

ARMY AVIATION

DECEMBER 15

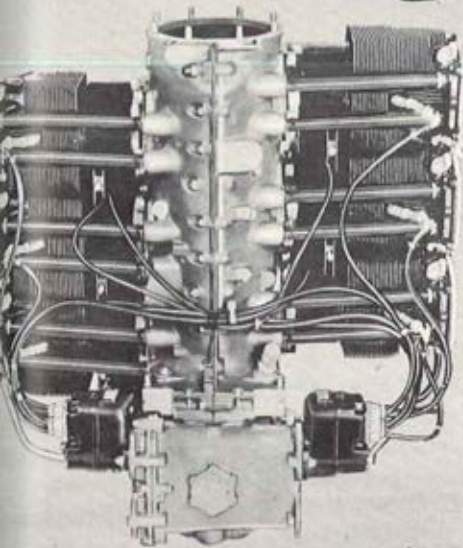
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260 hp take-off—250 hp normal



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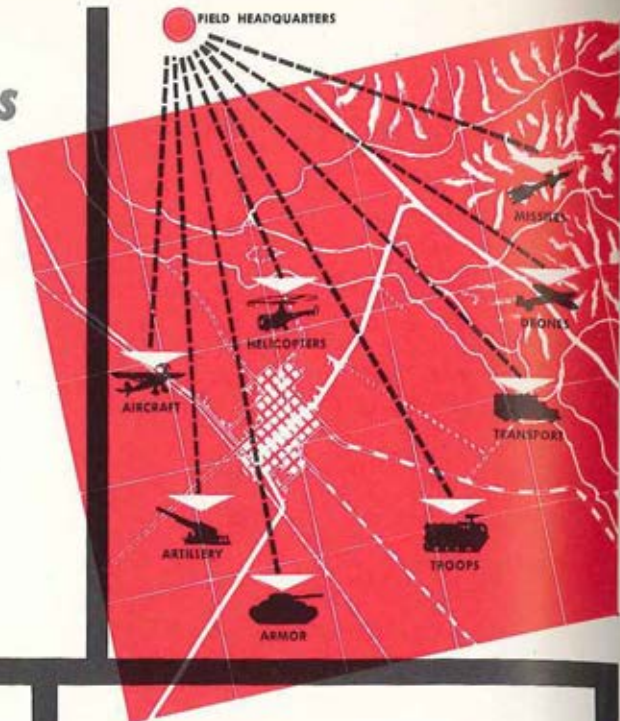
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Bendix-Decca is the low frequency area coverage navigation system assuring operation beyond line of sight and below the curvature of the earth. The system will incorporate a Pictorial Display which visually traces on standard army maps the instantaneous location and course of fixed wing aircraft, helicopters, ground vehicles and troops. This information can automatically be made available at command locations or field headquarters.

Army personnel are invited to write for the booklet "Precise Position Information for a Future Field Army."



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

The **Military Aviation Placement Service (MAPS)** sponsored by the Army Aviation Association is designed to accelerate the placement of highly-trained U.S. Army aviation technicians in the civilian aviation industry. It does so by placing the applicant in direct contact with firms that have signified that they have definite job openings.

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Every effort will be made by the AAAA authorities to coordinate all job placements through **MAPS**. If you contemplate civilian employment in the near future, write for additional details today. AAAA, Westport, Conn.

ARMY AVIATION



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Lycoming Div., AVCO Mfg Corp.....	Benton & Bowles	1
Pacific Div., Bendix Avn Corp.....	The Shaw Company	2
Cessna Aircraft Company.....	Gardner Advertising Co.	5
Kaman Aircraft Corporation.....	Charles Palm & Co.	6
Bell Helicopter Corporation.....	Rogers & Smith	11
Dallas Airmotive, Inc.....	Jack Kemp & Associates	13
Hiller Helicopters.....	Philip S. Boone & Associates	16
de Havilland Aircraft.....	Paul-Phelan Advertising, Ltd.	17

Change in Command

Brigadier General Ernest F. Easterbrook became the Director of Army Aviation, ODCSOPS, D/A, replacing Major General Hamilton H. Howze on December 9. In January, 1958, General Howze will assume command of the 82nd Airborne Division at Fort Bragg, North Carolina.

This change of assignment marks the end of a three-year period of aviation progress for the Army that had not been matched in any previous period.

In February 1955, General Howze, on his return from command duty in Europe, assumed the position of Chief of Army Aviation Division under the Assistant Chief of Staff, G-3. With the later reorganization of the Army, he assumed the office of Director of Army Aviation.

A "Farewell Party" for the Howzes and a "Welcoming Party" for the Easterbrooks was planned for December 11th at Patton Hall, Ft. Myer, Va.

Meritorious

KOREA—CWO John G. Schommer, a Maintenance Officer with the Eighth U.S. Army Maintenance Center, Korea, received

the Air Medal on October 9th from Brig. Gen. Vorhees, Transportation Officer, Far East, for his actions in the rescue operations connected with the crash of an Air Force C-124 in the Han-Gang River north of Kimpo Air Field on the night of February 22, 1957.

CWO Schommer's citation reads:

The President of the United States of America, authorized by Executive Order, 11 May 1942, has awarded the Air Medal to Chief Warrant Officer John G. Schommer, USA, for meritorious achievement while participating in aerial flight:

Chief Warrant Officer Schommer, United States Army, distinguished himself by meritorious achievement while participating in aerial flights in the vicinity of Seoul, Korea, on the night of 22 February 1957. Warrant Officer Schommer, pilot of an H-13 Helicopter was one of a group rescuing survivors of a C-124 Aircraft which had crashed landed on a sand bar in the Han River Estuary. In a desperate race against the rapidly rising tide and the danger to the survivors from continued exposure to the winter elements, he made numerous flights to the crash site under extremely hazardous conditions to evacuate survivors who were huddled on the sand bar or on the ice floes of the river. With practically no illumination, he landed his helicopter in as much as thirty inches of water.

Despite the darkness, density of aircraft in the air, inadequate landing areas at the crash site, and with full awareness that an aircraft failure or misjudgment could result in his death or serious injury, Warrant Officer Schommer resolutely and unhesitatingly performed his duty thereby contributing immeasurably to the completely successful rescue mission. His unhesitating and courageous action in the face of grave danger, coupled with his complete disregard for his own safety, reflects credit on himself, his unit and the military service.

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.

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On the threshold of a frightening yet fascinating new age, The Kaman Aircraft Corporation would like to express its gratitude to and confidence in the only nation in the world which is truly a government of, by and for the people. To all who are working to keep it that way warmest greetings of the season and heartiest wishes for a prosperous and peaceful new year.

THE *KAMAN* AIRCRAFT CORPORATION
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LOGISTIC SUPPORT FOR ARMY AVIATION

*A presentation made by
Maj. Gen. Paul F. Yount
to members of the
Aviation Press,
Washington, D.C.*

The logistic support of aircraft is the essential but unglamorous part of the aviation business and it is hard for me to discuss our particular primary job and how we do it in terms that will appeal to you and lead you dashing to the telephone for a hot story. I hope, however, in a few moments that I can give you some of our side of this challenging and interesting business.

In the original formation of the Army Aviation Program, we leaned very heavily on the Air Force for our logistic support and engineering requirements. Since our aircraft were relatively simple and our supply

problems minor, this did not present any particular problem to the Air Force which couldn't be solved by an active scrounging crew chief. As our aircraft have become larger and more distinctive, and as our areas of operation have become further removed from those of the Air Force, we have found it necessary to establish our own logistical system to support our aircraft.

Primarily Self-Sufficient

We, of course, still rely on the Air Force to negotiate the procurement of our air-



craft and to furnish us technical support in engineering problems of a major nature, but in our day-to-day operations, we have found it necessary to stand on our own two feet. Today, the logistical support of Army aircraft has become one of the major missions of the Army Transportation Corps and accounts for a goodly proportion of our people and our money each year.

In establishing the necessary system to handle the spare parts and maintenance support of Army Aircraft, we have endeavored to exploit all of the modern tools of communications and management. Basically, we feel that good supply support for aircraft is primarily based on a rapid interchange of information and a prompt and responsive system.

We endeavor in every way to reduce the actual hardware inventory of parts to an absolute minimum, relying on these rapid communication systems in lieu of expensive distributed spare parts support.

St. Louis Is Hub

Primarily our operation is centered in our Supply and Maintenance Command in St. Louis. The majority of the requisitions for aviation items are sent to this central location where they are currently being received at an average rate of almost one thousand line items per day. The spare parts themselves are stored in various locations throughout the country, generally at the point nearest their point of manufacture because of our background in trying to

exercise maximum transportation economy. St. Louis issues the shipping instructions to the storage point to expedite the shipment to the place at which it is used.

Part of our modernization of this system is reflected in the fact that requisitions for these items are received currently from Europe, shortly from the Far East, and ultimately we expect from all of our consumers, by electrically transmitted machine accounting cards. These cards in time are transferred to another electronic device where the decision as to point of shipment is made and the proper shipping documents prepared.

48 Hour Service Sought

Our object in this area, which I must be frank to admit we have not yet achieved, is to process the requisition from the time received until the shipment is made in not to exceed forty-eight (48) hours, which compares with an average of over thirty (30) days which was considered a standard not too long ago.

The fact must be recognized that distinct from the other services with which you are more familiar, an army has an added problem. Our depots cannot remain indefinitely at an air base or naval base or some other permanent fixed installation, but must travel along behind our moving armies. This being the case, the number of different items stocked in our depots must be held to a minimum. Therefore, approximately half of our requests come for items which are not available in our stock. These we must meet by procuring from the manufacturers and dealers of these supplies. We are making maximum use of open end contracts with the charge account system in order to expedite the filling of these requirements.

While Army aviation might, to you more familiar with the large aircraft programs of the other Services, appear to be somewhat small, I think it is interesting to realize that we store over forty thousand (40,000) different items of aircraft supplies and parts in our system today and are re-

quired to keep records on and to be able to procure rapidly thousands more. Our inventory of parts on hand is currently in the order of one hundred million dollars.

From the supply point of view, I think you would be particularly interested in the system which we have set up on a pilot basis down at the Transportation Training Command at Fort Eustis where our stock records are maintained by a modern bookkeeping machine method which simultaneously transmits information as to stock levels, consumptions, requirements, etc., to St. Louis by means of punched paper tape and thereby eliminating all of the necessary transcriptions and other record keeping that are traditional Army supply system requirements.

