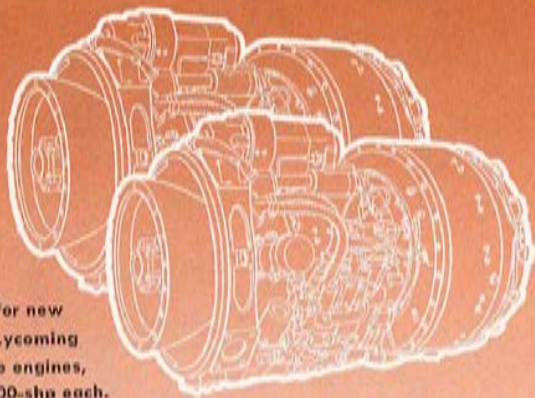


MARCH/1962

# ARMY AVIATION



Powerplants for new  
Army aircraft are twin Lycoming  
T55-L-5 gas turbine engines,  
rated 2200-shp each.

**LYCOMING POWERS BOEING-VERTOL HC-1B "CHINOOK"**



# Lycoming

Division—Avco Corporation  
Stratford, Conn./Williamsport, Pa.

# ARMY AVIATION

VOLUME 11  
MARCH, 1962  
NUMBER 3

## ARTICLES

- A LOOK AT THE FAR EAST  
by Brigadier General Delk M. Oden, ODCSOPS, D/A.....117
- FORT RUCKER REPORT  
by Major General Ernest F. Easterbrook, CG, USA Aviation Center.....121
- PREPARATION OF POI'S (Programs of Instruction)  
by Colonel Jack K. Norris, Commandant, USAPHS.....124
- USAREUR REPORT  
by Colonel J. Elmore Swenson, Headquarters, USAREUR.....127
- CONARC REPORT  
by Major Kenneth D. Mertel, Headquarters, USCONARC.....143
- "ON THE DECK!"  
by Captain James L. Guion, CDEC, Fort Ord, California.....147
- KEEP YOUR EYE ON THE RED LINES!  
by Paul L. Hendrickson, Plans & Program Office, USATMC.....149
- SERENDIPITY  
The best things in life...are stumbled upon!.....152

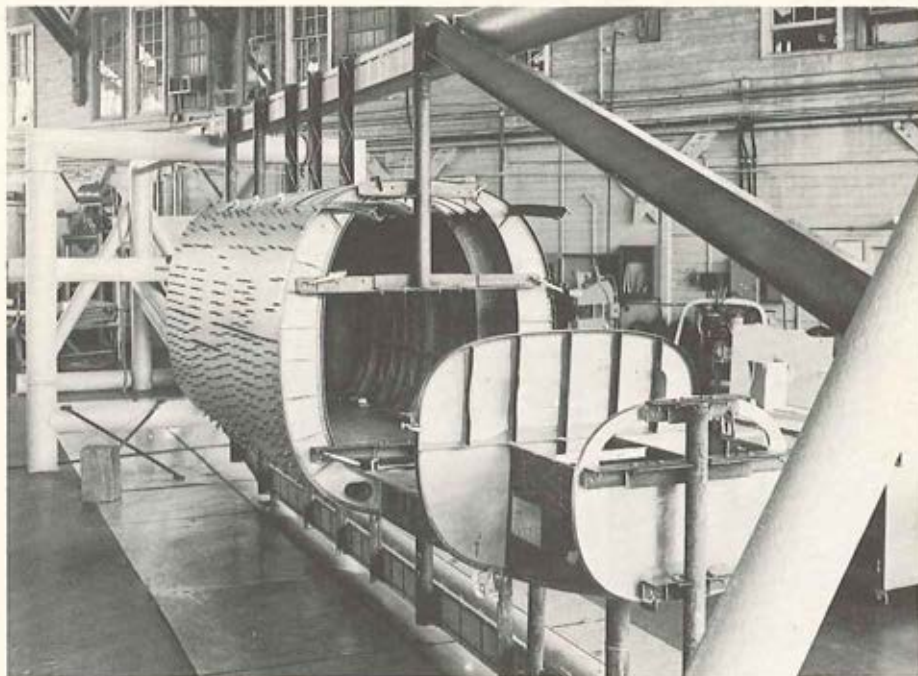
## DEPARTMENTS

- PCS  
Changes of Address and Station.....135
- AAAA NEWS  
Reports of National and Chapter Activities within the AAAA.....155
- OBITUARIES.....142

## ADVERTISERS

- Avco Lycoming Division, front.....Vertol Division, Boeing Company, 128-129  
Aero Commander, Inc., 115.....de Havilland Aircraft of Canada, 132-133  
Bell Helicopter Company, 116.....Beech Aircraft Corporation, 136-137  
Sikorsky Aircraft Division, 119.....Hiller Aircraft Corporation, 158-159  
Hughes Tool Co.-Aircraft Division, 126.....Aircraft Radio Corporation, 131  
Sperry Phoenix Company, 145

ARMY AVIATION is published monthly by Dorothy Kesten, Westport, Conn. Editorial and Business Office, 1 Crestwood Road, Westport, Conn. Phone: CGA 7-8266. The views and opinions expressed in the magazine are not necessarily those of the Department of the Army or the staff of the publication. Articles, news items, and photographs pertinent to Army aviation are solicited and should be mailed to the Editorial Office so as to arrive on or before the 10th of the month preceding the cover date month. Data submitted for publication should bear the name of the writer and should be accompanied by a return envelope bearing sufficient postage and the return address of the submitter. Accepted articles pertinent to any Army aviation subject except unit or AAAA activities are reimbursable at the rate of ten cents per published line. Subscription fees: Continental U. S., APO, and U. S. Possessions, \$3.50 per year; all other addresses add \$0.75 per year. Active Army personnel are requested to submit a residence or quarters address for magazine distribution purposes whenever possible. Back issues cannot be held unless an advance "Hold Notice" is furnished by the subscriber together with the date on which his "in transit" status will terminate. Advertising correspondence should be directed to the Business Office. Closing date for insertions is the first day of the month preceding the cover date month. Second Class Postage Paid at Westport, Connecticut.



## MIRACLE OF MOBILITY TAKING PLACE

Shown above is the cabin section of the new Model 1121 Jet Commander. This new concept aircraft is scheduled for flight certification tests by mid-1962. Two CJ610 (J-85 type) engines, 2850 lbs. thrust each, will speed the 1121 at .80 mach at 35,000 feet. Yet the 6- to 8-place Jet Commander retains the stability and short field capabilities of the current Aero Commander L-26 series now in Army service. Delivery of production models is scheduled to begin in 1963. Send the coupon below for complete information.

**AERO** **COMMANDER**

Thomas Sim, Vice President, Marketing  
Aero Commander, Inc.  
Bethany, Oklahoma

Please send complete details of the new model 1121  
Jet Commander to:

NAME \_\_\_\_\_ RANK \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY, STATE \_\_\_\_\_



WORLD  
STANDARD  
**bell**  
MILITARY & COMMERCIAL HELICOPTERS

## ARMY'S IROQUOIS IS MISSION READY

**OUTSIDE** Up to two tons can be carried in the ASSAULT SUPPORT ROLE from a single point suspension cargo hook. The Iroquois compactly designed for air-transportability, also fits the smallest carrier elevator. And its low battlefield silhouette permits easy concealment. It can be equipped with rockets, machine guns and missiles for brush-fire warfare.

**INSIDE** For MISSILE SITE SUPPORT, the Iroquois (HU-ID) can accommodate pilot and twelve passengers. Its roomy interior allows teams of specialists and missile crews to reach scattered missile locations in minutes... unhampered by road or weather conditions. Seats are quickly removed to provide 220 cubic feet of cargo space.

**UP FRONT** The Iroquois is a pilot's aircraft, easy to fly and ideally suited for TRAINING MISSIONS. Currently it is the only military turbine helicopter used for instrument training. In the primary role, it can carry instructor and two students for continuous 4½ hour flights.

*Look to BELL for Superior Mission Capability*

Proven by the Army and in quantity production, the Iroquois is ready and available... off-the-shelf... for multi-service utility and training assignments.



**BELL HELICOPTER COMPANY**

Fort Worth, Texas • A Division of Bell Aerospace Corporation • A **Textron** Company

## A LOOK AT THE FAR EAST

**D**EAR Army Aviator:

There is no doubt in my mind that January, 1962 was one of the busiest and most interesting months in the life of any Director of Army Aviation since this position was established in January, 1956. However, before I go any further, I believe it is appropriate to digress because we have passed a real milestone in Army aviation.

TWO ARMY officers who have spent their entire careers in Army aviation have recently been nominated for promotion to Brigadier General. To Colonel Robert R. Williams and to Colonel Glenn Goodhand: "All of your fellow aviators salute you and say, 'Congratulations!'" To the young officer who is looking forward to a career in the Army and in Army aviation: "The fact that two aviators so closely identified with the program were selected to be general officers clearly indicates that there is a bright future ahead."

NOW BACK to my busy month of January. Here are some of the facts covering the trip:

Traveled continuously for 26 days.

Covered 25,350 nautical miles during the period.

Flew 77 hours, of which 33 hours were by commercial jet and 44 hours in Army aircraft.

Visited 7 countries outside of the United States, including the Philippines, South Vietnam, Cambodia, Thailand, Taiwan, Okinawa (U.S.), Japan, and Korea.

Of these countries, four, - Thailand,



Taiwan (Republic of China), Korea and Japan - have going organic Army aviation programs patterned after our U.S. system.

Visited every MAAG Army aviation section in the Pacific Command (PACOM), including the tactical units recently transferred from CONUS to South Vietnam; also, most of the many splendid aviation units in U.S. Army Pacific located at Okinawa, Korea, and Hawaii.

PRIOR to my Far East trip, former Deputy Director (now Brig. General and MAAG Chief in Ethiopia) Jack Tolson visited U.S. Army Pacific units in Hawaii, Japan and Korea in 1960. However, as I have just found out and as all in my audience know who have made the full circuit of the PACOM area, sitting in Washington, D.C., offers little if any means of appreciating how important Army aviation is to the field users in PACOM and how extremely well Army aviation is doing there - in spite of long supply distances and unusual maintenance problems.

REGARDLESS, I can say truthfully from first-hand experience by being there that I am proud of our flying and support units in the Pacific areas of the world. They are working hard; they are producing; and they have gained topnotch reputations through

## FAR EAST/CONT.

strenuous effort. Because of this, ALL - and I say this again - ALL commanders and staffs whom I met spoke constantly of requiring more - more - more organic aviation capability in their respective areas.

IN BRIEF TERMS, my trip was like this. Spent the first two days out of Washington in Hawaii meeting with Admiral Harry D. Felt, the Commander in Chief, Pacific (CINCPAC), and General James F. Collins, his Army Commander in the Pacific (CIN-CUSARPAC).

## SOUTH VIETNAM

NEXT I WENT to South Vietnam, where I observed our helicopter units. One unit had just closed into this location the day before and had twenty flyable H-21's on a PSP ramp which was prepared and laid by a Vietnamese Army engineer platoon, and was completing the establishment of its camp when we arrived, and according to field manual specifications so familiar to WW II and Korea days. I remember particularly that day, a splendid noon meal outside the mess tent, with officers and men alike very intent on the fried chicken served.

AT THE SAME TIME nearby, I could see a warrant officer with manual in hand giving direction to two privates - aircraft mechanics normally - on procedures for digging a squad-size shower unit. In another direction, a sergeant was supervising two Vietnamese laborers during the installation of a 12-man latrine. Again, I observed a well being dug by a local contractor in the camp area, using manpower instead of mechanical drill equipment to reach the source of fresh water - they were underground when I last saw the tops of the diggers.

WE WENT to other sites where there were excellent living quarters but very rudimentary aircraft parking and maintenance facilities.

AFTER SPENDING ten days in and around the Vietnam area, I am impressed with the fine attitude toward the mission and responsibilities shown by our Army units there. In addition, the equipment looks good and to date has performed admirably, both during training phases with the Vietnam Infantry companies and in operations against the Communist Viet Cong.

ALTHOUGH South Vietnam was our major stop in Southeast Asia because of the recent contributions of U.S. Army aviation units there, I was still able to look at events in Cambodia and Thailand and Laos. In Vietnam and the other named countries I can now understand how very much our Military Assistance Advisory Group (MAAG) people need U.S. Army type aviation in direct support of them. They need it to communicate, to get around, and to support themselves from home to their bases when in the field. It is the best and, in fact, the only reliable way!

## TAIWAN-KOREA-JAPAN

FOLLOWING Southeast Asia, I stopped at Taiwan with the Republic of China Army headquarters and staff aviation personnel; then at Okinawa to see the Army's only Utility Tactical Transport (UTT) Helicopter Company (HU-1A's); next, to Korea by L-23 to see the Eighth Army; and finally, to Japan to observe the aircraft supply and depot back-up for Army aviation in PACOM.

NOW AGAIN in the Pentagon, I feel more convinced than ever that Army aviation has something to offer which is needed drastically everywhere - and requirements will increase for years to come. However, I am just as seriously concerned that our services are at a premium in all areas of the world. This simply means that we must make every effort now to do as much as possible for the Army.

I KNOW that I am really back to the hard realities of Pentagon staff work for I see that Department of the Army message



## The five firsts of Sikorsky's S-61

With Sikorsky's proven S-61, actions speak louder than words. For example, the S-61 helicopter is:

- First to hold five world speed records
- First to achieve 1,000 hours time between overhaul on its dynamic components
- First twin turbine in military operation
- First twin turbine to be certified by the Federal Aviation Agency
- First to feature Sikorsky's Blade Inspection Method (BIM) which provides positive blade inspection in only 10 seconds

To these performance and reliability firsts, add another advantage: versatility. The S-61 can operate from almost any surface—including water, ice, snow and mud—to perform a variety of aerial bus, VIP transport, utility, drone or capsule recovery, and cargo transport missions. It has both cargo hook and rescue hoist, Doppler Navigational System, and automatic stabilization equipment. In addition, all necessary ground training aids and tech orders are available.

Sikorsky's S-61 is in volume production. It is ready now to meet an expanding range of military needs.

**Sikorsky Aircraft**

STRATFORD, CONNECTICUT

DIVISION OF UNITED AIRCRAFT CORPORATION

U  
A

589386, dated 5 February 1962, has been dispatched to all commands to point out that the Annual Flight Status Review Board will convene at Headquarters, Department of the Army on or about 2 April 1962.

THE MANY actions and reactions connected both directly and indirectly with the convening of this board indicate that perhaps all of us should re-examine our 201 files on one hand and AR's 600-105, 600-106, and 600-107 on the other. Such a re-examination might well point out explicit ways that we can make ourselves better Army aviators and better officers and hence less vulnerable to future review board actions. The regulations mentioned above emphasize the longstanding Army policy that the Army wants more than personnel skilled in flying. It wants well rounded officers, firmly grounded in their branch. Flight Status Review Boards look at the man as a whole and not just his flying ability.

HERE are some of the questions they might ask:

What is his OEI? If low, does his OEI indicate a better trend?

How much civilian schooling does he have? If substandard in formal education, what is he doing toward general educational development?

Is he abreast of his contemporaries in military schooling?

Has he had a variety of assignments - staff and command, aviation and non-aviation?

Has he been in any serious or repetitive trouble?

What uncomplimentary things do his raters and indorsers say about him? Has there been any trend to correct such traits?

Does he show a true interest in improving himself in the aviation profession? Does he stay on the safe side of minimums? Is he accident prone?

MANY of these rather subjective questions must go into the board's consideration of the potential worth of every individual.

IN CONCLUSION, I recommend for our future mutual success, your collective, individual, and personal support as your part of the endeavor known as Army aviation. You may be called upon next to serve in actual operations!

## BELL HU-1B ROCKET PACK TESTED

An Army HU-1B Iroquois fitted with 48 aircraft rockets is being tested currently at the Redstone Arsenal, Alabama. The armament installation includes two pods mounted on the sides, each holding four rows of six modified Navy 2.75 inch folding fin aircraft rockets.

