

JULY 15 ★ 1958

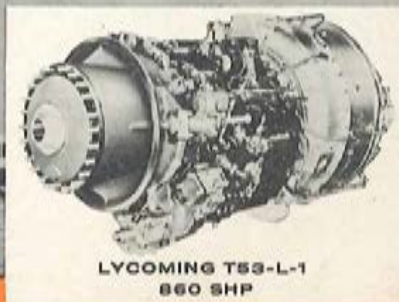
ARMY AVIATION

Lycoming powers

TWIN TURBINE
VERTOL YHC-1



Now being produced
for U. S. Army



LYCOMING T53-L-1
860 SHP

1909-1958
FIFTY YEARS
OF POWER

Lycoming

A Division of **Avco** Manufacturing Corporation | Stratford, Conn., Williamsport, Pa.

BELL HU-1 IROQUOIS



IROQUOIS DIMENSIONS AND APPROXIMATE WEIGHTS

Basic Weight
4,020 Lbs.

Normal Gross Weight
5,800 Lbs.

Ferry Gross Weight
6,046 Lbs.

Overall Length
53 Feet

Overall Height
14.5 Feet

Overall Width
8.3 Feet

Rotor Diameter
44 Feet

By **M. Jake Fortner**
U.S. Army Aviation Board

The *Iroquois* helicopter being manufactured by the Bell Helicopter Corporation was specifically designed and developed for the U.S. Army to fulfill the requirement for a utility-type helicopter. Special emphasis has been placed on the potential of this helicopter for medical evacuation and for possible use as an instrument trainer.

The *Iroquois* is a five to six-place (including pilot), single main-rotor, anti-torque tail-rotor configuration helicopter. It is powered by a *Lycoming T-53-L-1* gas turbine engine derated to 700 hp at 5400 r.p.m.

Dual Controls Provided

Seating and dual controls are provided in the forward cabin for a pilot and one other person. Extra controls may be removed as desired. The passenger-cargo cabin area contains a three-passenger seat which can be folded and stowed against the cabin aft bulkhead. When the seat is folded, a litter rack and medical-attendant seat are easily installed and accommodate two litter patients as well as an attendant.

The skid type landing gear is equipped with removable ground-handling wheels. An external cargo-sling assembly is provided which is suspended at a single point just below the aircraft's center of gravity and extend out the bottom of the fuselage through a hole provided for that purpose.

Design features of the helicopter include quick-disconnect fittings, ready access to

(Continued on Page 38)





Helping Hand for the Navy's Air Arm — Kaman HU2K-1

The most delicate job in the free world is entrusted to the men of the United States Navy. They must demonstrate to those who would extend the iron curtain that we have not mothballed preparedness. They must also teach the kids in the shadow of the iron curtain that fists clenched in defiance can also hold a baseball. Much of this assignment falls to Naval Aviation which maintains an endless global vigil, yet stands ready to rescue and evacuate injured. On these important missions Kaman utility helicopters extend a helping hand to the Navy's Air Arm.

THE KAMAN AIRCRAFT CORPORATION • BLOOMFIELD, CONNECTICUT
PIONEERS IN TURBINE POWERED HELICOPTERS

Assignment: Test Pilot

Although the elements of variety, newness, and surprise abound in the work of an Army test pilot, narrow escapes and cliff-hanger adventures are less a part of it than the movies lead many people to believe. Certainly, the majority of pilots do not enter the work because of the dangers it offers.

However, dangerous situations do sometimes develop, and 1st Lt. Anthony Carroll of the U.S. Army Aviation Board has encountered more than the normal share of these.

Lieutenant Carroll, 27, married and the father of two children, has been with the Board for the past two years. He was one of the first Army pilots to be checked out in the H-37, the million-dollar twin-engine helicopter that is the giant of the Army fleet. As a project pilot during its evaluation, he had to make a field test flight from Fort Bragg, North Carolina, to Fort Belvoir, Virginia. It was on the return trip that one of "those" situations developed.

Taking off from Anacostia Airport at nine in the evening, Carroll was carrying a full load of cargo and sixteen people. In order to avoid the commercial air lanes into nearby Washington National Airport, he flew his "brute" a scant fifty feet above the Potomac.

Once over the middle of the river, things began to go wrong. The left engine caught fire and had to be turned off. Next the generator failed, leaving the aircraft without lights, including lights to land by.

Leaving the river to search for a landing strip, Lieutenant Carroll saw his troubles



1st Lt. Anthony Carroll

multiply. The one remaining engine began to function improperly, due to a fault in the fuel mixing device and the fact (discovered later) that the fuel taken on at Anacostia had been too low in octane.

"It was more by luck than anything else that we finally found a small field near Mount Vernon," says Lieutenant Carroll, who is inclined to be overly modest about his piloting.

However, as often happens as a result of such flights, his experience led to an improvement in the aircraft. Henceforth, landing lights were wired independently to batteries so that they could function even if the generators failed.

"This is the whole purpose of test flying: to introduce necessary changes in air-

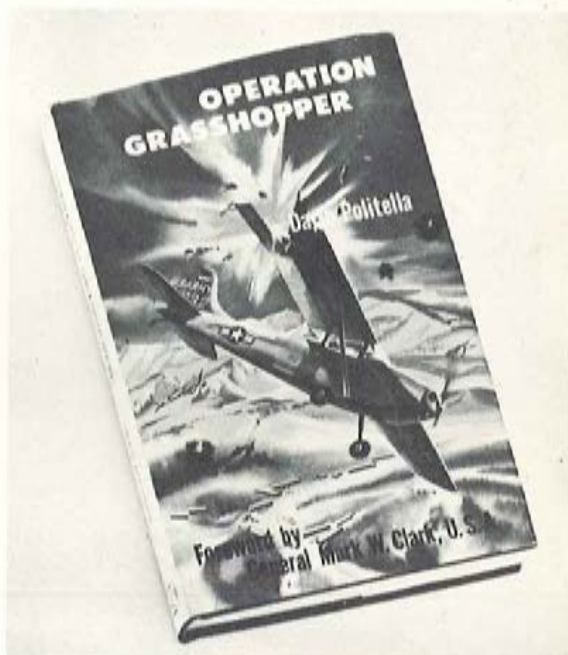
(Continued on Page 40)

OPERATION GRASSHOPPER

*the exciting story
of army aviation
in Korea...*

In these days of ethereal talk about space travel, and supersonic flights within the earth's atmosphere, OPERATION GRASSHOPPER, by Dario Politella, comes as a down-to-earth relief. It is a book about a lower and slower-paced subject: the light operations of a handful of dedicated young men who flew the Army's lightplanes in Korea.

The reader will find no grand strategies propounded in OPERATION GRASSHOPPER. He will be impressed, instead, that so simple a machine as a lightplane, much like that seen at neighborhood airports, played such a great part in assisting the United Nations forces in Korea to victory.



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1318 BEAUMONT DRIVE
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*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.



THE SECOND GENERATION



Dear Army Aviator:

We are making excellent progress in developing a second generation of aircraft to provide improved observation and operational mobility for the Army. Gas turbine engines will provide this new generation of Army aircraft with better performance with much less maintenance than reciprocating engines. The improved structural design and lift capability of these aircraft will greatly improve the Army's tactical and logistical mobility in the battle area. Much effort is being devoted to the development of aircraft electronics to permit organic Army aircraft to operate at tree top level under conditions of low visibility and darkness.

Every effort is being made to provide our troops with battlefield mobility which will permit them to take the offensive under the more adverse terrain, road and weather conditions. To attain this objective we must direct our efforts toward an evolutionary integration of improved aerial vehicles into the Army until a proper balance between aerial mobility and ground mobility is achieved. Let's all pull together!

When the AO-1 *MOHAWK* is delivered to units in the field, Army aviation

BY
BRIG. GEN. ERNEST F. EASTERBROOK
Director of Army Aviation, ODCSOPS

will, for the first time, have an aerial photographic capability commensurate with its mission. These aircraft will be configured to carry the KA-30 aerial camera which some say is the best of its type yet produced. This camera uses five inch roll film and is equipped with continuously variable image motion compensation (IMC) capable of producing photos with 60% overlap from an altitude of 100 feet while travelling at 225 knots ground speed. This capability is due, in part, to the incorporation in the aircraft of the Joint Army-Air Force-Navy camera control system (JAANCCS) which will automatically compute required shutter speed, lens aperture, IMC, exposure interval and flash synchronization in accordance with the dictates of speed, altitude above terrain, light conditions and desired

degree of photo overlap. The camera itself weighs 36-1/2 lbs; the complete system including control panel, control unit, flash ejector, film, detector and flash cartridges will weight about 175 lbs ready to go. Lenses of 3, 6, 12 and 18 inch focal length will be provided. The speed of these lenses indicates that satisfactory night photographs may be taken on bright moonlight nights without the need for artificial illumination. Aviation officers and G2's should now begin to think about aerial photography seriously instead of in terms of leaning out the window of an L-19 holding a WWII camera by hand.

The image shows the cover of the July 1958 issue of 'ARMY AVIATION' magazine. The cover features a photograph of a Vertol YHC-1A helicopter in flight. Text on the cover includes 'ARMY AVIATION', 'July 1958', 'Lightning power', 'VERTOL YHC-1', and the Lycoming logo at the bottom. To the right of the magazine cover, the text 'COVER STORY' is written vertically, followed by '—' and 'VERTOL 107'.

The twin-turbine YHC-1A (Vertol Model 107) developed by Vertol with two Lycoming T53-L-1 engines of 860 shaft horsepower each, features rear-loading cargo doors and accommodations for 20 troops. It flew for the first time in April of this year.

As in other Vertol craft, the rotors of the YHC-1A are in tandem, but the fuselage is straight rather than in the familiar "banana" shape of previous 'copters. The craft maintains a level altitude on the ground.

The T53 engines, developed by Lycoming under Army sponsorship, have been chosen for several other Army aircraft including the Bell Iroquois 'copter and Doak, Ryan and Vertol VTOL/STOL research craft. The turbo-prop version of the engine, the T53-L-3, is the powerplant for the twin-engine Grumman Mohawk observation plane.

AR 95-11, pertaining to Flight Service Interphone Communications System Procedures, has been revised to reflect the latest CAA flight plan sequence. Since the regulation is effective 15 June 1958, I suggest you alert the necessary personnel to assure prompt distribution to your flight operations.

In an earlier letter the story was told about a young aviator who did snap rolls at 500 feet. His boss knew this, but because snap-roller was known to be a very skillful pilot, boss did nothing and snap-roller subsequently killed himself. The moral brought out was that, had boss taken action according to the UCMJ when he first learned of snap-roller's antics, the Army would not have lost a pilot, a mechanic, and an airplane.

Quite frequently the immediate post-accident concern of a commander is action against the pilot. Fortunately in the Army the incidence of accidents due to irresponsibility of the pilot is not a major problem. In those cases where it does occur, it is often obvious that the trait was known prior to the accident. Pre-accident discipline should be the commander's principal concern.

For the law who feels the regulations are not for him, a few hundred dollars worth of Article 14 may be lifesaving medicine.

For the boss who is hesitant to insist on discipline—there are jobs other than aviation—for in aviation, indecision kills people.

The recent number of helicopter rescues performed by alert aviation units indicates a steady increase in the business of civil assistance. Such humane action on the part of Army personnel reflects great credit on the individuals concerned and the Army itself. Army aviation has figured nationally in such disasters as the Yuba City and Connecticut River floods, the Grand Canyon air tragedy and many others. The frequency of Army aviation assistance to local communities has gained for us an enviable record and reputation for competent rescue service.

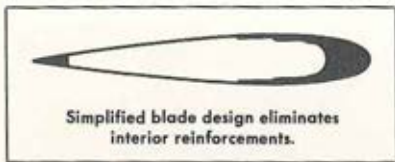
HUGHES BUILDS FIRST FUNCTIONAL TWO-PLACE HELICOPTER

The Hughes 269-A

...the first easily maintainable, reliable, high performance, low cost two-place helicopter. With new engineering from top to bottom, the 269-A is designed to add new mobility to Army observation, and liaison on the company level—and at practical cost.

Easily Maintainable

Necessity for maintenance has been reduced to a minimum. The three fully articulated all metal main rotor blades are



unusually simple and are interchangeable without tracking. The multiple belt-type clutch has long life, is fail-safe and easily removable. The horizontally mounted engine is separately removable without special equipment.

Low Cost

Production engineered to provide low cost, the Hughes Model 269-A for the first time makes available a helicopter with power plant, rotor system, and structure components specifically tailored for the two-place mission.

Excellent Performance

With its thoroughly proved 180 h.p. Lycoming O-360 engine, the 269-A can fly at a speed of 90 m.p.h. and has a cruising range of 150 miles. It has a useful load of 660 pounds and an empty weight of 890 pounds. Control system loads are light and no boosters are needed. Over a hundred autorotational landings have been made with the prototype. Hovering out of ground effect at 1750 pounds gross weight was demonstrated.

269-A Helicopter

This new two-place helicopter (shown below) also features a three-bladed rotor, resulting in a smaller disc which facilitates landing, parking and concealment. For further information or complete technical details on the Hughes 269-A Helicopter write:



HUGHES TOOL COMPANY

AIRCRAFT DIVISION
CULVER CITY, CALIFORNIA



ENGINEERS qualified in the helicopter field are invited to send applications to
Director of Engineering, Hughes Tool Company,
Aircraft Division, Culver City, California

All this, of course, puts the Army in the position of having to maintain a professional emergency rescue capability. Aviation units should take every advantage within present resources to improve their plans and capabilities for emergency rescue. Some units have established techniques and developed equipment to assist in rescues by helicopter while airborne. These ideas are valuable and should be passed along for use by others. If your unit has developed a better way of doing something, don't sit on it; write it up and get it into my office.

