

ARMY AVIATION

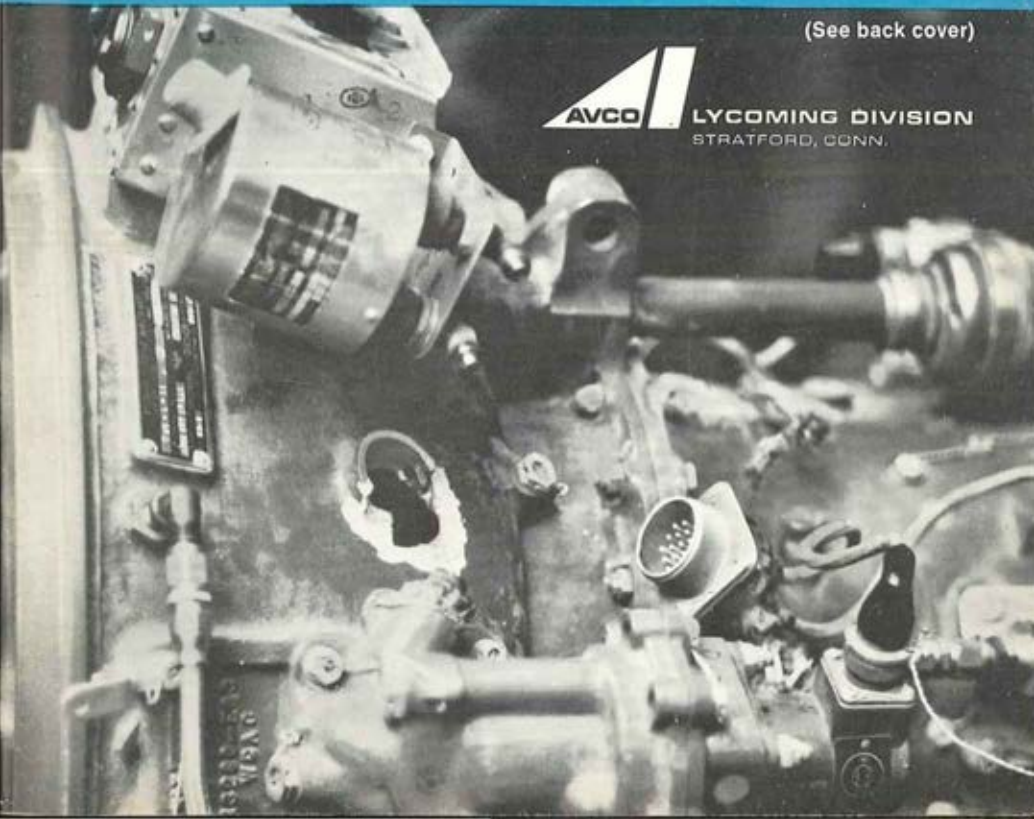
JUNE 30 ★ 1966

**When's the last time you heard of
a helicopter completing its mission with
a bullet through its engine?**

(See back cover)



LYCOMING DIVISION
STRATFORD, CONN.





PROGRESS

CHINOOK TRANSPORTS HELICOPTER PARTS BETWEEN AN KHE AND U.S. ARMY'S FLOATING AIRCRAFT MAINTENANCE SHIP

Every Wednesday in Vietnam, a U.S. Army CH-47A Chinook helicopter flies from An Khe to Cam Ranh Bay. The Chinook, from the 1st Cavalry Division (Airmobile), makes this weekly flight to Cam Ranh Bay and lands aboard the Army's floating aircraft maintenance ship, the "Corpus Christi Bay."

Aboard the Chinook, when it lands on the ship, are combat-damaged helicopter parts. When the Chinook takes off and heads back to the central highland home of the 1st Cavalry, it is carrying repaired parts and equipment flown down on previous flights.

The "Corpus Christi Bay," a first in Army aviation history, is a 538-foot Military Sea Transport Service (MSTS) ship equipped to repair all types of aircraft flying in Vietnam. With 305 Army aviation technicians aboard, it is the only ship of its type in existence.

Prior to the arrival of the "Corpus Christi Bay," badly damaged aircraft and major engine overhauls had to be returned to the United States for repair. Now repair jobs that may have taken months can now be finished in a week.

The first helicopter part actually fabricated aboard the "Corpus Christi Bay" was an assembly for the CH-47A Chinook engine mount.

This method of repair will eventually save millions of dollars and will also permit faster return of damaged aircraft to combat.

BOEING Helicopters

VERTOL DIVISION / MORTON, PENNSYLVANIA, U.S.A.

SUMMARY

JULY, 1966



ARMY AVIATION

VOLUME 15

JUNE 30, 1966

NUMBER 6

"ARMY AVIATION" is published monthly by Army Aviation Publications, Inc., with Editorial and Business Offices located at 1 Crestwood Road, Westport, Conn. 06880. Phone: Area Code 203 227-8266.

The views and opinions expressed in the publication are not necessarily those of the Department of the Army or of the staff of the publication. No inference should be drawn that the publication is an authorized, funded government publication.

Articles of 2,000 words or less, news items, and photographs pertinent to Army aviation are solicited and should be mailed to the Editorial Office so as to arrive on or before the 5th of the month preceding the cover date month. Preferential treatment will be given to exclusive copy and/or photographs so marked.

Copy should bear the name and address of the writer. The magazine cannot assume responsibility for the safe return of copy, photographs, etc., unless the submission is accompanied by an addressed envelope having sufficient return postage. Exclusive articles pertinent to any Army aviation subject except AAAA, industry, unit, or major command activities are reimbursable at the rate of three to five cents per word for the first 2,000 words.

The editor reserves the right to quote all or part of any material that is submitted for publication, except those particular passages that the writer specifies are not for publication. Copy additions or deletions made necessary by space requirements may be made. The publisher assumes that the correspondent has not submitted any material that is classified, proprietary, or copyrighted. The use or reproduction of any of the by-lined contents of the publication, in whole or in part, without the expressed permission of the publisher is prohibited.

Subscription fees for non-AAAA members: \$3.50 per year to CONUS, APO, and U.S. Possessions; add \$1.50 per year for all other addresses. Active U.S. Army personnel are requested to provide a residence or quarters address for magazine distribution purposes whenever possible. Back issues cannot be held unless an advance "Hold Notice" is furnished by the subscriber together with the date on which he will report to his new mailing address.

Publisher, Arthur H. Kesten; Managing Editor, Dorothy Kesten; Associate Editor, William E. McGee; Editorial Assistant, Jessie R. Boreck; Circulation Assistants, Phyllis Hanson, Sheila Hope.

Advertising correspondence should be directed to the Business Office. Closing date for insertions is the first day of the month preceding the cover date month. Second Class Postage Paid at Westport, Connecticut.

FEATURES

The Hard Facts of the Aviation Situation

by Brig. Gen. Robert R. Williams, Director of Army Aviation13

The New Multi Purpose U.S. Army

by Charles J. V. Murphy, Reprinted from FORTUNE Magazine17

The Vietnam Lightning Bug Mission

by Captain Glenn A. Smith, II32

DEPARTMENTS

AA Photo News36

Awards and Decorations41

Contracts39

Letters to the Editor8

Obituaries43

PCS—Change of Address Notices37-44

ADVERTISERS

American Nord Aviation55

Avco Lycoming Division Front Cover

Beech Aircraft Corporation6-7

Bell Helicopter Company22-23

Bocing Vertol Division2-3

Chandler Evans Control Systems5

Continental Aviation and Engineering Corp.12

De Havilland Aircraft of Canada, Ltd. Centerfold

Hughes Tool Company, Aircraft Div.34-35

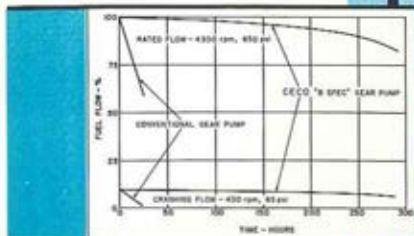
Sikorsky Aircraft Division10-11

U.S. Army Transportation School16

Fly. with

**Salt Water
Iron Oxide
Sharp Silica Sand
Coarse Arizona Road Dust
Cotton Linters
Naphthenic Acid**

in the fuel?



No one ever deliberately places any of this "dirt" in aviation fuel. And no one, by preference, ever flies with that kind of contaminated fuel in his tanks.

But—such contamination can, in certain areas of operation, unfortunately get into the fuel.

When such a possibility exists . . . that's the time to have Chandler Evans fuel pumps on the job.

Chandler Evans, a major supplier of turbine and reciprocating engine fuel pumps and gas turbine controls systems, has developed high pressure gear pumps that accept this contaminated fuel and pump it continuously without degradation in output flow. These CECO pumps operate without the need for filtration of the fuel passing through the pump and have been qualified to the "B" specification (MIL-E-5007 B and 5009 B). Service life? Exceeds 6,000 hours TBO.

CECO's wealth of background and experience is available to develop pumps to any specific set of requirements as dictated by each installation.



**Colt Industries
Chandler Evans
Control Systems Division**

WEST HARTFORD, CONNECTICUT 06101

*If you would like
further information or
literature, just write us,
attention Sales Manager,
Gas Turbine Products.*

New Beechcraft



BEECH "IMAGINUIITY" IN MANNED AIRCRAFT . . .

This practical size pressurized **TURBOPROP** is the newest member of the Beechcraft U-8 family of mission support aircraft. It flies "on time" missions *over* the weather — at speeds to 280 mph.

"Just right" for 80% of today's

How many of your command's trips are 1,000 miles—or less—with only 5 or 6 passengers?

If these are your requirements for a mission support aircraft, compare them against these high-performance capabilities and features of the Beechcraft **TURBOPROP U-8**:

- Conference-room seating for 5 or 6, plus private pilot compartment, or high-density capabilities for up to 9.
- Can operate from shortest, roughest fields.
- Nonstop ranges to 1,565 miles.
- Pressurized for "over-the-weather" comfort.
- Easily operated by one pilot—even under the most difficult trip conditions. Big plane "positive feel."
- Built for rugged duty and tested far in

excess of required load factors. Converts quickly to carry high-priority cargo... or for use as aerial ambulance.

- **Saves its cost over and over again** when used instead of larger aircraft. And because this Beechcraft U-8 has the same type instrumentation and power controls as a pure jet, it can be used to help jet-rated pilots maintain jet proficiency—at low cost.

Worldwide Beechcraft service organization assures you of parts and expert service—eliminates need for huge and expensive logistic support program.

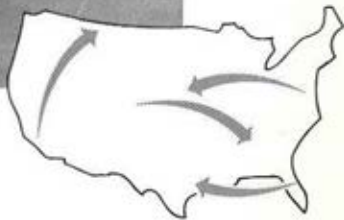
Write now for complete facts on the Beechcraft **TURBOPROP U-8**, or the other two "off-the-shelf" Beechcraft U-8s. Address Beech Aerospace Division, Beech Aircraft Corporation, Wichita, Kansas 67201, U.S.A.

TURBOPROP U-8 offers high performance at low cost

(... and it's available
"off the shelf")



mission support trips:



Beech Aerospace Division projects include R & D on manned aircraft; missile target and reconnaissance systems; complete missile systems; space systems management; programs pertaining to liquid hydrogen propellants and cryogenic tankage systems; environmental testing of missile systems and components; and GSE.

Beech Aerospace Division

BEECH AIRCRAFT CORPORATION • WICHITA, KANSAS 67201



HELPING BUSINESS GROW FASTER: Only Beechcraft offers such a complete line of planes with so much speed, range, comfort and quiet to help business multiply the money-making decisions that each top man can make. That's how thousands of Beechcrafts have paid for themselves.

EXECUTIVES: Write today for free booklet, "Answers to the 19 Questions Most Frequently Asked About Business Flying." It could point the way to major new profits for your company. Address Beech Aircraft Corp., Marketing Services Dept., Wichita, Kansas 67201, U. S. A.

LETTERS

BRIEF LETTERS ON ANY PERTINENT SUBJECT ARE WELCOMED. THE LETTER MUST BEAR THE NAME OF THE WRITER, ALTHOUGH THE WRITER MAY REQUEST THAT HIS NAME BE WITHHELD FROM PUBLICATION.

AGREEMENT

Dear Editor:

Congratulations to Captain Eugene S. Emmer on his article, "Army Aviation: Full or Part-Time Job" in the April issue of *ARMY AVIATION*.

I agree!

*Robert D. Rooks
Captain, Infantry
Fort Rucker, Ala.*

COMMUNICATION

Dear Editor:

My late husband, Captain Charles W. Cornelius, lost his life in a helicopter crash near Ludwigsburg, Germany, on January 27, 1955. As an active Army Aviator and instructor pilot, he had many friends in the Service and in Army aviation. Our son, Pvt (E-2) Charles R. Cornelius, is now in AIT Basic Training with Co A, 2/46 Inf, 1st Armd Div, at Ft. Hood, plans on an Army career, and is an OCS Candidate when he finishes his Basic. He'd like very much to hear from anyone who might have known his father. Private Cornelius was 9 when he lost his dad.

*Mrs. Patricia C. Tanner
307 E. Ridgewood Drive
Midwest City, Okla.*

SWAN SONG

Dear Editor:

My swan song . . . 24 December 1965, married Betty Mou, widow of Master Army Aviator Allen S. Mou (Mou Army Airfield, Heidelberg) at Ft. McPherson, Ga. . . 31 March 1966. Legion of Merit . . . 29 April. Retired after 37 years' service at address

below . . . If you can, please publish so my friends will know.

*James F. Wells
Colonel, USA (Ret.)
9602 LaRue Drive
San Antonio, Tex.*

BRIGADIER GENERAL CARL I. HUTTON



Dear Editor:

I am sorry on this occasion to report the death of Brigadier General Carl I. Hutton. Carl passed away on June 15 following a rather prolonged illness and was buried with military honors at Golden Gate National Cemetery, San Bruno, California.

As one of the early promoters of the helicopter and particularly its use as a firing platform, Carl will long be remembered as a great soldier and one who contributed new thoughts and ideas to improve the combat effectiveness of the U.S. Army. He is survived by his widow and son who reside at 5 Philips Road, Palo Alto, California.

*Ernest F. Easterbrook
Major General, USA*

(Ed. Note: This notification, in being received on June 21, arrived too late to be included with the Obituaries appearing on page 43, and is being published in the "letter" format in which it was received.)

A SHORTCUT TO PROFESSIONALISM FOR VIRGINS

A couple of years back — when people were still “unloading” aircraft and the more chic verb, “off-load” had yet to be coined — money wasn’t the object in most Army Aviators’ minds when they had an interesting story to share with others, or some point to debate. They merely put their thoughts down on paper and submitted them to *ARMY AVIATION MAGAZINE*. We accommodated everyone! . . . If our *In Box* didn’t overflow in a given month, that month’s issue had LARGE type . . . If we were inundated with copy, we reduced the size of the type and packed that issue!

Later, and to the surprise of these voluntary “reporters,” each received an author’s check from us (in those days geared in size to the number of ads in the issue). Invariably, we’d receive the same quick note in reply from many, “*Thanks a lot, old friend, but you didn’t have to send the check. I wanted to write the article anyway.*”

Today, things are somewhat different . . . Army aviation has grown to full bloom . . . The best part of its personnel strength is involved in fighting a war on an around-the-clock basis, or supporting this war effort from many locations. *TIME*, *LIFE*, *FOR-TUNE*, *TRUE* spreads and CBS, NBC, and ABC network “clips” on Army airmobility hit the general public with the frequency of *Crest* commercials . . . To a great extent, those in Army aviation today have turned to the military PIO’s and the professional journalists to tell their stories, remaining literary virgins, so to speak.

We don’t know what would motivate you . . . It could be a by-line, or a desire to get something off your chest, or to share some knowledge with your contemporaries; or you might be one of those rare persons who just like to write periodically and who, fortunately, do it well; or lastly, the thought of writing professionally for money might motivate you.

There’s nothing wrong in doing the latter, by the way. Quite a few of our best sellers have been written by those just as mighty with the pen. You probably can turn a phrase as well as the next man. However, if he does and you don’t, and it’s his exclusive article that we publish, he’ll receive between \$60.00 and \$100.00 for saying what you might have said. (Our going rate is three to five cents a word for the first 2,000 words.)

Subject area? You name it! Exclusive articles on any Army aviation subject, except those extolling specific industry products or AAAA, unit, or major command activities, are reimbursable . . . We’d like to publish your “head & shoulders” photo (any size glossy will do) and a 50-word background bio/perse on you along with your article, and welcome their submission, but this is an “optional” that we leave to you.

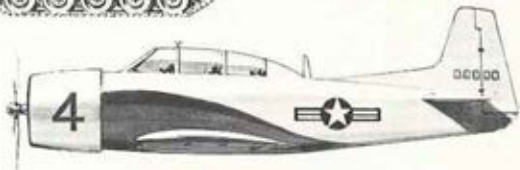
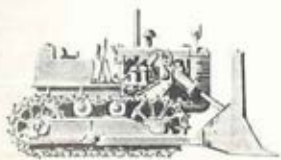
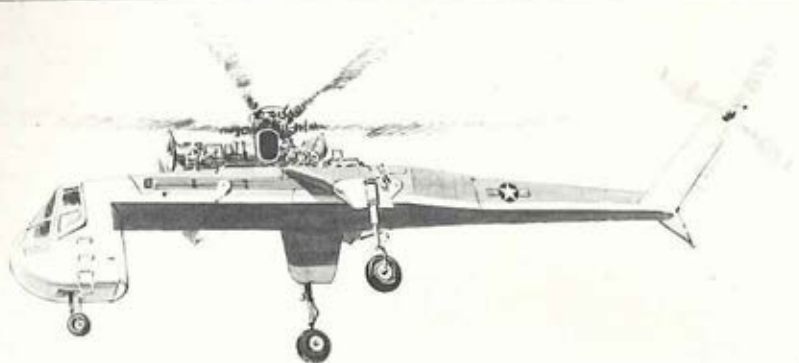
Timing? If we receive your contribution during the 1st to the 5th of a month, it would appear in the next month’s issue normally. Our address: *ARMY AVIATION MAGAZINE*, 1 Crestwood Road, Westport, Conn. 06880.

Indicate somewhere in your correspondence if your submission is an “exclusive” to this publication, and lastly, if you want a quick reply from us regarding publication of your article or want the originals returned to you, enclose an addressed return envelope bearing sufficient return postage.

You might be interested to know that we also welcome humorous anecdotes (150-word maximum), cartoons, or exclusive unofficial photos that represent personal photographic effort. They’re reimbursable at the rate of \$10.00 per submission.

Become a working professional, lose your literary virginity in full view of our audience of 10,400 readers, and grab some green while doing it. Write for *ARMY AVIATION MAGAZINE*!

Sikorsky's Skycrane[®] can carry over 10 tons of almost anything



Sikorsky Skycranes joined the 478th Transportation Company (Heavy Lift) in support of the First Cavalry Division (Air Mobile) in Vietnam in September.

How are they doing?

