

ARMY
AAAA ANNUAL MEETING, WASHINGTON, D.C., JUNE 5-6-7
MAY ★ 1959
ARMY AVIATION



**Lycoming powers
GRUMMAN AO-1 MOHAWK**

Army's new high-performance observation
aircraft shown on its first flight.



Powered by two Lycoming T53-L-3 turbo-prop engines; take-off power 1005 ESHP.

Lycoming

A Division of Avco Corporation
Stratford, Conn. • Williamsport, Pa.

ARMY AVIATION

VOLUME 7

MAY 21, 1959

NUMBER 5

First Flight for Mohawk YAO-1

Featuring a 59-knot stall speed and designed to operate from small, unimproved fields, the first production prototype of the new Army YAO-1 Mohawk flew in mid-April for the first time, according to Grumman officials.

The two-place Mohawk is powered by two Lycoming prop-jet engines (rated at 1005 ESHP each), has a wing span of 42 feet, and an overall length of 41 feet.

The Long Island company has nine prototype models of the new plane in production under a 1958-awarded contract. Earlier this year, Grumman received notice of a follow-on contract for thirty-five additional production models (designated AO-1AF).

CIRCULATION ANALYSIS

Average net paid circulation, July 1, 1958-December 31, 1958:

U.S. Army officers, warrant officers, & enlisted personnel (active U.S. Army), 3,771. U.S. Army officers, warrant officers, & enlisted personnel (USAR-ARNG), 402. Aviation industry, libraries, ROTC, aviation writers, 888 (paid). Paid Circulation this issue: 5,687.



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ARMY AVIATION is published monthly by Army Aviation Publications, Westport, Conn. Editorial and Business Office: 9 Elizabeth Drive, Westport, Conn. Phone (Fairfield, Conn. exchange) Clearwater 9-4752. Subscription to individual addresses only: U.S., APO's and U.S. Possessions, \$3.50 per year; \$6.00 2-years; all other countries add \$7.50 per year for postage. Included as a part of AAAA Membership. Three weeks notice required for address changes. Back issues cannot be held or sent. Manuscripts, drawings, photos, and other material cannot be returned unless accompanied by a stamped, return-addressed envelope. The editors reserve the right to alter or delete copy and/or specific names from all material. Display and Classified Rates listed in SRDS, Business Publications, Classification 88-A. Second Class Mail Privileges authorized at Westport, Conn.



Control Unit
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**ARC's LATEST
CONTRIBUTION TO
AIR TRAFFIC CONTROL**



THE 360 CHANNEL TRANSMITTER-RECEIVER TYPE 210

As air traffic increases, control becomes more important. A vast increase in the number of radio frequencies has been required to facilitate communications.

Only a few years ago pilots could operate with 10 or 20 channels. Plans now call for 360 frequencies—enough to meet the need for years to come. ARC now offers an all-channel, flight

proven transmitter-receiver (Type 210) covering all 360 channels. The powerful 15 watts guarantees optimum distance range and the knifelike selectivity assures freedom from adjacent channel interference. This is ARC's latest contribution to safety and dependability in the air.

Meets the CAA's TSO C-37 and C-38 Category A

Dependable Airborne Electronic Equipment Since 1928

Aircraft Radio Corporation

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OMNI/LOC RECEIVERS • MINIATURIZED AUTOMATIC DIRECTION FINDERS
COURSE DIRECTORS • LF RECEIVERS AND LOOP DIRECTION FINDERS
UHF AND VHF RECEIVERS AND TRANSMITTERS (5 TO 360 CHANNELS)
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10-CHANNEL ISOLATION AMPLIFIERS • OMNIRANGE SIGNAL GENERATORS
AND STANDARD COURSE CHECKERS • 900-2100 MC SIGNAL GENERATORS



Our Slips Are Showing!



A psychologist named Ruch once reported that of all job-holders an aviator was most happy in his work.

It ain't necessarily so!

It is axiomatic that a discontented Army aviator must turn in his suit. It is equally true that an unhappy child often claims he didn't ask to be born.

Neither can return to the place from whence he came!

Except for occasional moments of terror, no pilot is dissatisfied while airborne. His troubles begin and end *while ground-bound*. Let's talk about a few of the things which bother him the most.

There are over five hundred separate pieces of paper presently in print, each intended to regulate some phase or particular action of an Army aviator's life. Many, in fact, most are so written as to require interpretation, which means that still more words will be written to explain them.

Add to these *specifics*, those pages scribed to assist the young man in the performance of his duty, both as an officer and as a member of a particular branch of the service, and you have assigned our young friend a Herculean library.

After the Reading, What?

Granted that he is not expected to know everything, but is merely taught where to look up information as needed—he has still been given an impossible task. Hours of reading will leave our aviator undecided as to whether or not his passenger should be wearing a parachute; whether or not an aircraft wreck is an accident or incident; and whether or not the resultant mess rates a report of survey.

It is foolish to belabor the point further. Actually, it is proven over and over each year as

the Open-Book Annual Examination takes its toll of flunkies. The interesting part is in the search for the reasons which underly the publication of pounds of prolific prose. One of those reasons, in my opinion, is fear.

Punitive Actions Deter Training

Fear is a potent weapon, but of doubtful value in our business. As an example, despite the best efforts of those who set policy, accident reports are, and have always been, used in a punitive manner. The man with "pilot error" strapped on his back is points below his contemporaries in the computation of an efficiency index. Only the outlandish cost of aircraft and replacement parts saves flight pay for the aviator with an accident. Otherwise, it would all be diverted through statements of charges.

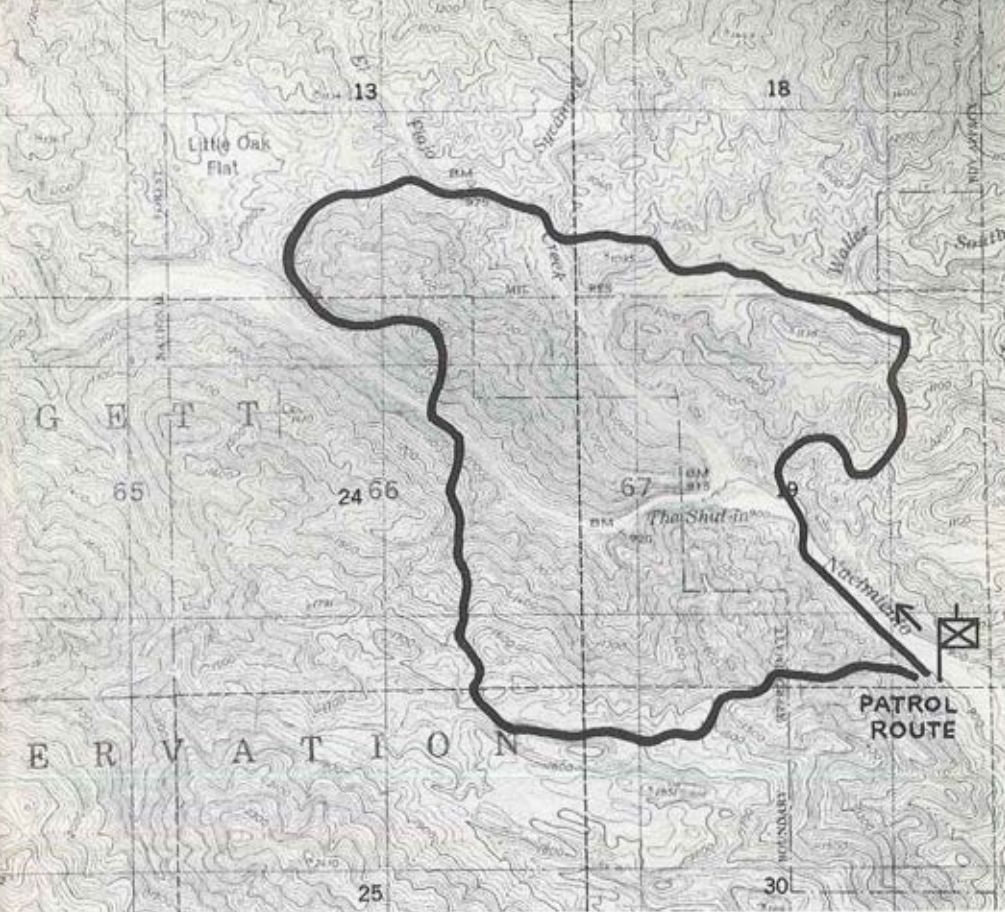
A new aviator quickly learns that by placing himself in a position in which an accident can occur—in other words, by practicing his tactical mission—he is putting his neck on the block. Lest I be accused of distorting half-truths, please understand that I have a document to this effect signed by the majority of aviators in an unhappy organization. Aviators who once had to be ordered to remain on the ground now require coercion in a different direction.

Detailed Reprimands

The young aviator is over-ruled should he be so presumptuous as to buck the system. He learns that by quickly releasing his flaps after touchdown, he is able to make landings which have less rebound. Caught in the act, he is reprimanded for three reasons:

- (1) He *might* lose rudder control through

BY LT. COLONEL MORRIS G. RAWLINGS



10-hour patrol takes 10 minutes

In today's Pentomic Army the Company Commander's best vantage point is from the air—where he can cover the company's combat sector in minutes.

Specifically designed for observation and liaison, the Hughes YHO-2HU is the first helicopter fully functional for this specialized need.

It has long range, high performance...great agility to get in and out of cramped quarters.

The rugged YHO-2HU is always action-ready. Components are designed for at least 1000-hour life. Field maintenance requires no special tools.

The basic simplicity of design makes it possible to procure and use the YHO-2HU for half the cost of other operational helicopters.

Please write for color brochure.



HUGHES TOOL COMPANY
AIRCRAFT DIVISION
CULVER CITY, CALIFORNIA

becoming engrossed in the flap operation. (He didn't).

- (2) It *isn't* taught at the School.
- (3) We *don't* do it that way here.

At some time during his development, he is certain to ask why we have an aircraft supporting a battle group, one from the artillery, one working for the G-2, and a stranger from Corps Artillery all flying in the same area at the same time. Since an answer must involve ignorance, the effects of compromise, or deliberate untruth, most supervisors merely blow his head deeper into his shoulders.

Our young friend will often try again.

"Why," he asks, "am I issued flight clothing but told not to wear it?"

He is quite often conscientious enough, and naive enough to wonder out loud why those who fly and those who maintain appear to be working at cross-purposes. When told, he is tempted to forever close his mouth and brain, preferring to keep both his record and his underwear intact.

Too often, the intelligent and conscientious officer finds that doing his best is subordinated to a requirement for conformity and anonymity. He, a highly-trained specialist who has done all that is required for an officer of his basic branch and then has done more, is allowed to deteriorate into a highly-paid taxi driver. Far more often than the service can afford, he is driven from the military by that which he considers to be the iron-bound, rock-ribbed stupidities of those for whom he works.

He is guilty only of forming a too-hasty judgment. He has confused policy with implementation and desires with directives, and has mistaken inanity for insanity.

Everyone is responsible to someone else and the man at the top is responsible to all those

from whom he draws sovereignty—if indeed such a thing still exists.

The supervisor has his troubles, too. From behind his desk, he watches the young aviator on his way to an aircraft. It is obvious that the fledgling has filled out an exhaustive flight plan since he appears so tired. Meticulously dressed in his green uniform, (flight clothing *not* permitted off the flight line) the young man carries in his left hand (surely you know why his right hand must remain free!) a large and functional Jeppesen case in which he carries at least fourteen things having nothing to do with flying.

Then, the Pre-Flight

Once at the aircraft, he changes into a flight suit and begins an inspection of the machine—an inspection which not only disregards the efforts of the enlisted man who crews the ship, but insults the intelligence of the officer who is expected to find, in fifteen minutes, visual evidence of errors committed or omitted by a trained mechanic in *several* hours. The stroll completed, he clambers into the cockpit, signs his name in several places, and begins a cockpit check. Finally read for movement, he calls the tower for instructions to get to a runway the direction of which he should have known long ago.

It has been a workmanlike performance. Should an accident now occur, and providing the forms don't burn, it can be proven that the pilot assumed full responsibility for the condition of the craft and the safety of its occupants. If the supervisor has done his job, and his clerk can find anything in the Functional Files, it can be proven that a regulation exists which prohibits the type of accident which occurred.

Difficulties Listed

To quit harping on the subject of accidents, and to get more deeply into the subject at hand, what else has been done to inflict unwarranted difficulties into our business—which is solely to support ground troops in combat? To document a few:

- (1) *We claim for our commanders, airspace rights over two hundred miles, but lack the ability to control one-tenth of that amount. We cannot live one hundred miles forward of the battle line; we could do nothing if we were there,, and it would be extraordinary if we were*
- (Continued on Page 211)

About the Author

Lt. Colonel Morris G. Rawlings commands USAREUR's 3rd Aviation Company, 3rd Infantry Division. A frequent contributor to ARMY AVIATION, Col. Rawlings stimulated late '58 thought with his "Operations vs. Maintenance" article, preceding this with his well-accepted "How to Build an Army Airfield."



A SALUTE TO THE WORLD'S LARGEST HELICOPTER OPERATION

A flight line of almost 180 helicopters... that's Camp Wolters, Texas, where U.S. Army Aviation and its civilian contract operator, Southern Airways, team up to graduate as many as 100 trained helicopter pilots each month. The size of the Army Primary Helicopter School isn't the whole story by any means. Camp Wolters' efficient military-civilian management has achieved an unmatched safety record, and a maintenance hour to flight hour ratio on their 100% Hiller fleet that is one-half that of the military average. It proves, too, that a Hiller H-23 is as rugged as it looks.

HILLER  AIRCRAFT CORPORATION
PALO ALTO, CALIFORNIA • WASHINGTON, D.C.
ACHIEVE ENGINEERING DIVISION, SAN CARLOS, CALIFORNIA





THE NEW U.S. ARMY MOVES

and there's a **BELL** in the Picture

Mobility... on the ground and in the air... that's today's new Postatomic Army. Well-equipped, hard-hitting Battle Groups... geared for independent action... can strike, disperse, concentrate... with instant flexibility and control.

Mobility is vital to success on the modern battlefield... and one key to the Army's mobility is its air vehicles. Bell, long a member of the Army team, helps the new Army see and move. Battle proven, battle tough, the Bell H-13H helicopter supports ground operations. And now, the Army's own turbine-powered Bell HU-1 helicopter... a joint Army-Air Force-Bell triumph... gives the Army greater air mobility... gives it greatly improved performance and reduced maintenance. Bell is proud to be a part of the new Army's arsenal.

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HELICOPTER CORP.



THE STORY OF TODAY'S NEW ARMY IS A STORY OF PROGRESS..AND **BELL**

is helping make Americans aware of the vital necessity of this modernization program in keeping our Army strong, *mobile*, and ready to combat the threat of nuclear warfare.

**One of a series of ads currently appearing in such opinion-making publications as Fortune, Business Week and U. S. News & World Report.*

FORT WORTH, TEXAS SUBSIDIARY OF BELL AIRCRAFT CORPORATION

BELL
HELICOPTER CORP.

Dear Army Aviator,

Many of you have no doubt heard either through official orders, the grapevine, or by reading the current issue of the *Army Aviation Magazine* that *Brigadier General Clifton F. von Kann* will become the Director of Army Aviation sometime during the month of July. He is now the Assistant Division Commander of the 82nd and in this capacity, for the past two years, has had the opportunity of working closely with *General Howze*. Through daily

furnish all of us an excellent guide in concept of operations, which in turn will dictate the aircraft development program.

Production Priorities

■ Completely in line with our coordinated long range development and procurement we have placed four aircraft in top priority for procurement and development in the following order: first, the Grumman *Mohawk*, AO-1, medium

• TRENDS •

training activities, field exercises, and maneuvers he has developed a very extensive knowledge of Army aviation field operations. Just this past week he attended, here in our office, a short but comprehensive conference on many of the long range policy guidance facets of our program. We are all very pleased with his assignment and welcome his arrival with enthusiasm.

