April-May, 1972

NEW PREFIX "X" - SEE P. 43

Army Aviation

KingCobra.
The most maneuverable,
most powerful,
most survivable tank killer flying!

All that, and the lowest price tag, too!

That's the kind of performance package you expect from Bell.

Most maneuverable? From hover, KingCobra slips, slides and darts over the terrain. It can pull 3gs and hit dive speeds of more than 200 kts.

Most powerful? Bell packed twice the horsepower of its proven HueyCobra into its beefed up airframe. The KingCobra carries the latest sophisticated systems, more ordnance payload, more of what it takes to do its job.

Most survivable? KingCobra goes by the theory you can't hit what you can't see. And coupled with its superb maneuvering talents, its smaller profile makes it one very elusive target!

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Bell's KingCobra. Ready for Army acceptance. Now.

BELL HELICOPTER

VOLUME 21, NUMBER 4 AND 5

Army Aviation

APRIL 30, 1972

Endorsed by the Army Aviation Ass'n of America

CONTENTS

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Thumbs Up for the Army!

Everything possible is being done to stabilize the Army's personnel situation, approximately 1,100 AUSA members and guests were told by Secretary of Defense Melvin R. Laird at a Fort Rucker dinner meeting in late March.

Secretary Laird, the highest ranking government official ever to visit the post, discussed what he called personnel turbulence brought about by the Vietnam War.

Shown above with MG Allen M. Burdett, Jr., (left), CG at USAAVNC/S, the Secretary added, "I'm proud of the way so many of our military men and women of the U.S. Army, in the face of this great turbulence, have met the professional and personal challenges which were posed by this transition from war to peace."

COMMAND & STAFF

Brigadier General James F. Hamlet, as Commanding General, 3d Brigade (Separate), 1st Cavalry Division, APO San Francisco 96490.

Colonel Sidney W. Achee, Ret., to 2029 Michigan Avenue, N.E., St. Petersburg, Florida 33703.

Colonel Robert D. Bretz, as Director, Department of Maintenance Training, USAAVNS, Fort Rucker, Alabama 36360.

Colonel Eugene B. Conrad, Ret., to 203 Plaza Drive, Daleville, Alabama 36322.

Colonel Albert A. Johnson, Jr., as Director, Industrial Operations, US Army Aviation Center, Fort Rucker, Alabama 36360.

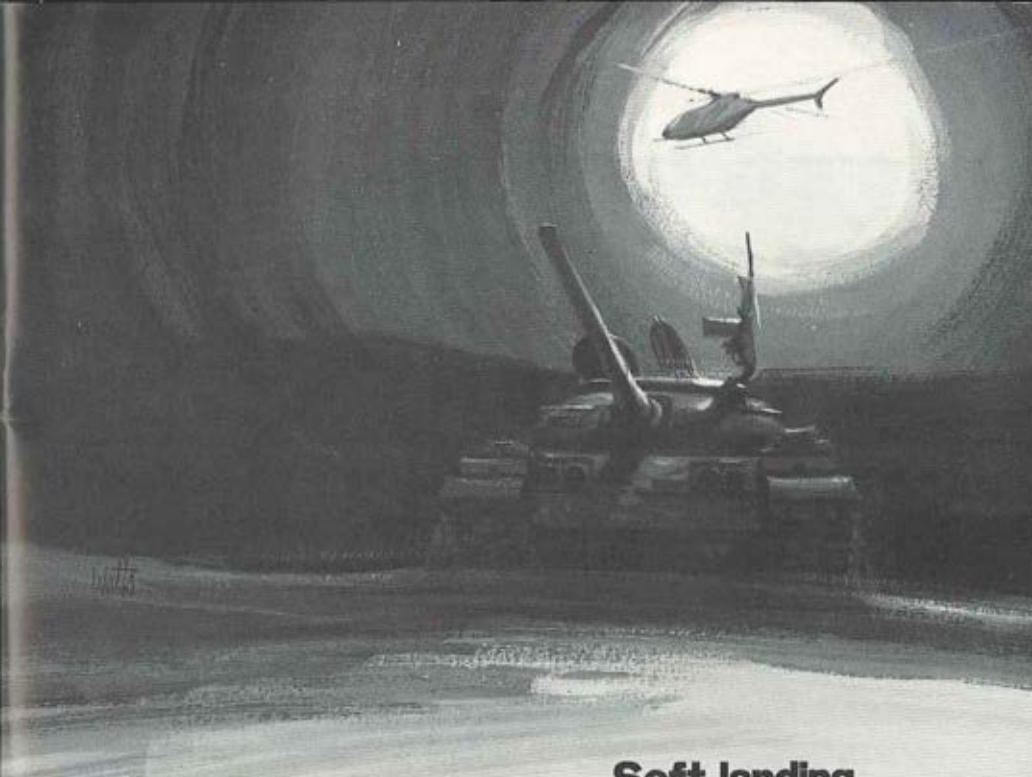
Colonel Charles R. Lehner, Jr., Ret., as Program Manager, Advanced Research Projects Agency (ARPA), OSD, Washington, D.C. 20301.

Colonel Edward P. Lukert, Jr., to Headquarters, 101st Aviation Group, Fort Campbell, Ky. 42223.

Colonel Francis M. McCullar, as Director, U.S. Army Agency for Aviation Safety, Fort Rucker, Alabama 36360.

Colonel James H. Merryman, to Office, Deputy Chief of Staff for Military Operations, Department of the Army, Washington, D.C. 20301.

Colonel Elswick Newport, to U.S. Army Procurement Agency, APO San Francisco 96307.



Soft landing on the moon... spotting hard targets on the battlefield.

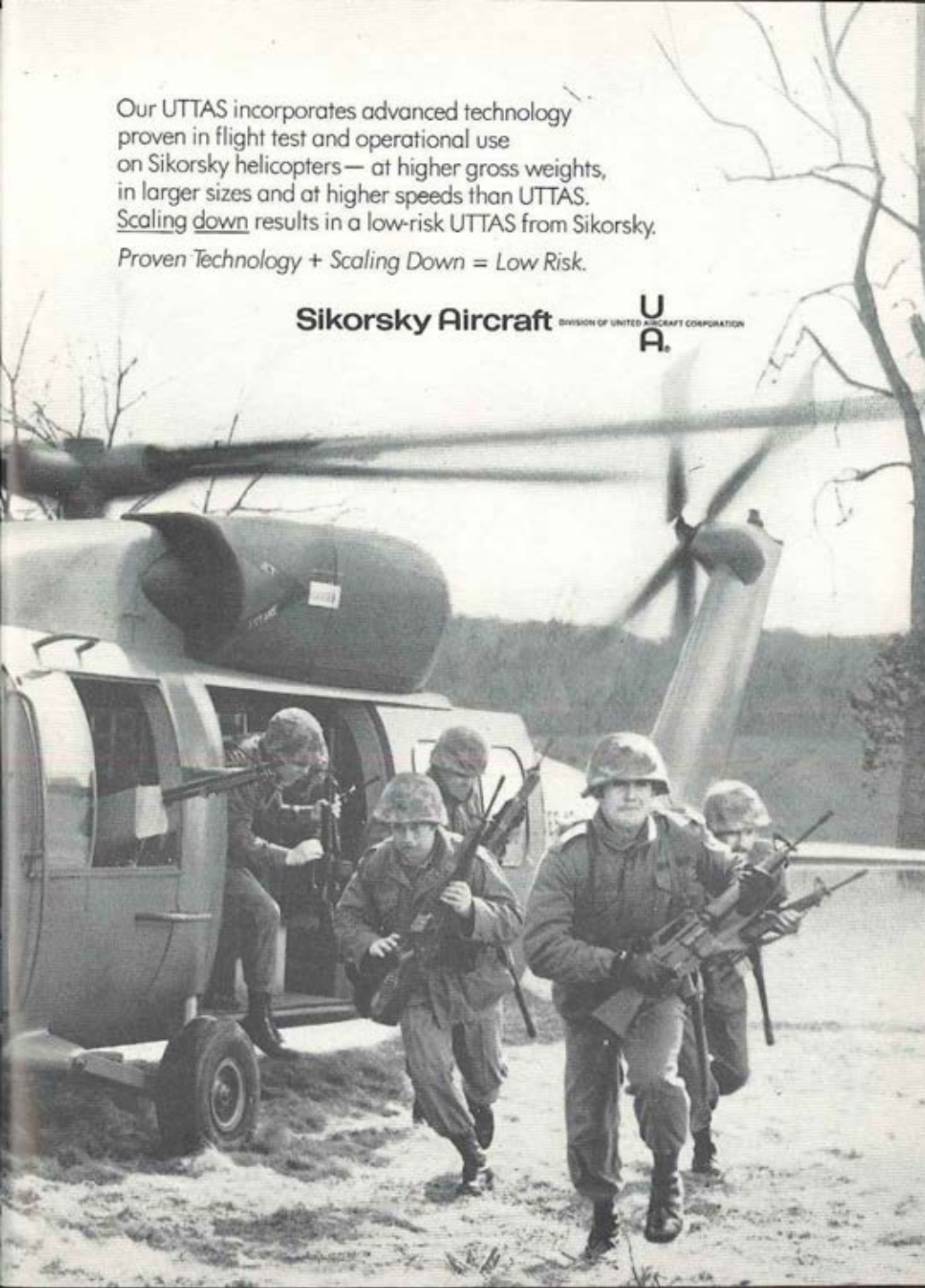
2.5 million miles of experience gives Teledyne Ryan the head start on a new Doppler radar for the Army's LOH Aerial Scout.

The Army's new LOH can depend on Apollo-proven technology to zero-in the gunships... if Ryan Doppler radar is calling the shots. Using the same expertise that soft-landed nine mooncraft, we've engineered a compact "one box" system tailored to the Aerial Scout's demanding reliability and economy. And the same standard unit is suitable for all Army transports and gunships. Now the Army can collect on years of aerospace and military development... from the people with the head start in Doppler radar.

LOH DOPPLER

TELEDYNE RYAN AERONAUTICAL *has the head start*

In our design for UTTAS we've scaled down, not up...


Our UTTAS incorporates advanced technology
proven in flight test and operational use
on Sikorsky helicopters— at higher gross weights,
in larger sizes and at higher speeds than UTTAS.
Scaling down results in a low-risk UTTAS from Sikorsky.
Proven Technology + Scaling Down = Low Risk.
Sikorsky Aircraft
DIVISION OF UNITED AIRCRAFT CORPORATION
U
A.

AA's Director on a two-coast plant tour . . .

KICKING THE BUSHES!

YOU can stay in Washington and become so engrossed in day-to-day issues that you lose complete touch with any program. In aviation we deal with the close air support issues, the inter-Service aspects of the advanced attack helicopter, the new budget, justifying the current budget to the Congress and similar pressures.

Meantime, the field is populated with soldiers, and aircraft and tests and ideas and hardware proliferate from our factories. The problem then is to strike a proper balance. During this past month I have been out of the office long enough to have gotten a great surge of feeling because of the tremendous energy in our program.

At Fort Wolters, *General Leo Soucek* and his people are facing a declining training load with an aggressive search for new missions. During the coming summer, Fort Wolters will host Reserve Component activities during summer training. It is probable that Fort Wolters will be assigned the task of providing aviation training for West Point cadets during their third summer.