Members of the Army National Guard Aviation Sections of the various organizations of each State and Territory began departing for their annual active duty for training periods the first week in June. Parent Army National Guard units will be conducting training in two-week periods from June until the end of August, and Aviation Sections will be supporting this training and engaging in tactical training of their own elements during the period. This will be the last ADT period as Aviation "Sections" for some of the Divisional units. Plans call for implementation of the Division Aviation Company concept, to be effected during the period late 1958

through 1960, in conjunction with the reorganization under ROCID-ROCAD of the reserve components of the Army.

The Avionics Equipment Familiarization and Technical Assistance Program, being conducted by Mr. Holmes Bailey, ARC representative, is well into its second month of visits to ARNG aviation installations. Mr. Bailey reports that his traveling classroom is well received at each installation and the units report very beneficial results. This program is to be augmented by an L-20 "Flying Classroom" during the ADT periods, conducted by Mr. LeRoy Johnson, another ARC representative, utilizing equipment similar to Mr. Bailey's. This unit will visit training sites not visited by Mr. Bailey.

ERNEST F. EASTERBROOK
Brigadier General, GS
Director of Army Avn, ODCSOPS

TULSA, OKLA.—Ross Aviation, Inc., of Tulsa, Oklahoma, has been awarded a contract to train Army Instrument pilots in the sixth Army area which encompasses 8 western states. This is the third such contract for the Oklahoma firm. The company now trains instrument pilots for the Fourth and Fifth Army areas.

Expansion In Commercial 'Copter Operations

WASHINGTON, D.C.—Commercial helicopter operators in North America rolled up new records in the six months since September, 1957, according to a survey made by the *Helicopter Council of the Aircraft Industries Association*.

The versatility of the helicopter continues to lend itself to unusual tasks. Here are some of the uses reported by operators to the AIA Helicopter Council:

- *Re-enacted Gen. Pickett's charge and retreat at the Gettysburg battleground.
- *Dropped 6,000 orchids on an ocean liner at a welcoming ceremony.
- *Seeded 1,000 acres in a single day.
- *Dried the wet grounds of a baseball stadium before the game.
- *Delivered ballot boxes throughout Labrador.
- *Tracked down escaped convicts.
- *Cleaned an airport after an air show by blowing debris into a hangar.

The number of commercial copter operators is 99, an increase of 17 per cent since September, and these firms are operating 472 helicopters, an increase of 30 per cent.

Today, U.S.-built helicopters are operating in 39 states, Alaska and the District of Columbia. In addition, helicopters are being operated in 13 foreign countries ranging from the DEW Line in Canada to Borneo, and in temperatures ranging from 50 degrees below to 120 degrees Fahrenheit.

In addition to the 99 commercial operators, there are now more than 70 executives and companies using helicopters as executive transports.



THE ARMY'S H-23D RAVEN: INVESTMENT IN TOMORROW

Over 20 major improvements distinguish the H-23D as one of today's most advanced helicopters. But several features in particular verify its unmatched *growth potential*, which is a prime requisite for the evaluation of any helicopter investment.

Basic Ruggedness: The H-23D has the highest flight and landing load safety factors of any two or three place helicopter flying today.

Component Life: The H-23D's 250 horsepower is available full-time, without restrictions warning of jeopardized service life. In fact, all existing components are *designed* to accept considerably greater horsepower and to attain an overhaul period beginning at 1000 hours.

Functional Versatility: More power... more cabin space... further qualify the H-23D as a multi-mission helicopter, backing up a basic Army concept: more utility from fewer units.

The H-23D is now prepared to receive a new 305 horsepower engine, without further major modification. The resulting UH-12E (prototype now flying) has already demonstrated a performance which will capture new missions beyond those previously conceived for this helicopter class.



HILLER HELICOPTERS

PALO ALTO, CALIFORNIA

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This Giant SPACE-AGE THERMOS Simplifies the Handling of Liquid Gases

How to transport hundreds of gallons of liquefied gases with maximum safety, maintain near-perfect vacuum and hold temperatures approaching 460 degrees below zero without the use of auxiliary refrigeration equipment? This was the problem successfully solved by Beechcraft engineers in only **five months' time** with the design, development, production, and delivery of the Beechcraft Dewar, first of its type ever produced.

Beechcraft scientists and engineers are at work on numerous projects involving transporting and storing of cryogenic liquids, plus projects in many aeronautical fields. A letter today to our Contract Administration Division will bring full information on how Beechcraft's five major plants, 1 3/4 million square feet of plant area, and 7,000 skilled craftsmen can help solve your research, development, or production problems.



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Beech Builde: U S Navy T-34 • USAF T-34 • U S Army L-23 • Bonanza • Travel Air • Twin-Bonanza • Super 18 Executive Transport

Fieldhouse Honors Anderson

"One of the finest officers I have ever known was honored posthumously here at Fort Eustis. The respect for Lt. Olaf C. Anderson was shared by many and as a result, a brand new field house was recently named for "Andy." Although this report is somewhat belated, I'm certain that many of Andy's friends throughout the world would like to know that he has not been forgotten."

—Capt. Daniel C. Traver

FT. EUSTIS, VA.—The recently completed \$800,000 field house was dedicated as the Anderson Field House last Thursday in honor of 1st Lt. Olaf C. Anderson, a former staff and faculty member of the Transportation School.

Lt. Anderson lost his life in an accident at Fort Rucker, Ala., while engaged in a helicopter mission.

In his dedication speech, Gen. Rush Lincoln lauded Lt. Anderson as ". . . one of our outstanding young Regular Army officers . . ."

Killed two and a half months short of his 27th birthday, the lieutenant began his active duty at Ft. Benning, Ga., in 1952 after graduating from the University of Kansas. He received his Army Aviator wings in February, 1954, after training at Ft. Sill, Okla.

Lt. Anderson was then assigned to Korea where he served in Army Aviation units until July, 1955. Upon completion of duty in Korea he was assigned to the TTC at Ft. Eustis.

Served with T-School

He served there with the aviation group and later attended T-School. After graduation he was assigned to the staff and faculty of the school as a member of the Aviation department. Lt. Anderson remained assigned with the T-School until



1st Lt. Olaf C. Anderson,

his departure for Ft. Rucker in July, 1957.

In his dedication speech, heard by post officials and relatives of the deceased, his parents, Mr. and Mrs. Olaf C. Anderson Sr., of Jamestown, Kan., his widow, Mrs. Wanda M. Anderson and two year old son, Olaf, III, of Ionia, Kan., and Mrs. Anderson's mother, Gen. Lincoln said, "in dedicating the Anderson Field House, we are honoring not only Lt. Anderson, but all our junior officers."

The general said, "The success of the TC operation in peace and war is dependent to a great degree upon the way in which our junior officers shoulder their responsibilities to themselves, to the enlisted men placed in their charge, and to the Transportation Corps."

After the speech by the general, Mrs. Anderson unveiled the bronze plaque in her husband's honor and taps was played by a bugler from the 284th Army Band.

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CLIFTON HEIGHTS, PA.

WANTED:

Qualified F.A. Pilots

This man is wanted badly—but he is becoming increasingly difficult to find, and that is little wonder. Here is a partial list of the qualifications we require:

Our *wanted* man is a perfect physical specimen with the eyes of an eagle and the ears of a hawk. He must have a desire to emulate a bird in many other respects also, but these can be determined only by personal interview and succeeding check flights.

Applicant must be an Army officer in every sense of the word: erect, disciplined, immaculate in appearance; a model for enlisted men; able to shoulder responsibility and share personal problems; never caught carrying bundles nor pushing baby carriages—a gentleman, by golly!

Bible: FM 6-40

He must be an artilleryman par excellence: capable of surveying, emplacing, loading and pulling the lanyard on the weapon of his unit. It is helpful to have memorized FM 6-40 and the appropriate firing tables so as to conduct school-solution problems each time his unit fires.

Applicant must, *incidentally*, be a pilot. He must be capable of flying in and out of strips unusable by civilian standards. Needs a phenomenal memory in order to *recall* and *obey* Civil Air Regulations; Air Force Regulations, Department of the Army Regulations, Army Directives, Corps Directives, Corps Artillery Requests, Group Artillery Demands, and his own Battalion SOP.

Should obtain, as a bare minimum, a commercial pilot rating with an instrument ticket, but will be considered effective only when his ratings include single-and-multiple-engine land and sea with an Airline Transport Rating.

We must know what to do when the tetrahedron revolves while on final approach; to understand the meaning of a



white light from the tower while in flight; and to unscramble the garbled transmissions of a harried radio operator—all while making a mental calculation of a 1/10th T over R in fire for effect.

Must maintain proficiency in four or more types of aircraft while studying for the Annual Army Aviator's Examination under the dim light of a link trainer one-half mile from the low cone on a low frequency approach. Must remember, while changing into a Class A uniform in preparation for early guard mount, to use *Able*, *Baker*, and *Charlie* when shooting artillery and *Alpha*, *Bravo* and *Coca* when shooting a landing.

Applicant will also find it helpful to have legal training for courts and boards; accounting, in order to properly conduct inventories of P.X's etc; and public speaking, in order to conduct recruit classes in hygiene, meteorology, and as a fill-in during Commander's Hour.

It is recommended that the applicant develop his tact and diplomacy to State Department level, since it will become

WANTED/F. A. PILOTS

necessary to please many superiors—both real and assumed. He must quickly determine who will fill out his efficiency report—S-3 or Aviation Officer—and devote much effort to placating that individual—always bearing in mind that conditions may rapidly change, and that the snub today means the stub tomorrow on the promotion gauge.

We highly recommend that the applicant be, and remain single, but if he insists on marriage, it must be to a girl who enjoys card parties, sewing circles, and being alone. These things she must find pleasant, since her husband's weekend may be spent flying members of his unit who wish to go home, and who are sure that their pilot doesn't mind flying on Saturdays and Sundays.

We also recommend that each applicant be a capable mechanic, a skilled penman, and an accomplished typist. (This is a purely selfish request: our mechanics are

either at T.I. & E or on guard, barracks orderly, or K.P. Our Forms 1 are practically illegible, and our converted mechanic-to-typist punches with two fingers on the wrong keys).

To the man who meets these specifications, we offer an additional monthly stipend—subject, of course, to income tax, unexpected RON's, and battalion charities.

We also offer "clank" stories galore, hangar flying in bad weather, and an odd assortment of old flying suits.

One more thing.

We'll give him the sky—clean and clear—free of taxes and toll bridges. We'll give him a world of his own—a world shared only by the goblins and gremlins who talk of mysteries between heaven and earth—and we promise him that "once he has lived in this world of his own, no power on earth can make him forget or willingly give up, his ability to climb closer to the stars than the ordinary mortal who stumbles in the dust."

—Maj. Morris G. Rawlings

SCRAPBOOK SNAPSHOT

93rd Transportation Company
(Light Helicopter)
Fort Devens, Massachusetts

11



Shown prior to flying from Devens to Ft. Polk for participation in "Exercise Strongarm" are, BACK ROW: CWOs Wilbur M Isenberg & Keith Borck; WOs James Eakins & George H. Harriman; Lt Allen C. Bennett (Flight Leader); WO Charles B. Perry; CWOs William E. Moore, Jr., and John C. Schommer. FRONT: WOs James A. Bailey, Thomas J. Nunley, and James V. McCarty; CWO Marvin R. Cothey; WO Joseph Gregory; CWOs William J. Connor, Jr., and James M. Welch. (U.S. Army photo/Baros/15 May 58).



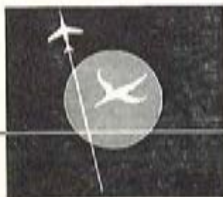
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World-Wide navigation aid

The Time Tested ADF Now in Less Weight, Less Space

The ADF is a basic air navigation instrument, used in all parts of the world, tunable to some 60,000 transmitters. But the important thing now about the ADF is that ARC has engineered an ADF system down to less than 20 pounds in weight, with a comparable saving in space.

Now pilots enjoy the advantages of dual installations of this compact miniaturized equipment in tolerable weight and space requirements.

The ARC Type 21A ADF is built to today's more critical speed and environmental demands. It has hermetic sealing of vital components, such as the entire loop assembly. It covers all frequencies from 190 kc to 1750 kc... operates on only 2.8 amps at 27.5 volts dc input, or equal power at 13.5 volts. A significant feature is the extremely low loop drag — only two inches outside the aircraft skin.

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LF Receivers and Loop Direction Finders • UHF and VHF Receivers and Transmitters (5 to 360 channels)

10-Channel Isolation Amplifiers • High Powered Cabin Audio Amplifiers • Interphone Amplifiers • Omirange Signal Generators and Standard Course Checkers • 900-2100 Mc Signal Generators

FORT RUCKER

Witness Firepower Demonstration

► *Brig. Gen. Bogardus S. Cairns*, Commanding General of Fort Rucker and Commandant of the Aviation School, greets *Lt. Gen. Bruce C. Clarke*, soon to assume command of the Continental Army Command, and *Lt. Gen. Clark L. Ruffner*, Commanding General of the Third U.S. Army, upon their arrival at Ft. Rucker to witness a demonstration of the Army's newest developments with armed helicopters.