Army Aviation Guidelines

■ You are well aware of the *Army Aviation Guidelines* that have been published and revised annually in this office. However, many of you have not yet heard of *Chapter 5 of CDOG (Combat Developments Objectives Guide)*. This chapter covers Army aviation operations and, in a non-classified version, is being made available to the various aircraft

observation aircraft; second, the Bell *Iroquois*, HU-1, utility helicopter; third, the deHavilland *Caribou*, AC-1, 3-Ton STOL transport airplane; fourth, the Vertol *Chinook*, HC-1, 2-3 ton transport helicopter.

Let me discuss each one separately. The *Mohawk* made its first flight in the middle of April and on first blush it really looks good. Initially we will start with the AO-1A, a configuration having visual, photographic and infrared surveillance capacity. Later on we will go into the B configuration which will include observation, photographic and side-looking airborne radar capability. The C configuration is expected to have an electronic system for the acquisition of targets and the adjustment of fire.

Most of you have had the opportunity of seeing the *Iroquois*, HU-1. Our present procurement includes the A model in the configuration

By
COLONEL HALLETT D. EDSON
Acting Director of Army Aviation, ODCSOPS

manufacturers who have intimate interest in Army aviation. This long range guidance furnished to industry will help us to expedite the development of new aircraft.

Along this same line of development, CONARC is now working on a long range study of the requirements of Army aviation during the period 1960-1970. This should be ready late this summer and should

with which you are familiar. We are now initiating work on the B model which will have

an improvement in the dynamic components. This will be a stepping stone to the C model which will, in addition to the improved dynamic components, include a fuselage to better carry the combat load that is well within the capabilities of this tremendously powerful and versatile helicopter. This C model has been



TRENDS/Continued

often referred to as the troop transporter. We anticipate this model will be a highly versatile troop and equipment aerial vehicle for squad size missions. Its low silhouette and simplicity of maintenance will facilitate its efficient operation in the forward areas.

The *Caribou AC-1*, will soon be enroute to the Army Aviation Board and our other agencies for test. Its forward area flexibility was demonstrated by landings and take-offs at Fort Myer, Virginia on the post football field. It is characterized by agility, dependability, rugged construction, long component life and ease of maintenance—definitely a soldier's combat airplane. We expect that later models may make use of the greater power and ease of maintenance of the turbo-prop engine.

The *Chinook HC-1*, will be developed out of Vertol's Model 107 turbine helicopter which started flying last year. This helicopter will be developed gradually with a progressive increase in improved dynamic components and an improved load carrying capability. We expect it to gradually take over the area of transport helicopter operations now being handled by the H-21, H-34 and H-37.

Added Emphasis

Recently this office and CONARC completely studied the unit maintenance problem in Army aviation. Recognizing certain duplications in maintenance instruction, we have eliminated the *Aviation Officer Maintenance Course* at Fort Rucker. However, we have indicated that greater emphasis must be placed on maintenance in the presently conducted initial flight training courses conducted at Fort Rucker. This emphasis, we feel, will materially assist the unit

aviator, particularly in small detachments, to maintain high standards of aircraft availability. This office continues to emphasize that all commanders must pay a considerable amount of attention to maintenance.

Extensive Participation

Since the organization at the first of the year of the new *Federal Aviation Agency*, the Army has assumed an ever increasing role in its activities. At present there are 15 Army officers, headed by *Brigadier General Carl I. Hutton*, assigned to this agency. This office and other agencies of the Army are working closely with the *Federal Aviation Agency* on many of its activities, i.e., utilization of air space, air traffic control, aviation training and safety.

Camp Gary to Close

On the 20th of April announcement was made of the closing of Camp Gary, Texas, as of 30 June, with the subsequent introduction of primary flight training at Fort Rucker, Alabama. This change should materially improve our fixed wing flight training program. Under the new arrangements the student will attend fixed wing training at Rucker on a PCS basis.

Aviation Company Programs

The scheduled activation of one medium H-37 transport helicopter company at Fort Benning, Georgia, during the first quarter of FY 60 will complete our active Army helicopter company program. The activation of a fixed wing aviation company at Fort Riley in May will complete the fixed wing company active Army troop program. The activation of these two companies will give us a total of six fixed

CH-1C Tours Military Posts

Designed to achieve stability characteristics comparable to those of fixed wing aircraft, the new Cessna Aircraft CH-1C helicopter (right) is shown in the instrument trainer configuration. This version accommodates a student observer, permitting advance observation and instruction. Featuring a forward-mounted Continental 270 h.p. engine as well as a 2-blade metal main rotor and metal anti-torque rotor, the CH-1C will cruise between 80-105 knots. Rate of climb for the 2,050 pound helicopter with a maximum gross weight of 3,100 pounds is 950 f.p.m. (sea level). The new aircraft recently visited Washington and other eastern military installations while on an Armed Forces demonstration tour.



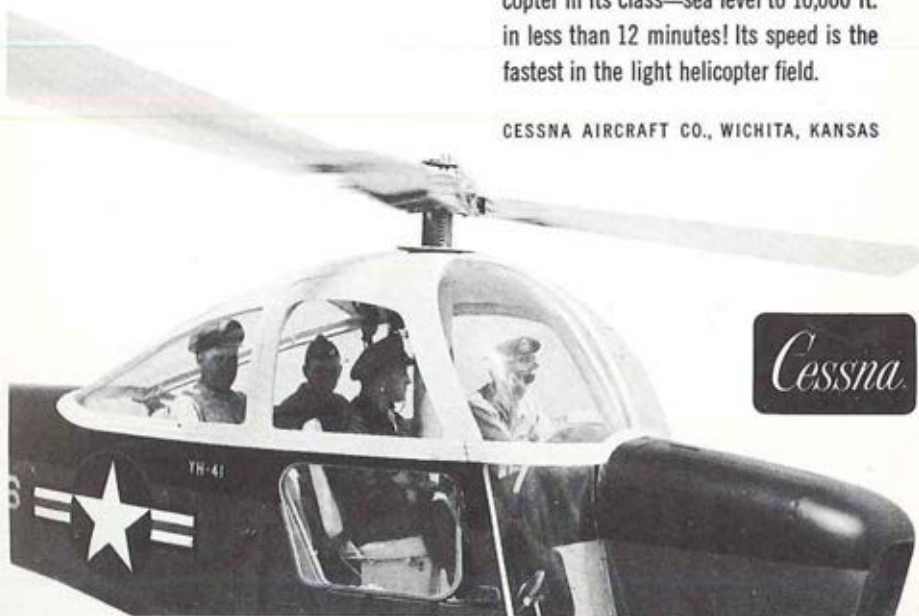
*New Cessna YH-41
delivers top performance
plus big maintenance savings
to helicopter flying!*

Cessna's all-new YH-41, recently purchased by the U. S. Army for its air arm, combines the latest in design and engineering advances to give operating and maintenance performance never before experienced in the helicopter field!

For example, the engine—mounted in the nose of the fuselage—makes installation and servicing easy—provides extra cargo or passenger space. Cessna has made the rotor assembly aerodynamically clean. Also, the drive system on the new YH-41 is a masterpiece of simplicity, has a minimum of parts—conveniently located for easy servicing.

Offering multi-utility uses, the 4-place YH-41, at 3,000 lbs. gross weight, can climb higher, faster than any other helicopter in its class—sea level to 10,000 ft. in less than 12 minutes! Its speed is the fastest in the light helicopter field.

CESSNA AIRCRAFT CO., WICHITA, KANSAS



Cessna



Vertol selected to build new 2-3 ton transport helicopter



Vertol has been selected by the U.S. Army to develop a new 2-3 ton capacity helicopter, destined to write a new page in the mobility book of today's fast striking forces. This multi-turbine powered vehicle (Army designation the YHC-1B Chinook) is a growth version of the company-developed Vertol 107 family prototype.

The all-weather, day-night YHC-1B will be capable of performing such varied missions as redeployment, reinforcement, attack and pursuit. In a logistical role, the aircraft could transport missiles, nuclear warheads and general cargo, and evacuate casualties. Its unobstructed 30-foot long payload compartment, with a straight-in rear loading ramp that can be left partially or completely open or removed entirely to transport extra-length cargo, speeds the entry and discharge of men and materiel . . . and facilitates in-flight parachute or free-drop delivery for special missions.

The YHC-1B will not only be able to air-lift tactical units capable of completing assigned combat missions, but provide vitally needed mobility within the combat zone. This mobility is requisite in the concept of limited conflicts and, in addition, provides an important offensive and defensive weapon against nuclear attack. In a nuclear situation, the YHC-1B could provide the means for the prompt concentration of troops for attack and their equally rapid dispersion to negate effective retaliation.

All the proved advantages of tandem-rotor helicopters as pioneered by Vertol, will be inherent in this newest Army air vehicle. Large center of gravity range that permits indiscriminate seating and regrouping in flight • Low rotor downwash velocity • Excellent towing characteristics • Rotors high on airframe to permit landing in wooded terrain • Excellent hovering characteristics under varied conditions • Pilot seats low in airframe for ease in judging clearances • Easy maintenance.

Vertol's years of research in the VTOL-STOL field, personified in the YHC-1B, assure our Pentomic army the mobility, speed, flexibility and freedom from terrain that are among the nation's most potent weapons in preventing aggression.



Engineers: Join Vertol's advanced engineering team

VERTOL

Aircraft Corporation

MORTON, PENNSYLVANIA

SUBSIDIARIES: ALLIED RESEARCH ASSOCIATES, INC., BOSTON, MASSACHUSETTS, VERTOL AIRCRAFT CO. (Canada) LTD., ARNPRIOR, ONT.

OTTERS FOR INDONESIA

UI-A Otters were purchased by the Government of Indonesia after careful evaluation based on the use of these aircraft for jungle operations in the Philippines, New Guinea, Laos, Cambodia and India.

Operated by AURI (Indonesian Air Force) pilots, the rugged Otters will be used to integrate the peoples of Indonesia's three-thousand-mile-long island archipelago by linking isolated communities now separated by almost impenetrable jungle.

Faced with the problem of heavy load factors, of rough and ready landing strips, of a hot and humid climate in a land where maintenance facilities are few, the Indonesians made a very logical choice, the DHC 3 Otter.

Below: Indonesian paratroopers are inspected before they board a UI-A Otter during exercises on the Island of Java. Their camouflaged coveralls are patterned to blend with the jungle foliage. In southeast Asia, UI-A's are flying with the Indonesian, Indian and Burmese Air Forces.



DE HAVILLAND AIRCRAFT OF CANADA

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TRENDS/Continued

wing companies and 25 helicopter companies in the active Army.

We have also obtained authority to publish a new TOE for the fixed wing light transport airplane company as a tentative TOE. This TOE will reduce the number of light transport airplanes in the fixed wing transport company from 21 to 16 and will utilize 20 warrant officers in lieu of commissioned officers as fixed wing pilots in each company.

Plans have also been made for the deployment of the *4th Medium Helicopter Company* from Fort Benning, Georgia, to Europe this summer. The *4th Helicopter Company* will be the first medium helicopter company to be deployed overseas so we will be watching the progress of this company with much interest.

Field Testing

■ *Operation Tool Box* is being conducted at Fort Riley, Kansas, to test the adequacy of aviation unit TO&E's and their maintenance capabilities during sustained field operations. The major units participating in this test consist of the *1st Aviation Company, 1st Infantry Division, the 81st Transportation Company (Light Helicopter), the 545th Transportation Detachment (CHFM), the 401st Provisional Field Maintenance Detachment, and a provisional avionics maintenance detachment. Lt. Colonel Fleming, of this office, and I visited the two aviation companies participating in Operation Tool Box on Sunday the 12th of April. We found the companies living and operating completely in the field. The aviation unit commanders gave us excellent briefings on their operations and I believe that we will obtain useful results from this test. This is a 60-day exercise which will terminate about 6 June 1959.*

World Congress of Flight

■ From the 13th to the 16th of April, *Colonel Fleming* and I represented the Army as guests of the Air Force Association at the *World Congress of Flight* held at Las Vegas, Nevada. This included a tremendous exhibit of aircraft and missiles that would have done full credit to Hollywood. The multitude and variety of presentations and symposiums are far beyond my delineation in this letter; however, I do feel that this *World Congress of Flight* is a very excellent follow through on the National Air



Assisted by 8 JATO bottles, Lockheed's new C-130B Hercules — grossing 135,000 pounds — its maximum takeoff weight and almost 68 tons—roars off Eglin AFB, Fla. runways 2,300 feet from the point of engine run-up. The 350-mile-per-hour troop-and-cargo carrier participated in jet-assisted takeoffs during recent prop-stress tests.

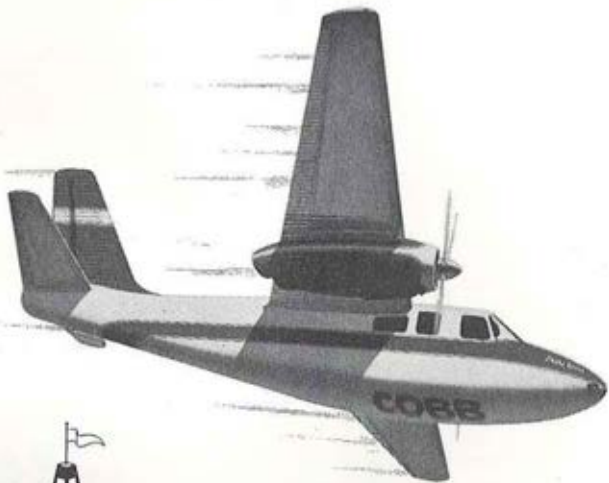
Show which project terminated by the one held in 1956 in Oklahoma City. I presume that another *World Congress of Flight* will be held in future years and I urge Army aviation to be well represented on many of the panels.

D/A Conference

■ We held an *Army Aviation Conference* here in the Pentagon on 22 April 1959 which was attended by the senior Army aviation officers from the various staffs of the Department of the Army, USCONARC, The Aviation Center and the Army Aviation Board. In addition, *General von Kann* flew up from Fort Bragg to attend the conference. We discussed many of our Army aviation plans and problems and came to an understanding on how we will solve these problems together. This conference is one of the principal ways this office provides guidance for the planning and execution of the Army aviation program in accordance with Par 25, AR 10-5.

Reporting System Established

■ In the field of aviation safety, in conjunction with the Navy and the Air Force, we have established a *near-collision reporting system* for incidents involving Army aircraft. Major commanders have been requested to have their aviators give close attention to the risk of air collision and to maintain alertness in the air. The system of reporting near collisions has been established in order to give the Department of the Army the facts of a near collision prior to a similar complaint being received from the *Federal Aviation Agency*. We are proud that we have no record of collisions with civilian aircraft. I must remind you that we can only keep this record by continual vigilance.



world's FASTEST...

MISS JERRIE COBB, on April 13, 1959, at the World Congress of Flight, Las Vegas, Nevada, flew an Aero Commander 680E to a **NEW WORLD SPEED RECORD** for its aircraft in its weight category, over a 2000 kilometer course. Now the fastest, Aero Commander had previously established world records for distance and altitude in 1957.



AERO **COMMANDER**

Another product of ROCKWELL-STANDARD Corporation



■ In my last column, I gave you a short description and the status of many of our future aircraft. In this column I want to describe briefly my own views on mobility and then comment on our research program leading towards aerial mobility.

In the Army we have provided the combat soldier a variety of new weapons, particularly guided missiles, with fire power increases of great orders of magnitudes. However, we have not provided a commensurate increase in mobility. The most significant increase in mobility within the Army's area of operation comes from aircraft in the Army.

In addition, we use our aircraft to provide mobile platforms for sensory and surveillance devices used to find the targets for our family of guided missiles and to give the combat commander a new breadth of combat information.

We Provide "The Means"

Our job in the Transportation Corps, is through research, development, design and production of Army types of aircraft, and working with American industry, to provide the means the Army needs to increase the mobility of its ground troops within the broad framework of military requirements established by CONARC and the General Staff; and the funding resources made available to us.

The Army proved its need for greater mobility during the Korean conflict and demonstrated that new types of aircraft, such as the helicopter, could satisfy this need.

Second Generation of Aircraft

The Army has been able to increase its tactical mobility substantially during the last 10 years with aircraft. I see in the near future, a second generation of aircraft which can live successfully with the soldier in the field. These aircraft will not require a huge logistical tail of maintenance troops and a train load of parts. They will be able to live ruggedly and successfully with the ground soldier in the ground environment. In the not-too-distant future, our present research programs will lead to aircraft which will possibly change some of our military formations and tactics, and provide us truly "shoot and scoot" battlefield mobility.

