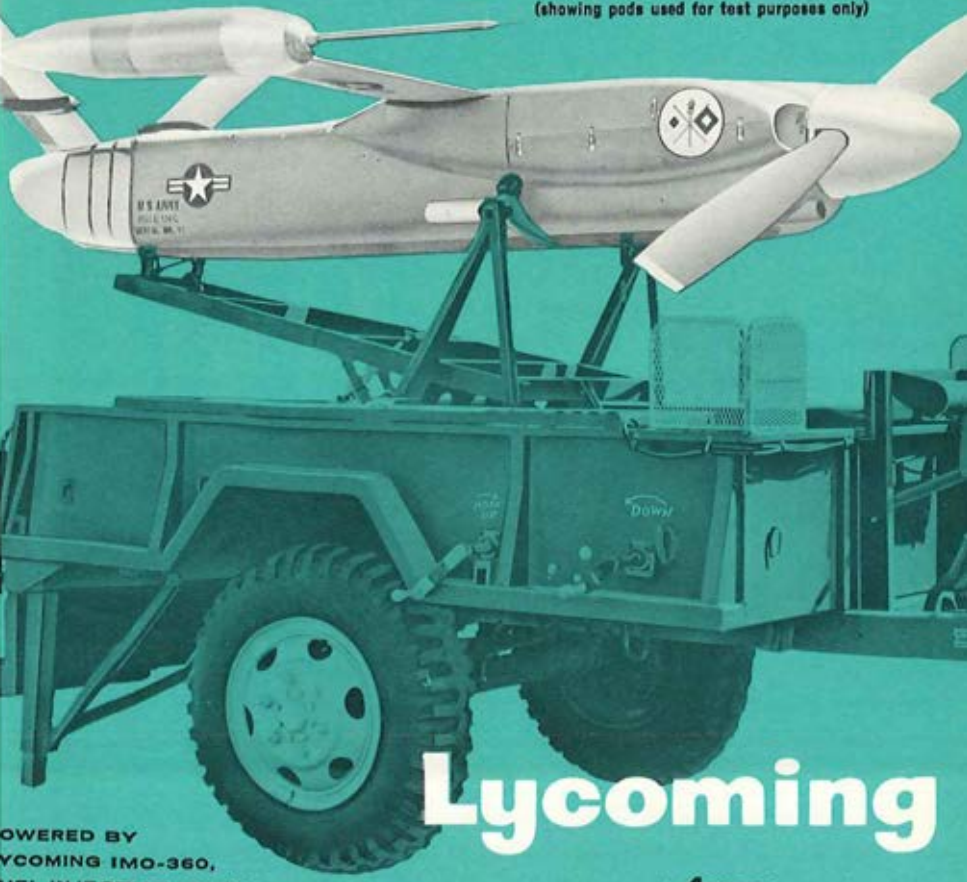
ARMY AVIATION

NOVEMBER ★ 1959

Lycoming powers

AEROJET AN/USD-2 COMBAT SURVEILLANCE DRONE

(showing pods used for test purposes only)



POWERED BY
LYCOMING IMO-360,
FUEL INJECTION ENGINE
4 CYL., 180 HP

Lycoming

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

ARMY AVIATION

VOLUME 7 — NOVEMBER 28, 1959 — NUMBER 11

Sikorsky Proves Mobility Begins at Home

Practicing what they preach —utility, Sikorsky Aircraft officials saved six days of overland trucking time and costs by airlifting 16 Army helicopters between two plants of the Sikorsky Division.

Undergoing SCAMP modernization, the 16 craft, minus their rotor blades, were attached to the cargo hook of the S-60 crane and then airlifted 5 miles overwater from Bridgeport Municipal Airport to the company's South Avenue plant where overhaul and repair facilities are now located.

The big twin-engine S-60 shuttled the 4-ton H-34's in relays, completing the ten mile round trip in about 12 minutes.

Company officials selected the airlift as the cheapest and fastest method. The only flatbed trailer large enough to truck the aircraft would have to make three round trips each day and would interfere with Connecticut Turnpike traffic. The overland route would also have required a survey of all bridges and underpasses.

ADVERTISERS IN THIS ISSUE

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Sikorsky S-62 —an amphibian turbocopter of proved reliability

VERSATILE—Rescue work, towing, patrol, passenger or cargo carrying—even work as a flying crane—are easy for Sikorsky's turbine-powered S-62. A boat hull and wheels permit operation from land, shipboard, water, snow, ice, mud—almost any surface. All-weather equipment is optional.

RELIABLE—The S-62's dynamic components have been proved by more than 1,100,000 flight hours, assuring unequalled reliability. *Above: Widely tested throughout the world, the S-62 taxies on the Grand Canal, Venice, during a tour of Europe.*

HIGH FLYING—Hovering up to 15,000 feet with full gross weight and rescue missions at altitudes over 20,000 feet—important in mountainous areas—these are among the S-62's performance features.

HARD WORKING—A range of 245 miles, a useful load of 2900 pounds, an external load of 2500 pounds on a cargo sling, a passenger capacity of 12 plus crew, a towing capability of 4000 pounds tension, a rescue hoist capacity of 600 pounds, and a spacious 14 foot cabin—these are other attractions of the S-62.

SIKORSKY AIRCRAFT, Stratford, Connecticut
A division of United Aircraft Corporation

YHC-1A Prototype Extends Effective Range of Crew-Served Weapons

In a recent demonstration at Aberdeen Proving Grounds, the Vertol 107—prototype of the Army YHC-1A light tactical helicopter—emphatically illustrated the new air mobility and increased operating range which it can bring to modern Army units, by airlifting a complete Little John rocket system and crew to battlefront firing position. Total elapsed time for unloading, firing the rocket and redeployment was just 11 minutes, 57 seconds.

The new air mobility made possible by the YHC-1A's speed and internal loading characteristics, permits a preloaded Little John system to be fired from a surveyed site 50 miles away less than 35 minutes after receipt of orders. And, internal loading increases aircraft speed by eliminating drag, permits concealment of mission purpose, and protects personnel and equipment from weather. Static electricity problems are eliminated. In addition, the pilot can better judge vertical clearances for contour flying that minimizes visual and radar detection.

The Army's tandem-rotor, multi-turbine-powered YHC-1A introduces a new concept in mobility for today's fast-striking ground forces.

VERTOL Aircraft Corporation

MORTON, PENNSYLVANIA

Subsidiaries: Allied Research Associates, Inc., Boston, Mass., Canadian Vertol Aircraft, Ltd., Arnprior, Ontario

The Real Goal of Army Aviation

By Brig. Gen. Clifton F. von Kann
Director of Army Aviation, ODCSOPS, D/A

One of the ghosts that haunts every discussion of Army aviation is *"another Air Force."* To add to this scare factor there are a lot of little minor ghosts who always accompany the first:

"The Army wants to take over TAC."

"The real goal of Army aviation is its own branch."

"Army aviation is merely another example of divergence rather than unity within the services."

Let's Bring Them to Light

There seems to have been a great deal of reluctance to mention these ghosts, except in dark corners of smoke-filled rooms. My purpose today is to bring them out in the light in the hope that this form of exorcism may lay some of these fears to rest.

The Army has no reason to be ashamed of its aviation program. We are convinced that it is a very essential portion of the overall Army. Its only purpose in being is to *enhance* the capability of the Army to perform its vital missions. There are no hidden goals or dark mysterious intentions contained in these objectives. We are not in competition with anyone *except a potential enemy.*

Our "Heading" Is Obvious

Then just where is Army aviation heading? To answer that one must examine where the *Army* is heading—for the questions are inseparable.

The thermo-nuclear weapon has swung the pendulum of military thinking once more toward dominance of firepower. But firepower is only one of the elements of combat power. Unless it is complemented by mobility and the means of command and control, firepower does not mean combat power.

History has given us many examples where an imbalance of the elements of combat power influenced the very nature of the battle. The most striking example of recent times is shown in the comparison of World War I and World War II. In the latter half of the nineteenth century repeating rifles, machine guns, and rapid-fire artillery were added to the armament of the ground soldier, while the soldier, of course, continued to walk a mile and a half an hour across country the way he had always been walking. The result of this growth in firepower, without any comparative growth in movement, was that the soldier found that in order to stay on the battlefield at all he had to dig elaborate trench systems. Nobody liked trenches, but some were occupied continuously for four years, from 1914 to 1918.

Brig. Gen. Clifton F. von Kann

In the years between World War I and World War II the pendulum swung toward the predominance of mobility. The German Army was the first to recognize this change, and they reaped the gains that come with innovation in the successes of the early *"blitzkrieg"* attacks. The basic armament of the soldier was substantially the same—automatic rifles, machine guns, and artillery. But tanks, trucks, fighter bombers, and airborne divisions had been integrated into the system to give new mobility means of applying combat power. Consequently, World War II was not a trench war.

WW II Adds New Dimension

Then at the end of World War II the explosion of the atomic bomb gave notice that firepower had a new dimension. I think it is very clear from history that if there is no addition to our movement capability, the only way our land Army will survive is to disperse, dig very deep holes, and stay in them.

Survival, in itself, is not the mission of the Army. The dominant principal in our military doctrine has been, as it always must be, to emphasize that wars can only be won by *offen-*

sive operations; and mobility is an essential element of offensive operations.

We could build, I assume, a 200 mile an hour tank, but this does us little good if the only place we could use it would be the Salt Flats in Utah. Only marginal gains can be made if we restrict ourself to the ground. But is the land battle restricted to the ground? By definition land-warfare includes the air and sea contiguous to the battle, just as the air battle includes the airfields, and the sea warfare concept includes the ports and harbors.

General Lemnitzer Cited

If we don't restrict our thinking to the ground we have a new dimension to tactical mobility. The Army's Chief of Staff, *General Lemnitzer*, said last August, *"With respect to tactical mobility, I want to make particular mention of of the various types of aircraft, both in being and experimental, which make up Army aviation. What these and other developments in mobility mean is that we are on the verge of a situation that is drastically new. Throughout history a major limitation on the freedom of action of land forces—and consequently, on their effectiveness—has been the barrier of terrain. We can now foresee a time when mountains and rivers and other terrain features will cease to be obstacles or limitations. They will be meaningful chiefly as advantages to be exploited as the situation indicates."*

This statement is a strong indication of where the Army is heading and clearly points up the tremendous responsibility of Army aviation. Tomorrow's battlefield will be a mass of obstacles, for in addition to the natural rivers, mountains, and jungles, we must add the possible man-made obstacles from nuclear, chemical, and biological weapons. The area of combat will be a crazy quilt of friendly and enemy forces with gaps that no one controls completely. The unit that can concentrate and disperse the quickest, while maintaining its integrity, is the unit which will survive. It is fundamental to this concept that the aviator and the aircraft are an integral part of the tactical unit.

Be in the "Army" Picture

The Army is not interested in the airplane *per se*. Its interest lies in how aviation can help the Army accomplish its mission. If we lose sight of this objective, and become fascinated by flying from a purely pilots' viewpoint, we are in danger of failing our basic purpose. We must constantly picture the aircraft and pilot

Maj. Gen. Norman A. Costello (r.), ACofS, G-3, USARPAC, is shown receiving a new protective helmet which will soon be worn by all Army aviators and crewmen in the command. General Costello is the senior rated officer in USARPAC. Making the presentation is Brig Gen. T. B. Evans, USARPAC Quartermaster. (U.S. Army photo).

in the environment of the soldier, for the mission of Army aviation is based on the mission of the Army.

With this mission it seems ridiculous to limit ourselves to some one branch of the Army—to an Army Air Corps. We would be selling ourselves and the Army short. We would be forgetting the lesson of the twenties and thirties when no infantryman, no artilleryman, no cavalryman could fly an airplane. You had to belong to the Air Corps. I am sure that you gentlemen have heard scattered individuals in Army aviation who insist that the Army must have an Aviation Branch. There certainly may be a requirement for personnel who devote their entire careers to aviation matters.

No Monopolies

In the longer view, however, just as we now argue that the Air Force has no monopoly on flying machines because they fly, similarly no one branch in the Army should have a monopoly. We don't pool all of our jeeps and trucks in one branch. The Signal Corps doesn't operate every telephone and radio, nor does the Engineer Corps run all our generators. The peculiar characteristics of a piece of equipment do not dictate the mission. Rather the equipment is given to the people who need these characteristics to accomplish the mission.

We dare not be compartmentalized now. The big advantage we have as Army aviators is that as a group we belong to no one special branch, have no parochial little axes to grind, and have one common goal—*an air-minded Army*. We

The Caribou joins the U.S. Army

Designed by the de Havilland Aircraft of Canada as a civil transport for the world's less accessible areas, the Caribou's outstanding STOL and load-carrying capabilities made it the choice of the United States Army for its close support aircraft requirements.

The first Caribou went into service with the United States Army in October of 1959.

De Havilland Aircraft of Canada

DE HAVILLAND AIRCRAFT OF CANADA

DOWNSVIEW 14th & K STS., N. W., WASHINGTON, D. C. ONTARIO

do not want to be considered a little privileged and specialized organization—we want everyone in the Army to understand and be part of a new mobility program.

State of Mind All-Important

Our real problem, then, is one of the state of mind. Unless we can convince everyone of the importance of this program, the necessary effort and money to do this job will not be forthcoming. It is an ambitious program and it obviously comprises a big enough goal without the added implication that *"the Army wants to take over the Tactical Air Command."* Now the Army holds that the TAC mission is one of the most important in the military establishment; we are perfectly happy to have the Air Force do it, but we insist it must be done. We realize that any Army aviation effort directed toward such a mission might detract from its capability to perform its own assigned tasks ,and could divert our attention from the bigger objective of an air-minded Army.

