

Army Aviation

FEBRUARY 28, 1969



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ARMY AVIATION

FEBRUARY 28, 1969

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CONTENTS

Non-Voluntary Flight Orientation by Major Eugene S. Emmer, Office, Deputy Chief of Staff for Logistics, Headquarters, U.S. Army, Europe	6
Pride Can Be A Pitfall! by Brigadier General Edwin L. Powell, Jr., Director of Army Aviation, OACSFOR, Department of the Army	8
Aviation-Electronics by Colonel James L. Burke, Spec Asst to the CG for Avn & Avn-Electronics, U.S. Army Electronics Command	13
AAAA Officer Structure A Listing of the 1969-1970 Regional and Chapter Executive Board Slates	21
Big, Bigger, Biggest! by Morris G. Rawlings	32
AAAA Calendar January-February 1969 Activities	34
Necrology December, 1968-January, 1969 Obituaries ..	35
Takeoffs! January-February, 1969 Changes of Address..	37

ADVERTISERS

Avco Lycoming Division	1
Stratford, Connecticut	
Beech Aircraft Corporation	10-11
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Bell Helicopter Company	4-5
Wyatt & Williams Division, Dallas, Texas	
Boeing Vertol Division	2nd Cover
N. W. Ayer & Son, Inc., Philadelphia, Pa.	
Dynamic Science	31
Phoenix, Arizona	
General Electric Company	3rd Cover
Robert S. Cragin, Inc., Schenectady, N.Y.	
Lockheed Aircraft Corporation	Centerfold
McCann-Erickson, Inc., Los Angeles, Calif.	
Stanley Aviation Corporation	36
Campbell-Mithun, Inc., Denver, Colorado	



TOP: A UH-1B Medevac chopper stands by during REFORGER I operations at Grafenwohr, Germany, as a CH-47 Chinook hovers above with a 105mm howitzer and its ammo. **BOTTOM:** Men of the 3rd Infantry Division mount an air assault Chinook during the same exercises.

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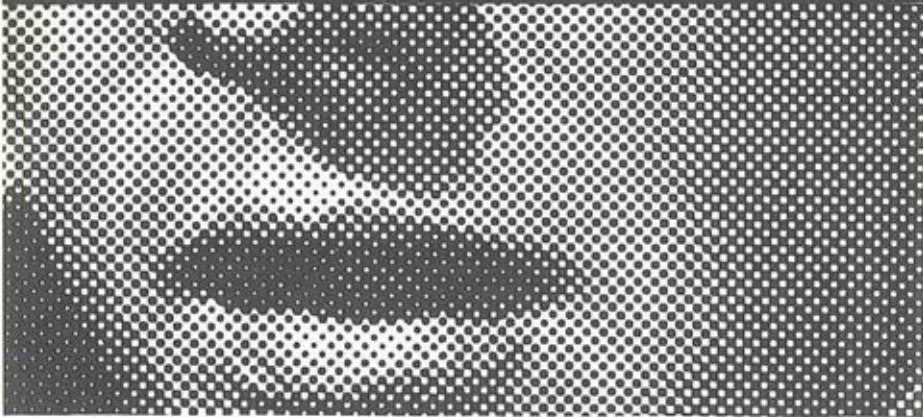


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SPEAKING OUT



NON-VOLUNTARY FLIGHT ORIENTATION

PVT E-2 Willis was stunned. He was almost through with basic training and he held his new orders in his hand. He read it a second time and it read exactly the same: "Asg to Fort Rucker, Alabama, for Enlisted Flight Orientation Training."

Then he noticed a remark down at the bottom, "*Individual Concerned incurs no service obligation upon successful completion of the Enlisted Flight Orientation Training unless he voluntarily elects to enter the WOC Flight Training Program.*"

PVT Willis decided it all must be a mistake. After all, he didn't care for airplanes and had never made an airplane flight in his

life. Besides, he was positive that flight training was voluntary. Nobody could make you get into one of those noisy, greasy machines and risk your life if you didn't want to. PVT Willis decided to run, not walk, to his First Sergeant and find out who made the mistake.

Does this sound like someone's bad dream? No, it's a proposal for a new look into the concept of Army flight training to alleviate the pilot shortage problem.

To stimulate interest

Traditionally, military aviation has been a voluntary affair and perhaps it should remain so. However, that's a separate point and it won't be discussed here. What is being suggested is non-voluntary flight orientation with the purpose of stimulating interest in those soldiers who don't even know if they would like to become pilots because they know nothing about flying and have never been near airplanes.

**By Major
EUGENE S. EMMER
ODCSLOG,
Headquarters,
USAREUR**

In almost all other Army career fields, no one asks the enlisted man if he wants to be a truck driver, or a military policeman, or even a rifleman. Consequently, these skills can be trained as needed by Department of the Army. But the flow of pilots into rapidly expanding Army Aviation depends on the whims of interest of officer, warrant officer, and warrant officer candidate (WOC) volunteers.

In view of the vast requirement for Army Aviators (which is barely making headway even with an intensive commercial advertising campaign), perhaps a new approach is necessary to fill the ever increasing pilot seats.

It's a fact that many of our new warrant pilots are former crew chiefs who became interested in a piloting career through their constant exposure to the flying field. How many more thousands of potential pilots are available in the active Army, but through lack of knowledge and a minimum exposure to flying never develop their interest?

Therefore, it is suggested that a non-voluntary flight orientation program be instituted for selected enlisted men who appear to have the requisite qualifications as evidenced during their basic training. Since aviators are not supermen, requisites need only be normal coordination, intelligence, mechanical aptitude and alertness, and perhaps most important of all, a desire to do "*something different.*"

Suggested course outline

The suggested orientation course would not exceed a period of four weeks. During this time, the *Flight Orientation Program Candidate (FOPC)* would be subjected to a pre-flight physical and basic classroom instruction in those fields most likely to awake the interests of a budding airman, i.e. the advantages of a flying career, principles of flight, aircraft mechanics, weather, techniques of instrument flying, combat tactics, aerial gunnery, etc. These are for familiarization only and are not meant to replace the longer, more detailed courses in the regular flight program.

Of course, the *FOPC* must be given familiarization experience in the air, also. Once



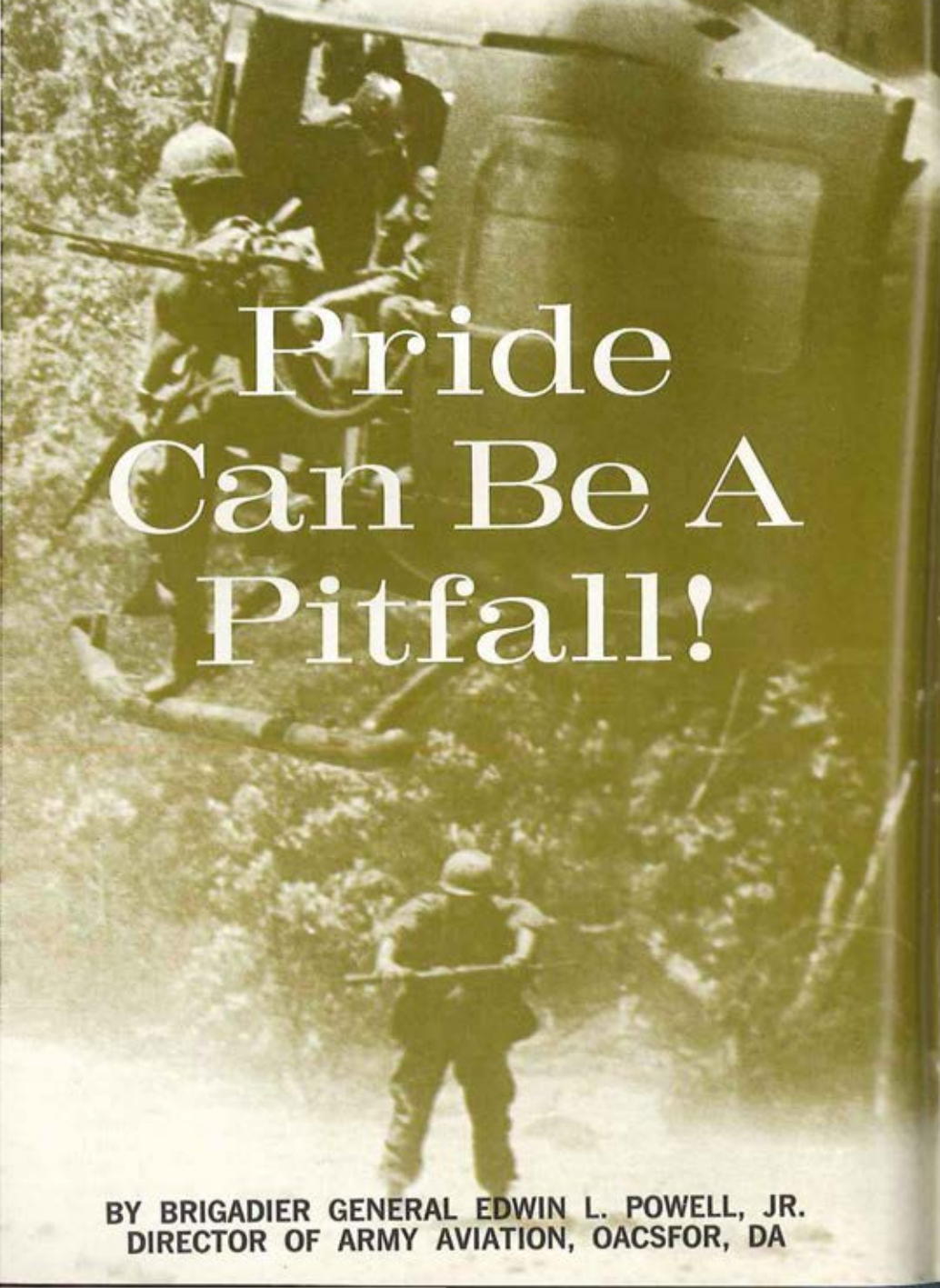
FT. BELVOIR, VA. — LTC William C. Rudd, Aircrew Maintenance Officer at Davison Army Airfield, receives the Legion of Merit from COL George L. Lovett, Davison CO, for "exceptionally meritorious conduct in the performance of outstanding service in Vietnam" while serving with the 765th Trans Battalion.

each week, he would be taken up for a short flight in a light aircraft (non-voluntary, remember!), for two hours maximum with a qualified pilot and allowed to develop his own ideas. This would let him get over his fear of flying, handle the controls if he desired, look at the earth below and generally experience the world of flight. It would let him see for himself that one does not have to be a superman (or crazy) to fly, but rather an average person with the desire to be an aviator.

At the end of the four-week course, the *FOPC* would have two options open to him. He could, with the recommendation of the class supervisor, volunteer for flight training as a WOC, or return to the Regular Army channels for further reassignment. In the latter case, the Army would lose four weeks utilization, it is true, but the advantage in gaining flight training candidates would offset this.

For the *FOPC* who elected to volunteer for further flight training, the Army would receive a sharp young man, motivated by an interest in flying who could then start his WOC basic training with a knowledge of the exciting career ahead of him.

This is a new idea, but something has to be done to motivate the young man who used to hang around the local grass strip, helping the mechanic and passionately saving money for his flight lessons. When was the last time you saw a 17-year-old run out to help wash the windshield on a sleek twin-engine biz-jet? Motivation is the key and the *FOPC* could be the answer to some of our problems.



Pride Can Be A Pitfall!

BY BRIGADIER GENERAL EDWIN L. POWELL, JR.
DIRECTOR OF ARMY AVIATION, OACSFOR, DA

ONE of the attractive aspects of my job is to be invited occasionally to address a new graduating class of Warrant Officers or officers at Fort Rucker or Hunter.

My senior staff officers and I who are invited to these functions particularly enjoy these occasions — not because we have a captive audience, but rather it reinspires us to go back to our somewhat tedious chores in the Pentagon knowing that fine young men are entering our program and keeping it vital.

Equally inspiring is the opportunity to meet the friends, wives, and parents of the graduates, who have come to these graduation ceremonies at considerable personal expense and difficulty. They recognize the sacrifice and the dedicated effort that each one of these young men has made to earn the title of Army Aviator. They are rightfully proud of them and the Army is proud as well.