There are two types of mobility—strategic and tactical. Strategic mobility for Army forces is provided by the other two members of the defense team, the Air Force and the Navy.

Tactical mobility is provided by our low

Transportation Corps REPORT

performance Army aircraft, with their capability of operating from relatively small unprepared fields. Tactical mobility means not only the ability of the soldier to move in the battle area, but equally the ability of the logistics flow to keep up with him. If only our combat elements are mobile, they will starve.

In summary, Army aircraft are primarily used to enhance the Army's mobility in the area of ground combat. Aviation in the Army is an integral part of the Army and lives with whatever elements of the Army require it. Army aviation is used for supply distribution, for troop movement in the forward area, for rescue and evacuation of the wounded, for observation platforms for missile and artillery units, and for surveillance of the battlefield.

Research Provides the Answers

The future of Army aviation depends upon our research program. At the present time, we

By Brig. Gen. Richard D. Meyer Deputy Chief of Transportation for Aviation



are probing the frontiers of low speed and low altitude flight with several research aircraft. All of these research aircraft are designed to answer questions which the aeronautical sciences cannot now answer. How can we fly low and slow efficiently? To find this out, we have embarked on a program of research supported by flying test beds or research vehicles.

A research vehicle must first answer the question: "Will it fly?" This is a technical question.

The next question is its military application. This is a problem for the soldier. To answer it, we must operate the research vehicle under the peculiar conditions of low altitude and low speed in which the Army must operate for survival.

The third question for these research vehicles is the technical characteristics which we can use in designing operational prototypes.

These, then, are the three things we hope to achieve from our research air vehicles and our flying test bed program. First, *is the idea practical?* Secondly, *will it help our mission?* And third, *what are the technical requirements of the operational vehicle which we expect to produce in quantity?* It then follows that the

Timesaver



An inveterate user of Army rotary-wing aircraft, Secretary Wilber M. Brucker is shown after boarding an 8th Trans Bn helicopter at Munich's International Rhein Airport during his recent tour of major commands and units in USAREUR. Army pilots on this particular mission were Capt. John S. Martin and CWO Edward D. Beck, both of the 8th Trans Bn. (U.S. Army photo).

chances are none of our research vehicle will ever be produced in quantity.

A few years ago, we built and tested two one-man flying machines, the *Hiller* and *DeLackner*. We built these air vehicles to find out whether a man without previous pilot training could stand on the platform and fly by leaning his body in the direction in which he wished to go. Could one fly it by those same senses of balance and motion which you used when you learned to walk? These vehicles were not very successful; but we did learn something technical about ducted propellers which we put to use in later research items.

Additional Approaches

The *Doak* ducted fan research air vehicle was one of the descendants of the early tests. In this vehicle, the ducted propellers are placed on the wings of a more or less conventional airplane. Both propeller and duct rotate from vertical to horizontal. When the fans are horizontal, the aircraft lifts in a hover, and as they are rotated forward, the aircraft flies conventionally. This air vehicle has flown as an airplane in horizontal flight and has also taken off vertically. At this time, we are working on the transition from vertical to horizontal flight.

We have built three other research vehicles to try other means of doing the same thing in different ways. They are the *Vertol* tilt-wing

"Granddaddy"



Thought to be the "Granddaddy" of all H-21 helicopter engines, "Ole 600" is shown being removed from a 57th Trans Co (Lt Hcptr) Shawnee after 600 hours of traversing the airwaves. Sp/1 Niles J. Meyers (left) and SFC Morris Squiers participate in the removal of the 1,425 hp engine destined for shipment and ultimate renovation at Curtiss-Wright's plant in Wood-Ridge, N.J. Robert F. Jones, factory tech rep, felt certain the 600 hours was a record performance. The normal life span of such engines is 450 hours.

in which both wing and propellers rotate through 90°. The *Bell* convertiplane using large propellers like helicopter rotors which, after take-off, move forward into the conventional position. Both these test vehicles have been flown and converted successfully.

The fourth type, built for us by *Ryan*, has huge flaps which deflect the air stream to get off the ground, then retract for normal flight.

On a larger scale, *Hiller* has also built a tilt-wing aircraft, and the British have successfully flown a very large compound helicopter/fixed wing aircraft called the *Rotodyne*. These experimental craft are all designed to advance the state of the art.

Ground-Skimmer Vehicles

Going back to the original one-man flying platform, we are working on three other research vehicles derived from that first development of the ducted fan. One of them is built by *Chrysler*; another by *Piasecki* using a slightly different type propeller, which has successfully demonstrated its ability to become airborne and stay under control. A different approach

TC REPORT/Continued

using four horizontal unshrouded propellers is under construction by *Curtis-Wright*.

These latter vehicles may well lead to production of what we call a ground-skimmer vehicle. We don't consider them as aircraft; rather, highly mobile cross-country vehicles, able to operate without the need for prepared roads and bridges.

I have given you this short resume of some of some of the aerial research vehicles in our Army research program to stimulate your thoughts and challenge your imaginations in this relatively unexplored realm of flight.

We feel that we have now learned enough from some of our test beds to go out on a new approach to a family of aerial vehicles for the Army of the late 60's. From our flying platform test beds may well come ground-skimmer vehicles to replace the ground bound wheels and tracks we know today. As funds can be made available, we intend to press forward on these major opportunities for break-through in the field of mobility.

ITEMS OF INTEREST

The Army's new high performance observation aircraft, the Grumman AO-1 "Mohawk," made its first successful flight April 13th at the company's Long Island, N.Y. field. Despite the fact that it was heavily loaded down with instruments which boosted its gross weight to more than 11,000 pounds, the plane climbed about 4,000 feet a minute on one of its initial hops. Following additional company testing, the plane goes to the Navy's Patuxent, Md. Naval Air Station for further tests.

Early May Symposium

The Chief of Transportation will sponsor a Defense Department symposium on low speed aerodynamics in early May (1959) in the Pentagon. Represented will be the Army, Navy, Air Force and NASA. The meeting will serve as a technical program review of work being done in this area by the Department of Defense.

Eye-Catching is the Word

"Amazing" may not be an eye-catching word these days but it is the best one I can think of to describe the radical new wingless VTOL

aerial research vehicle built for the Army and Navy by Collins Radio Company's Aeronautics Research Laboratories, Cedar Rapids, Iowa. The "Acrodyne" achieves vertical take-off and landing capabilities, and transition to and from forward flight, by channeling the airflow, or thrust, from its two contra-rotating propellers internally thru the craft's fuselage, and deflecting it downward and out thru controllable vents in its belly. This propulsion method eliminates the need for wings.

20% of TC Officers Are Rated

Today about 20% of all Transportation Corps officers (exclusive of Warrant Officers) are rated and Transportation Corps has about 20% of the total flyers in the Army. Six or seven years ago only 3% of all TC officers were rated. We are very proud of this indication of the important contributions we in Transportation have to make to the overall Army Aviation Program.

RICHARD D. MEYER
Brig. Gen., USA
Deputy Chief of Transportation
for Army Aviation, OCT

ARMY AVIATION ASSOCIATION

OF AMERICA, INC.

You Going?

By the time you read this, the *First AAAA Annual Meeting* will be just one lawn-cutting away, or a thing of the past, depending upon whether you are a Z.I. or an APO Member.

Our Annual Meeting Committee sincerely feels that our first National Get-Together will be a highly successful—and fruitful—affair for all attendees.

The impressive list of distinguished speakers and panelists sets this Meeting apart from past gatherings. Despite busy schedules, their abnormal workload, and similar commitments to participate in other professional meetings, all of our invited speakers and panelists have indicated that they desire to address the attendees.

Full House Indicated

This top level support indicates that a most interesting professional meeting is on tap . . . and from all advance indications the "audience" will be there.

A repetition of the Programming as it appeared in the mid-May first class mailing to all Members is unnecessary. The Program outline is firm.

Security Clearance

However, the Committee feels that we should once again stress the necessity for Members to handcarry the appropriate security clearance to the Meeting, if they have not already forwarded this information to the National office.

FUNCTION DATA

REGISTRATION FEE:

AAAA Member	\$3.00*
Non-Member (Includes Membership)	\$9.00*
*Includes Registration for wife.	

17th ANNIVERSARY LUNCHEON, June 6, 1959:

Non-Military	\$5.00
Military	\$3.50

AAAA ANNUAL BANQUET, June 6, 1959:

Non-Military	\$10.00
Military	\$ 6.50

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Washburn



Shea

This clearance, as you know, is required for attendance at the *Friday afternoon* (June 5) professional meeting at Fort McNair, Va.

At this time (May 13) the Committee has received confirmation that the person selected for the "Army Aviator for 1958" Award will attend the *17th Anniversary Luncheon* and will receive the Award in person. Similar acknowledgment is expected momentarily from the Awardee to receive the "James H. McClellan Safety Award."

On behalf of the Awards Committee who asked that we convey this message to you, the Annual Meeting Committee sincerely thanks the many Chapter organizations and individuals who submitted detailed nominations for the two Awards to be presented at this *Annual Meeting*. This prompt support was most encouraging and enabled the Awards Committee to make selections that were truly globular in scope.

You'll Not Regret It!

It is our sincere hope that if you can possibly do so that you join with us at this *First Annual Meeting*. There will be a few pleasant surprises, and, in all probability, a "hung" elevator or two or one of those unavoidable operational tragedies associated with any large gathering.

Clear sailing and come on down!

Col. I. B. Washburn (Ret.)
Lt. Col. Gerald H. Shea
Co-Chairmen
Annual Meeting Committee
AAAA

ARMY AVIATION

Data on Renewing Membership

Some 2,700 of the 1958-1959 AAAA Members have renewed their membership for '59-'60. Those who have not as yet renewed their membership have until July 1st, before, by Association By-Law, they are no longer Members in good standing.

Unknown to most Members the By-Laws provide a three-month leeway for renewal purposes, this period covering April 1-July 1 of each year. All Member benefits (to include ARMY AVIATION MAGAZINE and the Flight Pay Protection as tangibles) are afforded to non-renewal Members during this "grace period."

The By-Laws also require that non-renewal Members be forwarded a "Second (and final) Renewal Notice" on or about 15 May of each year. These notices were provided on schedule.

If you have not as yet renewed your membership for the '59-'60 membership year, and intend to do so, please do this before July 1st.

May-June: Board Turnovers

Regional and Chapter Executive Board elections are underway and by the next issue many of the initial slates for the '59-'60 membership year will be published here, along with such Executive Board group photos as are submitted.



Lt. Col. Thomas W. Anderson (left), new STUTTGART CHAPTER President, is congratulated by Col. Robert S. Neely, retiring Chapter President, following early '59-'60 elections. (Photo: H. E. Woodward).

The new Executive Boards will formally take office on June 7, the same date on which the new National Executive Board will be installed in "transfer of office" ceremonies held at the AAAA Annual Meeting in Washington, D.C.

Many Chapters activated in late '58-early '59 are expected to return incumbents to office in that the Association By-Laws do not consider terms of office less than a full year as "tenure of office." Then, too, you can expect to see many new faces at the helm.



Regional-Chapter Activities of AAAA — May 1, 1959



ALABAMA REGION

Fort Rucker, Alabama
Army Aviation Center Chapter
Fort Rucker, Alabama
Combined Test Activities Chapter
Fort Rucker, Alabama

USAREUR REGION

Heidelberg, Germany
Stuttgart Chapter
Stuttgart, Germany
Heidelberg-Mannheim Chapter
Heidelberg, Germany
Frankfurt Chapter
Frankfurt, Germany
Vicenza Chapter
Vicenza, Italy

USAFFE REGION

Seoul, Korea
Hawaii Chapter
Honolulu, T. H.
1st Cavalry Division Chapter
Korea
Seoul Chapter
Seoul, Korea

May 21, 1959

WASHINGTON REGION

Washington, D.C.
Davison Army Airfield Chapter
Fort Belvoir, Virginia
Washington, D.C. Chapter
Washington, D.C.
Fort Meade Chapter
Fort Meade, Maryland

CALIFORNIA REGION

Fort Ord, California
Monterey Chapter
Fort Ord, California
S. F. Bay-Delta Chapter
Stockton, California
Southern California Chapter
Los Angeles, California

Fort Eustis Chapter

Fort Eustis, Virginia

Massachusetts Chapter

Fort Devens, Massachusetts

Fort Bragg Chapter

Fort Bragg, North Carolina

TEXAS REGION

Fort Hood, Texas
Fort Hood Chapter
Fort Hood, Texas
Camp Wolters Chapter
Mineral Wells, Texas
Camp Gary Chapter
San Marcos, Texas

GEORGIA REGION

Fort Benning, Georgia
Fort Benning Chapter
Fort Benning, Georgia
31st Transportation Co. Chapter
Fort Benning, Georgia
4th Transportation Co. Chapter
Fort Benning, Georgia

Alaska Chapter

Fort Richardson, Alaska

Lawton-Fort Sill Chapter

Fort Sill, Oklahoma

Seven Regions

Twenty-Six Chapters

AN "OPEN LETTER" TO AAAA MEMBERS

"What's with the FPPP?"

This question has been asked by several Members following the receipt of the new green Certificate of Participation by many renewal Members.

Basically, the original '57 Program has been modified, effective April 18th. These modifications, worked out in meeting and mutually agreed upon by both the National Executive Board of the AAAA and the underwriters, are intended to place the FPPP on a sound, long-term basis.

There are two pertinent changes to the Program, both instigated by the '57-early '59 experience ratio of claims to reserves.

Virtually All Claims Run the Full Limit

This experience ratio revealed that the preponderance of the claims levied against the Program were in the disease-illness category and that better than 90% of all claims received will run the full 24 month indemnity obligation period, according to the accompanying statements by the indorsing Flight Surgeons.

The obligated reserves (those necessary to meet claims for the full period of obligation) together with indemnities already paid out to the same claimants during the initial part of their claim, exceeded underwriter funds derived through premiums.

The Board feels that it is important to stress that the underwriters, in accepting this Program, did so with the provision and understanding that a "firm" Program could *not* be obtained until at least a two-year experience ratio was available to them.

In speaking for the Board, I realize that quite often changes are met with some misgivings, at least until the full facts are known.



**Colonel
Robert M. Leich**

Please bear in mind that this is an unusual type of coverage on which no statistical data was available at the outset and that no one, yet alone the members of the National Board, the underwriters, or any Member or group of Members, were in a position in late '56 to determine accurate premium tables and general provisions for this type of coverage.

The first change adopted by the National Board reduces the maximum "indemnity obligation period" for disease-illness claims to 12 months. The maximum "indemnity obligation period" for aviation-accident claims—originally set at 24 months—has been retained.

The second change adopted by the Board reduces the monthly indemnity payments to 80% of monthly flight pay, an amount that equals normal *net* income from regular, taxable flight pay.

Ironically, under the original indemnity return, the claimant actually received a non-taxable monthly indemnity increment *in excess of* his normal taxable flight pay.

Board Position Defined

The Board, in representing the entire group of insureds and in part being members of this group, felt that it was not within the original concept of this Program for claimants to receive indemnities *in excess of* flight pay actually lost. They felt that this indemnity excess should be utilized solely to meet actual *net income* losses suffered and that in being an excess, the original indemnity payments constituted a potential deterrent in those cases where a return to flight status was possible.

Although similar now to other plans in general provisions following these modifications, the AAAA Program still represents an insurance investment one-half the cost of comparable plans.

By adjusting this Program to actual experience, it is the firm conviction of the National Executive Board and the underwriters that the present imbalance in claims and reserves will be adjusted over a long term, thereby assuring the perpetuity of low-cost, sustaining flight pay coverage for years to come.

Sincerely,
Robert M. Leich
Colonel, Arty—USAR
President, AAAA

New Slates to Take Over June 7

The National Executive Board, in action taken at its April 25th meeting, formally commended the many retiring Association officers for their sincere personal efforts in stimulating globular membership interest during the brief 1957-1958 period.

In a subsequent action the Board urged all incoming Association officers to solidify their organizational structure by welcoming the experience, guidance, and continued interest of their predecessors.

Texas Regional Actions

Heightened organizational activity occurred during the late March-early May period, highlighted by the activation of the Association's seventh region, the TEXAS REGION.