Aircraft Familiarization

Today, we're a motor-minded Army. The basic ingredient of that motor-mindedness is the fact that you and I, all of us, drive automobiles. We understand automobiles; we feel perfectly competent to make decisions about automobiles. There is no doubt in our minds that we can command motorized units.

By analogy, the basic ingredient of the air-minded Army is going to be familiarity with aircraft. Not necessarily everyone being a pilot, but every unit having organic aircraft integrated into its routine missions. We won't have an air-minded Army by an approach of exclusiveness. The commander is not going to have any confidence in a remote pool of aircraft that he may *possibly* use on a *part-time* basis if he goes through ten headquarters with a high enough *priority*. We can only have an air-minded Army if we convince the commander that we are a part of *his unit* and that we can do a job for him not possible by any other means.

The Combined Arms "Team"

I started my Army career in the Artillery. Now the Artillery has many proud traditions, but the first thing one is taught in the artillery is that his prime purpose is combat support. The more he understands and participates in the operations of the supported units, the more effective is the partnership.

All the Arms have learned that it is not enough to be an infantryman or artilleryman or tanker. They must think combined arms—they are taught combined arms. Army aviation does not want to be "that bunch out at the airfield." They want to be recognized as a part of the combined arms team. We are proud of the aviator badge—but we want everyone to know it's an Army badge.

Catalyst

Now I'm not naive enough to assume that my words here have permanently banished the ghosts I mentioned originally. Every time that Army aviation is mentioned without relation to the Army as a whole, these specters will reappear. Our biggest job lies in our own shop. Every Army aviator must understand his mission and show its value to his immediate commander. The ghost of *"another Air Force"* will never be completely put to rest until we in Army Aviation convince the Army itself of our goals, and demonstrate we are neither step-child nor favorite son, but rather an essential catalyst to the formation of a modern mobile Army.

Major General Hamilton Howze summed it up very neatly when he said, *" . . . it's hard to be audacious sitting at the bottom of a hole. In the air just above the treestops lies one of the greatest hopes for victory on the ground."*

On Global Lecture Tour

General I.D. White (l.), Commander in Chief, U.S. Army Pacific, chats with Capt. Walter F. Jones and Capt Quitman W. Jones (r.) during the visit of the two USABAAR officers to Fort Shafter, Hawaii. The two-man team had presented fourteen Aviation Accident Prevention illustrated lectures in Korea and Japan, sessions that were attended by more than 85% of the Army aviation personnel in USARPAC. (U.S. Army photo.)

PROBLEM:

DESIGN AN ECONOMICALLY SOUND HEAVY-CARGO HELICOPTER

That's the challenge which has been answered by Hiller's tip turbo helicopter concept.

The Hiller engineering and manufacturing team has spent almost a decade perfecting the tip driven helicopter concept. Design studies, economic analyses, and theoretical advances, backed by data from thousands of hours of tip jet helicopter flight tests, point to this inescapable fact: that to satisfy all major design criteria **tip power must be used... and turbojet engines must supply that power.**

The Hiller tip turbo concept guarantees the most sought after characteristic in 25,000 lb. gross weight and up configurations – a high payload-to-gross weight ratio. Because the need for heavy and complex gear trains has been eliminated, weight is drastically reduced and development and manufacturing costs are brought – for the first time – down to sensible levels.

Tip power precludes the need for engine torque compensation and associated large tail booms and drives. Tip-mounted engines permit new freedom in the design of fuselage and cargo space configurations. Turbojet engines provide the range and low fuel consumption rates needed to make tip power economical. And the engines are in effect weightless... they replace the blade tip weights needed to keep coning angles down.

The need for heavy cargo and crane helicopters is growing. Hiller technology is ready **now** with the practical solution.

HILLER
AIRCRAFT CORPORATION
PALO ALTO, CALIF. • WASHINGTON, D.C.
ADHESIVE ENGINEERING DIVISION, SAN CARLOS, CALIF.

NON-PRODUCTIVE EFFORT

Dear Army Aviator,

One of my officers has a little black box on his desk representing the epitome of *non-productive* effort, and I am sure that you will be able to find an analogy somewhere close at hand. The box is completely smooth with the exception of one toggle switch which reads *"Off and On."* If one throws the switch to the *"On"* position, there begins a tremendous grinding of gears, turning of wheels and clicking of cogs. The box shakes violently and slowly a small door opens on the top. Then, with irresistible logic, a small green hand appears and quietly shuts off the switch—a completely self-contained (and useless) system.

Several examples of this sort of black-box activity have come to my attention recently. One of these is the complaining by pilots to high ranking passengers on technical deficiencies (real or imagined) of their aircraft or operations. These complaints when *not* backed up by correspondence through officially recognized channels can only result in a flurry of disjointed effort to determine source, cause, and correction in order to turn off the switch. Now, our program desperately needs sincere, constructive criticism and many channels are set up for this purpose. None of them happens to be the unnecessary alarming of VIP passengers.

To be even more specific, let's look at the sob story about inadequate VHF channels available. Most of these complaints are attached to a request for full VHF coverage in Army aircraft. I do not consider this the answer or proper approach to the problem. The small five channel emergency VHF transmitter being installed in aircraft capable of IFR flight is to make the emergency channel, 121.5, available and is not intended as a return to VHF for normal communications.

The complete conversion of the military services from VHF to UHF for air to ground communications in the CONUS is now set for 1 July 1960. Conversion was to be completed by 1 January 1956 but has been successively delayed due to lack of sufficient UHF equipment. The Department of the Army is currently pursuing a program to meet the new deadline. The installation of UHF ground equipment by the FAA is complete except in a few relatively remote locations where the demand for UHF communications has been almost non-existent.

FAA has been most cooperative in helping to remedy situations where inadequate UHF communications were experienced. Every report or complaint registered with the U.S. Army Aviation Flight Information Office has been satisfactorily investigated and corrective action taken when required. As emphasized in previous issues of *TB Sig* 1-134, *Army Aviation Flight Information Digest*, difficulties, other than equipment failure, in communicating on UHF should be reported through your Operations Office to the *U.S. Army Flight Information Office, OCSIGO, Washington 25, D.C.*, by telephone, card or letter. The report should be made promptly giving the WHAT, WHEN, WHERE, WHY, HOW and WHO WAS INVOLVED. All queries will be promptly answered and appropriate action taken. As pilots, it is our responsibility to make the UHF facilities work for Army aviation.

In a similar vein, disregard of the regulations covering visits to manufacturers causes a great deal of wasted effort and misunderstanding. The control of such visits has been established with the other services and the manufacturers through the Transportation Corps, as set forth in *paragraph 3B* of *AR* 715-234. This regulation does not seek to deny people access to aircraft plants, but rather to establish the essential control to protect both government and the manufacurer. Although security clearance provisions of this AR are essential requirements, the *purpose* of the visit is of prime importance. Persons making visits to aircraft manufacturers should read and familiarize themselves with the provisions set forth in AR 600-205 entitled

FLIGHT TEST REPORT ON THE BELL XV-3

THE REVOLUTIONARY BELL XV-3 is the convertiplane that's surpassing expectations. Developed for the U. S. Army as part of the military's over-all VTOL program, the XV-3 has moved well beyond Bell's extensive shakedown tests... has successfully completed a thorough Phase II Air Force evaluation at Edwards AFB, and is currently at Moffett Field being tested by NASA.

Demonstrated capabilities to date include–

- 67 full conversions in all flight regimes, including climbing turns and descents, full and partial power, with no programmed techniques required.
- More than 25 gear shifts proving out smooth, high-efficiency cruise flight.
- All normal airplane maneuvers, including slips, stalls, pull-ups and rolls.
- Basic emergency procedures, including power-off reconversions from airplane flight to full autorotation helicopter landings.
- Outstanding STOL performance under overload conditions.

The XV-3 was ready on time for all the 38 scheduled tests of the six-week USAF program. This dependability, plus the technical data obtained, shows without question that the XV-3 has solved VTOL's central problem — that of combining vertical, low-speed capabilities of the helicopter with long-range, high-speed advantages of the airplane in a reliable, serviceable machine.

The XV-3's fixed-wing, low disc loading configuration inherently provides higher hovering efficiencies, lower downwash velocities than other VTOL types. Recent tests have also confirmed superior stability and controllability, lower noise levels in all flight regimes, higher efficiencies in airplane cruise.

Now shown to be technically and operationally practical, the XV-3 concept is ready for advanced military VTOL/STOL systems.

BELL
HELICOPTER CORP.

FORT WORTH, TEXAS · SUBSIDIARY OF BELL AIRCRAFT CORPORATION

"Standard of Conduct of Personnel Assigned to Procurement and Related Activities," and strictly adhere to the provision of paragraph 5, which refers to unauthorized statements or commitments with respect to award of contracts. Proper adherence to the spirit and intent of these regulations will facilitate visits to the manufacturer and prevent subsequent "black box" efforts to correct unauthorized or misleading statements.

Which reminds me of a story about an area in the South Pacific that had been by-passed late in World War II. This area contained a series of remote island bases on which small maintenance elements had been established to service transient aircraft. Now the only transient aircraft that came to these bases were those carrying mail and supplies for the people stationed there; yet a full year went by before someone realized that if they removed the people there was no reason to have the aircraft land in these islands. I suggest you look at your own operation and see if you can find a parallel "black-box" activity.

* * *

An exercise of interest to all of us is now in progress. Department of the Army is formulating basic requirements for three aircraft in the observation, surveillance and tactical transport field. These requirements will be presented to industry representatives at Fort Monroe, Virginia, on 1 December. The purpose of this meeting is to stimulate private industry to develop new design concepts and studies. The requirements broadly describe the areas in which new ideas are needed. It is not intended that the requirements limit or restrict the thinking of aeronautical engineers and scientists. Nor is the program at this stage intended to be a competition; and no contracts will be awarded on the basis of the design concepts. However, these design concepts will be reviewed early next spring and military characteristics then be developed. It is hoped that a design competition based on these characteristics can be completed later in the year. Highest priority will be given the development of a new light observation aircraft.

* * *

Recent accidents, both rotary wing and fixed wing, indicate a strong need for positive standardization of rated instructor pilots. A recent rotary wing accident occurred when the IP permitted his student to allow the airspeed to drop below that recommended for practice autorotation. He also failed to take control and initiate a power recovery in sufficient time to prevent the helicopter striking the ground. This accident resulted in major damage. A similar accident ccurred when a fixed wing instructor pilot, demonstrating power approaches, let his airspeed go too low and dropped in for a hard landing. This accident also resulted in major damage.

Such accidents can be prevented only when unit commanders provide positive and accurate standardization for all unit IPs. The qualities that go to make up a good aviator are not necessarily those needed for a good IP. The IP must not only be a good aviator; but must also demonstrate mature judgment and the ability to impart his knowledge to others. The IP rating must not be allowed to become a paper stratagem for logging flying time.

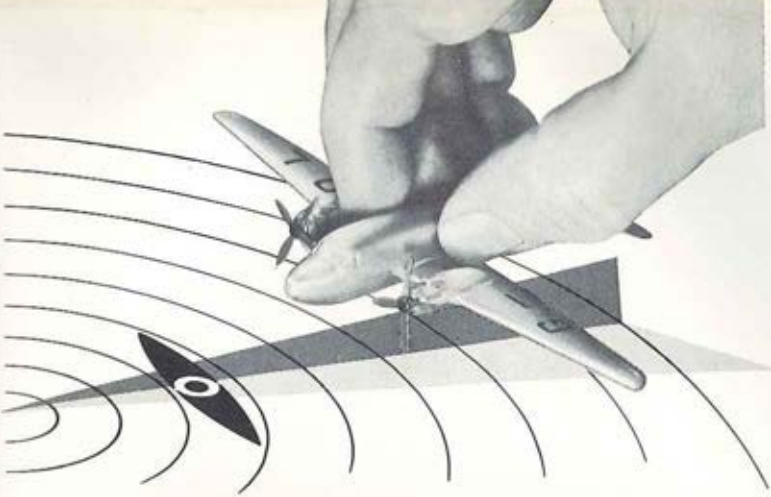
Looking to the future, Army aviation will soon have an even greater requirement for crew training. The H-37s are here, and the *Caribous* are on the way. Crew training requires first quality instruction. Some recent accidents, resulting from cockpit confusion provide good examples of the results of inadequate crew training. The time to standardize is *now*.

Another aspect of IP deficiencies has come to lihgt in the follow-up of accident investigations. In one case a rotary wing accident occurred because the IP was teaching an erroneous technique. This particular IP received his check-out at the factory; whether he learned the technique at the factory or developed it later is not clear. In any event the action was to ground the IP; however, the accident report evidenced no effort to locate former students who were probably instructed incorrectly. This is a clear example of accident experience indicating corrective action which was not taken. Let's follow up our accidents with complete and thorough corrective measures.

* * *

In another part of this issue you may notice some comments I made to a recent meeting of the *Aviation Writers Association*. It was my purpose to try to define the real goals of Army aviation. Those of you who remember how the Artillery Battalion Commander of World War II felt about *his* pilots and *his* "Cubs, know the spirit we are trying to recapture on a much wider basis. That is why I have tried to emphasize that those of us who have caught the "aviation bug" do not want to end up in an isoation ward of some special branch. In this case we want this "air-mobility fever" to reach epidemic proportions, so that in a few years only those hardened few who escaped exposure will be considered sick-sick-sick.

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



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

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

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

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

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

Dependable Airborne Electronic Equipment Since 1928

Aircraft Radio Corporation BOONTON, N. J.