When addressing a graduation class, I always point out that, though these new aviators have received the finest basic training,

the one thing no school can build into any student is judgment. The aviation school provides the young pilot with the basic formal experience, but it is necessary that the training process continue.

No challenge ignored

Any wise aviator will be learning about flying until he stops flying. He will draw upon the experience of his comrades and leaders to round out his capabilities. He must certainly understand his own capabilities and limitations.

Here is where pride can be a pitfall. The young aviator, bubbling over with zest and energy, will try to accept any challenge. In combat, challenges appear daily and sometimes it is necessary to accept a higher risk than is normal. But remember, there are priorities even in the combat environment. All missions are important, but we must be alert to the combat syndrome — the blind acceptance of every mission as being immediately combat essential.

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PRIDE CAN BE A PITFALL!

(Continued from Page 9)

A second and related combat syndrome is one of complacency. Any seasoned soldier tends to accept hazards and risks as commonplace. This, to a certain extent, is necessary, especially for the aviator. To be continually on the very edge of panic places too great a strain on the pilot who needs all of his faculties and balanced judgment.

Complacency defined

Yet, to be fatalistic, or too foolhardily accept unnecessary risk is ridiculous. This sort of complacency I am talking about are such things as sloppy preflights; an habitual disregard for wind direction; failure to dismount a ground guide when indicated; and low leveling along the river when your mission does not dictate it.

Flying has been defined as "*Hours and hours of sheer boredom interspersed with moments of stark terror.*" This may have some validity to the long cross-country "*milk run,*" but epitomizes the very opposite of what the Army Aviator should be. The alert pilot and the professional pilot will always be checking his aircraft, the weather, the threats, and the alternatives even on the most mundane flight. There will still be moments of "*stark terror,*" but most of these can be avoided if the pilot is never bored.

Challenge met

Our schools have met the challenge of a tremendous surge in the last few years and I am very pleased to say I don't think that the quality has suffered one iota. I know I could never fully explain the effort that went behind the fence to meet the changing classloads, the changing equipment, and the changing programs of instruction. Thousands of people have worked very late in the night to make sure that the young pilot headed for Vietnam starts off with the very best background that is possible.

There is no more demanding job for our whole program than the instructor's. His ability to impart the very best basic fundamentals to the novice aviator will always

have a profound effect on the quality of our product and the motivation of the student. It is also a difficult job because it is a continuing chore that repeats in seemingly never-ending cycles, like my "in-box" that is never empty.

A "Well done!"

I want to congratulate the instructors and their supervisors who have kept our standards so high and have gained the respect of everyone in the aviation community. I can add a little bit of interservice compliment by reporting personally that the Marines we are now training are proud to receive the badge of Army Aviator. (We would like to think that their regulations eventually could be changed so that they could permanently wear the Army aviation wings on the right side of their blouse.)

I doubt if very many of you remember that our first pilots in World War II were pushed out of the nest with approximately 25 hours of instruction. Later on (by 1944) we were able to raise this marginal figure to the grand total of 80 hours. Our current aviator graduates with over 200 flight hours and a thorough academic background, complete with training aids, that could never have been conceived a few years ago.

The optimism is echoed

As to the size of the program, in 1949 we had less than a thousand aviators in the Army. They still wore the "L" (Liaison Pilot) wings. By the end of this coming fiscal year, we will have somewhat over 22,000 Army aviators. This fact alone is indicative of the new airmobile Army. However, it is only through the continuous influx of the new, eager, bright young men that the Army can hope to see this trend continue. I for one am very optimistic. Fortunately, this optimism is echoed at the highest levels.

Recently, our Chief of Staff, *General Westmoreland*, in speaking about the future of airmobility said, "*I do not think that we have any more than reached the Line of Departure. Having achieved the ability to use the helicopter and employ the tactics of airmobility we should now takeoff. This is not the end; it is only the beginning.*"

AVIATION- ELECTRONICS

"Today's requirements dictate a systematic total mission analysis of the electronic regime to assure an operational aircraft in an operational environment . . ."

By COLONEL JAMES L. BURKE
Special Asst to the CG for Aviation and Aviation-Electronics
U.S. Army Electronics Command, Fort Monmouth, N.J.

REVIEWING the history of aviation-electronics, documents disclose that the air age began way back in the 1700's with the Montgolfier brothers balloon experiments. On September 19, 1783, a balloon was sent aloft carrying a sheep, a rooster, and a duck. And two months later, on November 21, the first ascent by man was made.

Eleven years later during the Reign of Terror, the French Army used a balloon for reconnaissance. A series of color flags were used to signal observations to the ground. Although the pilot did not assert that the balloon won the battle, he did claim that it was possible to locate enemy troop movements, distinguish their artillery, and track movements of the general masses.

Thus, not only was this first flight of the Montgolfier brothers symbolic and representative of our entry into the air age, but it

was *also* symbolic and representative of our first venture into military aviation-electronics systems.

Today, aviation-electronic covers all electronics associated with Army Aviation and electronics needed to support the air mobility environment. Included are not only the electronics essential to operation of air cushion vehicles and all classes of fixed and rotary wing air vehicles, but the air-mobility and aviation-oriented communication-electronic mission systems.

Significant in this category are such missions as: command control, communications relay, electronic warfare, surveillance, and target acquisition. Additionally, the term includes the environmental systems needed to support an air-oriented army.

Provision must be made for the electronic guidance of an aircraft from its parking

AVIATION-ELECTRONICS

(Continued from Page 13)

place at a heliport to a takeoff position; management as a part of the air traffic regime while enroute to its mission; terminal guidance and common positioning; mission performance, which may be transport, firepower or one of many possible electronic missions, and return to base.

Broad research and development programs are needed in these functional areas: air space management, terminal guidance for approach and landing, collision avoidance, communication, data handling, displays, electronic countermeasures, fire control, formation flight, gunfire detection, meteorological sensing, navigation, night vision, target acquisition, terrain and obstacle avoidance, and numerous other manifestations of the total electronic and physical environment in which Army Aviation operates.

Behind these environmental systems should be a myriad of supporting developments which will contribute to the maintainability and reliability of the equipment by insuring not only a systems approach to the electronics function, but a cybernetic as well as human engineering approach to system de-

sign, and proof through configuration engineering, and instrumented testing prior to deployment into military combat.

Essentiality of electronics

The importance of aviation-electronics to the military was underscored recently by Major General William B. Latta, Commanding General, United States Army Electronics Command, who said: "Our responsibilities to the Army for the development of aviation-electronics equipment are most significant. Vietnam has demonstrated beyond all doubt the role that aviation will play in future warfare. It has demonstrated the essentiality of electronics to the completion of that mission."

These requirements dictate a systematic total mission analysis of the electronic regime to assure an operational aircraft in an operational environment.

To fulfill these demands, the aircraft must, for example, have navigation and landing systems and identification for use with ground-based radars and radio locator beacons. Gunfire detectors must be aboard to indicate when the aircraft is being fired upon, low light-level sensors for observation under poor light conditions, and laser or other obstacle detection means to avoid collision.

To carry out command functions, it is necessary to maintain communication with superior officers, combat troops, and supporting elements. This requires communication data handling and display equipments and a system of controls flexible and reliable in a combat environment. The system must include protection against unfriendly electronic warfare, including electronic countermeasures.

Before any airborne action can have any assurance of success, the weather conditions en route and at the scene of action must be known with considerable accuracy. Meteorological data must be obtained by weather radar and satellites, and its use enhanced by computer and distribution techniques that would provide reliable predictions of local weather conditions. Micro-meteorological sensings of atmospheric conditions are essential to the optimum employment of new sensors and photographic techniques.



ABOVE: Infant Night Vision Camera, as installed on a UH-1C Iroquois. TV is shown on the left; direct view on the right.

Other important meteorological problems, such as elimination of fog or dust at landing areas, have to be solved to the point of reasonable reliability. The modification of weather to complement air operations is exploitable.

Airborne surveillance requires both manned aircraft and unmanned aerial vehicles. Detection systems oriented to the individual target, to natural foliage penetration, and camouflaged detection with real-time air and ground readouts, are needed. For surveillance aircraft to carry out missions successfully it must have accurate navigation, including ground-based references and common positioning.

Urgently needed is an independent on-board navigational system with a high degree of accuracy not presently available and with a reasonable cost of ownership. Considerable improvements in several types of airborne navigational systems must emerge, so that the total navigation and common positioning problem of the Army may be resolved.

Our commanders of the future will increasingly use aircraft for medical evacuation and logistical support. Large segments of forces will substitute an air vehicle for the tent and jeep of earlier wars, as their home in combat of the future.

Five priorities seen

Enumerating avionics requirements, from a priority point-of-view, in a recent address to industrial, academic and military conferees*, Lieutenant General Harry W. O. Kinnard, Commanding General, United States Army Combat Developments Command, Fort Belvoir, Virginia, said: "The first priority on our docket would be improvements in navigation; the second priority would be in those areas which will improve avionics; the third would have to do with the instrumentation and display; the fourth would be in those areas which will improve our capability to fly in very marginal weather and at night — terrain avoidance, terrain

*ECOM-AAAA-AFCOA advanced planning briefing and technical symposium on aviation-electronics, March 1968.



TOP: Communications Central AN/ASC-11. Front $\frac{3}{4}$ view showing shock mounts and base removed. BOTTOM: UH-1C Iroquois with installed night vision camera on nose.

following and perhaps a little later on, instrument formation flying; the fifth priority is integration of these systems."

Future aims

Three major aims in the progress search were cited, particularly as we get to 1975 and beyond:

1. A standard avionics configuration — something which is standard in the sense that the subsystems in it are standardized. With such a standard configuration, packages that relate to the specific missions of an aircraft, whether these be for fire control or surveillance, or ECM — bullet detection — could be added.

2. Coupling of the ground portions of the avionics systems very closely with the airborne systems; also the supporting systems

AVIATION-ELECTRONICS

(Continued from Page 15)

that supply the maintenance. Training — with simulators — must also be programmed.

3. Precise navigation, featuring solid-state communications, shrunk in size. Cited, too, as an acute problem, was flying, particularly in Europe, in very marginal weather and at night. Requirements here involve terrain avoidance, terrain following, formation flight; i.e., station keeping. Needed are ground-approach systems that would enable us to have multiple approaches by formations of aircraft in bad weather.

The problem areas

Reviewing topical navigation research and development areas of concern to the military, in a subsequent talk at the same *ECOM-AAAA-AFCEA Conference* where *Lieutenant General Kinnard* commented on priority, *Ted J. Sueta*, Acting Director of the ECOM Laboratory at that time, detailed four problems in radio navigation aids and a few in self contained navigation.

One concerned security against jamming and confusing of ground-based navigation aids by an enemy. Some activity in pseudo-noise modulation techniques had been sponsored and the results looked quite promising.

OMEGA, the well-known, high-power, very low frequency radio-grid coordinate systems which can provide full global cover-

age with only eight ground stations was also cited. At present there are only four stations in operation, all located in the northern hemisphere.

In its present form, it was noted, the user hardware is too bulky and complex for the Army, and the predictable accuracy is far too low. Suggested solutions included the possibility of using a differential technique to bring predictable accuracy within useful limits and simplified user equipment which would treat hyperbolic lines as being essentially linear over modest distances; 75-100 miles.

Improving the ability of LF/MF automatic direction-finding to operate usefully in the presence of noise, such as that generated by thunderstorm activity, was noted as a third area of interest. It has been found that ADF performance deteriorates to virtual uselessness in the presence of such noise, just when it is needed the most. Since LF ADF is the only *standardized common* navigation aid in use by the Army, and is likely to be with the service for a long time, any really significant improvement is bound to be helpful to tactical Army aviators.

Tactical DME

Distance measuring equipment for tactical radio described as the fourth item, concerns the need for an applique or plug-in unit to work with FM tactical radios on the ground and in the air to give aviators information on distance from a radio set to which they may be steering with the aid of the homing function of a FM transceiver. It can reasonably be expected, it was said, that all tactical Army aircraft will be equipped with the applique unit, since they all carry FM tactical radios, and a high percentage of ground FM radios can be expected to be so equipped, since the pilot may be required to fly to various troop locations. Accordingly, it is felt that the military market potential for such an item is high.

Accuracy updating in self-contained navigation represents another problem area. The field is wide open. *Mr. Sueta* also disclosed that simple low-cost map-computers are needed to relieve the pilot of constant pilot-age-type attention. Advanced development



ABOVE: Airborne long focal length camera system (Experimental). Nikon camera with 500mm lens, Kenyon gyro. Shows camera with power supply.