### 24 SHOT CAPACITY

Operated by a single electrical firing system mounted on the cyclic stick, the rockets are fired in pairs by the pilot with a total of 24 "shots" available in each ammo load.

Following tests at Redstone Arsenal, Army test pilots will fly the Bell HU-1B to Fort Rucker for further firing and flight tests under the direction of the



Transportation and Ordnance Corps development team.

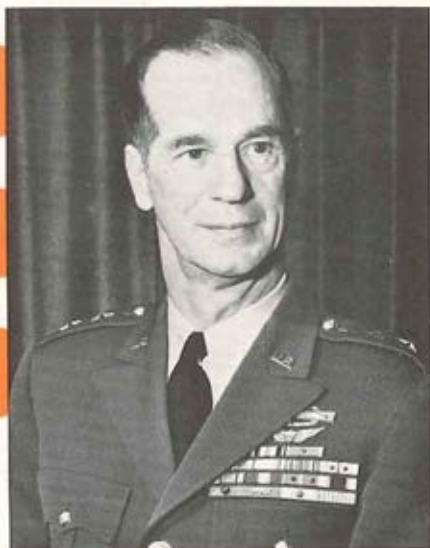
Other armament under consideration for the versatile Iroquois to provide air mobile battlefield support for ground troops include: anti-tank guided missiles, grenade launchers, and machine guns. (Bell photo).



**FORT**

**RUCKER**

**REPORT**



**D**ISTINGUISHED visitors and definite action toward expansion of our facilities marked the start of the new year. An official two-day visit to Fort Rucker by General Herbert B. Powell, Commanding General of the U.S. Continental Army Command, on January 10-11, highlighted the month's early activities. During a tour of the activated Reserve and National Guard units, General Powell voiced appreciation of the job being done by those components. He was equally pleased with the facilities of the Army Aviation Center and forecast a continuing progressive future for Army aviation in general, as well as for the Army Aviation Center.

NAJEEB E. Halaby, Administrator of the Federal Aviation Agency, made his initial visit to the Aviation Center on January 18. Mr. Halaby viewed a complete aerial combat reconnaissance demonstration at Matteson Range and inspected the flight facilities at Cairns Army Air Field. He took an aerial tour of the post and observed a demonstration of the family of Army aviation

**BY**

**MAJOR GENERAL**

**ERNEST F. EASTERBROOK**

**COMMANDING GENERAL**

**USAAC, FT. RUCKER**

aircraft at the Division Parade Field. Accompanying the FAA Administrator were Brig. Gen. Paul Pruess (USAF), Deputy Administrator for Military Affairs; Lt. Col. Fred C. Goodwin, Project Officer of the Hummingbird and VSTOL programs; and Mr. Frederick Freeman, Director of the Helicopter Operations Program of the FAA.

THE COMMANDING General of the Third U.S. Army, Lt. Gen. T.H.J. Trapnell, visited the mobilized Army Reserve and National Guard units on January 25. He observed MOS schooling of radio and teletype repairmen by the Signal units, and watched road construction activities by the Engineer units.

ON JANUARY 16-17, Lt. Gen. John P. Daley, Deputy Commanding General of Developments, USCONARC, paid an official visit to inspect the activities of the Army Aviation School, Aviation Center and Aviation Board. Accompanying Lt. Gen. Daley during the inspection tour was Maj. Gen. Louis T. Heath, Deputy Chief of Developments, USCONARC.

MORE PLANS for continued progress and growth were very evident during January. Contracts were signed for the construction of a new hanger at Cairns Army Air Field, and for the construction of Stage Field RW-4. The new hanger is to be some 35,000 square feet and will include lean-to shops along both sides. It is scheduled for completion in mid-November.

THE CONTRACT for the building of Stage Field RW-4, between Echo and Midland City east of Fort Rucker, calls for four 1,600-foot parallel practice lanes, a parking and hovering area, and access road, drainage and electrical facilities. Bids were more recently requested for additional work at Stage Field RW-4. These later plans are for the construction of a field house to contain a large classroom, an office, restroom, detached control tower, a combination POL storage and water pumphouse building, and electrical facilities.

THE FAA'S portable VOR (very high frequency omni-range) van was on location near Fort Rucker during January in search of the appropriate site for the construction of a permanent structure to house omni-range equipment which will serve Hanchey Army Air Field.

## CLOSED CIRCUIT TV

FORT RUCKER recorded a "first" on January 9 when our closed circuit television system at Cairns Army Air Field went on the air. It is the first system to be installed at an Army airfield. The closed circuit TV is providing weather information for individual and group aviator briefings at the major airfields. It consists of seven outlets at Cairns, nine at Hanchey and five at Lowe Army Air Field. When construction at Auxiliary Field #3 is completed, five more outlets will be installed there.

ANOTHER RECENT addition to our technical development of Fort Rucker is a mobile laboratory similar in appearance to a tractor-trailer truck. Assigned to Center Quartermaster, the lab's equipped to proc-

ess more than 50 specification tests on greases, fuels, and oils. Use of this facility guarantees to each aviator at Fort Rucker that his plane is filled with clean, dry fuel. This is accomplished by sampling each truck load of fuel when it comes on past and constant checking of ground storage tanks and refueling vehicles.

## ACCIDENT-FREE

AN EXCEPTIONAL safety record was achieved here recently when our Army Primary Fixed Wing Pilot Training program completed its second class of students with a perfect safety record. Hawthorne School of Aeronautics Vice President Leo Carver reported that OFWAC 62-2 had flown 4,297 hours and accomplished 9,455 student landings in establishing the new record.

GRADUATES of the Officers Rotary Wing Aviator Course, Phase II, Class 61-11, heard an address by Col. Michael Paulick, Director of the Airborne and Air Mobility Department, U.S. Army Infantry School, at their graduation ceremony January 19. Col. Paulick stressed the importance of battlefield mobility and the growing emphasis on the utilization of air mobility. Second Lt. Elvert H. Siebert, Jr., was honor graduate, receiving the Army Times Plaque for academic achievement.

THE MOBILIZED engineering components assigned to Fort Rucker undertook their three-week tactical field maneuvers during January. The final week in the field entailed Army Training Tests for the 333rd Engineer Group (Construction) and its subordinate units: 844th Engineer Battalion (Construction); 806th Engineer Company (Construction Support); 148th Engineer Company (Maintenance); and the 146th Engineer Company (Light Equipment).

THE LOSS of Lt. Col. David A. Hill, Jr., Deputy Director of the U.S. Army Board for Aviation Accident Research, put a somber note on the month's activities. Lt. Col. Hill passed away December 31 following a brief illness. A Senior Army Aviator, he was 44 years of age.

## CHECK FLIGHT



## CLOSE LOOK



## TV NETWORK



## USAAVNS - FEBRUARY, 1962

■ **TOP LEFT:** FAA Administrator Najeeb E. Halaby looks out from under a hood prior to taking an HU-1 instrument flight during his recent visit to Ft. Rucker. At the left is Fort Rucker Commanding General, Maj. Gen. Ernest F. Easterbrook.

■ **CENTER LEFT:** Lt. General T.J.H. Trapnell, CG, Third U.S. Army, looks over repair work done by the 803rd Signal Company (BM) while on a recent visit to Fort Rucker.

■ **BOTTOM LEFT:** Major W.R. Kelsey (USAF), right, CO, Detachment 9, 16th Weather Squadron, explains the operation of the closed circuit television system in operation at Cairns AAF to Maj. Gen. Ernest F. Easterbrook. The wire TV network enables pilots to obtain weather briefings and file flight plans at outlying areas without the necessity of visiting the operations building.

■ **BELOW:** General Herbert B. Powell, Commanding General, USCONARC, chats with Specialist Fifth Class James Cockerham (left) during the General's recent visit to mobilized Reserve units at Fort Rucker. Sp/5 Cockerham was working on a road construction project when General Powell stopped to discuss the activities. (All photos, U.S. Army). ■■

## QUICK CHAT



**A**LL schools and training institutions have a common problem, i.e., determining what shall be taught and what shall be excluded from the curriculum. The manner in which this problem is resolved is determined to some degree at least, by the training philosophy of the school, which in turn, slants the training program in a particular direction.

ARMY AVIATION is clearly a support function; however this can be slanted toward the admin-logistics role or toward the combat role. The advent of the armed helicopter has given added impetus to the combat role of Army aviation.

ON 18 and 19 May 1961 conferences were held by the Eighth Army Aviation Officer with the I Corps (GP) Aviation Officer, the Division Aviation Officers, the Division Aviation Company Commanders, and the Combat Support Section Leaders of the 1st Cavalry Division and the 7th Infantry Division. The purpose of these conferences was to discuss the mission, duties, and functions of the Combat Support Section Leaders as performed in Korea, and to obtain a field evaluation of the training conducted at the USAPHS.

THOSE PRESENT at the conference considered the flight instruction at USAPHS



## PREPARATION OF POI'S

BY COLONEL JACK K. NORRIS

COMMANDANT, U.S. ARMY PRIMARY HELICOPTER SCHOOL

to be adequate; however they recommended more pinnacle work, more emphasis on minimum ground-run autorotations, more night flying, and additional instruction in aircraft weight and balance problems.

IN the field of academics and tactical subjects, they recommended less detailed maintenance instruction on the H-23D, and more emphasis on the practical military aviation skills required for operations at Division level and below.

IN SEPTEMBER and October of last year, major revisions of the qualification course and the initial entry aviator courses were begun to reduce their length from 10 to 8 weeks, and 16 to 12 weeks, respectively, in conformance with the approved recommendations of the Rogers Committee. At that time, planning guidance was given to members of the staff and faculty who were to prepare these revisions in the form of draft Programs of Instruction. The result of the conference held in Korea was presented as part of this guidance.

## PROGRAM CHANGES

SOME of the recommendations made by the conference held in Korea could not be incorporated into a program of instruction presented at a primary helicopter school. Other recommendations fell within the realm of aviation unit training; however the first draft of all three programs of instruction did contain these changes:

- Detailed instruction on construction of the H-23D was deleted from the maintenance course.

- More night flying was incorporated into the flight training.

- More emphasis was placed on pinnacle operations.

- Instruction in minimum ground-run autorotations was stressed.

- Practical instruction in wire-laying and refueling was added.

- Tactical subjects were slanted toward the aviator and aviation staff officer at Battle Group level.

- The weight and balance instruction was improved.

- Instruction was added on aviation as a career and the overall Army Aviation Program.

IN NOVEMBER the final POI's were approved for reproduction and submission to USCONARC for approval.

CHANGES made in the qualification course are representative of the revisions made in all three programs of instruction; therefore a discussion of this course should suffice.

IN FINAL FORM the Officer Rotary Wing Qualification Course is an 8 week, 352 hour course. Thirty-two hours of this time are devoted to non-academic subjects, such as administrative processing and physical conditioning. The remaining 320 hours are distributed among four annexes.

## ANNEX NO. 1 AND NO. 2


ANNEX NO. 1, Primary Rotary Wing Flight Training, contains 136 hours with 39 programmed flying hours. Twelve of the 39 hours are spent in pre-solo work which includes hovering, normal take-offs and approaches, hovering and straight-in autorotations, forced landings, and taxiing. After students solo in the helicopter, they enter the primary phase of flight training. In this phase they learn maximum performance take-offs, steep approaches, running take-offs and landings, no-flare autorotations, autorotative turns, and demonstrate their proficiency in a primary stage check ride.

ANNEX NO. 2 is 102 hours in length and is titled "Basic Rotary Wing Flight Training." Of the 27 programmed flying hours, 5 hours are devoted to night flying in which approaches are made to various lighting devices and night autorotations are performed. The remaining 22 hours are spent in learning the basic maneuvers which are: air reconnaissance, confined area and pinnacle operations, slope operations, tall grass operations, flight in turbulent air, precision autorotations, high wind and down wind techniques, and an introduction

(POI/Continued on Page 146)

# LOH/HUGHES—just what the commander ordered

The Army's Light Observation Helicopter will bring the latest state of the art to front-line reality. Men who must depend on the LOH will value the advancements the Hughes HO-6 provides — reliability throughout the mission spectrum from combat recon to logistic support. Greater performance and larger useful load capacity at a lower over-all cost. ■ The HO-6 rests on sound concepts which take full advantage of Hughes modern techniques. These have been developed during the long partnership in progress between the U. S. Army and the Hughes Tool Company. ■ When deliveries are made, the Hughes HO-6 will prove itself — the optimum result of experience, imagination and outstanding production capability.

 HUGHES TOOL COMPANY—Aircraft Division, Culver City, California



A salute to the 20th Anniversary of Army Aviation—June 6, 1962



Hughes has one of the industry's largest production facilities—now in volume production of the commercial 269A.



Hughes HO-6 blades quickly fold for easy concealment.



Compact size and small rotor diameter permit the Hughes HO-6 to operate from tight quarters.

# USAREUR REPORT



BY COL. J. ELMORE SWENSON, HQ, USAREUR

**F**IRST on the ledger is a brief, but well-deserved mention of the successful AAAA Annual Meeting at Garmish, Germany, on 23-24 February 1962. Hosts were the 8th Trans Bn (Helicopter), commanded by Lt. Col. Henry H. McKee, and the 7th Aviation Group, commanded by Col. Russell E. Whetstone, the President of the USAREUR Region of AAAA. Repeating last year's performance, Capt. John W. McKinney again did a fine job in setting up the arrangements. Details of events and personalities will appear in other reports.

THE POPULARITY of this annual Quad-A event brings out the need, however, for attaining a larger number of block reservations from the Garmisch Rest Center Headquarters, or looking elsewhere for a new meeting site next year. Some 1,200 reservations were submitted while only 800 spaces were allocated by the Garmisch Center, and these were requested by Capt McKinney several months ahead. With some 2,000 Army aviators assigned in Europe, a cut of 800 accommodations from the pie is just too small for this terrific annual affair.

**ASSAULT** - Helicopters from the 54th Trans Bn (Hel) deploying troops of the 4th Infantry Division during the recent "Exercise Long Thrust II." (Stars/Stripes)

**ANOTHER GATHERING** of importance also transpired during the month. Under the direction of Lt. Col. Gerald H. Champlin, USAREUR Army Aviation Medical Officer, an Aviation Medical Training Conference was held 15-16 February at the Berchtesgaden Hof, Berchtesgaden, Germany. In attendance were Army Medical Examiners from Germany, France, and Italy. Col. Champlin was assisted by Col. William Byrne, CO of the 30th Medical Group, one-time top Flight Surgeon at the Aviation School.

**CAPT. JOHN HUNT** from Hqs, USAFE gave information about the assistance the Air Force will provide USAREUR aviation elements for high altitude indoctrination and other medical requirements in connection with the theater Mohawk program. His theme included the physiological training factors involved at the unit level.

# chipook

# PROGRESS

## ENGINEERING MAINTENANCE



On 7-9 March 1962, the Maintenance Engineering Inspection on the HC-1B Chinook was held at the Boeing-Vertol plant at Morton, Pennsylvania.

The inspection was attended by representatives of the procuring Agency (Aeronautical Systems Division, USAF) and by personnel from several cognizant U.S. Army agencies including D/A staff, USCONAR, OCSigO, OCoft, TMC and TATSA.



# SUMMARY

## INSPECTION

Replacing a T55-L-5 power plant package utilizing maintenance davit.



Replacing the rear transmission.



Replacing the rear rotor hub using the maintenance davit.



COL. CONRAD L. STANSBERRY, Ops Div, Hq, USAREUR presented a general picture of the current status of Army aviation in Europe. He specifically covered aviation aspects of the medical evacuation system and the future versatility of the HU1-D helicopters in this function. Maj. Thomas F. McNamara from USAREUR Army Flight Ops Facility (AFOF) described the method of flight operations in Europe.