Training would be in helicopters under a forty-hour flight program which would qualify the cadet for an FAA helicopter ticket. The proposal is similar in nature to training provided Naval and Colorado Springs cadets but would be designed toward the type aircraft the Army uses in the land battle. The program also has a parallel in the flight training now accorded ROTC cadets.

Such training will give the West Point cadet an appreciation for aviation and should provide a strong incentive for young men who desire to fly in the service of their country. *General Soucek* is very enthusiastic on this opportunity to instruct future Army leaders.

During a swing out to the west coast I spoke to five graduating classes of safety courses at the University of Southern California. Two of the classes were made up of U.S. Army officers and warrant officers; two were Air Force; and one was foreign military students. The University faculty was vocal in its feeling that the Army students were exceptionally dedicated.

I spoke also to the Industrial Associates of the AUSA, headed by *Mr. Tom Stuelpnagel*, Vice President of the Hughes Tool Company. This organization is comprised of the executive officers of twenty large corporations in the Los Angeles area. I felt this occasion presented an excellent opportunity to express the importance of aviation to the Army at large.

Impressive showing

At Van Nuys I was on hand to greet a *Cheyenne* advanced attack helicopter which returned to its home factory from Yuma for the first time since 1969. The aircraft made an overnight stop and flew the following day to Hunter Liggett Military Reservation near Fort Ord where it now is undergoing operational testing conducted by the Combat Developments Command Experimental Command (CDCEC). The great bird made an impressive showing before a large group of factory workers, executives, press and friends of the Army.

Mr. A. Carl Kotchian, President of Lockheed Aircraft Corporation, joined me in explaining the purpose of the operational testing and the advanced attack helicopter evaluation to be conducted between 15 May and 15 June.

I also visited the Aircraft Division of Hughes Tool

By Brigadier General
William J. Maddox, Jr.
Director of Army Aviation
OACSFOR, DA

Company where I observed the OH-6C aircraft. This is a company-funded light observation helicopter with a 400 hp engine, five main rotor blades, four tail rotor blades and fuselage features which substantially reduce the sound of the aircraft. This machine is a predecessor to the new initiative scout which Hughes will produce under a prototype program to test components which could be used in a future scout, one that could run with the advanced attack helicopter.

Hughes Tool Company also showed me five anti-submarine warfare OH-6s that were built for the Spanish Navy. These aircraft carry two 440 lb. torpedoes and magnetic submarine detection gear.

"The Lockless Gun"

Hughes Tool Company, which is the only aircraft manufacturer to retain a substantial armament capacity, is engaged in a novel and revolutionary effort called the "Lockless Gun." This weapon employs a sliding sleeve instead of a locking bolt. Ammunition is somewhat in the shape of a match box and contains the projectile wrapped in gunpowder.

When fired the primer would activate a starter to force the round toward the barrel with the explosive charge then to propel the round toward the target. The cartridges being rectangular can be stored with a minimum of space loss compared with conventional rounds and need not be linked to be fired in automatic weapons. High velocities can be obtained with the lockless gun. I fired a .50 caliber round as part of this research effort. It offers substantial promise for future gun systems.

The Hughes Aircraft Company, which is another Hughes enterprise but basically unrelated to the Tool Company, demonstrated new work being done in infrared night vision devices. The Hughes PINE device (Passive Infrared Night Equipment) is mounted on the *Cheyenne*. Other sets will be incorporated into the Hughes Tool new initiative scout. Incidentally, Bell Helicopter also is participating in the new initiative scout program but will utilize infrared equipment manufactured by Texas Instruments.

"Project 347"

For the past two years Boeing Vertol has been conducting research on a CH-47 helicopter to provide quiet operation, reduce vibration, improve navigation, increase cargo capacity, and add a variety of reliability and maintainability features. In its most recent phase, Boeing has applied an adjustable wing to the top of the *Chinook*. This project is known as "Project 347."

Mr. Howard Stuverude, Vice President and General Manager of the Vertol Division of The Boeing Company, accorded me the opportunity to become the first military pilot to fly the 347. This aircraft is truly quiet and smooth. The wing, which is designed to off-load the rotor, makes the aircraft particularly maneuverable even at steep turns. During approaches to landing, the wing will rotate toward the vertical position so as not to degrade hover capability. While the Army does not intend to procure model 347 aircraft, or modify its current fleet to 347 configuration, it probably will accept a number of the reliability/maintainability features for future modifications.

VAN NUYS, CALIF. — Shown on the return of the AH-56 Cheyenne from the Yuma Proving Ground are, left to right, Richard J. Trainor, Dir, Weapons System Analysis Directorate, OVCofS; Larry Smith, Lockheed; BG Maddox; A. Carl Kotchian, President, Lockheed Aircraft Corp.; and BG Henry H. Bolz, Jr., AAFSS Project Manager, AVSCOM.

Because the rigid rotor and its variations are becoming attractive, I flew the German *Boelkow 105*, which is a small utility helicopter with U.S. licensing agreements held by Boeing Vertol. The *Boelkow 105* is highly responsive and is able to enter a 60° bank in about one second.

Flight simulators

Flight simulators for instrument training as well as visual flight also become very appealing. The simulators provide a low cost but realistic means of training pilots in the procedures, aircraft handling, and instrument flight techniques.

Currently, a Singer-Link 2B24 is under test at Fort Rucker. The system is composed of a console and four individual aircraft mockups which can operate under simulated instrument conditions concurrently. Not only can four students be handled by a single operator, but the system provides a much more realistic feel for actual flight than older trainers with which we all are familiar.

I visited the Singer-Link plant in Binghamton, N.Y., to examine the most recent achievements in simulated flight. I found it is possible through optics to utilize a motion picture of an actual approach to an airfield and bend it so that the pilot sees himself moving off of center line and thus can correct for it.

Commercial aviation will do a considerable amount of pilot training in simulators for larger air-

KICKING/ Continued from P. 9

craft such as jumbo jets. The Army program at present envisions simulators for instrument training and pilot procedures in UH-1, CH-47, and AH-1 aircraft. CONARC this past month has been tasked to determine requirements for simulators other than in the training phase, which already is provided for in the budget.

Two-sided battle scenario

An impending trip will be to the Hunter Liggett Military Reservation where the *Cheyenne*, *Cobra* and other aerial firepower equipment is undergoing operational test. The *Cheyenne* is flying in a two-sided battle scenario which will exercise its target acquisition capability and flying characteristics against an enemy target array in the attack. The tests represent verification of earlier testing done with *Cobras* and *Hueys* last fall.

The *Cheyenne* is being piloted by Lockheed company pilots and two Army test pilots. *Major Dale Cantrell* is the senior Army crew member. He and *Joe Givens*, a well known Army civilian pilot, have the important task of demonstrating the *Cheyenne's* capability to operate in a mid-intensity combat environment. The tests are being supervised by *Colonel Marlin Thrasher* of CDCEC. These tests complete a series of trials designed to resolve the survivability uncertainties identified in last year's Deputy Secretary of Defense close air support review.

For this reason, we in Army Aviation have a great deal at stake in the results of these trials. When they are concluded in mid-May, the *Cheyenne* will move into the advanced attack helicopter evaluation together with Bell's *KingCobra* and the Sikorsky *Blackhawk*. Each of the three helicopter producers has responded to the Army's request for proposal with acceptable plans for participating in the evaluation.

WASHINGTON, D.C. — "How did it go?" appears to be the question Boeing Vertol's "Bill" Jones (center) asks of BG William J. Maddox (right) when the latter flew the company's Model 347 from the Pentagon Helipad in late March. Also on hand during the orientation flight was BG O. Glenn Goodhand, Ret., (far left), of Boeing's Washington, D.C. office.

Cobra TOW

Until such time as an advanced attack helicopter is selected and produced, the Army must rely on the *Cobra* attack helicopter modified to fire the *TOW* missile (Tube launched, Optically tracked, Wire guided). The Army recently awarded a contract to the Bell Helicopter Company to integrate the *Cobra* and *TOW*. Bell will adapt the highly effective *TOW* missile, which was designed for ground use but is being utilized on the *Cheyenne*, to the battle-proven *Cobra* helicopter. The effort will produce a package which can be retrofitted on a number of our current *Cobra* aircraft.

First deliveries suitable for test are expected in about nine months. After normal development testing, the *Cobra/TOW* will be wrung out at Project MASSTER at Fort Hood. The accuracy, reliability, and lethality already have been demonstrated in firings from the *Huey* gunship and the *Cheyenne*.

Flight pay

Last year, the Army Aviation Association (AAAA) supported a recommendation that flight pay be based upon length of rated service rather than upon rank, as is now the case. The intention of the AAAA resolution was to accord more remuneration to the individuals who occupy the cockpits. Chief beneficiaries would be warrant officers whose pay would rise substantially as they flew.

This proposal was considered by the 1971 Quadrennial Review of Military Compensation directed by the Secretary of Defense. The report of the review was completed in December and was transmitted recently to the Congress. The review divided its conclusions into three phases: The first is called the *"attraction"* or *"first tour"* phase; second is the *"critical reduction"* phase; and third is the *"post full time crew member"* phase. Major recommendations are:

- Flight pay should be related to *actual* time spent on or available for flying duty rather than grade or similar considerations.
- As *"there appears to be no problem of attracting sufficient volunteers, no adjustment in entry rates is needed."*
- *"Increase in the rates of pay during the first obligated tour need not be unduly larger than current levels."*
- *"Rates of pay should be continuous so long as the individual remains qualified and a volunteer . . ."*
- Phase II rules state . . . payment should continue to be computed on the basis of time since qualification but an upper limit of 16 years total

Federal commissioned service should be used to terminate the maximum incentive pay period.

- As long as an individual remains qualified and a volunteer, pay should continue whether an individual is physically assigned to a cockpit or not. *"Necessary career broadening assignments should not be used to deny the incentive pay to a member . . ."*
- Rates during this period should be *"broadly competitive with industry."*

Phase III recognized that the bulk of crew member duty is behind the aviator and that he will have branched out into other activities.

- *"It has always been the desire of the Services to retain (the pilot) as a qualified volunteer . . . to ensure a buildup capability . . . consequently he should be offered some amount of incentive to remain qualified and on call . . ."*
- *". . . any individual exposed to unfavorable action because of a restructuring of the current system should be protected by a 'save pay' clause."*

Flight pay for crewchiefs

Recommended pay rates are shown in the attached box. Unfortunately, no increase or adjustment is recommended for the enlisted crew member at this time. The report states that *"there is also no requirement to pay continuous guaranteed flight pay to enlisted members in aviation crew member duty. That is to say, guaranteed flight pay regardless of assignment."*

However, the study recommended that doctors should receive flight pay of a different amount than aviators but should receive it only when performing flight surgeon duties. Rates for doctors were not included as part of the study. The study also recommended that Reserve and National Guard crew members receive the same rates as Regular Army personnel.

GARMISCH — General Michael S. Davison (right), CINCUSAREUR and Seventh Army, and Colonel Nicholas G. Psaki (left), USAREUR Aviation Officer, discuss airmobility in general terms prior to the former's early March address at the 13th Annual AAAA Convention of the USAREUR Region.