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

THE ARMY FLYING HOUR PROGRAM

By Maj. General Richard D. Meyer
Deputy Chief of Trans. for Aviation, OCT

One of the most important tools we have today for the management and programming of logistical support for Army aviation is the *Flying Hour Program*. This is especially true as bigger and more complex aircraft come into the Army inventory. Because of its importance, I would like to discuss briefly its derivation, its purpose, and its need for accuracy.

The *Army Flying Hour Program* is developed in accordance with Department of Defense approved procedures applicable to the three Departmental Services. As in the other services, the estimates of hours flown and to be flown, inventories on hand, and anticipated inventories are closely monitored, analyzed, and modified as required. We then see that the *Flying Hour Program* is basically derived through the analysis and use of data submitted by you, the "User."

If we are to use the *Flying Hour Program* for budgeting and programming at all levels of the government to include Congress, Bureau of the Budget, and the Defense establishment, the requirement for accuracy in forecasting the number of hours to be flown is essential. We are continually striving to improve the accuracy of the *Flying Hour Program*. During FY 59, the total number of hours flown was 93% of the number of hours forecast. We estimated that all aircraft in the Army would fly 1.57 million hours during FY 59; and at the end of the year, your monthly reports totalled 1.46 million hours actually flown. I am confident that an accuracy of 96 or 97 per cent may be attained for the current fiscal year.

I have been pushing a program here in the Office, Chief of Transportation to refine and improve the *Flying Hour Program*. An improved program will serve as a better tool for management and will enable us to more accurately plan and program for logistical support of Army aviation. My office is currently working closely with the Director of Army Aviation to improve and promote the proper use of the program.

Maj. Gen. Richard D. Meyer

One of the major difficulties has been the *establishment of standard terms and definitions used in Army aviation*, in particular those pertaining to the *Army Aviation Flying Hour Program*. What we have called the *Flying Hour Program* is, in effect, a forecast for programming purposes of what people will fly based on what they have flown. To measure efficiency on whether a particular unit flies more or less than the Program is only saying that it has flown more or less than average.

An equal part of our change in the direction of the old Flying Hour Program is a related action under study in the Office, Director of Army Aviation. This action, we hope, will result in a true program related to mission hours required stated in terms of tactical training, exercises, proficiency flying, student hours, etc. Thus, two documents, each competent in its own field, will provide program and budget guidance and operational efficiency guidance for the field. As part of this approach, we are working on a regulation which will assist the operational and logistical elements of Army aviation to understand and use the *Fying Hour Program*.

In the past, the Army had two categories of aircraft—"*Active*" and "*Inactive*." The time has come when the present definition of the "*Active*" category in *AR* 95-70 must be improved. This category can, for example, be differentiated in three ways: Operationally active aircraft, nonoperationally active aircraft, and test aircraft. These categories require further refinement in order that the use of the

definitions will be of value to Army aviation as a whole.

Another area of improvement is in the *Logistical Forecasting System*. The *Logistical Forecasting System* will be based on the *Army Aviation Inventory Status* and *Flying Time Report*. This reporting system will be modified according to the dictates of policy change refinements in the definitions. The value in the forecasting system will depend upon how wisely we predetermine our definitions and visualize the use of the forecasting system. Our reporting system will provide the firm historical data upon which more accurate forecasts of future developments can be based.

We envision a forecasting system which should be completed and in use during FY 61. The first step is the refinement of definitions which I have discussed above. The remaining portions of the forecasting system would fall within the *Supply Bulletin* 1 *Series* and will include formats and procedures, planning factors, five-year requirements and inventory forecasting, distribution forecasting, flying hour forecasting, mobilization forecasting, and statistical analysis. As you can see, this is a complex system which must be clarified to a much greater degree than in the past.

During the next six months, a team well versed in the Department of the Army requirements may visit your unit. The purpose of the team's visit will be to create a better understanding of our common problems. My personal views, some of which I have touched on, will be voiced by this team at your request. In addition, your views will be fully considered in answer to the question: "What is best for Army aviation as a whole?"

I am confident that through these team visits we will promote a more efficient, less complex *Flying Hour Program*. This will result in a more workable understanding between the Logistician and the user of Army aircraft.

AO-1 Mohawk

Perhaps you have heard by now that the *"Mohawk"* has had two in-flight engine failures. These, incidentally, occurred on the *same* airplane and the Navy and the contractor have attempted to determine the cause of these failures. During the past two weeks a considerable amount of flying has taken place and regardless of the accelerated loads or conditions of flight, the engine failure *cannot* be duplicated. So far, I can tell you no more. The current plans are to continue the program without delay.

Colonel Sarantos, Commandant, Royal Canadian Service Corps School, greets General Richard D. Meyer upon his arrival at Camp Borden, Ontario, in an Army HU-1. General Meyer delivered the keynote address at the formal banquet held during the annual Royal Canadian Army Service Corps meeting.

An Army team consisting of five senior or master aviators plans to informally evaluate the characteristics of the *"Mohawk"* aircraft the week of 23 November. This evaluation is for the purpose of providing guidance to the procurement agency (Navy) and appears to be a good idea regardless of what program we enter into.

HU-1 Iroquois

A contract has been let with Bell Helicopter Corporation for an advanced development of the *"Iroquois"* helicopter. It will be known as the *HU-1B* and will have *increased* performance and payload capabilities. Under the terms of the contract, Bell will modify four existing aircraft to the "B" configuration with new Lycoming *L-53-L5* engines which will replace the presently installed *T-53-L1*. The new engine will have a 100 shaft horsepower increase and will be logistically compatible with the *T-53-L3* installed in the *"Mohawk."* Dynamic components will also be changed to be compatible with the increased power; bigger rotor blades with approximately 30% wider chord and approximately 20% thinner airfoil section. It is anticipated that all these changes will add increased maneuverability, improved altitude, performance, and maximum gross weight flight characteristics.

Logistics Course

Announcement has recently been made by Hq, USCONARC of the *Senior Officers Army Logistics Course* (55-*A*-F13) to be presented at the U.S. Army Transportation School, Fort

Eustis, Virginia. The purpose of this course is to provide instructions in Department of the Army of CG, USCONARC, policies, plans, procedures and capabilities with regard to the Army Aviation Program and the Chief of Transportation's responsibilities, policies, and plans in the implementation thereof. Emphasis will be placed on maintenance and supply support to acquaint commanders and staff officers with those areas of supply and maintenance management where their active supervision will provide greatest benefit.

The program of instruction for this course has already been through the wringer, so to speak. Under the direction of the CofT two conference type classes consisting of senior TC Officers experienced in Army Aviation Logistics have been conducted. One of the primary purposes of these two initial classes was to develop the best possible POI for the formal course. We are confident that this has been done from the enthusiastic reports and comments received from the students themselves and various observers in attendance. Personally I feel that the course fills a long neglected gap in our aviation program. Too few senior officers are aware of the problems and complexity of Army Aviation Logistics.

The course is of two weeks duration with an imput of 16 students per class. The second class completed the Aviation Logistics Course on 5 Nov. 59. Additional classes will be presented as per the following schedule:

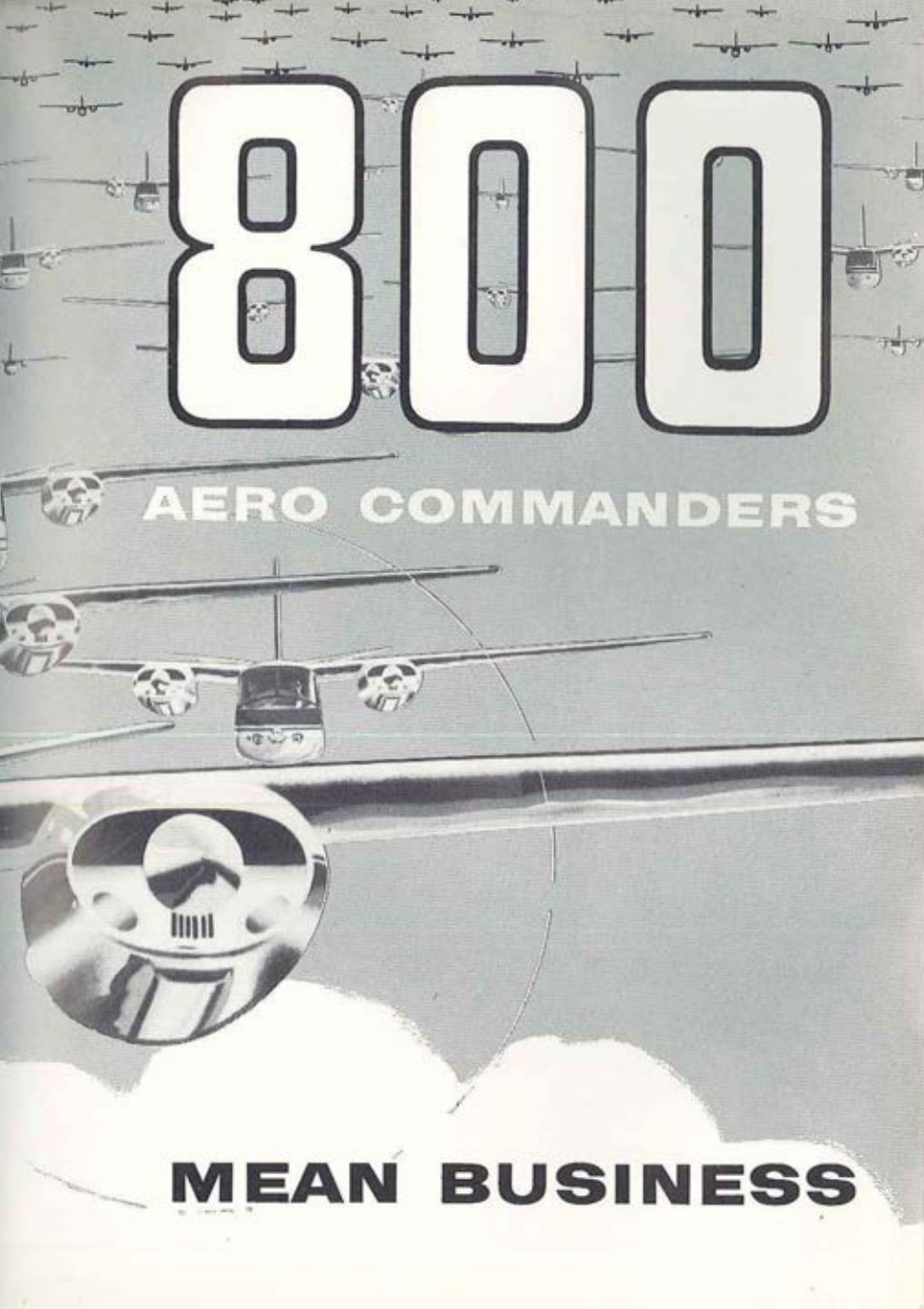
Class No.	REPORT	CLOSE
3	7 Feb 60	18 Feb 60
4	17 Apr 60	28 Apr 60

Course prerequisites as stated are: Lieutenant colonel or above, Member of the Regular Army or a Reserve component officer on active duty whose assignment is to be a key position in an organization, installation, or activity that has responsibility for operation or support of Army Aviation. *Security clearance required*: SECRET (final).

To insure the best and most up to date coverage of all of the subject material the CofT has directed that the most qualified personnel for each subject presentation be made available for this course.

Guest instructors from the OCT, TSMC, TRECOM, TATSA, and the TC section of the various general depots will make presentations.

I call your attention to the fact that attendance at this course is *not* restricted to TC officers. I personally recommend that all officers who satisfy the prerequisites make an effort to obtain a quota and attend the course as soon as possible.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AERO COMMANDERS
MEAN BUSINESS

TRIPARTITE CONFERENCE FURTHERS UNDERSTANDING

By Maj. General Ernest F. Easterbrook
Commanding General, U.S. Army Aviation Center

During the period 5-8 October 1959, the first *Army Aviation Tripartite Conference* was conducted at Fort Rucker, Alabama. This conference, attended by representatives of the United States, Great Britain, and Canada, was highly successful. It served to promote mutual understanding and standardization of the means and methods in the Army aviation field among the respective countries. The *Conference* was specifically aimed at standardizing Army aviation equipment used by the three nations so that they may effectively work toegther with minimum confusion.

Lt. Col. John W. Oswalt, Director of Combat Development, U.S. Army Aviation School, was Chairman of the Secretariat for this conference. Heads of respective delegations were: United States, *Brigadier General Ernest F. Easterbrook,* Commanding General, U.S. Army Aviation Center, Fort Rucker, Alabama; Great Britain, *Brigadier G. P. L. Weston,* DSO, OBE, Commandant, Army Air Corps Centre, Middle Wallop, Near Stockbridge, Hants, England; and Canada, *Colonel David R. Ely,* Aviation Section, Directorate of Combat Developments, Army Headquarters, Ottawa, Canada.

On "Missing the Boat"

Brigadier General Reuben H. Tucker, Chief, Infantry Branch, Officers Assignment Division, Office of the Adjutant General, Department of the Army, emphasized two basic, but important, points in an address to the graduating Army Aviation Tactics Class 59-12 on 29 September 1959. He said (1) Man is still the basic item because he can think and (2) Any weapon must be part of an organized system. He charged the new aviators wtih these remarks, *"You are the problem solvers since you must determine the characteristics of future warfare and develop the tactics that will be employed."* He warned, *"The graduate of this course who looks upon himself as just an aviator has . . . missed the boat . . . and will deteriorate. In effect, he will lose the scope of the big national defense picture."*

Maj. Gen. Ernest F. Easterbrook

Press Visit

The national press in the United States is taking even greater cognizance than ever before our program and its potential of expediting modern warfare.