A SPECIAL FORUM was held to discuss all medical aspects of Army aviation. This part of the conference was beamed primarily at the recently assigned Army Aviation Medical Program. With the increase in the number of aviators assigned to Europe, Lt. Col. Champlin has had his expansion problems involving medical examiners. His continuous efforts to maintain a progressive aviation medical program geared to the overall aviation activity in USAREUR is commendable indeed.

## ARMAMENT USAGE

HELICOPTER ARMAMENT is becoming one of the prime interests at Hqs USAREUR and Seventh Army. The extensive tour of Cliff Kalista and Joe Mashman from Bell Helicopter could not have been more timely. For their entrance into the theater, an audience was arranged with Gen. Bruce C. Clarke and key staff officers. Both gave an excellent briefing on the current projects going on at Bell in relation to helicopter armaments and tactics. The Bell representatives then presented a practical demonstration of the H-13K at the Heidelberg Army Airfield with Joe Mashman performing the intricate new tactical maneuvers developed for better utilization in flying the helicopter under the "Nap-of-the-Earth" concept. The demonstration concluded with orientation rides for Gen. Clarke and other VIP passengers.

COINCIDENTAL with the visit of the Bell representatives, but unknown to him at the time, were the interesting points brought forth at an informal critique held by Brig. Gen. William B. Rosson, Deputy Director of "Exercise Longthrust II." Gen. Rosson,

who was recently nominated by the President for two star rank, made several specific remarks about helicopter operations. One of his keynote comments as to what he observed in "Longthrust II" pertained to the use of armed helicopters during the tactical phases at Hohenfels training area. In many instances, helicopters were fired from too high an altitude. He felt that new doctrine and realistic tactics must be developed, including extremely low-level flying of helicopters. Although he had not seen the film produced by the Bell Helicopter Company showing the new devised maneuvers, he stressed almost the same ideas.

THE TWELVE flight tactics demonstrated by Joe Mashman are, of course, complex and demanding. Yet, for greatest survival possibilities and maximum employment of the helicopter on the battlefield, these present the best techniques developed to date. The ultimate objective is to produce Army aviators groomed to seek and shoot enemy targets from the third dimension.

## FLAWLESS SKILLS

TRAINING young Army aviators to perform these flight maneuvers is feasible. One notes from the old musty footlocker that the Korean War bears out this statement. In many instances young aviators arrived in Korea fresh out of flying school at Fort Sill with minimum helicopter hours. Exigencies at the time dictated the assignment of these people to one of the four mobile Army station hospital (MASH) helicopter units. These units had the mission of carrying out front line medical evacuations and were composed of four H-13 helicopters, four pilots, and four mechanics. The assigned pilots flew helicopters exclusively and in most instances served their complete tour in the MASH units - generally about fourteen months. Upon their departure, nearly all had accumulated well over 500 hours of helicopter time under demanding flying conditions. They developed almost flawless skills and techniques in all aspects of helicopter flying as the old Korean aviation hands can attest. With intense special training and extended assignment duty, young Army

# New, Small, 360 Channel VHF Com Receiver-Transmitter



COMPARE THE FEATURES — COMPARE THE SIZE!  
2-9/16" HIGH, 6-3/8" WIDE, 11-3/4" DEEP

- Powerful, 7 to 10 Watts
- Designed to TSO, Cat. B
- 4 Auxiliary Amplifier Inputs
- Crystal Controlled
- Low Weight (5.1 lbs.)
- 95% Modulation Capacity (Automatic Limiting)
- Starlite II, Panel Mounted
- Single Channel Simplex, Concentric Knob
- 14 or 28 Volt
- Squelch Control Provided

SEE YOUR ARC DEALER or WRITE  
FOR FREE DESCRIPTIVE LITERATURE



**Aircraft Radio Corporation**  
BOONTON, NEW JERSEY

RESEARCH, DESIGN, DEVELOPMENT AND PRODUCTION OF ELECTRONIC EQUIPMENT SINCE 1928.

# CARIBOU STOL PERFORMANCE PLUS 5 BIG BONUS FEATURES



1



**CARIBOU STOL PERFORMANCE**—Take-off distance 725 feet, zero wind, at full gross load, 28,500 lbs.

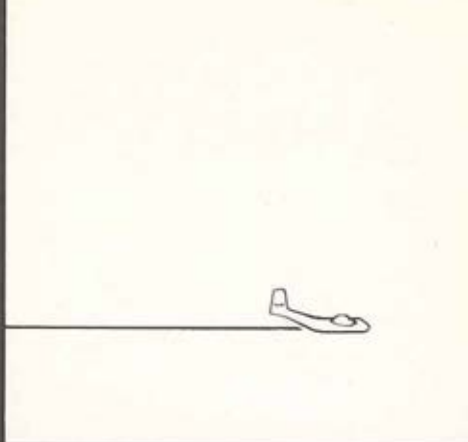
**PLUS: 1. Quick Turn Around.** Cargo rolls straight in through rear loading door. Ramp adjusts to truck bed height. Long loads can extend out open door in flight.

**PLUS: 2. Big Load Capacity.** 32 troops or 24 paratroopers. 1150 cubic foot cargo space.

**PLUS: 3. Paradrop.** Rear door facilitates air drops. Paratroopers—jeeps—pallets up to 6,000 lbs.

**PLUS: 4. Drive-in.** Accommodation for 2 jeeps and carrier, or equivalent.

**PLUS: 5. Ambulance.** 14 litters and 12 seats, or 22 litters and 4 seats.



THE **STOL**  
CARIBOU  
DESIGNED AND BUILT BY  
DE HAVILLAND AIRCRAFT OF CANADA  
DOWNSVIEW ONTARIO



The logo for De Havilland Aircraft of Canada, featuring the letters 'd' and 'h' stacked vertically, with 'CANADA' written in a smaller font below them.

aviators can well perform the intricate tactical flight maneuvers perfected by Joe Mashman.

ALTHOUGH many personnel changes are taking place during this period one can insert a few in the column. With a fond adieu from all, Lt. Col. Howard I. Lukens departed for a Category III Branch Material assignment with the 2nd BG/28th Inf, 24 Inf Div. Luke did a roll-em-up job in the P&A Division, Hqs, USAREUR, not only in the personnel policy field, but the sky-diving activity as well. His steady pace and philosophical manner will be missed. The assignment of all aviators in USAREUR now falls to Maj. George C. Connor, formerly of the 24th Infantry Division. Also departing headquarters for a long overdue aviation tour was Maj. John M. De Maria. He has been reassigned from the Intelligence Division, Hqs, USAREUR, to the USATD Sandhofen for aviation maintenance duties.

OTHER PERSONNEL actions: Lt. Col. Charles V. Graft, Jr., was awarded his Master Aviator Badge. Maj. Gen. M.C. Walter, DCS Intelligence, Hqs, USAREUR performed the honors in a brief, yet stimulating ceremony with Mrs. Graft and son Joel proudly looking on. One notes, too, the

selection of Maj. Robert M. Barendse, Opns Division, Hqs, USAREUR, to Lt. Col., and Lt. Col. Lester C. Farwell's recent selection to attend the C&GSC at Fort Leavenworth, Kansas.

ON THE OTHER HAND, tragedy stalked with the presumed deaths of Capt. Daniel Knotts of the 64th Engineer Battalion (TOPO) and Maj. Donald A. Carder of MAAG, Iran. Flying pilot and co-pilot, respectively, in an Otter assigned to the Engineer unit stationed at Teheran, Iran, they came down on a treacherous 12,000 foot slope of the Zagros mountain some 200 miles southwest of Teheran. Although they were alive the day following the crash, intervening severe weather hampered rescue operations and they later presumably perished from exposure. The crew chief, Sp/5 John E. Porter, of the 64th Engineer Battalion, and a passenger, Col. Walter M. Vann from MAAG, Iran, were rescued. The other passenger, Lt. Col. Walter R. Johnson from the MAAG, is missing and presumed dead. As reiterated in this column many times, flying conditions in the Middle East are perhaps the worst in the world and as recommended officially on two occasions, the assignment of the best suitable aircraft, such as the Caribou, is a must.

-----Until next month.....

## CARIBOU-SKYHOOK-BALLOON; INGREDIENTS FOR AIR PICKUP

A novel "Skyhook" air-ground pickup system for retrieving personnel or cargo by specially equipped aircraft is being developed by the Robert Fulton Co. for the Army under a TRECOM contract.

Elements of the system include the Caribou aircraft fitted with a wide fork built of lightweight tubing and attached to the nose of the aircraft, a sky "anchor" which locks the line to the aircraft, and a drop package containing a balloon, a gas cylinder to inflate it, 500 feet of nylon line, and a harness for the man or cargo. The illustration (right) depicts a typical air pickup.



# CHANGES OF ADDRESS - PCS

## COLONELS

BLACKER, KEMUEL K., 512 ARTILLERY-WARHEAD SUPPORT, FORT SILL, OKLAHOMA.  
BRISTOL, DELBERT L., MAAG USA ELE, APO 143, SAN FRANCISCO, CALIFORNIA.  
WILLIAMS, ROBERT R., 45 RED CLOUD ROAD, FORT RUCKER, ALABAMA.

## LT. COLONELS

BUCHAN, EARL K., 3527 CHANCELLOR, FORT WAYNE, INDIANA.  
CANTLEBARY, LELAND R., 25 FERGUSON LANE, FORT RUCKER, ALABAMA.  
COLE, PHILIP J., 333 SOUTH GLEBE ROAD, ARLINGTON 4, VIRGINIA.  
DENHART, JOHN F., OCOFT, TAFO-D, BUILDING T-7, WASHINGTON 25, D.C.  
FRENCH, KEITH A., 17 BALMORAL DRIVE, HAMP-TON, VIRGINIA.  
McCORY, JOHN D., ACRPT MAINT SHOP, 142ND TRANS BN, R 6, BOX 383, SPRINGFIELD, MO.  
TIDMARSH, HAROLD A., U.S. ARMY TRANSPORTATION SCHOOL, FORT EUSTIS, VIRGINIA.

## MAJORS

BALL, EDMUND K., 5917 AMELIA, SPRINGFIELD, VIRGINIA.  
BROWN, JOHN R., TRANS DIV, 4TH LOG COMD, APO 122, NEW YORK, NEW YORK.  
BRUCE, WILBUR C., HEADQUARTERS, SEVENTH U.S. ARMY, APO 46, NEW YORK, NEW YORK.  
BUCKWALTER, ROY R., 14-B BATTLE PARK, FT. BENNING, GEORGIA.  
CASPER, WILLIE H., JR., BOX 59, UNIVERSITY OF OMAHA, OMAHA, NEBRASKA.  
COBB, JOSEPH F., 110TH TRANS COMPANY (LH), APO 29, NEW YORK, NEW YORK.  
COERS, DAVID H., JR., 29 FOWLER LANE, FORT RUCKER, ALABAMA.  
COLLINS, JOHN J., 15TH AVIATION CO, 1ST CAV-ALRY DIVISION, APO 24, SAN FRANCISCO, CAL.  
CROW, EDWARD E., HQ CO, 3RD ARMORED DIVISION, APO 39, NEW YORK, NEW YORK.  
FARRIS, THAD L., 2002 BREMEN, AUSTIN 3, TEXAS.

## MAJORS (CONTINUED)

HILL, RALPH E., HQ, USCONARC AVIATION SECT., FORT MONROE, VIRGINIA.  
HOVLAND, DENNIS A., 1006 WEST LAKE STREET, MINNEAPOLIS, MINNESOTA.  
LECHNER, ROY J., HQ, USCONARC AVIATION SECT., FORT MONROE, VIRGINIA.  
McCRADY, RICHARD T., 1 QUARTERS DRIVE, S. CHARLESTON 3, WEST VIRGINIA.  
MICHELSON, ROBERT A., P.O. BOX 515, FORT RUCKER, ALABAMA.  
MORROW, JACK G., QUARTERS 404-B, FORT BELVOIR, VIRGINIA.  
PEARSON, NEVILLE A., HQS, 7TH ARMY AVIATION GROUP, APO 154, NEW YORK, NEW YORK.  
PEAVY, JACK D., 52 HARRIS DRIVE, FORT RUCKER, ALABAMA.  
QUINN, ARVIL B., BOX 542, FORT RUCKER, ALABAMA.  
SANDERS, NEAL W., JR., FAA, 52 FAIRLIE STREET, N.W.; ATLANTA, GEORGIA.  
SIDNEY, WILBUR A., 24TH AVIATION DETACHMENT (INF DIV), APO 29, NEW YORK, NEW YORK.  
STEVENS, FRANCIS J., 3311 SEYMOUR ROAD, WICHITA FALLS, TEXAS.  
WILDER, STUART F., 350-C GULICK DRIVE, FORT MONROE, VIRGINIA.

## CAPTAINS

ALFORD, ANDREW N., 316 WILLIAMS DR., OZARK, ALABAMA.  
ASKINS, LYNN D., FLIGHT INFORMATION DETACHMENT, APO 343, SAN FRANCISCO, CALIFORNIA.  
AUGERSON, WILLIAM S., 1320-A WERNER PARK, FORT CAMPBELL, KENTUCKY.  
BAKER, ELVIN G., U.S. ARMY GARRISON, FORT IRWIN, BARSTOW, CALIFORNIA.  
BAKER, RONALD L., 40TH ARTILLERY-AIR DEF, PRESIDIO OF SAN FRANCISCO, CALIFORNIA.  
BANKS, DOUGLAS T., 904 DUNCAN, KILLEEN, TEXAS.  
BANKS, SAM A., 318 MAGRUDER, MINERAL WELLS, TEXAS.  
BASS, PAUL W., HQS, 45TH TRANSPORTATION BN, APO 74, SAN FRANCISCO, CALIFORNIA.  
BAUER, ARTHUR S., 35-64 81ST STREET, JACKSON HEIGHTS 72, NEW YORK.

BEECH "IMAGINUIITY" IN  
*Manned Aircraft*

THE STRONGEST AIRCRAFT  
OF ITS TYPE, THE L-23F IS  
TESTED TO WITHSTAND IN-  
FLIGHT LOADS EQUAL TO 7  
TIMES ITS WEIGHT.



A FAVORITE OF PILOTS EVERY-  
WHERE, THE L-23F IS EXCEPTION-  
ALLY STABLE AND EASY TO HAN-  
DLE, EVEN AT SLOWEST APPROACH  
SPEEDS. IDEAL AS ECONOMICAL  
INSTRUMENT TRAINER.



*The Beechcraft L-23F—meeting the need for an . . .*

## **Instrument trainer with "big plane feel" that operates at fraction of cost of larger planes:**

Development and retention of pilot proficiency in instrument flying requires regular and realistic practice, for which large aircraft may not be available or are uneconomical to use for instrument training.

The Beechcraft L-23F feels and flies like a much larger aircraft. Yet it costs far less to buy, operate and maintain. It has more than enough space and weight allowance for all the electronic navigation gear and communication equipment normally used for instrument flying in the largest planes.

The reliability of the L-23F has been proved by many thousands of hours of both service and civilian flying. With 340 hp Lycoming supercharged fuel injection engines, it can cruise over

190 knots at 70% power. Top speed is over 200 knots.

The L-23F can be produced in quantity to meet early delivery schedules.

Beech Aerospace Division projects include R&D on manned aircraft; missile target and reconnaissance systems; complete missile systems; electronic guidance systems; programs pertaining to liquid hydrogen propellants and cryogenic tankage systems; environmental testing of missile systems and components; and GSE.

May we help you? Write, wire or phone Roy H. McGregor, Manager — Contract Administration, Beech Aircraft Corp., Wichita 1, Kansas— or nearest Area Office.

