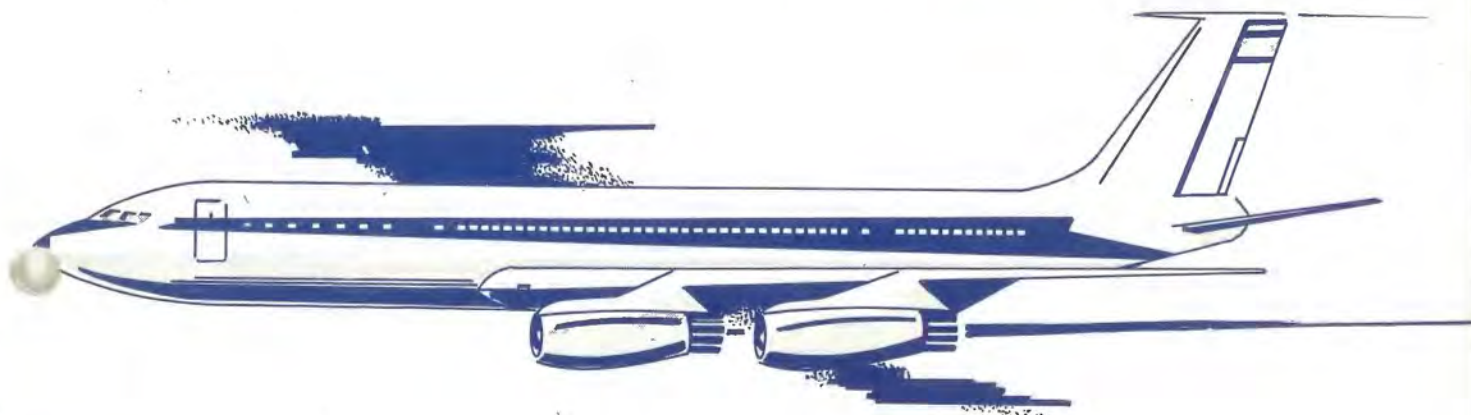
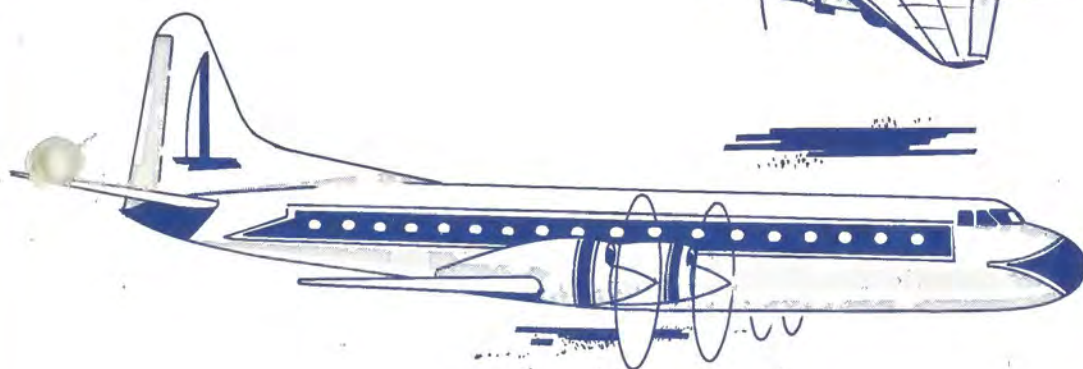
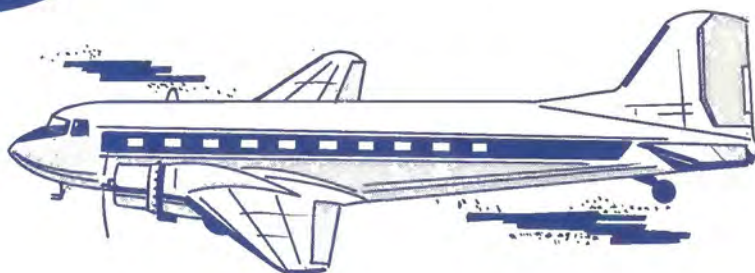
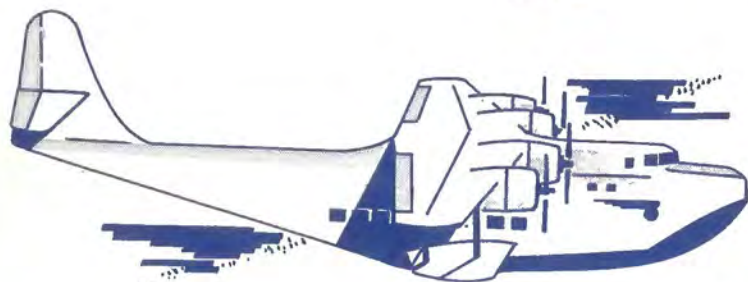
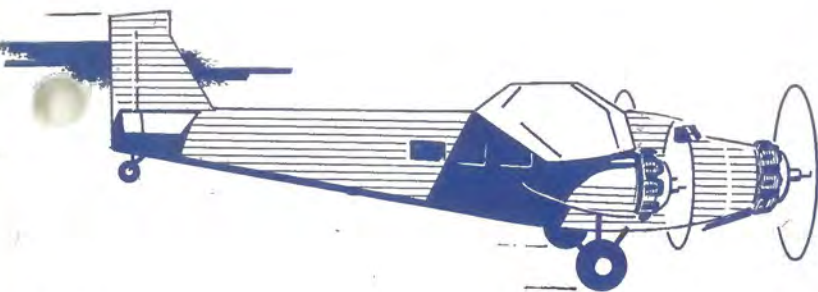


BEACON

JUNE 1961

FEDERAL AVIATION AGENCY
Aeronautical Center
OKLAHOMA CITY



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Cover showing aircraft of the last three decades by Bob Tinneman.

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Inside back cover shows one of Oklahoma's "Fly-In" resort areas. This is Sequoyah Lodge in Eastern Oklahoma.

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Outside back cover carries out the Beacon salute to the Private Pilot—the man who flies on business and on his vacation.

LOOKING AHEAD

How many of the aircraft on the cover of this month's Beacon could you identify—or remember? There's a Ford Trimotor, an old China Clipper, DC-3, a Convair and up-to-the-moment with a new carrier jet. It gives a look at more than three decades of civil aviation.

Also in this issue of the Beacon we have placed a "Vacation Chart" showing places to go and how far they are from the Aeronautical Center. June, July and August are vacation months. In Oklahoma are many lakes, parks and "good time" spots. You don't have to leave the state to enjoy your time off from work.

The first reorganization moves by the new Administrator are featured in this Beacon. The magazine will try to keep you abreast of FAA's "changing times."

POINT OF VIEW



It was as refreshing as a spring breeze across the prairies to hear the new FAA Administrator, "Jeeb" Halaby, talk about general aviation and airport needs the other day. The strong backing given by the new FAA chief for a number of general aviation airports in Oklahoma will certainly help the business of flying, whether it's for pleasure or business.

In Oklahoma City there has been a transitioning of much of general aviation traffic to one of the municipal fields, Tulakes Airport. In this day of the Mach one-plus jet carrier this makes the handling of traffic in and out of the Will Rogers Field an easier operation. Admittedly, we haven't the high density problems of such 'ports as Midway in Chicago or Idlewild in New York City. However, this is much more of a "Sunday pilot" and small plane area than the eastern section of the nation. Oklahoma, Kansas, Texas, Missouri—any of the plains states, probably have three times the amount of general aviation traffic the crowded east coast has in operation.

Small general aviation fields in the Oklahoma area will make the private pilot feel more like getting into the air; will help bring more revenue to the towns and cities where these fields are and will be located.

A look at the future of general aviation is somewhat startling. It is expected that we will have a half-million pilots and 115 thousand general aviation planes by 1975. There will have to be a "home" somewhere for these pilots and planes.

This move by Congress and the new FAA Administrator to support the "little man of aviation" is a move in the right direction. Oklahoma City can be proud of its vision. Tulakes and Will Rogers already have the future of aviation in mind—one for general aviation and one for carriers and cargo.

WM. O. COLEMAN, MGR.
Will Rogers Field.

FAA DIVIDES REGION TWO

To strengthen the management of the field activities of the FAA, N. E. Halaby has announced plans for the establishment of an additional regional office for the southeastern states with headquarters in Atlanta, Georgia. The new office will have responsibilities for FAA activities in Georgia, Florida, North Carolina, South Carolina, Tennessee, Alabama, Mississippi, Puerto Rico, Virgin Islands, and Swan Islands. At the same time, Mr. Halaby announced that supervision of the FAA activities in the state of New Mexico would be shifted from the 4th region office, Los Angeles, California, to the regional office at Ft. Worth, Texas. The addition, the new Atlanta office is to cover seven states now under the supervision of the Ft. Worth office. This change will bring the number of FAA regions to seven, five to serve contiguous 48 states and one each for Alaska and Hawaii. Mr. Halaby said, "the establishment of the regional office was the result of the concentrated three month's efforts of programming of the organization and personnel for the supervision of field facilities in the southeast and southwest is seriously inadequate because of the size of the area of responsibility of the Ft. Worth office." "We can correct this difference and also develop a better understanding of rapport of the people and communities of the southeastern states through the establishment of the Atlanta office."

Planning for the establishment of the Atlanta Office will begin at once and it is hoped it will become fully operational shortly after January 1, 1962.

The new regional headquarters will be a control installation with management staffing. It will be used as a model for all regional offices as a part of a move to reduce regional costs through prudent management. The staffing of the Atlanta office is currently estimated at 400 employees with an annual payroll of \$3 million dollars. 300 of the positions will be transferred from the Ft. Worth office.

The Atlanta office will be headed by an Assistant Administrator who will be responsible for the direction and executing of all FAA programs in the seven southeast states. The selection of the new administrator will be announced at a later date. Mr. Halaby also

announced the redesignation of the FAA Region on a geographical basis in place of the number name.

Following is a listing of FAA Regions, the headquarters cities, and the states which they will be serving when the Atlanta office has been established; East Region (Formerly Region I) New York, New York: New York, Connecticut, Delaware, Kentucky, Maine, Massachusetts, Maryland, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, Virginia, West Virginia.

South Region (New) Atlanta, Georgia: Georgia, Florida, North Carolina, South Carolina, Tennessee, Alabama, Mississippi, Puerto Rico, Virgin Islands, Swan Islands.

Southwest Region (Formerly Region II) Ft. Worth, Texas: Arkansas, Louisiana, Oklahoma, Texas, New Mexico, Canal Zone.

Central Region (Formerly Region III) Kansas City, Missouri: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, Wisconsin.

West Region (Formerly Region IV) Los Angeles, California: Arizona, California, Colorado, Idaho, Montana, Nevada, Oregon, Utah, Washington, Wyoming.

Alaska Region (Formerly V) Anchorage, Alaska: Alaska Region includes the Aleutian Islands.

Hawaii Region (Formerly Region VI) Honolulu, Hawaii: Hawaii, Wake, Canton and Guam.

FAA AND WEATHER BUREAU PLAN TEST OF PILOT-TO-FORECASTER SERVICE

To further improve air safety by making available to airborne pilots more complete and up-to-date weather data, the Federal Aviation Agency in cooperation with the U. S. Weather Bureau will launch a year-long pilot-to-forecaster test on July 1.

During the test, weather briefing service will be available from a forecaster to any requesting pilot in the Washington, D. C., and Kansas City, Missouri, areas.

The communications coverage in the area covered by the Washington Air Route Traffic Control Center will extend south to Raleigh,

N. C., and west to Elkins, W. Va. Communications will emanate from the Washington Air Route Traffic Control Center.

In the Kansas City test, the coverage will be over the area covered by the Kansas City Air Route Traffic Control Center, and communications will be from the downtown Weather Bureau Forecast Center.

Radio frequency 122.6 already has been specifically assigned by the Federal Communications Commission for the project.

Weather information will be made available to more than 50,000 general aviation pilots under the 12-month test. It will provide minute data relating to hazardous or unusual weather as rapidly as it is desired. This specialized and tailored support will supplement current weather service.

Data collected from the around-the-clock service to be offered pilots will be evaluated as rapidly as it becomes available to FAA and the Weather Bureau. For that reason, closest cooperation from pilots will be necessary to insure success of the service.

In making announcement of the project, FAA officials emphasized that pilot-to-forecaster weather service is highly compatible with the future air traffic control system to handle the increasing traffic. The new system will give the controllers more time to handle other traffic duties.

The pilot-to-forecaster service will be offered to all aviation groups desiring to come in on the new frequency. The test will be conducted under the supervision of the FAA Bureau of Research and Development.

FAA PROPOSES RULE TO REQUIRE DME EQUIPMENT BY JANUARY, 1964

By January of 1964 all U. S. civil aircraft over 12,500 pounds must be equipped with Distance Measuring Equipment when operating under Instrument Flight Rules according to a proposed rule by the Federal Aviation Agency.

Decision to require DME equipment followed a government-industry conference held in Washington at which there was general agreement on the value of DME as a safety navigation instrument. At that conference, the FAA proposed an accelerated program of installation of DME equipment.

The proposed schedule will affect all large U. S. civil aircraft, when operating under in-

strument flight rules in the controlled airspace of the United States. All turbojet aircraft must have DME installed by July 1, 1962; all turbo-prop by January 1, 1963; all pressurized, piston-engine aircraft by July 1, 1963; and all other aircraft with maximum weight 12,500 pounds or more by January 1, 1964.

While the rule would not affect aircraft weighing less than 12,500 pounds, that is, private-owner aircraft, the FAA believes that these owners will buy and use DME because of its important safety features.

Distance Measuring Equipment is a vital part of the common system of air navigation which has been under development for several years by civil and military aviation. It gives continuous indication to the pilot of his distance in miles to or from the ground station to which he is tuned, and is a part of the VORTAC air navigation system adopted by all members of the International Civil Aviation Organization as the world standard until 1975. VORTAC consists of a combination of the very high frequency, omni-directional radio range (VOR) developed by the FAA, and TACAN, a tactical navigation system developed by the U. S. military service. TACAN ground stations incorporate distance measuring equipment, and the FAA is equipping VOR stations with the distance measuring portion of TACAN until equipment, now in short supply, permits their change to VORTACs.

The military services will have all of their first line and tactical airplanes TACAN-equipped by July 1, 1961. Many turbine-powered civil air carrier aircraft are DME-equipped. The Airlines indicated at the March conference that all their planes would be equipped before 1965. Electronic manufacturers assured the conference that equipment suitable for large airplanes will be available to meet the schedule announced by the FAA. General aviation groups at the conference questioned the availability of lightweight, low cost and reliable equipment for their planes. One manufacturer said his product will soon be available and others said they were developing versions of their own.

The FAA's proposed schedule begins with jet planes since they fly the high altitude airways which are today served mostly by VOR facilities.



ADMINISTRATOR VISITS CENTER

Administrator N. E. Halaby got his first look at the Aeronautical Center during May. He arrived at the Center in the FAA Gulfstream on Sunday, May 14th; had a quick tour of the facilities, then spent the rest of the afternoon talking to Center personnel.

On Monday, May 15, the Administrator spoke to an Oklahoma City Chamber of Commerce Forum. During that speech he pointed to the future growth of the Aeronautical Center and what it means to the Oklahoma City area.

Halaby said he was "excited and grateful for the farsighted planning around Will Rogers Field that would prevent the mushrooming of homes" and the setting aside of areas north and south of the airport for industrial development.

The Administrator made this point: The FAA isn't just a promoter of aviation, it must safeguard the people in, under and around planes. He indicated his greatest interests were in safety, medical research and improving the management of the agency.

During his Chamber of Commerce appearance the Administrator was named Chairman of the Lunar Division of the Oklahoma City Chamber of Commerce. From this look at the future. . . a glance back to Oklahoma's heritage and Indian Territory days. Halaby was named a chief and member of the Otoe Indian Tribe. As part of the ceremony he was given the feathered headdress of a Chieftain.

