

ARMY AVIATION

NOVEMBER 20 ★ 1966



LYCOMING DIVISION
STRATFORD, CONN.



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(See back cover)



PROGRESS

**U.S. ARMY'S CH-47A CHINOOK HELICOPTERS
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METRO AIR SUPPORT '66**

U.S. Army CH-47A Chinook helicopters participated this month in a simulated emergency situation in New York City. The program, Metro Air Support '66, was sponsored by the Federal Aviation Agency and was designed to show the valuable use of helicopters and STOL aircraft in supporting New York City in the event of an actual emergency.

The Chinook helicopters, from the 154th Aviation Company, Fort Sill, Oklahoma, landed on city piers and in public parks during the two-day demonstration. Chinook missions included the transport of food, blankets, medicine and plasma. In addition 250 Civil Air Patrol cadets, in the role of doctors, policemen and firemen, were transported to strategic points throughout the city.

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



SUMMARY

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NOVEMBER AUTHORS



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Lieutenant Colonel Walter F. Jones wrote the article, "Career Outlook," for the Aviation Pamphlet of Headquarters, U.S. Army, Vietnam, while serving as the present Commanding Officer of the 14th Combat Aviation Battalion in Vietnam. A career officer and aviator, he served with the Office of Personnel Operations, DA for more than 3 years before coming to his present assignment.

Lieutenant Colonel Thomas N. Hurst, an occasional contributor, commands the U.S. Army, Vietnam Flight Detachment based in Saigon.



MATERIEL ISSUE

Additional copies of the ARMY AVIATION Materiel Issue may be ordered at \$1 per copy postpaid payable in advance, or at \$0.75 per copy postpaid when ordered in a lot of 25 or more for one addressee. Checks should be made payable to Army Aviation Publications, Inc., and forwarded to 1 Crestwood Road, Westport, Conn. Allow 4-5 weeks for second class postal delivery.

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TACTICAL AIRMOBILE OPERATIONS

By

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

BOTH in and out of the Army, interest today in Army aviation in general and tactical air mobile operations in particular are at an all-time high.

The obvious success of the 1st Cavalry Division (Airmobile) air assault operations and the outstanding airmobile support provided by our many other separate aviation units to U.S., RVN, and other nations' combat elements in Vietnam have served to gain the respect and admiration of people everywhere. As a result of this widespread interest, it is only natural that one hears many comments concerning such operations, some of which are right, while others are wrong. Likewise, these operations have given rise to many questions; some of which have been voiced, and others have been retained in the minds of thoughtful persons.

At this point, I believe it pertinent to clarify a point concerning the fire power available for delivery by Army helicopters. The Army has for several years used the term "suppressive fire" in re-

ferring to the fire delivered by its armed helicopters. Primary emphasis was placed on the escort mission, during which time the armed helicopter's primary purpose was to protect the aerial column by suppressing enroute fires.

The gap-filler role

Experience in Vietnam has indicated that an equally important role of the armed helicopter is delivering direct fire support to troops during execution of the landing and after they are on the ground. Emphasis has shifted from the escort role to the gap-filler role with the helicopter providing a fire support means between ground artillery and close air support by Air Force aircraft. It is appropriate, therefore, that from here on we refer to the fire that is delivered by helicopter as "direct fire support."

The key difference between the close air support delivered by Air Force aircraft and that delivered by armed helicopters is the degree of integration of fire support with maneuver. The success



of the armed helicopter is dependent upon the crew's having a degree of knowledge of the tactical situation, achievable only by participation through the **entire** planning and execution phase of an operation by, knowing the individual commanders they are supporting, and by air-ground communications that will permit execution of fire missions on an immediate basis with minimum transmission of additional information.

This is illustrated by the fact that the established source of gunship commanders is pilots who have been pilots on the lift ships. Experience has shown that the gunship pilots should be the most experienced of all. A new pilot in a unit normally starts as co-pilot in a lift ship and then graduates to lift ship pilot, to co-pilot-gunner in a gunship, and finally to gunship pilot. During an engagement, the VTOL characteristics of the helicopter permit it to land with the ground force unit to get additional briefing or to remain immediately available as a quick reaction gunship.

The degree of responsiveness and integration with maneuver forces between direct fire support and close air support can be likened to the difference in the degree required between close air support and interdiction.

Pertinent questions

Very recently, I was privileged to serve as the Army panel member in a meeting of the **Society of Experimental Test Pilots** in Los Angeles. As such, it fell my lot to respond to some most pertinent and thought-provoking questions. Upon reflection, I believe that these are the same questions concerning Army aviation that are most prevalent today.

Accordingly, I have decided to use this month's article for the purpose of reiterating these questions and essentially my response thereto. Certainly, I make no claims to having a "corner on the market" in this very significant area of our Army's operations.

However, I have provided my best thoughts on the subjects covered in the

THE GROWING INTEREST IN TACTICAL AIRMOBILE OPERATIONS

hope that they may serve to clarify and bring into clearer focus some of the terminology we frequently hear today. The questions posed by Mr. Sullivan, the Panel Chairman, and the answers follow.

* * *

Q. Let's talk first again about the in-country war. One of the biggest innovations of this war is obviously the use of air mobility. If I remember correctly, this was still just an experimental concept as little as two years ago, and its acceptance was certainly not universal at that time. The 1st Cav has been in operation for over a year now. How do you feel it has worked out, and do you think it has further application to the future wars?

A. To answer your question, I must first define two terms. The definitions are mine and are not found in these words in military dictionaries. First, **Tactical Air Mobility**. As I will use it here, **tactical air mobility** is the movement of troops and supplies within the combat zone by helicopters or fixed wing aircraft. Second, what you have referred to in your question as "**the air mobility concept**" I will choose to call for clarity "**the Air Assault Concept**" and define it as the use of helicopters as the primary (and I emphasize the word, "primary") means of accomplishing closely integrated tactical troop lift, fire support, reconnaissance, and resupply.

It is this latter concept, air assault, that you refer to as being experimental as little as two years ago.

There is nothing new about tactical air mobility with helicopters. The Marines

employed **tactical air mobility** with H-19's in the Korean Conflict. It has been a strong part of the Marine doctrine ever since. It has been accomplished with Army and Marine helicopters in support of the South Vietnamese since 1962.

The Air Assault Concept, on the other hand, is new. It started with the Howze Board in 1962.

The principal elements that make the **Air Assault Concept** new are as follows:

- Helicopters are the primary means of movement and are the means of maneuver even at small unit levels. Helicopters don't just carry the troops into combat; they also continually move small units during the engagement. They carry the troops into battle; they carry the firepower, either in the form of armed aircraft or as the prime movers for the artillery; they provide the reconnaissance and they resupply the committed forces.

- As a result the 1st Cavalry has less than half the ground vehicles of an Infantry Division. This is a major breakthrough. No longer are aircraft an expensive add-on to give a unit an additional, sometime used, capability. They are its **full-time** means of fighting with about 350 additional aircraft replacing 1,500 ground vehicles.

- The 1st Cavalry Division uses aircraft for every function of combat — and to a greater extent and more effectively than even visualized by the Howze Board. For example, they use a helicopter pod with the CH-54 as a highly mobile division command post and another as a well equipped aid station. Command and control of actions is from an aerial CP.

- The units are tailored equipment-wise for air mobility. Lightweight equipment has been substituted for the

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heavy equipment of the infantry division to reduce the loads to be transported. Travel by air reduces the necessity for extremely rugged equipment. Responsive air resupply reduces the quantitative requirement for equipment and supplies. An air assault division, now called airmobile division, weighs 60% of an airborne division, 30% of an infantry division, and 20% of an armored division.

- The units are highly trained in rapid operations and split-second timing in their tactics. They are from the beginning of training "air oriented."

Successful employment

The 1st Cavalry Division has been highly successful in Vietnam employing the **Air Assault Concept**. It has demonstrated its ability to strike far and fast, cover large areas, and fight in widely separated areas. It has also demonstrated its staying power through its capability to support units at distant locations for extended periods of time in contact with the enemy with its own organic means for air resupply.

The other units in RVN have made outstanding use of air mobility. This air mobility as I previously stated started with Vietnamese troops supported by Army and Marine helicopter units. Next, armed helicopters in limited numbers were added. As time has gone by the air mobility of the other units has taken on much of the nature of air assault with the addition of more and more armed helicopters and aircraft for surveillance, lift of artillery, and resupply.

The close integration of heliborne troops, ground fire power, fire support by helicopters, close air support by the Air Force, and reconnaissance that is the essence of air assault is becoming SOP with all the units fighting in RVN. The Division Commander of the 1st Infantry Division has referred to his com-

mand as the 1st Infantry Division, Air Mobile, Heavy. This is an accurate description since the 1st Division and other units still retain all of their heavy equipment and the capability to fight on a non-airmobile basis.

The last part of your question was, "Does the airmobile concept have application to the future wars?" The answer in my opinion is, "Yes," but the degree of application will be dictated by the nature of the terrain and the capabilities of the enemy. There is no military organization that is the complete solution to any military situation.

Each war can best be fought with a mix of units. One might require a lot of armor, some infantry and a touch of airborne and airmobile. Another might, as we see in Vietnam, be primarily an airmobile war but still have some requirement for armor. Air mobility will certainly continue to play a large role in any peripheral conflicts such as Vietnam and will in my opinion have some role in any scale of conflict, providing it is supported by adequate firepower.

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- Q. **Another new concept** which is being developed as this war goes on is the use of armed helicopters; flying weapons' nests that can accompany the troops and provide suppressive fire. I guess a great many people are still confused about the differences and similarities between armed helicopters and fixed-winged close support aircraft. You must have some pretty firm views about this, and I am sure we would all like to hear them.
- A. The armed helicopter is vital to airmobile operations. Success in battle has always been dependent on the

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close coordination of movement and firepower. The individual soldier, the reconnaissance vehicle, the tank, the helicopter cannot survive in battle and win unless applying, or being supported by adequate, timely, and accurate firepower.

The spectrum of firepower ranges from the pistol through the rifle, machine gun, mortar, armed helicopter, light artillery, close air support by fixed wing aircraft, heavy artillery, bombers, and missiles. Each means of firepower has its degree of responsiveness and killing power. None are truly duplicative; they overlap and each has its role to play in the battle.

In some situations the ability to deliver a large volume of accurate fire is key; in another the ability to deliver some firepower at the precise moment, on an exact location, immediately, with very minimum communications may be the deciding factor. Too often in theatrical analysis we try to compare weapons systems on the basis of their amount of killing power without due consideration for responsiveness to the specific requirement. In exaggeration I quote the case that the killing power of the B-52 is far, far superior to the pistol but its true cost effectiveness is questionable if you are trying to chase a burglar out of the basement.

A unique role

The armed helicopter has a very definite and unique role in airmobile operations. We have found it to be the most effective weapons system in a variety of missions.

- It provides the fire support for the troop-carrying helicopters on the way to the target. During this part of maneuver ground weapons are obvious-

ly of little assistance. Fixed-wing aircraft are effective and used as required in conjunction with the helicopters, just as various means of firepower are used in other tactical situations.

- Helicopters are needed to provide the direct close-in fire support best delivered by the crews who live with and work with the troop-carrying elements on a daily basis and who have participated in detail in the planning of the operation. In addition, the VTOL capability of the helicopter permits the gunships to remain with the troop-carrying helicopters, land in larger areas, and be prepared for additional escort operations. The fixed-wing aircraft must return to a suitable base field.

- The helicopters provide direct close-in fire support during landing operations and immediately following the landing operations. The speed of airmobile operations and the shock effect which can be achieved places a high premium on the very closest of integration and control of the helicopter firepower. This can be achieved only by a working relationship among the lift ships, ground commanders, and fire teams as a result of long training as a unit, repeated practice, and detailed knowledge of the people and situation by all elements.



We have come a long way in the development of the armed helicopter since the days of the H-13 with machine guns. The **UH-1B** with the 2.75" rockets, quad machine guns, and 40mm grenade launcher is an effective weapons system. Next summer we will field the **AH-1G (Huey Cobra)**, the first helicopter specifically designed to be a gunship. The **AAFSS** is under development to provide an even more effective aircraft.

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Q. I suppose the Army is really even more involved in the problem of fleeting targets than any of the other Services. Have you found the helicopter to be useful in this target acquisition function, and are there other requirements which begin to emerge from this counter-insurgency operation?