**Beech** *Aerospace Division*

# ★ CHANGES OF ADDRESS - PCS

## CAPTAINS (CONTINUED)

BAXTER, GEORGE M., 2ND BG, 2D INF REGT, 24TH INF DIV, APO 112, NEW YORK, NEW YORK.  
 BISSELL, DONALD F., 438 KAREN LANE, SAN ANTONIO 9, TEXAS.  
 BOUNDS, MERLE E., 1421-A TYNER ROAD, FORT SILL, OKLAHOMA.  
 BRIOT, WILLIAM R., 421ST MEDICAL COMPANY (AIR AMB), APO 46, NEW YORK, NEW YORK.  
 BUCKLAND, RICHARD W., HQS, SEVENTH U.S. ARMY, APO 46, NEW YORK, NEW YORK.  
 BURNS, SUMNER C., 6571-B LUCAS STREET, FORT SILL, OKLAHOMA.  
 BURTON, DAWSON L., OFFICERS MAIL ROOM, BOX 284, FORT MONMOUTH, NEW JERSEY.  
 CALHOUN, GEORGE B., c/o ANDERSON, 6 WHIFFLE TREE LANE, NEW CANAAN, CONNECTICUT.  
 CAMPBELL, GEORGE E., 1605 TAFT, LAWTON, OKLAHOMA.  
 CASEY, JOHN P., JR., 24TH AVIATION COMPANY (INF DIV), APO 112, NEW YORK, NEW YORK.  
 CHOAT, B.J., 555-B FORNEY LOOP, FORT BELVOIR, VIRGINIA.  
 CLARK, DAVID, AOCC-3, 1ST OFFICER STUDENT BATTERY, FORT SILL, OKLAHOMA.  
 CLELAN, JOSEPH R., 505TH SIGNAL GROUP AVIATION SECTION, APO 46, NEW YORK, NEW YORK.  
 COOPER, ROBERT G., 1301 AVALON STREET, APT. "G," EL PASO, TEXAS.  
 DAMERON, FRED, U.S. ARMY ELECTRONIC PROVING GROUND, FORT HUACHUCA, ARIZONA.  
 DAVIS, GRAHAM C., 8929 MT. CAPOTE, EL PASO, TEXAS.  
 DeBOER, DUANE D., EOCC, USAECR 62-2, FORT BELVOIR, VIRGINIA.  
 DELAHANTY, RAYMOND A., 93RD TRANS CO (LH), APO 143, SAN FRANCISCO, CALIFORNIA.  
 DIERDORFF, H. BEECHER, JR., HQS, 8TH TRANS BN (HEL), APO 29, NEW YORK, NEW YORK.  
 DIMSDLE, ARTHUR, 1149 EAST 102ND STREET, BROOKLYN 36, NEW YORK.  
 DOUCETTE, ROGER A., 1707 NORTH 48TH STREET, LAWTON, OKLAHOMA.  
 DROKE, JACK C., JR., 1600 HEARN ST., BLYTHEVILLE, ARKANSAS.  
 DRUMM, DONALD R., 5304 OAK AVENUE, LAWTON, OKLAHOMA.  
 EGE, CONRAD C., HQ, AVIATION DIVISION, USATTC, FORT EUSTIS, VIRGINIA.  
 FORD, WILLIAM W., 1626-A JAMES ROAD, FORT BELVOIR, VIRGINIA.  
 FRANK, LAWRENCE R., 808 SOUTH STUART PL., TUCSON, ARIZONA.  
 FRANKLIN, CHARLES D., 206-3 THIRD, FORT LEAVENWORTH, KANSAS.  
 FRANSEEN, LEONARD R., 1506 LOCHMOOR, GROSSE POINTE 36, MICHIGAN.  
 FRENCH, WILLIAM C., APT. "2," 1339 LEEBURG COURT, ALEXANDRIA, VIRGINIA.

## CAPTAINS (CONTINUED)

FURNEY, ROBERT M., 4203 SANTA FE, LAWTON, OKLAHOMA.  
 GAEBELEIN, JAMES M., 17TH AVIATION COMPANY, FORT ORD, CALIFORNIA.  
 GILES, GEORGE R., 2327 DENVER AVENUE, LAWTON, OKLAHOMA.  
 GRASMEDE, JOHN M., 1ST MISSILE BN, 62ND ARTILLERY, SCOTT AFB, ILLINOIS.  
 GUIDHOZ, EVANS J., USA ELM MAAG, APO 143, SAN FRANCISCO, CALIFORNIA.  
 HAHN, JERRY D., 54TH MEDICAL DETACHMENT (HEL AMB), APO 24, SAN FRANCISCO, CALIF.  
 HATCH, VERNON L., 505TH SIGNAL GROUP, APO 46, NEW YORK, NEW YORK.  
 HENDERSON, ROBERT D., 64TH ENGINEER BATTALION, APO 231, NEW YORK, NEW YORK.  
 HESSON, JAMES M., QUARTERS 1108-B, FORT EUSTIS, VIRGINIA.  
 HICKENBOTTOM, GILBERT R., USARAL AVIATION BATTALION, APO 949, SEATTLE, WASHINGTON.  
 HINES, THOMAS G., DETACHMENT K, KMAAG, APO 31, SAN FRANCISCO, CALIFORNIA.  
 HOEFENER, JAMES R., 513-B FAIRFAX VILLAGE, FORT BELVOIR, VIRGINIA.  
 HOFFMAN, HOWARD J., 1ST HOWITZER BN, 14TH ARTILLERY, 2D ARMD DIV, FT. HOOD, TEXAS.  
 HOLLOWELL, EMMETT P., JR., 105-A MONTIETH COURT, FORT BENNING, GEORGIA.  
 HORAN, MICHAEL J., 121 BALTZELL, FORT BENNING, GEORGIA.  
 HOWSE, JOHN B., 908 NORTH 49TH STREET, OMAHA 32, NEBRASKA.  
 HURST, DALE W., QUARTERS 2567-C, FORT EUSTIS, VIRGINIA.  
 JENKS, ALLEN R., P.O. BOX 202, FORT RUCKER, ALABAMA.  
 JOHNSON, JACK O., U.S. ARMY AIR DEF SCHOOL, BOX 9924, FORT BLISS, TEXAS.  
 JONES, FREDDIE JR., 1860 GOLA DRIVE, FAYETTEVILLE, NORTH CAROLINA.  
 JONES, GLEN W., HQ, 421ST MEDICAL COMPANY (AIR AMB), APO 46, NEW YORK, NEW YORK.  
 JONES, ROBERT N., 20 HURTGEN PLACE, FORT BRAGG, NORTH CAROLINA.  
 KAHLWINTER, RANDOLPH H., 48 MULBERRY LANE, NEW SHREWSBURY, NEW JERSEY.  
 KENDALL, MARK C., P.O. BOX 2432, EDWARDS AFB, CALIFORNIA.  
 KEVILLE, CLARENCE H., JR., 24TH AVIATION CO, APO 112, NEW YORK, NEW YORK.  
 KING, JIMMIE, 75 CHESTNUT, ATLANTIC HIGHLANDS, NEW JERSEY.  
 LANGSTON, JAMES M., 18TH AVIATION COMPANY, APO 74, SAN FRANCISCO, CALIFORNIA.  
 LAUMEYER, NORMAN G., 11216 PHINNEY AVENUE NORTH, SEATTLE, WASHINGTON.  
 LIGHTFOOT, ROBERT H., HQ & SVC CO, 97TH ENGINEER BATTALION, APO 87, NEW YORK, N.Y.  
 LOCKWOOD, BILL G., 1ST BN, 32ND INF REGT, 7TH INF DIV, APO 7, SAN FRANCISCO, CALIF.  
 MARTELLINI, CARMEN R., 1 HARTIGAN COURT, ANDOVER, MASSACHUSETTS.  
 McDERMOTT, FRANCIS P., JAMAICA, IOWA.  
 McGeE, BERNARD A., JR., 524TH TRANS CO, 2D PLAT, APO 185, NEW YORK, NEW YORK.  
 McGOWAN, FRED, QUARTERS 13, FT. HANCOCK, NJ  
 McKENNEY, HUBERT F., JR., 814-B TERRY DRIVE, FORT BENNING, GEORGIA.

## CAPTAINS (CONTINUED)

MEYER, RALEIGH R., JR., 3821 EUCLID, LAWTON, OKLAHOMA.  
MIZELL, LOUIS L., 421 MEDICAL COMPANY (AIR AMB), APO 46, NEW YORK, NEW YORK.  
MOLINELLI, ROBERT F., BOX 1431, POCATELLO, IDAHO.  
MOXLEY, ROBERT J., AOCC 3-62, 1ST OFFICER STUDENT BN, FORT SILL, OKLAHOMA.  
NASH, JOHN N., 127TH SIGNAL BATTALION, APO 7, SAN FRANCISCO, CALIFORNIA.  
NIELSEN, EARL W., 3203 VISTA DEL CAMINO, MARINA, CALIFORNIA.  
NOEDING, JOHN P., 8TH AVIATION COMPANY, APO 34, NEW YORK, NEW YORK.  
OTERSON, VINCENT, BOX 2129, E. BAKER HALL, OHIO STATE UNIVERSITY, COLUMBUS, OHIO.  
PAYNE, JAMES A., JR., 11TH TRANSPORTATION COMPANY (LH), APO 46, NEW YORK, NEW YORK.  
PHILLIPS, CALVIN F., JR., OMR, CLASS 11-A-22, OFF STU DETACHMENT, FT. MONMOUTH, N.J.  
PHILLIPS, DONALD W., 4808 EUCLID AVENUE, TAMPA 9, FLORIDA.  
POOLE, ARTHUR J., 591ST TRANSPORTATION CO, APO 177, NEW YORK, NEW YORK.  
POWELL, BUELL R., USARAL AVIATION SECTION, APO 949, SEATTLE, WASHINGTON.  
PREISENDORFER, EDWARD P., 432 7TH STREET, APT "A," APO 949, SEATTLE, WASHINGTON.  
PRIMIS, NICK J., 2527 NORTH 60TH AVENUE, OMAHA, NEBRASKA.  
RICHARDSON, JOHN H., AVIATION SECTION, THIRD U.S. ARMY, FORT McPHERSON, GEORGIA.  
ROUSSE, WILLIAM C., USA ELM MAAG, APO 143, SAN FRANCISCO, CALIFORNIA.  
RUFFIN, JAMES A., G-4 AVIATION USACOMZEUR, APO 58, NEW YORK, NEW YORK.  
SALMON, RAY W., 45TH MEDICAL COMPANY (AIR AMB), APO 175, NEW YORK, NEW YORK.  
SCHADE, CALVIN W., 273-A KARSTEN DRIVE, WAHIAWA, HAWAII.  
SCHARF, STANLEY L., 4TH PLATOON, 421ST MED CO (AIR AMB), APO 178, NEW YORK, NEW YORK.  
SIMPSON, WILLIAM F., JR., 3RD RRU, APO 143, SAN FRANCISCO, CALIFORNIA.  
SMITH, HUBERT G., USAGD, AVIONICS DIVISION, APO 325, NEW YORK, NEW YORK.  
SPRADLIN, GLENN D., 1ST OFF STU BN, AOCC 3-62, FORT SILL, OKLAHOMA.  
STANLEY, DAVEY L., 4455 FRANKLIN STREET, OMAHA 11, NEBRASKA.  
STERNAT, ROBERT P., 339TH TRANSPORTATION CO (DS), APO 74, NEW YORK, NEW YORK.  
STEVENSON, CARL B., 3D MED TANK BATTALION, 32ND ARMOR, APO 178, NEW YORK, NEW YORK.  
STEWART, DONALD B., 528-B FORNEY LOOP, FORT BELVOIR, VIRGINIA.  
STEWART, ROBERT C., USAADS, BOX 10071, FORT BLISS, TEXAS.  
STOKAN, DONALD, CLASS 62-7, USAPHS, CAMP WOLTERS, TEXAS.  
STONE, HOWARD F., 537-A NORTH VALDEZ DRIVE, FORT BENNING, GEORGIA.  
STOWE, CHARLES L., 421ST MEDICAL COMPANY (AIR AMB), APO 46, NEW YORK, NEW YORK.  
STRICKLAND, SIDNEY L., AVIATION COMPANY, 2ND ARMD CAV REGT, APO 696, NEW YORK, N.Y.  
TAYLOR, DONN E., 2D BG, 4TH INFANTRY, APO 139, NEW YORK, NEW YORK.

## ★ CHANGES OF ADDRESS - PCS

## CAPTAINS (CONTINUED)

TEESE, JAMES L., 317 HATTEN ROAD, FORT ORD, CALIFORNIA.  
THOMPSON, WILLIAM A., 24TH AVIATION CO, APO 112, NEW YORK, NEW YORK.  
THRALL, DEWELL O., 661ST TRANSPORTATION CO (DS), APO 29, NEW YORK, NEW YORK.  
TREAT, DONALD E., 5877 McCULLY, KILLEEN, TEXAS.  
UNDERWOOD, JOE D., 2841 N.W. 17TH STREET, OKLAHOMA CITY 7, OKLAHOMA.  
URBACH, WALTER, JR., 513TH INTELLIGENCE GROUP, APO 757, NEW YORK, NEW YORK.  
VANSICKLE, JAMES A., 901 KICKAPOO STREET, FORT LEAVENWORTH, KANSAS.  
VASSAR, ROBERT B., SIXTH U.S. ARMY FLT DET, PRESIDIO OF SAN FRANCISCO, CALIFORNIA.  
WALL, JAMES A., HQ, 3RD ARTY GP (AIR DEF), HAMPTON RDS, ARMY TERM, NORFOLK, VA.  
WAPLES, GEORGE R., RURAL ROUTE #1, GARRETT, INDIANA.  
WARR, THOMAS J., 10 MARKHAM STREET, FORT BRAGG, NORTH CAROLINA.  
WATKINS, CHARLES W., U.S. ARMY PRIMARY HELICOPTER SCHOOL, CAMP WOLTERS, TEXAS.  
WATSON, RONALD J., 118 FEFORDS STREET, FT. HUACHUCA, ARIZONA.  
WELSCH, HANNO F., JR., AOCC 3-62, 1ST OFFICER STUDENT BN, FORT SILL, OKLAHOMA.  
WEST, THOMAS C., USACSA, 1124 N. HIGHLAND, ARLINGTON, VIRGINIA.  
WESTLAKE, EDGAR A., USA ENGINEER DISTRICT, GULF, APO 205, NEW YORK, NEW YORK.  
WHEELER, DOUGLAS E., TRANS SECT, 7TH LOG COMD, APO 47, SAN FRANCISCO, CALIFORNIA.  
WHEELER, ROBERT J., STUDENT OFFICER DET, USATSCH, FORT EUSTIS, VIRGINIA.  
WILKINS, THOMAS C., JR., 60TH AVIATION CO, APO 46, NEW YORK, NEW YORK.  
WILMORE, JOHN H., HQ, 1ST CAB-KOREA, APO 24, SAN FRANCISCO, CALIFORNIA.  
WILSON, CARL A., JR., 2D AIR RECON SUPPORT BN, APO 227, NEW YORK, NEW YORK.  
WINKEL, PAUL P., JR., 3460 MARTHA CUSTIS DRIVE, ALEXANDRIA, VIRGINIA.  
WINTERS, DONALD L., 501 SUNSET DRIVE, APT "A," OLATHE, KANSAS.  
WOMACK, KENNETH S., 105-B LAWTON ROAD, FORT HUACHUCA, ARIZONA.  
WOODS, EUGENE R., 2D HOWITZER BATTALION, 75TH ARTILLERY, APO 165, NEW YORK, N.Y.  
WYATT, JAMES I., 320 CODY, ROOM 1-B, FORT LEAVENWORTH, KANSAS.  
ZELLMER, HARRY J., 4305 BROWNE STREET, OMAHA, NEBRASKA.  
ZIRKLE, JOHN J., JR., 1ST HOWITZER BATTALION, 75TH ARTILLERY, APO 177, NEW YORK, N.Y.