Spurred by their fast growing membership support Fort Hood and Camp Wolters members returned a Regional slate placing Lt. Col. Vernon L. Poynter (Ft. Hood Regional President) on the National Board. As the Board's sixteenth member, he'll represent Texas membership in all Nat'l Board deliberations.

Elected were: Pres: Col. Poynter; XVP: Maj. Lee H. Willard (Camp Wolters Chapter President); VPA: Capt. Larry D. Rallens; VPG: Capt. Jack M. Sherman; VPR: Maj. James S. Hanna, Jr.; VPI: Capt. Richard D. Smith; Trea: Capt. Melvin D. Tate; and Sec: Lt. Ronald W. Metzger. A Vice President, Public Affairs, and such officers to replace members departing to Fort Carson on a later PCS will be elected shortly.

Hood Spurs Air Explorer Group

In a later action, FORT HOOD CHAPTER members held elections to replace Executive Board officers re-assigned to Fort Carson, Colo. New FORT HOOD CHAPTER officers include XVP: Capt. Richard D. Smith; VPA: Lt. Shannon D. Clark; VPI: Capt. Henry J. Wilkins; VPP: Lt. John A. Means; and Sec: Capt. William O. Chamberlain.

Chapter members also approved the continuation of their initial AAAA monthly luncheon schedule, and in another action, indicated that the Chapter would support an Aviation Explorer Scout group. Lt. Jambon, who undertook preliminary investigations of the Scout Program, received the support of a seven-member volunteer committee. The Chapter members endorsed the attendance of the President and the Executive Vice President as accredited Chapter Delegates at the coming Annual Meeting, and approved the attendance of a third delegate from among those members being re-assigned to Fort Carson.

Benning Esprit in Evidence

In late April, AAAA Members presently assigned to the 4th Transportation Company (Med Hcptr) (H-37) (Mojave), Fort Benning, Ga., held a preliminary business meeting and activated the Association's twenty-fourth Chapter, the 4TH TRANSPORTATION COMPANY CHAPTER.

Elected to office in the GEORGIA REGION's third Chapter were: Pres: Maj. Keith J. Bauer; XVP: Capt. Robert G. Cox; VPA: CWO Jack A. Brown; VPG: Lt. Lawrence E. Corser, Jr.; VPR:

MILITARY AVIATION PLACEMENT SERVICE

Members may apply for a specific position by requesting a Qualification Resume from the AAAA. Resumes, as received, will be forwarded to the specific Box holder.

SOUTHEASTERN firm has a current need for personnel with helicopter, supply and engineering backgrounds. Write AAAA, Box 5, Westport, Conn.

SOUTHEASTERN STATE will have openings for several aviation mechanics in the near future. Applicant must be either service school trained or appropriate CAA license in both fixed wing and rotary wing aircraft. Must be willing and able to be a member of the National Guard. Write AAAA, Box 1, Westport, Conn.

MIDWESTERN AIRCRAFT firm requires technical representatives to service target missiles. Immediate positions call for extensive training, practical experience on electronic equipment such as radar, fire control systems, autopilot, radio, telemetry. Must be capable of assisting military personnel on recommended service techniques, by means of class room lectures, training schools, service demonstrations. Write Box K, AAAA, Westport, Conn.

May 21, 1959

MAJOR WEST COAST Aircraft Manufacturer Desires East Coast Military Sales Representative. Prefer extensive Army aviation background with helicopter flight experience. Write AAAA, Box J, Westport, Connecticut.

MIDWESTERN UNIVERSITY has immediate openings in graduate study program with specialization in engineering psychology. Qualified applicants will have no trouble in securing an assistantship in various areas of applied experimental aviation psychology. Early response is required for Spring applications. Write AAAA, Box L, Westport, Conn.

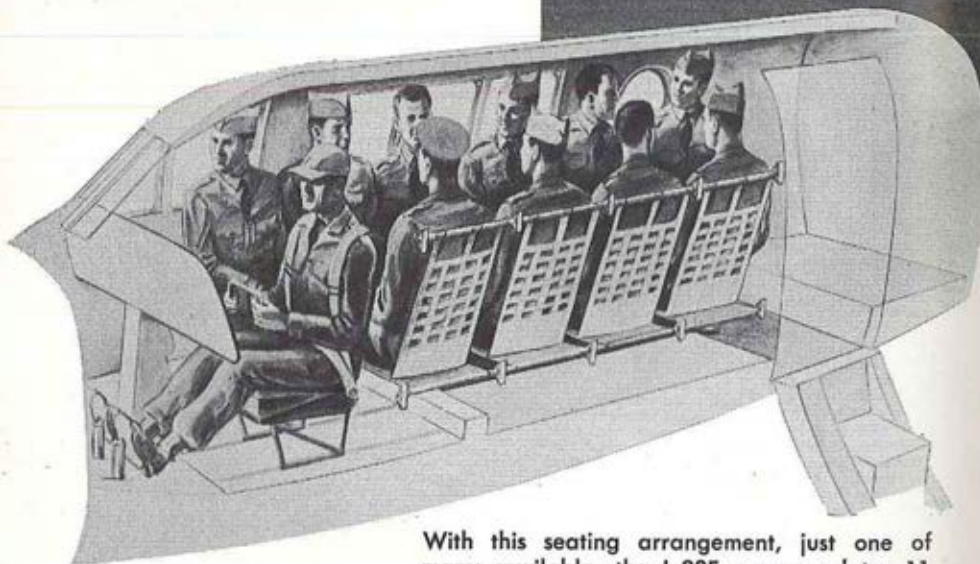
CANADIAN helicopter operators have openings for licensed mechanics. Must have held their "M" license for a minimum of two years. Write AAAA, Box 7, Westport, Conn.

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The New U. S. ARMY

This is the latest addition to the distinguished series of U. S. Army L-23 Liaison Transports—the spectacular L-23F. Bigger—roomier—quieter—and with excellent flight characteristics that are the talk of every military pilot who has flown this new L-23F.

With its entirely new fuselage, the L-23F offers a wide choice of interior arrangements and is quickly convertible for use as a transport, a flying “bus” for an entire staff or a cargo-carrying aerial workhorse.



With this seating arrangement, just one of many available, the L-23F accommodates 11 people, including pilot.

L-23F TRANSPORT



TODAY Beechcraft projects include research and development work on launching and recovery systems for missiles, drones, and manned aircraft; target and reconnaissance aircraft; ground support equipment; and classified projects in the advanced fields of aerodynamics, cryogenics, thermodynamics, and aircraft range extension.



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.

NEW AAAA MEMBERS - MARCH-APRIL, 1959

NORTHEAST AREA

(Mass-Cann-Vt-NH-Me)
 Maj John E. Stans
 Capt Wilbur A. Sidney
 Capt Jesse R. Joubert
 Capt Alphonse C. Turcotte
 Lt Larry G. Bruce
 Lt Hubert C. Murphy
 Lt Morris M. Jessup
 Lt R. M. Nasartowich
 Lt Ralph E. Neumann
 Lt Kenneth M. Siye
 CWO Keith R. Barck
 CWO Richard M. Rex
 CWO James V. McCarrt
 WO Paul H. Bowers
 WO William M. Dempsey
 WO Julius L. C. Berry
 WO Everett H. Allen
 Mr Joseph R. Greenidge
 Mr. Alex Petrides
 Clayton E. McLaughlin

EASTERN AREA (NY-NJ-Penna.)

Capt Charles F. McGee
 Capt Edward J. Helm
 Capt Ronald D. Sanderson
 Lt Paul D. Dorayo
 Lt Thomas L. Payne
 Lt Leo D. McEvoy
 Lt Robert S. Strachan
 Lt John G. Reichold
 Lt Martin R. Vitters
 Lt Anthony J. Adessa
 Lt Leo Pluta
 Lt Frank W. Sanders
 Lt Frank J. Gundaker
 Mr John Hopkins
 Harry R. McNeal

WASHINGTON REGION (Md-Va-D.C. within 60 miles of D.C.)

L/Col Elmer M. Fox
 Maj Francis F. Pfeifer
 Capt Ronald W. Anderson
 Capt William A. Rathbone
 Capt Lawrence T. Sallee
 Capt Arthur V. Power
 Capt Gerald H. Keating
 Capt Paul R. Curry
 Lt Robert A. Hefford
 Lt George D. Iverson
 Lt Jim B. Alkman
 Lt Leo E. Schmitz
 CWO Gordon D. Gessell
 WO William A. Baylor
 WO Perry D. Leonard
 Mr E. W. Norris
 Mr Arthur W. Eichmann
 Miss Jean Ross Howard

MID-EASTERN AREA (W.Va-Del-Va. outside 60 miles of D.C.)

Capt John R. Dunham, Jr.
 Capt Clyde K. Steele
 Capt Thomas M. Dunn, Jr.
 Lt Thomas P. DeWeese
 Lt John A. Hammond

MID-EASTERN AREA (Cont.)

Lt John E. Kilgallen
 Lt Dwight K. Brown
 Lt Daniel E. Molden
 Lt William R. Troy
 Lt Jonathan W. Fincke
 Lt John J. Webster
 WO Walter J. Ainsworth
 WO Thomas E. Cooper

SOUTHEASTERN AREA (N.C., S.C., and Fla.)

L/Col William C. Adler
 Capt William B. Yarbrough
 Capt Richard E. Blanks, Jr.
 Capt Samuel M. Vincent
 Capt Dan F. Sims
 Capt Robert D. Stearns
 Lt Douglas V. Guentz, Jr.
 Lt Richard F. Rapp
 Lt Allison L. Nicholson
 Lt Arthur D. Bills
 Lt Charles B. Counselman
 Lt Franklin S. Lloyd
 Lt Garry L. Wilson
 Lt William E. Barnett
 Lt William T. McElrath
 Lt Charles R. Palmer
 Lt James L. Runge
 CWO Arthur M. Albritton
 CWO Edward Brashers
 WO Joseph L. Beverly, Jr.
 WO Miles S. Becker
 WO Lester Fentz
 WO William C. Briggs
 WO Robert Graben
 WO Thomas J. Hogan
 WO Max H. Wilson
 Sp/6 William P. Hoffman
 Mr Charles C. Thomas

GEORGIA REGION

Maj William G. Black
 Capt Jean Bacchus
 Capt Stenson R. Jones
 Capt Arthur B. Wood
 Capt Everdus H. Hockett
 Capt Richard F. Conner
 Capt Ray A. Bicknell
 Capt Robert S. Swinney
 Capt Robert R. Wall
 Capt Joseph W. Thompson
 Lt Robert M. Morrison
 Lt McClain G. Garrett, Jr.
 Lt Brian C. Sanders
 Lt Jay W. Pershing
 Lt Ted N. Phillips
 Lt Homer B. Allison
 Lt Vernon R. Beinke
 Lt Julio N. Silva
 Lt Joseph H. Kastner
 Lt James W. McCook
 Lt John E. Wild
 Lt Fred G. Gehrmann
 CWO Robert L. Wood
 CWO Stanton L. Beedy
 CWO Orin D. Havens
 WO Edgar J. Reese
 WO Donald E. Spencer
 WO Raymond H. Chapman
 E-6 John G. Keller

SOUTHERN AREA

(Okla-Tenn-Miss-La-Ark)
 Maj Geon H. Reynolds
 Capt J. K. Stroud
 Capt Floyd T. Borron
 Capt Paul E. Kemp
 Capt Wm R. Watson, Jr.
 Capt Leiford G. Wanken
 Lt William D. Ray
 Lt Charles R. Braszale
 Lt Charles A. Bullock
 Lt Jimmie L. Hilton
 Lt William R. Hensley
 Lt Jerry R. Stratton
 Lt Frederick G. Blackburn
 Lt Warren E. Adair, Jr.
 Lt James C. Blewster
 Lt Walter C. Wilson
 Lt Ralph A. Riker
 Lt Daniel W. Fry
 CWO Phillip G. Heath
 CWO Willard J. Martin
 CWO George L. Carpenter
 CWO Foy R. Ketchersid
 CWO Louis M. Butt, Jr.
 CWO Willie H. Windham
 CWO Omar K. Kipe
 CWO Harold S. Lanier
 CWO James H. Millhorns
 CWO Leo R. Mathien
 WO George W. Murray, Jr.
 WO Clayton A. Grindal
 WO Thomas L. Gainer
 WO David W. Choss
 WO Harry LeMonte
 WO Donald W. Deak
 WO Albert E. Burth
 WO Billy J. Long

CENTRAL AREA

(Ohio-Ind-Ky-Mich-Ill-Wis)
 L/Col Earl B. Kelly
 Maj John F. Corby, Jr.
 Capt Wayne E. Dutton
 Capt Robert O. Evins
 Capt Jasper H. Loudenback
 Capt Richard C. Gardner
 Lt Steven W. Henault
 Lt Walter W. Wolfe
 Lt John B. Swift
 Lt Charles W. Bagnal
 Lt Vance S. Gammons
 Lt Rutledge H. Flemming
 Lt Donald J. Gibson
 Lt Charles M. Blackman
 Lt Robert E. Rawls
 CWO Joe E. Kutil
 CWO Paul A. Easton
 CWO Charles H. Astrike
 CWO William H. Cleary
 WO Joseph C. Kettles
 WO Walter J. Schramm
 M/Sgt Robert H. Davis
 M/Sgt Thomas C. Lovan
 Sp/4 J. R. Pendergraft

ALABAMA REGION

L/Col R. P. Alexander
 L/Col Nelson L. Lindstrand, Jr.
 L/Col Robert E. Corey
 Maj Woodrow W. Knox

ALABAMA (Cont.)

Maj Jack M. Tumlinson
 Maj Charles S. Black
 Capt Edward Rankin
 Capt William T. Poor
 Capt Donn E. Taylor
 Capt Jack V. Mackmull
 Capt Eugene P. Tanner
 Capt Thomas E. McCready, Jr.
 Capt Frank E. Stergar
 Capt Lloyd D. Smith
 Capt Albert B. Suttle, Jr.
 Capt Joseph E. Kramer
 Capt Donald J. Prem
 Capt Quimlan W. Jones
 Capt David S. Dillinger
 Capt Stephen F. Cameron
 Capt Curtis G. Lafren
 Capt Edward P. Davis
 Capt Curtis O. Greer, Jr.
 Capt Rowland E. Cox
 Capt Robert L. Harbuck
 Capt Don W. Chobot
 Capt Derrill W. Sandel
 Capt Henry C. Dewitt, Jr.
 Capt Jack D. Peavy
 Capt Hubert Morris
 Lt Bernard J. Buell
 Lt Robert L. Jankies
 Lt Raymond E. McBride
 Lt John S. McLeod
 Lt James L. Mitchell
 Lt Oscar E. Hester
 Lt Lawrence A. Frank, Jr.
 Lt William W. Brannon, Jr.
 Lt Joseph S. Hayden
 Lt William P. Rust
 Lt Henry E. Dreher
 Lt William W. Cole
 Lt John F. Santulli
 Lt Robert W. Arnold
 Lt John R. Smith
 Lt Gary P. Beaulieu
 Lt Flavil L. Johnson
 Lt Warren C. Davis
 Lt Gleima O. Helmick
 Lt James D. Marett
 Lt George D. Gubitz
 Lt Walter N. Wharton
 Lt Bert J. Haffner
 Lt Donald R. Ruiz
 Lt Glenn F. Hoffmann
 Lt Edward P. Hill, III
 Lt Boyd E. Murrow
 Lt George A. Moglia
 Lt James M. Knowlton
 Lt Robert B. Chandler
 Lt John W. Barry
 Lt Robert B. Davis
 Lt Ronald G. Maxom
 Lt Courtney E. Smith
 Lt Bernard A. Slaten
 Lt Richard K. Thomas
 Lt James A. Cox
 Lt Lanny Standridge
 Lt George R. Miles
 Lt Phillip B. Scatterday
 Lt Billy W. Fugitt
 Lt George W. Adamson
 Lt John P. Johnson
 Lt William H. Luther
 Lt John B. Reese