Extensive Cadet Orientation

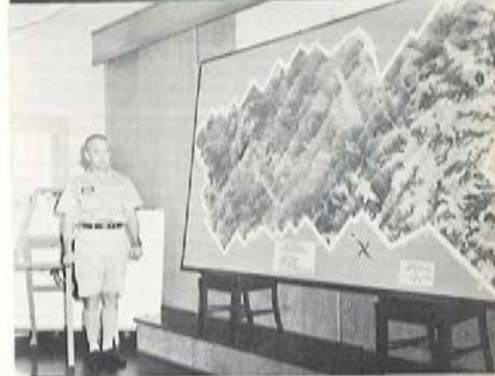
► *Cadets Milt Cooper, Adolph Sutton, and Craig Hagen* of the 1960 Class at U.S.M.A. listen attentively as instructor *Tom Flora* (2nd from left) explains the flight path followed by a pilot flying on instruments in a Link trainer. More than 600 members of the Class of '60 were given a 3-day orientation on Army aviation, its tactics, and its principles at the Fort Rucker training facility.

T-37 Unit Compiles Mosaic

► *Lt. Col. Jack Ruby*, Deputy Director of the T-37 Test Unit, is shown standing by the semi-controlled aerial photo mosaic of the Fort Rucker Reservation. Presented to the USAAC and subsequently hung in the lobby of the Headquarters Building, the photo was taken from a T-37 (HPOA) aircraft at an altitude of 5,300 feet MSL with a KA 20 camera with 6" lens. The photo prints were made by the 1st Aerial Reconnaissance Separate Battalion (Prov).

Djinn Undergoes Testing

► *Capt. Leonard Seltz*, Aviation Board project officer, is shown putting one of two *Djinn* helicopters through its paces during field tests conducted by the U.S. Army Aviation Board. Assembled by *Mr. Jean Brunelin* of the French firm, *Sud Aviation*, the *Djinn's* rotors are driven by compressed air shooting through nozzles in the tips of blades. USATATSA is conducting a current logistical evaluation of the second craft.



General Von Kann Be-Winged

► *Brig. Gen. Clifton F. Von Kann* (left), Assistant Division Commander of Fort Bragg's 82nd Airborne Division, is shown receiving the traditional "oversized wings" from *Col. John J. Tolson*, Assistant Commandant of the U.S. Army Aviation School, shortly after flying his first solo flight in an H-13 *Sioux*. By joining his superior officer, *Maj. Gen. Hamilton H. Houze*, as a rated officer, *Gen. Von Kann* returns a unique "first" to the 82nd Airborne Division, a unit that is long accustomed to "firsts."

Handicap Tournament Winner

► Winner of the recent Ft. Rucker Handicap Golf Tournament, *Capt. Herley D. Lair* (left) is shown receiving a trophy desk set from *Col. Daniel G. Heyne*, Chief of Staff. At the same time, *Capt. Lair's* name became the first to be inscribed on the sustaining plaque held by *Col. Heyne*. Publication of these facts should alert all future foursomes of which he is a member. Wouldn't want any unknowing "pigeons" to lose their flight pay.



SCRAPBOOK SNAPSHOT

ACHCP Class 54-4 Reunion Photo Fort Rucker, Alabama

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Shown in Annex 1 of the Officers' Club where they met for a class reunion are the five officers of Class 54-4, ACHCP, remaining in the service. Tale of attrition? Eighteen entered the course as Warrant Officers on 20 Feb. 1954; five are left. Pictured (left to right) are: CWO Cecil W. Williams, now with the 7292 ACR (Exp.) Second Battle Group, Fort Rucker; Maj. Vincent Ulery, now Maintenance Officer with TATSA; CWO Fred O. Bell, Army Aviation School; CWO Dwight O. Allen, 54th Transportation Co., Ft. Sill; and CWO Charles L. Braemeier, also of the ACR (Exp.) 2nd B.G. (U.S. Army photo/Kramer/20 June '58).

FORT RUCKER

Mrs. Pauline Deaver (right) new Co-ordinator of the Fort Rucker *Gray Ladies*, and *Mrs. Cleo Powell*, who recently completed twelve months as Co-ordinator give the camera a moment of their attention.



Qualifying under the Army's Final Semester Plan, *Capt. Edward Rankin* (Dept. of Maint) looks over the orders that will send him to the University of Omaha for a six-month college term. He expects to earn a BS degree in General Education. Several hours short of her degree, *Mrs. Rankin* may make it a two-some.



Who says there isn't a payoff on *improvement*? *Capt. Glen I. Arnold* (right) receives a trophy belt buckle from *Brig. Gen. Bogardus S. Cairns* at award ceremonies following the closing of the Officers' Bowling League. *Capt. Arnold* merited the award as the *Most Improved* alley-cat during league competition.



Perhaps the most enjoyed display at Fort Rucker AFD Festivities was this 2nd Battle Group weapon, a .30 caliber machine gun. Visitors were allowed to fire several rounds of ammo, and this novel idea kept a steady line of "customers" behind the gun waiting for their turn to fire.



Brig. Gen. Ouane Ratikoun (left), Chief of Staff of the Lao National Army, is shown with *Col. John J. Tolson*, Ass't Commandant of USAAVNS, prior to taking off in a *Sioux* for a bird's eye view of the Center. The General is one of a group of Lao National Army officers touring U.S. military facilities.

USAREUR REPORT

By Col. Warren R. Williams, Army Aviation Officer



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At the time this is being written I suspect everyone outside USAREUR is wondering just how two of our pilots and seven other persons ended up on the wrong side of the border in an H-19. We in USAREUR are doing the same.

All kind of theories have been advanced, but we'll have wait for the return of the pilot and co-pilot to learn just what happened and why. Perhaps we can get them to write an *exclusive* for this magazine. I'll invite them to write it for the *USAREUR REPORT*.

Some people are more unlucky than others. Few pilots can ever claim they have never been lost—most will readily admit there have been times when their knowledge of where they were was not as specific as desired. The lucky ones find out where they are while still having enough gas to get to the destination. Evidently our pilots who got over the border weren't that lucky.

Kingsize AA Party

This year's *Army Aviation Birthday* party was held in Heidelberg on 14 June. Other commitments prevented the party being held on the actual birthday date.

Over 300 Army Aviators, wives and other guests attended. *General H. I. Hodes*, Commander in Chief, USAREUR, addressed the gathering. He emphasized the necessity for additional ideas and practices which will allow us to more fully utilize the capability of our helicopters as part

of the combat commander's equipment.

In addition to *General and Mrs. Hodes*, the USAREUR staff representation of *Maj. General and Mrs. Westphalinger (G4)*, *Maj. General and Mrs. Sherburne (G3)*, *Brig. General and Mrs. Hamlin (Signal)* further pointed out the interest and high level support for Army aviation. *Lt. Heyward Riley*, 3rd Armored Division, had the honor of cutting the birthday cake. *Riley* was the newest Army aviator we could locate in USAREUR.

Credit for the success of the birthday party must be given to *Maj. Jack Forbes*, USATD, with his assistants from the 41st TAAM Battalion, who handled program and decorations; *Captains Herschel Reynolds* and *Wally Fenn*, who handled food and drink arrangements; *Captains Billy Blakely* and *Tex Frederick*, who handled reservations and accommodations.

AA Film A High Spot

Also a large amount of the credit to *Mr. Jack Beighle*, Sikorsky Aircraft, who lent us the copy of the Army Aviation Board Film on the "*History of Army Aviation*." The film made a big hit with pilots and non-pilots alike.

Visits to the Third and Fourth Armored Divisions, the Eighth Infantry Division and the 54th Helicopter Battalion during the last of May, by *Colonel Ed Wood* of Seventh Army and myself, confirmed that these Aviation Sections were aggressively attacking their problems. Yearly minimums

THE ARMY AVIATION ASSOCIATION OF AMERICA, INC.

Headquarters and Corresponding Address: AAAA, Westport, Conn., Telephone: Clearwater 9-4752



Increased Association activity took place during the months of May and June. In addition to a fruitful National Executive Board meeting, Chapter activity reached a new high during the two-month period.

NATIONAL BOARD MEETING

Meeting in Washington on June 28th, the *National Board* took the following actions:

Information Directory

Authorized the publication of a comprehensive "*Information Directory*" of major commands and personnel in Army aviation.

Industry Memberships

Established industry memberships so as to strengthen the common bonds between industry and Army aviation.

AUSA Affiliation

Encouraged a closer individual affiliation of AAAA members with AUSA by authorizing the publication of pertinent information on AUSA.

Annual Award

Established an annual award to the "*Army Aviator of the Year*"—the award to be presented each June 6th in commemoration of the birthday of Army aviation.

Fiscal

Reviewed and approved the initial year's Financial Report and the interim Financial Report as of June 15, 1958.

Approved the transfer of a substantial portion of Ass'n funds to an interest-bearing savings account.

Administrative

Established a three-member *Planning Committee* for the purposes of long range planning, the committee to make its preliminary report to the *National Board* at its next meeting.

Reviewed the statistics pertinent to the *Flight Pay Protection Plan* and recommended that

the basic Master Policy be continued in force without change.

Opposed the distribution or loan of the Ass'n membership list upon receipt of a request for same by a commercial firm.

Directed the Executive Secretary to investigate the possibilities and details of a death and disability payment plan as applied to aircraft accidents.

Editorial

Advocated the increased use of the Association organ as a medium for pro and con articles on future Army aviation equipment, policies, and programs; for open editorial discussions of unclassified phases of the Combat Development program as well as the tactical concepts under development at the various service schools or other activities which include utilization of the Army aviation potential; and for the editorial coverage of aircraft and/or related items of equipment which the Army has under test along with such test results as are deemed permissible to publish.

Organizational

Nominated groups of 3-5 members to serve as voluntary *Steering Committees* in those unorganized activity areas where the Ass'n membership approximates the Chapter requirement of 25 or more members, the *Steering Committee* to report to the *National Board* on the area interest for a separate Chapter organization.

Elected Regional Presidents in those Regional areas in which a vacancy existed.

Recognized the USAFFE Region as the third organized Region of the Ass'n and authorized the seating of Col. John D. Edmunds, the USAFFE Region President, as the 14th Member of the *National Board*.

Mail Vote

By mail vote, the *National Board* authorized the purchase of an initial order of three hundred distinctive "*Booster*" lapel insignia from O.C. Tanner Co., Salt Lake City. *Specifications*: Circular design, gold-plated quality, solid color enameling, gold lettering, screw-type clasp.

Always ready with a quick smile, Bryce Wilson, the AAAA's Vice President for Industrial Affairs, lends zest to any gathering of which he is a part. He simply will not tolerate those who take themselves too seriously or a situation that is humdrum.

One of the most popular persons in Army aviation, the '42 Grasshopper pilot is still hopping, although he is now addicted to "head-on" photos, a sure sign that "there is something back there to hide."

Constant Contact with AA

As the Director of Military Relations at Hiller Helicopters, Bryce has repeated contacts with those in active Army aviation, his hearty roar of greeting being heard regularly in many familiar AA facilities.

A Stanford ROTC graduate ("Horses and French 75s"), Bryce received a BA in Political Science and Economics, graduating in '38. While at Stanford, he was "bitten," learning how to fly and eventually owning and operating (and then selling) his first airplane in '40-'41.

His wife, the former Helen Everett, of Grand Rapids, Mich., adds the italicized comments:

"Avocation: In younger years he was an expert horseman and took top honors at the Thacher School. He won't admit to it but he was a fine polo player while at Stanford."

An Early Bulsch-Drinker

Selected in January of '42 to participate in an experimental program to determine the feasibility of light aircraft in field artillery observation, he joined in the early L-pilot program conducted at Ft. Sam and Ft. Bragg in the Spring of '42, eventually moving to the newly-formed DAT at the Artillery School in subsequent months.

"He's a great handyman around the house and can do or fix anything, be it mechanical, electrical, or whatever. An enthusiastic Audiophile, he's made his own sound system with "works." Patience Incl Loves to beachcomb and has always had a great yearning for a boat . . . unfilled to date."

Assigned to the Arty Section, Hq, Third Army, as AO in June '43, Bryce remained with Hq, Third Army, throughout the rest of the war and has many fond memories of friends made during the European campaigns of the Third Army. "Getting out" in '46, he joined the Stinson Division of Convair as Regional Sales Manager, following this with special sales work for Convair in Washington.

"Bryce loves outdoor life and every Fall goes deer and duck shooting in Nevada. Oh, yes . . . he also likes to play golf when he has the time



THE ZEST OF THREE!

BRYCE WILSON

and is an expert woodsman . . . practically an Indian." (Ed, Try to live this one down, friend).

During '49 and '50 the genial Californian was engaged in the Charter Airplane and Airport Operation business, a vocation that was interrupted in January, '51 when he was ordered to active duty and assigned to the R & D Division, G-4, in D/A. While in this assignment as a light colonel, he coordinated Aviation and Aircraft Development Programs.

No Calorie Counter

"Has an amazing fund of knowledge in many diverse and interesting categories and has a keen imagination and good judgment." (Ed, Long an inveterate chow-hound of wide renown—we personally watched him polish off 3 steaks and 3 desserts at a sitting—perhaps we should add "and a good appetite and a good metabolism.")

After being separated in the Spring of '53, Bryce returned to the commercial airplane business being associated with the Beech Distributor in Oakland, Calif., before joining Hiller Helicopters at Palo Alto in January, '55.

