501 SMITH, Allan L. 35 Habersham Pt Stewart GA 31313 SMITH, Duane N. 438-B Nicholson Road Ft Shqridan IL 60037 SMITH, John R. 111 Pine Crest Drive Greensboro GA 30642 SNAVELY, Charles C. 95336 Malculu Pl., Mililani Wahiawa HI 96789 SOUPENE, James C., Jr. Hq 198th Maintenance Bn Ft Knox KY 40121 SPENCE, William C. 2554 Mesa Columbus GA 31903

PCS - MAJORS

SQUIRES, Myron E. 801 Brazos Drive Mineral Wells TX 76067 STADLER, Louis J. 4365 Herschel Road College Park GA 30337 SWIFT, Ivan C. 3725 Bayou Place Holt MI 48842 TRIVELEY, Thomas H. 139 Traynor Avenue Savannah GA 31405 VAN DUSEN, Charles E. HHC 222d Cmbt Avn Bn APO San Francisco 96530 VICKERS, Anthony M. 113 Luzon Street Ft Bragg NC 28307 VOELKEL, Eugene Hgs 6th Bn. 10th Arty APO New York 09139 WATKE, Frederic W. 37 King Avenue Ft Leavenworth KS 66027 WEATHERSBY, Robert E. 105 Red Cloud Road Ft Rucker AL 36360 WEIGHT, J. Orman ODCSOPS, USAREUR APO New York 09403 WEST, Thomas C. Hq 34th General Spt Gp APO San Francisco 96309 WHITWORTH, William E. Elm Hill Rd., Box 360, Rt 1 Nashville TN 37214 WILSON, Donald E. 67th Aviation Company APO New York 09061 WINGATE, Charles S. 151 Traynor Avenue Savannah GA 31405 YOUNG, Bernie L. 507 Ridge Street Copperas Cove TX 76522 CAPTAINS

ARMSTRONG, Robert C. 1522 East Boyd Norman OK 73069 BARNES, Thomas L. 1450 Rosewood Drive Montgomery AL 36111

PCS - CAPTAINS

BENSON, Ronald R. 10557 Ramey Circle El Paso TX 79908 BRAUDAWAY, Jessie A. 700 West Nettie Kingsville TX 78363 BRISSON, Robert F., Jr. 29-A Battle Park Ft Benning GA 31905 BURLEY, Earl B. 41 Johnson Ft Rucker AL 36360 CABLE, Murry L. 1443 Wall, Apt 2 San Bernardino CA 92404 CARTER, Willard T. 1937 Kennedy Dr., Apt T3 McLean VA 22101 CHIOTA, Robert J. 144-A Eatoncrest Drive Eatontown NJ 07724 CHIRICHIGNO, Luis G. 95 Maas Drive Pt Bragg NC 28307 CORDELL, Jerry R. 1120-D Thompson Circle Ft Eustis VA 23604 COUCH, Jacob B., Jr. 2104 North 32nd Avenue Birmingham AL 35207 CRITCHFIELD, John B. 302 Elizabeth Avenue 28043 Forest City NC EBERT, Marlin J. 209 South Lang Avenue Pittsburgh PA 15208 ESTES, Robert A. 726 Loda Drive Cincinnati OH 45245 HAAS, Edward W., III Box 585 Ft Wolters TX 76067 HAMILTON, Victor A. 122-B Kessler Drive Ft Benning GA 31905 HARDEMAN, Billy J. 3619 Kildee Court Columbus GA 31906 HAWKINS, Richard B. Daleville Inn, Apt 506 Daleville AL 36322



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For further information on the Solar gas turbines and their many applications in the aircraft field, write: Solar, Dept. Q-260, San Diego, Calif. 92112.