A. Finding and fixing the enemy is probably the greatest problem in Vietnam. I don't think anyone can say they have had great success in this area. Certainly the Army's fixed-wing aircraft and helicopters have made a contribution in this effort. The helicopter has been a primary means particularly with the 1st Cavalry Division. One way of locating the enemy has been to have helicopters shot at — then you **know** the enemy is there. The crews would rather use other means, of course.

Staying power

Using the air cavalry reconnaissance battalion scouting for the division as well as the reconnaissance aircraft found in all its units, the 1st Cavalry Division maintained continuous contact with the enemy for 42 consecutive days in **Operation Masher — White Wing**. This could only be accomplished by a very close tie in of the eyes in the sky with the ground reconnaissance and intelligence. This integration occurs at every level. The infantry battalion com-

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manders, for example, consider the team of two H-13 scouts provided each battalion indispensable. They feel blind without them.

You asked about new requirements that have emerged in this area. Night surveillance and reconnaissance is certainly no new requirement; the Army has made a major effort in this area in the past with notable success; however, our experience in Vietnam has placed a new priority in this area.

Darkness is the strong ally of the guerrilla. It is during this period that he rests, licks his wounds, resupplies himself, does his planning, and repositions his troops for combat. If we can deny him this period of sanctuary we can do much to defeat him. This has become an area of major effort with some successes and indications that we will make considerable progress in the area.

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Q. I would like to change the subject again, now, and return to an area that has not been discussed much today. The increased mobility provided by your choppers, coupled with the lack of security of ground lines of communication in Vietnam, must have vastly increased the problems of resupply of the tactical forces in the field. Would you tell us how well the resupply system has been working in Southeast Asia, and whether you think that a sensible division of responsibility between Army choppers and Air Force transports is emerging?

A. The resupply of tactical units in the field appears to be working very well in Vietnam. The Air Force carries out wholesale distribution and the Army retail distribution.



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Sikorsky helicopters teamed with container ships can drastically cut total shipping time.

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The helicopter has given mobility and flexibility to our armed forces on the battlefield. The Skycrane can provide the same mobility and flexibility to the logistics of sea-borne supply.

Sikorsky Aircraft DIVISION OF UNITED AIRCRAFT CORPORATION
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THE GROWING INTEREST IN TACTICAL AIRMOBILE OPERATIONS

Wholesale distribution can best be accomplished on a scheduled, large haul basis. From a viewpoint of economy the terminus of the wholesale distribution should be well forward. It is quite logical for the Army to depend on the Air Force for this mission, particularly since the wholesale distribution system serves not just the Army but also the other services.

On the other hand, retail distribution is very sensitive to the tactical situation and must be under the control of the ground commander whether the supplies are moved by ground **or** air.

It is difficult to establish a clear interface between the retail distribution and the wholesale. This can be done on a theoretical basis for planning purposes and programming of equipment, but in a real life combat situation there is bound to be overlap in the employment of means.

For example, a particular type of aircraft may well be used one day or under one situation in one role and in another situation in some other role. This is recognized in the concept promulgated in the agreement between the Chief of Staff, USAF, and Chief of Staff, USA transferring the **CV-2** to the Air Force the end of this year. The agreement states that the joint commander may attach the **CV-2's** to Army units as required. The means is therefore provided for the aircraft to operate under Army control if carrying out a mission in the retail distribution area.

The division of responsibility appears logical and clear to me. The memo of agreement also very logically provides that the two services will work closely on the development of future VTOL aircraft. It is difficult to forecast the



best types of aircraft to carry out missions in the future. If a service has a job to do it should not be inhibited in exploring the best technology to accomplish the mission.

Common usage

In addition, the same or similar type of aircraft may be required to do different missions in the services. For example, the same aircraft, the **UH-1** is used in the Army, Navy, Marines and Air Force — each for missions that definitely belong to that service.

To apply this to the future we can take a look at an aircraft such as the **XC-142**, a tri-service development. The Army has participated in this program on the basis that if we found we could live operationally with the downwash noise, and complexity the **XC-142**, or a follow-on aircraft, might replace the **CH-47**, the **CV-2**, or both.

If the **XC-142** is a suitable replacement for the **CH-47**, the Army should buy it. If it is a suitable replacement for the **CV-2**, the Air Force should buy it. If it can economically replace both the **CH-47** and **CV-2**, both the Army and the Air Force should buy — the Army for battlefield mobility and retail distribution **and** the Air Force for logistical support.



AN APPRAISAL OF ARMY AVIATION IN VIETNAM

General Hamilton H. Howze, USA (Ret.) draws some conclusions based on AA's role in Vietnam, expressing the belief that heli-borne forces may also be effective against a sophisticated enemy

THE reader knows before he starts this that I shall say that Army Aviation in Vietnam is doing very well indeed. It is and all who do belong or have belonged to the flying part of the Army may derive much pride from its record in Southeast Asia.

My "appraisal" is based on only a two week stay in Vietnam in August. During the time I visited every aviation battalion and a number of their companies, but perhaps even more useful, as respects my subject, were long talks with General Westmoreland and the field force, division, and separate brigade commanders. All of these, except for the two newly-arrived brigade CGs that I didn't see, were kind enough to brief me in detail on what they had done and were doing.

From what the commanders say, and from the after-action reports of all U.S. operations thus far conducted, one can draw the

somewhat hackneyed but altogether valid conclusion that without the helicopter (supported by short-field fixed wing aircraft) there would be no war as we now know it: U.S. and Vietnamese forces would be confined to the sort of operations which, for the French, resulted in tragic failure. It is not much of an oversimplification to say that the French and their Vietnamese allies were defeated by the tactic of ambush. U.S. forces travel largely by helicopter and are not subject to ambush. There are certainly road movements too, but even here the capability for rapid reinforcement of an ambushed column (or of a surrounded and besieged outpost) by helicopter has mitigated greatly the effectiveness of the traditional tactics of the guerrilla.

In this war Army Aviation has come of age, and will thereby remain a salient part of the military power of the United States. Some doubters will retain reservations, main-

AN APPRAISAL OF ARMY AVIATION

taining that while the helicopter is of acknowledged effectiveness against guerrilla forces it cannot survive battle against a modern enemy in the European environment. I do not subscribe to this point of view but shall leave it now and return to it later.

The 1st Cavalry Division is the only force in Vietnam carrying within its structure the means for real air mobility, but the 1st and 25th Infantry Divisions and the several separate brigades have, by attachment, been provided with a helicopter mobility not greatly inferior to that of the First Cavalry; so too the Marines in the north. In effect, then, all forces have been made airmobile to the extent of available equipment; the alternative would be to deny them an essential means of combat.

The Cavalry Division has fought very effectively, initially with a smoothness and speed which derived from its long experience in the shape of the 11th Air Assault Division; but now the veterans of the experimental division exercises in the United States have all departed, and have been replaced by new faces. Without casting aspersions of any sort on the new personnel, the division, still a fine one, has thus been caused to be closer in experience and training in airmobility to other forces in Vietnam.

The effects of turnover

It would be easy to draw from the foregoing the conclusion that mobility by attachment is as effective as that which is organic. The conclusion is faulty, stemming partly from the fact that the Vietnam war is being fought in some respects by peace-time rules — in particular, the rule that brings a soldier home from the war after a single year's service overseas. Contrast the situation to that which obtained in World War II, in which a division sent overseas retained personnel not killed, wounded or cashiered for the "duration".

All forces in Vietnam suffer from the effects of rotation (which does not mean that rotation is not desirable for other reasons), but the sort of force requiring the greatest

degree of audacity, experience and skill will, comparatively, suffer the most by frequent change of personnel. The effect of turnover is augmented by the dearth of airmobile experience in the Army as a whole, it being confined almost entirely to the officers and men just returned or returning from Vietnam. There are no comparable units in the continental United States or Europe to provide it otherwise.

It is true, and has not been denied by anyone with experience in the matter, that the tempo of airmobile operations places great demands as respects mental agility and training on the officers and men who would practice them. This is not to say that helicopter operations done with moderate skill will not provide substantial advantages over an enemy not similarly equipped. It does mean that the new instrument increases vastly in effectiveness when put in the hands of skillful practitioners. If a trained woodsman and a city slicker are each equipped with a dull axe the woodsman will cut through a log sooner than his competitor; but if the axes are both razor sharp the woodsman will finish before his opponent is fairly started.

Professional performance

The flying in Vietnam I would say is superb — and I include in the term "flying" the performance of crew chiefs, door gunners and mechanics. The mechanical execution of helicopter assaults and the extraction of troops from hostile areas I would also rate highly; so would I rate the effectiveness of the gun ships. I don't pretend to have seen much of these operations, but what I did see was professional and gratifying.

Impressive, too, were the new methods. One example was the methodical briefing of the pilots of a helicopter company, by Battalion S-2 and S-3, on two combat operations for the next day, during which Vietnamese infantry was to be lifted into and out of two hamlets suspected to harbor Viet Cong. How vastly different was the briefing, in all respects, from the sort one used to hear for an infantry or tank company on the eve of an attack in the war against Germany!

Equally impressive and equally different was the reaction, one night at Phu Loi, to

enemy action — in this case identified later as only a small probe by an harassing enemy patrol. Shortly after the shooting started and the lights went out two gunships got into the air, and diving across the middle of the camp, poured heavy streams of machine gun fire onto the enemy patrol, the tracers providing a spectacular show against the night sky. The action itself was not at all important except to the one Viet Cong soldier killed. Strange and new though was the reaction of a helicopter unit to a small threat only a few hundred yards away. It was quick and I should say almost instinctive: *get into the air and clobber 'em!*

A machine of ferocity

Combat casualties are light among helicopters and their crewmen. This has surprised many observers, professional and lay. It should not have. The survivability of the helicopter lays partly in its ability to take many hits without catastrophic structural damage, but partly also in the fact that it is a fighting machine of considerable ferocity. If one is frightened by something he doesn't shoot at it with detachment and accuracy. I would guess that a hunter aiming at a lion from a secure stand in a tree top would do better than were he on the ground and the lion charging.

A visitor to Vietnam, if he wishes to get on with his hosts, should not challenge the door gunner. That hard-bitten functionary is held to be essential, not only in his main job of providing security but also because his eyes warn of collision with trees and other helicopters. So be it. The crew of 4 (plus armor, door machine guns, radios, extra water, rations and ammo) does however reduce troopload of the UH-1D, in the heat and humidity of Vietnam, to 6 or 7 American infantrymen against the theoretical load of 11.

The disparity is offset in part by the fact that in Vietnam, as elsewhere, there is no such thing as a full-strength squad: present-for-duty strength is often no more than 7. And it is true that the door gunner is as much a fighting man as the infantryman. Helicopter units claim 6,000 kills of Viet Cong, and much of the total is credited to door



gunners, who are highly esteemed for their courage and skill.

Even so, it would be very desirable to have the slick (the troop carrying UH-1D) carry more men. It will now carry more of the smaller, and less lavishly equipped, Vietnamese. In the Delta, where are only ARVN troops supported by U.S. helicopters, 10 are put in plus door gunners. If the helicopter can hover, off it goes; if it cannot, an infantryman is withdrawn. When the UH-1D is fitted with the new 1,400 hp L-13 engine, more Americans can be carried.

The CH-47 *Chinook* does yeoman service in the transport of artillery, ammunition, fuel, and other essential battlefield supply. It recovers, with benefits to the war effort and the economy, downed UH-1 and smaller aircraft. The CH-54 *Flying Crane* recovers everything not nailed down, including *Chinooks*. Both are admirable aircraft. So is the *Caribou*, and may God bless its OD, but changing, hide. The little bubble helicopters (H-13 and H-23) have ridden out the earlier suspicion that they were particularly vulnerable, and are also doing very well indeed in the scouting mission. The *LOH* will of course be an improvement, more because of its lift than because of its speed.

Nobody in Vietnam complains about transport helicopter speed since missions are short — averaging about 15 minutes from troop pick-up to troop delivery.* Gunships could

*Such short missions would, I believe, be the rule in other operations in other theaters, including Europe.





ARMY MOHAWK SETS

The United States Army and Grumman claimed four world aviation records in 1966 with the OV-1 Mohawk, reconnaissance and surveillance intelligence aircraft.