PROPOSED FLIGHT PAY FOR OFFICERS AND WARRANT OFFICERS
(Supported by 1971 AAAA Resolution to OSD)

PHASE 1		
From Start of Year	To the End of Year	Rate in $ per Month
1*	1	$100*
2*	3	$125
4*	5	$175
6*	6	$250

PHASE 2		
From Start of Year	To the End of Year	Rate in $ per Month
7**	16	$350

PHASE 3		
From Start of Year	To the End of Year	Rate in $ per Month
17**	18	$325
19**	20	$300
21**	22	$275
23**	24	$250
25**	26	$225
27**	28	$200
29**	30	$175

***Includes flight/submarine training time.**
****Qualified members will be awarded the maximum incentive pay through their 16th year of crew member service or total Federal commissioned and/or warrant service, whichever occurs first. However, pay for the first six years, including training, must be computed on rated service only.**

Before such pay changes can become effective, they must be incorporated into a legislative bill, be subject to committee hearing, be voted into law, and approved by the President.

Late test report

Last minute information from California indicates that the *Cheyenne* is performing well in its operational testing at Hunter Liggett Military Reservation. The aircraft is performing pop-up for target acquisition at ranges greater than its weapons and providing target information to its fire control system.

It then re-masks itself into the nap-of-the-earth and moves forward to a firing position from which it again pops up for target engagement. The fire control computer automatically lays the guns on the target when the aircraft reaches the firing position. This permits near instantaneous target engagement and thus reduces aircraft vulnerability during the firing phase.

Movies from the *Cheyenne* are considered by observers to be the best yet seen from helicopters. This is attributed to the great stability of the rigid

(Continued on P. 14)

LOW RISK-Wind tunnel validated.

COMPACT-Fits without disassembly.

ACCESSIBLE - Low cost maintenance.

INNOVATIVE - For safety and reliability.

The Boeing UTTAS

BOEING HELICOPTERS

KICKING/ Continued from P. 11

rotor system. Apparently the frontal aspect of the *Cheyenne* as seen from the enemy antiaircraft weapon position is smaller than expected. Perhaps the greatest value of the current test series is that one picture is worth a thousand words.

The Acid Test Again!

The current North Vietnamese offensive across the DMZ and in other parts of South Vietnam is being watched with great interest. Despite the fact that weather has been a factor, especially in Quangtri, RVN, U.S. Army helicopters have operated regularly performing firepower, troop lift, reconnaissance, and medical evacuation tasks. They supplement the effort of South Vietnamese Air Force (VNAF) helicopters in helping to beat back the enemy.

Perhaps the best illustration of the dedication of Army Aviators in this current action is provided in a letter I received from *Brigadier General James F. Hamlet*, CG of the 3d Brigade (Separate), First Cavalry Division, is now operating in the 3d Military Region.

General Hamlet says: *"During the last five days . . . aviation units of the "Carry Owen" Brigade have been heavily committed in the Loc Ninh, An Loc, Bu Dop area supporting the ARVN. The responsive firepower of the Brigade's Aerial Field Artillery Battery and both Air Cav Troops has been pivotal during each of these engagements.*

"The enemy employed tanks and concentrated ground-to-air fire from automatic weapons including multibarrel 23mm cannon.

"Our young aviators are performing in a manner which evokes my constant admiration and pride. Only yesterday (9 April) one of our Scout pilots extracted five Americans and four ARVN aboard an OH-6. Can you visualize eleven souls inside (and outside) an LOH — taking fire from all sides? Don't ask me how, but he made it."

General Hamlet closed by stating that the pilot is being recommended for the Congressional Medal of Honor. Despite the fact that we are late in the war, the fierce spirit of the aviator continues to shine as brightly as in former days.

A lot of answers!

FORT WOLTERS — Two Junior ROTC cadets from Texas Military Institute at San Antonio learned how TV helps train helicopter pilots when they toured the Educational TV studios at the USAPHS. Cadet Staff Sergeant Allan Cain (right) peers through the camera at Corporal Robert Graydon, whose image appears on the TV screen at right. Instructing Cain is Chief Warrant Officer Roland F. Arsenault, assistant chief of the ETV Branch.

Combat data

Early in the Vietnam war most senior people in the Army agreed that we would need a strong data base of combat information for analyses and studies that would be conducted after the war. For this reason, HQS 1st Aviation Brigade established an aviation data base utilizing computers and modern data processing equipment. The effort was located at Long Binh under the nickname *"AVDAC."*

With the reduction in the U.S. effort in Vietnam it became necessary to establish a new home for aviation data. I nominated the U.S. Army Agency for Aviation Safety (*USAAAVS*—pronounced YOU SAVES) as the repository for *AVDAC* information and any additional combat data resulting from Vietnam.

USAAAVS has now received two large reels of magnetic tape which include all data to last November. More than 2,000 punched cards containing data subsequent to November also have been received at Fort Rucker. The information files will be made available through the Aviation Center at Fort Rucker for individuals and agencies with an official requirement.

Ridiculous accident

This is a late entry for the *"Ridiculous Accident of the Month Award."* Somewhere in the verbage there is a lesson that says: *"Once an aircraft taps you on the shoulder and tells you that you have problems, believe it and find the cause."*

The accident summary goes like this: Attempted takeoff in U-6 Beaver. At approximately 50 ft altitude, flight could not be maintained. Aircraft stalled and transponder antenna caught a power line. Aircraft landed in an open field. No apparent damage noted and after complete runup pilot attempted a second takeoff from an open field approximately 900 ft long, with 1" of snow on it. Aircraft was unable to lift off and hit a fence. Pilot pulled power and aircraft came to rest in a standing corn field.

There is a second lesson in this accident which concerns longer takeoff runs when operating in snow. However, I can't read it to you because the tears get in the way.

Good luck — and fly like you were taught to fly!

WHO SPEAKS FOR HELICOPTERS?

A Call for New Priorities by European Armies Appears in the "Manchester Guardian"

THE major European armies have spent the last 25 years trying to complete and perfect that combination of tanks, mechanized infantry, self-propelled artillery, and tactical aircraft which was the winning formula in the European theatre in the Second World War.

Now having committed most of their financial resources for years ahead to continue re-equipment on these lines, they are faced with a new and potentially revolutionary weapons platform and battle vehicle — the helicopter.

The debate on the helicopter began in defense establishments in the West as long ago as the early fifties, after their first serious deployment in war, in Korea. It quickened when the French in Algeria and, on a massive scale, the Americans in Vietnam, started using the helicopter as a principal means of mobility.

An agonizing reappraisal

Now, as the United States Army reassesses the helicopter for a European role, the other Western armies are being pushed into a reappraisal of their priorities.

Such a reappraisal is bound to be more agonizing for the British, French, Italian, and German armed forces since unlike the U.S. Army, none has the resources to expand seriously its helicopter forces without cutting down on other arms.

The U.S. Army's inventory includes over 12,000 helicopters of all types. The Germans, who already have nearly 450 general utility helicopters, have ordered 135 medium lift CH-53s, giving them a total, after delivery, of nearly 600 helicopters. The French have about the same number. The British Army's general purpose helicopters are operated by the RAF and the Navy and constitute a miniscule force of some 140 machines.

The British Army's present helicopter force reflects the views of those who see the helicopter as a useful addition to the army's means of mobility, but not one sufficiently valuable to justify trading off sorely needed tanks, other ground vehicles, and artillery.

At the other end of the spectrum are those who see the helicopter as a new multi-purpose vehicle and weapons platform which Western armies ought to have in Europe in large numbers.

Individual countries in the West and NATO have in recent years mounted a number of trials and exercises to try to answer the question of which of these two groups has got it basically right. The "helitank" trials showed that a helicopter mounting an anti-tank missile and concealing itself behind woods or folds in the terrain can score a heartening ratio of hits on tanks.

Trials have been done on the vulnerability of helicopters to both ground fire and fixed wing attack. As is the way with trials and exercises, none of the results can be termed conclusive, but the trials and Vietnam together constitute a prima facie case for some expansion of the helicopter forces of the European armies.

A multi-role vehicle

The Germans, in a limited way, have already taken the plunge with the purchase of a medium lift helicopter force. The British, who have their own programme of exercises and trials, have yet to make a decision for expansion.

The helicopter in theory and in Vietnam practice can be adapted for all the roles filled by ground vericles with the exception of the heavily armoured fighting vehicle. Helicopters can be used instead of trucks to move troops at great speed in the rear of the battle area. They can be used instead of armoured personnel carriers to deliver troops onto the battlefield itself and to extricate them from the battlefield. In the artillery role, they can be, and already are experimentally, equipped with anti-tank systems or, as in Vietnam, with rockets, cannons, and machine guns.

The *Huey Cobra* — the Vietnam "gunship" — carrying a maximum load of 2.75 inch rockets, can deliver instant fire for effect equal to a 76-gun howitzer barrage.

In the logistical role, they can move sorely needed supplies and ordnance to forward positions — both for ground troops and for other aircraft, like the *Harrier* — faster than any other

WHO SPEAKS?/ Cont. from P. 45

vehicle. And they already have a well established reconnaissance and observation role, both for infantry and armour on the one hand, and artillery on the other.

Most dramatically the whole family of helicopter types can be run together to provide the means for a fully air-mobile unit like America's *First Air Cavalry*. Such units, requiring the permanent allotment of hundreds of helicopters, are quite frankly beyond the means of individual European armies, although a composite airmobile force on the NATO Central Front might be feasible.

Even if the British and other European armies decide to expand their helicopter forces, most of the choppers will have to be held in central corps and divisional pools. Helicopters are fiendishly expensive with gunships costing rather more than the main battle tanks such as the *Chieftain*.

Cost Comparisons

General utility helicopters for troop and cargo work are cheaper, but the heavier types — like the big CH-53s, which can carry 30 men or cargo equivalent — come near the cost of a tank.

Intricate cost effective comparisons have yet to be convincingly made between tanks and helicopters, where the helicopter is in the anti-tank role, or between helicopters and four tonners and armed personnel carriers, where the helicopter is being used to move troops in rear positions or around the battlefield.

But what is fairly clear is that the helicopter, while it is markedly more expensive than all other ground vehicles except the tank, is also both more effective and less vulnerable than all other vehicles, again with the exception of the tank. This, of course, is only true as long as the helicopter is not used for costly unsupported forays into enemy territory.

1967 AAAA Annual Meeting Free World Panel – A "First"

Shown during a break at the AAAA panel session are, l-r, COL Fabio Moizo and LTC Angelo Stradiotto of the Italian Army; GEN Hamilton H. Howze, Ret. AAAA president; BRIG D.W. Coyle and MAJ K.A. Crawshaw of the U.K.; and COL Maxwell B. Simkin of the Australian Army.

BACKGROUND

The advances in rotary wing technology of the late 1950 and the 1960s has paid off handsomely in new combat capability for the Army. Undoubtedly we have advanced in airmobility much more rapidly because of the combat demonstrations in Vietnam. A number of planners in other modern countries are viewing our combat lessons with great interest. As a result, we can expect other armies to engage more actively in ground combat airmobility.

Accordingly, our 1972 AAAA Annual Meeting theme in Washington this October will be "Army Aviation World-Wide" and will be subtitled "Dedicated to Land Combat."