JOINT USE OF RADAR SAVES \$15 MILLION FOR FAA AND AIR FORCE

Joint use of long range radar by the Federal Aviation Agency and the U. S. Air Force Air Defense Command has saved more than \$15 million in equipment costs by the two agencies since 1957. The joint use program was worked out by an FAA/ADC Joint Radar Planning Group.

Under the joint use plan, which was first suggested by the Congress several years ago, long range radar units are adapted to serve both military and FAA functions. This is accomplished by transmitting the radar signals to display scopes at both the military sites and FAA Air Route Traffic Control Centers.

There are now 15 long range radars in joint use. Four are FAA radars located at Boston, Miami, Pittsburgh and Seattle. Ten are Air Defense Command radars located at Great Falls, Montana; Hutchinson, Kansas; Kansas City, Missouri; Omaha, Nebraska; Palermo, New Jersey; San Antonio, Texas; Spokane, Washington; West Mesa, New Mexico; Bedford, Virginia; and Texarkana, Arkansas. One is an Air Training Command radar at Perrin, Texas.

Each joint use radar saves approximately \$1 million in establishment costs.

Under presently approved and funded programs 33 additional radars will be used jointly by December, 1963. Seventeen of these will be FAA radars, 13 will be Air Defense Command, two will be Alaskan Air Command and one will be a Pacific Air Force radar. Total savings through 1963, and including the 15 now in use, will amount to more than \$48 million.

FAA radars at Boston, Pittsburgh, Los Angeles, and Seattle have been set up for three-way use: FAA, Air Force and Army. At these locations the Army utilizes radar information for certain defense missions.

Under the joint use agreement, FAA performs the maintenance work on radars and all equipment used for air traffic control, utilizing a group of highly trained electronic technicians and engineers at locations across the United States and abroad.

In addition to the initial savings from purchasing and installing the long range radars the FAA/ADC Joint Radar Planning Group

has found other benefits. One of the most important is the reduction or elimination of radar interference that would result from two nearby radar installations operated separately.

Long range radars include the FAA Air Route Surveillance Radar (ARSR) and the U. S. Air Force Aircraft Control and Warning Radars. These big radars sweep the skies 200 miles from the antenna and picture aircraft as slowly moving "blips" on the radarscope.

FAA controllers use the long range radar for separating air traffic along the airways. The Air Defense Command employs radar to guard against unidentified aircraft flying into or over the United States. Any aircraft which cannot be quickly identified is intercepted by fighter planes of the U. S. Air Force.

The Joint Radar Planning Group was organized in November, 1956 to work out a feasible plan for joint civil/military use of long range radars.



Phillip Swatek, new FAA Chief of Public Affairs and Miles Scull, Congressional Liaison Officer with the FAA, visited the Aeronautical Center during the second week in June.

Swatek, on the right in the picture, visited with Public Affairs Officers from Regions Three and Two, as well as with the AC Public Affairs Officer.

In addition to a tour of the Center facilities by both Swatek and Scull, the new Public Affairs Chief got in some flying time in order to familiarize himself with advances in aviation. Swatek, a Navy pilot, holds a multi-engine rating.

INSTRUCTOR TRAINING NOW OFFERED FOR INTERNATIONAL STUDENTS

Countries of Egypt, Iran, Japan, Syria, Thailand, Turkey, and Vietnam were represented in the first class of International Students which completed training on April 28, in a new phase of Instructor Training services provided by the Training Development Division. This 2-week course will again be scheduled for International Students in October, 1961 and February, 1962.

With particular emphasis on presentation techniques, this training course is designed to meet the needs of the new instructor. Key topics include principles of learning, basic teaching methods, lesson planning, trainee differences, training aid selection and utilization, and achievement testing. Approximately fifty per cent of the course is directed toward project participation by the students, with major emphasis on their practice teaching.

A recent memorandum from the International Liaison Office to program offices at the Aeronautical Center, announcing a visit to the Center by an aviation official from a foreign country, sent quite a few people to maps, encyclopedia and various references sources. If those sources were more than a year old, they were of little help, for the expected visitor was Mr. Isaac Amadou Sy, Director of Civil Aviation for the Republic of Mali. For those who may not be entirely current on current events, the Republic of Mali is less than one year old, being made up of the states of Senegal and Soudan, located on the northwest coast of Africa. Mali is an independent republic within the French Community, having become a sovereign state in June 1960.

Previous to his assignment in the new Republic of Mali, Mr. Sy served as Director of Civil Aviation in Guinea and was instrumental in organizing a Civil Aviation Department in that country. This was his first visit to the United States and he was accompanied by an interpreter, Mr. John Locke. Their visit to the Aeronautical Center on May 9 and 10 included the Office of the Manager, Aeronautical Center; the Facilities and Materiel Depot; and the FAA Training Center. The accompanying picture was taken during his visit to the Air Route Traffic Control Laboratory in the Department of Air Traffic Management Training.



Shown from left to right are Leonard Breedlove, ATM Supervisor; Mr. Locke, Interpreter; and Mr. Sy.



The above picture shows left to right, Cassio Romeiro, ICA Participant from Brazil presently enrolled in ATM International Class, Aeronautical Center; Darwin T. Maurer, International Liaison Officer, Aeronautical Center; Dr. Stewart Wolf, out-going president of the Oklahoma City Symphony Society; and Galappatige deSilva, ICA Participant from Ceylon who is studying electronics in the School and receiving on-the-job training in the Depot, Aeronautical Center.

The occasion was the presentation of a handsomely engraved brass and walnut plaque to Dr. Stewart in behalf of all International Students and the FAA Employees Association, in appreciation to the Symphony Society for the concerts enjoyed this past season by International Students at the Aeronautical Center.

The plaque reads: "To the Oklahoma City Symphony Society from International Students at the Federal Aviation Agency, our heart-felt thanks for the wonderful music we have enjoyed through your invitations to the 1960-61 Symphony Concerts." Followed by a list of the 29 countries represented. The plaque itself was paid for jointly by the International Students and the Employees Association.

The FAA Employees Association provided ten season memberships for the use of International Students and the Oklahoma City Symphony Society issued enough additional tickets to allow all foreign students to attend each concert.



Hope Biggers, Airworthiness Specialist, Aircraft Branch, Department of Flight Standards Training, before jet engine systems demonstration panel in Flight Standards Lab, for benefit of visiting five-member Japanese Civil Aviation Management Team and two Japanese interpreters.

Visiting the major program areas of the Aeronautical Center Thursday, June 1, were the following members of the Japanese Civil Aviation Management team: Sanai Ito, Administrator, Osaka International Airport; Minoru Kunieda, Vice Director, Civil Aviation College, Japan Civil Aviation Bureau; Shinobu Matoba, Deputy Administrator, Tokyo International Airport; Tsuenehiko Tsumiyama, Administrator, Fukuoka Airport; and Jitsuzo Yamane, Chief, Communications Division, Japan Civil Aviation Bureau. They are accompanied by Japanese interpreters Binichi Doi and Harutoshi Fukuzawa.

This team has been in the United States since May 17 for a five-weeks' visit, studying the operational and administrative aspects of

the Federal Aviation Agency, Civil Aeronautics Board, U. S. airlines and airports. Their itinerary includes Los Angeles and San Francisco, California, Denver, Oklahoma City, Wichita, Chicago, New York and Washington.

Following their visit to the Aeronautical Center on June 1, they spent June 2 touring Will Rogers and Tulakes Airports and the Aero Commander Factory.



The above photograph shows from left to right: Norman Hodgkinson, Assistant Depot Manager; Lewis N. Bayne, Manager, Aeronautical Center; Demetrius Chrissaitis, Greece; Enar B. Olson, Director, FAA Training Center; and Darwin T. Maurer, International Liaison Officer.

Mr. Chrissaitis is Deputy Chief of the Greek Civil Aviation Service. He is in the United States on a 45-day visit, studying recent developments in safety regulations, operations of the FAA, airport facilities and economic regulations of airlines. During his two-day visit to the Aeronautical Center on April 27 and 28, he visited the major program areas.

The first two sets of the British developed system of visual glide path indicator lights will be installed in the near future at La Guardia Airport in New York City.

The system was recently adopted as a national standard for use at airports in the United States by the Federal Aviation Agency.

Installation of the glide slope lights, which are designed to ease noise problems at major airports as well as to provide pilots with a correct approach angle, will follow at other airports as rapidly as they become available.

BIRTH OF THE EMEA



These were the men who met at Oklahoma City during May 2-7 to serve as the first board of directors of EMEA. Standing are: Valgene Ebeling, Honolulu; Chester M. Hayden, Pittsburgh; Raymond A. Bird, Anchorage; James F. Neary, Denver; Ernest E. Thompson, Aeronautical Center. Seated are: Joseph B. Harriss, Washington; James M. Lenox, Tulsa; D. R. Begley, Wichita; Leonard B. Haggard, Oklahoma City, who served as Secretary Pro Tem.

Here at the Aeronautical Center, as well as at other FAA stations throughout the nation, there has been a considerable amount of behind-the-scenes frenetic activity which escaped the public eye. Frantic telephone calls, nightly meetings but with one purpose, harried arguments, agreements and disagreements, consultations and reconsultations all were a part of this picture. When the clouds of dust surrounding and shielding all this finally cleared, what emerged was an edifice of very fine structure obviously built to some very exacting specifications to accomplish some very exacting and commendable aims; the *Electronic Maintenance Engineering Association*.

No structure is really appreciated until one knows the labor and pains necessary to force each brick into its proper place, the pitfalls

that were narrowly avoided, the old skills required, the new skills desired. The founding and flourishing of the EMEA is no exception.

Before World War II the old C. A. A. had relatively few technicians and these were spread thinly over the continental United States. The equipment they had to maintain—while advanced for that era—was far from complex by modern standards. Not only was it difficult to form an organization from their ranks but also there was little necessity for it.

After World War II this picture changed rapidly. Not only was equipment becoming extremely complex, and thus ultimately more useful to the pilot, but also there was more of it and a greater diversity of radically different types. Some of the equipment used principles and concepts that had not even been

discovered before the war. However, even the seemingly drastic changes taking place then were in time to appear as insignificant in comparison to the buildup of Air Navigation Facilities which took place from the middle 50's to the present. Computers have been added at high density stations to more rapidly collect and correlate information. Transistors have become commonplace. New ways of tackling old problems, such as the maser, appear on the scene incessantly.

It was in this latter period of rapid growth and transition that the need for some sort of organization of the technicians and engineers responsible for the equipment became apparent. Other than isolated forays, such as bowling parties, there was little opportunity for progressive minded technicians and engineers to group together after working hours to swap information in pleasant surroundings. There was not even in existence a newsletter or booklet to which they could contribute articles and information of interest to all. Official channels could be used for information which applied directly and specifically to problems which already existed or equipment then in use. They were, and are, all but useless for discussion type material or thought provoking ideas, which require sharing with others to bring out their full depth and breadth. Thus the need for an association was more than justified many years ago. However, as is the case with all such undertakings, the situation had to become critical before the necessary backing for the man on the line—the technician—was proffered.

Happily, just such an organization had long been in the minds of several men. Prime amongst these were Joseph B. Harriss and James M. Lenox both from the second region. Mr. Harriss, in 1959, wrote an essay entitled "A New Future for FAA Electronic Maintenance" which circulated widely in district and regional offices as well as in the Washington office. Once brought into the open for discussion and examination the concept gradually took shape in the minds of others and began moving. Once started moving its own inertia carried it forward.

Almost immediately there was a raft of circulars distributed around various district offices arguing the merits of such an idea, pro and con, and as personnel travelled from site to site so also did the latest information about

the proposed association. No longer was the question phrased "should we form such an organization" but rather, "along what lines shall we form our organization" and "when and where should we form our organization?"

Since James Lenox of Tulsa was the source of distribution for Mr. Harriss' article, it was to him that donations began pouring in for the creation of the proposed association. When it became apparent to him that the reaction was going to be appreciable he contacted Leonard Haggard at Will Rogers Field and asked him to act as Treasurer and General Business Manager. A more sagacious choice could not have been made. For not only was Leonard Haggard tireless in his efforts to further the association but also was his wife, Christine. Between the two of them they did the first spade work including all of the mailing, addressing, sticking of envelopes and stamps and other such onerous but necessary duties.

Leonard, in turn, enlisted the aid of Ernest Thompson here at the Aeronautical Center who in turn contacted as many persons as possible from the various regions that were residents here at the time. Thus the Center was a natural focus point for the association at its inception, as at no other FAA station is there as much transient traffic from the regions. The next step was for the representatives from all of the regions to gather at the Aeronautical Center in Oklahoma City to form the nucleus of the EMEA which, of course, at that time was still unnamed. These men had the assurance of support—in the form of contributions still pouring in—from the technicians and engineers in the field. They then mapped out the first concerted plan of action to have a constitution drafted for submission to the membership body as a whole. A provision for the first board of directors was made and a time for their meeting was agreed upon; May 2, 1960. The foundation had been built and was ready for the structure.

Appointed to the first board of directors were D. Begley from Wichita; Raymond Bird from Anchorage; Valgene Ebeling, from Honolulu; Leonard Haggard, from Oklahoma City; Joseph Harriss from Washington; Chester Hayden from Pittsburgh; James Lenox from Tulsa; James Neary from Denver; and Ernest Thompson from the Aeronautical Center. These representatives were elected by a vote of the contributing membership throughout the regions,

the Washington office and the Aeronautical Center. Once elected the body met, as had been decided upon, at the Biltmore Hotel in Oklahoma City for the final phase of organization.

From this first meeting came the constitution which was duly approved by the membership and has already, at this writing, been amended, once. James Lenox was chosen president by acclamation and is still holding this office. James Harriss became the executive director and in this capacity it fell to him to publish the journal; a job for which he was especially well equipped.

About this time the association came into prominence through a nationally syndicated columnist who devoted an entire article to its progress. It was in this article that the national performance figure of 99.44% for FAA electronic systems was first given wide publicity. And in a widely circulated newsletter concerning the FAA electronic technician and his association the statement stands out "... we are being penalized for doing our jobs so well that even a catastrophe cannot bring us into the limelight."

The only sad note to be recorded is that Joseph B. Harriss, the man whose energy and devotion was the *causa sine quanon*, died on December 15, 1960 of a heart attack. His parting saddened those who worked along side him for these many years but strengthened the conviction of those remaining that they would not let pass with him, the organization which he brought into being.

On July 24, 25 and 26 the EMEA is holding its first national convention. It will be held in the Mayflower Hotel in Washington D.C. and will assume the form of a symposium on air traffic electronic aids. The industry is co-operating on a grand scale and it promises to be an enjoyable as well as enlightening affair to all of those who will attend. U.S. Senator A. S. (Mike) Monroney of Oklahoma, who has several times offered encouragement to the fledgeling organization, will be the principal speaker and will deliver the address.

The EMEA is now a strong and vigorous organization. At present its main offices are at Fort Worth, Texas. It publishes its own Journal quarterly which leans heavily on FAA personnel for articles. The Center of attention has now shifted from Oklahoma City, where

it was born, but the technicians and engineers who superintended and nourished the infant will always be proud of their part in this huge undertaking.

NEW ADDITION TO RADAR ANTENNA BRINGS QUESTION "WHAT IS IT?"



ATC Radar Beacon Antenna being installed on ARSR-1 tower. Tower platform is 50 feet off the ground. Crane has 100 foot boom with extension.

Probably by now most employees at the Center have noticed a new addition to the big radar antenna just west of MacArthur and north of the ANF-2 Building. Many people have asked "What is that long box-looking thing that has been added?"