NEW AAAA MEMBERS — MARCH-APRIL, 1959

ALABAMA REGION

Lt Gary W. Niles
 Lt Freddie L. Kamp
 Lt Davis Clark
 Lt Russell D. Nelson
 Lt William J. Percival
 Lt Robert L. Swanson
 Lt Robert F. Wathzle
 Lt Charles O. Danielson
 Lt James A. McGowan
 Lt Frank L. Henry
 Lt Edward W. Knotts
 Lt James R. Leudermilk, Jr.
 Lt William M. Shawver
 Lt Kenneth D. Steckly
 Lt James H. Stone
 Lt Gene A. Truitt
 Lt Charles A. Klapp
 Lt Sidney L. Strickland
 Lt John C. Carlisle
 Lt John F. Foster
 Lt Irwin G. Lynch
 Lt John C. Polk
 CWO William E. Moore, Jr.
 CWO Andrew C. Hudson
 CWO Lawrence C. Hammond
 CWO Forrest E. Myers
 WO Herbert A. J. Ahlstedt
 WO Delma M. Smith
 WO Robert A. Kony
 WO Dewey J. Shelton
 WO Benny D. Crocker
 WO Roger L. Eichelberger
 W/Sgt William E. Crosby
 E/5 Paul H. Cotner
 SFC Isaac B. Sheffield
 Sgt Bogus Padgett
 Sp/4 Russel T. Bacon
 Mr Dan W. Lakey
 Mr Donald R. Whitfield
 Mr William R. Gaines
 Mr George A. Lindholm

TEXAS REGION

Col Lester F. Schockner
 L/Col Roy E. Creek
 Maj Fay Rice
 Capt Donald J. Lewis
 Capt Louis L. Mizell
 Capt Walter B. Russell
 Capt Henry G. Haseley
 Capt Lindberg A. James
 Capt John N. Bradshaw
 Capt Robert H. McCandlish
 Capt Donald D. Wolgamott
 Capt William R. Mathes
 Capt Arthur A. Christiansen
 Lt Jerry A. McDowell
 Lt Dwayne S. Bailey
 Lt Jerry N. Tuttle
 Lt Ronald W. Metzger
 Lt Karl C. Ritz
 Lt James M. Adler
 Lt Thomas P. Sampson
 Lt James Burton
 Lt James B. Hayes, Jr.
 Lt James A. Phelps
 Lt Robert Ulzheimer
 Lt Max D. Conner
 Lt Jack V. Vick
 Lt Richard H. Scott
 Lt Gilbert F. Decker

TEXAS (Cont)

Lt Albert L. Fournier
 Lt Pierre J. Brunelle
 Lt Frank F. Johnson, Jr.
 Lt Fred C. Briggs
 Lt Charles M. Rejno
 Lt Charles L. Brown, Jr.
 Lt Lynn R. Sanders
 Lt Charles S. Rose, Jr.
 Lt Albert R. Woodruff
 CWO David M. Rumph
 Mr Dewey O. Cheever
 Mr John E. Hunt, Jr.
 Mr Le Juan Powell
 Mr Harry T. Woodmanson
 Mr B. L. Lichten
 Mr J. Travis Key

MIDWESTERN AREA (Minn-Neb-Kan-Ma-Iowa-NDak-SDak)

L/Col John Gall
 Capt Boyce B. Buckner
 Capt Robert H. Webb
 Capt Donald H. Jersey
 Capt James S. Kishi
 Capt Eugene McGowan
 Capt Johnny Hood
 Capt Robert L. Erbe
 Capt John D. Robertson
 Capt Paul L. Shulder
 Capt Walter L. Payne
 Capt Marion G. Cornell
 Capt Mahlan R. McGee
 Capt Richard H. Scott
 Capt James R. Klits, Jr.
 Capt John R. Baird, Jr.
 Capt Dale E. Hucks
 Lt Harold J. Lansing
 Lt Darwin A. Petersen
 Lt Robert Gray
 Lt William E. Ziegler
 Lt John H. Fahrni
 Lt Dale C. Lewis
 Lt Martin L. Kirkegaard
 Lt Theodore E. Drane
 Lt Thomas E. Moeger
 Lt John R. McConnell
 CWO Clarence G. Rhinshart
 CWO Gilbert S. Honda
 CWO Harry M. Campbell
 CWO Jessie E. Rencchausen
 CWO Leroy E. Richards
 WO Richard E. Myers
 WO Eskill A. Phillips
 WO T. J. Charbonneau
 WO Billie M. Couch
 WO Dennis J. Ferry
 WO James R. Hagemier
 WO Carlton H. Lindsay
 WO Raymond F. O'Cain
 WO Joseph M. Mikel
 WO Joseph C. Mullins
 WO Elmer Anderson
 Mr William R. Hewitt
 Don S. Evans
 Daniel S. Gressang, III

WEST CENTRAL AREA
 (Col-Ariz-Nev-Utah-NMex)
 Capt Orval W. Rollins

Lt James P. Wall
 Lt Samuel D. De Lozier, Jr.
 Lt Frank A. Marland
 Lt Kenneth C. Lindquist
 Lt Donald R. Mossey
 Lt Vernon L. Hatch
 Lt William A. Bruce
 Lt Robert A. Langworth
 Mr Egil Skogstrom

NORTHWEST AREA (Wash-Idaho-Ore-Mont-Wyo)

Capt James K. Bush
 Capt Reginald Woolridge
 Capt Phillip D. Jones
 Capt James D. Sullivan
 Capt Arthur C. Franklin
 Capt Alfred H. McCluskey
 Capt Robert Openshaw
 Capt Walter W. Jackson
 Lt Gordon D. Grosvenor
 Lt Gordon McCowan
 Lt Eugene R. Woods
 Lt James A. Berry
 Lt Frank O. Bonnarens
 Lt Marvin A. Stevens
 Lt Eugene R. Woods
 Lt Richard G. Weeks
 Lt John P. Petry, Jr.
 Lt Morris H. Pixley
 Lt Carl S. Miller
 Lt William E. Everett
 Sp/6 Harold J. Brochnell
 Mr Wm A. St. Germain

CALIFORNIA REGION

Maj Roland V. Jager
 Maj Richard H. Rennie
 Capt William E. Cornwell
 Capt James K. Stowell
 Capt Ivan R. Webb, Jr.
 Capt Robert F. Cox
 Capt Leroy B. Hare
 Lt George M. Baxter
 Lt Norman E. Stockton
 Lt Beverly G. Beckley
 Lt Lewis D. Ball
 Lt William E. Banks
 Lt Frederick R. Bisch
 Lt Richard A. Demmer
 Lt Sanford A. Ross
 Lt Donald G. Lanning
 CWO David R. Saylor
 CWO William C. Gentry
 CWO N. W. Moczygomba
 CWO Johnnie R. Sandigo
 WO Richard C. Keehn
 WO Hans DeBoer
 SFC Theodore F. Gill
 SFC Kenneth W. Downes
 SFC Sameul Parker
 SFC Curtis C. Brown
 SFC Thomas G. Baggs
 Sp/6 John E. Nelson, Jr.
 SFC Paul L. Partell
 SFC William D. Schultz
 SFC Charles E. Vermace
 SFC George F. Brown
 Sp/1 Harvey E. Schuldt
 Sgt Onyx L. Hipdon
 SFC Charles H. Bridges
 Miss Loretta M. Johnson

USAREUR REGION

Maj Paul G. East
 Capt William E. Volk
 Capt Jerry L. Teague
 Capt Raymond Forehand
 Capt Ellsworth T. Rhodes
 Capt Martha Flesher
 Capt John A. LaMontia
 Capt Joseph A. Kunz
 Capt Jack B. MacDougall
 Capt Donald J. Vernon
 Capt Hadley R. Young
 Lt James E. Garner
 Lt David Clark
 Lt John F. Wall
 Lt Wanford A. Cantrell
 Lt B. J. Choet
 Lt Donald R. Burroughs
 Lt Walter F. D. Allan
 Lt William A. Campbell
 Lt Richard D. Baker
 Lt Edwin M. Aguanno
 CWO Clyde J. Emery
 CWO John F. Leonard, Jr.
 CWO Raymond A. Woodruff
 WO William L. Riggs
 Mr Edward D. Clarke

USAFFE REGION

Maj Harold V. Gwynn
 Capt Fred G. Harris
 Capt George W. Roberts
 Capt Patrick J. O'Grady
 Capt Robert S. Brodstein
 Capt James A. Barrett
 Capt Robert H. Nevins
 Lt John J. Louis
 Lt Jack O. Phillibaum
 Lt Wilford C. Inzer
 Lt James W. Roible
 Lt Kenneth F. Martin
 Lt Arthur G. Conlon
 Lt Raymond O. McLean
 WO James R. Thomas

USARCARIB AREA

Maj Herbert R. Eder
 Capt John G. Duke
 Capt John R. Beier
 Capt Charles A. Licha
 Capt Thomas J. Booras
 Lt Phillip B. Caldwell
 Lt Robert R. Chedester
 Lt Gerald D. Dyer
 Lt Charles S. Shipman
 Lt Ronald C. Rex
 Lt Richard W. Auth
 Lt Charles A. Spencer
 Lt Dick D. Grube
 Lt Norman H. Miller
 Lt Michel Costino
 Lt Harold Z. Kiggins
 Lt Karl L. Osterloh
 Lt Henry E. Schwarz
 Lt Donald W. Coggins

USARAL AREA

Sp/6 Robert J. Cooper
 Sp/6 Lennie H. Huston
 SFC Robert E. Werner

CANADA AREA

WO Joseph Gregory

CWO Nathan Schultz; VPI: Capt. Edward M. Browne; VPP: CWO Leonard A. Gifford; Trea: Capt. Kenneth Wenn; and Sec: CWO Henry Coleman.

Unit Chapters are a unique accomplishment in the AAAA, there being only three such Chapters at this time. Two of the unit Chapters, the 31ST TRANSPORTATION COMPANY CHAPTER and the 4TH TRANSPORTATION COMPANY CHAPTER, are at Fort Benning, indicating high unit esprit at this particular post.

Lawton-Ft. Sill Programming

A new Chapter, the LAWTON-FORT SILL CHAPTER, now represents the birthplace of Army aviation and one of the Association's "high membership support areas."

Activated in late March, the new Chapter endorsed a monthly schedule of meetings with the 91st Helicopter Company, the 54th Helicopter Company, the 12th Aviation Company, and the Artillery Battalions rotating the responsibility for the social-educational programming.

Expected to be a three-component Chapter in that considerable interest has been mani-

Industry Memberships, AAAA

Aero Design & Engineering Company
Aircraft Radio Corporation
AVCO Lycoming Division
Beech Aircraft Corporation
Bell Helicopter Corporation
Continental Motors Corporation
De Havilland Aircraft of Canada, Ltd.
Fairchild Engine & Airplane Corporation
General Dynamics Corporation
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Hayes Aircraft Corporation
Hiller Aircraft Corporation
Hughes Tool Company—Aircraft Division
Kaman Aircraft Division
Lear, Inc.
Lockheed Aircraft Corporation
McDonnell Aircraft Corporation
Republic Aviation Corporation
Ryan Aeronautical Corporation
Sikorski Aircraft Division
Southern Airways Company
Vertol Aircraft Corporation

festated by Oklahoma Reservists, National Guardsmen, and industry representatives, the Chapter is the first to be activated in the broad Southern Area encompassing Oklahoma, Tennessee, Louisiana, Arkansas, and Mississippi. Later actions should result in the activation of a second Chapter with an ultimate SOUTHERN REGION.

SCRAPBOOK SNAPSHOT

33rd Combat Aviation Company Illinois Army-NG Midway Airport, Chicago



FRONT DOW (Left to right): Capt. Fred E. Howard; Lts. John E. Dunn and Rutledge H. Fleming; Lt. Col. Frank O. Grey, Jr.; Lt. Rudolph W. Jacobson; Maj. Otto A. Boehlke; Capt. Forrest R. Norris; Lt. Frank A. Frederick; and Capt. John J. Blasko. BACK ROW: Capt. Jesse W. Stonacipher; Lts. Oliver W. Walden, Robert L. Ayers, Carroll E. Gannill, Donald A. Gibson, Joaquin Mayoral, Jr., Victor H. Heurlin, Jr., and Charles M. Blackman; CWO John A. Dorigan; Lts. Julius P. Echols, Robert E. Meyer, Andrew J. Doser, Jr., and Isaac H. Metzler. Missing: Capts. Ned Danier and Walter R. Reeve; Lts. William A. Giese, Jr., Frank H. Hibbard, Donald J. Hillyer, Robert E. Rice, Burdette L. Thompson, and Donald Ingve, all AAAA Members. (Photographer: Lt. Robert A. Archambault.)



Elected to head the CENTRAL TEXAS CHAPTER formally organized in the Camp Gary-San Marcos area in early April are (l to r): Charles Purcell, Tom Sampson, N. G. Howell, Lt. William R. Lumpkins, Col. Lester F. Schockner, Maj. Francis J. Stevens, Lt. Col. Wilfred F. Jaubert, and Owen Lazenby. [Photo: Graham ROUNDUP].

Elected to office in the LAWTON-FORT SILL CHAPTER were Pres: Maj. Norman W. Goodwin; XVP: Maj. Howard M. Moore; VPA: CWO Jacob L. Packer; VPI: CWO Alva Anderson; VPP: Lt. Paul W. Bass; Treas: Lt. Ralph A. Matthews, Jr.; and Sec: Lt. Joseph H. Fox.

The Chapter expects to elect a Vice Pres., NG Aff., and a Vice Pres., Reserve Aff. at a subsequent meeting.

(Through our error the adjacent MONTEREY CHAPTER report received in early April did not make the April insert. It is an interesting report and bears publication, though delayed.)

Unique Program

Meeting at the Fireside Inn at Seaside, California, some 26 MONTEREY CHAPTER members adopted a unique Chapter Program. Faced with the By-Law calling for year-end depletion of Chapter accruals, the members unanimously approved the utilization of such funds to defray the Association memberships of designated "Key Enlisted Men." A three-member committee was appointed to pursue this Program and it has since been implemented.

SCRAPBOOK SNAPSHOT

Flight No. 2
Contact Fixed Wing Training, USAAVNS
Fort Rucker, Alabama



FRONT ROW (Left to right): Mr. Edward Czop; Capt. Wallace H. Martin (asst Fit Comdr); Lts Charles A. Edwards, and Robert F. Forsythe; Mr. Robert W. Moses; Mr. Jack S. Harrison. BACK ROW: Capt. Otis N. Wilton (Fit Comdr); Lt. Dewey C. Yopp; Mr Thomas C. Saunders; Capt Edward J. Kauchick; and Lts. Robert L. Anderson and James R. Massengill. [U.S. Army photo/delayed].

Lawson Army Airfield Units Stress Tactical Operations

Six Lawson Army Airfield Command aviation units recently completed a full-scale three-day field training exercise at Fort Benning that included night displacements by aircraft and vehicle, defensive measures, camouflage, and field maintenance techniques.

During the three-day training the six units moved from one end of the vast 182,000-acre reservation to the other in setting up two bivouac areas. Particular emphasis was placed upon testing the ability of the maintenance units to set up operations rapidly in new locations. Capt. Edward M. Browne, C.O., 152nd Trans Det. commented that "Within an hour and forty-five minutes after closing at each new area, our maintenance crews were ready to handle any repairs within our capability."

Participating in the training monitored closely by Col. L. W. Leeney, commander, LAAFC, were the 4th Trans Co (Med Hcptr), 31st Trans Co (Lt Hcptr), 152nd Trans Det, 138th Trans Det, 187th Pathfinder Team, and Hq and Hq Det, 3rd Trans Bn.

External Load Lift Record

An H-37 (Mojave) helicopter of the Lawson Army Airfield Command, Fort Benning, Ga., established what is believed to be a new world record for tactical external load lift during recent Fort Benning testing.

The 8,400 pounds lifted by the Infantry Center Aircraft is the largest single lift recorded, according to USATRECOM officials.

Taking part in the U.S.-wide study of helicopter load types were Mojave pilots CWOs Paule E. Cotton, William F. Fette, Nathan Schultz, and Norbert A. Woodruff, all of the 4th Trans Co, Fort Benning, Ga.

Support Anywhere!

Pilots of the First Army Aviation Company (FW-TT) are currently logging over 500 flight hours a month in direct support of the U.S. Army Infantry School's airborne and pathfinder training missions and special missions to distant points.