CONUS Test-Firing

CORPUS CHRISTI, TEX. — Test pilots Bill Fette (left) and Bryan Hutchinson check the gunsights on a HueyCobra just before conducting static and aerial test-firing of the gunship's armament at the nearby Matagorda Isialdn Air Force gunnery range. Although the Army Aeronautical Depot Maintenance Center (ARADMAC) had taken on the HueyCobra overhaul and repair program in late 1968, it did not test-fire the aircraft's sophisticated weapons system until mid-February. Several hundred of the Cobras are already in use in Vietnam.



PCS - CAPTAINS

HAYES, Herbert W. 203rd RAC APO San Francisco 96316 HIGGINBOTHAM, J.L. 179-B Arrowhead Road Pt Benning GA 31905 JACOBY, Thomas G. 4005 Hillswind San Antonio TX 78217 JOHNSTON, William E. 56th Aviation Detachment APO New York 09028 LAPOINTE, Raymond J. Elm Farm Mob Hms., #105 Woodbridge VA 22191 LUND, Steven C. Co E, 725 Maint Bn, 25 LD. APO San Francisco 96225 MELLOR, John L., Jr. 1801 N. 4th, Apt, 24 Killeen TX 76541 MITCHINER, Marvin E., Jr. Officer Student Company Ft Rucker AL 36360 MITTAG, Carl F. OSC RWQ, CRS 69-10 Ft Rucker AL 36360 MOSORIP, John Jr. 1016-A Kessler Court Ft Benning GA 31905 MURRAY, Thomas E. 3011 Cimarron Trail Lawton OK 73501 OSTHELLER, Ralph W. Hqs 8th Sqdn, 1st Air Cav Pt Knox KY 40121 RHODEHAMEL, Kurt A. 1502 Southeast 11th Street Mineral Wells TX 76067 RUNK, Adam E. 21 Rexford Drive Newport News VA 23602 RUSHFORTH, Durward M. Co A, 227 AHBN, 1Cav Div APO San Francisco 96490 SHELLER, Ronald E. 110th Aviation Det APO New York 09168 SOLTES, Charles R. 651 Antrim Drive, Apt 8B Newport News VA 23601

PCS - CAPTAINS

SUMMERFELDT, David G. 529-C Beluga Street APO Seattle 98749 TAUSCH, Walter E. 5167 Olive Ranch Road Roseville CA 95678 TETU, Robert G., Jr. CMR, Box 4656 APO New York 09057 TIGGES, Kenneth D. HHC 164th Avn Gp., S-3 APO San Francisco 96215 VAN METER, Stephen D. Box 357, OSD-OMR Ft Monmouth NJ 07703 WARREN, Billy J. 410 So. 2nd St., Box 91 Killeen TX 76541 WHIPPLE, Robert E. 123 Hudson Avenue Redbank NJ 07701

LIEUTENANTS

AIKIN, George L. 17 Mt. Pleasant Trl Park Middletown DE 19709 ANDERSON, David 94-06 34th Avenue Jackson Hts NY 11372 BEATTON, KILW. 220-B So. Santa Anita Ave. Arcadia CA 91006 BINKLEY, Johnny A. Route 2, Rainey Road Macon GA 31204 BOHN, Peter N., II 3 North Fair Avenue Ozark AL 36360 BOYER, Larry W. Box 154, R.D. 1 Rural Valley PA 16249 BURKE, Charles M. 3201 Leith Lane, Apt 717 Louisville KY 40218 BUTLER, Gary R. 23 Brookebury Dr., Apt 2D Reisterstown MD 21136 CARLIN, Dennis A-377th Arty, 101st Abn APO San Francisco 96383 CARR, James C. 21 Fairview Road Milford MA 01757