ABOVE: Light Low Level TV (interior view) as shown installed in a UH-1C Iroquois. Reading scopes are shown at the right and left of the instrument panel.

contract have been sponsored for what is currently called the standard navigation computer. How to obtain inertial performance at very low cost in the Army aircraft environment was presented as another problem. It appears as if the most promising avenue is in the use of a dependable inertial platform of relatively modest cost coupled with some augmentation such as a basic doppler velocity sensor.

Landing-aid technology

Landing-aid technology, as related to landing performance and sensing and generating guidance signals, are two more pressing problems.

The first was said to stem from the fact that very little is known about truly steep approaches by helicopters under poor visibility conditions in the civil environment, and when the situation is transported to combat conditions, the problem is magnified considerably. Some agencies — FAA, NASA, and Navy — have done some work in the area, but it is still not possible to specify a system for field hardware development.

Landing for the first time without benefit

of ground-based equipment presents a real challenge, particularly in poor visibility at an unattended remote site, and probably under enemy fire. There is little doubt that the eventual solution will be some sort of self-contained equipment, but it will demand intense research and development to produce a usable approach. The sole contender at the moment is the rotorblade antenna radar, which is inherently a multi-function device.

Meteorological systems in support of air mobility are acutely important to the military. Discussing this phase during a recent symposium, *Dr. Emily M. Frisby* of the Atmospheric Modification Task Group of ECOM's Atmospheric Sciences Laboratory, revealed that during the past two decades a number of weather modification achievements have been realized: visibility can be improved in super-cooled fog by seeding it with propane and dry ice; holes can be made in super-cooled stratus decks by seeding them with dry ice and silver iodide; precipitation

AVIATION-ELECTRONICS

(Continued from Page 17)

in super-cooled cumulus cloud can be increased under certain conditions by seeding the cloud with silver iodide; and hailstone growth can be inhibited by firing explosive rockets into hail clouds, some evidence disclosing that high atmospheric electric fields can be reduced by seeding them with chaff.

Commenting on basic research requirements, *Dr. Frisby* said that two of the most crying needs are for further investigation of ice nucleation and the building of a generally acceptable ice nuclei counter: absorption of 0.1 micron particles by droplets in a natural cloud often has a time span of hours, and in most counters, nucleation is immediate.

Reviewing requirements of vital urgency to ECOM, *Dr. Frisby* cited the development of an extremely functional propane unit for dissipating super-cooler fog that is operated manually and has reached the stage where it should be remoted and made capable of automatic operation in series. Additionally, the unit should be mobile and still further, be usable in flight.

Clearing super-cooled fog

Another project — clearing super-cooled fog using moist compressed air so that Army helicopters can operate more efficiently in super-cooled conditions in the Antarctic — is in the manual operation stage only. Engineering help is needed to make it possible for pilots to eject air from the compressor by simply push-button means from the cockpit.

Vital, too, to the weather evaluation program is infrared sensing gear that can be flown over hailstorm-prone territory to see whether surface hot spots in the morning (the origins of thermals) can be associated geographically with areas over which active convection will develop in the afternoon. At present there is no simple way of mapping infrared ground temperatures and in-flight recording is urgently needed.

Research and development programs to satisfy these military requirements must be both evolutionary and revolutionary. To

produce significant and substantial new capabilities in the employment of Army aircraft and in the performance of communication-electronic missions in the air mobility environment, a systems engineering approach is necessary. But the ultimate value of the program depends upon a well-controlled timetable focussed on technology progress and its compatibility to performance improvements required. It should also be possible to implement the system by modification and addition without being necessarily forced to void a total system due to obsolescence of a single component.

Life cycle improvement

Strenuous efforts must also be exerted to increase reliability and maintainability of existing state-of-the-art equipment. Life cycle cost reduction resulting from reliability represent one essential consideration. An objective in the development of any aviation-electronics equipment should be 20,000 hours mean-time-between-failure. Achievement of such a goal is ultimately possible through circuit simplicity and low stress design, use of high reliability components, and elimination of weak links.

Additionally, provision of inherent self-selective alternate circuits integral to the equipment design, extensive component testing and stringent quality control throughout the manufacturing and life cycle maintenance process will, though costly, be compensated for by substantial increases in operational availability of systems and reductions in support requirements.

Coincident with such programs is the need for a more effective, accurate and timely reliability data-feedback system that will allow reliability and development engineers to evaluate present designs and techniques so that they can be reflected in new systems design. Other factors to consider include instrumentation and methodology for measuring and predicting reliability and the effects of user operation and the maintenance process itself on system and equipment field reliability.

Investigations of typical field environments to which aviation equipment is exposed should also be programmed for the develop-

ment of realistic field environment tests. Maintainability also merits increased consideration; combinations of modular design and high reliability components can simplify the maintenance process through the use of substitution and conversion of components and equipment. Logistics concepts will have to be revised to match the reliability and maintainability of concepts.

Electronics configuration management and systems testing represents another challenging area for system design and test engineers. Not only consider the cybernetic and total environment-man-machine relationship during design, but methodology and instrumentation for evaluating this total system and a means of conversing intelligently on the results of system effectiveness evaluations and performance.

System compatibility

For example, not only is it essential that the electronics equipment and systems aboard an aircraft be mutually compatible, but that compatibility exists between the aircraft system and its ground and environmental support systems, and all of the other aviation-electronics and communication-electronics equipment in the military environment.

During the past few years significant steps have been taken to develop electromagnetic compatibility test facilities systems to determine relative intelligibility of voice circuits and establish the spectrum signatures of individual pieces of equipment. We now must begin to evaluate electromagnetic compatibility in the third dimension by knowing the spectrum signature of a system flying through a field army electronic environment and by being able to predict accurately the behavior of the total environment during air mobile operations.

In the final analysis, operational success in military operations is dependent upon interference-free communications, navigation and electronic mission systems operating in an intensive military environment. All systems must be operationally suitable and electromagnetically compatible. The air-mobility commander's capacity to execute his mission successfully depends upon all aviation-electronic systems being in the green.



TOP: The mobile Aircraft Control Center, AN/T50-70A, BOTTOM: Infant night vision system showing TV monitors.



ABOUT THE AUTHOR

A native of Jamestown, New York, Colonel James L. Burke came to ECOM after a tour of Duty as Chief, Logistics Communications Division, ACTIV, between Sept. 1965-1966. In flying over 300 missions in support of counter-insurgency operations, he earned the DFC in the process, and the Legion of Merit and the Air Medal with six Oak Leaf Clusters, one for heroism. During his 30-year tour he's served at varied assignments at USAEPG, Fort Huachuca, Ariz. during 1962-1965, and held an earlier assignment in OCSIGO. Tours at Fort Monmouth during 1950-1954 and in Denmark as Signal Officer, Allied Land Forces (NATO) during 1955-57 preceded the DA assignment. Fixed and rotary wing qualified, Burke has attended the ASOC at Fort Monmouth, the Armed Forces Staff College, and the C&GSC. A member of AUSA and AFCEA, he's the president of the Monmouth Chapter of the Army Aviation Association, and a past president of that organization's Grand Canyon Chapter. Colonel Burke now calls Tucson, Arizona, his home.

WHEN Adam first learned of his punishment, he is rumored to have replied, "But it was such a small apple!" implying that he would be more content with his future had he more enjoyed his past.

A bearded money lender in the temple, having loaned but a single silver coin all day, is supposed to have turned to his daughter and said, "Bring me more borrowers or I shall wax wroth child!". This not only implies dissatisfaction with small scale effort, but is, perhaps, how the name of Rothschild got into the banking business.

Ali Baba, his cave entrance open to the public view, is reported to have sent his

**BY
MORRIS G. RAWLINGS**

forty thieves to bring back a single stone — not forty small rocks.

King Arthur, upon first viewing the bedroom furniture in his new castle, supposedly cried out plaintively, "My horse's saddle is larger than this bed! Am I not to be as comfortable asleep as I am in the saddle?"

All of these events from previously non-recorded history have one thing in common: they all express an appreciation
(Continued on Page 33)



**BIG,
BIGGER,
BIGGEST!**

1969 AAAA REGIONAL AND CHAPTER ACTIVITIES



USAREUR REGION

APO New York 09696

President: COL Kenneth D. Mertel
Executive Vice President: To be elected.
Secretary: LTC William D. Kelly
Treasurer: LTC Bak Y. Chin
Vice President, Army Affairs: LTC George W. Aldridge, Jr.

Vice President, Industrial Affairs: COL John R. Adie
Vice President, Public Affairs: Harry A. Striker
Vice President, Allied Affairs: Thomas L. Wernecke

1968 ACTIVITY: The 1968 AAAA USAREUR Region Convention at Garmisch, Germany, was an outstanding success, some 400 members and their families attending the 6-9 March 1968 program. In a unique pre-Convention action, the members of the USAREUR Regional Council, and the USAREUR Chapter Presidents, and their families met at a "Summer Weekend" at Garmisch, the men formulating plans for the 5-8 March 1969 Regional Convention while the ladies did some downtown reconnaissance.

MEMBERSHIP: Overall AAAA membership within the USAREUR Region stood at 632 as at the time of a 9 January 1969 circular distribution.

ALAMO CHAPTER

Fort Sam Houston, Texas 78234

President: COL Curtis L. Hankins
Executive Vice President: LTC Richard W. Nuttall
Secretary: LTC William M. Watson

Treasurer: CWO Norbert W. Moczygamba
Vice President, Army Affairs: LTC J. W. Reser
Vice President, Reserve Affairs: To be elected.
Vice President, National Guard Affairs: LTC John D. Passano

Vice President, Industrial Affairs: Elton Rust
Vice President, Public Affairs: LTC Peter F. Rice

1968 ACTIVITY: The Alamo Chapter held a late afternoon business meeting on 29 March, conducting a Chapter election for six of the nine offices. In late June the Chapter membership participated in a late afternoon business and social meeting, following in late September by another Friday afternoon membership "social" at which Chapter Delegates for the AAAA Annual Meeting were selected. The Chapter did not meet in the October-December quarter.

MEMBERSHIP: Based on the distribution of a 27 September 1968 meeting notice, Alamo Chapter membership was 163.

ALASKA CHAPTER

APO Seattle 98749

President: LTC Richard D. Kisling
Executive Vice President: MAJ William E. Kalmus
Secretary: MAJ James H. Hogan
Treasurer: MAJ Elliot J. Welch

Vice President, Army Affairs: CPT Jack Swan
Vice President, Reserve Affairs: To be elected.
Vice President, Industrial Affairs: LT Paul E. Bartlett
Vice President, Pub Aff: MAJ Benjamin D. Roberts
1968 ACTIVITY: Alaska Chapter members met at a combined business-social membership luncheon on 25 April, electing

AAAA REGIONAL AND CHAPTER ACTIVITIES

their '68-'69 officers during the process. The Chapter next met on 30 September at another membership luncheon, following a period of extreme personnel turbulence. While the Chapter did not conduct a membership meeting during the October-December, '68 quarter, a report of "personnel stabilization" has been received and the indications are that the members are working towards "having an active and participating Chapter organization once again."

MEMBERSHIP: Based on distribution of the 31 January 1969 magazine, the Chapter has 49 members.

ARMY AVIATION CENTER CHAPTER

Fort Rucker, Alabama 36360

President: COL A. T. Pumphrey

Executive Vice President: LTC Robert P. Rush

Secretary: LTC Thomas J. Sabiston, (Ret.)

Treasurer: MAJ Robert E. Luckenbill

Vice President, Army Affairs: LTC Charles D. Fountain

Vice President, Res Aff: LTC Wallace H. Martin

Vice President, ARNG: LTC Robert M. Deets

Vice President, Industrial Affairs: LTC John L. Phillips

Vice President, Pub Aff: LTC William A. Howell, (Ret.)

1968 ACTIVITY: The Army Aviation Center Chapter started the year by providing on-site member-judges at six regional science fairs spread throughout Alabama, presenting AAAA Awards in each instance. During March, the membership participated in mail balloting, installing their '68-'69 slate of officers at a 19 March dinner meeting. MG Delk M. Oden cut the cake at the Chapter's 7 June Birthday Party celebrating the 26th Anniversary of Army Aviation. The Chapter held its traditional \$1.00 Shrimp & Beer Bust ("All You Can Eat!") in late September, selecting its convention delegates at the time. A unique "Army-Navy Game Brunch" was held on 30 November, members enjoying Bloody Marys and Shirred Eggs before taking their 50-yard line seats in front of the Lake Lodge's four large color TV sets.