# ★ CHANGES OF ADDRESS - PCS

## LIEUTENANTS

BERGDAHL, HAROLD E., 93RD TRANSPORTATION CO (LH), APO 143, SAN FRANCISCO, CALIFORNIA.  
 CARON, ROBERT P., 3401 LINCOLN, LAWTON, OKLAHOMA.  
 CARTER, NORMAN D., 2418 BROADMOOR DRIVE, COLUMBUS, GEORGIA.  
 CHANDLER, HARRY S., STU DET, ORWAC 62-3A, FORT RUCKER, ALABAMA.  
 CHASE, THEODORE S., 64 RED CLOUD ROAD, FORT RUCKER, ALABAMA.  
 CLAPP, RANDOLPH B., ORWQC 62-7, USAPHS, CAMP WOLTERS, TEXAS.  
 CLOUTIER, LOUIS N., 93RD TRANSPORTATION CO (LH), APO 143, SAN FRANCISCO, CALIFORNIA.  
 COHEN, HERBERT A., 93RD TRANSPORTATION CO (LH), APO 143, SAN FRANCISCO, CALIFORNIA.  
 CONRATH, J.G., 582ND TRANS COMPANY (AAHM&S), APO 287, NEW YORK, NEW YORK.  
 COOKE, CHARLES B., 9218 NORTH LAKE DRIVE, TACOMA 99, WASHINGTON.  
 CRAMER, CARL L., 339TH TRANSPORTATION CO, APO 74, SAN FRANCISCO, CALIFORNIA.  
 DAVIS, CHARLES B., HQ CO, 5TH BG, 1ST BRIGADE, FORT ORD, CALIFORNIA.  
 DRYDEN, DAVID D., 45TH MEDICAL COMPANY, 1ST PLATOON, APO 800, NEW YORK, NEW YORK.  
 EARLEY, NEAL E., US ARMY TRANSPORTATION TEST & SUPPORT ACTIVITY, FT. RUCKER, ALA.  
 EATON, KENNETH C., 80TH TRANSPORTATION DET (CHFM), APO 143, SAN FRANCISCO, CALIF.  
 ESTES, JAMES O., 252ND TRANSPORTATION CO (DS), FORT EUSTIS, VIRGINIA.  
 FRANK, LAURENCE A., JR., US ARMY SUPPORT GP, JSA, APO 24, SAN FRANCISCO, CALIFORNIA.  
 GRUSCHOW, DONALD C., AVIATION COMPANY, 3RD ARMD CAV REGT, APO 34, NEW YORK, N.Y.  
 HACKETT, GERALD R., 110 RED CLOUD ROAD, FORT RUCKER, ALABAMA.  
 HARBER, BOBBY D., 104 NORTH MADISON AVENUE, JUNCTION CITY, KANSAS.  
 HARDWICK, WILLIS C., VII CORPS ARTILLERY AVIATION SECTION, APO 107, NEW YORK, N.Y.  
 HENRICH, KENNETH G., 93RD TRANSPORTATION CO (LH), APO 143, SAN FRANCISCO, CALIFORNIA.  
 HEPNER, THEODORE W., 2ND MISSILE BN, 71ST ARTILLERY, APO 24, SAN FRANCISCO, CALIF.  
 HOFER, THOMAS H., 93RD TRANSPORTATION CO (LH), APO 143, SAN FRANCISCO, CALIFORNIA.  
 HOUTS, RAY A., c/o MR. A. WOODS, OAKMAN, ALABAMA.  
 IACOMINO, GENNARO J., COMPANY E, 504TH SIGNAL BATTALION, APO 169, NEW YORK, N.Y.  
 JARVIS, WILLIAM H., 82D AVIATION BATTALION (PROV), 82D ABN DIVISION, FT. BRAGG, N.C.  
 KIGER, JOHN W., 1509-B WERNER PARK, FORT CAMPBELL, KENTUCKY.

## LIEUTENANTS (CONT)

LETCWORTH, ROBERT, AVIATION COMPANY, 3RD ARMD CAV REGIMENT, APO 34, NEW YORK, N.Y.  
 LEWIS, DALE C., 410 DAVIDSON, MINERAL WELLS, TEXAS.  
 MARSDEN, WILLIAM L., 504TH AVIATION COMPANY, 4TH ARMD DIV., APO 696, N.Y., N.Y.  
 McCLUSKEY, WILLIAM J., AVIATION COMPANY, 11TH ARMD CAV REGIMENT, APO 305, N.Y., N.Y.  
 McGEE, WILLIAM H., USAADS, RCAT, COURSE 62-3, FORT BLISS, TEXAS.  
 MELLIN, JAMES P., 80TH ARTILLERY BN, 1ST MISSILE COMMAND, APO 221, NEW YORK, N.Y.  
 MONROE, ROBERT E., 101ST AVIATION BN (ABN), BOX 145, FORT CAMPBELL, KENTUCKY.  
 MURPHY, GALEN A., 18TH AVIATION COMPANY, APO 74, SAN FRANCISCO, CALIFORNIA.  
 MYERS, CHARLES M., 18TH AVIATION COMPANY, APO 74, SAN FRANCISCO, CALIFORNIA.  
 NICHOLAS, FRANK E., 26TH SIGNAL BATTALION, APO 154, NEW YORK, NEW YORK.  
 OLIVEIRO, LEWIS D., 18TH AVIATION COMPANY, APO 74, SAN FRANCISCO, CALIFORNIA.  
 PEDERSEN, MILLARD L., 8TH ENGINEER BN, 1ST CAV DIVISION, APO 24, SAN FRANCISCO, CALIF.  
 RAWLINGS, DARREL R., 1ST AVIATION COMPANY (INF DIV), FORT RILEY, KANSAS.  
 RIEFLIN, JAMES W., 1ST PLATOON, 45TH MEDICAL (AIR AMB), APO 800, NEW YORK, NEW YORK.  
 RUST, RICHARD A., 2D RECON SQDN, 3RD ARMD CAV REGIMENT, APO 227, NEW YORK, NEW YORK.  
 SANDS, THOMAS A., QUARTERS 3442-D, APO 957, SAN FRANCISCO, CALIFORNIA.  
 SCHLEMMER, ROGER B., 24TH ENGINEER GROUP, APO 227, NEW YORK, NEW YORK.  
 SEAWARD, GORDON W., JR., 20TH ARTILLERY, 1ST CAV DIVISION, APO 24, SAN FRANCISCO, CALIF.  
 SMITH, ERNEST W., 307 LAKESHORE DR., OZARK, ALABAMA.  
 STEWART, WILLIAM C., 19-920 IKULANI STREET, EWA BEACH, HAWAII.  
 TILLING, WILLIAM T., JR., 18TH AIRFIELD OPERATING DET, APO 331, SAN FRANCISCO, CALIF.  
 WEBB, LOREN W., 36 NIJMEGEN STREET, FORT BRAGG, NORTH CAROLINA.  
 WHITE, MARION F., STU DET, U.S. ARMY ARTY & MISSILE SCHOOL 4050, FORT SILL, OKLAHOMA.  
 WOMACK, KENNETH S., AVIATION SECTION, FORT HUACHUCA, ARIZONA.

## CWOS

ADAMS, RICHARD B., 93RD TRANSPORTATION CO (LH), APO 143, SAN FRANCISCO, CALIFORNIA.  
 BALDWIN, FRANKLIN D., USAAVNS, FWQC 62-5, FORT RUCKER, ALABAMA.  
 BERRY, MIKE H., 36TH TRANSPORTATION CO, APO 165, NEW YORK, NEW YORK.  
 BLAKE, JAMES H., 7TH U.S. ARMY AVIATION GROUP, APO 154, NEW YORK, NEW YORK.  
 BORCK, KEITH R., 11TH TRANSPORTATION CO (LH), APO 46, NEW YORK, NEW YORK.  
 BRUCE, BOBBY G., DEPT. OF R/W TRAINING, USAAVNS, FORT RUCKER, ALABAMA.  
 COLLETT, BENSON M., QUARTERS 2309-B, FORT EUSTIS, VIRGINIA.

## CWOS (CONT)

COONEY, JOHN J., 93RD TRANSPORTATION CO (LH), APO 143, SAN FRANCISCO, CALIFORNIA.  
DELANEY, JAMES, 93RD TRANSPORTATION CO (LH), APO 143, SAN FRANCISCO, CALIFORNIA.  
DICKEY, KENNETH E., 93RD TRANSPORTATION CO (LH), APO 143, SAN FRANCISCO, CALIFORNIA.  
DVERBEEK, GERALD, HQ, 8TH TRANS BN (HEL), APO 29, NEW YORK, NEW YORK.  
RICHELBERGER, ROGER L., 149TH TRANS DET (MCHFM), APO 177, NEW YORK, NEW YORK.  
EVANS, BILLY K., 11TH TRANSPORTATION CO (LH), APO 46, NEW YORK, NEW YORK.  
EVERHART, WILLIAM G., 310 AACHEN ROAD, FORT ORD, CALIFORNIA.  
FARMER, FRED E., JR., 93RD TRANSPORTATION CO (LH), APO 143, SAN FRANCISCO, CALIF.  
FINLEY, LESTER P., 18TH AVIATION COMPANY APO 74, SAN FRANCISCO, CALIFORNIA.  
GIBBS, WILLIAM J., 18TH AVIATION COMPANY, APO 74, SAN FRANCISCO, CALIFORNIA.  
GIDNEY, ROBERT N., RFD #3, BOX 247, JUNCTION CITY, KANSAS.  
GILMORE, EDWARD A., JR., 93RD TRANS CO (LH), APO 143, SAN FRANCISCO, CALIFORNIA.  
HAYES, RUDOLPH V., 93RD TRANSPORTATION CO (LH), APO 143, SAN FRANCISCO, CALIFORNIA.  
HOLT, ROBERT H., 1404 WEST 11TH STREET, JUNCTION CITY, KANSAS.  
HOYT, WILLIAM C., JR., 85 LAUREL DRIVE, CARMEL VALLEY, CALIFORNIA.  
HUNT, LESTER R., 18TH AVIATION COMPANY, APO 74, SAN FRANCISCO, CALIFORNIA.  
JETTON, MARTIN A., 65TH TRANSPORTATION CO (LH), APO 731, SEATTLE, WASHINGTON.  
KIDD, DENVER G., 6002 MIDDLEROSE CIRCLE, VALLEY STATION, KENTUCKY.  
KRAUS, HERBERT H., 59 NORTH ST. AUGUSTINE, ST. AUGUSTINE, FLORIDA.  
KUTIL, JOE E., 3907 S.W. 59TH AVENUE, WEST HOLLYWOOD, FLORIDA.  
LARKIN, CHARLES E., 8710 DRESDEN LANE, S.W., TACOMA 99, WASHINGTON.  
LEDUC, VINCENT J., GENERAL DELIVERY, DALEVILLE, ALABAMA.  
LIVINGSTON, DONALD J., N56W15982 SCOTT, MENOMONEE FALLS, WISCONSIN.  
MARQUART, HOWARD R., 5TH MISSILE BN, 55TH ARTILLERY, OLATHE, KANSAS.  
McCABE, RAYMOND E., P.O. BOX 551, MAXTON, NORTH CAROLINA.  
McCARTT, J.V., 8TH TRANSPORTATION COMPANY (LH), APO 143, SAN FRANCISCO, CALIFORNIA.  
MEACHAM, GORDON P., 18TH AVIATION COMPANY, APO 74, SAN FRANCISCO, CALIFORNIA.  
MILLER, LYLE, 59TH TRANSPORTATION CO (LH), APO 800, NEW YORK, NEW YORK.  
MINER, JAMES G., 90TH TRANSPORTATION CO (MH), APO 177, NEW YORK, NEW YORK.  
MOATS, CLODE J., 18TH AVIATION COMPANY, APO 74, SAN FRANCISCO, CALIFORNIA.  
MOORE, WILLIAM E., 425-C BELUGA, APO 949, SEATTLE, WASHINGTON.  
MOORE, WILLIAM E., JR., ROUTE #4, BOX 1205 E., PINE BLUFF, ARKANSAS.  
MORTON, ULYSSES, RURAL DELIVERY #1, BOX 161, ELYSBURG, PENNSYLVANIA.  
MOSS, PAT L., LAKE CRYSTAL TRAILER PARK, COLUMBUS, GEORGIA.

# ★ CHANGES OF ADDRESS - PCS

## CWOS (CONT)

NICHOLSON, FREDERICK C., 18TH AVIATION CO, APO 74, SAN FRANCISCO, CALIFORNIA.  
PAGANO, PAUL L., 922-A LOCUST STREET, FORT DEVENS, MASSACHUSETTS.  
POTTS, BENNIE B., 57TH TRANSPORTATION CO (LH), APO 143, SAN FRANCISCO, CALIFORNIA.  
PRICE, JIMMIE R., 3D TRANSPORTATION CO (LH), FORT BELVOIR, VIRGINIA.  
RODRIGUEZ, MIKE, 93RD TRANSPORTATION CO (LH), APO 143, SAN FRANCISCO, CALIFORNIA.  
SABLE, ROBERT J., 3505-B CADET SHERIDAN RD., OAHU, HAWAII.  
SCOTT, DELMONT H., ATB, FORT GREELY, APO 733, SEATTLE, WASHINGTON.  
SCOTT, HAROLD R., 746 CRESCENT DRIVE, REIDSVILLE, NORTH CAROLINA.  
SHEFFLER, ROBERT J., 80TH TRANS DET (CHFM), APO 143, SAN FRANCISCO, CALIFORNIA.  
SHELTON, DEWEY J., STU DET, OCS 3-62, FORT BENNING, GEORGIA.  
STEJBACK, WILLIAM J., 1ST AVIATION COMPANY (FWLT), FORT BENNING, GEORGIA.  
VAUL, ROBERT A., 65TH TRANSPORTATION CO (LH), APO 731, SEATTLE, WASHINGTON.  
VIERLING, RAYMOND A., 93RD TRANSPORTATION CO (LH), APO 143, SAN FRANCISCO, CALIF.  
WALSH, JOHN A., 93RD TRANSPORTATION CO (LH), APO 143, SAN FRANCISCO, CALIFORNIA.  
WELLS, ERNEST L., 6TH TRANSPORTATION CO (LH), APO 71, SAN FRANCISCO, CALIFORNIA.  
WILLIAMS, RAMON R., 18TH AVIATION COMPANY, APO 74, SAN FRANCISCO, CALIFORNIA.  
WILSON, WILLIE D., ROUTE #1, BOX 433, BENTON, ARKANSAS.

## WARRANT OFFICERS

ORTLINGHAUS, RICHARD H., 93RD TRANSPORTATION CO (LH), APO 143, SAN FRANCISCO, CALIF.

## SP/6' S

OGLETREE, CLARENCE, 314 OHIO DRIVE, BAKERSFIELD, CALIFORNIA.

## ASSOCIATES

ALLYN, J.B., LING-TEMCO-VOUGHT, INC., 1725 EYE STREET, N.W., WASHINGTON 6, D.C.  
FITZGERALD, M.P., 31 DIXIE DRIVE, OZARK, ALABAMA.

# ★ CHANGES OF ADDRESS - PCS



## LETTERS TO THE EDITOR

### ASSOCIATES (CONT)

HARDY, H.S., LING-TEMCO-VOUGHT, INC., 1725 EYE STREET, N.W., WASHINGTON 6, D.C.  
HARTS, W.G., 408 35TH STREET, S.E.; CEDAR RAPID, IOWA.  
McKNIGHT, THOMAS W., 1272 TUCSON, AURORA 8, COLORADO.  
STORIE, E.L., 2707 NORTH 34TH STREET, LAWTON, OKLAHOMA.  
WINDER, THEODORE T., 8466 BAYBERRY DRIVE, ST. LOUIS 34, MISSOURI.

### WIVES

DELBERT, MRS. VIVIAN F., D 3014 EAST 63RD STREET, KANSAS CITY 30, MISSOURI.  
HOLT, MRS. NANCY SUE, 244 MONTGOMERY ST., TROY, ALABAMA.

### RETIRED

CHAMBERS, STANLEY L., (MAJ.), 2856 GOBAT AVENUE, SAN DIEGO 22, CALIFORNIA.