PCS - LIEUTENANTS

COYNER, Joe D., Jr. Shady Oaks Mbl Hms.,#32 St. Albans WV 25177 ELLIOTT, Gary L. Box 51 Mustang OK 73064 GIBSON, Robert J. 1717 No. Catalina., Apt 22 Tucson AZ 85716 GOULD, Leroy D. 680 S.Burlington Ave.#331 Los Angeles CA 90057 GREENFIELD, Ronald B. 316 Greenwood, Apt B Collinsville IL 62234 GRIFFIN, Larry W. Drawer I Palacios TX 77465 HAMILTON, James R. 3902 Lori Drive, Apt 6-2 Erlanger KY 41018 HODGEBOOM, James M. 12014 35th Avenue, N.E. Seattle WA 98125 HOVERMAN, Raymond L. 5163 Ballantrae Court Cincinnati OH 45238 JAMES, Arthur D. 25 River Street Ft Plain NY 13339 KIRKPATRICK, Terry L. Box 287 Mountain Grove MO 65711 LANGLEY, Donald H. 11528 Lakeshore Drive Creve Coeur MO 63141 LAWSON, Willie A. 1743 Churchill Way Oklahoma City OK 73120 LOWE, Norman W. 101 Abn Div. 4 Bn. 77 Arty APO San Francisco 96383 MINER, George L. 326 Med Bn, 101 Abn Div APO San Francisco 96383 MORRISSEY, Curtis M. C Trp, 3/17 Air Cavalry APO San Francisco 96289 MUENDEL, Edmund F. TUSA Flight Detachment Ft McPherson GA 30330 NEFF, Jerry L. 142 Burgess Williamsburg VA 23184

PCS - LIEUTENANTS

OLSON, Robert A. TOPO Trng Team, Bx 400 APO New York 09205 PARCHER, Dick L. 8415 Franklin Ave., Apt 20 Des Moines IA 50322 PISCIOTTA, Paul V. B Trp, 1Sqdn, 1 Air CD APO San Francisco 96490 PULLIAM, James B. Box 6 Ringgold GA 30736 RICHARDSON, Patrick D. 350 Durdin Drive Silsbee TX 77656 SLINDE, Gary A. 2366 Erwin Lane, Lot 40 Lawton OK 73501 STEWART, Patrick E. 2898 Neal Drive Lexington KY 40503 TATE, Jerry L. 11 GenSpt Avn, 1Air CD APO San Francisco 96490 THOMPSON, Wilbert W. 7 Wenonah Avenue Essex Jet VT 05452 TOUPS, Dana H. HHD 9 Avn Bn, 9 Inf Div APO San Francisco 96370 TROTTER, John T., Jr. 6908 Serrano Drive Ft Worth TX 76101 VANCE, Gordon L. AMOC 15, USATSCH Ft Eustis VA 23604 WALLER, Hugh W. Wmsburg E.Apts., #570B Williamsburg VA 23185 WYNNE, Oscar B., III 1505 West Adams Enterprise AL 36330

CW2 - CW4

ALLEN, James M.
109 Dilts Drive
Newport News VA 23602
AMAN, George H.
USARV Trans Detachment
APO Sas Francisco 96375
AMBS, Thomas L.
13441 Warwick Blvd., #27
Newport News VA 23602



Right at Home!

VAN NUYS, CALIF. — British Air Marshal Sir Peter Wykeham, a former RAF test and fighter pilot, feels right at home in the cockpit of the U.S. Army AH-56A Cheyenne combat helicopter during a visit to the Lockheed-California plant where the winged rotorcraft is being built. Rotarywing qualified, Wykeham holds the U.S. Air Medal, awarded for attached service with the USAF in Korea in 1950. Pointing out features of the new Cheyenne is William Dillen, Lockheed rotary-wing international sales manager.