We hope when we get the bugs worked out of this system, to apply its equivalent on a more or less world-wide basis removing the necessity for clerical manpower to make routine decisions such as ordering another set of spark plugs when the last set is used off the shelf and similar actions.

Commercial Maintenance

Another responsibility of the Transportation Supply and Maintenance Command and of the Transportation Corps is the maintenance of Army aircraft. By decision of the Department of Defense, we were instructed not to construct Government facilities for this maintenance and are therefore relying primarily on the services of commercial contractors for the overhaul of our aircraft, engines and other components.

Presently this activity amounts to an annual volume of some twenty or twenty-five million dollars and as our aircraft become larger and more expensive, it is expected that this program will probably reach three times this amount. We already have contracts negotiated with most of the major aircraft maintenance organizations for this work.

Improvement A Must

One of our primary endeavors in the

supply and maintenance support of Army aircraft is, of course, their improvement. The Transportation Corps has been actively engaged in improving the maintenance and supply aspects of the helicopter ever since we have been in this business. Like all new devices, the helicopter suffers from a fair degree of mechanical immaturity and understandably their designers had placed considerable emphasis on achieving successful performance characteristics in order to produce a useful vehicle.

It is apparent, however, that if the original high promise of these vehicles is to be sustained and proved in military operations, their reliability and dependability must be enhanced. It is the characteristic of vehicles that they originally prove their worth on the basis of performance but they succeed and become an important part in the transportation complex by their ability to give day after day reliable, economical service. The large scale use of commercial air transportation in this country furnishes a vivid example of the tremendous increase in traffic which immediately flows when high standards of on-time schedules and reliability is achieved.

Through the use of the services represented by your organization in assigning publicity to our efforts in this area, through frequent presentations to both engineering and technical organizations and detailed day to day drudgery with helicopter manufacturers, we have made great strides in improving the dependability and reliability of the helicopter. While it is still a long way from the dependability and reliability of the family car it is an equal distance from its rather inauspicious beginning of even five years ago. I think that the aircraft industry, generally, has recognized these efforts and is placing a commendable emphasis on the importance of these factors in producing this type of equipment.

TATSA Established

One of our principal recent efforts in this direction was the establishment of the

TATSA (Transportation Aircraft Test and Support Activity) at Fort Rucker where we have already accumulated over one thousand (1,000) hours on the Sikorsky H-37 helicopter, a scant six months after the aircraft was turned over to us for tests. During this test period we have eliminated many sensitive maintenance points which we could have expected to give considerable trouble from the maintenance and supply point of view when the aircraft came into the field. Many modifications have been introduced into the production vehicles to reduce their costs and difficulties of maintenance and operation later in the field.

This test activity will be expanded as the resources become available in order to expedite our objective of making the Army aircraft a completely useful piece of equipment to the Army commander and one which he can rely upon as completely as he does his motor vehicles and his weapons.

We also have conducted several military-industry symposiums at St. Louis to bring to the attention of the industry our requirements and problems of maintenance and supply in order to increase the efforts which they are making in these directions.

In this connection, I think it might be worth while to take just a second to bring one point to your attention. We frequently, particularly in the Transportation Corps, remark in discussions such as this that the Army helicopter and the Army aircraft generally are in the category of trucks. Not infrequently, this attitude is quoted to indicate our general ignorance of things aeronautical and the problems of aircraft design, engineering and operation. Our point really is the fact that the aircraft to be effective within and to be an integral part of ground combat organizations must be as dependable, as reliable and as effective to that commander as is his other equipment.

Lessen Command Worries

The Division Commander in the Army does not have to be an automotive mechanic or an Ordnance ballistic expert or even a tank maintenance expert to successfully exploit his equipment. In general, the technical problems of the maintenance of his combat equipment can be ignored for the period of his operation. Our endeavor in the Transportation Corps is to remove from the commander's mind the worry about the maintenance and supply support of his air-

craft and allow him to concentrate his efforts on exploiting the capabilities of the aircraft as he exploits the capability of his traditional ground vehicles.

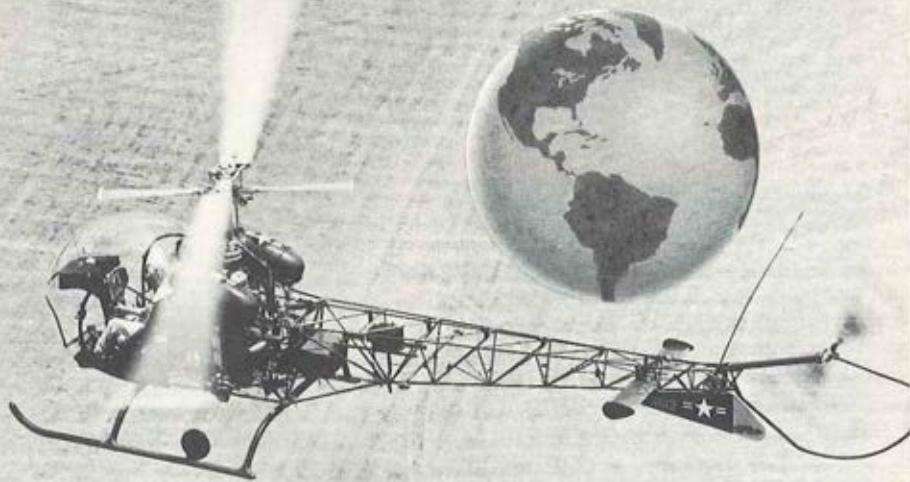
We do not believe that a helicopter is a truck but we do believe that with proper effort on the part of the designers, on the part of the operators, on the part of our supply and maintenance people and on the part of our research and development people the aircraft can be made as unobtrusive from a maintenance and mechanical point of view to the commander as are his trucks. We feel that big strides in this direction have been made and are becoming increasingly apparent on the new aircraft now coming into the Army system and as each generation succeeds its predecessor, we hope that these problems will become increasingly less.

And finally, of course, our big job in the Transportation Corps is to allow the Army to get the maximum amount of Army aviation support for the dollars expended. In any new area it is essential that its requirements do not become so all-demanding that the feasibility of exploiting this new device, no matter how desirable it might appear, becomes questionable. Our people therefore are trained and are continually exercising a maximum diligence to insure that the cost of procurement and the cost of support of Army aviation be kept as low as possible.

We are already on a slight defensive when the cost of operation of our new equipment is compared against some of our older devices, and this is one of the primary reasons why we fight such a vigorous campaign for maintainability, economy and reliability of our aviation equipment.

And this is the reason why I want to take this opportunity to express my appreciation to the Aviation Press for efforts towards emphasizing reliability and maintainability of Army aircraft and to seek your continued assistance in the future to publicize and accent our rather unglamorous efforts in this area.

It is extraordinarily easy to snatch a headline by going a hundred miles an hour faster, ten thousand feet higher or a thousand miles farther but in the efforts to increase the effectiveness of aviation in the Army of the future, our success will rely upon our ability to make the aircraft of the Army of the future able to perform and to fulfill their promises within the allowable expenditures of skilled personnel and money.



The whole world is our laboratory!

Bell H-13 helicopters have accumulated the equivalent of nearly 300 years of actual flight experience . . . tested under real-life conditions of weather, altitude and terrain.

Even Bell's own rugged, controlled tests over the past 15 years, important and revealing as they are, can't match this true test of dependability . . . *trial by time*. And the Bell H-13 series helicopter has come through that test with flying colors. With its more than 2,500,000 hours of flight time, it has proved its dependability, its economy, its versatility in operation throughout the world. Today, as it will be tomorrow, the Bell is the pacesetter in the field of utility helicopters.

Watch "WHIRLYBIRDS" on TV . . . consult your local paper for time and station

BELL H-13H FEATURES:

1. Longest approved overhaul period.
2. Interchangeable metal blades.
3. Cyclic boost (power steering) that incorporates latest Bell designed and developed lock and load valves.
4. Synchronized elevator that permits greatest range of cockpit loading without battery or ballast shift.

DERATED ENGINE PROVIDES

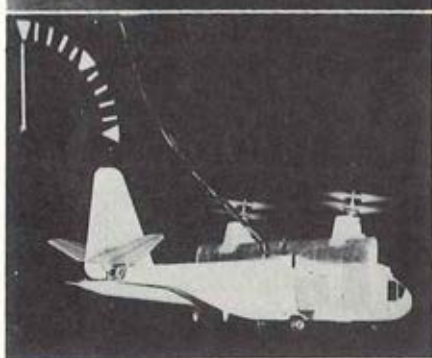
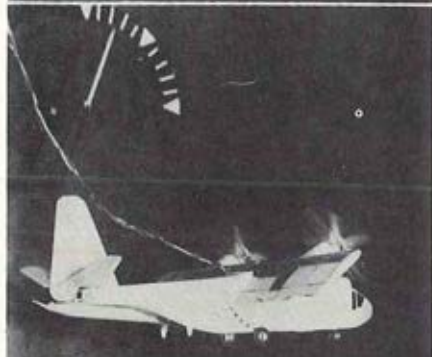
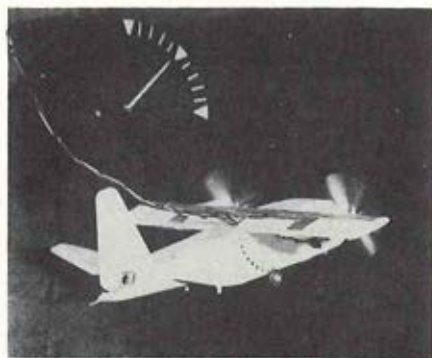
1. Improved hot weather and altitude performance.
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5. Maximum availability — Minimum cost.

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X-18 RESEARCH MODEL ENDS FREE FLIGHT TESTS



The X-18 model goes through its free-flight exercises in the NACA full-scale wind tunnel at Langley Field. Indicator behind the model shows airspeed created in tunnel. The model, shown (top to bottom) in horizontal flight, transition, and in hover.

One of the most significant landmarks in the development of tilt-wing VTOL aircraft was established recently at the NACA, Langley, Virginia, when a rigorous program of free flight model tests of the Hiller X-18 research airplane was successfully concluded. A full-scale X-18 is now in the advanced stages of construction at the Hiller Helicopter's plant in Palo Alto, California.

The success of the model design and its six-month test program was the result of a closely knit team effort on the part of Hiller engineers assigned to Langley and the NACA wing tunnel staff.

Six Foot Wing Span

The powered model has a wing span of six feet and incorporates full provisions for remote control of all aerodynamic surfaces, wing tilt, propeller pitch and power changes. Each flight in the free flight phase of the testing simulated a take-off and complete transition sequence. Hovering and transition were continually performed with ease.