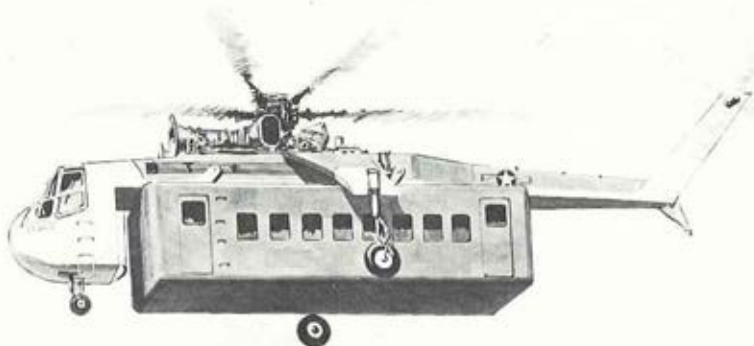
Thus far, they have retrieved many

millions of dollars worth of disabled aircraft. They have airlifted bulldozers, trucks, 105-millimeter howitzers, water trailers, Army "conex" containers, signal vans, fuel bags, and ammo. One delivered enough C-rations to

feed a battalion for three days.

Bulky loads are suspended below the helicopter; personnel travel in a detachable van. The Skycrane can carry 67 combat-equipped troops, plus crew of three, on a round-trip

or 67
combat-equipped
troops.



mission of 140 miles. The Skycrane can also carry vans designed as completely-equipped and fully-staffed command posts, hospital units or communications stations.

No other Free-World helicopter has

the Skycrane's lift capability: more than 10 tons, at altitudes up to 9,000 feet — even on a 95-degree day. And the Sikorsky Skycrane was designed for growth to even greater payload capacities, as the need develops.

Sikorsky Aircraft

STRATFORD, CONNECTICUT

DIVISION OF UNITED AIRCRAFT CORPORATION

U
A

CAE



CONTINENTAL POWER

**provides all twin engine benefits at
single engine cost**

Four advantages, without cost penalty, are inherent in Continental's T67-T-1 Twin Turbine powerplant for helicopters: (1) Elimination of the height-velocity "danger zone". (2) Over-all increased mission effectiveness. (3) Improved night flying and all-weather capability. (4) The built-in ability to fly home on a single engine.

The T67 has a horsepower rating of 1540 and has demonstrated a specific fuel consumption of 0.56 pounds per horsepower hour.

The T67 automatic control provides multi-engine benefits without additional pilot duties. This unique powerplant with automatic power sharing has completed service evaluation flight tests in a Bell Huey with these outstanding results . . . single engine flight up to 17,000 feet altitude and at temperatures up to 100°F.

The T67 is another first for Continental, and a major aviation development. It costs no more per horsepower than any available single engine in its power range.



CONTINENTAL AVIATION AND ENGINEERING CORP.

12700 KERCHEVAL AVENUE • DETROIT, MICHIGAN 48215



By
**By Brigadier General
ROBERT R. WILLIAMS**
Director of Army Aviation,
OACSFOR, D/A

THE HARD FACTS OF THE AVIATION SITUATION

One does not have to be in my job very long until he is confronted with the hard facts concerning our aviator situation and the prospects for the future.

As many of you already know, the only real quick and effective method of moving troops, supplies, and equipment in Vietnam is by aerial means. Much of this movement is to remote isolated areas where road networks or semi-improved airfields are scarce or non-existent. This has resulted in heavy demands for Army aviation with its inherent capabilities in the helicopter and STOL aircraft. These heavy requirements coupled with the rapidity with which they have been generated has just simply outstripped the capability of the aviation training base to expand and meet the requirements.

Consequently, we are at the point where one year out of Vietnam, either in CONUS or some other long tour area such as Europe, is all that can be assured prior to return to Vietnam. We have taken some drastic steps in an effort to reduce the impact of these actions. Ground duty tours have been temporarily eliminated for aviators below the grade of Lieutenant Colonel. Attendance at branch career schools has also been temporarily suspended.

In some cases retirements, relief from active duty and resignations have been denied.

All of these are pretty harsh but necessary actions in order to obtain any appreciable period between tours. Much has been done to annotate files and inform commanders of these actions in order that the aviator is not penalized for a situation over which he had no control.

We have expanded the aviation training base to provide for a monthly output of 425 aviators commencing in April 1967. Rotary wing qualification courses have been established at Fort Rucker and in Europe to make more effective use of our fixed wing rated personnel.

Also, we have imposed aviator manning levels on all commands except Vietnam, which releases some aviators to fill Vietnam requirements. Still, a fourth grader can tell you very quickly that if you have 10,000 aviators and 5,000 are in Vietnam, then one year in and one year out is the best you can do.

One possible action which could provide a favorable impact on this situation is to further increase the aviator training output. This is a subject of a detailed study being conducted by the Army staff at this time. Such an action is inherently expensive in facilities, aircraft, and people and consequently warrants extensive study prior to adoption.

I suppose what I have been trying to express is the fact that we here on the DA Staff are aware of your situation. We know it is not tremendously attractive at this time. We are working on it and solutions will be coming.

In the meantime, I ask each of you to shoulder the burden that has fallen your lot and perform your duties in the best manner possible. Talk to your families of the necessity for sacrifice in this critical period of our history and stay with the aviation program and the Army if you possibly can.

New Equipment

We are in the process of soliciting proposals from aircraft industries for two new

"off-the-shelf" fixed wing aircraft. The first of these will be utility airplane follow-ons. These aircraft are being procured for tactical units, including possible Vietnam requirements, and will have the following general characteristics:

- Twin turbine power.
- Forward area, STOL performance.
- Eight to ten passengers.
- 2,000 to 3,000 lb payload.

The second aircraft will be 255 off-the-shelf single engine aircraft for use in the training base and CONUS installation support, primarily CRF-type support. These aircraft will release CONUS O-1 assets to meet expanding Vietnam requirements, and will have the following general characteristics:

- Room for pilot and 3 passengers.
- 4.5 hr cruise at 110 kts with pilot and 2 passengers.
- Training type acrobatics with a student and his instructor.
- Sufficient nav-aids to maintain instrument proficiency.

Cobra

The AH-1G (*Cobra*) is progressing nicely. This urgently needed improved escort helicopter should be available by mid-1967. Its added speed, agility, and increased firepower should greatly improve our escort capability by providing a margin of performance over the aircraft being escorted, including the Chinook.

The commonality of the parts and flying characteristics with those of the UH-1 series will permit the introduction of this aircraft into our units in Vietnam with a minimum of training.

In case you may be wondering about the "A" designation it doesn't stand for "Armed" but rather for "Attack." The basic mission symbol of AR 700-26 is being changed to add to the current description for word "Attack" the statement, "Includes helicopters designed for fire support."

The AAFSS when it enters our inventory will also carry this distinction and will be

FAIL-SAFE

A captive training device, the Whirlymite, is being utilized at the USAPHS at Fort Wolters, Tex. A helicopter mounted on a ground effects machine (GEM), the Whirlymite hovers a few friction-free inches over the ground enabling the student to practice all of the "in-flight" maneuvers in safety. A test group of 100 students - all with no previous flying experience - are receiving three hours of Whirlymite instruction.



designated the AH-56A. These actions confirm a fact we have known for sometime, the armed helicopter has come of age. These improved aircraft together with improved weapons systems such as the Mini-gun, the WECOM-30, and the TOW should give us the aerial fire support capability we need.

Articles on Vietnam

I have been terribly pleased to note the frequency and quality of the many articles now appearing in our aviation-oriented magazine on the subject of aviation in Vietnam. Many of these are being authored by our young aviators. They not only serve as a catalyst for reminiscence for those that have been there, but also contain a wealth of information for those headed that way for the first time.

While it is true that many of the techniques and procedures put forth by our young stalwarts do not meet our "school-book" solutions, they nevertheless point out that there are many ways to skin the proverbial cat. I know that General Tolson is applying the experience gained in Vietnam to better orient our personnel for tactical operations in that area. With the wealth of

experience available in the Vietnam returnees at our Aviation Schools, I know that our recent and future graduates will be the best qualified for Vietnam duty that time and experience can give.

LOH (OH-6A)

Deliveries will start shortly on the new light observation helicopter (OH-6A). Initial production will go to the test agencies and the training base. Greater speed, payload, endurance, armor protection, and simplicity of maintenance will make this aircraft most welcome in the hands of our troops.

It is planned that the first delivery to Vietnam will be used to replace "high risk" aircraft in such roles as scout ships in Air Cavalry Troops.

We expect an outstanding performance by this aircraft. Those aircraft whose role requires armament will be equipped with the XM-27 Mini-gun. The armament system will be delivered concurrently with the aircraft.

**BE PROFESSIONAL!
JOIN THE AAAA!**

TRAINING INSTRUCTORS NEEDED

The U.S. Army Transportation School, Fort Eustis, Virginia, urgently needs Training Instructors in the field of Aircraft Maintenance to prepare and present instruction on the following technical subjects:

Maintenance Publications
Propeller and Rotor Maintenance
Maintenance Management

Propulsion Systems Maintenance
Electrical Systems
Rotary Wing Maintenance
Airframe and Equipment Maintenance



Fort Eustis is in the city of Newport News in the heart of Tidewater Virginia — within a 15-mile radius of Williamsburg, Yorktown and Jamestown — less than one hour from Virginia Beach, and 8 hours by auto to New York City.

Three years practical experience or training in one of the above subjects is required for trainee level positions starting at \$5,181 per annum. Instructor experience in these subjects may be qualifying for posi-

tions starting at \$6,269 per annum or \$7,479 per annum, plus Civil Service benefits.

Federal Employment Applications (SF 57 available at Post Offices) should be submitted to the Civilian Personnel Officer, Fort Eustis, Virginia. Travel costs and the shipment of household goods of selected candidates and their dependents to Fort Eustis are authorized.

Non-discrimination in Employment.

A blue-tinted photograph of a U.S. Army helicopter and a missile. The helicopter, a Sikorsky UH-1, is in flight, facing left. It has "ARMY" and a star insignia on its side. To the left of the helicopter is a large, vertical missile. At the bottom of the image, there are silhouettes of soldiers and a piece of equipment.

THE NEW MULTI-PURPOSE U.S. ARMY

by Charles J. V. Murphy

REPRINTED WITH SPECIAL PERMISSION
FROM THE MAY, 1966 ISSUE
OF FORTUNE MAGAZINE; © TIME INC.

U.S. ARMY

All of a sudden the stick-in-the-mud, dogface Army has come alive. It sits once again with the high and the mighty; its recovered élan is the envy of the Air Force and Navy, whose nuclear weapon systems and other "fancy Dan" technologies had come to overshadow the Army throughout the Eisenhower years and, indeed, through the first Kennedy year.

For six years running, Army generals have succeeded one another in the chairmanship of the Joint Chiefs of Staff. An Army general is Supreme Commander of the NATO forces in Europe. Another runs the war in Vietnam. Matters have got to a point where it took the loss of a hydrogen bomb off the coast of Spain to make the rest of us realize that the Navy and the Air Force are still engaged in serious business of their own. The Army's spectacular rise after a humiliating fall is a phenomenon that tells a lot about that service—not just as an ancient and honorable calling, but also as an expression of American character and the American philosophy regarding the use of power.

From the staff of the Army flag that stands in the Pentagon behind the desk of the Chief of Staff, General Harold Keith Johnson, fall 145 brightly colored streamers. Each streamer celebrates a campaign that the Army has fought, and the famous sequence starts with the battle for Ticonderoga. In due course an early campaign in Vietnam will probably supply the 146th streamer, along with the dead and the memory of hard fighting in a far-off place.

The leading role

Out of its long memory, the Army half believes that it possesses a soul, and its soul is the soul of the American people from among whose sons and whose faiths it continuously renews itself. So there is nothing particularly surprising, when one stops to reflect, about the circumstances that have propelled the Army into the leading role in the war in Vietnam. It is not there because the Army planners came forward in the White House councils with a smarter war

plan than the Air Force or the Navy.

The Army is in charge because President Johnson was persuaded that an infantry war, however slow and deliberate and piecemeal, is the one that best accords with the outlook of a people who are not disposed to bring their most crushing weapons to bear against a relatively trifling enemy. A war on the ground, in other words, looks to be a more appropriate way of coping with the Communist aggression than resort to strategic-style bombing, blockade, and the other more summary means that are the specialties of the Air Force and the Navy.

That way is not necessarily cheaper in dollar costs, however. The Army holds that it should be cheaper, rather, in terms of the lesser provocation a ground war pursued with conventional weapons for limited aims might offer to North Vietnam's powerful patrons, Red China and Soviet Russia; in terms of the lighter strain that force so applied is likely to put on the loyalties of nations hovering nervously on the sidelines; in terms of the more easily mendable physical damage inflicted upon the countryside being fought over; and, finally, in terms of American casualties. Within this context the Army, as an instrument of national policy, offers the American people just about the only tolerable means of effectively exerting power in a situation in which, for the time being, all other military means are unacceptable.

"*The Army,*" says General Johnson, "is doing in Vietnam only what it has always done. That is, it is doing what needs to be done." All the same, as the General himself knows full well, there has come about a subtle rewriting of the Army's classic mission. For generations the U.S. infantry was steeped in the doctrine that its primary role was to seek out, close with, and destroy the enemy. General Douglas MacArthur's historic breach arose from President Truman's refusal to let him move north to crush the Red Chinese divisions in Korea. Now the task laid upon the Army is not destruction

but containment. It is to break the Communist group on the Vietnamese countryside, as General Johnson puts the matter, *"and thereby foster an environment of order and stability in which the legal government can function."* Whether the North Vietnamese Regular Army is broken in the process becomes irrelevant under this aim. The primary end is that it should cease and desist from aggression. In the politics of the cold war, such an outcome suffices for victory — provided, of course, that the desired outcome can be achieved while the society over and inside which the war is being fought is able to weather the ordeal.

The mark of genius

So the Army has taken on a tall order. To carry out that order it is feverishly constructing a new kind of Army for the Vietnam task. The old Army has long been best exemplified by the Seventh Army, standing guard in West Germany. The Seventh Army is composed of five full divisions and three armored cavalry regiments, themselves adding up almost to the equivalent of a sixth division. It is an extremely sophisticated force constructed around some of the heaviest weapons and equipment so far produced for ground warfare — tanks in the thousands, 155mm fieldpieces and eight-inch howitzers, and an ample arsenal of tactical nuclear rockets.

By contrast, the new Asia Army makes a virtue of lightness in the interest of rapid maneuverability. On a scale altogether novel in warfare, the Army that is fighting in Vietnam is constructed around the versatility of the helicopter. It could rightly be said, in fact, that the dramatic flourishing of the helicopter in its current phase of development was forced by the urgent needs of the new Asian Army. And the exceedingly successful tactics, which were evolved to provide men and firepower quickly enough to meet and defeat a flitting enemy who could strike at will, impart the mark of genius to the Army's gift for improvisation.

What has carried the Army through the present test has been its own latent reserves

of character, training, and experience. It can be said without exaggeration that the Army (in common, to be sure, with the other services) has never entered a war situation as well led as it is today. All but a fraction of the serving general officers and colonels have seen action or done staff duty in one or another of the great campaigns of World War II or Korea.

Among the majors and the youngest lieutenant colonels, perhaps half those on active duty have fought in Korea as platoon or company commanders, and four out of five have had in addition a tour of duty with the forces in Europe, or with a MAAG (Military Assistance Advisory Group) in Japan, or on Taiwan or somewhere else in Asia, or in Latin America. It is doubtful that any other officer corps in the world can match the knowledge of foreign places that is in the heads of the men who command the U.S. Army.

A renewal every three years

For the older ones, the Vietnam buildup has been a fairly familiar exercise. That is why the whole operation has been carried off without the spectacular snafus that attended past mobilizations of power. Only yesterday the Army kept its counsel while the civilian direction at the Pentagon congratulated itself on its wisdom, frugality, and courage in shutting down facilities and getting rid of barracks that presumably had outlived their usefulness. But yet once again, under the most glittering and self-confident administrator as under the worst, Mother Army found herself obliged to herd her new levies into barracks and mess halls built in a past war to last five years but already, nearly a quarter of a century old, with the paint scaling off the sides of the drafty buildings, the roofs leaky, the lighting hideous, and heating and plumbing systems that would be a disgrace even in Appalachia.

Yet, since the decision was reached last July to give the job in Vietnam over to the military, the policy makers around Defense Secretary McNamara have been doing all they can for the Army. Supplemental ap-

MULTI-PURPOSE/Continued

appropriations sought by the Department of Defense and authorized by Congress have lifted the Army's sending in the fiscal year that ends in June to some \$19 billion, up 63 percent from last year. And in fiscal 1967 the Army's spending is scheduled at \$16.5 billion, more than a third more than the figure for fiscal 1965. While the budgets of the Air Force, the Navy, and the Marine Corps are all going up, too, practically all their additional funds are for the direct purpose of providing men, planes, bombs, ships, and other gear for the support of the Army in its ground battle in Vietnam.

Whatever the Army wants for the war in Vietnam, at least in the way of gear, it can have. When President Johnson finally decided to commit the troops to the battle, it was understood at the Pentagon that a blank check went with the commitment. In the aftermath, McNamara's cost-effectiveness slogan joined Truman's cost-consciousness slogan in the limbo reserved for depreciated touchstones.

The strength of the Army is going up to 1,234,000 men from a 1965 level of 963,000. This new manpower will add another numbered division, raising the total to seventeen. It will also provide three more independent infantry brigades, as well as a substantial number of new light-aircraft companies. To sustain so big a force structure under a system that permits young men eligible for military service to opt among a two-year draft call, a three-year enlistment, and six months of active duty followed by nearly six years in the reserve or National Guard, the Army must now produce an average of somewhat more than 9,000 trained recruits every week of the year. One third of the enlisted mass of the Army must be replaced every year. To provide the necessary number of platoon leaders the Army must train and commission some 20,000 second lieutenants next year, including the less than 600 officers (or 3 percent of the annual intake) that enter from West Point.

For the basic instruction of soldiers the

Army now is operating at full blast fifteen training centers spread across the country — among them Fort Gordon in Georgia; Fort Dix in New Jersey; Fort Knox in Kentucky; Fort Sill in Oklahoma; Fort Polk in Louisiana; Fort Leonard Wood in Missouri; Fort Bliss in Texas; and Fort Ord in California. For the training of junior officers, it operates eight specialist schools — for armor at Fort Knox, artillery and missiles at Fort Sill, infantry at Fort Benning, Georgia, engineering at Fort Belvoir, Virginia, military police at Gordon, quartermaster at Fort Lee, Virginia, transportation at Fort Eustis, Virginia, and ordnance at the Aberdeen Proving Grounds, Maryland.

Even these schools and training camps cannot meet the demand for skills. The Army divisions that constitute the strategic reserve, having themselves been partly depleted in order to form the force in Vietnam, have been converted into training establishments. At Fort Rucker, in Alabama, where the Army is recovering a battlefield aviation of its own — made up of helicopters and light aircraft — the training of mechanics and maintenance men for the Asia force is on a two-shift basis.

In short, the Army is drawn tight. When the Pentagon civilian directorate argues, as it does, that the buildup on the far shore of the South China Sea has been brought off without seriously straining the continental reserves, *it is talking through its hat*. The whole huge training system, the weight of the Army's procurement programs, the airlift, the stockpiling, the continuing pull-down on the combat and support elements in the divisions in the continental ready reserve — practically everything not directly tied to the European Army has been tilted toward Asia.