Thanks to some fine work on the part of the Office of the Chief of Information, more than 15 of the nation's top journalists arrived during October for a two day visit at the Army Aviation Center.

Though their newspapers may line the trash cans only a few days after publication, no incinerator will ever be constructed that can erase the impression the news columns leave on the minds of the public.

We know Army aviation is newsworthy and the reporters who visit here will be doing the Army and the public a great service in getting the message across.

Caribou Welcomed

Another newsworthy item was the arrival of the *"Caribou"* at the U.S. Army Aviation Center for tests by the Army Aviation Board. Painted Army green, the sleek, twin-engine airplane received a hearty welcome from the aviators here.

Capt. Merrill Jameson, project test pilot, and several other Army avaitors brought the aircraft from the DeHavilland plant in Canada.

On 22 October 1959 in cold, drizzling rain the new ultra-modern heliport, formerly known as *Auxilary Field Number* 2 at Fort Rucker, was dedicated and renamed *Hanchey Army Airfield*. This key facility in the Army Aviation School complex memorializes *Major Charles Wesley Hanchey*, veteran Army aviator who died at Fort Leavenworth, Kansas on 31 May 1957. *Mrs. Hanchey* unveiled a portrait and bronze plaque in the lobby of the Operations Building to climax the ceremony. She and her three children spent several days at Fort Rucker visiting many family friends.

Fort Rucker can certainly be described as the cross roads of Army aviation as evidenced by the flow of students, instructors, and visitors. During the past four months we have entertained over 1700 guests of various ranks, station and purpose.

USAAVNS Photos

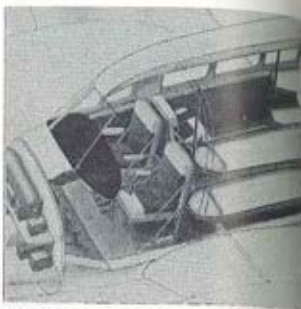
RIGHT, Top to Bottom: Maj. Gen. (then Brig. Gen.) Ernest F. Easterbrook (left) chats with Brig. Gen. P. L. Weston (U.K.) during the Tripartite Conference at Fort Rucker. CENTER: Capt. James R. Brubaker (2d from right) of Canada became the first Allied officer to receive a helicopter instrument rating at USAAVNS. Helping him through (l. to r.) Lt. Col. Raymond Johnson, Director of R/W Training; Col. Delk Oden, assistant commandant, and General Easterbrook. BOTTOM: Col. Jack L. Marinelli (center), president of the U.S. Army Aviation Board, briefs Mayors W. O. Pridgen (left) of Geneva, Ala., and M. N. Brown of Enterprise, Ala. on the Army's newest aircraft, the Caribou, following its arrival at Fort Rucker.

BELOW: Part of a group of fifty Army National Guardsmen currently taking proficiency training at USAAVNS, Lt. Charles F. Shearer (left) of Oneonta, N.Y., and Capt John A. Lynch (right) of Bordentown, N.J., receive a briefing from Hawthorne instructor pilot Dick Brundage. Some 115-odd ARNG officers graduated F/W and/or R/W training in 1958.

Why every officer who sees

The New U. S. Army

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



Cabin seats can be remove in minutes to convert th L-23F to a flying ambulanc

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

...r flies it votes for...

...L-23F Transport

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

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

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

★ ★ ★ ★

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

Beechcraft

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

USAREUR REPORT

Colonel Warren R. Williams

During September we enjoyed a chance to show *General von Kann* around USAREUR. Much to my regret I was unable to accompany him on his tour. We would like to have shown him more of our activities but his stay was too short. I'm certain his letter, which is printed in this magazine, will cover observations he discussed with me before he departed.

Recently the new film on *Aircraft Accident Investigation* was shown at USAREUR Headquarters. It is very good and I hope all Army aviators in USAREUR will see it. I find that some of our aviators don't know about new training films of interest that are available. They are listed in *"FILM TOPICS"* monthly amendment to USAREUR Manual 108-20. This goes to units of separate battalion size or larger. Better check your S1, AG, or G1 if you don't see this list in your unit.

I owe some of our readers an apology for not answering their letters in spite of my best intentions. Unfortunately, I am not in position to get each Army aviator coming to USAREUR an assignment to USAREUR Headquarters or to the USAREUR Flight Detachment. Neither do I have time or stenographic help to give you information on your probable assignment when you report here some six months after your letter.

In one recent case the writer was departing from the states about three days after I got his letter. If there is a problem that we can solve for you, don't hesitate to write. I'll try to help or find someone who can. If it's a question about your assignment and no unusual factors concerning your technical qualifications are involved, you will get a better and more prompt answer from G1. He has to give me the answer, anyway. Unusual cases I can discuss with him to everyone's benefit. This is not intended to be a gripe, but an explanation.

Colonel Bob Neely is now chief of the Supply and Services Branch in G4 Division, Headquarters, USAREUR. This should help in solving some of our supply and maintenance problems. However, *Bob* can't solve them if they are caused by failure to utilize the supply system and take follow up actions on your problems with your next echelon. As I've stated before, it is embarrassing to start chasing down a problem for someone only to find he hasn't discussed it with his own next echelon. If it is really an important problem you should follow up by personal contact with the CO or chief of the next echelon. If he doesn't come to see you, go look him up and get acquainted.

Currently undergoing testing at the Army's Redstone Arsenal, an Army HU-1A equipped with six SS-II rocket missiles carries lethal firepower. The SS-II with armor-detecting warheads can destroy any known tank.

When a local German trade school near Hq, USAREUR, needed help in installing a 500-gallon water reservoir atop its roof, an H-34 and crew from nearby Heidelberg Army Airfield answered the call. Moments later the bulky reservoir was in place. (U.S. Army photo.)

SITUATION: BESERK PASSENGER!

"It sure was nice to get that airplane on the ground."

* * *

In that calm fashion *Lieutenant Joel R. Steine* summed up his reactions after experiencing a pilot's nightmare that found him battling with a berserk passenger while airborne.

To add to the hair-raising drama, the plane was flying over thick Central American jungles —and the demented passenger was sitting in the co-pilot's seat.

Lieutenant Steine is assigned to the 937th Engineer Company (Aviation) (Inter American Geodetic Survey), a unit that has logged over 80,000 flying hours over some of the world's worst terrain. His duty station is in the capital city of a Latin American republic, but like other 937th pilots, his aerial missions take him to many remote areas.

* * *

Recently the U.S. Army Caribbean pilot flew an L-20 to pick up a field surveying crew that had been on an isolated hilltop for over two months and according to the flight plan it should have been a routine trip from point "A" to point "B."

The airport was a small strip owned by a Canadian gold mining company. The passengers were two natives of the country, who had journeyed some 15 miles by foot and burro to reach the landing field.

Both were haggard. Their clothing was in poor condition and apparently neither had been able to shave while on the hill. This is normal, however, for a person living in an isolated clearing about twice the size of an average room, where one may spend hours in just getting drinking water from a river.

* * *

Lieutenant Steine had made the trip alone, leaving his crew chief, since he knew the equipment the men were carrying would put him close to gross weight.

He knew, too, that Latin Americans are class conscious, so he asked the "jefe" or boss, if he would like to ride in the co-pilot's seat. *Lieutenant Steine* soon realized that was a mistake.

Parachutes were fitted and the men were given instructions printed in Spanish, which outlined what they were to do in the event of an emeregncy. Both had ridden in 937th aircraft before and said they had no questions.

As the lieutenant tells the story: *"The takeoff and climb out were normal, and I had just started trimming the aircraft for a cruise condition when suddenly I felt a cold draft. Looking at the co-pilot's seat, I saw that the passenger had opened the door. To my consternation, he had released his safety belt and shoulder harness —and was trying to jump!*

"Reaching out with my right hand I grabbed a piece of parachute harness and tried to pull him back into the seat. Fortunately, I had placed the other passenger in the seat behind the co-pilot's and he came to my aid. Between the two of us we managed to subdue the 'jefe' and succeeded in getting his shoulder harness and safety belt back on."

* * *

In his rather limited Spanish *Lieutenant Steine* talked with the man, who seemed to calm down. Then suddenly he pulled out a six-inch hunting knife. Screaming at the top of his voice he held the knife several inches from his chest with the blade pointing towards him.

After several minutes of wild fighting, with the aircraft veering madly through the sky, the passenger was disarmed. His companion prevented any further attempts by pinning his arms. The remainder of the trip was made without incident, although the "jefe" kept pleading hysterically for the pilot to shoot him.

With the plane safely down, *Lieutenant Steine* made a vow. *"Unless he's rated or I personally know the man—he stays out of the front seat in any craft I'm flying."*

This was not one of the emergencies that the lieutenant had been briefed on during his flight indoctrination. Joining the 937th at Fort Kobbe, Canal Zone on July 5, 1958, *Lieutenant Steine* was required to read voluminous safety directives, restrictions on flying and dozens of booklets covering utilization and operation of aircraft.

Every IAGS unit was notified of *Lieutenant Steine's* chilling adventure, and the information has been included in the "new pilot's file," so that other aviators will benefit by his experience.

USCONARC Directive Authorizes Further ACR Probes

Further probes of armed helicopter experiments by two divisions were authorized in a recent directive by Headquarters, USCONARC.

An operation that has been in the experimental stages at the U.S. Army Aviation Center for several years, the use of armed helicopters will be given it *first* division trial in January by Fort Benning's *Second Infantry Division*. Also scheduled early next year are troop trials with an armed experimental helicopter company of the *Second Armored Division* at Fort Hood, Texas.

Encouraged by the directive, Army Aviation Center combat development planners are at work on a proposal for the creation of an *Air Mobile Task Force*, embodying about 4,000 combat and support soldiers—all air-mounted—and employing about 631 aircraft.

ATS Symposium On Tap

Contract Army aircraft maintenance and training, including procurement matters relative to these service-type contracts, will be emphasized at the Aeronautical Training Society's *Army Aviation Contract Services Symposium* December 16, 1959, at the Mayflower Hotel, Washington, D.C.

Among the military speakers will be *Brig. Gen. Clifton F. von Kann*, Director of Army Aviation; *Brig. Gen. William B. Bunker*, Commanding General, Army Transportation Supply and Maintenance Command; *Edward C. Cox*, Chief of the Contract Awards Section, Procurement Division, Army Deputy Chief of Staff for Logistics; and others. Industry speakers will be headed by *Frank W. Hulse*, President of Aeronautical Training Society and Chairman of the Board of Southern Airways Company.

THE FIRST BEAVER STILL AT WORK!

Some people still have the *first* dollar they earned. Not to be outdone, the Army Aviation Center still has the first L-20 *Beaver* bought for Army aviation nine years ago. *And it's still working fine.*

The first of four original L-20's bought from the De Havilland Aircraft of Canada in 1950, L-20 number 16263 is now located at the *U.S. Army Transportation Aircraft Test and Support Activity* hangar at Cairns Army Airfield.

* * *

In March, 1951, *Col. (then Lt. Col.) Jack L. Marinelli* and *Lt. Col. (then Maj.) John W. Oswalt* delivered 16263 to the Office of the Chief of Army Field Forces (now Continental Army Command), at Ft. Monroe, Va. Two more L-20's were delivered to Ft. Bragg, N.C., and a fourth plane was sent to the Army Aviation School, then at Ft. Sill, Okla., in early 1951.

The L-20 sent to Ft. Sill was destroyed in an accident shorty after its arrival. One of the two planes at Ft. Bragg was sent to Korea in 1952 and used there for field test operations and as a VIP transport. It was later turned over to the Chief of Army Aviation of the Republic of Korea Army and saw service at ROK headquarters in Taegu, where it may still be. The fate of the other L-20 at Ft. Bragg is not known.

About 5,000 flying hours have been put on the plane since 1950. The only changes: the engine and the installation of more modern radio equipment. Number 16263 is now being used here for fuel evaluation tests by TATSA. It has also been used as a training plane.

In 1950, the cost of an L-20 was about $32,500. Today, the price is almost $48,000.

Visit

Paul E. Feucht, Deputy Assistant Secretary of the Army for Logistics, is shown being greeted by Col. John L. Inskeep, Camp Wolters commander, upon his arrival at the Mineral Wells installation for an inspection tour. (U.S. Army photo.)

THERE'S MORE TO IT THAN JUST THE BOX!

The finest weapon is only as good as the soldier who mans it and maintains it.

* * *

This principle is part of Army Aviation Training. Synthetic training devices and simulators have an important role in this training. They make it possible to gain skill in safely performing difficult or dangerous tasks under close supervision. Mistakes can be detected on the spot and eliminated by analysis and repetitive corrective action.

The next time you're in that little black box and you are making an approach with your airspeed a little low; ball and needle slightly off center; 30 knot crosswind with rough air; giving your position report; trying to trim it up; noticing your power settings are not just right; and setting your time clock; take a minute, sit back, relax, and try to think about the people who are the cause of your present "predicament."

There are many people and organizations involved in the manufacturing, repair, and upkeep of *Synthetic Aircraft Instrument Trainers.* The Department of Army obtains Synthetic Aircraft Trainers from the Department of Navy. Distribution, initial installation, and operational briefing is accomplished by the U.S. Naval Training Devices Center, Port Washington, N.Y.

* * *

The *Fourth Echelon Aircraft Maintenance Division* of the Transportation Supply Section in the General Depots has the responsibility for maintenance and repair of Synthetic Aircraft Instrument Trainers. The personnel at Sharpe General Depot, near Stockton, California, who maintain and repair Synthetic Trainers in the Sixth Army Area, perform an important job.