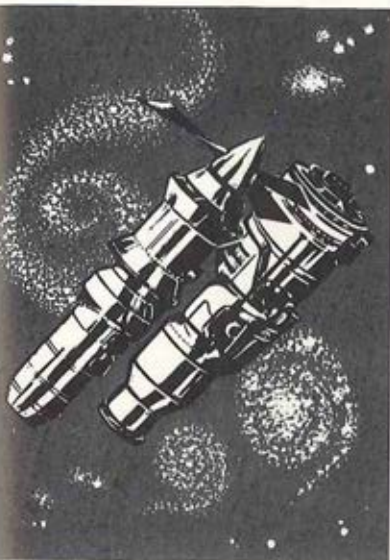
The extensive stability and control testing programs included a wide range of speeds, power variations, and extreme center of gravity locations throughout the transition cycle. Conditions during the take-offs, landings and sustained hovering in and out of ground effect were extensively explored. The results were interpreted as further encouraging evidence that the propeller driven tilt-wing configuration is both feasible and practical.

Next: Full Scale Model

Having brought these free flight model tests to a successful conclusion, the planned development of the tilt-wing concept now proceeds to the next logical phase: flight test of the full-scale X-18 airplane.

Powered with conventional propellers and turbines, this transport VTOL represents a research and development system of ample size and capability to provide comprehensive technical and operational data for realistic evaluation of the tilt-wing concept.

LOOKING TO THE FUTURE!



Member National Business Aircraft Association



Today, it's the conventional engines for fixed wing and helicopter equipment — R-1820, R-1830, R-1340, R-985, R-2000, R-2800 CA and CB, R-3350, R-4360, Lycoming and Continental engines. Tomorrow, it will be the jet and the turbine engine.

In preparation for this day, Dallas Airmotive will continue to grow and improve its engine methods.

Engines — regardless of type or kind — can best be overhauled at Dallas Airmotive.

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6114 FOREST PARK ROAD
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Our Primary Mission:

Dear Army Aviator: I occasionally receive very depressing reports to the effect that we are sabotaging our own efforts to build Army Aviation into what it should and must be by neglecting tactical flying practice. While air-taxi missions are necessary and desirable to some extent, we must not let the relative ease of this kind of flying deter us from our primary training goal: to be ready to support the ground soldier in the field under tactical conditions. We *must* practice tactical flying: short field procedures, low level navigation, delivery of supplies, equipment and personnel, reconnaissance, and all other aspects. I encourage each of you to keep steadfastly in mind the primary justification for our military existence—an uncontestable ability to fly tactically in combat.

★ The Army has just adopted a new fire truck which is designed specifically for fighting aircraft fires; it's listed in Engineer Supply Manual SM 5-4-4210-S14 as "Fire Fighting Equipment Set Number 21". Consists of a modified 530B fire truck mounted on a 2-1/2 ton truck chassis, a 300 gallon water tank, 40 gallons of foam, hooks, hacksaws, axes, pipe cutters, firemen's suspenders (red) and other tools and accessories necessary to provide a highly mobile fire fighting vehicle.

TOE's of all Army aviation companies are being changed to authorize these sets—they should be available for issue within the next few months. They may also be requisitioned by Post Engineers as replacement for worn out or inferior equipment (without red suspenders) now in use on U.S. Army airfields.

★ A new portable fire fighting set has also been adopted. It is carried in the En-

gineer Supply Catalog SM 5-4-4210-S15 as "Forced Entry and Rescue Equipment Set No. 1." Can be carried in a standard 1/4 ton truck and consists of portable fire extinguishers and tools for forcing entry into burning aircraft.

The portable set are now being assembled at depots and should be available in the very near future. They are being placed in the TOE of all aviation companies and smaller units to include detachments and sections having Army aircraft.

★ The following is reproduced from the Flight Safety Foundation's Private Flying Safety Bulletin 57-302.

"Taxi-Way 'Lights'. Necessity has long been the mother of invention, but recently a pilot came along and fathered an idea which ought to earn him 'Man of the Year' accolades from airmen flying into or out of Green Airport in Providence, Rhode Island.

"Up until recently Green Airport possessed no taxi-way lights. Some enterprising person (or persons) however, painted empty beer cans with a luminescent blue, fastened them to sticks and staked them into the ground. The results: well-marked taxi-ways need no electricity and almost no maintenance."

Idea might apply to your outfit someday.

★ Included in a report rendered by a member of this office on a staff visit to Fort Sill, Oklahoma, was a very complimentary comment on the training activities of the 36th Transportation Company (Light Helicopter). My congratulations to Major George T. Singley and all the personnel of his company on their training program, alertness, and demonstrated professional competence.

★ During a 75 day period the 8th Transportation Company (Light Helicopter), Fort Bragg, operated their Shawnees a total of 2147 hours with over 1000 of these hours being logged within one 30 day period. During this period the Company made a 4400 mile round trip to Desert Rock. During the Company's employment at the Nevada Test Site it maintained a helicopter

availability rate of over 84 per cent—mighty good.

Major John F. Sullivan, Company Commander, attributes this fine accomplishment to the fact that he and his staff conducted thorough and frequent inspections of all assigned personnel and equipment. An extraordinary idea, of course, but one which we all might adopt when all else fails.

★ On Friday, 4 October 1957, Major Leonidas W. Best, presently assigned to Operations Branch, Army Aviation Division, Office of the Chief of Transportation, received the Soldier's Medal of heroism displayed on the night of 22 February 1957. Major Best's detachment was one of a group of aviation units assigned the mission of rescuing survivors of a C-124 aircraft which crash landed on a sand bar in the Han River Estuary near Seoul, Korea. In a desperate race against flood water, and with complete disregard for his own safety he worked in the ice filled water, contributing immeasurably to the completely successful rescue mission; reflecting great credit on himself, his unit and the military service.

★ Reports continue to come in which indicate that quality control at some aircraft factories is a bit imperfect. Not infrequently, on new production aircraft, production line defects are noted: cracked inspection plates, wiring reversed on switches, poor riveting, improperly functioning instruments, improperly installed safety belts, etc., etc.

The Transportation Corps has, or is being, notified on each noted instance. However, we as users can assist in correcting defects. The Unsatisfactory Report is an excellent tool readily available to all Army aviators in such matters—and to our knowledge no UR's were submitted in these two cases. The UR may properly be used in reporting not only unsatisfactory mechanisms or material, but also unsatisfactory management. In one instance pointed out by TC an unsatisfactory report (slightly modified) was submitted on a *non-flying* officer as a result of unreasonable demands made upon Army aviation. The UR went all the way to the top and resulted in correction of the "unsatisfactory condition." I mention this only to show that the UR report, in most instances, results in positive corrective action—not that I encourage you to UR superior officers

Combat Tactical Support!

whose ideas do not conform to your own.

★ All our aviation commanders are *again* urged to study the job descriptions of aviation specialist MOS's in the Army as contained in AR 611-201 (including Changes 3, 6, 8 and 9) for enlisted people, and SR 605-105-5 (including Change 3) for officers. Then examine the records of your people and insure that the AG Machine Records Unit is transposing this data completely and correctly onto the R45 Report, or feeder reports thereto. Let me say again, at the Department of the Army level the R45 Report dictates almost absolutely the personnel authorizations for the Army. School quotas and many other personnel actions are developed exclusively on the basis of R45; it is the primary way to establish personnel authorizations. While this advice is aimed directly at TD units, it has value in the TOE field, too. Among the enlisted MOS's you will want to be very familiar with are 282.2, 284, the 670 and 680 series, 901, 902, and 907. The new officer MOS's are more familiar to us, but we still see the old 1066 showing up in the R45 Report. Look into this, too.

★ Inquiries continue on aviation safety publications. The United States Army Board for Aviation Accident Research (USABAAR) has established a modest publications section and material should be forthcoming. A statistical brief of accidents is carried in most issues of the Flight Information Digest. A technical bulletin concerning hazards of low-level flying has gone to the printer and should be available shortly.

Best wishes,

HAMILTON H. HOWZE

Major General, GS

Director of Army Aviation, ODCSOPS

THE ARMY H-23D :



BREAK-THROUGH IN COSTS...



1000 HOUR TEST COMPLETED—Hiller crew standing beside Army H-23D after completion of 1000 hour accelerated ground endurance test. •

EXTENDED OVERHAUL CYCLE HELICOPTER ACHIEVES HIGHER AVAILABILITY, LOWER MAINTENANCE

With completion of the first 1000 hour accelerated ground endurance test by the H-23D helicopter, the Army's program to achieve drastically lower helicopter operating costs is rapidly being realized.

Using a completely new drive system throughout, the Army H-23D represents a major technical achievement. Its design period of 1000 hours between overhauls is approximately twice as long as for similar helicopters presently used by the Army.

Since the biggest factor in the cost of helicopter operation has been extensive maintenance and frequent overhauls, drastic reduction in maintenance requirements means sharply decreased operating costs and much higher availability—or translated, *low cost mobility*.

EXPERIENCE BUILT THE "D"
Behind the design of the "D" model lies many hundreds of thousands of hours of Hiller field experience in helicopter operations around the world, including the exclusive use of H-23s as basic trainers at the Primary Helicopter Training Base, Camp Walters, Texas. (see right)

HILLER HELICOPTERS
PALO ALTO, CALIFORNIA



The Case of the Migrant Muskrat

It was Monday morning. Six hunters packed their equipment and returned with their dogs (and an unspecified number of ducks) to the point where they had moored their *Otter* amphibian on the previous Friday. From the distance it didn't look right somehow. They approached closer and noted an alarming list to port. . . *in fact, one float was three quarters submerged!*

"Punctured!" was the unanimous opinion. Gear, dogs, and ducks were loaded aboard and the pump was brought into action, but as fast as they pumped it out the water flowed back into the float center section that houses the port main wheel. The *Otter* was moored on Beaverstone Bay in the heart of Ontario's French River district.

It looked like the starting point of a good long hike back to civilization. Then D.L. (Buck) Buchanan, de Havilland Canada Sales Manager and pilot on the expedition, cast a measuring glance across the surface of the bay. After which pilot and passengers joined the dogs and ducks inside the aircraft.

The take-off was tough. The water-filled float dragged but *Otter* performance and expert handling won the day. The amphibian lifted from the bay at a steep angle and headed down the Bruce Peninsula towards Wiarton.

