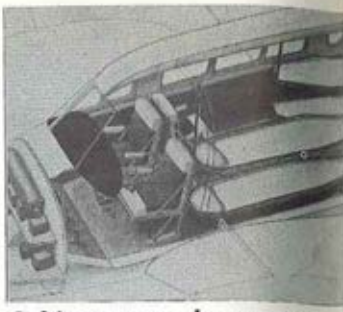
ARMY AVIATION

FEBRUARY ★ 1960

Why every officer who sees it

The New U. S. Army



Cabin seats can be removed in minutes to convert the L-23F to a flying ambulance.

Wide, roomy pilot compartment, separated from cabin by sliding doors, has plenty of room for instruments and radio. Adjustable crew seats and wide aisle, plus conveniently located controls and excellent flight characteristics make the new L-23F a pilot's dream.

Other Beechcraft projects today include advanced research and development work on launching and recovery systems for missiles and pilotless aircraft; target and reconnaissance aircraft; airborne radar surveillance systems; ground support equipment; and classified projects in the newer aerospace areas of aerodynamics, cryogenics, thermodynamics, and aircraft range extension.

or flies it votes for...

L-23F Transport

Although it looks much like an L-23D, the plane below has a completely new fuselage design which makes it longer, wider and higher on the inside. With separate pilot compartment—complete with sliding door—sunken center aisle and airliner-type air-stair door, it is winning spontaneous approval wherever it is shown or flown. Supercharged fuel injection engines also give it new high performance and extra-long range.

With a wide choice of interior arrangements, the new L-23F is quickly convertible for use as a command transport, a flying "bus" or ambulance or as a cargo-carrying aerial packhorse.

New air-stair door offers unexcelled convenience in entering or leaving the new L-23F. Unrestricted passenger and crew movement, in-flight baggage availability and pleasingly low cabin noise level are other L-23F plus features.

★ ★ ★ ★

Military commanders are invited to write for further information — Military Division, Beech Aircraft Corp., Wichita 1, Kansas, U. S. A.

Beechcraft

BEECH AIRCRAFT CORPORATION • WICHITA, KANSAS, U.S.A.

ARMY AVIATION

VOLUME 8

FEBRUARY 28, 1960

NUMBER 2

Test Beds
February, 1960 Report (Page 28)

Caribou Service Test Report (Page 24)

Army Aviation Center
Facilities, Personnel (Page 13)

"ARMY AVIATION" IS PUBLISHED MONTHLY BY ARMY AVIATION PUBLICATIONS, 1 CRESTWOOD ROAD, WESTPORT, CONN. PHONE, CAPITAL 7-8266. SUBSCRIPTION: US, APO, AND US POSSESSIONS, $3.50 PER YEAR; ALL OTHER COUNTRIES ADD $0.75 PER YEAR FOR POSTAGE. INCLUDED AS A PART OF AAAA MEMBERSHIP. SECOND CLASS MAIL PRIVILEGES AUTHORIZED AT WESTPORT, CONN.

BRIEFS

■ **De Havilland Aircraft of Canada announced that it had received an Army order for seven aditional Caribou aircraft. Aditional details on the Caribou are found on pages 24-26.**

■ A reprint of the excellent composite illustration forming a part of the January, 1960 wrap-around cover of *ARMY AVIATION* may be secured by writing: *Public Relations Department, Lycoming Division, Avco Corporation, 550 South Main Street, Stratford, Conn.* Suitable for framing, the illustration depicts a good part of the Army aircraft "family" in a combat situation.

■ **Mrs. Doris B. Cairns and Lt. Col. Mansell A.. Walker were married in January 25th ceremonies held in Washington, D.C. Mrs. Cairns is the widow of Maj. Gen. Bogardus S. Cairns. Colonel Walker is assigned to the Army Aviation Directorate, ODCSOPS, Department of the Army.**

■ The law of averages caught up with the *U.S. Army Primary Helicopter School* with the death of two Army Aviators in a helicopter crash two and one-half miles northwest of Camp Wolters in late January.

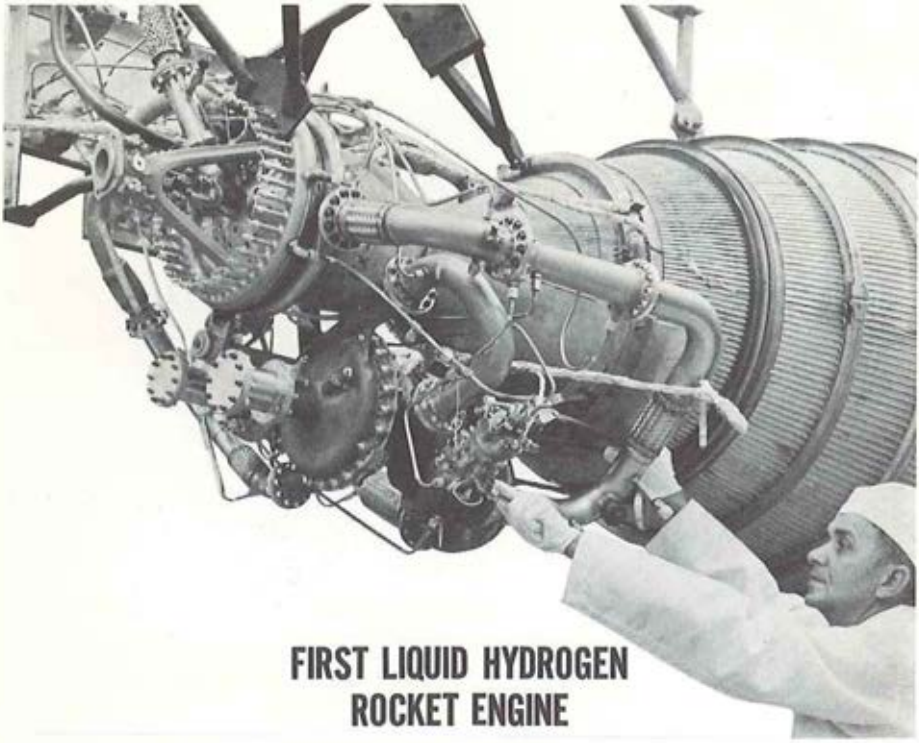
Capt. Ronald S. Elwell and *Second Lt. Jerry L. Burton,* both helicopter students at the school, met death in what was apparently a mid-air collision of their aircraft. The helicopter school, which had been cited many times over the past three years for its outstanding safety record, had graduated approximately 3,000 students without suffering a fatality or serious injury.

■ Among the first to arrive on the scene of the tragic crash of a Capital Airlines *Viscount* near Holdcroft, Va., in late January were several U.S. Army helicopters of the *65th Transportation Company* (*Lt. Hel.*) and twenty four men and two officers of the *24th Transportation Company,* Fort Eustis, Va.

Providing rapid security forces, and assistance in the recovery and transportation of the bodies of the victims to a mortuary in Richmond, Va., the Army personnel responded to an emergency call placed by the Virginia State Police.

■ **Temporarily suspended in January of '59, the Warrant Officer Rotary Wing Aviator Course (WORWAC) was resumed on January 31st at USAPHS, Camp Wolters, Texas. Approximately 15 Reserve Forces' enlisted personnel started the 34-week course and as qualified cargo helicopter pilots will return to their Reserve and ARNG units upon completion of the course.**

■ In next month's issue five wives of AAs (chosen at random) will answer the question, *"Does your husband talk only about Army aviation at parties, or does it just seem that way?"* Brace yourselves, fellahs.



FIRST LIQUID HYDROGEN ROCKET ENGINE

Pratt & Whitney Aircraft's XLR-115

Develops 30% Greater Specific Impulse... Offers Unlimited Potential in Size and Power

The first of a new family of liquid hydrogen rocket engines for missiles and space vehicles has recently been demonstrated at Pratt & Whitney Aircraft's Florida Research and Development Center. The engine developed 15,000 pounds of thrust under simulated space conditions, and produced 30% higher specific impulse than conventional LOX-kerosene engines. The successful development of this engine opened the way for immediate development of hydrogen engines offering far larger size and power.

The new Pratt & Whitney Aircraft engine has been chosen to power the *Centaur* space vehicle atop a modified *Atlas* missile. It will also power an upper stage of *Saturn*, the booster that will be used to place 35,000-pound satellites in orbit 300 miles above the earth or send a 12,000-pound space probe to another planet. Current developments indicate liquid hydrogen, substituted for LOX-kerosene stages, can multiply payload as much as 3½ times.

A new pumping system—termed "bootstrap" pumping—eliminates the need for an auxiliary gas generator. Pumping power is provided by the expansion of the hydrogen itself.

Pioneering work in the liquid hydrogen field has been in progress at Pratt & Whitney Aircraft since 1955.

PRATT & WHITNEY AIRCRAFT

East Hartford, Connecticut

A Division of United Aircraft Corporation

READY IS THE RAVEN'S MOST FAMOUS TRAIT

And the record proves it. Here are some indications of the reliability of this remarkable light helicopter from the U.S. Army's top flight training operation at Camp Wolters, Texas.

1 At this Army-Southern Airways Co. contract operation, the H-23D Raven is the first helicopter ever approved by the Military for 1,000 flight hours between major overhauls... on all major components of its drive system.

2 The D ranks highest of all Army rotorcraft in air availability... lowest in maintenance cost.

3 Regardless of weather or any other delays, efficient Camp Wolters joint military and civilian management puts its fleet of Ravens through more than 7,000 actual training hours every month.

Designs are one thing. Deliveries another. Both come from

HILLER AIRCRAFT CORPORATION

PALO ALTO, CALIFORNIA • WASHINGTON, D.C.

ADHESIVE ENGINEERING DIVISION, SAN CARLOS, CALIFORNIA

CIVILIAN HELICOPTER OPERATIONS

by
BRIG. GEN.
CLIFTON F.
VON KANN
Director of
Army Aviation,
ODCSOPS

Dear Army Aviator:

On the 18th of January I attended the annual meeting of the *Helicopter Association of America* at the Disneyland Hotel in California. (Unfortunately for our young-at-heart readers, I can't give a first hand report of the rides and concessions, for Disneyland itself was closed. But then I'm not the *only* visitor to California who has been frustrated in this respect).

I was impressed by the spirit and enthusiasm of this young organization and I think that all of us associated with Army aviation should become aware of this civilian potential. It is hard to realize the rapid growth of civilian helicopter operations unless you see its evidence first hand. This is important to the military, as well as the nation as a whole. The expansion of our entire national helicopter potential is vital and *every* aircraft in use is generating more requirements—more experience.

A peace time Army must operate at a reduced scale on a reduced budget, yet it must plan for a rapid orderly expansion, if necessary. It is not enough to have a ready manpower reserve. Mobilization also means equipment and, in this day of complex technology, a Division is much more than so many thousand men. It is an amalgam of complex weapons systems and highly skilled individuals who have had extensive training with these systems. This obviously is true of our helicopter companies.

Therefore, the Army is very interested that there develop a civilian pool of experience and equipment that could be a great national asset in an emergency. At the very minimum we feel we must explore every avenue of mutual

interest and exchange information and ideas.

Now that the civilian operators are flying a great number of machines of a type that used to be almost a military monopoly, we must carefully examine any extra-curricular helicopter activity to see if it does not more properly belong in the civilian category. I'm not speaking of our rescue type mission for, of course, all aviation responds without question when a human life is at stake. But the Army receives thousands of requests yearly to perform missions that are on the borderline of military necessity. Before the advent of a civilian potential, we were unable to justify some of these missions from an expediency viewpoint, training value, and the fact that we were not in any sort of competition.

With a large civilian fleet available, it is our responsibility to cleanly separate the military operations from those quasi-military operations which formerly came to us by default. Regulations are explicit for most situations. If in doubt, ask for clarification by higher authority.

Within the next few weeks the revision of *AR 95-63* will be distributed. For the first time we have included a recommended *Instrument Flight Log Form*. Many old time aviators and experienced instrument pilots got into the act and a number of different forms were tried before selecting the one which is now approved for use.

We recognize that most aviators are prone to "swear by" the form that they are accustomed to using and flatly state that no other form will fill all of the requirements. Recognizing that there is probably no perfect Log Form that will please all aviators, I sincerely hope that everyone will make an honest attempt to use this form for the next year or so and *then* make constructive suggestions as to any changes which would be beneficial. The big advantage to a *common* Flight Log is the ease with which a new pilot-copilot team can cross check their vital planning information and in-flight changes.

Also in the very near future the revisions of *AR 95-63*, *AR 95-67*, and *Change 10* to *AR 95-8* will be distributed. Several major changes have been incorporated in these regulations. Many helicopters are authorized to *file and fly* under actual instrument conditions; landing minimums for Army aircraft will be those published in appropriate pubications, including *TM 11-2557;* the minimums will be the same for holders of the *Army Standard* and *Special Instrument Cards*. Alternate minimums will be those prescribed in *TM 11-2557* or appropriate publications.

The requirement for 5 hours actual instrument time six months preceding application for renewal of a *Special Instrument Card* has now been changed to require 10 hours of actual instruments in the 12 months preceding application for renewal, 5 hours of which may be co-pilot time logged under actual instrument conditions.

During a recent visit to Fort Rucker, I visited *Colonel Jim Wells* and his group at the *U.S. Army Board for Aviation Accident Research*. Among the items we discussed was the very excellent manner in which aircraft accident and incident reports are prepared and forwarded.

One forced landing in a particular type aircraft, because of engine failure, may appear to be of little significance to the local command. Add that incident to similar incidents from Army com-

mands around the world and it becomes *highly* significant, lending impetus to corrective action and prevention of future incidents. The same holds true for many facets of Army aviation.

My congratulations for the fine job you are doing. Keep up the good work, and remember that VFR *is not* that whitish-grey stuff that goes by your wing tips when climbing and descending in accordance with VFR.

Sincerely,
CLIFTON F. VON KANN
Brigadier General, GS
Director of Army Aviation,
ODCSOPS

DEVELOPMENT:

T55-L-5 Uprated

Uprating of the *Lycoming T55-L-5* shaft turbine helicopter engine to a military rating of 2200 shp has been approved by the U.S. Air Force and Army, according to a recent announcement by Lycoming Division, Avco Corporation.

The T55, which will power the Vertol YHC-1B *Chinook* now under development for the Army, was previously rated at 1940 shp. The additional power with the weight remaining constant at 570 pounds, including integral engine oil tank and coolers, gives the *T55-L-5* a power-to-weight ratio of 3.87, the highest of any engine in its class. The qualification test is scheduled for August with first deliveries to Vertol immediately thereafter.

Uprating of the engine was based on its previous 50 hour qualification as well as recent tests which demonstrated shaft horsepowers in excess of 2500. In addition to the uprating, Lycoming engineers are currently projecting additional power growths in excess of 2700 shp featuring improvements in specific fuel consumption.

'HAVE A SEAT,' THE MAN SAID

Chief Warrant Officer Marvin V. Wingrove, assigned to the U.S. Army Transportation Materiel Command, St. Louis, recently returned to St. Louis from his 23,600 mile ferry flight as co-pilot for the famed Dr. Thomas Dooley's aircraft.

One incident he will always remember took place in one of the clubs in Lisbon, Portugal while waiting for favorable weather conditions. Wingrove stood by and watched a chess game being played by two members of the club.

Wingrove, an avid chess player, accepted an invitation to play the winner. He won all three games and after each win the spectators applauded his success. He was about to call it quits after hours of playing when a man stepped from the audience and indicated he would like to "take on" Wingrove. The game resulted in Wingrove's first defeat of the evening. Later, Wingrove found out to his surprise that the first player was the chess champ of the club and his second challenger was Joaquim Durao, Portuguese National Chess Champion.

THE U.S. ARMY AVIATION CENTER

by
Maj. Gen. Ernest F. Easterbrook
Commanding General, USAAC

The United States Army Aviation School marked its 7th anniversary on 1 January 1960. There was no fanfare or cannon salute to herald this event; however, there is a far greater significance to this milestone than was apparent from our token recognition.

I shall not attempt to outline the highlights of these past seven years for most of you have followed them with as much interest as I, and some of you were directly responsible for these important accomplishments.

The boiled-down mission of the school is to train aviation personnel. Although big impressive numbers do not describe the efforts expended in their compilation, 25,021 graduating students have received diplomas since the Aviation School moved to Fort Rucker in 1954. Statistics from Fort Sill days are not immediately available to me.

In our student ranks we have rubbed elbows with allies from 22 different countries (*Page 62*). During its 7th year the school trained 5,664 aviators and mechanics in 27 different courses. A list of these courses is shown on *Page 62*.

Since all aviators can expect to return to Fort Rucker at one time or another, I would like to thumb-nail some aspects of our plant and facilities.

Fort Rucker spreads over some 60,000 acres of southeast Alabama. The predominant geographical (man-made) features are *Lake Tholocco*, the post proper, and *Cairns AAF*. A line through these points conveniently separates our fixed and rotary wing training.