The Mohawk accomplished these records for turbo-prop aircraft weighing between 13,227 lbs. and 17,636 lbs.:

- Time to climb to 3,000 meters (9,842 ft.) 3 minutes and 46 seconds
- Time to climb to 6,000 meters (19,685 ft.) 9 minutes and 9 seconds
- Sustained altitude in horizontal flight, 32,000 ft. (Pilot: James Peters, Grumman)
- 100 KM closed-circuit course at 5,000 feet in 12 minutes 44.8 seconds, for average speed of 292 miles per hour (Pilot: Col. Edward Nielsen, U.S. Army)



NEW RECORDS

Other records are being set by the Army's Mohawks in day-in, night-out operations in SLAR, IR, photo and eyeball reconnaissance in Vietnam. Working as a team, the OV-1B SLAR and OV-1C Infrared Mohawks see what's ahead for the Army's assault groups in Vietnam. These aircraft play a vital part in identifying enemy installations and movements. Field commanders need this type of air-to-ground reporting to establish tactical superiority.

Pilots Colonel Edward L. Nielsen, USA, and James Peters, Grumman. In center NAA observer Ron Ellico.

GRUMMAN AIRCRAFT



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use more speed because they habitually look for trouble, because they are favorite targets of the enemy, and especially because a speed differential over the transports would enable them to do the escort mission better. Commanders would like greater lift in the transports, as before noted, and everybody would like greater reliability and a better supply of parts for everything.

A single squadron

Air cavalry is proving effective. It should be noted that there is now only a single squadron in Vietnam, part of the 1st Cavalry Division. Equipped with a combination of small scout helicopters, squad-carrying light assault transports, and gunships, the troops of the squadron are surprisingly adept, in the plateau areas around An Khe and Pleiku, in spotting Viet Cong, in the escort of ground columns, and in pursuit of a retreating enemy.

There are instances in which their helicopters have landed alongside fleeing VC soldiers to scoop them up and back to PW collecting points. Air cavalry is quite different from airmobile infantry — even that in other battalions of the 1st Cav Div. Its test and further development in Vietnam is of much importance to the Army.

Terrain variations

The terrain of Vietnam has many more variations than the commonly understood alternatives of practically impenetrable jungle and open rice paddy. Between the two extremes are these:

Mountains, heavily forested but with grassed areas on their slopes and ridge-tops which would allow helicopters to hover low while troops disembarked.

Flat wooded areas of comparatively "open" forest, the big trees being far enough apart to permit movement, off trails, by armored vehicles.

Farm land, though of tropical type, with small fields bordered by hedgerows; houses are clustered, usually surrounded by palm and other, often very dense, vegetation.

Plateau areas, with much vegetation but

not "jungle" in the usual sense. Open fields abound, giving a sort of checkerboard look to the area. The fields are mostly in high grass, being sometimes used by the Montagnards for primitive farming.

Of some importance too are the great (and often beautiful) *plantations* — rubber in the lowlands, tea in the uplands — which almost always have good sod landing strips for aircraft and good road systems.

And lastly I mention a new *artificial terrain feature*: the bomb crater. The B-52 has left its mark, permanently, on Vietnam. The craters — and there are many hundreds of them in jungle areas of primary operational importance — are rough and often full of water, but a single UH-1D can let down into them to discharge or pick up troops. It is a capability that can be useful.

The command echelon

In any war terrain, the enemy, the means available to the commander, and the skill and determination of the commander himself all combine to determine the tactics to be used. I am flattering no one when I say that the whole command echelon in Vietnam is unusually competent, and this is specifically and especially true at the aviation brigade, group, and battalion level. And since these commanders boast about the officers which serve under them, one can assume that genuine leadership is found also at aviation company and platoon level.

Areas for improvement

It would be presumptuous, I suppose, for me to suggest to these thoroughly professional and courageous officers that things, already going well, could be improved. Perhaps they could not be, in the circumstance of 100% plus annual turnover.

On the other hand I recall the remark of one very successful airborne brigade commander discussing helicopter operations: "We are still *awkward*," he said, "and *noisy*, and *slow*."

I believe that his opinion (which he applied to his own outfit, not the helicopter units) is probably broadly held in Vietnam. It is far more self-condemning than it ought

to be, but it reflects a professional's honest and healthy understanding of what things are as compared to what things could be — though perhaps not possible, again I say, under the circumstances.

What are the areas for improvement? I mention them hesitantly:

1. *Encircling operations.* VC Main Forces and the NVA have been possible to bring to bay only (with rare exception) when they have willed it so. The enemy also breaks off contact, if it is gained at all, and escapes almost at will. So long as this is the case it will be very difficult to really destroy his battalions.

Successful encircling operations require troops — plenty of them, brought into the area rapidly by air (including USAF) and with surprise. Armor will more often than not be very useful. Infantry will sometimes require placement where helicopters cannot land, which puts a premium on descent by rope or ladder, and in the art of rapid clearing, by small specially-equipped parties, of low ground cover (small trees, brush, high grass) to permit helicopter touch-down. Bomb craters will sometimes lessen the problem.

The basic point is that helicopters and the troops they carry should become still less sensitive to terrain, for otherwise tight encirclement will be all but impossible. It has not been wholly achieved so far in Vietnam, by anybody, although the current (as I write this) operation at Phu Cat, by the 1st Cavalry and the Korean Tiger Divisions, may prove to be a most encouraging exception.

2. *Night assault helicopter operations.* These, I gather, are pretty rare. If the night still belongs to the enemy he will derive much benefit from it. It follows that if we can challenge his autonomy we will deny him an advantage, and weary and harass him further.

3. *Use of smoke.* How effectively smoke can be used to protect an assault landing area I don't know. A single helicopter can by its downwash clear its own way through heavy quantities of smoke, but I

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am not sure of a formation. I simply suggest experimentation to find out.

4. *Speed of operation.* The basic mechanics of helicopter operations are of first importance. Drill — in flight procedures, refuelling, loading and unloading, close-in security (sometimes neglected, by what I saw) — is vital to speed and smoothness. By training, practice, and the establishment of times-to-accomplish (in minutes and seconds) by a demanding commander, operations can be much condensed in time and increased in smoothness. (This can be overdone, I suppose. One young pilot in a recent hot assault situation cut his time on the ground so short that he returned to the starting point to find four Vietnamese infantrymen still happily on board.)

5. *Quick reaction.* Operations planning is, I suspect, already good and improving, partly because of the insistence on good planning by the aviation brigade commander. The next step, however, is the attainment of a somewhat greater ability to react to an emergency (or opportunity) *without* planning. It will come only from experience, and we have already said that the experience level is hard to maintain when turnover is rapid.

6. *Innovation.* There has been much of this already, as witness *Lightning Bug* (a combination of a searchlight ship and two gunships, which patrols the rivers and canals at night, sinking substantial numbers of hostile sampans) and the *Mad Bomber* (who dumps light mortar shells and fragmentation bombs out of his chopper by tilting up a device that looks like a pig trough). A fruitful area of endeavor is how to block enemy retreat by lowering a few men, light equipment, and supplies through high ground cover. I wish I could be more specific on how to do it. It isn't security but something a bit more fundamental and personal that keeps me from it.

* * * *



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AN APPRAISAL OF ARMY AVIATION

Now let me return briefly to the matter of helicopters in a modern war, perhaps in Europe. It so happens that I am scribbling this part of my first draft sitting on a deck chair in a pasture near Garmisch in the Bavarian Alps, having recently completed a fairly extensive conference with the German Truppenamt in Bonn, received an unclassified refresher briefing by the U.S. Seventh Army and (by driving a car — with only one small accident — from Hamburg to the Austrian border) had a fair look once more at the terrain in the north German plain, along the Rhine, and in Baden-Wurtemburg and Bavaria.

I can hardly claim that these brief experiences have opened wide the gates of wisdom, but they have renewed in part what was once a detailed understanding of the operational problems which would face the Allied Forces in Europe should our friends the Commies put up the balloon.

The 1962 Tactical Mobility Board, it should be remembered, devised the organization, specified (by type) the equipment, and outlined the doctrine for the employment of Army Aviation based primarily on its estimate of the operational problems pertaining to a conflict between two modern armies. The employment of light aviation against irregular forces was also treated in some detail, Vietnam being cited as a likely area of operations; but the fact remains that battle against a sophisticated enemy was the *primary* concern and justification for the conclusions and recommendations.

A different situation

It would be a great mistake, however, to attempt to apply the tactics of Vietnam, or even many of the lessons derived from experience there, to the problems of combat against the Soviets. The situation would be completely different, as night is from day. Some of the differences would work in favor of the helicopter, but some, with special reference to weapons, would of course work very much against it.

In Vietnam the helicopter is opposed es-

sentially only by small arms, which however do include .50 caliber machine guns. But in operations there the helicopter flies almost constantly in an enemy environment — straight down is usually hostile, and the area of touchdown is frequently defended by a pretty resourceful enemy more often than not beyond the range of our supporting artillery. While such an operation against a sophisticated enemy should not be ruled out as an impossibility, it would certainly be unusual.

Raising the gun platform

The Board described helicopter operations in Europe as being normally over ground under our control; even the armed helicopter would, as a usual thing, fire from friendly territory into enemy territory. We used the expression "raising the gun platform," meaning simply that certain anti-personnel and anti-tank weapons carried up to that time exclusively by ground vehicles would be mounted in helicopters which would not charge an enemy force, but fire from hover just above a mask behind which it could drop when engaged by enemy fire.

So would transport helicopters be used normally to move troops and battlefield supplies up to but not over the front lines. The benefits to be had in terms of rapid concentration of force, either in attack or to counter an enemy penetration, are themselves enough to justify the helicopter, but the commander is additionally afforded great flexibility, in the offensive or counteroffensive, as respects point of thrust and direction of thrust.

Retrograde movements

In a retrograde movement before a much superior force heavy in armor, the helicopter will be particularly effective, for the possibilities for ambush by tank-killing helicopters will be legion, and a helicopter-borne delaying force, being altogether independent of roads, can arrange to have them all mined well in advance and blow all the bridges — including those behind itself.

A person studying the problem of troop movement in Germany should, as a part of his study, get out on the autobahnen or other roads on a pleasant weekend afternoon. The

present road system will be grossly overloaded, in the early days of another war, by civilian and military traffic.

Would enemy control of the air interfere with helicopter operations? It sure would — as it would ground operations. On the other hand control of the air lies not only with manned aircraft but with surface-to-air missiles. It is a part of the battle which must be won. Enemy SAM should not greatly affect our very low flying helicopters. Our own SAM, however, would contribute much to the *protection* of our helicopters, even in the course of shallow penetration of enemy territory.

Heli-borne assaults

I resist the temptation to treat further with Europe in an article supposedly devoted to Vietnam, but before I stop I really must acknowledge a conviction that, even against the Russians, there would arise occasions in which helicopter-borne forces could successfully assault a strongly defended position, taking maximum advantage of the enormously important factors of surprise and speed, and most certainly the capacity of fighter bombers, artillery, tanks and other weapons to neutralize a defending enemy force for the short period of time necessary for helicopters to reach the objective. Thus might a heli-borne assault on a key position open the way for subsequent surface attack on succeeding objectives. The taking of the first position, were it to be on dominating terrain, might guarantee the fall of surrounding ones to conventional assault.

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This conviction is not only mine, but that of the whole Board — and we proved it to the extent that one can prove it by live-fire peacetime exercises.

One may ask why, if airmobility would be very effective in Europe, the Army has not seen fit to provide it to Seventh Army. Indeed that Army is pathetically under-equipped with pilots and aircraft, but this is simply a symptom of very inadequate buys in years past and of the voracious demand for helicopters in Vietnam.

* * * *

What, from a purely military point of view, will come out of the war in Vietnam? Most of all will be experience — know-how — technique — a sense of the feasible and practical. The U.S. Army and Marines will comprise the most experienced, modern, battle-wise ground combat forces in the world. And a major part of the wisdom and experience will pertain to the use of the air that lies close to the tree tops.

Nowhere will this situation be more pointedly understood than at the seats of government in Moscow and Peking. Should this, as seems likely, further deter military adventurism and political subversion by the two great Communist powers, all the sacrifice and suffering — and gallantry — of Vietnam will be made additionally worthwhile, and additionally deserving of the thanks of the United States of America.

**CH-47
RECOVERY
AT RUNG SAT**





THE CAREER OUTLOOK FOR COMMISSIONED ARMY AVIATORS

By

LIEUTENANT COLONEL WALTER F. JONES
145th Aviation Battalion, USARV

TWENTY four years ago, Army Liaison Pilots were asking the same questions commonly asked by Army Aviators today, namely, "What future does Army aviation have for me?" — "When will I attend my career course?" — "What effect will non-participation or postponement of the career course and category III branch material duty have on my chances for promotion and selection for other military schooling?"