The following article, which appeared in the "Manchester Guardian", a major British newspaper, fits in with our theme. It is an expression of a forward looking military analyst who perceives the value of helicopters. I received permission to reprint this interesting article from Mr. Peter Jenkins, Washington correspondent of the "Manchester Guardian."

BG William J. Maddox, Jr.
Chairman, Programming Sub-Committee, 1972 AAAA Annual Meeting

The real helicopter enthusiasts, in the U.S. Army in particular, would argue that in assigning a comparatively low priority to helicopters, the British and other European armies may be making the same sort of mistake that all other armies but the Germans made in the thirties about the tank.

Helicopters, if available in sufficient numbers, bring an unprecedented mobility — the ability to put down ground troops or fire at a speed and with a precision not attainable before. Whether their vulnerability and their cost cancel out much of these advantages is a question that cannot be answered either way with finality.

But what is clear is that they deserve a markedly higher priority in the British Army than they are currently afforded. Various trials and exercises are planned for the near future to test and define possible new helicopter requirements for the British Army. Whatever the results, many professionals would agree now that the military attitude of mind which regards the helicopter as a desirable extra but not one for which other and more traditional weapons and vehicles can be sacrificed is already outmoded.

The Soviet Union has not neglected helicopter development. Its heavy transport helicopters are thought to be at least the equal of their American counterparts, and Warsaw Pact forces on the Central Front have at least brigade lift capacity.

You've heard of an armor blocking force and a naval blocking force, but would you believe . . .

An Aerial Blocking Force

By Fred K. McCoy

AS it now stands, NATO has no guarantee that it could stop a massive Communist armor attack in Europe. The Warsaw Pact States have a tremendous number of tanks immediately available.

The Communists proved in Hungary and again in Czechoslovakia that they can maneuver many tank divisions rapidly and effectively. Unclassified estimates of the relative balance of tank power leave plenty of doubt that combined NATO armor forces can successfully block a major armor advance.

If we have to slug it on a tank-for-tank basis, the verdict would have to be that we could not do it without something extra to tip the balance in our favor. Looking at this potential threat, the U.S. Army Combat Developments Command (USACDC) has invested research and thought in how to block armor.

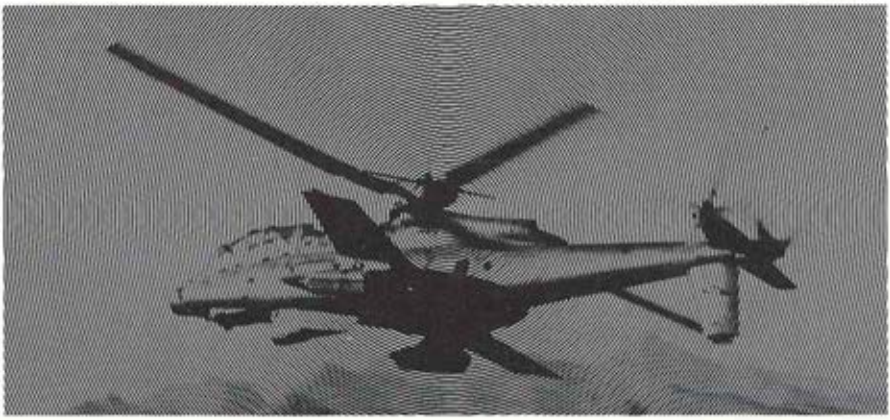
Reversing the imbalance

There are several good antitank possibilities, and all of them are receiving attention; however, the attack helicopter may be the equalizer. We'll field a mix, but the *attack helicopter* leads the list. A comparatively small number of advanced attack helicopters with the most recent anti-armor weapons may reverse the imbalance in the tank-to-tank ratio.

A good candidate for the advanced helicopter is the all-weather capable *AH-56 Cheyenne*, equipped with the wire-guided *TOW* missile or even more advanced fire-and-forget missiles.

The *Cheyenne* is exceptionally fast and maneuverable because it is a compound helicopter with lift supplied by both rotor and wings. It is armored against small arms so it can fly low and keep going even under fire from individual ground troops. It carries a heavy payload, including an ample allocation of *TOW* missiles, which field trials show to be devastating against armor. It can operate in weather and visual conditions that deny close air support.

To put it simply, it has been deliberately de-



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signed to do things no previous helicopter or fixed wing aircraft could do. There may be worthy competitors to the *Cheyenne*, but the point is, the Army could have a very tough and fast block against armor in the attack helicopter.

Lieutenant General John Norton, Commanding General of USACDC, doesn't like calling the attack helicopter a "flying tank." But at the same time, he doesn't feel comfortable referring to it as an aircraft in the usual sense. He feels that these terms tend to imply that the attack helicopter would replace tanks on the one hand, or Air Force close air support on the other. He wants to make it clear that the attack helicopter fills a gap between tanks and close air support. It has a role that neither of the other has.

The attack helicopter doesn't replace close air support penetration of the enemy air defense umbrella and delivery of massive amounts of ordnance. And it doesn't completely replace tanks because we've got to keep enemy armor forces honest on the ground.

If the enemy were facing our air alone, he could put his self-propelled air defense weapons out in a protective ring around his armor. As long as we have both artillery and armor, he has got to keep his thin-skinned air defense weapons behind his tanks. Then we can attack with air.

Current Warsaw Pact armor doctrine seems to favor rapid, deep tank column thrusts. That doctrine serves up tanks just exactly the way the attack helicopter likes to eat them.

Alternatively, the enemy could try to advance the whole *forward edge of the battle area (FEBA)* slowly on a relatively smooth front, and the attack helicopters would have to just nibble at the leading edge to avoid interlocking air defense cover on the flanks. But if he plunges an armor column narrowly into our defense, the attack helicopters will bite in from the point and both flanks.

It is hoped that the enemy will bring plenty of self-propelled air defense weapons along on the push, too. They will slow him down, dilute his ground power, and give him serious ammo resupply problems. If he tries to slip these burdens by moving ahead of his AD weapons when they stop to fire, our tanks will eat up his AA guns at the same time our attack helicopters are chewing up his less protected tanks.

All considered, if the enemy's armor meets our combined armor, artillery, attack helicopters and close air support, he is going to have to decide between severe losses or a very cautious movement of his *FEBA*.

OH6C? . . . Could be! . . . The Maintenance Section of "The Real Cav"—B Troop 7/17th Air Cavalry Squadron — made a few additions to the OH-6A when in the Pleiku area and came up with the aircraft pictured above. CWO Bill C. Walton (now at Hunter AAF) took the picture and said that no one was found who would test fly and/or fire the "bird."

1970 USACDC study

Given this kind of potential, the Combat Developments Command was eager to develop the doctrine, tactics and techniques to employ the attack helicopter in the anti-armor role. Throughout most of 1970, a USACDC task group with a broad span of expertise proposed trial concepts and submitted them to validation.

The group was supported by USACDC's *Institute of Special Studies* which had been working at the center of attack helicopter doctrinal development for several years, and have developed many of the ideas and data necessary for doctrine, tactics and techniques, organization, and material requirements.

Starting with the advanced concepts and the mass of data furnished by that Institute, the task group dredged up every suggestion ranging from the somber to the hilarious. Everything was considered. Field results were available from USACDC's Experimentation Center at Fort Ord and from the US Army in Europe.

The task group had more than its share of helicopter pilots with Vietnam experience, and they took their work on the project very personally. They took it objectively, too; the study included vigorous analysis by slide-rule types.

Extensive wargaming

One contractor exhaustively simulated 420 helicopter/tank engagements by computer, and another contractor conducted a computer-assisted war game hypothetically set in a likely European arena. When USACDC's own analysts boiled down both the pilots' experience and the computers' numbers, a handful of strongly supported study findings settled out.

One finding is very clearcut. When an attack helicopter faces a tank unit nose-on, he takes maximum advantage of his narrow profile, shields his rear exhaust thermal image, and gets his best

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observation. This is one of the main reasons the attack helicopter wants to catch armor in a deep penetration; the helicopter doesn't have to show any broadside to flanking air defense weapons.

At the same time, attack helicopters also want to engage from low altitude so they don't have to expose any belly. Low-level, nose-on contact makes attack helicopters difficult to track by visual, infrared, or radar-directed weapons.

Greater range an asset

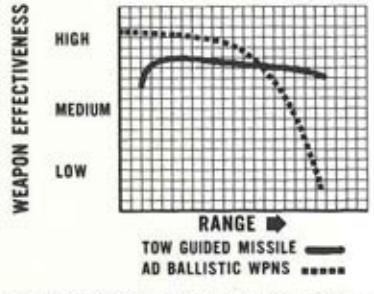
Another finding is that the *greater* the range of engagement, the *better* for the helicopter. Firing from greater range makes any weapon less vulnerable to enemy counterfire, but the *TOW* missile pays a bonus effect. A guided missile like the *TOW* does not lose much accuracy with greater range because the operator keeps correcting the missile flight.

Almost all gun-type air defense weapons see their accuracy and striking force deteriorate rapidly after they pass their best ranges. This relationship can be shown on a simple graph with weapons effectiveness on the ordinate and range on the abscissa. (See Figure 1 Below.)

The solid line represents the *TOW*'s effectiveness by range. The dotted line represents typical gun-type AD weapons effectiveness by range. The graph always shows a cross-over point. There is, of course, a maximum range for the *TOW*, but computations of best data show the cross-over point is within this maximum range for all cases. Each case represents an attack helicopter with *TOW* duelling with typical forward area air defense weapons. This means the attack helicopter should always engage from the maximum practical range.

A third finding involves duration of exposure of

FIGURE 1



The attack helicopter engages from the maximum range to take advantage of the cross-over point in effectiveness of the TOW versus air defense weapons by range.

Reprinted from the March-April, 1972 issue of ARMOR Magazine through the courtesy of the United States Armor Association.

the attack helicopter to enemy weapons. The less time the helicopter is exposed, the less probability the enemy has:

. . . of detecting it,
. . . of shooting at it if detected,
. . . of hitting it if shooting, and
. . . of destroying it if hit.

This principle is true of almost *all* weapons; but unlike most, the attack helicopter can do something about it. It can fly low, terrain-hugging routes, engage from the local horizon, and keep down out of line-of-sight for most of its flight. This ability is enhanced by the performance and design of the advanced attack helicopter, and can be further enhanced by employing supporting scout helicopters to take some of the exposure risks.

Massing more weapons

Another finding concerns the well-known principle of massing firepower. Whenever you deliver a given amount of fire on any enemy, you always have the choice of employing fewer weapons over more time or employing more weapons in less time. It is usually better to *mass more weapons* to fire a shorter time because it gives any finite number of enemy weapons less reaction fire. This can be visualized on a pair of graphs with remaining force size on the ordinate and time elapsed on the abscissa. (See Figure 2 Opposite Page.)

If two forces meet each other that are equal in all respects, including initial size, they inflict equal casualties on each other and both forces are attrited together . . . to zero, or until one commander recognizes the inevitable and breaks off. However, if the two forces are equal in all respects except initial size, the larger force inflicts greater and greater casualties over time while the small force becomes less and less able to inflict casualties.

In keeping with the historic Lanchester equations, the mathematics of the situation not only guarantees the larger force the victory, which a larger force would expect, but also assures it will take less loss than it would in winning with a small force. When your force size is large enough to saturate all the enemy's weapons, some of your force is free from being fired on at the same time your weapons are ganging up on targets.

