# ARMY AVIATION

JANUARY ★ 1960

# BRIEFS

■ *Jack E. Leonard* (below), Military Requirements Manager of the Cessna Aircraft Company Military Division, was recently elected Chairman of the *Helicopter Council* of the *Aerospace Industries Association*, succeeding *Harvey Gaylord*, President, Bell Helicopter Corporation.

■ **A fully-equipped Beechcraft L-23F (right), similar to the model serving the Army in the U.S. and Germany, will be employed by the FAA to run in-flight checks on the efficiency of air traffic personnel in standard procedures, the use of ATC equipment, and the conformance to existing policies.**

■ *Class* 60-C3 at USAPHS, Camp Wolters, has revived one of flying's oldest legends, the WWI legend of the *red scarf*. The only class currently wearing scarves, 60-C3 adopted *red* as their class color and wear flying caps to match.

■ **Stressing that an Army pilot must keep his military education on a par with his flying education, Brig. Gen. Charles J. Timmes, assistant commander for administration, 101st Airborne Division, told a recent USAPHS graduation class that the ability to see, to analyze what is seen, and to report what is seen makes the pilot an indispensable asset to a commander.**

LEONARD

MULLEN

■ *Thomas H. Mullen* (*left*), well-known throughout AA while with Vertol Aircraft as *Manager of Program Evaluation*, has been named *Director of Customer Relations* of the U.S. Industries Technical Center in Pompano Beach, Fla. He'll direct all proposal and contract administration activities of the Technical Center in his new position.

■ **The active Army aircraft inventory, according to FY 1961 Federal Budget figures, stood at 5,199 as of June 30, 1959. Planned inventories call for 5,663 Army aircraft as of June 30, 1960, and 5,791 aircraft as of June 30, 1961.**

■ There was no joy in Mudville that night . . . One of the better known service journals recently ran afoul of a sleepy proofreader. Caption: *Army Seeks Crapshooters*. Should have read "trapshooters" following the D/A request to organize a trapshooting team for possible candidacy at the coming Olympics. The article had *"high readability"* thanks to the catching caption.

*(Continued on Page 43)*

ARMY AVIATION

VOLUME 8 — JANUARY 28, 1960 — NUMBER 1

## Ejection Seats

New emphasis being placed upon adequate crew safety has led to Tranpsortation Corps investigations of a zero ground speed and zero escape capability as provided by ejection seat systems (photo).

General Richard D. Meyer covers this new aspect in his informative article appearing on page 24.

## Overhaul

ARMY AVIATION's 1960 advertising support — the sole limiting factor in an expansion of the magazine — is such that the publication will shortly be in a position to expand its editorial contents by an additional 12-16 pages per issue.

With this "lebensraum" we intend to bolster the "personal" side of the magazine and encourage the submission of 500-word unit reports, group photos, and, as always, exclusive articles by subscriber-correspondents.

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**DE HAVILLAND AIRCRAFT OF CANADA**

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General von Kann provides some straight answers on the AAAA, its relationship to AUSA, and the need for the joint annual meetings to be held in August, 1960

# PAROCHIALISM

DEAR Army Aviator,

As to what constitutes a "parochial viewpoint" depends a lot on which point one happens to be sitting (Now there's an unset literary gem, if I ever saw one!)

For example, a battery commander may *not* want his platoon leaders to be jealous of each other's prerogatives to the detriment of the battery, but *he* does not see his own activities in this same light with reference to the battalion. This process continues up the scale until we reach the Department of Defense where parochialism becomes a service issue. .

The *Army Aviation Association* has been accused of being an example of unhealthy splinter groups within the Army, and its critics point to it as a special interest organization. Since there are so many divergent opinions (not entirely unemotional) on this subject, I would like to throw out a few thoughts for consideration, *on a strictly personal basis.*

When the *AAAA* was formed it was realized that many would consider this a step backwards from a unified Army position. However, there were many other considerations that seemed to have an overriding immediate importance.

Army aviation was (and still is) a fragmented group of individuals assigned to seven arms and services. While this has many advantages from a viewpoint of responsivesness and combat effectiveness, it leaves the individual aviator feeling very much without a home—without a voice—without a means to air his strictly pilot problems. The Army aviator has always been proud to be recognized first as an Army officer, but this does not mean he has to be ashamed of his wings.

Years ago our aviators knew the Army had only scratched the surface of its air potential; they knew they could offer the Army a quantum jump in mobility, but they had no means to be heard as a group. At the time there was strong opposition to many phases of the aviation program. There were no means by which an aviator could obtain flight pay insurance except the alternative of asking the Air Force if he could join their association. There was no way to freely exchange information between the Army and the aviation industry. Thus

the *Army Aviation Association* filled a real void at a critical time.

*Well, what about now? Is there still this need? What about the AUSA?*

The *Association of the United States Army* is a vital voice for expressing broad policy and national objectives. Every officer should belong to this organization and actively support it. It offers an unofficial channel of communication that has no counterpart. It is one of the most significant steps we have taken towards solidifying the Army in the eyes of industry and the general public. The *Army Aviation Association* believes in and supports these goals.

## Annual Meeting Plans

As a step toward closer cooperation, this year the annual conventions will coincide. The *AAAA* will begin its meeting the day before and then mesh its schedule with that of the *AUSA*. Aviation will play a large part in the AUSA program. This phasing will allow industry to give their best support to a single convention instead of asking them to participate in two separate efforts at a great cost of time and money.

It also has the very important aspect of dispelling from people's minds the impression that Army aviators are a special breed of cat. It places Army aviation in its proper perspective in the Army. In my mind this is a logical and desirable beginning of a type of coordination that might eventually end with an organizaton within an organization. This would have to be a solution whereby we can keep our aviator *identity* and the functions and aims of *AAAA*, without any possible detraction from the common purpose of a strong, modern Army.

I *urge* everyone to mark their calendars and begin planning now to attend this convention *August* 7-10. Both the *AAAA* and *AUSA* need and deserve your strong support. You should take an active part to add your efforts to their direction. The original reasons for the founding of the AAAA are still valid. Flight pay insurance alone would make this organization worthwhile.

Many junior officers feel that the efforts of the *AUSA* are beyond their scope or interest. Many senior officers do not understand or appreciate the reasons behind the *AAAA*. It is up to us to explore every means that might aid *both* of these organizations to more effectively meet our particular problems.

WHILE I dislike mentioning a depressing subject in this letter, the matter of personal insurance for aviators appears to need some emphasis. Occasionally (there are recent examples) an Army aviator is killed in an aircraft accident and it is discovered that he has no personal insurance.

While I do *not* encourage over-insuring, it appears quite basic that a person receiving hazardous duty pay has a moral obligation to use some of that pay for the *extra* hazard. It might be that an airman who does not provide for his dependents while engaged in flight duty is displaying a lack of judgment sufficient to make him unsuitable as an aviator.

I have received several reports from the field that some Army airfield operation officers are making transient pilots comply with local rules that extend beyond the scope of *paragraph* 15, *AR* 95-8. Cases have been reported in which visiting pilots have not been permitted to sign their own clearances even when authorized to do so by *par* 26, *AR* 95-8. This is a two way street. I cannot help but feel that much of the misunderstanding is based on inexperience, and interpretation of *AR* 95-8 to imply more than intended.

On the other hand, aviators army-wide may not be aware of the provisions of *change* 7 to *AR* 95-8, which states: *"Improperly executed or incomplete flight plans may be refused for filing by the operations officer until completed to his satisfaction."* I suggest that you take a look at your local regulations to make sure they

coincide with the provisions and intent of *pars* 23, 27*a*, and 28*c* and *e*.

ON the happy side of the ledger I wish to report that the test of the *Aerial Reconnaissance and Security Troop* at Fort Stewart, Georgia gives every indication of being an outstanding success. In spite of countless problems and equipment shortages, the organization has proven its capability and versatility.

This unit, formed within the ranks of the 2*nd U.S. Infantry Division* last August, has grown from an inexperienced group to a well-trained and cohesive team. As organized for test, the *ARS troop* is made up of 35 officer and warrant officer aviators and 115 enlisted personnel. For equipment they have sixteen reconnaissance and eleven utility/transport helicopters. All of the reconnaissance helicopters except the air ambulances are armed with dual fixed-mount machine guns. Four helicopters of the weapons platoon are armed with 4.5 inch rockets and machine gun kits.

The potential of this organiaztion concept offers one of the greatest growth aspects to Army aviation. We can foresee a need for such a unit organic to every division and to every cavalry squadron. We hope to initiate early activation of a regular TO&E organization.

THIS day has been made complete with the receiving of the withholding tax notice and the grim forecast for April. However, being assigned to Washington has one very distinct advantage—*it allows you to be near your money.*

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

# EVERYONE A SENATOR!

■ *Recently 19 members of the Mississippi State University Student Chapter of the Institute of Aeronautical Science had occasion to make a field trip to Fort Rucker, Alabama. The purpose of the trip was to familiarize the students with the role and needs of Army aviation.*

*The majority of the visitors were senior or graduate students of Aeronautical or Mechanical Engineering. They were accompanied by Prof. Charles Cliett of the Aeronautical Engineering Department at Mississippi State. Four of the students were Army ROTC students who, in taking flight training at MSU, had the opportunity to get an advanced briefing of what they hope will be their future.*

*While at Fort Rucker they were briefed by Maj. Gen. Easterbrook and members of his staff, and by the Dept. of Maintenance; Fixed and Rotary-Wing Training, TATSA, SATSA, as well as by Combat Developments and the Army Aviation Board. Visits to Hooper and Cairns Field were also included. At the former they witnessed Rotary wing training and at the latter viewed new aircraft such as the YAC-1DH, Caribou; the Hughes HYO-2HU; the YH-40 or HU-1A; the Beech L-23F, and others.*

*This field trip was initiated by Maj. Robert H. Hurst and Capt. David B. King, both rated Army Aviators and also students in the Aero School at MSC under the civil schooling program.*

*We were all impressed by the amount of effort everyone at the Center made to see that our stay was informative and pleasant. I don't think that a group of visiting Senators could have been given better attention. By means of this letter I wish to let those not at Fort Rucker know what a fine team they have as support and, at the same time, give thanks to a splendid group of officers and enlisted men.*

*H. Marshall Claybourn*

■ The first H-13H helicopter modified under an Army-Bell Helicopter product improvement program was delivered to TMC's Flight Detachment, St. Louis, Mo., where it will undergo an evaluation by engineering project office and technical personnel. Features: quick disconnect fittings, gauge for oil tank, hydraulic boost cylinder boots, cargo hook, and IFR "all-weather capability" instruments.

■ ***Vertol Aircraft's*** **house organ,** ***Tandemeer,*** **carried** ***Brig. Gen. Clifton F. von Kann's*** **AWA address, "The Real Goal of Army Aviation," to its entire readership by means of a special supplement to a recent issue.**

■ *Col. Kenneth L. Sipes,* recently arrived from the Army Defense School, Fort Bliss, Tex.., became deputy commander of Camp Wolters January 1st, replacing *Col. Chester H. Meek* who retired December 31st after 30 years of Army service.

■ ***Sikorsky Aircraft*** **has received a $1,215,884 order from the** ***Army Signal Corps*** **for a quantity of automatic kits for installation in H-34 helicopters. Another contract, for the** ***Transportation Corps,*** **is in the amount of $1,467,263 and covers the cost of technical support of the H-19, H-34, and H-37 helicopters.**

■ The *Seventh Army Aviation Group* (Ludwigsburg, Germany) graduated seventeen students from its *first* Radio Operations Course, a ten-week training course designed to facilitate communications within the expanding radio networks of the *Group.*

■ ***Second U.S. Army Airfield*** **received a certificate of** ***Merit for Safety*** **after posting a November '58-November '59 year of accident-free flying. The recorded 23,539 aircraft landings and takeoffs represented a 20 percent** ***increase*** **in air traffic at** ***Fort George G. Meade*** **over the previous year.**

# BRIEFS

■ *De Havilland Canada* has received an order from the *Canadian Department of Defense Production* for 27 DHC-3 *Otter* aircraft for the RCAF. First delivery on the $2 million order will be made in March of 1960, with a delivery schedue of two per month for the duration of the contract.