### ADDITION

WITH THIS ISSUE, THE MAGAZINE HAS ADDED TWO NEW "PCS" SUBDIVISIONS - "WIVES" AND "RETIRED." THE WIVES LISTED IN THE FORMER SUBDIVISION ARE THOSE THAT CARRY A PERSONAL SUBSCRIPTION TO "ARMY AVIATION" AND DESIRE TO LIST THEIR ADDRESS WHILE THEIR HUSBANDS ARE RECEIVING SEPARATE MAGAZINE DISTRIBUTION AT ANOTHER ADDRESS. THE GROWING NUMBER OF "RETIRED" SUBSCRIBERS HAS NECESSITATED THIS SECOND SUBDIVISION.

### OBITUARIES

Captain Benjamin R. Spiess, a student pilot assigned to the U.S. Army Aviation School, Fort Rucker, Alabama, sustained fatal injuries when his L-19 aircraft crashed as a result of a mid-air collision near Fort Rucker, Alabama, on February 6, 1962.

SIRS:

THE U.S. ARMY Artillery and Missile Center Aviation Section at Fort Sill is in need of historical photographs and documents. The Section is involved in an attempt to construct a pictorial history of Post Army Airfield from inception to the present with emphasis on the Army aviation era.

MATERIAL received will be used for permanent display at Post Army Airfield. It is intended to restrict this collection to objects capable of being framed or lightly mounted. Any assistance - in the form of a loan or a donation - will be greatly appreciated.

J.Y. Hammack  
Lt Col Arty  
Army Aviation Officer, USAAMC

SIRS:

I RECEIVED the February issue, but wish you had sent some crayons along with it in a companion mailing.

THE HILLER crayoning book is a classic, and you're to be commended for adding this "extra" for the readers.

Frank K. MacMahon  
Manager - Military Programs  
Boeing Vertol Division

(Ed. The credits belong to the three little leprechauns from Palo Alto.)

SIRS:

YOU KEEPING late hours again? The photo of Col. Norris is uncaptioned (Feb. issue). Wish I could refer you to a page number, but that's missing, too. The mast-head page told me it was Col. Norris.

Your severest critic,  
Bob Leich

(Ed. I know, Bbo, but like the rose of the same name, a goof is a goof is a goof.)

## CONARC



**B**ELATED but welcome recognition to that most important member of the Army Aviation Team has finally been achieved. The Deputy Chief of Staff, Personnel, Department of the Army, recently approved an "Aviation Mechanic Badge." This badge, currently under design, will be awarded to qualified Army aviation mechanics and maintenance personnel. Further details will be announced in the near future.

THE ANNUAL U.S. Army Reserve Conferences were conducted 30 January to 8 February 62 at Hq, Fourth U.S. Army, and Hq, Second U.S. Army. A special discussion of Army aviation in Reserve units composed an important part of the conferences. Problems in effective training of Reserve aviation units were considered and means of improving aviation maintenance,

specialist training, aircraft availability, and aviator flight training were discussed. The conferences were mutually beneficial to all who are concerned with the USAR aviation program and will lead to a more effective overall Reserve Aviation Program. The conferees included aviation representatives from DA, USCONARC, the Continental Armies, and the 14 Corps Headquarters.

USAAVNS have recently completed several "Skill Level Qualifications Tests" to assist Reserve Component aviation unit commanders in determining MOS qualification for MOS 670, 671, and 672. In addition, complete extension courses, including a final examination, are available to assist in conduct of training MOS 670, 671 (L-19 and L-20), 675.1 (H-13 and H-23), 675.3 (H-19 and H-34), and 676.1 (H-21).

THESE EXTENSION courses and qualification tests are available on request by the Reserve Component unit advisor to Direc-

Major Mertel



## REPORT

tor, Department of Maintenance, USAAVNS Book Store (slight charge) for H-13, H-23, L-19, and L-20 extension courses. Slides are currently under preparation for H-19, H-21, and H-34 courses. These extension courses are very effective training

aids, particularly for Reserve units, and may also be of interest to active Army units.

THE FIRST TWO tactical divisional TOE aviation battalions have been organized. These are the new ROAD Aviation Battalions, TOE 1-75E. The Aviation Battalion, 1st Armored Division, was activated in February at Fort Hood, Texas. The Aviation Battalion, 5th Infantry Division Mechanized, was activated this month at Fort Carson, Colorado. The activation of these two units is a milestone in Army aviation for these are the first real TOE battalions to be formed, although there have been provisionally organized aviation battalions in the past, and currently in operation.

THESE ROAD Divisions are each authorized a total of 103 aircraft. Six LOH are organic to each of three brigades; 10 LOH and two L-20 aircraft in division artillery; 10 LOH and 17 HU-1B helicopters in the air cavalry troop; and one HU-1B helicopter in the aircraft maintenance company of the division maintenance battalion. The remaining 45 aircraft are organic to the aviation battalion. Twenty-five HU-1B helicopters are assigned the airmobile company, light; 10 LOH, six HU-1B, and four AO-1 aircraft are organic to the aviation company, general support.

## AERIAL OBSERVATION

THE FLIGHT Detachment, XVIII Airborne Corps at Fort Bragg, North Carolina, has been conducting some very interesting training in aerial observation techniques using the H-13. These techniques, modeled after ground reconnaissance patrolling adapted to low level helicopter flying, have proven very successful. Working as a team, two helicopters, each with observers, fly several different formations designed to obtain the most effective observation.

FOR EXAMPLE, the trailing helicopter in the formation is flown from the right side in order to permit the observer to observe from the left. With the lead helicopter ob-

server forward and observing from the right, the whole field of observation is covered. The helicopters are flown down roads, under trees and wires, and down valleys taking advantage of all cover and concealment using "nap-of-the-earth" low level flying techniques.

AVIATION and battle group personnel have been very impressed with the tactical results obtained. These techniques have been developed and a considerable amount of training conducted without so much as a nicked tail rotor. If you are interested in more details, drop a line to the XVIII Airborne Corps Aviation Officer, Lt. Col. Tom Anderson, or the project officer, Capt. Leyburn W. Brockwell. This sort of imagination and ingenuity is what is required for Army aviation to best accomplish its many jobs in support of the combat units. Congratulations, XVIII Airborne Corps aviation personnel, for a job well done. Keep it up!

## WALKER AAF

A VERY effective flight detachment is the USCONARC Flight Detachment stationed here at Fort Monroe. This detachment has the mission of providing Army aviation support for the Commanding General and Headquarters USCONARC. In addition, the detachment operates Walker Army Airfield, named after Lt. Col. John T. Walker, killed in Italy during World War II while flying with Fifth Army. The Commander of the USCONARC Flight Detachment is Maj. J.C. Minchew. Operations Officer is Capt. J.L. Yunker. Next time you are up this way drop in for a visit to this fine aviation unit. You will be most welcome.

A CONARC team is touring major installations in CONUS this month demonstrating the characteristics, the capabilities and operation of the AO-1 Mohawk. The demonstration consists of a short formal orientation conducted by Capt. Clifford Johnson, USAAVNS, followed by a flight demonstration. The demonstrations held have been very successful, generating a great deal of interest and enthusiasm at each installation visited.





Army scores significant aviation first:



## “Hands off” ILS approaches for helicopters

A major advance in utility and performance of rotary-wing aircraft—fully automatic instrument landing approaches—has been achieved by the U.S. Army and Sperry Phoenix Company. This is the latest in a series of important Army-Sperry achievements in automatic flight.

A twin-rotor Army H-21 Shawnee, equipped with the 55-pound Universal Automatic Flight Control System developed by Sperry with the U.S. Army Signal Research and Development Laboratory, has made “routine” ILS approaches. The system took over completely the complex five-control manipulation of the aircraft, even maintaining

critical rotor speed. Automatic approaches were made to an altitude of 50 feet—well below established weather minimums. This advance is a key step in solving traffic control and other problems of all-weather helicopter operation.

The Army-Sperry system also “couples” the helicopter to the nation’s VOR ground radio network for automatic enroute navigation. Designated the AN/ASW-12 (V) system, it can provide precise automatic control for many types of Army aircraft, both present and future. Designed around a universal 5½-pound computer-actuator (a self-contained servo system) it offers a

variety of installation “packages” to achieve any desired degree of flight automation.

With satisfactory results reported in earlier trials, the new system is in production for the Grumman AO-1 Mohawk, HC-1B Chinook, and HU-1B Iroquois. In an example of precision landing approach performance, the system has guided the Mohawk to the point of touchdown under automatic control.

**SPERRY**

THE USCONARC Aviation Section lost its Deputy Aviation Officer, Col. Kemuel K. Blacker, this month. Col. Blacker has been here at Fort Monroe for approximately two years. He has accomplished a great deal during that period of time to assist the progress of Army aviation. The Aviation Section and your many friends and associates join in expressing their regrets over your departure, Col. Blacker, but wish you the best of luck in your new assignment as CO of the 512th Artillery Group (Warhead Support) at Fort Sill. Col. Robert R. Corey moves from Chief of the Training Division to take Col. Blacker's place. Lt. Col. F.E. Lamothe is the new Training Division Chief. Another new aviator joining the Aviation Section this month is Maj. Ralph E. Hill, who arrived from Formosa for assignment to the Organization, Plans and Doctrine Division.

### "RING TAIL"



The first flight of the Model 16H, a new 5-place high-speed helicopter, has been announced by the Piasecki Aircraft Corporation of Philadelphia, Pa. Utilizing a "Ring Tail" design, the turbine-powered 16H will cruise at over 150 mph. A wing of small span unloads the main rotor as the aircraft moves to forward flight while under the power of the "Ring Tail." Built with company funds, the 16H was Piasecki Aircraft's entry in the recent BuWeps "ASH" competition.

### BRIEFS

- NASA's Ames Research Center has awarded a \$40,000 contract to the Bell Helicopter Company for the modification and further testing of the U.S. Army XV-3 convertiplane.
- Boeing Vertol's 107 twin turbine helicopter airliner has received the Government's stamp of approval, the FAA awarding a Type Certificate to the Vertol Division that approves the 107 for day and night VFR operations. The 25-passenger 107 received a VNE (Velocity Never to Exceed) rating at 168 mph at a maximum gross weight of 19,000 pounds. ■■

## POI'S/CONTINUED

to nap-of-the-earth operations. This phase of training culminates in a basic stage check ride.

THE BULK of the academic training is contained in Annex No. 3: General Subjects. This is a 51 hour annex with 13 hours of aerodynamics, 28 hours of maintenance, 8 hours devoted to a field trip to Bell Helicopter and Ling-Temco-Vought, and 2 hours on helicopter accident prevention.

TACTICAL INSTRUCTION is contained in Annex 4: Military Subjects. The 31 hours in this annex are slanted toward operations at Battle Group and Division level. The heart of the instruction is a problem in planning a tactical airmobile operation for a rifle company. Also included is a class on refueling and an 8 hour tactical map FEX which is conducted at minimum altitudes.

THESE PROGRAMS of instruction represent the best thinking of the staff and faculty of the U.S. Army Primary Helicopter School. Our objective is to give the rotary-wing aviators a solid background in essential aviation academic subjects and associated military aviation skills, as well as the ability to fly the helicopter with safety and precision under marginal weather and wind conditions at low levels, to include nap-of-the-earth operations.

# ON THE DECK!



BY  
CAPTAIN JAMES L. GUION  
COMBAT DEVELOPMENT  
EXPERIMENTAL CENTER

**F**LYING among the trees in helicopters, using the natural environment for cover and concealment, is a new experience to most Army pilots. There is a certain thrill to skimming along the ground—that feeling of being the master as you lift a rotor to miss a tree top.

## NO TIME TO RELAX

**T**HEN you pull up and relax. Suddenly, you realize that you had been tense and apprehensive while flying "on the deck." How long were you down there? Possibly two to five minutes. "Nap-of-the-earth" flying, or using the terrain for cover and concealment, on a mission of more than an hour's duration, does not allow for the pull up and relaxation.

**A**NY PILOT who has experience among the trees will tell you that this sort of flying is hard work. One hour down there is approximately equal in its demands on the pilot to two or three hours of any other type of flying. Add to this a nearby enemy or critical flying conditions such as high winds or reduced visibility, and the average pilot will gain a deep respect for flying among the trees.

## POWER . . . PLUS!

**S**KILL and practice are required for "nap-of-the-earth" flying. The prime requisites are staying ahead of the helicopter and keeping one's head out of the cockpit. Most flying school graduates have been jumped on repeatedly by their instructors to "keep that RPM up in the GREEN." One must climb at certain power settings and never over-rev the engine. I'm not criticizing teaching methods; we all realize that certain standards are necessary.

**H**OWEVER, these standards are habit forming and one habit that cannot be tolerated in "nap-of-the-earth" flying is constant reference to the instruments or continually looking back inside the cockpit. Trees often arrive sooner than expected. If you are glancing at the instruments, you may never see that tree or a violent maneu-

ver may be required to avoid it at the last second.

**NEW PILOTS** are seldom maintenance-wise; it takes some experience to recognize minor defects that could become serious. You never know in this type of flying when you may be required to use every bit of power and strength that can be squeezed out of the helicopter. A thorough knowledge of the helicopter and its limitations may be the difference between an accident and a good scare.

**NEW PILOTS** are seldom the best navigators. Even for experienced pilots, navigation at low-level is a major problem. Have you ever been in a maze? The solution, readily apparent if you can look down from above, is somewhat bewildering when you are below the level of the hedge and cannot see beyond the next corner. This is the problem of navigating during a nap-of-the-earth flight.

A MAP is an advantage but you can't stop along the way to read it or to pick a new route. This must be done BEFORE the flight starts. Routes must be carefully planned and memorized if no observer is along to help with the navigation. I have seen excellent pilots with carefully planned routes become dis-oriented in familiar terrain.

## **KNOWLEDGE ALL-IMPORTANT**

**DANGER** and fear are reduced by knowledge. Flying nap-of-the-earth requires ability, skill, and special techniques unfamiliar to most Army pilots at the present time, and an appreciation of the use and hazards of this new flight environment. The knowledge required to minimize the hazards of this unique type of flying can be attained through training.

I BELIEVE this knowledge should include: limitations and capabilities of the helicopter, particularly in critical flight conditions; low-level emergency procedures; low-level flight hazards; new flight tactics; teamwork; use of terrain for cover

## **MARINE COMPETITION**

■ Bell Helicopter Company won a recent industry-wide competition to build a Marine Corps assault support helicopter. The Marine helicopter - referred to informally as ASH - basically will be the HU-1B Iroquois now in production for the Army. Bell President E.J. Ducayet did not divulge details of the notification, but said the government dispatch indicated that more than 100 of the helicopters would be built by Bell for the Marine Corps. An initial small purchase will be made in FY 62 for evaluation purposes, with later orders to follow.

and concealment; and low-level navigation. Any special techniques, such as use of the wind to keep down the give-away noise of a helicopter, and a method of crossing ridge lines with the least period of exposure, should be included.

**PREPARING** a pilot with a reasonable amount of experience for nap-of-the-earth flying will require about 28 to 30 hours of training. Flare auto-rotations and low-level emergency procedures should take about 1/3 of this time. Navigation, map reading, tactics, teamwork, and use of the terrain need 1/3 of the time. Special techniques and practice will use the other 1/3. Range firing and weapon familiarization should be an additional requirement in the future.

## **LIFT RESTRICTIONS**

**INSTRUCTION**, training, and practical experience will reduce the hazards of nap-of-the-earth flying. However, proficiency, once achieved, can be maintained only through practice. It is in this need for practice, that one of the major obstacles to the maintenance of nap-of-the-earth proficiency is encountered. Since present safety trends tend to prohibit flying at low altitudes and practice of auto-rotations to the ground, special exceptions to those restrictions will have to be made to accommodate practice in this specialized technique.