The Synthetic Trainer support mission of the Transportation Supply Section at Sharpe General Depot is to provide Fourth Echelon maintenance and back-up of Third Echelon support of installed trainers, accomplish TCTM's/TOC's and modifications, and accomplish component and end item overhaul for the 1CA1 Trainer.

In carrying out this mission, the *Synthetic Trainer Repairmen* of Sharpe General Depot travel to many remote areas within the Sixth Army Area. Thousands of miles are accumulated along the Pacific coast, through the lowlands and the deserts, around the hills and over the mountains, in order to reach the Active Army and National Guard air activities within this area. Traveling on a pre-determined schedule in a ½ ton Pick Up, the repairman carries his tools, special instruments, a stock of repair parts and certain major components for replacement. Unscheduled visits are made as required on request or as needed.

* * *

The Sharpe General Depot *Synthetic Trainer Repairmen* perform a variety of overhaul and repair tasks—overhauling the engine cut out systems, re-rigging aileron control loading and rudder center rig systems, re-wiring radio chassis, modifying Trainers for simulation of omni range. In addition, he inspects, repairs and adjusts the vacuum, electrical, electronic and mechanical systems of the complete trainer. A comprehensive review of the entire system is made to insure that the Trainer is operational in all phases. When necessary, he fabricates parts such as diaphragms, brackets, pulleys, connectors, tubing and hoses. He also performs on-the-job training in maintenance of Synthetic Trainers and instructs on operational theory of simulated radio navigational aids.

The effectiveness of Sharpe's Trainer Preventative Maintenance Program is demonstrated by the fact that since 1 July 1959 there has been only one instance of Trainer "down time" reported.

* * *

Any using activity of 1-CA-1 Trainers desiring maintenance assistance should let their needs be known directly to the General Depot within their area. Requests for maintenance assistance of AN-T-18 Trainers should also be made directly to the General Depot in lieu of requisitioning repair parts. Requests applicable to the AN-T-18 Trainer should be accompanied with a list of required parts needed. This is necessary because AN-T-18 parts are provided through cannibalization of Trainers in storage at the General Depots. The repair parts for 1-CA-1 Trainers are obtained from the Navy through Army supply channels.

Your Fourth Echelon *Synthetic Trainer Repairman* is available to serve you. Let your needs for assistance be known so that the Army Aviation Maintenance personnel of Sharpe General Depot and other General Depots may utilize their skills and help in their way to maintain the high standards of Army Aviators.

The Bureau Drawer

MAJOR HARRISON A. MORLEY
Army Aviation Section, National Guard Bureau

■ A few hurried lines between the *6th* and *1st Army Area Conferences*—if the weather doesn't follow us to Concord and prevent the people from getting in.

■ There are several revised ARs and changes to ARs pertaining to Army Aviation, which it would behoove us all to acquire and become familiar with. Here is a list of those received in NGB so far.

AR 95-32, dtd 1 Oct 59
AR 135-20, dtd 17 Aug 59
AR 600-106, dtd 7 Oct 59
AR 40-507, dtd 3 Sep 59
C6, AR 40-110 dtd, 4 Sep 59
C7, AR 40-500, dtd 6 Oct 59

Expect the implementation *NGR*, 95-1, for *AR* 135-20 to come out in the very near future. This has to do with application and Federal recognition procedures for ARNG enlisted and warrant officer volunteers for rotary wing training. This will be of interest to those States authorized helicopter companies.

■ Many constructive questions and suggestions have come to light in these *Army Area Conferences*. We're contemplating that a consolidation of these, along with the best answers we can dig up, will be included in the December issue, and in the next safety info brochure. We're sure there will be something for everyone—seems as though each conference brings out different problems and suggestions. It you ever want to know how a sitting duck feels, join me for one of the open discussion periods at a conference of this type. It's not really that bad, though, and we feel it is important to bring out the problems and suggestions—most of them are really apropos, and life wouldn't be interesting if we knew all the answers.

Still no replies to our request for photos and profiles of outstanding ARNG aviators. I know we have a few, at least, and I suspect we have many. Help us out; let others in *ARNG* get to know you through this magazine.

Splinters

by CAPTAIN JAMES I. SCOTT
Test Division, US Army Aviation Board

This is the fourth in a series of articles designed to keep AA readers abreast of the current testing program at the U.S. Army Aviation Board. New projects initiated since the last report will be described in some detail; completed projects will be noted; a brief look will be afforded to projects coming up in the future.

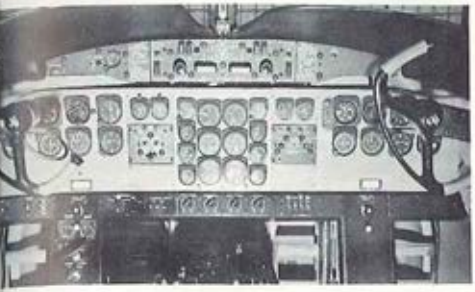
Caribou YAC-1DH

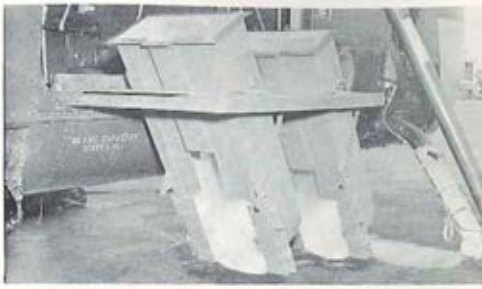
The *Aircraft Branch* initiated testing on two new projects. Derrierewise, the *Caribou* has it and as of the 19th of October thhe Board has the *YAC-1DH (Caribou)*. The Board project officers received a factory checkout and flew the aircraft to Fort Rucker to begin the service test program.

The *YAC-1DH* is a twin-engine, high-wing utility transport aircraft powered by two R-2000 engines each rated at 1450 BHP—takeoff power —and 1200 BHP—normal rated power. The design gross weight is 26,000 pounds within which a payload of approximately four tons may be transported for short ranges while over 2½ tons of payload may be carried approximately 870 nautical miles. Empty weight is 18,000 pounds.

Cargo is normally loaded through electrically operated rear ramp doors. The upper section

rom the Board





of the doors retracts into the tail section and the lower section may be positioned at truck-bed height or lower. Ramp extensions are used when loading from the ground. The cargo compartment has provisions for 32 seats or 8 seats and 14 litters.

The aircraft is designed for a cruising speed of 150 knots at 50% takeoff power and a touchdown speed of 54 knots. Wing span is 96 feet; 9 inches. We think you'll find the above photo of the *Caribou* instrument panel quite interesting.

Target Marking System

During the Korean conflict Army aircraft were utilized to mark targets for tactical air support. This included dropping smoke grenades and "leading" to the target. The *Target Marking System* is designed to launch sub-caliber *Aircraft Rockets* (*SCAR's*) to mark targets for close support aircraft and ground weapons. The system is mounted on an L-19E and will permit firing six *SCAR's* singly, or in pairs. The principal components are two rail-type rocket lanuchers (each accommodating three 2.25-inch *SCAR's*), a control panel, a sight, a firing switch on the pilot's control stick grip, and an emergency jettison feature.

One new project was initiated in the *Instrument Branch*—A *Speed-Sensitive Switch Control* for use with ASE installed in an H-21. The *Control* is designed to provide an automatic "down" collective pitch to an optimum auto-rotative position in the event the rotor speed falls below a minimum preset RPM. An additional feature of the system is a "shaking" action of the collective pitch stick which occurs when the rotor RPM drops to the preset minimum. The *Control* can be overridden by the pilot at any time using normal pressures. This particular device provides only for underspeed control and does not utilize a high rotor RPM limit.

Fire Truck Testing

The *Equipment Branch* initiated testing on two new projects. There will be fewer derelict fuselages at Fort Rucker when the Board finishes testing and comparing the 530*B Fire Truck* (pictured in left photo) with the *Aircraft Conversion Set* and the *Class* 1500 *Fire Fighting Truck*. A *Conversion Set* was developed by the US Army Engineer Research and Development Laboratories for converting the *Standard* 530*B Fire Truck* to an aircraft crash-fire vehicle. The *Class* 1500 *Truck* was originally developed for missile work.

A navigational steer, "practice" or otherwise, can be invaluable. Currently under test is the 155-*A UHF Direction-Finder Set*. It is a portable ground-based radio direction-finder capable of providing bearing information for navigational steers automatically and instantaneously from CW, voice, or tone signals in the 225-400 mc. band.

Ten projects have completed testing since the last report. The *Aircraft Branch* has completed the *turbine-powered L-19A*, the *Wide-Chord Blades* for the H-37, and the confirmatory testing of the *HU-1A*. The *Instrument Branch* has completed testing a *Course Director* and *ASE* in an H-21C. The *Equipment Branch* has completed test projects on *Aircraft Orientation Instrument ("Magnarose")*, *Life Preservers*, a *Gaseous Oxygen Servicing Unit*, a *Speed Sensitive Switch Control*, and the *M-8C Aerial Field Wire Dispenser* which incidentally, was not tested in the HU-1A, as previously reported, because of lack of suitable mounting hardware. This *Wire Dispenser* is shown installed on an H-34 in the right photo.

The *YHO-3BR* project, which has been in a suspended status as a result of a Navy accident, heas been terminated.

Coming up is an *Automatic Flight Control System (autopilot)* programmed for test in an H-21. Now that ASE has been proved, an autopilot is a logical "follow-on" item. A prototype installation of an *Exhaust Flame Damper* for the L-20A and *Ground-Fire Suppression Kits* for the H-13 and H-21 are to be evaluated in the immediate future.

Industry Briefed At CONARC

Representatives of approximately 100 aircraft and electronic firms attended a December 1st meeting held at Fort Monroe, Virginia, to hear briefings on the U.S. Army's long-range needs in aviation.

Conducted by representatives of *OCRD*, the *Army Transportation Corps*, the *Signal Corps*, and *USCONARC*, the one-day conference blocked out areas in which *new* types of aircraft not now available may be needed over the next 10-12 years.

The first step in a new program to develop Army aircraft, the conference solicited *"aeronautical brainstorming."* Army officials said the firms will be given approximately 10 weeks to work out on a voluntary, no-pay basis new aviation design concepts to meet the following needs:

light observation aircraft with a wide array of performance capabilities close to the battlefield,

surveillance aircraft heavily instrumented with electronic devices, and

versatile highly-mobile transport aircraft built to operate in battle areas.

Conference officials were quick to point out that rigid requirements and characteristics have *not* been established at this point, giving industry design engineers and scientists wide latitude in creative thinking.

Safety Award of Honor

Maj. Gen. Frank S. Besson (r.), Chief of Transportation, is shown presenting the Corps' Award of Honor to Maj. Gen. N.H. Vissering, Commanding General, Fort Eustis, Va., on behalf of the Transportation Training Command. The TTC earned the award for the most outstanding acheivement in the prevention of accidents within the Corps during FY 1959. (U.S. Army photo.)

ARMISH MAAG Aviation Section "Happy in Left Field"

Have orders to *ARMISH MAAG Headquarters*? Here are a few facts on Army aviation in Iran by *Lt. Jeptha I. McNair, Jr*:

"In June, '59 the first of ten AA's reported for duty with the newly organized Army Aviation Section at *ARMISH MAAG Headquarters* in Teheran, Iran. Our first aircraft—an L-23D—arrived in the same month and was supplemented by seven new Beavers in July. The maintenance personnel have reported for duty. However, most of the tools, spare parts, and parachutes have yet to arrive (late Sept).

We operate from *Galah Morge Airfield* in Teheran with three Beavers, each with a pilot and mechanic, being assigned to field training teams in Iran. *Some interesting facts*: all night flying is restricted to instrument flights on airways. The MEA for most airways is 18,000 feet. Our maintenance backup support is located some 3,000 miles away, and our nearest parachute re-pack facility is some 700 miles away in Saudi Arabia.

What with SOP road conditions prevailing (an hour in an L-20 being equal to seven hours in a vehicle), we've managed to maintain in excess of 50 hours flying time per month per aircraft as a section."

BY
WILLIAM D.
BICKHAM

WHAT DO YOU KNOW ABOUT JP-4?

As you have no doubt noticed, a lot of the new equipment around the Army is now powered with turbine engines. The turbine engines used in this equipment, the *HU-1A* helicopter being one such piece of equipment, use a type of fuel which is new to most of us in the Army. The fuel is called *JP-4*, which is essentially a mixture of aviation gasoline and kerosene.

No doubt about it, this *JP-4* is good fuel. The Air Force has used it for almost 10 years and found it ideal for turbine engines. However, some of the properties which make *JP-4* ideal for use in turbine engines make it hazardous to handle *unless* precautionary measures are taken. Fuel in the liquid state will not burn; the vapor from the fuel *will* burn.

The flash point of a petroleum product is the temperature at which it gives off sufficient flammable vapor to ignite. All petroleum products exert vapor pressure to an extent determined by their volatility (tendency to evaporate).

JP-4, wtih a flash point of 0°F and vapor pressure of 2-3 psi, would at first appear to be less critical to store and handle than Avgas, which has a -30°F flash point and vapor pressure of 6-7 psi.

However, the flammability range of *JP-4* in a storage tank or tank truck runs from 0°F to 100°F as when contrasted with a range of -40°F to +30°F for Avgas under the same conditions. If either of these fuels is held at temperatures below these limits, too little vaporization takes place for a flammable mixture to form in the tanks. At temperatures above these limits the resultant mixture would be too rich to burn.