PCS - CWOS

BAILEY, Jack M. 73d SAC APO San Francisco 96291 BARNABA, Robert J. Box 271 Ft Rucker AL 36360 BAYER, William B. 440 So. Orange St., Apt 1 Media PA 19063 BENEFIELD, Bennie B. 122d Aviation Company APO New York 09165 BIAS, James E. Route 1 Enterprise AL 36330 BIRCH, Christopher E.M. 19th Aviation Company APO San Francisco 96271 BOHANNAN, Tommy L. 533 Begonia Street Escondido CA 92025 BRACKEN, Evan A. 202d N.W. 25th Street Mineral Wells TX 76067 BRAZIL, John E. Route 1 Hobart OK 73651 BROWN, Roy D. 360 Ardennes Circle Ft Ord CA 93941 BURGESS, Norris A. HHC 1st Aviation Det. Ft Hood TX 76545 CLINE, Arthur L. E. 12824 Valleyway Spokane WA 99216 COURTNEY, William C. 4107-A N.E. 4th Street Mineral Wells TX 76067 CROSWELL, Leeroy W. 112 Kinnon Drive Enterprise AL 36330 DOBBS, Robert V. 1018 South Bell Dothan AL 36301 DOZIER, Marcellus C. Route 2, Box 209 Gonzales TX 78629 ELEAM, Gerald L. 1401 Metropolis Street Metropolis IL 62960 ELLIS, George F., III 106 Red Cloud Road Ft Rucker AL 36360

PCS - CWOS

ELLIS, Samuel F. HHC 2d Support Brigade APO New York 09757 ERWIN, George M., Jr. 314 East 55th Street Savannah GA 31405 FEUTZ, Lester P.O. Box 742 Fairborn OH 45324 GIDNEY, Robert N. USATSCH, AMOC 14-69 Ft Eustis VA 23604 GOLDEN, Robert T. P.O. Box 745 Milton WA 98354 GREENAUER, George K. Box 135 Cheedtowaga NY 14225 GROFF, Gerald A. 283 West Rutland Road Milford CT 06460 GUNN, Bruce R. 5444-C Brett Drive Ft Knox KY 40121 HAFNER, Stephen F. 603 S.E. 26th Avenue Mineral Wells TX 76067 HARGROVE, William T. 4596 Dawn Court Columbus GA 31903 HATFIELD, Ray W. 8 Van Nuys Boulevard Savannah GA 31406 HIERHOLZER, Anthony G. 121 South Eureka Avenue San Bernardino CA 92410 HILL, James H. 237 Roxie Drive Florence AL 35630 HILLIKER, Wesley L. Route 3 Ozark AL 36360 HOLMES, Thomas E. 2328-D 13th Street Ft Eustis VA 23604 HORTON, Christopher A. 2231 Melton Avenue Macon GA 31201 HUTCHINSON, William A. 2214 Stanley Street Orlando FL 32803 JACOBSON, Duane M. C169-6 BAMO, SE Stg.Sch. Ft Gordon GA 30905

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JAMES, Milton B. HHC 1st Aviation Bde APO San Francisco 96384 JONES, Brady C. 19th Aviation Company APO San Francisco 96271 JONES, Howard W., Jr. 156-B Colony Road Newport News VA 23602 JONES, James L. BOQ 2114, Room 41 Ft Eustis VA 23604 KEYS, Meckie I. P.O. Box 6505 Mac Dill AFB FL 33608 KIRK, William Q. 351st Aviation Company APO New York 09047 LAMOTHE, Lloyd G.A., Jr. 2d Armd Cav Regt(Avn Co) APO New York 09093 LANCE, Dale E. 5731 Briarwood Drive Lawton OK 73501 LEONARD, Jesse W. 1614 Renoir Creve Coeur MO 63141 LIGHTFOOT, John R. 106 General Screven Way Hinesville GA 31313 LISONBEE, Lawrence J. 601 Richfield Drive San Antonio TX 78239 LOVEJOY, Ronald K. 2301 Vicksburg Savannah GA 31404 MAURAIS, Alton L. 5 Montreal Street Worcester MA 01604 McELROY, William M. 215 Longview Drive, Apt A Fayetteville NC 28301 McGARRY, Charles M. 24 Stonybrook Lane Newport News VA 23602 McGUIRE, James M. 351st Aviation Company APO New York 09047 MERZ, Martin P. JUSMAG Aviation Branch APO San Francisco 96303 MOLINE, William P. USMAPS, Box 288 Ft Belvoir VA 22060