The long box-looking thing is an Air Traffic Control Radar Beacon antenna. The ATC Radar Beacon equipment is being added to enroute and terminal radars all over the country. The ATC Beacon consists essentially of a transmitter and receiver that transmits pulses in synchronism with the radar pulses. The antenna transmits these pulses in a relatively narrow beam in the same direction the radar antenna is pointing. These pulses trigger off a receiver/transmitter (called a transponder) in the aircraft if it is switched to the proper mode. The reply pulses from the aircraft are received by the same antenna (the long box-looking thing) and eventually are displayed on the radar indicator. They serve to reinforce the radar pulses, identify the aircraft, and provide a means whereby certain information can be relayed from the aircraft to the radar controller.

The ATC Radar Beacon is being installed on the ARSR-1 A Long Range Radar, and will be

used by the Radar Branch of the F & M Training Division to train electronic engineers and technicians in its operation, calibration, and maintenance. The equipment is being installed by engineers of the Facilities and Materiel Depot.



ATC Radar Beacon Antenna being mounted on the ARSR-1 antenna. Antenna is much larger than it looks from the ground. Compare size of workmen to antenna.

Incidentally, another question has been frequently asked. "Does the ARSR-1A antenna rotate in both directions and occasionally rock from side to side?" The answer to this one is "No," it's an optical illusion. The antenna always rotates clockwise when viewed from the top, i.e., from north-east-south-west. If it looks to you like it's going in the other direction and rocking at the same time, it's an optical illusion.

TRANSISTOR SECTION DESIGNS NEW LABORATORY

The recently created transistor section in the ILS/VOR branch has constructed a new laboratory which promises to be a boon to the student and instructor alike. The idea for the layout was a product of Paul McMullin's imagination. Fred Bright also assisted in the initial planning stages, and Dick Davis designed the bench plug-in units. The Technical Services Branch was responsible for the construction work.

The laboratory, as much as anything else, can help make or break a course. Anybody who has ever been subjected to a poorly planned and delivered lab assignment needs no lengthy lecturing on the evils of wasted

lab hours. The discontent can even, and does on occasion spill over into the classroom lecture.



Here, a group of students are testing transistor multivibrator circuits which they, themselves, built in the new transistor laboratory.

There should be no such troubles in the transistor section. The student is presented with a challenging project, neatly laid out equipment, and all of the information and tools necessary to accomplish the task at hand. And as if this weren't relief enough from the archaic, dull, stodgy laboratory, the entire arrangement has been laid out in an esthetically pleasing manner.

At the present time there are provisions for 10 people to accomplish their assignments simultaneously. An additional identical unit is under construction which will provide working space for as many as 20 students at any time. Each position has a private working area with all of the tools necessary within reach. The electronic equipment he will find necessary has been built into the bench in the most accessible spot for ease of usage. This equipment is flush-mounted in panel style which allows easy removal for maintenance or modernization. Finally all of the individual benches have been placed adjacent to each other to form a semicircle. Who said learning can't be fun?

The first annual meeting of the Association of Air Traffic Specialists (NAATS) will be held in Oklahoma City this next October. This new association plans its convention for October 4-5-6. Anyone interested in attending this NAATS convention should contact Godfrey Loper at 2634 SW 60th in Oklahoma City.

OMB CONDUCTS WALL TO WALL INVENTORY

"All Area and Team Leaders please report to the control center." These words broadcast over the loud speaker in the Operating Materiel Branch warehouse began a week of activity for employees of the Operating Materiel Branch which will be remembered for many months to come. They marked the beginning of a complete wall to wall inventory of the General Stock and Stores material located in the OMB Warehouse.

This inventory was successfully accomplished in one short week after weeks of planning by members of the General Stock Control Section, the Operating Materiel Branch and the Materiel Division. The actual inventory counting was done by personnel of the Operating Materiel Branch and Program Materiel Branch working in twenty-five teams under the direction of five Area Leaders. In all, approximately 225 persons participated in the inventory as inventory staff, team leaders, area leaders, counters, clerks, forklift operators, supply inspectors, key punch operators and IBM machine operators.

Mr. Fred A. Kelley, Chief, General Stock Control Section, was the Inventory Chief, operating from a control center set up in the warehouse to receive reports, compile statistics on completion and progress made and monitor the overall operation of the inventory. The inventory staff kept charts showing the progress made so that the current status of the inventory was available at all times.

The warehouse was divided into five areas and each area was divided into sections by catalog class number. Each section was systematically inventoried by teams of approximately eight persons. Two counts were made of each item. The first count was noted on an IBM count card and turned in to the team clerk. When the second count card was turned in, the clerk compared the totals shown on the two cards. If the totals were in agreement, one card was sent to the Automatic Data Processing Section for key punching and addition to the list of completed items. If the totals did not agree, the Team Leader resolved the discrepancy through recount of the item.

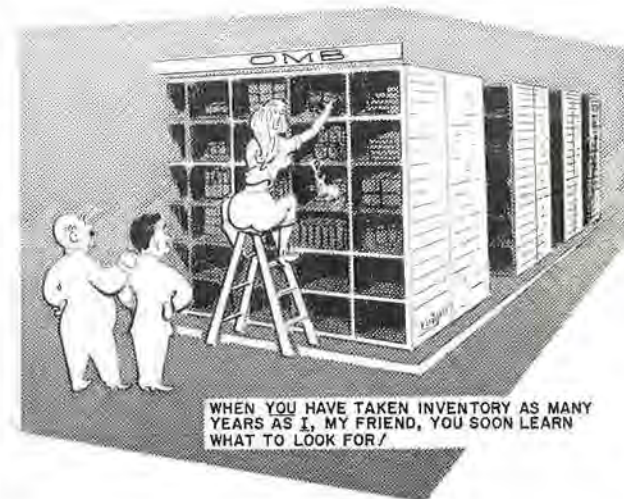
A team of supply inspectors was available to identify unmarked items, check and relocate

stock which was out of catalog sequence and help with problems encountered during the count.

The inventory consisted of approximately 50,000 line items of stock. On Monday, May 8 the first teams started counting the bulk areas, completing this phase of the inventory on Tuesday night. On Wednesday, Thursday and Friday the bulk of the inventory was accomplished. Personnel worked twelve hours on each of these three days. On Saturday and Sunday adjustments and recounts were made of items which did not agree with pre-inventory figures or stock control records.

Only priority requisitions were processed during the time the inventory was in progress. A skeleton staff remained in the office to handle priorities and answer the telephone calls from Regions and local offices and to keep business flowing as near normal as possible. The rest of the staff donned blue jeans, slacks and coveralls to spend the week becoming familiar with the material which they normally only see from a paper viewpoint.

Complete results and final tabulations are now being made, and the final analysis is anticipated by June 3, 1961. The accomplishment of this inventory in such a short time is indicative of the sincere effort and cooperation on the part of all those concerned.



The airplane in above picture is the end result of a life-long dream of Mr. Anthony Spezio, who is employed at the Center with Line Maintenance Branch, FM-957. Tony has worked on many planes and has flown several, becoming more and more interested in owning and flying his own plane. Mrs. Spezio shared his enthusiasm and was helpful in making the dream of owning a plane become a reality.

After a thrilling test flight in a Corben Ace type plane a few years ago, Tony and Dorothy started drawing up plans for a two-place biplane. The cost of wiring installation and a few other items were too costly for them, so they started cutting down on costs wherever possible and the final plans were drawn up for the low-wing monoplane pictured. This was only the beginning of much work, misgivings, hopes, and fascinating thrills. Tony and Dorothy worked hard at cutting up a UC-78 plane in order to salvage the fuselage for tubing, but felt pleased and rewarded with cutting down on expenses to such an amount. The monoplane was started from scratch and completed in a one-car garage. Only three years after Tony made that test flight in the Ace; his dream of owning and flying a plane became a reality and he flew the plane first from the Tulakes Airport. The FAA Safety Officer, Mr. Roger Fancy, was pleased after watching Tony make a successful first flight in the graceful monoplane.

Tony and Dorothy Spezio are members of the Experimental Aircraft Association, a non-profit club dedicated to "homebuilt and sport aircraft. Tony plans to attend the EAA National Fly-In at Rockford, Illinois in August. He expects his plane to receive most

complimentary attention of the one-hundred or more small homebuilt aircraft which will be displayed and demonstrated at the Fly-In.

"HIGH LIGHTS IN BRIEF"

From Engineering Branch, FM-950

The welcome mat is out for Raymond McMinn. Ray is an Aeronautical Engineer and comes to us from Tinker Air Force Base. "Mac", as he is called, lives in Midwest City with his wife Lorene and two children, Richard and Melissa.

Max Kincaid attended a two week course, April 17-28, in Personnel Management for Executives at New Orleans, La.

We wish to congratulate Teresa Prewitt for recently being selected Queen of the Mardi Gras. Miss Prewitt is a secretary in the Aircraft Engineering Section, FM-956.

We are glad to have Becky Jones back with us after a brief absence.

Mrs. Lila Robbins has resigned her job as librarian to be home with her son and to enjoy her new home.

OPAL-61 TESTS CENTER COMMUNICATIONS FACILITIES

Each year the Office of Civil and Defense Mobilization conducts a test to check out the nation's ability to conduct its affairs under emergency conditions. One aspect of this test involves emergency communications. At the Aeronautical Center, this emergency communication effort was two-pronged. One time concerned intra-Agency communication, the other pertained to community service.

The Aeronautical Center Emergency Communications Team, of which Carl C. Drumeller, FM-940, is Chief, participated in the test alert. Operating under the overall supervision of Larry Martin, AC-144.3, in his capacity of Chief, Communications Section, the Team manned station W5PAA from 0800 28 April to 1200 29 April. With 26 operators manning three operating positions, a total of 121 messages were received on the High Frequency equipment. Of these, one was delivered locally and 120 relayed by means of the Very High Frequency equipment to Civil Defense headquarters in Oklahoma City.

In this category, W5PAA was performing a

community service, acting as Net Control Station for Oklahoma City Defense Area 1. This area is comprised of 15 counties with Oklahoma City as the focal point. The messages processed related to "RADEF" reports compiled by various observers in the area.

In another category, W5PAA demonstrated the ability of emergency communications service to provide a dependable back-up circuit for intra-Agency use. Contact was established with the Agency's Second Region office through station W51ZN, operated by Varris Halm, an Electronic Engineer assigned to the Second Region office.

Operators from several areas within the Center took part in the test, as is indicated by the following list of participants: Kermit Kruger, PT-944.1; George Ruffin, FM-974.26; Albert E. Hankinson, PT-945.2; Jess Jones, FM-999; Robert Lyons, FM-947; M. A. Tucker, FM-974.26; Vernon L. Phelps, FM-947; William Wesenick, FM-948; Ray Taylor, FM-948; Tom Young, PT-954.2; Newman Horton, FM-974.22; Howard Ridgway, FM-974.26; Frank Watson, FM-987.24; Ellison White, FM-974.26; Joe Mugg, FM-974.26; Don Eagle, FM-974.26; Joe Brown, FM-974.26; Sid Blalock, FM-974.26; James Normand, FM-574.24; Dale Crawford, FM-974.26; E. J. Peters, FM-974.22; James Brooks, FS-940; William C. Alcorn, FM-974.26; Ed Murta, FM-952; Walter M. Hill, PT-940; Walter A. Crook, FM-948.

COURSE FOR RADIOLOGICAL MONITORS NOW OFFERED

The third one-week class in Radiological Monitoring Techniques, requested by the Bureau of Facilities and Materiel for their field personnel, was completed on May 26, under the direction of the Management and General Training Division at the Federal Aviation Agency Training Center. Five additional classes are scheduled so as to provide training for a total of 128 Federal Aviation Agency employees by June 30. The services of a number of qualified instructors from various Aeronautical Center activities as well as from Regional facilities are presently being utilized to conduct these classes.

Quotas are filled, for the most part by personnel scheduled for Facilities and Materiel Training Division courses who spend an extra week at the Federal Aviation Agency Training

Center for that purpose. The Aeronautical Center has also been allotted a limited number in each class.

The training of personnel in such techniques is important since the FAA Radiological Monitor would become a key figure in a post-nuclear attack period. His role would be to make measurements of radiation intensities using specially designed instruments, to interpret these measurements, and make recommendations to higher management personnel regarding such matters as the effect of radiation on FAA operating personnel, countermeasures to be taken for protecting personnel and facilities, decontamination procedures, and other related activities.

The Federal Aviation Agency is committed to support the Strategic Air Command, the Tactical Air Command, the Military Air Transport Service, and other military aircraft operations in a post-attack period. To meet this commitment certain FAA personnel must remain on duty and maintain uninterrupted operational capability of essential facilities. Radiological defense capability of a high order is required for the Agency to act effectively in carrying out such responsibilities. Plans to this end are well-developed, and the training of personnel in radiological monitoring techniques is an important contribution in implementing Federal Aviation Agency's total nuclear defense plans.

Key instructors in this program are the Emergency Readiness Officers from the Office of the Manager, Aeronautical Center, W. H. Bond; the Federal Aviation Agency Training Center, James R. Daniels; and the Facilities and Materiel Depot, Thomas W. Collin.



DEPOT CUSTODIANS OF FILES ATTEND RECORDS MANAGEMENT CONFERENCE



Attending the May 22 Records Management Conference at the Aeronautical Center above are, standing, left to right: Ida Lee Smith, FM-938; Roy Taylor, FM-982; Neil Davis, FM-970; Thomas Perkins, FM-988; Bill Dotson, FM-987; Charles Brill, AC-140; Will Gipple, FM-980; Marvin Julian, FM-986; R. A. Wenzel, FM-907; Agnes Simmons, FM-914. Seated, left to right: Virginia Russell, FM-950; Eugenia Olsen, FM-934; Gwen Moran, FM-930; Donna Hardage, FM-984; Asia Krause, AC-140; Maurine Peaden, FM-900; Mary Drury, alternate for Herman Cleaton, FM-990; Rachael Graham, FM-945; and Irene Jagers, FM-940.

Advance planning for gathering data for the forthcoming annual statistical summary of records holdings at the Aeronautical Center to be reported at the close of this fiscal year was discussed at the records management conference held at the Center, May 22.

Custodians of Files and Files Supervisors of the Facilities and Materiel Depot attended the meeting, called by the Center's Records Liaison Officer, Charles Brill.

Color slides of the Aeronautical Center Story, consisting of the activities related to the Officer of the Manager functions, was narrated by John Willoughby, Office of the Manager Management Analysis Officer at the beginning of the meeting.

Brill presented the following comparison by years of the cubic feet of records on hand at the Aeronautical Center at the end of each fiscal year which reflects the Center's expansion: 1952, 784; 1953, 860; 1954, 782; 1955, 822; 1956, 1601; 1957, 1741; 1958, 1752; 1959, 3148; 1960, 10953. The great increase in 1960 was due in the most part to transfer of 7,344 cubic feet of records of the Examination and Records Division from Washington, Brill explained.

The Center's Forms Management Program is coordinated with 34 Custodians of Files at the Center, designated in accordance with Aeronautical Practice 8-2, in cooperation with the Records Liaison Officer, who administers the program.

LIBRARY PURCHASES FIRST BOOK



Pictured above is Henry C. James, Librarian (right), and his secretary "Gene" Domoney (left), displaying the first book purchased for the Aeronautical Center Library. This book entitled "Government Publications and Their Use", by Laurence F. Schmeckebier and Roy B. Eastin was purchased April 27, 1961.

The new librarian entered on duty as Chief, Library Branch, Administrative Service Division March 28, 1961. He completed his undergraduate study at St. Louis University, St. Louis, Missouri, and obtained his Master's Degree in Library Science from the Catholic University of America, Washington, D. C.

He was formerly Assistant Librarian, Technical Library, White Sands Missile Range, New Mexico; Bibliographer, Armed Services Technical Information Agency (ASTIA), Arlington, Virginia, and Inter-Library Loan Librarian, David Taylor Model Basin, Carderock, Maryland.

His wife is Mireille Junguenet from Fontainebleau, France, and they have three children.