Two strategies, two armies

The great Seventh Army, dispersed among the innumerable and now quite run-down Wehrmacht Kasernen, is under no illusions about the decline in the value of the reserve assets still being carried on its books. So long as the overall American capacity for

decisive nuclear action continues to register in Soviet calculations, this switching of resources from one ocean theatre to another is probably not dangerous. But as a long-run proposition, it has begun to worry the Army. It finds itself being drawn deeper and deeper into Asia, but there is no place there for the massive divisions—for the heavy tanks and the cannon—in which so much of its capital has been invested over the years in the support of a forward NATO strategy. Yet Europe still remains the principal likely theatre of decision, and it is inconceivable that the light divisions being formed at such cost for the Vietnam war could ever be usefully transplanted to Europe for an emergency there.

Does this mean that the Army must be transformed into a multi-purpose force? General Johnson thinks so. But the answer to that particular question would seem to depend upon how well the Army does from this point on with its theory of limited warfare.

Revolutionized tactics

Fortunately for all concerned, the Army so far has done very well. The rapidity with which it saved an all but lost war has surprised a good many military experts. Not the least among them is the clever North Vietnamese strategist, General Vo Nguyen Giap, who defeated the French Army in the opening campaign of the Communist war for Vietnam that ended in 1954 at Dienbienphu. Giap stands second in the Asian Communist hierarchy only to Mao Tse-tung as an authority on protracted guerrilla conflict. In January, while the war still had a quicksilver look, Giap predicted that the Americans would lose the war because "*the organization, composition, and training of the American Army are not fit to tackle a revolutionary war.*"

Giap assumed that the American Army would be forced, as the French had been, to fight the war his way—that is, to dance to his tune. What he overlooked was the American talent for rapid improvisation in an emergency, a talent made all the more facile

by reason of the vast resources the Army was able to draw upon once the national purse strings were loosened.

By the beginning of spring, at any rate, the U.S. Army in South Vietnam had been in fairly continuous action for nearly nine months. It had lost no engagement of consequence and had in fact gained the upper hand in hundreds of clashes. It had not yet succeeded, to be sure, in its main point of business, which is to lure the Communist forces into a toe-to-toe battle. This is the battle that Giap could not in common sense risk against an adversary much more heavily armed than he, and so the business of cornering the Communist columns may take some little time. Nevertheless, one point about the war has been settled beyond doubt: Giap has been defeated in the climactic offensive that was aimed at overpowering South Vietnam by this summer.

The U.S. Army was not at all obliged to fight *revolutionary* war in Giap's way. Instead, it has countered his primitive tactics with a novel (and extremely expensive) employment of helicopters in mass, thereby achieving an unmatchable advantage in mobility that itself has *revolutionized* the tactics of the so-called "wars of the countryside."

All this reflects credit on the Army. The Marine Corps, manifestly, has fought a goodly share of the battle from its coastal strongpoints. And the Air Force and the carrier-based bombers of the Seventh Fleet have certainly made matters easier for the Army by slowing down the flow of supplies and reinforcements into the battle zones and by providing timely and unstinted close-in fire support whenever the Army does battle. Yet in a quite extraordinary and unexpected way, the war for South Vietnam—a war, really, to assure a continued American presence in Pacific Asia—has become unmistakably the Army's war.

Searching for a doctrine

A former artilleryman and Superintendent of the Military Academy, General William
(Continued on Page 24)



**'Copter versatility
plus
transport speed**

Another User Payoff from BELL R&D ...The Proven V/STOL Approach

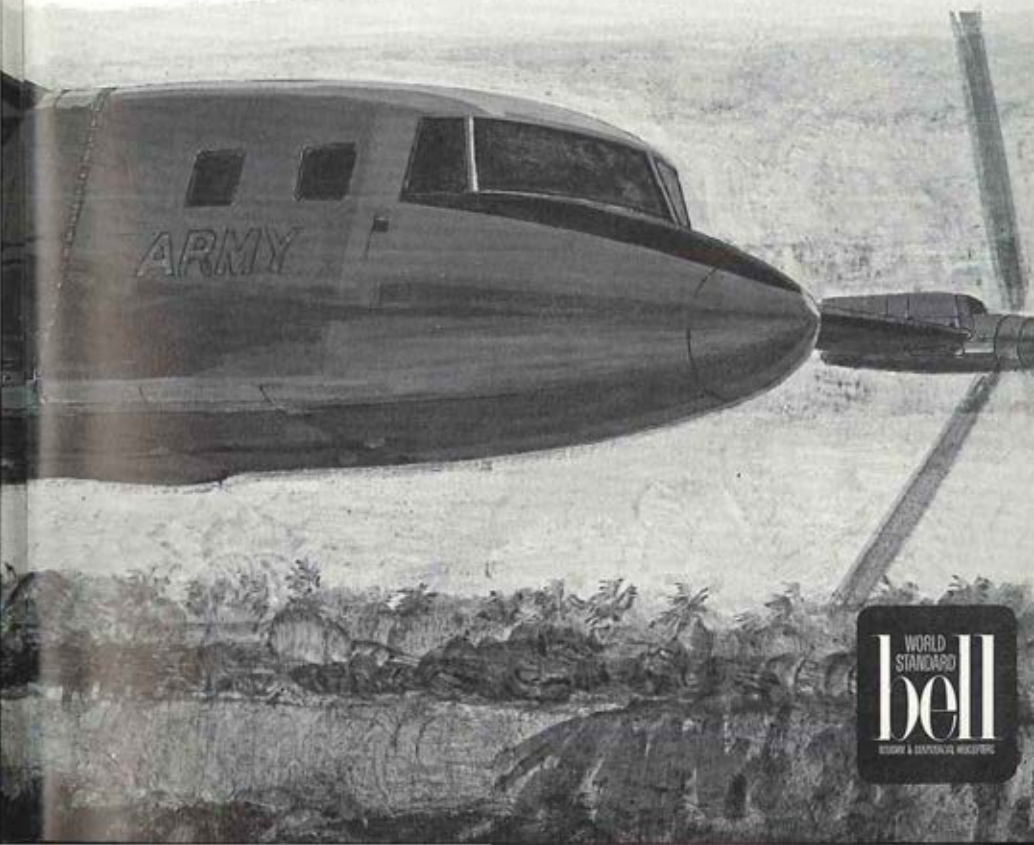
This new helicopter configuration combines the proven Bell tilt-proprotor design concept with modern turbine power. It is a low-risk technical approach to a composite air vehicle which best uses the characteristics of the helicopter to fulfill the Army's need for a fast, V/STOL transport. ■ The concept was pioneered in the Bell XV-3 research vehicle which is now undergoing continued testing. This aircraft has demonstrated, conclusively, the operational practicality of the tilt-proprotor concept with safety and reliability comparable to helicopters. Normal

flight maneuvers were performed throughout the range of conversion angles from 0 to 90 degrees. Full deflection aileron rolls, steep turns and stall maneuvers were accomplished. Power off reconversions and autorotational landings were safely performed. Bell's technical approach combines high propulsive efficiency, high lift/drag ratio, low disc loading and low empty weight to provide maximum cost effectiveness. ■ Such creative Research and Development helps Bell to provide more performance per defense dollar.



BELL HELICOPTER

FORT WORTH, TEXAS 76101 • A **Textron** COMPANY



WORLD
STANDARD
bell
HELICOPTERS & ROTARY WING AIRCRAFT

MULTI-PURPOSE/Continued

C. Westmoreland, is running the show, with a freedom of action that Secretary McNamara has yielded to no other professional. Admiral Ulysses S. Grant Sharp in Hawaii, as Commander-in-Chief U.S. Pacific Fleet, is nominally the overseer of operations in that vast ocean domain, but in practice CINCPAC is functioning primarily as a switchboard for the Army in Vietnam. If Westmoreland really wants something, he can count on a clear line to the White House. Another rising Army man, Major General Richard Stilwell, who formerly was Westmoreland's Chief of Staff in Saigon, is directing various associated enterprises in nearby Thailand. This tandem command puts the Army in control of any contingency actions that a serious widening of the war in Southeast Asia might entail.

On the rise

For soldiers of Westmoreland's and Stilwell's generation, this bright improvement in the Army's lot represents a welcome vindication of a calling that twice in their lifetimes seemed about to enter deep eclipse. First came the hurricane of demobilization after World War II. Then after the Korean war came the uprush of the revolutionary technologies concerned with missiles, thermonuclear warheads, and jet aircraft — all devouring billions of dollars for research and procurement, and all threatening to usurp the historical roles and missions of the infantry.

The Army had come out of the war in possession both of the nuclear technologies that had been developed by the Manhattan Project under its auspices, and (by capture) of German rocket practice and theory. But it lost the one to the civil jurisdiction of the Atomic Energy Commission and the other to its ungrateful progeny, the U.S. Air Force, formerly the Army Air Corps. From eighty-nine divisions in 1945, the regular Army fell to ten in 1950, then rose to twenty in the Korean struggle, only to dwindle to fourteen in the Eisenhower Ad-

ministration. In a cycle of invention when the other services with their nuclear franchises could produce a far "bigger bang for a buck" than the tired old arsenals could put into the M-1 rifle and the 105mm fieldpieces, the Army turned almost neurotic in its search for a doctrine to live by.

Two rebels

In the soul-searching, two of its younger, bolder generals played the roles of rebels. One is the former Lieutenant General James M. Gavin, who now is chairman of the board of Arthur D. Little Co., of Cambridge. The other is General Maxwell D. Taylor. Both are West Pointers. Gavin was an orphan who was raised by an Irish family in a tough Pennsylvania coal town. Taylor, who is from Missouri, was the son of a small-town railroad lawyer. In these particulars, the two men are representative of the Army's deep roots in the people. As senior paratroop officers, they made the famous drop in Normandy, and so belonged to an elite that were innovators of a gallant new role for infantry.

In the mid-1950's, when President Eisenhower insisted on a paring down of the Army, Taylor and Gavin, the former as Army Chief of Staff and the latter as Chief of the Army's Research and Development branch, joined forces again to check him. Failing, they separately retired in a show of protest and gave valuable support to Senator John F. Kennedy in his attacks in 1960 on the Eisenhower defense policies.

Kennedy brought the two rebels home. Gavin returned to government service as Kennedy's Ambassador to France and counselor on NATO affairs. Taylor, in his alternating capacities of presidential military adviser, Chairman of the Joint Chiefs, and Ambassador to Saigon, achieved with Kennedy, Johnson, and McNamara an intellectual rapport that made him easily the most influential military man of the Kennedy-Johnson years. Both proved to be poor prophets, though, so far as their own service was concerned.

Gavin, for example, fought to gain for the

Army a monopoly of the intermediate-range ballistic rocket; he and Taylor pressed hard for the Army's development of the Nike-Zeus anti-missile system; and Taylor, who at one stage favored the development of tactical nuclear weapons for the Army, master-minded a hasty, radical, and, as it turned out, impractical reorganization of the Army's combat structure into Pentomic divisions primarily for the conduct of nuclear war.

In point of fact, during the interval these two men ran the Army, the largest fraction of the funds provided for the R. and D. and procurement accounts was drained off to finance exotic nuclear weapons at the expense of the Army's tank, rifle, mortar, and helicopter. In 1962, while still starved for these elementary tools, the Army was under the embarrassment of reorganizing its basic divisional structure a second time in six years. This time it went to the so-called ROAD (for Reorganization Objective Army Division) structure, an organization that is designed to facilitate, as the immediate battle problem may require, quick changes in the divisional mix of infantry, armor, airborne, and mechanized battalions.

A solution for a third situation

The truth is the Army was hornswoggled one way or another for quite a long time. In spite of all the talk in the Kennedy years about building up the Seventh Army for a prolonged conventional defense of Europe, little was done toward that end, chiefly because our European allies thought the idea was nonsensical. McNamara, in the aftermath of the 1961-62 flurry over Berlin, did create two more regular divisions and put three training divisions into a readiness status.

The practical effect of the change was to raise the number of ready divisions from eleven to sixteen. But all the reshuffling added only 100,000 men or so to the Army, giving it in 1963-64 a strength of about 969,000 men. At the same time, the surge went out of Army procurement, too. In fiscal 1965 the procurement spending fell to less than \$1.8 billion — not even within shouting distance of the \$2.8 billion a year the Army

felt was absolutely necessary for its modernization.

The Kennedy Administration gave considerable fanfare to the organization of the school for special warfare at Fort Bragg, North Carolina. This was a favored project of the late President because of his interest in the art of guerrilla warfare. The school was never meant to produce a combat force, but rather small teams of advisers in irregular forms of warfare for loan to friendly countries. Even now, the Fort Bragg Center graduates only 3,200 officers and noncoms a year, mostly replacements for the teams in Southeast Asia.

So, in effect, the Army itself was standing still through these years. But this was not true of the Army's thinkers. One of the most respected of them, Lieutenant General Charles H. Bonesteel III, presently Army Director of Special Studies, himself the son of a general, played a quiet but critical role in steadying the Army in its sometimes panicky search for a doctrine through the Eisenhower years. A West Pointer and engineer, as well as a Rhodes scholar, Bonesteel through successive assignments to high staff slots on the National Security Council, the Joint Chiefs of Staff, the Secretary of Defense's Secretariat, as well as with various international bodies, had a keen insight into the making of politico-military strategy in our times.

The old law still holds

"For the Army," Bonesteel recalls, "the important discovery, once it had recovered from the shock induced by the advent of the atom bomb, was that the need remained to reaffirm that wars would not and could not be won, or ominous political questions between nations settled, by a single weapon system or strategic concept. All the while the services were debating forces and strategy, the nuclear standoff was lengthening. Now we see in Southeast Asia, as in all the campaigns in history, that the old law still holds: the enemy must be met and defeated on the ground."

All the same, the Army had just about

MULTI-PURPOSE/Continued

convinced itself in the 1950's that the ancient law could well be repealed so far as Asia was concerned. Perhaps the most astonishing thing about General Taylor's book on strategy, *The Uncertain Trumpet*, considering that it was published in 1959, is the absence of any evidence of insight concerning a possible employment of the Army there. In 1959, of course, in common with MacArthur, Eisenhower, Ridgway, and even friend Gavin, Taylor was a member of the "never-again school" of commanders who swore that American infantry ought not to be ordered to fight another Asian war, and certainly not without having early call on nuclear weapons.

It was Taylor's fate, only two years after the appearance of his book, to advise Kennedy to make the starting investment of Army elements in Vietnam that has since whirled up, like the sown wind, into a near Korea-size commitment. In justice to Taylor, it should be noted that his military advice was cut to the measure of Kennedy's political thinking. As already discussed, what first Kennedy and later Johnson looked for was a provisional military response for containing a subwar challenge that lay below the horizon of formal limited warfar—a condition General Harold Johnson likens to *"a third kind of war situation, one marked by intense turbulence but not of a character demanding exposure of the more destructive means of military power that would be logical in a general or limited war."* By that point in time, the Army had discerned in the helicopter possibilities previously unknown to the never-again school of strategists.

In the nap of the earth

The officer who did the discerning is a former cavalryman—General Hamilton H. Howze, who retired last year from the Army, aged fifty-six, to become a vice president and planner for the Bell Helicopter Co. A lean, ramrod-stiff West Pointer, Howze was selected by Secretary McNamara

in 1962 to direct a study into the Army's potential for wider tactical mobility—i.e., how to get farther, faster, with more. The assignment called for his developing, by trial in the field, a new conceptual use of helicopters and light fixed-wing aircraft that would make it possible for the ground forces to bring the principles of movement and firepower into what the planners call "dynamic balance."

The undertaking had a covert flavor, as well. McNamara and the then-senior Pentagon scientist, Dr. Harold Brown (now Secretary of the Air Force), were privately anxious to help the Army recover the mobility and firepower on the battlefield that it claimed to have lost when its air cover passed into the hands of the Air Force.

Howze was no stranger to this particular exercise. A Gavin protégé, and marked as a resolute man with a vivid imagination and an analytical mind, he had been appointed seven years before as the first Director of Army Aviation with much the same object in mind. Under Howze's stimulation, the aviators at the new Army Aviation Center at Fort Rucker, in Alabama, ran a wide variety of exercises intended to demonstrate that infantry lifted in swarms of helicopters could operate as cavalry did for so many centuries—sometimes as a screening force, then as a harassing force hanging on the enemy flank, and, as circumstances warranted, leaping forward to seize a key strongpoint, or bridge, or ridge.

Close to the wind

At that stage, however, Howze was constrained by a Department of Defense ruling that forbade the Army from arming its helicopters. Sailing as close to the wind as they dared, Howze's experimenters fastened machine guns and obsolescent Air Force rockets on the sides of their helicopters, and proved to their own satisfaction, if to no one else's, that an effective suppressing fire could be laid down on an enemy position in advance of a swooping descent by "air cavalry" companies. Nothing important came of the experiments, however. None of



the helicopters then in production was capable of lifting much in the way of a useful military load. Then, too, few Army planners shaded Howze's confidence that so slow and ungainly a machine could live in the face of hostile ground fire and air pursuit.

When, however, Howze was recalled to do McNamara's bidding, several circumstances had changed greatly to the advantage of the concept. First, a machine was in the offing to fit his tactical theories—the Bell UH-1D, a 110-knot helicopter powered by a gas turbine engine and able to lift an infantry squad of eleven men, together with weapons and ammunition. Second, Howze was given to understand that there would be no silly taboos with regard to the ordnance he might be inspired to hang on the machine. Third, as commanding general of the XVIII Airborne Corps, consisting of the 82nd and 101st Airborne Divisions, he had ample resources of his own to draw upon for setting up a comprehensive pattern of exercises.

Concepts proven in combat

Between May and mid-August, 1962, the Howze Board tested the air-cavalry idea in scores of tactical situations—in the piney woods around Fort Bragg, in the Georgia swamps, and in the mountains of West Virginia. The tests were scrupulously conducted. Could the force look after itself in battle? Could it press an assault even in bad weather? Howze concluded that the answer to both questions was yes. Out of a hot summer's work came a grandiose recommendation that five infantry divisions be converted into air assault divisions and three brigades made into air-cavalry combat bri-

gades that would depend for their reconnaissance, airlift, and gun platforms on clouds of helicopters and light aircraft.

Howze himself was still thinking essentially in terms of warfare in Europe. He visualized his helicopter formations as darting like cavalry through what he called "the nap of the earth": skimming over the tops of forests, darting through mountain passes, scooting over water approaches—moving swiftly and surely where infantry ordinarily toils or stumbles blindly. A division to fit Howze's hypothesis required nearly 16,000 men and close to 500 aircraft, of which all but a few would be helicopters. The initial capital investment for machines and other gear was calculated to cost about \$300 million, or about one-third more than the outlay for an armored division.