MEMBERSHIP: Based on distribution of a 5 February 1969 mail ballot, the Chapter had 1,499 members.

ARMY FLT TNG CENTER CHAPTER

Hunter AAF, Georgia 31409

President: COL Hubert S. Campbell

Executive Vice President: COL David G. Cogswell

Secretary: LTC Paul M. McHenry

Treasurer: LTC James D. Hawthorne

Vice President, Army Affairs: LTC Thomas W. Downes, Jr.

Vice President, Reserve Affairs: LTC James D. Blauert

Vice President, National Guard Affairs: COL Richard E. Evans, Jr.

Vice President, Public Affairs: LTC Eugene K. Prosser

1968 ACTIVITY: At a 1 March professional-social dinner meeting, AFTC Chapter members heard A. D. "Dusty" High, Lockheed's Rotary Wing Director of Marketing, discuss the AH-56A Cheyenne in back-to-back meetings at Fort Stewart and Hunter Army Airfield. The Chapter then held a 25 June cocktail party and dinner-dance that was followed by a 29 August "Stag Get-Together" at Hunter AAF. As its final quarterly meeting, the membership attended a late afternoon 19 December "Stag" at which AH-56 films and free beer were featured.

MEMBERSHIP: On the basis of a mail ballot distributed on 27 January, the Chapter had a total of 363 members.

ATLANTA CHAPTER

Forest Park, Georgia 30050

1968 ACTIVITY: The Chapter last convened on 15 September 1967 and reverted to an inactive status at the end of the Association's FY on 31 March 1968.

MEMBERSHIP: A closeout membership roster prepared at the time of deactivation listed 116 Atlanta Area members.

BLUEGRASS CHAPTER

Fort Knox, Kentucky 40121

President: LTC William Klim, Jr.

Executive Vice President: LTC Willis G. Pratt

Secretary: MAJ James D. Rockey

Treasurer: MAJ Cecil G. Thrasher, Jr.

Vice President, Army Affairs: Fred M. Montgomery

Vice President, Res Aff: LTC Herman H. Bishop, Jr.

Vice President, Industrial Affairs: Seymour Reitman

Vice President, Public Affairs: CWO Frederick G. Lieb, (Ret.)

1968 ACTIVITY: The '68-'69 slate of Bluegrass Chapter officers were elected and installed at a 28 March late afternoon business-social "Stag." The members then heard Major Jack Clyde, Chief of the Traffic Division of the Louisville Police Department, discuss observation helicopters in police work, the meeting being held on 24 May. Going "social," the Chapter then held a "Crash & Rescue Party" at poolside for members and their wives, having a cash bar but featuring "Free Franks and Burgers." A late afternoon 13 September business-social was held to back and fill the Executive Board vacancies, and to select convention delegates for the AAAA Annual Meeting. Continuing as one of AAAA's more active Chapters, the Bluegrass activity held a 12 December dinner-dance at which MG James W. Sutherland, Jr., CG of the USAARMC, was guest speaker.

MEMBERSHIP: Roster count for the 12 December Chapter meeting stood at 101 members.

BONN AREA CHAPTER

APO New York 09080

President: Harry A. Striker

Executive Vice President: John B. Keehner

Secretary: David R. Fournay

Treasurer: Arthur P. Dakos

Vice President, Army Affairs: LTC John F. Brosnan
Vice President, Industrial Affairs: Serge I. Sikorsky
Vice President, Public Affairs: Michel Bouvier

1968 ACTIVITY: MG George P. Seneff, Jr., CG of the 3rd Infantry Division (Mech) addressed the Bonn Area Chapter members on "Airmobile Operations in Vietnam" at a 9 February meeting. The Chapter then conducted a March mail ballot, installing its '68-'69 slate of officers at a 29 March "Pils and Prevarication" business-social. The Chapter described its 28 June evening boat trip down the Rhine as a "roaring success," some 62 members and guests enjoying the four-hour cruise, including General Kauffmann, the head of German Army Aviation. At year end, its Executive Board met and planned March, May, June, and September, '69 meetings.

MEMBERSHIP: Bonn Area Chapter membership totaled 34 as at 13 January 1969.

DAVID E. CONDON CHAPTER

Fort Eustis, Virginia 23604

President: LTC James F. Hill

Executive Vice President: COL Garrison J. Boyle, III

Secretary: CPT Warren H. Dunnington

Treasurer: CW4 Donald R. Joyce

Vice President, Army Affairs: LTC Charles A. Morris

Vice President, Reserve Affairs: LTC George T.

Singley, Jr., (Ret.)

Vice President, Industrial Affairs: To be elected.

Vice President, Public Affairs: LTC R. C. Barnes, Jr.

1968 ACTIVITY: The Chapter conducted a "Meet Your Wife After Work Nite," on 8 March featuring cocktails, movies, and conversation, earning the Chapter a 7' x 7' AAAA Banner Award at the national convention as "the most unique Chapter meeting of the membership year." At its 28 May business luncheon, the Chapter membership heard MAJ J. J. O'Connor of OPO discuss "Transportation Aviator Requirements." The Chapter then held another late afternoon professional-social meeting, this time asking all to "Bring your enlisted members to an after work party" — again with movies, slides, and a pay-as-you-go bar. The President and Delegates reported to the membership on their attendance and participation at the AAAA National Convention at a 26 November business luncheon.

MEMBERSHIP: As AAAA's eighth largest Chapter, the Chapter had 351 members on its 20 January 1969 roster.

FORT BENNING CHAPTER

Fort Benning, Georgia 31905

President: COL William M. Zimmermann

Executive Vice President: LTC Lemuel M. Thomas

Secretary: MAJ Harold E. Bradberry

Treasurer: CPT George S. Crawford

Vice President, Army Affairs: CW3 Ronda H. Schuman

Vice President, Reserve Affairs: LTC Milton Horowitz

Vice President, Indus Aff: LTC John D. Kennedy

Vice President, Public Affairs: To be elected.

1968 ACTIVITY: The Chapter installed its '68-'69 officers at a 20 March professional-business "Stag" at which COL H. E. Wolf, CO of the USA Training Center, was guest speaker. In late June the Benning members held a quarterly business and dinner meeting followed by a similar 18 September "Stag" business-social at which Chapter Delegates were chosen for the AAAA Convention. The Chapter closed out the year by holding a Christmas social at the Skeet Lodge with snacks, Christmas "cheer," and dance music.

MEMBERSHIP: Roster count for the 21 November 1968 meeting stood at 236 members.

FORT BRAGG CHAPTER

Fort Bragg, North Carolina 28307

President: MAJ Gary E. Luck

Executive Vice President: CW2 Raymond C. Usher

Secretary: SGM Walter L. Hesse

Treasurer: CPT James W. Bryant, Jr.

Vice President, Army Affairs: CW2 Hubert D. Geiger

Vice President, National Guard Affairs: SGM Carroll R. Laudenklos

Vice President, Res Aff: MAJ John F. Van Wert, Jr.

Vice President, Indus Aff: CW3 Joseph P. Duffy

Vice President, Pub Aff: LTC Richard D. Kavanaugh

1968 ACTIVITY: The Fort Bragg Chapter started the year with a "Members Only" late afternoon business-social meeting with "Free Beer" pennants up. In mid-June the members went "professional," holding a dinner-dance at which COL John W. Marr of OPO was the guest speaker. A late afternoon-early evening "Stag" meeting was conducted in late September, the primary purpose of which was to select the Chapter's AAAA Convention Delegates. Closing out the year, the Chapter members and their ladies enjoyed a 29 November cocktail party and dinner-dance.

MEMBERSHIP: Chapter strength totaled 148 members as at 29 November 1968.

FORT HOOD CHAPTER

Fort Hood, Texas 76544

President: LTC Robert I. Stoverink

Executive Vice President: LTC Robert L. Hunter

Secretary: To be elected.

Treasurer: SGM Bitsy H. McQueen

Vice President, Army Affairs: To be elected.

Vice President, Reserve Affairs: LTC Harry W. Sparks

Vice President, Industrial Affairs: To be elected.

Vice President, Public Affairs: CW2 Jack W. Swickard

1968 ACTIVITY: The Fort Hood Chapter held a business-professional meeting on 29 March, conducting basic Chapter business and then hearing a representative of the Fourth U.S. Army Aviation safety office discuss the oil spectrographic analysis program. Similar late afternoon business-professional meetings were held on 21 June and 14 September, Chapter Delegates to the AAAA Convention being chosen at the latter meeting. The Chapter concluded its year with a fourth late afternoon "Stag" on 19 December

The devastating look of Cheyenne



Cheyenne's pilot can focus devastating firepower where he looks. With armament slaved to the movement of his head, he can accurately direct a veritable hail of fire.

The Army needs a specialized armed escort vehicle capable of efficiently protecting heliborne assault columns en route, suppressing hostile fire at landing sites, and directly supporting engaged troops.

The Rigid Rotor com-

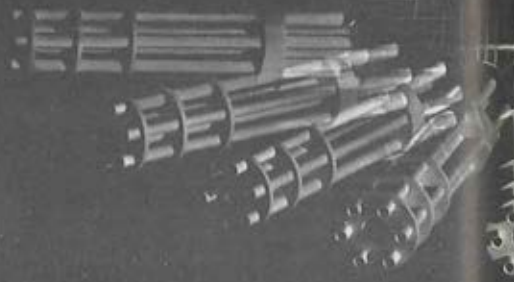
pound AH-56A is Lockheed's response to that need.

Cheyenne is more stable, more maneuverable and much faster than any previous Army rotorcraft. And armed to the teeth.

Readily interchangeable nose turret assemblies house a 40mm grenade launcher or a 6,000 round-per-minute 7.62mm Mini-gun. A 30mm light point weapon is mounted in the belly turret. Cheyenne can

carry up to 12,000 pounds of external armament stores (including TOW missiles and 2.75 inch FFARs), pod-mounted on wing and fuselage pylons.

Cheyenne's swivelling co-pilot/gunner's station rotates through 360°, and either or both armament turrets can be slaved to its motion. It is equipped with an open sight and a periscopic optical sight with selectable degrees of magnification up to 12X.





Sighting data is fed into Cheyenne's central computer. Additional inputs from Cheyenne's doppler radar system, inertial platform and laser range finder inform the computer of windage, vehicle attitude and speed, and target range and motion. Together with ballistics data stored in the memory core, these inputs enable Cheyenne's computer to maximize firing accuracy.

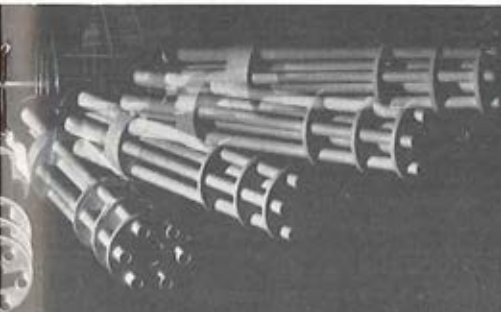
Under an Army contract,

ten prototype AH-56A Cheyennes have been built at Lockheed-California Company's Van Nuys facility. Preparation for large scale production of Cheyenne is under way.

The proven ability to understand present mission requirements and anticipate future ones, coupled with technological competence, enables Lockheed to respond to the needs of this nation in a divided world.



LOCKHEED
LOCKHEED AIRCRAFT CORPORATION



AAAA REGIONAL AND CHAPTER ACTIVITIES

at which AAAA business was discussed upon the conclusion of a post-wide aviation safety meeting.

MEMBERSHIP: The Chapter has 83 members.

FORT MONROE CHAPTER

Fort Monroe, Virginia 23351

President: COL Charles S. Black

Executive Vice President: LTC Gurney C. Clancy

Secretary: LTC Alfred B. Jarden

Treasurer: LTC Donald E. Gausvik

Vice President, Army Affairs: CW3 Mervin W. Miller

Vice President, Reserve Affairs: CWO Harry L. Paul

Vice President, National Guard Affairs: CPT Floyd A. Raduege

Vice President, Industrial Affairs: Mr. Alden A. West

Vice President, Public Affairs: Mr. Reedie A. Stone, Jr.