The answers we received 24 years ago were very similar to those we receive today with the important difference being the basis of thinking that backs the answers then and now.

The path ahead

During the period 1942-1946 answers to our questions were based largely on hope and vision, and very little on past experience and trends. Today's answers are also based on hope and vision, but more than that they are based on 24 years of valuable experience and definite trends which shed considerable light on the path that's ahead for Army aviation.

During World War II, Army Liaison Pilots had difficulty being accepted as Army officers. In other than pure artillery or aerial observations missions, our voice in the tactical plan or operation was not heard and to

a large degree was undesired. We were considered only as flyboys.

Today, the Army Aviator is accepted as a professional Army officer. His opinions are felt and heard, and I might say heeded in almost every facet of Army activity from the office of the Joint Chiefs of Staff down to the separate artillery battalion, and from small combat development agencies to international organizations involved in the research testing of multi-purpose high performance aircraft.

Growth to continue

The Army Aviator has matured, grown in stature, and has firmly entrenched himself throughout the entire Army. Based on the solid accomplishments of Army aviation during the past few years, and its integration throughout the spectrum of Army activities, there is every reason to have faith and belief that Army aviation will continue to grow and develop in the future.

Based on reasoning developed by the President of the United States, military forces have been required to conduct their global activities within the personnel resources available to the active Army. This places the burden with its associated career turbulence on us. So be it.

We are soldiers of the United States Army,

and are expected — and rightly so — to make the most of the situation. We've been through rough times before that have affected our careers — World War II, the Korean conflict, and the Berlin build-up. Army Aviators have always fared well following these rough spots in our history, and there is no reason to believe that the post-Vietnam era will be any different.

Obvious to all

The current personnel and career turbulence affecting Army aviation is well known throughout every level of the Army and the Department of Defense. Positive actions have been taken to minimize the turbulence created by the shortage of Army Aviators, and to restore the accepted career pattern as soon as possible.

The two aviation training bases have been expanded and a new sub-base formed at Fort Stewart, Ga., to increase the output of new aviators. Positive results from this expansion should be noticeable during the fall and winter of this calendar year. Continuous planning and steps are being taken to make the military a more attractive career which should increase the retention rate of the younger officers, thereby reducing the overall shortage of Army Aviators.

Individual assistance

By direction of the Chief of Staff, U.S. Army, a letter signed by Major General Delk M. Oden (an Army Aviator), Director of Officer Personnel, Department of the Army, is being placed in the official Adjutant General File and the Career Branch File of every Army Aviator below the grade of Lieutenant Colonel. This letter is addressed to anyone who would look at and evaluate an aviator's file for any reason, but primarily for the purpose of selection for promotion and schooling.

The full page letter is very well written, and describes the reasons why an aviator may not have had the schooling and varied assignments that are normally present in the ideal career pattern, including category III branch material duty. The reasons presented (in the letter) are not excuses, but stand on solid military necessity. The performance of duty

THE CAREER OUTLOOK FOR COMMISSIONED ARMY AVIATORS

in positions calling for a lower grade is also discussed.

Basically, the letter directs each evaluating individual to recognize the turbulence in aviator careers, and the reasons creating this turbulence, and to focus their evaluation on the manner and degree of performance the aviator has exhibited in accomplishing his assigned duties.

The demand will grow

With the increasing emphasis on combat organizations that are air transportable and/or airmobile, it should be evident to all active Army Aviators that their talents are going to be more and more in demand. Army aviation has not come of age as many persons state; it's just now really beginning to grow.

An aviator with a background of practical knowledge in the many facets of air mobility, who's blessed with common sense and an attitude of wanting to really perform and get ahead, cannot be held down. Success in command, or in a high staff position, is based to a tremendous extent upon a willingness to work hard, listen hard, and learn fast, and to a lesser extent on the fact that certain schools were attended or certain jobs held at the proper time during the officer's career.

Take advantage of every opportunity to improve yourself generally and professionally. Be aggressive in pursuing knowledge. Enroll in your career branch and C&GSC extension courses, and advance your civilian educational level whenever the opportunity presents itself.

During periods of career turbulence it is even more important that you make maximum use of the opportunities and courses that are available to you by exercising your own initiative for advancing yourself. Acquire a positive "Can Do" attitude and be professional in all endeavors, and have faith.

Your future in the Army and in Army aviation is good; how good will be determined to a great extent by you, your attitude, performance, and individual determination and initiative.

It appears that there is a definite problem in the present-day Army Aviation Program in that there is a need for more aviators. Assuming that the Army recognizes a shortage exists, there are steps that could be taken to directly — and indirectly — provide relief in this area.

One direct step would be to use the CH-

part of the time, *lean and mean* on the ground, and are fortunate to take a cold shower occasionally. They fly combat assault missions continuously, and are exposed daily to enemy fire, while flying low and slow. While flying low and slow, they are occasionally fired on by hostile automatic weapons fire. To really feel the full impact of the

A READER SUGGESTS SEVERAL DIRECT AND INDIRECT STEPS TO ALLEVIATE THE ARMY AVIATOR SHORTAGE

47 as a combat assault vehicle. The CH-47 carries 32 combat-equipped troops, whereas the UH-1 carries six. To assault an objective utilizing the present system, we need five times the number of pilots that would be necessary if the CH-47 were used. Another direct step involves the use of the same two aircraft. In Vietnam hundreds of aircraft and pilot hours are expended flying two ships on missions that require one aircraft. The second ship is flown purely as a safeguard to assure that the first one arrives at its intended destination safely. Since the CH-47 has two engines, one-ship missions could be flown, reducing the number of aviators required by one-half.

The indirect steps

Indirect steps, which should make a career in Army aviation much more attractive, are as follows:

The present assignment system in Vietnam places an aviator in a particular job for approximately one year. A cross section of the aviator assignments in Vietnam covers the extremes from "plush" to "pressure." Those fortunate enough to receive a "plush" assignment spend their year in the combat zone in a hotel with air-conditioned rooms, complete with showers and flush toilets. They fly support-type missions, and occasionally they are shot up with small arms.

Those who receive a "pressure" assignment spend their year living in tents the greater

"pressure" which is exerted on pilots during their year in this type of assignment, one must spend a week with a lift or gun company on a combat operations in Vietnam.

"Assignment" rotation

Words — oral and written — cannot describe what it means to work under these conditions. I suggest that a system be implemented wherein aviators would be rotated from "pressure" to "plush" assignments after so many hours of assault flying, or failing that, to insure that upon his return to Vietnam after a year in the States, the aviator would be on the opposite side of the "assignment" fence.

The fact that aviators must look forward to returning to Vietnam — after nine months to one year in the States — is detrimental to the retention of career aviators. Every married aviator with whom I have talked concerning this problem feels that this sacrifice would be greatly reduced by authorizing a mid-tour leave to the States.

The present system of authorizing two seven-day leaves — with the states excluded as a destination — cannot be understood. Three of my personal friends found that a year was more than their wives were willing to wait. Perhaps a five to seven month wait would not be too long.

The above points are close to the hearts of Army Aviators who have served or are serving in Vietnam. — A longtime AA

CARLYLE W. AREY

Colonel Carlyle W. Arey, USA (Ret.), died suddenly in August, 1966, at his retirement home in Vida, Oregon. His death was from natural causes. Colonel Arey was a member of the staff which moved into Fort Rucker in 1954. He later became Chief of Staff for Brigadier General Carl I. Hutton. He is survived by his widow, Mrs. Eve Arey, [REDACTED], and by a son, Carl Arey, and two daughters, Kay and Karlee. Interment was in Arlington National Cemetery.

ROBERT L. BANKS

Warrant Officer Robert L. Banks, an Army Aviator on assignment to the 501st Assault Helicopter Battalion, died as a result of injuries received in the crash of a UH-1B helicopter in Vietnam on August 27, 1966. He is survived by his widow, Mrs. Marian Banks, 4 [REDACTED].

CHARLES S. BURNS, III

Captain Charles S. Burns, III, an Army Aviator assigned to the 12th Aviation Group, sustained fatal injuries in the crash of an O-1. The fatal accident took place in Vietnam on September 28, 1966. He is survived by his widow, Mrs. Susan Burns, [REDACTED].

ROBERT F. CHAMBERLAIN

Warrant Officer Robert F. Chamberlain, an Army Aviator on assignment to the 17th Aviation Group, died as a result of hostile action in Vietnam on October 7, 1966. He is survived by his widow, Mrs. Nancy A. Chamberlain, Box 471, Hatch, New Mexico.

NORMAL L. DUPRE

Major Normal L. Dupre, assigned to the 114th Assault Helicopter Company, died due to hostile action in Vietnam, during the conduct of a mission, on September 26, 1966. He is survived by his widow, Mrs. Helen S. Dupre, [REDACTED].

WILLIAM E. EBEL

Captain William E. Ebel, on assignment with the 1st Cavalry Division (Airmobile), died as a result of injuries received in the

OBITUARIES

crash of a UH-1D helicopter. The accident occurred in Vietnam on September 24, 1966. He is survived by his widow, Mrs. Florence M. Ebel, [REDACTED].

WAYNE E. ELLISON

Warrant Officer Wayne E. Ellison, an Army Aviator assigned to the 1st Cavalry Division (Airmobile), sustained fatal injuries in the crash of a UH-1D helicopter. The fatal accident took place in Vietnam on September 24, 1966. He is survived by his parents, Mr. and Mrs. George E. Ellison, 4 [REDACTED].

ROBERT W. GARTH, JR.

Captain Robert W. Garth, Jr., an Army Aviator on assignment to the 220th Reconnaissance Airplane Company, died as a result of hostile action in Vietnam on September 23, 1966. He is survived by widow, Mrs. Farrell E. Garth, [REDACTED].

ROBERT F. GRUNDMAN

Major Robert F. Grundman, assigned to the 25th Infantry Division, died during hostile action in Vietnam, during the conduct of a mission on September 26, 1966. He is survived by his wife, Mrs. Francis E. Grundman, 4708 Ferry Landing Road, Alexandria, Virginia.

DOUGAS LEE JONES

First Lieutenant Douglas Lee Jones, on assignment with the 173rd Airborne Brigade, died as a result of injuries received in the crash of a helicopter. The accident occurred in Vietnam on October 12, 1966. He is survived by his widow, Mrs. Sandra M. Jones, [REDACTED].

DAVID P. KUHNS

Warrant Officer David P. Kuhns, assigned to the 118th Aviation Company, died during hostile action in Vietnam, during the conduct of a mission on September 12, 1966. He is

(Continued on Page 34)

1ST AVIATION BRIGADE



BG G. P. SENEFF, JR.
COMMANDING GENERAL



COL JOHN DIBBLE, JR.
DEPUTY COMMANDER

CAPITAL AVIATION
BATTALION
LTC RAYMOND M. GUNN

U.S. ARMY, VIETNAM
FLIGHT DET.
LTC THOMAS N. HURST

5TH AVIATION
DETACHMENT
CPT STANLEY B. MERRILL



10TH AVIATION
BATTALION

LTC BENJAMIN L. HARRISON



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129TH AIR MOBILE
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MAJ LAVERE W. BINDRUP

281ST AIR MOBILE
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MAJ WILLIAM P. GRIFFIN

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NOVEMBER 1, 1966

17TH AVIATION
GROUP
COL JOHN W. MARR



14TH AVIATION
BATTALION

LTC SAMUEL P. KALAGIAN



52ND AVIATION
BATTALION

LTC FOY RICE



223RD AVIATION
BATTALION

LTC WILLIAM K. GEARAN



18TH AVIATION
COMPANY

MAJ RUSSELL W. EDWARDS

131ST AVIATION
COMPANY

MAJ WILLIAM A. ACKERMANN

92ND AVIATION
COMPANY

MAJ MELVIN D. TATE

119TH AIR MOBILE
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MAJ WM. M. EDWARDS, JR.