PCS - CWOS

MUHLER, Edward G. 22 Wheeler Avenue Ft Stewart GA 31313 MULHOLLAND, John D. Sea-Land Ser., Box 2086 Kobe Japan 651-01 NEWMAN, Stephen T. 304 E. Carpenter-Apt. 10 Copperas Cove TX 76552 OLSEN, Alan V. 301 19th Street Hoquiam WA 98550 ORTON, Rodney L. Hq Co., 24th Engr Group APO New York 09227 PAGANO, Paul L. 319 Hughes Street Redstone Arsl AL 35808 PETERSEN, Dwayne L. 5724 111th Street, S.W. Tacoma WA 98499 PRICE, Frank H. 3602 Madison Avenue Fayetteville NC 28304 PROCTOR, Charlie M., Jr. 609th Trans Co (DS) Pt Benning GA 31905 RALEY, Royce D. 328-A Bataan Road Ft Lee VA 23801 ROACH, Wilson D. 9921 Bomarc El Paso TX 79924 RUHSAM, Harry M. 7436 Hemlock Avenue Savannah GA 31406 ST. JOHN, Timothy E. Brazos Villa, Apt 132 Mineral Wells TX 76067 SCHANZENBACH, A.P. HHT 7/1 Cavalry APO San Francisco 96357 SCOTT, Bobby E. 402 N.W. 32nd Street Mineral Wells TX 76067 STEELMAN, Jimmie L. HHC 210th Cmbt Avn Bn APO San Francisco 96530 STEVENS, Joseph H. 12411 Northwood Road Savannah GA 31406

Three Straight!

FORT WORTH, TEX. — One of only a handful of Army helicopter pilots who have served three consecutive combat tours of duty in Vietnam, CW4 Frank E. Pauli is shown being decorated by COL John Bergner, commander of the U.S. Army Aviation System Command's Bell Plant Activity. Pauli, whose son is serving his second straight tour in Vietnam with the Navy river patrol forces, received the Bronze Star with cluster and the 12th cluster to his Air Medal. He is now an acceptance pilot in flight test at the Bell facility.



PCS - CWOS

STEWART, William S. 4103 N.E. 4th St., Apt B Mineral Wells TX 76067 STROMQUIST, Lenard P. 17 N. Allison, Southwind Daleville AL 36322 STUBBS, Thomas G. 519 Oak Avenue Ozark AL 36360 TARNOSKY, John A., Jr. Air Trp, 2 Armd Cav Regt APO New York 09093 TAYLOR, Michael G. 120th Aviation Company APO San Francisco 96384 WESTBROOK, Kay L. 322 Godfrey Street Mineral Wells TX 76067 WHITE, Robert M. 2409 Avenue N, #3 San Angelo TX 76901 WHITELEY, William R. 330 Patrick Mineral Wells TX 76067 WILLIAMS, Ramon R. Army Avn Elm, USA IAGS APO New York 09827 WILSON, Howard A. 691 Antrim Drive, Apt 34 Newport News VA 23601 WINDER, Joseph W., Sr. HHB 1st Bn, 81st Arty APO New York 09035 WYCKOFF, Joseph D. HHQ Btry, 35th Arty Bde Pt Meade MD 20755 ZATREPALEK, Larry A. Route 5, Box 577, Lot 23 Savannah GA 31401

WOS

ALFRED, Thomas S.
Star Route
Harbor Springs MI 49740
ANDERSON, Robert C.
8 Midwood Avenue
Nesconset L.I., NY11767
ANTONELLI, Michael T.
1319 Canterbury Drive
Fairfield CA 94533