■ **The December issue list of officers recommended for promotion to colonel did not include Lt. Colonel Merlin H. Parson, a member of OFWAC 60-1.**

■ The *Sikorsky S-60* has been officially dubbed the *"Sikorsky Skycrane"* upon completion of a company "Name the Crane" Contest. *Mrs. Mary E. Cary* of Sikorsky's electrical department submitted the winning entry, one of more than 12,000 entries submitted during the contest.

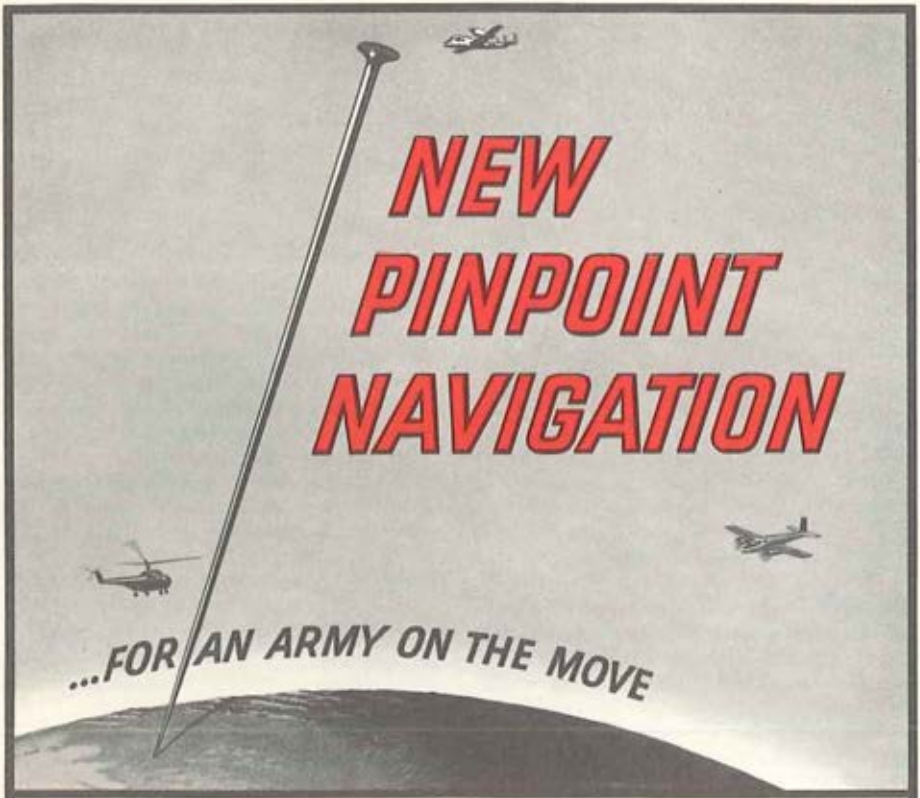
## Is What?

Hoping to catch some of our oldtimers with their pens in working order, we deliberately ran an *incorrect* "1947" dateline under last month's *"Is What?"* unidentified flying object. The five responses we rec'd from junior officers belies *their* enthusiasm. Here's one (and correct, too!):

*"The UFO pictured on Page 503 of the December '59 issue is an Interstate XL-6 (XO-63). Only one was made and it was purchased by the U.S. Army in FY 1942. Serial Number 43-6365. It weighed 1,625 lbs, had a 35'6" wingspan, and was 23'5" long. Power: Franklin XO-200-5, 100 hp. Top speed: 114 mph.*

*In '43 the Army purchased 250 L-6's of the same dimensions, but 150 lbs. heavier. The L-16 was powered by a Franklin 0-200-5 of 102 hp, giving it a top speed of about 104 mph."*

*Rulon Andrus*
*1st Lt, Calif-ARNG*

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*This advanced automatic navigator was designed and developed by Ryan Electronics under Army contract and tested by the Army Electronics Proving Ground at Ft. Huachuca. Ryan's AN/APN-129(V) navigator is in production for use with the Army AO-1F Mohawk and RL-23D surveillance aircraft, and the Model 120B is guiding H-19 and H-34 Helicopters.*

*Ryan navigators are light, compact, and trouble-free. With no minimum altitude limitation, they are ideally fitted for the Army's low-level "nap of the earth" operations and vertical envelopment combat missions. Independent of ground facilities, they are practically immune to countermeasures.*

*The new navigators are outstanding examples of Ryan Electronics knowledge—indicative of Ryan's capabilities in space navigation, doppler inertial guidance, and other advanced electronics fields.*

***Ryan's rapid growth in electronics is creating new opportunities for engineers***

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**RYAN BUILDS BETTER**

# The OTH

NEARLY everyone has some knowledge of first aid and of law, yet doctors and lawyers continue to live and increase. Psychology, in one form or another, is practiced by most men daily, yet psychologists do not feel the pinch of competition. Every military man, from the lowliest recruit to the most respected of generals, has certain tactical beliefs which he will defend at the pop of a cork, yet tacticians are allowed to exist as specialists.

*Why aren't Army aviators allowed this luxury?*

Every day, some young and ambitious Army aviator asks me this question. *"Look,"* he will say, beating his fist on my desk, *"you tell me that the future Army will have need for thousands of aircraft instead of hundreds, yet you advise me to learn another trade right away? Nuts!"*

Could be. *You* asked me. If you want an *official* opinion, ask an *official.*

Certainly the future military will be air-minded. The distances involved will be far too great to be covered in any other way. With the possible exception of those who practice their art in airless space, these machines will be piloted by amateurs who think no more of flying than your father does of driving his car. *Why should they?* Their craft will either fly properly or float gently to earth with disgruntled but unhurt passengers. *They have got it made.*

That's the future. For the present, you'll do your work during the changeover period when expensively-trained personnel will push constantly-changing equipment through a sky more cluttered with rules than with aircraft. You'll continue to be a specialist.

*Why is a specialist?*

Only because that which he knows and practices is of transcending value to the community.

*When does he cease to be a specialist?*

When that which he knows or does can be done equally well by others; when it is no longer of exceeding value, or when the economy will no longer support it. Granted that what you do will remain of exceeding importance, the odds are still two to one against your being permitted to continue an uninterrupted period of specialization. Who would get fired at your house should your budget be cut? Your wife or your maid? Obviously, you'd keep the one most suited to take care of *all* your needs!

## Why Pick On Me?

*"OK, OK"*, says the young man. *"I understand. You're telling me that I need to be a double-threat man to keep from being fired. How about all these officers who haven't had any training at all except in their basic branch? I work as hard as they do, and they're not penalized for their failure to learn my job. Why pick on me?"*

There are two good reasons, my young friend. First and paramount, is the fact that you draw hazardous duty pay. This means that you earn more than your contemporary even though he may be nominally your superior. Everyone *knows* that your earning career will be shorter; that your insurance *is* higher — but nothing changes the fact that Americans believe the boss should earn the most money. You'll always be a *"fly-boy"* or a *"Taxi-driver"* to the man who resents your flight pay. You can laugh all the way to the bank, but you cannot change human nature.

The other reason you are picked out for

# ER Side of the Coin

BY
LT. COL. MORRIS G. RAWLINGS

individual treatment is equally obvious and just as seldom discussed. You represent the most dramatic change in tactics since the cavalry charge, and many people resent that. Particularly, they resent tactics being prescribed by youngsters, many of whom have never known combat.

## A Separate Branch?

Finally, they remember with displeasure, that which happened to the old Signal Corps Aviation and are determined that it shall never happen again. So, if you were planning on hanging on while awaiting branch recognition, you are wasting your time. Despite the obvious advantages to be gained from such an action, there are many disadvantages also.

One of those disavantages is present even though you request a transfer to a branch which now recognizes Army aviators as full-time employees. *How many General Officer vacancies are available in one service?* Perhaps you've never allowed yourself to aim so high, and your ambition is solely to do a good job in aviation while earning a decent living for yourself and your family. The present service is the fourth military branch to attempt the control of Army aircraft. Will there be still more?

*"Maybe, but you once told me that the only way Army aviation could grow was for all concerned with it to come under a single head and work toward a common goal. Now, you seem to be saying that this is not possible. If we can't have our own branch, and we shouldn't attempt to transfer into one which already exists, what should we do?".*

What you, as an individual, should do to help yourself is one thing. What you can perhaps do to help Army aviation is something entirely separate. The problems which beset aviation are identical to those which face any endeavor:

- To develop a requirement,
- To fill the requirement, and
- To keep both equalized.

If our requirement is only to furnish transport for combat troops, then all we need do is develop a machine which can carry and then man it, and then maintain it.

If the requirement is increased, then the machine must have greater capabilities, the man must be more competent and the maintenance must be more complete. So far, our requirements continue to outstrip our ability to produce. The decision as to whether Army aviation is a service or a combat force has not been made, and we cannot afford to have it decided by default. It seems to be a question of whether the tail wags the dog, or vice versa. It is necessary that we work in the field for which we are best suited by training and inclination.

*"All right. I'm not a parts specialist and I want to be more than just a delivery man. Now what?"*

Now you hold up for a minute and take stock. No matter what your qualifications are as an aviator, they are not enough. You are convinced — as am I — that

*no* man can maintain combat efficiency in a specialty by practicing it during his spare time. You must change jobs. When? And to what?

You may wait until Career Management decides for you. This will invariably occur at the completion of one tour and the start of another. It will send you into strange surroundings and cause you to enter into competition with those who have little desire to help you prove yourself.

## The Green Pastures

Why not then take matters into your own hands? You are now among friends. You have probably flown the commander for whom you would like to serve. He, along with everyone else, is short of competent help and he would welcome you as a platoon commander, an assistant S-3, or a battery executive. Address your Form 1049 to the very top but deliver it to your G-1. You'll be on orders within a week. Should your request be disapproved somewhere up the line, it will only be because someone needs you more at something even better. Never happen!

Still think it's a raw deal — this business of being a grounded aviator — a victim of the two-way stretch? $30,000 worth of training set aside while you learn the workings of a firing battery — seems a terrific waste, doesn't it?

You look, young man. Who do you think is going to fly these thousands of aircraft used in the Army of the future? Among others, they'll be piloted by *commanders* and *staff officers*.

*THAT'S YOU!*

**AAAA Annual Meeting**
**August 7-8, 1960**
**AUSA Annual Meeting**
**August 8-10, 1960**
**Sheraton-Park Hotel**
**Washington, D.C.**

# HELICOPTER OPERATIONS IN ALGERIA

BY

MAJOR GENERAL
ERNEST F. EASTERBROOK

COMMANDING GENERAL
U.S. ARMY AVIATION CENTER
FORT RUCKER, ALABAMA

*HOW well can a helicopter survive in combat?*

There have been a number of pro and con discussions on this topic — all of them speculation — but the men who fly these machines are perhaps the most confident of all. Their faith in the helicopter was substantiated recently by an authoritative eyewitness who participated in the brush-fire Algerian fighting for three years. This is the first time armed helicopters and aerial troop carriers, as we know them today, participated in actual combat.

*Ren Pierpoint*, the European representative for Vertol, reported all helicopters passed the combat test with flying colors.