The surrounding communities of substantial size (5,,000 to 20,000 population) include Dothan 25 miles SE, Ozark 9 miles NE, and Enterprise 9

miles SW. The small incorporated village of Daleville straddles our main gate.

Fort Rucker's 580 assorted aircraft land at many strips and pads. The main base is *Cairns Army Airfield* with 5,000-ft runways, complete operations, service, and an array of instrument approaches. The two other main bases for training aircraft are *Lowe AAF* for fixed wing and *Hanchey AAF* for rotary wing.

Our population of 4,874 military and 2,937 DA civilian and contractors' employees performs duties with the various elements shown in the organizational chart shown on pages 80-81. This organization, to accomplish the various assigned missions, has evolved through various refinements as missions were shaped to meet Army needs.

Housing Report

Family housing on and off post can be described as *good* and *improving*. On post we have 762 sets of quarters broken down into 31 MCA, 690 Capehart, and 41 units converted from other structures. An additional group of 310 Capeharts is nearing completion and 498 more are programmed for future construction.

Most, if not all, officers and noncommissioned officers will have an opportunity to live *on post* for a portion of their tours. At present there is only limited waiting time for field grade officers and the most senior officers of other grades can expect to move in soon after arrival. Added to this, there are approximately 800 variously described houses occupied by military families *off-post*.

Adequate BOQ's are available. These are improved WWII buildings. Our troop units will shortly move into 7 newly completed permanent barracks buildings which are constructed so as to afford excellent living conditions to enlisted men.

Recreational and other welfare facilities here are excellent. Medical and dental treatment are available to dependents. The *Lake Tholocco* recreation area does a land office business and, of course, the *Gulf of Mexico* is within easy reach for an overnight or

Army Aviation School Courses of Instruction

Army Aviation Medicine
Army Helicopter Transport Tactical
H-37 Helicopter Crew Training (Pilot)
H-37 Helicopter Transition Training
Helicopter Instrument Flying
Helicopter Instrument Flight Examiner
HU-1A Instructor Pilot
Officer Fixed Wing Aviator (Phase A,B,C) (Formerly AATC)
Officer Rotary Wing Aviator (Phase II) (Formerly ATPHC)
Warrant Officer Rotary Wing Aviator (Phase II)
Fixed Wing Instrument Flight Examiner
Aviation Staff Officer
Fixed Wing Qualification (Phase A,B)
AO-1 Medium Observation Airplane (Pilot)
H-37 Helicopter Crew Training (Mech)
H-37 Helicopter Maintenance
HU-1A Helicopter Maintenance
Aircraft Maintenance (Entry)
Airplane Maintenance
Reconnaissance Helicopter Maintenance
Utility & Cargo Maintenance (Single Rotor)
Helicopter Maintenance
Helicopter Maintenance (Tandem Rotor)
Flight Simulator Opns & Maintenance
AO-1 Medium Observation Airplane (Mech)
Army Multi-Engine Aircraft Qualification
General Officer Fixed Wing Flight Training
General Officer Rotary Wing Flight Training

Allied Countries Having USAAVNS Students

ETHIOPIA	FRANCE	NETHERLANDS
AFGHANISTAN	SPAIN	JAPAN
PAKISTAN	ENGLAND	BURMA
THAILAND	GERMANY	GREECE
KOREA	ITALY	CHINA
CANADA	BELGIUM	DENMARK
TURKEY	ECUADOR	SWEDEN
INDONESIA		

Chinook PROGRESS

Inspection of Full-Scale Mockup

During the last week of January, 1960, the first major milestone in the development of the YHC-1B Chinook was passed. For three days, representatives from all interested Army activities and from various offices of the USAF—the procuring agency—inspected the full-scale mockup of this newest Army helicopter.

SUMMARY

February, 1960

Missile System Loading Demonstration

On the day preceding the mockup inspection, a demonstration was conducted to evaluate the capability of the YHC-1B Chinook to accommodate within its cargo compartment the major components of the Army's Pershing Missile System. The above photograph shows the loading of a standard three-quarter ton 4 x 4 truck, which is the interim prime mover for the helicopter-transportable version of the first of the second-generation Army solid-propellant missile systems.

Maintainability Demonstration

During the mockup review, a demonstration of maintainability was conducted. As a part of this demonstration, a relatively unpracticed crew of four men accomplished a complete engine change in approximately 20 minutes.

VERTOL Aircraft Corporation
MORTON, PENNSYLVANIA
SUBSIDIARIES: ALLIED RESEARCH ASSOCIATES INC., BOSTON, MASS., CANADIAN VERTOL AIRCRAFT, LTD., ARNPRIOR, ONTARIO

weekend outing. A number of Special Services house trailers are provided at nominal cost at Panama City.

A new school building in Daleville takes care of our children through the 9th grade. Those in higher grades attend high school in Ozark. Army busses transport all on-post children to and from school. A nursery and kindergarten are available for the pre-school youngsters. We have all of the other usual facilities of a well-rounded military community. Among these are golf courses, commissaries, numerous youth activities and so forth.

Turning now to some current events, the *Army Aviation Center* recorded a distinguished student in January when *Brig. Gen. Clifton von Kann* completed fixed wing training. He is already qualified in rotary wing aircraft.

While here he filled a guest speaker appearance for the *Army Aviator Staff Officers Class* in residence. This was a most enlightening presentation on what the Army can expect in the way of aircraft for the future.

take-off and landing vehicles which take-off and landing vechicles which will change—in flight—into a horizontal flight configuration. He indicated that a number of the 16 types of aircraft in the Army inventory may be replaced by a small family of aircraft, able to carry weapons and perform a variety of other battlefield tasks.

General von Kann suggested that two major problems in Army aviation today are *state of mind* and *state of material*. Other problems concern gaps in the air support picture as the Air Force takes to space and supersonic vehicles. He said some progress is being made toward solving a number of the problems, pointing out the *Mohawk* for higher performance observation and the *Caribou* as a tactical troop and supply mover.

ROTC Students View H-34

Through coordination with Col. L.W. Leeney, commander, Lawson Army Airfield Command, Fort Benning, Tuskegee (Ala.) Institute authorities arranged for an orientation visit by an Army H-34 and crew during late January. Flown to the Institute's athletic field by Capt. Jack R. Phillips and CWO James E. Koenne, the Choctaw was demonstrated to the Tuskegee ROTC students, the Army crew later explaining the aircraft's capabilities and roles within Army aviation in detail.

Vice Admiral Oswald S. Colclough, (Ret.), acting president of *George Washington University* in Washington, D.C., and his staff of assistants visited the *Army Aviation Center* recently for a two-day tour of the facilities. The university has a contract to do human research studies for the Army. This is a joint operation between the *United States Continental Army Command* and the *Human Resources Research Office*.

During his stay, *Admiral Colclough* showed a keen interest in the experimental armed helicopters and was taken on a live firing run. The *Human Research Unit* here is seeking to improve methods of aerial surveillance for pilots, improve Army fixed wing training methods, study flight trainer requirements, and perform research on Army aviation helicopter pilot training.

An address made to the members of the Metropolitan New York Chapter of AAAA, January 23, 1960

THE AERIAL RECONNAISSANCE AND SECURITY TROOP

by Brig. Gen. Clifton F. von Kann, Director of Army Aviation

It is a distinct pleasure to address this particular group because of the large number of reserve officers associated with this particular Chapter. It is not often that I get a chance to speak to so many ardent civilian supporters of Army aviation.

I must congratulate you on your high degree of interest and the resultant growth of this Chapter. The comparatively small active Army is becoming increasingly aware of the problems that will come with any possible mobilization. An *informed* civilian reserve is essential.

Tonight I decided not to attempt to cover our entire Army aviation program, but rather touch on one aspect of it with the hope I may have the opportunity to cover other portions at a later time.

Secretary Brucker in his testimony on 20 January talked about *Air Cavalry*. (It is) timely, therefore, to discuss this organization, which I consider one of the most important growth prospects for Army aviation. Since this organization is relatively new many people do not understand its role in future war. I would like to give you a brief background on its employment and tactics.

Man recognized many years ago that he must have a mobility differential over his enemy in order to wage war successfully. The horse gave him an advantage over the foot soldier. The motor vehicle was superior to the four-footed means.

Until the advent of the airplane and helicopter, any increase in mobility was limited to the trafficable terrain. Now with the possibility of nuclear warfare, with its forced dispersion of combat units, and the attendant need for rapid massing to gain superiority of force followed by re-dispersion to avoid nuclear counter-measures, we have a tremendous requirement on the Army for mobility.

We need greater mobility to give basic combat elements *speed* and *flexibility of maneuver*. It follows that the traditional reconnaissance mission, to maintain contact between units and protect against infiltration, has been greatly magnified in the nuclear battlefield.

In a defensive formation, gaps of several thousand yards will normally exist between units. We must admit we cannot keep the enemy entirely out. But we must know where he is and what he is doing.

On the offensive a similar situation will exist, for attacking units operating at minimum density cannot hope to sweep all the enemy from penetrated areas. Again we must fix the enemy and we must give the reconnaissance units the means to accomplish their assigned tasks. Since we cannot double the strength of these units, *we must double their mobility*. To do this it is

entirely feasible to integrate reconnaissance units and Army aviation.

With armed aircraft these units will be able to prove the gaps of the battlefield by fire and movement. On a reconnaissance mission they will move many miles laterally as well as frontally. Movement by bounds—one or two helicopters covering the movement of another—will be frequently practiced.

In the course of an approach to a terrain feature suspected to be occupied by the enemy, the helicopters will move deliberately and according to system from one point of cover to the next; they will hover rather frequently, but always within a few feet of cover, so that if engaged by fire they may drop quickly out of sight. Occasionally one will land, permitting the observer to leave the machine to take up a ground point of observation.

This is exactly the tactics of ground reconnaissance of the old cavalry applied to the air. With their machine guns, rockets, and missiles they can execute the battle tested device of reconnaissance by fire.

For example, if they suspect enemy occupation of a group of buildings or a small ridge, they can shoot a few bursts into the suspected area to see if there is a reaction. If the section is engaged by very heavy hostile fire, they will *avoid* a shooting duel for the *discovery* of the enemy is their function, *not* the enemy's destruction. A dangerous looking area is first inspected carefully at a distance, and then examined from several points of vantage.

Unlike the fighter-bomber they will operate habitually on the tree tops, shooting generally from hovering positions close to cover behind which they may drop promptly when engaged by enemy fire. *In a sense, we have merely elevated the gun platform.* These craft will deliver heavy concentrations of fire for short periods of time, drop behind cover, reappear at a new spot, and repeat the process.

It is sometimes necessary to engage in light combat or patrol action to develop a situation. So there must be a small rifle element which can land and engage in combat as necessary to gain information—then disengage and fly away.

Using the tactics and techniques which are possible to evolve I do not believe that these aircraft will be unacceptably vulnerable. These craft can shoot back; they will know promptly when they are fired on; they will operate very close to the ground and therefore close to cover; they move faster than one thinks; they will normally provide no background of strike usually available to the machine gunner for adjustment of his fire; the estimate of range to these aircraft will be very difficult, and if inaccurate will render the fire against them ineffective.

The *vulnerability* of this machine is greatly reduced by proper techniques in its employment. Contour flying, careful route selection, suppressive fires, surprise, employment during conditions of poor visibility—all tend to *protect* such movement. And as a final word on the subject comes the observation of a local sage: *"This duck hunting wouldn't be near as much fun if the ducks could shoot back."*

Now Under Test in Georgia

The germ of just such a force is being troop-tested today at Fort Stewart, Georgia. To delineate it from original *"Sky Cavalry"* which provided no organic firepower, today's outfit is called an *Aerial Reconnaissance and Security Troop.* Short title: *ARS Troop.*

As is it organized for test, the *ARS Troop* is made up of about 35 officer and warrant officer aviators and 115 enlisted personnel. These people use 16 reconnaissance and 11 utility/transport helicopters. All of the reconnaissance helicopters except the air ambulance are armed with dual fixed-mount machine guns.

Four helicopters of the weapons platoon are armed with 4.5 inch rockets and machine gun kits. The remaining larger helicopters, which carry the rifle platoon, are unarmed as of the present moment, although considerable thought is being given to equipping them to some extent with flexible-mount machine guns as a minimum.

ARCTIC READY!
BELL'S HU-1A

makes a subzero rescue...

MISSION ACCOMPLISHED BELL

Last February, during its arctic evaluation in Alaska, the Army's turbine-powered Bell HU-1A "Iroquois" was called on for an emergency search and rescue mission. An Air Force bomber was undergoing arctic weather tests near its Alaskan base. Suddenly a crewman accidentally ejected himself at high altitude and parachuted groundward. Minutes after the pilot radioed for rescue, a Bell HU-1A was on the spot, hovering inches above deep snow, taking the crewman aboard. Unusual mission? No, a routine job for the rugged HU-1A... the copter built for instant "alert to airborne" performance anywhere, anytime!

*FOR **OPERATIONAL** FIRSTS IN TURBINE POWER, LOOK TO*

BELL
HELICOPTER CORP.
Fort Worth, Texas, Subsidiary of Bell Aircraft Corporation

Always Ready.. **Regardless of Environment**

Turbine power! No warm-up required. Alert to airborne in less than 60 seconds, at —30°F!

Only one oil is required for turbine transmissions, rotor head, at extremes of —65°F to + 125°F. Arctic ready without preheat at —30°F!

Skid landing gear.. ready for almost any terrain condition.

High capacity cabin heat! —65°F outside; + 40°F inside.

Instrument flight capability.. for mission accomplishment during low visibility.

One significant but temporary shortcoming is the *Troop's* present lack of more than an incidental tank-killing capacity. Under some ideal conditions, the rockets of the weapons platoon might be effective against armor. Likewise, the rocket team of the fire support squad in the *Rifle Platoon.*

But, by and large, the *Troop* does *not* now have a significant anti-armor capability. A ready solution to this deficiency lies in the use of anti-tank missiles, such as the *French SS-10* and *SS-11* as an addition to the punch of the *Weapons Platoon.*

The communications problem facing the *Troop* borders on the stupendous. With requirements for air-to-air, air-to-ground, and ground-to-ground voice contact, using both FM and VHF facilities, and the added need for navigation equipment, not to mention the facilities required for non-combat flight in peacetime in airspace controlled by the *Federal Aviation Agency,* the combined requirement challenges the imagination.

An optimum electronics package is called for which will meet all reasonable needs and *still* be light and reliable enough for use by both the air and ground elements of the *Troop.* There is an urgent need for timely and decisive action here.

See New Weapons Packages

On the subject of equipment, it is readily admitted that there are considerable limitations in the *H-13 Sioux* and the *H-34 Choctaw;* the *H-19 Chickasaw* is an obsolete air vehicle. This happened to be the best equipment which could be made available to the *Troop* for the test within the limited resources available for its preparation and conduct.

In the near future, we hope to make complete weapon system packages utilizing the *HU-1* helicopter as a basic platform. This should be a big step from the time, a few years back, when a few officers at Fort Rucker first bolted a .30 cal machine gun to an *H-13.* We owe a lot to this small group of dedicated men who pushed this program forward without funds and in the face of scorn and outright opposition.

ARS within the Troop Structure

The future requirements for this organization apear to be numerous. We would like to see an *ARS troop* organic to every division and to every Cavalry Squadron. This would be in addition to the organic aviation now assigned. We are already taking action at Department of the Army level to phase this organization into our troop structure.

The ARS concept is indisputably sound. What quirks there are in its organization and doctrine will be ironed out as a result of the tests now being conducted. Even with the subsequent modification, though, it is not going to be perfect *until* we organize and train a representative number of *Troops* in conjunction with our other tactical forces. Working within the framework of the Army's combat structure, the rough edges will be rounded off. The only way to develop effective units is to form them and then perfect them.

We cannot ignore the fact that a soldier can move faster through the air—can see better from the air—can communicate better from the air—and, at times, even shoot better from the air.

This is why we must vigorously push a program to get these units into existence as soon as possible. We cannot afford to let petty arguments on tactics, organization, troop spaces, and level of assignment obscure the basic fact that the combat commander cannot afford to be without this capability.

In a small way, this unit embodies all the elements of the combined-arms team—the indispensable *Infantry,* the traditional fire support of *Artillery,* and the tactics and shock action of *Armor* type units. Like Army aviation in general, such a unit is not necessarily associated with any one branch, but rather an example of integrated effort toward a common purpose —an Army that is capable of moving faster and more purposefully than any other army in the world.

TV SERIES PLANNED

HELP WANTED!

THE BACKGROUND:

Several Army officers are currently planning a television series based upon true stories involving Army personnel in action in war and peacetime. They have assurances of commercial backing and are in the process of building up their "story file."

A specific Army aviation "action" has been selected for filming during the series. However, the producers lack certain details and turn to *ARMY AVIATION* readers for help.

THE KNOWN DETAILS:

The World War II incident involves *1st Lt. David E. Boone,* 9th Field Artillery Battalion, 3rd Infantry Division, somewhere south of Cassino, Italy, in 1943.