Understandably, McNamara shied away from so radical a scheme. His skepticism was shared, moreover, by the Army staff. The prevailing view was that mass helicopter operations against an enemy who was himself capable of aggressive air action and counteraction would be hazardous in the extreme. Nevertheless, McNamara was sufficiently attracted by the helicopter's high promise of an enhanced maneuverability for ground forces to authorize in 1963 the formation of the 11th Air Assault Division (Test) at Fort Benning in line with the Howze blueprints. It was never carried on the Army books as part of the regular establishment, though it continued to train.

All the while, though, bits and pieces of
(Continued on Page 30)

QUESTION:

what two Canadian sharp-toothed amphibians carry 8 and 14 fully-equipped troops (or 1800 and 4000 lbs. of combat gear) respectively □ can operate out of 1000 ft. airstrips □ run on dependable PT6A turboprops □ operate on wheels, skis, floats, amphibious floats or wheel/skis □ come from a company with 19 years' experience building rugged STOL aircraft □ are ideal for counter-insurgency, liaison and air-ambulance applications □ and come in your favorite camouflage?



Check:

the Turbo-Beaver (DHC-2 Mk III) and Twin-Otter (DHC-6)



by de Havilland Canada, world leaders in STOL.



THE DE HAVILLAND AIRCRAFT OF CANADA LIMITED
DOWNSVIEW
ONTARIO

the hypothesis were being tested out in battle in Vietnam, in a situation wherein the enemy lacked planes, heavy anti-aircraft weapons, and mechanical means for getting around quickly. It looked to be an ideal situation, geographically and politically, for injecting the Army's helicopter cavalry, and when the decision was taken last summer that U.S. forces should enter the battle forthrightly McNamara promptly ordered that the experimental force at Fort Benning be regularized without delay. Renamed the 1st Cavalry Division (Airmobile), after the famous fighting force, it was rushed across the Pacific, to take up its position in the central highlands of South Vietnam.

A change in the odds

From the beginning the elementary problem, in a country formed of merging and quite roadless jungle, mountains, and waterlogged delta, was to collect and mass men and firepower quickly enough to meet and defeat guerrilla forces whose forte was ambush, the sudden blow and swift melting away, and pervasive terrorism. In such a situation, the sheer physical difficulty of just getting around, combined with ignorance of the movements and strength of an enemy in control of the countryside and shielded by jungle, usually compels the assailed forces to divide up such strength as they have into small packages. These bits and pieces are necessarily made up of permanent garrisons, roving road patrols, and (depending upon the margins of power) a strong or feeble mobile reserve to be used, as circumstances may determine, either for rescuing a besieged garrison or for carrying the attack to the invader.

For eventual success, the equation of relative investment of infantry, as demonstrated in the long-drawn-out campaigns against the Communist guerrilla forces in the Philippines and Malaya, appeared to demand a ratio of from ten to fifteen counterinsurgents to a single insurgent. It was this battle-tested formula that made the odds look so promising to Giap and so terribly disheartening to those who had felt all along that the U.S. had no business getting deeply engaged in South

Vietnam in the first place.

It would be pleasant if one could assert that the intervention of the Army's helicopter cavalry has turned that notorious battle ratio around. There is, alas, no possible way of judging, at this stage of the struggle, precisely how a new ratio should be struck in terms of planning the additional investment required on the counterinsurgency side — whether three or four to one (as the more optimistic planners say) or worse. But it is plain, nonetheless, that the character and pace of the war has changed to the American advantage. Now it is the supposedly road-bound American infantry that is showing itself to be the master of movement and surprise.

Recently, in the course of a single day's fighting in the central highlands, a battery of 105mm guns attached to the 1st Cavalry Division was lifted by cargo helicopters no less than thirty-six different times to a new position, each time to keep the guns in close support of the riflemen who had closed with an enemy lacking both cannon and helicopters. Over terrain previously all but impassable for troops, it now is quite commonplace for an entire battalion, made up of from 750 to 800 riflemen, to be moved as much as 100 miles during the night, so as to be in a favorable position for an assault at daybreak. And the ordnance being mounted on these machines — shrapnel-scattering antipersonnel rockets that can be released in salvos, clusters of machine guns that fire 500 rounds a minute each, and grenade launchers — makes them formidable gun platforms.

A matter of horse sense

A year and a half ago, when the U.S. Army still was limited pretty much to the role of adviser, supplier, and training instructor to the fast-foundering South Vietnamese Army, less than 300 helicopters were in use by the military, and only a few score of these were armed. Now the U.S. Army alone is operating almost 1,400 helicopters in the country, most of them troop carriers or gunships, and by the end of the year the force will number some 1,700. There will then be pitted against the North Vietnamese

troops more tactical helicopters than are likely to be found in all the rest of the world's armies. Lifting whole brigades with their cannon, recoilless rifles, ammunition, and other gear from one battle area to another should put the Army under no unusual strain.

By these imaginative inventions and adaptations, the Army has succeeded in inhibiting the power of maneuver that had been Giap's only real military asset. No matter how painstakingly he may from this point on collect batches of fresh troops through infiltration, the instant battle is joined he must reckon on the capacity of the U.S. Army to bring up reinforcements twenty, thirty, even a hundred times faster than the North Vietnamese troops can move.

No one engaged in this phase of the Vietnam battle is so foolish as to believe that the helicopter forces will continue to get off as lightly as they have so far—less than four-score machines lost in thousands of actions. Obviously enough, the enemy is beginning to bring into the battle zone heavy machine guns adapted for use against the helicopters. But these in turn, being heavy to carry and consuming large amounts of ammunition, must tax the enemy's hand-carry supply system and further restrict his mobility.

The moral in all this, no doubt is: never sell the U.S. Army short. Down and all but counted out, it has been able to rise from the nuclear fire, so to speak, and take command of the Vietnam strategy because it alone among the military services had a politically acceptable prescription for a vexing and dangerous dilemma there. This depends in the end, as the Army traditionally holds it must, on a man advancing across the ground with a rifle in his hand, although the man now starts his walk from a helicopter. "Horse sense," observes General Bonesteel, "always told us that the Army must have some special versatility on call to handle mixed military and political problems of the kind that face us in Southeast Asia."

The "other trouble"

"Horse sense also tells us," Bonesteel continues, "that the Army must consist primarily

of general-purpose forces equipped with general-purpose weapons and gear ready to augment forces wherever needed." The emphasis, in other words, must remain on the heavy divisions that undergird the strategy for Europe. How much the Europe Army may gain from the heightened capacity for maneuver that is certain to flow from the experience in Asia is, as suggested earlier, a moot question. The Army itself does not pretend to know where it is going from this point.

Regrouping foreseen

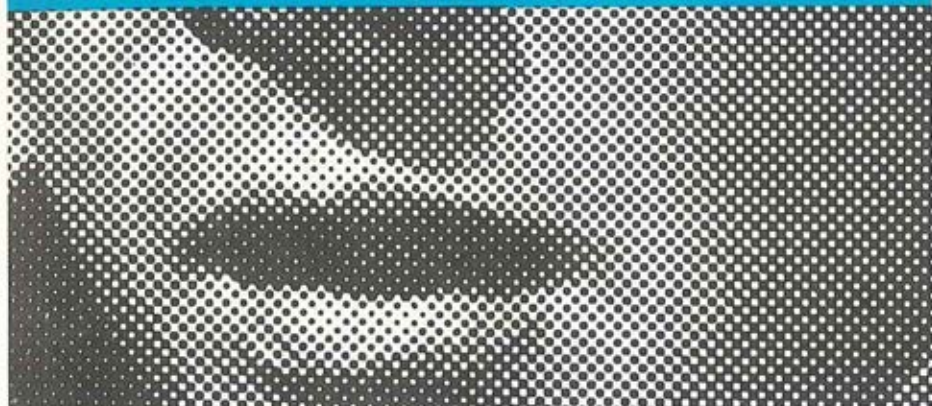
In NATO Europe, General de Gaulle's senseless and destructive (by American logic) burst of nationalism threatens to undermine a successful military strategy. Should he persist in his demand that we dismantle SHAPE (allied headquarters at Rocquencourt, outside Paris) and roll up the Seventh Army's principal line of communication across France, that Army's situation in Europe could turn precarious. At the very least, a costly and fairly haphazard regrouping of the Army is in the cards.

This is the most unsettling development that the U.S. Army has faced in Europe since it deployed there fifteen years ago. Inside Germany, the troops and their families are already scattered among hundreds of *Kasernen* in as many towns and villages. A new line of communication must of necessity either run south from the great ports of Hamburg and Bremerhaven or east from Rotterdam and Antwerp. In the first instance, the Army will draw its stores over roads and a river system that lie broadside on to the likely front and only a few score of kilometers behind it, or in the second over roads that have been the historical invasion route across the north German plain. This will not make for peace of mind.

De Gaulle's incivility could hardly have come at a more mischievous time. The Army in Europe has been temporarily weakened by the drain on its officers and men caused by the Vietnam war half the world away.

The new multi-purpose Army has its work cut out for it in both Europe and Asia. Fortunately, it has the talent to handle it.

SPEAKING OUT



THE VIETNAM LIGHTNING BUG MISSION BY CAPTAIN GLENN A. SMITH, II

A great deal of research and attention is being devoted to the improvement of the *Lightning Bug* mission against the Viet Cong. *Lightning Bug* was originated by the 197th Aviation Company over a year ago and has been used to sink hundreds of enemy boats and to kill untold numbers of Viet Cong on the large rivers and canals in the III Corps area in Vietnam.

Flying searchlights

Basically, aircraft of the 197th Aviation Company (AML) illuminate a specific area with a large searchlight made by utilizing several C-123 landing lights. When boats or sampans are discovered operating in unauthorized areas at night they are immediately attacked and destroyed by the armed helicopters that accompany the *Lightning Bug* aircraft.

Although the *Lightning Bug* mission was the original "baby" of the 197th, as part of

the 145th Aviation Battalion, it has been very successfully employed by the 13th Aviation Battalion in the IV Corps area.

Recently, many other units have been equipped to fly *Lightning Bug*, and new ideas to increase the effectiveness of the mission are being combat-tested. Generally, these new ideas pertain to night detection and new night-viewing devices that will increase our ability to see the enemy. A lot of effort and money are going into these tests, some of which show a great deal of imagination.

Basic oversight

For the most part, however, the effort has been characterized by one oversight. To make our night attack missions more effective we must devise methods of surprising "Charlie" before he can hide and take cover.

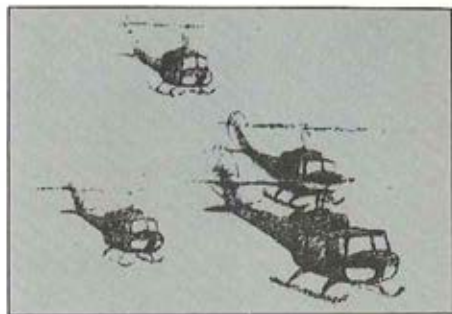
If we construct a surprise-effectiveness

graph from 0 to 100, the best we can ever hope to achieve with the UH-1 series of helicopters — and these are my figures — is about 5. All *Hueys*, and I'd guess the new *Cobra*, make a loud, distinctive noise which can be detected at least one or two kilometers distant. Even though a *Huey* gunship can attack at night blacked out, it will announce its presence by sound far enough in advance to allow the Viet Cong to hide.

If we want to achieve real surprise, we should have ratings of up to 95 on the graph! We need not only a blacked out helicopter, but a silent one!

Silent one available

There is one such helicopter available at this time, in my mind, and that is the Kaman H-43 *Husky*, owned by the USAF. If some of our new night detection devices and techniques were employed with the *Husky*, in my opinion we'd be able to surprise "Charlie" at night so effectively that we could



virtually stop all illicit river and canal traffic. I'd like to recommend that three *Husky* helicopters be given to the 197th Aviation Company, and a like number to the 13th Aviation Battalion, for night experimentation in combat.

As long as *Lightning Bug* is receiving more command emphasis and attention, let's go all the way and do it right with nearly silent attack helicopters.

LATEST HELICOPTER STATISTICS

U. S. Army helicopters, a key factor in the fighting in Vietnam, are proving harder than ever to knock down.

In the last six months, helicopter operations have become considerably safer, while sorties have increased both in number and scope in keeping with the U.S. build up.

The number of aviation personnel killed in hostile action has remained approximately the same despite a tremendous build up in personnel. Viet Cong hits on U.S. helicopters have decreased 11 per cent in one year.

Continental Army Command announced in September that U.S. Army helicopters were hit an average of once in each 411 sorties. The announced knock-down rate caused by ground fire was one helicopter in 7,887 combat sorties. In the first half of 1966, one helicopter in 450 combat sorties was downed by enemy fire. In other words, 18 out of 19 helicopters hit by ground fire returned to base.

Because more than half the downed ships are recovered, the actual loss rate was one helicopter in each 15,599 combat sorties or, to put it another way, .0064 per cent of the combat sorties flown lost a helicopter. In the first half of 1966, only one ship in 16,700 combat sorties was rendered unrecoverable, or .0059 per cent of the sorties flown lost a helicopter, amounting to a safety increase of .0005 per cent in one year.

These statistics are based on studies of approximately one million sorties from January 1, 1965 through May 31, 1965 and from January 1, 1966 through April 30, 1966.

The *Huey* in flying a majority of the Army combat sorties in Vietnam, averages three hours of ground maintenance for every hour in the air. In spite of this, Army ships fly an average of 55 hours per month.

In April, Army helicopters flew 12 times as many combat sorties as the U.S. and Vietnamese Air Force combined.



Hughes OH-6A sets new

The Army's new light observation helicopter, the Hughes OH-6A, claims 23 world records* (more than any other helicopter.) In April, it made the longest nonstop, non-refueled helicopter flight in history—2,215 miles from Los Angeles to Daytona Beach—averaging 146 mph.

*Submitted to NAA and FAI for official recognition.



Col. Joseph Gude, OH-6A project manager, flashes across the 3-km course in the E-1.c class at 172.410 mph.

world record: 172.4 mph

The OH-6A has flown farther in a closed-circuit than any other helicopter (1,739.836 miles)...is fastest in the world over a 2,000-km (1,243 miles) distance...has flown at the highest sustained altitude ever recorded by a helicopter...and has set 18 other new world class records for speed, distance, and sustained altitude.

Hughes Tool Company Aircraft Division.



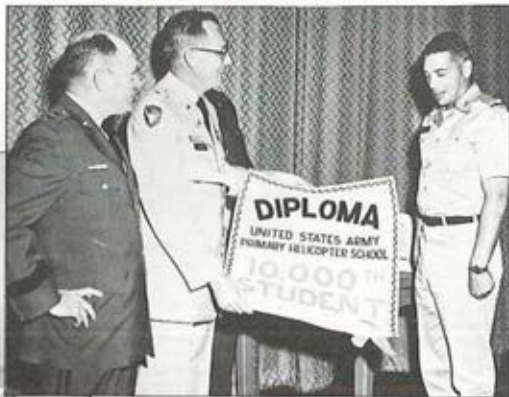
HUGHES HELICOPTERS



LEFT: Macon Boddy, winner of the North Texas Regional Science Fair, "flies" the Whirlymite, a captive helicopter trainer being tested at USAPHC, Fort Wolters, Texas. His instructor is Captain Thomas O. Kuypers. Macon's trip, which was sponsored by the Army Aviation Association, included a tour of the post and a luncheon at the Officers' Open Mess. During the luncheon, Colonel E. P. Fleming, Jr., presented Macon with the AAAA Science Fair Award Plaque citing him for his accomplishment. BELOW: Warrant Officer Candidate Robert Wright, right, receives a king-size diploma as the 10,000th student to complete primary rotary wing training at the U.S. Army Primary Helicopter Center. Making the presentation is Colonel E. P. Fleming, Jr., USAPHC Commander. Looking on at left is Major General Harry H. Critz, the Commanding General of the Artillery and Missile Center, Fort Sill, Oklahoma, the graduation guest speaker.



ABOVE: First Lieutenant Murrell I. Sloan, an instructor pilot for the CV-2B Caribou aircraft transition training program is shown briefing a group of Air Force officers on the Caribou's electrical system. The training program, which will teach the capabilities and operation of the CV-2, also includes flight qualification in the aircraft. This program was initiated in preparation for the Air Force assuming the operational control of the Caribou. RIGHT: A close-up view of a sign display at the Bell Helicopter Company plant at Fort Worth, Texas. The sign emphasizes the "closeness" of military operations in Vietnam to Bell employees. Bell is the producer of the UH-1 series of helicopters which is being used extensively in Vietnam. Travis J. Brown stands by the display as a believer in the company's policy of "Vietnam Awareness" — he has a brother serving in Vietnam. Many Bell employees also have relatives in military service there.