Even when your total force is not superior, this tactic can be applied locally by dividing the enemy and defeating him piecemeal. Any military force will do this if it has greater mobility than its enemy, and the attack helicopter clearly has greater mobility than the enemy ground armor.

A fifth finding concerns the ancient military tactic of suppressing the enemy. Your suppressive fire keeps his head down, hinders his maneuver, and

MASSING: Theoretic Example

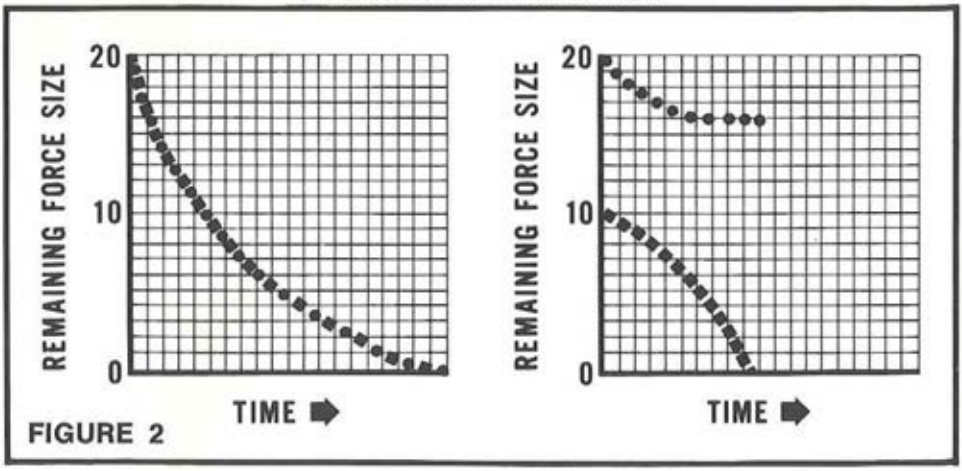


FIGURE 2

Two forces are equal in all respects. Both sides have force size 20. If they engage each other in full strength, each will inflict one casualty on the other during the first time period and have force size 19 remaining. Since they are still equal at the start of the second time period, it will end with both sides having force size 18 remaining. Both sides decrease together . . . to zero, or until one commander recognizes the inevitable and breaks tact.

However, if one force has sufficient mobility to engage half the enemy force with his whole force, the first time period starts with force size 20 facing a force size 10. The larger force has a two to one advantage and inflicts two casualties during the time required for the smaller force to inflict one. The second period starts with force sizes 19 to 8, a little more than a two to one advantage. During the second period while the smaller force inflicts one casualty, it is reduced to force size 6. Since the third period starts at 18 to 6, the larger force has a three to one advantage and inflicts three casualties during the time needed for the smaller force to inflict one.

The fourth period starts at 17 to 3, giving the larger force more than a five to one advantage. In the fourth period, the larger force wipes out the smaller one at a cost of one or less casualty. The local battle ends with force sizes 16 and 0. It is not remarkable that the larger force wins, but it inflicted ten casualties at a loss of only four, and now also outnumbers the other half of the enemy force 16 to 10.

degrades his fire effectiveness. Your deception, smoke, and electronics suppress his observation. The main limit to the effect of suppression is how long you are able to sustain it.

This principle takes an added value in the helicopter/tank engagement because the helicopter attack is characterized by short, intense fire exchanges. Suppressive fires by artillery and other weapons dampen the enemy's fire capability, and at the same time advanced attack helicopters have means of suppressing air defense radar and visual observation.

A doctrinal statement

The USACDC task group considered the findings just outlined, and others derived from classified data sources. Results of computer-assisted war gaming and field experience led to a doctrinal statement. The doctrine, concepts, tactics and techniques are available in the unclassified handbook *"Attack Helicopter Units Battle Drill, II 17-37-5,"* published by the Armor Agency, USACDC, Fort

While the detailed statement of means of employment is complex, the essentials can be summarized briefly in five phrases: *nap-of-earth, stand-off, mask/cresting, nose-on, and mass-and-move.*

● *NAP-OF-EARTH. Attack helicopters operate at the minimum practical altitudes in the vicinity of the enemy.* When it is well back, the attack helicopter flies at comfortable altitudes, but the closer the flight approaches the enemy, the more it flies between and among hilltops, trees and other salient terrain features. This tactic applies to three of the findings.

Duration of exposure is reduced to those brief periods when the helicopter briefly breaks defilade. The helicopter intentionally breaks defilade only at maximum practical ranges. When the helicopter is exposed, it displays the most favorable profile,

● *STAND OFF. Attack helicopters engage targets from the maximum practical range.* Whenever possible, the *TOW* is launched from its maximum range. This is outside the maximum effective range for typical gun-type air defense weapons. At the same time, one of the principal features of a guided missile is that its accuracy does *not* deteriorate

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very much with range because the guidance system corrects its flight.

Whenever it cannot engage from maximum *TOW* range, the attack helicopter fires from the greatest practical range allowed by terrain, visual conditions and the tactical situation. This tactic capitalizes on the finding that greater range increases survivability of the gunship while only slightly degrading its effectiveness.

● *MASK/CRESTING. Attack helicopters remain masked from the target until the latest practical moment, crest the mask at the minimum practical altitude, engage for the minimum practical time, and recover masking at the earliest practical moment.* The aircraft take advantage of masking terrain such as hills and trees in the target area to remain masked until the moment of engagement.

Scout helicopters or ground observers provide targeting information prior to cresting. If the nature of the target requires more fire, the flight makes multiple engagements from different cresting points. Mask/cresting increases attack helicopter survival by decreasing duration of exposure.

● *NOSE-ON. Attack helicopters keep their front profiles oriented toward the maximum number of enemy air defense weapons.* This tactic takes advantage of the nose-on narrow front profile of the attack helicopter, and maximizes shielding of the rear exhaust thermal signature. If the enemy forward edge has any brpadth at all, some air defense weapons will have more sideview; so the best target is a relatively narrow armor column thrust.

The attack helicopter never intentionally turns its side, bottom or rear aspect to enemy air defense weapons. This tactic increases attack helicopter survival at the same time it gives the helicopter its best lines of observation and fire.

● *MASS-AND-MOVE. Attack helicopters engage targets with the maximum practical number of helicopters locally, with maximum practical suppression, and move rapidly between the maximum practical number of local targets.* This tactic takes advantage of the mobility of advanced attack helicopters to apply the principle of massed firepower and suppressive techniques. It is better to attack each target with a concentration of aircraft than to scatter attack helicopters out over more targets. This is true in principle up to any theoretic number, but has practical limitations.

Considerations such as span of control, dispersion for security, the responsiveness of small elements under operational control, and the total number of birds available, put a limit on massing. In practice, the mass-and-move tactic is applied by committing teams of three instead of two, or committing a platoon of five, when circumstances permit. The advantages of mass are traded off against the advantages of distribution. When applied, massing increases the amount of damage inflicted on the enemy.

ABOUT THE AUTHOR

FRED K. McKOY is an operations research analyst for the Systems Analysis Group of the US Army Combat Developments Command at Fort Belvoir. His interest in attack helicopters doctrine stems from his participation in projects such as the attack helicopter daylight-defense field experiment, the field tests in ACCB and TRICAP, and a recent study concerning employment of attack helicopters to defeat armor. A graduate of the University of Richmond, Mr. McKoy has been with CDC since 1965.

Armor can be stopped!

When the attack helicopter tactics are summarized, they look a lot like the familiar blocking force in armor operations. Like the ground armor blocking force, the aerial blocking force keeps low, faces the enemy's boldest points of advance, inflicts serious damage from afar, blunts an enemy point, and moves rapidly to another point of engagement. In fact, it is easy to think of an attack helicopter battalion as part of a brigade-sized covering force facing the advance of enemy armor divisions.

Formations of attack helicopters dash from point to point meeting enemy armor thrusts. In this role, attack helicopters would accomplish one of two goals:

● Against an aggressive foe relying on armor thrusts, the attack helicopters would be expected to impose such tank casualties that covering force doctrine might include killing zones.

● Against a cautious foe, aerial blocking forces channel enemy moves, influencing his maneuver. The enemy's ultimate cautious tactic would be to advance his entire FEBA on a slow, relatively smooth front with maximum air defense. In this case, attack helicopters would impose delay on a strategic level.

It would be possible to go to sketching such attack helicopter tactics similar to armor tactics if you want to think in terms of aerial blocking forces. Whether or not you want to think of them as manning "aerial blocking positions," attack helicopters can stop armor. In addition to its other missions, an attack helicopter unit could meet and disorganize any significant armor thrust on a broad front.

As current concepts come under increasing study and shake-down in the field, attack helicopters will close the gap between NATO defensive capabilities and the massive armor offensive capability of the Warsaw Pact Bloc. The attack helicopter will be part of a modern, balanced NATO defensive shield.

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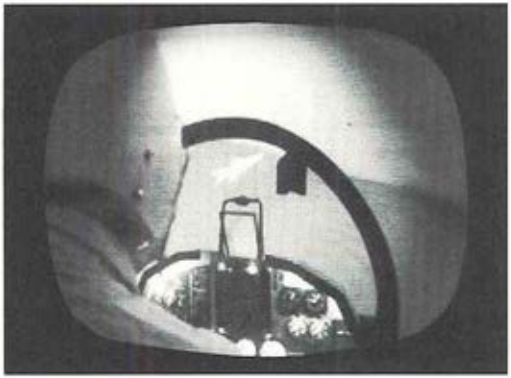

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WELCOME! — MAJ William E. Whitworth, 155th Avn Company CO, leans down from his Cobra to accept a welcoming handshake from COL Charles E. Wahle, CO of the Experimentation Brigade, USACDEC, at Ft. Ord, Cal. The 189-man unit will support test activities at CDEC.

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ADIEU — COL Harry L. Jones (right), Deputy Asst Commandant, USATSch, and COL Orman E. Hicks, Deputy Commander, Ft. Eustis, say "Farewell" to MAJ Ellery Calkin, who ferried Ft. Eustis' last U-6 Beaver to Tucson for outdoor storage. The Army is presently phasing out all U-6 aircraft.

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TOPS — Winners of Fort Wolters Chapter AAAA Awards on March 29 were, front l-r, WOC Gene Nuqui, DG and Outstanding Mil. Grad, Class 72-23; and 2LT Leonard M. Free DG and Class 72-24 Academic Achievement. Back, l-r, WOC Clarence E. Easley, Flight Achievement; and WOC James S. Anderson, Flight & Academic Achievement awards for his class.