RELEASE DATE NEARS FOR NEW DIRECTED STUDY COURSE

The rapid growth of the Federal Aviation Agency has resulted in an overwhelming increase in the flow of vital written communication. The technical nature of the Agency has demanded that much of this written communication be carried out via the technical report. This demand is far-reaching and affects a majority of the FAA employees. In fact, essentially all technical personnel are

becoming involved in the preparation of engineering reports.

The objective of DFG-31, Engineering Reports, is to provide systematic training that will increase the effectiveness of the thousands of reports being prepared annually throughout the Agency. The ability to prepare effective reports can be gained only through actual writing assignments, a fact that has been borne constantly in mind while preparing this course. The student will gain extensive writing experience by preparing actual reports for analysis by an instructor. While the course is directed primarily toward the engineering report, the principles presented may be applied equally well to other forms of written communication.

DFG-31 is presented in five self-contained chapters, with writing assignments included immediately following each chapter. An appendix has been included in the course to provide useful information, such as a suggested reading list, the standard IRE symbols and abbreviations, commonly used editing marks and printing terms, and a compilation of words that are often misspelled in technical writing.

Engineering Reports is expected to be ready for release sometime this summer.

"DEAN" OF DIRECTED STUDY RETIRES



Howard W. McKinley, the "grand old man" of Directed Study succumbing to the lure of well-earned leisure, has left the field where he gave so much of his many talents to student and fellow-instructor alike.



Chief of the Budget Division Karl Whitacre received his 30-year service pin this last month. Making the presentation was Center Manager Bayne.



Bayne also presented a 25-year pin to Leland C. Gustafson of the Plant Engineering Division while Supervisor S. T. Husky looked on.



20-year pins went to Vincent Burton, Kenneth Richison, Bruner Sutton and Emmet Holdren. Manager Bayne made the presentation.

LENGTH OF SERVICE AWARDS PRESENTED

Five Federal Aviation Agency Training Center employees received awards on May 4, 1961, recognizing 25 years' service with the Federal Government. A service pin was presented to Miss Ruth Baxter and a service button to Mr. John A. Fostvedt, both of the Air Traffic Management Training Division. Messrs. Dean S. Merilatt and Gerald F. Wakefield of the Facilities and Materials Training Division received service buttons, as did Mr. Richard H. Gober from the Flight Standards Training Division. Mr. Enar B. Olson, Director, Federal Aviation Agency Training Center, presented the awards. The Division Chiefs—Mr. George M. Waller (ATM Training), Mr. C. W. Mueller (F&M Training), and Mr. Warren W. Smith (Flight Standards Training) were in attendance and added their congratulations.

DEPOT AWARDS CEREMONY



These smiling gentlemen have every right to be happy because they received Sustained Superior Performance and Suggestion Certificates of Award and money from the Manager of the Facilities and Material Depot on May 5, 1961. They are left to right: R. W. Pulling, Depot Manager; William E. Bell, Aircraft Division (Suggestion); Marvin J. Reimche, Plans and Administration Division (Sustained Superior Performance); Frank E. Duha, Plans and Administration Division (Sustained Superior Performance); Herman W. Moore, Material Division (Suggestion); Ralph C. Chedester, Aircraft Division (Suggestion); and Bill Wetwiska, Aircraft Division (Suggestion).



VETERANS OF CIVIL SERVICE — Standing, left to right: Irvy Bacy, Joseph Amico, Leon Lamb, Dan Goad, Joe Reed, Willie Martin, Roy Sharp, William Shields, Glen Woldridge, Horace Webb, Richard Dawson, Joe Wise, William Robbins, Henry Austin. Sitting, left to right: Ida McKim, Rachel Graham, Otis Butler, W. M. Matthews, Charles Butts, Christine Whitman, J. W. Jones. Other veterans who received pins but are not in picture above are: Archie W. Craig, Chester D. Gordon, Jerrell Maxwell, S. W. Page, Frank Martinez, C. M. Singleton, Carl Allen, Larry A. Dunnam, Woody Hanson, Max Morganstern, Charles Abbott, Gordon Smith, Scotty Sell.

It isn't every day that the "Boss" can present 15 year service pins to his employees and say "Congratulations for your faithful service." On such an occasion during the week of May 15, W. M. Matthews, Chief of the Aircraft Division, had the pleasure of presenting pins to his employees who had completed their 15 years in Civil Service. The group pictured above represents only a portion of veteran employees in the Aircraft Division who received their pins. Some of them have an excess of

15 years but less than 20, but due to unusual circumstances have not received service pins. On this special occasion these employees felt that recognition for being faithful to the service and striving to do a good job is an incentive to do a better job, and they all look forward to many more years with "Uncle Sam." The Chief of the Aircraft Division is happy to say that such a record of service and experience is a real asset to his organization.

considered clinically normal. In other words, they are not mentally sick people. They are mentally as normal as any ordinary healthy working individual. Therefore, the conventional clinical standards for the evaluation of mental illness cannot be used. More refined and critical standards will have to be adopted. As this is more or less a pioneer work of its kind, intensive studies will have to be made on the significance of various types and variations of brain waves before new standards can be created.

Findings from this study will be used in the selection of ATC trainees to screen out those candidates whose mental state is unsuitable for the work of Air Traffic Control. This will have dual benefits. The Government on one hand will be able to save all the expenses in putting these individuals through training. On the other hand, as the mental demand of one job is different from another, each of these individuals should find other jobs more suitable to his mental capability and therefore will be spared wasting his time and effort in learning a job that he cannot succeed in and the disappointment and embarrassment resulting from such a failure. Concurrently, though on a smaller scale, a similar study has been initiated on other professional groups related to FAA.



During May the Aeronautical Center was the subject of a television presentation on NBC's "Today" program.

Inspecting the Center and directing the filming for the Dave Garroway Show was Miss

Anita Colby, model, actress and TV producer. Miss Colby highlighted Oklahoma City during a five-minute segment of the network show, originating it from Oklahoma City. The Aeronautical center part was brief... but effective.



Manager Bayne is shown greeting Miss Colby as she arrived at the Headquarters Building to begin the filming.

THE OPTIMIST CREED PROMISE YOURSELF—

- To be so strong that nothing can disturb your peace of mind.
- To talk health, happiness, and prosperity to every person you meet.
- To make all your friends feel that there is something in them,
- To look at the sunny side of everything and make your optimism come true.
- To think only of the best, to work only for the best, and to expect only the best.
- To be just as enthusiastic about the success of others as you are about your own.
- To forget the mistakes of the past and press on to the greater achievements of the future.
- To wear a cheerful countenance at all times and give every living creature you meet a smile.
- To give so much time to the improvement of yourself that you have no time to criticize others.
- To be too large for worry, too noble for anger, too strong for fear, and too happy to permit the presence of trouble.



Administrative Services Division Chief, Vincent F. Burton, second from right, presents Betty Mitchell a Certificate of Award for her outstanding performance rating while Dorothy Pope, left, and Charles F. Brill, right, recipients of awards for employee suggestions, look on. Mrs. Mitchell and Brill are on ADS's Forms and Records Management staff and Mrs. Pope is Secretary of the Communications Sections.

TWELVE YEARS PASSED

BY ASIA KRAUSE

It's always with a feeling of regret that I say "Farewell" even though there is a big challenge as I leave one position and move to another to say "Hello". These were the mixed emotions I experienced as I left Examination and Records in the Home State Life Building downtown, and returned to the Center to work with the Forms and Records Management Staff of the Administrative Services Division.

In April of 1949, I joined the CAA, General Services Branch located in Building 246 which now houses "Pop" Holdren's staff in charge of office supplies and forms. Then it was known as the Inspection and Storage Base and was a warehouse for aircraft parts as well as being in charge of the engine overhaul contracts at Cimmarron Field, Dallas, Texas, and one firm in the East. There were approximately 387 employees at the Center when I arrived, and it was rather like one big happy family.

It was November of 1951 that I was selected as Secretary to the Chief, Federal Airways Standardization Division, an office established to combine the training organizations, with the exception of Flight Operations and Airworthiness, under one head which, actually, was training on a small scale compared to the present training organization. As time marched

on, the Center expanded until it was bursting at the seams, and approximately 1957, the building program was instigated. The Flight Inspection and ATM Buildings were the first two erected in this tremendous program to house the increasing number of employees, and these buildings were occupied early in 1958.

In June of 1958, the Director and his secretary, now Manager and Administrative Assistant with additional staffing, occupied their suite on third floor of the Headquarters Building. Even before this building was completed, there were too many people for the space, consequently, the building program continued and expanded.

In June of 1959, the Federal Airways Standardization Division office was broken up with the Division Chief, Mr. W. H. Hill, going to Washington, D. C. as Assistant Chief of the Training Division; Loretta Falvey and Mary Wiley remaining to work with Mr. J. B. Mitchell, then Technical Assistant to the Director, and my moving to the Director's office taking Personnel Security, a function of the office, with me.

The latter part of 1960 and early part of 1961, Aeromedical Research occupied quarters at Norman, Oklahoma. The Examination and Records Division, Washington, D. C. moved into the Home State Life Building downtown on February 21, 1960, at which time I was selected to join their staff.

During the 14 months I worked downtown in the Airman Review Section, there were only two occasions for me to return to the Center on official business. With the tremendous increase in personnel, employee turnover increased by leaps and bounds, and the changes and additions in personnel during that time were amazing. I learned in writing this resume of time gone by that the last report of employees numbered 3,270 with an average attendance of 1,400 students. It was nothing to walk down the hall and never see a familiar face, and the ones I did know moved to various and sundry offices.

Returning home to the Aeronautical Center May 15, no one who has been away from old friends for a time could have been made to feel more welcome. I realized how much the term "Welcomed with open arms" really means.

TRAINING CORNER

So many times I've thought to myself, "If I could only make him understand what I mean." This age old problem of Communications continually seems to be a major problem. So much so that perhaps you will find this article by Lew Shalett worth a few minutes of your time.

HOW TO PACK MORE POWER IN YOUR WORDS

BY LEW SHALETT

Four things cripple your ability to convey precisely your ideas and instructions to the people with whom you work.

Failure to clarify in your own mind the message you want to convey. If you haven't analyzed your thinking carefully, it is difficult to project these thoughts into words to others.

Failure in semantics. You may know what you are thinking, but fail to present your idea in language understandable to others.

Failure to hold attention or interest. If your words have no impact, you can lose your listener or reader in 90 seconds or less.

Failure to identify your audience with your words. Some executives fail as communicators because they habitually speak from their own management point of view, rather than from the viewpoint of the people to whom they speak.

You undoubtedly recognize one or more of these failures in your own efforts to clearly express yourself in spoken and written words.

If so, there are eight basic guides that will help you. Apply these guides to your own communicating and you will experience the satisfying feeling that your words pack more punch than they did before.

1. Clarify your ideas before speaking or writing. Before you attempt to communicate a problem or idea, make certain that you understand the problem or idea—clearly. Don't start talking until the thought is sharply drawn in your own mind. Much management communicating fails because of inadequate planning. Proper planning includes consideration for the aims and attitudes of those who will listen or read.

2. Determine the real purpose you want to accomplish. Before you start forming your words, decide what it is that you want to happen as a result of your message. Is your purpose to give information? To elicit information? Initiate action? Change another

person's attitude? Whatever your goal, your chances of reaching it are increased if you identify the objective first, and then adapt your language and the tone of your message to serve that specific objective. The fewer your objectives, the sharper will be the focus of your words, and the greater will be the chances of their being clearly understood and, equally important, fully accepted.

3. Adapt your words to the environment. Meaning is the essence of communication, but meaning is conveyed by far more than the definition of your words alone. Here are some other things that color the meaning of your words, and influence their strength.

Timing—whether your message is delivered at a good or bad time.

Physical setting—whether you pick words that fit the surroundings.

Social climate—for example, whether the message is to be public or private.

Custom—the degree to which your message must conform to established patterns in order to obtain acceptance.

4. Watch your semantics. Words are only symbols and, like all symbols are useless or even harmful unless your audience shares the meaning you give them. When spoken, words may be clearly understood because of your tone of voice or facial expression. But when the same words are written, they may have less meaning or a different meaning. How you select your words is particularly critical when you talk to employees. Even a simple term like "the company" may cause vastly different pictures in the mind of an hourly worker. Words like "union" or "strike" may have even more diverse meanings for a manager and a worker.

5. Connect your message to the reader's interest. Your words will be dimmed in meaning if they are not recognizably identified with the interest and attitude of your reader or listener. To hold their full power, your words must take into account the point of view of the reader. People on the job will be more re-

sponsive and will react more favorably when their personal interests and needs are touched by the words you direct to them.

6. Follow up your communications. Your best efforts at effective communication may be wasted if you do not follow up to see how well your ideas and instructions have been conveyed. Ask questions—and encourage people to ask questions of you. Elicit reactions to what you have spoken or written. Make certain that there is a “feedback” on every important message that you deliver, so that you can determine how accurately it was received and how strongly it motivated the action you intended.

7. Use words that motivate. Getting an idea across is not enough. Your message must not only explain—it must create action—for example, inspire a worker to do the best job possible. You can achieve the ability to create action with your words only when your listener or reader is made to understand specifically how he benefits—what’s in it for him, and how he can contribute. Make your words appeal to the common interest of you and your listener.

8. Avoid abstractions. Abstract ideas sometimes must be expressed in abstract terms, but such terms should be avoided whenever possible. Frequently it is possible to translate an abstraction into something concrete, if only by example or simile. Abstract expressions are likely to cause only dull mental impressions, and frequently create misunderstanding. But when abstractions are expressed in concrete terms with “picture words,” the impact is stronger and the ideas are more likely to be remembered.

A good rule to remember for all your communicating is that what people are told isn’t what counts—it’s what they understand, accept, and do about it.

Taken from MANAGEMENT METHODS

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AMERICAN FIELD SERVICE EXCHANGE STUDENT



Karen Slack, a Northwest Classen High School Junior, daughter of Mr. and Mrs. Clifford D. Slack, PT-937, 4032 NW 23rd St. has been chosen as an exchange student to France for the summer. She left Oklahoma City on June 8th by jet via Dallas and New York City to Montreal, Canada, where she boarded the M. S. Seven Seas on June 9th. They arrived in Rotterdam, Netherlands on June 19th.

She will travel south through Belgium to near Amiens, France where she will live with the French family, Mr. and Mrs. Joseph Hotellier and their daughters, Marie-Noelle and Francoise. Marie-Noelle was an exchange student in Salt Lake City during 1957 and Francoise is to be an exchange student during the 1961-62 school year.

During the last month of her stay in France, Karen will live in Paris with Mr. and Mrs. Roger Henri Faure and their son and two daughters, Philippe, Mireille and Pierrette. All three have been exchange students with Pierrette finishing her year in Los Angeles this summer. Karen will also have the privilege of vacationing with the Faure family at their country home in southern France before she leaves for New York City aboard the M. S.

Waterman on August 14th, arriving in New York City on August 24th.

Karen has just completed three years study of the French language at Northwest. She is president of the Science Club, Secretary of the National Honor Society, Treasurer of Quill and Scroll and also a member of Honor Math, Honor Language, Science Seminar, Coronet Pep Club and Announcers Club. As a member of Central Presbyterian Church, she is active in the Youth Group there and is serving this year as Outreach Commission Chairman. She was recently chosen as alternate for the Alexander Fleming Award at the Medical Research Center here. She just finished her first year on the staff of the Northwest Classen yearbook, Round Table.

AEROMAIDS HEAR EYE-SURGEON



Having fun at the Aeromaid meeting—Dorothy Morgan, Helen Tully, Texalee Lawson, Jane Fanning, Suzanne Bayne, Bobby Howard (at the piano), Millie Brooking and Daisy Dovell.