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ARMENTROUT, Gary N. 32 Inglewood Drive Hampton VA 23366 ATWELL, Robert C. 13370 Newton Road Cleveland OH 44130 BACH, Kenneth J., Jr. 11 Colonial Apartments Hinesville GA 31313 BANKSTON, James D. 5345 Jackson Street New Brighton MN 55112 BEDDINGFIELD, J.L. Route 1 Brownsboro AL 35741 BELCHER, Harold R., Jr. 1114 Maryland Avenue Bristol TN 37620 BERRY, Charles E. 480 Catalina Avenue Webster Groves MO 63119 BLAIR, James T. 7th Admin Co, 7th Inf Div APO San Francisco 96207 BLEE, John C. 705 Cranbury Cross Road No. Brunswick NJ 08902 BOTTOMLEY, A.N., Jr. Co A, 123d Aviation Bn APO San Francisco 96374 BOWERS, Robert W. 105 Dunn Street Waxahatchie TX 75165 BRAUN, Larry A. Route 1, Box 64 Shoshone ID 83352 BRETHEN, Eric G. 548 Pearl Street Watertown NY 13601 BRICKLEY, Albert B., Jr. Co C, 15 Trans Bn, 1 CD APO San Francisco 96490 BULLARD, Adrian L. Route 1 Bruce MS 38915 CHAMBERS, William D. R.F.D. 2 Sidney IA 51652 CHAVEL, Albert P. 8912 8th Street, N.W. Albuquerque NM 87114 CLARK, Gerald E. P.O. Box 257 Gray GA 31032

PCS - WOS CLARK, Robert L.

Rt. 1, Box 44, Nathan Dr. Daleville AL 36322 COCKREHAM, Perry L. 1010 Larch, #5 Inglewood CA 90304 COLEMAN, Arvine E. 1501 East Tabor Street Indianapolis IN 46203 COLEMAN, Robert A. Co C, 158th Aviation Bn APO San Francisco 96383 COOK, Henry W. 5434 Celestial Road Dallas TX 75240 CORWIN, Harold B., III 1378 Carol Street Plymouth MI 48170 CROOM, William T., Jr. 205 Valley Road Fayetteville NC 28305 DAVENPORT, Claybourne Route 1, Box 95-I Copperas Cove TX 76522 DORRESTEYN, Dirk P. 227 Anchor Way Uniondale NY 11553 DOYLE, Kenneth W. 4036 Arden Blvd Youngstown OH 44511 DRISCOLL, John A., Jr. B Trp, 7/1 Air Cavalry APO San Francisco 96357 FEERICK, Bruce A. 377th Med Co (Air-Amb) APO San Francisco 96220 FRISCH, John K., Jr. 28438 Thackeray Avenue Hayward CA 94544 FUSAKIO, Richard R. 25th Aviation Co. (Corps) APO San Francisco 96266 GANNON, Terry C. 991 East Washington Ave. East Point GA 30344 GATZ, Thomas P. CMR 2, Box 6622 Ft Rucker AL 36360 GRAVES, Author W. Box 29D, Star Route Mineral Wells TX 76067 GREEN, George W., Jr. 9755 Brockbank Dallas TX 75220

PCS - WOS GREEN, Henry D.

1980 East 27th Street

USARV Trans Detachment

Brooklyn NY 11229

HARMAN, Thomas F.