*Pierpoint* reported on brush type warfare alone. However, this is the very type we can expect to encounter. Significantly, he also reported on a phase that is important to any war—*and that is weather and terrain.*

The Algerian fighting was over both desert and mountains, wherever a rebel band was concentrated. The temperature was quite often 110 degrees and the altitude was sometimes 7,000 feet in the mountain operations. Still, the helicopters proved ideal for all phases of the operation.

*Mr. Pierpoint* was the first to admit one defect in the torrid, mountain area. He said *"the power of the helicopters under these conditions left something to be desired."* Since he was primarily referring to the troop-carrying American-made H-21's and H-34's in use by the French, it verifies our projected plans of switching to turbine-powered machinery.

## Three-Year Observations

The 3-year study *Mr. Pierpoint* conducted, as illustrated with slides, proved the helicopters to be the most feasible machines for suppressing the rebel activity in the terrain and wiping out the isolated rebel band activity.

He added, however, the helicopters were exposed to nothing larger than .30 caliber

# HELICOPTER OPERATIONS IN ALGERIA

firepower. These projectiles had little affect on the helicopter after *self-sealing fuel tanks* were installed. Before then, fuel tank vulnerability posed a problem and some 'copters went down in flames.

Projectiles fired through the rotor blades or striking other moving parts did not disable the aircraft to the extent that they could not return to home base. On rotor blade hits, a piece of tape was placed over the hole. When bullets went through the metal "skin" of the machine, they tumbled and lost penetrating power and failed to affect the moving parts.

The organizational set-up utilized and proven feasible in the fighting was remarkably similar to that under study by the Army and being developed at the Army Aviation Center.

According to *Pierpoint*, H-21's and H-34's were used for troop and supply movements, H-13's for reconnaissance and the French *Alouette* provided the firepower, supplemented by a rocket-equipped H-21. The *Alouette* is the counterpart of the American *HU1-A* which may soon join the ranks of the *Army Aerial Combat Reconnaissance Company*.

## Higher Altitudes Favored

One significant point brought out by *Pierpoint* is the fact that pilots discarded contour flying *in favor of higher altitudes*. This was done because ground fire posed little problem and the enemy lacked tracking devices such as radar.

The effort exerted by approximately 100 machines can be appreciated in the light of some 45,000 hours of flight time over desert and mountainous terrain. This flight time represents operational support missions of both a tactical and logistical

EASTERBROOK

PIERPOINT

nature. *Pierpoint* said the Algerian revolt proved that organic aviation pays off, but that it works more effectively when the troops are experienced in helicopter transport.

In his opinion, an efficient operation requires that the soldiers must:

*Be experienced so they can be landed under fire and be ready to kill upon debarking.*

*Unload in a hurry, because the 'copter is most vulnerable on the ground and usually lands the troops close to the enemy to expedite the engagement.*

*Seek cover rapidly out of the way of other 'copters landing troops in single file.*

*Set up firepower as soon as possible to suppress the enemy.*

*Establish their role before the landing, because orders are difficult to receive and give due to the noise.*

Inexperienced soldiers, *Pierpoint* said, either freeze or bunch up and act as if they're in a trance.

These facts were brought out when *Pierpoint* addressed a meeting of the *CENTER* and *COMBINED TEST ACTIVITIES CHAPTER* of AAAA here. He was introduced by *Lt.. Col. John W.. Oswalt*, head of the Combat Development Office.

*Major General Thomas F. Van Natta*, assistant chief of staff, G-2, for the European Command, who was visiting the Army Aviation Center, was a guest at the meeting.

# AIR MOUNTED RECON FOR THE NEW U.S. ARMY

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

If nuclear war comes, Army Aviation will have a role all its own. It has been given a number of short range, low-level assignments that will augment all activities of ground forces. In such an event, observation will become a more exacting job than ever before; no longer will there be large concentrations of forces and well defined battle areas. Bell helicopters, with their jack-in-the-box agility, will help the new Army maintain such observation over the constantly changing battlefield. They will gather and transmit information for locating, verifying and evaluating targets for artillery and guided missiles; for adjusting fire. They will seek out enemy forces and provide commanders with close-up reconnaissance of atomic blast areas. These are, of course, jobs of the most vital importance. The abilities of the Bell, as of all Army aircraft, may hold the key not only to the new Army's mobility, but to victory on atomic battlefields.

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# TOGETHERNESS

SINCE late October, all students receiving flight training at the *United States Army Primary Helicopter School* at Camp Wolters, Texas, are being trained in the new, Hiller *H-23D* helicopter. The *"D"* is an improved model of the Hiller helicopter, offering better visibility, a 250 H.P. engine as compared to 200 H. P. in the "B" and "C" models, and an additional 45 minutes of usable fuel supply over the older models. The last class to receive training in the "B" and "C" models, Officer Rotary Wing Aviator Class 59-C7, graduated on October 23rd.

As of the end of October USAPHS miitary, and Southern Airways civilian pilots, had flight-delivered 107 of the the new helicopters from the Hiller Aircraft factory at Palo Alto, California. When delivery is compete, 130 of the new aircraft will be located at Camp Wolters.

## Accident-Free Ferrying

The 1800-mile ferry flight, mostly over desert and mountainous terrain, has been made 19 times between June 1958 and October 1959. These flights were made *without accident or serious incident.*

Usually released at the Hiller factory in groups of five aircraft, the grueling return trip to Camp Wolters begins over some of the roughest terrain in the U. S. Overnight stops are generally made by each flight at *Bakersfield, Calif. Phoenix, Ariz.,* and *El Paso, Texas.* Average flying time per aircraft on this trip is 24:00 hours during the four-day flight.

The new model provides students with training in the latest operational rotary-wing observation aircraft available to Army aviation. The full utilization of the *"D"* model will also reduce the size of the fleet at Camp Wolters by approximately 24%. This can be accomplished through reduction in time required for maintenance, resulting in a higher availability of aircraft for training. A program is now in operation to fly all "B" and "C" models from Camp Wolters to depots for extended storage.

Does the *United States Army Primary Helicopter School* have another "first"? *Class* 60-2*A* of the Officer Rotary Wing Aviator Course has completed Phase I of their flight training *without losing a single member.*

*Class* 60-2*A* started the 16-week course of initial flight training on August 31st with 31 officers and finished on December 18th with the same 31 students that started training. This is a record of which the class may be, and is, extremely proud.

The School at Camp Wolters, Texas, started training warrant officer candidates in initial rotary wing flight training in January 1957 with the first class of all officer students starting in January 1959.

# No Washouts As A USAPHS Primary Class "Prays Together, Stays Together"

In the relatively short period of time the school has been in existence, 19 warrant officer and 6 officer rotary wing aviator classes have been graduated. *Class 60.2A* is the first of these 25 classes to graduate *all* of its members who started training. The average attrition rate for initial rotary wing classes has been approximately 30%.

## Reservist Sparks Class

One class member who deserves a greal deal of credit for the class spirit, which has contributed so much toward the success of the class, is *1st Lt. Charles M. Scott*, the Class Commander. *Lt. Scott* is a reserve officer on active duty for flight training. As a civilian, *Lt. Scott* is an Aeronautical Field Engineer, employed by the Sperry Gyroscope Company. Before returning to active duty for training, he was assigned to the 167th Ordance Company, Abbeville, Alabama. His previous active duty assignment was with the Division Artillery, 82nd Airborne Division. Two other class members on active duty for training are *2nd Lt. Richard J. Godwin*, Alabama National Guard, and *2nd Lt. Jac E. Elsea*, Indiana National Guard.

On January 4th, *Class 60.2A* reported to the Army Aviation School at Fort Rucker to begin Phase II of their flight training. We at Wolters feel sure that their esprit de corps and ability will carry them through their final 14 weeks at Fort Rucker as successfully as it has at Camp Wolters.

Shown in the Class 60-C2 graduation photo at the left are, front row, l. to r.: *Lts. Paul C. Parsons, Charles E. Ivey, William H. Brethour, Richard J. Godwin, Alan D. Eliason, Charles M. Scott, Jr., Jac E. Elsea, Paul B. Archibald, Ronald K. Ahrens, John M. Whiteside*, and *Lawrence E. Youngdoff.*

In the second row, left to right, are: *Lts. L. B. Harris, Jr., L. W. Bryan, Robert D. Price, Kenneth C. Eaton, William H. Scanlan, Rex M. Turner, Melvin H. Voos, John B. Robertson, Ormand K. Moore*, and *Leon R. Hansen.*

Pictured in the third row are: *Lts. N. T. Harris, III, Darryl D. Peters, Harold T. Bowling, Henry R. Saufley, Earl J. Jernigan, Walter L. P. Wisbowski, Robert S. Powell, Allen L. Johnsen, Harold D. Zumbro*, and *Richard J. Hagemeier.* (U.S. Army photo).

By
Lt. Colonel
John L. Briggs
Deputy
Commandant,
USAPHS

# Close Teamwork Aids ROK Signal Unit

Prior to the onset of winter, U.S. and ROK military authorities participated in an airlift mission in Julla-namdo Province, Korea, that reflected the highest example of what close teamwork can accomplish.

Operating from atop a 4,000-foot mountain, an ROK communications unit faced isolation, difficult rotation of personnel, and a Korean winter in temporary quarters.

## Eighth Army Pitches In

Coordinating with *Eighth U.S. Army*, ROK authorities received the support of a *6th Transportation Company Shawnee* and crew. Some 135 tons of construction materials were airlifted in 180, twenty-five minute trips to the relay station in 1,500-2,000 pound payload missions.

Working through holidays and weekends the Army crews hastened the pre-winter construction of a permanent communications site and materially assisted in the provision of modern facilities for a vital part of the communications system of the ROK Army.

**Plant Visit**

**Discussing Army aviation during his recent visit to the Aero Commander factory, Aero Design & Engineering Co., Oklahoma City., is Brig. Gen. Clifton F. von Kann (left), Director of Army Aviation. Julian Prade (center), Vice President of Military Relations, and Thomas J. Harris, Vice President of Sales, were on hand to brief the Director on the Oklahoma company.**


**Tight Squeeze**

**That one hand washes the other is known to an unfortunate Navy HSS-1 crew that experienced a recent forced landing on a tiny sandbar in the Florida Keys, ten miles out to sea. Through rapid coordination a Lawson Army Airfield Command H-37 sped from Fort Benning to Sand Key and made a hovering "lift" on finding the sand bar too small for a landing. The "end of mission" phase is shown in the photo.**

## Unit Receives "Well Done"

Cited by *U.S. Army Advisory Group* authorities for their high degree of efficiency in accomplishing the mission, the *6th Transportation Helicopter Company* crews also flew one mission to pick up two injured ROK aviators and transport them to the hospital, and another mission to bring their damaged aircraft back to K-7 airstrip.

Participating in the missions were *CWOs James F. Cain, Harry M. Campbell,* and *Henry Singer;* and crew chiefs *SFC Lelvin Rushing, Sp/6 Alex C. Bowie,* and *Sp/5 Robert E. Jewell.* The *6th* is under the command of *Capt. James K. Bush.*

## VTOL'S MOST MATURED CONCEPT: **THE TILT WING**

Seven years of Hiller tilt wing design study, operations analyses, and successful wind tunnel programs have continued to verify the tilt wing as the most predictable and uniformly dependable approach to higher speed VTOL.

Hiller's veteran tilt wing engineering and manufacturing team, first in industry to undertake tilt wing contracts, and having completed the majority of industry studies in the field, remain avowed champions of this VTOL approach. Their experience continues to insist that operationally practical tilt wing aircraft, large and small, are ready to satisfy the urgent military and commercial need for VTOL.

Destined to provide the most comprehensive volume of flight test data is the U. S. Air Force X-18, world's largest VTOL project. The X-18 is currently undergoing flight testing at Edwards Air Force Base, Calif.