Clio Morrison and Charlotte Chester were hostesses for the May meeting of Aeromaids. Approximately sixty members and guests attended the dinner, held at the DeVille Dining Room, 1600 N. W. Expressway. Dr. Tullos O. Coston, Oklahoma City eye physician and surgeon, was guest speaker for the occasion. He jokingly referred to his early boyhood days in Texas where he suffered a case of “hero worship” for the local doctor and decided then and there to follow that profession. Actually, that hero doctor began medical practice by accident when he just wandered into town with a pocket full of mothballs and because he smelled funny, folks started calling him “Doc.”

He liked this nomenclature so well that he started wearing rubber gloves and accepted a chauffeur job, temporarily, long enough to drive a family to Maryland. There he purchased an automobile with a MD license on the back which enhanced his stature in the local setting. In order to live up to his reputation he managed to get a picture of the human anatomy which he used in performance of surgery by merely laying the pattern on his patient and cutting around the ailing organ. Loss of an Adam’s apple was due to the pattern slipping.

And so that is how Dr. Coston chose to study medicine. Of course he hastily adds that ten years of medical school taught him a bit more than the above mentioned which was told as a means of getting our attention. Then, in all seriousness, he discussed the eye problems, giving us the benefit of many years spent in practice.

Speaking of eye hazards, he named pocket knives, scissors, clods of dirt, rubber bands, and BB guns as being common causes of accident. Hammering on metal or glass objects should be done only when protected by glasses. He further stated that women should put on glasses for the application of make-up. For instance, some of them come in saying, “Doctor, I just can’t see!” The only trouble is that powder has caked so thick around the eyes, it would be impossible to see.

He suggested that the test for determining when to begin wearing glasses is—“place a newspaper between your toes and when you are no longer able to read from this distance, then is the time to get your glasses.” As for the belief that glasses will prolong the eyesight, he stated that your eye is not damaged by use if given proper rest when tired, just as you rest the body when tired.

He MOST EMPHATICALLY urged everyone to keep the child under two years of age away from dogs and cats. Recent discovery proves without doubt that extensive damage has been done to the eyes, as well as other vital organs, by the infestation of worms, which contaminate the child through contact with animals.

His remarks were followed by a question and answer session which covered the subject rather thoroughly, even to the point of “to dye or not to dye” eyelashes.

HIGH AND INTERMEDIATE ALTITUDE FLY BOYS TAKE TO SOFTBALL DIAMOND

WANTA MAKE A BET? This casual remark developed into a full-fledged softball game and picnic at Wedgewood Park Sunday, May 21 with approximately 200 employees, wives, and children in attendance. Seems as though Will Gresham, FS-920, challenged Bill Conway, FS-910—both FAA softball players—that the High Altitude boys could fly higher on the softball diamond than the Intermediate boys. Interest grew until a picnic was planned for the entire families.

As early as 11:30 a.m. groups started to gather, and by game time—1:00 p.m. players and cheering section were ready to go. **PLAYING FOR THE HIGH JETS WERE** Gresham, Miller, Coakley, Bray, Hamilton, Rayburn, Landell, Chadwick, Rogers, Billen, Haugan, Daugherty, and Suter.

For the **SAFIS** (Intermediate) were Conway, Maxwell, C. Anderson, B. Anderson, Trim, Ewers, Ulstad, Kinney, Abernathy, McDonald, Lanon, O'Neal, Caldwell, Chester, Geiger, and Trewet.

UMPIRE: Ernie Hayes.

Some of the baseball suits will make history—Will Gresham with his "short shorts" and large Mexican straw hat, Ray Maxwell with a female-type, tie-under-the-chin hat, Leonard Trim resplendent in an official orange and black FAA baseball suit, and one scorekeeper looking gorgeous in white shorts and shirt, and large straw hat.

WHAT A GAME! At the end of three innings, the score was 13 to 4 in favor of the **JETS**. In the fourth inning, the **SAFIS** started concentrating on their ball playing instead of the scorekeeper, and the game ended in a 13 to 13 tie.

Oh yes, that gorgeous scorekeeper was Betty Donoho, FS-910. The **Jets'** scorekeeper, Sam Billings, was not nearly as distracting as Betty but as efficient.

SPECIAL GAME HIGHLIGHTS:

TED COAKLEY—turning around five times in the wrong direction, holding a cigar in one hand, refreshments in the other, and still making a perfect catch.

CLAIR ANDERSON—looking very professional

and as much at ease on the ball diamond as he does in the cockpit. **WHY ISN'T CLAIR ON THE REGULAR FAA TEAM??** Someone is missing a bet.

WILL GRESHAM AND LEONARD TRIM—pitching so professionally that Catchers Del Ulstad and Corkey Billen complained of sore palms.

JOHN HAUGAN—making a beautiful homerun with bases loaded.

BOB ANDERSON—displaying his usual, easy-going, eye-twinkling, pleasant personality while missing easy catches.

BILL MADSEN—not officially appointed as such but thoroughly enjoying being the most efficient side-line coach this reporter has seen.

KEN ROGERS—taking his ball playing as seriously as he does his bowling.

BOB CHADWICK AND JACK O'NEAL—making beautiful homeruns.

CORKEY BILLEN—ignoring his sprained ankle and playing excellent ball.

BILL CONWAY—pitching a mean ball but holding up the game for cool refreshments.

The game ended just in time—in time for an afternoon of heavy rains which played havoc with the entertainment Maxine and Sandy McBride had planned for the children.

Getting away from the usual catered dinner, the wives had food waiting for their tired spouses—fried chicken, ham, homemade cakes—reminiscent of old-fashioned picnics where all food is homecooked.

That a good time was had by all was evidenced by the fact that the last picnickers left the park at 6:30 after braving out numerous storms. Reporter Fanning thanks the **Jets** and the **Safis** for the invitation to attend, and the McBride and Gresham clans for sharing their wonderful food.

ALL WIVES OF HIGH AND INTERMEDIATE ALTITUDE PLEASE NOTE: It was decided the next softball game would be between the wives of the two groups so start practicing. The food will be prepared by the husbands, of course.

ARE YOU A MEMBER OF THE EMPLOYEES ASSOCIATION? . . . If so, be sure you and your family take advantage of the entertainment planned for you during the year.

The new entertainment committee, John Angier, Jane Fanning, Ray Payne, Marjorie Goyer, and Dean Merilatt, has planned events for the coming year. Mark your calendar so you can plan to attend.



John Angier, PT-930; Marjorie Goyer, AC-190; Jane Fanning, FM-972, and Ray Payne, FM-951. Dean Merilatt, PT-944, is the missing member of the FAA Employees Association Recreation Committee.

THE FAMILY PICNIC will be held Saturday, August 12, at Wedgewood Park. The food will be catered, there will be entertainment for all, in addition to taking advantage of Wedgewood's low prices for such events as the rides, swimming, etc.

A fall dance is being planned which may give you an opportunity to display your unusual costumes.

ALOHA!!!

Five FAA "Wahines" are still flying high after recently paying a flying visit to Honolulu. Daisy Dovell, AC-119, Millie Banister, FM-974, Jane Fanning, FM-972, Mae Laughlin, FM-934, and Louzelle Stallings, FS-872, have pictures and fond memories to make their vacation one to be long remembered. One of the girls reports "My trip to Hawaii is one I shall never forget. I had always dreamed of visiting there and then my dream suddenly came true. Before I knew it, I was viewing it from the air, and Oh! what a breath-taking sight!! The

velvety mountains, the blue water washing up on the white sands, the tall, stately coconut trees swaying in the breeze, truly a **PARADISE OF THE PACIFIC**. To point out one particular highlight of the trip would be impossible—the cruise to Pearl Harbor, the tour of the luxury liners, the tour of the Dole pineapple plant, the hula shows, the girls in muu muus, everything was wonderful. There is a song entitled "There's No Place Like Hawaii"—no truer words were ever written. When I left Hawaii, I brought Hawaii with me."

The beauty of the City must be seen to be appreciated. The climate is most pleasant although the Oklahoma sun looked good after a lack of it in Honolulu. The people are jubilant over being admitted as a State, and all are eager to know your opinion of the City and whether they may make your stay more enjoyable. The public and private school systems are putting forth every effort to teach patriotism. In one public school, it was noted that the Star Spangled Banner is sung each morning and afternoon.

The new FAA building is located in the Heart of Diamond Head Crater. It was erected at the cost of \$5,000,000, has no windows, and is completely air-conditioned. The control towers are located there, and the equipment appears to be second to none and is beyond the apprehension of a layman. The entrance to this building is through a tunnel. Other FAA offices are located in the downtown area.

The flowers are most beautiful and different, and orchids are very common place. Lei Day in Hawaii is the same as May Day on the Mainland, and is celebrated with great gusto with people wearing leis—not one but many—and a program of Hawaiian music being presented for all to hear.

The Congregational Church, known as Westminster Abbey of the Island, is most interesting. The pews occupied by the Kings and Queens have been preserved, as well as the burial plots. The choir is composed of Hawaiians, both men and women. The pastor is Abraham Akaka and he was educated in the University of Hawaii and the University of Wisconsin. His sermons are delivered in the Hawaiian and English languages.

Waikiki Beach is everything you have read about. Also there is much interest in the location of the new Capitol Building. Agriculture

of the Island is predominantly sugar cane and pineapple and to see the fields and then visit the factories is interesting and educational.

All five of the girls remarked on the friendliness of the people, and the feeling of warm hospitality and interest towards visitors.

OFFICIAL STATE HIGHWAY MAPS NOW IN STOCK

STUDENTS at the Center and employees now planning annual vacations and/or weekend trips may be interested to know a supply of the new illustrated highway maps of Oklahoma has been stocked for their use.

APPEARING in this issue of the BEACON is a mileage chart showing distances from Oklahoma City to some of the large lakes. It is in clip-out coupon form and if you are not interested yourself, you might clip it out and pass it on to a friend.

HERE ARE a few bite-size morsels about Oklahoma that may prove of interest to Students: AREA—69,919 square miles.

POPULATION—2,233,531 (1950 Census).

EXTREME LENGTH—East and west, 460 mi.

EXTREME WIDTH—North and south, 210 mi.

ELEVATION—300 feet in southeastern corner of state to 4,978 feet, Black Mesa, northwestern corner of state.

GEOGRAPHIC CENTER—Eight miles north of Oklahoma City.

CAPITAL CITY—Oklahoma City.

ORIGIN OF NAME—From two Choctaw words, "Okla," meaning people and "humma," meaning red. Thus "Red People." Oklahoma has a greater population of Indians than any other state.

NICKNAME—"Sooner State" because of the fact that just before its opening April 22, 1889, to homestead, many slipped into the territory and had their choice claims staked at the time of "The Run."

WATER, WATER... EVERYWHERE

OKLAHOMA LAKES provide excellent fishing, marvelous boating and skiing unlimited swimming and camping facilities. Here are those with surface areas larger than 1,000 acres:

OKLAHOMA'S GREAT LAKES IN ORDER OF SIZE

	Maximum	Normal
Texoma	142,700	93,080
Grand	59,200	46,300
Fort Gibson	51,200	19,100
Tenkiller	20,800	12,500
Great Salt Plains	29,000	10,700
Altus-Lugert	8,640	6,800
Canton	15,500	6,700
Murray	6,880	5,728
Wister	23,000	4,000
Hulah	13,000	3,200
Eucha	3,200	3,100
Carl Blackwell	3,300	3,000
Hefner	3,200	2,530
McAlester	2,200	2,100
Lawtonka	2,300	1,863
Overholser	1,900	1,750
Spavinaw	1,700	1,638
Fort Supply	5,700	1,550
Shawnee	1,640	1,330
Heyburn	3,700	1,070
Clear Creek	1,300	900
Greenleaf	1,100	900

CLIP OUT (BILLFOLD SIZE)

OKLAHOMA CITY MILEAGE CHART TO OKLAHOMA'S LARGEST LAKES

Altus-Lugert	139	Hulah	163
Ardmore	102	Lawtonka	100
Big Cedar	102	Mountain	104
Blackwell, Carl	60	Murray	110
Canton	80	Okmulgee	114
Clear Creek	87	Overholser	10
Claremore	149	Pawhuska	139
Clinton	105	Ponca	110
Comanche	99	Salt Plains	125
Duncan	97	Shawnee	31
Eucha (Up. Spav.)	206	Spavinaw	188
Fort Gibson	151	Supply	158
Grand	194	Tenkiller	158
Greenleaf	137	Texoma	118
Guthrie	28	Thomas	100
Hefner	2	Veterans	88
Henryetta	102	Wewoka	68
Heyburn	94	Wister	200
Holdenville	84		

COMPLIMENTS OF FAA AERONAUTICAL CENTER

FACILITIES AND MATERIEL TRAINING DIVISION CLASSES

COMMUNICATIONS EQUIPMENT CLASS 174 CONVENED FEBRUARY 20, 1961 TO MAY 12, 1961

NAME	REG.	STATION	NAME	REG.	STATION
Abou-Gabal, Saleh M.	OIC	Cairo, Egypt	Mitchell, Clarence	1	Idelwild, N. Y.
Ayres, John D.	1	Rosnoke, Va.	Moore, William F.	4	Olympia, Wash.
Bow, Francis R. M.	6	Honolulu, Hawaii	Obanchoin, John E.	2	Greensboro, N. C.
Brammon, James D.	4	Albuquerque, N. M.	Oliver, Paul V.	2	Birmingham, Ala.
Bruno, Frank L.	4	Denver, Colo.	Powell, Edward D., Jr.	2	Knoxville, Tenn.
Clifton, William H.	1	Philadelphia, Pa.	Randall, Gordon A.	2	Greenwood, Miss.
Damron, Harold	1	Erlanger, Ky.	Rowe, Donald L.	3	Iskater, Mich.
Dardari, Fayek M.	OIC	Damascus, UAR	Russ, Louis L.	4	Roswell, N. M.
Detra, Stanley F.	3	Chicago, Ill.	Rybicki, Robert G.	4	Oakland, Calif.
Enslin, Lester L.	4	Miles City, Mont.	Shigenaga, George K.	4	Los Angeles, Calif.
Getty, David L.	4	Seattle, Wash.	Smith, Walter C.	1	Toledo, Ohio
Higa, Masayoshi M.	4	Gorman, Calif.	Sommerville, Louis J.	4	Freemont, Calif.
Hodkins, Jimmie A.	3	Kansas City, Mo.	Spitzer, Vernon J.	3	Sioux Falls, S.D.
Johnson, Jimmy H.	4	Medford, Oregon	Sumner, Balford A.	5	Anchorage, Alaska
LaBlanc, Leander E., Jr.	2	Greenville, S. C.	Thompson, Lovell L.	1	Pittsburgh, Pa.
Lee, Earl S.	3	Minneapolis, Minn.	Weaver, Lloyd O.	1	New Cumberland, Ky.
Lucas, Norman W.	3	Indianapolis, Ind.	Witherspoon, Donald D.	4	Denver, Colo.
Martinez, Anthony L.	5	Anchorage, Alaska			

COMMUNICATIONS EQUIPMENT CLASS 175 CONVENED MARCH 6, 1961 TO JUNE 23, 1961

Baird, Clayton D.	4	Truth or Consequences, N. M.	Cordeiro, Manuel de A.	OIC	Brazil
Bronkema, Ivan	4	Great Falls, Mont.	Larsen, Alan H.	4	Salt Lake City, Utah
Brown, Lewis F.	4	Los Angeles, Calif.	Malta, Lupericio U. de C.	OIC	Brazil
Burton, Marvin S.	1	Jamaica, N. Y.	Medina, Edward S.	4	Albuquerque, N.M.
Castano, Domenick J.	1	Buffalo, N. Y.	Meek, Robert V.	5	Anchorage, Alaska
Cheek, William M.	2	Ft. Worth, Texas	Mercutio, Pac P.	4	Freemont, Calif.
Childers, Billy J.	2	Nashville, Tenn.	Mizuba, Shoichi	6	Honolulu, Hawaii
Davis, Robert G.	1	Avoca, Pa.	Myers, William K.	2	Ft. Worth, Tex.
De Mond, Roland C.	4	Los Angeles, Calif.	Nuckols, Oscar F.	1	Gordonsville, Va.
Gentry, Robert C.	2	Ft. Worth, Texas	Ott, John C.	1	Suitland, Md.
Grob, Ronald L.	3	Terre Haute, Ind.	Pawlowski, Ambrose T.	3	Milwaukee, Wis.
Harding, George R.	4	Burley, Idaho	Rosenblatt, Leslie	4	Reno, Nevada
Harris, Cecil V.	4	Salt Lake City, Utah	Swinehart, Donald E.	1	Jamaica, N. Y.
Howard, Thomas L.	3	Kansas City, Mo.	Thornston, Fred V.	2	LaGrange, Ga.
Hutcherson, William N.	1	Chicago, Ill.	Traini, Louis C.	1	Pittsburgh, Pa.
Kai, Robert Helons	6	Honolulu, Hawaii	Vargas, Ivo C. de	OIC	Brazil
Kellett, Harold L.	2	Columbus, Ga.	Winceswski, Paul R.	3	Minneapolis, Minn.
Kelley, James E.	2	Columbus, Ga.	Withaer, David L.	3	Chicago, Ill.