"We have one daughter, Janet Lewis, age 8, and Bryce has another daughter, Carolyn, who lives with her mother in Pasadena. When he's home—and he does lead a "Toothbrush and razor, I've got to trot" sort of life—he is a wonderful Father and companion to Janet."

This helter-skelter Biopere should give you a fairly comprehensive picture of the man.

Association-wise, one clue to his keen interest in AAAA matters can be found in his attendance record at Nat'l Board meetings. He's attended 4 of 5 meetings held to date, the Rockies notwithstanding.

Seventh in a series of profiles on the personnel who man the elective offices of the AAAA.

INTRODUCING THE VERTOL 107



LIFT FLAP

THE NEW GENERATION OF TRANSPORT HELICOPTERS . . .

The Vertol 107 introduces a new generation of multi-turbine, all-weather transport helicopters.

Commencing early in 1957, Vertol undertook an extensive survey of the characteristics desired in this new generation of transport helicopters. After many months of detailed discussion with key personnel at various echelons of all principal military areas, Vertol concluded that the Military required transport helicopters in both the light and medium size categories. It was apparent from discussions with the Military that the functional features required are identical for both categories — the only basic difference is payload capacity and size.

After careful analysis of various courses of action it could pursue, in June, 1957, Vertol decided to proceed with the detailed design and manufacture of a new light transport helicopter (the Vertol 107) incorporating all the functional features required by the Military. An initial budget of one million dollars was established for the project, which incorporated into a new airframe the 1700 horsepower dynamic system of the YH-21D which had been developed with U.S. Army funds under contract with BuAer.

THE NEED . . .

A transport helicopter, designed specifically to fulfill the functional requirements of combat elements for battlefield mobility, is urgently needed by the military forces.

Transport helicopters currently in military inventory lack essential functional and operational features such as:

- rear loading ramp which can be opened in or removed for flight
- the reliability and other advantages of multi-turbine engines
- more efficient utilization of airframe (larger on the inside and smaller on the outside)
- all weather flight capability
- ease of maintenance
- adaptability for simple installation of special-purpose kits
- relative invulnerability to small arms fire and resistance to crash fire

THE FULFILLMENT . . .

The Vertol 107 is not the world's biggest helicopter. Probably it is not the world's fastest helicopter. But the Vertol 107 is the first transport helicopter embodying all the essential functional features for mobility support of combat elements and missile systems.

These same functional features make the Vertol 107 well suited for performing other types of Air Force, Navy and Marine Corps missions. They also make the helicopter easily adaptable for commercial transport roles.



RETAINS PROVEN TANDEM ADVANTAGES

The Vertol 107 configuration retains all of the features which have proven desirable in military operations with the current generation of light transport helicopters, such as:

- large permissible c.g. range, permitting indiscriminate personnel seating and regrouping in flight
- excellent hovering characteristics, regardless of wind direction
- pilot seats low in airframe for ease in judging clearance above obstructions which is essential for low-level, contour flying
- rotors high on airframe to permit landing in unimproved areas covered with high brush
- excellent towing characteristics resulting from the superior longitudinal control inherent in the tandem rotor configuration
- good firing platform characteristics, which also result from the tandem-rotor's superior longitudinal control

BASED ON EXTENSIVE MULTI-TURBINE EXPERIENCE

The new generation of transport helicopters, which the Vertol 107 introduces, will all be powered with multiple gas turbine engines. Vertol Aircraft Corporation is fortunate in having unique experience with multi-turbine installations:

- the Vertol YH-16A, which was flown successfully in 1955 and 1956, was powered by two Allison T-38 type shaft turbines
- the Vertol 105, which made its initial flight in 1957, was powered by two Lycoming T-53 turbine engines
- the Vertol YH-21D, which also made its initial flight in 1957, was powered by two General Electric T-58 turbines



ANY WEATHER—DAY OR NIGHT

To fulfill its destined role as the *primary* battle area vehicle, the transport helicopter must possess operational capabilities equal to that of ground vehicles. Its superior capability for leap-frogging or circumventing natural or man-made surface obstacles must be supplemented by a capability to operate under any conditions of weather that would permit movement of ground vehicles.

To achieve all-weather, day-night capability in the 107, Vertol has incorporated state-of-the-art improvements which have been developed and proven in recent years as a result of both military and company-sponsored programs. These include:

- greatly improved flying qualities, resulting from incorporation of a hydro-mechanical stability augmentation device in the basic control system. The result—positive dynamic stability about all axes, thus freeing the pilot from basic instability problems and enabling concentration on navigation problems. Automatic turbine speed governing further assists the pilot in concentration on navigation
- individually-interchangeable metal rotor blades which are not susceptible to precipitation damage
- provisions for rotor blade de-icing with a system which has been thoroughly service tested under conditions of artificial and natural icing
- provisions for installation of an advanced electronic automatic stabilization system which is completely transistorized and embodies redundant circuitry for optimum reliability. This ASE is designed to accept inputs from all electronic navigational devices currently under development, thus promising adaptability for automatic navigation coupling

THE MISSILE'S NATURAL MATE

The Vertol 107 with its rear loading ramp, which can be left open or be removed for flight, was especially designed to accommodate internally items like missiles and launchers, which may be too long to fit within its cargo compartment. Thorough consideration has been given to incorporate provisions to simplify and speed the loading and unloading of missiles and their support equipment.

The Vertol 107's loading characteristics make it well-suited as a vehicle for the distribution of valuable nuclear warheads from dispersed forward storage points to missile launching sites.

"DESIGNED WITH MAINTENANCE IN MIND"

Realizing that maintenance requirements *must* be reduced, Vertol engineers have analyzed the service history accumulated from over half-a-million flight hours of previous Vertol models and have concentrated maintenance design improvements on those components and systems which have been significant man-hour consumers. Model 107 components will be designed to have a 1250-hour service overhaul tour.

Vertol's Model 107 engineering group has been thoroughly imbued with the philosophy of designing with maintenance in mind. The resulting detailed improvements are too numerous to list, but they basically concern:

- the concept of utilizing easily-replaceable "packaged" components wherever practicable
- all components readily accessible
- no maintenance required from within the payload compartment
- elimination of all special hand tools for field maintenance; and an absolute minimum of light, simple special tools (maintenance davit, etc.)
- hinged access panels with a minimum number of fasteners
- ground-level servicing of most systems—eliminating the need for work stands
- achievement of maximum initial service tours for all components

TROOP SEAT ARRANGEMENT

The Vertol 107 has provisions for 20 troop seats (same number as the H-21) and has an additional jump seat for the troop commander at the cockpit entrance. Loudspeakers in the cabin ceiling permit the pilot or troop commander to give instructions to the passengers. Combat experience in Algeria has proved the value of the troop commander's seat and a loudspeaker system for troop assault operations.

Provisions for up to 15 standard litters (3 more than in the H-21) plus two seats for medical attendants are included in the Vertol 107.

"IT FLOATS"

This well known soap slogan can be used to describe the fuselage of the Vertol 107 helicopter which is sealed during fabrication. Incorporation of flotation kit items (which include seals for all openings below the waterline, dams for ramp and door openings, and anti-tipping floats for attachment to the ends of the landing gear stubs) permits amphibious operations.

The standard 107 fuselage is well suited for water operations. No specially-shaped "boat bottom" hull is needed because its tandem-rotor configuration permits steep flaring close to the water, thereby minimizing forward speed at touchdown without danger of one of its rotors striking "green" water.

ARMAMENT AND ARMOR

Protection against small arms fire can be provided in the Vertol 107 in critical areas such as transmissions, mixing box, and oil coolers. The 107 includes provisions for the installation of these various armor kits and for self-sealing fuel and oil tanks.

Rockets and machine guns for suppressing enemy ground fire may also be installed. Testing of such armament on H-21's at Fort Rucker, Ala., and in Algeria has shown that the frequency of pitching oscillations due to recoil is considerably less in the tandem-rotor configuration.

POWER PLANT FLEXIBILITY

From its inception, the Vertol 107 prototype has been designed to accommodate either T-53 or T-58 type turbines. Although the company's original budget did not contemplate designing and fabricating the unique components (combining gear box, etc.) required by both engines, it became apparent as the time of roll-out approached that such action was advisable. Accordingly, the original budget of one million dollars was increased by another quarter-million to permit fabrication of all components needed for the installation of either type of turbine.

It was also apparent from the inception of the 107 project that growth potential is essential. Stringent performance requirements at high altitude and at elevated ambient temperature, which have been under discussion in Army areas for some time, now appear to be firmer. For the production version of the Vertol 107 to meet these new performance criteria, installed power in excess of that provided by even three T-53's, or by twin T-58's at their present rating, is required. Detailed engineering has been proceeding, therefore, on a growth version of the Model 107 which incorporates a more advanced, higher-power dynamic system powered by two T-55 turbines.

smaller on the outside — LARGER ON THE INSIDE

This impossible-sounding catch phrase used in automobile ads aptly describes the Vertol 107. Its fuselage is eight feet shorter than the H-21, yet its cargo compartment is longer, higher and wider.

The slope of the cargo compartment floor, with the helicopter resting on its landing gear, is 4" compared with 7½" on the H-21. Loading is facilitated, and the slight slope assists unloading. Landing gear travel is vertical.

The Vertol 107 is only 12 feet 6 inches longer than the HUP (H-25), and it fits within the dimensional limitations required for shipboard operations.

The increased width of the Vertol 107 results in a roomier cockpit and an opening between the cockpit and cargo compartment which permits easy passage even while wearing winter flight clothing.

PAYLOAD COMPARTMENT SIZE

The payload compartment of the Vertol 107 is more than 50% larger than the H-21 helicopter. Length has been increased six inches to 20½ feet. Width of the floor has been increased from 40 inches to 63 inches. Height at the centerline has been increased from 66 inches to 70 inches, by locating the interconnecting drive shaft outside the primary structure. Maximum internal width has been increased to 69 inches.

Follow-on aircraft of the 107 type are being designed, in accordance with new military requirements, with minimum cross-sectional dimensions of six by six feet in the area of the ramp and throughout the length of the payload compartment. These dimensions permit internal loading of the Little John rocket launcher and other items of high priority equipment.



The adult male can generally be divided into two classes—"joiners" and "non-joiners." Joiners need no urging to belong; if anything, they have to be periodically surprised from forming a new *Chowder and Marching Society* or an *Indoor Birdwatching Committee*. This letter is addressed to the "non-joiners"—written by a fervid "non-joiner."

The officers of the United States Army Aviation Center are currently being urged to join three professional associations: The *Association of the United States Army*, the *Army Aviation Association*, and the *American Helicopter Society*.

—Why?

—What will I gain as an individual?

—Why all three organizations? Isn't there much duplication and division of effort?

—Are there going to be three meetings a month that I will be expected to attend?

All these are legitimate "non-joiners" questions. They deserve an answer.

Basically, all professional associations have the goal of uniting a special group of people with common interests and aims to enable them to effectively speak on matters affecting their profession. Manufacturers, doctors, lawyers, airline pilots, and hundreds of other groups have proven this to be effective and worthwhile. Protection of mutual interests and informal exchange of information are primary in all such organizations; some have a secondary social function.

The *Association of the United States Army* was formed to fill a long needed place for the Army to express itself outside of official channels along with the Air Force and Navy associations. Its influence is world-wide and its benefits are very real. It is sometimes difficult for the company grade officer to appreciate that he is receiving anything more than a copy of "ARMY" magazine, but he is overlooking the fact that as a career officer he must take steps to insure that his problems are recognized. He cannot write to the editors of the local papers expressing the views of the Army as he sees them. He is not expected to be writing notes to Congress or standing on soap boxes. But he does need a voice outside of official channels—one with authority. This is the *Association of the United States Army*.

WHY ALL THREE?

Col. John J. Tolson

The *Army Aviation Association of America* was formed for a special group with special interests. It in no way conflicts with the purpose of the *AUSA*—it is more of a supplement to it. It provides valuable flight pay protection and gives the Army aviator a place to "hangar fly" in writing. You may become a member without the flight pay protection if you desire. It also provides a journal for the dissemination of information about his profession (*ARMY AVIATION MAGAZINE*).

The *American Helicopter Society* was formed with the prime purpose of advancing a particular art. It is essentially a technical organization. Its main concern happens to be a machine that is to be one of the Army's main means of mobility and one that occupies a large portion of the Army's future. The connection is obvious. The manufacturers and the military have identical interests and need a place to exchange ideas and explore new avenues toward an advanced helicopter. As our future happens to be tied in a large degree to this equipment we have a real reason to be part of the *AHS*.

On the national level and in over-all goals it is apparent that the three organizations have different reasons for being. On the local level, the three organizations are composed of basically the same people with three different local administrative set-ups. Steps are being taken to combine some of the local activities without losing any of the overall identities of the associations. This is a problem that is peculiar to Fort Rucker. In particular, it is hoped to combine the meetings of the *AHS* and *AAAA* so as not to divide the interest or efforts locally, and provide a program that will insure maximum attendance. This



should not affect the national aims or the individual benefits of the three distinct organizations.

Well, that's it, fellow "non-joiners." Might as well give in gracefully. It doesn't cost nearly as much as the Internal Revenue charges for being a U.S. citizen—yet I haven't heard of anyone talking of quitting (except about March). We were also going to push for members in the *American Rotary Soaring Enclave*, but we decided to drop it because of trouble with the initials.

JOHN J. TOLSON
Colonel, Inf.
President
Alabama Region

Chapter Activity

During June, a *Frankfurt Chapter* was organized, the third Chapter to be activated within the *USAREUR Region*.