**T**HE red lines on the instrument dials grouped in your panel are there to indicate max limitations of the various functions which they are designed to measure. One of the things each pilot must keep in mind is assuring that the needle does not go past any red line as this will bring about an undesirable result.

THE SAME vigilance must be maintained in the areas of overall systems programs - from the conceptual through the development, production, and operational stages. Getting "the needle over the red line" in any of these areas, that is, speeding up too rapidly, may result in some undesirable back-tracking at a later date.

WE ARE ALL highly enthusiastic about the new Light Observation Helicopter (LOH) Program and that enthusiasm has attained a high peak in the last month or two. However, we must not forget to keep our eye on the red line and make certain that this Program proceeds on a pre-planned, well organized basis to assure that our enthusiasm and our confidence in the project are borne out by the end results.

### THE "TRAPS"

I WOULD LIKE to point out some of the inherent traps that we must recognize and avoid as we advance toward the obtainment of the LOH in quantities sufficient to meet the military aviation requirement.

FIRST, the possible temptation to "relax on our oars" as pertains to the equipment which the LOH is designed ultimately to replace. This relaxation not only is a potential temptation to the operators and personnel of the military support system but is a temptation to the contractors who will build the new equipment. To underline this point I quote from the June, 1961 American Helicopter Society NEWSLETTER which says:

". . . the Light Observation Helicopter will replace both current helicopters as well as fixed-wing aircraft in the field, (and) will have the same speed as the conventional airplane it replaces."

# KEEP YOUR EYE ON THE RED LINES



BY  
PAUL L. HENDRICKSON  
USATMC, ST. LOUIS, MO.

THIS STATEMENT might tend to indicate that the Army now has a phaseout program for the current inventory of light observation vehicles, including the H-13, H-23, and the L-19. However, the reverse is true.

ACTUALLY, the Army may have to procure additional items to place in this inventory to maintain the requirements until such time as sufficient quantities of the new LOH are available, and in some cases, has already accomplished this procurement. Even at that point in time (when procurement terminates), these three aircraft will still be found in the Army system, either in the active Army, the Reserve units, or the Army National Guard, and will be found there for many years to come.

THEREFORE, there will be no phase-out for immediate replacement. These items must continue to be maintained and supported for a long period of time. In fact, they'll be present even longer than the life span originally predicted (7-9 years) when introduced into the Army system.

SECOND, there will be the temptation by both operators and commanders to press for acceleration of the development and production cycles of this helicopter. It should be pointed out that - historically - accelerated development has usually resulted in the need for expensive modification and retrofit programs once the article is accepted and placed into production. Acceleration is generally recognized as a "high risk" approach, acceptable only when it is necessary to obtain hardware in quantity in a minimum of time. The LOH is really the long-range replacement for items which are now providing the mission capability adequately.

THE NEED to accelerate this program is not as urgent as with those programs in which a new type mission capability is being attained. Rather, it would behoove us to extend the development cycle, if necessary, to assure that the first production article is as near the mission requirements as is possible, and that modification and retrofit programs throughout the remaining life of the produced article are held to an absolute minimum, i.e., minor refinements to the article, rather than major re-designs or modifications.

THIS APPROACH, if taken, should result in the potential savings of millions of dollars which might then be available for additional procurement increments of the end article, rather than being spent for modification and re-design of existing hardware.

### ONLY ON PAPER

THIRD, we must not neglect the fact that at this moment in time no actual hardware exists of the type that we are attempting to obtain. The only LOH that actually exists at this moment is on paper.

THE ABOVE indicates that the road is not a short, quick one, but it is a long, steady haul, in order to obtain the rather ambitious program that the Army has set out to perform. Undoubtedly, the LOH program, as constituted, is the largest

### MODEL CHANGEOVER

President Kennedy, key government officials, and high-ranking visitors to the U.S. will shortly start flying in twin-turbine helicopters flown by pilots of the Executive Flight Detachment. The new helicopters, Sikorsky S-61's, will be used by the Army and Marine Corps crews in the Detachment, replacing the single, piston engine Sikorsky S-58's in use by the Detachment since 1967. The Presidential crews began training in the S-61 last Fall at Quantico, and have logged more than 2,500 hours on 3 aircraft in an accelerated program.

helicopter program ever commenced in the Free World. When this program is in full swing, it undoubtedly will tend to revolutionize helicopter operations, both militarily and commercially.

WITH the quantity of procurement envisioned and the extension of that procurement into commercial availability of similar type airframes, it is undoubtedly true that the cost of the helicopters will be reduced to an area well within the pocket-book of many small operators who are currently flying light-weight fixed-wing aircraft. This program should advance that time, envisioned by the far-sighted proponents of the helicopter, when the vertical lift device will replace the light aircraft, in major degree, for short distance military and commercial requirements.

IN SUMMARY, let all elements of the Army join together in going forward as quickly as possible in the development and acquisition of the Light Observation Helicopter, but let us go forward together in a well-planned, well-organized, and well-coordinated program that will assure the acquisition of solid military hardware meeting the mission requirements of the many operational forces. We cannot afford to accept something less than this requirement. Past experience has taught us the value of proper safety limits, so "Keep your eye on the red line"!



**USC FLIGHT SAFETY CLASS #23** Left to Right: JA Carmack (Lockheed), J Andrews (USC), JF Detwiler (USC), Lt DF Barfield (NY), Maj JA Murray (Knox), WH Martin (Rucker), Capt FA Strombom (NY), Maj TC Salt (Colo Spngs), Maj WC Crichton (NY), Capt JL Wilkinson (Lewis), Capt BL Moore (Holloman), Capt LG Bagwell (McPherson), Maj KS Ghalib (Chicago), Capt JA Simmons (Miami), Capt N Williams, Jr. (Md), Capt WD Evans (Calif), Lt RL Irons (Bragg), Capt CL Veatch (Ord), AB Gardner (Chicago), Capt DE Littell (Devens), Dr HJ Rickard (USC), Lt WJ Russell (Mich), Maj GA Ballans (Mich), (Lockheed photo).

**4TH USA INSTRUMENT CLASS #63** Front, L-R, Lt FC Vesely; CWOL I Farris; Lt WF Thorn; Maj RC Staples; Capt JD Ecrette; Lt BE Tucker, Jr.; Capts JW Kelley & RL Landry. Center: Lt HJ Reuss; Capts JA McCrocklin & JM Stevenson; Lt EW Siemering; Capt WS Aiton; Lt AE Nordgren, Jr.; Capts EB Oakley, RG Zeller, & WT Temple. Back: CWO MB James, Jr.; Lt RG McLellan; CWO JR Griffin; Capt RA Arnet; Lts DA Brandon & CS Schumacker; CWOL Powell. (Ross Aviation photo, Ft. Sill, Oklahoma, Jan '60)





# SERENDIPITY

**W**HEN, in 1816, a French doctor saw boys at play signal each other by tapping the end of a plank, he had an idea. Why not use the same system to "hear" inside a patient? The twelve-inch wooden tube which he devised, flanged at the ends, was the first stethoscope.

Fifty years later, financier Jay Gould, dining at a fashionable hotel in Saratoga Springs, N.Y., sent his fried potatoes back to the kitchen three times because they weren't thin enough. Furious, the chef finally sliced the spuds with a razor before frying them for the hard-to-please gourmet. "Saratoga" potato chips made such a hit they have been a crunchy standby ever since.

A hairpin, twisted by a preoccupied man, stayed in place better than straight ones, his wife reported. He invented the bobbie pin and made a fortune.

On a hot day in 1904, at the St. Louis World's Fair, the demand for ice cream was so heavy a vendor ran out of plates. The sugar waffle man at the next booth rolled some thin waffles for him to use as holders. The ice cream cones were just

what the customers wanted. Today ice cream in cones is commonplace.

The word used to describe these several events - and it is not subject to common usage - is "serendipity."

Unfamiliar to almost everyone, the word, "serendipity" is defined as "the faculty of happening upon or making for-

unate discoveries when not in search for them."

Serendip, the word's root, is the name of a place in Ceylon. After Horace Walpole wrote "The Three Princes of Serendip" two centuries ago, the word was coined to describe the heroes' talents for wandering upon the unexpected. In modern times, serendipity has played a stellar role in everything from baby food to textiles, medicines, chemistry, and atomic energy.

Daniel Gerber had no idea what he was starting when his wife suggested he process vegetables for the baby with machinery used to puree tomatoes. This homey serendipity led to easier feeding of all infants and a business that last year had sales of nearly \$100 million.

## SUDS .. SUDS .. AND SUDS!

In 1947, a food research chemist was working with concentrated solutions of beta-aminopropionates (amino acids), looking for an improved emulsifier for shortening. When the beaker fell to the floor and he attempted to wipe up the solution, it annoyed him by continuing to foam. The more water he added, the more foam he created. Serendipity had presented him with an emulsifier that would enter family washtubs, shampoos, cosmetics, and cleaners.

Developed from soybean and coconut bases, the product is now called Deriphat and is used in fuel oils to prevent sedimentation and oxidation; on oil wells and drilling equipment to check corrosion; and as a flotation reagent in the recovery of rare ores.

There's no telling where or what serendipity will turn up. Chemist Ira Remsen, doing routine investigations of toluene derivatives, forgot to wash his hands before





# NDIPITY does it!

lunch one day and wondered at the strangely sweet taste of his sandwich. Rushing back to his laboratory, he found that the organosulfur compound he had unwittingly prepared and which was on his hands was saccharine, a white crystalline powder 350 times sweeter than sugar. It has since become, of course, a medical and dietary boon.

## NOBEL HAD IT!

Dynamite is a product of serendipity too. Before it "happened" on the scene, the most commonly used explosive was nitroglycerin, but that detonated too easily. Because of this problem, manufacturers packed it in sand.

In 1866, when Alfred Nobel was about to experiment with a bottle of the explosive in his workshop, it cracked and the contents oozed into the sand. From this chance incident he found the sand-nitroglycerin mixture exploded well. With dirt or clay, results were even better. Tests proved that the new product was more stable and far less dangerously sensitive.

## THE DYE AND PASTEUR

William Henry Perkins, young Scottish chemist, sought a way to make synthetic quinine out of coal tar derivatives. All he got was a black and sticky mess in his test tubes. Using alcohol to clean them one day in 1856, he found a purple color in one.

Perkins had stumbled on the first important artificial dye in history. Widely used in fashionable dress and decor, it gave a name to the "Mauve Decade," and he was knighted by Queen Victoria.

The chemist never dreamed his discovery was only a beginning. The accidentally-discovered dye was of immeasurable value to Louis Pasteur, who stained bacteria with

it to prove his germ theory - one of the great milestones in the history of mankind.

Nylon, the product with so many uses, was the unexpected bonus of a basic research program set up some 25 years ago to explore polymerization. The synthetic fiber was born after chemists happened on a new polymer which could be drawn out into a strong thread. In addition to nylon's own usefulness, it has been a springboard for several other synthetic fabrics.

## OL' SOL STEPPED IN

Durable enamels and paints, like those for automobiles, also are the result of serendipity.

A steel drum containing a nitro-cellulose base formulation, intended for experiments on film, was accidentally left in the sun for three days. When opened, the contents had become a thin syrup instead of the anticipated jelly. It was just what chemists had been working for years to find. The new lacquer not only gave film a



greater thickness with fewer coats, but it had still greater usefulness in creating better paints.

Skin tanning lotions, introduced commercially in 1959, also were born more or less accidentally. Clear and colorless, their effect depends upon dihydroxyacetone, or DHA, long a familiar agent in preserving wool, making pharmaceuticals and treating leather.

As useful as it was, the chemical annoyingly turned laboratory workers' fingers brown. Then drug manufacturers realized its skin-staining ability was an asset, not a liability. Today tanning lotion sales are in the multi-million-dollar range annually.

Serendipity has even contributed to the nation's security and scientific progress. Experiments with uranium for electric lamp filaments, conducted by Westinghouse shortly after World War I, contributed significantly later on to atomic bomb development and to the peacetime applications of nuclear power.

Reprinted with the permission of the ETHYL NEWS, a publication of the Ethyl Corporation, New York, N.Y.

## .. AND MORE TO COME

Looking to the future, "Serendipity can be expected to enter the conquest of space," says Dr. Lee A. DuBridge, president of California Institute of Technology. "Columbus did not know what he would encounter. He set out to find a western route to India, but America got in the way. So it will be in space. We will start out on one mission and find something else."

Serendipity, another name for adventure, may be just around the corner. There is no telling what new rewards it will bring if man seizes the opportunities it provides and capitalizes on them.

# ARMY AVIATION BRIEFS . .

## AIA

Mrs. O.A. Beech, President of the Beech Aircraft Corporation, Wichita, Kan., has been elected 1962 Chairman of the Aerospace Industries Association's Utility Airplane Council. She has also been elected a member of AIA's Board of Governors, the first woman aircraft executive to be so chosen.

## SAFETY

Aviation Safety Award plaques were awarded by Seventh Army Commander Lieutenant General Garrison H. Davidson to the 11th Armored Cavalry Regiment Aviation Section; the 59th Transportation Company (Lt Hel); the Aviation Section, Headquarters Company, VII Corps; and the Headquarters Detachment, 8th Transportation Battalion in recent ceremonies. The awards were presented for the lowest accident rate during the period 1 July-31 December 1961.



## MOSQUITO

Army aviation personnel expressed a keen interest in the British Army "Mosquito" helicopter (photo) that served as a command vehicle for a British general during recent exercises in Europe. The trim-looking aircraft is shown parked in front of an "instrument chopper" of the 18th Transportation Company (LH).



# AAAA ORGANIZATIONAL NEWS

## REPORT OF NATIONAL BOARD MEETING

IN CONDUCTING its spring quarterly meeting on March 2-3, 1962, the National Executive Board of AAAA utilized the meeting rooms of the National Aviation Club located in the Hotel Washington, Washington, D.C. Fifteen of the twenty National Executive Board members were present for the meeting or were represented by proxy.

NATIONAL Executive Board members in attendance included Col. A.J. Rankin, Exec VP; Col. L.W. Leeney, Treas.; A.H. Kesten, Exec Sec'y; Lt. Col. R.K. Moore, VP, Army Aff.; Lt. Col. S. Freeman, VP, Res Aff.; Lt. Col. K.A. French, VP, ARNG Aff.; Col. I.B. Washburn, Ret., VP, Pub Aff.; J.E. Leonard, VP, Indus Aff.; W.T. Rockwell, VP, Nat'l Functions; Col. R.M. Leich, Past Pres.; and B. Wilson, Past Pres.

Also, D.P. Gerard, Member-at-Large; Col. O.G. Goodhand, Member-at-Large; Col. W.R. Williams, Jr., Pres., Alabama Region (as represented by Lt. Col. T.J. Sabiston, Ret., proxy); Maj. Gen. W.B. Bunker, Pres., Midwestern Region (as represented by Col. J.L. Klingenhagen, proxy).

Lt. Col. N.L. Lindstrand, Pres., Davison AAF Chapter, and Lt. Col. F.C. Goodwin, FAA, attended as observers. Brig. Gen. D.M. Oden, Chairman, 1962 AAAA Annual Meeting Committee, and Col. G.P. Seneff, Jr., attended to present individual reports.

## SUMMARY OF ACTIONS TAKEN

A REPORT of the actions taken by the National Executive Board follows:

- 1) APPROVED of the Minutes of the Dec. 1-2, 1961 Meeting of the National Executive Board.
- 2) APPROVED of the report of the 1962 Annual Meeting held by the USAREUR Region in Garmisch, Germany, as presented by Col. G.P. Seneff, Jr., an attendee at the Meeting.
- 3) APPROVED of the proposal of Col. G.P. Seneff, Jr., that the AAAA explore aggressively the possibilities of a close affiliation with the

Soaring Society of America (SSA) in order that the AAAA may participate in and assist the soaring movement in the United States.

4) DIRECTED that Col. A.J. Rankin coordinate with the appropriate officials of the Soaring Society of America during his imminent trip to the West Coast.