COMMUNICATIONS EQUIPMENT CLASS 176 CONVENED MARCH 20, 1961 TO JUNE 9, 1961

Balloff, Winslow	3	Minot, N. Dakota	Menghini, William G.	4	Reno, Nevada
Brissett, Shakespeare L.	1	Washington, D. C.	Mum, Edward F.	1	Buffalo, N. Y.
Cassanuco, Jose' P.	OIC	Brazil	Munroe, Winslow S.	4	Pocatello, Idaho
Casselman, Corlin M.	3	Battle Creek, Mich.	Munsell, Guy F.	4	Seattle, Wash.
Childers, Truman R.	2	Tyler, Texas	Nakamura, George T.	6	Honolulu, Hawaii
Clayton, Thomas M.	4	Los Angeles, Calif.	Parker, Frank J., Jr.	5	Anchorage, Alaska
Crook, Leroy G.	4	Oakland, Calif.	Pope, Sylvester	1	Pittsburgh, Pa.
Duffy, Joseph W.	2	Shreveport, La.	Powell, Donald R.	3	Indianapolis, Ind.
Fontaine, Ernest J.	1	Windsor Locks, Conn.	Rausser, Merlin T.	4	World, Wyoming
Griffin, Richard W.	4	Great Falls, Mont.	Rodcamp, Roger H.	3	Kansas City, Mo.
Halbert, Harlan C.	3	Peoria, Ill.	Rodriguez, Jorge	2	San Juan, P.R.
Harrell, Herman R.	2	Augusta, Ga.	Schulz, Ralph E.	4	Albuquerque, N.M.
Haynie, Max M.	4	Douglas, Arizona	Sheppard, Edgar P.	5	Anchorage, Alaska
Heston, Leroy S.	2	LaGrange, Ga.	Smith, Clair B.	4	Salt Lake City, Utah
Johnson, Earl D.	3	Rockeater, Minn.	Taylor, Robert L.	2	Lubbock, Texas
Lara, Mario S.	OIC	Brazil	Thomas, Robert E.	4	Salt Lake City, Utah
McHale, James H.	1	Harrisburg, Pa.	Velasco, Rudolph	4	San Rafael, Calif.
Marlott, Robert J.	1	Pittsburgh, Pa.	Workman, Eugene B.	2	Macon, Georgia

COMMUNICATIONS EQUIPMENT CLASS 177 CONVENED APRIL 3, 1961 TO JUNE 23, 1961

Bair, Norman E.	1	Jamaica, N. Y.	Landis, David M.	4	Truth or Consequences, N. M.
Barfield, Travis M.	1	Rosnoke, Va.	Luthie, Eugene K.	3	Pargo, N. D.
Bartell, Henry R.	3	Minot, N. Dakota	Mitchell, Fred R.	1	Washington, D.C.
Brandon, Walter R.	2	Alpine, Texas	O'Dell, Warren D.	3	Goodland, Kans.
Brunitt, James A.	6	Wichita Falls, Tex.	Parker, Charles S.	2	Corpus Christi, Texas
Calio, Nicky	2	Honolulu, Hawaii	Puchalski, Joseph G., Jr.	1	Ottis AFB, Mass.
Caya, Paul E., Jr.	1	Windsor Locks, Conn.	Quinn, John F.	4	Cedar City, Utah
Crook, Benjamin F.	4	Seligman, Arizona	Roberts, Harry C.	4	Willcox, Ariz.
Cross, Rufus Y.	2	Ft. Worth, Texas	Rumph, Benjamin F.	2	Abilene, Texas
Dudley, John G.	4	McChord AFB, Wash.	Schleiff, Edward D.	4	Belmont, Calif.
Galbraith, Gary B.	2	Ft. Worth, Texas	Sharp, James R., Jr.	4	Seattle, Wash.
Gonzales, Ray L.	4	Douglas, Wyoming	Smith, Lester F.	1	Washington, D.C.
Gordon, Sharritt W.	2	Vendover, Utah	Sullivan, Donald E.	2	Greenwood, Miss.
Gregory, William L.	4	Charleston, S. C.	Sweeney, Terrence R.	1	Falmouth, Mass.
Henslee, C. Ray	3	Blythe, Calif.	Terpening, Charles W.	4	Winnemucca, Nev.
Hove, Richard E.	3	Rochester, Minn.	Webb, James W.	1	Washington, D.C.
Johnson, Roger A.	3	Pargo, N. Dakota	Wilbur, Stephen P.	4	Oakland, Calif.
Jones, Ernest L.	2	Ft. Worth, Texas	Wright, Ronald H.	3	Kansas City, Mo.

COMMUNICATIONS EQUIPMENT CLASS 178 CONVENED APRIL 17, 1961 TO JULY 7, 1961

Adams, Carey P.	1	Newport News, Va.	Anagnostopoulos, Chris	OIC	Athens, Greece
Ballard, Donald R.	4	Seattle, Wash.	Johnson, Arthur W.	1	Harrisburg, Pa.
Burdette, William R., Jr.	2	Birmingham, Ala.	McChesney, R. A.	4	Spokane, Wash.
Collett, James R.	4	Los Angeles, Calif.	McNeely, Linwood D.	1	Richmond, Va.
Davidson, Daniel E.	2	New Orleans, La.	Mavrianiannis, Antonios	OIC	Athens, Greece
De Arman, Ralph L.	4	Los Angeles, Calif.	Montgomery, Edward A.	3	Kansas City, Mo.
De Castro, Raymond R.	6	Honolulu, Hawaii	O'Neal, John D.	2	Houston, Tex.
Edwards, Howard C.	4	Seattle, Wash.	Orndorff, Nolan C.	1	Washington, D.C.
Evans, Thomas J.	3	St. Louis, Mo.	Portolatin, Sigfrido	2	Knoxville, Tenn.
Foster, Walter J.	1	Idelwild, N. Y.	Rogers, Harvey K.	3	Jackson, Mich.
Fowler, Robert D., Jr.	2	Houston, Texas	Sullivan, Thomas F.	1	Idelwild, N.Y.
Gestelager, Kenneth R.	3	Kansas City, Mo.	Tubb, Curtis O.	2	Mobile, Ala.
Gooda, William H.	4	Los Angeles, Calif.	Van Handel, Sylvester J.	3	Lone Rock, Wisc.
Hammer, Sam L., Jr.	4	Whitehall, Mont.	Vasser, Gerald P.	3	Offutt AFB, Neb.
Chad L.	4	Los Angeles, Calif.	Wagenius, Sevard E.	5	Anchorage, Alaska
Robert W.	4	Crescent City, Calif.	Watson, Jimmie R.	2	Montgomery, Ala.
Kube, Daniel C.	4	Drummond, Mont.	Williams, Charles G.	2	Atlanta, Ga.
O'Neal, Billy E.	2	Valdosta, Ga.	Wilson, James C., Jr.	2	Brownsville, Texas

ELECTRO-MECHANICS CLASS 25 CONVENED FEBRUARY 20, 1961 TO MAY 12, 1961

NAME	REG.	STATION	NAME	REG.	STATION
Caywood, Gerald E.	4	Zuni, N. M.	Petersman, Harold W.	3	Indianapolis, Ind.
Delima, Abner W.	6	Kahului, Hawaii	Spivey, Walter E.	5	Anchorage, Alaska
Cesser, Frank R.	2	Orlando, Fla.	Arzan, Fordon M.	3	Des Moines, Iowa
Hargrove, Oscar R.	4	Los Angeles, Cal.	Conklin, Martin E.	3	Winnier, S. Dakota
Harrell, Elmer E.	2	Ft. Worth, Texas	Feller, Lee R.	3	Waterloo, Iowa
Hunwarden, Henry L.	3	Kansas City, Mo.	George, David L.	AC	Okla. City, Okla.
Laras, Frank	2	San Juan, P. Rico	Hennrichs, Alva E.	3	Anthony, Kansas
Markel, Dennis W.	5	Anchorage, Alaska	Murphy, Patrick P.	4	Battle Mountain, Nev.
Nakamitsu, Richard M.	6	Wake Island, S. P.	Rogge, Willard D.	3	Watertown, S. Dakota

ELECTRO-MECHANICS CLASS 26 CONVENED MARCH 20, 1961 TO JUNE 9, 1961

Athey, J. B.	2	San Antonio, Tex.	McCoy, Fred A., Jr.	3	Minneapolis, Minn.
Cooksey, John J.	5	King Salmon, Alaska	Mayer, Edwin F.	3	Milwaukee, Wisc.
Flores, Oscar A.	4	Burbank, Calif.	O'Brien, Herbert J.	5	Anchorage, Alaska
Floyd, James E.	2	New Orleans, La.	Stevens, Walter E.	3	Savoy, Illinois
Hee, Goodling (Richard)	6	Honolulu, Hawaii	Wood, Carl N.	4	Morality, N. Mexico
Korol, George	3	Fargo, N. Dakota			

ELECTRO-MECHANICS CLASS 27 CONVENED APRIL 17, 1961 TO MAY 26, 1961

Ammerman, Levern R.	4	Salt Lake City, Utah	Kekuewa, Benedict K.	6	Wake Island, S. P.
Basson, Charles P.	3	Indianapolis, Ind.	Lawrence, Charles W.	4	Blythe, California
Coleman, William A., Jr.	2	Miami, Florida	Sanders, James L.	3	Minneapolis, Minn.
Fisher, Ralph W.	6	Wake Island, S. P.	Van Baele, Adolph A.	3	Kansas City, Mo.
Hall, Charles D.	2	Hampton, Georgia	Watson, Robert H.	5	Summit, Alaska
Realzer, Willis W.	3	Indianapolis, Ind.			

TELETYPE CLASS 25 CONVENED APRIL 17, 1961 TO MAY 12, 1961

Bagley, Grady C.	2	Ft. Worth, Texas	McNeill, James G.	4	Salt Lake City, Utah
Barker, Abner R.	4	McChord AFB, Wash.	Meekins, Milton B.	1	Norfolk, Va.
Bishop, Robert H.	3	Lansing, Michigan	Morland, Robert F.	4	Portland, Oregon
Birkett, Horace D.	2	Fletcher, N. C.	Newman, Robert G.	5	Anchorage, Alaska
Bradley, Stewart A.	4	Dallas, Oregon	Paquette, Leland F.	3	Chanute, Kansas
Capone, Anthony T.	1	Jamaica, N. Y.	Ragan, James H.	3	Duluth, Minn.
DeBow, Richard L.	3	South Bend, Ind.	Quint, Kenneth	4	Denver, Colorado
Dietz, Albert C.	5	Anchorage, Alaska	Sagum, Roland D., Jr.	6	Honolulu, Hawaii
Dietz, Arthur D.	1	Jamaica, N. Y.	Shaban, Rial H.	OIC	Damascus (Syria) U.A.R.
Grice, Otis V.	2	Tampa, Florida	Shipp, Walter L., Jr.	2	La Grange, Georgia
Gunn, James A., Jr.	4	Douglas, Arizona	Singleton, Harold C.	2	Greensboro, N. C.
Holmes, Marion J.	4	Las Vegas, Nev.	Switzer, Robert A.	2	Oxford, Alabama
Ingram, Franklin D.R.	4	Denver, Colo.	Tilson, Ralph W.	2	Hickory, N. Carolina
Johnson, William J.	4	Fanguitch, Utah	Van Alsdorf, Carl W.	2	Greensboro, N. C.
Jones, John M.	5	Anchorage, Alaska	Wilkins, James W.	2	WarnerRobins AFB, Ga.
Laws, Alfred J.	4	Los Angeles, Calif.	Wilson, Walter E.	3	Salina, Kansas
McCabe, Douglas J.	4	Phoenix, Arizona	Woollet, James A.	4	Phoenix, Arizona

ADIS CLASS 3 CONVENED APRIL 3, 1961 TO MAY 26, 1961

Berkeley, Willard L.	4	Salt Lake City, Utah	Heger, Daniel T.	2	Ft. Worth, Texas
Collins, Fred D.	1	Cleveland, Ohio	Lindenkamp, James J.	4	Denver, Colorado
Commerster, Lester P.	1	Dravosburg, Pa.	Linnen, John I.	1	Jamaica, N. Y.
Elison, Bobby	2	Atlanta, Georgia	Newville, William G.	2	SI Paso, Texas
Elmore, Clifford A.C. Jr.	2	Miami, Florida	Stout, Alfred L.	3	Indianapolis, Ind.
Givaud, Charles A., Jr.	2	New Orleans, La.	Walden, Lloyd A.	2	San Antonio, Texas
Gunsberg, Robert	1	Jamaica, N. Y.	Wescott, Elmer L.	3	Kansas City, Mo.
Halvaks, William E.	3	Michita, Kansas			

TACAN CLASS 27 CONVENED FEBRUARY 6, 1961 TO MAY 26, 1961

Beckert, Carl W.	3	Champaign, Ill.	Kraft, Wilbur V.
Bruhn, Kenneth E.	4	Farmington, N.M.	Lacy, Harold L.
Carlisle, Coleman L.	2	Monroe, La.	Landry, Earl J.
Champane, Kenneth J.	4	Oxnard, Calif.	Layman, Carl F.
Chung, Raymond	6	Wake Island, S. P.	Liffing, Cyril S.
Clemens, David E.	2	Ft. Worth, Texas	Limbaugh, Robert L.
Cole, Alden W.	1	Portland, Maine	Locklar, Louis
Costa, Frank	1	New York, N. Y.	Michaelis, Reuben A.
Cowles, Laurel W.	4	Salinas, Calif.	Miller, Robert A.
Cox, Luther W.	2	Ft. Worth, Texas	Murphy, Kenneth W.
Edson, Wayne B.	4	Balletport, Wash.	Phillips, William L.
Edwards, Desmond	5	Anchorage, Alaska	Perham, Robert E.
Evas, Harold, Jr.	2	Evans, Okla.	Robertson, Richard
Fraley, Bobby Joe	3	Vichy Missouri	Pickard, Harold W.
Garcia, Conrado	OIC	Laduro, Spain	Roderick, Wayne E.
Greene, John D.	2	El Paso, Texas	Shafer, Benjamin S.
Grillo, Philip R.	1	Glens Falls, N.Y.	Shoop, Forrest W.
High, Roy J.	5	Stierfielden, Ales.	Smith, Wilbur R.
Hinkle, Leonard M.	2	Mineral Wells, Tex.	Sydebotham, Wilbur I.
Hyland, William L., Jr.	2	Miami, Florida	Teague, Lemuel G.
Johnson, Harold L.	3	Sioux Falls, S. D.	Walker, Frank M.
Jockit, Leroy E.	1	Grand Rapids, Mich.	Walmaley, Arthur H.
Klink, Raymond L.	2	Savannah, Georgia	Williamson, Jimmy D.
Koven, Bruno D.	4	Sacramento, Calif.	Wilson, Charles I.