APO San Francisco 96384 HEMINGTON, Ralph W., Jr. 2711 Ashby Avenue Las Vegas NV 89102 HENDRIX, Rodney W. Rural Route 1 Norfolk NB 68701 HENLEY, Robert L. 247th Medical Det (HA) APO San Francisco 96370 HITCH, Jack B. Route 2 Louisville TN 37777 HODNETT, John E. 707 Briarwood Blvd Arlington TX 76010 HUCKRIEDE, Steven W. 435 South Main Greensburg KS 67054 HUNTER, Michael W. 2956 Exmoor Ann Arbor MI 48104 ISTA, Gary W. 8186 Bloomington Ave., S. Bloomington MN JAMES, William T. Route 2 Frederick MD 21701 JANTZ, Lawrence M. 2240 First Avenue San Bernardino CA 92405 JOHNSON, Richard E. 324 Cragmor Road Colo Springs CO 80907 JOHNSON, Richard L. 8892 Hammond Drive San Diego CA 92123 JONES, Clovis, Jr. 2840 Burnet Avenue, #302 Cincinnati OH 45219 JUHL, Dennis C. 45 Luikart Drive Euclid OH 44123 KIRK, Norbert W., Jr. 20 Washington Circle Great Falls MT 59401 LANG, Neal E. 7626 W. Willowbrook Dr. Mequon WI 53092



Grand Opening

FORT WOLTERS, TEX. — Representatives of the USAPHS' Class 69-18 congratulated each other on the completion and grand opening of an allied students' lounge which the class redecorated as a class project. CPT Stephen W. Parratt (left) presented keys to the newly-decorated lounge to 1LT Nguyen Con (3rd from right) from Vietnam. Others helping included, from left, 2LT Karl Brown, WO Leonard D. Peck, 1LT Larry Holgren, 2LT Michael Goyne, and 2LT John W. Tinnin, II. (USA Photo)

PCS -WOS

LANZA, Phillip E.

5623 West Purdue Dallas TX 75209 LEE, Michael E. 334th Aerial Weapons Co APO San Francisco 96227 LIVINGSTON, Ronald F. General Delivery Pleasant View CO 81331 MATLOCK, James D., Jr. 3817 Jackson Ave., Apt 10 Memphis TN 38105 McNAMARA, Michael A. 5407 Carnae Court, Apt 35 Louisville KY 40216 MILAM, Kardyn B. 9830 Quackertown Drive Chatsworth CA 91311 MILIZIANO, Salvatore 181 Federal City Road Trenton NJ 08638 MILLS, Donnell D. Co C, 158th Aviation Bn APO San Francisco 96383 MILLS, Gary E. 3504 South 37th Lincoln NB 68506 MORTON, Maurice B. Co C, 158th Aviation Bn APO San Francisco 96383 MULLINS, Robert G. B Trp 3/17th Air Cav APO San Francisco 96370 NEWTON, Paul L. 139 North Tahquitz Hemet CA 92343 NICHOLSON, Paul A. 4203 Parkway Drive Bossier City LA 71110 NOWLIN, Harold G., II 234 Locust Street Oak Harbor OH 43449 O'CONNOR, Gerard F. 609 North "A" Street Herington KS 67449 ONDIRA, Albert J. 158 ASHB, 101 Abn Div APO San Francisco 96383 PALERMO, Douglas M. 2 Adrian Avenue Bronx NY 10463 PARK, Charles E. 16381 Woodruff Street Westminster CA 92683

PCS - WOS

PATTERSON, Robert L. Box 315 Copperhill TN 37317 PERRY, Joshua H. 15 Trans Bn, 1 Air CD APO San Francisco 96490 PETERSON, Larry R. Jemez Spgs Mercantile Jemez Springs NM 87025 PIKE, Jerry M. 229 Bankhead New Albany MS 38652 PORTER, Randall S. Route 2, Box 766 Oak Harbor WA 98277 RAE, Duncan W. 408 Robin Court Cheshire CT 06410 REGESTER, Robert D. Quarters L, NAS Lakkhurst NJ 08733 ROACH, William N., Jr. 206 East Julian Street Martineburg PA 16662 ROBINSON, John H., Jr. C Trp 7/17th Air Cav APO San Francisco 96262 ROY, Richard C 7 Avn Pit, USARSUPTHAI APO San Francisco 96233 SCHIMKE, Frederick R. 43 Killmurray Street Clinton MA 01510 SCOTT, Joseph B. Route 3 Janesville WI 53545 SEDEY, John M. 1913 Crestbrook Road Medford OR 97501 SMITH, Gerald G. P.O. Box 541 Lock Haven PA 17745 SOUTH, Noah M., Jr. 2727 Oak Dale Drive Ann Arbor MI 48104 STINE, David L. Route 2, Box 221-H Dayton TX 77535 STOWELL, Thomas W. 175th Aviation Co (Amb) APO San Francisco 96357 TAYLOR, Roy P., III 274 South Matanzas Blvd. St Augustine FL 32084

