

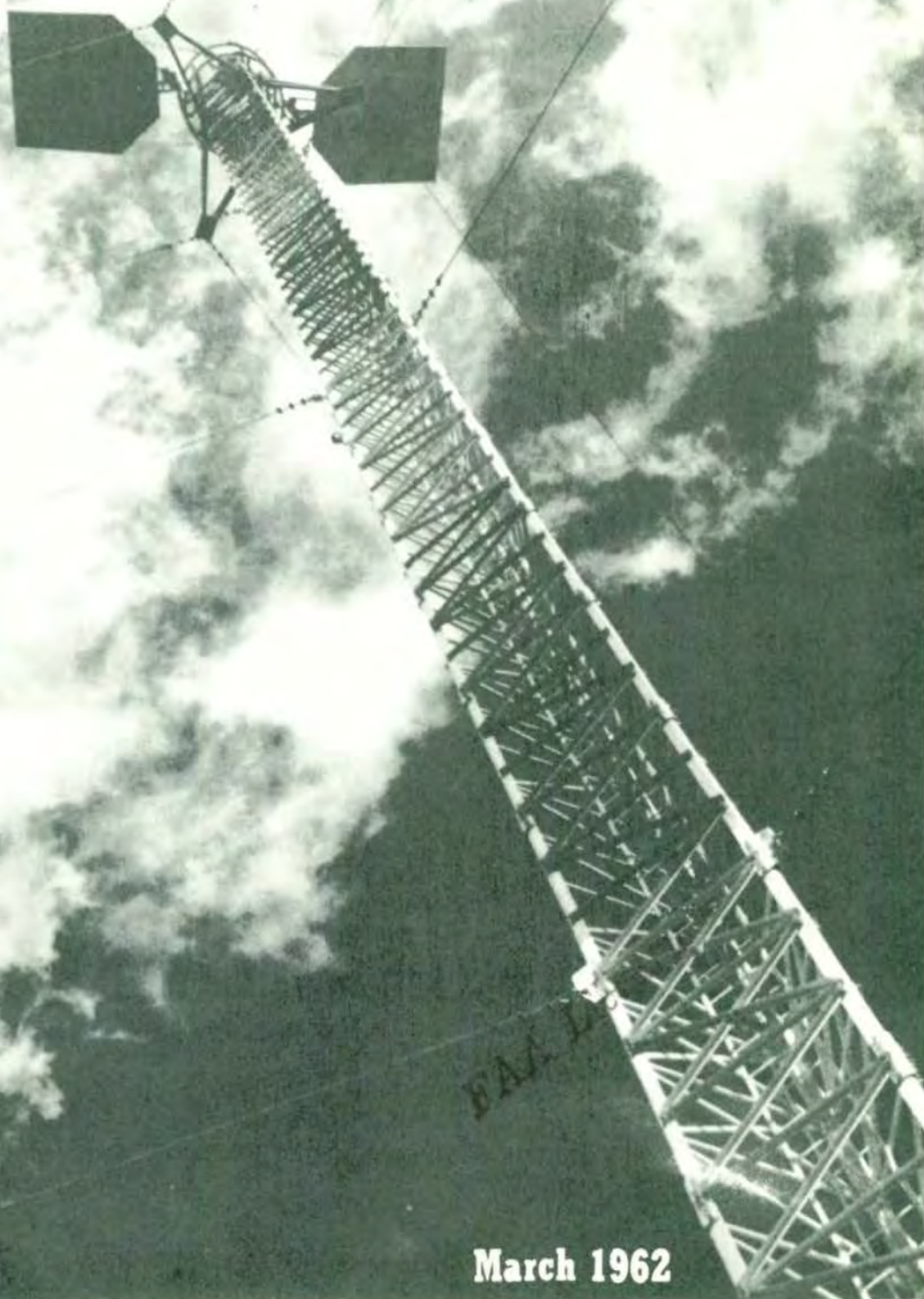
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Scanner

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EDITORIAL STAFF

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Martha Nell Cline...Editorial Assistant

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Art...Pat Hutto, Betty Keys
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FRONT COVER

A typical radar microwave link (RML) repeater antenna, one of 41 which make up eight relay systems for conveying data between radar sites and control centers. Towers are placed about 20 miles apart, and each system spans a distance of about two hundred miles.

Over the past few months we have not received as much news from our 250 field facilities as we would like to publish. Because we want the SCANNER to be for all Southwest Region employees, we need a steady flow of interesting items from all our field facilities.

One does not have to be a Pulitzer prize candidate to make a really worthwhile contribution to the SCANNER. Do not worry about writing editorially and journalistically perfect copy. Just furnish the facts and the editorial staff will put the material into finished form. We need interesting or unusual items of information about FAA people -- include pictures, illustrations, newspaper articles, and other items you think would be interesting to large numbers of SCANNER readers. Be sure when stating a fact that you indicate the source of information or other basis for authenticity. We would like to have your name and facility also. Send material either to your Division reporter or to the Editor, SW-13.

What kind of items are desired for the SCANNER? Significant contributions of FAAers to the community -- noteworthy accomplishments on the job -- interesting or unusual hobbies -- tips on how and where to enjoy a vacation -- these are examples of topics that make interesting reading to your fellow employees. We want this to be your publication -- won't you help us make it so?