TACAN CLASS 28 CONVENED MARCH 6, 1961 TO JUNE 23, 1961 (CONT'D)

NAME	REG.	STATION	NAME	REG.	STATION
Hunter, Dorris C.	2	Chattanooga, Tenn.	Stratensky, Anthony J.	3	Inkster, Michigan
Jones, Paul G.	2	Longview, Texas	Theno, John W.	5	McCrath, Alaska
Kampan, Jack L.	3	Kansas City, Mo.	Tolleferud, Edwin H.	4	Billings, Montana
Keller, Fred L., Sr.	AC	Oklahoma City, Okla.	Walp, Richard A.	1	New Cumberland, Pa.
Kelly, David R.	1	Findlay, Ohio	Wenzel, Clarence W.	1	Albuquerque, N. M.
Kelly, LeRoy A.	3	Indianapolis, Ind.	Witthohn, Henry P.	1	Millville, N. J.
Klein, Frank N.	4	Medford, Oregon	Zeman, Richard H.	3	Inkster, Michigan
Kralich, Rudolph J.	2	Shreveport, La.			

TACAN CLASS 29 CONVENED APRIL 3, 1961 TO JULY 21, 1961

Aites, Allen R., Jr.	1	Pittsburgh, Pa.	Lucas, Edwin E.	5	Butte, Montana
Annes, Townsend	4	Denver, Colo.	Marley, Ray E.	5	Anchorage, Alaska
Bailey, Gene E.	2	Ft. Worth, Texas	Mateu, Raymond E., Jr.	2	San Antonio, Texas
Barfield, William D.	2	Miami, Florida	Middleton, Billy E.	2	Valdosta, Georgia
Bates, James L.	2	Orlando, Florida	Miller, S. E., Jr.	2	Wink, Texas
Baxter, William J.	1	Jamaica, N. Y.	Myers, James H.	2	Jackson, Miss.
Bendall, Francis L.	2	Elizabeth City, N.C.	Neal, William S.	4	Spokane, Wash.
Bonner, Laurence, Jr.	4	Boise, Idaho	Nezart, Jerry W.	2	Houston, Texas
Boroski, Stephen	1	Allentown, Pa.	Ohliger, Robert G.	1	Jamaica, N. Y.
Christine, Charles R.	2	Ft. Worth, Texas	Peebles, Glen D.	1	Jefferson, Ohio
Colloilo, Nickie	2	Athens, Georgia	Plovman, Herbert J.	4	Denver, Colo.
Conway, Ewell E.	2	Farmington, Mo.	Folk, Norman W.	4	Hayward, California
Crabtree, Gene T.	2	Jacksonville, Fla.	Post, John L.	1	Jamaica, N. Y.
Davis, Robert W.	4	Bryce Canyon, Utah	Price, Claude S., Jr.	2	Jackson, Miss.
Elwell, Elvinn J.	2	Ardmore, Oklahoma	Rabon, James S.	2	Charlotte, N. C.
Emerson, Ralph E.	1	Jamaica, N. Y.	Reid, Larry E.	3	Kansas City, Mo.
Fabryka, John L.	1	New Castle, Del.	Schellenberg, Hans K.	2	Charleston, S. C.
Fiorucci, Robert G.	1	Jamaica, N. Y.	Schmidt, Lester J.	2	Charleston, S. C.
Flaher, Harold W., Jr.	3	Indianapolis, Ind.	Shields, Harold P., Jr.	3	Grand Junction, Colo.
Fletcher, William S.	4	Grand Junction, Colo.	Shelton, Robert B.	4	Charlottesville, N. C.
Griffith, Sidney F.	4	Charlottesville, N. C.	Stevens, Robert B.	4	Las Vegas, Nevada
Groener, Allen T., Jr.	4	San Diego, Calif.	Stott, Thomas E.	1	Washington, D. C.
Harkins, Vern D.	4	Rawlins, Wyoming	Thompson, Clifford W., Jr.	1	Huntington, W. Va.
Harness, Herbert J.	2	Oxford, Alabama	Tyler, Charles M.	3	Grand Island, Neb.
Hodge, Robert E.	3	Kansas City, Mo.	Umbaugh, William L.	1	Jefferson, Ohio
Holder, Raymond D.	2	Austin, Texas	Vickers, James N.	3	Evansville, Indiana
Huhta, Jack A.	3	Fargo, N. Dakota	Vorndran, Richard	3	Pt. Wayne, Indiana
Keim, George C.	2	Kingfisher, Okla.	Walters, Joe E.	4	Seligman, Arizona
Koller, Carroll E.	1	Washington, D.C.	White, Max D.	3	Chanute, Kansas
Kristensen, Milton O.	4	Seattle, Wash.	Wilbur, Larry D.	3	Imperial, Nebraska
Lewis, Norman A.	3	Cedar Rapids, Iowa	Yamamoto, Kazuo	6	Lihue, Hawaii
Lindley, Clyde O.	2	Lake Charles, La.	Zack, Donald E.	4	Great Falls, Montana

D & T CLASS 13 CONVENED MARCH 6, 1961 TO JULY 21, 1961

Arnett, Louis M.	3	Bradford, Ill.	Manuel, Wendell O.	4	Spokane, Washington
Crary, Walter A.	3	La Crosse, Wisc.	Scott, Francis E.	1	Roanoke, Virginia
Delfield, Robert G.	3	Avoca, Pa.	Shingleton, Edwin D.	4	Rock Springs, Wyoming
Fuller, Robert B.	3	Southbend, Ind.	Stall, Roy W.	4	Kansas City, Mo.
Jacoby, Kenneth J.	3	Lone Rock, Miss.	Thelen, Donald C.	3	Muskogee, Okla.
Kessler, Milton E.	1	Rome, N. Y.	Waber, Kenneth W.	1	Pittsburgh, Pa.
Knob, Harold A.	1	Hornshausen, N.Y.	Wells, Marvin E.	4	San Jose, California
Manthey, Fredric E.	4	Spokane, Wash.			

TIS CLASS 199 CONVENED APRIL 17, 1961 TO MAY 12, 1961

Carroll, Doyle G.	4	Sacramento, Calif.	Powell, Robert C.	3	Lambert Field, Mo.
Carter, Keith R.	4	Phoenix, Arizona	Powers, William D.	4	Portland, Oregon
Case, James V., Jr.	1	Lynchburg, Va.	Pechirer, Leonard T.	1	Pittsburgh, Pa.
Crowley, Marcus W.	6	Honolulu, Hawaii	Sander, Guenther	1	Pittsburgh, Pa.
French, Marvin L.	2	Terminal, Texas	Savino, Ronald	1	Syracuse, N. Y.
Gilford, Jammie L.	3	Ypsilanti, Mich.	Schmaddeke, Melvin	3	Fargo, N. Dakota
Grier, Euzrich D.	1	Newport News, Va.	Tankesley, Earse L.	3	Kansas City, Mo.
Hanlon, John W., Jr.	2	Beaumont, Texas	Terrell, James P.	2	Ft. Worth, Texas
Khousam, Noras C.	OIC	Syria	Tominaga, Kay H.	6	Kahului, Maui
Lavigne, Jerome M.	3	Minneapolis, Minn.	Torman, Alfred E.	4	Albuquerque, N. M.
McKee, Larry E.	3	Cedar Rapids, Iowa	Vidaurre, Manuel V.	OIC	Santiago, Chile
Murray, Norman L.	3	Moline, Illinois	Vilpore, Eugene	NO	Washington, D. C.

VOR CLASS 201 CONVENED MARCH 20, 1961 TO MAY 12, 1961

Allen, Norman G.	1	Roanoke, Va.	Hand, Chester D.	6	Agana, Guam
Audino, Carl J.	1	New Bedford, Mass.	Johnson, Robert A.	3	Chicago, Illinois
Auer, George (nm)	4	Stockton, Calif.	Knight, Kenneth K.	4	Pendleton, Oregon
Aurendt, Michael R.	1	Martinsburg, Pa.	Kuhns, Lewis R.	1	Martinsburg, W. Va.
Avara, James A.	2	McComb, Miss.	Medina, Robert R.	4	Las Vegas, N. M.
Barker, Chester B.	4	Walla Walla, Wash.	McElwaine, Virgil A.	3	Eau Claire, Wisconsin
Beane, Wesley G.	1	Millinocket, Me.	McFarland, Orville A.	1	Charleston, W. Va.
Benson, Warren	1	Jamaica, N. Y.	McNichols, Leo M.	4	Tulsa, California
Bird, Raymond A.	5	Anchorage, Alaska	Pontiff, Harold J.	2	Japan, Florida
Ching, Herbert T. C.	3	Kansas City, Mo.	Rosamond, William T.	2	El Paso, Texas
Cowan, James E.	2	Abilene, Texas	Sandford, Jack R.	2	Corpus Christi, Texas
Dearth, Charles J.	2	Brownsville, Tex.	Tom, Donald	4	Hayward, California
Dolan, William R.	2	Mobile, Alabama	Vilmarie, John P.	6	Honolulu, Hawaii
Flores, Richard Y.	4	Albuquerque, N.M.	Willie, John	1	Vandalia, Ohio
Fontecilla, Harold K.	4	Los Angeles, Calif.	Witte, Francis E.	5	Anchorage, Alaska
Freeman, John P.	2	Oklahoma City, Okla.	Wright, Robert	1	Philadelphia, Pa.
George, Bill G.	2	Loseta, Texas			

VOR CLASS 202 CONVENED APRIL 3, 1961 TO MAY 26, 1961

Akbas, Huseyin	OIC	Turkey	Nourae, Harry V.	4	Redmond, Oregon
Bernard, Charles L.	4	Eugene, Oregon	Olds, Donald J.	3	Vichy, Missouri
Beyas, Ahmet	OIC	Charlotte, N. C.	Oskoff, Ferideoon D.	OIC	
Cantrell, Steve W.	2	Charlotte, N. C.	Pennell, James J.	2	Raleigh-Durham, N.C.
Davis, Robert E.	2	Toccoa, Georgia	Peterson, Carl C.	1	Cleveland, Ohio
DeBele, Walter F.	4	Los Angeles, Calif.	Pribble, Russell J.	1	Morfolk, Virginia
Felzien, Thomas J.	3	Goodland, Kansas	Pugh, Walter E.	4	Ukiah, California
Haug, George	1	Jamaica, N. Y.	Sasse, Horace A.	5	Anchorage, Alaska
Hoff, Edward J.	3	North Platte, Nebr.	Shirley, Ernest C.	4	Las Vegas, Nevada
Hogue, Donald R.	4	Gila Bend, Arizona	Sholar, Lynn J.	1	Washington, D. C.
Krout, William E.	2	Fine Bluff, Ark.	Spruill, Edward J.	1	Sandston, Virginia
LaGrone, Billy D.	2	Shreveport, La.	Sullivan, John G.	4	Oxnard, Calif.
Lee, Soo Kyun	OIC	Korea	Todd, John H., Jr.	2	Florence, S. C.
Macey, Robert V.	4	Belgrade, Montana	Trowbridge, Carl G.	1	Watervliet, N. Y.
Malik, Abdullah K.	OIC	Pakistan	Walker, Charles H.	2	Houston, Texas
McWilliams, Earl E.	3	Grand Island, Neb.	Watson, Francis M.	3	Redwood Falls, Minn.
Nyer, Russell G.	4	Pendleton, Oregon	Watson, James R.	1	Philipsburg, Pa.
Nitramphat, Banchoong	OIC	Thailand	Wilkins, Edward A.	1	New Cumberland, Pa.

VOR CLASS 203 CONVENED APRIL 17, 1961 TO JUNE 9, 1961

Bakula, Theodore	3	Cedar Rapids, Iowa	Harrison, Julian W.	5	Anchorage, Alaska
Bennett, James L.	1	Montoursville, Pa.	Nanco, Thomas R.	4	Grants, N. M.
Cooper, Claire M.	4	Albuquerque, N. M.	Pettit, Charles F.	3	Jackson, Mich.
Curyto, Richard	1	Binghamton, N. Y.	Powell, Stafford A.	2	Atlanta, Georgia
Ferales, Demetrias	1	New Cumberland, Pa.	Roll, Henry R.	4	Lebec, Calif.
Fordham, Robert J.	4	Los Angeles, Calif.	Nichols, Gholamreza	OIC	
Gans, Estel	1	Morgantown, W. Va.	Schmid, William J.	3	Cedar Rapids, Iowa
Gerdes, James H.	4	Grand Junction, Colo.	Smith, Howard L.	2	Shreveport, La.
Heisfeld, Phillip G.	5	McGrath, Alaska	Stroydas, John A.	1	East Boston, Mass.
Hersley, Henry R.	3	Green Bay, Wisc.	Slater, Russell H.	1	Washington, D. C.
Hogness, Harold M.	4	Mullan, Idaho	Stewart, William V.	4	Salt Lake City, Utah
Hougen, Bernard E.	2	Seattle, Wash.	Takehara, Toshio	6	Honolulu, Hawaii
Johns, George B.	2	San Juan, P.Rico	Tidwell, Charles L.	4	Charlottesville, N. M.
Joyal, Maurice E.	1	Washington, D.C.	Wakefield, Jack H.	4	Dallas, Oregon
Katner, James C.	AC	Oklahoma City, Okla.	Wanaka, Roy A.	4	Seattle, Washington
King, Gayo D.	3	Vandalia, Ill.	Waterspomen, Cane A.	2	Abilene, Texas
Neeks, Dwight D.	5	Anchorage, Alaska	Walker, Robert L.	1	Philadelphia, Pa.
Messick, Floyd T.	4	Los Angeles, Calif.			