1968 ACTIVITY: The Fort Monroe Chapter started its activity year by conducting a cocktail party and dinner-dance in the Casement Room on 17 February. Following its participation in a 1-18 March mail ballot, the Chapter installed its newly-elected officers at a cocktail party held at Langley AFB Officers' Club. Going outdoors, Fort Monroe members and their wives and families participated in an all-day "Beach Party & Early Evening Buffet" on 30 June. A cocktail party — followed by optional dinner arrangements — was held on 28 September at Langley, the Chapter providing general AAAA Convention information to the membership and selecting its Convention Delegates at this meeting. The membership did not meet during the October-December quarter.

MEMBERSHIP: On the basis of a 6 February 1969 roster, the Chapter had 75 members.

FORT RILEY CHAPTER

Fort Riley, Kansas 66442

President, LTC Norman H. Miller

Executive Vice President: LTC Charles A. Beitz, Jr.

Secretary: CPT Alan B. Pitt

Treasurer: To be elected.

Vice President, Army Affairs: To be elected.

Vice President, Reserve Affairs: CW4 Bennie B. Potts

Vice President, Industrial Affairs: CWO Allen H. Jacobs

Vice President, Public Affairs: CPT Kenneth E. Trent

1968 ACTIVITIES: The Chapter did not meet during the January-March, '68 quarter, first gathering on 3 May at a late afternoon business meeting at which it elected and installed its '68-'69 officers. Members and their ladies attended the "Annual AAAA Summer Formal" on 7 June commemorating the 26th Anniversary of Army Aviation, at which mementos were presented to four key Fort Sill commanders. A late afternoon business-social meeting on 23 August laid

plans for Chapter participation at the AAAA Convention in October and attendance at the "Annual AAAA Christmas Ball." The latter was held on 17 December in conjunction with a brief business meeting at which the Chapter Delegates presented a Convention Report.

MEMBERSHIP: Some 207 members were forwarded the "Christmas Ball" notice on 18 November 1968.

FORT SILL CHAPTER

Fort Sill, Oklahoma 73503

President: MAJ Ronald A. Jones

Executive Vice President: WO1 Clovis Jones, Jr.

Secretary: MAJ James W. Abbett, (Ret.)

Treasurer: LTC Hanno F. Welsch, Jr.

Vice President, Army Affairs: MAJ Mathew D. Dallas

Vice President, Res Aff: CPT Morton E. Wolverton

Vice President, Industrial Affairs: To be elected.

Vice President, ARNG Affairs: MAJ Billy G. Haney

Vice President, Pub Aff: CPT Robert L. Buckingham

1968 ACTIVITY: Following a period of inactivity due to decreased membership strength, the Fort Riley Chapter re-entered AAAA by electing a '68-'69 slate of officers at a 27 June late afternoon business-social meeting. The 70-80 members continued their activities with a similar 6 September "Stag" at which Convention Delegates were chosen. Closing the year without a social, the Chapter held a third and final late afternoon business-Happy Hour gathering. At year end, personnel turbulence brought a halt to Chapter activities, the hope being that Spring, '69 will return sufficient strength to sustain the organization.

MEMBERSHIP: The 30 November 1968 roster count totaled 57 members.

FORT WOLTERS CHAPTER

Fort Wolters, Texas 76067

President: COL Robert M. Prater

Executive Vice President: LTC Robert M. Jackson

Secretary: MAJ Roy R. Steves

Treasurer: CW2 Thomas W. Pettit

Vice President, Army Affairs: LTC William R. Chritton

Vice President, Reserve Affairs: LTC James O. Frown-felter

Vice President, National Guard Affairs: CPT Carl L. Burleson

Vice President, Industrial Affairs: Wayne S. Schwalm

Vice President, Public Affairs: MAJ Marion H. Dorr

1968 ACTIVITY: The Fort Wolters Chapter hosted the National Executive Board quarterly meeting on 25-26 January, meeting the Board at a professional dinner meeting on the second night at which Jack Real, Lockheed vice president, was the guest speaker. The full Board viewed USAPHC/S training facilities on a full day orientation tour the previous day. The Chapter did not meet during the April-June quarter, convening on 19 September at a general business meeting at which Chapter Delegates to the National Convention were selected. In its closeout '68 meeting, the

Walters Chapter covered '69 planning, membership goals, and a Convention Report in a membership business meeting. **MEMBERSHIP:** The Association's fourth largest Chapter, the Fort Walters activity totaled 522 members by 4 February 1969 file count.

FULDA CHAPTER

APO New York 09146

President: CPT James R. Prosser

Executive Vice President: CPT Kenneth E. Porter

Secretary: CPT David G. Pipes

Treasurer: CW2 Robert L. Covington

Vice President, Army Affairs: CPT Kenneth E. Porter

Vice President, Industrial Affairs: To be elected.

Vice President, Public Affairs: CW2 Gary G. Greenleaf

1968 ACTIVITY: Small but highly active, the Fulda Chapter continued to lead the way in the USAREUR Region. The membership started its '68 year with a 7 February business-social meeting, kicking off the full-year membership drive at a "Pay Bar-Free Food" late afternoon gathering. At their 2 May meeting, Fulda members heard an after-action report on the USAREUR Regional Convention and viewed action slides on Vietnam. A professional meeting took place on 12 September, the members viewing films on UH-1/OH-13 operations. The members then met and elected their '69 officer slate at an early evening "Stag" on 16 December.

MEMBERSHIP: The 3 December 1968 meeting notice was airmailed to 33 members.

GRAND CANYON CHAPTER

Fort Huachuca, Arizona 85613

President: LTC Clifford E. Johnson

Executive Vice President: MAJ Wm. E. Rogers (Ret.)

Secretary: MAJ Billy R. Taylor, (Ret.)

Treasurer: Mr. Orvel T. Leedy

Vice President, Army Affairs: MAJ Jesse R. Forbes

Vice President, Reserve Affairs: SFC Kenneth R. Wood

Vice President, Industrial Affairs: Ed A. Bridges

Vice President, Pub Aff: CW2 David R. Jacquart, (Ret.)

1968 ACTIVITY: Inactive during the 1966-1967 period, the Grand Canyon Chapter came to life on 19 February with a re-organization meeting spurred by Frederick R. Upton. The first general membership meeting was held on 5 April at which newly-elected officers were installed; Chapter goals were established; and a quarterly meeting plan developed. The organization did not meet throughout Summer, '68., first meeting on 11 October at a business-social at which delegates were selected for the National Convention.

MEMBERSHIP: In representing all AAAA members in the State of Arizona, the Chapter had 104 members as at 27 January 1969.

HANAU CHAPTER

APO New York 09165

President: MAJ Gerald D. Lippert

Executive Vice President: MAJ Helmut A. Roeder

Secretary: MAJ William D. Taylor

Treasurer: CPT Dennis J. O'Connor

Vice President, Army Affairs: CPT Willie L. Manning

Vice President, Industrial Affairs: CW4 Samuel F. Ellis

Vice President, Public Affairs: CW2 Richard T. Maltais

1968 ACTIVITY: The Hanau Chapter held a professional-business meeting on the afternoon of 27 February at which LTC J. J. Sujajintseu, V Corps Flight Surgeon, made a presentation. No meeting was called by the Chapter during the April-June quarter, the organization next meeting on 27 September. At an evening function featuring free beer and snacks, the "Stag" heard a presentation by Thomas Werneke, Army Aviation R&D, European Division. On 27 December the Hanau Chapter members held a "Beer & Bratwurst Supper" highlighting the AAAA, the Regional Convention, and an OV-1 presentation by MAJ Clydie J. Crawford.

MEMBERSHIP: The Chapter strength based on a 12 December meeting notice mailing was 68 members.

HAWAII CHAPTER

APO San Francisco 96558

MEMBERSHIP ACTIVITY: Activated in June 1961, the Hawaii Chapter was subjected to personnel turbulence throughout 1966-1967 and on the request of its president, it reverted to an inactive status on 7 March 1967.

KOREAN CHAPTER

APO San Francisco 96301

Acting President: COL F. M. McCullar

Executive Vice President: COL F. M. McCullar

Secretary: MAJ Billy C. Butler

Treasurer: COL Horace J. Crouch, Jr.

Vice President, Army Affairs: To be elected.

Vice President, Industrial Affairs: To be elected.

Vice President, Public Affairs: To be elected.

1968 ACTIVITY: The Korean Chapter held a cocktail party and dinner meeting at the EUSA Officers Open Mess on 26 March. The Chapter then held a southern-style steak fry at the "K16 Ranch" on 31 May providing RON quarters for far-flung ranch hands. A mail ballot was conducted during late June, the newly-elected officer slate taking over on 1 July. No membership meetings were held during the July-September or October-December membership quarters.

MEMBERSHIP: The Chapter had 51 members at the time of the Ballot mailing on 20 June 1968.

LATIN AMERICAN CHAPTER

Curundu, Canal Zone

President: LTC Charles M. Paulk

Executive Vice President: To be elected.

Secretary: To be elected.

Treasurer: Earle J. Gardner

Vice President, Army Affairs: LTC Harvey C. Mayse

Vice President, Indus Aff: MAJ James R. Mitchell

AAAA REGIONAL AND CHAPTER ACTIVITIES

Vice President, Public Affairs: MAJ James A. McDonald

1968 ACTIVITY: After conducting a general membership meeting on 26 February, the Latin American Chapter was subjected to severe personnel turbulence and reverted to an inactive status for the balance of 1968. Notice of a 20 February 1969 meeting was mailed, and the current members are attempting a reactivation in '69.

MEMBERSHIP: The Chapter totaled 33 members as at 16 January 1969.

LINDBERGH CHAPTER

St. Louis, Missouri 63166

President: Wayne R. Smith

Executive Vice President: COL J. Elmore Swenson

Secretary: Loraine M. O'Brien

Treasurer: Shirley A. Kallmeyer

Vice President, Army Affairs: To be elected.

Vice President, Reserve Affairs: To be elected.

Vice President, Indus Aff: Armand G. Stravato, Jr.

Vice President, Public Affairs: Victor J. Schulte, Jr.

1968 ACTIVITY: The most active Chapter in AAAA, the Lindbergh (St. Louis) Chapter held ten general membership functions during 1968, starting with a professional dinner meeting on 18 January. The guest speaker for the evening was COL M. L. Lewis, who spoke on "Defense Traffic Management." Joseph Mashman, a Bell vice president, was the 15 February after dinner speaker, talking on "Russian Helicopters — Past and Present." A straight "Social" was held on 15 March, a St. Patrick's Day Dinner-Dance. Later the same month the Chapter participated in a mail ballot to update its 1968 slate. "The Moon, Apollo, and All That Jazz!" was the subject of an 11 April presentation by Dean L. Z. Seltzer of Parks College of Aeronautical Technology, the dinner meeting following an "Open House" tour of the College's new Aeronautical Laboratory.

On 23 May MG Howard F. Schiltz, AMC Director of Major Items, returned home to address an evening professional dinner meeting; on 19 July it held a purely social dinner meeting with "Surprise entertainment." BG George H. McBride, the newly-assigned DCG at AVSCOM, was the honored guest and guest speaker at the Chapter's 12 September dinner meeting. The following month Thomas Murphy of the FAA addressed the Chapter at a Lambert Field dinner meeting with the Lindbergh members calling it "A Year!" at a 22 November pre-Holiday Dinner-Dance.

MEMBERSHIP: The Association's fifth ranked activity in membership, the Lindbergh Chapter had 402 members by 4 February 1969 roster count.

MAINZ CHAPTER

APO New York 09185

1968 ACTIVITY: The Mainz Chapter did not meet in the January-March, April-June, or October-December quarters during 1968, and is considered in an "Inactive Status."

MONMOUTH CHAPTER

Fort Monmouth, New Jersey 07703

President: COL James L. Burke

Executive Vice President: John N. Montgomery

Secretary: John F. X. Mannix

Treasurer: George J. Woods

Vice President, Army Affairs: MAJ William L. Corley

Vice President, Reserve Affairs: Theodore J. Sueta

VP, Indus Aff: MG James Dreyfus, USA (Ret.)