THE STORY IN BRIEF:

While on a routine mission to adjust artillery fire, *Lt. Boone* noted three *German M-109* fighter aircraft pass overhead. One fighter peeled off from the formation and came down on *Lt. Boone's* liaison plane.

Following a series of successful evasions, *Lt. Boone* attained a low altitude, At about 500 feet elevation, *Lt. Boone* held a steady course until the *German M-109* was on his tail and had begun to fire.

Lt. Boone then put his plane into a dive and pulled out at about 50 feet. The German fighter, concentrating on the chase, did not watch his altitude and plowed into the terrain.

Lt. Boone was the only Army Liaison Pilot accredited with downing a German fighter in aerial combat.

THE FACTS NEEDED:

On what date and exactly where did this action take place?

From what base did *Lt. Boone* operate?

Was he wounded?

How badly was his liaison plane damaged?

What mission was *Lt. Boone* adjusting when he was attacked?

Who verified his kill?

What was the name of the German pilot?

What were the numbers of the two aircraft?

Who was *Lt. Boone's* mechanic?

What were the names of the other members of the *3rd Division Artillery Air Section* at the time?

CONTACTS:

The following individuals have already been contacted by the producers and have furnished varying amounts of information and leads:

Brig. Gen. Tom E. Lewis; Cols. Jack L. Marinelli, Ford E. Allcorn, Claude L. Shepard, Jr., and *Delbert L. Bristol; Lt. Cols. Michael J. Strok* and *Robert L. Hoffman; Maj. Paynee O. Lysne; Mr.*

O.C. Tanner, William A. Richards, Alfred S. Schultz and *Robert P. Waters (Lt. Col. Ret.)*.

YOU CAN HELP:

If you have any facts on this mission, or if you can furnish the names of any personnel assigned to the *Air Section* at the time, please forward them to: *ARMY AVIATION; Box-TV; 1 Crestwood Road, Westport, Conn.* They will be forwarded to the producers upon receipt.

Invitation

To return an interesting "monthly" to all readers is not an easy task, UNLESS a publication restricts itself in great part to original material. If you have a story of interest to AA readers—on a mission, on a personality, on any facet of Army aviation, tab it "Has not been published" and send it here. You'll read it . . . Moreover, some 6,300 other AA-minded readers will, too.

BELL'S ANSWER: 'GO BY AIR'

Bell Helicopter's *air scooter* (shown above) has turned out to be one of the most widely publicized ground effect machines yet devised.

Capturing the fancy of editors throughout the nation, the 12-hp, 2-cycle *motorscooter* has been pictured in countless newspapers and magazines during January.

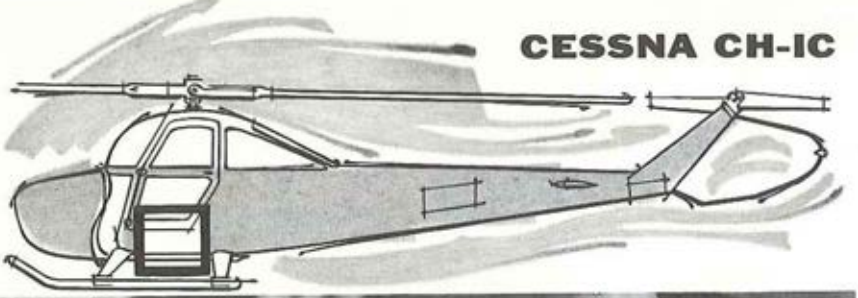
Let's go a bit beyond the normal three-line caption and cover the mechanical details as presented by Bell. The *air scooter*, as verified by the rider, *Col. Robert R. Williams* of OCRD, is a *"weight shifter,"* a vehicle that can be turned by the rider by shifting his weight, or moved forward or backward by leaning in those directions.

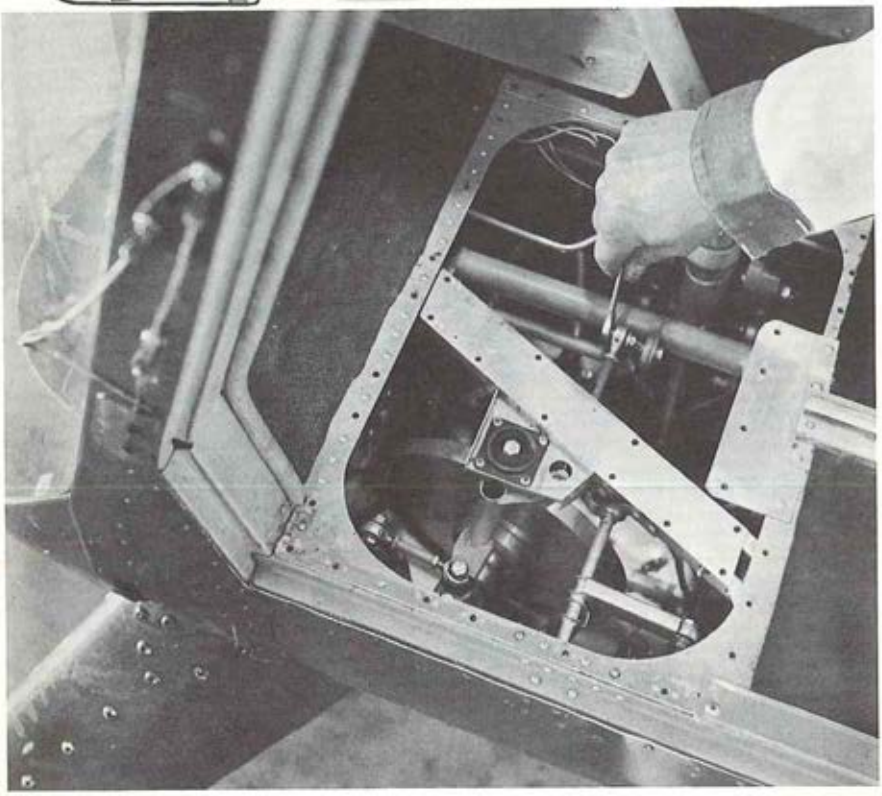
Built of Fiberglas and aluminum, the 160-lb *air scooter* uses a gasoline and oil mixture for fuel to turn 30" diameter fans, the resulting air blast lifting the vehicle about two and a half inches off the ground.

No competition for George Romney, the vehicle only does 20 miles per gallon. However, it can travel up to 25 mph over roads, ice, snow, and *water*, the last-named "road" guaranteed to silence the normally vociferous Rambler owners.

Whether in a garage or under a camouflage net, the Bell *air scooter* is no space hog, measuring 30" high, 53" wide, and 85" long.

As late as February 6th, the rider reported that the photo did *not* make any of the Washington, D.C., papers for which he (pictured hatless) is thankful.





STABILITY PROBLEM—SOLVED BY CESSNA!

Problem: How to achieve, in a helicopter, *dependable* stability at low upkeep cost. Solution: The *all-mechanical* stabilization systems of Cessna's new multipurpose CH-IC. Eliminating the complexities and uncertainties inherent in traditional electronic stabilization systems, the CH-IC delivers stability with economy-of-maintenance and dependability never before known in helicopter flight.

Mechanical stability is just one of the reasons the 4-place CH-IC is an uncommonly practical aircraft—and one more of the ways Cessna "Problem-Solving" Research is ever at work enhancing America's future in the air.

Military Division

CESSNA

Splinters from the Board

MASTER Aviator, *Capt. Merrill E. Jameson*, the *U.S. Army Aviation Board* project officer for the service test of the Army YAC-1 *Caribou*, reports that since the test was initiated 19 October 1959 approximately 500 hours of test flying have been accomplished.

During approximately the first fifty hours of testing the project officer and assistant project officers, *Captains Leonard R. Dennis, Ellis D. Hill, Joseph E. Kramer, Wilbur C. Bruce, Thomas N. Hurst* and civilian pilots, *Richard J. Followill* and *James R. Paul*, continued to gain proficiency with the aircraft and to transition additional project pilots. As the project officers became more expert in the airplane, the flight test advanced into tactical flying; that is, operating with tactical loads from unimproved airstrips.

Short Field Operations

Capt. Dennis and *Capt. Hurst* say that in flying out of tactical strips the *Caribou* can stay with the *Beaver* and *Otter*. A wider strip for the increased wingspan is necessary, and the wheel turn-around radius is 48 feet wide a 60-foot radius required for wing clearance. But lengthwise the *Caribou* will operate out of any field that will accommodate the *Beaver* and *Otter*.

It is too early in the test program to determine the various degrees of sand and mud from which the *Caribou* will operate, but its foot-print pressure appears comparable to both the *Beaver* and *Otter*. The dual-wheel configuration on all three landing gears materially assists in this respect.

The *Caribou*, with its rear ramp loading, easily adapts itself to both cargo or troop loading. It will hold 32 passengers in standard fold-away troop seats along the sides of the cabin. The floor is equipped with standard tie-down rings for securing cargo. The cabin configuration can be quickly adapted to carry 14 litter patents and eight seats with walk-around room for attendants. The rear door can be electrically opened in flight or jettisoned for an emergency. The rear ramp may be positioned for truck loading or angled toward the ground for field condition loading or unloading.

Flying Characteristics

Capt. Hill and *Mr. Paul*, in conducting transition training of new pilots, have discovered that the *Caribou* has *different* flying characteristics from any aircraft in the Army stable. It has STOL devices which give it a smooth performance from very low speeds up to 212 knots. Double-slotted flaps, which extend out to the wing fences, can be lowered to a maximum of 40

degrees. Outboard of these flaps is a fixed leading edge camber.

Double-slotted ailerons are fitted in two sections outboard on each wing. The forward sections form the double slot in conjunction with the inboard flaps and move purely as a flap. The rear sections form the ailerons; however, the inner panels move only slightly when the flaps are in the *"in"* position. When the flaps are lowered, all aileron panels move fully to give good lateral control. Geared tabs on the outer panels provide servo assistance; in addition, a trim tab on the inner starboard section is connected to the rudder to right the plane in a side slip or to give an approximate coordinated turn with rudder alone.

The huge rudder, which extends 31.6 feet into the air, has a spring tab with a combined geared tab and trimming surface which, along with the spring-tab-operated elevators, all add up to smooth positive control in all axes of flight down to the stall, but which require larger control movement than Army pilots are accustomed to exert.

Capt. Hill points out the excellent visibility afforded both the pilot and copilot in their high glass inclosed greenhouse. Both wingtips, engines, and mainwheels are visible from the cockpit which helps operation from tight, tactical fields and rough ground.

Climatic Testing

One fully instrumented aircraft with *reversing propellers* and *ASN-22 Autopilot* is now in the *Climatic Hangar* at Eglin Air Force Base for three months. *Capt. Kramer* and *Mr. Followill* have completed artificial icing tests using an Air Force KB-29 water spray tanker. They report that the wing de-icer boots operated very satisfactorily, the windshield and propeller anti-icers worked effectively, but that the heater air inlet froze over immediately and, with no heat in the cockpit, there were some very cold feet.

Following tests at the Hangar, special tests of the reversing propellers and auto-

Capt. Merrill E. Jameson
Officer-in-Charge
USAAB

Capt. Leonard R. Dennis
Reports
USAAB

*Capt. Ellis D. Hill
Test Scheduling
USAAB

Capt. Wilbur C. Bruce
Maintenance
USAAB

Capt. Joseph E. Kramer
Special Testing
USAAB

Richard J. Followill
Special Testing
USAAB

Capt. Thomas N. Hurst
Tactical Suitability
USAAVNS

James R. Paul
Training
USAAVNS

*Now on PCS

pilot will be conducted at Fort Rucker. The same aircraft will undergo desert testing this summer at Yuma, Arizona, followed by Arctic testing in Alaska this winter. Climatic testing will then have been accomplished in temperatures ranging from +140°F. to -65°F.

Capt. Bruce says that, maintenance-wise, the *Caribou* poses no more problem than any other twin-engine aircraft in the Army inventory. To be sure, there are more systems, but each system in itself is simple to maintain. No special work stands are necessary. To get at the normally high tail a nose-lifting dolly is used to jack up the front which brings the empennage down to working level.

Capt. Bruce has performed all necessary organizational maintenance with five mechanics who received,, along with him, a three-week maintenance familiarization course at the factory. A ten-page daily inspection sheet covering 180 items has been used to insure a complete maintenance evaluation during the User-Service test.

Capt. Jameson is now programming a combined test with the *Airborne and Electronics Board* to be conducted this Spring, at Fort Bragg, North Carolina. The aircraft now in Air Force Engineering Test will be utilized. Loading and lashing, cargo drop, and personnel jump techniques will be developed.

IT'S IN THE BAG!

Like a modern day Houdini, *Maj. Gen. Ernest F. Easterbrook,* Commandant of the U.S. Army Aviation Center, recently stepped into an oversize duffel bag, zipped it up from the inside, and was then whisked skyward by a helicopter that was hovering lazily overhead. Though bucking 20 to 30 knot gusts of wind, the helicopter's winch quickly hauled the bag into its open door.

Conceivably, the general officer could have been a *downed pilot,* injured and in terrain unsuitable for a helicopter landing . . . or the quick lift could have rescued a woman and her child, stranded on a housetop during flood conditions.

Remarkably simple, the *escape device"* was conceived by the General and developed on post by the *Ordance Section.* Materials for its contruction cost less than $10, the "bag" being foldable canvas. No mere "sack," the rescue device contains a folding seat, peep holes, hand supports, a zipper, and a flooring piece of wood.

Initial efforts in developing the device returned a *"wire cage"* configuration. However, the bird cage approach was dropped when tests proved that the wire was easily bent and offered little protection from protruding limbs and vegetation. *Two other bird cage negatives*: it wasn't collapsible and *William Gaines,* Center safety director, nixed the apparatus as unsafe. He sketched a canvas bag with a wooden floor and Ordnance took it from there.

The rescue device, in being geared for smooth, rapid rescue, is expected to fill the gap in those missions where heavy vegetation or other obstructions prevents a landing by the rescue 'copter.

Four others rode the bag up to the helicopter, but *CWOs Robert V. Dobbs* and *Carl S. Berry,* pilots of the helicopter, now have a most unique eyebrow-lifting bar story opening when they start their gambit with, *"Did I ever tell you about the day I bagged a general officer?"*

A deadly *"spider,"* spinning out a strand of wire web, will soon be service tested by the *U.S. Army Aviation Board,* Fort Rucker, Ala.

The *"spider,"* in reality one of rocketry's most effective developments, is the French-made *SS-11* anti-tank guided missile system. The testing planned by the Board will evaluate the *SS-11* as carried by and launched from the *HU-1 Iroquois* helicopter. The *Infantry Board* plans similar service tests—using the jeep and ground launchers as vehicles—and the *Armor Board* will do their own testing from tanks and armored personnel carriers.

Simply put, the principle involved is a missile, powered by solid propellant, which after being fired still remains under guided, manual control. A flare in the tail aids in visual tracking.

The missiles are directed to their targets by means of the trailing wires—which electrically transmit the gunner's commands. A target that is trying to evade, or hide, can therefore be pursued. The *SS-11* is capable of defeating any armored vehicle known today, and can destroy tanks while remaining out of the effective range of the tanks' own weapons.

An extraordinarily high degree of accuracy is another reason for the Army's great interest in the *SS-11.*

The *SS-11* is a further development of the *SS-10* missile, both produced by the *Chatillon factory* of *Nord-Aviation.* The *SS-10* saw action against Egyptian armor during the Suez campaign. Used by Israeli forces, the SS-10 has been purchased by many additional free countries, including the United States.

Weighing 63 pounds and measuring 46 inches long, the *SS-11* missile has been standardized for use on *Sud Aviation's Alouette* helicopters, as well as on the French Air Force's *Dassault Flamant* and the French Navy's *Vought AU-1 Corsair.*

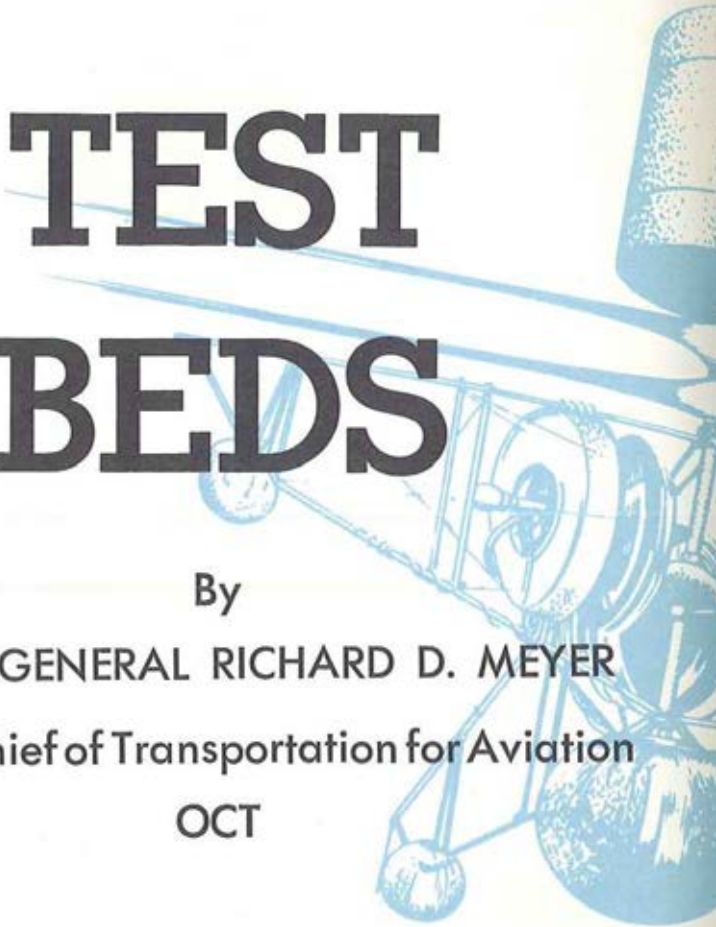
The three major components of the *SS-11* consist of the motor section, which contains two solid-propellant sustainer rockets and the jet deviation control system; the mid-body section, which includes the trailing wire device, the power-driven gyro, the simple control system, and the short fins. The last component is the warhead.