PRE-VOR CLASS 205 CONVENED APRIL 17, 1961 TO MAY 12, 1961

Ary, James R.	2	Amarillo, Texas	Meloch, Joel J.	1	Houlton, Maine
Bochek, Frank J.	1	Pittsburgh, Pa.	Organist, Gene L.	3	Calumet, Michigan
Bouillon, Richard H.	3	Hazelwood, Mo.	Overby, Charles C.	2	Nashville, Tenn.
Braman, Alfrey J.	2	Ft. Worth, Tex.	Petty, Allen E.	2	New Orleans, La.
Contag, Werner H.	OIC	Quito/Ecuador, S.A.	Quinnan, Thomas F.	1	Jamaica, N. Y.
Dominque, Kenneth H.	1	Washington, D.C.	Rockford, Ill.	OIC	
Farley, John T.	1	Jamaica, N. Y.	Schwantes, Verlyn J.	3	Rockford, Ill.
Frank, Thomas A.	1	Pittsburgh, Pa.	Schwabacher, Gilbert	3	Columbus, Ohio
Gavenow, Al Eran	OIC	Ankara, Turkey	Tyler, George F.	1	Glenn Falls, N. Y.
Johnson, John D.	2	Albany, Georgia	Whittingham, Thomas M.	1	

RADAR CLASS 158 CONVENED MARCH 6, 1961 TO MAY 19, 1961

Allen, James H.	2	Tallahassee, Fla.	Lamper, James J.	5	Anchorage, Alaska
Baurle, William H.	2	San Antonio, Tex.	Manning, Howard C.	2	Knoxville, Tenn.
Benson, William G.	4	Great Falls, Mont.	Marion, Anthony R., Jr.	5	Unalakleet, Alaska
Blackwell, John H.	2	Dauphin Island, Ala.	Martinez, Ramon J.	4	Salt Lake City, Utah
Blackstad, Robert N.	3	Wichita, Kansas	Mayfield, John W.	4	Salt Lake City, Utah
Burkett, Lewis E., Jr.	1	Baltimore, Md.	Morgan, Wile G.	4	Seattle, Washington
Cannon, Meredith W., Jr.	1	Norfolk, Va.	Murphy, William A.	1	Charleston, W. Va.
Chesley, Russell R.	1	Washington, D.C.	Neece, Louis T.	2	New Orleans, La.
Chinn, William W.	4	Oakland, Calif.	Nerney, William A.	3	LaGrange, Indiana
Davis, Richard E.	4	Klamath Falls, Ore.	Olson, Harold D.	6	Honolulu, Hawaii
Deschenes, Rene M.	4	Los Angeles, Calif.	Olexa, Charles A.	1	Pittsburgh, Pa.
Dumas, Allen E.	2	Dallas, Texas	Patterson, James J.	2	Memphis, Tenn.
Engel, Donald R.	2	Moffett NAS, Calif.	Peterson, Charles J.	4	Moffett NAS, Calif.
Ercog, Harold E.	4	Los Angeles, Calif.	Rochman, Charles S.	1	Plushing, N. Y.
Fisher, Wesley R.	2	Houston, Texas	Sayman, Donald D.	1	Jamaica, N. Y.
Forester, Michael J.	5	Fairbanks, Alaska	Seward, Floyd W.	4	Dallas, Oregon
Gaines, Richard L.	3	Memphis, Tenn.	Singletary, Walter E.	1	Suitland, Maryland
Golembek, Joseph M.	4	Fresno, Calif.	Smith, Fred	4	Las Vegas, Nevada
Gray, Stanley F.	2	Oakland, Calif.	Switzer, Marvin P.	1	Roanoke, Va.
Gregory, Joe W.	4	San Diego, Calif.	Torchia, Carl T.	2	Ft. Worth, Texas
Halcomb, Ernest	4	Denver, Colo.	Tulloh, Donald E.	1	Charleston, S. C.
Harrison, Lawrence E.	2	Atlanta, Ga.	Utman, James M., Jr.	3	Pt. Wayne, Ind.
Hassan, Sami A.	OIC	Cairo, Egypt	Weil, William T.	2	Little Rock, Ark.
Hawkinson, George C.	4	Seattle, Wash.	Winelett, James R.	2	Robins AFB, Georgia
Herrington, Doyle G.	2	Myrtle Beach, S.C.	Wiley, Lester M., Jr.	2	Ft. Worth, Texas
Johnson, David U., Jr.	3	Chicago, Ill.			

RADAR CLASS 159 CONVENED APRIL 3, 1961 TO JUNE 16, 1961

Adams, Hugh R.	2	Ft. Worth, Tex.	McDonnell, Edward T.	4	Fairchild AFB, Wash.
Barber, Robert D.	1	Washington, D.C.	Mitchell, Aubrey D.	2	Waco, Texas
Buss, Donald F.	3	Offutt AFB, Nebr.	Moore, Arthur E.	1	Plushing, N. Y.
Beavers, Robert M.	4	El Toro NAS, Calif.	Moore, John A.	4	San Diego, Calif.
Carter, John G.	4	Klamath Falls, Ore.	Murray, Richard D.	2	Terminal, Texas
Cowles, David F.	3	Offutt AFB, Nebr.	Nichols, Frank D.	2	Birmingham, Ala.
Davis, Doyle D.	2	Abilene, Texas	O'Keefe, Edward P.	2	Houston, Texas
Davis, Leonard	1	Jamaica, N. Y.	Prehaski, Donald A.	1	Pittsburgh, Pa.
Diggs, Larry O.	2	Mobile, Ala.	Quinnan, James E.	1	East Boston, Mass.
Dixon, Dallas R.	4	Fairchild AFB, Wash.	Rayne, George F., Jr.	1	East Boston, Mass.
Dominquez, Nicolas	1	Washington, D.C.	Richardson, Jacob H.	3	Oklahoma City, Okla.
Edwards, David W.	4	San Diego, Calif.	Ritterbush, James L.	3	Olathe, Kansas
Faulk, David, Jr.	1	Jamaica, N. Y.	Rogers, Charles W.	4	Moffett NAS, Calif.
Fedrick, Alexander V.	4	Petaluma, Calif.	Saegers, John A.	4	Los Angeles, Calif.
Fischer, Joseph	1	Bohemia, N. Y.	Sluder, Billy E.	2	Nashville, Tenn.
Goodman, George A.	4	Mobile, Ala.	Stith, Frankie L.	4	Phoenix, Arizona
Hain, John C.	3	Olathe, Kansas	Summa, David C.	2	Corpus Christi, Tex.
Hambro, Lewis D.	4	Los Angeles, Calif.	Sutton, Halbert L.	4	Fairchild AFB, Wash.
Hampton, Keith D.	3	Kansas City, Mo.	Terry, Ernest L.	2	Jackson, Miss.
Harvey, Dudley	4	Fresno, Calif.	Tew, Wallace G.	1	Fairborn, Ohio
Isilgan, Orhan	OIC		Thompson, Bernard L.	1	Louisville, Kentucky
Jones, Dean M.	4	Fairchild AFB, Wash.	Vandemark, Hugh D., Jr.	3	Indianapolis, Ind.
Lee, Jerry E.	2	Albuquerque, N. M.	Williams, Harold B.	4	Dallas, Oregon
Leyh, Herman E.	2	San Antonio, Tex.	Yezek, Robert H.	4	Los Angeles, Calif.
May, Chester D., Jr.	2	Greensboro, N. C.			

ROS CLASS 157 ASR-4 CONVENED APRIL 24, 1961 TO MAY 19, 1961

Adams, Lyle L.	3	Minneapolis, Minn.	Matthew, Herman E.	4	Los Angeles, Calif.
Ashenfelter, Charles R.	2	Tulsa, Okla.	McGrate, Robert R.	3	Kansas City, Mo.
Blackett, Ralph W.	4	Seattle, Wash.	McParran, Donald W.	3	Pt. Wayne, Indiana
Carter, John K.	AC	Oklahoma City, Okla.	Miley, Ronald E.	3	Pittsfield, Michigan
Clayton, Richard R.	4	Portland, Ore.	Purvis, Wayne E.	2	Waco, Texas
Connors, Raymond B.	1	Washington, D.C.	Ryan, Robert A.	2	Little Rock, Ark.
Davieson, Eldon F.	2	Ft. Worth, Tex.	Schwartz, Donald E.	5	Fairbanks, Alaska
Drake, Robert J.	4	Salt Lake City, Utah	Schwartz, Ronald E.	1	Columbus, Ohio
Gaines, Thomas O.	2	Charlotte, N.C.	Smith, Harry H.	4	Los Angeles, Calif.
Garner, Thurman P.	2	Houston, Texas	Standard, Donald R.	1	Buffalo, N. Y.
Howard, George R.	2	Ft. Worth, Tex.	Stemen, Davey A.	2	Jacksonville, Fla.
Hunsong, Warner M.	4	Portland, Ore.	Thorn, William H.	2	Amarillo, Texas
Jamelle, Robert D.	1	Windsor Locks, Conn.	Williams, Sonia V.	5	Anchorage, Alaska
Killers, Karlis, Jr.	1	Jamaica, N. Y.	Zumwalt, Eugene T.	5	Anchorage, Alaska
LeBlanc, Loyd J.	2	San Antonio, Tex.			

ROS CLASS 157 VHF/DF-1 CONVENED APRIL 24, 1961 TO MAY 3, 1961

NAME	REG.	STATION	NAME	REG.	STATION
Dahl, David E.	2	New Orleans, La.	Otto, John W.	2	Macon, Georgia
Hart, Charles A., III	2	New Orleans, La.	Patterson, James R., Jr.	2	Macon, Georgia
Healy, Les M.	1	East Boston, Mass.	Reed, Norman L.	2	Nashville, Tenn.
Kent, Donald R.	3	Indianapolis, Ind.	Seger, Robert F.	3	Minneapolis, Minn.
Mejick, Robert R.	4	Salinas, Calif.	Townsend, Silas P.	2	Macon, Georgia
Miller, Glen H.	4	Long Beach, Calif.			

ROS CLASS 157 ASR-1 CONVENED APRIL 24, 1961 TO MAY 12, 1961

Baird, George C.	4
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PRE-RADAR CLASS 161 CONVENED MAY 1, 1961 TO MAY 26, 1961

Arnold, John C.	AC	Okla. City, Okla.	Marler, Herbert G.	2	Montgomery, Ala.
Artis, Elton E.	5	Anchorage, Alaska	Moore, William C.	2	New Orleans, La.
Beam, Paul A.	4	Edwards, Calif.	Nelson, W. D.	2	San Antonio, Texas
Benjamin, Lucien A.	1	Jamaica, N. Y.	Renda, Joseph P.	4	Santa Margarita, Cal.
Bigham, Leslie O.	2	Ft. Worth, Tex.	Riggs, Nicholas J.	1	Otis AFB, Mass.
Cole, Eugene C.	4	Las Vegas, N.M.	Samson, John	1	Jamaica, N. Y.
Gales, Elwood J.	2	Charleston Hts, S.C.	Small, Sumner L.	1	Otis AFB, Mass.
Kollar, Theodore J.	4	Edwards, Calif.	Swainamer, James H.	1	East Boston, Mass.
La Fianza, Ernest P.	1	Pittsburgh, Pa.	Wright, James H.	2	Hilliard, Florida
Leute, John F.	2	Denison, Texas			

ROS CLASS 157 TRANSISTOR/GPX-9B CONVENED MAY 1, 1961 TO JUNE 2, 1961

Acuna, Ronald L.	3	Lincoln, Nebr.	Jones, Edward E.	2	Savannah, Georgia
Alspach, Billie N.	2	Abilene, Tex.	Kolen, Oleg G.	5	Anchorage, Alaska
Bourne, Robert H.	2	Tampa, Fla.	Lange, Donald D.	5	Fairbanks, Alaska
Bunton, Calvin O. J.	4	Albuquerque, N.M.	Livesay, James D.	1	Fairborn, Ohio
Curran, John L.	2	Mobile, Ala.	Lujan, Teodoro	5	Anchorage, Alaska
Dealing, Robert E.	4	Tucson, Ariz.	McGee, Charles N.	4	Albuquerque, N. M.
Gunther, Louis J.	1	Rome, N. Y.	Mohney, John W.	3	Wichita, Kansas
Harris, Willie S.	4	Albuquerque, N.M.	Nelson, James D.	3	Offutt AFB, Nebr.
Hodges, Richard B.	4	Hill AFB, Utah	Parker, Joseph D.	2	Shreveport, La.
Hogberg, LeRoy O.	2	Biggs AFB, Tex.	Ramsey, Phillip H.	2	Abilene, Texas
Hoogerwerf, Norman	5	Fairbanks, Alas.	Rogers, Colin D.	1	Fairborn, Ohio
Johnson, Frank A.	3	Offutt AFB, Nebr.			

A.C.E.S. CLASS 14 CONVENED MAY 8, 1961 TO JULY 28, 1961

Albertson, Russell R.	AC	Okla. City, Okla.	Nakao, Tadayoshi	6	Honolulu, Hawaii
Anderson, Glen H., Jr.	AC	Okla. City, Okla.	Peters, James L.	AC	Okla. City, Okla.
Beasley, William J.	AC	Okla. City, Okla.	Quincy, Fredrick H.	4	Santa Monica, Cal.
Burns, Jackie L.	AC	Okla. City, Okla.	Rausser, Larry D.	AC	Okla. City, Okla.
Cones, Edgar B.	AC	Okla. City, Okla.	Scott, Henry	2	Ft. Worth, Texas
Elston, Loren D.	AC	Okla. City, Okla.	Slane, Robert L.	AC	Okla. City, Okla.
Groger, Paul R.	WO	Washington, D. C.	Thompson, Oliver E.	1	Jamaica, N. Y.
Hanft, Clyde P.	3	Kansas City, Mo.	Wilson, William C.	2	Atlanta, Georgia

NAVIGATIONAL AIDS CLASS 13 CONVENED MAY 8, 1961 TO JULY 14, 1961

Barbiero, Rudolph J.	1	Jamaica, N. Y.	McAnulty, Gerald D.	AC	Okla. City, Okla.
Cosgrove, William R.	AC	Okla. City, Okla.	Mayor, William G.	4	Santa Monica, Cal.
Dodson, Bryant E.	AC	Okla. City, Okla.	Render, Zane L.	AC	Okla. City, Okla.
Fleming, Samuel	5	Anchorage, Alas.	Robinson, James H.	AC	Okla. City, Okla.
Jones, Trimuel C.	AC	Okla. City, Okla.	Staples, Doyle H.	2	Ft. Worth, Texas
LeMar, Louis G.	AC	Okla. City, Okla.	Threadgill, Francis E.	AC	Okla. City, Okla.

S-AE-2(2) — Airframe and Equipment General Operations Course
April 4 thru April 21

NAME	REGION	STATION
Barriage, Joan	Wash.	Washington, D. C.
Fagin, Irving	Wash.	Washington, D. C.
Jacobsen, D. C.	3	Kansas City, Mo.
Laskowitz, Jack	Wash.	Washington, D. C.
Maila, Edward W.	1	Queens, New York
Martin, M. G.	2	Fort Worth, Texas
Nauert, H. E.	3	Kansas City, Mo.
Rose, C. M.	4	Los Angeles, Calif.
Stevens, George P.	1	New York, N. Y.
Williamson, L. H.	4	Los Angeles, Calif.

S-GM-6(13) — General Aircraft Radio Installation and Maintenance Course
April 17 thru April 28

NAME	REGION	STATION
Barkanic, Thomas E.	Wash.	Washington, D. C.
Downing, Luther F.	4	Santa Monica, Calif.
Hutcherson, Thomas O.	2	Ft. Worth, Texas
Kirk, Preston	3	Kansas City, Mo.
Mathisen, Jack E.	3	West Chicago, Illinois
Richardson, Robert E.	2	Ft. Worth, Texas
Steinman, P. R. Jr.	1	Richmond, Virginia
Van Horn, John E.	5	Anchorage, Alaska

S-GM-5(6) — Modern Business Aircraft Instrument and Automatic Flight Control Systems Course
April 24 thru May 5

NAME	REGION	STATION
Clark, John L.	3	Chicago, Illinois
Darling, Harold C.	4	Albuquerque, N. Mex.

Finck, Russell V.	1	Cincinnati, Ohio
Foland, Hal E.	3	Kansas City, Mo.
Michelsen, Edwin R.	3	South Bend, Indiana
Odneal, H. D.	2	Ft. Worth, Texas
Paslay, James C.	FM-943	Aeronautical Center
Salles, Norman H.	2	Dallas, Texas
Wells, Leslie J.	FM-943	Aeronautical Center

S-A-C-100 Indoctrination Course
May 1 thru June 2

NAME	REGION	STATION
Boyer, Ernest J.	1	Ypsilanti, Michigan
Browne, Robert A.	3	Kansas City, Kansas
Davis, Leonard	7	Idlewild, New York
Derrevere, R. W.	1	Tulsa, Okla.
Dillinger, L. D.	2	Miami, Fla.
Flanigan, Frank E.	7	Idlewild, New York
Franchello, B. D.	7	Idlewild, New York
Haldas, Eugene J.	4	Seattle, Washington
Joseforsky, D. J.	2	Miami, Fla.
Krywicky, John	1	Washington, D. C.
Miller, Erich	2	Atlanta, Ga.
Newell, W. M.	1	Utica, New York
Pacher, A. F.	Wash.	Washington, D. C.
Phillips, R. B.	Wash.	Washington, D. C.
Piehl, Albert R.	4	San Francisco, Calif.
Schilke, Edward B.	Wash.	Washington, D. C.
Siglin, Thomas L.	3	Detroit, Michigan
Straubmueller, W.	Wash.	Washington, D. C.
Zenith, Charles J.	4	Los Angeles, Calif.
Zenker, V. W.	Wash.	Washington, D. C.