A nice wheel landing at Wiarton Airport, but gurgly. Hardly a drop of water was lost—most unusual for a punctured float!

Again the pump was manned and a deluge gushed out onto the gravelled taxi strip,



but inspection showed no evidence of a puncture. Then. . .

The culprit was discovered. . . a three to four pound stowaway!

Moe or Myrtle—the gender never was established—but the species was Muskrat. It had gained entry to the float by chewing a six-inch diameter hole through the bellows of the retraction mechanism and had then built a nest in a dark recess above the wheel bay. . . and had caused the flood of some fourteen hundred pounds of Beaverstone Bay Water that now inundated the Wiarton taxi strip!

Efforts to dislodge the furry stowaway at Wiarton met with no success so the *Otter* continued on to the de Havilland plant at Downsview. Here a plate was removed from the top of the float. At this point, Moe (or Myrtle) decided to vacate via hole in the bellows. Later he (or she) was persuaded to pose for the photographer.

When last seen our little friend was swimming strongly down a creek that junctions with the Humber River, undoubtedly on a survey of the housing situation in this area. If the name is Moe, he may live out his life as a lonely exile. If, however, our friend is Myrtle and the right conditions prevail, then there is reason to speculate on the possibility that the fur trade may be revived in the Toronto area.

—J. E. Grimshaw

(Ed. A closeup of the Migrant Muskrat appears on Page 25.)

Bell, ARMAV Conduct Investigation

FORT RUCKER, ALA.—Exhaustive study and research are being carried out by U.S. Army and Bell Helicopter Corporation authorities following a series of six accidents involving H-13 reconnaissance helicopters.

During the past three years six *Sioux* have crashed after their main rotors contacted and severed the tail booms. Five of these six accidents have occurred at the Aviation Center, three during the course of this year.

Oddly enough, neither the Air Force nor the Navy, both of whom employ H-13 type helicopters, have reported a similar type accident.

According to Lt. Colonel Edward G. Raff, Director of the USA Board for Aviation Accident Research, research on this subject has been in progress over the past few years.

Various types of tests have been conducted at Fort Rucker, at Bell's Fort Worth facility, at ARDC at Wright-Patterson AFB, and by NACA.

Colonel Raff commented that "in spite of these accidents the safety record of Army aviators is one that all of us can be proud of. During 1957 we had only 2.3 fatalities for each 100,000 flight hours. This year that average has risen slightly due to the three H-13 accidents at Fort Rucker, but the record is still very impressive."

Testing will continue at the Aviation Center and at the manufacturer's plants until the specific causes of the recent mishaps are discerned.

NOTICE: The 1957 Yearbook, "Who's Who in Army Aviation," will NOT be published. Reduced fourth quarter advertising revenues and a 100% increase in typesetting costs do not make its publication feasible at this time. Subscribers will receive the full twelve "news" issues. Those who purchased "full listings" will receive a complete refund—the refund to accompany their subscription expiration notice.

Facts . . .

One of every ten dollars being spent by the Army for "hardware" in fiscal '57 went for aircraft procurement, according to figures released by the Aircraft Industries Association.

The Army percentage for aircraft has risen steadily since fiscal 1954, climbing from 2.4 per cent of the total to 13.1 per cent now. These are spending figures, not obligations.

The following yearly breakdown in hardware spending (six zeros omitted) shows the relative importance of aircraft in the Army's fiscal programming:

FY 1954; Total Hardware Spending—3,448; Aircraft Spending—83; 2.4 per cent of total.

FY 1955; Total Hardware—1,196; Aircraft—67; 5.6 per cent of total.

FY 1956; Total Hardware—1,339; Aircraft—134; 10.0 per cent of total.

FY 1957; Total Hardware—1,562; Aircraft—168; 10.8 per cent of total.

FY 1958 (est); Total Hardware—1,272; Aircraft 166; 13.1 per cent of total.

Where does the hardware money go? The following line tells the real story:

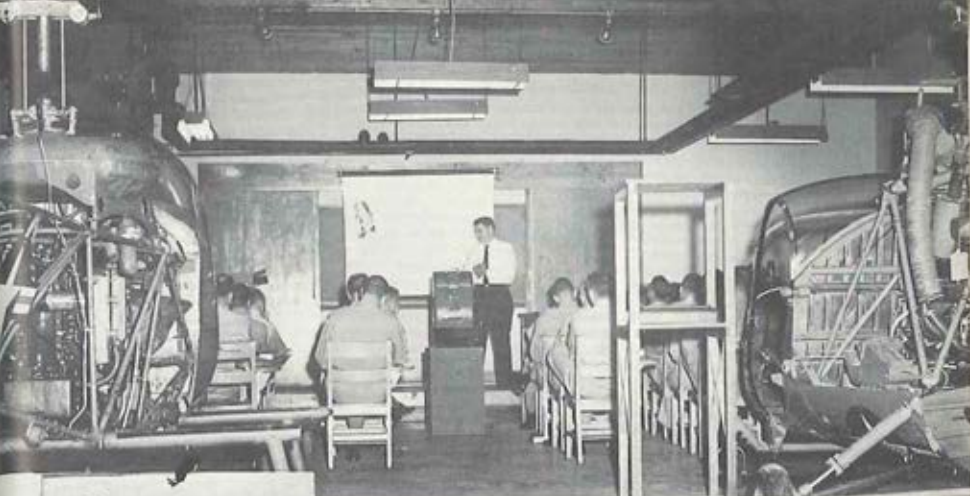
FY 1958 (est); Total Hardware—1,272; Missile Spending—545; 42.8 per cent of total.

. . . and Figures!

American Airlines, in recently opening its new \$1,000,000 stewardess school in Texas, released some interesting figures on its aerial distractions. American found that its stewardesses stay with the company an average of 26 months, creating a high turnover in its 1,300 total. They estimate they'll interview 15,000 girls to secure 600 candidates for training (a 4% acceptance rate).

While earning her \$315 a month (plus meals and other expenses), the average stewardess spends 1,900 hours in the air, travels 90,000 miles in her tenure (26 months), serves 15,000 passengers (pillows, coffee, gum, we presume), and serves 7,700 meals.

Required to be the "wholesome all-American girl type," 20-26, single, and the possessor of "considerable personal charm as well as a high degree of intelligence and enthusiasm," the stewardess excels in everything, except job longevity. Eighty-five per cent leave to marry. Last figure (ours): they're well-rehearsed having walked the aisle an estimated 5,000 times.



AAHC Training at Wolters

Members of Class 58-8, Army Aviator Helicopter Course (AAHC), started their transition training to qualify as helicopter pilots on August 5, 1957, keynoting the first of a series of fixed-wing rated officer classes to undertake helicopter training at Camp Wolters, Texas, the home of the U.S. Army Primary Helicopter School.



Flight Briefing

Varied Programming: For the first two classes, 50 per cent of the students were programmed to receive their instruction at Camp Wolters, the remaining 50 per cent reporting to Ft. Rucker for training.

Effective with Class 58-3 (which reported October 9, '57) Camp Wolters had the responsibility of training 75 per cent of the officer students programmed to receive training in the reconnaissance helicopter.

Beginning in FY 59, Camp Wolters is scheduled to train all of the officer students of this course.



Maintenance Guidance

Title Change: The course title, heretofore Army Helicopter Aviation Tactics Course (AHATC), was recently changed to Army Aviator Helicopter Course (AAHC). The word *tactics* was superfluous, being a carryover from earlier days when the AF conducted the first portion of the helicopter training with the Army teaching the remainder.



Classroom Instruction

Course Duration: Total time for the course under the two-service set-up varied between 10 to 12 weeks. With Army teaching the entire course, savings in both time and per diem funds are expected. Officer students complete the course in ten weeks at the Primary Helicopter School. Two classes are in residence at all times, with new classes reporting in every five weeks. The presently programmed input is 60 students per class.

Contract Training: Actual flight training is conducted

by civilian instructors of Southern Airways Company under contract with the Army. This firm also instructs the enlisted, warrant officer, and MSC officer students in the Army Aviation Transport Pilot Course (AATCP).

Students in AAHC will receive a 70-80 hour course of flight instruction from the contractor, all of the training being accomplished in H-23 *Ravens*.

Ground School: The contractor also teaches 58 academic hours of ground school in rotary-wing aerodynamics and maintenance subjects.

An additional 32 hours of academics is presented by the military instructors of the O & T Section of School Headquarters. These subjects stress the military employment of Army Transport Aircraft in support of air-landed operations.

The military also gets "into the picture" through the medium of the well-known check ride. Each student receives a minimum of two check rides conducted by military helicopter pilots assigned to the School Headquarters.

Facilities on Post: Excellent facilities for the students are found at Camp Wolters. The BOQ, a modern masonry-constructed building, houses students in individual rooms in air-conditioned comfort—an important factor at Wolters from April through September.

Student Company Mess facilities are adjacent to the BOQ, the price for meals in this Mess being the standard field ration charge plus the surcharge. There is an Officer's Open Mess and Officers' Club available to the students during their off-duty time.

Dependents' Facilities: For married officers, a Wherry project is located on the edge of Camp Wolters and sufficient vacant apartments customarily accommodate the families of student officers. Apartments are 2 and 3-room duplexes renting for \$79 and \$85 respectively, not to include gas and electricity.

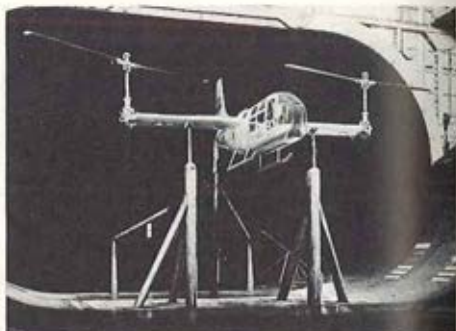
A limited amount of furniture is available for rental in these apartments. In addition, there are several homes and apartments for rent—both furnished and unfurnished—in Mineral Wells, about 2 mi. from the gate.

XV-3 Completes Wind Tunnel Tests

FORT WORTH, TEX.—Having successfully completed full-scale wind tunnel tests, Bell Helicopter Corporation's XV-3 convertiplane has resumed test flying.

Developed for the Army, the XV-3 underwent extensive testing in the 40 x 80 foot Full-Scale Wing Tunnel of the NACA Ames Laboratory, Moffett Field, California.

The 6-week wind-tunnel test program, during which 120 hours of powered tests were conducted, placed the XV-3 through 90 degree conversions and all speed ranges in helicopter and airplane configurations.