*Designs are one thing. Deliveries another. Both come from*

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Adhesive Engineering Division
San Carlos, California

# USAREUR REPORT

**by Col. Warren R. Williams**

ON November 27th the *HEIDELBERG-MANNHEIM CHAPTER* of AAAA held a regular quarterly meeting. Unfortunately, the bad weather precluded most of the non-Heidelberg members attending. Karlsruhe was represented, however, by *Captain Shively* who can be counted on to be present at the meetings, if possible. *Mr. Fred Doblhoff* of Vertol was the guest speaker. His presentation on helicopter design advancements was extremely interesting. It was decided that our next meeting would be held at Karlsruhe. This should assure us more representation from that area.

* * *

December 12th was a big evening for officers of the *Seventh Army Aviation Group. Colonel Art Ries* and a large number of his officers celebrated the first birthday of the only Army Aviation Group at the Heidelberg Officers Club. Distinguished guests were *Lt. General Adams*, CG, V Corps, and *Maj. General Sherburne*, CG, Seventh Army Support Command. *Maj. General Van Natta* attended for a short period but was not able to stay due to other commitments.

It was a pleasure to see many of the pilots and other officers who have made such an admirable record for the first Aviation Group of the US Army. *General Adams* congratulated the *Group* on its anniversary and on the *"professionalism"* which its personnel have displayed. I'm certain his compliments made the others present also feel that the Army aviators' efforts are succeeding in gaining recognition of Army aviation's place in the Army.

* * *

Present plans call for the annual, *big*, winter USAREUR AAAA meeting to be held at Garmisch 18-20. February 1960. Individual flyers are being sent to *all* USAREUR pilots. We figure that those who aren't members can sign their application blanks after they arrive. The *STUTTGART CHAPTER* of AAAA is sponsoring the meeting with the 8th Helicopter Battalion, under *Lt. Colonel Rowan Alexander*, taking care of the hard work in connection with arrangements.

* * *

The ground hit one of our L-23's pretty hard last month. The pilot crossed the beacon inbound, couldn't see the field in the fog, reached over to pick up the gear for a missed approach, and found himself sliding along in a plowed field. Very fortunately, neither he nor the three passengers were injured other than one slightly bumped nose for a passenger who was leaning on the rear of the front seat when they hit.

The plane was a "scratch." It appears that the plane passed between some high tension wires before it hit the ground. Anyone who has been into Heidelberg knows about those.

* * *

There is an interesting article in the October issue of INFANTRY on the pro and con of a separate Army aviation branch. I must agree with the con — a separate branch isn't the answer, but we certainly have some painful problems with the present set up. We hear complaints now about lack of consideration of certain requirements in the development of Army aviation. Put it all in an Aviation branch, and the complaints would be even greater.

Maybe the New Year will bring us an answer to some of our Army Aviation problems. Whether it does or not, I'd like to take this opportunity to pass on to all readers my best wishes for the coming year.


## "DID YOU SAY ALL-MECHANICAL?"

## ON TOUR WITH CESSNA'S NEW MINIMUM-MAINTENANCE HELICOPTER: CH-IC

Time: Midway in CH-IC cross-country demonstration tour. Place: High above military air base in Southwest. The pilot, demonstrating and explaining the CH-IC's high stability, was suddenly interrupted. "Did you say *all-mechanical?*" He did, and that is the wonder of this uncommon new aircraft: Free from the complexities and uncertainties that characterize traditional electronic stabilization systems, the CH-IC delivers stability with economy-of-maintenance and dependability until now unknown in hellicopter history.

CESSNA

**Military Division**

CESSNA MILITARY FLEET

## Maintenance "Hep" Shown In H-34 Forced Landing

Recently we had an incident with one of our 91*st Transportation Company* helicopters that I think AA readers should know about.

During a return trip from Ft. Bliss, Texas, to Fort Campbell two alert pilots, CWO Orlando Anzalotta and WO Harry Le Monte, Jr., made a safe emergency landing on a farm 6 miles southwest of Colt, Ark., due to a complete loss of transmission oil pressure in their H-34 *"Choctaw."*

Upon landing, the pilots immediately notified the operations section of the 91*st Trans Co* at Campbell. With the help of the G-3 section an *Air Force* C-123 was secured to transport a new transmission to the *Naval Base* at Memphis, Tenn. From this point the *Navy* transported the transmission to the landing site by truck.

Under adverse weather conditions and with a minimum amount of tools and equipment, personnel of the 91*st Trans Co* and the 329*th Trans Det* (CHFM) under the supervision of *Capt. Dean C. Wesner* from the 91*st* and *CWO Joseph R. Connor* from the 329*th* changed the entire transmission and rotor head in sixty-eight man hours.

**End of Search**

Visibly shaken, a 3½-year-old Papago Indian boy is comforted by Randolph R. Aros, Bureau of Indian Affairs (left) and PFC L.D. Headby, a crew-member of one of the four 416th Signal Aviation Company helicopters that searched for him on the mesquite covered desert near Sells, Arizona. The boy and his pooch zigzagged some 15 miles from the point where he was first lost, Capt. John A. Reinhardt initially spotted the dog running about in a clearing. (U.S. Army photo).

**To Laos**

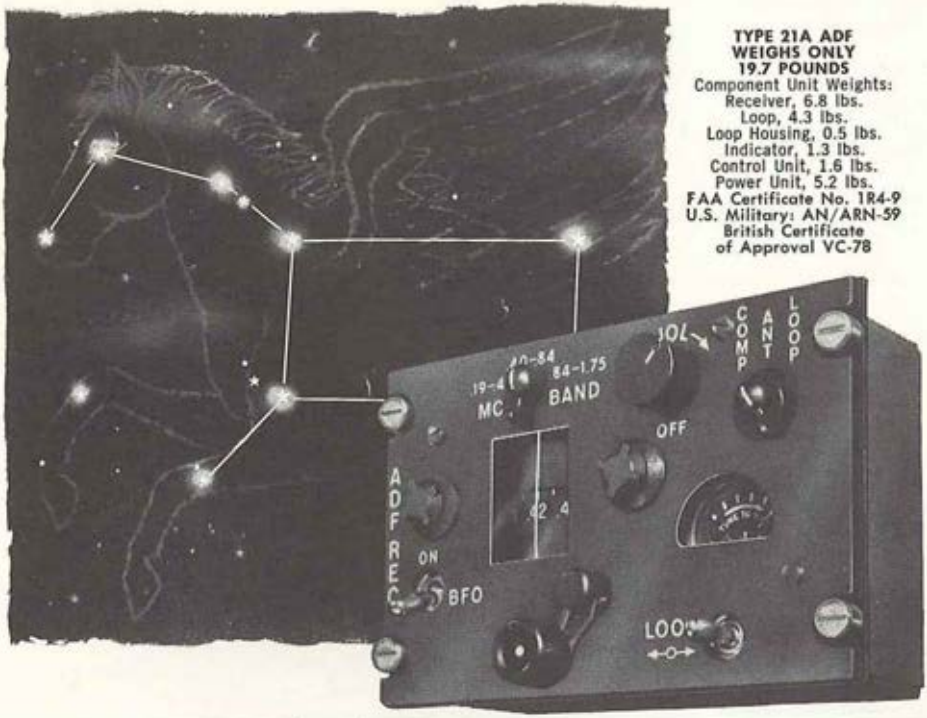
Piper Apache N3277P is blessed by the Very Reverend Paul J. Reinert, president of St. Louis University, prior to the flight of the aircraft from St. Louis to Laos where it will be used by Dr. Thomas Dooley. A gift of the people of St. Louis, 77 Papa was co-piloted via the Azores to Laos by Jerry Euster, pilot (left) and CWO Marvin V. Wingrove, TMC, St. Louis, Mo. (US Army photo)

### Fine Performance Cited

To fully realize the fine performance turned in by the maintenance personnel on the job, we compare the 68 man hours required with the accepted garrison average time for the same job of seventy-two man hours. Upon completion of the installation, *Capt. Wesner* and *CWO Connor* flew the helicopter back to Fort Campbell.

In addition to *Capt. Wesner* and *CWO Connor* other members of the maintenance crew were *Sp/5 Ernest Harrison, Sp/4 Raymond Stockman,* and *Pfc Joseph R. O'Brien.*

—WO Lawrence J. Gutman

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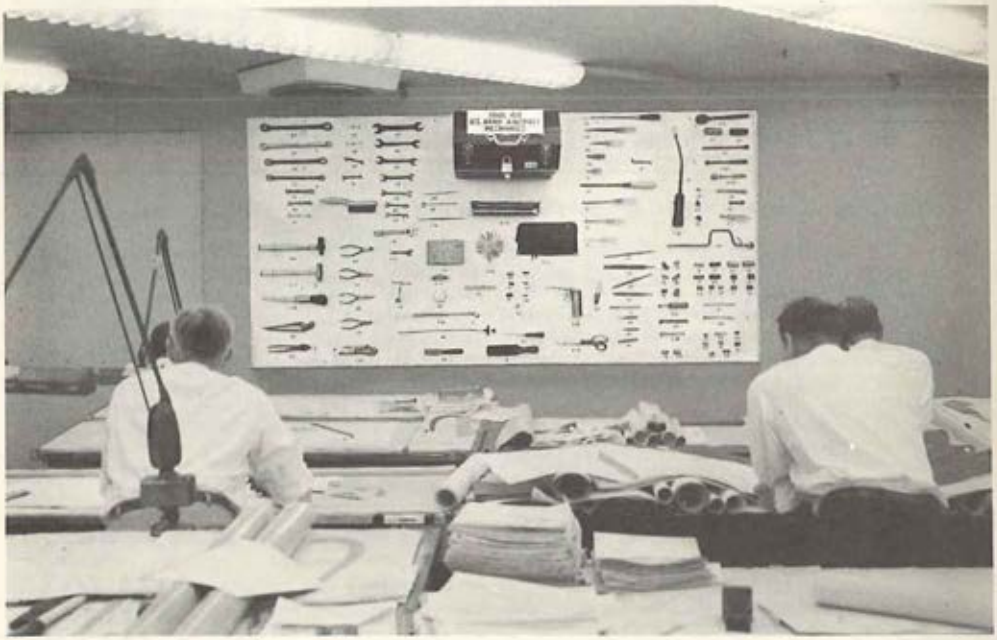
## The Campaign Against Special Tools

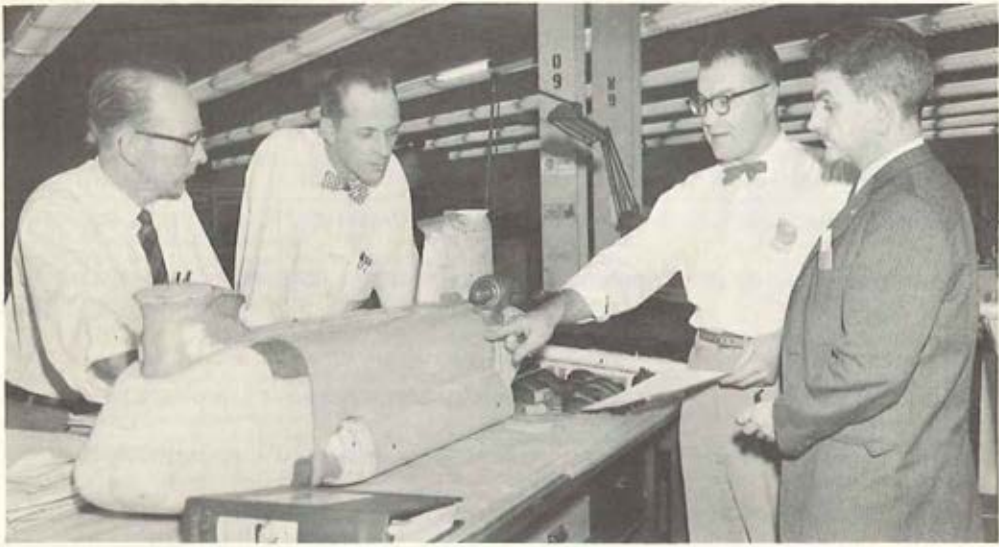
In this picture you see the standard Army mechanics' tool box—at the head of the class—as a reminder to Chinook designers.