5) APPROVED of the proposal of Col. I.B. Washburn, Ret., that the National Office be commended for the assistance provided to the National Executive Board and to the Chapter activities of AAAA by means of the AAAA Information Files.

## 20TH ANNIVERSARY FLY-IN GET-TOGETHER

6) APPROVED of the report on the 20th Anniversary Fly-In at Fort Rucker, Alabama, as presented by Lt. Col. T.J. Sabiston, Ret.

7) APPROVED of the proposal of Col. R.M. Leich that Col. R.R. Williams, Member-at-Large of the National Executive Board, appoint a Committee of AAAA members to administer the Fly-In Get-Together.

8) APPROVED of the proposal of Col. R.M. Leich to furnish fiscal support to the Fly-In Get-Together in the amount of \$1,000.00, with the provision that the Fly-In Committee establish a registration fee to cover such additional expenses that accrue to the Meeting.

9) APPROVED of the written proposal of Lt. Col. H.T. Wann that the AAAA investigate the possibility of commercial charter flights from Washington, D.C., to the Fly-In and return, and DIRECTED that Lt. Col. S. Freeman explore this area.

10) APPROVED of the proposal of Col. A.J. Rankin that the AAAA invite the Aerospace Industries Association (AIA) to poll its member firms and secure confidential replies to assist in the preparation of an industry presentation at the Fly-In Get-Together, the presentation to concern itself with industry thoughts on all facets of the Army Aviation Program, and DIRECTED that Lt. Col. R.K. Moore and Mr. J.E. Leonard serve as

a two-member committee to coordinate with the AIA in this area.

11) APPROVED of the proposal of Col. A.J. Rankin that the 1962 Annual Meeting Committee provide for sufficient programming time to carry this presentation area to the 1962 Annual Meeting.

12) APPROVED of the proposal of Col. A.J. Rankin that the dates for the 20th Anniversary Fly-In be extended to 12-14 July 1962.

13) APPROVED of the report made by Lt. Col. R.K. Moore pertaining to the review of the several Army Aviation Songs by Dr. H.W. Arberg of TAGO.

14) APPROVED of the report of A.H. Kesten on the survey of Chapter Presidents on the question of revising those sections of the By-Laws pertaining to the Regional structure.

## REVIEW OF REGIONAL BY-LAWS

15) APPROVED of the proposal of D.P. Gerard that the National Executive Board take the necessary actions to revise the Sections of the By-Laws pertaining to the Regional structure, and DIRECTED the National Office to prepare such revisions for presentation to the Board at its June 1-2, 1962 Meeting.

## TIED TOGETHER!



LT. COLONEL Nelson L. Lindstrand, left, Davison Army Airfield Chapter President, is shown receiving a Chapter "token of esteem" from M/Sgt Walter L. Hease during the Chapter's recent "Beer Bust" at Ft. Belvoir. His grin belies the fact that the Quad-A tie came as a surprise.

16) APPROVED of the proposal of D.P. Gerard that the Association By-Laws should be revised to:

a) permit any Chapter or group of Chapters in the U.S. representative of 150 or more members to be represented on the National Executive Board by a "Chapter Member-at-Large."

b) permit the overseas Regional areas - USAREUR, USAFFE, USARCARIB, and USARAL - representative of 150 or more members to be represented on the National Executive Board by a "Regional Member-at-Large."

Col. L.W. Leeney requested that the Minutes be recorded to reflect his negative vote to this proposal.

17) APPROVED of the proposal of Lt. Col. R.K. Moore that the National Executive Board amend its December 1, 1961 action pertaining to the dispatch of a Presidential letter to the Secretary of the Army concerning Army aviation publicity.

18) APPROVED of the appointment of Lt. Col. Paul R. Wagner, Army Aviator on duty with OCINFO, as an Advisory Member of the National Executive Board, and DIRECTED the National Office to provide for the attendance of Lt. Col. Wagner on those occasions wherein the Business Agenda covers areas concerning publicity and public information.

19) APPROVED of the reports of J.E. Leonard and A.H. Kesten concerning the AAAA "Film Exchange Program." ACKNOWLEDGED the support given to the Program by the participating Industry Member firms, and DIRECTED the National Office to implement the Exchange in March, 1962, by direct contact with the Chapter activities.

20) APPROVED of the report of Col. R.M. Leich concerning the publication of Association Certificates of Merit; DIRECTED that the Certificates be made available to the membership and to Regional and Chapter activities at cost and upon presentation of the basis for award; and DIRECTED the National Office to inform the Chapter Presidents that the Certificates of Merit will be made available on or about 1 April.

21) APPROVED of the report of Col. R.M. Leich concerning the presentation of AAAA Silver Medal Awards on March 2, 1962 to Secretary of the Army Elvis J. Stahr, Jr., and Najeeb E. Halaby, Administrator, Federal Aviation Agency, and APPROVED of the postponement of a similar Silver Medal Award to General George H. Decker, Chief of Staff, U.S. Army, until the return of AAAA President Joseph E. McDonald, Jr., from Europe.

22) APPROVED of the proposal of Lt. Col. T.J. Sabiston, Ret., on the "Membership Incentive Plan" pursued by the Army Aviation Center Chapter at Fort Rucker, Ala.

23) APPROVED of the proposal of Col. A.J. Rankin that informal correspondence be directed to the Commandant of Camp Wolters, Texas, outlining the salient features of the Membership Incentive Plan and the necessity for an active Chapter organization at this installation.

24) APPROVED of the proposal of A.H. Kesten to have the National Office establish informal contact with several members of the Camp Wolters Chapter and to have these members investigate the possibility of revitalizing the inactive Chapter.

25) TABLED the proposal of Col. A.J. Rankin concerning the constituency of the National Executive Board until the June 1-2, 1962 Meeting.

26) APPROVED of the proposal of Col. I.B. Washburn, Ret., to withdraw the following agenda item from Board consideration: Personnel Policy concerning General Officers on Flying Status.

27) APPROVED of the Operating Budget presented by A.H. Kesten for the Association fiscal period 1 April 1962-31 March 1963.

28) TABLED the proposal of Lt. Col. T.J. Sabiston, Ret., concerning the Association's sponsorship of the erection of a monument at USA-AVNS, Fort Rucker; REVIEWED the proposal of the late Major General Bogardus S. Cairns concerning the Association's sponsorship of scholarship awards to the sons of deceased Army Aviators as presented by A.H. Kesten; and APPROVED of the proposal of D.P. Gerard that President McDonald, upon his return from Europe, appoint a Memorial Committee to study the matter of memorials, the Committee to report back to the Board at its June 1-2 Meeting.

### FLY-IN OF LINDBERGH CHAPTER

29) APPROVED of the report of Col. J.L. Klingenhagen concerning the June 2-3, 1962 Fly-In planned by the Lindbergh Chapter of AAAA; DIRECTED that the National Office invite the attendance of all AAAA members at this local affair; DISAPPROVED of the solicitation of industry support of the planned function in the name of the AAAA; APPROVED of the proposal of Col. I.B. Washburn, Ret., to underwrite certain Fly-In expenses in the amount of \$450.00; NOTED the request of Col. L.W. Leeney that the Minutes be recorded to reflect his disapproval of this allocation of funds; and APPROVED of the Association's participation in the presentation of a replica of the "Spirit of St. Louis" aircraft to the City of St. Louis.

30) ACCEPTED the invitation of Maj. Gen. W.B. Bunker, Midwestern Regional President, to have the National Executive Board conduct its next quarterly meeting on June 1-2, 1962, at St. Louis, Mo., during the course of the Fly-In Meeting

planned by the Linbergh Chapter of AAAA, and REQUESTED that Col. J.L. Klingenhagen take the necessary actions to assist the Board in securing adequate meeting accommodations.

31) COMMENDED the Lindbergh Chapter of the AAAA for its foresight in soliciting National Executive Board approval with regard to the solicitation of industry support for the June 1-2, 1962 Fly-In planned by the Chapter.

32) APPROVED of the proposal of Lt. Col. R.K. Moore to have the National Office dispatch an immediate letter to all Regional and Chapter Presidents citing the By-Law section pertaining to the solicitation of industry members and commercial concerns.

33) APPROVED of the report of Brig. Gen. D.M. Oden, Chairman of the 1962 Annual Meeting Committee, concerning Annual Meeting plans calling for:

a) an AAAA Business Session, Thursday morning, October 11.

b) the Annual Honors Luncheon to be held Thursday noon, October 11.

c) a professional meeting to be held Thursday afternoon, October 11.

d) the AAAA-Industry Co-Sponsored Reception to be held Thursday evening, October 11.

e) an AAAA Business Session to be held Friday morning, October 12.

f) the Friday, October 12 Luncheon to be informal and pay-as-you-go.

g) the Meeting to be concluded with an AAAA

### FIRST WAC



SECOND LIEUTENANT Janet L. Fenn, assigned to the U.S. Army Aviation School, is shown as she handed her AAAA application to Col. Warren R. Williams, Jr., President of the AA Center Chapter at Ft. Rucker. Lt. Fenn is the first member of the WAC to join the Association.

**T**he largest mapping operation ever undertaken is moving across the steaming jungles and mountain heights of Central and South America. It is a massive, participating inter-American effort utilizing regional technicians and hand-picked U. S. Army pilots. To meet the rigors of excessive heat and high altitude in this major step toward development of national resources, the U. S. Army 937th Engineering Company has specified a helicopter of inherent ruggedness and reliability. This helicopter, the most powerful in its class, is the Hiller H-23F. Its commercial counterpart: the world-renowned Hiller E4.

**HILLER**   
**AIRCRAFT CORP.**  
PALO ALTO, CALIFORNIA • WASHINGTON, D.C.  
SUBSIDIARY OF THE ELECTRIC AUTOLITE COMPANY



Business Session ending at 3 p.m., Friday, October 12.

34) **APPROVED** of the proposal of Col. R.M. Leich that the Annual Meeting Committee reserve two tables of 20 seats at the George Catlett Marshall Memorial Dinner on Wednesday evening, October 10, for those non-D.C. AAAA members desiring to attend this AUSA function.

35) **DISAPPROVED** of the proposal of A.H. Kesten to utilize the facilities of the Shoreham Hotel, Washington, D.C., for the 1962 Annual Meeting in the light of the Association's commitment to the Sheraton-Park Hotel, and **PLACED** the subject of site selection for the 1963 Annual Meeting on the Business Agenda for the June 1-2 Meeting of the National Executive Board.

36) **DISCUSSED** the November 17, 1961 Resolutions adopted by the Aerospace Industries Association concerning the participation of AIA member firms in the activities of professional associations, and **APPOINTED** J.E. Leonard, VP, Industrial Affairs, to coordinate with AIA in this area.

37) **APPROVED** of the proposal of Lt. Col. T.J. Sabiston, Ret., that the National Office return the Chapter request to amend Section 2.122 of the By-Laws to the Chapter President in

question and that the National Office cite the amendment procedures outlined in Section 9 of the Association By-Laws.

38) **APPROVED** of the proposal of Col. I.B. Washburn, Ret., that A.H. Kesten be appointed the Executive Secretary of the AAAA for the period 1 April 1962-31 March 1967 under the provisions of Section 3.635 of the By-Laws of the Association.

39) **APPROVED** of the proposal of B. Wilson that the appropriate By-Laws be amended to redesignate the present office of Executive Secretary as the Executive Vice President of the Association and to redesignate the present office of Executive Vice President as the Senior Vice President of the Association, the incumbents to continue to serve in their new offices; **SECURED** the necessary twenty-five signatures on a petition to place the By-Law amendments before the National Executive Board; and **APPROVED** of the necessary By-Law amendments to effect this action.

40) **APPROVED** of the proposal of Lt. Col. S. Freeman to refer the subject of an "Outstanding Chapter Award" to the National Awards Committee for further study, prior to its consideration by the National Executive Board at its June 1-2 Meeting.



41) APPROVED of the proposal of Col. O.G. Goodhand providing for the issuance of Association medals in the following manner:

a) the National Executive Board to award gold, silver, and bronze medals.

b) the Regional activities to award silver and bronze medals, each individual award to receive the prior approval of the National Executive Board.

c) the Chapter activities to award bronze medals, each individual award to receive the prior approval of the National Executive Board.

42) APPROVED of the report of Col. O.G. Goodhand on the Accidental Death Insurance Program recommending that the Nat'l Office survey the Chapter activities and that the AAAA withhold any endorsement of the program unless the survey indicates a conclusive "field" endorsement of the coverage.

43) ACCEPTED the written reports submitted by the National Office concerning the following:

a) AAAA Balance Sheet as at December 31, 1961 (Attachment #1).

b) Report on the Advertising Revenue Program with "ARMY AVIATION MAGAZINE" for the period 1 April '61-31 March '62 (Attachment #2).

c) Operating Budget for the 1 April 1962-31 March 1963 Fiscal Period (Attachment #3).

d) Membership Analysis as at 1 March 1962 reporting AAAA membership by rank/grade,

and Army, Reserve, and Civilian categories (Attachment #4).

e) Initial List of Attendees for the 20th Anniversary Fly-In (Attachment #5).

f) List of National, Regional, and Chapter Membership Meetings held during the period 1 April 1961-31 March 1962 (Attachment #6).

44) SET the site of the next National Executive Board Meeting at St. Louis, Mo., upon the invitation of Maj. Gen. W.B. Bunker, Midwestern Regional President, to have the Board conduct its meeting during the course of the Fly-In Get-Together sponsored by the Lindbergh (St. Louis) Chapter of AAAA, and SET the dates of the meeting for 1 p.m.-4:30 p.m., Friday, June 1, and 9:30 a.m.-4:00 p.m., Saturday, June 2.

45) APPROVED of the motion for adjournment made by W.T. Rockwell and seconded by Lt. Col. S. Freeman, and ADJOURNED at 3:45 p.m., Saturday, March 3.

#### NOTE

The National Executive Board welcomes proposals from individual members and Chapter activities of AAAA. Proposals received at the National Office, AAAA, Westport, Conn. on or before 1 May will receive Board consideration at the 1-2 June Board Meeting in St. Louis, Mo. ■■



Easterbrook



Klingenhagen



Presidential S-61



O'Neill, Merz, and Booster



Stansberry



Berlin

## THIS ISSUE

■ MAJ. GEN. ERNEST F. EASTERBROOK, Commanding General of Fort Rucker since February 16, 1959, has been assigned to Headquarters, U.S. Army Pacific, stationed at Fort Shafter, Hawaii, and will assume his new command on April 5. ■ COL. JOHN L. KLINGENHAGEN, of the Directorate of RDT&E, Transportation Materiel Command, St. Louis, Mo., has been appointed Chairman of the Lindbergh Chapter (AAAA) Fly-In Meeting scheduled for St. Louis, June 2-3. ■ The White House's Executive Flight Detachment is in the process of converting from S-58 aircraft to the new Sikorsky twin-turbine S-61 helicopters. ■ CWO MARTIN P. MERZ (center, large photo), and his wife, Jane, beam their pleasure as Lt. Gen. Edward J. O'Neill (left) awards the first Oak Leaf Cluster to the Army Commendation Medal to Warrant Officer Merz. Gen. O'Neill, First Army Commander, made the presentation at a farewell dinner for Merz who was aircraft and maintenance officer of the First U.S. Army Flight Detachment at Floyd Bennet Naval Air Station. ■ COL. CONRAD L. STANSBERRY, Headquarters, U.S. Army, Europe, has been elected President of the USAREUR Region of AAAA, replacing COL. RUSSELL E. WHETSTONE. The changeover took place at the recent USAREUR Region Annual Meeting in Garmisch, February 23-25. ■ MR. DON R. BERLIN, Vice President and General Manager of the Vertol Division of the Boeing Company, will address a professional meeting of the 82nd Airborne Division Chapter of AAAA at Ft. Bragg, North Carolina, on March 22. ■

0571-0852  
MR. C D STEPHENSON  
6009 EITMAN AVE  
ST LOUIS 10 MO