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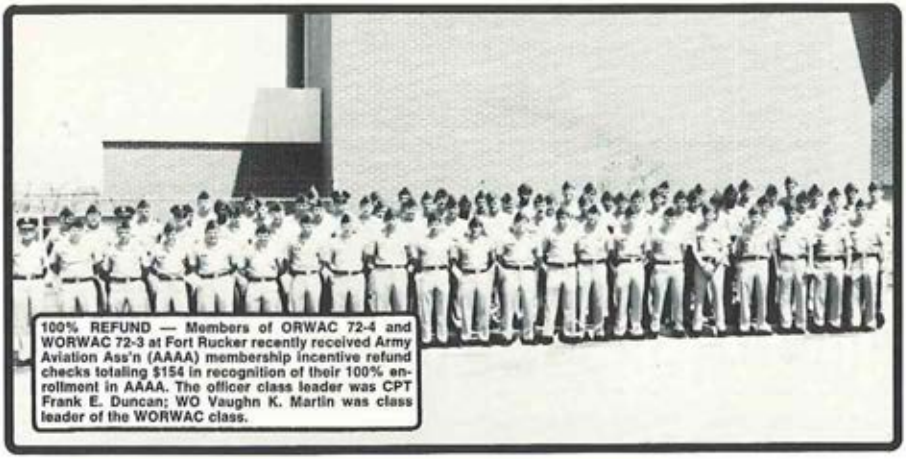

100% REFUND — Members of ORWAC 72-4 and WORWAC 72-3 at Fort Rucker recently received Army Aviation Ass'n (AAAA) membership incentive refund checks totaling $154 in recognition of their 100% enrollment in AAAA. The officer class leader was CPT Frank E. Duncan; WO Vaughn K. Martin was class leader of the WORWAC class.

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TOP GRAD — 1LT James D. Phillips (right), the Distinguished Graduate of AMOC 11-72 at the USA Transportation School, receives a diploma and an AAAA Certificate of Achievement from LTC Eugene M. Diamond, Asst Chief of the USA Combat Developments Command Transportation Agency, at Fort Eustis, Va. ceremonies on 11 April.

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MAGEE, Ronald C.
8824 Clifton Avenue
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6140 West 76th Street
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MARWICK, Robert L.
1652 Westchester Avenue
Orlando FL 32804
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409 West 2nd Street
McCook NB 69001
McNEAR, Randall J.
1339 South Street
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4734 Rosehill Rd., Apt A
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Ft Riley KS 66442
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TOOLE, James L.
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PFOHL, Parvin S., SP6
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HHC, Exper Bn, USACDEC
Ft Ord CA 93941
ZAVITZ, Roy E., SFC
335th Aslt Helicopter Co
Ft Riley KS 66442

ADIEU, AGAIN! — Receiving the USAAVNC's last U-1 Otter for display, William A. Howell, Army Aviation Museum curator, watches as LTC Jonah B. Davis (2d from left), accepts the Otter's log book from LTC Donald M. Vosel (right) and CW3 James R. Harrell, who ferried the Otter on its last flight from Cairns AAF to the museum.

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AAAA Activities

APRIL-MAY, 1972

Following the January-March membership quarter in which most members elected their new 1972-1973 Chapter slates, the AAAA Chapters embarked on their CY 1972 programming. A large number of April-May professional meetings have been scheduled, and they are described in the calendar appearing below.

SCHWAEBISCH HALL CHAPTER. Professional-business meeting. **Film: Evolution of the Cheyenne;** election of new '72-'74 officers. Dolan Barracks NCO Club. 1600 hours. April 5. Crewchiefs invited.

SOUTHERN CALIFORNIA CHAPTER. Professional dinner meeting. **Joseph P. Cribbins,** Director of Aviation Logistics, ODCSLOG, DA, guest speaker. Sportsmen's Lodge, Studio City. 6-9:30 p.m. April 6. Wives-guests.

LATIN AMERICAN CHAPTER. Professional-business meeting. **Films on Cheyenne, Cobra, and KingCobra.** Albrook OOM. 1630-1830. April 7. Wives-guests.

EMBRY-RIDDLE CHAPTER. Professional-business meeting. Report on USAREUR Convention by **"Skip" Hatter;** installation of officers. Howard Johnson Motel. April 14. Members only.

RICHARD H. BITTER CHAPTER. Spring Dance. Stardust Ballroom, Padre Island Drive. 8:30 p.m.-1 a.m. April 14. Wives-guests.

DAVID E. CONDON CHAPTER. Professional-business luncheon meeting. **W. J. Crawford,** General Manager, T-700 project, GE, guest speaker; Chapter elections. FEOOM. 1130-1330. April 19. Members only.

ELECTED — Five of the eight newly-elected Connecticut Chapter members gather after installation at a March 29 dinner meeting. From left are George R. Stack (VP, Programs), Eugene J. Tallia (Treas), Kenneth E. Horsey (ExVP), all of Sikorsky Aircraft; and Michael S. Saboe (Pres), and Leland F. Wilhelm (Sec), both of Avco Lycoming Division.

NEXT MONTH

The June, 1972 issue shall cover the AAAA National, Regional, and Chapter structure, and list all 1972-1974 national and local officers. The activities of individual AAAA Chapters will be capsulized. A report of the 1972 USAREUR Regional Convention, and its several awards and accompanying photos, have been delayed at the source and will appear in a subsequent issue . . . AAAA's National Executive Board will conduct its regular tri-annual business meeting on June 3 in Washington, D.C. with members attending TRANSPO 72 on Friday, June 2.

KITZINGEN AREA. Activation of new Chapter. **COL Walter F. Jones,** President, AAAA USAREUR Region, guest speaker. Kitzingen OOM. 1900. April 21.

WASHINGTON, D.C. CHAPTER. Professional-business luncheon meeting. **BG William J. Maddox, Jr.,** Director of Army Aviation, OACSFOR, guest speaker; installation of '72-'73 officers. Ft. Myer OOM. 1115-1320. April 21. Members-guests.

MONMOUTH CHAPTER. Professional membership luncheon. **LTC Chester W. McDowell, Jr.,** Project Manager, NAVCON, guest speaker. Gibbs Hall Officers Club. 1200. April 25. Members-guests.

ALOHA CHAPTER. Business meeting. Election and installation of '72-'74 officers. Schofield OOM. 1700. April 28. Members only.

FORT BRAGG CHAPTER. Professional-social dinner meeting. **COL Robert J. Dillard,** CO, ARADMAC, guest speaker, following summer barbecue dinner. Castle Hill Annex. 1730-2030. May 5. Members-wives only.

SUNCOAST CHAPTER. Professional-social dinner meeting. **LT George McNally** and **Robert Teasley,** Pinellas County Sheriff's Dept., guest speakers; AAAA Scholarship Awards. Sweden House of St. Petersburg. 1930-2200. May 10. Wives-guests.

FORT HOOD CHAPTER. Business meeting. Election and installation of '72-'74 officers; beer bust. West Fort Hood Officers' Club Patio. 1730-1900. May 11. Members only.

NORTHERN LIGHTS CHAPTER. Professional-business luncheon meeting. **BG C. M. Hall,** guest speaker; nomination-election of Chapter officers. Ft. Wainwright OOM. 1130-1300. May 17. Members only.

LINDBERGH CHAPTER. Professional dinner meeting with AUSA membership. **CPT Paul W. Bucha.** Medal of Honor winner, guest speaker; AAAA Scholarship Awards. Parks Air College. 5:30-9:00 p.m. May 10. (Joint).

HANAU CHAPTER. Business-social meeting. Happy hour following business meeting. Fliegerhorst Officers Annex. 1630 hours. May 26. Members-guests.

STRATFORD, CONN. — Richard J. Trainor, Director of the Weapons Systems Analysis Directorate, Office, Vice Chief of Staff, addresses Connecticut Chapter members and their ladies at a March 29 AAAA professional-social dinner meeting. Some 90 persons were in attendance.

DAYTONA BEACH — LTC William W. Redman, Jr. (left), President of AAAA's Embry-Riddle Chapter, greets "Cliff" Kalista, Bell Helicopter's Vice President for Government Marketing, on arrival at Daytona. The latter was the guest speaker at the Chapter's most recent professional meeting.

FORT RUCKER — Charles Black, author, lecturer, and special correspondent for "The Columbia (Ga.) Enquirer", speaks at a recent meeting of AAAA's Army Aviation Center Chapter. The Chapter also installed its 1972-1973 slate of offices at the same dinner meeting. (USA photo)

AAAA SCHOLARSHIP SELECTION PROCESS OUTLINED

WITH some 16 scholarships being awarded to the sons and daughters of members or deceased members of AAAA on April 8, I felt that all Association members might like to know a bit more about the Foundation itself, and perhaps several of the details of the unique selection process pursued by the AAAA.

In the 1972 competition just ended, an applicant's chances of winning a $500-$1,000 AAAA scholarship was one in 17 (68 applicants for four scholarships), and approximately one in four of winning a $150-$1,000 cash scholarship (68 applicants for 16 scholarships).

A word or two about the Foundation . . . The AAAA Scholarship Foundation, Inc., is a separate corporate entity governed by a six-member Board of Governors. The primary tasks of the Board of Governors are to establish the requirements for a workable scholarship assistance program, to determine the number and dollar amount of scholarship aid to be given in any particular year (and this is dependent upon donations received), and to coordinate with the AAAA on the establishment and implementation of fund-raising programs.

The Foundation is a tax exempt organization under the IRS Code, and donations, bequests, etc. are deductible from income or estate taxes.

For the record, the current Board of Governors of the Foundation consists of *LTG G. P. Seneff, Jr., MG George S. Beatty, Jr., MG John L. Klingenhagen, Delbert L. Bristol, Arthur H. Kesten,* and myself.

The Foundation Board of Governors does *not*

AAAA's National Awards Committee at work.

select the annual AAAA Scholarship Winners. This task is performed by the AAAA National Awards Committee, the same committee that selects the AAAA National Awards Winners (*"AA of the Year,"* etc.) each year. *BG Robert M. Leich,* IGR, chairs this 14-member committee.

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

This is accomplished in the following manner:

• All applications for scholarship forms, and all completed forms (personal, H.S., interview, etc.) are submitted to one source, the AAAA National Office, and

• The National Office censors all documents prior to their review by members of the Awards Committee, the censoring consisting of the removal of the names of all applicants, parents, and AAAA interviewers, and the substitution of a "file number" to identify all documents associated with a particular application.

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

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

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

Suggestions solicited

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

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

A final note . . . The Foundation, with little fanfare and modest solicitation costs tied primarily to piggy-back mailings to AAAA members, has raised and provided some $35,900 to 113 sons and daughters of members and deceased members of AAAA since 1963.

The continuation of this most worthwhile program depends upon the year to year donations received by the Foundation, and I'm happy to report that our AAAA members have always provided more than the necessary funding to support this program.

Bryce Wilson
President, AAAA
Scholarship Foundation, Inc.

AAAA Awards $5,100 in Scholarship Aid

MEETING in Washington, D.C., on April 8, our AAAA National Awards Committee awarded 16 scholarships to the sons and daughters of members and deceased members of AAAA, and selected four additional applicants as winners of AAAA's Certificate of Scholarship Achievement.

The 1972 cash awards totaled $5,100.00, the largest sum yet provided by the AAAA Scholarship Foundation. The principal award was the $1,000.00 four-year *"William B. Bunker Memorial Scholarship,"* named in honor of the former Army aviation logistician and Deputy Commanding General of Hqs, AMC. A scholarship that recognizes academic excellence in a pre-Engineering School candidate, the award is primarily supported by individual donations and fund-raising through professional-social functions held at both the David E. Condon (Ft. Eustis) and Lindbergh (St. Louis) Chapters of AAAA.

The 1972 cash awards also included memorial scholarships honoring two former members of AAAA's National Executive Board, *Joseph E. McDonald, Jr.,* a past National President; and *Eric H. Petersen,* a National Vice President.