Vice President, Public Affairs: Robert A. Kirkpatrick

1968 ACTIVITY: The Monmouth Chapter opened the year by providing heavy support to the jointly-sponsored ECOM-AFCEA-AAAA Advanced Planning Briefing and Technical Symposium on 5-7 March, a well-attended 3-day classified conference on aviation-electronics. MAJ Jack Kozad, a Vietnam returnee, addressed the May Chapter meeting, discussing current avionics support problems faced in USARV . . . In late June, Monmouth Chapter members attended an "AAAA Weekend" at the Kings Grant Inn on the New Jersey shore-front, opening with a Friday evening dinner-dance and continuing with a Saturday program of R&R, resort-style. The Chapter continued to innovate, conducting the first of its program of "off campus" Chapter meetings at the Biltmore Hotel in New York City in late September for its Metropolitan Area, Long Island, and lower Connecticut members, with a good turnout as its first response. A "Halloween Masquerade" dinner-dance was held 25 October, one week before AAAA's Annual Meeting, with members donning mask and wig. In its second "off campus" meeting, Philadelphia Area members met in downtown Philadelphia and heard LTC Max A. Clark, Ret., of Boeing Vertol, discuss CH-47 Chinook operations in Vietnam at a membership luncheon. The Chapter closed out the year by participating in a joint AAAA-AUSA-AFCEA Christmas Party and Dance.

MEMBERSHIP: The Chapter roster prepared in conjunction with the distribution of an 18 February meeting notice listed 568 members, to include all members in the state of New Jersey, and those residing in the Greater New York and Greater Philadelphia Areas, Long Island, Westchester County (N.Y.), and Fairfield County (Conn.).

MOUNT RAINIER CHAPTER

Fort Lewis, Washington 98433

President: COL Herb D. Prather

Executive Vice President: LTC John P. Johnson

Secretary: LTC John N. Bradshaw

Treasurer: To be elected.

Vice President, Army Affairs: To be elected.

Vice President, Reserve Affairs: MAJ Orville J. Laber, (Ret.)

Vice President, Industrial Affairs: To be elected.

Vice President, Public Affairs: To be elected.

MEMBERSHIP: A December, 1967 roster listed 25 members.

1968 ACTIVITY: The Mount Rainier (Fort Lewis) Chapter held a general membership meeting and election on 30 April, the evening "Stag" being a "Members Only" function.

The Chapter has not reported any July-September or October-December quarterly activity and has been placed in a "Probationary Status."

MEMBERSHIP: Chapter ballots were mailed to 129 Mount Rainier members on 18 April 1968.

NORTHERN ITALY CHAPTER

APO New York 09168

1968 ACTIVITY: The Chapter did not conduct any general membership meetings throughout 1968 and is considered "inactive."

MEMBERSHIP: Membership based upon a December, 1968 magazine distribution count was 10 below the minimum Chapter requirement of 25 members.

NURNBERG CHAPTER

APO New York 09696

President: LTC G. R. Hickenbottom

Executive Vice President: MAJ Gary W. Niles

Secretary: To be elected.

Treasurer: CW2 Bobby D. Williams

Vice President, Army Affairs: CPT Marvin Levine

Vice President, Industrial Affairs: To be elected.

Vice President, Public Affairs: To be elected:

1968 ACTIVITY: The Nurnberg Chapter opened its year with a professional-business meeting at which COL Russell P. Bonasso, Regional president, spoke about the advantages of AAAA membership and FPPP coverage. The Chapter then heard two German nationals give presentations on the Nurnberg ATC and glider flying in Western Germany. Following this 5 February meeting, the Chapter held an evening "social" at the Nurnberg Golf Club engaging in putting contests, before going on to cocktails and dinner on 10 May. The members and their families then participated in a 27 July "AAAA Family Picnic" complete with tournaments, games, franks, burgers, etc. and "Kids Under 12 Free!"... The Chapter closed out the year with a general membership meeting on 6 December.

MEMBERSHIP: The Chapter had 105 members as at 27 January 1969.

PIKES PEAK CHAPTER

Fort Carson, Colorado 80913

The Pikes Peak Chapter reverted to an inactive status in November, 1965, after six years of activity. By a January, 1969 magazine distribution count, there were 115 AAAA members residing in the State of Colorado.

L. D. Johnson, Stanley Aviation Corp., P.O. Box 20308, Denver, Colorado, is endeavoring to reactivate the Chapter, and interested members are encouraged to contact him directly.

RHINE VALLEY CHAPTER

APO New York 09028

President: COL John F. Sullivan

Executive Vice President: LTC Herman M. Orrell, III

Secretary: MAJ Richard E. Miller

AAAA REGIONAL AND CHAPTER ACTIVITIES

Treasurer: MAJ John W. Dale

Vice President, Army Affairs: To be elected.

Vice President, Industrial Affairs: LTC Ivan M. Storer

Vice President, Public Affairs: To be elected.

1968 ACTIVITY: Jumping out smartly, Rhine Valley Chapter members held a 6 January "Recovery from the Holidays" Dinner-Dance "with peanuts furnished by your Friendly Flight Surgeon, the Chapter Treasurer." The membership did not meet during the April-June quarter, but picked up the ball once again by holding a "Hail and Farewell" Cocktail Party & Dinner-Dance on 14 September. At its year end dinner meeting on 12 December, the Chapter heard Serge Sikorsky's presentation on the CH-54 Flying Crane.

MEMBERSHIP: AAAA rolls listed 109 members as having Rhine Valley affiliation on 26 November.

RICHARD H. BITTER CHAPTER

Corpus Christi, Texas 78419

President: COL Floyd H. Buch, (Ret.)

Executive Vice President: Jimmie L. Rhodes

Secretary: Miss Norma Gutierrez

Treasurer: Raymond A. Sale

Vice President, Army Affairs: SMG Elton L. Drumwright

Vice President, Industrial Affairs: Frank Soliz, Jr.

Vice President, Public Affairs: Robert D. Perry

1968 ACTIVITY: The Association's third most active Chapter, the Richard H. Bitter (Corpus Christi) Chapter started '68 with a cocktail party and dinner meeting on 27 January at the ARADMAC Officers Club. During March it conducted a mail ballot to fill vacancies in its Executive Board, introducing the newly-elected officers at a 19 April dinner meeting at which MG John J. Hayes, AMC Director of Supply, spoke on the "Logistics Support of Army Aviation in Vietnam." Going outdoors on 20 May the membership enjoyed a "Country & Western Party," a shirt-sleeve, co-ed exercise with music by the Texas Plainsmen. The NAS Officers' Club was the site of the 27 July Chapter Dinner-Dance; the CPO Club the site for a similar function on 30 September. MG Howard F. Schiltz, AMC Director of Distribution and Transportation, was the Chapter Guest Speaker at its close-out meeting for '68 on 25 October.

MEMBERSHIP: With 359 members, the Richard H. Bitter Chapter ranks eighth in the Association in overall membership.

SCHWAEBISCH HALL CHAPTER

APO New York 09025

1968 ACTIVITY: The Chapter was reported as "activated" in February, 1968. The standard "Acceptance Form" providing the names of the initial slate of officers was not submitted, nor have any reports of later 1968 membership activity been received.

AAAA REGIONAL AND CHAPTER ACTIVITIES

SHARPE ARMY DEPOT CHAPTER

Lathrop, California 95330

President: LTC Afton Dare, (Ret.)

Executive Vice President: LTC Perry West, Jr., (Ret.)

Secretary: CWO Billy I. Webster, (Ret.)

Treasurer: Carlos D. Cortez

Vice President, Army Affairs: CWO Gordon L. Coles

Vice President, Reserve Affairs: LTC Warren D. Boyd

Vice President, Industrial Affairs: J. P. Cavanaugh, Sr.

Vice President, Public Affairs: Claude A. Johnson

1968 ACTIVITY: Using a mail ballot, Sharpe Army Depot Chapter members participated in a January election, installing their '68-'69 officer slate at a late afternoon "Beer & Snack" party on 16 February. John F. Stacy, a Litton Industries executive, addressed the Chapter members and their wives at a 20 April professional-social dinner meeting. On the conclusion of the "Sharpe Army Depot Chapter's Annual Golf Tournament," Chapter members toasted their tournament winners at a dinner meeting held 8 June. Members were invited to bring their "Most Unique Beer Steins" to a 13 September "Cracked Crab & Beer Fest"—those with winners in each category receiving take-home prizes from the Chapter. Sharpe members closed out their AAAA year with a pre-Holiday 13 December Christmas Party. Always innovating, the Chapter had each member bring in a \$1 gift labeled male or female for a fun-for-all Chapter Grab Bag.

MEMBERSHIP: Experiencing the largest 1968 membership gain percentage in the Ass'n, the Chapter reached 233 members on 4 February 1969.

SOUTHERN BAVARIA

APO New York 09178

President: LTC Charles B. Traill

Executive Vice President: MAJ Tary D. Wilkinson

Secretary: MSG Roy G. Van Boker

Treasurer: CPT Francis A. Pommert, Jr.

Vice President, Army Affairs: CPT Danny E. Pope

Vice President, Indus Aff: MAJ Wilfred H. Kast

Vice President, Pub Aff: CPT Frederick F. Mentzer

1968 ACTIVITY: The Chapter conducted a brief activation meeting on 11 December, electing its first slate of officers and setting a February, 1969 date for its first general meeting.

MEMBERSHIP: The attendance form was signed by 26 members at the activation meeting.

SOUTHERN CALIFORNIA CHAPTER

Los Angeles, California 90057

President: LTC Melvin C. Monroe, (Ret.)

Executive Vice President: COL J. W. Sandridge

Secretary: Peter Schulz

Treasurer: LTC Herman E. Greer, (Ret.)

Vice President, Army Affairs: LTC Larry G. Miller

Vice President, Reserve Affairs: Joseph Hughes

Vice President, National Guard Affairs: Robert S. Cox

Vice President, Industrial Affairs: LTC John F. Stacy, (Ret.)

Vice President, Public Affairs: Fred Kuykendall

1968 ACTIVITY: The Chapter was activated in Los Angeles on 27 January 1969. See "AAAA News" for separate notice.

MEMBERSHIP: The activation meeting roster listed 269 members as residing in the Greater Los Angeles Area.

SOUTHERN CONN. CHAPTER

Stratford, Connecticut 06602

1968 ACTIVITY: Activation of a Southern Connecticut Chapter is expected during March-April, 1969. The area encompasses some 205 members.

STUTTART CHAPTER

APO New York 09154

President: LTC George S. Murry

Executive Vice President: LTC John S. McLeod

Secretary: MAJ Florian Tryjankowski

Treasurer: LTC Billy G. Miller

Vice President, Army Affairs: MAJ Frank S. Bowen, III

Vice President, Industrial Affairs: Howard P. Cohen

Vice President, Public Affairs: SFC Leo J. Nolin, Jr.

1968 ACTIVITY: The Stuttgart Chapter did not meet during the January-March membership quarter, first gathering on 4 June at a business meeting at which the '68-'69 Executive Board slate was completed. An evening "Stag" was held on 26 September, primarily to re-introduce Area personnel and to develop a suitable calendar of '68-'69 Chapter events. Going "social," the Chapter ended the year with a co-ed exercise, a 2 December cocktail party and dinner-dance with FREE cocktails!

MEMBERSHIP: A 11 November roster indicated that the Chapter had 67 members at the time.

TRINITY RIVER CHAPTER

Fort Worth, Texas 76101

President: LTC Billy R. Nunnelee

Executive Vice President: LTC Charles T. Franchina

Secretary: William D. Osborn

Treasurer: CWO James O. Goldsberry

Vice President, Army Affairs: CW4 Ralph J. Vaughn

Vice President, Reserve Affairs: CPT Max Daggett, Jr.

Vice President, Industrial Affairs: Leroy W. Eaton

Vice President, Public Affairs: James C. Fuller

1968 ACTIVITY: Trinity River Chapter members opened '68 by participating in a joint meeting with the Fort Wolters Chapter on 26 January at the latter's activity. Jack Real, Lockheed vice president, was the guest speaker at the meet-

ing at which AAAA's National Executive Board were honored guests. COL Luther G. Jones, Jr., CO at ARADMAC, addressed a professional dinner meeting of the Chapter on 23 February. Trinity River members then participated in a mail ballot during June, installing their '68-'69 slate at a joint AAAA-AUSA meeting on 28 June at which Dr. Russell D. O'Neal, ASA (R&D), was the evening's guest speaker. The Chapter next met at a late afternoon quarterly meeting in the Western Hills Motel, formulating plans for a 2 October "Hail and Farewell Party" to LTC Don Luce at the same location.