Chapter officers include: *Capt. Carlisle R.*

Petty, Pres.; Capt. Richard K. Mukaeda, XVP; Capt. Robert Arnet, VP, Army Aff; 1/Lt. Edward Adams, VP, Indus Aff; 1/Lt. Edward O'Meara, VP, Pub Aff; 1/Lt. Robert Mills, Trca.; and 1/Lt. Heyward Riley, Sec.

Also, in June, an AAAA Chapter was activated at Stockton Field, California, the Chapter Board to decide upon a Chapter name at its next immediate meeting.

Elected to office at the June 4th meeting were: *Kenneth D. Sampson, Pres.; Byron Clark, XVP; Capt. John Cecil, VP, Army Aff; Capt. James Dean, VP, NG Aff; Lt. Robert E. Bishop, Treas.; Monda R. Wyrick, Sec.* The Chapter Board planned to elect its VP's for Res Aff, Indus Aff, and Pub Aff at its next immediate meeting.

A petition for recognition as a Chapter was received from five members residing in the general Fort Meade, Md. area. A Chapter activation meeting was scheduled for early July.

ARMY AVIATION ASSOCIATION Corresponding Address: AAAA, Westport, Connecticut

Application for AAAA Membership

I wish to become a member of the Army Aviation Association. I am a U.S. citizen, qualified under classification checked below. Please start my annual ARMY AVIATION Magazine subscription and send my membership credentials.

- MEMBER: My past or current duties affiliate me with the field of U.S. Army aviation or its allied pursuits.
- STUDENT Member: I am currently enrolled in student training at a recognized U.S. Army primary flight training facility or an Army basic aviation maintenance instruction facility. (Non-voting).
- ASSOCIATE Member: I am neither of the above, but wish to further the aims and purposes of the Army Aviation Association. (Non-voting, non-office-holding).

Membership Year Terminates on March 31st

- \$6.00 Enclosed: (Applications submitted from Apr 1-Jun 30) \$3.00 Enclosed: (Applications submitted from Oct 1-Dec 31)
- \$4.50 Enclosed: (Applications submitted from Jul 1-Sep 30) \$1.50 Enclosed: (Applications submitted from Jan 1-Mar 31)

NAME
(Please print) Rank/grade First M.I. Last

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

CITY ZONE STATE

If applying for MEMBER status, briefly list your affiliation with Army aviation, giving company affiliation or organic unit name:

.....
.....

Active Army, NG, USAR (Civ. Comp) Friend SIGNATURE

Failure to sign above invalidates this application.

Note: A facsimile or hand-reproduced copy of this form is acceptable.

and annual writtens were the major targets at the time.

At one of the fields visited we were not directed to a parking area and the airfield commander had to hunt for a fire guard when we prepared to leave. This certainly makes a poor impression as has been pointed out by numerous senior grade aviators in various publications. If you don't believe it is embarrassing, just ask any airfield commander who has had it happen.

Seventh Army held a periodic safety conference at Echterdingen the last of May. Major Hunter Harblson from USA-REUR attended and reported that it was a good meeting. The number of accidents that cannot be blamed on the occupational hazards of flying Army aircraft is still far too great in USAREUR. These are the ones caused by a pilot or mechanic letting

his accident guard down and getting hit with an accident. Preliminary reports indicate the superb safety record of the 54th Helicopter Battalion was recently spoiled by one of those accidents which our type of flying is bound to cause sooner or later. Luckily, no injury.

Major R. P. "Red" Johnson headed the June crew ferrying three L-23D's to USA-REUR. Other pilots in the flight are: Lt. R. P. Turner from SETAF; Captain D. A. Howland and Lt. J. R. Keebaugh from the 3rd Aviation Company; Lt. R. T. Walker from the 504th Aviation Company; and Captain C. F. Ward from Headquarters, Seventh Army.

—COL. WARREN R. WILLIAMS, JR.
Army Aviation Officer
USAREUR

German Students Tour SUSAATC

VAIHINGEN, GERMANY—Twenty-three German students of Tuebingen University, spent the Corpus Christi Holiday with officers and men of the *Seventh US Army Aviation Center*, and other facilities at Echterdingen Army Airfield, learning how Americans get into service and how they live after coming overseas.

Witness Flight Demonstration

The group, with newspaper men of some eight German periodicals, arrived about 10 a.m. to be welcomed by Lt. Col. Theodore F. Schirmacher, commandant of the center, who also briefed them on the tour conducted by Capt. V. P. Rizzo of the staff and faculty. They inspected billets of the Center's enlisted men; then examined the L-19, TL-19, L-20 and H-34 Army Aviation planes with a flying demonstration of the H-34, the big work-horse helicopter of Seventh Army.

At noon the group had lunch in the consolidated Army mess across the field in the operational flying center. They

toured the maintenance hangars of the 29th Transportation Army Air Maintenance Company, watched work in the operations tower, and were told of weather report operations, flight planning, contact maintained between planes in the air on missions from takeoff to landing, and other facts of this work.

Induction Films Shown

Returning to the Training Center, the students viewed Army training films showing induction and reception of American servicemen; then were given "sensation rides" in the Link Trainers, the robot flying machines that give training in "flying" from stationary points in the class room. Some of the students at link "controls" showed definite possibilities as potential pilots, officers of the Center stated.

With more films and further discussions, including alert questions by the student visitors, the visit ended after 1600 hours and the group returned to the University city of Tuebingen.

202d AA Company Reorganized As Lt Hcptr Company

BOSCO MANTICO, ITALY—In the Land of Spaghetti, Meat Balls and Vino by the liter, the 202d Army Aviation Company changes with the changing times. The first of these changes is the reorganization of the 202d Army Aviation Company along the lines of a Light Helicopter Company. However, the TO & E is implemented to fit the mission of the 202d Army Aviation Company in that it has two (2) platoons of *Ghoctaws* and one (1) fixed wing platoon with *Seminoles*, *Otters*, and *Bird Dogs*.

Another change is the addition of seventeen new faces in the form of CWO's. However, because faces are new the 202d Army Aviation Company, it does not mean they are new to the flying game. We have some people like *Elmer "Grandpa" Schwartz*, *Tom Endfinger* and *Clyde "Bozo" Emery* along with fourteen others

who have been in the game for three or four years. They are *Desmon "Smily" Burnette*, *LeRoy "Roy" Brendle*, *Duane J. Bouza*, *Donald J. Dodson*, *Charles D. Hooks*, *The Maxwell boys*, *Eugene T. and Robert W.* (no relation), *Clifford F. Max*, *Charlie Kanode*, *Jack McKeever*, the three "W's"; *Charles J. Williams*, *Doyle N. Woten* and *Aubrey J. Weibelt Jr.* and last but not least, *Billy H. Miller*, who just arrived.

The last of our changes is the face lifting of Bosco Mantico. Our Italian Airport is getting a 3500 foot asphalt runway, a maintenance hangar, two permanent barracks, and a day room along with other miscellaneous facilities. So, all in all, things are looking up in the old "*Duce O Duce.*"

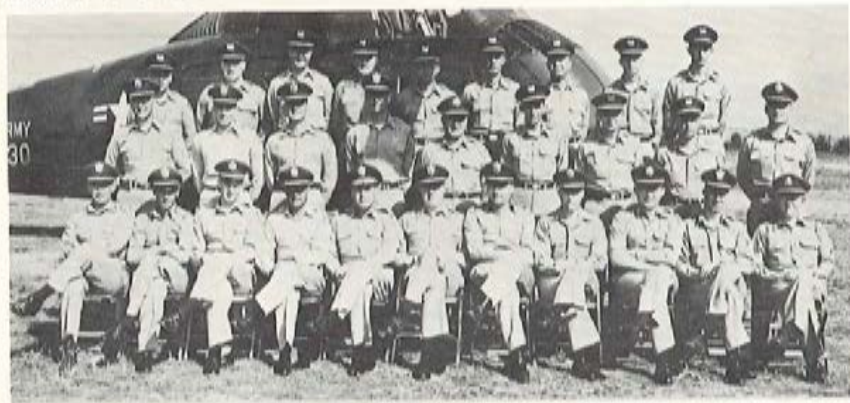
Below is a photo of the 202d Army Aviation Company; if you see anyone you know and are down this way, stop in and see us, we'll be glad to see you.

—Capt. Roy L. Miller

SCRAPBOOK SNAPSHOT

202nd Army Aviation Company Bosco Mantico, Italy

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FRONT: Lts RW Windham & GC Reed; Capt CR Miles; Maj BE Sheppard, Unit CO; Capts CC Norton, RL Miller, & LA Beckman; Lts RD Irvin, HJ Stain, & TW Pratt. 2ND ROW: Lts TK Wynn, JF Patterson, CE Nickolls, WJ Meehan, & RF Warner; CWOs CF Max, RW Maxwell, & LE Brendle; Lt DE Roach. 3RD ROW: CWOs DL Dodson, CJ Williams, EJ Maxwell, JW McKeever; DF Burnette, AJ Weibelt, TL Endfinger, CE Kanode, & CD Hooks. Some 13 members of the Company were absent at the time of the photo. (U.S. Army photo/Gilbert/31 May 58)



8TH TRANSPORTATION GROUP

By Colonel John R. Dale



As the result of a study of Army aviation problems within Seventh Army by a board of officers, the Commanding General determined the requirement for a headquarters to control and supervise those aviation maintenance units, plus separate aviation units, which were directly under Seventh Army. Reorganizations that had taken place made the 8th Transportation Group Headquarters available for this mission. The Chief of Transportation made a rated colonel available to take command of the Group.

—Col. W. R. Williams

On 1 July 1957, the 8th Transportation Group was assigned a new mission to:

- a. Reorganize within current organization a group headquarters capable of assuming administrative, logistical, and operational responsibility over all Army aviation units which might be attached.
- b. Assume command of all fixed wing, helicopter, transportation corps maintenance and supply units assigned to the Seventh United States Army, except the 8th and 54th Transportation Battalions (Helicopters).
- c. Provide aircraft maintenance and transportation corps supply support to all Seventh United States Army units.
- d. Provide aircraft for Seventh United States Army assigned missions.
- e. Test the validity of the stated mission.

Reorganizing the Group assumed command of the 2d and 3rd Aviation Companies (FWTT), the 11th Transportation Company (Lt Helptr) and the 41st and 205th Transportation Battalions (AAM). Elements of the Group are widely dispersed throughout the Seventh Army area.

During recent field exercises, the 8th Transportation Group has had operational

control of the 8th and 54th Transportation Battalions (Helptr). Under these conditions, it was possible to accomplish the mass movement of troops and equipment into the best tactical positions selected to exploit fully the immediate opportunities for development which are possible only by air mobility.

The development of task organizations through the attachment of rotary and fixed wing operational elements, coupled with required aviation maintenance, has enabled the Group to successfully execute the airlifting of battle groups. These airlifts have been successful with troops who have had airborne training as well as those who have not received specialized "airborne" training.

While the successful execution of the tactical airlifting of large numbers of combat troops is a milestone in Army aviation, it would be of limited value without the movement of the weapons and equipment. To complete the picture, the 8th Transportation Group, while accomplishing record breaking airlifts of personnel, has, in addition, transported the weapons, equipment and field rations to the appointed place and on time to meet the tactical situation.

The utilization of aircraft for movement to meet the "enemy" has operated in every instance to overcome natural obstacles which prevented utilization of conventional transportation. Flood conditions of rivers and a lack of bridges presents no problem when "airlifted."

The highly successful movement of troops and equipment has not happened by chance. This is the end result of over 15 years of hard work by a group of dedicated Army personnel. From the modest beginning of a few "Cub" aircraft

largely used to adjust artillery fire, the Army aviation potential has grown to the extent that entire battle groups can be moved over terrain completely lacking in the normal facilities in a matter of minutes or hours.

In a recent exercise, operational elements of the 8th Transportation Group flew 200,000 accident-free passenger miles. This is considered to be an outstanding achievement in view of the weather, terrain and nature of the operations involved. Of particular note is the fact that aircraft

availability did *not* decrease during operations. This can only be attributed to the organizational and support unit mechanics who worked "around the clock" to insure the availability of required aircraft. The mechanics and maintenance personnel are indeed the unsung heroes of Army aviation.

The Seventh U.S. Army now has another tool in its arsenal—one that can provide the tactical support which in turn gives mobility to the combat elements to a degree not heretofore available.

Patrols Sharpen 3rd Aviation Company

KITZINGEN, GERMANY—The last increment of the 3d Aviation Company completed its Gyro movement from Fort Benning to Germany on the 27th of May. Stragglers, of course, will still be drifting in come June and July.

The 3d Infantry Division is air-minded since its commander, *Major General Roy E. Lindquist*, is a former paratrooper. Since the arrival of the division's advance parties in January, more than three thousand soldiers have been airlifted in Army aircraft to the various training areas in Germany. Most of this, of course, has been in U-1's and H-34's obtained from higher headquarters. No parade or celebration is complete without the signatory fly-by of aircraft trailing colored smoke, and each time a lull develops in the use of Army aircraft, *Major Rawlings* sells the command on trying something new. Sight of an unused aircraft seems to set him off again.

Anticipate Gun-Laden Choppers

Our Aerial Observer Course, a carry-over from Fort Benning is scheduled to begin here in mid-July; our airlift and re-supply missions continue; we anticipate having our new cameras in a short time; and we look forward to practicing with our rocket and gun-laden helicopters in the near future.