The controlling of the missile after launching is easily accomplished by the gunner, and the entire design has been kept as simple as possible by *Nord-Aviation.* It has been built with a view to possible rough handling during use in a combat area. The production costs are relatively low, being about $1,000 per round. The missile has a range of slightly over two miles, and the controlling wires disconnect upon impact.

The project officer selected for the *SS-11* service test of the helicopter-mounted system is *Capt. Tony Carroll,* of the *U.S. Army Aviation Board.*

by Maj. Dorothy L. Johnson

TEST BEDS



By

MAJOR GENERAL RICHARD D. MEYER

Deputy Chief of Transportation for Aviation

OCT

Less than four years ago the Army inaugurated a *"test bed"* program as a means of studying as many approaches as possible to acceptable VTOL flight capability with a minimum expenditure of funds. And the results thus far have been very encouraging.

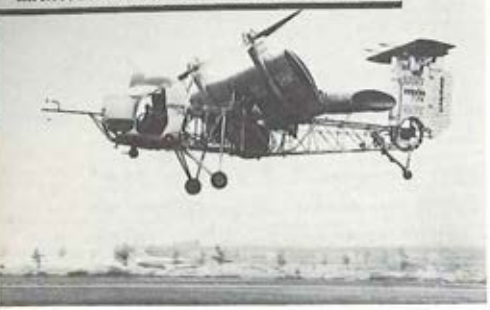
A joint long range *Army-NASA* research program, it was undertaken to explore this new and promising type of transportation which seeks to combine the vertical take-off and landing capability of the helicopter with the high speed and long range characteristics of the conventional airplane.

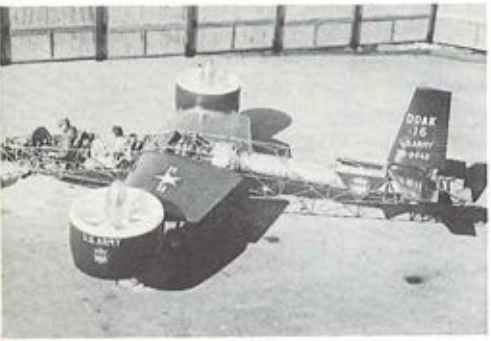
Contracts were let by the *Transportation Research Command* and *Office of Naval Research* to four different companies, each of which planned a slightly different approach to achieve the desired capability. Three have already flown successfully and the fourth is due to begin its flight tests in the very near future.

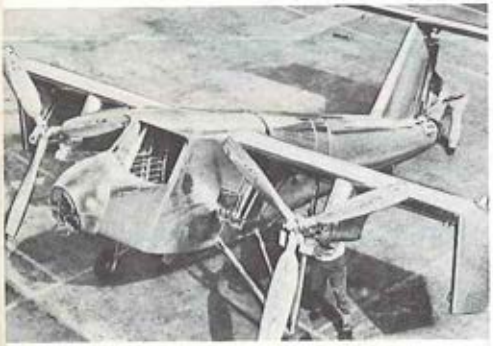
The *"test-bed"* program involves the building of research aircraft in a greatly simplified form, using standard aircraft components wherever possible and thus avoiding the substantially greater expense of procuring completely finished research aircraft. For example, three of the four test beds use the Army-developed standard T-53 gas turbine engine as their power source and for the most part utilize other standard commercially available parts and components. The fourth is powered by the Navy-developed T-58 turbine. Fortunately, tests for the flight capability being sought do not depend for success upon such modern touches as sleek outer skin and elaborate and sophisticated instrumentation.

First of the test-beds to get into the air successfully is the *Vertol VZ-2 tilt-wing*. A single turbine engine drives its two three-blade rotors and two four-blade tail control fans. The wing is tilted upward for vertical take-offs and then in the air is returned to conventional position for forward flight. Pilot controls include a conventional stick and rudder combination plus a collective pitch lever and a variable-speed wing tilt switch.

The *VZ-2* accomplished full mid-air transition from vertical to







horizontal flight in less than one year after its first test flight in August, 1957 and subsequently performed creditably in all envisioned flight regimes. It is now undergoing NASA research flight tests at Langley AFB, Va.

Doak Model 16

The *Doak 16* employs a different approach. It is a fixed-wing airplane with tilting ducted propellers installed at the wing tips. It has a conventional aileron, elevator, and rudder plus an interlock system which controls the angle of the vanes installed in the ducts for roll control during hovering and VTOL operations. Like the Vertol it also uses a single turbine engine to power the two eight-bladed ducted propellers.

The company completed its 50 hour flight test program successfully and will shortly turn over the plane to NASA for further tests. During the company flight tests, the plane performed vertical take-off and landing, short take-off and land, fully controlled hovering, mid-air conversion and conventional airplane take-off, flight, and landing.

Ryan Vertiplane

A third test-bed, the *Ryan VZ3RY Vertiplane,* utilizes the deflected slipstream approach. Extra large retractable wing flaps deflect the propeller slipstream downward, giving the plane its vertical-rising capability while in

(*Continued on Page 82*)

PHOTOS AT LEFT
Top to Bottom
Vertol VZ-2 Tilt-Wing
Doak VZ-D4A
Ryan VZ-3RY Vertiplane
Fairchild VZ-5FA

Looking down at Fujiyama with one prop feathered

EVALUATION TESTS IN JAPAN PROVE AERO COMMANDER'S SINGLE ENGINE CAPABILITIES

The scene is an unretouched photo taken at 15,000 feet of Mt. Fujiyama, (alt. 12,388 ft.) Japan, through the cabin window of an Aero Commander 680E. Right engine dead, prop feathered, the Aero Commander easily circles the peak on one engine. Aboard are six men, full fuel load, complete radio equipment including HF—the 680E is a 7,500 lb. gross weight airplane.

This feat was one of many tests in an evaluation program for the Japanese navy. Routine Aero Commander demonstrations have included similar single engine flight, under full load, *looking down* at Pike's Peak, Mt. Blanc, Matterhorn, Jungfrau, Popocatepetl and many others. Deliberate cross country flights with *one prop removed* have further proved the single engine capabilities of the Aero Commander.

Maximum flight safety is the major factor of the total concept of Aero Commander.

WRITE MILITARY RELATIONS DEPT. FOR DETAILS

AERO **COMMANDER**

AERO DESIGN & ENGINEERING CO • BETHANY, OKLAHOMA • Subsidiary of Rockwell Standard Corporation

USAAB
Col. Jack L. Marinelli
President

Airfield Command
Lt. Col. M.C. Monroe
Commander

U.S. ARMY AV

Fort Ruck

USATATSA
Lt. Col. Gerald H. Shea
Commanding Officer

U.S. Army Hospital
Col. C.C. Canada
Commanding Officer

Comma
& USAA
Ma
Ernest

DCC
Col. J.S. Luckett

USASATSA
Lt. Col. S.S. Doherty
Commanding Officer

2d Battle Group
Col. W.C Chapman
Commanding Officer

USABAAR
Col. James F. Wells
Director

Special Troops
Lt. Col. G.H. Moore
Commandant

Secretary
USAAVNS
Col. Edward Dahlstrom

e

ATION CENTER

, Alabama

General
Commandant
eneral
asterbrook

Assistant Commandant
USAAVNS
Col. Delk M. Oden

Director of Instruction
Col. Robert H. Schulz
Director

Dept. of Tactics
Lt. Col. Ritchie Garrison
Director

Combat Development
Office
Lt. Col. John W. Oswalt
Director

Dept. of Publications
& Non-Resident Instr.
Lt. Col. T.J. Sabiston
Director

Dept. of Primary
F/W Training
Lt. Col. W.G. Jaubert
Director

Dept. of Advanced
F/W Training
Lt. Col. J.B. Gregorio
Director

USAAVNS Regiment
Lt. Col. J.L. Townsend
Commanding Officer

Dept. of Maintenance
Lt. Col. Harry J. Kern
Director

Photo
Unavailable
At Time Of
Publication

Dept. of R/W Training
Maj. Alvin Burch
Director

TEST BEDS/*Cont. from Page 80*

horizontal position. When the flaps are retracted, the aircraft flies forward in the conventional manner. As in the other test beds, the two large propellers are driven by a single turbine engine mounted in the fuselage.

The plane had made a number of successful conventional flights more than a year ago before suffering an accident which delayed the testing. Subsequently rebuilt, the aircraft flew again at Moffett Field Naval Air Station, California, and performed successful hovering flights and near-vertical take-offs. Early in February, following completion of contractor tests, the aircraft crashed shortly after takeoff and was destroyed.

Fairchild VZ-5FA

The fourth, the *Fairchild VZ-5FA*, is the only one which has not yet been flown. Delays have been experienced due to fund limitations but the program is now underway again and it is expected that the aircraft will be flying in the near future. This test-bed also utilizes the deflected slipstream approach and large retractable flaps. However, it has four propellers mounted along the wing which are driven by a single T-58 gas turbine engine.

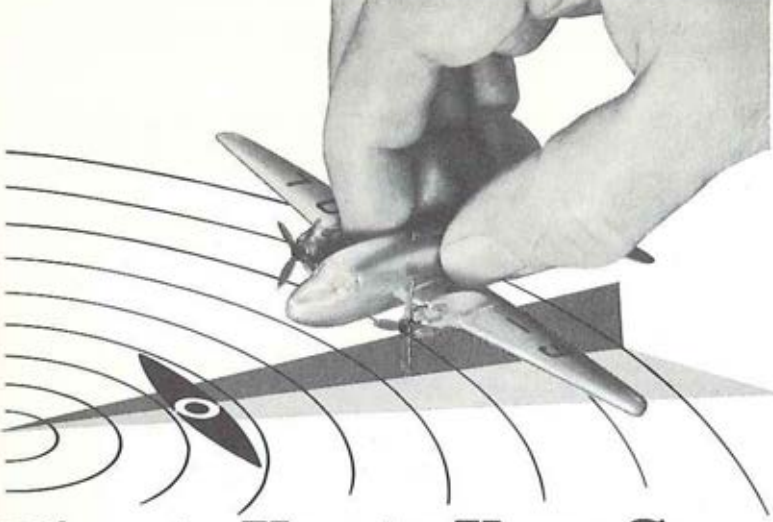
To date the Army has spent only $7 million on its four test-bed program. This is generally conceded to be a very small sum for so radical a concept, and this becomes all the more significant in the light of the 75% success factor achieved to date. All data accumulated to date is being made available to industry participants in our current Army Study Requirements exercise, which looks to the next generation of Army aircraft.

COMPUTERS PROVIDE THE ANSWERS

Another forward step for improving supply of Army aviation equipment was taken recently by the *Transportation Materiel Command* in St. Louis when a large scale computer was formally received and dedicated. I do not feel that I can over-emphasize the importance of the installation of this equipment to users of Army aircraft.

Ever since we assumed the supply and distribution function which had been performed by the Air Force prior to early 1956, we have centralized our accountability of depot aviation stocks in St. Louis where we maintain a record of all repair parts on a *master tape*. This tape contains data such as amounts available in each depot and their condition. The equipment in use up to the end of 1959 printed out shipping instructions to the nearest depot to satisfy requisitions.

Concurrent with the issuance of the shipping instructions, the balance of stock on hand maintained on the master tape was reduced, and upon entry of a notice of receipt of material at a warehouse the balance was increased. The



Directs You to Your Course . . . and Keeps You on it

ARC'S CD-1 COURSE DIRECTOR, TEAMED WITH TYPE 15 OMNI RECEIVERS

To be sure of the exact headings required to intercept and fly any desired VOR radial or runway localizer, pilots no longer need perform exacting mental calculations. ARC's Course Director (CD-1), teamed with single or dual omnirange receivers, relieves the pilot of many problems — does much of his work . . . tells him when he is flying right. No more worries over bracketing or missed approaches.

Simply select the desired VOR or localizer station, set the course director to the bearing of the selected track and turn the aircraft until the vertical needle of the cross-pointer is centered — then steer to keep the needle centered. The aircraft will intercept the right track and follow it. Wind drift is no problem, as the instrument compensates for this automatically.

Here is precision flying . . . simplified navigation, engineered and built to perform dependably. Install the ARC CD-1, along with a dual installation of ARC's Type 15-F VOR equipment. They work as a team for safer flying.

Dependable Airborne Electronic Equipment Since 1928

Aircraft Radio Corporation BOONTON, N. J.

OMNI LOC RECEIVERS · COURSE DIRECTORS · AUTOMATIC DIRECTION FINDERS · 360 CHANNEL VHF TRANSMITTER-RECEIVERS · GLIDE SLOPE AND MARKER BEACON RECEIVERS · 10-CHANNEL ISOLATION AMPLIFIERS · INTERPHONE AMPLIFIERS · CABIN AUDIO AMPLIFIERS · OMNIRANGE SIGNAL GENERATORS AND STANDARD COURSE CHECKERS · 900-2100 MC SIGNAL GENERATORS · UHF AND VHF RECEIVERS AND TRANSMITTERS (5 TO 360 CHANNELS).

machine, therefore, reflected at all times the availability of issuable inventory at depots.

There were a number of reasons, however, why this equipment did not provide you with parts as quickly as you may have wished. For one thing, the limited processing and memory capacity of the equipment did *not* permit us to relate substitute items to preferred items so we could furnish these promptly if the preferred item was out of stock. This relation had to be determined for each requisition manually or on successive operations of the automatic data equipment. This was time consuming and resulted in quite a few errors.

We have been preparing for the large scale equipment for approximately two years. The new computer is one of the largest of its type in the world. It has an internal memory capacity of 140,000 characters, can read-in, compute and read-out simultaneously at the rate of 15,000 digits per second and print out data at the rate of 500 lines per minute.

We currently stock in excess of 33,000 repair parts in support of Army aviation equipment and we maintain data on another couple of hundred thousand parts which are required for publication or other reference purposes.

When you multiply this number of parts by *ninety-two* fields of information for each item, each field requiring anywhere from *two* to a *couple of dozen* numerical or alphabetical characters, you compile a tremendous mass of data. Attempting to control it manually is a well nigh impossible job. The speed, accuracy, and error-checking characteristics of the new computer will make the control of this data possible.

To improve the accuracy and speed of requisition filling, punch card decks containing data identical to that on our master tapes, are distributed to depots, overseas supply agencies, stations under Army field stock control, and overseas inventory control points. These decks assure that requisitioning data forwarded to *TMC* will be readily identifiable by the computer, and that shipping instructions will go to depots promptly when a balance of the item requisitioned is available anywhere in a CONUS depot.

Concurrently with the systems planning, we have expended a great deal of effort during the past year to make our parts records as *complete* and as *accurate* as possible. This has required a tremendous amount of checking, cross checking, and rechecking. There is still work to do, but progress has been good.

The implementation of *AR 725-8* and transceiver operations will go a long way toward further improving supply support. Under the computer operation, requisitions received are passed against the computer and shipping information is sent by transceiver to the depot where the stock exists. When the machine rejects a requisition because of inadequate or inaccurate data, expeditious manual processing is then undertaken to provide supply in whatever way may be feasible.

One of the things the large scale computer will give us, which was beyond the capabilities of our previous equipment, is a tabulation of demand data. This will further serve to improve our computation of requirements with the resultant improved availability of stock when you order it.

RICHARD D. MEYER
Major General, GS
Deputy Chief of Transportation
For Aviation, OCT

TO PAINT OR NOT TO PAINT

Considered a "think piece," the article, *"To Paint or Not to Paint,"* has stimulated me to write, thereby fulfilling the purpose of its publication. Since the writer of the original article that appeared in the December '59 issue of *ARMY AVIATION* desired to remain anonymous, this writer requests the same privilege.