THE MONTH'S TAKEOFFS

GENERALS

KINNARD, H.W.O., MGen
ACSFOR, DA
Washington, D.C. 20310

COLONELS

BUELOW, Wallace R.,
213 Damascus Road
Enterprise, Ala. 36330
BURTON, Jonathan R.,
Hq, 1st Cavalry Division
APO San Fran 96490
CROUCH, Horace J., Jr.,
Sr Engr Adv, KMAG
APO San Fran 96302
EVERS, Raymond R.,
Sharpe Army Depot
Lathrop, California
MOORE, Robert K.,
7807 Evening Lane
Alexandria, Va. 22306
NEEL, Spurgeon H.,
421 Argyle Drive
Alexandria, Va. 22305
PIERCE, John T., III
Quarters 47
Fort Belvoir, Va. 22060
POWELL, Edwin L., Jr.,
ACSFOR-Av, Rm 3E486
Washington, D.C. 20310
SHEA, Gerald H.,
Hq, 17th Aviation Group
APO San Fran 96240
WOOD, Edgar C.,
Hq, USCONARC
Fort Monroe, Va. 23351

LT. COLONELS

ALLGOOD, Charles N.,
Depot Maint Div, SMA
APO New York 09055
AUFILL, John S.,
18 Diamond Circle
Fort Rucker, Ala. 36360
BAILEY, Paul O.,
93 Trailux Mobile Vill.
Denbigh, Va. 23602
BARNES, Wilman D.,
OPD, OPXAA, OPO, DA
Washington, D.C. 20315
BOWMAN, James E.,
7th Army Spt Cmd, Maint
APO New York 09160
CARROLL, Danford S.,
Route 3, Box 68
Buena Vista, Ga. 31803
CLARK, Max A.,
Box 20
Sunnyside, Florida

LT. COLONELS

DODD, William R.,
106 Trotman Circle
Ozark, Alabama
DUNCAN, William L.,
USA Log Div, Sup & Svc
APO New York 09403
GUNN, Raymond M.,
3423 Revere Road SW
Atlanta, Ga., 30331
HILL, Ralph E.,
USA Elm, MACV
APO San Fran 96243
KONVICKA, Henry H.,
Hq, Fourth U.S. Army
Ft. Sam Houston, Texas
LAHAIE, Robert J.,
Truman, 11448 N 71st St
Scottsdale, Ariz. 85251
MEAD, Chester H.,
Hq, Army Airfield Cmd
APO San Fran 96238
MORE, Berkeley D.,
P.O. Box 428
Fort Rucker, Ala. 36360
MUTTONI, Donald S.,
325 Marick Drive
St. Louis, Mo. 63119
OTTO, Wayne R.,
Hq, USAREUR, Med Div
APO New York 09403
REUTER, Robert M.,
Panorama Court
McLean, Va. 22101
SHAMBUK, Roland H.,
OTSG DA, Main Navy
Washington, D.C. 20315
SMITH, Athol M.,
611 Galloway Drive
Fayetteville, N.C. 28303
STYVE, Lester O.,
Hq, CENTAG NATO, G4
APO New York 09099
TEAGUE, Jerry L.,
AFSC, Class 40
Norfolk, Va. 23511
TEDESCO, William J.,
53rd Avn Det, Field Eval
APO San Fran 96291

MAJORS

ADISS, Daniel A.,
173rd Abn Brigade
APO San Fran 96250
ANDERSON, John H.,
515 Un Lauman Avenue
Fort Sill, Okla. 73603
ARANYOSI, A.J.,
3770 Sycamore Drive
Easton, Pa. 18042

MAJORS

AULT, William E.,
18032 Belshire Avenue
Artesia, California
BAUGH, Russell E.,
USAAVNS
Fort Rucker, Ala. 36360
BEEKMAN, Gerald R.,
405 Jefferson Street
Oconto, Wisc. 54153
BOGGS, Joseph C.,
437 West Elm
Junction City, Kans 66441
BROMAN, Ralph W.,
1220 S Nepp Avenue
West Covina, Cal. 91790
CALCATERA, Kenneth J.,
705 E Cecil St, Apt 2
Neenah, Wisc. 74956
CARLILE, Cecil O.,
1108 Westview Drive
Ozark, Alabama
CLARK, Norman S.,
A Co, 25 Avn Bn, 25 Inf
APO San Fran 96225
CLAYBOURN, Guy R.,
302 Moore Avenue
Palacios, Texas 77465
COOK, Charles T.,
866 Ohio Avenue
Trenton, N.J. 08368
CORLESS, Reginald H.,
510 Cheddington Road
Linthicum Heights, Md
DAVIS, Lauren S.,
HHC, 228th ASH Bn
APO San Fran 96490
DEAN, Edward R.,
Hq Co, 520th Trans Bn
Fort Benning, Ga. 31905
DENMAN, William F.,
23 Boyce Lane
Fort Rucker, Ala. 36360
DIETDERICH, Wallace R.,
42 Rose Loop
Ft. Leavenworth, Kans.
DOBSON, Dale E.,
2015 B Miami
Leavenworth, Kans 66048
DRENZ, Charles F.,
194 Dabney Place
Newport News, Va. 23601
FERRIS, Gordon F.,
903 N 13th Street
Leavenworth, Kans 66048
FITE, Burgess B.,
11 Donovan
Fort Rucker, Ala. 36360
FORD, James W.,
64 Harvard Lane
Napa, California 94558

MAJORS

GANT, Preston G.,
P.O. Box 23
Bethel, Alaska
GILLILAND, John O.,
Steeley, Route 6
Boaz, Alabama 35957
GOODALL, Billy R.,
5 Anderson Street
Fort Stewart, Ga. 31313
GOODE, Franklin C.,
3572 Bellaire Dr, Apt 17
Fort Worth, Texas 76109
HALEY, John C.,
Hq, Supt Cmd, 1st CD
APO San Fran 96490
HEALY, Richard W.,
507th Medical Company
Ft. Sam Houston, Texas
HELMICK, Glema O.,
P.O. Box 46
Pickens, West Va. 26230
HILL, James F.,
847 Catalina Drive
Newport News, Va. 23602
HOFFMAN, Howard J.,
4343 Victory Dr, Apt 15
Columbus, Ga.
HOLLERAN, Raymond F.,
162nd Aviation Company
APO San Fran 96289
HOLLOMAN, Robert A., III
7211 Reservoir Road
Springfield, Va.
HUTH, Walter H.,
5001 N 36th Street
Arlington, Va. 22207
JARVIS, William H.,
11th GS Avn Co, 1st CD
APO San Fran 96490
JASPER, Theodore C.,
120 Hamilton Road
Ridgewood, N.J.
JOHNSON, David S.,
11th Aviation Battalion
APO San Fran 96289
JUTZ, Donald G.,
121 Baltzell Avenue
Fort Benning, Ga. 31905
KNIGHT, Emmett F.,
B Co, 503d Avn Bn
APO New York 09165
KORHLER, Joseph R.,
4708 Rean Meadow Dr.
Kettering, Ohio 45440
LAGRANDEUR, Kenneth W.,
74 Endl
Fort Rucker, Ala. 36360

MAJORS

LANDRY, Robert L.
54th Aviation Company
APO San Fran 96291

LESLIE, James M.
1301 South Bell Street
Dothan, Ala. 36301

LEUPPERT, Fred W.
2 Mountain View Avenue
Saugerties, New York

LOVETT, John A.
1200 Locust Street
Topeka, Kansas 66607

LUSTER, Albert B.
Hq, 14th Trans Bn
APO San Fran 96240

McANDREW, Thomas J.
114th Aviation Company
APO San Fran 96357

McCONNELL, James
2846 NE 24th Avenue
Portland, Oregon 97212

McCONNELL, Lewis J.
1804 Holapa Street
Honolulu, Hawaii 96818

McCRANE, Asa C.
C Btry, 2/20th Arty, 1CD
APO San Fran 96490

McGEE, Bernard A., Jr.
2196 14th Avenue SW
Largo, Florida

McGILLICUDDY, C.F.
P.O. Box 214
Edgewood Arsenal, Md.

McGOWAN, Eugene
1301 S Buchanan Street
Marion, Illinois 62959

McILWAIN, Eugene W.
P.O. Box 442
Butler, Alabama

McLENNAN, Stuart G., Jr.
15 Defense Hill Road
Rocky Point, N.Y. 11778

MILLER, Billy G.
2768 Fergusson Circle
Fort Eustis, Va. 23604

MITCHELL, Theodore L.
3rd RRU
APO San Fran 96307

MOELLER, Gene L.
1922 Dixwell Street
Davenport, Iowa

MOORE, Francis D.
Route 1, Box 318
Lake Stevens, Wash 98258

MOORE, James E.
228 Clubview Drive
Alexander City, Ala.

MORAN, John F., Jr.
405 Patrick
Mineral Wells, Tex. 76067

MOSHER, David L.
1200 South Newton Street
Sloux City, Iowa 51106

NEW, Guy E.
2409 Melrose Avenue
Bossier City, La. 71010

OAKLEY, Howard H.
219 Stuart Street
Martinsville, Va. 24112

MAJORS

OBBERG, Robert E.
850 Montgomery Road
Baltimore, Md. 21227

O'DONOHUE, John D.
883 Cascade Drive
Newport News, Va. 23602

PATTERSON, James H.
621E 13th Street Terrace
Leavenworth, Kansas

PERSHING, Jay W.
315 Paulette Drive
Newport News, Va. 23602

PREISENDORFER, E.P.
181 Corinthia Drive
Denbigh, Va. 23602

REED, James R.
2338 S Maryland
Springfield, Mo.

RHYAN, Ernest W., Jr.
S-4, USAAVN Element
Fort Stewart, Ga. 31313

RIXON, M.D.
15423 SE 7th Place
Bellevue, Wash. 98004

ROBERTS, Benjamin D.
B Co, 25th Aviation Bn
APO San Fran 96225

ROBERTSON, V.M., Jr.
ODCSOPS, DA
Washington, D.C.

ROYSE, Michael F.
202 E Wyoming Avenue
New Port Richey, Fla.

RUTKOWSKI, Joseph F.
933 Santa Fe
Atchison, Kansas 66002

SCHUETT, Darwin L.
1196 Highland Road
Mundelein, Ill. 60060

SCHULL, Dannel V.
14 Castle Way
Fort Rucker, Ala. 36360

SCHWARZ, Henry E.
7417 Park Terrace
Alexandria, Va.

SHARTZER, Joice
Walter Reed Hosp, Wd 3
Washington, D.C. 20012

SMITH, Albert L.
685 Basley Drive
Wayne, Michigan 48184

SMITH, Courtney E., Jr.
2100 Brookview Drive N
Minneapolis, Minnesota

SMITH, Eldon L., Jr.
Turner, Box 525, Rt 2
Thomasville, Ga. 31792

SPOTTS, Rodney W.
HHC, 228th ASH Bn
APO San Fran 96490

STADLER, Louis J.
128 Avn Co, 11 Avn Bn
APO San Fran 96289

STARKEY, James E.
213 Med Hel Company
Fort Benning, Ga. 31905

STEWART, John P.
Hq, 23rd Artillery Group
APO San Fran 96289

TATE, Wallace L.
180 Avn Co, 10 Avn Gp
Fort Benning, Ga. 31905

MAJORS

TEDLOCK, Billy L.
Army Sect, JUSMAAG
APO New York 09223

UTZ, John S.
A Btry, 2/20 Arty, 1st CD
APO San Fran 96490

WATKINS, Charles W.
63 Boyce Lane
Fort Rucker, Ala. 36360

WATSON, Ronald J.
115 Cedarwood Park
Alken, S.C. 29801

WILLIAMS, Richard L.
1074 West Main Street
Newark, Ohio 43055

WINGATE, Charles S.
Drawer W
Carrabelle, Fla. 32322

WOLFF, William H.
1997 S. Atlantic
Daytona Beach Shrs, Fla.

WRIGHT, Theodore K.
406 Holly Hill
Enterprise, Ala. 36330

CAPTAINS

BASS, Walter E.
Box A
Picayune, Miss. 39466

BAUER, Daniel R.
3/5th Cavalry, 9th Div
Fort Riley, Kansas

BENSON, Frederick S.
100 Nottingham Manor
Montvale, New Jersey

BERGMANN, Walter M.
161st Aviation Company
APO San Fran 96238

BIRELEY, Judson L.
2117 Drury Lane
Shawnee Mission, Kans.

BLEVINS, Virgil E.
1/9th Cavalry, 1st CD
APO San Fran 96490

BROTHERS, Ernest W., Jr.
540th Trans Company
APO San Fran 96240

BROWN, Jerry R.
1st Bde, 101st Abn Div
APO San Fran 96346

BURKE, James A.
SAA, S & SD
APO New York 09046

CARSON, Gerald P., Jr.
183rd Aviation Company
APO San Fran 96227

CAYANAUGH, Michael D.
208 Harris Drive
Fort Rucker, Ala. 36360

CHAPMAN, William S.
14th ACR Aviation Co
APO New York 09148

COLELLO, Joseph
A Co, 1 Avn Bn, 1 Inf Div
APO San Fran 96345

COWDEN, Ronald R.
4611 Santa Fe
Lawton, Okla. 73505

CUMMINS, Clark H.
3532 McKnight Road
White Bear, Minn. 55110

CAPTAINS

DALE, John W.
1712 11th Street
Galena Park, Tex. 77547

DEEL, Arlin
1901 SE 11th Street
Mineral Wills, Tex. 76067

DEHRKOOP, Clinton B.
5121 Beals Drive
El Paso, Texas 79924

DEMPSEY, Bruce R.
407 Fowler Avenue
Killeen, Texas

DENNISON, Gary V.
146th Aviation Company
APO San Fran 96307

DUNAWAY, Fred C.
Route 2, Westchester Hts
Picayune, Miss.

EBERWINE, James A.
263rd Med Det (Hel Amb)
APO San Fran 96307

ELLIS, Kent G.
2324 Julianna Circle
Dallas, Texas 75229

FERGUSON, Norman N.
20 Monteth Lane
Fort Rucker, Ala. 36360

FOOTE, Brian G.
1221 Wiltshire Avenue
San Antonio, Texas 78209

FRAKER, William W.
17 Fowler Lane
Fort Rucker, Ala. 36360

GRIER, Edward G., Jr.
600 Ogden Drive
Mt. Holly, New Jersey

HALE, Edward G., Jr.
6342 Alcott Avenue
Van Nuys, Cal. 91401

HANKINS, Charles A.
8232 Goodman
Overland Park, Kansas

HART, Kyle E.
RFD 1
Watauga, Tenn.

HAYS, Robert O.
365 Pearl Street
South Haven, Mich. 49090

HOEFLE, Leroy H.
A Co, 1 Avn Bn, 1 Inf Div
APO San Fran 96345

JENKINS, Robert L.
11th GS Avn Co, 1st CD
APO San Fran 96490

JENKS, Allen R.
12875 Sarah Lane
Houston, Texas

JOHNSTON, William B.
135th Aviation Company
APO San Fran 96312

KARPINIA, Walter
7701 A Ray Street
Fort Meade, Md. 20755

KERBL, Frank R.
606 Perkins Street
Fort Benning, Ga. 31905

KIMAK, Philip B.
Avn Sch, CMR 2, Bx 7385
Fort Rucker, Ala. 36360

LEADABRAND, Jerry A.
Box 126
Greenwood, Neb. 68366

CONTRACTS

■ Avco Lycoming Division, Stratford, Connecticut, for production and delivery of aircraft engine components \$5,382,462 on May 13, \$183,723 on May 13, \$308,853 on May 17, \$3,229,861 on May 24, \$988,365 on June 2; for production and delivery of UH-1 turbine rotors \$2,205,700 on May 18; for increasing production facilities \$1,425,000 on May 19; for production of 74 T53-L-7 engines for the OV-1 Mohawk \$2,830,000 on May 23; for production of T53-L-11 and -13 turbine engines for the UH-1 \$30,064,554 on May 27; for production of T53-L-7 turbine engines for the CH-47 Chinook \$10,983,974 on May 27; a series of four contracts for production of engine components \$772,550 on June 6, and \$1,030,591 on June 10; for production of T53-L-15 engines for the OV-1 Mohawk \$1,756,440 on June 10; and for production of support equipment \$2,664,081 on June 10.

■ McCauley Industrial Corporation, Dayton, Ohio, for production of propellers for the O-1 Bird Dog \$82,405 on May 13.

■ W. A. Apple Manufacturing, Inc., Dayton, Ohio, for the production of parachute slings \$104,330 on May 17.

■ Columbia Aircraft Services, Bloomsburg, Pa., for modification and modernizing components of 1,149 O-480 U-8 engines over a three-year period on May 17.

■ Pioneer Aerodynamic Systems, Inc., Manchester, Conn., for production and delivery of 100-foot personnel chest parachutes \$395,162 on May 17.

■ Harrison Radiator Division, GMC, Lockport, New York, for production and delivery of oil cooler assemblies for the UH-1 helicopter \$271,971 on May 18.

■ Chandler Evans, Inc., West Hartford, Conn., for production of components for the UH-1 helicopter \$84,741 on May 18, and for production and delivery of fuel control units \$1,705,210 May 24.

■ Aeroquip Corporation, Jackson, Mich., for production and delivery of cargo parachute slings \$266,455 on May 13.

■ Boeing Vertol Division, Morton, Pa., for production of transmission assemblies and other major items for the CH-47A \$5,900,000 on May 18.

■ Kaydon Engineering Corporation, Muskegon, Michigan, for production and delivery of ball bearings for the UH-1 \$103,490 on May 18.

■ Hamilton Standard Division, Windsor Locks, Conn., for production and delivery of fuel controls for the CH-47 Chinook \$2,895,576 on May 20.

■ Master Specialties Company, Costa Mesa, Cal., for production of panel assemblies for the UH-1 helicopter \$499,374 on May 24.

■ Canadian Commercial Corp. of Ottawa, Ont., for production of major aircraft components \$193,235 on May 25.

■ Kings Point Industries, Inc., New York, N. Y., for production and delivery of aerial delivery cargo slings \$106,968 on May 27.

■ Cessna Aircraft Company, Wichita, Kansas, for production of 2,431 sets of SUU/13A ammunition dispensers \$1,190,000 on May 31.

■ Allison Division, GMC, Indianapolis, Indiana, for production of 179 aircraft engines \$2,059,037 on May 31 and for tests conducted on the engines and major components \$3,225,166 May 31.

■ General Laboratories Associates, Inc., Norwich, New York, for production and delivery of cable assemblies for the UH-1 \$67,582 on May 31.

■ Pratt & Whitney Aircraft Division, UA, East Hartford, Conn., for delivery of aircraft engine components \$100,332 on May 31.

■ C. R. Daniels, Inc., Daniels, Maryland, for production and delivery of UH-1 seats \$138,872 on May 31.

■ C.G.S. Scientific Corp., Southampton, Pa., for hydraulic test benches \$209,880 on May 31.

■ Pioneer Aero Systems, Inc., Manchester, Conn., for production and delivery of 15-foot cargo extraction parachutes \$220,835 on May 31.

■ Universal Match Corp., Unidynamics Div., St. Louis, Mo., for development of testing equipment for turboshaft and turboprop engines \$1,264,025 on May 31.

■ Goodyear Aerospace Corporation, Akron, Ohio, for delivery of CH-47 personnel armor kits \$176,400 on June 1.

■ Bell Helicopter Company, Fort Worth, Texas, for production of transmission assemblies \$9,718,199 on June 3 and for production of main rotor blade assemblies \$1,142,676 on June 3.

CAPTAINS

LEE, Gordon K., Jr.
1 Hodges Place
Fort Stewart, Ga. 31313

LENOCI, Joseph V.
9813 Forest Avenue SW
Tacoma, Wash. 98498

LEROY, Paul S.
800 Roy Parker Road
Ozark, Alabama 36360

MACNAMARA, Gervase M.
2512 Ridgmar, Apt 19
Fort Worth, Texas

MAQUIRE, John H.
2008 2nd Street SE
Moultrie, Georgia

McCONNELL, Delmer M.
507 Southwest 3rd Street
Mineral Wells, Tex. 76067

McGEE, William H.
213th Aviation Company
Fort Benning, Ga. 31905

McKENZIE, Robert C.
4515 Chippewa Drive
Okemos, Michigan

McNEIL, Charles B.
P.O. Box 450
Polson, Montana 59860

McPHERSON, William
34th Gen Spt Group
APO San Fran 96307

MENLOVE, Merrill R.
215 Harris Drive
Fort Rucker, Ala. 36360

MILLIROS, James H.
1st TC, Corp Christi Bay
FPO San Fran 96601

MORLER, Lawrence B.
5215 Gettysburg Way
Columbus, Ga. 31907

MOORE, Charles L.
213th Aviation Company
Fort Benning, Ga. 31905

MOUW, James W.
18 Hartell Way
Fort Rucker, Ala. 36360

MULLER, Anthony N.
4720 Pike Drive
Metairie, La. 70003

MYERS, Marvin O.
35 Meloy Drive
Columbus, Ga.

NEWTON, James C.
20th ASTA Detachment
APO San Fran 96308

OSTICK, Charles T.
30-91 42nd Street
Long Island City, N.Y.

OWEN, Dean M.
Class 66-7, Box 5492
Fort Rucker, Ala. 36360

PAIGE, Vernon G.
HHC, 1st Cavalry Div
APO San Fran 96490

PAUL, Gerald D.
HHC, 3rd Bde, 1st CD
APO San Fran 96490

PEDERSEN, Millard L.
92nd Aviation Company
APO San Fran 96337

CAPTAINS

POWELL, Madison R.
417 Madison Avenue
Dothan, Ala. 36301

PRAWITT, George F.
16th Avn Det, Sect B
APO New York 09164

RAMEY, Harold M.
Box 34
Mackay, Idaho 83251

SCOTT, David I.
121 Magruder
Mineral Wells, Tex. 76067

SEVERSON, Robert F.
141 Hilday Road
Troy, New York

SHEARER, Charles F.
Round Lake Mob Ct Rd 1
Mechanicville, NY 12115

SIBERT, George W.
Southwind Mob Village
Daleville, Alabama

SIEGLING, William A., Jr.
907 Clifford Drive
Mt. Pleasant, S.C. 29404

SIMPSON, Allan R.
152 Ash Street
Forest Park, Ga.