Presently, we are involved in work with

long-range patrols and that old standby, shooting for the artillery. This long-range patrol business is no snap, but we feel we have a workable solution, and the Division Aviation Officer will give it to you should you be interested. (*Ed. We're interested!*)

Our company has been augmented with a Flight Surgeon, a series of camera crews, a radio repair team, and some extra men whom even the company commander does not recognize. Our Maintenance Platoon, operating from a separate location, is again on the sixteen-hour day, working two shifts. Friendly rivalry between shifts gets a lot of work done, but keeps *Captain Ben Durall* up late at night!

We have nothing but kind words to say about the field and depot maintenance assistance offered us since our arrival. In many respects, it is better than that to which we had become accustomed in the States.

Major Rawlings, the DAO, and members of the aviation staff, *Major Feldt* and *Capt. Rhodes* are stationed in Würzburg with Division Headquarters. The remainder of the company is scattered throughout the entire sector.

Major Clark, the company commander, with a large portion of the company itself, is in Kitzingen where we utilize the quarters vacated by the 10th Aviation Company.

The company's aviator strength is now at fifty-seven with six on ground duty with other commands of the division. Of the fifty-seven, all but four are instrument rated, and over fifty per cent are dual qualified in both fixed and rotary-winged aircraft. Only *Major Rawlings* is twin-engine rated, but we, as yet, see little hope of getting an L-23 in the division.

Thoroughness Sought

Like any gyro outfit, we're having our troubles. *Major Rawlings* read us the riot act about thorough checkouts before we began operational flying, but he didn't warn us about the number of hours we were expected to fly. He then turned *Major Feldt* loose on a Flying Safety program intended to stop accidents before they happen.

Captain Michelson, our Operations Officer, takes each accident seriously. We are not proud of having had our two accidents, but we are proud of having

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tripled our accident exposure rate without a corresponding increase in the number of wrecks.

As you may have gathered, we are proud of our organization and of the record we left behind us in Fort Benning. We hope to do as well in USAREUR. We have a high experience factor, particularly in our staff, and we try to work together. If any of your friends are with us, write them at the 3d Aviation Company, 3d Infantry Division, APO 86, New York, N. Y. If you think he's with us, but aren't sure, write me at the same address.

YC, *Alan F. Sweeney, Jr.*

Annual Minimums Completed by 8th Aviation Company

GERMANY—Here's the word for the past month on the *8th Aviation Company*. First and foremost is the push for minimums. *Capt. Jack Martin*, the Operations Officer, set up and executed a complete program by which everyone completed annual minimums by 15 June. The program included Hood and instrument instructions for all personnel and was well appreciated by the AA's in the Company.

The Company has also set up an observers' school. Under the direction of *Capt. Charlie Leads* the three-week course turned out nine qualified observers for the Division. The course of instruction is to be offered at frequent intervals to insure that a sufficient number of qualified observers are available at all times.

New Aircraft—Two new *Beavers* and one new *Chickasaw* since our last report. New AA's—*Lts Karriker, Quedens, Thompson*, and *Toner* have reported in from the States and are well on the way towards having completed their required checkouts. One apology—in the last report, I left out our Maintenance Officer *Lt. John F. Grace*, in the personnel rundown.

Your correspondent, *Art Junot*

Joint Effort



CWO Melvin L. Koehn, CWO Raymond C. Gailbraith, and SFC Arrion M. Haught, crew chief, are congratulated by Lt. Col. Edwin F. Whitney (right), CO of the 54th Trans Bn, after his presentation of Sikorsky Winged "S" Awards for their part in air-rescuing a severely injured German seaman from a German minesweeper. The 26th Trans Co awardees performed the rescue during NATO maneuvers last October. (U.S. Army photo).



THULE, GREENLAND—Shown above is a welcome sight—if you happen to be a member of a ground party in Greenland. According to the caption sent in by CWO Don Joyce of USA TREG, that little clump of square hutments is a sub-base at Camp Tuto. At the time of the photo a sled-train, known as a "swing," has just arrived at the Camp after being out of ice-cap for 12 days. Ice-capers? Hauling heavy cargo from Camp Tuto to a Polar Research Camp, some 200 miles out on the "Cap." The *Chickasaw* is a part of the "swing's" welcoming party.



THULE, GREENLAND—An Army *Chickasaw* from the U.S. Army Transportation Environmental Operations Group (USA TREG) approaches a down RCAT (Radio-Controlled Aircraft Target) on frozen Wolstenhome Fiord, near Thule AB.

The RCATS had been shot down by Army anti-aircraft units during practice firings. Thawing of the ice-covered fiords prohibited ground recovery, USA TREG's helicopters recovering twelve of the valuable RCATS in two hours' flying time.



FORT EUSTIS, VA.—Major Herman E. Greer, Commanding Officer of the 40th Transportation Battalion (Army Aircraft Maintenance) at Fort Eustis, was recently integrated into the Regular Army. He is shown being sworn in by First Lieutenant Thomas P. DeWeese, (right), Adjutant of the 40th.

Major Greer entered the Army in September, 1948. He is a Senior Army Aviator qualified in both fixed and rotary wing aircraft. Among his decorations are the Distinguished Flying Cross, the Air Medal, and the Bronze Star (U.S. Armyphoto).



NEW YORK, N. Y.—Precisely stabilized in hands-off flight (note pilot), a Vertol 44 helicopter demonstrates the 40-pound Sperry automatic flight control system. Currently installed on Vertol 'copters ordered by the Royal Swedish Navy, the Sperry equipment enhances the great flight precision needed for effective anti-submarine sonar search missions (Sperry photo).



maintenance tips mike button

MORE ON NOMENCLATURE

Mike's column of April, 1958 sure started a few people thinking, raised a few eyebrows, and caused a firm stand to be taken by TC in the standardization of Aircraft Instrument Nomenclature.

Of course, Mike's personal feelings (one article in April, 1958 column) about changing the name *Verticle Gyro* to *Artificial Horizon* wasn't even considered, but you can take it from old Mike that standardization of nomenclatures are on the upturn and from now on everybody should be calling the same instrument by the same name. And for your information here is the list which incidently was taken from a 1955 publication that, obviously, few people heeded:

OFFICIAL NOMENCLATURE (GAPS)

Old Names—Don't use! (Italics)

ATTITUDE INDICATOR

*Artificial Horizon
Attitude Gyro
Gyro Horizon
Flight Gyro
Flight Indicator
Vertical Gyro*

DIRECTIONAL INDICATOR

*Directional Gyro
Heading Indicator
Gyrosyn Compass*

VERTICAL VELOCITY INDICATOR

*Vertical Speed Indicator
Rate of Climb Indicator*

TURN & SLIP INDICATOR

Turn & Bank Indicator

RADIO MAGNETIC INDICATOR (RMI)

Station Bearing Indicator

GLIDE SLOPE INDICATOR

Glide Path Indicator

RADIO COMPASS INDICATOR

ADF (Bird Dog, etc.)

COURSE INDICATOR

**Cross Pointer*

**Some installations may have a horizontal needle incorporated to use with ILS Glide Slope Equipment, such as ARN-1A.*

All flight handbooks should, in the very near future, contain only these official names and they may be found in Section I, Pilots instrument panel display, paragraph on instruments, and they may be referred to in Sections II and IX.

Can we teach old dogs new tricks? I guess we can if it's the same trick. Personally, Mike's perfectly satisfied and will do everything he can to promote complete standardization of Army aircraft nomenclature throughout the D of D.

It's the Law!

Oh! Boy! Here we go a gain—yeah, we did gain—*Supply Letter* 50-58, TSMC,, hasn't been printed as yet, but we pulled the info out of those Purple People Eaters so we could get it out to the Link trainer people who need it the mostest.

The last two consecutive "MIKE" columns have given you all the latest status of supporting 1-CA-1s and AN-T-18 Links that was available at that time.

May 1958 column (1st article) gave a little advanced info on a new SL to be published and that's where SL 50-58 comes in and it's the "Law" now after cancelling SL 68-57, 30 August 1957 and SL 18-58, 7 March 1958.

Here 'tis and it applies to CONUS only: All activities concerned should submit their requisitions for parts support for the I-CA-Is to USATSMC, same address as Mike's, but attention: *TCSMC-NS* (that's the Supply Division of the newly established Directorate of Centralized Depot Supply Activities).

Requisitions which cannot be supplied from the limited amount of repair parts in the Army supply system will be extracted to the Navy for supply action. If you need maintenance assistance for the I-CA-Is requested it direct from the Army General Depot which furnishes area support in accordance with AR 780-770.

Oh, don't forget, if you do need this assist be sure your request contains a properly filled in *DA Form 811* (Work Request and Job Order). Now to get the assistance you need for the old AN-T-18s,



do the same thing, except, when you send along your request for maintenance assistance include a list of the required parts instead of requisition parts to support the AN-T-18s. This should be the answer and keep all Links off the red X.

Rotor Blades: Shawnee

The service life of certain *Shawnee* (H-21) rotor blades has been restricted to 150 hours of operation. In accordance with a brand new TM1, you have only 24 hours to take the action which is of an urgent nature or else you gotta ground your craft.

TM1-1H-21C-1005, 18 April 1958, replaces Interim AFTO 1H-21-608, 23 April 1958; Interim TM1-1H-21C-1005, 18 April 1958 (TSMC, TWX A00-04-2154); and Interim TM1-1H-21C-1005A, 25 April 1958 (TSMC, TWX A00-04-2830). Whoops! Checked the dates? Yeah, old Mike did, too. It's OK; that's when "dates" get confusing—Somebody probably changed the

date on TM1—So, go and check your *Shawnee* against TM1-1H-21C-1005, 18 April 1958 and pitch all the rest.

If you think it will be any better and you can see it clearer when you get the TM1, change the 18 April 1958 date to 14 May 1958 'cause that's the date we sent it to be printed. It's a bit froggy, but check forward blade sets 22R1251-13 (FSN 1560-320-5311), -33 (FSN 1560-594-4222), and -37 (1AGJ22R1251-37) and see if any individual blade has a serial number U-1-1500 or prior to. Then, check the aft blade sets 22R1251-14 (FSN 1560-320-5109), -34 (FSN 1560-594-1245), and -38 (1AGJ22R-1251-38) and see if the individual blade has a serial number U-2-1500 or prior to.

If they have had 150 hours (service life) on them since they were manufactured, you must replace them immediately (24

maintenance tips mike button

hours). To do the job correctly, check TMI-1H-21-2-5 for the correct procedures. If your records *don't tell* you the *true* total service life, yank 'em off and replace with a complete set. However, if your records *do show a total service life* you may use the blades until 150 hours have accumulated. If any spares are laying around, treat them as if they were installed on the machine. Tag the unserviceable blades and return them to the appropriate Army Depot or contractor as spelled out in SB 1-15-5, with this notation on the tag: "Removed in accordance with TMI-1H-21C-1005."

Some limitations are put on components to make the aircraft safer; others to save "wear and tear"; and usually they decrease the hours which you may operate without ill affects. However, here are a few components on *Shawnee* (H-21) which have their inspection and replacement times extended:

- (1) Forward and Aft Transmissions: Replace 600 hours—old time 450 hours.
- (2) Cooling Fan and Hub Assembly: Replace 1050 hours—old time 600 hours.
- (3) Engine drive-shaft assembly P/N 42D3001-2 (FSN 1560-307-0324); Inspection at 1050 hours.

See, if youse guys give us the right dope, how we can improve the product

and also *your* patience and maintenance problems! It's a give and take proposition. Incidentally, this is red hot poop as of 6 June 1958.



As a closing bit of information, don't forget to remove Dual Control Arms from *Seminole* (L-23A & B) when you turn them in for remanufacturing. After you remove, put the single control arm on and keep the Dual Control Arms and wait for word as to what you should do with them. Old Mike thinks you'll probably put 'em back on after they are transformed into L-23Ds.

That's all for this month. Any problems you can't get the answer to? Mike and all the rest of the people here at TSMC are here just to serve and service you, so, get in touch.

Informationally yours,

Mike Button
William D. Bickham

Earns Academic Award

FORT EUSTIS, VA.—Sp3 Larry B. Wolfe, assigned as a Powertrain Repairman to the 18th Trans Cargo Heptr Field Maint Detachment, a unit of the 40th Trans Bn (AAM) at Fort Eustis, was recently awarded a Certificate of Merit by the Wright Aeronautical Division Service Engine School, Woodridge, N. J.

The award was presented to Sp3 Wolfe for "having achieved the highest academic honors in the Wright R-1820-84-103 Line Maintenance Course." He is shown above (right) receiving his Certificate of Merit from Maj. Herman E. Greer, Commanding Officer, 40th Trans Bn (AAM). (U.S. Army Photo).



CHANGES OF ADDRESS

PCS



Bristol



Brown



Spalding

BANKER, Walter E., Capt., Hq, 8th Transportation Group, APO 154, New York, N. Y.

BIEBER, Harold J., CWO, 59th Transportation Company (Lt Hcptr), APO 800, New York, N. Y.

BISHOP, Donald H., Jr., CWO, 36th Transportation Company (Lt Hcptr), APO 165, N. Y., N. Y.

BLACKMAN, Edward B., Major, 3616 Ida Drive, Columbus, Georgia.

BLOOM, Frank H., 1/Lt, 1st Aviation Company, 1st Inf Division, Fort Riley, Kansas.

BOOTH, Maynard, Lt. Col., Army Aviation Section, Fort McPherson, Georgia.

BRISTOL, Delbert L., Lt. Col., Student Detachment, Army War College, Carlisle Barracks, Penna.