Stability, control, and vibration characteristics of the aircraft, equipped with a new two-bladed semi-rigid rotor system, were found to be satisfactory in every flight condition, according to Robert L. Lichten, Bell's chief experimental engineer. The wind tunnel tests simulated actual flight conditions, including possible emergency situations.

Test speeds reached more than 170 miles per hour. Prior to modification of the rotor system the XV-3 had accumulated 14 hours' flight testing.



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News And Photo Capsules On Army Aviation
Happenings Throughout The Globe



SIDE POCKET—Machine guns are placed in the sides as well as the front of the heavily-armed Sikorsky H-34 aircraft now being tested at Fort Benning. The aircraft is equipped with 40 2.75-inch rockets, two five-inch rockets, nine machine guns, and two 20-mm cannon, the first time a rotor aircraft has been armed with 20-mm cannon and 5-inch rockets. The armed craft are being tested for possible inclusion in the Army's Sky Cav concept of air mobility. (U.S. Army photo).



CLOSE LOOK—Elton J. Smith, chief experimental test pilot for Bell Helicopter Corporation, points to the approximate area on an H-13 tail boom where the main rotor blades have severed the tail section in several accidents. Shown with Smith are Harry Strycker (center), Bell tech. rep., and Roy Neiswander (right), flight inspector in the quality control department. The Bell personnel are investigating flight training and maintenance data on the H-13 at Fort Rucker in an effort to establish the reasons for the particular type of accident. (U.S. Army photo).



HOMEcoming— Captain James C. Isabell is embraced by his wife Dorothea at Villafranca Airport, Verona, Italy, after completion of a trans-Atlantic flight. Behind them is the new L-23D which Capt. Isabell and Lt. Billy G. Haney flew to SETAF from Wichita, Kansas. Set for retirement in Feb., '58 after 20 years of service, the 38-year-old New Mexico-born AA has an Oregon ranch in mind. He intends to teach all three of his children to fly in turn (Flora, 17; Earl, 13; Bruce, 11). The L-23D delivered to the 202d Aviation Company brought the number of aircraft in the "Deuce-oh-Deuce" to twenty. (U.S. Army photo).

SPEARHEAD—The 3rd Armd Div Avn Section went out of being in October and in its place—like the Phoenix rising out of the ruins—was the 503rd Aviation Company (Armd Div). The transformation was so smooth that many people, closely allied with AA, were not aware of the change until it was formally announced.

Commanded by Capt. James R. Lindholm, the 503d was organized on 1 Oct 57 and brought with it an increased effectiveness and efficiency in

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Happenings Throughout The Globe

air support for the division. Tentative TO&E positions have been filled and the designated officers and NCO's assumed their jobs immediately.

The first pilot gained by the company was Lt. Earl J. McMillan, followed by four Warrant Officer helicopter pilots: CWO George E. Kelly and WO's Wallace R. Howard, Leroy J. Malone, and Henry A. Stinken.

—(1/Lt) William H. Frye

RE-PATCHED—The USA-PHS has been given authority to wear the crest and shoulder patch of the Army Aviation School. This is a welcome addition to our uniform here at Camp Wolters and will help us in developing greater esprit than we have had in the past, if that is possible. Up to now we have tried to have our people stand out by having the best military and the shiniest boots and bearing, the neatest uniforms, brass to be found on Camp Wolters. It has worked pretty well.

Capt. Jim Keirn is back with us again after completing the Hcptr Crs. Lts Gilbert Hickenbottom and William Bauman are taking Instrument and Hcptr Tng respectively.

—Col. Wayne E. Downing

NOTICE

With the cooperation of the advertisers, "Army Aviation" will return to an EARLIER distribution date in '58. Current issues are placed in the mails about mid-month. To catch an issue submit copy between the 1st and the fifth of the month.



FIRST—Gathered for a group photo at Fort Ord, Calif., the seven authorized Army aviators of CDEC comprise the first "100% unit of the Army Aviation Association," all seven being AAAA Members. Commanded by Brig. Gen. Frederick W. Gibb, the Combat Development Experimentation Center celebrated its first birthday on 1 Nov 1957. Shown (standing) L-R are: Lt. Col. Ernest L. Hamilton and Lt. Col. James W. Hill Jr. Kneeling (l-r): Maj. Eugene M. Lynch; Captains George E. Mengel, Lee R. Stickler; Robert H. Parks, and Weldon C. Britton.



UNPREPARED—The USAF's propjet C-130, jet-age "workhorse," was designed to land on "short, hastily-prepared strips." In tests at Eglin AFB, Fla., however, it went beyond specs and landed on "rough," unprepared fields. Though not designed for assault landings as a routine operation, the Lockheed 103,000 lb. giant cut a 14-inch groove in the sand and proved it could land, taxi and takeoff from rough, unprepared fields in an emergency.

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News And Photo Capsules On Army Aviation
Happenings Throughout The Globe



BIG BROTHER—When a 10th Aviation Company *Sioux* developed engine trouble and completed an all-in-one piece autorotation into a field 10 miles west of Bamberg, Germany, friend pilot envisioned a long and chilly wait. CWO's Raymond Galbraith and Walker T. Wills, on call at the nearby 26th Trans. Co., sped to the site in their *Choctaw* and completed the hookup in 20 minutes. A cloud of dust, a hearty "*Heigh-O, Sikorsky,*" and another play in the monthly belly-series was run off. (U.S. Army photo.)



PRECISION PLUS — Lifting a 200-pound golden cross to the top of this

BIRTHDAY— The T-37 Test Unit, code name—*Project Long Arm*, celebrated its 1st birthday, while away from its home base on November 2nd. Engaged in actual testing in Phase II of the Project, the unit personnel and aircraft blew out the lone candle at Fort Sill, Oklahoma. The ten officers and 37 enlisted men of the 3-jet, 2-*Beaver* unit then deployed to Fort Knox, Ky., on November 8th to continue additional testing at the Armor School. The red carpet is out to all, so come on by and let us show you something new in Army aviation. It's interesting work to us and we think it will be to you, also.

—(1/Lt) Frank L. Treece
(Ed. We've got 700-odd subscribers who are fairly well confined to APO quarters. How about giving them (and us) a WORD picture since we can't bring the eyeballs to Knox?)

tiny town's only church, CWO's Frank A. Frost and John R. Lloyd performed an H-34 mission of sufficient religious significance to endear the two pilots in the hearts of the townspeople of Konnersreuth, Germany.

Guided by their crew chief, the pilots lifted the cross from a nearby field and placed it on the church steeple some 200 feet from ground level. An estimated 1,500 spectators watched as the pilots hovered over the tower for twelve minutes before the weighty cross was slipped into the prepared slot. A muffled "Ahl" signaled the accomplishment of the mission.

Capt. Walter E. Spriggs, Jr., project officer of the 26th Trans Company, had little doubt as to the success of the mission. Men of the 26th have consistently "done the impossible" through expert handling of all kinds of aircraft.

CWOs Raymond C. Galbraith and Robert M. Loret and Sp/3s Robert C. Pollard and Howard P. Parks worked with the pilots and assisted them in the planning of the mission.

BRIEFS!

News And Photo Capsules On Army Aviation
Happenings Throughout The Globe



THIS WAY UP—That's the appropriate title of Sikorsky Aircraft's new motion picture featuring the role of the helicopter in modern transportation. Utilizing scenes in which many military applications are shown, the 26-minute film was shot in locations as diverse as the jungles of New Guinea, New York's LaGuardia Airport, the lowlands of Western Europe, and the offshore oil fields in the Gulf of Mexico. The H-34 (S-58 commercial model) is the "star" of the public information film. Available in color and black and white for nationwide television distribution and general information use, appropriate organizations may secure the film for showing by writing to: Frank Delear, Pub. Rel. Mgr., Sikorsky Aircraft, Stratford, Connecticut.



TEST DEVICES—Lt. Col. Edward G. Raff (left) shows Maj. Oran B. Jolley and Col. William R. Tuck (right) two devices which are being studied for use on the H-13 helicopters at ARMAV. Designed to be attached to the tail boom, the devices will reveal how close the rotor blades normally approach tail boom assemblies during pilot training exercises. (U.S. Army photo)

ON SITE TRAINING—

Acting on a request by Col. William H. Billings, Lawson Army Air Field Commander, Maj. Amore V. Juliano, C.O. of the 31st Trans. Co. at Fort Benning, has initiated a pilot and mechanic proficiency course in H-34 *Choctaw* operations.

The same type of course that is currently being given at the USA Aviation Center, the LAAFC eight-week course will accelerate the training of those Lawson pilots who have not received *Choctaw* training.

Utilizing the facilities and equipment of the 31st, some 23 officers and four EM will receive 50 hours of intensified, concentrated flight instruction under the supervision of company personnel. Their flight training will include the transportation of cargo both side and outside of the H-34 aircraft.

Four officers and four EM from the 82nd Airborne Division are taking part in the training and upon completion of the course will use their training to orient other 82nd personnel on H-34 equipment. The 82nd received the *Choctaws* formerly used by the 4th Trans. Co., a unit that is now employing the H-37 *Mojave*.

Capt. Edward J. King, training officer for the class; and Capt. Robert B. McFeeters and Lt. Thomas M. Stedman, among others, are a part of the instructional team from the 31st.

FINIS—The 8-week-old daughter of Mrs. Mealy Mouth, USAPHS's donkey mascot, has been named "Miss Mushy Mouth." We thought you should be *fully* informed on at least one facet of Army aviation.

TAKEOFFS

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BOWDEN, Walter D., Lt. Col., P.O. Box 536, Fort Rucker, Alabama.

BRADLEY, William C., Lt., 8th USA Avn Detachment, APO 301, S. F., California.

BRODEUR, Alfred F., Lt., Box 493, Fort Rucker, Alabama.

BROOKER, Clarence B., Lt., 807 N. 33rd Street, Lawson, Oklahoma.

BROWN, Archie J., Lt., 317th Engr Bn (Cbt), APO 757, New York, N. Y.

BRUMMITT, George P., CWO, 3105 N.W. 6th Ave., Camas, Washington.

BURKHARDT, James R., M/Sgt, 504th Avn Co., 4th Armd Div, APO 696, N. Y., N. Y.