161ST AIR MOBILE
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MAJ JAMES E. SCHRADER

155TH AIR MOBILE
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MAJ ROBERT V. ATKINSON

183RD AVIATION
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MAJ WILLIAM L. BUCK

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MAJ WALTER L. PAYNE

170TH AIR MOBILE
LIGHT COMPANY

MAJ GEORGE S. MURRY

282ND AIR MOBILE
LIGHT COMPANY

MAJ G. R. HICKENBOTTOM

179TH AIR MOBILE
MEDIUM COMPANY

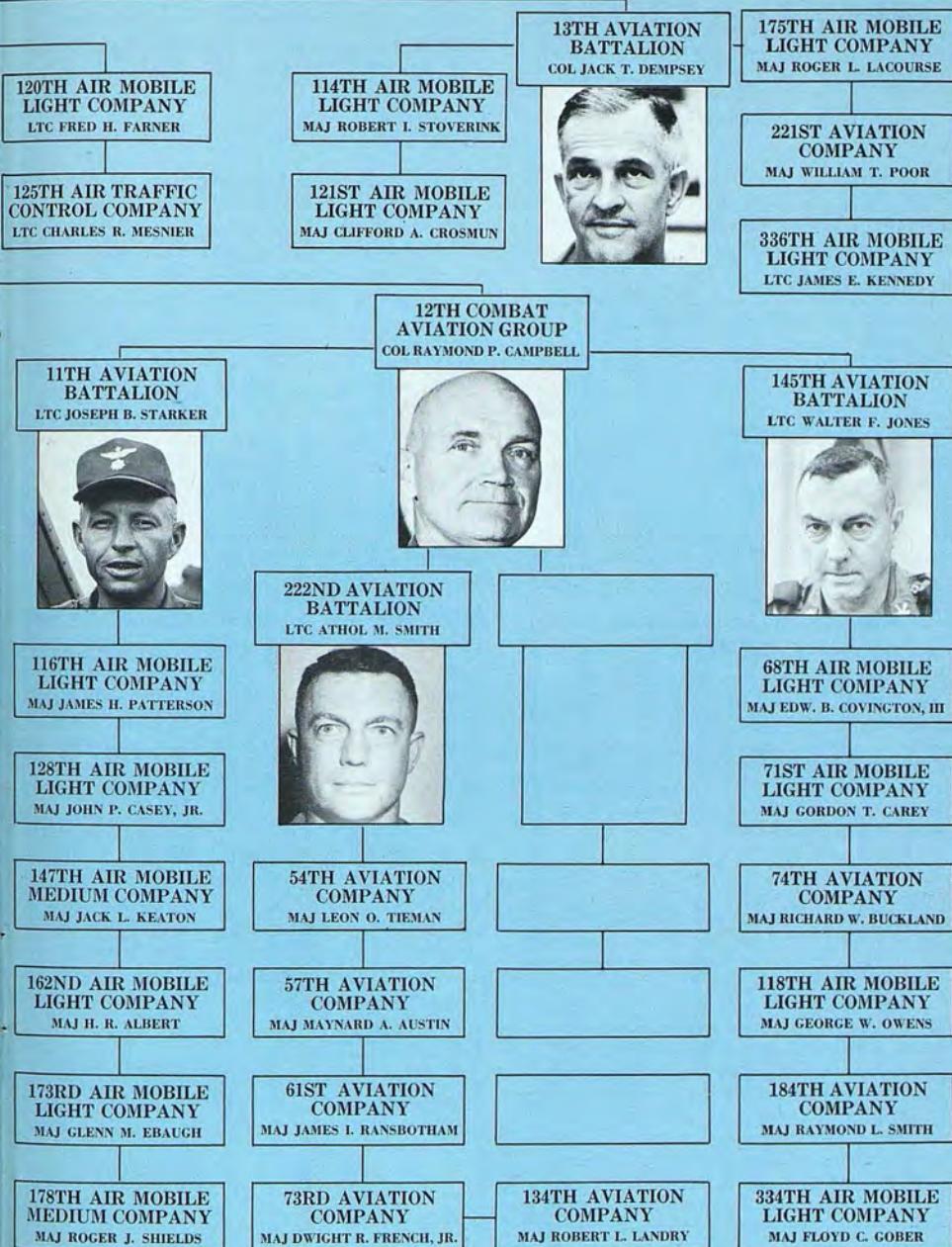
MAJ TURNER J. TRAPP

219TH AVIATION
COMPANY

MAJ JOHN R. OGBURN

220TH AVIATION
COMPANY

MAJ WILLIAM O. SCHMALE



OBITUARIES

survived by his parents, Mr. and Mrs. Paul F. Kuhns, [REDACTED].

HENRY LEE MOSBURG

Captain Henry Lee Mosburg, an Army Aviator assigned to the 114th Assault Helicopter Company, died during hostile action in Vietnam on September 26, 1966. He is survived by his widow, Mrs. Elaine D. Mosburg, [REDACTED].

WILLIAM D. PERKINS, JR.

Chief Warrant Officer William D. Perkins, Jr., on assignment with the 501st Assault Helicopter Battalion, died as a result of injuries received in the crash of a UH-1B helicopter. The accident occurred in Vietnam on August 27, 1966. He is survived by his widow, Mrs. Doris Perkins, [REDACTED]. He also leaves four children, including a son, and three daughters.

MEMORIAL

(The following letter was received by the AAAA Scholarship Foundation, Inc.)

Enclosed is a check for \$500 for the AAAA Scholarship Foundation, donated from the memorial fund of my son, Warrant Officer Ross J. Paterson, who died while serving with the 1st Cavalry Division (Airmobile), February 16, 1966.

The memorial fund was established to assist the widows and orphans of his comrades. Therefore, if it's possible, I would appreciate the Foundation awarding a Memorial Scholarship in his name to the orphan of an aviator or, failing this, a crew member.

Ross was English by birth. He came here when he was 14 and had only been a citizen for slightly more than 2 years when he was killed. He loved his adopted country dearly, and volunteered to serve so willingly. In so brief a period he had no time to leave his mark and so, if a scholarship could perpetuate his memory, it would be most gratifying.

Doris C. Paterson

ROBERT L. PRUHS

Warrant Officer Robert L. Pruhs, an Army Aviator on assignment to the 145th Aviation Battalion, died during hostile action in Vietnam on October 14, 1966. He is survived by his parents, Mr. and Mrs. John H. Pruhs, [REDACTED].

PIERCE I. ROBERTSON

Major Pierce I. Robertson, assigned to the 1st Cavalry Division (Airmobile), sustained fatal injuries when his UH-1D helicopter crashed in Vietnam on October 9, 1966. He is survived by his widow, Mrs. Sandra Robertson, [REDACTED].

RICHARD A. ROSBECK

Captain Richard A. Rosbeck, on assignment with the 175th Assault Helicopter Company, died as a result of injuries received in the crash of a UH-1D helicopter. The accident occurred in Vietnam on October 3, 1966. He is survived by his widow, Mrs. Anne Rosbeck, [REDACTED].

HOWARD D. ULMER, JR.

First Lieutenant Howard D. Ulmer, Jr., an Army Aviator assigned to the 175th Assault Helicopter Company, sustained fatal injuries in the crash of a UH-1D helicopter. The fatal accident took place in Vietnam on October 3, 1966. He is survived by his widow, Mrs. Dian C. Ulmer, [REDACTED].

HARRY T. WHETZEL

Captain Harry T. Whetzel, an Army Aviator on assignment to the 17th Aviation Group, died during hostile action in Vietnam on October 7, 1966. He is survived by his widow, Mrs. Musette M. Whetzel, [REDACTED].

WILLIAM B. WILSON

Warrant Officer William B. Wilson, an Army Aviator assigned to the 197th Aviation Company, died during hostile action while on a mission in Vietnam on September 7, 1966. He is survived by his parents, Mr. and Mrs. Wilbur Wilson, [REDACTED].



ARMY AVIATION ASSOCIATION APPLICATION FOR MEMBERSHIP

I wish to become a member of the Army Aviation Association. I have inclosed my Initiation Fee and my Membership Dues. Please start my ARMY AVIATION MAGAZINE subscription and send my membership credentials.

**CHECK
ONE**

My past or current duties affiliate me with the field of U.S. Army aviation or its allied pursuits.
 My past and current duties have not affiliated me with the field of U.S. Army aviation but I wish to further the aims and purposes of the Army Aviation Association.

NAME.....

(Please print)

Rank/grade

First

M. I.

Last

ADDRESS.....

(Post Box Number, Residence or Quarters Address is Desired)

CITY..... **STATE**.....

**ANNUAL AAAA DUES . . . \$6.00
INITIATION FEE . . . \$3.00**

CATEGORY OF AAAA MEMBERSHIP

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 U.S. Army National Guard component
 U.S. Army Reserve component
 Other. Describe below.

The initiation fee applies to the applicant's first year membership only, and covers the one-time provision of a membership decal and a personal lapel insignia. The application form and a check for \$9.00 made payable to "AAAA" should be returned to: AAAA, 1 Crestwood Road, Westport, Connecticut 06882. The individual membership shall become effective on the first day of the month after the month of application.

Your check or money order, made payable to AAAA, and your application form should be submitted to AAAA, Westport, Conn.

SIGNATURE.....

Failure to sign above invalidates this application.

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

AIRCREW

HELP WANTED

AIRCREW #115 Available: Immed. AVIATION SALES. Major avn concern seeks personable repr for sale of new & used Piper a/crt thru asgd southeastern US terr. 2,000 1st pilot hrs + Instrctr, MEL, Instrmnt rfts required. Some prev sales exp desirable. Tng perod to be 1-yr w/ modest salary & drawg acct+comm in 2d yr. Light to mod travel.

AIRCREW #92 Available: Immed. CHEMICAL or MECHANICAL ENGINEER with computer programming experience with interest in working and living in Texas in the Petro-Chemical Field. Resume required.

AIRCREW #114 Avail: Until filled OPERATIONS MANAGER (For helicopter airline). Large Middle Atlantic concern seeks experienced man for proposed scheduled helicopter airline utilizing twin-turbine equipment. State availability and desired salary.

AIRCREW #43 Openings: Immed. PILOT, HELICOPTER. Large offshore opers needs Bell-expd pilots w/1,000 hr min. Perf job/home every nite. Must be neat, personable, 180 lb. limit. Paid vac, hospitalzn available, life insur furnished. Pays \$9,120 to start.

AIRCREW #96 Available: Immed. PILOT, HELICOPTER. Fixed-base operator in NE seeks pilot with flight instructor rtg to fly Bell 47-G2. Must be willing to work on contingent basis, and help to build business in growing local area.

USE
AIRCREW
TO FIND THE
RIGHT JOB
FASTER!

AIRCREW #117 Available: Immed. PILOTS, HELICOPTER (Avg Spray).

Requirement for 2 pilots for seasonal work (min. 3 mo. period extendable to 6 mo. at Co's option). \$1,200 mo tax free + free lodging, messng & travel in India. Free return economy class air ticket b: shortest route, to & from India. Pilot reqts: 2,500-5,000 hrs w/2,000 hr min of ag spraying in either FW or RW aircraft.

AIRCREW #85 Available: Immed. PILOT, INSTRUCTOR (Helicopter)

Major West Coast operator seeks right man for challenging position in growing FAA approved fitng school. 500+ RW hrs w/hcptr instructor rtg reqd (preferably in Hughes/Hiller).

AIRCREW #54 Available: Immed. REPRESENTATIVE(Avionics Sales)

Direct customer selling, bidding, cost estimate on maj lines avionics equip. Supervsn of installations to verify cust receives work as per contract. FCC First Class RTO lic w/Radar Endors needed. Midw loc. \$175-\$200 week to start.

AIRCREW #62 Available: Immed. SUPERVISOR (Helicopter Maintenance). A&P with min 10 yrs exper & competence in Bell G3B1 or equiv needed by American firm for Middle East position. Contract, with family. Liberal benefits. \$18,000 year.

AIRCREW #84 Opening: Immed. TECHNICIAN, A&P. Major Pacific

Coast RW operator needs A&P with maintenance experience on both Hughes & Hiller helicopters. FAA-approved school for RW ratings. Perf empymnt. Salary open.

AIRCREW #88 Available: Immed. TECHNICIAN (Helicopter Maintenance).

Backgrd in coml Bell or Hiller equip or mil equiv + A&P rgt desired for job w/large East Coast FBO. Outstanding opprt. Will train right man/or send him to company maint school.

AIRCREW #110 Available: Immed. TECHNICIAN (Helicopter Maintenance). Tremendous opprt w/10-yr establ Bell coml operator. 40-hr wk, 2 wks paid vac, life & hospitalzn insur. Min req: A&P, hcptr exper, full tools, references. Right man

may bid for own shop planned for large MidW city within easy support dist from main shop. Salary w/incentive raises as ability grows.