Equipped with 17 Otters, the First fulfills support missions on a wide scale. One aircraft is currently at Fort Bragg providing special parachute jump, resupply, and tactical support missions for the U.S. Army Special Forces teams furnishing guerrilla activities during annual field training exercises.

In mid-April eight aircraft supported a Quartermaster Corps field training exercise at Camp Pickett, Va., while two other aircraft flew to Fort Knox to support missions of the U.S. Army Armor Center.

"A routine week finds over half of our aircraft away from Fort Benning on support missions at other posts," stated Capt. William J. Beach, C.O. of the First. Capt. William G. Hooks, operations officer, added a quiet "Roger."

Precedent: Airlift of Trainees

Participating in the first full-scale tactical airlift of basic trainees, Lawson Army Airfield Command H-34's and H-37's recently lifted two companies of the Second Battle Group, 1st Infantry, 2nd Infantry Division, across the wooded Fort Benning Reservation to a night problem under tactical operations.

Observing the move from a Sioux, Col. Charles G. Shuttle, battle group commander, later indicated the operations were profitable and could possibly be incorporated into the regular cycle of the unit training phase.

"As far as I know this is the first time trainees at this stage of training have received any training in helicopter-borne moves," commented Col. Shuttle.

New Unit Provides LAAFC Hub

A \$350,000 operations van, housing a traffic control center, two teletype sets, both UHF and VHF radio transmitters and receivers and an FM set, is the nerve center of one of Lawson Army Airfield Command's newest units, the 18th Airfield Operating Detachment.

Capable of providing GCA facilities and a radio homer beacon for any tactical airstrip, the 18th's mission is to control traffic operations of Army airfields in a combat zone, and with other similar units, the VFR and IFR control of all traffic within a combat zone.

Now at 60% of full strength, the unit will have six officers, one warrant officer, and 53 enlisted men when fully organized, according to Capt. William P. Tomberlin, Detachment Commander.



USAREUR REPORT

Prompt USABAAR Assistance

■ We are still wondering what caused *Captains Ward and Nelson* to spin in with the L-23D. Since no apparent cause was evident, we asked USABAAR for assistance with the investigation. This is the first time we have taken advantage of their offer of assistance. It is as rapid and efficient as claimed. A well qualified officer and non-com were in Germany on the first available air line seats and went right to work assisting Seventh Army personnel.

Preliminary reports do not disclose definitely why the plane went into a spin. To date there is no indication of material failure. Both officers were good pilots and left many friends who join us in extending sympathy to their families.

National Safety Council Award

■ On 2 April I represented USAREUR at a review in Orleans, France where *General O'Neill* presented a National Safety Council Award to the COMZ Flight Section for over

Citation



■ Maj. Ned B. Baker (right), ComZ Aviation Officer, is shown accepting a National Safety Council Award from Maj. Gen. O'Neill on behalf of the officers and men of his unit. The ComZ Flight Section was cited for flying over 12,500 operational hours without an accident. The presentation ceremony took place at Orleans, France. (U.S. Army photo)

By Colonel Warren R. Williams Aviation Officer, Hq, USAREUR

12,500 hours without an accident. That is a very impressive record. It includes not only administrative flying but also a considerable amount of pilot training time in getting instrument tickets and twin qualifications. Congratulations to everyone in the Section who by their individual contributions made the record possible. In his presentation *General O'Neill* stressed the very important part the ground crews played in this achievement.

British AA Outlined

■ On 7 April I flew to Detmold, Germany in an L-20 to visit the Chief, British Army Air Corps in Germany. He is *Lt. Col. David Oldman* who commands the 1st Wing. Head winds plus detouring around storms and trying to get through the mountains without becoming a statistic caused the normal 1/20 flight to extend into 2/45. Ice and thunderstorms prevented an IFR flight in the L-20.

The evening was spent discussing Army aviation, both American and British, with *Col. Oldman* and some of his Squadron CO's. Next morning we examined their aircraft and hangar. Also, I demonstrated the L-20 characteristics in a rough wind. The day before I had shown how to bounce it three times when landing into a late afternoon sun. All British Army Air Corps airfields are sports fields or parade grounds. This usually solves the cross wind problem and also the problem of pilots getting too accustomed to a nice paved runway. However, examination of accident records showed that some British pilots ground loop or nose up just as some of ours are prone to do.

British Army aviation is not as advanced as United States Army aviation. It is organized as a separate Army Air Corps, but has personnel problems very similar to ours. Supply is by the Royal Air Force and maintenance by the Royal Engineers. Officer pilots operate aircraft of the reconnaissance flights and both officer and sergeant pilots operate aircraft of the liaison flights. The officer pilots are on detail from combat arms and most are Captains with 7-8

years branch experience. Aircraft are presently limited to the "Auster" (3-4 place FW) and "Skeeter" (2 place RW).

In addition to the Headquarters of the 1st Wing at Detmold, there is the 652nd Squadron with two Recce Flights and one Liaison Flight. The 654th Squadron is at Hildersheim and has three Recce Flights. The Recce Flight has three fixed wing and three rotary wing aircraft and normally supports a Brigade Group. The Liaison Flight has six fixed wing aircraft and supports the Corps. Divisions have no aircraft other than allocated by higher headquarters. A Corps

Recce Flight is to be formed to operate with Corps reconnaissance elements. It will have only helicopters.

My visit with the British was very informative; and, I hope the first of a number of such exchange visits. It helps to discuss mutual problems.

USAREUR ARMY AVIATORS—HOPE YOU DIDN'T FORGET THE BIRTHDAY PARTY IN HEIDELBERG ON JUNE 6TH!

Warren R. Williams
Colonel, USA
Aviation Officer, USAREUR



"1000 Hour Club" Initiated by Canadian AA's

Canadian Army aviation personnel have inaugurated a "1000 Hour Club" for Army aviators. In recent ceremonies held at the Joint Air Training Centre, Rivers, Manitoba, Major R. E. R. Borland, Officer Commanding, the Light Aircraft School, presented "1000 Hour" mugs to five select pilots, one a member of the RCAF who is assigned as Chief Flying Instructor at the LAS.

Wing Commander E. A. Wilson, RCAF, Officer Commanding of the Air Training Wing of the Centre, congratulated the members of the unofficial club at a dinner which followed the presentation ceremony. A scroll which prominently features the adopted emblem of the 1000 Hour Club—"The Winged Gopher"—was presented to each awardee.

In the photo above, Maj. R. E. R. Borland (left), a Charter Member of the Club, is shown presenting a "1000 Hour" Mug to Lt. "Tom" Musgrave, an LAS instructor.

Alaska H-21 Unit Stresses High Load Factor Missions

Several issues back I made the statement that the maximum gross weight of the H-21 *Shawnee* under any condition is 15,200 lbs. The replies I received indicate that many people are unaware of this fact.

Our 80th *Trans Co* (Lt Hcptr) personnel here in Alaska show no hesitation when stating that we utilize *Shawnees* to the fullest extent. During ten days of *Exercise Caribou Creek* held 45 miles north of Anchorage, one platoon of the 80th, utilizing four *Shawnees*, flew 227 hours, carried 1,398 passengers a total of 61,995 passenger miles and carried 168½ tons of cargo a distance of 3,892 ton miles. This was done on an "around the clock" basis.

Our heaviest sling load was 4,500 lbs., carried a distance of 40 miles. Internal loads varied, depending upon the nature of the mission, though the average internal load was 3,600 lbs.

We do not claim to be modest. We're proud and I repeat that we would like to see any company-size helicopter unit match the accomplishments of our one platoon with four helicopters.

CWO Harold R. Bunnell

NOTAM

After five years, we can no longer keep up with the Change of Address problem. Hence, Return Postage will no longer be guaranteed on this magazine, effective with this issue. This means, fellows, that when you change your address and fail to notify us, your issues will NOT be returned to this office.

Master AA



Maj. William F. Francavage (cen.) is shown receiving his Master Army Aviator wings from Capt. George E. Lawrence, another TATSA Master AA, while being congratulated by Lt. Col. Charles E. Hollis (left), Commander, USATATSA, Fort Rucker. Having recently returned from SUSAATC duty in Germany, Maj. Francavage is assigned as Deputy Commander, TATSA. [U.S. Army photo.]

S-61 Static Display



Recently rolled out at the Stratford, Conn., plant of Sikorsky Aircraft, the full-scale static display of the all-weather Sikorsky S-61 is scheduled for initial flight in early 1960. Powered by three turbines, the 56-foot long S-61 features speed in excess of 150 mph, retractable gear, and flying boat hull. The display will be shown at the International Air Salon in Paris from June 12-21.

- PHOTOS -

Hughes 269A Certificated



The Hughes Model 269A helicopter, pictured here over the rugged coastline at Palos Verdes, Calif., was recently awarded "type certification" by the Federal Aviation Agency. Completing a series of tests to meet airworthiness requirements prescribed by CAR, first models of the Army-designated YHO-2HU are undergoing operational tests by the Army Aviation Board, Ft. Rucker, Ala., and performance tests by the Air Force at Edwards AFB, Calif.

Orientation Flight



Preparing to take-off in a HU-1A Iroquois for one of their many briefings during the recent visit of Foreign Military Attaches at Fort Rucker are (left) Maj. Gen. Mian Hayaud Din of Pakistan, Col. Duncan Sinclair, Center Chief of Staff, and Brig. Gen. Wolf Dietrich Von Schleinitz of Germany. Piloting the aircraft is Col. Robert Schultz (right), Director of Instruction. [U.S. Army photo.]

Resignation of Bryce Wilson Announced by Hiller Aircraft



Hiller Aircraft Corporation acknowledged the resignation of Bryce Wilson, Director of Military Relations, in an early April announcement.

Well known in Army aviation circles, Wilson was one of the original 22

Army Light Plane (liaison) pilots who, in early 1942, formed the nucleus of what is today Army aviation. He later served in WW II as General Patton's Light Aviation Officer, and thereafter with the Stinson Division of Convair.

During Korea, Wilson served on the Army General Staff, first as Aviation Research and Development Officer, and later as Military Executive to the Under Secretary of the Army for the President's Air Coordinating Committee. Engaged in the sale of Beechcraft airplanes during 1953-1954, Wilson joined the Hiller firm in 1955.

Mr. Wilson's future plans call for private business in California and Nevada, consulting

Veteran



CWO Robert H. Holt (left) of the 13th Trans Co (Lt Hcptr), Korea, is shown after receiving Senior Army Aviator wings from Capt. H. W. Huntzinger during a recent ceremony held at the 13th. The holder of the DFC and the Air Medal with three clusters, CWO Holt is quite familiar with Korean real estate having piloted a B-26 bomber on North Korean raids while in the USAF. During his AF service initiated in '41, the 34-year-old Senior AA logged close to 1,000 hours at the controls of C-124's and C-97's.

in the field of Army aviation, and forwarding the objectives of the Army Aviation Association of America, of which he will be installed as National President at the organization's Annual Meeting in June.



NATIONAL BOARD-ELECT 1959-1960 Membership Year

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Mr. Bryce Wilson

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Lt. Colonel Keith A. French, Army

EXECUTIVE SECRETARY

Mr. Arthur H. Kesten (Appointee)

REGIONAL PRESIDENTS

(As Elected by the Organized Regions)

Wolters Chapter Officers



Officers of the CAMP WOLTERS CHAPTER are shown above during a recent Executive Board Meeting. Shown (l-r) are: Capt James H. Chappell (VPA); Joe Shields (VPI); William B. Long (VPR); Capt Gilbert R. Hickenbottom (XVP); Maj Leland H. Willard (Pres); Lt Ronald W. Metzger (Sec); Lt Richard Scott (Treas); Capt Frederick B. Waller (VPPP); and Capt Donald Wolgamott (VPG). (U.S. Army photo 4/20/59).

SLIPS/Continued

able to tell anyone about it as we glided down in flames!

(2) *We have created an unrealistic command structure and an anomaly in staff functioning.*

(a) Our Aviation Company Commander is required to do everything a battalion commander does and do it without a staff—without even an Executive Officer.

(b) Our legal command channel is through Division Trains—an office far removed from the chain of events emanating from aircraft use.

(c) The Division Aviation Officer walks a tightrope—hemmed in on all sides by the prerogatives of command, general staff supervision, and (oh, happy phrase!) the exigencies of the service.

(3) *We overlook, or at least, refuse to publicly admit that support of ground troops INCLUDES attacking the targets we find.*

Guns, bombs, etc.—such things make walking much easier for frontline troops when they are applied against the nearby enemy. At the moment, there doesn't appear to be anyone capable of making such deliveries, with equipment to do so.

Again, it is foolish to belabor points well known to all. The very fact that they are known, however, and that they have existed for an unconscionable period of time, is a slip which shows.

I Ask For

It is time, I believe, (and this is obviously a very personal opinion) to make an open declaration of intentions. My own are quite simple.

I ask for:

- (1) A combat unit of battalion size assigned as a major command of each division.
- (2) A combat unit with an organic airlift capability for the transport of an infantry company.
- (3) A combat unit capable of performing all maintenance short of depot repair.
- (4) A combat unit capable, not only of finding targets, but of attacking them.
- (5) Flying equipment which can be continuously operated from field strips not over 1500 feet long.

May 21, 1959

(6) An end to the power struggle between the organized Transportation Corps and the homogenous admixture of Combat Arms Aviators—if absolutely necessary, by total capitulation to the organized group.

(7) A clarification of the policy regarding control of the airspace. Who cares? Only the man whose job it is to shoot down bogies. Let him control it for the ground commander, and let him make the explanations when the skies are empty.

Now, young aviator, you have seen inanity graduate into its next phase. Stick around. It is quite possible that you will be needed.



Canal Zone Units Wage War in "Operation Sand Fly"

FORT KOBBE, C.Z.—Lt. Ellis G. Crumit of the Aviation Section, 1st Battle Group, 20th Infantry, Fort Kobbe, is shown displaying the Venturi-type outlet attached to an L-20 Beaver used for "Operation Sand Fly," large-scale planned attack on the pest in its breeding grounds. The outlet is gravity fed from a hopper inside the plane and holds 600 pounds of material used for destroying the sand fly larvae. Lt. Crumit sprayed about 2½ tons of the insecticide daily for more than a week over the mangrove swamps on the Atlantic side of the Isthmus of Panama. The aerial campaign represented the combined efforts of several U.S. Army and Canal Zone Government agencies. Among those cooperating were the Medical and Engineer Sections, U.S. Army Caribbean; the Aviation Section, 1st Battle Group, 20th Infantry, and the Division of Sanitation of the Canal Zone Health Bureau. (U.S. ARMY PHOTO)



Fort Knox Transportation Units Achieve 100% Aircraft Availability

The ultimate in group proficiency was achieved in late March by the 64th Trans Co (Lt Hcptr) and the 544th Trans Det (CHFM). Working in unison, the two units achieved the desired but seldom reached goal of 100% flyable aircraft. The 64th has twenty-one H-34 *Choc-taws* and two H-13 *Sioux*.

Achievement of this goal was made while the unit continued their regular support mission at Fort Knox, and were conducting their unit training program and transitioning newly-assigned pilots.

Capt. Kenneth W. Holzer, 64th TC Commander, and Lt. Albert B. Luster, agreed that teamwork was the answer and lauded the maintenance personnel of both units.

Capt. George R. Cote

In the photo above, No. 23 is brought to a hover by CWO William A. Ralston. Capt Emory T. Schell (Maint O, 64th TC); M/Sgt O. D. Burris (Maint Sgt, 64th); M/Sgt Carl Davidson (Maint Sgt, 544th); and Lt Albert B. Luster (CO, 544th), proudly display the "23 out of 23" poster.

June-July

"Which Way Did They Go? Up!" will appear in the June issue as written by Lt. Col. Jack Hemingway, a recent contributor ("Infairtry").

ARMY AVIATION MAGAZINE will close its office during the June 13-25 period. (First R & R respite since May, '55).

All presentations made at the June 5-6-7 AAAA Annual Meeting will be covered in the July, '59 issue.

OBITUARIES

Captain Warren E. Bolich, Office of the Director of Instruction, U.S. Army Aviation School, Fort Rucker, Ala., was killed in the crash of an LC-126 aircraft near Hornersville, Mo., on April 16. He is survived by his wife, Mrs. June Welch Bolich of 29 Dixie Drive, Ozark, Alabama.