It should be noted that the flammability of *JP-4* brackets practically all of the ambient temperatures which we would expect to find during the course of normal fueling conditions.

LEAKAGE OR SPILLAGE

A small amount of Avgas spilled on the ramp or in the hangar would, probably, not be a matter of great concern as it would evaporate quickly. But *JP-4* spillages are residual because of this fuel's low volatility, and small accumulations can become major hazards in time because of lingering combustible vapors. Absorbent cleaning material or clothing that becomes saturated with *JP-4* must be cleaned or disposed of well away from the hangar area or aircraft on the line.

The enforcement of *"No Smoking"* regulations becomes *doubly* important in areas where *JP-4* is stored or transferred and it is essential that aircraft should not be fueled or defueled inside hangars.

Although this is not really a safety consideration, *JP-4* spillages cause deterioration of ramp and runway surfaces to a much greater degree than Avgases in common use today; particularly where these surfaces are made from asphalt or macadam.

STATIC DISCHARGE AND JP-4

In its pamphlet, entitled, *"The Storage and Handling of Jet Fuels at Airports,"* the American Petroleum Institute has this to say about static generation:

"Aviation fuels are relatively poor conductors and static generation will depend largely upon the amount of turbulence associated wtih fuel transfer.

It is also believed that the tendency toward static generation is increased by the presence of finely divided conductive materials, such as water or rust.

Since the more viscous fuels (such as JP-4) are more apt to hold such impurities there has been a tendency to report that jet fuels are more susceptible to static generation. It is not evident that adequately-settled and filered jet fuels will differ markedly from aviation gasoline in their susceptibility to static generation . . .

Turbulence can cause the separation of positive and negative charges. One charge will

accumulate on the liquid surface, whereas, the opposite charge will find its way to the tank. In such instances, the magnitude of the accumulated charge on the liquid surface will depend upon the rate of generation minus the rate of leakage or dissipation (such as, from the edge of an oil surface to the tank shell).

The larger the liquid surface between grounded points, such as metal posts and shell, the greater will be the mangitude of the charge. Grounding a tank cannot prevent the formation of a charge which can produce sparks along the surface of the fuel. The rate of generation can be minimized by avoiding *excessive* surface agitation . . . "

MINIMUM STATIC ACCUMULATION

It has been determined that a potential of 12,000 volts or more is necessary to supply sufficient energy to explode a *JP*-4 vapor mixture. But, we also know that this amount of potential can accumulate in a very short time unless adequate safety measures are observed.

The following precautionary *JP*-4 handling procedures have been excerpted from current Air Force and Navy directives and should serve to minimize the danger of accidental static discharge during transfer processes.

1. *Avoid surface agitation.*

Do not use "splash" filling. Fill at slow velocities while the fuel level is low, and attempt to immerse the fill nozzle in the fuel whenever practicable. Long, flexible, conducting nozzle extensions are commercially available and should be utilized.

2. *Minimize the entrance of air into fuel lines.*

3. *Avoid pumping mixtures of fuel and water.*

Drain receptacle tanks daily and test for the presence of water in storage tanks often.

4. *Avoid the storage of JP-4 in tanks constructed of concrete or other poor electrical conducting material.*

5. *Do not gauge or sample JP-4 tanks during filling.*

6. *Do not allow servicing personnel to wear metal "taps" on their shoes.*

7. *Before removing the aircraft fill cap, ground the truck fill nozzle to the aircraft, thus equalizing the electrical potential between both vehicles. Truck to ground and truck to nozzle grounds should also be effected.*

8. *Do not fuel or defuel during electrical storms.*

9. *Do not fuel or defuel while aircraft or ground radar sets are operating within 300 feet.*

10. *Position ground power on auxiliary units on the windward or up-slope side of fueling operations.*

The Petroleum Industry and armed services are attempting to develop anti-static additive agents which will completely eliminate static build-up in *JP*-4 and other types of fuels.

Development of these agents will spell a significant advance in jet fuel engineering, but even with such a product improvement, caution should be the byword an handling *JP*-4.

SEDIMENTATION AND WATER

Simplified maintenance and vastly improved weight-to-horsepower ratios make gas turbine powerplants, such as the *Lycoming T*-53, ideal for use in helicopters. However, in order to achieve maximum and safe performance from these engines, utmost care must be taken to insure that they are fueled with clean, dry *JP*-4.

Reciprocating engines are able to cope with small amounts of sediment, but jet fuel controls are far more susceptible to clogging than conventional carburetors because of their integral minute clearances. The relatively small gas turbines under discussion consume approximately a third more fuel, per unit of horsepower than their conventional counterparts and the resultant higher rate of consumption causes sediment to pile up on filters, restricting fuel flow.

Water in suspension (emulsified water) in jet fuel is a problem because of the filter icing and clogging which it is apt to cause after it condenses and freezes with decreases in temperature.

Free water in fuel can also cause this problem which is obviously more of a problem in the case of high performance jets, which are subjected to tremendous temperature changes incurred during rapid climbs to high altitudes, than it is in the case of helicopters operated at relatively low altitudes in temperate climates. Nevertheless, it is quite conceivable that filter icing and subsequent clogging might occur at any altitude in cold environs, especially if aircraft are stored in warm hangars prior to operation.

In one instance, the pilot of an *HU*-1 experienced sudden engine failure just prior to takeoff. Investigation later revealed that the falure was directly attributable to fuel contamination. During the process of transferring the fuel from storage tanks to the refueling tender and into the helicopter, it had been filtered with conventional Avgas equipment which proved totally inadequate.

As previously mentioned, *"It is also believed that the tendency toward static generation is increased by the presence of finely divided*

conductive materials such as water or rust," we see that there is a definite relationship between fuel cleanliness and safety during fuel handling and storage.

Having established the need for dry, clean jet fuel it should now be pointed out that these requirements are not easy to come by. Turbine fuels have an inherent affinity for water and will carry dirt longer than conventional Avgas. The settling rate for micronic particles in *JP-4*, does not appear too explicit in prescribing minimum standards of cleanliness. It simply states that *"The fuel shall be free of undissolved water, sediment, and suspended matter. No substances of known dangerous toxicity, under usual conditions of handling and use, shall be added."* Oftentimes local commanders prescribe their own fuel cleanliness standards and these are written into procurement specifications.

Chemical analysis and time honored visual inspections at refineries insure that fuel is dry and well within cleanliness tolerances when it is delivered at the refineries—prior to handling and storage. Unfortunately, contamination of one sort or another is often introduced while the fuel is in transit or storage. Under the latter conditions *JP-4* tends to get behind rust particles on tank sides, loosening them and holding them in suspension. Also, turbine fuels will actually absorb water from tank bottoms.

Vehicles of the petroleum transportation system—pipelines, tankers, tank cars, and tank trucks—cannot be kept antiseptically clean and all such exposures are possible sources of contamination.

Ground filtration equipment intended for use with Avgas will provide a limited degree of filtration for *JP-4*, but filter/separators capable of removing micronic sediment particles, and emulsifications are highly recommended, such as those conforming to specification *MIL-F-8508A*.

At this point, one might ask *"Why not design fuel systems capable of handling greater amounts of contamination?"* First of all, the size and weight of such installations would probably rule them out. Secondly, the reliability of such a system would be questionable and a malfunction could cause engine stoppage. Aircraft fuel screens and filters are, and must remain, last chance safety devices.

SUPPLIER PROCEDURES

It is incumbent upon petroleum suppliers to set forth maximum effort in guarding against fuel contamination. To this end, one major oil company has evolved a philosophy of turbo fuel handling, the substance of which is as follows:

Takes Two to Tango

This is our 81st consecutive month of publication since March of '53. Do you receive CONSECUTIVE issues? If not, the chances are that we lost you during a "PCS." Our "Takeoffs" column listing your address change carries your Change of Address Notice and confirms your return to "Consecutive" status.

1. The fuel must be kept reasonably clean and dry throughout the entire handling system. It is not practical to deliver a contaminated turbo fuel and suddenly clean this fuel up to specification as it is loaded into an aircraft.

2. It is essential that no dirt or water be picked up at any point throughout the handling system.

3. No one item or any particular type of filtering equipment should be relied upon to do the job. Settling time and mechanical devices must be worked together so that insurance items are built into the handling system.

4. Fuel delivered from the final storage points at the airport should be *on specification*. It must be maintained in this condition and given a final clean-up on the refueler just before it goes in the aircraft. A desired goal for this system is to deliver a product with less than one milligram of dirt per gallon and less than 2.5 parts per million of water.

The foregoing philosophy presupposes into-plane delivery by the supplier. Quite often the military services take delivery of the fuel at the refineries or break-out points, and they should accept responsibility for their part of the handling cycle. This is primarily a logistical problem but it does have lower echelon implications.

INSPECTIONS

Periodically, storage tanks and refuelers should be inspected for cleanliness. Field commanders can prescribe minimum settling time before allowing *JP-4* to be "thieved" from the tops of storage tanks; a good rule of thumb in this connection is to allow 6 hours for each foot of tankage. Fuel samples can be taken by fuel handling personnel who should be familiar with visual inspection and sampling procedures as prescribed by TM1-42B-1-1 which is published under the auspices of the Military Petroleum Supply Agency.

It has not been our intention to recommend specific fuel handling or inspection procedures. However, we hope that the foregoing discussion will be of some value to those of you who are, or will be, involved with *JP-4*.

month's takeoffs

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A LOCATOR SERVICE ON ARMY AVIATION PERSONNEL
AS COMPILED FROM CHANGE OF ADDRESS NOTICES FORWARDED TO "ARMY AVIATION MAGAZINE"

Look-See

Col. Byunejo Lee, Commanding Officer of the Transportation Maintenance and Supply Depot of the Republic of Korea, is shown receiving a brief lesson in the link trainer at Felker Army Airfield during a visit to Fort Eustis, Va. Col Lee and four other Korean officers were escorted by Maj. Walter Trapp (2d from left), CO of the Transportation Airfield Operating Element. (U.S. Army photo.)

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KEMP, Freddie L., Lt, 502 N. Lucas Street, Fort Bragg, N.C.
KEYS, Meckie I., CWO, 104 Harris Drive, Fort Rucker, Tex
KINBACK, George E., Jr., Capt, 937th Engr Co (Avn) (IAGS), Fort Kobbe, Canal Zone.
KLIPPEL, Kenneth L., Lt., Quarters 8695, Fort Lewis, Wash.
KNOTTS, Daniel L., Lt, 937th Engr Gp (Combat), Fort Campbell, Kentucky.
KOLB, Robert W., Maj., 2124 Munson Drive, Columbus, Ga.
KONRAD, Elmer W., Capt, Tripp, South Dakota.

Mom Takes Off!

Capt Frank A. Burdick, operations officer for the Buccaneer Flying club, congratulates Mrs. Mary Knotts, first woman to solo in the Canal Zone flying club since its inception. She made the flight in a PA-17 Vagabond. Mrs. Knotts, mother of four children, is not the only air-minded member of the family. Her husband, Lt. Daniel Knotts, is a pilot on duty with the 937th Engineer Company (Aviation) (IAGS), Fort Kobbe. Under a recent military regulation, all military personnel, their dependents and civilian personnel working for the U.S. govenment are authorized membership in the flying club. (U.S. Army Photo.)