Also . . . the handbook at every designer's elbow compresses maintenance design criteria from experience gained in building over 1000 helicopters and flying them over 1 million hours.



# SUMMARY

December, 1959



## Service Engineers Add Their Field Experience to Chinook Design

A five-man team of Service Representatives spend full time working directly with the Chinook designers. These five men represent 46 years of experience maintaining helicopters and over 80 years total experience maintaining aircraft of all kinds.

In the first few months they made over 90 specific design recommendations on the Chinook and 20 maintenance improvements to the engine manufacturer—the location and size of steps, work platforms and access panels; fluid level sight gages; maintenance davits and cargo hook ideas.

Here is a quote from one of their reports to management:

**"ROTOR BLADE REMOVAL**

Sketches of a tapered vertical pin have been made . . . it would appear that this pin will be much easier to install and remove than the original pin. Also being incorporated are square holes in the pin cap nuts . . . The square hole will permit use of a standard ¾-inch drive wrench and will eliminate the need for a special tool . . ."

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## AA's Join Vertol

With the formation of a new group within its Government Operations Division, Vertol Aircraft Corporation announced the recent appointment of three former senior Army Aviators to its organization. Forming the nucleus of this group will be B. A. Bache (left), Manager of Program Evaluation; and Sylvester McClain (center) and Ralph Warren (right), Military Relations Administrators. James N. Davis, Vice President—Government Operations, announced that the new group will devote its attention to air mobile combat and logistics systems in developing new concepts for VTOL use.

## "Nothing New To Me"

A former MATS stewardess and the wife of helicopter student Lt. Robert D. Stachel, Mrs. Joyce Stachel is no newcomer to aviation. The first woman member of the Camp Wolters Flying Club to make a solo flight, Mrs. Stachel is shown receiving her 'solo" wings from club president, Charles E. Arnold. Nine women are presently enrolled in the 60-member flying club, according to Arnold. (U.S. Army photo)

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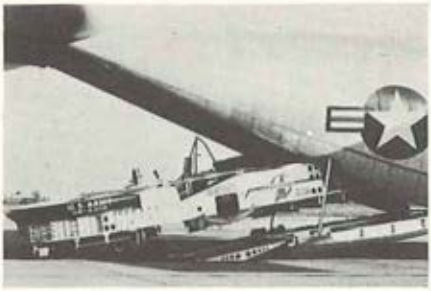
## Man of the Year

A genial Kris Kringle is shown greeting some 35 orphans from Heidelberg's St. Paulusheim Orphanage after his arrival from the North Pole by Army helicopter. An annual event sponsored by Heidelberg Army Airfield personnel, the Christmas Party included a trip "down-town" for gift pairs of shoes, presents of candy and individual clothing, and festivities, refreshments, and movies. Also shown greeting Santa above are, Maj. Carl A. Colozzi, USAREUR Flt Det Commander (left), and Capt. Bernard O. Withrow, project officer for the 7th Annual Party. (US Army photo).



## Army VZ-8P Stowability

Shown being wheeled into the cargo compartment of an Air Force C-130 transport plane, the Piasecki "Aerial Jeep" demonstrates its stowability by making an easy ramp entry with inches to spare on each side. The loading of the wingless aircraft into the 10-foot wide cargo hold did not require the folding of any component of the "aerial jeep," the entire roll-in-and-close-door operation taking only four minutes. Piasecki recently announced the receipt of an Army contract to build a higher-performance "jeep."

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USAREUR's 24th Aviation Company rolled out the red carpet for German orphans at a Christmas Party. The scenes below indicate that the party was a huge success.

# Splinters from the Board

THIS article completes the 1959 coverage of the testing activities of the Board. This series of articles was initiated to keep "AA" readers abreast of the latest Board activities and although the test results are "For Official Use Only," WHAT is being tested was felt to be of significant interest. During 1959, 65 projects were initiated; 46 projects were completed; 7 projects were cancelled; and 42 projects are on the books going into 1960.

## Aircraft Branch

The *Aircraft Branch* has initiated testing on two new projects—*Ground-Fire Suppression Kits* and *External Loading of Helicopters Using Infrared (IR) Illumination.*

*Ground-Fire Suppression Kits* (pictured) have been installed on an H-13 and H-21 helicopter to determine hardware suitability, sustained effective area fire capability, and effects on aircraft performance. The kit uses an M-37 caliber 30 machine gun. The gun is flexible in elevation (Plus 10° - minus 45°) and traverse (30° right and left of center) and is remotely controlled by cables from the cockpit. A simple reflex sight, mounted in the cockpit, is used by an observer-gunner, or the pilot can fire the weapon but only when it is locked in the forward position. The kit weighs 150 pounds.

Installed on the H-21 with a 1500 round capacity and on the H-13 with a 750 round capacity the total weights are 250 pounds and 200 pounds respectively. The tactical concept is that the weapons are intended primarily as a deterrent to anti-helicopter ground fire during times of high vulnerability such as landing and reconnaissance in forward areas.

For sometime the Board has been interested in developing techniques and procedures for external loading of helicopters during the hours of darkness under blackout conditions. Loading operations using various visible light intensities and patterns have been evaluated and now the utilization of IR is being re-examined using the H-21, H-34, H-37-, and HU-1A. The IR source is the helicopter searchlight fitted with an IR filter. In operation the landing area illuminated with IR can be viewed with special binoculars mounted on the crash helmet (pictured).

**BY CAPTAIN JAMES I. SCOTT**
**U.S. Army Aviation Board**

## Equipment Branch

The *Equipment Branch* initiated testing on five projects. One which has received considerable advance publicity is the *SS-11 wire-guided anti-tank missile* mounted on the HU-1. Manufactured by the French and used by them in North Africa, this missile can be "flown" by the gunner to a point target. Currently, Board project personnel are working with Ordnance personnel at Redstone Arsenal during the engineering test phase, after which the missile will be service tested at Fort Rucker.

The *Air Traffic Control Set, AN/TSW-1 (XC-2)* (pictured) is being tested to determine its suitability for use at major (instrumented) tactical Army airfields. The set consists essentially of a visual control shelter with VHF, UHF, and FM radios, control and measuring devices; and, a radio equipped radar shelter with provision for a radar indicator console. The shelters can be operated in an individual or stacked configuration and equipment is provided to either heat or air condition as required. The set is a *Signal Corps Expedited Development Program (EDP)* item and as such must be tested within a 90 day period. Of the two sets received one will be tested at Fort Benning, Georgia, while the other will be tested at fixed and stage airfields at Fort Rucker.

Although not an EDP item, the *RTA-45 UHF Radio Set* was given a 30 day expedited evaluation to determine its suitability as a replacement for the *AN/ARC-60 radio* in the TL-19D. The new AM radio covers a UHF range of 225.0 to 399.9 mc and permits instantaneous selection of any one of 12 preset operating channels from a total of 1750 crystal-controlled channels. It weighs about 33 pounds and has an average transmitter power output of two watts, as contrasted with a 29 pound weight and a .5 watt output for the *ARC-60*.

## Pathfinder Beacon Light

In conjunction with the *Airborne and Electronics Board*, a user test was performed on a portable *Pathfinder Beacon Light* to evaluate its use as a terminal navigation aid to Army aircraft, in addition to using it as an aid for assembly of troops during night operations. The beacon can emit white and colored light continuously or coded from a mast heigtht of up to 23 feet. The beacon was tested in the field under varying conditions of visibility, color and emission frequency, range, and aircraft altitude.

## Flame Dampeners

The Board sometime ago recommended that *flame dampers* for tactical aircraft be

provided for evaluation. This recommendation was made based on an H-34 flame damper installation evaluation, the results of which indicated that the security of night missions would be enhanced if the exhaust flame visibility was limited. Now under test is a prototype installation *Exhaust Flame Damper for the L-20A*. It is designed to be interchangeable with the standard exhaust stack and limits the exhaust flame visibility to 300 feet. Verification of design criteria, effect on aircraft engine and performance, and feasibility of retrofit are some of the items to be considered during test.

Eight projects, described either in this or previous articles, have completed testing during November and December. The *Aircraft Branch* completed testing of the *Target Marking System* which launches subcaliber aircraft rockets to mark targets for close support aircraft and ground weapons. The *Instrument Branch* completed testing of *ASE for the H-37*. The *Equipment Branch* completed testing on the *Fire Trucks 530B with Conversion Set* and *Class* 1500, *155-A UHF Direction-Finder Set, Maintenance Workstands, RTA-45 UHF Radio Set,* and the *Pathfinder Beacon Light.*

## A Look Ahead

A quick look at the Project Status Board indicates that the following items are soon to be tested: a *modified H-13H* incorporating 23 product improvements; the *AN/TPN-8*, an air traffic control and landing approach radar developed primarily for tactical use; and, a *POL Filter/Separator* designed to combat the continuous fuel contaminant problem now compounded by the JP fuels.

April 1960 appears to be the arrival date for service test of the twin turbo-prop *AO-1AF (Mohawk)*. Board personnel are now attending the manufacturer's service school.

## Sikorsky HSS-2 Completes Accelerated Flight Test

A Navy *Sikorsky HSS-2* helicopter recently completed a 50-hour endurance test as part of the *HSS-2* accelerated flight test program. The test was completed in a small fraction of the time allotted.

*Everett W. Delaney,* project engineer, said the test was completed in seven consecutive days of flying. Flight hours ranged from five and one-half to 11 hours a day and included night flying.

*"This represents a major step in the development of the Navy's latest anti-submarine helicopter,"* Mr. Delaney said, *"and is significant in that the test was completed in only* 16 *percent of the time allowed."*

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## SAD TALE

LARGE PUBLISHERS: microfilm, punch cards, highly paid circulation personnel. RESULT: Few (if any) lost subscription applications. SMALL PUBLISHER: new subscribers' names and addresses on perforated, gummed sheets of stickers, constant "overload" condition. RESULT: contract typing of stencils by secretarial service. PUBLISHER: Falling behind —drives completed "subscriber" sheets to secretarial service. SHEETS: Placed on front seat of car FAMILY POOCH: Sees car, chases it. RESULT: Publisher opens car door; pooch gets in.

THOUGHT: "There's super market, need a few items, stop!" SUPER MARKET SIGN: "No dogs allowed!" RESULT: Dog and sheets remain in car. SHOPPING DONE: "Few items" reach usual $30.00 tab; car door opened, some sight. SHEETS: De-perforated, torn, on floor and car seat. POOCH: Gum labels on mouth and in mouth. RESULT: long moan. LATER: Another long moan (editor).

HASTY CHECK: "Any carbon copies?" ANSWER: "Normally, yes; this time, no." END RESULT: Publisher and pooch share doghouse, get silent treatment. Three new subscribers "eaten" and will not get their issues. You?