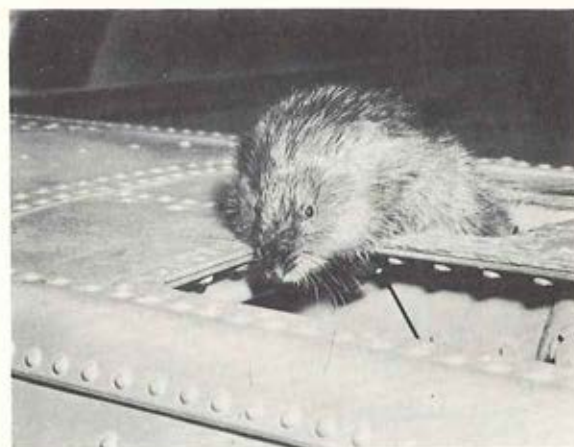
BURTON, Ralph C., Lt., 17th Sig Battalion, APO 164, New York, N. Y.

CARPENTER, Eugene V., SFC, 36th Trans Co (LH), APO 165, New York, N. Y.

CHAPPELL, James H., Capt., Stu Det, Sch Brig, US Inf Sch, Fort Benning, Georgia.



FERRY CREWS—Belated group photo received from USAREUR showing the three two-man crews who ferried L-23D's by way of the Southern Route—Torbay, Lajes, Madrid. L-R: Capts Richard Duckworth and Guy R. Claybourn (USAREUR Flt Det); Capts Clifford E. Johnson, Jr. (VII Corps Aviation Section); Irvin T. Bruestle (Seventh Army Aviation Detachment); Capt. Robert W. Blakely, and Maj. Norman W. Goodwin (USAREUR Flt Det). Maj. Goodwin, since rotated to Fort Rucker, served as Flight Commander. The report of this flight as written by Capt. Claybourn appeared in the October issue. (U.S. Army photo.)



CASE OF THE MIGRANT MUSKRAT—Exhibit D from the de Havilland File. This sharp-toothed little ball of fur chewed through the rubber bellows of the retraction gear in a float on an Otter amphibian, filling same with 1,400 lbs of bay water, prior to building a comfy nest in the recess of the wheel bay above the water line. Details of the dirty deed appear on Page 17. (DHC photo).



CRASH-RESCUE VEHICLE—Kaman Aircraft Corporation has been awarded a multi-million dollar contract by the USAF for the production of H-34A and H-34B crash-rescue helicopters. Carrying fire-fighting equipment and a rescue crew, H-43 choppers can speed to accidents at or near air bases and to terrain which might prove inaccessible to ground operated equipment. Later "B" models will be powered by Lycoming T-53 gas turbine engines. (Kaman photo.)

TANKER—Playing pack mule for the National Park Service in the area of the Sahuara National Monument, a helicopter from the U.S. Army Electronic Proving Ground lifted three 1,200 lb. water tanks high into the Rincon Mountains where they will serve as storage tanks for fighting forest fires.

After hauling the tank's steel sections to the 8,000 foot elevation, the helicopter brought the workers and welders to the site for assembly.

The request for assistance was submitted by the Arizona Development Board, following a '56 \$29,000 forest fire

COOPER, Richard S., CWO-2,
13th Trans Co (LH), APO
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CORNELL, Mark W., WO, W1,
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CROSBY, Glen L., Lt., 605th
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CULBERTSON, Robert G., Maj.,
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Hepr Stu Co, USA Avn S
Regt, Ft Rucker, Alabama.

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fornia.

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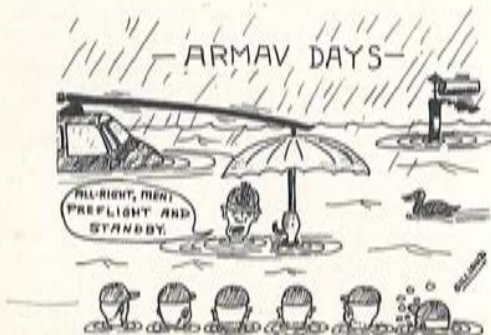
GODWIN, Robert L., Team 17,
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HEATH, Philip C., Maj., 129 Elm
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The Month's Takeoffs!

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JOHNSON, Frank F., Jr., 1/Lt, 44214D Patton, Ft. Huachuca, Arizona.

JOYCE, Donald R., CWO, 65th Trans Co (LH), Ft. Eustis, Va.

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PARKINSON, G. N., Capt., 10th Inf Div Avn Co, APO 36, New York, N. Y.

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PYKE, Harold F., Jr., 1328 Washtenaw Ave., Apt 4, Ann Arbor, Michigan.

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ROSEBERRY, Robert A., Capt., 11th Trans Co (LH), APO 46, New York, N. Y.

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SHAW, Ambrose C., Capt., 48th Trans Co (AAM), APO 29, New York, N. Y.

SINGER, Henry, CWO, 7 Hatch Street Ayer, Massachusetts.

SPAULDING, Glenn E., Lt., 2804 Richmond Hwy, Alexandria, Virginia.

STEWART, Edward A., Capt., 152-33 Jewel Avenue, Flushing 67, New York.

SUTOR, Frank J., Capt., Dushack Acft Corp., Torrance, California.

SUTTON, Harold F., 216 McDermaid Street, Monterey, California.

TAYLOR, Billy R., 1/Lt, Stu Off Co, Box 964, TAS, Ft Knox, Kentucky.

THOMAS, Patrick E., 1/Lt, 3rd Armd Cav Regiment, Ft Geo G Meade, Maryland.

TOWNSEND, Harry W., Capt., Qtrs 7252, Apartment A, Fort Carson, Colorado.

TWACHTMANN, Dale H., 1/Lt, 2809 Morningside, Lawton, Oklahoma.

ULERY, Vincent L., Maj., Box U-3, Stu Off Co, Ft. Rucker, Alabama.

VANDERHEIDE, Herbert J., Maj Gen, Hq, XXI Corps Res, IG-MR, Annville, Pennsylvania.

WALKER, Paul S., Capt., 385 A Grant Road, Fort Devens, Massachusetts.

WALLACE, Bud, Capt., Hq, COMZ Avn Section, APO 58, New York, N. Y.

WALRATH, Charles F., Maj., MAAG, Vietnam, Navy 150 FPO, San Francisco, Calif.

WALTER, John G., 1/Lt, 720 Golfview Avenue, Youngstown, Ohio.

WATERBURY, Joseph W., Capt., P.O. Box W-7, Fort Rucker, Alabama.

WILKES, Donald D., 1/Lt, 2d ARB, 41st Infantry, APO 35, New York, N. Y.

WILLIAMS, Donald O., General Delivery, Sierra Vista, Arizona.

WILSON, John L., Jr., Lt Col, 127th Sig Bn, 7th Div, APO 7, San Francisco, California.

YOST, D. R., Capt., Army Language School, Pres. of Monterey, California.

ZINN, Zaro, F., Sp/3, 2d FA Bn, 73rd Arty, APO 165, New York, N. Y.

OBER-SCHLEISSHEIM, GERMANY—The U.S. Army's Ober-Schleissheim Air Field in the shadows of West Germany's towering Bavarian Alps was the scene of an impressive ceremony in mid-November as Lt. Col. Jack Blohm, base commander and C.O. of the 8th Hcptr Bn, presented Sikorsky Winged "S" Awards and Certificates to two veteran pilots; CWOs Herbert E. Woodward and Homer B. Allison of the 18th Helicopter Company.

The awards, presented by Sikorsky Aircraft to those pilots who distinguish themselves beyond the call of duty while performing rescue missions in Sikorsky designed aircraft, were made to the Army Officers for the dramatic mountain rescue they performed on May 19, 1957.

Saving the life of an injured German skier at a 9,000 foot level on the Gurndle Spitze Mountain on the German-Austrian border, the two Army pilots flew in extremely hazardous mountain terrain throughout the entire mission.

The critically injured youth had been skiing at the 9,000 foot elevation when the accident occurred. According to the attending physician, the youth's condition was extremely critical and without the aid of the *Choctaw* and its crew, which accomplished the rescue in record time, the youth would most probably have lost his life.

Normally considered as routine for the rescue crews, the rescue mission was extremely difficult as it was carried out in adverse weather. Vicious snow squalls and winds of hurricane force lashed the Alpine Mountain peaks throughout the area, endangering the aircraft and the crew.



WELL DONE—CWO Herbert E. Woodward (left) and CWO Homer B. Allison receive Sikorsky Winged "S" Awards from Lt. Col. Jack Blohm, base commander of Ober-Schleissheim A.A.F. (U.S. Army photo/SFC L.E. Rains).

Sighting the injured man, the pilots of the H-34 found a pickup almost impossible. Each time the crew maneuvered the aircraft in close enough to make the pickup, the rotor downwash and vibrations set up in the atmosphere created avalanches that cascaded down the mountainside, restricting the visibility of the mountain and the pick-up was made. Further endangering the life of the injured skier.

Finally, through resourcefulness and skillful technique, the pilots maneuvered the helicopter in close to the near vertical face of the mountain and the pick-up was made.

►► ALL-WEATHER

(Dear Editor:) We received our copy of the Nov. 15 issue of *"Army Aviation"* yesterday. As is normal for one who enjoys reading the information you publish, it was read from cover to cover. The article on page 9 by Capt. Jack Cranford, *"A Solution to Icing Conditions,"* was most interesting.

We feel that it might be interesting to some of your readers to know that in June of 1956 we delivered four of our Super-Charged 680 *COMMANDERS* (known as L-26C's) to the Army. The L-26C is fully equipped for de-icing. Three of the L-26C's are assigned to Ft. Belvoir and one is as-

signed to the Army Ballistics Missile Agency for all-weather flying.

One other factor that may be of interest is that during the period of March and April of 1956, the Air Force flew tests of L-26's, under actual and simulated icing conditions to prove the use of the Goodrich pulsating boot. Air Force test pilots logged some five hours in actual weather and almost seven hours flying behind a tanker aircraft that was releasing water through its inflight refueling system in sub-freezing high altitudes.

Keep up your fine editing job for we enjoy keeping up with Army aviation.

Julian Prade, Sales Manager, Military Aero Design & Engineering Co.

THE BUREAU DRAWER



After several proddings from my boss and the Editor, I finally waded through a small mountain of old papers and opened the *Bureau Drawer*. Needless to say, the dust was deep and a flight or two of gray-bearded moths took to the air. We miss Maj. Casner around here for many reasons, but a big one is that he was the one who kept this correspondence going.

I'm glad to report that Lew is effecting a recovery—slowly, but surely. He is still at Walter Reed, but progress reports are satisfactory, and we hope to be seeing him up and around soon.

News for the Army National Guard aviation units that have been so patient with us on this—we expect to have a Christmas present in the form of a revised NGR #95, subject: "Army Aviation", (currently at the printers) which will clear up many of the misunderstandings and controversies that were incurred under the old regulation, with its many changes.