LEIGHTON, Henry P., Jr., Capt, 329th Engr Det (Geo Surv), APO 231, New York, New York.
LEMES, Ralph V., Lt, ROC, 97th Sig Bn, APO 46, N.Y., N.Y.
LEVINSON, Joseph, Capt, 2d USA Missile Command, Ft. Carson, Colorado.
L'HOMMEDIEU Richard F., Lt, Hq Det, Avn Command, USAARMC, Fort Knox, Kentucky.
LINDSTRAND, Nelson L., L/Col, 15th Aviation Co, 1st Cav Div, APO 24, San Francisco, California.
LITTLETON, Walter M., Lt 318 Davidson, Mineral Wells, Texas.
LORENCE, Carl E., CWO, Off Stu Co, USAAVNS, Fort Rucker, Alabama.
LOS BANOS, Bernard, Capt, 1023 Burgoyne Ave, Mountain View, California.
LOWE, James V., Maj., 30th Trans Co (AAM), APO 165, New York, New York.
LYON, Gerald D., CWO, 26 Greenacre Drive, Woodbridge, Virginia.
McCOOK, James W., III, Lt, 2622 Mirror Lake Dr, Fayetteville, North Carolina.
McCRANIE, Asa C., Capt, Office of CG, Fort Devens, Mass.
McDANIEL, Robert L., Maj., 1242 Eastbridge Rd SW, Atlanta, Georgia.
McLENNAN, Stuart G., Jr., Capt, 6833-B Fleming, Fort Sill, Oklahoma.
McNAIR, Carl H, Jr., Lt, 7 Lowe Drive, Columbus, Georgia.
McNATT, Orville W., Lt, P.O. Box 146, Ft. Rucker, Ala.
MALNATI, Peter J., Lt, Student Officer Det, Fort Eustis, Va.
MALONE, Paul B., III, Capt, 377 Spear Drive, Ft. Bragg, North Carolina.
MARSH, Elgin R., Jr., 62 Hitchens Lane, Newport News, Va.
MARSH, Virgil E., Lt, AMSS (Med Det), Fort Sam Houston, Texas.
MAYSE, Harvey C., Cap, 103 Smith Dr, Walker Village, Killeen, Texas.
MIKULA, Joseph G., Lt, 9-C Sunchon Street, Ft. Bragg, North Carolina.
MILEHAM, Richard L., Capt, 542d Med Co (Clr) (Sep), Fort Ord, California.
MILES, Charles R., Capt, 90th Trans Co (MH), Ft. Knox, Kentucky. (25 Nov).
MILLER, James H., Capt, Airfield Comd, USAAVNS, Fort Rucker, Alabama.
MILLER, Oliver J., Lt, 819 "G" Street, NW, Ardmore, Oklahoma.
MOLDEN, Daniel E., Jr., Lt, First Arctic Test Center, USA, Fort Churchill, Manitoba, Canada.
MONTS, William B., Jr., Lt, 816 Ringold St, Area J, Schofield Barracks, APO 957, San Francisco, California.
MORRIS, Arnold C., Capt, 1607 Lindy Avenue, Lawton, Oklahoma.
MOULTHROP, Robert M., Capt, 5323-G Fisher Avenue, Fort Knox, Kentucky.
MURPHY, Raymond H, Lt Col, Hq, Army Sect (DCSPOT), MAAG-Taiwan, APO 53, San Francisco, California.
MUTER, Joseph J., Capt, 305 Old Court House Rd, Vienna, Virginia.
MUTTONI, Donald S., Maj, 233 Ivy Rock Lane, Havertown, Pennsylvania.
MYERS, Richard E., CWO, 5224 Milland Street, Springfield, Virginia.
NAGAO, Henry J., Capt, Hqs Btry, 56th Arty Gp, Fort Bragg, North Carolina.
NEAMTZ, John C., Capt, 36th Trans Co (LH), APO 165, New York, New York.
NORNBERG, John T., L, 17814 W. Westview Avenue, Waukesha, Wisconsin
NORTON, Chapman C., Capt, USAAMS, FACOAC (6-A-C5), Fort Sill, Oklahoma.
O'DAY, Nat, Capt, 160th Signal Gp Avn Section, APO 46, New York, New York.
OFGANT, Edwin I., Jr., Lt., 52 Cypress Street, Norwood, Massachusetts.
ORTNER, Anthony J., Lt, 8th Avn Co (Inf Div), APO 111, New York, New York.
OTERSEN, Vincent, Capt, USA Sig Gar (6400), Ft. Monmouth, New Jersey.
PATTON, Robert S., Capt, Off of the CG, Hq, 8th Inf Div, APO 111, New York, New York.
PEAVY, Jack D., Capt, 17 Fowler Lane, Fort Rucker, Ala.
PERDELWITZ, Lee E., Capt, 2d Avn Co (FW-TT), USAREUR ComZ, APO 58, New York, New York.
PERKINS, Eldon R., Capt, 631 Woodford Street, Bowling Green, Kentucky.
PHILLIPS, Jack R., Capt, 3rd Trans Co (Hel), Fort Benning, Georgia.
PICK, Rudolph, Lt, Hq, Campbell Army Airfield, Ft. Campbell, Kentucky.
PIERCE, Wilbur R., Jr., Lt, 3rd LAS, APO 358, San Francisco, California.
POOLE, Arthur J, Lt, 44305-A Davis Street, Fort Huachuca, Arizona.
POTTER, Floyd E., Capt, Sect 119-D, Box 1148, Officers Mail Room, Fort Monmouth, New Jersey.
POTIS, William L., Capt., P.O. Box 2102, Clarksville, Tenn.
PUIG, Joseph P., Jr., Lt, 1819 Clark Street, Laredo, Texas.
RAMEY, H. Marsh, Lt, 100 Dothan Road, Enterprise, Ala. (Temp).
RAULSTON, Bobby E., WO, P.O. Box 224, Harvard, Mass.
RAWLINGS, M. G, Lt Col, Hq, V Corps, APO 79, New York, New York.
RIEBEL, David L., Lt, 15th Avn Co, 1st Cav Div, APO 24, San Francisco, California.
RINNE, Orville H., Capt, RR 2, South Thoman Rd, Crestline, Ohio.
RIVIERE, George L., Lt, B Btry, 9th FA Bn, APO 36, New York, New York.
ROACH, Dick E., Capt, P.O. Box 1603, Ft. Sill, Oklahoma.
ROBINETTE, Albert L, Lt Col, 304 Ice Circle, Alexandria, Virginia.
ROPP, Richard F., Lt, 1186 Duncan Drive, York Terrace, Williamsburg 6, Virginia.
ROSENSON, Daniel, Mr., The Aeroflex Corp., RD 1, Box 193, Newton, New Jersey.
RUEBSAMEN, Dale, Lt, 6th Trans Co (LH), APO 71, San Francisco, California.
RUEHLING, Edward H., CWO, 93d Trans Co (LH), Ft. Devens, Mass.
RUMPH, David M., CWO, Hq, 45th Trans Bn, Fort Sill, Oklahoma.
RUNGEE, James L., Lt, 9 Woodard Circle, Chattanooga 11, Tennessee.
RUST, William P., Lt, Box 132, 101st Avn Co (Abn Div), Fort Campbell, Kenucky.
ST. AUBIN, Robert J., Capt, Avn Det, Hq, USAREUR, APO 403, New York, New York.
SCHNEIDER, E. A., Mr., Collins Radio Co, 429 Universal Bldg, 1825 Connecticut Avenue, Washington 9, D.C.
SCHWARTZ, William W., Capt, 27 Fowler Lane, Ft. Rucker, Alabama.

SCOTT, Lloyd D., CWO, Dept of R/W, USAAVNS, Fort Rucker, Alabama.
SEAGRAVE, David A., Lt, Intercontinental Mfg. Co., Inc., Curtis Field, Brady, Texas.
SHERIDAN, Milton, C., Capt, Stu Off Co, USAPHS, CI 60-03, Camp Wolters, Mineral Wells, Texas.
SHORE, Edward R., Jr., Lt, 90th Trans Co (MH), Ft. Knox, Ky.
SHRADER, Cecil L., Lt, 1911 Rancier Avenue, Killeen, Tex.
SLUMPFF, Carl F., Maj, 6810 Highland Avenue, Springfield, Virginia.
SIGLER, Charles B., Jr., Mr., 623 West Cherokee, Enid, Oklahoma.
SMITH, Blair E., Lt, Hq, 2d Bn, 2d ACR, APO 139, New York, New York.
SMITH, Carroll W, Jr., Capt, 16 South 45th, Lawton, Okla.
SMITH, Hubert G., Lt, Sig Avionics Det/USAGD, APO 247, New York, New York.
SMITH, Norman, Capt, Hq, 16th Sky Cav, Fort Carson Colo.
SMITH, Raymond F., Capt, Stu Det, AMSS, No 8AC4, Ft. Sam Houston, Texas.
SMITH, Richard C., Capt, 3604-B, Cadet Sheridan Road, Area K, Schofield Barracks, T. H.
SMITH, Roland C, Maj, 502 Winter Street, NE, Salem, Oregon.
STARKER, Joseph B., Capt, 7th Avn Co (Inf Div), APO 7, San Francisco, California
STEVENS, Charles L., Capt, Dept of Pub & NRI, Fort Rucker, Alabama.
STEVENS, Franklin K., III, Lt, USA Trans Det (Sandofen), APO 28, New York, New York.
STEVENS, Merwin A., Mr., Agronomy Dept, Utah State University, Logan, Utah.
STEWART, Donald B., Capt, USA Polar Research & Development Center, Fort Belvoir, Virginia.
STOBBE, Roman J., Capt, 5370-D Fisher Avenue—Van Voorhis Manor, Fort Knox, Kentucky.
STRANGE, Loren C., Capt, 19th Trans Co (MH), Ft. Benning, Georgia.
SUDDABY, Arlen R., Capt, Qtrs 543-A, N. Valdez Dr, Ft. Benning, Georgia.
SULLIVAN, Henry C., Capt, 205th Trans Bn (AAM), APO 154, New York, New York.
SULLIVAN, Henry W., Mr., Beech Repr, Dir for TC Supp & Maint, USARJ, Depot Complex, APO 343, SF, Calif.
SUNDBY, Selmer A., Capt, 86 Harris Drive, Fort Rucker, Alabama.
THERIAULT, Bernard R., Capt, 27 Lincoln Road, Peabody, Mass. (Temp).
THOMPSON, William A., Capt, 24th Avn Company, APO 112, New York, New York.
THORNTON, Olen D., Lt, Tank Co, 1st Bn, 11th ACR, APO 305 New York, New York.
TOBIAS, John C., Lt, 18th Avn Co (FW-TT), Fort Riley, Kansas.
TREAT, Robert B., Jr., Lt, 3006 Plantation Road, Columbus, Georgia.
TURVEY, Clifford V., CWO, 103 Harris Drive, Fort Rucker, Alabama.
TYSON, Robert M., Jr., Capt, 15th Avn Co, 1st Cav Div, APO 24, San Francisco, California.
UTZ, John S., Lt, c/o Andrew S. Urban, Route 1, Box 132, Fairmont, West Virginia.
VINING, Ray E., Capt, Stu Off Co, Box V-5, Fort Rucker, Alabama.
VOELKEL, Eugene, Lt. 2d How Bn, 28th Arty, APO 330, New York, New York.

About People

• *Vice Adm. John B. Moss (USN, Ret.)* has joined Vertol Aircraft Corporation as *Assistant to the President.* The former Naval Aviator served as president of the Hoffman Laboratories Division of the Hoffman Electronics Corporation during the 1955-1957 period.

• *Frank K. MacMahon* has been appointed *Manager of Military Programs* for Vertol, according to an announcement by *James N. Davis, Vice President—Government Operations.* In his new position, *MacMahon* will be responsible for the overall administration of policies and practices in connection with the Company's military programs.

• *Lt. Col. Harold A. Tidmarsh* has been assigned as *Associate Director of the Research Directorate,* according to a recent USATRECOM announcement. Also assigned to the Fort Eustis, Va., facility were *Lt. Col. Ernest H. Francis* as *Associate Director of the Aviation Directorate* and *Maj. Elmer V. Merritt* as *Associate Chief of the Systems and Equipment Division, Aviation Directorate.*

VOVILLA, Harold K., Lt, 2d USACIFC 60-3, Off Stu Co., Fort Holabird, Maryland.
VRANICAR, Franklin E., Lt, USAAVNS ORWAC 59-6 Ft. Rucker, Alabama.
WADDELL, Roger W., Lt, 8th Trans Bn (Hel), 24th Avn Det, APO 29, New York, New York.
WALKER, Alvin E., Lt, 15th Avn Co, 1st Cav Div, APO 24, San Francisco, California.
WALTER Frederick J., Capt, Route 1, Box 63, Augusta, Ga.
WARD, Felker, Lt, 7th Avn Co (Inf Div), APO 7, SF, Cal.
WATERMAN, Benjamin D., Capt, 25th Signal Bn, APO 164, New York New York.
WATSON, Shelley F., Capt, 2947 Hummingbird Lane, Richmond Hills, Augusta, Georgia.
WEBB, Robert M., Maj., 8607 95th SW, Tacoma 99, Wash.
WEGGELAND, Henry N., Lt Col, Qtrs 33, 3rd Infantry Road, Ft. Leavenworth, Kansas.
WESTFALL, William J., Lt, Officer Student Company, Fort Rucker, Alabama.
WHALE, Raymond K., Capt, IAGS, Peru Project, c/o US Embassy, Lima, Peru.
WILLIAMS, Charles J., Jr., CWO, 26th Trans Co (Lt Hel), APO 122, New York, New York.
YUNCK, Richard T., Capt., 164 N. Dougherty, Ft. Bragg, North Carolina.

Easy Does It!

Shown during a recent JCOC Conference held at Fort Benning, Ga., a 54th Trans Co (Med Hel) Mojave simultaneously lifts two Jeep-trailer combinations. Personnel and six H-37 aircraft of the Fort Sill unit took part in the demonstrations for approximately 100 key civilians, and representatives from all Army Service Schools.

A REPORT ON THE
NATIONAL EXECUTIVE BOARD MEETING
NOVEMBER 13TH-14TH

Buoyed by the best individual attendance since the inception of the AAAA in early '57, the *National Executive Board* held a most productive *Quarterly Meeting* in Washington, D.C., on November 13-14.

Meeting at the Marriott Motor Hotel on the call of *Bryce Wilson*, President of the AAAA, fifteen members of the 21-member *National Executive Board* accomplished 21 separate actions in the three-session meeting.

Attendees

National Board attendees included *Bryce Wilson* (Pres); *Col. O. Glenn Goodhand* (ExVP); *Lt Col Alexander J. Rankin* (VPA); *Howard E. Haugerud* (VPG); *Sam Freeman* (VPR); *Joseph E. McDonald* (VPI); *Col. I. B. Washburn* (Ret.) (VPP); *Charles E. Haydock, Jr. (Trea)*; and *Lt. Col. Keith A. French (Sec)*.

Also participating were *Col Robert R. Williams* and *James N. Davis* (Members-at-Large); and three Regional Presidents, *Col. John J. Tolson (WASHINGTON)*; *Col. Robert F. Cassidy (MIDEASTERN)*; and *Lt. Col Vernon L. Poynter (TEXAS)*. *Lt. Col. William G. Kilmer*, President of the *FORT MONROE CHAPTER*, attended all sessions as an observer.

The Board was delighted to host *Brig. Gen. Clifton F. von Kann*, Director of Army Aviation, who stopped by for a brief visit during the course of the Saturday a.m. session.

Rankin

Haugerud

Actions Taken

The following actions were taken by the *National Executive Board* during the two-day *Quarterly Meeting*.

1) Reviewed the *Honorary Membership Program* as outlined by *Lt. Col. A. J. Rankin*, Committee Chairman, selecting as the initial four Honorary Members of AAAA:
the Director of Land and Air Warfare, U.K.
Commandant, British Army Air Corps Center.
Director of Army Aviation, Canadian Army.
Commandant, Canadian Army Aviation School.