The author, *Mr. Anonymous,* starts his article with a furor and the conviction that painting of Army aircraft is an expensive and useless treatment and ultimately classifies the cost in the "nice to have" category. However, in the final analysis of his thesis, a loophole is thrown in under the 'Ifs" and/or "Perhaps" with a weak suggestion for a *"cheap gasoline soluble paint."*

It is not my intent to defame the author, but I picture him as a busy executive at his desk. As he goes through the stacks of papers, his eyes momentarily focus on *MIL-P-21600.* Sometime later, probably several days, he remembers such words as *"soluble," "solvent removable,"* and bingo, a way to save a million per annum on aircraft painting.

In its original and basic intent the Army aircraft painting program is sound. However, many people have lost the true facts about painting. This is evidenced almost everyday when one sees an Olive Drab aircraft with mounds of wax around *each* tiny rivet head.

They're De-Drabbing O.D.

The true purpose for *Olive Drab, Shade #1405,* is lost when you see hours and hours of "waxing" being expended on Shade *#1405.* It's a little like an antique dealer trying to polish an old iron kettle. It goes without saying—but is this wax necessary? It has never been, nor should it ever be, the intent for anyone to make Olive Drab glimmer and shine.

Paint cannot be overlooked today on the modern Army aircraft with its fiberglass cowling, tail cones, and fairings, or with its magnesium skins and

castings. The Navy has *not* deleted their paint program and does not the Army and Army National Guard operate in the coastal regions of this nation?

Cheap paint, solvent soluble or otherwise, is a step in the direction of false economy. The recent use of *Fluorescent Paints* of the *MIL-P-21600* vintage has shown that the solvent soluble paints have a life of six months and then corrective action *must* be taken.

A good aircraft paint job can and will last four and possibly five years. The protection it affords is worth its original cost. The life of the paint can be increased by proper cleaning and shortened by improper waxing.

Camouflage Still Effective

One cannot disagree with the fact that camouflage as we once knew it has passed its original status in modern warfare; but not every enemy foot-soldier has a means of detecting camouflage. Camouflage is *still* an effective means of hiding something.

This writer heartily agrees with *Mr. Anonymous* that the problems of camouflage and concealment should be given another look. By the same token, Aircraft Painting shoud also be re-evaluated. The cost of maintaining painted aircraft will only be cut when the VIP and Fancy Dan stops trying to get a "glittering" aircraft out of something that was *never meant to "glitter,"* and the Olive Drab is accepted in its true dull lusterless colour.

The Army does have some very fine "Command" type aircraft, the L-23's and the L-26's and their paint is deserving of the function. But for the operational everyday "good ole" Army aircraft, a good coat of Olive Drab will suffice.

Anonymous

Demonstrating its ability to carry more than 3,000 lbs of parts to another ship hypothetically damaged by enemy fire, an Army HU-1A Iroquois airlifts a tail boom assembly, two main rotor blades, and two mechanics and tools as its cabin load, and a 1,245-lb sling load consisting of a replacement turbine engine and container. (Bell photo).

FT. HOOD, TEXAS: Availability

An impressive aircraft availability record has been established by the *502nd Aviation Company* attached to the 2nd Armored Division at Ft. Hood, Texas.

Throughout a 55-day period, beginning Dec. 1 and extending through Jan. 24, twelve H-13 helicopters assigned to the unit were available 97 per cent of the time. And the record is still going on. A total 305 flight hours were logged during the period on the reconnaissance type helicopters.

Commander of the *502nd* is *Capt. Richard D. Smith* and maintenance officer is *Capt. Peter M. Kracht. Lt. D. P. Thornton,* a Canadian Army officer from Calgary, Alberta assigned to the 502nd Avn Co. since October, is maintenance officer for the H-13 aircraft. Seven mechanics and reservist trainees comprise the flight crew that set the record. All personnel involved credit cooperation among the mechanics as the primary reason for the record.

more and more in style for the men who fly and maintain gas turbine helicopters

In National Defense **KAMAN** *is part of the plan*

THE KAMAN AIRCRAFT CORPORATION • BLOOMFIELD, CONNECTICUT

PIONEERS IN TURBINE POWERED HELICOPTERS

MIKE BUTTON

High RPM with low manifold pressure has caused an aircraft accident which could have been avoided by using proper pilot technique. Individualism has no place in this flying game; what the "good book" says, *you do*, regardless of your opinion that you can do it better. This individual technique caused the engine to break up internally, catch fire, and total the engine, wing, and aircraft—You might say complete "wash-out."

Reverse BMEPs? Well not exactly, but you get the same results, that of breaking up a good engine with maluse of power settings.

Remember when you were going to school and taking engineering courses on the proper handling of power settings; and afterwards all you would hear from the engineering people, when they heard of pilots and ground crews using high manifold pressure with low RPMs on the engine, was that it harmed the engines, and they called it high BMEPs?

On the other hand, or we could call it reversing the procedure, high RPMs with low manifold pressures cause what is known as detuning the engines' dynamic counterweight system which gets the engine all out of balance and causes severe damage to the dampers, rollers, and the hardened steel bushings in the crank-shafts supporting the rollers and dampers.

Pilots and Ground Crews operating engines in the O-480-1, IGSO-480-A1A6, GO-480-C2C6, etc. series installed in *Seminole* (L-23 series) aircraft are cautioned about using high RPM with low manifold pressure.

by
William D. Bickham
TMC, St. Louis, Mo.

Get with the dash 1, section II, page 2-12 printed in April 1959 and check it, but thoroughly. It doesn't say use 15" and 3000 RPM when you enter the downwind leg and keep using it until touchdown, now does it?

This detuning I speak about is caused by two things: 1. rapidly chopping the throttle(s) from a high RPM and manifold pressure setting; and 2. prolonged high RPM and manifold pressures at 15" or less when you are in the traffic pattern or when you are on long final with a "power-off" descent.

All pilots know that all high compression engines must be treated with respect, if we are to get our "Money's Worth" and long engine life.

So, I'd like to pass on this bit of info:

- *Quit jockeying that throttle as if it were a pump handle.*
- *Don't put the props up to fine pitch before you're on final.*
- *Avoid 2800 RPM or higher with boost 15" or under.*

These points are also good for ground crews to follow because it's possible for them to detune the dampers on the crank-shaft on the engine which make it necessary for them to run power checks.

For those who may not be too familiar with the operation of the counterweight system, the inertia forces in an aircraft engine—which increase with engine speed—are bucked by the compression forces produced by the pistons.

These "loads" on the engine parts represent the difference between two forces; then, at high engine speeds where the inertia forces are greatest, the resultant forces are much higher at low manifold pressure than they are

New BELL 47G-3 with FRANKLIN Turbosupercharged engine does

UNHEARD-OF THINGS AT HIGH ALTITUDE

In a series of unprecedented tests on Pikes Peak, this new helicopter-engine combination has proved its ability to:

- Hover at maximum gross weight at altitudes in excess of 16,000 feet.
- Lift its own weight (1,539 lbs) off Pikes Peak or at any such altitude.
- Maintain 225 h.p. sea level rating to 15,000 feet plus.
- Carry to 20,000 feet altitude and land a useful load of 1,000 lbs.

Throughout the two-week altitude test program, neither maintenance nor repairs (not even a spark plug change) were performed on the Franklin 6VS-335 turbocharged engine.

FAA TYPE CERTIFICATE NO. 1E2

For more information on this extraordinary engine, write Aircooled Motors, Inc., Syracuse 1, N. Y.

Franklin

6VS-335 TURBOSUPERCHARGED ENGINE

AN **Aircooled Motors** PRODUCT

MIKE BUTTON

at high manifold pressure (cylinder pressure being in direct proportion to manifold pressure). When these two forces, i.e., the inertia and the compression, are rapidly changed—abrupt retarding of throttle(s)—the reversal of forces causes the damper system to detune, thus bustin' the engine.

Yeah, I know, IPs gotta problem with check-outs during simulated engine failure but *Mike* suggests this:

When it's necessary to suddenly "pull" an engine when checking single engine procedures, use the mixture control, leaving the throttle in normal open position until the engine slows down due to fuel starvation. This allows the cylinders to fill up with air and you have normal compression forces which are sufficient to cushion the deceleration of the engine. Hack?

Use this rule of thumb: 100 RPM per 1" Hg. (e.g. 20" & 2000; 25" & 2500; 28" & 2800 etc.) and you won't get into trouble. If you must, under very abnormal conditions, operate at 2750 or above at low manifold pressure, keep it to the *bare minimum.*

So it boils down to this. We in Army aviation are spending millions of dollars annually to instruct operators (pilots, especially) in the proper techniques of engine operation, but they don't read or absorb the dash 1 operating instructions. I wonder if it might not be a good "idea" to suggest that everyone responsible for pushing that throttle get out the dash ONE and dig —maybe *you* are doing something too, while flying or operating your engine which could turn out to be a disaster—Remember *"OLD & BOLD, but NO, OLD, BOLD?"*

Chinook Tools

Vertol, at present as well as in the past, is constantly on the alert to eliminate any special tools with which Army aviation must contend with due to the various types, shapes, and sizes of helicopters.

The *Tools Project Office, TMC,* has been constantly in touch with the tool designing engineers at Vertol to simplify common tools and replacing as many special tools as possible.

Right now they are developing an adaptor so the standard tow bar in Army aircraft sets can be used.

Too, a study is now well under way to find an *APU* that can be adopted to the *Chinook* as well as other Army aircraft requiring an *APU.*

Particular interest at present is centered upon *"Rotor Blade Removals."* Sketches have been made of the tapered vertical pin and it appears that this pin will be much easier to install and remove than the original pin. Also, square holes are being incorporated in the pin cap nuts; thus, permitting use of a standard ¾" drive wrench instead of a special tool.

Engine Time Extended

To keep *you* current and informed, *Mike* would like to read you in on the latest info I can get hold of:

Aircraft	*Engine*	*Maximum Hours*
TL-19D	O-470-15	1200:00
L-23D	O-480-1	800:00
L-23F	IGSO-480-A1A6	800:00
L-26C	GSO-480-A1A6, B1A6	900:00
RL-26D	GSO-480-A1A6, B1A6	900:00
H-13H	O-435-23, -23A, -23B	750:00
H-23D	O-435-23B	750:00
H-34	R-1820-84A	800:00

GONSETH, JULES E., JR., COL.
119 Grierson Avenue
Fort Huachuca, Arizona

LANSFORD, ERDIE O., COL.
Quarters No. 2
Fort Belvoir, Virginia

HAYDOCK, C. E., JR., L/COL
1904 Key Boulevard
Arlington, Virginia

HILL, JAMES W., JR., L/COL
1305-W Upton Road
Fort Sill, Oklahoma

ANDERSON, R. V., CAPT.
206 South Leland Avenue
Bloomington, Illinois

BANKIT, PAUL, CAPT.
209 Olson Lane
Fort Rucker, Alabama

BEENE, DUDLEY C., CAPT.
Box B-44, Student Officer Company
Fort Rucker, Alabama

BENTON, LUCIEN C., CAPT.
Box 384
Fort Rucker, Alabama

HETHCOAT, CHARLES L., CAPT.
21st Aviation Company
Fort Rucker, Alabama

HEATHCOE, EDWIN J., CAPT.
Hq Btry, How Bn, 75th Arty
APO 165, New York, New York

HICKENBOTTOM, G. R., CAPT.
317 Godfrey
Mineral Wells, Texas

HILL, ELLIS D., CAPT.
ARSEC, MAAG Japan
APO 900, San Francisco, California

TAKEOFFS

OSWALT, JOHN W., L/COL
16 Gregg Way
Fort Rucker, Alabama

RIDDLE, JOHN R., L/COL
USAAVNS
Fort Rucker, Alabama

ROWAN, JOHN L., L/COL
P.O. Box 623
Fort Rucker, Alabama

WIRT, CHARLES A., L/COL
34 Hancock Avenue
Fort Leavenworth, Kansas

CULLEN, MICHAEL R., MAJ.
Contact Division, USAAVNS
Fort Rucker, Alabama

LaMONTIA, JOHN A., MAJ.
Bendix-Pacific, 1701 K Street, N.W.
Washington, D.C.

MOSER, DEWEY, F., MAJ.
4412 Medford Drive
Annandale, Virginia

NAVE, JOHN A., MAJ.
8th Aviation Company
APO 111, New York, New York

NELSON, STANLEY O., MAJ.
FAA Region 2 Hq, PO Box 1689
Fort Worth 1, Texas

PATTON, KARL S., MAJ.
15 Donovan
Fort Rucker, Alabama

SCHMIDT, WILLIAM T., MAJ.
USAAVNS
Fort Rucker, Alabama

ULERY, VINCENT L., MAJ.
7511 Axton Street
Springfield, Virginia

WELCH, PARRIS,, C., MAJ.
12 Faith Lane
Fort Rucker, Alabama

ACKERMANN, WM. A. CAPT.
104-A Arizona Street
Fort Huachuca, Arizona

BERRY, JOHN T., CAPT.
86 Red Cloud Road
Fort Rucker, Alabama

BRANDON, WM. D., CAPT.
4312-5 O'Donnell Heights
Fort Riley, Kansas

BULKLEY, MORTON, CAPT.
101st Aviation Company (Abn Div)
Fort Campbell, Kentucky

CHAMBERLAIN, D. E., CAPT.
Quarters 5335-1, Honeycutt Road
Fort Sill, Oklahoma

DAHN, ROBERT C., CAPT.
1st Aviation Company
Fort Benning, Georgia

DAVIS, HARRY Q., JR., CAPT.
3112 Plantation Road
Columbus, Georgia

DEMPSTER, ROBERT N., CAPT.
76 Harris Drive
Fort Rucker, Alabama

DERMATIS, WALTER G., CAPT.
9 Cottage Lane
Lee Hall, Virginia

DRUENER, HANS K., CAPT.
45 Maas Drive
Fort Bragg, North Carolina

EASLEY, CHARLES L., CAPT.
2d Co, 1st Trng Bn, TSB
Fort Benning, Georgia

ECRETTE, JOE D., CAPT.
Stu Det, USATSCH (TOAC 2-60)
Fort Eustis, Virginia

FERRY, TED S., CAPT.
FAA, 4285 Troost Avenue
Kansas City, Missouri

GALLIHER, KAY D., CAPT.
409 Williams Road
Rolla, Missouri

GARDNER, LLOYD G., CAPT.
Stu Off Co, Box G-31, USAAVNS
Fort Rucker, Alabama

HOBBS, DONALD I., CAPT.
33rd Transportation Co (Lt Hel)
Fort Ord, California

HOLT, HAROLD C., CAPT.
624 West Kerr Street
Salisbury, North Carolina

HOWSE, JOHN B., CAPT.
P.O. Box 424
Fort Huachuca, Arizona

HYMAN, ROBERT D., CAPT.
64th Trans Co (Lt Hel)
Fort Knox, Kentucky

JARDEN, ALFRED B., CAPT.
48th Avn Co—Atlanta Gen Depot
Forrest Park, Georgia

JOHNSON, A. A., JR., CAPT.
7 Williamson Park Drive
Denbigh, Virginia

JOHNSON, J. W., JR., CAPT.
2618 Glenwood Parkway
Chattanooga 4, Tennessee

KAPEC, ANDREW J., CAPT.
Quarters 538-A
Fort Belvoir, Virginia

KIRSCH, FRANCIS J., CAPT.
24th Aviation Company
APO 112, New York, New York

KONRAD, ELMER W., CAPT.
4106 Farragut Street
Fort Knox, Kentucky

LANGLEY, HARRY J., CAPT.
5th US Army Flight Detachment
Fort Sheridan, Illinois

LAWRENCE, WM. A., CAPT.
113-A Winrow Road
Fort Huachuca, Arizona

LICHA, CHARLES A., CAPT.
51-C Rolla Street, Lieber Heights
Fort Leonard Wood, Missouri

McKELLIPS, JOHN L., CAPT.
P.O. Box 812
Fort Bragg, North Carolina

Arriving by air at Fort Eustis' Felker Army Airfield, two Canadian Army officers conferred with Brig. Gen. Frederick D. Atkinson, Commandant, Transportation School, prior to making a recent tour of the School's facilities. Shown above are, left to right, Maj. Donald R. McKay, Canadian Liaison Officer at Ft. Eustis; Lt. Col. David R. Ely, GSO-1, Director of Land-Air Warfare, Canadian Army Aviation; Maj. Gordon H. House, Escort Officer; and Maj. Brian F. Hennessy, GSO-2, Directorate of Combat Development, Canadian Army Headquarters, Ottawa. (U.S. Army photo).