**TC Investigating:**

# EJECTION SEATS

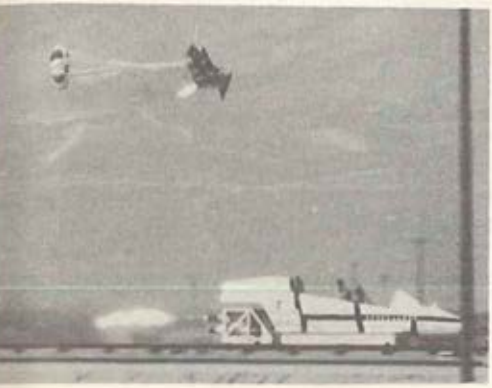
**BY MAJOR GENERAL RICHARD D. MEYER**

*Deputy Chief of Transportation of Aviation*
*Office, Chief of Transportation*

WITH the advent of certain type new aircraft in the present and future Army aviation program, a means of rapid crew escape becomes necessary. Our Aeronautical Engineers are currently investigating means to provide *a zero ground speed and zero altitude escape capability.* When such a system is developed the pilots of flying platforms, aerial jeeps, and other VTOL/STOL aircraft will have a greater probability of escaping from these aircraft when a crash or other emergency is imminent.

This system will provide for a standard light weight seat which will be retained by the pilot during parachute descent *with* his survival gear along with a rapid opening chute. It now appears possible that with some of the new materials under consideration a light weight seat can be designed with little or no weight penalty over existing seat installations.

In this connection the Army Quartermaster Corps has already developed a quick opening chute which has been successfully tested at the *Naval Parachute Test Facility,* El Centro, California. This



chute is deployed by an explosive cartridge. The seat is fired from the aircraft by a small catapult-rocket with force adequate to provide sufficient altitude for the chute to open safely.

Since most of the aircraft in the present Army inventory are of the "low-slow" type, not too much interest was developed over the past few years in any other means of escape than that which was employed during World War II. However, with the new developments now going on in the Army Aviation Program, new emphasis will have to be placed on adequate crew safety compatible with other developments in Army aviation. The *Mohawk* is the first aircraft to enter inventory with an ejection seat, but utilizes a much heavier version of a seat developed some time ago by the Navy.

The photographs show a typical current production rocket catapult type system which has demonstrated excellent potential for saving the lives of aircraft crew members at ground level recovery conditions. An existing system has in recent months successfully recovered two crew members both of whom ejected at altitudes of approximately 40 and 15 ft.

In view of the equipment already developed, Army aviators can be assured of maximum safety protection when flying under all aviation mission situations in our aircraft of the future. In the future, we hope to provide the same safety without penalty in weight or maintenance.

## PHOTOS AT LEFT

■ The opposite page photo shows a high speed sled with a pilot and the cockpit canopy having just been ejected by the rocket charge. The co-pilot is still shown in the sled.

■ In the strip photos on this page the top photo shows the co-pilot just after being ejected. The pilot's chute (left) is deploying. In the middle photo the pilot chute has just deployed to stabilize the co-pilot while the bottom photo shows a full deployment of the chute and the beginning of the descent. All photos courtesy of North American Aviation Inc., Columbus Division.

# Repair and Overhaul Kits

**by Maj Gen. Richard D. Meyer**

DURING the coming year, an increasing number of repair and overhaul kits will be added to the Army Aviation supply system. Although most of them have been developed for fourth and fifth echelon use, some will be available to *all* echelons of maintenance.

A preliminary study has indicated that more than 700 accessories or components lend themselves to repair or overhaul by use of a kit. For these, over 300 kits have already been established as items of supply, and the components are being procured for assembly into kits. The balance are scheduled to be established as items of supply by late 1960 or early 1961.

Use of kits promises *definite advantages* to the user as well as to the Army supply system.

Perhaps the most significant advantage to the user is the *reduction* in the number of line items he must stock account for and requisition, and the *assurance* of the availability of all necessary parts when a repair job is undertaken.

And, since every kit will contain complete instructions for the repair or overhaul to be accomplished, mechanics who are not fully experienced will be able to accomplish the job without extensive reference to other maintenance instructions. Production and quality control will thus be facilitated, and repair and overhaul turnaround time will be reduced.

## Many Benefits Expected

The Army supply system, as a whole, will benefit from the kit program by reduced packaging costs, reduced handling costs, and a significant reduction in the number of requisitions required to maintain supplies at unit and field level.

Actually, costs for individual procurement and handling of many small items are often greater than the initial cost of the item. By packaging all of the low cost, high replacement factor items in a kit, separate stocks of thousands of individual items

# A "THINK" PIECE

*THIS thought-provoking answer to a recent comment of mine was a welcome evidence that this column does occasionally stir a reader to reply. In turn, I have been moved to act on it:*

Sir:

Your article, *"The Army Flying Hour Program,"* in the November issue of *ARMY AVIATION* was read with much interest and enthusiasm.

The area of forecasting requirements based upon the flying hour program at the lowest echelon has been foremost in my capacity as a Supply Control and Requirements Officer.

As Theater Supply Control Officer in Korea this theory of programming time change components based upon the actual flying hour program was placed in effect in both the Transportation 6th and 13th Helicopter Companies.

Each company was required to program time change removals for a year in advance to the *Transportation Supply Management Agency*. This forecast further included a percentage failure rate based upon past experience. This procedure was particularly favorable in areas of time change components critical to the supply system in that requirements were not pyramided in requisition objectives. Time change components, barring failures, when removed and replaced upon aircraft normally are not re-

will be eliminated from the Army inventory.

Likewise, a reduction will be made in the cost of individually procuring, receiving, warehousing, issuing, expediting, forwarding, repacking, accounting, and managing of low-cost, high-usage items.

The kits which are being introduced into the supply system are designed to accomplish repairs on about 85% of the components and accessories authorized for repair at the echelon to which the kit applies. Accessory or assembly components which cannot be repaired by use of the kit will be sent to *higher* echelons for more extensive repair or overhaul.

When an overhaul or repair is made by use of a kit, all of the component parts of the kit are to be used during overhaul, and those items which are replaced by the components of the kit are to be *scrapped*. Since almost all of the component parts of the kits are very small dollar value items, it will generally be less expensive to the Army supply system to dispose of these parts than to attempt to return them to depots for reassemby into additional kits.

An additional feature of this program is

# Repair and Overhaul Kits

**by Maj Gen. Richard D. Meyer**

a plan to furnish overhaul kits to component repair contractors to reduce their problem in obtaining parts. Overhaul kits will now be furnished to the contractor simultaneously with the in-put of the unserviceable components. Consequently, eliminating the necessity for administering and obtaining repair and overhaul parts can somewhat reduce contractual costs along with the time expensive components are tied up in the repair cycle.

Determinations of the need for kits have been made for the most part by maintenance engineering personnel on the basis of field recommendations. It may well be that the establishment of additional kits will be desirable, and we should like to invite recommendations from all users. Send them to the *Commanding General, U.S. Army Transportation Materiel Command, St. Louis 2, Mo.*

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quired for considerable periods of time as specified in the -6 handbook.

Therefore, to prevent over procurement on high dollar value items, it becomes mandatory that time change components be ordered on a known replacement schedule and not upon a computed requisition objective based upon three demands in three hundred sixty days.

Before an adequate replacement schedule, based upon the present -6 *handbooks*, can be realized, *Life Expectancy Tables* must be developed on *Time Change Components*. Further, these tables must be published and where time removals are indicated at considerably less hours than published in the maintenance manuals, time replacements in the 6 *handbook* must be revised accordingly, e.g., *TMC Supply Letter* 47-59 dated 10 July 1959 reflects that Engine Life Expectancy for FY 60 on the L-19 engine to be 660 hours; however, the -6 *handbook* indicates that time removal will be at 1400 hours. This wide variance of actual removals versus programmed removals has to be resolved before adequate forecasting by the field can be accomplished.

In this area of time change components, it has been my contention that the furnishing of items 100% of the time as required by the requesting unit will make available aircraft in a flyable status approximately 80% of the time.

Approximately one-fourth of the total replacement cost of aircraft (H-13 and

# A "THINK" PIECE

**by Maj. Gen. Richard D. Meyer**

L-20) are represented in time change components. In the aircraft (H-23D and H-19D) approximately one-third of the total cost of the aircraft is reflected in time change components. The cost of the high dollar value items as time change components precludes them from being stocked below depot level. Fast communications, fast delivery, and planned replacement requirements are indicated.

## Effects Upon Supply System

The policy of computing requisitioning objectives on time change components based upon three demands in three hundred sixty days has the following effects upon the supply system:

- It inflates the dollar valuation of the requisitioning objective in the *Financial Inventory Reports.*
- On critical items it creates large dollar values of due-in's on station financial reports which in all probability will never be filled or actually needed for extended periods of time.
- On critical items it loses national assets to Army Areas and Overseas Commands where an immediate need is not required.
- The National Inventory Control Point loses the ability to effect lateral distribution.

## Experience in Korea

To effect adequate information on developing forecast of requirements to supporting echelons, a method of furnishing supply officers with time removals of major components must be devised. In Korea the system utilized and developed by the Transportation Supply Management Agency on Engines was to provide the Supply Control Officer a copy of the 1352 Report annotated with the accumulated hours on installed engines.

Based upon the actual flying hours per month per type aircraft, engines were requisitioned upon the national inventory control point designating the required date by aircraft serial number. Although this system worked well in Korea, it became readily recognizable that in areas of critical engines, e.g., the H-21, a minimum stockage had to be attained based upon a failure rate to preclude extended periods of down-time. Efforts were made to secure this minimum stockage but national shortages prohibited it. However, this programming did enhance and increase the available flying hours on the H-21 helicopter to the 6th and 13th Companies.

## Data Processing May Help

To facilitate adequate and timely reporting of the present flying hour status report (*DA Form* 1352) and the related hours on time change components, it is envisioned that a feasability study should be performed to determine the capability of present automatic data processing systems to provide required statistics.

Present personnel reporting requirements are now accomplished under present EAM procedures in card format. Accumulated flying hours per serially numbered aircraft can likewise be transmitted in card format through command channels as required. Further, accumulated hours on time change components can be submitted through logistic channels on high dollar value items (time change components) for the purposes of programming at all levels.

Respectfully yours,

EVERETT G. TURNEY
Captain, TC

# MIKE BUTTON

By WILLIAM D. BICKHAM, TMC, ST. LOUIS, MO.

## NEW REG

Last issue old Mike, in his *"Thought for the Month"*, asked you not to let those UERs (468s) slide by when you know a discrepancy exists, have fixed it locally, or need advice on how to fix it.

Well, since Mike's column is written in advance, I did not know that *AR* 700-41, 5 Aug. 59, was printed and changed the picture for UERing *TC air items.*

*"Links"* are considered as air items by *TMC* and we want you to treat them as you would a flying machine when you report an unsatisfactory condition. You do this with a new *DD Form* 1275 (*Unsatisfactory Report*) August 1959 — note name change, too — instead of the 468 like *AR* 700-38 states. This new form, as you can see, is to be used Department of Defense wide and it will be utilized like it says in *AR* 700-41 when you want get the poop.

Now get with the new *Reg* 700-41 and check it out thoroughly so you'll know just when it should be filled in and to whom it goes for action when completed.

Old Mike just noticed that the regulation tells 3rd to send the finalized original of the *DD Form* 1275 to our old designation, so, change your copy to read: *US Army Transportation Material Comamnd, P. O. Box* 209, *Main Office, St Louis* 66, *Missouri, ATTN: TCMAC-E.*

## GET TO THE ROOT OF IT

Don't get hooked!

There have been two very similar incidents recently in which pilots did get hooked with *Sioux* skids; one did not come out so good, the other did, with quick thinking and the right technique. If you are required to "sit down" on a soft spot or on *PSP* (*Pierced Steel Planking*) watch out for hooking the heel of the skid under a snag like a tree root or on one of the rods which holds the PSP down.