16

GUARANTEE: AIRCREW guarantees that job lead will remain "open" for the 10-day period after it animals an applicant the name and address of the employer with the opening. If the employer fills the position before or during this period, indicating to the applicant that the "opening" is no longer available, the AIRCREW fee paid by the applicant for that employee's name and address will be refunded.

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AIRCREW does not function as an employment agency, but as an aviation listing service and clearinghouse that speeds employment communications between job applicants and employers. Job selection is performed by the applicant upon the basis of detailed "Job Outlines" that are furnished through AIRCREW.

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JOB APPLICANT "ads" - similar to the Job Opening "ads" appearing on these pages - appear in AIRCREW Bulletins that are mailed separately to over 1,600 aviation-oriented employers on a bi-weekly basis. These firms include a majority of the member companies of the Air Transport Ass'n (ATA), the National Business Aircraft Ass'n (NBAA), the Aerospace Industries Ass'n (AIA), the Helicopter Ass'n of America (HAA), the National Aviation Trades Ass'n (NATA), and the National Ass'n of State Aviation Officials.

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Sirs.

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

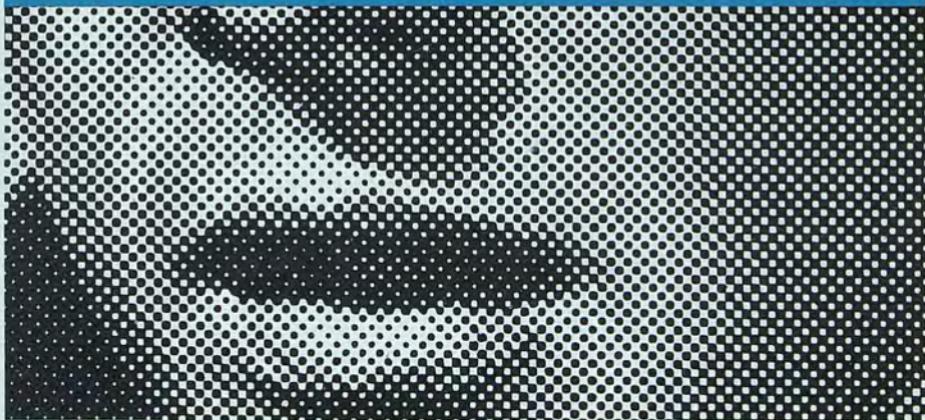
Name _____

Address _____

City _____ State _____

Date Available: _____

SPEAKING OUT



LET'S ELIMINATE THE ANNUAL WRIT!

FOR twelve years, we have been requiring our aviators to take an annual written examination. The time has come now to take another look at the situation — to review this requirement, to re-evaluate its purpose, and to determine if the need still exists and, if this method fulfills that need.

In the beginning of the *Army Instrument Flying Program* in June 1951, Army Aviators were sent to civilian contract schools for the needle-ball-airspeed course in low frequency. At the conclusion of this course, the student took a grueling five-hour closed book examination which originated from some mysterious place high up in the hierarchy of the old CAA.

Locally administered, the examination was sent to Washington for scoring, and the results were mailed back to the examinee some time later. There was no review or critique

on this examination. Indeed, the student was not even informed as to which questions he had missed. This method failed to meet the needs of the military training requirement.

In the spring of 1954, the Aviation School, then located at Fort Sill, organized a formal *Army Instrument Flying Course (IFC)*, and composed the first annual written examination modeled after the old CAA exams. The only significant difference was the addition of questions regarding flight regulations for Army aircraft.

Two separate exams

Each applicant for an *Army Instrument Card* was required to pass this written examination before being allowed to take the flight check. There were two separate examinations: (1) the instrument exam, and (2) the VFR exam for those not instrument rated.

Each exam contained sections on regulations, navigation, meteorology, and radio. There were several versions of each exam. An entry was required in the individual flight record as to type, version, and scores. Later,

By
LTC THOMAS N. HURST
USARV Flight Detachment

LET'S ELIMINATE THE ANNUAL WRIT!

it was determined that the scores should remain confidential.

It was about this time that the Army decided upon a goal of a mandatory 100% instrument qualification for *all* Army aviators. Since this goal was unattainable for several reasons, it was finally agreed to grant exemptions and waivers.

Nevertheless, in order to prepare everyone for an *eventual* instrument rating, only one examination was administered—the instrument written. There was some dissatisfaction with this at first, principally among warrant officer helicopter pilots; however, after some additional study, those who experienced difficulty were able to pass the examination on the second attempt.

As things now stand

This brings us generally to where we stand today. Since the format change in 1959, when the *open book exam* became popular, the written examination has remained virtually unchanged. Nearly everyone seems to approve of the present format, and many have

PRODUCTION MODEL



The first of two pre-production models of the HueyCobra is shown at the left, with Bell's prototype at the right. Curved landing gear, wider turret, slightly larger wings, and fixed steps for the pilot and gunner are noticeable changes. Bell has an Army production order for 110 HueyCobras, with the first deliveries of the world's first fully-integrated weapons helicopter next spring.

come to regard the examination as a necessary evil to maintaining qualification—as something to be tolerated, with no strong feeling either one way or the other.

Analysis of Examinees

Now, there are two extremes among examinees. One group (largely experienced aviators currently on flying assignments) refuses to study and prefers to take pot luck toward getting a passing score the first time around, guessing at the right answers to the questions they do not know from memory. This group finishes in one hour plus ten minutes. Surprisingly, most of them *do* pass.

The second group, comes into the examination room unprepared, either because they are too lazy or because they are on branch material assignments (such as career courses) and do not have time to study. They depend on looking up the answer to *every* question in the reference material that is provided. This group can be identified by the fact that after four hours they haven't finished the exam, and are still thumbing (*fumbling* is a better term) through the book looking for answers. Most of them fail; *all* make low scores.

This leaves the small *middle group* that comes prepared after a long study period. This group uses the reference material *only* on a few of the most difficult questions, or on the tricky ones. Most of this group make high scores.

Of course, everyone eventually passes or goes before a Flight Evaluation Board.

I believe that it is universally agreed that the main benefit of this written examination is derived from the study period preceding it, *and not from the examination itself*. If a majority of our aviators do not study, what have we gained? If only a small segment (the middle group) prepares itself for the exam, *we have not accomplished what we set out to do!*

The solution is simple

What, then, is the solution? Obviously, we are led to the conclusion that the written examination must be abolished. Anyone who suggests this, however, must offer a better solution to be substituted in its place, and I

believe that I have one. *Make the unit commander responsible!*

Now this solution is so simple that it appears obvious. But let's take a closer look.

Under the present system, the exams are prepared at *USA AVNS*, mailed to the presidents of the various boards, and forwarded to the individual examiners at their outposts. They are then administered *by the examiner*, scored *by the examiner*, and forwarded *by the examiner* directly to the Standards Division at the Aviation School.

Note that nowhere along the route is the commander even mentioned. What is his association with the examination? Well, he takes it just like everybody else. It is administered to him by the examiner who is working for the president of the board.

Whoever heard of an officer examining his commanding officer? This destroys all normal relationships between the commander and the aviators in his unit. This is by no means humorous, especially if the examiner's efficiency report happens to be lying on the commander's desk while he is taking the exam.

Implementation

The commander is already responsible for the proficiency of the aviators under his supervision. What we are proposing now is to give him the management tools with which to meet this responsibility. Let's take a look and see how it will work.

First of all, the commander recognizes this responsibility from the very first day, and he initiates certain steps to accomplish his goals, just as he does with any other program.

First, he calls in his training officer, preferably an experienced instrument flight examiner, and they discuss the level of proficiency of the aviators in the unit. From this discussion, the commander determines the training requirements and establishes a training program to meet these needs.

The commander may wish to give a written examination. This is not as big a task as it first appears. For example, in Fourth Army in 1955 we prepared our own questions and published them in the form of a study guide to prepare aviators in our area for the annual writ. Any conscientious examiner can do this

LET'S ELIMINATE THE ANNUAL WRIT!

easily if given the time. The important point here is that the exam can be *tailored to this particular unit*, with special emphasis given to problems that are peculiar to its geographical location or area. The answers could be published in the unit SOP, and used as part of the *initial orientation for newly arrived aviators*.

Formal classes possible

Secondly, the commander may determine that a refresher training program is necessary, and might even schedule *formal* classes to bring everyone up to the desired level of knowledge. This is one way of getting the information to the weaker ones without having to point them out individually in front of others. Thirdly, he may set higher annual, semi-annual, or quarterly minimums for his aviators than those required by the regulations. If all his aviators ever do is barely meet those minimums, then his unit is only as good as the *worst* unit on the globe. Perhaps he wants his unit to be better than this.

At CO's initiative

The most important thing to remember while reading the foregoing is that all this is left to the discretion of the local commander (and by commander we refer to the senior aviation officer.) This gives him an opportunity to show his initiative. Also, in this way, when a higher commander or senior staff officer visits the unit, he will have a chance to differentiate between the units by observing just how much each commander has exercised this opportunity. Consequently, the inspecting officer can give a higher rating to the unit with the most active and vigorous training program.

If this written examination is eliminated, this function could be performed by the examiner during the oral portion of the annual instrument flight examination (see AR 95-67, par 6f 11). Thus, any new procedures or changes in regulations could be discussed with the applicant, and quality control and standardization would be maintained. In some cases, special one-time classes would be neces-

LET'S ELIMINATE THE ANNUAL WRIT!

sary for certain subjects (such as RVR). But, once again, this instruction would be *tailored* to the individual needs of the unit.

There is no branch service that requires an officer to take an examination each year to maintain his branch qualification. Also, there is no FAA written examination requirement to maintain qualification. Why then should we impose such a thing upon ourselves?

Every week, changes are received to the Jeppesen manual. By requiring each aviator to do his own posting, the unit commander

can be assured that every one of his aviators sees these changes, and that they are always current throughout the year — not just cramming at examination time.

Finally, there is the principle of individual responsibility. Let us recognize the Army Aviator for what he is: a member of a highly select group. The fact that he is a commissioned officer, schooled in his basic branch, *plus* a graduate of the aviation school, is sufficient evidence of this. Then, let's place the responsibility for keeping current upon the individual aviator, and the unit commander, where such responsibility belongs, and not rely upon the crutch of the annual written examination to accomplish this purpose.

OCTOBER-NOVEMBER NEWS PHOTOS



The Navy joined the AAAA during "Army Aviation Week" held at Corpus Christi, Tex., October 6. Rear Admiral Robert A. MacPherson (center), chief of naval air advanced training, and Capt. F. C. Auman (2d from right), accept honorary member certificates from LTC Don Luce, the Bitter Chapter president and ARADMAC Director of Maintenance. LTC Harry Davis (left) and artist John Dean observe the ceremony. The ARADMAC open house drew in excess of 10,000 visitors to the facility with the companion AAAA Barbecue raising over \$5,000 for local charities.

The U.S. Army completed a \$9.5 million dollar contract on Oct. 13 with the Hughes Tool Company — Aircraft Division of Culver City, Calif., when it received the 351st — and last — Hughes TH-55A primary helicopter trainer. Colonel E. P. Fleming, Jr., Commanding Officer of the U. S. Army Primary Helicopter Center & Ft. Wolters, personally took delivery of the last aircraft from Rea Hopper (right), vice president & general manager of the firm. Since January of 1965, the TH-55A's have logged over 150,000 hours of flight training.
(USA photo)



CHANGES OF ADDRESS - PCS

COLONEL

BRISTOL, Delbert L.

LUKENS, Howard I.

PHILLIPS, Wayne N.

PSAKI, Nicholas G.

LTC

BARNES, Wilman D.

BLACK, Charles S.

BOSAN, George S.

BRADLEY, Glenn W.

BRADY, Morris J.

BRANDENBURG, John N.

BROWN, Jack W.

CHAMBERLAIN, Donald F.

CLARK, Julius E. Jr.

CLARK, Max A.

CONNOR, George C.

DUGGER, Morris W.

ESTES, Ben E. Jr.

LTC

FRANKLIN, Swayne B.

HARRIS, Louis C.

HILBERT, Marquis D.

HILL, James F.

HORTON, George C.

HUMPHRYS, James G.

JENKINS, William H.

JOHNSON, Richard L.

JOHNSON, Woodbury

JOHNSTONBAUGH, Merle

JONES, Quitman W.

KEAN, John J.