AAAA members assisted in the program, serving as voluntary AAAA interviewers. Some 51 applicants were interviewed personally by members, the AAAA interview being supplemented by a Secondary School Recommendation and a Teacher's Report in all cases.

I'd like to thank the members personally for their support of this AAAA program, and express my appreciation to *Dale Kesten,* to the National Office, and to the 11 members of my committee for the joint administrative and judging efforts in making the '72 awards.

BG Robert M. Leich, IGR
Chairman, AAAA
Awards Committee

1972 AAAA Scholarship Foundation Award Winners

$1,000 WILLIAM B. BUNKER MEMORIAL SCHOLARSHIP AWARD Joseph C. Offutt, Hazelwood Senior High School, Florissant, Missouri, son of Mr. and Mrs. Joseph C. Offutt, Jr., (Florissant, Mo.) Career Goal: Engineering.

$500.00 AAAA SCHOLARSHIP FOUNDATION AWARD

Wayne K. Yanamura, Zama American High School, Zama, Japan, son of LTC and Mrs. Kenneth K. Yanamura (Zama, Japan) Career Goal: Undecided.

$150.00-$500.00 AAAA MEMORIAL SCHOLARSHIP AWARDS

Joseph E. McDonald, Jr., Memorial Scholarship ($500.00) to Miss Martha L. Chamberlain, Manatee High School, Bradenton, Fla., daughter of LTC and Mrs. Donald E. Chamberlain, Ret., (Bradenton, Fla.) Career Goal: Undecided.

Eric H. Petersen Memorial Scholarship ($500.00) to Miss Cherie A. Cropp, McCluer High School, Florissant, Missouri, daughter of Mr. and Mrs. Ralph C. Cropp (Normandy, Mo.) Career Goal: Nursing.

James P. Ervin Memorial Scholarship ($250.00) to Thomas M. Stedman, Windsor Forest High School, Savannah, Georgia, son of LTC and Mrs. Thomas M. Stedman, Ret., (Savannah, Georgia) Career Goal: Zoologist.

Charles E. Ludwig Memorial Scholarship ($250.00) to Howard M. Williams, Jr., Nurnberg American High School, Nurnberg, Germany, son of LTC and Mrs. Howard M. Williams (APO New York 09696) Career Goal: Computer Technician.

Wallace H. Martin Memorial Scholarship ($250.00) to Miss Julia R. Adie, Denbigh High School, Newport News, Virginia, daughter of COL and Mrs. John R. Adie (Fort Eustis, Virginia) Career Goal: College Level Teaching.

John J. Miller Memorial Scholarship ($250.00) to Miss Sarah B. Biser, Ocean Township High School, Oakhurst, N.J., daughter of Dr. and Mrs. Erwin Biser (Belmar, N.J.) Career Goal: Undecided.

Charles R. Rawlings Memorial Scholarship ($250.00) to Miss Kelley J. Payne, Frank W. Cox High School, Virginia Beach, Va., daughter of LTC and Mrs. James A. Payne, Jr. (Fort Story, Va.) Career Goal: Teaching.

Robert W. Taylor Memorial Scholarship ($250.00) to Miss Ann C. Contole, Northeast High School, St. Petersburg, Florida, daughter of COL (deceased) and Mrs. William S. Contole (St. Petersburg, Fla.) Career Goal: Undecided.

"Cub Club" Memorial Scholarship ($250.00) to James E. Rogers, Heidelberg American High School, Heidelberg, Germany, son of LTC and Mrs. James E. Rogers (APO New York 09102) Career Goal: Pilot or Air Force Officer.

Mark J. Fitzgerald Memorial Scholarship ($150.00) to Joel W. Wilson, West Springfield High School, Springfield, Va., son of COL and Mrs. Franklin L. Wilson (Springfield, Virginia) Career Goal: Military Lawyer.

Barry W. Godfrey Memorial Scholarship ($150.00) to Mr. Clifford F. Altekruse, Phillips Academy, Andover, Mass., son of LTC and Mrs. Ernest B. Altekruse (APO New York 09025) Career Goal: Medical Doctor.

Joel R. Graft Memorial Scholarship ($150.00) to Miss Judith A. Davenport, Heidelberg American High School, Heidelberg, Germany, daughter of COL and Mrs. James D. Davenport (APO New York 09403) Career Goal: Physical Therapy.

Larry R. Dewey, Jr. Memorial Scholarship ($150.00) to Miss Vivian G. Delavan, Annandale High School, Annandale, Virginia, daughter of COL and Mrs. Patrick N. Delavan (Annandale, Virginia) Career Goal: Undecided.

George T. McKenzie Memorial Scholarship ($150.00) to Peter C. Withers, Jr., Kecoughtan High School, Hampton, Virginia, son of LTC and Mrs. Peter C. Withers (Hampton, Virginia) Career Goal: Medical Doctor.

AAAA CERTIFICATES OF SCHOLARSHIP ACHIEVEMENT

Miss Cynthia L. Cox, Thomas Jefferson High School, Alexandria, Virginia, daughter of LTC and Mrs. George W. Cox, Ret., (Alexandria, Va.) Career Goal: Ecological Research.

Miss Kathy L. Fusner, D.M. Therrell High School, Atlanta, Georgia, daughter of LTC and Mrs. Bruce Fusner, (Atlanta, Georgia) Career Goal: Research.

Miss Michele J. Oden, Eisenhower High School, Lawton, Oklahoma, daughter of CW4 and Mrs. James R. Oden, (Fort Sill, Oklahoma) Career Goal: Speech Therapist or Teacher.

Leonard T. Panzitta, Windsor Forest High School, Savannah, Georgia, son of LTC and Mrs. Valentino Panzitta, (Savannah, Georgia) Career Goal: Engineering.

1972 AAAA Scholarship Foundation Award Winners

JOSEPH C. OFFUTT

WAYNE K. YANAMURA

MARTHA L. CHAMBERLAIN

CHERIE A. CROPP

THOMAS M. STEDMAN

HOWARD M. WILLIAMS

JULIA R. ADIE

SARAH B. BISER

KELLEY J. PAYNE

ANN C. CONTOLE

JAMES E. ROGERS

JOEL W. WILSON

CLIFFORD F. ALTEKRUSE

JUDITH A. DAVENPORT

VIVIAN G. DELAVAN

PETER C. WITHERS, JR.

News/Photos

SWOOSH! — Looking capable of going airborne, the Dept. of Transportation's 300 mph Tracked Air Cushion Research Vehicle (TACRV), will be one of the featured attractions during May 27-June 4 at TRANSPO 72 at Dulles International Airport. Built by Grumman, the TACRV rides on a thin layer of air in a specially constructed concrete guideway.

FT. EUSTIS—The Lockheed-California Co. and the Boeing Vertol Division will share a $798,000 R&D contract to develop better protection for light reconnaissance aircraft from enemy ground fire. The "Armored Aerial Reconnaissance System (AARS) Vulnerability Study" contract was awarded by the Eustis Directorate, AMR&DL.

COMPETITION — A "Worldwide AAAA Open Golf Tournament" is to be conducted during July through September, '72. Details will appear next month.

PROUD DAY! — BG William J. Maddox, Jr. (right), Director of Army Aviation, presents a certificate of course completion to his son, WOC William J. Maddox, IV, a flight student at USAPHS. Joining a long list of father-son pairs in Army Aviation, 19-year-old "Bill" has since moved to USAAVNS for advanced flight training.

FORT RUCKER — All sorts of records were broken when Secretary of Defense Melvin R. Laird (see photo on page 4) visited USAAVNC/S. For the dinner held in his honor, USAAVNC had the largest crowd ever fed simultaneously in its Officers' Club. Some 1,025 steaks were served in exactly 15 minutes!

FORT MEADE — The 97th U.S. Army Reserve Command received the first two of its 16 CH-47 Chinook helicopters in a recent ceremony. BG Ivan A. Reitz, CG of the USAR unit, assigned the aircraft to the 195th Aviation Company (Assault Support Helicopter). CPT Michael D. Brock, OpnsO of the 195th, signed the receipts at the ceremony.

DEVELOPMENT — With Boeing's HLH Program receiving a $15.5 million engine development modification from AVSCOM, James E. Knott, General Motors V.P. and General Manager of the Detroit Diesel Allison Division (center), confers with Howard N. Stuverude (left), Boeing VP and General Manager of the Vertol Division, on dynamic system integration testing. Looking on at the right is Thomas P. Peppler, Boeing's HLH System Branch Manager. (Boeing photo)

ALL IN THE FAMILY—WOC Douglas Jones (right), winner of AAAA's Academic Achievement Award for Class 72-25 at USAPHS, shows his plaque to his parents, grandparents, and family friends. From left are MG (Ret.) and Mrs. Thomas M. Watlington, COL (Ret.) Lawrence M. Jones, Mrs. Lawrence M. Jones, Jr., BG Lawrence M. Jones, Jr. (guest speaker at graduation), and Mrs. Lawrence M. Jones. BG Jones is Asst DCSOPS, USCONARC. (USA photo)

Before you turn the page, please read this letter:

Dear FPPP Policyholder:

We've just made several program changes in the AAAA-endorsed Flight Pay Protection Plan (FPPP) that should be of great interest to all Army Aviators, including all present policyholders. These changes *improve benefits* and, in many cases, *reduce premium costs* substantially.

The FPPP now serves 3,700 AAAA insureds, and these program changes should make flight pay insurance *more attractive* to the 16,000-odd rated Army Aviators who do not have the present coverage. We feel — and have always felt — that all-risk flight pay insurance makes good sense when viewed on a career long basis.

In its fifteen year existence the Flight Pay Protection Plan has always remained responsive to the needs of its insured members, continually making the necessary changes to meet their changing demands. At the same time, the Plan has met all claims, returning more than $1 million in flight pay indemnities to some 716 Army Aviators.

We're proud to announce a no cost product improvement — particularly in these days of rising costs and reduced service. Please turn the page.

Dorothy Kesten
Ladd Agency, Inc.

For AAAA Members:

Two new no cos

Under 30:

A 40% reduction in premium cost with no change in coverage or policy provisions.

EFFECTIVE DATE

The underwriters are now in the process of securing the necessary state regulatory approvals, and expect to be able to offer the new flight pay insurance protection to present

For new and present policyholders under age 30:

1. **The new annual premium will be reduced to 1½%. (The annual premium was 2½% of annual flight pay.)**
2. **Coverage retains the protection against injuries caused directly or indirectly by war or an act of war, whether declared or undeclared, or in a combat zone.**
3. **The AAAA-endorsed flight pay insurance coverage will afford protection during a period on non-flying assignment when Class 2 physical standards must still be met.**
4. **Optional quarterly or semi-annual payment modes are also provided. There are no geographic restrictions.**

Underwritten by Seaboard Life Insurance Company of America — Sold exclusively t

t FPPP benefits!

30 or over:

Accidental death benefit for each policyholder equal to six months of indemnity payments.*

and new individual policyholders by June 1. On approval, the new AAAA-endorsed expanded coverage would be retroactive to June 1, 1972, and would apply to all new and renewal policies processed on that date.