MATEER, CHARLES A., CAPT.
17th Aviation Company (FW-TT)
Fort Ord, California

MESNIER, CHARLES R., CAPT.
7th US Army Avn Trng Center
APO 46, New York New York

MICHELSON, R. A., CAPT.
7th US Army Avn Training Center
APO 46, New York, New York

MURPHY, RICHARD R., CAPT.
8th Transportation Battalion
APO 29, New York, New York

NICHOLS, HERBERT W., CAPT.
Quarters 533-A
Fort Belvoir, Virginia

NORRIS, EUGENE V., CAPT.
Hq, WADC, Attn: WCOL-9
Wright-Patterson AFB, Ohio

O'DONOHUE, JOHN D., CAPT.
Trans Supply & Maintenance Division
Fort Hood, Texas

PORTER, EDWARD J., CAPT.
8th Aviation Company
APO 111, New York, New York

PRATT, THEODORE W., CAPT.
Stu Co, CI 6-Q, USAPHS, Camp Wolters
Mineral Wells, Texas

PREISENDORFER, ED. P., CAPT.
Stu Det, USATSCH, TOAC 2-60
Fort Eustis, Virginia

QUINN, ARVIL B., CAPT.
118 Harris Drive
Fort Rucker, Alabama

REINHARDT, JOHN A., CAPT.
416th Signal Aviation Company
Fort Huachuca, Arizona

ROGERS, JAMES E., CAPT.
1st Off Stu Bty, AFABOC-4
Fort Sill, Oklahoma

ROBISON, PAUL B., CAPT.
56th Arty Brig (Air Def), Ft. Banks
Winthrop, Massachusetts

ROYALS, GERALD E., CAPT.
TOAC 2-60, USATSCH
Fort Eustis, Virginia

RUSK, RICHARD A., CAPT.
Box 8, USA Elm MAAG
APO 143, San Francisco, California

SANDERS, ROBERT C., CAPT.
35 Olson Lane
Fort Rucker, Alabama

SHAY, PATRICK E., CAPT.
Det 3, Army Aviation Branch
Holloman AFB, New Mexico

SMITH, RAYMOND L., CAPT.
1802 East 14th Street
Austin 2, Texas

SUDDABY, A. R., CAPT.
301-D Stewart Avenue
Fort Benning, Georgia

THERIAULT B. R., CAPT.
Quarters 563-A
Fort Belvoir, Virginia

THOMPSON, JACK H., CAPT.
Quarters 544-A
Fort Belvoir, Virginia

THOMPSON, WM. A., CAPT.
Co B, 2d BG, 2nd Infantry
APO 112, New York, New York

WILLAMS, WLLIAM F., CAPT.
41st Trans Battalion
APO 28, New York, New York

WURTH, JACK E., CAPT.
3726 West 6th Street
Fort Worth 7, Texas

YUNCK, RICHARD T., CAPT.
231 Shaw Street
Fort Bragg, North Carolina

ADAMS, ROBERT N., LT.
Hq Co, 7th Aviation Group
APO 154, New York, New York

ADAMSKI, RICHARD G., LT.
807 Simmons Avenue
Enterprise, Alabama

AHERN, JOHN J., LT.
AFABOC-4, 1st Stu Off Company
Fort Sill, Oklahoma

ANDRESON, RONALD K., LT.
25th Aviation Company (Inf Div)
APO 25, San Francisco, California.

ARMSTRONG, RAY. L., LT.
109 Stanley Street
Fort Huachuca, Arizona

ARNOLD, ROBERT W., LT.
117-B Winrow Road
Fort Huachuca, Arizona

BAGLEY, ROBERT T., LT.
Hq & Hq Det, 41st Trans Battalion
APO 28, New York, New York

BAKER, ELVIN G., LT.
USAPHS, ORWQC 60-7, Camp Wolters
Mineral Wells, Texas

BAKKEN, CLARENCE O., LT.
112-B Grierly Road
Fort Huachuca, Arizona

BILYEAU, ROBERT E.,, LT.
c/o R. Phillips, Scottsville Road
Bowling Green, Kentucky

BOESSOW, DANIEL S., LT.
14 Anne Street
Ozark, Alabama

BRIONES, RONALD S., LT.
105 Triton Avenue
Winthrop, Massachusetts

BRIOT, WILLIAM R., LT.
113 Birkhead Road
San Antonio, Texas

BRYAN, CHARLES A., JR., LT.
Simmons Army Airfield Command
Fort Bragg, North Carolina

CHRITTON, WM. R., JR., LT.
110th Aviation Company (Surv)
APO 221, New York, New York

CLARK, GARY L., LT.
105-B Grierly Street
Fort Huachuca, Arizona

Moments before taking to the air, Lt. Peter F. Rice, right, checks his flight plan as Capt. Eugene T.. Boyd, wearing the "hood" of an instrument flight student, looks on from the left. Both officers were taking part in the new helicopter instrument flying course at USAAVNS designed to allow a graduate helicopter pilot to fly in inclement weather by day or night: (U.S. Army photo).

Major Elbert E. Drane (right), U.S. Army Aviation Board, Fort Rucker, Ala., receives his Master Army Aviator Wings from Col. Jack L. Marinelli, President of the Aviation Board and an earlier recipient of the rating. (U.S. Army photo.)

Brief 300-word reports on aviation unit activities as written by "on-the-spot" subscriber-correspondents

In the Field

Recently I was talking to a couple of Army aviators in USAREUR who weren't feeling very well except about one fact. That bright fact, in addition to being alive, was that they had *flight pay insurance.*

Like any other insurance, it's not a particularly good investment *until* you are eligible to collect on it. Then the return on your premiums can be the highest you'll get on any investment.

This brings up a pertinent question to all Army aviators in a supervisory position—Do all pilots or other crew members on flying status in your unit have life insurance? If you haven't checked into this lately you may be surprised.

Under the present USAREUR organization, I may be seeing less evidence of improper handling of affairs by our Army aviators. However, I believe this decrease is due to better performance of duty by Aviation personnel. Our reputation has certainly improved because of top performance by units. This top performance is only attained by hard work. I'd like to cite a couple of exceptions which have occurred recently as pitfalls to be avoided:

Believed to be the only father-and-son team in Army aviation maintenance, Private First Class Richard S. Hobbs (above right), and his son, David, a Specialist 4, use a propeller protractor to check the feathering angle on an Army L-23 at Fort Monroe, Va. Assigned to the Flight Detachment at Headquarters, USCONARC, they perform organizational maintenance on aircraft assigned to the unit and do this under the same MOS 671.10. The senior Hobbs holds commercial single engine and multi-engine ratings; his son holds a private pilot ticket.

CRAWFORD, GEORGE S., LT.
8th Aviation Company (Inf Div)
APO 111, New York, New York

CROWE, CHARLES M., LT.
937th Engr Company (Avn) (IAGS)
Fort Kobbe, Canal Zone

DALY, JEROME R., LT.
Stu Co, C1 60-5, USAPHS, Cp Wolters
Mineral Wells, Texas

DARLING, ALLAN L., LT.
1582 Jones Drive
Ann Arbor, Michigan

DAVIDSON, BILLIE A. LT.
104 Cornell Street
Colorado Springs, Colorado

DIMSDLE, ARTHUR, LT.
45th Artillery Brigade
Arlington Heights, Illinois

DOCKHAM, ROBERT L., LT.
5372 Maddison Avenue
Sacramento, California

DUNCAN, GERALD, D., LT.
Box 1199
Fort Eustis, Virginia

DUNEGAN, WALTER L., LT.
25th Aviation Company (Inf Div)
APO 25, San Francicsco, California

DYER, GERALD D., LT.
482 Burnham Road
Williamsburg, Virginia

EGE, CONRAD C., LT.
239-B Niblo Drive
Redstone Arsenal, Alabama

ESTES, RICHARD, LT.
1141 Acorn Street
Fayetteville, North Carolina

FINK, JONNIE M., LT.
Off Stu Cp, Box F-7, USAAVNS
Fort Rucker, Alabama

FOREMAN, RICHARD G., LT.
222 North Juniper Street
Gresham, Oregon

FULLER, CHRISTOPHER L., LT.
124-A Lee Village
Fort Campbell, Kentucky

HAHN, JERRY D., LT.
234 Radiance Drive
San Antonio 9, Texas

HAMAN, EUGENE E., LT.
94th Trans Company (Lt Hel)
Fort Benning, Georgia

HAVELKA, FRANK J., LT.
1106 Bedford Drive
Oklahoma City, Oklahoma

HESSON, JAMES M., LT.
101 Harris Drive
Fort Rucker, Alabama

HOEFENER, JAMES R., LT.
USA Polar R & D Center
Fort Belvoir, Virginia

HOLMAN, EDMOND, JR., LT.
32-A Arrowhead Rd, Battle Park Homes
Fort Benning, Georgia

JAMBON, TED R., LT.
503rd Aviation Company
APO 39, New York, New York

JOHNSTON, L. E., LT.
7450 Holliday Drive East
Indianapolis 20, Indiana

JONES, ISAAC, LT.
AFABOC-4, 1st Stu Off Company
Fort Sill, Oklahoma

KOCH, OWEN A., LT.
Stu Off Co, C1 60-3A, USAAVNS
Fort Rucker, Alabama

McAFEE, ELBERT T., LT.
502nd Avn Co, 2d Armored Division
Fort Hood, Texas

MIELKE, VIRGIL E., LT.
208 Clem Road
San Antonio 9, Texas

MILLER, CHARLES L., LT.
Engr Topo Sect USA Engr Dist Gulf 2451-2
APO 205, New York, New York

MOEN, ARTHUR D., LT.
Army Ln Off, Sikorsky Aircraft Div
Stratford, Connecticut

MORRIS, D. E., JR., SGT.
1118-A3 EC Knight St., Lewis Heights
Fort Belvoir, Virginia

MURPHY, GALEN A., LT.
1st Aviation Company (Inf Div)
Fort Riley, Kansas

NELSON, CLIFFORD R., LT.
15th Inf, 1st Battle Group
APO 139, New York, New York

O'LEARY, ARTHUR J., LT.
32nd Signal Battalion
APO 175, New York, New York

PALCZYNSKI, DONALD J., LT.
Hq, 31st Arty Bde (Air Def)
McChord AFB, Washington

PAPPAS, TED, LT.
2nd Aviation Company, 3rd Platoon
APO 44, New York, New York

PIERCE, FRED W., JR., LT.
Detachment "C" (Prov), KMAG
APO 8, San Francisco, California

PLOOSTER, ORIN D., LT.
15th Aviation Company, 1st Cav Div
APO 24, San Francisco, California

RAYMOND, CHARLES L., LT.
304 North Dougherty
Fort Bragg, North Carolina

REED, JAMES R., LT.
301 East Tenth
Cassville, Missouri

REYNOLDS, JOHN B., LT.
4403 Glenwick Lane
Dallas 5, Texas

SCANLAN, WILLIAM H., LT.
Off Stu Co, USAAVNS Regiment
Fort Rucker, Alabama

SCHNEIDER, ROBERT S., LT.
11805 Cypress Street
Louisville 10, Kentucky

• A recent request for confirmation of intermediate suspension from flight status was based on several cases of inability to fly due to excessive use of alcohol. The initiator of the action said he had suspended the man as long as possible under temporary suspension.

A check showed no action has been taken on a flying evaluation board, nor had action been initiated through personnel channels to eliminate the problem from the Army. FEB's and elimination procedures are "trouble" but are not more trouble than possibly having to explain a couple of deaths that could have been prevented by taking this "trouble."

• A recent accident board recommended to a tactical unit that it begin a training program. The unit concurred in the recommendation and a couple of other echelons made no comment on the fact that the unit was supposed to have a training program.

This type of slip causes considerable embarrassment when a higher headquarters comes back with a letter asking why the unit didn't pursue a training program as prescribed by numerous regulations. If the unit had a training program, it's hard to explain why the indorsement indicated otherwise. Any explanation is certainly going to mean more supervision.

This then brings complaints like *"Officers aren't given enough freedom of action, they are oversupervised."* If the recommendation was correct, I suspect we have a new aviation officer in that unit by now.

• An aircraft was requested by one of the Assistant Chiefs of Staffs to visit an outlaying area. The request was given to the providing unit several days *before* the mission, and the request indicated that the aircraft desired be in place at 0830.

The aircraft arrived at approximately 1400 with the excuse that the ice could not be removed from the aircraft in order to arrive at the scheduled time. The particular airfield had hangars and it would appear that arangements could have been made to hangar the aircraft or provide one which had been in a hangar overnight since the weather report indicated a possibility of snow and ice the night before. Of course, the question arose as to how combat capable Army aviation is in clear weather following a freeze. This also brings up the question as to what unit commanders are doing to take care of this situation when hangars are not available.

The fact that USAREUR aircraft fly over numerous countries considerably complicates the frequency problem for IFR flying. Terminal areas in Europe are divided into sectors, and each sector uses a different frequency. This requires very careful flight planning to be sure that we have the proper frequency aboard for some of our contemplated flights in the older type aircraft.

Thank you, M'am

We received a very nice letter from the wife of a reader who had this to say: "I tried something last November. Instead of sending out notices to all of our friends that Bob and I and the family had moved to quarters on Post, we took a chance that most of them would catch our PCS in the (TAKEOFFS) column. It worked! And I don't intend to send out longhand notices any longer. You have our thanks for the service performed by this column."

Brig. Gen. Clifton F. von Kann (right), Director of Army Aviation, ODCSOPS, receives a certificate from Col. Delk Oden, Assistant Commandant, USAAVNS, following his completion of General Officer Fixed Wing Flight Training Course 60-1. The general visited the Army Aviation Center during January to complete the FW course. He is already a qualified helicopter pilot. (U.S. Army photo.)

SCHRUNK, WAYNE G., LT.
Quarters 2540-B
Fort Lewis, Washington

SILVA, JULIO N., LT.
Hq Btry, 3rd How Bn, 25th Arty
APO 800, New York, New York

STONE, LEON H., JR., LT.
31st Trans Company (Lt Hel)
Fort Benning, Georgia

SUTTLEHAN, LAURENCE C., LT.
37 Galt Lane
Fort Rucker, Alabama

TALLGREN, ROBERT W., LT.
Box 78
Howard AFB, Canal Zone

THOMAS, R. W., JR., LT.
93 Benning Road
Columbus, Georgia

TUSSEY, WILLIAM J., LT.
246th Trans Company
APO 178, New York, New York

VANTURE, PAUL D., LT.
315 Harvey Road
McLean, Virginia

VAUGHAN, CHARLES U., LT.
Quarters 2572-D
Fort Lewis, Washington

WEEMS, SANDS S., III, LT.
51-A Lee Village
Fort Campbell, Kentucky

WEST, DONALD R., LT.
102 Compton Street
Fort Huachuca, Arizona

WILSON, DONALD E., LT.
Hq, 3rd Bn, 14th Armd Cav Regt
APO 171, New York, New York

BEATTY, WILLIAM, R. CWO
18th Aviation Company (FW-TT)
Fort Riley, Kansas

CRAMER, CARL L., CWO
Stu Det, Inf OCS, USAIS
Fort Benning, Georgia

DOBLE, DAVID A., CWO
93rd Transportation Co (Lt Hel)
Fort Devens, Massachusetts

GRAHAM, DONALD E., CWO
13th Transportation Co (Lt Hel)
APO 358, San Francisco, California

HAMPTON, VALENTINE, CWO
3rd Trans Co (Lt Hel), DUSAA
Fort Belvoir, Virginia

HERRING, HAROLD D., CWO
Officer Stu Co, Box H-35, USAAVNS
Fort Rucker, Alabama

HUNT, LESTER R., CWO
18th Aviation Company (FW-TT)
Fort Riley, Kansas

JOHNSON, GEORGE T., CWO
1919 North Spruce Street
Wichita, Kansas

JOHNSON, ROBERT W., CWO
Ft. Benning Trailer Ct., Box 313
Fort Benning, Georgia

LEE, ALVIN, JR., CWO
General Delivery
Daleville, Alabama

MURRAY, JAMES T., CWO
1st Aviation Company (FW-TT)
Fort Benning, Georgia

NICHOLSON, FRED. C., CWO
18th Aviation Company (FW-TT)
Fort Riley, Kansas

ODDONE, LOUIS J., CWO
AMOC 4-60, USATSCH
Fort Eustis, Virginia

ROMERO, DALTON J., CWO
Off Stu Co, FWOC 60-3, Box R-23
Fort Rucker, Alabama

TODD, RICHARD D., CWO
USATDS
APO 28, New York, New York

GRANT, RICHARD C., WO
65th Transportation Co (Lt Hel)
Fort Eustis, Virginia

COMPLAINTS ANSWERED

The magazine has received many complaints on the "Change of Address" columns. Combined gripe: "Like the column very much, read it thoroughly, but the listings are getting so extensive that I find it quite difficult to wade through the pages to find the names and new addresses of my friends. No one would holler if at this point the column was published by rank. How about it?" To which we say, "Will do." And "Did."