LAUTERBACH, John W.

MONTGOMERY, Earl B.

NEVINS, Robert H. Jr.

NEWPORT, Elswick

POOLE, Joseph H.

SHAW, Frank L.

LTC

SMITH, Carroll W.

SMITH, Harold T.

SOLT, Lowell K.

TODD, John A.

WILSON, Clifford C.

MAJOR

ADDISS, Daniel A.

ALICH, William J.

ASBELLE, Charles T.

BAGWELL, Lavon

BAUGHMAN, Larry J.

BETTZ, Charles A. Jr.

BOERNER, Dennis H.

BRADLEY, William C.

BRAKE, John W.

BYRD, Roger D.

CALHOUN, George B.

CAMPBELL, William A.

MAJOR

CARROLL, Anthony

CHIN, Bak Y.

CONLEY, Samuel G., Jr.

CONNELL, Walter J.

CONSELMAN, Charles B.

COTE, George R.

COYE, Roger H.

CURRY, Paul R.

DAVIS, Willie L.

DEAN, Edward R.

DENNISON, GARY V.

DEWEY, Arthur E.

DILLINGER, David R.

DROSS, David D.

DUENSING, Harry E.

FERGUSON, Robert R.

FUCHS, Edmund L.

MAJOR

GALLAGHER, Joseph P.
 [REDACTED]
 GORDON, John E.
 [REDACTED]
 GRIX, Edward N.
 6442
 GWINNER, Maurice D.
 [REDACTED]
 HALEY, John C.
 [REDACTED]
 HANEY, Billy G.
 [REDACTED]
 HARRIS, Robert E.
 [REDACTED]
 HEALY, Radcliffe
 [REDACTED]
 HEINS, Milton H.
 [REDACTED]
 HILL, Jack D.
 [REDACTED]
 HOELTZEL, Norman E.
 [REDACTED]
 HOFFMAN, Glenn F.
 [REDACTED]
 HOFFMAN, Howard J.
 [REDACTED]
 HOGAN, Wayne C.
 [REDACTED]
 HONSINGER, Larry E.
 [REDACTED]
 HOSTLER, Howard K.
 [REDACTED]
 HUTCHENS, Douglas L.
 [REDACTED]
 JASPER, Theodore C.
 [REDACTED]
 JOHNSON, David S.
 [REDACTED]
 JOHNSTON, Norbert B.
 [REDACTED]
 JONES, Robert J.
 [REDACTED]
 KETZLER, Kenneth L.
 [REDACTED]
 KINNISON, Lewis A.
 [REDACTED]

MAJOR

KOEHLER, William F.
 [REDACTED]
 LEISTER, Richard W.
 [REDACTED]
 MARVIN, Harold A.
 [REDACTED]
 MAY, Joseph M. F.
 [REDACTED]
 McDANIEL, Harry T.
 [REDACTED]
 McGEE, Calvin A.
 [REDACTED]
 MCPhAIL, Billy B.
 [REDACTED]
 MIKUTA, Joel J.
 [REDACTED]
 MOCK, Newell A. Jr.
 [REDACTED]
 MOELLER, Gene L.
 [REDACTED]
 MORAN, John F. Jr.
 [REDACTED]
 MORAN, Otis A.
 [REDACTED]
 MOULTHROP, Robert M.
 [REDACTED]
 MUNROE, Gary W., Sr.
 [REDACTED]
 O'DONALD, Robert E.
 [REDACTED]
 ORAM, Charles J.
 [REDACTED]
 OSBOURN, Robert E.L.
 [REDACTED]
 PALMER, Charles R.
 [REDACTED]
 PHILLIPS, Jack R.
 [REDACTED]
 PHILLIPS, Robert A.
 [REDACTED]
 PICK, Rudolph
 [REDACTED]
 PIERCE, Wilbur R., Jr.
 [REDACTED]
 POLCENE, Elliott W. Jr.
 [REDACTED]
 POWELL, Buell R.
 [REDACTED]

MAJOR

RAMSEY, Bobby A.
 [REDACTED]
 RICHARDS, David A.
 [REDACTED]
 ROCHE, Gregory F. Jr.
 [REDACTED]
 ROGERS, James R.
 [REDACTED]
 ROSE, Gerald S.
 [REDACTED]
 RUSKAUFF, Donald R.
 [REDACTED]
 SALM, John H. Jr.
 [REDACTED]
 SAWVELL, Vernon L.
 [REDACTED]
 SCHRYER, Malcolm S.
 [REDACTED]
 SCULLY, Robert C.
 [REDACTED]
 SELAVKA, Carl
 [REDACTED]
 SHARP, Leonard J.
 [REDACTED]
 SHIELDS, George D.
 [REDACTED]
 SIMPSON, William F., Jr.
 [REDACTED]
 SISK, John R.
 [REDACTED]
 SMITH, Clarence W.
 [REDACTED]
 SMITH, Raymond L.
 [REDACTED]
 STEIN, Henry J. Jr.
 [REDACTED]
 TAYLOR, Allen B.
 [REDACTED]
 2223
 TEMPLE, William T.
 [REDACTED]
 THOMAS, John A. Jr.
 [REDACTED]
 TWILLEY, Leroy G.
 [REDACTED]
 UNDERWOOD, Orlie J.
 [REDACTED]
 WALKER, Ronald T.
 [REDACTED]

MAJOR

WARR, Thomas J.
 [REDACTED]
 WASHBURN, R. B.
 [REDACTED]
 WELCH, Larry L.
 [REDACTED]
 WEST, Pleasant H.
 [REDACTED]
 WHEAT, Thomas W. Jr.
 [REDACTED]
 WILLIAMS, Eric A.
 [REDACTED]
 WOOD, Gordon F.
 [REDACTED]
 WOODBINE, Gerald V.
 [REDACTED]
 ZENZ, Alexander R.
 [REDACTED]
CAPTAIN
 ABBEY, Charles W.
 [REDACTED]
 ADAMS, William E.
 [REDACTED]
 ADKINS, Donald V.
 [REDACTED]
 BARKSDALE, Lewis B.
 [REDACTED]
 BARNES, James M.
 [REDACTED]
 BARTLETT, Wm. A., Sr.
 [REDACTED]
 BAUER, Daniel R.
 [REDACTED]
 BAUMGARTEN, John R.
 [REDACTED]
 BISHOP, Paul E.
 [REDACTED]
 BURKE, James A.
 [REDACTED]
 BURTNETT, Richard J.
 [REDACTED]
 CALLENDER, William E.
 [REDACTED]
 CANFIELD, James D.
 [REDACTED]
 CARPENER, Eugene J. Jr.
 [REDACTED]

1965 CLAIMS

Colonels (5)	
Beaumont, Harry C.	\$2,352
Bush, Harry L.	\$2,352
Ferriter, Richard H.	\$588
Newton, Albert	\$588
Smith, B.G.	\$1,340
Lieutenant Colonels (10)	
Anderson, Norman I	\$1,835
Bearden, William A	\$2,208
Cook, Carroll M., Jr	\$2,352
Curd, Vernon D.	\$2,304
Dobson, Robert	\$2,352
Kent, George S.	\$2,304
Morrow, Jack G	\$576
Tugman, Robert F	\$1,372
Van Sant, Jesse F	\$1,152
Gaines, William G	\$1,248
Gilsdorf, Ronald B*	\$1,188
Hayes, Rudolph V	\$1,344
Henderson, Robert P	\$1,344
Herbst, Joseph A	\$1,152
Holmes, Thomas E	\$1,200
Iwamasa, R.H.	\$648
Jones, Brady C	\$1,152
Lockhart, James	\$1,206
Murray, George W	\$756
Neal, Charles M., Jr	\$348
Norton, Henry C	\$1,296
Odem, James R	\$756
Pinard, Joseph L.R.	\$1,200
Ray, James O	\$728
Rhinehart, Clarence G*	\$1,008
Sevigne, Edward J	\$1,200
Stewart, Alexander K*	\$588
Majors (13)	
Benson, Albert G*	\$1,472
Dean, Edward R*	\$1,312
Doucette, Roger A*	\$704
Galligher, Kay D*	\$860
Gray, Robert R	\$688
Howell, Roy R*	\$1,476
Kuhn, Robert J*	\$960
Owings, William M*	\$608
Peterson, Merrill T	\$584
Rymus, James O*	\$1,536
Shartzler, Joice*	\$576
Waldron, Edward E	\$1,388
Ward, Billy E*	\$1,120
Captains (2)	
Bakken, Clarence O*	\$444

SEMI-ANNUAL REPORT TO AAAA MEMBERS ON FLIGHT PAY PROTECTION PLAN CLAIMS

Majors (22)

Bowman, James E	\$960
Cave, William R	\$1,436
Chamberlain, Warren	\$984
Christian, Cecil G	\$516
Crooks, Eugene F	\$1,104
Downes, Thomas W., Jr	\$783
Finley, John L	\$691
Grimes, Cecil H	\$960
Harris, Charles E	\$2,304
Healy, Radcliffe*	\$1,845
Headley, Fred C	\$1,021
Hudson, Charles F	\$1,127
McClintock, Alfred B	\$1,479
Moyers, G.A.	\$2,208
Otersen, Vincent	\$2,304
Porter, Paul E	\$727
Reeder, James D	\$444
Richards, David A*	\$2,392
Rose, Gerald S*	\$1,892
Teese, James L*	\$1,920
Warner, Ramon F	\$1,968
Yates, John C	\$2,304

Captains (20)

Brophy, Edward R., Jr	\$794
Burwell, James M	\$1,728
Costino, Michael	\$3,552
Cunningham, Donald E	\$752
Dunn, Jack A	\$736
Ferguson, William H*	\$1,476
Gafner, Richard L*	\$2,664
Gulledge, Kenton	\$360
Hook, Bruce	\$1,920
Hudson, Samuel R	\$1,776
Manthei, John	\$1,968
Miller, Oral D	\$1,968
Mitchell, Sim C.C.*	\$1,332
Pedersen, William W	\$1,968
Sanderson, Roland O*	\$1,476
Stuart, Clark D	\$1,615
Sullenberger, L.E., Jr	\$1,584
Tucker, Jackie L	\$510
Turley, James R	\$1,776
Ward, Willard L*	\$1,188
Chief Warrant Officers (30)	
Ahlestedt, Herbert A.J	\$961
Baker, Delmar G	\$1,056
Beaston, George F	\$1,344
Bowers, Raymond C	\$1,344
Carroll, Walter J	\$560
Desson, Thomas B*	\$972
Delaney, James	\$690
Denning, Stanley P	\$1,008
Ferguson, James D	\$1,296

Slusher, Darius S \$1,296 |

Ulm, Arthur J., Jr \$557 |

Warrant Officers (2)

Miller, Jensen H \$576 |

Wright, Richard J \$380 |

Staff Sergeants (1)

Hughes, Joseph M \$400 |

Specialists, Sixth Grade (2)

Chambers, Leon \$912 |

Mrukczowski, Leon* \$1,368 |

1966 CLAIMS

Lieutenant Colonels (3)

Elliott, John W* \$784 |

Futrell, Alvin F \$576 |

Sanders, Bobby J* \$480 |

Chief Warrant Officers (6)

Beveridge, Robert A \$534 |

Cox, Neal D \$316 |

Fentress, Donald R* \$600 |

McLachlan, George W \$204 |

Vierling, Raymond A* \$448 |

Williams, Edwin L* \$448 |

Warrant Officers (1)

Rugg, William A* \$768 |

Specialists, Sixth Grade (2)

Alexander, James* \$320 |

Burns, Charles W* \$720 |

* Current claims with '66 payments

■ FLIGHT PAY PROTECTION PLAN SUMMARIES AS AT 1 OCTOBER 1966:

Number of Insured Members holding individual FPPP policies 4,184

Individual "Claim Alert" Correspondences received 567

Insureds grounded, but returned to flight status prior to loss 115

Individual claims approved by underwriters during 1957-1966 389

Individual claims disapproved by underwriters during 1957-1966 15

Total Flight Pay Indemnities Paid through 30 September 1966 .. \$651,837.90

■ INITIATED IN 1957: 4 claims \$13,910.00

(1 Lieutenant, 2 Captains, 1 Major)(4 illness claims, none for bodily injury)

■ INITIATED IN 1958: 11 claims \$41,585.00

(2 CW2's, 3 Lieutenants, 4 Captains, 2 Majors)(All 11 claims for illness)