WO, W-1 Harold Azro Brown, 26, 31st Transportation Company (Lt Hcptr), Fort Benning, Ga., was killed in the crash of an H-34 helicopter near Waverly Hall, Ga., on April 3. He is survived by his wife, Mrs. Rosemary E. Brown, 2748 Blan Street, Columbus, Ga.

CWO, W-2 Gerald Howard Dirks, 25, 6th Transportation Company (Lt Hcptr), Korea, was killed in the crash of an Army helicopter in Korea on April 1. He is survived by his wife, Mrs. Janet C. Dirks, 545 East 34th Avenue, Eugene, Oregon.

Captain Charles Nelson, 32, Headquarters Company, Seventh U.S. Army, Germany, was killed in the crash of an L-23D aircraft in Germany on March 21. He is survived by his wife, Mrs. Lucille Nelson of General Delivery, Elsie, Nebraska.

CWO, W-2 Leo Frederick Tuttle, 27, Headquarters, 5th Artillery Group (Air Def), Camp Hanford, Wash., was killed in the crash of an Army helicopter near Camp Hanford, Washington on April 2. He is survived by his wife, Mrs. Tommie L. Tuttle, 2418 West 6th Avenue, Kennewick, Wash.

Capt. Charles Francis Ward, Jr., 33, Headquarters Company, Seventh U.S. Army, Germany, was killed in the crash of an L-23-D aircraft in Germany on March 21. He is survived by his wife, Mrs. Carol S. Ward of 1304 North Penn Avenue, Roswell, New Mexico.

CWO, W-2 Robert Lee Wright, 32, 31st Transportation Company (Lt Hcptr), Fort Benning, Ga., was killed in the crash of an H-34 helicopter near Waverly Hall, Ga., on April 3. He is survived by his wife, Mrs. Mildarene R. Wright, 909 Brighton Road, Columbus, Ga.



SPLINTERS From the Board



COLONEL
JACK L. MARINELLI
PRESIDENT

A REPORT FROM THE U.S. ARMY AVIATION BOARD, FORT RUCKER, ALABAMA

"Little Glamour" Say Hardworking Test Division Personnel

The *Test Division* of the *United States Army Aviation Board (USAAB)*, Fort Rucker Ala., performs the user tests of aircraft, instruments, and equipment under consideration for use by the Army. While the usual connotation placed on such a testing organization is glamorous and romantic, the majority of the work concerns itself with the practical business of equipping the Army with operationally tested, efficient aircraft and equipment.

The user test function is broken down into three general test categories. The *Aircraft Branch* tests fixed and rotary wing aircraft and develops techniques in their utilization. The *Instrument Branch* tests aircraft equipment or systems contributing to the instrument flying capability. The *Equipment Branch* tests avionic, photographic, surveillance, and auxiliary equipments.

Articles to Benefit the Reader

To keep *ARMY AVIATION* readers abreast of the times from a seat in the *USAAB Test Division*, the author will submit articles periodically. Unfortunately, these articles cannot be read as a consumer's guide. The results of the user test programs are "*For Official Use Only*;" however, it will be of benefit to the reader to know what is being tested and what will be tested in the immediate future.

In this first article, the projects listed below have been initiated in the past and are still current. They will be referred to in subsequent articles *only* as they are completed.

In the *Aircraft Branch* the *HU-1*, gas-turbine (860 HP derated to 770 HP) utility helicopter and the two-place *YHO-ZHU* light observation

helicopter are still well into their testing program. Both helicopters recently participated in tactical exercises at Fort Bragg, N. C.

In the fixed-wing category one of the Board's L-19's has been equipped with a 250-HP gas turbine engine to obtain data on the application of turbo-prop engines to light aircraft and to check out the pilots of the Board in preparation for flying the *Mohawk*. This aircraft was modified for a turbine installation, necessary instruments added, and an oxygen system included for flight to 30,000 feet.

Of particular interest to pilots of multi-engine aircraft is a "*SaFeather*" system which provides an emergency feathering signal. Engine torque sensing units notify the pilot by means of illuminating translucent knobs on the feathering control when and which engine is developing less power than required. This is a mechanical aid to indicate to the pilot which engine should be feathered or more pointedly, which engine should NOT be feathered.

Current Items at Instrument Branch

A *Weather Avoidance Radar* is being tested in an L-23D. The Radar is designed to depict a radar weather picture out to eighty miles thus enabling the pilot to avoid localized storms.

Two *absolute altimeters* are being tested as interim equipment. This item is becoming of increased importance with more airborne equipment requiring absolute altitude, i.e., infrared detectors, cameras, radiac, etc., and to fulfill a requirement in fixed and rotary wing aircraft for an all-weather navigation system. At the present time the Army does not have an absolute altimeter in general use.

SPLINTERS/Continued

Two other items being tested by the *Instrument Branch* are the *All-Attitude and Heading Indicator* for weather operation and an *Automatic Stabilization Equipment (ASE)* for the H-21C. The ASE provides stabilization for pitch, roll, and yaw. When the aircraft deviates from a chosen flight attitude an electrical signal is produced, sensed, and amplified to a control voltage for a servo motor. The servo motor applies the correct command movements to the flight control system to return the aircraft to the chosen flight attitude.

Two items of interest in the *Equipment Branch* are a *transistorized aircraft intercom* integrated into the aircraft's radio receiver and transmitter, and a *Parapod Camera Mounting* for the KA-20 Camera which permits the pod containing the camera to be parachuted direct to a film processing unit.

Some Later Projects

Some later projects are those for which testing has been initiated since the beginning of the year.

An L-23F was assigned to the Board for testing as a product improvement of the L-23D. It incorporates a fold-down door with an integral step in the aft end of the fuselage, four individual airline-type passenger seats, and fuel injection engines. It is the first aircraft to be delivered to the Army which has the Board-recommended "T" instrument panel configuration.

Aerial photography equipment holds the spotlight in the *Equipment Branch*. Being tested are a pulse-operated 70mm *Aerial Camera* which can expose six frames per second with shutter speeds up to 1/2000 of a second and the *KA-30 Camera System*, a reconnaissance-type camera which can take intermittent exposures 4½ inches square in a five-inch roll of film. With either 100-foot or 250-foot capacities it can operate in any four distinct modes: auto-cycle, pulse operated without image motion compensation (IMC), pulsed IMC, and night. Lens for the camera come in focal lengths of 3", 6", 12", and 18".

During February testing was completed on twelve projects. Two of these projects were aircraft: the S-62, a turbine powered amphibian grossing at 7500 pounds with a useful load of 2500 pounds; and the modified CH-1C (YH-41), a three-place dual control helicopter with a six-



A full house represents a cross-section of the U.S. Army Aviation Board's activities. Shown above is a YL-26 (foreground), a Caribou (center), a turbine-equipped L-19 (left foreground), and an L-23F and H-37 (left background). An H-34 (partially hidden by the Caribou) doesn't complete the list—this is only a partial shot of the hangar. (U.S. Army photo).

cylinder horizontally opposed engine mounted forward of the main rotor drive.

A *Course Director* which operates with a gyro-magnetic compass system for heading information and a *VOR and localizer receiver* for navigation and steering information.

A *Three-Light Aircraft Marker Beacon Receiver* which is an airborne navigational aid designed to provide aural and visual indications of the reception of 75 mc airway and ILS marker beacon signals.

An integrally lighted *All-Attitude and Heading Indicator* which displays the attitude and heading of the aircraft on a movable translucent sphere. Tested in an H-34, the instrument has a two color display with perspective lines on the lower half to create the effect of spatial depth.

A *Helicopter Flight Direction System*, tested in an H-34A, has a two-axis system that gathers and computes roll and pitch cyclic stick control command information for the pilot. A flight plan selector incorporates modes, airspeed and heading selection, and a horizon flight director presents attitude, indicator bar deflections, and base indicator information.

There is of long standing a continuing Board project to determine the optimum attitude and navigation instrument and/or an instrument system presentation for use in fixed wing aircraft. An *Integrated Flight Instrument* was tested which consisted of two 5" instruments: A *Natural Flight Indicator Director* (command/attitude instrument) and a *Situation Display* (position/displacement instrument). There are four push-button mode selector switches: flight instrument, heading, capture, and track. It utilizes the inputs from VOR and glide slope receivers and a heading reference and is capable

of being combined with the manufacturer's autopilot by means of a mode selector. The "outside-in" presentation is used in contrast to the presently used "inside-out" presentation.

The remainder of the completed projects fall in the equipment category and cover a wide range of subjects: the *rhodium plated USAF type sunglasses* which have library temples to facilitate use with the helmet; a *Dynamic Vibration Absorber* for the H-37A to reduce vertical and lateral vibrations; a *vinyl-coated membrane* as a dust and water-proofing material for airfields; a *Universal Landing Gear*, tested on the Otter, designed for landing and takeoff on water or land; and *improved litter supports* for the H-13H—the aluminum support tubes were replaced with steel ones and relocating them now permits opening the aircraft doors with the litters installed.

Coming Up

Many interesting projects are coming up in the near future particularly in the aircraft line. The aircraft to be tested will vary from the largest to the smallest.

The largest will be the *YAC-1DH "Caribou,"* a twin engine, 3-4 ton capacity, utility transport. The smallest is a one-place *Inflatoplane* which when deflated fits into the back of a station wagon.

In the helicopter field there will be the *YHO-3BR* in the observation class incorporating a new approach to blade hinging. To keep pace with the new developments in warfare there will be a *Radiac System* for the H-13H and L-19A to measure radiation intensity and an *Airborne Infrared Detection Set*.

Last but not least will be the user test of the *Individual Hot Climate and Over-water Individual Survival Kits*.

SPLINTERS/Continued

It was pointed out earlier that not all of the activities of the *Test Division* were glamorous. Just how 'unglamorous' they can get will be reported on in a later article when the project personnel involved with the testing of the *Survival Kits* return from the Army, Navy, and Air Force Survival Schools where the kits are to be tested.

Capt. Scott

The YHO-2HU (Hughes 269A) by Richard Followill

■ Currently completing service test by the Board, the *YHO-2HU (Hughes 269A)* light observation helicopter is being evaluated with an eye towards offering the small tactical unit (company) commander in the field a light, maneuverable, easy-to-maintain and simple-to-operate vehicle with a variety of uses.

In addition to tactical usage such as observation, fire control and adjustment, aerial photography, route reconnaissance, wire laying, and courier-and-liaison, the pocket-sized "Yo-Yo" might well be the company commander's own personal transportation. It even sounds like a jeep.

The *YHO-2HU* has an operating weight of 1,100 pounds with approximately two and one-quarter hours of fuel at a cruising speed of 70 knots. With the necessary tactical electronic equipment and two occupants, the aircraft is near its maximum gross weight of 1,550 pounds. Adequate power is supplied by a *Lycoming O-360-C2B* engine rated at 180 horsepower.

The air-oil shock struts on the skid gear relieve the pilot of most of the tediousness involved in a feather-light landing and also compensate for the consequences of comparatively light rotor inertia in autorotative landings. Engine power is transmitted to the rotors by an eight-belt drive system and is manually coupled and uncoupled from the cockpit, a convenience which allows the helicopter to be left "at ready" with the engine at low idle and the rotors stationary. The under-slung engine creates a low center-of-gravity which aids stability and allows easy landings on 15-degree slopes.

The small size of the *YHO-2HU* (main rotor 25 feet in diameter, total helicopter length with rotor turning 28 feet) lends itself to freedom of movement in and out of confined areas, sharp maneuverability, and ease of ground handling and parking.



Scott

Followill

Fifth Century Mission Completed by 6th Helicopter Company

Most AA units are unique in one way or another. Perhaps we're not alone in this, but we're one of the few *fragmented* units in existence—with plenty of salt water between the fragments.

In May of '58, the 6th Trans Co (LH) and the 150th Trans Det (GHFM) departed Camp Drew, Japan, for Korea. The air element of 17 Shawnees and one Bird Dog made the 835 nautical mile, over-water flight in 13.5 hours flying time, intact and without incident. We were operational within four days after arrival. So far, routine.

However, during the same period, the 3rd Platoon of the 6th and Team 2 of the 150th moved in the opposite direction from Japan to Hawaii where they were to support the 25th Inf Div. Needless to say, they didn't fly this route. Step 2 completed the exodus from Japan and placed us in this long-range, hybrid existence.

Then too, the 6th has engaged in a project that was started in the *FIFTH CENTURY* (Let's see some of you zealots top that!)

The founder of the *In Clan*, a secretary to one of the Lhitlin Dynasty Kings during the fifth century, had gained sufficient prestige so that upon his death he was buried atop a very steep and high hill in the vicinity of Pyong-Taek.

Through subsequent centuries, members of

Lass Takes Class



Well known as a crack pilot, Miss Jerrie Cobb (above), set a new world speed record for class C-1 d aircraft when she piloted an Aero Commander, Model 680-E, 226 1/8 m.p.h. over an official 2,000 kilometer (1,242 miles) course. She presently holds the class world record for altitude for this type aircraft and formerly held the distance record.

this clan have been saving money to buy an appropriate monument and marker. However, after both had been expertly carved, they were found to be too heavy and massive to be carried to the memorial site.

Petitioned by the present members of the clan, the 6th slung loaded the monument and marker over the rice paddies to the grave site where they were properly positioned. At long last—after 15 centuries—proper respect had been paid to the illustrious ancestor of the *IN Clan*. We feel this mission to be unique in many aspects.

CWO John P. Gielarowski

New Item



Patch Collectors, ahoy! The 65th Trans Co (Lt Mptr) of Fort Eustis has designed a new patch for use within the unit. Designed by CWO Carl E. Lawrence with Mrs. Lawrence sewing the original, the patch has a silver-gray background, a red "65," and a black border and Shawnee helicopter. The nickname of the unit, the Shawnee Braves, appears along the bottom. (U.S. Army photo).

Several new subscribers have questioned the end-of-month deliveries of "ARMY AVIATION," in view of the date appearing on the cover. "AA" has been and for a long time to come will be distributed on the 20th or 21st of the cover date month. Our page numbers (see bottom right) will now indicate this fact. The mails are not THAT slow: we merely publish a mid-month magazine. Receipt (in the Z.I.) should be between the 22nd (New England, NY, NJ, Pa.) to the 29th (California, Wash., Ore.).

Dorothy Kesten, Publisher

ARMY AVIATION

PANEL SESSION!

■ *Instrument flight*, as normally understood by members of the trade, is considered to be that flight that is made solely by reference to the aircraft flight instruments. Obviously, this requires a slightly different approach to flight as opposed to our initial VFR training.

Daily, more aviators of largely differing experience and training are participating in instrument type flight in all types of aircraft, ranging from the smaller two-place commercial type through the supersonic jet transports and fighters. Further, instrument flight is presently being conducted in rotary-wing type aircraft.

With this thought in mind, it is obvious that regardless of the type aircraft and the resulting performance characteristics, it becomes essential that flight and navigational instruments be arranged in a most practical and useful manner in the space available on the instrument panels.

Problem: Utilization of Panel

It follows, then, that the problem is a common one, that of *utilization of available instrument panel space*. A survey of military aircraft, ranging in size from the Army L-19 through the B-52 and Boeing 707 fixed-wing aircraft, and in rotary-wing aircraft, from the H-19 through the H-37, discloses that an average amount of 180 square inches is available for the display and arrangement of the necessary flight and navigational instruments.

It can be seen from this that the size and speed range of the aircraft has little to do with the *size* of the flight instrument panel. Therefore, we can conclude that our problem, when solved for one, would conceivably be solved for most.

Assuming that the flight instruments are located directly in front of the pilot, we can further assume that most operators will view the same spot on this flight instrument panel as the *primary* spot. This primary spot can be identified as the center of the area. Now if we agree that the size of the area for the display of the instruments will remain fairly constant and that the center of this area is the primary center of focus, we might begin to logically develop the instrument arrangement.

How often have you said, or heard another

By Maj. Jack Cranford, USAAB

pilot say "that instrument should be here, not there" or some similar statement? With this in mind, I would like to suggest that, prior to reading beyond this paragraph, you prepare on a piece of scratch paper what you consider to be the best display of the flight instruments and at the same time your reasons for the placement of each instrument and the advantages of its placement.