A good technique, which has been presented to *CONARC* for approval to add to the dash one, is; "just to take-off from soft areas"—might add *PSP* too— "skid the *Sioux* forward a little before lifting to a hover." Also, always try to take-off vertical and watch that backward drift on take-off.

## FSN FOR CRYSTAL BALLS?

Hy, anybody got a Fed Stock Number for Balls, Crystal, Prognosis, Mk IV, out there any place? No? We don't neither! But from the looks of the TWXs from field activities, when *supplementary crash facts* are being forwarded, you'd think we know *all about what* happened.

'Taint so.

The only way we can process these *crash facts messages* and get the information correctly disseminated to affected activities with the necessary corrective action, is: Be sure that when these supplemental messages are sent, you make a specific point to reference the original message and include the series as well as the serial number of the aircraft involved.

# MIKE BUTTON

## NEW YEAR RESOLUTION

*"Try to do a better job for our customers during* 1960."

Comes New Year's Day, *SCAMP* will go out with 1959 and *IROAN* (*Inspect and Repair Only as Necessary*) will be rung in for 1960. *Change* 1 to *TB AVN* 23-8 changes the concept from a time cycle to one of *Condition*.

As everybody knows the SCAMP took too long, so after a few pros & cons TMC took a long breath and look at the flow time and we have hit upon a better program. Under the SCAMP deal we were sending the aircraft in too often, so now, we are going to let the *Condition* of the aircraft dictate what's required of depot maintenance.

The mechanics of this *IROAN* program, effective 1 January 1960, will be:

*First,* the Organizational Maintenance Officer takes a good look at his airplanes and picks out those he feels should be IROANed, keeping in mind, of course, that he'll lose the aircraft because he must transfer the accountability to us here at *TMC.*

*Second,* he makes the decision to get rid of the "dog," instead of maintaining it.

*Third,* he contacts the the general depot which supports him and they get their inspection teams working to get all the information needed to fill in the *DA Form* 598 (*Dispostion of Army Aircraft*); e.g. work required, modifications not performed, accessories needing replacing, an estimate of manhours, and any known material which will be needed.

*Fourth,* the general depot sends this info together with the accountability transfer to us here at *TMC, ATTN: TCMAC-FA.*

*Fifth and last, TMC* has the "ball" for getting it repaired, and when finished, reassigned to a unit having a priority for that particular type of machine.

No, you did not get shafted! Take a look at *AR* 725-14, 26 October 1959, *"Maintenance Float Aircraft."* This regulation gives all the gin for getting another "bird," together with the exceptions and the abnormal situations which always crop up.

Questions? *"What happens to the Inventory Flying Time and Status Report," DA Form* 1352? It's out the window, remember you transferred the accountability, remember?

We hope this *IROAN* is precisely what *you* want; if not, let us know, we are always open to good constructive criticism.

## SIOUX/RAVEN DOORS

While on the subject of discrepancies, we have had no indications that the door assemblies of these 2 helicopters are giving the field such a bad time. What's happening??? Premature failure? We'd like to known about it 'cause these doors should remain in service for the life of the helicopter — all things being equal.

But, you know, there's an odd point which cropped up when studying this door situation — over a couple of years — and that was, *just before the cold weather sets in the supply people get flooded with requests for H-13 & H-23 door assemblies.*

Yeah, I know it's a practice to take the doors off the birds during the summer; but, do you take care of the doors during their storage period so you can re-install them, comes the winter?

Therefore, from this angle, it looks like the doors are *not* at fault, but that the fault may be loss or damage to the doors *due to improper storage.* So, it starts to get chilly, you start looking for your ships' doors, you find them stuck in the corner, sprung, holes in them, etc., no use putting "it" on, it's *Kaput.* Let's get another one, fill out a form, there's lots more where that one came from.

# MIKE BUTTON

Maybe this is not your individual case, you took care of your doors when they were removed, but, did you rehang the doors before you transferred the Kite? Check yourself out to see if you did.

Also, please remember don't store "bad" doors anytime, get off a *DD Form* 1275 just as soon as you can.

And, if you're having trouble with that door vent on the *Sioux* breaking the plastic on the door, etc., shoot of a UR on it to *TCMAC-EH*-13 right away, *we* wanta get a fix for *you*. Let's not do it the hard way.

## THOUGHT FOR THE MONTH

When operating *Choctaw* helicopters from dusty areas, make real sure, positive that after each flight, regardless of duration, you take good care of that carburetor intake screen—clean and lubricate.

Might buy this too—keep a "standby" screen cleaned and properly serviced for immediate use 'cause it'll help cut two things, excessive oil consumption and "down" time.

Informationally yours,

*Mike Button*

## NEXT MONTH

An interim progress report on the service test of the *YAC*-1 *Caribou* by seven members of the *U.S. Army Aviation Board* will be a feature of the February, '60 issue. The issue also contains an interesting article on the *SS*-1-*equipped Iroquois* by *Maj. Dorothy L. Johnson.*

Group photos on hand now and to appear: 91*st Trans Co* (*Lt Hel*) and the 4*th US Army Contract Instrument Class* at Fort Sill.

# Take Away the Mystery!

**By MAJOR FRED R. REED**
**U.S. Army Armor School**

A contribution by *Major General T. F. Van Natta* in the July issue of *Army* was most timely. Almost daily we see increased activity in Army aviation, and *General Van Natta's* statement "commanders must get into the aviation act" is so true.

The two most overworked words in military language are *"command responsibility."* Everything is the responsibility of the commander. Our commanders are quite aware of these responsibilities, and carry them out to the best of their ability. Considering all the demands on a commander's time, it is surprising these responsibilities are carried out as well as they are.

One of the many command responsibilities is inspection of equipment. It is only through frequent and competent inspections that commanders know their responsibilities for equipment are being met. These inspections must include aircraft.

*General Van Natta* suggested commanders learn how to preflight just one helicopter and one fixed wing aircraft as a *step* forward in understanding aircraft problems. This is also an excellent suggestion.

For too long, aircraft have been considered as *"something different."* They

have been surrounded with a wall of mystery discouraging to non-rated commanders. Commanders have been and still are reluctant to give aircraft the same degree of command interest as other equipment. This situation is not conducive to combat ready aircraft.

A comparison of a ¼-ton truck with a reconnaissance helicopter reveals a great deal of similarity. Any commander can have checked (or check himself) the items *in the table below* on both vehicles, and be in a position to evaluate the quality of maintenance being performed.

What is so different or mysterious about the procedure outlined in these tables? *One machine moves over the ground, the other through the air.* Both machines, incorporate many similar components subject

## TABLE SHOWS SIMILARITIES

| JEEP | H-13 |
|---|---|
| •Engine compartment for cleanliness. | •Check the same items. |
| •Fan belts for proper tension. | •Have mechanic use the scale (2 pound pull) to check fan belt tension. |
| •Correct engine oil level. | •You have checked this when checking engine oil. |
| •Transmission for proper lube level. | •Engine and transmission lubrication by oil from the same sump. |
| •Check lights, horn, windshield wipers, windshield for cracks. | •Check navigational lights for operation. Check clear plastic area for cracks, crazing, discoloration. |
| •Check differentials for proper lube level. | •Open pet cock on tail rotor gear box. If correct, oil will drip from pet cock. |
| •Check under the vehicle for indications of fuel, oil, or hydraulic leaks. | •Exactly the same. Any leak is suspect. Call it to the attention of the maintenance officer. |

to the same type inspection. In the not too distant future, commanders will be responsible for machines incorporating even more of the characteristics of ground and air vehicles. We must prepare ourselves for these vehicles now.

## Another Comparison

To carry this similarity of machines further, let us compare a 2½-ton truck with the largest helicopter in use by the Army, the H-37.

One of the first items usually checked on the truck by an inspecting officer is tire pressure. (No 55-pound kicks, plase. Use the gauge.) There are tires on the H-37, and correct pressure is equally important. While checking the H-37 tires, check the slippage marks. The red slippage mark on the tire must be in alignment with the mark on the wheel.

An inspection of the 2½-ton truck engine includes checking for oil leaks, proper oil level, and cleanliness. These same items can be inspected on the two R-2800 radial engines installed on the H-37. On the 2½-ton, the differentials are checked for leaks, loose plugs, and proper lubricant level. The same appies to the main, intermediate, and tail gear box of the H-37. Forward of the cabin door on the right side of the cabin is an oil level inspection light switch. This switch illuminates inspection lights at the oil level inspection windows of the gear boxes. What can be simpler than peeking in the windows to see if the oil is at the proper level? No dip stick, no plugs, no dirty hands, just look!

The 2½-ton truck is checked for general cleanliness, rust spots, condition of the paint. The same is true for the H-37. In some respects an H-37 is a flying bus, and like the bus, the troop compartment would be inspected for cleanliness. Spot painting and corrosion control is an organizational maintenance responsibility. An inspection of the exterior of the aircraft will reveal whether or not this responsibility is being properly carried out. Again, *what is so mysterious about the aircraft?*


### ABOUT THE AUTHOR

**Major Fred R. Reed, Transportation Corps, commissioned from Infantry OCS 1942. Transferred to TC in 1946. Has served 38 months in ETO, 27 months in FECOM, 24 months in USARAL. Is now Chief, Transportation Section, Senior Officers' Preventive Maintenance Department, US Army Armor School.**


Are you hesitant to inspect the new turbine powered helicopter?

You need not be for the same system applies. Inspect the power plant air inlet ducts for the presence of any foreign objects; check the inlet guide vanes for damage.

Checking the oil level of the main transmission, like the H-37, is by means of a sight guage on the oil sump. On the right side of the helicopter aft of the fire door is a button operated switch marked "TRANS OIL LEVEL LIGHT SWITCH." Pust the button, open the door, check the oil level through the sight gauge. It is either full or low. Intermediate and tail rotor gear boxes are also equipped with sight gauges.

Those concerned with Army aviation are an enthusiastic lot. They sincerely believe their mission of augmenting the capability of the Army to conduct effective combat operations is vital. No one in Army aviation will resent inspections by commanders, particularly if the commanders will take a little time to prepare for the inspection. This preparation need not be much more than referring to *DA Pamphlet* 750-1, *"Preventive Maintenance Guide for Commanders,"* or perhaps a brief educational session with an aircraft maintenance officer. Like all maintenance officers, he will like talking about his equipment.

Finally, commanders should remember there is nothing mysterious or different about aircraft. They are just another type of machine.

# AAAA News

NATIONAL

REGIONAL

CHAPTER

## National Board to Hold February 5-6 Meeting

Scheduling its "fourth quarter" meeting for February 5-6 in Washington, D.C., the *National Executive Board* will review existing programs and an extensive list of Chapter proposals during its day-and-a-half of split sessions.

*Bryce Wilson*, President, AAAA, has extended an open invitation to all *Chapter Presidents* to attend either or both sessions, should their business carry them to Washington at the time of the meeting. *Chapter Presidents* are asked to contact *Lt. Colonel Keith A. French*, National Secretary, at his Arlington, Va. home regarding the exact meeting place. A Friday, February 5th session is scheduled for 7-10 p.m. with the Saturday, February 6th meeting set for the 9:30 a.m.-4:30 p.m. period.

Chapter or membership proposals should be marked to the attention of the *President, AAAA*, and directed to *AAAA, Westport, Conn.*, in advance of *February 4th.*

## Fort Hood Chapter Members Go "South of the Border"

*No one sits on their hands in Texas!*

Out to retain their "most active Chapter" title, members of the *FORT HOOD CHAPTER* held another unique affair. Here's *Captain L. A. James*, Chapter Secretary, with his report:

"The *FORT HOOD CHAPTER* held its *Fall Get-Together* at Nuevo Laredo, Mexico, and a great time was had by all who could remember landing at Laredo AFB. More than 40 of the Chapter's one hundred plus members were on hand for the festivities, Bull Fight, and Mexican Dinner.