SMITH, Lewis A.
964 President Avenue
Toms River, N.J.

SNOW, Quentin E.
550 North 2nd East
Logan, Utah 84321

STANLEY, Norman L.
217 Tignor
Pampa, Texas

STRINGER, Paul G.
8 Tanner Avenue
Lexington Park, Md.

TALBOT, Wilbur D.
42nd Field Hospital
APO New York 09478

THOMPSON, David E.
Hq, USARV, 52 Avn LO
APO San Fran 96307

TREDWAY, Robert N.
11th Armored Cav Regt
Fort Mead, Maryland

TURNER, Erwin E., Jr.
28 Girard
Fort Smith, Arkansas

WALLACE, John M.
17 Maderia Drive
St. Augustine, Fla. 32084

WARREN, John O., Sr.
2nd Signal Group
APO San Fran 96307

WEBER, Ralph P.
129 Madden
Pi Huachuca, Ariz. 85613

WEBSTER, George L.
16th Aviation Det.
APO New York 09403

WESTLAKE, Edgar A.
200 SW 68th Boulevard
W Hollywood, Fla. 33023

WILSON, Chester L.
Det 12, 318th USASA Bn
APO New York 09696

WILSON, Donald E.
2863 Hastings Avenue
Redwood City, Cal. 94061

CAPTAINS

WISBY, James M.
USAPHC
Ft. Wolters, Texas 76067

WITT, Kenneth E.
Ted Svanda
Tyndall, S.D. 57066

WOOD, Robert L.
1379 Carlisle
Elk Grove Village, Ill.

LIEUTENANTS

BARLOW, Ronald B.
538 Glenwood Drive
Paducah, Ky. 42001

BRASHER, Jimmy M.
U.S. Army Spt Cmd
APO San Fran 96240

BYARD, Johnny R.
183rd Aviation Company
APO San Fran 96227

DIACK, Crofton H.
150 Ely Street
Widesfield, Colo. 80907

DUPLESSIS, Troy L., Jr.
219th Aviation Company
APO San Fran 96297

ERKINS, Moses
128th Aviation Company
APO San Fran 96289

EVANS, Charles H.
B Co, 227th ASH Bn, 1 CD
APO San Fran 96490

FIELDS, Michael G.
429 Jonathan Avenue
Springfield, Mo. 65802

FISCHER, John C.
183rd Aviation Company
APO San Fran 96227

FITLER, Edwin H.
1209 Hardtale Lane
Gladwyne, Pa. 19035

FLEMING, Wayne G.
135 Red Cloud Road
Fort Rucker, Ala. 36360

FURR, Edward K.
USA Elm, USMACV
APO San Fran 96243

GENTLE, Howard B., Jr.
CMR 2, Box 5633
Fort Rucker, Ala. 36360

GRAVES, Clarence D.
Costello, Rt 1, Casey Key
Nokomis, Florida 33555

HICKS, John F.
4501 Santa Fe
Lawton, Okla. 73501

JOHNSON, Lawrence D., Jr.
2701 Crystal Spring Ave.
Roanoke, Virginia 24014

JONES, John D.
2212 Pine
Arkadelphia, Ark.

KELLEHER, Emmett J.
444 South Main Street
Lombard, Illinois

KERR, John A.
Van Horn, 255 Daphne
Broomfield, Colorado

LIVINGSTON, John J.
330 Gabouri Street
St Genevieve, Mo. 63670

LIEUTENANTS

LONG, Walter M.
P.O. Box 213
Hamlet, N.C. 28345

MAGNESS, Latimer H.
112 E Crooked Hill Road
Pearl River, New York

MARTIN, John F., Jr.
219th Aviation Company
APO San Fran 96297

MEYER, Thomas A.
183rd Aviation Company
APO San Fran 96227

NEFF, David A.
183rd Aviation Company
APO San Fran 96227

NICHOLS, Charles L.
Hq, 31st Artillery Bde
Oakdale, Pa. 15071

NORVELL, Ronald L.
B Co, 703rd Maint Bn
APO San Fran 09801

QUIRK, William G.
20 Moultrie Street
Dorchester, Mass. 02124

REGAN, Robert A.
318 Castle Drive
Fort Bragg, N.C. 28307

RIEDEL, John M.
170th Aviation Company
APO San Fran 96318

SCHANTZ, John C.
466 Davidson Street
Mineral Wells, Tex. 76067

SCHOFIELD, Dale W.
Hq, USARV
APO San Fran 96307

SCHWINGHAMMER, A.F.
1112 13th Street South
St. Cloud, Minn. 56301

SHEA, John C.
183rd Aviation Company
APO San Fran 96227

SHEARER, Ian C.
221st Avn Co, Adv Tm 51
APO San Fran 96402

SMILEY, John A., Jr.
612 W Las Olas Blvd
Ft. Lauderdale, Florida

STAIGER, Richard D.
3132 Cache Road, Apt 106
Lawton, Okla. 73501

THOMPSON, Walter L.
3928 Crutcher Street
Dallas, Texas

WATSON, David W.
1604 45th, #9
Lubbock, Texas 79413

WILLOUGHBY, James F.
Cottage, 100 Sandman
Houston, Texas 71007

WIMBERLY, Edward L.
3142 Willow Park Drive
Fort Worth, Texas

WYLIE, Dale G.
174th Aviation Company
APO San Fran 96238

CWO'S

ANORGA, Jose
HHC, 1st Aviation Bde
APO San Fran 96307

AWARDS AND

Decorations

SILVER STAR

Clark, Harlow G., LCol*

LEGION OF MERIT

Bailey, Paul O., LCol
Fortenberry, R. J., CWO
Johnston, Howard R., Maj
Joost, Horst K., LCol
King, David B., II, Maj
McKinney, John W., Maj
Smith, Joseph P., LCol
Wells, James F., Col, Ret

DISTINGUISHED FLYING CROSS

Berry, Julius L.C., CWO
Beukelman, T.G., WO
Borth, Alfred G., Capt
Briggs, Bobby G., Capt
Dean, John W., Maj
Donnell, Victor L., Lt
Ford, Raymond L., WO*
Frost, Jimmy R., CWO
Harrison, Howard W., Capt
Hester, Eugene H., Lt
Huntsman, Howard A., Maj
Jackson, James A., Lt
Jamison, Charles E., Maj
McGowan, John J., Lt
Meisenheimer, Ira W., WO
Miller, Harold F., Lt
Moble, Larry L., WO
Murphy, Jerry R., Sp5*
Owens, George W., Maj
Stainey, John W., Lt
Schrump, Michael W., Sp5
Smith, Phillip C., WO*

SOLDIER'S MEDAL

Amason, David R., PFC
Bellochio, John B., Sp4
Eady, Connie D., Capt
Helthofer, Michael R., WO
Scott, Richard H., Maj

BRONZE STAR FOR VALOR

Chambers, Donald R., Sp5
Cybulski, David L., PFC
Kirby, Ralph E., Sp5
Mays, Talmadge A., PFC
Miyose, Morris M., Sp5
Scott, James L., Sp5
Wright, James W., Sp5
Yaple, Ralph E., PFC

BRONZE STAR

Baker, Edward W., CWO

BRONZE STAR

Baxter, Willie B., SFC
Beitz, Charles A., Maj
Byrd, James C., Maj
Cledenon, Jackie W., SSGT
Connor, Joseph R., CWO
Cooper, Frederick E., Capt
Cox, Leonard A., CWO
Densley, Reuben L., CWO
Di Stefano, Joseph, Maj
Dolan, Edmund J., Capt
Duran, Alex R., 1st Sgt
Dutton, Wayne E., Maj
Elton, Robert G., Capt
Euler, Herbert C., Capt
Fette, William F., CWO, 1
Fraser, Harry, Capt
Hamilton, Thomas, Capt
Hawley, Ronald, CWO
Holzheuser, Henry R., Lt
Huart, William F., SFC
Johnston, James W., Capt, 2
Kell, Wallace A., Capt
Kennedy, James D., LCol
LeMay, Richard D., Lt
Leyva, Ramon D., Capt
Logan, David W., Capt
Lust, Robert A., Maj
McPherson, Rob't. G., Capt
Martin, William G., SSGT
Meier, George R., CWO
Miller, Fred T., Capt
Mitchell, Clifford J., WO
Moberg, Robert J., Capt
Moffett, Joseph U., Capt
Murphy, Jerry R., Sp5*
Parish, James H., Lt
Rush, Robert P., Maj, 1
Sandlin, Ray L., Capt
Schnibben, John H., Maj
Scott, David I., Capt
Smith, Donald B., Capt
Snyder, Clarence E., SFC, 1
Sorenson, Stanley L., Maj
Stobbe, Roman J., Maj
Watson, Neal C., Capt
Weaver, Carl A., Jr., Capt
Webber, Claude A., CWO, 1
Willer, Larry E., WO
White, Jerry E., WO
Woodrow, Walter, CWO
Wurstler, Richard E., Capt
Young, Roger D., Lt
Zaleski, Frank, SFC
Zask, Kenneth R., Sp4



SENIOR AVIATOR

Hinds, W.D., Capt

AIR MEDAL FOR VALOR

Bahnsen, John C., Jr., Capt
Baird, Charles E.G., WO
Bannigan, Eugene F., Lt
Barbee, Jerry, Sp4
Beaver, Wayne N., Sp5
Bittle, David L., Sp4
Bjornson, Arnold D., Sp5
Bouck, Richard R., Lt
Buckner, Boyce B., Maj
Burke, James L., Col
Burroughs, Wyburn, CWO
Citrano, Michael A., Lt
Cook, Douglas H., Sp4
Cook, Thomas E., WO
Cottman, Robert L., Lt
Crossen, George W., Sp4
Denison, Bryant W., CWO
Donnell, Millard F., Sp4
Donnell, Victor L., Lt
Duff, John H., Capt
Eberwein, Charles D., Sgt
Felton, Ray P., Sgt
Frazier, Robert J., Capt
Free, Jerry M., Lt
Fulton, Charles F., Capt
Gerhard, Carl S., Capt
Harrison, Howard W., Capt
Hicks, Larry J., WO
Hill, Alfred, Sp4
Kelley, William T., Lt
Kemp, Paul E., Maj
Lemay, Richard D., Jr., Lt
McAllister, Lloyd, Sp5
McElroy, Glenn D., Maj
McGaskill, George M., Sp4
Martin, Paul I., Sp5
Maykuth, Paul B., Lt
Meisenheimer, Ira W., WO
Miller, Harold F., Lt
Miyose, Morris M., Sp5
Murphy, Donald G., Capt
Ness, Dennis W., Sp4
Newport, Elwick, LCol
Nysewander, F.T., CWO
O'Keefe, John T., Col
Palombo, Louis D., WO
Pittman, Thurman M., Capt
Pritchard, Allan N., Lt
Quisenberry, Robert J., Lt
Reinburg, John E., III, SFC
Roberts, Jerry A., Lt
Rogers, David K., Capt
Roof, Donald F., Sp5
Schultz, Alan J., WO
Shiflett, Leo A., PFC
Smith, Robert E., Lt
Sowards, Richard A., Sp4
Strain, Kenneth C., WO
Stroud, Don H., PFC
Stuart, Isalo P., Sgt
Summers, John L., Capt
Thomas, Daniel A., Lt
Vincent, Duane D., PFC



AIR MEDAL FOR VALOR

Wardwell, Devon E., WO
Williams, Charles J., CWO
Wolff, Lonnie H., Sp4
Woodbury, Theodore, Cpl
Woodhurst, Charles, Capt

COMMENDATION MEDAL

Adkins, Atlas, 1st Sgt, 2
Anorga, Jose, CWO
Arvidson, Kenneth, PFC*
Baker, Robert L., Sp4
Bauman, Harry A., PFC
Booth, James W., Maj
Carpenter, John W., CWO
Clayton, Marvin C., Lt
Cox, James R., Capt
Edling, Leon K., WO
Elder, James H., Lt
Evenbus, Palmer J., MSgt
Head, Archie J., SSGT
Holland, Jerry F., PFC*
Hornsby, William L., Sp6
Hunt, Richard L., CWO
Hunter, James L., WO
Kammerer, Larry E., WO
Kunzler, Robert A., Sgt
LeCompte, Robert A., Sp6
Madigan, John E., Capt
Melendez, Carlos J., PFC
Phillips, Marvin F., PFC
Powers, James W., PFC*
Quisenberry, Henry, Maj
Roche, Charles A., Sp4
Scott, Donald R., CWO
Selby, Kenneth R., Capt
Sheffield, Ronald L., Lt
Wynn, James H., Sp5
York, Val D., Capt

COMMENDATION MEDAL FOR VALOR

Black, Norman E., Sp5
Boyette, Mills D., Sp4
Cody, Robert L., LCol
Hartsfield, T.R., PFC
Hill, Alfred, Sp4
Minor, Donald G., Pvt
Poe, Robert V., Sp5
Small, Kenneth, Pvt
Waddell, Dale R., Capt
Warden, Marshall E., Sp5
Wright, James W., Sp5
Young, Ray A., Capt

* Posthumous Award



MOHAWK REUNION

MAJOR ARTHUR LIEBL, STANDING, A FORMER COMMANDER OF THE 23RD SPECIAL WARFARE AVIATION DETACHMENT (SWAD), ADDRESSES A GROUP OF MOHAWK PILOTS THAT HAD SERVED IN VIETNAM WITH THE 23RD (LATER THE 73RD AVIATION COMPANY) AT THEIR FIRST REUNION HELD AT FORT RUCKER IN LATE MAY. SHOWN SEATED, LEFT TO RIGHT ARE: MRS. LIEBL; MR. RONALD SPENCER, GRUMMAN; MR. J. GROUNDWATER, DEPUTY MOHAWK PROJECT MANAGER; MR. WILLIAM LAMB, LYCOMING; MRS. DONALD FRANDSEN; AND LT. COL. DONALD FRANDSEN. BASED ON THE SUCCESS OF THE FIRST, THE REUNION MAY BECOME AN ANNUAL AFFAIR.

CWO'S

BENEFIELD, Bennie B.
113B Mason Street
Ft Huachuca, Ariz 85613
BLANCHARD, Talmadge L.
339th Trans Company
APO San Fran 96240
BOURNE, Eldred G.
122B Zuckerman
Ft. Benning, Ga. 31905
BRYANT, Harry G.
Route 5
Martinsville, Va. 24112
BURGESS, William C.
540th Trans Company
APO San Fran 96238
BUSTAMANTE, Enrique A.
D Twp, 3/4 Cav, 25 Inf
APO San Fran 96225
CARROLL, Walter J.
11th Armor Cav Regt
Fort Meade, Maryland
CORNELL, Mark W.
1424 N Custer Avenue
Colorado Springs, Colo.
COX, Noel D.G.
435 Lee Avenue
Hampton, Virginia
CURTIS, Raymond L.
Box 374
Lincoln, Ark. 72744
DRAVIS, James S., Jr.
1700 Bailey Ave, Apt 3
Chattanooga, Tenn 37404
FERGUSON, Richard L.
Quarters 7254 B
Ft. Carson, Colo. 80913
GENTRY, Worley E.
Route 2
Owensboro, Ky. 42301
GILMORE, Edward A., Jr.
D Troop, 3/4 Cavalry
APO San Fran 96225
GILSDORF, Ronald B.
12665 E 14th Avenue
Aurora, Colo. 80010
GREENING, Ernie L.
1202 Myra Street
Moberly, Missouri

CWO'S

HEINL, James E.
P.O. Box 62
Oak Grove, Ky. 42262
HOLMES, Henry E.
B Co, 228th ASHB, 1CD
APO San Fran 96490
HOLMES, Thomas E.
154th Aviation Company
Fort Sill, Okla. 73503
JOHNSON, Jimmie E.
2550 Wedgfield Ct, Apt 12
Columbus, Ga. 31903
KELLY, George E.
Route 1, Box 94
Salem, N.C. 28385
KUBA, Dennis J.
1215 SE 13th Street
Mineral Wils, Tex. 76067
LEMING, Joe A.
376 Delaura Dr, Apt D
Newport News, Va. 23602
LORETT, Robert M.
155th Aviation Company
APO San Fran 96297
MARTENS, John H., Jr.
5th SFGA
APO San Fran 96240
MCGRAW, Arnold J.
196 Spaulding Drive
Newport News, Va. 23602
MEACHAM, Harold R., Jr.
RW Sqdrn Davison AAF
Fort Belvoir, Va.
PARSONS, James E.
335 N Dougherty Avenue
Fort Bragg, N.C. 28307
PETERSEN, Dwayne L.
131 Patrick
Mineral Wils, Tex. 76067
PRICE, Frank H.
B Co, 227 ASHB, 1st CD
APO San Fran 96490
RHODES, Hu B.
4107 Lost Trail
San Antonio, Tex. 78218
SCHRAMM, Walter J.
A Co, 101st Avn Bn
APO San Fran 96296
SEEFELDT, Richard S.
332 Cherry Street
Janesville, Wisc. 53545

CWO'S

SEIBL, Warner L.
101 Dublinsky Street
Fort Benning, Ga. 31905
SERIO, Vincent
1944 Fraternity Court
Fairborn, Ohio 45324
SNYDER, Robert F.
USAAVNS
Fort Rucker, Ala. 36360
TRUCHON, Michael
USAAVNS
Fort Rucker, Ala. 36360
VIRTUE, Norman N.
Box 148
Mountain Grove, Mo.
WATSON, Harry L., Jr.
Southwind Mob Vill, Dr E
Daleville, Ala. 36322
WAYMIRE, Billy J.
520 Ellen Drive
N Little Rock, Ark. 72117
WHITE, Jerry E.
253 Magruder
Mineral Wils, Tex. 76067
WILLIAMS, Charles J.
157 Meridian Drive
Woodbridge, Va. 22191
WOTKINS, Anthony L.
412 Marview Drive
Solana Beach, Cal 92075
YORK, John, Jr.
Route 3
Unionville, Mich. 48767

WARRANT OFFICERS

ALLEN, Norman R.
Lockland Trlr Prk, Lt3C
Salisbury, N.C.
BEASLEY, David A.
92nd Avn Co, USARV
APO San Fran 96238
BECKER, Stanley A.
804 Dexter Street
Ludington, Michigan
BOWDEN, James F., Jr.
A Co, 228 ASHB, 1st CD
APO San Fran 96490
BROSELL, Edward L.
D Co, 229 AHB, 1st CD
APO San Fran 96490

WO'S

CASTRO, Ramon L.
1470 Elmira Street
Aurora, Colo. 80010
CASWELL, Eugene W.
170th Aviation Company
APO San Fran 96318
CLAPHAM, Bruce T.
Box 2145
Cheyenne, Wyoming
CLARK, Terrell R.
201 South Main Street
Knox, Indiana
CRABB, Wilbur L.
310 Frisco
Monett, Mo.
CRAFT, Donald L.
48th Aviation Company
APO San Fran 96321
DUMOND, Chauncey A.
55th Aviation Company
APO San Fran 96301
EDMONSON, Ralph W.
1st Cavalry Division
APO San Fran 96490
EGGLESTON, John W., V
A Troop, 1/9 Cav, 1st CD
APO San Fran 96490
ETHERIDGE, Parry W.
B Co, 227 AHB, 1st CD
APO San Fran 96490
FIELDS, Earl J.
170th Aviation Company
APO San Fran 96318
GATZA, Edward
USAPHC
Ft. Wolters, Tex. 76067
GIBSON, Joel H.
120th Aviation Company
APO San Fran 96307
GILLMAN, Jay E.
814 Crawford Ave, Apt1D
Enterprise, Alabama
GUTSCHE, Walter W.
B Troop, 1/9 Cav, 1st CD
APO San Fran 96490
HARRIS, Dennis P.
Route 3, Box 505A, CAAF
Fort Campbell, Ky.
HEATH, Lester E.
HHD, 2nd Signal Group
APO San Fran 96307

GEORGE A. CLARK

Chief Warrant Officer George A. Clark, an Army Aviator assigned to the 147th Aviation Company, Vietnam, sustained fatal injuries in the crash of his CH-47 helicopter. The fatal accident took place in Vietnam during the conduct of a combat mission on May 4, 1966. He is survived by his widow, Mrs. Sally A. Clark, 9124 Campina Drive, Apartment B, La Mesa, Calif.