Let us agree that the instrument flight begins when lined up on the center line at the bottom of the active runway. Then I am sure we will agree that from the static position through the takeoff run of the aircraft, *direction* is our primary consideration. Therefore, it follows that the heading indicator would be placed in what we earlier defined as the primary spot near the center of the flight instrument panel.

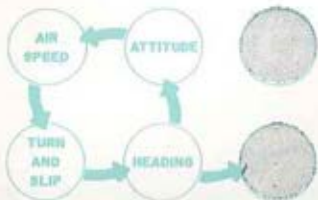


Following the instrument departure further, we must agree that as the takeoff roll continues and airspeed increases, attitude information becomes of greater importance. It follows that the attitude indicator must be placed in the most natural position for comparison to the heading indicator during the takeoff roll.

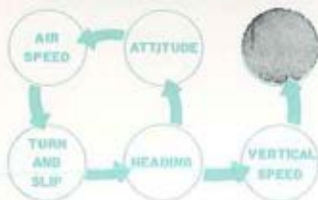
Studies have determined that the direction of scanning is counterclockwise. Therefore, it follows that attitude should be presented *above* the heading indicator.



As we continue our takeoff roll and maintain our position on the runway through reaction to our heading and attitude indicators, it is a fact that our airspeed is increasing and that our *airspeed indicator* must be brought into our scan. Realizing that our most natural scan is counterclockwise, it would follow that the airspeed indicator would be placed to the left of the attitude indicator.



As our airspeed reaches that point in the takeoff roll where we can assume an attitude to fly, it follows then that the turn and slip should be included in our scan as we establish our climb.



An unusual cutaway trainer of the jet-powered HU-1A Iroquois, featuring movable systems painted in different colors, has been built by the Bell Helicopter Corp. for classroom instruction to Army aviation mechanics at Fort Rucker, Ala. All flight control and transmission systems can be viewed through cutaway areas glassed in to provide a close look of moving parts. Construction of a second trainer is underway at the company's Hurst plant, the second unit to be used by Bell personnel instructing Army classes at the company's Globe plant.



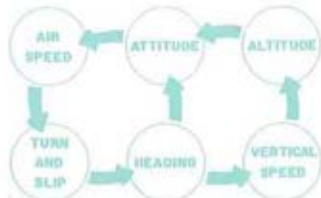
Utilization



Members of the 18th Trans Co (Lt Hcptr) were congratulated by U.S. Army and Sikorsky Aircraft officials for having what is believed to be the first Choctaw in Europe to have flown 1,000 hours. Shown, left to right, are Capt Joseph B. McClure (Flt Ldr), Maj Ernest B. Killlett (CO, 18th TC), Lt. Col. Clarence H. Ellis, Jr. (CO, 8th Trans Bn), Sergei I. Sikorsky (Company representative), Sp/6 Herbert C. Taylor (crewchief), and CWO Richard W. Parsons (pilot). The latter two personnel were in the same crew that took delivery of the aircraft at the company's Bridgeport, Conn. plant over three years ago. (HE Woodward photo).

The *vertical speed* will give us our next bit of information and should logically be placed to the right of our heading indicator. We have assumed a flying attitude and our airspeed is stabilized at climbing airspeed; our heading is maintained; and our vertical speed indicates an ascent; it follows then that our *altimeter* must be included in our cross check. The altimeter could logically be placed above our vertical speed and to the right of our attitude indicator.

With these six instruments, we can accomplish an instrument departure in conditions of minimum ceilings and visibilities. These conditions will vary with the training and abilities of individual aviators. It is obvious that with these instruments it is possible to maintain a safe flight attitude. This particular flight instrument arrangement has become known to some as the basic "T" display.



How does this compare to your layout?

MAINTENANCE TIPS...

... Mike Button

MIKE BUTTON, BOX 209, MAIN OFFICE, ST. LOUIS 66, MISSOURI

Correction Please

■ *Mike* reviews his own column writings, too; Soez, I guess I'll get my two cents worth in before somebody hangs on the horn and tells old *Mike* that the *Otter* serial numbers in the March 59 column were in error (article entitled, "*Otter Question*"). It's a slight typographical correction; the serial numbers 59-1681 through 1683, should be changed to read 58-1681 through 1683 - OK?

Action Ya Get!!!

■ In last month's column, *Mike* hinted to the writer of "*Why Don't They?*" Lt. D. M. Hanks, Camp Wolters, Texas, that he'd take the problem to the experts, and that he did! Ist off to the U.S. Army Signal Avionics Officer, then to each Project Officer of the individual aircraft concerned, with results. Consensus of all think it's a splendid idea and would like to have recommendations showing just how snarled up a guy can get while in the cockpit (picture, if available).

Also, just where do you suggest that the jack box be located? To help the cause along its way, old *Mike* suggests that you talk to all your fellow pilots who are of the same opinion and write UER's (468's) on the Jack Boxes to the individual Project Officers, i.e., L-19, L-20, H-23, and H-13 here, stressing this uncomfortable situation. If sufficient UER's are received at TCSMC-E, action should be taken.



By
William D. Bickman
TSMC, St. Louis, Mo.

Aircraft Fitted Covers

■ On 11 March 1959, TC agreed to accept the responsibility of the covers in FSC 8340 with effective date of 1 May 1959. However, TSMC will not accept requisitions for FSC 8340 prior to 1 May except as published in SL-23-59, 25 March 1959. There are 57 published stock numbers for the fitted covers which TCSMC-NCP will accept when requisitions are submitted direct to: *Commanding General, USATSMC, P.O. Box 209, Main Office, St. Louis 66, Missouri*. So check out this SL and know just where you stand on getting fitted covers for your bird.

Wrong Tool?

■ Heard tell that the *Torque Reactor*, special tool in *Mojave (H-37)* helicopter special tool set's no good. So, if you got Special Tool S1570-10239, Torque Reactor instead of S1570-10239-4, Main Gear Box Torque Reactor, turn in all S1570-10239's to the tech rep. and he'll see to it that it's made into the dash 4 tool which you can use at no cost.

This tool is needed on all *Mojave* with serial numbers 54-993 and all thereafter and *You* may be lucky, as there are a few floating around.

If you need it real soon like, order it under FSN 5120-631-3868, using current requisitioning procedures, 'cause they gotta few at New Cumberland.

New Dating Procedures

■ The latest word has it that TAG & TSMC have, as of 17 February 1959, reached a solution of the old problem of dating publications. So from now on everyone should be real happy with knowing just what date their maintenance manuals are current to. It goes like this:

The date at the lower part of the cover is the printing date which TSMC ordered the publication to be printed by the Government Printing Office. TBAVN's will carry a note beneath the printing date which states "*This bulletin is*

current to....." And Aircraft handbooks will have a note, "This manual is, current to" The date that a manual is current to will be identical to the effective date of the Air Force T.O. or the revision it replaces.

To illustrate: Say an Air Force Technical Order was dated 1 January 1959 and we requested the contents of the T.O. from the AF so we can have a comparable DA publication in the field. We request the GPO on 18 March 59 to print the AF TO as a DA handbook. The publication is printed and dated 18 March 1959 by GPO, but it will also carry a note: "This *** current to 1 January 1959." Further, any AF TO revision after 1 January 1959 will not be included in this publication even if it's prior to DA printing date.

Also, as an additional check, watch your "A" page of the maintenance handbooks as this page shows current dates of all pages in the entire manual.

Brake Troubles?

■ It seems that the *Brake Assemblies*, FSN 1630-528-1385 (P/N 9530997) and Components of *Beavers* are being replaced at a remarkably high rate. *Old Mike* would certainly like to know if this is true or is it the old gimmick of having the parts on hand just in case?

The parts, I understand, which are affected are the Brake Assemblies FSN 1630-528-1385; Disc Assemblies, FSN 1630-386-8531 (P/N 511431-2); Brake Lining, FSN 1630-692-3173 (P/N 9521623); and Brake Lining, FSN 1630-692-3174 (P/N 9521624).

From records at this end, *old Mike* has uncovered what looks like a cover up deal, because no UER are on hand. Now if the following

figures don't look screwy, I'd like to know what does:

Brake assy replacement rate-330 flying hours
Disc assy replacement rate-180 flying hours
Lining, 3173, replacement rate-49 flying hours
Lining, 3174, replacement rate-50 flying hours

So, when you consider that every time a Brake Assy is replaced that the disc and the linings are also included, the overall rate of usage of disc is replacement every 118 flying hours and usage of linings are at the rate of every 31 flying hours.

I should like to suggest that all using organizations start using the 468 to TCSMC-E and do it in sufficient numbers so this trend can be investigated. If TSMC can catch trends of this kind, it'll be to your advantage and keep yours in commission up where it should be. However, if this short service life does exist in the field, then the high consumption rate tells us only one thing - Stock'in up; in case—.

Old Mike didn't have to use his Abacus, Slide Rule, or fingers to figure this one and you won't either.

So, tell us what gives, we'll help.

Let's Talk About "Nameplates"

■ *Mike's* got his fingers in a few other publications, too which deal with informal information passed on to the field. One of these, the *Field Service Digest*, published here at TSMC, has a section devoted to Aeronautical Annotations and I would like to quote a very important article which appeared in the April 59 issue—It's "The Case of the Resurgent Aircraft."

"A recent incident has revealed that some abandoned aircraft have later popped up in commercial aviation as a FAA (formerly CAA) certified aircraft. This, it seems, could only happen when the Dept of the Army sells carcasses to individuals who later fabricate another aircraft from components and then use the abandoned aircraft's nameplate for certification purposes."

"To prevent this practice, U.S. Army TSMC has issued a Supply Letter No. 53-58, 15 July 1958, which states, 'The manufacturer's nameplate should be removed and forwarded to the appropriate accountable property officer.'"

"The accountable property officer, after making a record of the plate, should witness complete destruction of the plate and notify FAA, 16th and Constitution Avenues, Washington 25, D.C. certifying that the manufacturer's nameplate had been destroyed."

That's the end of the article and I hope everybody keeps it filed way back in the grey matter for future reference.

That is about it for this month; so, keep up the good work, and if you gotta problem come on in to *Mike*. He'll help.

Informationally yours,

Mike Button



CALM VISIT OF LOCKHEED REPS.

Command and Staff Changes

BONASSO, Russell P., Lt., Col., 101st Airborne Division, Fort Campbell, Kentucky.
CANTLEBARY, Lee R., Maj., 1116 Shawnee, Leavenworth, Kansas.
GIVENS, John W., Lt., Col., USA Arctic Test Board, APO 733, Seattle, Washington.
GOODWIN, Norman W. Maj., 45th Transportation Battalion, Fort Sill, Oklahoma.

LAMOTHE, Frank E., Maj., Student Officer Company, Camp Walters, Mineral Wells, Texas.
MESZAR, Frank Lt. Col., Office, Asst Secy Army (FM), Aviation Affairs, Washington 25, D.C.
NEUMANN, J. D., Lt Col., 7th Aviation Company, APO 7, San Francisco, California.
PETERSEN, Karmalt, Maj., 205th Transportation Battalion, APO 254, New York, New York.
RICE, Fay, Maj., Student Officer Company, Box R-27, USAAVNS Regt, Fort Rucker, Alabama.
ROY, Harold, Maj., 428 Canterbury Hill, San Antonio 9, Texas.

The Month's Takeoffs!

ADAMS, Lloyd K., Lt., 503rd Aviation Company, APO 165, New York, New York.
AINSWORTH, Walter J., WO, 1175 Duncan Drive, York Terrace, Williamsburg, Virginia.
ALLEN, William M., Capt., 4936 Bayside Drive, Dayton, Ohio.
ARMSTRONG, Donald, Mr., 300 Howard Drive, Santa Clara, California.
ASBURY, Harold D., Capt., Headquarters, KMAG, APO 102, San Francisco, California.
BALLANTINE, Laurence E., Mr., 306 Blumberg Drive, Dathan, Alabama.
BEAUMONT, Edger S., Capt., 510 Elizabeth Street, La Tuque, P. Que., Canada.
BERGSTROM, Richard H., Capt., 56 Red Cloud Road, Fort Rucker, Alabama.
BERRY, Bobbie G., Lt., 155 North Dougherty, C.C., Fort Bragg, North Carolina.
BLAISDELL, Wallace G., Lt., 91755 Onevia Place, Ewa Beach, Territory of Hawaii.
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A LOCATOR SERVICE ON ARMY AVIATION PERSONNEL AS COMPILED FROM CHANGE OF ADDRESS NOTICES FORWARDED TO "ARMY AVIATION MAGAZINE"

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Model 210



Scheduled for unveiling in September, Cessna Aircraft's new single-engine Model 210 is described by company officials as the "first new single-engine, high wing, retractable gear airplane, to go on the commercial market." Powered by a Continental 260 h.p. fuel injection engine, the Model 210 will have a cruising speed of 190 mph. Although Cessna has not yet established the exact selling price of the 210, Del Roskam, general manager of Cessna's commercial aircraft division, indicated that the price would not exceed \$22,500 for a standard equipped airplane.

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33rd Combat Aviation Company
 Now at Midway Airport, Chicago

The newly organized 33rd Combat Aviation Company is quickly taking shape under the supervision of Lt. Col. Frank O. Grey, Jr. Our new home is the ARNG hangar at Midway Airport, Chicago. Our former quarters at Chicago-Hammond Airport were vacated 1 Mar 59 upon reorganization of the III-ARNG Division under the Pentomic concept. We now carry the colors of the famed Chicago Black Horse Troop after having absorbed the entire EM personnel of the now extinct 33rd Recon Company.

Chief Honcho and Company Commander is Maj. Otto Boehlke who is now back boring holes after a tour of duty on DivArty Staff. Here is an invitation to all you AA's flying around the Land of Lincoln to drop in. If any of you decide to stay, we have about 40 slots to fill.

With this note we lay claim to our share of the honor of being one of the first Combat Aviation Companies with 100% Membership in the AAAA.

Award



Colonel Jules E. Gonseth, Jr., Deputy Chief of Staff for Operations, AEPG, Fort Huachuca, Ariz., is shown receiving the coveted Senior Army Aviator wings from Brig. Gen. Frank W. Moorman, Commanding General, AEPG, as Mrs. Gonseth looks on. A former Assistant Commandant of USAAVNS and Commander of Camp Gory, Col. Gonseth serves as National Vice President, Army Affairs, AAAA. (U.S. Army photo.)

12 FACTS YOU SHOULD KNOW ABOUT THE AAAA'S

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- Quarterly premium payments of ¼ of 1% of annual flight pay, plus a \$1 service charge per payment.
- Indemnity payments for up to 24 months, if you are grounded by an aviation accident.
- Indemnity payments for up to 12 months, if you are grounded for illness or ordinary accident.
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- Protection at 4¢ a day for Warrant Officers to 7¢ a day for Colonels. Security at less than the cost of your daily newspaper.
- Group coverage available to AAAA members who are on flying status as crew members or non-crew members in the U.S. Army, ARNG, or USAR.



MOBILITY Is Prime Army Objective

In speaking of his new post, Brigadier General Clifton F. von Kann, Designate Director of Army Aviation, says, "Today, battlefield mobility is a prime Army objective. I do not believe we have yet succeeded in exploiting the mobility which Army aviation has already made available . . . or, as a consequence, in clearly recognizing its future potential.

To this new and challenging assignment I bring with me the solid conviction that Army aviation can and will be a major force in solving our tactical problems on all types of battlefields."

The 43-year-old general, a veteran of four World War II campaigns, received notice of his new assignment in early April. He has been with the 82nd Airborne Division since August, 1957.

He adds, "In leaving the 82nd, I will take with me many fond memories of the finest

organization I have known. In addition, the knowledge gained here of tactical Army aviation will be of lasting value to me."

A qualified helicopter pilot, the personable general officer is currently training in fixed wing flying.

Captain Robert W. Koepf
3910 Duke Street
Alexandria, Virginia

A25
1054
MDA



Being readied for a European tour, a Vertol 107 (foreground) is shown in the shop of the main plant of the Vertol Aircraft Corporation, Morton, Pa. In the background, the first completed fuselage of the Army's YHC-1A enters final assembly. A limited number of YHC-1A's were ordered by the Army last July.