BROWN, Neely R., Major, Hq, 7th U.S. Army Avn Training Center, APO 46, New York, N. Y.

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CHRISTIE, Thomas C., 1/Lt, 53rd Medical Det (Hcptr Amb), APO 175, New York, N. Y.

COERS, David H., Jr., Capt., Hq, USARYIB (G-3), APO 331, San Francisco, California.

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FULLER, Clarence H., Capt., Comp Sup Co (TAAM), APO 949, Seattle, Washington.

GALLIHER, Kay D., 1/Lt, 1st Engr Officer Advanced Crs, Rm 101, Abbot Hall, Ft. Belvoir, Virginia.

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JONES, Philip D., Capt., 4014 East 62nd Street, Seattle, Washington.

KEEN, Donald E., 1/Lt, USA Sig School (9400), Section 239, Box 1125, Ft. Monmouth, New Jersey.

KIERNAN, William E., 1/Lt, c/o Mr. & Mrs. W. E. Kiernan, 24 Nevada Ave, Long Beach, New York.

KINNISSON, Lewis A., Capt., 2nd Aviation Company, 2nd Inf Div, Fort Benning, Georgia.

KISH, Louis D., Capt., Hq, 18th Field Artillery Group (AD), Pittsburg 36, Pennsylvania.

KOONS, Everett, A., Capt., 1602 Osage Street, Alexandria, Virginia.

LaBRODE, Richard E., Capt., 828-A Terry Drive, Fort Benning, Georgia.

LANDRY, Robert L., Capt., 1109 B-3 Kimbro Loop, Lewis Heights, Fort Belvoir, Virginia.

McCLANAHAN, Robert D., Major, 81st Transportation Company (Lt Hcptr), Fort Riley, Kansas.

McCRANIE, Asa C., 1/Lt, 76th Field Artillery Battalion, Fort Devens, Massachusetts.

McSPADDEN, Dwight E., 1/Lt, 7th Aviation Company, 7th Inf Div, APO 7, San Francisco, Cal.

Coveted Green Card Awarded To Lt. Col. Carl E. Bobo



FT. MONMOUTH, N. J.—Lt. Col. Carl E. Bobo, Jr. (left) is shown above being congratulated by Col. Paul W. Albert at Ft. Monmouth after being issued the highly sought Army Aviator's green card for meeting special requirements as an instrument pilot. Col. Albert is Deputy Commander of the U.S. Army Signal Research and Development Laboratory while Col. Bobo serves as Chief of the Military Staff in the Avionics Division of the Lab.

A 15-year veteran in Army aviation, the Ft. Monmouth Senior Army Aviator has logged a total of 3,500 hours as a pilot in 18 years of experience. His most recent qualification is not the first time he has received a green card, in that he qualified for similar Air Force credentials several years ago while on duty in the Far East.

Capt. Robert C. Jones, a member of the First Army Instrument Examining Board and a green card holder, gave the examination to Col. Bobo. (U.S. Army photo).

MANTOOTH, Glen W., CWO, 4722-B Prichard Place, Fort Knox, Kentucky.

MARTIN, James E., Capt., USA Trans Supply Control Agency, APO 58, New York, N. Y.

MESNIER, Charles R., Capt., 24th Aviation Company, APO 122, New York, N. Y.

MILLER, Frank H., 1/Lt, 112 East Maple Street, Fayetteville, West Virginia. (Temp).

MILLER, Robert W., Capt., Hq, First US Army Aviation Detachment, Governors Island, N. Y. 4, N. Y.

MOLDEN, David E., Jr, 1/Lt, 722 West San Antonio, San Marcos, Texas.

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MOUNTS, Leonard J., CWO, 25 Montieth Lane, Fort Rucker, Alabama.

MUTTONI, Donald S., Capt., Stu Officer Det, USA-TS, Trans Off Adv Crs No. 12, Ft. Eustis, Va.

ODDONE, Louis J., CWO, 11th Aviation Company, 11th Abn Div, APO 112, New York, N. Y.

PARKER, William H., CWO, 25th Aviation Company (Inf Div), APO 25, San Francisco, California.

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SIMPSON, William F., Jr., 2/Lt, Stu Co, USAPHS, Class 58-09, Camp Wolters, Texas.

SOVIA, Ray E., CWO 11th Transportation Company (LI Hcptr), APO 29, New York, N. Y.

SPALDING, William W., Capt., Trans Off Adv Crs, Class No. 1, Fort Eustis, Virginia.

STAMPS, John R., Lt., Wherry 40-E, Fort Campbell, Kentucky

STORER, Ivan M., Capt., 422 North Mulberry, Abilene, Kansas.

STORY, Douglas E., CWO, 1109-A, Fort Eustis, Va.

TAYLOR, Billy, R., 1/Lt, US Army Primary Helicopter School, Camp Wolters, Texas.

TEMPLETON, William M., 1/Lt, 52nd A.I.B., APO 221, New York, N. Y.

THIRING, Florian A., 1/Lt, 8th Transportation Company (LI Hcptr), Ft. Bragg, North Carolina.

TILLERY, George G., Major, USAAVNS, Fort Rucker, Alabama.

TOEPEL, Adalbert E., Jr., 1/Lt, 1530 Mayflower Avenue S.W., Atlanta 11, Georgia.

UTZMAN, Charles D., 1/Lt, 101st Aviation Company (Abn Div), Fort Campbell, Kentucky.

VARNEY, Ernest E., Lt., 1612 Lucas Street, Artillery Village, Fort Sill, Oklahoma.

WALKER, Mansell A., Lt. Col., B-801, River House, 1111 Army-Navy Drive, Arlington 3, Virginia.

BELL HU-1/IROQUOIS

(Continued from Page 2)

components, and ease of component removal to facilitate maintenance in the field.

Three XH-40 helicopters have been built. Six YX-40 helicopters are now being built for test purposes. Nine HU-1 "pre-production" models are on contract with deliveries scheduled to begin in September, 1958. The "follow-on" production model will be designated the HU-1A with deliveries scheduled to begin in June, 1959.

YH's in System

The first YH-40 has been completed and bailed back to the contractor for "Design Refinement Tests." The second YH-40 will undergo "Airworthiness and Performance Tests" at Edwards Air Force Base.

The third YH-40 is scheduled for "Climatic Hangar Testing" at Eglin Air Force Base beginning in June, 1958, following which it will be given adverse weather tests at Wright Air Development Center (WADC).

From WADC this third *Iroquois* is scheduled to undergo "Ice Tests" at the Canadian ground spray rig near Ottawa; thence to the Army Arctic Test Board, after which it will return to WADC for completion of adverse weather tests.

Joint Army-AF Effort

These tests will be a joint Army/Air Force effort, with the Army providing a pilot as well as supply and maintenance support and the Air Force providing a pilot, necessary instrumentation, and data reduction and analysis.

The U.S. Army Aviation Board is scheduled to receive the fourth YH model in July, 1958 for "User Test" and the third HU-1 in November, 1958. The Board's YH-40 is scheduled to be flown directly from the factory to the Army's Yuma Test Station for desert test during the period 15-30 July, 1958. Subsequently, temperate tests will take place in the vicinity of Fort Rucker. Upon delivery, the third



FORTNER



MARTIN

HU-1 will be integrated into the Board's service test program.

The fifth and sixth YH models are scheduled for delivery in July and August, 1958. They will undergo "Logistical Evaluation Tests" by the U.S. Army Transportation Aircraft Test and Support Activity (TATSA) in the vicinity of Fort Rucker. TATSA is programming a flight schedule of fifty hours a week on each of these aircraft.

The first HU-1 model is scheduled for delivery in September, 1958 and is programmed for Army arctic service test by the Arctic Test Board at Fort Greeley, Alaska, during the 1958-1959 winter season.

The second, fourth, and fifth HU-1's are scheduled for the Army Navy Instrument Program (ANIP), suppressive fire kits installation, and multi-rotor blade tests, respectively.

The sixth and seventh HU-1 models are scheduled for delivery to the U.S. Army Aviation School in February and March of 1959. The eighth and ninth HU-1's are programmed for troop test by U.S. Army Aviation School Troops. These aircraft are scheduled for delivery in April and May, 1959.

One of the Army Aviation Board's primary missions during the user test phase will be to determine modifications required in the HU-1A to make it suitable for Army use. In order to feed the required modifications back to the manufacturer as soon as possible, and thereby prevent costly retrofit programs, Headquarters, USCONARC, has instituted a reporting system for test aircraft which expedites the reporting of deficiencies as

soon as they are discovered during the Army tests.

Mr. Charles L. Martin, Jr., is scheduled to be the Board's project officer for climatic hangar test of the third YH-40. Capt. Leonard F. Seitz, MSC, will be the Board's project officer for the desert and service test programs. Len is at present the Board's project officer on the *Djinn* helicopter and is gaining valuable turbine experience.

CWO Clifford V. Turvey, who recently joined the Board from the Army Aviation School, will accompany Capt. Seitz to the desert for the desert test program. Following that, Cliff will become the Board's representative and pilot for the joint Army/Air Force adverse weather tests at WADC, Ottawa, Canada, and at the Army Arctic Test Board.

"THE HELICOPTER PILOT"

Beneath the spreading rotor head
The helicopter stands;
With underpowered engine
And blades like rubber bands.
The fuselage looks silly
The whole idea absurd;
Why anyone will fly it
I really haven't heard.
There's an anti-torque rotor
Sticking out the tail;
It looks for all the world
Like a big fat quail.
One doesn't need a parachute
One doesn't need a brain;
In fact to fly this monster
It help to be insane.
Oh how I hate DaVinci
And Igor's on my list;
If they had kept their traps shut
This mess I would have missed.
But I am brave; and I am strong
And greatly in demand;
For I'm a helicopter pilot
In the TC Training Command.

—Submitted by
1/Lt. Charles F. Schalch



KOREA—The people of the Avn Section, Det "R" (Provisional) KMAG, have just accomplished what we consider to be a very good piece of work—that of having flown one million (1,000,000) passenger miles without a single accident.

We know and understand full well that many other larger air sections may have done the very same thing as well and perhaps even better and in much less time.

However, we are a small flight detachment and have only been in existence about four years. Our personnel, at the present time, number eight mechanics and three pilots, certainly no empire, to say the least. And most of the time the Section has been understrength in both pilots and crewchiefs.

With but three L-19s, two *Beavers*, and one H-19 *Chickasaw*, we've had to stay airborne to log any and all time. The work we have just accomplished and about which we feel rightly proud was accomplished in 9,300 total flying hours.

This record could not have been accomplished without due credit being given to the officers and enlisted men who preceded us in past years.

—YC, Capt. John D. Newbern

(Ed. In the photo above, Capt. Newbern (left), Avn Officer, and Lts Robert J. Brown and Laverre W. Bindrup pose beside those six big zeros.)

ASSIGNMENT/TEST PILOT

(Continued from Page 4)

craft before they go out to using units in the field," states the Board officer.

Before he was through working with it, the H-37 provided him with more material for "hairy" stories.

At Fort Carson, Colorado, he was conducting high altitude tests with the aircraft. Taking off from Pikes Peak at an altitude of 14,000 feet, he took the helicopter up to 19,000. Never before had it been flown so high, and no one knew just how it would react to such a height.

Once again, things suddenly began to happen. The "brute" began to vibrate as if it were about to shake itself apart. "Possibly it was due to a blade stall in the thin air," says Lieutenant Carroll. "We got down from there as fast as we could."

An Otter Experience

Much of Lieutenant Carroll's flying has been done in fixed-wing aircraft. At one time he was engaged in testing a radar altimeter in the Army Otter. One day over Greensboro, North Carolina, the plane's single engine exploded.

The cockpit immediately became filled with smoke. Outside, numerous clouds hid much of the ground from view. Lieutenant Carroll and the co-pilot decided to parachute, and would have—if they hadn't found that the cabin doors would not jettison from the aircraft.

Breaking the glass of the cabin windows, they cleared some of the smoke from the cabin. With power off, he headed for a 600-foot strip on top of a hill. By this

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time, flames from the engine were trailing past the tail assembly.

Six hundred feet is not much landing room for the Otter even on a hard-surface runway. The strip in question was bordered by high trees at either end and high tension wires on one side.

Coming in low over a garage and farm house, Lieutenant Carroll cleared the trees on one end of the strip, landed, and came to a halt 500 feet short of the trees at the other end.

Special Freedom Cited

Despite the dangers it has presented, test and development work has a strong appeal for the Board officer. "You never know what problems you'll encounter until you're faced with them," he says. "Everything is always new."

The special freedom as the test pilot is another reason why he is happy to be where he is. "The pilot in the field must adhere to many rules; he must never exceed this frequently in order to adequately determine the aircraft's performance and handling characteristics under average conditions. Unless we push the aircraft to the limit, we'd never know what they could do and we wouldn't be able to establish limitations in the first place."

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HELICOPTER MECHANICS WANTED—Need men with helicopter experience. Would consider experienced fixed wing mechanics. Must be interested in learning and have ability to advance on own initiative. If qualified contact: Test and Development Company, P.O. Box 517, Fort Rucker, Ala. Telephone 3138.

HELICOPTER PILOTS AND MECHANICS WANTED—Bell experience and commercial licenses mandatory. Long term positions now available with South American operation. High pay benefits—families welcome. Write giving all details to: Keystone Helicopter Corporation, 841 Land Title Building, Philadelphia 10, Penna.