MEMBERSHIP: The mail count for distribution of a 5 February 1969 Chapter meeting notice was 157.

WASHINGTON, D.C. CHAPTER

Washington, D.C. 20310

President: COL John W. Marr

Executive Vice President: LTC Richard T. McCrady

Secretary: Jerry E. Reider

Treasurer: CWO Robert L. Hamilton

Vice President, Army Affairs: LTC Robert L. Swanson

Vice President, Reserve Affairs: James P. Woolnough

Vice President, Industrial Affairs: William G. Rutherford

Vice President, Public Affairs: MAJ Bobbie A. Brassfield

1968 ACTIVITY: Following a mail ballot in early March, the Washington, D.C. Chapter heard COL Uri Yarom, Assis-



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"With the Mostest!"



Official hostesses at the 12 December Dinner-Dance of AAAA's Bluegrass (Fort Knox) Chapter were, left to right, Miss Gail Gower and Miss Kathy Klim. The latter is the daughter of LTC and Mrs. William Klim, Jr. Note those unique OVERSIZE "Hostess" wings used by AAAA.

tant Attache of the Embassy of Israel, at a professional membership luncheon on 15 March. The members and their families then participated in the "Third Annual AAAA Spring Picnic" at Davison AAF on 22 June, the picnic being highlighted by a static display of aircraft, antique aircraft, prizes for the children, and demonstration rides in some of the aircraft. LTC William Coulton of OPO then addressed the 24 July luncheon meeting of the Chapter held at the Occidental Restaurant. Long on ingenuity, the Chapter chartered a Potomac River excursion boat and went cruising on a August Saturday night with a free bar, buffet dinner, and dance combo putting the Chapter in the "Swinger" class. Still "social," the D.C. Chapter scheduled a cocktail party and finger buffet at nearby Fort Belvoir on 14 September with the diehards taking advantage of the club's live music and dancing. The Chapter then closed out its year with its Annual Christmas Formal on 7 December at which MG William J. Sutton, Chief, Army Reserve, was guest of honor and recipient of a Chapter Honorary Membership.

MEMBERSHIP: On the basis of a 12 January 1969 meeting notice distribution, the Chapter had 722 members, the second highest membership total in AAAA.



AAAA AFFAIRS

130 AAAA Member-Judges Participate in Science Fairs

The Army Aviation Ass'n will support well over 130 state, regional, and local science fairs during March-May, 1969, by providing AAAA member-judges to select outstanding student exhibits in Army aviation oriented projects covering aerodynamics, propulsion, and supporting techniques. The top student exhibitor is then awarded an "AAAA Certificate of Achievement," and in some cases, AAAA Bronze Medallions provided by the Chapter activity in the fair's locale.

The 20th International Science Fair to be held in Fort Worth in May will also be supported by the AAAA, the five finalists to receive \$100 cash awards in addition to inscribed plaques. Darwin P. Gerard, a past president of AAAA who serves in Grumman Aircraft Corporation's Washington, D.C. office, directs the AAAA participation at the national level.

\$4,000 in AAAA Scholarships To Be Awarded March 24th

Some 85-90 sons and daughters of AAAA members and deceased members will vie for \$4,000 in AAAA scholarship awards during March. Participating in the worldwide program are an equal number of AAAA members whose on-the-scene interviews supplement records and recommendations provided to the AAAA by the secondary schools involved. Selec-

Col. Ford E. Allcorn Dies; WW II Pioneer in Aviation

A pioneer aviator in the 1942 days of Army Aviation and the first U.S. Army aviator to be shot down in combat during WW II, Colonel Ford E. Allcorn, USA (Ret.) died in a St. Louis hospital on February 15 following a heart attack. Survivors include his widow Lucille of 7340 Boellner Drive, Hazelwood, Mo.; a son, Seth, who is serving in the Navy; and a daughter, Becky, a student. Notification of Colonel Allcorn's death was received at publication time; a career profile of the veteran aviator will appear in next month's issue.



TOP: Representing more than 270 AAAA members, newly-elected Chapter Executive Board officers of the SOUTHERN CALIFORNIA CHAPTER gather for an informal photo following their initial activation meeting in Los Angeles on 27 January. Shown from left in front are Melvin C. Monroe (Hughes Tool), Pres; James W. Sandridge (Lockheed), Ex-VP; Charles W. Jones (Teledyne), Orgnl Committee; and Robert S. Cox (ARNG), VP, ARNG Aff. Back row: Art Westburg (Edutronics), member; Fred Kuykendall (Del Mar Engrg), VP, Pub Aff; John Stacy (Litton), VP, Indus Aff; Herman Greer (Lockheed), Treas; Joseph Hughes (Litton), VP, Res Aff; and Pete Schulz (Army Aviation Magazine), Sec. MG John L. Klingenhagen (left, bottom photo), AAFSS Systems Manager, OCoS, DA, was guest of honor and guest speaker at the kickoff meeting. He's shown presenting a gavel to "Mel" Monroe, the newly-elected president during the business session of the meeting.

tion will be made by the Association's National Awards Committee at a March 22 meeting in Washington, D.C., with the winners being notified by telegram on or before Monday, March 24.

Supported primarily by small donations that accompany annual membership renewals, the program has provided \$18,250.00 in direct aid to 44 students since its inception in 1965.

BIG, BIGGER, BIGGEST!

(Continued from Page 20)

for the **larger** things in life. We are living in an era which has the same appreciation; particularly, with regard to our means of transport.

Many reasons are advanced to justify the trend toward centralization, consolidation and giantism, but there is only one which is compelling — **profit**. In transport, increasing size represents known gain for the owner-operator; sometimes gain for the user.

Not many years ago, a large oil tanker displaced some fifty thousand tons. The "Queen Elizabeth", may she continue to live in friendly waters, raised the ante to approximately 84,000 tons. Today, the largest ship afloat, an oil tanker named the "Universe Ireland", displaces 312,000 tons. The Japanese are building one of 376,000 ton displacement. A behemoth of 800,000 tons is scheduled for launch in 1975.

In this country, John Q. Public is fighting a losing battle to keep over-sized trucks and multiple trailers from barreling down his un-freeways. Five-hundred-passenger aircraft are in existence; two-hundred-car freight trains block intersections for longer than the law allows, though not longer than it permits; and, despite the best efforts of foreign car manufacturers, 90% of we automobile owners lug around many empty seats in the family chariot.

Why this emphasis on increased size? **Profit**. In the case of automobiles, the profit remains with the manufacturer; in the others, the gain is shared with the user in the form of reduced cost per unit of work performed.

For oil tankers, with the unit of work defined as the delivery of a gallon of fuel oil over a specified distance, the

EARN \$60 TO \$100!

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switch from a 50,000-ton tanker to a 300,000-ton ship effects a savings of 55% in delivery costs.

If, for example, it cost one cent per gallon to deliver by the small tanker, it would cost less than half a cent to deliver by the large. The rate of improvement is not constant — a ship of 1,800,000 ton displacement will not carry fuel free — but the point of diminished return is extended far out on the scale so long as the demand for delivered fuel continues to rise.

THE TRADEOFF . . .

This increase in profit as the result of increasing size is obtained at the expense of something which could, for lack of a better term, be called convenience. An oil tanker which requires 71 feet of water in order to float will seldom be found off the wharves of Saigon or within sight of land at Inch'on.

It isn't convenient to ride a bus which departs ten blocks from your home and arrives at your destination by way of Alaska and Baja California. It isn't convenient to ride a Boeing 747 to Frankfurt am Main when you really wanted to go to Wurtzburg. It isn't convenient, but it is certainly less expensive than owning, operating, and maintaining your own personal transport means.

Convenience, as used here, carries two connotations; first, it implies an availability for use when and where the artifact is needed, and second, it infers that one need only pay for that which is used.

BIG, BIGGER, BIGGEST!

(Continued from Page 33)

Today's automobiles meet only half of this criteria — subject to other influences they go where and when you want them to do so — but they do require you to pay for an unused capability. Without making a big thing of it, we can all agree that it costs something to lug around those empty seats and that unused space in the mortgaged sedan. If the unit of work were defined as the delivery of one passenger/mile, then the cost (loss of profit) would be approximately six times as great when the car carries only the driver.

There is a cost for convenience, and the price tag goes up as the unused capability increases. When the present trend toward bigness butts heads with the eternal desire for convenience, something has to give. In public matters, that something is convenience. In private matters, there is a point beyond which the individual will not go because the cost of convenience — the loss of his profit — is too great.

Bigness and Rotary Wing

The helicopter, public or private, is no exception. All present operational models are larger or more powerful than their predecessors. Future models will be even larger, and each will have a built-in growth potential. The desired work load for the machines continues to expand without a corresponding expansion in airspace.

Because large machines demand large investment and large loads, the individual is being forced to subordinate his convenience or be willing to pay an inordinate amount for it. Scheduling can afford some relief, but not enough. Increasing the quantity of small machines could improve convenience, but, if tried, will only create a mammoth traffic jam. Increasing the speed of movement by

ABOUT THE AUTHOR

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existing machines can only shorten the time period between smashups. Increased size appears to be the **only** solution.

The heavy lift helicopter as a product of these pressures may be a monstrous thing — four stories high when standing flat-footed — and it will be about as convenient as a stopped watch. No one will use it to deliver a message to Garcia because the delivery cost will exceed the value of Garcia. It will not weigh as much as the Apollo 8, nor will it have as powerful a thrust, but then it is not intended to take man to the moon.

It will carry in a single load, sufficient uniforms to clothe an army; enough bridging to span a river; enough communications equipment to talk with Pago Pago; and, if collected together at one time and place, sufficient forms and records to administer a division for a month.

It will be both high and mighty; but no matter how large, how expensive to operate, or how inconvenient it may be for the individual, it will remain puny alongside some present-day transporters. David will still be able to drop this Goliath with a single well-placed stone.

If mammoth ships, jumbo aircraft and the like no longer impress you, consider the earth itself. This ball of dirt is about the largest vehicle around, moving man and all of his artifacts for all time from somewhere to sometime. If even this doesn't impress you with the size of the load, then consider the logical question: "Does it still show a profit?"

The following obituary notices of Army Aviation personnel cover the December, 1968-January, 1969 period. The Department of the Army has verified the address of the next of kin as listed as being correct at the time of notification.

ADAMS — In Vietnam, Warrant Officer Davey M. Adams, 210th Aviation Battalion, due to hostile action on December 12, 1968; son of Mr. Howard C. Adams, Route 4, Box 123-A, Camden, Arkansas.

BABULJAK — In Vietnam, First Lieutenant Stephen Babuljak, 229th Aviation Battalion, due to hostile action, on December 4, 1968; son of Mrs. Johanna T. Kaszal, 6635 Southwest 46th Street, Miami, Florida.

BEATTYS — In Vietnam, First Lieutenant Lawrence V. Beattys, 1st Cavalry Division (Airmobile), due to hostile action on January 4, 1969; son of Mr. and Mrs. Raymond W. Beattys, 3113 Houston Boulevard, Louisville, Kentucky.

CHENEY — In Vietnam, First Lieutenant Daniel B. Cheney, 3d Squadron, 17th Air Cavalry, due to hostile action on January 6, 1969; son of Mr. and Mrs. Bernard L. Cheney, 1554 King Mountain Avenue, Bellingham, Washington.

CHILDERS — In Vietnam, Warrant Officer William S. Childers, 222d Aviation Battalion, due to an aircraft accident on January 3, 1969; son of Mr. and Mrs. William A. Childers, 6 Mile Richardson Highway, Fairbanks, Alaska.

CLOUGH — In Vietnam, Warrant Officer Kenneth R. Clough, 13th Aviation Battalion, due to hostile action on January 7, 1969; son of Mr. and Mrs. Richard H. Clough, 1025 Pueblo Solano Road, N.W., Albuquerque, New Mexico.

FOUNTAIN — In Vietnam, First Lieutenant Kenneth L. Fountain, 101st Airborne Division (Airmobile), due to an aircraft accident on January 4, 1969; son of Mr. and Mrs. Loren B. Fountain, 5820 Garrard Avenue, Savannah, Georgia.