For new and present policyholders age 30 or over:

1. The annual premium rate remains at 2½% based upon annual flight pay received.
2. Coverage retains the protection against injuries caused directly or indirectly by war or an act of war, whether declared or undeclared, or in a combat zone.
3. Protection afforded during a period of non-flying assignment, or during a period of flight excusal status, when Class 2 medical standards must still be met.
4. Optional quarterly, semi-annual payment permissible.

*Available to "Under 30" age group at 2½% annual premium.

AAAA Members through Ladd Agency, 1 Crestwood Road, Westport, Conn. 06880.

The Light Side

The Winner!

"That's the last time I'll follow the 'Follow me' truck!"

Winning caption — prize is a 1971 bound volume of ARMY AVIATION — was submitted by Captain James Iglehart, 508 Victoria Street, Enterprise, Ala. Gag photo submitted by CW4 Donald R. Joyce, Ft. Eustis.

Write a caption!

WRITE a gag caption for the above photo and win a 1971 bound volume of ARMY AVIATION. Send your gag line to ARMY AVIATION, 1 Crestwood Road, Westport CT 06880.

The best of the rest!

"Woman driver!"

Submitted by WO1 Billy T. Hackler, F Troop, 9th Cav, 1st Cav Division (AM), APO San Francisco 96490.

"Chief, I know you love ol' 097, but does she have to sleep with us?"

Submitted by Major Ted M. Stults, II, HHD, Ohio-ARNG, 3100 Inwood Drive, N.W. Massilon, Ohio.

"Hey, Bob, are you sure we can log 'W' time for this?"

Submitted by Captain Russell K. Walls, 26 Baker, Ft. Rucker, Ala.

Personnel:

New Prefix X AA Positions Are Established by DA Message; TDA Units to Justify Prefix 6

By BG William J. Maddox, Jr., Director of Army Aviation, OACSFOR, DA

IN the February issue of **ARMY AVIATION,** I discussed the implementation of the FY 72 Appropriations Act (Public Law 92-204) as it affected proficiency flying. On 17 March we dispatched a change to AR 95-1 which partially implemented the Public Law. Since then we have been developing the methodology required to complete implemention of PL 92-204.

To keep everyone abreast of the situation, I want to explain the contents of the message dispatched by DA on 18 April. The message announced a change to AR 611-101 which directly affects aviators and aviator positions. It refined the definition of **"Prefix 6"** by adding the words: **"The performance of aerial flights and the maintenance of basic flight skills are essential parts of the duties of the incumbent."**

This change also establishes a **"Prefix X"** which will be used to identify aviator positions which do **not** require the aviator to maintain his basic flying skill in the performance of his duties.

Effective 1 May

The 18 April message announced that effective 1 May, and retroactive to 1 January, all aviator positions in TDA units which do not have aircraft authorized are designated as **Prefix X.** The message advised everyone that this headquarters was sending to the TDA units affected by the message a listing of all recognized **Prefix 6** positions. Instructions accompanying the listing will prescribe the method for commanders to submit justification statements for retention of **Prefix 6** positions which otherwise would become **Prefix X.** Aviators in positions for which commanders' justification statements have been submitted will continue to perform aircrew duties and comply with the provisions of AR 95-1.

To be considered for retention of **Prefix 6,** justification statements must arrive at HQ, DA, ATTN: Director of Army Aviation (DAFD-AV) by 1 June. I intend to review each statement for approval or disapproval. The review should be completed by 12 June. The DA data date will then be adjusted to reflect either **Prefix X** or approved **Prefix 6** positions. Commanders will be advised prior to 1 July of the status of their justification statements. Effective 1 July only those aviators in approved **Prefix 6** positions will continue to fly. Those designated as **Prefix X** will be excused from proficiency flying and may continue to draw flight pay as long as they otherwise are qualified.

Incidentally, the following reasons are **not** adequate justification for retention of **Prefix 6** positions: (1) Flying as a means of transportation to accomplish an assigned task away from home station; (2) the desires of an individual incumbent; (3) an incumbent with less than 1,500 hours total military flying time.

Personnel:

AA's on Flight Excusal, Non-Flying Spaces Must Maintain Class 2 Medical Standards

By Colonel John W. Marr, Deputy for Army Aviation, OPD, OPO, DA

RECENT changes in the proficiency flying program have caused many aviators now prohibited from flying to question the need for coverage under the Flight Pay Protection Plan (FPPP) sponsored by the Army Aviation Association of America (AAAA). The purpose of this article is to clarify the effect of these changes on the flying status of Army Aviators and their entitlement to flight pay.

Removal for three reasons

Entitlement to flight pay is extended to military members on flying status and continues *until the member is removed from flying status.* An order placing an Army Aviator on flying status is published when he receives his initial aviator rating. This order remains in effect while the aviator is on active duty unless it is suspended by flying status suspension orders.

Flying status orders may only be superseded by indefinite suspension orders for three reasons: (1) as a result of an aviator's personal request, or (2), a flying evaluation board, or (3), medical disqualification.

Recent changes in the proficiency flying program which prohibit aviators in non-flying assignments from flying do NOT constitute suspension from flying status. Since aviators are subject to rotation from assignments in which flying is prohibited to assignments in which flying is required, it is essential that they continue to meet Class 2 medical standards *at all times.* Failure to do so may result in removal from flying status by an indefinite suspension order and, thereby, loss of entitlement to flight pay.

From the above discussion it should be evident that the FPPP coverage is as essential to the aviator who is prohibited from flying as it is to the aviator who is required to fly.

(Ed. Note: Major changes to AAAA's Flight Pay Protection Plan are described on pages 42-43)

Opinion

PROFESSIONALISM!

A Career Warrant Officer Aviator Calls for Improvements in a Wide Variety of Areas

By Chief Warrant Officer Third Grade Carl L. Hess, Ft. Rucker, Ala.

THE term, *"professionalism,"* is being used by many people in Army Aviation today. Like the word, *"happiness,"* the word *"professionalism,"* means different things to different people.

One man's professionalism may be another man's foolishness. You think not? Well, let's examine some of the different things *"professionalism"* means to various people, and then decide where you stand . . .

No substantial agreement!

For example, some people consider themselves professionals because they require items such as fuel gauges (operational) on the aircraft they fly on routine missions. Others would consider this nit-picking.

One might decline to take an instrument training flight in a single engine helicopter when enroute ceilings were forecast to be less than 100 feet AGL. Another might consider this as a lack of professionalism and a lack of trust in one's equipment as well as placing too much trust in pessimistic weather forecasters.

To some people, bloused flight suits would indicate professionalism; others would like to see all crew members wearing pink scarves during their pre-flight.

One commander might look at an Army Aviator's flight records and would only be impressed with a large number of total flying hours. Another commander would rather check the aviator's records for synthetic trainer time, hood time, and instrument currency.

Some consider a tight helicopter formation flight to be professional. Others know of the tragic results of this practice and discourage it.

One Huey pilot might think he is going the extra mile when he delivers a VIP to post headquarters and lands with a 35 know tailwind. A more conservative pilot might elect to land at an airfield or a pad a few blocks away and allow a sedan to complete the mission.

Do you see what I mean about the various interpretations of "professionalism"?

As we look to the future, there are many areas where, in my honest opinion, improvements can be made, our efficiency increased, and the taxpayer given more performance for his tax dollars. Don't efficiency and professionalism go hand in hand?

The yoke of flight minimums for aviators serving in non-aviation assignments is being lifted. This will free many aircraft and instructors to properly train our aviators who are in flying assignments, for now we must maintain close supervision to assure that the maximum benefit is derived from the flying hours available. This means spreading our proficiency flying throughout the year, if possible.

Demonstrations: Good or bad?

We must kill the myth that aviators derive any substantial training benefit from such activities as flying in demonstrations, towing gliders, flying sky-divers, etc. In the past, some aviators have obtained a large portion of their annual minimums by participating in these types of activities.

The practice of conducting demonstrations involving large numbers of aircraft should be examined carefully. Often, a one-hour demonstration involves as much as four hours of flight rehearsals. If 90 aircraft are involved, there go 450 hours of flying hours down the tube. I think we can reasonably assume that 450 hours are sufficient flight time for 15 average Army Aviators to be trained and to pass a standard initial issue instrument check flight.

We should also examine long range (more than 100 miles) administrative helicopter flights where commercial air or Army fixed wing aircraft would be more economical. Then, there is the intra-post

PROFESSIONALISM/ Cont.

helicopter taxi service that has become popular in recent years. A sedan or a jeep doesn't have quite the glamour or prestige of a helicopter but either can do the job just as well in many cases, and do it much more economically. A side benefit here would be the added credibility we'd give to our pitches when we tell the young troops to turn off their fire lights, etc. to save the taxpayers' money.

Let's use synthetic trainers!

We've long neglected the synthetic trainer! Some posts could use more of these fine machines (preferably 1950 vintage or later) with operators, of course. Here's where we already have an honest-to-goodness day and night all-weather (except tornado) capability!

Is there any reason why we couldn't operate some of these trainers on a two-shift-per-day basis for maximum utilization? Congress probably wouldn't object if some of our aviators on ground duty took advantage of these trainers to maintain currency in procedures.

Some aviators subscribe to Part I of the Airman's Information Manual and other publications at their own expense. Why not issue each aviator a copy of AR 95-1, AR 95-2, AR 95-63, FAR Part 91, and possibly others? Distribution of changes could be made through their units as was the case with the Jeppesen publications.

A decent hood should be higher on the priority list for each aviator than sunglasses . . . and let's not give up on trying to get a flight suit that resembles a flying uniform!

Professionalism in the maintenance end? Let's stop writing efficiency reports for aviation maintenance officers and commanders based upon the number of aircraft either can fly once around the pattern when the sun is shining! Instead, let's emphasize the importance of maintaining all flyable aircraft in a state of readiness where they can be flown day or night or IFR, if necessary. Isn't that the name of the game?

The aircraft? Some of our helicopters, such as the UH-1 and the LOH, need additional flight instruments to make them real all-weather (less icing, etc.) aircraft. For example, the Huey should have a turn and slip indicator and a magnetic compass on the co-pilot's side. It would be nice to have a better co-pilot's attitude indicator in the UH-1.

FOC control of IFR traffic

We should initiate a realistic training program involving FOC control of IFR traffic in simulated conventional warfare, and we must recognize that we cannot attain a marginal weather capability unless we first have an IFR capability. Hundreds of dead and injured aviators and crewmen and broken aircraft already prove this point beyond a shadow of a doubt.

There are many other areas we could explore. Let's concentrate, however, on those areas in which we may enhance the completion of our mission and avoid re-hashing those things that have been tried already and found waiting.

There are many interpretations of "professionalism" as I've shown, but does your definition of "professionalism" enhance the accomplishment of the mission, or is it just a word you like to use?

RIGHT: MAJ Leonard J. Rodowick (left) and CW2 Michael L. Klinkbeil explain their system for aircraft turbine engine maintenance. Their suggestion, expected to save the Army $5 million annually, will eventually earn more than $8,000 in awards — tops in First Army area.

LEFT: LTC Daniel C. Dugan, Army test pilot of USA Air Mobility & R&D Laboratory, pauses for a moment prior to beginning an experimental flight test on the XV-5B at Ames Research Center, Cal. The test is part of a joint Army/NASA program evaluating VTOL applications.

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