Major revisions in the new reg include:

Retention of flying status by a percentage of field grade ARNG aviators assigned to non-flying TOE vacancies.

Issuance of temporary flying status for former military aviators prior to receipt of permanent Federal recognition.

Delegation to State adjutants general of the responsibility for the designation of ARNG aviators as Instructor Pilots.

Delegation to State adjutants general of the authority and responsibility for the appointment of ARNG Flying Evaluation Boards.

Concentration of aviation training.

Attendance of aviators at scheduled staff assemblies. An ARNG aviator must attend a minimum of one scheduled drill per month with the unit to which he is assigned or attached, for the purpose of maintaining branch proficiency.

A concerted effort is being made to establish and maintain an aggressive, effective ARNG Aviation Safety Program. Safety Councils are being organized at State level, and units have been directed to appoint local Aviation Safety officers and NCOs. The National Guard Bureau is sup-

**By Maj. Harrison A. Morley
Aviation Section, NGB**

plying informational data, sample publications, plans and surveys for reproduction and dissemination, and will keep up the flow of material as it becomes available. We hope to see concrete results in a reduction of the aircraft accident rate for FY58.

The annual Individual Flight Record Review Board convened in NGB during the period 15 October to 15 November and noted much improvement in the preparation and timely submission of the DA Forms 759 and great progress in meeting annual minimums. The usual action to suspend those few aviators deficient in meeting annual minimums for the second consecutive year was taken, along with the appropriate action on first year delinquents, those who did not have current physicals, and those who had incomplete or incorrect forms.

It is felt that the review Board is a beneficial factor in that greater effort is made by the individual ARNG aviator to maintain proficiency and achieve a higher degree of combat readiness when he knows the Board will review his activities annually. Sort of a sword of Damocles in effect!

Col. Phillips, Chief of the Avn Sec., O & T Branch, Army Div., NGB, has been attending the Army Division Conferences and reports a gratifying increase in interest in ARNG aviation, from the top brass right down. We have a total of 1060 aviators on flight status at present, and many more individuals, ex-military pilots and otherwise, have expressed a definite desire to get into the program. Get in the applications, fellas, we still have about 765 vacancies for qualified personnel.

THE AUXILIARY

News of Women and Their Affiliation
with Army Aviation

ELECTIONS—Top position of the Camp Gary Women's Club went to Mrs. Irene Heck when she was elected president for the coming year at the club's November elections. Mrs. Heck is the wife of Graham & Son's director of personnel, William Heck, and has been active in Women's Club work through four "Graham assignments."

In an interview following the election, Mrs. Heck said one of the big objectives for '58 will be to reach the goal needed to air condition the post nursery.

Shown in the photo are the new officers of the Women's Club. Seated at the right is Mrs. Heck, the new president, beside the outgoing president, Mrs. Dorrie Stewart. Standing L to R are Mrs. Thelma Atkinson and Mrs. Jane Gonseth, honorary



presidents; Mrs. Ruth McPhail, vice president; Mrs. Jo Passano, treasurer; Mrs. Betty Boothe, recording secretary; and Mrs. Betty Jean Lewis, corresponding secretary.

General Howze, Director of Army Aviation, at its recent meeting. Assisting the hostesses, Mrs. Harry Bush and Mrs. Claude Shepard, were Mrs. Clyde Turner and Mrs. Joseph McDonald. (Uncaptioned U.S. Army photo).



GATHERING—Members of the newly-formed Aviators' Wives Club gather for a luncheon at Patton Hall, Fort Myer, Va. Composed of wives of Army aviators in the Washington, D.C., area, the Club honored Mrs. Hamilton H. Howze, wife of Major

Births

ABBETT, Rebecca Jane, a daughter, born to Maj. and Mrs. James W. Abbett, on Sept. 25th, '57 (6 lbs, 1-1/2 oz.)

ANDERSON, Robert Charles, a son and second child, born to CWO and Mrs. Charles W. Anderson of Hq & Hq Company, 2nd USAMC, Fort Hood, Tex., on September 16, '57 (8 lbs, 13 oz.)

FRAZER, Lorinda Jane, a daughter and first child, born to Bruce and Kathryn Frazer, 9 Fourth Street, East Norwalk, Conn., on November 8, '57.

MALONE, Vicki Linn, a daughter, born to WO and Mrs. Leroy J. Malone, 503rd Avn Co (Armd Div), 3rd Armd Div (Spearhead), APO 165, N.Y., N.Y.

MOLKENBUHR, Nancy Louise, a daughter, born to Capt. Seamon and Janice Molkenbuhr, 521st Engineer Co (Topo Avn), Stockton, Calif., on September 18, '57 (6 lb, 8 oz.)

A SEPARATE BRANCH

Much has been said—pro and con—about Army aviation being a separate branch of the Army. Here are the reasons why I believe a separate branch is necessary.

First, a separate branch would permit an Aviation Program for Army aviators, something we will never have unless we have a separate branch.

As it is now, an aviator, upon graduation from fixed-wing school, has no assurance that he will be permitted to attend instrument or rotary-wing training, regardless of his qualifications. If an *Aviation Career Management Branch* existed, it would have complete control of the aviator's assignments, and the aviator would be assured of a natural progression in aviation (training) during his Army career.

To elaborate, an aviator assigned to TC, Signal, or the Engineer Corps has excellent chances of being sent to helicopter school in the immediate future. If, however, he is assigned to Infantry, Artillery, or Armor, he has an opportunity to attend helicopter school *provided that he is at the right place at the right time.*

Here is the way the *system* works: Quotas for helicopter and instrument schools are given to the Army areas by D/A, after various control branches have their choice; Army in turn forwards these quotas to the various posts and installations within the Army area.

Let's say Third Army receives three quotas for helicopter training, one of these quotas going to a small Third Army post to fill. This post has ten aviators assigned. Post Personnel informs the Post AO that he must send one of his aviators to helicopter school. The AO takes stock of his situation. Five AA's are already RW-qualified; three are on special duty with Post; one is on leave and won't return in time to attend the course.

The *remaining* AA's name is submitted to the Personnel Officer who issues the orders and away No. 10 goes, regardless of experience or time left to serve in the Army.

This is a haphazard system at best. I've been an Instructor here at the Army Aviation Center for over two years and time and time again I have seen recent graduates from the F/W Course return almost immediately to take R/W Training. Yet, in the Tactics Department *alone* there are three senior aviators who have never had the opportunity to attend this course.

This "What's in the Corral" selection sys-

A Many Sided Thing!

Letters to the Editor

Letters from all sources are welcomed. All letters for publication must bear the signature of the writer. The writer's name will be withheld upon his personal request.

tem is the rule, rather than the exception. I have talked to many, many people and their stories confirm that the example I have used is similar to their story.

In fact, one of these officers was a 2nd Lt with 13 hours of first pilot time who had no intention of remaining in the service.

By no stretch of the imagination can this be considered a "planned Army Aviation Program" and it will never be so until we have an Aviation Branch to monitor these assignments.

An *Aviation Career Management Branch* would have the available records to handle these training quotas in a sensible fashion. A branch should control the quotas so that the most qualified aviators are giving this training, according to Army requirements.

Efficiency Reports

If Army aviators were a part of an Army Aviation Branch, the unfairness of the present OEI system as it applies to Army aviators would be ended.

In a recent visit to the Armored Career Management Branch in D/A, I was told by my interviewing officer that the OEI of AA's were 10 to 15 points below the OEI of their contemporaries on ground duty. After making inquiry at two other branches, I discovered that their AA's were in the same bracket.

No adjustments are made to these OEI's nor is any consideration given to AA's on their OEI's. You're lumped into the porridge bowl.

It was explained to me that the main reason for the disparity was the fact that few Army aviators knew how to prepare an Efficiency Report properly and consequently,

(Continued on Page 34)

Mike Button



MAINTENANCE
TIPS
FROM TSMC

Ever try to thread a needle (household, that is) with a piece of kite string? Well, it seems as though AF TO 1-1A-8 was printed wrong. .009" isn't very much, considering the Ace of Spades is .025" thick, but by golly "you jest can't make a crane out of a duck because his legs are too short."

So, if you have been following the book and I know you have, you very soon discovered that the Turnbuckle Eye (AN 170-16LL) at the steerable tail-wheel on the BEAVER is not large enough to take care of the spring (C2-UT-349) and the safety wire too, recommended at .041" by the TO. Got it, eh?—OK, it's so simple that we doubt that we were the first ones to come up with the answer—to safety the Turnbuckle, use .032" safety wire.



Here's a slippery one. Only *one sharp* cookie caught up with this and took the necessary steps—UERed it. Where in tarnation do the rest of the jokers enter the oil consumption data when filling out the 781-6, 1 June 1954?

Thanks, Sam, it has *only* existed for 3 years and yours was the only one and we do mean *only* UER received. All activities are again reminded that "boo-boos" can only be corrected with positive results if the "bugs" are reported through UERs.

Until revised forms are available *Tango Charlie" (TC) suggests using the total time column of the 781-6 as indicated in TBAVN-25-5-11, 1 August 1957 for entering the oil consumption "poop." Ole "T.C." hopes he did not catch you on that one because since 1 January 1957 we haven't been using that total time column—sez so in paragraph 33, TB AVN 23-5-4.

*Mike's shadow (keeps Mike on the ball).



Are you guys havin' a lot of trouble getting crystals when you need Special Frequencies; replacements in non-standard equipment; and when a Signal Corps or FSN has not been assigned? Reports to Mike indicate that the policy and the way to get the job done may not be too clear in some places. Here's the "gin"—Organizations needing non-stock numbered crystals (quartz) for aircraft radios or other equipment at airfields, need only to requisition the crystal units as spelled out in SB 11-233.

If you want non-standard crystals you must be careful of the details in paragraph 4 of SB 11-233 and forward this info along in the requisition. You can get the data, which is needed for your particular type of communications equipment, from DA TMs and AF TO's. Above all, fellas, when you don't have an immediate operational need, put down required dates you want items and be realistic about them—this helps all of us.



Do you have a BEAVER tow bar? You're not up-to-date if you don't. Every field maintenance installation should get it through supply channels. SM 9-4-1730-J8-43, 18 Sep 56, calls out Interim Federal Stock No. 1730-1-000007 (FSN 1730-508-6091) for this "Beaver Bar" and from the info I get here it indicates that these tow bars are available from DA stocks.