NILES, DOUGLAS W., WO
22 Woodhaven Road
Newport News, Virginia

SMITH, HORACE, M., WO
13th Trans Company (Lt Hel)
APO 358, San Francisco, California

TSCHETTER, LEROY J., WO
18th Transportation Co (Lt Hel)
APO 29, New York, New York

KNOTT, WALTER B., SFC
Hq & Hq Svc Co, USAAVNS Regt
Fort Rucker, Alabama

BRADLEY, JOHN B., MR.
4910 Chennault
Houston 33, Texas

PORTER, WILLIAM S., JR., MR.
4000 Winfield Drive
Charlotte 5, North Carolina

TRUAX, ROBERT L., MR.
1357 38th Street, S.E.
Cedar Rapids, Iowa

Evidently some of our pilots have been indicating on their *Form 175* that they had route VHF, and then getting into considerable trouble with air traffic control if they are given a change of route. Air traffic control has, in the past, been pretty good about cooperating with the Army aviators on the frequency problem.

However, there are indications now that they feel a more hard-hearted attitude must be taken. USAREUR pilots should be certain when they file an instrument flight plan that they have the frequencies which may be required during the flight. If this cannot be done, my suggestion is that the pilot list the specific frequencies which he does have and then have that flight plan approved prior to takeoff.

Such action can save considerable trouble and possible reports of violations which none of us are interested in receiving.

—Col. Warren R. Williams

Pvt. Peggy J. Crouch (right), an honor graduate from the Clerical Procedures and Administration Course of the U.S. Women's Army Corps Center, Ft. McClellan, Ala., is shown with H-19 pilot Lt. Robert A. Belew during an orientation at Felker Army Airfield, Ft. Eustis, Va. Lt. Col. Yancey H. Bivings, 40th TAAM Bn Commander, her new CO., is a firm believer in the axiom, "To do your job, you must know your job" (U.S. Army photo.)

CANAL ZONE: Matching Wits

Present plans call for the *937th Engineer Company (Avn) (IAGS)* to support the Brazil Project with two *Otters* on a TDY basis. The purpose of the support will be in connection with the HIRAN Project presently underway. The assignment of the (937th) aviators will be on a TDY basis for approximately 60 days.

Capt. James Crawford returned from his "around the world" trip on 22 Dec. He flew a party of three officials on an inspection trip of all South American countries in which *IAGS* is present. Only one unfortunate incident took place on the entire trip. Just so happened that the L-23 "blew a jug" and was forced to RON in Buenos Aires, Argentina a few days until replacement parts arrived.

I returned from the *Aviation Safety Course* on 19 December and I am deeply impressed with the course. Every officer should attend this course during his aviation career. At present all of the officers here in the (Canal) Zone are drawing safety posters depicting some part of aviation safety. I desire that all of you on the (outlying) projects "match wits" and submit such a poster to the Aviation Safety Officer of the 937th.

Our customary inter-American changes of assignment are too numerous to mention here. You'll find the new addresses of your *IAGS* friends in the approriate column, *"TAKEOFFS,"* that appears elsewhere in this issue .

—Lt. Col. Jack W. Ruby

FT. RUCKER, ALA:
First Graduates

Another "first" took place recently at Fort Rucker, Alabama, when *Fixed Wing Qualification Course Class 60-1* graduated from the Army Aviation School.

Composed of 27 Rotary-Wing AAs (3 MSC Captains and 24 CWOs), *FWQC 60-1* is the *first* class of helicopter pilots to graduate from the modified Army F/W Aviator Course. The course—conducted entirely at USAAVNS —consists of 8 weeks of primary flight instruction by Hawthorne School of Aeronautics followed by 8 weeks of advanced flight training by USAAVNS instructors. .

The majority of the newly-qualified Aviators have been assigned as U1-A *Otter* pilots in Light Transport Fixed-Wing Companies at Forts Benning, Ord, Riley, and Sill.

The class, a photo of which appears on page 60, has other noteworthy accomplishments: they average 1,600 hrs of R/W and 400 hrs of F/W flying time per man; are qualified as first pilots or instructor pilots in every type of helicopter in the Army inventory; include four Senior AAs, 2 ex-USMC and one ex-USAF pilots; and include 6 graduates of the Helicopter Instrument Course, three of whom are Instrument Examiners.

—CWO Don R. Joyce

FT. CAMPBELL, KY:
'Round the Clock!

You may have heard of the *"Big Slam/Puerto Pine"* operation, you may not have; anyhow, just in case. This is a MATS operation and involves the movement of large numbers of personnel from all over the country to Puerto Rico and return. It appears that *Campbell Army Airfield* will be the focal point of this operation, handling the highest proportion of the traffic departing and returning to the continental United States. Actually, of course, the greatest volume of operations will be at the two locations in Puerto Rico inasmuch as there are a number of locations in the United States feeding these areas.

Our operations here at Campbell will involve well over 1,100 arrivals and departures in the period 14-28 March. This will be on a 24-hour-a-day basis, under all weather conditions.

An interesting sideline is the fact that the normal complement at *Campbell Army Airfield* is 9 Army officers, about 107 Army enlisted personnel, 5 Air Force officers, 1 warrant officer, and approximately 100 airmen; MATS is going to bring here for this operation alone, some additional 35 officers and 639 airmen. This will be over and above some 42 staging crews who will be here throughout the exercise. Operations will include C-133, C-124, and C-118 (DC-6) type aircraft. It should be interesting!

—Col. John D. Edmunds

FT. CARSON, COLO:
"Eyes and Ears" OK'd

The *1st Reconnaissance Squadron (Sky Cav), 16th Cavalry*, assigned to the *2d U.S. Army Missile Command (Medium)*, stationed at Fort Carson, Colorado, set a milestone in aviation history recently with the completion of its *Army Training Test*. The unit, the only one of its kind today, was awarded a rating of *"Excellent."*

Flying 125 operational hours in addi-

tion to the normal displacements and *Aggressor* activity, the *ATT* demanded peak output and efficiency of both men and equipment. The type of missions flown were extremely diverse, consisting of *SLAR* (Side Looking Airborne Radar), manned photo, SD-1 Drone photo, a search and rescue mission for a downed pilot, aerial radiological survey, and visual reconnaissance.

Heavy Play on Recon

In addition to these missions, heavy play was given to the little publicized *Airborne Reconnaissance Platoon*. This unit is employed whenever aerial reports leave enough doubt to warrant an actual ground recon of a possible atomic target. The group is either landed by parachute or by helicopter near the site in question.

Provided with both voice and code radios, they are able to transmit current findings to their parent unit. Although provision is made to recover the platoon in every case, in actuality, they have infiltrated back through the lines, due to their being cut off, usually in an area of maximum security. They have proven that they can get back with a minimum loss of personnel when they are well trained.

Truly proving its status as the *"Eyes and Ears"* of the *Missile Command*, the *Sky Cav* accomplished its mission under highly adverse weather conditions, extreme cold, and winds that blew up to 50 knots during portions of the test.

Major Robert F. Tugman, the Squadron Commander, commented that the unit obtained a *"significant milestone in the history of Army aviation with the completion of the first test administered to a 'Sky Cav' squadron under ATT 1-25."*

—Maj. Harold G. Waddell

Our apologies for the long delay—what with the last of the Army area conferences, quarterly review and analysis, short holiday leave, and the *usual* run of paperwork, flights, and briefings, we've just plain failed to get the copy in.

• We are pleased to see the new *NGR 95-1,* concerning implementation of the *Warrant Officer Rotary Wing Course* outlined in *AR 135-20,* in print and being distributed. Be sure to read both publications carefully before submitting EM applications for this training—several statements and test results are to be included with the *NGB Form 64* and we have had to return nearly all received so far for supplemental data.

• The *Annual Review Board* completed a very thorough and comprehensive job this year, and their findings and recommendations are presently being reviewed by the Chief, NGB. It looks as though we have lost or will lose about 48 aviators as a result of failure to meet minimums, FEB action, and physical disqualification. Our thanks to *Majors Johnson* and *Roberts* for their efficient and complete action.

The review and analysis for the second quarter of Fiscal 60 reveals a net loss of 7 aviators, and a total of 1,297 on flying status, 73 below programmed strength. This is partly due to Review Board action, and to the fact that we didn't get any graduates from primary training during the period—a result of the suspension of quotas during the move from Gary to Rucker last spring.

By MAJ. HARRISON A. MORLEY
Army Avn Section, NGB

We should have considered these factors in programming, of course, but who can crystal ball that well? At any rate, the recruiting efforts of the units are producing gratifying results in this quarter, and will show up in the next review. Keep up the good work, Guardsmen, we need a great number of qualified AAs to get up to authorized strength.

• We are extremely happy with the efforts of the *Nebraska ARNG* in bringing about the organization of their new aviation unit, and more particularly with their recruiting effort in obtaining needed personnel for both the new unit and their part of the Div. Avn. Co. Their strength is already doubled, and will be tripled in the near future. Thorough screening and high standards for selection have resulted in the acquisition of extremely well qualified personnel, which we consider the most important factor in this rapid expansion.

• While we are handing out the roses, let us take this opportunity to commend the *Kansas aviation elements* on the superior manner in which their 759s were prepared for this year's review. Our Board did not have to return or make corrections on a single 759 or allied correspondence. Incidentally, this is not a one-time phenomenon. The Kansas record is remarkable for consistent high quality in this regard. A *"Well done"* to *Capt. O'Toole* and his personnel from all of us in NGB.

• Our Safety squib for this time is lifted from a Navy poster, which in turn was lifted from the Royal Canadian Navy—(But good!)—

"He who hoots with the owls by night cannot fly with the eagles by day."

HIGHLIGHTS

national board meeting
A report on the recent quarterly meeting and the actions taken

claims procedures
Chances are that you know little about claims against the FPPP

why the foot?
The background and basis for the selection of the winged foot

placement service
A review of an important service performed for AAAA members

industry members
These members stand ready to provide a wealth of information

AAAA News

WASHINGTON, D.C.:
Nat'l Board Report

Convening at the Marriott Motor Hotel in Washington, D.C. upon the call of the President, the *National Executive Board* held its fourth quarter meeting on February 5-6, 1960.

Attending the two-day session were: *Bryce Wilson* (Pres); *Col. O. G. Goodhand* (XVP): *Lt. Col. A.J. Rankin* (VPA); *Howard E. Haugerud* (VPG); *Sam Freeman* (VPR); and *J.E. McDonald, Jr.* (VPI).

Also, *Col. I.B. Washburn* (Ret.) (VPP); *Lt. Col. C.E. Haydock, Jr.* (Trea); *Lt. Col. K.A. French* (Sec); *Col. R.R. Williams* and *James N. Davis* (Members-at-Large); *Col. J.J. Tolson* (Pres, WASHINGTON REGION); *Col. R.F. Cassidy* (Pres, MIDEASTERN REGION); *Col. R.B. Austin, III* (Advisory Member); and *A.H. Kesten* (XSec).

Lt. Col. W.G. Kilmer (Pres, FORT MONROE CHAPTER) attended as an observer.

Summary of Actions

The following is a summary of the actions taken by the National Executive Board during its 2-day meeting:

Coordinated details on the *Honorary Membership Program*, approving of the award of Honorary Memberships to four Army aviation dignitaries of the Allied Forces, the presentations to be made at the *1960 Annual Convention*.

Approved of the *audit statements* submitted by the accounting firm of *Bergen & Willvonseder* for the inclusive period, April 18, 1957-March 31, 1959.

Disapproved of the *AAAA* participating in the *Army Flying Club Program* at this time.

Accepted the *budget* for the April 1, 1960-March 31, 1961 membership year

as presented by the Executive Secretary, with the reservation that the item listed as *"1960 Annual Convention*—$1,600.00" be deleted.

Approved of the budget allocation of $800 for distinctive 2 or 3-color *Chapter Banners* with issuance of the banners to be made to the Chapter Delegates at the *1960 Annual Convention. J.E. McDonald* was authorized to coordinate the procurement of the *Chapter Banners.*

Convention Plans

Reviewed the *1960 Annual Convention* plans as presented by *Col. Robert R. Williams,* Convention Chairman. Approved that part of the August 7-8 planning calling for *general business sessions* (a.m.) and a *Co-Sponsored AAAA-Industry Reception* (p.m.) for the 7th, and an *AAAA Awards Luncheon* for the 8th.

Approved of the placement of the *Ballot* for National Executive Board office in the late February first class mailing to all members.

Approved of the *contract* between the *AAAA* and the publisher of *ARMY AVIATION MAGAZINE* for the inclusive period, April 1, 1960-March 31, 1963.

Clear Deck for Awards

Approved of the Presidential appointment of *Col. Robert M. Leich,* Member-at-Large, as the Chairman of the *AAAA Awards Committee.* Disapproved of a motion to increase the size of the present 4-member Awards Committee. Established June 15, 1960 as the "cut-off date" for the submission of nominees for the three awards to be presented at the *1960 Annual Convention,* and directed the National Office to publish an outline of each Award in an ensuing AAAA insert.

Reviewed the progress of the program to acquaint the Reserve Forces with the *AAAA,* as presented by *Lt. Col. Sam Freeman* (VPR).

Approved of the presentation of a sponsored unit award at the *1960 Annual Convention* tabling the announcement of the sponsor's name and award details pending the receipt of additional details from the sponsor.

Nix Change in Emblem

Disapproved of a motion to change the emblem of the Association, and directed the National Office to publicize the derivation and symbolism of the *AAAA* emblem in an ensuing insert in the magazine.

Reviewed the proposal submitted by *Maj. N.W. Goodwin* (Pres, OKLAHOMA REGION) calling for By-Law revisions pertaining to the Regional structure. Directed the Nattional Office to present sufficient copies of the By-Laws as amended, together with all recommended revisions, to the President on May 13 for review by three sub-Committees.

Insignia Made Available

Approved of the direct sale of *AAAA lapel insignia* to the membership at a postpaid cost of one dollar ($1.00), directing the National Office to procure an additional three hundred lapel insignia for this purpose.

Reviewed the current status of the *Flight Pay Protection Plan* to include percentage of support, total claims, and total indemnities, current and anticipated. Briefed *Col. R.B. Austin, III,* Aviation Branch, MP&O Division, Office of the Surgeon General, on the FPPP in his capacity as *Advisory Member* to the *National Executive Board.* Established basic procedures between the *AAAA* and the *Office of the Surgeon General*

91st Transportation Company (Lt Hel)
Fort Campbell, Kentucky

FRONT (Aug '59 photo), L-R: WOs JE Hunter, RD Smith, H Lemonte, & AL Holt; Lt AG Hannum; WOs FT Nysewander & JA Steffanci; Capts LG Wanken & HJ Tuggey (CO); CWO LG Smith; Capt DC Wesner; CWO CL Alderson; Capt EE Waldron, II; (ExO), WO WE King; Capt LM Thomas; WO CA Grindle; CWO JP McCune; WOs AE Burth & HP Parr; CWOs VH Romain & JR Connor. BACK: WOs WH Ruffin, WD Herron, GC Barner, WF Nunley, HH Bennett, CE Weed & DS Slusher; Lt DJ Griffin (Canadian Army); WO WD McKinney; Capt EJ Grant; WOs JA Eddy, F Lindslye, WJ Patzig, DW Chase & JH Goodloe; Lts RA Riker, RJ LeBlanc, WJ Dimon, & AO Croak; WO LJ Gutman. (8 unit personnel were missing at the time of the photo.)

with regard to claims documentation. Directed the National Office to publish a detailed claims list as well as a complete outline of the claims procedure in an ensuing *AAAA* insert. Approved of the Presidential appointment of *Colonels Austin, Tolson,* and *Haydock,* and the *Executive Secretary,* as an FPPP Committee.

Approved of the Presidential appointment of *H.E. Haugerud* to investigate the status of the *AAAA* as a tax exempt organization, and to investigate, through legal channels, the legal liabiity of the Association, its Board, or its membership with regard to any of the programs pursued by the *AAAA.*

Set May 13-14, 1960 as the dates for the next quarterly meeting of the *National Executive Board,* directing the National Office to arrange for meeting accommodations at the *Marriott Motor Hotel.*

ABOUT CLAIMS

Although all of the 5,240 current members of *AAAA* are *not* on flying status, and would therefore not be too concerned with the claims procedures employed in the *Flight Pay Protection Plan*, knowledge of the claims procedure employed in this widely-supported *AAAA* program should be of interest to all members. This program has returned more *"tangible help"* to the membership than any other current program endorsed by the *AAAA* and "tangibles" appeal to all.

An insured member is grounded for physical reasons. What then?

He writes to the *National Office* requesting *Claim Forms*, stating the month or date on which he first stands to lose flying pay.

He is then forwarded two identical *Claim Forms*, one marked *"Alert Form,"* the second marked *"For Pay Purposes."* To accelerate indemnity payments, he is asked to complete the *Alert Form* upon receipt, having his C.O. and the appropriate Flight Surgeon or Army Medical Officer complete their portions of the *Form*.

By returning this *Alert Form* to the *National Office* well in advance of the month or date on which he first stands to lose flying pay, the underwriters have sufficient advance information on which to issue a *"Pay,"* or *"Do not Pay"* ruling to the *AAAA*. Should the member be returned to flying status in the interim without any loss of flying pay, he has lost nothing by submitting the *Alert Form*.