PCS - WOS

TUNSTALL, Richard M. P.O. Box 483 Fairhope AL 36532 TYMESON, John A. 247th Medical Det (HA) APO San Francisco 96370 UHRING, Frank G., Jr. 2964 Bailey Lincoln Park MI 48146 WENDT, Peter C., IV 159 Lake Avenue Boonton NJ 07005 WILLER, Randal L. Co C, 158th Aviation Bn APO San Francisco 96383 WINGO, Dorcey A. Star Route, Box 27 Mesilla Park NM 88047 WOLFE, Tonny B. 436 North 4th Street Junction City KS 66441 WOOD, Raymond L. 1901 Elm Lawton OK 73501 WRIGHT, Jerry L. 10614 Eureka Road Spring Valley CA 92077 WURSTER, David J. 48480 Cyde Road Plymouth MI 48170 ZASTROW, Robert K., Jr. 1st Air Cavalry Division APO San Francisco 96490 ZINK, Timothy R. 4030 Bel Air Drive, N.W. Canton OH 44718

ENLISTED

BICKFORD, Gerald J., SSG 81 Blackwell Drive Ft Rucker AL 36360 BOLIN, Derald H., SGM P.O. Box 532 Ft Rucker AL 36360 DIXSON, Carroll D., SP6 733 Hurst View Drive Hurst TX 76053 MILLARD, Michael E., SP4 5716 North 11th Roud Arlington VA 22205 MOTLEY, George E., SFC Bldg 330, Apt G Ft Eustis VA 23604

PCS - RETIRED

BENTON, Lucien C., LTC 555A West 10th Street Mesa AZ 85201 BLANCHARD, T.L., CW3 203 East 66th Terrace Kansas City MO 64113 JENKINS, William H., LTC 111 Valley Hill Drive Enterprise AL 36330 SCHMIDT, William R., LTC USA Adv Sub-Gp(USAR) Pres of San Fran CA 94129 SCHONE, C.G., COL 6313 Stoneham Lane McLean VA 22101 TYSON, Robt.M., Jr., LTC General Delivery Robertsdale AL 36567

ASSOCIATES

BRUCE, Gary L. 3319 Upland Avenue Boothwyn PA 19061 BRUGGINK, Gerard M. 6803 Valley Brook Drive Falls Church VA 22042 COLLETT, B.M., Mrs. 895 Wheeler Drive Newport News VA 23602 GERNAND, George M., Mr. 466 Courtland Avenue Bridgeport CT 06605 GOETZ, Thomas A. 1916 Venetian Way Owensboro KY 42301 HAWKINS, K.C. 1600 South Eads Street Arlington VA 22202 HOAG, Wilson, Jr. 1704 Venetian Circle Arlington TX 76010 KINKEADE, Ronald J., Mrs 5511 Keoncrest, Apt 2 Sacramento CA 95841 MARTIN, Robert D., Jr. 7214 Pella Drive Houston TX 77036 MONTONE, Neil A. 215 East Kings Highway Audubon NJ 08106

ARMY Aviation

MARCH 31, 1969

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Colonel Kenneth D. Mertel, Comanding Officer of the 15th Combat Aviation Group, has been re-elected as president of AAAA's nine-Chapter USAREUR Region for the 1969-1970 term of office. Elections for the 700-member Region took place at the Regional Convention in Garmisch, Germany, during 5-8 March. (Ritter)

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COMMUTING-R.V.N. STYLE

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