While we are on the subject of tow bars—here's a nice choice, juicy tid-bit—the SEMINOLE nose wheel radius of turn has its limitations and under no circumstances should anyone exceed them when a tow bar is used. When the prescribed turning limits are disregarded you break the casting on the nose gear. The limits are plainly marked right on the strut in red. So, when towing this bird with a tug or by hand remember to be alert for these limits. As a good rule to follow don't exceed 45° either in a right turn or left turn. Hand tow bar (Part No. 50-590001) doesn't have a stock number; however, the tug tow bar (Part No. 50-590017) does have Stock No. 8200-903312-5. You can find the correct procedure for towing in Sect I, para 1-16, i, j, and k, AFTO 1L-23A-2, 15 Dec 56.



SIoux and RAVENS are spitting grease (MIL-G-3278) out of the rotor head bearings during operation. So what, you say? Well, if you let this grease stay on, and it has been reported, you might be required to recover and rebalance the rotor blades.

Reason? This grease will remove paint and dope! It's got chemicals in it that you might find used in paint removers.

To eliminate any misunderstanding the Tech Services concerned know about it too, but that's the grease we must use 'cause it's gotta meet the Army's requirements. Here's where your good PM comes in—Mike suggests that after each shut down wipe the grease off all painted surfaces and especially off those rotor blades. Don't recommend MIL-L-7711 to your buddies as a substitute, because it has a very low water resistant characteristic.



From the amount of stuff coming off in flight or being lost by all types of flying machines, you could say—but don't because it's too far from the truth—that the majority of gadgets on aircraft are not 'tached. For instance—oil filler caps. Seems impossible that such a thing can happen but it does. Maintenance people can help and have a stop-gap at their fingers tip by modifying the filler caps using AF TO 2R-0470-508, 21 May 57.

This action will take care of the situation of losing caps. The clamps are breaking because they are not stiff enough and when they break, off goes the cap. Here's one thing you can 'tach down on your *BIRD*

DOG with 470-11 and 470-15 engines. If this doesn't work satisfactorily check with old Mike and I'll see if I can't come up with some other kind of "cork."



All model A *BEAVERS* have a modification to the rudder pedals and rudder pedal supports but 2 different kits are used. AF Type TO 1L-20-518 indicates that modification Kit A fits all A's listed in the first paragraph. However, Kit B only fits Serial Numbers 53-7888 through and including 53-7921. There is a slightly possibility that Kits A may be substituted for Kits B for 53-7888 through 7921 to eliminate the bind. So, if this happens to you, and you receive Kit A when you requisition Kit B, don't panic, put the tube (1AGE-C2-Z-1711) in stock.



You can't keep the *BIRD DOG* in the air if your right tank goes dry and you try to switch to the left tank and the fuel selector won't budge. Reports have it that excessive space between the handle and the detent plate causes the handle to bind and sometimes stop completely. Mike sent a message to all in the field last July on this "bug." Also, we notified the manufacturer and he's taking action at that end. However, TM 1-1L-19-1002, 15 Jul 57, is the action nec-



NO PRICE INCREASE—Cessna Aircraft Company, in announcing its new Model 172 for '58, points to the \$8,995 price as the biggest news. Held despite increased labor and material costs, the price overshadows major changes made in the single-engine, all metal 172. Complete new interior decoration and new sweeping exterior styling, together with landing gear and main gear spring changes, have been incorporated into the '58 model. Gross weight performance figures: 135 mph max speed with a 145 hp Continental O-300-A, 6-cyl. engine; 660 fpm rate of climb (sea level); empty weight, 1,260 lbs.

essary to eliminate a possible inflight hazard. If the handle only causes trouble, organizational maintenance (1st and 2nd) should replace it in the *BIRD DOG* as spelled out in current directives.



Has your *BEAVER* burst its gas tank seams as yet? You may have noticed that the welds are cracking and full of pits. The engineers are investigating this peculiarity on the welds and just as soon as I get the results I'll pass it along. But watch it closely as leaking tanks on ground or in air can cause real trouble. Gas vapor doesn't dissolve or rise and form clouds; it stays on the surface and creeps to low spots and if a spark—poof. The vapor given off of 90 octane fuel is about 3.5 times as heavy as standard air. So, be alert and check those tank welds.



In the column last month I called your attention to frayed cables on the Helicopter—*CHOCTAW* type. Now *SHAWNEES* are having the same trouble only for another reason—this time it's a combination of diameter pulleys and fatigue loading. Don't miss this one! Check the -3 and -6 handbooks for inspections and repair instructions.

A MANY SIDED THING

Letters to the Editor

(Continued from Page 31)

AA's as a whole suffered in their various branches.

Then, too, it's been said that Army Aviators are exceptionally rough in rating other AA's.

What would all of this mean if there were a separate branch? Not a thing.

Instead of having an OEI of 90 and being in the Armored Branch where the average OEI was 103 (therefore, a substandard officer), the aviator would have an OEI of 90 in an Army Aviation Branch where the average OEI for AA's as a whole was 87. Many capable Reserve officers will be relieved from active duty through this unfair system now in use.

Assignments

The reassignment of Army aviators to ground duty in one branch while a scarcity of Army aviators exists in another branch is somewhat ludicrous and confirms the fact that we do not have "A Program." Obviously, the various branches do not coordinate with one another to the overall benefit of Army aviation. With a separate branch this "Crying Need Here" and "Out

The contractor is aware of this "bug" and is investigating the situation with the thought in mind to making the following improvements.

1. Brackets and pulleys are to be corrected at stations 104, 119, 159, and 547.
2. Pulleys to have longer circumferences.
3. Cable size between station 359 and 591.50 enlarged to 3/16" for lateral, longitudinal, and collective pitch.

After this "fix" has been taken care of and you still have trouble, get on Mike's "horn" and let him know. Permanent instructions will follow but in the meantime follow the -3 and -6—.



Some of you may have wondered just how to let ol' Mike research your problem. We're here to help you. Just wrap up your troubles in an ol' envelope (kit bags went out of style some time back) and mail them to Mike Button, P.O. Box 209, Main Office, St. Louis 3, Missouri. Give us the word and we'll get crackin'.

Yours for better maintenance,

Mike Button

to Pasture There" farce would discontinue.

Now that the Army is organizing aviation companies and larger and larger units it would appear that this is a career field. If so, we should be governed as such. As it is now, we—as Army aviators—are practically fungus in our various branches. For the unbelievers, I suggest a visit to the Pentagon and your various branches.

Taking these points into consideration, and many others that should be brought to light, it does not appear that Army aviation is an attractive career field except for a limited number of officers. If Army aviation is to continue to attract qualified "career officers" there should be a drastic revision of the multi-branch arrangement; otherwise, aviation as a career will shortly lose its attractiveness.

Charles M. Wilkinson
Capt Armor

OBITUARIES

Robert J. Rozanski, a former aviator with AFFE service, was killed in an automobile accident, December 26, 1956. He is survived by his mother, Mrs. Frances Rozanski, 5867 West Gunnison Street, Chicago 30, Illinois.

CERTIFICATE OF FLIGHT PAY INCOME PROTECTION
ARMY AVIATION ASSOCIATION OF AMERICA, INC.

WESTPORT, CONNECTICUT

Insured Period

THE FIRST OF MANY?

Injured Person

Amount of

Annual Flight Pay

How many people have said to themselves, "What I fool I ~~was~~ ^{remains} not to have

THIS IS TO CERTIFY that I have taken advantage of that opportunity when I had the chance. I am a member of the American Association of Health Insurance Agents, Inc., 120 South Limestone Street, Springfield, Ohio. The member whose name appears on this certificate has been insured for the amount described against loss of Incentive Pay for Hazardous Duty. I have experienced losses—professionally

PART 1

[illegible]

If disability is caused by **Frankly, even I procrastinated for a few** the period of disability exceeds one hundred eighty (180) consecutive days, if such disability continues beyond this waiting period, indemnity for the loss of future pay, so defined, will be paid retroactive to the ninety-first (91st) day from the first day of disability. **Pat Insurance Corporation did not hesitate**

If disability is caused by accidental bodily injury not due to an Aviation Accident, or by disease, no indemnity shall be paid unless the period of disability continues beyond the waiting period of 90 days. If disability continues beyond this waiting period indemnity shall be paid retroactive to the first day of the month in which such disability occurred.

PART II.

The insurance under this policy shall not be payable for any loss or damage to the property of the insured or in part from or due to any of the following:

1. Criminal act of the Member, or from bodily injury occurring while in a state of insanity (temporary or otherwise).
2. "Fear of Flying," as a mental condition, regardless of the authority of the Member's Service, and approved by the head of the service in accordance with applicable regulations.
3. Caused by intentional or negligent fault committed by the Member, or fighting, except in self-defense.
4. Sure, I'm grounded—but I'll still get my flight pay. How many other Army aviators *without* this protection will be grounded and will regret not having invested that 1%?
5. Failure to meet flying regulations as established by the Member's Service unless caused by or aggravated by or attributed to personal disability, illness, or other substantial bodily injury.
6. Accident caused while performing flight duties.
7. Alcohol, drugs, venereal disease, arrest or confinement.
8. Willful violation of flying regulations resulting in suspension from flying as a punitive measure, or as adjudged by responsible authority.
9. Sentence to dismissal from the service by a court-martial, court-martial recommendation for the good of the service, or suspension from flying by administrative channels for disciplinary reasons.
10. Loss of life shall not constitute a suspension of flying.
11. Primary duty requiring parachute jumping.
12. Voluntary suspension from flying.
- Mai, Laurence E. Ballantine*

The following conditions will be of particular interest to you as a resident of:

1. No coverage is afforded unless the accident or theft loss or fire occurs during the period for which the

—Maj. Laurence E. Ballantine
U.S. Army Aviation Board
Fort Rucker, Alabama

INTERESTED IN FLIGHT PAY COVERAGE?

**WRITE AAAA, WESTPORT, CONN.,
FOR DETAILS.**

THE CREDIT LIFE INSURANCE COMPANY

President

ARMY AVIATION MAGAZINE

Westport, Connecticut

RETURN POSTAGE GUARANTEED



Maj. Gen. Hamilton H. Howze inspects the installation of Lycoming T53 gas turbine engines in the Vertol 105 at a Pentagon Helipad demonstration. Placed in the 105 without previous multi-engine operation tests, the T53's completed a 10-hour tie-down test in 12 hours running time. In less than a month multi-engine operational problems were resolved and the ship completed a 200 mile cross country to Ft. Eustis. The 105 is shown aloft at the right.