To date, all 39 claims acted upon by the underwriters have returned *"Pay"* rulings, although several required additional documentation.

With the accelerated ruling from the underwriters in hand, the *National Office* then awaits the member's submission of the *Claim Form* marked *"For Pay Purposes,"* this *Form* being submitted *on or after* the 1st day of the month following the month of loss.

Additional documentation is required by the underwriters; however, this is furnished under separate cover by persons other than the insured. A statement is secured from three disinterested insured members of the *Chapter* with which the claimant is affiliated, or, where a Chapter does *not* exist, from three disinterested insured members in the claimant's vicinity or unit. This statement verifies that the facts as presented in the claim are correct, and represents the sole "mutual monitorship" aspect of the program.

A separate statement is secured from the appropriate Medical Officer or Flight Surgeon regarding the *"pre-existing"* requirements of the coverage.

Although such a review may not affect the immediate ruling, claims documentation is later reviewed by the *National Executive Board* and a representative of the *Office of the Surgeon General*, as well as the underwriters.

With regard to payment, it is both direct and prompt, assuming that the claimant submits his *Forms* by *airmail* cover. The *AAAA*, having a *"Pay"* ruling in its possession, forwards the appropriate indemnity check to the claimant by airmail cover, upon payment of the indemnities by the underwriters.

That's the claims process. It is as simple a process as can be followed, considering that *statements* must serve in lieu of personal interrogation by an underwriter representative.

THE FACTS ON INDUSTRY MEMBERS

Some 340 *"industry members"* are currently enrolled as active members of the *Army Aviation Association*. Described as such, their status may be somewhat confusing to the general membership. Let's take a "reading."

Industry members are—in every sense of the word—*full* members of the AAAA. Each receives the same credentials, the same publication, and the same privileges of membership as the general member. Though it later proved to be "no privilege," all also received one "quick fade" Scotchlite car trunk emblem in '59, proving their interest in *AAAA* by yiping in proportionate numbers.

There are several basic differences in this type of membership about which you, as a general member, should know.

First, application is on a *"corporate basis,"* rather than on an individual basis, the firm submitting the names of ten of its representatives who desire fairly frequent contact with the AAAA membership. *Annual Dues* are $100.00 per full year for the ten memberships. *Not* $100.00 each, but for the ten.

At first thought, it may appear that the firms are getting "the bite," the tab for ten individual full—year memberships being $60.00. However, the overage is a "break even" item with the *AAAA*, this small residue being used to underwrite specific programs for *industry members*, one of the better known programs being the *Military Aviation Placement Service*.

Space precludes the listing of the various services under this type of membership. However, one of the most important advantages of the membership, as stated by many *industry members*, is the advance information received on National, Regional, and Chapter activities, and "the one leg up" this advance

100% AAAA—FWQC 60-1
USAAVNS, Fort Rucker, Alabama

FRONT (L-R): CWOs RM Fitch, PE Crossan, FC Nicholson, WM Isenberg, DR Ludwig & RH Wright; Capt CA Mateer; CWO RW Johnson. MIDDLE ROW: Capt IL Isch; CWOs LC Haverfield, MD Ficklin, WJ Stejback, GD Oxenreider; LR Hunt & WR Beatty; Capt HC Vaughn; CWO WC Cooke. REAR: CWOs FO Bell, CA Puffpaff, RH Holt, MJ, Madden, CJ Dye, DR Joyce, JT Murray, WR Haskins. Missing: CWOs BK Evans & KW Glascow.

information provides in the way of guaranteeing advance participation, accommodations, and reservations at all *AAAA* functions.

The National organization provides an opportunity for you to receive informal presentations by the foremost persons within the aviation industry. It does this by pursuing a modest *"Industry Member Program."* Welcome the industry member at every opportunity in local activities. *He is one of us.*

Industry Members
January, 1960

Aero Design & Engineering Corp.
Aircraft Radio Corp.
Beech Aircraft Corp.
Bell Helicopter Corp.
Boeing Airplane Co.
Cessna Aircraft Co.
Chance Vought Aircraft, Inc.
Collins Radio Co.
Continental Motors Corp.
Convair Division
De Havilland Aircraft of Canada
Douglas Aircraft Co.
Fairchild Engine & Airplane Corp.
General Electric Company
Grumman Aircraft Engrg. Corp.
Hawthorne School of Aeronautics
Hayes Aircraft Corp.
Hiller Aircraft Corp.
Hughes Tool Co—Aircraft Div.
International Tel & Tel
Jeppesen & Company
Kaman Aircraft Corporation
Lear, Inc.
Lockheed Aircraft Corp.
Lycoming Div, AVCO Mfg Corp.
McDonnell Aircraft Corp.
North American Aviation, Inc.
Page Aircraft Maintenance, Inc.
Petroleum Helicopters, Inc.
Republic Aviation Corp.
Ryan Aeronautical Co.
Sikorsky Aircraft Div, UAC
Southern Airways Co.
Vertol Aircraft Corp.

MAPS!

a foot in the door

By knowing where a job opportunity exists you have one foot in the door. Finding the job opening is half the battle.

The *Military Aviation Placement Service* (*MAPS*) sponsored by the *Army Aviation Association* is designed to accelerate the placement of qualified personnel who are committed to separation or discharge from the service. The *Service* accomplishes this by placing the applicant in direct contact with a firm or firms that have signified that they have a definite job opening in his category.

As an AAAA Member, your qualification resume (provided to you by the AAAA) will be reproduced and forwarded to the firm listing the job opening in which you are interested.

How does this help you? Your time and effort will not be wasted in snowing firms with resumes, firms that, unknown to you, have posted "No Vacancy" signs.

How does this help the employer? The MAPS Clearing House service will not waste his time. He has your resume and your qualifications; he knows when you will be available; he can hire.

Every efffort will be made by the AAAA to coordinate job placement through *MAPS*. If you are committed to civilian employment within the aviation industry, write for additional details today. AAAA, Westport, Conn.

COLONELS
Max L. Pitney
William C. Garrison

LT. COLONELS
James A Shelton

MAJORS
Charles M. Hardesty
Paul R. Kaster, Jr.
Daniel Thomas
Ralph O. Bennett
Lewis E. Casner
Oliver V. Norman
Julius E. Clark, Jr.
Ernest B. Killett
Van T. Barfoot

CAPTAINS
William A. Lawrence
Harold R. Bundy
Robert J. Gerard
Charles T. Asbelle
Kenneth B. Talbert
John M. Blair
Roger W. Kvernes
Charles E. Canedy
Jessie O. Giddens
Harold M. Hennington
Cecil H. Grimes
Frank F. Dorey
Thomas E. Davis
D. W. Leedham
Kenneth D. Mercier
George M. Kovacs
Peter K. Herring
Guy C. Cisco, Jr.
Stanley A. Gregory
Louis R. Birkmeyer
Ralph L. Godwin
Norman P. Jacobs
John L. Phillips
Collin W. McKensie
Harold R. Johnson
Dewell O. Thrall
Raymond G. Smith
Ben D. Durall
Joseph R. Knudsen
Jack C. Snipes
John M. Chittick
John W. Grandy
Charles R. Barr
Waddell Avery

LIEUTENANTS
Ronald Pincus
John F. Hamel, Jr.
Paul C. Parsons
Lawrence W Neal
Paul G. Neal
John D. Talley
David L. Buckner
Richard L. Miller
Richard A. Rust
Lynn F. Coleman
Jerry J. Warren
William L Paris
Jerome R. Daly
J. H. Strom
Thomas K. Lewis
Harold L. Johnson
Max R. Claiborne
Guy Ryan
Ruby L. Whitehead
Sylvester C. Berdux
James F. Schubert
Lawrence J. DeMartini
Leman O. Busby
Harold D. Stansell
Lauren J. Iverson
Donald F. Bissell
Richard E. Steel
Billy J. Slusher
Paul B. Gale
Buddy G. Beck
Charles B. Allison
John L. Norton
Donald L. Osbun
William P. Gillette
David E. Thompson
Paul J. Buchanan
William C. Stewart
Frank S. Bowen, III
Stpehen P. Stout
George R. Nelson
Wilbur R. Mixter
William L. McDermott
Frank M. Brown, III
Allan G. Little
John E. Hally
Robert G. Holland
James A. Myers
William J. McCluskey
William T. Tilling, Jr.
Dale W. Hurst
Lowell I. Farris
Harwood H. Hoeft
Robert Flickinger
Joseph F. Garrity, Jr.
William H. Williams
Ronald M. Stickney
Kenneth M. Fritz
Ray A. Houts
Robert A. Laya
Raymond G. Powell
Robert P. Sellers
Donald S. Galla
John F. Moody
Francis S. Fitzpatrick
Robert S. Parks, Jr.
James J. Fitzpatrick
Hugh G. Beebe
Charles G. Pulsford
George R. Crook
Lloyd A. Gimple
Vern R. Young

CWOs
Donald Mallow, Jr.
Debby E. Barnes
Duane L. Hagen
George D. Oxenreider
James T. Murray
Burnice E. Rose
John Whitener
Lucius C. Frye
Talmadge L. Blanchard
Warren L. Case
Lester C. Haverfield
Gerald D. Verbeek
John P. Langwasser

WOs
John C. Cogburn
Mr. Neil S. Dodson
Sp/5 Thomas E. Cole

NEW MEMBERS

William R. Ponder
William H. Grady
Perry S. Marlin
James E. Hertzog
Jerry A. Simmons
Walter J. Connell
James H. Mapp
James M. Henderson
George A. Morgan
Noland Y. Baldwin
Andre L. Lamothe
James H. Sherrill
Robert A. Donahue
Lawrence A. Bell
William E. McDonald
Daniel S. Lindsey
Fred M. McWilliams
James D. Rockey
William E. Trent
Jerry G. Patton
Malcolm J. Swanson

WHY THE FOOT?

Why the foot? What is the significance of the winged foot emblem adopted by the AAAA?

Every so often, a curious *AAAA* member transforms his curiousity into a tangible "writ' by hand" request for the symbolism of the emblem.

It is necessary to go back a bit to 1957 to provide a complete explanation for its adoption.

The *AAAA* literally mushroomed overnight. On one day it was the "germ" of an idea awaiting top-level approval. On the next day—with an official blessing—the AAAA was a going organization with well over 125 Charter Members.

Momentum All-Important

Its founders knew that rapid acceptance was a "must" if the new organization was to survive. The *"AAAA package,"* as presented to the potential membership, had to be complete. Detailed By-Laws to govern its operation, a symbol to establish its identity, and generally agreed upon goals were immediate necessities.

The founders—ten in number—also knew that in any group of ten persons associated with Army aviation, eleven were certain to disagree on any one subject, and in all probability, most violently on an emblem to symbolize *all* segments within Army aviation. This indisputable fact, together with the urgency of a situation—*rapid identity*, called for the tacit adoption of the single emblem presented.

Knowing the above, you can appreciate the fact that any unanimous decision in this matter would be difficult.

All right then, what do we have in the way of an emblem? We have a *winged foot.*

We are, whether pilot, or crew chief, or logistics technician, or industry member directly concerned with *aviation* within the *U.S. Army or its Reserve Forces.* The wing symbolizes *aviation;* the foot symbolizes the *foot soldier—the Army.* We are *"Flying Soldiers,"* or we are concerned with flying soldiers, or flying *for* soldiers.

Why Not a Pair of Wings?

Invariably (but infrequently), suggestions are made regarding the emblem, most of which concern themselves with the superimposition of the Quad-A over, under, or around a pair of AA wings, or fraction or facsimile thereof.

However, the National Board knew that countless aviation trade organizations, aviation societies, and individual units within the three services utilize an organizational symbol framed by appropriate wings.

Then too, the AAAA, in the minds of its founders, is not, nor has it ever been

an organization limited solely to rated pilots. An emblem that connotes a rating would be inappropriate, and certainly not considerate of the large segment of AAAA membership represented by technicians, crewmen, and industry persons, all of whom have an equally sincere desire to advance Army aviation through the organization, and who have supported the organization since its inception.

The symbolism of the present emblem is sound.

We are still a very young organization, a two-year old. Familiarity with the emblem—and wider acceptance on all fronts—will come with the passage of time.

Wolters Chapter Elects 1960-1961 Slate of Officers

Members of the *CAMP WOLTERS CHAPTER*, one of the AAAA's fast-growing Chapter activities, met in business session recently and returned their 1960-1961 membership year slate to office. Elected as new Chapter officers were:

President: Capt. Eugene R. Walton
Exec Vice Pres: Capt. Bernard J. Dyer
VP, Army Aff: Capt. Billy R. Taylor
VP, NG Aff: Joseph Waller
VP, Reserve Aff: William Long
VP, Indus Aff: Capt. James A. Phelps
VP, Public Aff: J. Travis Key
Treas: CWO John D. Johns
Sec: CWO Henry Luers

NB Officer Appointed to Senate Subcommittee

Senator Hubert H. Humphrey (D., Minn.) and *Senator Henry M. Jackson* (D., Wash.) have announced the appointment of *Howard E. Haugerud*, (VP for National Guard Affairs of the AAAA) to the professional staff of the newly formed *Senate Subcommittee on National Policy Machinery.*

The first project of the subcommittee will be a joint White House—Congressional review and possible revision of the fundamental processes through which the United States Government makes and carries out the highest national policy. President Eisenhower has assigned key persons in all departments concerned with national security, including the National Security Council, to coordinate with the 4-man staff of the Senate unit.

Mr. Haugerud (above) will have primary responsibility for Department of Defense Matters, but will also work with the Department of State. *Senator Jackson* is chairman of the 3-man panel that includes *Senator Humphrey* and *Senator Mundt.*

AAAA CALENDAR

● FORT MONROE CHAPTER, Feb. 19. Mid-winter meeting and formal dance. Speaker: Brig. Gen. Clifton F. von Kann, Director of Army Aviation. Officers' Open Mess, Fort Monroe, Va.

● DAVISON ARMY AIRFIELD CHAPTER, Feb. 26. Social Meeting, Club 29, Fort Belvoir, Va.

● PIKES PEAK, FORT RILEY, CAMP WOLTERS, FORT HOOD, FORT SILL, and JIMMIE L. HILTON CHAPTERS (Combined), Feb. 26, 27, 28. Educational-professional meeting on current aviation developments, static displays, speakers. Adolphus Hotel, Dalla, Texas.

● FORT CAMPBELL CHAPTER, Feb. 26. Educational-social meeting. Speaker: Robert Lichten, Chief Experimental Project Engineer, Bell Helicopter Corporation, "Flight Test Experience with the Army's XV-3, VTOL prototype." Fort Campbell Officers' Open Mess. Fort Campbell, Ky.

● COMBINED TEST ACTIVITIES CHAPTER, Feb. 26. Social stag and business meeting. Officers' Open Mess, Fort Rucker, Ala.

One Army Concept—Dinner Dance
Metropolitan New York, Chapter, AAAA

Shown prior to the first social meeting of the METROPOLITAN N.Y. CHAPTER at GI-NY are, left to right, Lt O.B. Curpier, Chairman, Program Committee; Lt. Col. Joseph W. Kilkenny, VPR; Gale V. Smith, ExVP; Capt. William C. Taylor, Chapter President; Brig. Gen. Clifton F. von Kann, guest of honor; Maj. Gen. Willis S. Matthews, Dep CG for Reserve Forces, First US Army; Lt. Col. Gordon L. Kinley, First US Army Aviation Officer; Anthony L. Sacca (Sec); Capt. John N. Bradshaw (VPP); and Capt George Kovacs (Trea.) (U.S. Army photo).

GENERAL VON KANN ADDRESSES NEW YORK, NEW JERSEY MEMBERS

More than one hundred members, their wives, and guests attended the first social meeting of the *METROPOLITAN NEW YORK CHAPTER* at Governors Island, N.Y., in late January.

Addressing the Dinner-Dance audience, *Maj. Gen. Willis S. Matthews*, Deputy Commanding General for Reserve Forces of First U.S. Army, lauded Army aviation and its remarkable achievements. He referred to the *METROPOLITAN NEW YORK CHAPTER* membership, composed mainly of Army Reserve and Army National Guard members, as an excellent example of the *One Army* concept in action, working for a better Army.

Gen. Matthews introduced the guest of honor, *Brig. Gen Clifton F. von Kann*, Director of Army Aviation, whose address to the Chapter appears on pages 65-69.

General and *Mrs. von Kann* and *Col. John J. Tolson*, Deputy Director of Army Aviation, and *Mrs. Tolson* were Chapter guests at the Dinner-Dance. Industry members and their wives took an active part in the Chapter affair, *Grumman, Sikorsky, Vertol, Fairchild, Republic, Aircraft Radio, ITT, Sperry*, and *Bendix* couples being in attendance.

PRE-PAIRED FOR YOU!

SHERATON-PARK HOTEL
WASHINGTON, D.C.

1960 AAAA Convention
October 7-8, 1960

AUSA Annual Meeting
October 8-10, 1960