Met on landing by Laredo AFB officials who provided billets and information service, the advance group and the main body were immediate guests at a cocktail party at the base Officers Club. By the time the stragglers got to Sorrento, pardon, Laredo, everyone was about *ten feet* tall.

Just prior to sunset, the entire group crossed the Rio Grande for a Mexican Dinner, and, of course, some indiscriminate gift and souvenir buying.

Sunday afternoon in old Mexico is bull fight time and we attended a spectacle. What a sight to see and hear! Trumpets, senoritas, and sailing sombreros. *Cantinflas* of *"Around the World"* fame was the main attraction for the afternoon. We're looking forward to our next "roundup," until then, *Hasta Luego.*"

## Massachusetts USAR Members Activate Separate Chapter

Splitting off from the general Massachusetts membership, members of the 94th Aviation Company (USAR) lay claim to the *"first USAR Chapter"* designation.

Activated within the Boston area, the *94TH AVIATION COMPANY CHAPTER (USAR)* includes many of the original April, 1957 Charter Members of AAAA.

*Lt. Colonel James E. Murphy* (Pres) and

*Maj. Donald A. Boynton* (Sec) were instrumental in coordinating plans for the new Chapter. (See *NEW OFFICERS*)

## Oklahoma Members Organize AAAA's Eighth Region

The Association's eighth Regional activity, the *OKLAHOMA REGION*, was activated recently when Lawton-Fort Sill members held an extended "election meeting."

Fulfilling the 150 or more membership requirement, the new Region is composed of the *LAWTON-FORT SILL CHAPTER* and the *JIMMIE L. HILTON CHAPTER*, activated in memory of departed AA, friend, and fellow member. A third Chapter, embracing Reserve Forces membership within the State of Oklahoma, is currently in the process of formulation.

*Major Norman W. Goodwin*, the Regional President, will represent the new activity at the National Executive Board level. (See *NEW OFFICERS*).

## 33rd Chapter Activated by Ft. Campbell Unit

One of the "high support" units within the AAAA, the 91st Transportation Company (Light Helicopter) is now represented on the Association rolls as a separate Chapter activity.

Meeting recently, members of the unit organized the third Chapter within the State of Kentucky in activating a *91ST TRANSPORTATION COMPANY CHAPTER*.

Under the leadership of *Major Orman E. Hicks*, Chapter President, the Association's 33rd Chapter intends to pursue an active role in Association affairs. (See *NEW OFFICERS*).

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## NEW OFFICERS

### Oklahoma Region

Pres: Maj. Norman W. Goodwin
XVP: Maj. Howard A. Moore
Sec: Lt. Paul W. Bass
MEMBERS-AT-LARGE
Lawton-Fort Sill Chapter:
Lt. Allen G. Little
Jimmie L. Hilton Chapter:
Capt. Eugene I. Smith

CORRESPONDING ADDRESS
Major Norman W. Goodwin
President, OKLAHOMA REGION, AAAA
Hq & Hq Det, 45th Trans Battalion
Fort Sill, Oklahoma

### Lawton-Fort Sill Chapter

Pres: Capt. Vernon L. Sawvell
XVP: Capt. Harold I. Small
VPA: Capt. Harold Dennis
VPI: To be elected.
VPP: CWO Louis M. Butt, Jr.
Trea: CWO James H. Millirons
Sec: Capt. Rowland J. Nicholson

CORRESPONDING ADDRESS
Captain Vernon L. Sawvell
Pres., LAWTON-FORT SILL CHAPTER, AAAA
54th Trans Company (Med Hel)
Fort Sill, Oklahoma

### Jimmie L. Hilton Chapter

Pres: Maj. Howard M. Moore
XVP: Lt. Col. James W. Hill, Jr.,
VPA: CWO Jacob L. Packer
VPG: Chester A. Howard
VPR: Lt. Col. Louis H. Aten (Ret.)
VPI: Rex H. Madeira
VPP: Capt Raymond J. McLaughlin
Trea: CWO Isidro S. Valdez, Jr.
Sec: Lt. Paul W. Bass

CORRESPONDING ADDRESS
Major Howard M. Moore
Pres., JIMMIE L. HILTON CHAPTER, AAAA
120 North 31st Street
Lawton, Oklahoma

### Fort Riley Chapter

VPP: Major Nicholas G. Psaki
Sec: Capt. Edward W. Sargeant

## 100% AAAA—502nd Aviation Company
## 2nd Armored Division, Fort Hood, Texas

FRONT ROW (L-R): Lts. JE Caron (VPP) & SD Clark (VPA); Capts. HJ Wilkins (VPI) & RD Smith (XVP); Lt. Col. RL Brown (Pres); Lt. DP Thornton (Canadian Member); Capt. LA James (Sec). 2ND ROW: Capt. L Bagwell; Lts. HL Presnal, CM Crowe, CT Holt, JH Jenkins, LS Chavez, GH Cooper, RW Copeland, WG London, WJ Westfall, FB Martin, WL Paris, MD Mason, CG Thrasher, TL Nelson, RE Hardin, FJ Klein, JA McCracken, & RJ Trouve; Capts. RT Heard & PM Kracht. 3RD ROW: Capt. PD Wright; Lt. FW Stone; Capt. CM Crain; Lts. RH Haley, BH Sinclair, & RA Branson; Capt. NE Hoeltzel; Lt. DS Bailey; Capt. DE Atkinson; Lts. KL Groom, JS O'Neill, JA Tobin, CL Shrader, DG Bauer, ES Olsmith, JA Phillips, RD Emerson, CA Hardin, OD Plooster, GW Barnitt, & SL Miller. 16 unit members were not present for the picture.

### 94th Aviation Co Chapter (USAR)

Pres: Lt. Col. James E. Murphy
XVP: Maj. Arthur V. Andersen
VPR: Lt. Col. Samuel P. Gordon
VPI: Lt. Julius Goldman
VPP: Capt. Robert C. Bolles
Trea: Capt. Nelson F. Hermance, Jr.
Sec: Maj. Donald A. Boynton

CORRESPONDING ADDRESS
Lt. Colonel James E. Murphy
Pres., 94TH AVN CO CHAPTER (USAR)
1 Hartshorn Avenue
Malden 49, Massachusetts

### 91st Trans Company Chapter

Pres: Major Orman E. Hicks
XVP: Lt. Alden G. Hannum
VPA: CWO Billy J. Long
VPI: Captain Howard J. Tuggey
VPP: WO Lawrence J. Gutman
Trea: WO William H. Ruffin
Sec: Lt. William J. Dimon

CORRESPONDING ADDRESS
Major Orman E. Hicks
Pres., 91ST TRANS CO CHAPTER, AAAA
91st Trans Co (Lt Hel)
Fort Campbell, Kentucky

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## PLACEMENT SERVICE

HELICOPTER PILOTS: If you are interested in career employment, have a minimum of 500 helicopter hours, are under 33 years of age and weigh under 175 pounds, write Box 92, AAAA, Westport, Conn.

TEST PILOT desired. Require Pilot qualified to test H-21 and L-19 fixed wing aircraft. Must hold FAA Commercial and Rotary Wing Pilot Certificate and be capable of solving maintenance problems encountered during test flight. Instrument rating preferred. Write Box 93, AAAA, Westport, Conn.

HELICOPTER pilots and maintenance personnel needed by commercial operator for Alaska activities. Immediate openings, Write AAAA, Westport, Conn. Attn: MAPS-94.

AAAA FILM

# LIBRARY

At its most recent meeting, the *National Executive Board* approved a Program whereby the National Office would serve as a distribution point for "loan" prints of industry aviation films. Chapter activities, or general members desiring to show these films to a particular audience, are encouraged to make use of the Association's *Film Library*.

A partial list of the initial films available for loan are listed below. This list will be *augmented* in each issue as more "titles" become available.

To secure Library films, write *AAAA, Westport Conn.*, by *airmail* cover at least three weeks prior to the planned date, stating the films desired (limit of *two* in one distribution), the type of audience planned, and the date of the showing.

## AIRHEAD

Story of Marine operations with Sikorsky helicopters in the Korean War. Sound, b/w, 13 min.

## COPTERS IN COMBAT

Army aviation operations with the Sikorsky H-37 during Fort Benning field exercises of the 4th Transportation Company. Color, sound, 12½ min.

## DIAL 47-J

Business use of Bell's four-place "Ranger" showing applications in industry. Sound, color, 12 min.

## FARMER IN THE BELL

Pictorial story of Bell helicopters in agriculture. Sound, color, 10 min.

## FLOTATION GEAR MOVIE

Pictorial story of Bell helicopter operations on float gear. Sound, color, 10 min.

## HELICOPTERS IN THE NEWS

Newsreel-type sequence of Sikorsky helicopter operations, both military and civilian. Sound, b/w, 13 min.

## MERCY HAS ROTARY WINGS

Evacuation of wounded by Bell helicopters in Korea. Sound, b/w, 13½ min.

## MODEL TESTING TECHNIQUES

History of Bell's study in helicopter science showing early experiments with tethered models up to and including the latest developments in model testing technique. Silent, color, 18 min.

## MODERN MAGIC CARPET

Military uses of the helicopter in training and in war activities and a brief summary of commercial applications. Sound, color, 12½ min.

## NEW ACT ON THE HIGHWIRE

Powerline patrol with Bell Model 47 helicopters. Sound, color, 10 min.

## PLATFORM PILOTS

Use of Bell Model 47 in construction work in British Columbia. Sound, color, 12 min.

## POSTMEN OF THE SKIES

Chicago helicopter air mail operation. Sound, color, 14 min.

## SKYCRANE

Demonstration of concept and capabilities of Sikorsky S-60 crane in transporting a wide variety of military and commercial loads. Sound, color, 20 min.

## THE HELICOPTER GOES TO TOWN

Commercial operations of Sabena Airlines using Sikorsky helicopters in Belgium. Color, sound, 20 min.

## THIS WAY UP

Operations of Sikorsky S-58 in the U.S. and overseas, including airlift of drilling equipment in New Guinea by World-Wide Helicopters. Color, sound, 26 min.

## THREE . . . IF BY AIR

Operations of the Sikorsky S-55 helicopter in the Canadian wilderness of Hudson Bay and British Columbia prospecting for oil and minerals, cargo work of Kitimat Dam; operations of the offshore oil drilling in the Gulf of Mexico.. Sound, color, 23 min.

## UTILITY UNLIMITED

Commercial uses of the Bell Model 47 helicopter. Sound, color, 22 min.

# GET UP AND GO
## for a Pentomic Army

In the flexible, fast-moving battle groups of the Pentomic Army, AIR MOBILITY plays a dramatic and vital role. Landing tactical forces, evacuating wounded, reconnoitering, observing, hauling supplies . . . these and other vital combat operations can be handled more swiftly and efficiently than ever before with *aircraft.*

Lycoming is a member of the Pentomic team, too. Lycoming gas turbine and reciprocating engines power more types of Army aircraft than those of any other manufacturer.

Ranging from fixed wing to VTOL, from helicopters to drones . . . today's arsenal of Lycoming-powered aerial vehicles includes:

- Aero L-26 Commander
- Aerojet-Downey SD-2 Drone
- Beech L-23D Seminole
- Beech L-23F
- Bell H-13H Sioux
- Bell HU-1A Iroquois
- Bell YHU-1B
- Brantly YHO-3
- Doak VZ-4 VTOL
- Grumman AO-1 Mohawk
- Hiller H-23D Raven
- Hughes YHO-2
- Ryan VZ-3 Vertiplane
- Vertol VZ-2 Tiltwing
- Vertol YHC-1B Chinook

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