HAGGARD — In Vietnam, Warrant Officer Darrell L. Haggard, 108th Artillery Group, due to an aircraft accident on December 20, 1968; son of Mr. and Mrs. Lawrence W. Haggard, Route 2, England, Arkansas.

IDE — In Vietnam, Chief Warrant Officer Ben H. Ide, 52d Combat Aviation Battalion, due to hostile action on December 19, 1968; husband of Mrs. Jeanette I. Ide, 3098 Flower Circle, Marina, California.

KINGMAN — In Vietnam, First Lieutenant Barry D. Kingman, 1st Cavalry Division (Airmobile), due to hostile action on December 29, 1968; son of Mr. and Mrs. Dean S. Kingman, 354 Seale Avenue, Palo Alto, California.

OBITUARIES

KOSLOSKY — In Vietnam, Warrant Officer Walter N. Koslosky, 3d Squadron, 17th Air Cavalry, due to hostile action on January 6, 1969; son of Mr. and Mrs. Walter A. Koslosky, 208 18th Street, Sharpsburg, Pennsylvania.

MARKLAND — In Vietnam, Warrant Officer Gerald D. Markland, 187th Assault Helicopter Company, due to hostile action on December 28, 1968; son of Mr. and Mrs. John D. Markland, 1525 Calle Del Rancho Avenue, N.E., Albuquerque, New Mexico.

MCDONALD — In Vietnam, Major William E. McDonald, 10th Combat Aviation Battalion, due to an aircraft accident on December 28, 1968; husband of Mrs. Susie M. McDonald, 2536 Virginia Beach Boulevard, Norfolk, Virginia.

McKNIGHT — At Fort Wolters, Texas, Specialist Fifth Class Victor E. McKnight, 6th Warrant Officers Company, due to an aircraft accident on December 18, 1968; son of Mr. and Mrs. Elba P. McKnight, 712 Dawson Street, Haynesville, Louisiana.

MURPHY — In Vietnam, Warrant Officer Michael T. Murphy, 210th Aviation Battalion, due to hostile action on December 12, 1968; son of Mr. and Mrs. Luther W. Murphy, 1408 Likens Drive, El Paso, Texas.

OZBUN — In Vietnam, Chief Warrant Officer James O. Ozbun, 10th Aviation Battalion, due to hostile action on December 24, 1968; son of Mr. and Mrs. William C. Ozbun, Route 1, Box 15-G, Fairfield, California.

PUGH — In Vietnam, Warrant Officer Richard C. Pugh, 10th Combat Aviation Battalion, due to an aircraft accident on December 28, 1968; son of Mr. and Mrs. Richard A. Pugh, 13909 Peach Grove Avenue, Sherman Oaks, California.

ROSS — In Vietnam, Warrant Officer Roger A. Ross, 10th Aviation Battalion, due to hostile action on December 24, 1968; son of Mr. and Mrs. Edward J. Ross, 129 Moore Street, Moorestown, New Jersey.

SHANG — In Vietnam, Warrant Officer Donald J. Shang, 10th Combat Aviation Battalion, due to an aircraft accident on December 28, 1968; husband of Mrs. Peggy J. Shang, 1638 Sheridan Avenue, Pomona, California.

TEWS — In Vietnam, Chief Warrant Officer Henry J. W. Tews, 14th Aviation Battalion, due to an aircraft accident on December 29, 1968; son of Mr. and Mrs. William G. Tews, Shoshone, Idaho.



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APO San Francisco 96490

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High Speed Composite

ATLANTA, GA. — Outstanding promise is shown for this retracted rotor composite aircraft that makes VTOL takeoffs and landings but flies with the speed (more than 400 mph) and range (500 mi. plus) of a fixed-wing plane after folding back its blades in flight, according to Lockheed's A. R. Yackle who made a February 18 presentation to the AIAA-AHS joint meeting at the Georgia Institute. Describing the intensive studies and wind tunnel tests, Yackle commented that composite aircraft may be the next major aviation advance and could be in operation within five years.



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First Look

CORPUS CHRISTI — COL J. Elmore Swenson, (left) new Chief of Staff of the U.S. Army Aviation Systems Command, St. Louis, Mo., got his first glimpse of the giant Army Aeronautical Depot Maintenance Center (ARADMAC) Activity, 31 January, during an all day tour. Shown from left to right are COL Frame J. Bowers, deputy commander at ARADMAC; COL Swenson; and William R. Jobe, Chief of the Aircraft and Manufacturing Division, ARADMAC. COL Swenson comes to AVSCOM from the 1st Cavalry Division in Vietnam where he served as commanding officer of the 11th Combat Aviation Group.

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**FLIGHT PAY PROTECTION PLAN
PREMIUM TABLE**

IF MONTHLY FLIGHT PAY IS:	YOUR ANNUAL FLIGHT PAY IS:	YOUR ANNUAL PREMIUM RATE IS:	YOUR SEMI-ANNUAL PREMIUM IS:	YOUR QUARTERLY PREMIUM IS:
\$245	\$2,940	\$51.45	\$26.75	\$13.85
240	2,880	50.40	26.20	13.60
230	2,760	48.30	25.15	13.10
225	2,700	47.25	24.65	12.80
220	2,640	46.20	24.10	12.55
215	2,580	45.15	23.60	12.30
210	2,520	44.10	23.05	12.05
205	2,460	43.05	22.55	11.75
200	2,400	42.00	22.00	11.50
195	2,340	40.95	21.50	11.25
190	2,280	39.90	20.95	11.00
185	2,220	38.85	20.45	10.70
180	2,160	37.80	19.90	10.45
175	2,100	36.75	19.40	10.20
170	2,040	35.70	18.85	9.95
165	1,980	34.65	18.35	9.65
160	1,920	33.60	17.80	9.40
155	1,860	32.55	17.30	9.15
150	1,800	31.50	16.75	8.90
145	1,740	30.45	16.25	8.60
140	1,680	29.40	15.70	8.35
135	1,620	28.35	15.20	8.10
130	1,560	27.30	14.65	7.85
125	1,500	26.25	14.15	7.55
120	1,440	25.20	13.60	7.30
115	1,380	24.15	13.10	7.05
110	1,320	23.10	12.55	6.80
105	1,260	22.05	12.05	6.50
100	1,200	21.00	11.50	6.25
95	1,140	19.95	11.00	6.00
90	1,080	18.90	10.45	5.75
85	1,020	17.85	9.95	5.45
80	960	16.80	9.40	5.20
75	900	15.75	8.90	4.95
70	840	14.70	8.35	4.70
65	780	13.65	7.85	4.40
60	720	12.60	7.30	4.15
55	660	11.55	6.80	3.90
50	600	10.50	6.25	3.65

March 1-31 Flight Pay Insurance Enrollment Period Opens!

**NEXT FPPP ENROLLMENT
PERIOD TO OPEN
SEPTEMBER 1-30**

Held by over 4,500 Army Aviators!

Covers your loss of flight pay during periods of grounding caused by illness or accidental bodily injury!

Returns tax-free indemnity payments! More than \$800,000 in claim payments have been paid to 514 Army Aviators!

Costs less than 2% of annual flight pay!

No geographical restrictions!



Endorsed by the AAAA

I have enclosed a check or a money order made payable to the **LADD AGENCY, INC.** for my (annual) (semi-annual) (quarterly) premium of

\$ PREMIUM

I understand that in making application for the coverage during the month of **MARCH** the effective starting date of my coverage will be **APRIL 1**, and that my policy shall be my receipt.

Complete the application form in its entirety during the month of **MARCH**. Select your premium payment mode (annual, semi-annual, quarterly). Make your premium check payable to **LADD AGENCY, INC.**, and mail it with your application during **MARCH** to **LADD AGENCY, INC.**, 1 Crestwood Road, Westport, Conn. 06880. Allow 2-3 weeks for the delivery of your policy.

Rank or Grade	Name	ASN	Monthly Flight Pay
ADDRESS (Post Office Box Number, Residence or Quarters Address is Desired)			
City	State	Zip	Years of Service for Pay Purposes

I certify that I am currently on flying status with a U.S. Army unit; that I am in good health at the time of making this application; that I am entitled to receive incentive pay; that no condition is known to me at this time that could result in my loss of flying status for physical reasons; and that no action is pending to re-

move me from flying status for failure to meet required physical standards. I authorize the Company, or Company-designated representatives, to examine all official medical records that may be pertinent to any claim that I may submit.

SIGNATURE _____ DATE _____

This coverage is limited to AAAA Members.

I am an AAAA Member.

ANNUAL DUES \$7.00
INITIATION FEE \$2.50

The initiation fee applies to the applicant's first year membership only, and covers the one-time provision of a membership decal and a personal lapel insignia. The application form and a check for \$9.50 made payable to "AAAA" should be returned to: AAAA, 1 Crestwood Road, Westport, Connecticut 06880. The individual membership shall become effective on the first day of the month after the month of application.

IMPORTANT: Your premium check should be made payable to **LADD AGENCY, INC.**

CATEGORY OF AAAA MEMBERSHIP

- | | |
|---|--|
| <input type="checkbox"/> Active U.S. Army establishment | <input type="checkbox"/> U.S. Army Reserve Component |
| <input type="checkbox"/> U.S. Army National Guard component | <input type="checkbox"/> Other. Describe below. |

MARCH 1-31 APPLICATION FOR FLIGHT PAY INSURANCE

USAPHS Honors

FORT WOLTERS, TEX. — Top students of the USAPHS January 17 graduating classes are, left to right, CPTS John E. Hauck, Fred O. Jackson, and Guy W. Fussell. 2nd Row: WOC William J. Schafer, James T. Miller, Clifford A. Hancock, and John D. Plummer. CPT Jackson and WOC Miller won the USAPHC's "Outstanding Soldier Awards." The others received Fort Wolters AAAA Chapter "Certificates of Achievement" for flight, military, and academic achievement. Flight awards were won by CPT Hauck and WOC Schafer; CPT Fussell and WOC Plummer received the academic awards; WOC Hancock the outstanding military graduate.



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Orientation Visit

FORT WOLTERS, TEX. — SGM George W. Dunaway (3rd from left), Sergeant Major of the U.S. Army, is shown being introduced to 1SG William P. Trump (left), Sergeant Major of the Officer Student Battalion at the U.S. Army Primary Helicopter Center during his late January visit to the Fort Wolters installation. The Army's top non-com and his wife (far right) were guests of honor at a reception given by Fort Wolters NCOs and were introduced by Center Command Sergeant Major John G. Stepanek (2d from left).

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Cutaway View

CORPUS CHRISTI — Recently Wally Anderson (right) of the Allison Division of General Motors, made a visit to ARADMAC where briefed members of the Richard H. Bitter (Corpus Christi) Chapter of the AAAA on the T-63-A-5A jet turbine engine. Here he's shown detailing the various parts of the T-63 cutaway to Frank Loudatt, ARADMAC process engineer (left), and Rudy Escamilla (center), a maintenance analyst at the repair and overhaul facility. ARADMAC is just beginning a maintenance program on the T-63 engine which powers the OH-6A light observation helicopter.



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WSMR Conference

WHITE SANDS MISSILE RANGE, N. MEX. — A recent staff visit by the Test & Evaluation Command (TECOM) Aviation Officer brought together all of the Army Aviators assigned to the National Range Operations Directorate at WSMR. Shown from left to right are LTC Robert A. Dyer, White Sands Missile Range Aviation Officer; LTC Thomas Zeik, TECOM Aviation Officer; MAJ Valentine A. Swan, Aviation Division Chief; MAJ James M. Adler, Operations Officer; and CW4 Louis Powell, Maintenance Officer at WSMR. The Directorate is located at Holloman AFB, New Mexico.

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Change of Command

BG George S. Beatty, Jr. (left) has assumed command of the U.S. Army Flight Training Center at Fort Stewart/Hunter Army Airfield, Ga. General Beatty succeeded BG Frank Meszar who has been assigned to a USARV tour. A veteran of 29 years military service, he was DCG of the USA Training Center, Fort Lewis, Washington, prior to the US-AFTC assignment. COL Daniel G. Gust (right), former deputy commander of the 1st Aviation Bde and the 16th Combat Aviation Group in USARV, became the president of the USA Aviation Test Board, Ft. Rucker, Ala., succeeding COL David M. Kyle.

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S-61

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