JOHN A. EDDY

Chief Warrant Officer John A. Eddy, an Army Aviator on assignment to the 147th Aviation Company, Vietnam, died as a result of injuries received in the crash of his CH-47 helicopter during the conduct of a combat mission on May 4, 1966. He is survived by his widow, Mrs. Delori U. Eddy of 1607 North 46th Street, Lawton, Okla.

DARWIN H. ENGMAN

Warrant Officer Darwin H. Engman, assigned to the 1st Cavalry Division (Airmobile), Vietnam, died due to hostile action on May 6, 1966, during the conduct of a combat mission. He is survived by his widow, Mrs. Barbara E. Engman, 702 32nd Street, Anacortes, Washington.

RICHARD K. HARPER

Chief Warrant Officer Richard K. Harper, on assignment with the 52d Fixed Wing Platoon (Prov.), Vietnam, who was reported missing in action on May 19, 1965, is presumed to have died on May 20, 1966. He is survived by his parents, Mr. and Mrs. Kenneth R. Harper, 1 Savin Street, Burlington, Massachusetts.

CHARLES R. LAWHON

Warrant Officer Charles R. Lawhon, an Army Aviator assigned to the 1st Cavalry Division (Airmobile), Vietnam, died due to hostile action. The fatal accident took place during the conduct of a combat mission on May 6, 1966. He is survived by his widow, Mrs. Joan Lawhon, Brazos Villa, Apartment 5, Mineral Wells, Texas.

ROBERT B. LOWE

First Lieutenant Robert B. Lowe, an Army Aviator on assignment to the 74th Aviation Company, Vietnam, died as a result of injuries received in the crash of his

OBITUARIES

O-1 airplane on April 29. He is survived by his widow, Mrs. Mary E. Lowe of 333 North 4th Street, Edwardsville, Kansas.

DENNIS A. MAY

Captain Dennis A. May, assigned to the 1st Infantry Division, Vietnam, sustained fatal injuries when his O-1 Bird dog aircraft crashed during the conduct of a mission on April 29, 1966. He is survived by his widow, Mrs. Kathryn A. May, 629 19th Street West, Des Moines, Iowa.

JAMES D. OLSEN

Chief Warrant Officer James D. Olsen, on assignment with the 219th Aviation Company, Vietnam, died as a result of injuries received in the crash of his O-1 aircraft during the conduct of a combat mission. The accident occurred on April 25, 1966. He is survived by his widow, Mrs. Francis H. Olsen of 49 White Oak, Wood River, Illinois.

MARY E. WALLACE



Mrs. Mary E. Wallace, a staff member of Army Aviation Magazine and known to many Army Aviators worldwide through her participation at the 1962-1965 AAAA conventions, died May 28 in Norwalk Hospital, Norwalk, Conn., after a long illness. She was the wife of Kurt O. Wallace and was a native of Springfield, Mass. Besides her husband, she is survived by two sons, Lt. Robert A. Wallace, USA, of Fort Bliss, Texas, and Charles P. Wallace, of Westport.



MASTER WINGS

LIEUTENANT COLONEL CHARLES S. BLACK IS SHOWN RECEIVING THE BADGE OF MASTER ARMY AVIATOR FROM MAJOR GENERAL DAVID B. PARKER (LEFT), COMMANDING GENERAL OF SEVENTH ARMY SUPPORT CMND, USAREUR. COLONEL BLACK NOW SERVES AS THE DEPUTY ASSISTANT CHIEF OF STAFF, MAINTENANCE BRANCH, SEVENTH ARMY SUPPORT COMMAND. THE DUAL RATED AVIATOR HAS OVER 20 YEARS OF FLYING EXPERIENCE AND IS CURRENTLY THE PRESIDENT OF THE STUTTGART CHAPTER OF THE ARMY AVIATION ASSOCIATION. GENERAL PARKER IS THE PRESIDENT OF THE USAREUR REGION, AAAA. (ARMY PHOTO)

WO'S

HEFLER, Ernest L., Jr.
H Co, 2nd Bn, USAEOCR
Fort Belvoir, Virginia
HUTCHINSON, William R.
USOM, Air America, Inc
APO San Fran 96243
IDE, Ben H.
15th Med Bn, 1st Cav Div
APO San Fran 96490
IMPOLA, David E.
P.O. Box 241
Negaunee, Michigan
JACKSON, William L.
7469 Delaware Lane
Vancouver 1, Wash.
JACOBSEN, Kenneth K.
D Troop, 1/4th Cavalry
APO San Fran 96345
JACOBSON, Duane M.
2693 Shelby Street
Columbus, Georgia
JANTZEN, Lyman A.
15208 Stagg Street
Van Nuys, California
KATZ, Michel G.
504 W College Avenue
Enterprise, Alabama
KELLER, John L.
Rural Route 2
Stratford, Wisc.
KLINGER, Andrew S.
48th Aviation Company
APO San Fran 96321
KNAUSE, Charles A.
283rd Aviation Company
APO New York 09478
KRAMER, Larry W.
Route 1, Box 512
New Braunfels, Texas
LAFRENIERE, Richard H.
Quinnipac Gardens, Apt7
New Haven, Connecticut
LEONARD, John P., Jr.
C Co, 227 Avn Bn, 1 CD
APO San Fran 96490
LONGOBARDI, Theodore A.
119 Shady Hill Drive
San Antonio, Texas

WO'S

MEADOWS, John W.
2709 W Washington St.
Indianapolis, Indiana
MEDSKER, Bill
HHC, 1st Bde, 1st CD
APO San Fran 96490
MORRISON, Dale J.
B Troop, 1/9 Cav, 1st CD
APO San Fran 96490
MYERS, Brooke W.
12224 F Street, Apt 32
Davis, Cal. 95616
NESTER, Marvin E.
RR 2
Tipton, Mo.
PARKER, Cecil W.
615 Sena Drive, Apt D
Metairie, La. 70005
PRIDE, Thomas H., Jr.
Route 4
Clarksville, Tenn.
PUTMAN, Clifford W.
501 Wilshire Blvd
Liberty, Missouri
REDSTONE, Richard D.
3701 N Highway, Apt 70
Mesquite, Texas 75149
ROBINSON, Larry M.
22d Aviation Detachment
APO New York 09189
SELLERS, Richard P.
4th Infantry Division
Fort Lewis, Washington
SIMMONS, Robert W.
D Co, 229 AHB, 1st CD
APO San Fran 96490
SIMPSON, William A., Jr.
1st Cavalry Division
APO San Fran 96490
SMITH, Fielder B., VI
C Co, 229 AHB, 1st CD
APO San Fran 96490
SMITH, James H.
Box 1004
Seymour, Texas 76380
SMITH, Riley J.
57 North 24th Street
Lawton, Okla. 73501
SMITH, Ronald M.
Route 4, Box 180 B
Sevierville, Tennessee

WO'S

SNYDER, James W.
B Co, 229 AHB, 1st CD
APO San Fran 96490
STRICKLAND, Melvin K.
4831 Kentucky Street
So. Charleston, West Va.
WADNOLI, Alfred
304th Avn Co, USAR Cen
Fairfield, Connecticut
WALLACE, George J.
B Co, 227 ASHB, 1st CD
APO San Fran 96490
WEST, Jimmie H.
136 Oola Street
Borger, Texas 79006
WHALEY, Richard E.
817 North Ninth
Vincennes, Ind. 47591
WILLIAMS, Howard M.
283rd Aviation Company
APO New York 09478
WILLIS, John G., Jr.
B Co, 227 ASHB, 1st CD
APO San Fran 96490

SP/5'S

TRUE, Larry E.
2746 E Independence
Tulsa, Oklahoma 74110
WOODS, Chester S., Jr.
Route 2, Box 249
Midland City, Ala. 36350

ASSOCIATES

BLACK, Charles
3536 St. Mary's Road
Columbus, Ga. 31906
COOK, Chester L.
Route 2
Milan, Indiana 47031
CORRIGAN, Emmet P.
USAAFL, PR Section
Fort Eustis, Va. 23604
HOLDCROFT, George T.
4421 9th Avenue, Wylam
Birmingham, Ala. 35224
KEARNEY, Thomas G., Jr.
3482 Balsam Drive
Winter Park, Florida
KEMP, James M.
Air America, Box 196
APO San Fran 96272
NICHOLSON, Esther Allred
1012 Del Mar Drive
Twin Falls, Idaho 83301
OSBORN, Mrs. Sherry A.
320 S Independence St.
Tipton, Indiana 46072
PURSER, Mrs. Geraldine
2167 Crestwood Drive
Clarksville, Tenn. 37040
SANDERS, James W.
405 Coolidge Street
New Orleans, La. 70121

WOC'S

MAZE, Robert H.
1st WOC, CMR 2, Bx7298
Fort Rucker, Ala. 36360
PAULIN, James H., Jr.
CMR 2, Box 6725
Fort Rucker, Ala. 36360
THROUT, Henry H.
USAAVNS, Class 66-13
Fort Rucker, Ala. 36360

SFC'S

GRIFFIN, George H.
USA Aviation Test Board
Fort Rucker, Ala. 36360
LEDBETTER, Jimmy H.
5059 Galabard Drive
San Antonio, Tex. 78218

S/SGT'S

SISLER, George W.
USATSCB, 2120
Fort Eustis, Va.

RETIRED

BIEBER, Harold J., LCol
8207 Smithfield Avenue
Springfield, Va. 22150
SCOTT, Delmont H., CWO
406 Su-Andra Drive
Collinsville, Ill. 62234
STACY, John F., LCol
19946 Blackhawk Street
Chatsworth, Cal. 91311

USAREUR UNITS COMPLETE QUALIFICATION PROGRAMS



100% "DUAL" — The USAREUR Aviation Detachment recently completed an intensified Rotary Wing Instrument Training Program that has resulted in a possible "First" in Army aviation, with 100% of the unit's cargo and cargo helicopter rated aviators being awarded Rotary Wing Instrument Ratings. Each has a Fixed Wing Instrument Rating. Of the 17 assigned AA's, 14 now possess "dual" tickets, 12 holding dual Special Tickets. The Aviation Detachment, commanded by Lt. Col. Philip J. Neary, is assigned the mission of providing aviation sup-

port to the Commander in Chief, USAREUR, and his staff. Pictured, kneeling l. to r., are Capt. W. B. Davis; Maj. Danny J. Burkard; Capt. William E. Trent; CWO Frances N. Heredia, Jr.; Lt. Col. Philip J. Neary (CO); Maj. John W. Brake and David A. Richards; Capt. William H. Luther. In the back row, l. to r., are Maj. Jerome C. Meader, Jr.; CWO Harry L. Conyers; Capt. James E. Chapman; Maj. Charles D. Fountain; Capt. William E. Yates; CWO Martin P. Merz; Capt. Thomas M. Kilpatrick; Maj. Darwin A. Petersen and Capt. Arthur N. Grove. (Exclusive photo)



NEW HELICOPTER PILOTS. Twenty-five AA's recently received their Rotary Wing Qualification diplomas at the newly-established Seventh U.S. Army Aviation Training Center at Ober Schleissheim, Germany. The new graduates, already fixed wing rated, were the first to complete an Army course of this nature outside of the ZI. The course, similar to those given in the U.S., consisted of 60 flying hours in the OH-13, followed by a 25-hour transition in the UH-1B. A ground school curricula of 135 hours is included. Pictured in the above photo are, kneel-

ing, l. to r., CWO L. W. Craft; Captains J. L. Hopper, B. P. Hancock, B. L. Bottoms, G. W. Little, J. D. McCurdy, P. A. Cole, T. E. Beauchamp, and D. B. Bradley; Major W. L. Bradner; and Captain D. W. Moss. Standing, l. to r., Captains D. P. Wilhelm, J. J. Terry, and S. M. Lowe; CWO R. E. Brown; Captains J. S. Williams, W. L. Bragg, and K. E. Gullledge; Major C. S. Wingate; Captains W. C. Schweitzer, B. Pedigo, D. C. Wilson, and R. A. King. Absent: Cpts. D. C. Baxley and R. B. McIntosh. (Exclusive photo)

AVCOM-AAAA INDUSTRY BRIEFINGS



TOP LEFT: The Honorable Willis M. Hawkins, Assistant Secretary of the Army (R&D), delivers the keynote speech at the May 4 Advanced Planning Briefings for Industry held in St. Louis. **ABOVE:** Side view of the military-industry audience attending the May 4-5 sessions. **RIGHT:** Shown at the May 4 AAAA "social" are, left to right, Maj. Gen. William W. Lapsley, CG, MOCOM; Brig. Gen. Howard F. Schiltz, CG, AVCOM, co-host activity; Brig. Gen. Thomas B. Simpson, CG, MEC; and Maj. Gen. (now Lt. Gen.) William B. Bunker, Deputy Commanding General, AMC.



LEFT: Gen. Schiltz addresses the May 5 luncheon audience as Gen. Frank S. Besson, Jr., AMC Commander (left), and Brig. Gen. O. Glenn Goodhand, USA (Ret.), AAAA national president, listen attentively. **ABOVE:** Part of the luncheon audience.



AAAA NEWS



CHAPTER AWARD

■ Mrs. Loraine O'Brien of the Army Aviation Materiel Command, St. Louis, Mo., is shown receiving an AAAA Bronze Medallion at recent Lindbergh Chapter ceremonies at St. Louis. Mrs. O'Brien was honored for her service as chapter secretary for four years. Col. Earl H. Hauschultz, Lindbergh Chapter executive vice president, made the presentation.



FAREWELL

■ Lt. Col. George Tillery, president of the Alaska Chapter, is shown presenting a "going away" plaque to Maj. Gen. George Carver, the departing commander of U.S. Army, Alaska at a late May ceremony. The plaque was made of wood in the shape of Alaska and had Army Aviator wings, the USARAL emblem, and an AAAA Bronze Medallion set into the wood.

1966 ANNUAL MEETING DATES ANNOUNCED

THE SHOREHAM HOTEL in Washington, D.C. will be the site when the general membership of the Army Aviation Association of America holds its Eighth Annual Meeting on October 12-14, 1966. The dates of the AAAA Annual Meeting have been scheduled to coincide with those of the Annual Meeting of the Association of the U.S. Army which will be held in the Sheraton-Park Hotel in Washington, D.C., October 10-12.

A.L. "TONY" RODES, a National Member-at-Large on the AAAA National Executive Board and a member of the Washington, D.C. office of the General Electric Company, will head the 1966 AAAA Annual Meeting Committee charged with the overall direction of the three-day gathering.

WHILE the detailed programming for the convention is still in the planning stage, the dates for the major functions of the meeting have been established.

A PROFESSIONAL SESSION and the annual election of AAAA national officers will be held on Thursday, October 13, with the President's Reception being held that evening. The Eighth Annual Honors Luncheon at which the Association will bestow

(Continued on the Next Page)

honors upon the "Army Aviator of the Year," the "Aviation Soldier of the Year," the "Outstanding Aviation Unit of the Year," and the "James H. McClellan Aviation Safety Award Winner" will be held at noon on Friday, October 14.

BARRING unforeseen events, it is anticipated that the presentation of these awards will be made by Secretary of the Army Stanley R. Resor; the Honorable David E. McGiffert, Under Secretary of the Army; General Harold K. Johnson, Chief of Staff, U.S. Army; and the Honorable Howard E. Haugerud, representing the James H. McClellan Foundation.

AAAA Members desiring accommodations at the Shoreham Hotel are urged to contact the Reservations Manager, The Shoreham Hotel, 2500 Calvert Street, N.W., Washington,

BITTER CHAPTER SPONSORS \$1,000 HOSPITAL ROOM

AS one of their several civic affairs projects, members of the Richard H. Bitter (Corpus Christi, Tex.) Chapter of the AAAA are furnishing a \$1,000 room at the nearby Ada Wilson Crippled Children's Hospital. Lt. Colonel Donald F. Luce from USARADMAC, and president of the Chapter, stated that community relations always have been of utmost importance to the chapter.

SHOWN in the photo from left to right are Colonel Luce (holding the boy); Mrs. Ada Wilson, hospital director; L.M. Richardson, chairman of the Civic Affairs Committee of the AAAA Chapter; and Membership Chairman Jimmie Rhodes.

D.C. 20008. AAAA attendees are guaranteed a \$14 single room rate, and an \$18 double occupancy rate during the October 11-15 period at the Shoreham.

OTHER members assisting "Tony" Rodes on the 1966 AAAA Annual Meeting Committee include Colonel John L. Klingenhagen, Chairman of the '66 Presentations Subcommittee; Colonel Richard H. Ferriter, Chairman of the Protocol and Escorting Subcommittee; Colonel Michael J. Strok, Chairman, Awards Coordination Subcommittee; Lt. Col. Gregory L. Olney, Chairman, Publicity Subcommittee; and Arthur H. Kesten, Chairman, Administration Subcommittee.

AN ADVANCE Registration Coupon providing Annual Meeting function costs will appear in the July 31 issue.



FIRST FORMED in August 1964 to promote Army aviation in the Corpus Christi Area, the Richard H. Bitter Chapter includes a majority of the Department of the Army Civilians engaged in the important "direct support" activities conducted at the U.S. Army Aeronautical Depot Maintenance Center.

IT'S TIME TO POLL ON AAAA AWARDS

SUSPENSE DATE:
AUGUST 1, 1966

Nominations are solicited for the four National Awards of the Army Aviation Association to cover the April 1, 1965-March 31, 1966 period.

The four awards include the awards for "Army Aviator of the Year"-the "Outstanding Aviation Unit Award"-the "Aviation Soldier of the Year Award"- and the "James H. McClellan Aviation Safety Award."