■ INITIATED IN 1959: 39 claims \$86,103.38

(1 SP6, 6 CW2s, 11 LTs, 11 CPTs, 5 MAJs, 2 LTCs)(35 claims placed for illness and disease; 4 claims placed for accidental bodily injuries)

■ INITIATED IN 1960: 44 claims \$67,811.19

(6 CW2s, 1 CW3, 2 LTs, 19 CPTs, 12 MAJs, 3 LTCs, 1 COL)(40 claims placed for illness and disease; 4 claims placed for accidental bodily injury)

■ INITIATED IN 1961: 40 claims \$62,484.86

(9 CW2s, 1 CW3, 5 LTs, 19 CPTs, 3 MAJs, 2 LTCs, 1 COL)(34 claims for illness and disease; 6 claims for accidental bodily injury)

■ INITIATED IN 1962: 51 claims \$73,551.67

(2 SP6s, 10 CW2s, 2 CW3s, 2 LTs, 22 CPTs, 8 MAJs, 4 LTCs, 1 COL)(40 claims for illness and disease; 11 claims for accidental bodily injury)

■ INITIATED IN 1963: 62 claims \$99, 807.64

(1 SFC, 5 CW2s, 13 CPTs, 16 MAJs, 6 LTCs, 2 COLs)(33 claims placed for illness and disease; 5 claims placed for accidental bodily injury)

■ INITIATED IN 1964: 38 claims \$59,261.79

(1 SFC, 5 CW2s, 13 CPTs, 16 MAJs, 6 LTCs, and 2 COLs)(33 claims placed for illness and disease; 5 claims placed for accidental bodily injury)

■ INITIATED IN 1965: 91 claims \$126,705.70

(2 SP6s, 1 SSG, 2 CW2s, 29 CW3s, 20 CPTs, 22 MAJs, 10 LTCs, and 5 COLs)(78 claims for illness and disease; 13 claims for accidental bodily injury)

CAPTAIN

CARTER, Harold M.

CHAPMAN, Jimmy R.

CHARLES, John D.

CHITREN, Vincent R.

COLBERT, Bill N.

CORNELL, Allen C.

CULLINS, Robert B.

CULP, Harry R. Jr.

CUMMINGS, Leonard W.

4
DANHOUSER, David C.

DASSONVILLE, Curtis R.

DAVIDSON, John M. JR.

6312
ELDER, John F. III

FELTER, Jesse E.

FICKLIN, Marvin D.

4
GALLAGHER, John H.

GARRISON, Darrold D.

225
GAUZE, James E.

GILLETTE, William P.

GOLDING, Willard E.

GRAHAM, James R.

GRIGGS, Carlin J.

HAMILTON, Victor A.

CAPTAIN

HAZELWOOD, Richard L.

HIGDON, Thomas E.

HORNADAY, Robert W.

HOSEY, John D.

JERNIGAN, Cecil L.

JESSE, Martin C.

JOPLIN, Paul L.

6289
JUDKINS, Vernon T.

KEEFER, Gary L.

4
KNUDTZON, Thomas A.

KNUTSON, Richard H.

KOBYLARZ, James M.

LAFAYETTE, John W.

LASSITER, Norman E. Jr.

LEMES, Ralph V.

4
LITTLETON, Walter M.

LONG, Joel D.

LYNN, Ellie E.

MCCURDY, John D.

MCGOWAN, James A.

MCINTYRE, Stephen

MCLEMORE, Melvin J.

MCPEHRSOON, William

MELLIN, James P.

CAPTAIN

MIXTER, Wilbur R.

MOORE, Robert D.

MOUW, James W.

MULLEN, Warren E.

MURPHY, Thomas W.

NEUBAUER, Jacob D.

NEWBERRY, Joseph H.

6289
NIELSEN, Kenneth G.

OSTICK, Charles T.

4
OTERSEN, Peter H.

PRATT, Donald E.

REBOLZ, Edward S.

RECHER, Ronald R.

ROBERTS, Milton R.

ROBINSON, Edward C.

4
ROBINSON, John D.

ROMERO, Dalton J.

ROPP, Richard F.

ROWLAND, Jerry D.

RUSSELL, Jerry W.

SAVILLE, Duane E.

SCOTT, Augustus D.

SHABRAM, Robert M.

SHORT, Robert E.

CAPTAIN

SMITH, Fred

SMITH, Lee C. Jr.

SPRENGELEER, Ronald J.

STANFORD, Harold D.

STEVENS, Darryl M.

STINEBAUGH, Jimmy W.

THIBODEAU, Charles A.

TRUDELL, John A.

TURNER, Edwin H.

WARREN, John O. Sr.

WEBSTER, Carl S.

WEBSTER, Robert L. Jr.

WEEMS, Sands S. III

WICKER, Rush R. Jr.

WILLIAMS, Charles E.

WOLFE, Rodney D.

ZUMBRO, Harold D.

LIEUTENANT

BARATI, Stephen G.

DALTON, Robert B.

DUCKWORTH, Robert G.

GAETJE, Frank C.

GODFREY, Jeffrey H.

GOLDSMITH, Grant L.



FLIGHT PAY PROTECTION - A GROUP PHOTO WITH 4,107 FACES

FLIGHT PAY PROTECTION PLAN 1 CRESTWOOD ROAD WESTPORT, CONNECTICUT

(Please Print) Rank/Grade Name ASN Years Service for Pay Purposes

ADDRESS..... (Post Box Number, Residence or Quarters Address is Desired)

CITY..... STATE.....

MONTHLY FLIGHT PAY?..... ANNUAL FLIGHT PAY?.....

I have enclosed a check or money order made payable to FLIGHT PAY PROTECTION PLAN for the correct premium and I understand that coverage is to become effective upon the first day of the month after the month in which I make application for this coverage.

I certify that I am currently on flying status with an active U. S. Army or ARNG-USAR unit, am entitled to receive incentive pay, and that to the best of my knowledge I am in good health and that no action is pending to remove me from flying status for failure to meet required physical standards.

Signature of Applicant..... Date.....

Submit application and premium check to FLIGHT PAY PROTECTION PLAN, Westport, Conn.

THE ANNUAL PREMIUM CHARGE IS 1 1/2 % OF ANNUAL FLIGHT PAY.

LIEUTENANT

GOLDTRAP, John W.

HOAGLAND, John M.

HODGES, Joseph H.

LEONARD, Jay T.

MAYER, Frank H.

MCKELLAR, Fred D., Jr.

MOORE, Edward N.

PATRICK, Rhoderic K., Jr.

PHELPS, Lloyd C.

TIGGES, Kenneth D.

WALLACE, John P.

CW2 - CW4

ALLEN, Billy J.

BUBERNAK, Samuel

BUECHTER, Robert W.

CASE, Warren L.

DAVENPORT, John D.

ERVIN, James P., Jr.

FRANKLIN, James W., Jr.

GARNER, James Andrew

GROFF, Gerald A.

HINKLE, William C.

HOEPPF, David W.

CW2 - CW4

JACHENS, Bruce W.

JOHNSON, Gwain L.

JOYCE, Donald R.

KELLAM, George E.

KREINER, Charles H.

MARTIN, Willard J.

McCARTT, J.V.

MILLER, Lyle

MURRAY, George, Jr.

NILSSON, Kjell H.

NORRIS, Robert C.

OATES, Jene R.

REDDERSON, Floyd F.

RHINEHART, Clarence G.

RICHARDSON, John P.

RUEHLING, Edward H.

SCHUG, Verdell K.

SLIGH, Marion W.

SMITH, Alfred C.

STALLARD, James B.

THURMOND, Wymond N.

VALREY, Cleveland

WO1

ASKREN, James D., II

WO1

BELL, William D.

CAMERON, Craig B.

DOADES, Michael S.

FRITZ, Ralph S.

FRITZSCHE, Grant C.

GEESEON, Richard M.

JACKSON, Donald W.

MICHENER, James

MILLER, Michael J.

NORTH, William M.

O'NEAL, Norman R.

PATTERSON, Michael K.

PATTERSON, Norman R.

PEARSON, Peter T.

RAIBLE, Ronald

SHERECK, James J.

WHIGHAM, Charles E.

WINCHESTER, Clark D.

WOC

FISCHER, Robert E.

NEIDHARDT, Frederick R.

PEARCY, Thomas Love

TATUM, Clark R.

TRENT, Ben, Jr.

WOC

YODER, Mr. Carl C.

SGM

MARTIN, James P.

1SG

McCOLLUM, Donald W.

ASSOCIATE

ASHWORTH, Mr. James E.

BREGER, Mr. Irving A.

CHAIRIS, Mr. William R.

DAVIS, Mr. Jack H.

DONAHUE, Mr. Joseph D.

HAMILTON, Mr. Dale B.

HOWARD, Mr. Beverly E.

HUENE, Mr. Benedict H.

LASATER, Mr. Allen N.

McDONALD, Mr. Eldon E.

McEWAN, Mr. John L.

OSSI, Mr. Peter S.

TRANTHAM, Mr. W.E.

RETIRING

BRIGGS, John L. MAJ

DELOSUA, Ramon F. COL

WALTER, Fred K. LTC

07208

WARD, Billy E. MAJ



AAAA FOUNDATION OFFERS \$3,500 IN SCHOLARSHIP AID

The AAAA Scholarship Foundation announces the availability of \$3,500 in 1967 scholarship assistance funds for the sons and daughters of members and deceased members of AAAA.

Application forms for the 1967 scholarships may be obtained by writing to the AAAA Scholarship Foundation, Inc., 1 Crestwood Road, Westport, Conn. 06880. The applications, together with other supporting application data, must be returned to the Foundation on or before March 1, 1967 to receive Awards Committee consideration.

ELIGIBILITY

Eligibility requirements for the awards have been minimized. The applicant must be:

The son or daughter of a member or deceased member of AAAA.

A high school graduate or senior who has made application to an accredited college or university for Fall, 1967 entrance as a freshman, or who has been accepted for freshman enrollment in the Fall of 1967.

Unmarried and a citizen of the United States.

AREA INTERVIEWS

Following the receipt of the completed application form, the financial statement, and the required academic transcripts, the Foundation will notify the applicant to report to a group of interviewing officers selected from among the AAAA membership residing in the applicant's area. The "Report of Interview" serves as an important, (but not

mandatory) part of the documentation required for awards consideration.

FINAL SELECTION

The final selection will be made by the AAAA National Awards Committee, a permanent standing committee of the National Executive Board of the AAAA that has been designated as the Foundation's judging agency. The selection will be made during the month of March, 1967 period with the winners to be notified by March 31, 1967.

BACKGROUND

Incorporated in December, 1963, the AAAA Scholarship Foundation, Inc. is a separate non-profit education activity created to administer scholarship assistance to the children of members.

The previous scholarship recipients have included Joel R. Graft (1963); Danny P. Barrett, Cheryl Ann Cretin, Roger A. Moseley, and Robert P. Spears (all in 1964); and Harmon B. Dow, Kathryn M. Eggers, Penny L. Francis, Jessica Ann Fried, Joseph W. Hely, Jr., Michael E. McMaken, and Leslie T. Schockner (all in 1965).

The seven 1966 scholarship winners included Laurie Jo Davis, Eugene F. Geppert, Joseph J. Lahnstein, Roxanne Roehl, Robert P. Thomson, Chauncey L. Veatch, Jr., and Betty R. Williams.

With the issuance of the 1966 scholarship assistance, the AAAA Scholarship Foundation has provided \$9,700.00 in direct aid to seventeen students since the inception of the program in 1963.

ARMY AVIATION

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

675

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Have gun. Will travel.

It's no misnomer when the Boeing Vertol CH-47A Chinook is called the First Cavalry Division's "workhorse."

So the Chinook needs engines to match — powerful and reliable. Like two Avco Lycoming T55 gas turbines, which give it a healthy 5,300 shaft horsepower. More than enough for howitzer-toting. But what happens when a gun-toting Viet Cong puts a bullet right through one of these engines? Very little. Many an Avco Lycoming-powered helicopter has completed its mission with a gaping bullet hole through its engine.

And if a bullet does get to one of our T55s, ease-of-maintenance becomes mighty important. Which is why we made every part of the engine easily accessible. And readily replaceable.

One day, perhaps, our current engines will get kind of old hat. But it's apt to be a long time. Because the basic design built the future right into the engine. We're already working on advanced T55s for tomorrow's Chinooks.

AVCO **LYCOMING DIVISION**
STRATFORD, CONN.