2) Disapproved of the proposal that an officer of the Judge Advocate Corps serve as a member of the National Executive Board.

3) Approved of the proposal that a Flight Surgeon serve as an advisory member of the National Executive Board. The President appointed *Col. J. J. Tolson* to administer the details of this proposal.

4) Discussed the proposal to have D/A briefing teams address the larger ARNG-USAR summer encampment groups. The Board felt that this was an official matter and took the position that it should be informally brought to the attention of the Director of Army Aviation for possible official consideration.

5) Approved of the proposal to alert applicable Chapter Presidents as to arrival of USAR-ARNG aviation units in their areas under the new "hosting" summer field training concept so as to have the Chapter activities acquaint the Reserve Forces' personnel with the benefits of membership in AAAA.

Industry Films Sought

6) Approved of the proposal to have the National Office serve as a central point for distribution of industry aviation films for use by Chapter activities and Reserve Forces units. Directed the National Office to poll each Industry Member firm on the availability of films and to publish a sustaining list of available films in the official organ.

7) Approved of the proposal to forward a personal letter from the President of AAAA to each non-member of the USAR along with a

current issue of the official organ to be provided gratis by the publisher. Directed the National Office to contact each CONUS Army Aviation Officer for name and address information on active USAR aviation personnel.

8) Received the Report of *Col. R. R. Williams,* 1960 Annual Meeting Chairman, approving the general 1960 Annual Meeting Plan with the details to be subject to later Board approval. Tentative plans call for a full day AAAA Business Meeting to be held at the Sheraton-Park Hotel, Washington, D.C., on Sunday, August 7th, 1960, to be followed that evening by an *AAAA-Industry-sponsored Reception,* these functions to precede the AUSA-AAAA concurrent meeting on Monday, August 8th. AAAA planning for Monday will include an *Awards Luncheon* and afternoon programming.

9) Laid preliminary ground for a possible Fall, 1960 program.

10) Approved of the Presidential appointment of *Col. O. Glenn Goodhand* (Chairman), *Lt. Col. A. J. Rankin, J. N. Davis, and C. E. Haydock, Jr.,* as a Committee to review and present a final draft of an agreement between the Association and the publisher of *"ARMY AVIATION."* The Board approved a three-year agreement, subject to renegotiation annually for a three-year period, and approved the advertising revenue program as presented by the publisher of *"ARMY AVIATION."*

Unit Award Approved

11) Approved of the proposal to have a sponsored award as a unit award. The standing Awards Committee was directed to establish the criteria for this Award for consideration by the Board at its February, 1960 meeting.

12) Approved of the Presidential appointment of *J. N. Davis* (Chairman), *Col. J. J. Tolson, Col. I. B. Washburn* (Ret.), and *Lt. Col. W. G. Kilmer* as a Committee to investigate the areas in which the Ass'n can assist in orienting top-level military and civilian authorities on the roles and missions of Army aviation.

13) Approved of the proposal to have the firm of *Bergen & Willvonseder* serve as the Association CPAs authorizing this firm to undertake and submit an audit of AAAA finances for the April 18, 1957-March 31, 1959 period.

14) Approved of the proposal to have the above firm undertake and submit an addit on an annual basis, and to assist the Association in the preparation of its annual tax returns.

Joint Meeting

Shown addressing an AHS-AAAA combined meeting at Fort Rucker, Ralph Alex, Sikorsky Aircraft, addressed the membership on his recent trip to the U.S.S.R. detailing the aspects of Russian jet and helicopter developments. Col. O. Glenn Goodhand, Executive Vice President of the AAAA, is shown at th speaker's left; Lt Col. John W. Oswalt, meeting MC, is "reflected" in the background mirror.

15) Approved of the proposal to have the National Office prepare and submit an April, 1960-March, 1961 budget based upon estimated income and expenditures for this period, the budget to be presented to the Board at its February, 1960 meeting.

Replacement Emblems

16) Approed of the proposal to have the Association underwrite the purchase of podium seals and/or AAAA banners for each organized Chapter activity, authorizing the expenditure of $600.00 for this purpose (approximately $20.00 per Chapter.)

17) Approved of the issuance of *replacement* Scotchlite Emblems to those members who have purchased individual emblems from the National Office.

18) Reviewed the summary of the Flight Pay Protection Plan as presented through an earlier mailing by the National Office.

19) Approved of the slate of nominees for 1960-1962 National office as presented by the Nominations Committee. Directed the National Office to present this slate to the Association in a formal mail ballot in February, 1960.

20) Disapproved of the proposal to change Industry Membership Dues for the 1960-1961

membership year.

21) Selected Friday, Feb. 5th and Saturday, Feb. 6th, 1960 as the dates for the next *Quarterly Meeting* of the National Executive Board. Tentative sites include the Marriott Motor Hotel and the Sheraton-Park Hotel, Washington, D. C.

GENERAL

As of November 7, 1959, the AAAA had 4,947 individual members in good standing and 32 Industry Member firms in good standing. On that date, the AAAA had seven organized Regional activities and 30 active Chapters.

STATEMENT OF ASSETS, LIABILITIES AND SURPLUS AS AT SEPTEMBER 30, 1959

ASSETS	
Cash, Manufacturers Trust Co.	$2,428.27
Cash, Connecticut Nat'l Bank	1,468.37
Due on Claims from Underwriters	1,700.00
Equipment	382.30
Organizational expenses	123.00
Prepaid expenses:	
FPPP Insurance Premiums	942.39
Bonding	19.19
Life & Disability Insurance	101.36
TOTAL ASSETS	$7,164.88
LIABILITIES	
Accrued Expenses:	
Magazine inserts	319.00
Subscriptions	243.74
Deferred Income:	
Dues received in advance	24.00
TOTAL LIABILITIES	586.74
SURPLUS	6,578.14
TOTAL LIABILITIES AND SURPLUS	$7,164.88

ADDENDUM: Despite a perpetually heavy agenda and rigid time limits, few Board Meetings are 100% cold business, and each is marked by its share of humorous incidents. This time the Board found that the management had placed its meeting site within 15-20 feet above the Marriott's mammoth ice skating rink. Although the heavily populated rink with its many forms of whirling (and falling) flesh did not offer a constant distraction, the entire meeting was paced by the best that Musak could offer the skaters.

The arrival of the Director was a surprise to all, and particularly to Col. Tolson, the Washington Regional president, who escorted the General to the meeting. Preceding the General into the smoke-filled room, the Deputy Director made an unexpected field goal as he accidently kicked a well-shaped shoe through the coffee table legs. (The Board utilizes an "off in the corner" lady as recording secretary and she, like most off-center stenographers, is not hesitant about removing those oppressive, but stylish shoes.)

The phrase, "Do I hear a motion from the floor?" was quite in order in that chair-space, as usual, was at a premium. At least three Board members spent a full day and a half casting their "ayes" and "nees" from supine, floor positions.

One particular Board member, concerned about his affinity for being appointed to Committee after Committee, kept looking for a less vulnerable chair. He was constantly assured by the President that the Board had no "hot seat" and that in true Board tradition, the Board normally appointed abstentees to Committees. (This practice encourages maximum attendance.)

Missed by all was Col. Robert M. Leich, Member-at-Large and AAAA Past President who missed his first meeting since April, '57. The general consensus of the Board when told that Bob was attending another business Convention at the Americana in Miami Beach: "It figures."

No post-Meeting actions were attempted by the Board at the Saturday evening "social" sponsored by the FORT MEADE CHAPTER. The Board in toto joined the caravan of D. C. members attending the Dinner-Dance at Fort Meade and appeared to have one purpose in mind: having fun and meeting old friends.

Get-Together

USARCARIB Chapter members are shown during the "social" end of their Quarterly Meeting held in Panama City in mid-October. Participating were members from the 937th Engr Co (Avn) (IAGS), USA Det Carribbean, and IAGS projects in Costa Rica, Nicaragua, Guatemala, the Dominican Republic, Panama, and Colombia. Lt. Col. Jack W. Ruby, president of the Chapter, and Lt. Karl Osterloh were the principal speakers.

REVIEW OF FPPP CLAIMS

File 1 (Major). Meniere's syndrome. Has received 24th (final) indemnity check. Indemnity total: $5,160.00.

File 2 (Captain). Arthritis. Has received 22nd indemnity check. Indemnity total to date: $4,510.00.

File 3 (Captain). Episodes of loss of consciousness. Has received 22nd check. Indemnity total to date: $4,510.00.

File 4 (CWO). Muscular atrophy of left shoulder. Has received 22nd check. Total: $2,800.00.

*File 5 (Lieutenant). Respiratory condition. Received six checks prior to a return to flight status. Total: $960.00.

File 6 (Lieutenant). Nerve ailment in shoulder & back. Has received 17th check. Total: $2,620.00.

*File 7 (CWO). Ileitis. Received nine checks prior to a return to flight status. Total: $1,125.00.

*File 8 (Captain). Transient numbness of right arm and face. Returned to flight status prior to the loss of flight pay.

*File 9 (Lieutenant). Recurring disability due to injuries received in an automobile accident. Received three indemnity checks prior to a return to flight status. Total: $480.00.

File 10 (Captain). Diabetes/cardiac condition. Has received 15th check. Total: $3,000.00.

*File 11 (Captain). Hernia. Returned to flight status prior to the loss of flight pay.

File 12 (Captain). Cardiac condition. Has received 15th check. Total: $3,000.00.

File 13 (Lieutenant). Meningitis. Received ten checks prior to a return to flight status. Total: $1,700.00.

File 14 (Major). Hepatitis. Has received 12th check. Total: $2,640.00.

*File 15 (Lieutenant). Sacroiliac. Returned to flight status prior to the loss of flight pay.

File 16 (Captain). Demyelinating disease. Has received 12th check. Total: $2,460.00.

File 17 (Captain). Eye infection. Has received 9th check. Total: $1,710.00.

File 18 (Captain). Pericarditis. Has received 12th check. Total: $2,460.00.

File 19 (Lieutenant). Deviated septum. Has received 11th check. Total: $1,650.00.

File 20 (Captain). Eye surgery. Has received 12th check. Total: $2,280.00.

File 21 (Captain). Cardiac condition. Has received 6th check. Total: $1,230.00.

File 22 (Lieutenant). Severe injuries and burns following aircraft accident. Has received 4th check. Total: $600.00.

File 23 (CWO). Visual deficiency. Has received 8th check. Total: $1,080.00.

*File 24 (Major). Broken leg following skiing accident. Returned to flight status prior to the loss of flight pay.

File 25 (Captain). Ulcers. Has received 7th check. Total: $1,260.00.

File 26 (Captain). Ulcers. Returned to flight status prior to the loss of flight pay.

File 27 (Captain). Ulcers. Has received 5th check. Total: $1,025.00.

File 28 (CWO) Arthritis. Has received 6th check. Total: $810.00.

File 29 (Lieutenant). Migraine. Has received 4th check. Total: $372.00.

File 30 (Captain). Hypertension. Has received 4th check. Total: $820.00.

*File 31 (CWO). Broken elbow incurred in volleyball game. Received four checks prior to a return to flight status. Total: $520.00.

File 32 (Captain). Hearing loss incurred within 30 days of initial coverage. Invalid under Form 908-C.

File 33 (Captain). Aviation accident. Has received 3rd check. Total: $615.00.

File 34 (Lieutenant). Hemophilia. Has received 3rd check. Total: $300.00.

*File 35 (Lieutenant). Hepatitis. Returned to flight status prior to the loss of flight pay.

File 36 (Captain). Malaria. Approved claim. Indemnity payments to start November, 1959.

File 37 (Lieutenant). Hepatitis. Approved claim. Indemnity payments to start November, 1959.

File 38 (Lieutenant). Struck in eye by shotgun pellet during hunting accident. Awaiting completed claim forms.

File 39 (Captain). Broken elbow. Awaiting underwriter approval.

File 40 (Lieutenant). Hodgkins disease. Awaiting completed claim forms.

*File 41 (Lieutenant). Ulcers incurred within 30 days of initial coverage. Invalid under Form 908-C.

File 42 (CWO). Grounding notification received and claim forms forwarded.

File 43 (Lieutenant). Grounding notification received and claim forms forwarded.

File 44 (CWO). Grounding notification received and claim forms forwarded.

File 45 (Captain). Grounding notification received and claim forms forwarded.

File 46 (Lieutenant). Grounding notification received and claim forms forwarded.

File 47 (Lt. Colonel). Grounding notification received and claim forms forwarded.

File 48 (Sp/6). Grounding notification received and claim forms forwarded.

*Inactive Claims.

The monthly indemnity total, as of October, 1959, stood at $3,890.00 per month.

• ARMY AVIATION MAGAZINE, Westport Conn. •
Second Class Mail Privileges Authorized at Westport, Conn.

A proud moment for General Richard D. Meyer as Maj. Gen. Frank S. Besson (left), Chief of Transportation, and Mrs. Meyer share "pinning honors" following the promotion of the Deputy Chief of Transportation for Army Aviation to the rank of Major General.

Mr. David Leigh, acting for Mayor Raymond R. Tucker of St. Louis, accepts a gift of two baby caribou from the government of Newfoundland, Canada, following the aerial delivery of the animals from Canada to St. Louis in an Army Caribou aircraft. (U.S. Army photo.)

Returning from an official flight, Brig. Gen. Ernest F. Easterbrook, Commanding General, U.S. Army Aviation Center, is shown being greeted by his wife and son at Cairns Army Airfield. They were on hand to give him the news that he had been promoted to the rank of major general.