Nominations are welcomed from all sources - to include individual members, Chapter Activities, industry, military units, etc. Members desiring to submit a nomination are requested to write to the National Office (AAAA, 1 Crestwood Road, Westport, Connecticut) for an Association application form, which spells out eligibility criteria and detailed information on the documentation required. The suspense date for the receipt of nominations for the 1965-1966 National Awards is August 1, 1966.



THE OUTSTANDING AVIATION UNIT AWARD

■ GENERAL

Established in 1960, the "Outstanding Unit Award" is sponsored by the Hughes Tool Company - Aircraft Division of Culver City, California, and is presented annually to a unit that has, as an organized unit effort, demonstrated an outstanding capability of aircraft in furtherance of the Army mission, over and above the normal mission assigned to the unit.

■ ELIGIBILITY

Any active U.S. Army or Army Reserve Forces aviation unit, group, or organization is eligible for this Award.

■ BASIS FOR AWARD

While it is recognized by the sponsors and the National Awards Committee of AAAA that many Army aviation units demonstrate an outstanding capability of aircraft in furtherance of the Army mission, the unit nominated for this Award must have demonstrated clearly that the unit achievement or achievements for which it has been nominated are accomplishments OVER AND ABOVE THE NORMAL MISSION ASSIGNED TO THE UNIT.

■ DOCUMENTATION

Documentation in support of a nomination for the "Outstanding Unit Award" should include the name of the unit, the name of its commanding officer or chief, the present assignment or official address of the unit, and a brief outline of the reasons for the unit's nomination.

Supporting documents should be typed. Tabs should not be employed so that the documentation may be photo-copied for individual review by the six-member National Awards Committee.

■ PREVIOUS WINNERS

In 1960, the First Reconnaissance Squadron
50 ARMY AVIATION

(Sky Cavalry), 2nd U.S. Army Missile Command (Medium), Fort Carson, Colorado, received the first "Outstanding Unit Award." Lt. Colonel Robert F. Tugman, CO of the unit, accepted the trophy from Lt. General John C. Oakes, Deputy Chief of Staff for Military Operations, Department of the Army, on behalf of the personnel of his unit.

In 1961, the 937th Engineer Company (Aviation) (Inter-American Geodetic Survey), Fort Kobbe, Canal Zone, received the "Outstanding Aviation Unit Award." Lt. Colonel Jack W. Ruby, the unit's commanding officer, accepted the trophy from General George H. Decker, Chief of Staff, U.S. Army, on behalf of the personnel in his unit.

The winner of the Hughes Trophy in 1962 was the 45th Transportation Battalion (Helicopter), APO 143, San Francisco, Calif., commanded by Lt. Colonel Howard B. Richardson. Subordinate units sharing the award included the 8th, 57th, and 93rd Transportation Companies (Lt Hel), and the 18th Aviation Company. General Earle G. Wheeler, Chief of Staff, U.S. Army, presented the trophy to Majors Milton P. Cherne and William J. Tedesco, representing the winning unit.

The U.S. Army Utility Tactical Transport Helicopter Company (Vietnam) was awarded the "Outstanding Aviation Unit" trophy in 1963. Gen. Barksdale Hamlett, Vice Chief of Staff, U.S. Army, presented the Award to Major Ivan L. Slavich, commanding officer, who accepted the Hughes Trophy on behalf of the men in his unit.

In 1964, the 11th Air Assault Division and the attached 10th Air Transport Brigade, Fort Benning, Ga., jointly received the "Outstanding Aviation Unit Award." The Hughes Trophy was presented by General Harold K. Johnson, Army Chief of Staff, to Major General Harry W. O. Kinnard and Colonel Delbert L. Bristol, who accepted the trophy on behalf of the men in their units.

The 13th Aviation Battalion and its attached units received the "Outstanding Aviation Unit Award" for 1965. Two former commanding Officers of the Vietnam-based unit, Lt. Cols. Jack V. Mackmull and J. Y. Hammack, accepted the trophy from Army Chief of Staff, General Harold K. Johnson, on behalf of their men.

THE ARMY AVIATOR OF THE YEAR AWARD

■ GENERAL

Established in 1959, the "Army Aviator of the Year Award" is sponsored by the Army Aviation Association of America and is presented annually to an Army Aviator who has made an outstanding individual achievement in Army aviation during the previous April 1-March 31 period. The Award, a handsome sterling silver cigarette box, is presented to the Awardee at the Annual Meeting of the AAAA by the National President.

■ ELIGIBILITY

A candidate for this Award must be a rated Army Aviator in the active U.S. Army or in the Army Reserve Forces, and must have made an outstanding individual achievement in the period specified. Membership in AAAA is not a requirement for eligibility.

■ DOCUMENTATION

Documentation in support of a nomination for this Award should include the name of the nominee, his assignment or position, the name of his organization, his address, and a brief outline of the reasons for his nomination for this Award. A photograph of the nominee should accompany the documentation.

Supporting documents should be typed. Tabs should not be used in that the documentation will be photo-copied for individual review by the six-member National Awards Committee.

■ ATTENDANCE

The Association will arrange to have the Awardee attend the presentation ceremonies in person by coordination with the appropriate military or corporate authorities. The Awardee and his wife will be guests of the Association at all Annual Meeting functions.

■ PREVIOUS WINNERS

In 1959, Captain James T. Kerr, assigned to the

U.S. Army Transportation Test and Support Activity, Fort Rucker, Ala., received the first "Army Aviator of the Year" Award.

Chief Warrant Officer Clifford V. Turvey, assigned to the U.S. Army Aviation Board, Fort Rucker, Ala., received the Award for the year 1960.

In 1961, Chief Warrant Officer Michael J. Madden, assigned to the U.S. Army Transportation Board, Fort Eustis, Va., was named "Army Aviator of the Year."

Captain Leyburn W. Brockwell, Jr., of Headquarters, XVIII Airborne Corps, Fort Bragg, N.C., received the Award for 1962.

Captain Emmett F. Knight, 57th Aviation Company (Vietnam), was named the 1963 "Army Aviator of the Year," receiving his award from the Honorable Stephen Ailes, then Under Secretary of the Army.

In 1964, Major Marquis D. Hilbert, Aviation Officer at the John F. Kennedy Center for Special Warfare, Fort Bragg, N.C., received the "Army Aviator of the Year Award."

Major Paul A. Bloomquist, Commanding Officer of the 57th Medical Detachment (Helicopter Ambulance), Vietnam, received the 1965 "Army Aviator of the Year Award" from Under Secretary of the Army David E. McGiffert.



Above: Secretary McGiffert congratulates Major Bloomquist, the 1965 Army Aviator of the Year.

THE AVIATION SOLDIER OF THE YEAR AWARD

■ GENERAL

Established in 1961, the "Aviation Soldier of the Year Award" is sponsored by the Hiller Aircraft Corporation of Palo Alto, California, and is presented annually to the enlisted man serving in an Army aviation assignment, who has made an outstanding individual contribution to Army aviation during the previous April 1-March 31 period. The Award, a handsome sterling silver cigarette box, is presented to the Awardee at the Annual Meeting of the AAAA by a distinguished Army dignitary. In 1961, Secretary of the Army Elvis J. Stahr, Jr., presented the first Award to Master Sergeant Robert R. Young, Flight Operations Chief, S-3 Division, Army Airfield Command, U.S. Army Aviation Center, Fort Rucker, Ala.

■ ELIGIBILITY

A candidate for this Award must serve in an Army aviation assignment in the active U.S. Army or in one of the Army Reserve Components. Membership in AAAA is not a requirement.

■ DOCUMENTATION

Documentation in support of a nomination for this Award should include the name of the nominee, his assignment or position, his address, a photo (for publicity purposes), and a brief outline of the reasons for his nomination, to include: his duty assignment in the unit, a description of his outstanding contribution or contributions made to Army aviation during the period specified, his years of service, his number of years in the Army aviation program, his attendance at service schools, and his character, disciplinary, and proficiency ratings.

Supporting documents should be typed. Tabs should NOT be used in that documentation will
52 ARMY AVIATION

be photo-copied for review by the six-member National Awards Committee.

■ ATTENDANCE

The Association will arrange to have the Awardee attend the presentation ceremonies in person by coordination with the appropriate U.S. Army authorities.

■ PREVIOUS WINNERS

In 1961, Master Sergeant Robert R. Young, Flight Operations Chief, Airfield Operations Command, Fort Rucker, Ala. was named the "Aviation Soldier of the Year," receiving the Award from the Honorable Elvis J. Stahr.

The Honorable Stephen Ailes, then Under Secretary of the Army, presented the 1962 Award to Specialist First Class James C. Dykes of the 255th Signal Detachment (Vietnam).

The 1963 Award was made to Sergeant First Class James K. Brock, Maintenance Chief of the 1st Aviation Company (Caribou) (Vietnam), by the Honorable Cyrus R. Vance, then Secretary of the Army.

Sergeant First Class Robert M. George of the UTT Company (Vietnam) was named the 1964 "Aviation Soldier of the Year." The Honorable Stephen Ailes, Secretary of the Army, made the presentation.

In 1965, Master Sergeant Cyril G. Manning, Operations Sergeant of the 13th Aviation Battalion, Vietnam, received the award from Secretary of the Army Stanley R. Resor.



Above: Secretary Resor presents the 1965 "Aviation Soldier of the Year Award" to Sgt. Manning.

CHAPTER ACTIVITIES

- **MAINZ CHAPTER.** General membership business-social stag with the Mainz Aero Club (Glider) as Chapter guests. Mainz Officers' Club. 3 June.
- **ALAMO CHAPTER.** Catered Barbecue for Chapter membership to celebrate the Birthday of Army aviation. 15 June.
- **ACTIVATION MEETING** of an AAAA Chapter embracing the general members residing in the area of Lathrop-Stockton, California. Sharpe Army Depot Officers' Club. 23 June.
- **RHINE VALLEY CHAPTER.** Quarterly business

ness meeting followed by general membership "Happy Hour." Casino Officers' Club, Heidelberg, Germany. 29 June.

- **BLUEGRASS CHAPTER.** General membership business meeting followed by "Happy Hour." Country Club, Ft. Knox. 29 June.
- **FT. BENNING CHAPTER.** Late afternoon Open House AAAA Social following the First Annual Aerial Gunnery Competitions. Ft. Benning Country Club, 30 June.
- **ACTIVATION MEETING** of an AAAA Chapter representing the members residing in the State of New Jersey. Gibbs Hall, Fort Monmouth Officers' Open Mess. Refreshments, 1830 hrs.; dinner, 1930 hrs. 28 July.

A confidential, low-cost personnel service listing today's guaranteed job opportunities within the international aviation industry...

AIRCREW



July 1, 1966

HELP WANTED

Aircraft Engine Mechanics

24-AEM June, 1966 Openings
Listed May 31, 1966
AIRCRAFT ENGINE MECHANICS. Openings now in all phases of aircraft engine manufacturing, to include machine shop, engine assembly, engine test, and factory overhaul program. Permanent employment with a great future and tremendous opportunities for advancement. Brief outline of experience and standard AIRCREW Resume Form should be submitted.

Aviation Research

14-AR June, 1966 Openings
Listed May 31, 1966
AVIATION RESEARCH. Expanding research organization has permanent positions for former officers and warrant officers with management experience in supply, logistics, maintenance, transportation, operations, ADP, and computer systems analysis. Openings in Saigon and the U.S., with incentive pay for Saigon service. Resumes held in strict confidence.

Helicopter Mechanics

21-HM July, 1966 Opening
Listed May 31, 1966
HELICOPTER MECHANIC. Background with commercial Bell or Hiller experience, and A & P Rating preferred. Experienced operator in Northeast offers outstanding opportunity. Will train and/or send the right man to company schools. \$7,200 to start.

Helicopter Pilots

18-HP August, 1966 Availability
Listed June 17, 1966
HELICOPTER PILOT. Minimum of 1,000 hours, commercial helicopter rating, with ability to operate a Bell 47J2 now and turbine equipment in near future. Immediate opening for career-minded pilot in scheduled passenger service field in Northeast. Competitive salary, paid vacation, home every evening.

20-HP July, 1966 Openings
Listed June 17, 1966
HELICOPTER PILOTS. Bell 47H or J-trained helicopter pilots (or military equivalent) for northeastern air taxi, charter, air ambulance operations. 1,000 hours first pilot time desired. Opportunity to work into management. \$8,400 to start.

19-HP August, 1966 Openings
Listed May 31, 1966
HELICOPTER PILOTS. See June, 1966 Listing 18-HP for requirements for additional openings in August by 18-HP employer.

Logistics & Supply Management

14-L&SM June, 1966 Openings
Listed May 31, 1966
LOGISTICS & SUPPLY MANAGEMENT. See June, 1966 Listing 14-AR.

Maintenance Management

14-MM June, 1966 Openings
Listed May 31, 1966
MAINTENANCE MANAGEMENT. See June, 1966 Listing 14-AR.

AIRCREW SERVICE

AIRCREW is not an employment agency, but a clearinghouse service that speeds employment communications between job applicants and potential employers.

AIRCREW listings are free, and are published over an 8-week period in the several AIRCREW media.

EMPLOYERS are forwarded copies of the industry-approved AIRCREW Resume Forms completed by applicants.

APPLICANTS are airmailed the standard AIRCREW Job Description Outlines completed by employers. Reproduction and transmittal of AIRCREW Resumes and Job Outlines are at no charge.

ALL AIRCREW communications to both applicant and employer are forwarded by airmail cover. The service will not accept listings for publication that do not provide guaranteed dates of "job openings" or "applicant availability."

AIRCREW
1 CRESTWOOD ROAD
WESTPORT, CONN. 06880

Sirs,

I wish to use the "no obligation" AIRCREW service. Please airmail - full particulars and several blank AIRCREW Resume Forms.

Name _____

Address _____

City _____ State _____

Date Available: _____

Nature of Position _____

THE JAMES H. McCLELLAN AVIATION SAFETY AWARD

■ GENERAL

Established in 1959, the "James H. McClellan Aviation Safety Award" is sponsored by the many friends of Senator John L. McClellan in memory of his son, James H. McClellan, a former Army aviator who was killed in a civil aviation accident in 1958. Mr. Howard E. Haugerud, a former National Vice President of AAAA and the present Deputy Under Secretary of the Army, is President of the foundation that administers this Association award. The award is presented annually to the person who has made an outstanding individual contribution to Army aviation safety during the previous April 1-March 31 period. A large, handsome trophy, the Award is presented to the Awardee at the Annual Meeting of the AAAA.

■ ELIGIBILITY

Any individual, military or civilian, is eligible as a nominee for this Award. Membership in AAAA is not a requirement.

■ BASIS FOR AWARD

The Award is based on an "individual" contribution to Army aviation safety, such as a broad technical achievement, an operating procedure, an aircraft or equipment modification with broad safety implications, etc. It is recognized by both the donors and the National Awards Committee that a safety achievement may result from the development, planning, and implementation activities undertaken by several individuals, or several agencies. Every effort should be made, however, in documenting a nomination, towards pin-pointing the single individual primarily responsible for such an improvement, since only one award will be given to one individual, in accordance with the original intent of the donors who established the Award. The Award is NOT intended to be given

for competitions between units for safe flying, etc.

■ DOCUMENTATION

Documentation in support of a nomination for this Award should include the name of the nominee, his assignment or job title, the name of his organization or firm, his address, and a brief outline of the reasons for his nomination for this Award. A photograph of the nominee should accompany the documentation.

Supporting documents should be typed. Tabs should not be used in that the documentation will be photo-copied for individual review by the six-member National Awards Committee.

■ ATTENDANCE

The Association will arrange to have the Awardee attend the presentation ceremonies in person by coordination with the appropriate military or corporate authorities.

■ PREVIOUS WINNERS

In 1959, Lt. Col. (then Maj.) Arne H. Eliason, assigned as the Chief of the Aviation Safety Division of Headquarters, Seventh U.S. Army, APO 46, New York, N.Y., received the "James H. McClellan Aviation Safety Award."

Colonel John L. Inskeep, Commandant of the U.S. Army Primary Helicopter School at Fort Wolters, Tex., and Raymond L. Thomas, General Manager of the Southern Airways Company contract operations at that facility, received the 1960 Award jointly.

The "James H. McClellan Aviation Safety Award" was not presented in 1961.

Colonel Spurgeon H. Neel, Jr., the Commandant of the U.S. Army Hospital at Fort Rucker, Ala., was the 1962 winner.

In 1963, Colonel James F. Wells, Military Advisory Assistance Group, Republic of China (Taiwan), was named the winner.

Colonel Conrad L. Stansberry received the "James H. McClellan Aviation Safety Award" in 1964 for his contributions to flight safety as the Aviation Officer, Hqs, USAREUR.

In 1965, Mr. Ralph B. Greenway, Air Safety Specialist, Department of the Army, was named the winner for his outstanding contributions to the Army Aviation Safety Program.



QUICK DRAW



Shoot-from-the-hip-and-hit, the wire guided SS-11 helicopter-launched missile has a 95% reliability record.

Using a variety of warheads, the SS-11 is ideal for close, accurate airborne artillery support for infantry troops under jungle combat conditions.

The SS-11 missile is operational with U.S. Armed Forces, and combat proven. Nord-Aviation has produced more operational guided missiles than any other company in the world.

Don't pack promises to a showdown. Pack performance!


AMERICAN NORD-AVIATION, INC.

1145 NINETEENTH STREET, N.W. WASHINGTON, D.C.

ARMY AVIATION

EDITORIAL AND BUSINESS OFFICES: 1 CRESTWOOD ROAD, WESTPORT, CONN. 06880

MR HARRY LOUNSBURY
19 SACHEM RD
GREENWICH CONN

3352

POSTMASTER: If this magazine is addressed to a member of the United States Military Service, whose address has been changed by official orders, it should be forwarded — except to overseas APO's — without additional postage. See section 157.4 of the postal manual.

"RETURN REQUESTED" applies in those instances wherein forwarding is not permissible. The publisher requests the return of the entire issue under the "RETURN REQUEST" provisions of the postal manual.



When's the last time you heard of a helicopter completing its mission with a bullet through its engine?

It takes lots of abuse to put an Avco Lycoming gas turbine out of action.

A lot more than a Viet Cong bullet was able to inflict on the T53 in the picture. Even though it ripped a hole in the engine you could shove horse-chestnuts through.

It's no coincidence that Avco Lycoming gas turbines power some nine out of ten helicopters in Vietnam.

More than 15 years of experience and over 2,000,000 flying hours have proven that they're the most dependable engines of their type.

But don't think that all Avco Lycoming gas turbines go into helicopters. We've designed them for fixed wing aircraft, like Grumman's low-level Mohawk observation craft, for V/STOL aircraft, like Canadair's remarkable tilt-wing CL-84. And sent them to sea, in amphibious hydrofoil landing craft and planing hulls.

We're even developing models for a variety of industrial applications.

And for every one of these uses, the rugged dependability of Avco Lycoming's gas turbines is a tremendous advantage.

Even if you don't shoot bullets through them.



LYCOMING DIVISION
STRATFORD, CONN.