THE BUREAU DRAWER

ARC-NGB Unite on Unique "Flying Classroom" L-20

BOONTON, NEW JERSEY—The Army National Guard Bureau in cooperation with the Aircraft Radio Corporation of Boonton, New Jersey, has started a unique program of training National Guardsmen at their summer encampments. The Aircraft Radio Corporation, with the assistance of Capt. H. Nichols, New Jersey National Guard, has outfitted an L-20 aircraft supplied by the National Guard Bureau, with electronic test equipment that will be used to check and instruct National Guardsmen in the use and maintenance of airborne electronic equipment. The instruction periods will be held while personnel are under simulated combat conditions and will serve to highlight the need for proper use and maintenance of equipment.

Received in Early June

The "flying classroom" was turned over to the National Guard Bureau by President William F. Cassidy, Jr. at Aircraft Radio Corporation's private airport on June 2, 1958. LeRoy Johnson, field engineer for Aircraft Radio Corporation, will cover 17 National Guard encampments, completing his three month "tour of duty" in late August.

This operation is the second field training program now being conducted by the Aircraft Radio Corporation for the Army National Guard this year. A mobile unit, utilizing a station wagon completely equipped with test equipment and staffed by Holmes Bailey, an Aircraft Radio Corporation field engineer, has been touring various states instructing National Guardsmen at their regular meetings since April 2 of this year.

Adopted after careful study and plan-



TURN-OVER—Shown above with the ingredients of their joint "flying classroom" are, left to right, C. L. Cahill, ARC; Capt. H. Nichols, NJNG; William F. Cassidy, Jr., President, ARC; and LeRoy Johnson, ARC.

ning by the National Guard Bureau, various of its state units, Lt. Col. Arthur E. Dicks of the Bureau, and C. L. Cahill of the Aircraft Corporation, the mobile training programs will be geared to the special needs of Army aircraft personnel in each area.

Voluntary News Information Solicited by Maj. Morley

I have to beg off on this month's *Bureau Drawer* in that I've just returned from an extended trip and will shortly depart on a round-robin tour of many Army-NG activities in the West. I've heard some very fine reports on the worth of the *Drawer* column and I'll be ready to get back into the swing of it just as soon as I return. In the interim, for that matter, at any time, individual Guardsmen are invited to submit copy for inclusion in the *Drawer*. The material can be forwarded here to the Aviation Section, NGB, or directly to the Editor of the magazine.

Having forwarded a corrected list of Advisors and Maintenance Supervisors to

the AAAA, readers can anticipate the new (second) version of the Assignment Information Pamphlet . . . *Col. Phillips*, having completed ATAOC at Fort Eustis, has returned to the Bureau, and will have plenty to occupy him in between now and October when his replacement arrives. It's my understanding that *Lt. Col. Keith French* will be his replacement.

—*Maj. Harrison A. Morley*

Army Purchases Automatic Flight Control Systems

SANTA MONICA, CALIF.—Notice of award of a \$4,100,000 contract for U.S. Army Signal Corps automatic flight control systems was revealed at the annual shareholders' meeting of Lear, Incorporated, by Richard M. Mock, the company's president. The advanced equipment is for use in the Army's H-34 Sikorsky-built *Choctaw* helicopter. Mock said it will permit "hands-off" flying in all altitudes, increasing use of helicopters for night flying and operations in all kinds of weather.

Motorola-Beech Announce Joint RL-23D Contract

Motorola, Inc. of Phoenix, Arizona and *Beech Aircraft Corporation* of Wichita, Kansas will furnish the United States Army with two battlefield-surveillance radar versions of the U.S. Army L-23 *Seminole* command-type utility transport, under a cooperative modification program, according to a recent announcement by the two companies.

As prime contractor, *Motorola* will supply all necessary electronics equipment and systems design. *Beech Aircraft* in turn has been awarded responsibility for performing the airframe modification work. Flight tests will be conducted both in Wichita and in Phoenix.

A new development for the U.S. Army Signal Corps, modified L-23 *Seminole* aircraft will provide Army ground forces with all-weather surveillance capability in the field. The completed airplanes will be designated the *RL-23D*. Delivery of the first unit is scheduled in September, with the second following in November.



LOCKPORT, ILL.—Two Army aviators, *Capt. John L. Dekker* (left) and *Capt. Virgil A. Henson, Jr.* (right) received their Bachelor of Science degrees in Business Administration at the Lewis College Commencement in early June. Both officers are stationed at Joliet Arsenal where they completed residence requirements at Lewis College by attending Night School courses sponsored by the Ordnance Ammunition Command.

Pictured with *Dekker* and *Henson* are *Maj. Leroy Stark* (2d from left), another graduate, and *Brig. Gen. Paul X. English, U.S.A. (Ret.)* (2d from right), President of Lewis College.

Request

Bill Robinson (Cessna Public Relations Dept) is searching for a Korea photo of General Eisenhower in an L-19, and has called on "AA" readers for help. If you have such a photo or have knowledge of how one can be tracked down, contact Bill at Cessna Aircraft Co., Wichita, Kan. Bill needs a print and will return the original.

GARY-GO-ROUND

Army Renews Gary Contract With Wm. J. Graham & Son

CAMP GARY, TEX.—William J. Graham & Son, Inc., civilian contractors who have been teaching the Army's primary flight training here for a year and a half, will continue to do so for another year—and possibly three.

A new contract for FY 59 has been awarded to the Graham concern, according to a recent announcement by Fourth U.S. Army. The new agreement, together with proposed projects, totals approximately \$7,000,000.

"If any congratulations are due," stated William J. Graham, president, "they should be split 850 ways. The qualifications and experience of each employee here figured directly into the proposal we submitted—and they are the biggest single point that tipped the scale in our favor."

At Camp Gary since it became the Army's first completely civilian-operated post in October, 1956, the Graham company was one of eight companies competing for the FY 59 contract.

Anticipated in the new agreement is a somewhat lower student load than in FY 58, when 90 students were expected to enter training every three weeks. The FY 59 contract projects a student load of 66 trainees per class. Approximately 330 Army officers will be training at one time.

There are about 20 proposed projects for the



MEMORABLE MOMENT—That long-awaited Piece of Paper is signed, to the tune of five whistles, numerous fire sirens, and 850 "Whewls!" Making it official are left to right, William J. Graham, president; John Hammer, contracting officer; and Lt. Col. G. W. Jaubert, acting commander of Camp Gary.

post outlined in the new contract. These include construction of new runways here and at *Clear Springs, San Marcos, and Lockhart*; central heating and cooling in academic classrooms and administration buildings; and construction of six new flight line briefing buildings.

Unlike the original contract, this time the agreement may be renewed by the government for two additional years after FY 59. Graham said he expects little or no change in the size of the organization. Currently employed are approximately 850 civilians.



Otter Purchase; Hiller Expansion

LEFT: Governor Averill Harriman and State Conservation Commissioner Sharon I. Mauh inspect New York's new State Conservation Authority Otter.

RIGHT: Principals in a 10,260 sq. ft. warehouse expansion at Hiller Helicopters prepare to dig that first shovelful: (L-r): Vance Nape, contractor; Al Gianotti, President, Vela Corp.; and Edward T. Bolton, Exec. Vice Pres. & Gen. Mgr., Hiller Helicopters.



TSMC to Review Gary's "Better Bird Dog"

Camp Gary officials who have dedicated a year to breeding a "better Bird Dog" for flying training now believe that their experimental L-19 will produce a whole new line of Bird Dogs for the Army within the near future.

The experimental aircraft is now at the Cessna plant in Wichita, the kit that would add its Gary-built innovations into Army-wide training planes undergoing cost analysis.

If TSMC "buys" Cessna's bid, Gary's "better Bird Dog" may quickly sire the improved fleet, according to a joint report by Capt. John Denney, military aircraft Maintenance Officer, and G. C. "Bo" Dilling, ass't director of maintenance at Graham and Son.

Among the BBD's modifications are heavier landing gear, radio-and-intercom switch on the throttle, over-riding flap switch, a longer stick, and positive-action rear hydraulic brakes.

Just prior to its flight to St. Louis, Bill

The Not So Ivory Tower



Apple, standardization chief at Gary, added another modification: a simple quick-release built into the front seat, to provide more room for the instructor in the event of an emergency bailout.



Mr. Peeper

PATTERN DEVIATION?—S u n-bathing being a favorite past-time for students at American Airlines' stewardess college near Fort Worth, helicopter pilots from nearby Bell Helicopter Corporation have their own form of recreation: low flying. The peek-a-boo pattern prompted the sign in the lower right hand corner, according to this posed Bell picture: "Beware of Low Flying Helicopters." No, Bryce, it isn't Joe Mashman. Can't be. No newspaper. (Bell photo).

Taken for a Ride!



In late May, your staff had the opportunity to visit several AF, Army, and Naval aviation facilities while attending an Aviation Writers Ass'n meeting held in Houston, Texas. Highlights of our visit were an all-day informal inspection of the primary training and maintenance facilities at Camp Gary, and a jet familiarization flight in a Navy F9F-8T *Cougar* at NAS, Chase Field, Beeville, Tex.

For those who have not visited or undertaken training at Gary, an early visit to this well-administered, well-equipped facility is heartily recommended. *Hospitality* is a "constant"—and you will learn for yourself that *efficiency* in all operations is primarily responsible for Gary's well-trained graduates.

At Chase Field, the Navy amply demonstrated the ease with which low-time Pensacola graduates are stepped up to jets and are given thorough transition and instrument training prior to fleet operations. The 1-1/2-hour flights given to our group of 14 AWA members were preceded by a full morning of pre-flight instruction, including a lecture on the physiological problems encountered in high-altitude flight as well as an oxygen chamber checkout. A seat ejection trainer provided us with some of the catapult sensations felt by those who "Mayday."

A subsequent visit to Carswell AFB provided the AWA members with tangible insights into the "Man in Space" program, test pilots *Scott Crossfield* and *Capt. Ivan Kincheloe* being key members of a seven-man panel. The complete Air Force arsenal, including operational aircraft through the F-104, and the *Thor*, *Jupiter*, *Snark*, and *Bomarc* missiles, were viewed in static displays.



TOP: Anything for a subscription! Your Publisher tries to con a Space Man. CENTER: Strapped in and ready for the juice, Dotty K. silently questions the worth of a "first-hand report" on the seat ejection trainer. LEFT: Your staff (center, with notably blurred knees) discusses a high altitude rendezvous with Lt. Tom Evans (far left) and Lt. Brad Kiddle (far right) of Chase Field's ATU 203 prior to taking off in F9F's. (Photos: Mary King-U.S. Navy).



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I have enclosed a check or money order made payable to the AAAA for the correct premium and I desire coverage to be initiated on the effective date* of my AAAA membership, the last day of the month in which I make application.

I certify that I am currently on flying status and entitled to receive incentive pay, and that to the best of my knowledge I am in good health, and that no action is pending to remove me from flying status for failure to meet required physical standards.

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

Submit application and premium check to AAAA, Westport, Conn.

The annual premium charge is 1% of annual flight pay.

Non-AAAA Members: I enclose \$4.50* membership dues. Please enroll me as a member of the Army Aviation Association.

*Annual dues as of July 1, 1958.

OTTER

ABC'S



From Tripoli, North Africa; from Verona, Italy; from Mannheim, West Germany and from bases throughout continental United States, U.S. Army Aviation maintenance personnel arrived at the de Havilland of Canada aircraft plant, Downsview Airport, Toronto on May 7 to participate in an *Otter U-1A* familiarization Program.

The program, an intensive two-week course on the theory and practice of aircraft maintenance, has become something of an institution at de Havilland. Its curriculum is designed to thoroughly familiarize *U-1A* maintenance personnel with all aspects of airframe construction, power plant, instrumentation and the hydraulic and oil systems.

The instructors are de Havilland Canada technical representatives, who in addition to having a thorough knowledge based on long years of experience in the subjects they teach, have also become experts in communicating that knowledge. When not giving instruction to any groups at the de Havilland establishment they are, more often as not, globe-trotting to some sixty countries from the tropics to the polar regions giving practical assistance and instruction to the personnel of civil *Beaver* and *Otter* air lines and air services.



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OBSTACLE COURSE

FOR A NEW ARMY RECRUIT

No other helicopter ever has been, or will be tested more thoroughly than the Army's IROQUOIS, Bell's all-new turbine-powered HU-1A. Designed to meet the most exacting standards of performance and maintenance ever required of a helicopter, it has already passed through Bell's own rigorous shakedown.

But, before it goes to work in the field, the HU-1A is being "put through the mill" by the Army. A series of tests — the hardest and most realistic any helicopter ever faced — will cover every phase of performance, supply and transportation, maintenance, weather, combat conditions and general military usage.

By testing, evaluating and proving every piece of aviation equipment, the Army assures that the U. S. armed forces get only the best. And in helicopters, that will be the IROQUOIS — the nation's newest front line fighter.

Fort Worth, Texas

Subsidiary
of Bell Aircraft
Corporation



THESE AGENCIES WILL PUT THE IROQUOIS THROUGH ITS PACES

Edwards Air Force Base

...skilled engineering test pilots will "wing out" the HU-1A for performance and stability Phase 4 tests.



Eglin Field

...the Iroquois will undergo performance runs in the climatic hangar at extreme temperatures.



Army Aviation User Tests at Ft. Rucker

...simulated battle conditions will test the Iroquois for frontline dependability from the desert to the arctic.



Transportation Aircraft Test and Support Activity (TATSA) at Ft. Rucker

...1,000-hour logistics support tests.