Assistant Administrator's Page

ECONOMY OF GOVERNMENT IS YOUR BUSINESS

Economy is a part of your every day domestic life in one form or another. Economy should be a part of your working day as an employee of the Federal Government. The funds that are appropriated by the Congress for the operation of the Federal Government are your funds as well as mine. You may not ordinarily be particularly concerned about the way you spend other people's money but certainly you should be very much concerned about the way you spend your own.

As a Federal employee you owe it to your country to do your part to keep the economy of this nation on a sound basis. There are many ways that this can be accomplished whether you are a supervisor or otherwise. There is economy of manpower, economy of materials, and economy of equipment to be considered and I am sure that you could add to this list with very little effort.

We in the Federal Aviation Agency will, before long, closely approach an annual budget of one billion dollars. It is true that we have grown tremendously during the past few years and it is also true that we will continue to grow, but this growth must not become an uncontrolled blossom; it must represent a careful, well-planned development. Every single one of us must scrutinize all of our expenditures. We must tighten our requirements; we must postpone the initiation of deferrable projects and base their development on urgency of need. We must undertake new programs or expansion of existing programs with caution and deliberation to make sure that sound criteria are used, careful plans are laid, and minimum funds are spent. If there is any doubt that expenditures will yield substantial returns, those expenditures should remain uncommitted. We must strive to increase our productivity and efficiency, to use better techniques of management, and to staff every activity with only the minimum number of employees needed to carry out our objectives.

As you read this you may be inclined to think that what I have said does not in its entirety apply to you. All I ask is that you identify those portions which do apply to you, and to do your part to make the Federal Aviation Agency one of the most efficiently and economically operated agencies of the government.

Archie W. League
Archie W. League, SW-1

Thomas R. Shockey, an employee of the Cessna Aircraft Company, returned recently from a seven-week trip to the Soviet Union which was sponsored by the U.S. Information Agency. Shockey, along with representatives from other American manufacturers of transportation equipment, helped put on a transportation exhibition in Stalingrad, (now Volgograd), and Kharkov. The questions put to Shockey by Russians who viewed the exhibits were very revealing. "Why would you buy this plane (the Cessna Skyhawk) instead of a car?" was one of those most frequently asked. The Russians could not grasp the concept of business aviation, as we know it in this country. In a state-controlled economy, there is no need for the elaborate business methods we take for granted.



Thomas R. Shockey, Cessna engineer who visited Russia with transportation exhibit.

Shockey met a few Russian pilots, but got little aviation information from them except that flying operations were "temporarily closed down." On general topics, the Russians wanted to know how much the average aircraft production worker earns, and were openly skeptical when Shockey told them. They also wanted to know how much vacation the workers get each year. When Shockey told them most people get two weeks, they took an almost child-like pride in pointing out that Russian workers get 30 days. This sounded like a good deal to Shockey, until they asked the next question: "Does a committee plan your vacation for you?" They seemed surprised to learn that Americans are free to go wherever they want to on vacation. In Russia, it is necessary to have a passport and official travel permission even to go to another city.



Takiana Akhonin, one of 20 Russian-speaking Americans who accompanied the exhibit as guides, explains U.S. uses of airplanes to Russian audience.

Some of the questions Shockey had to answer would have taxed the skill of an accomplished diplomat. "Why is there so much unemployment in the United States?", "Why is there still racial discrimination in your country?", and "How much money do you make?" are typical examples. But not all the Russians Shockey met were of the skeptical, unfriendly

Unknown in Russia

sort. Two young girls who were interested in American authors presented him with a book of Russian short stories in English translation. On the flyleaf they had written, "Remember your visit to Stalingrad. With all our heart we wish friendship between the Soviet and American people and peace all over the world."



General view of the exhibit area in Stalingrad shows various transportation displays, with the Cessna Skyhawk at center. In upper right-hand corner is a house trailer. Other displays included a Ford Thunderbird, a cutaway of a Buick engine, and airplane and boat models. More than 100,000 Russians viewed the exhibit, which was shown in Stalingrad and Kharkov. Original plans had included showing the exhibit in Moscow, but Russians cancelled the Moscow exhibition in retaliation for the cancellation of a Russian medical exhibit which had been scheduled to open in Oklahoma City. After several weeks of negotiations, the Russians finally agreed to let the exhibit be shown in Stalingrad and Kharkov, but steadfastly refused a Moscow exhibition.

Article adapted with permission from the Cessna Pennant
Photos courtesy Cessna Aircraft Company

Airports Division

On May 13, 1946, a bill sponsored by former Senator Pat McCarran of Nevada was signed into law by the President. This bill was called the Federal Airport Act, and its passage opened new horizons for the still somewhat infant aviation age. The Federal Airport Act provided for a five-year national airport program at a cost of one billion dollars, to be expended by the Federal, state, and local governments, with the Federal government contributing one-half of the cost. This program would allow construction or improvement of some of the 6,000 public airports, and give civil aviation a chance to spread out and expand its facilities to better serve the rapidly growing aviation-minded public.

The Federal Airport Act places statutory responsibility in the Administrator of the Federal Aviation Agency for bringing about a system of public airports adequate to anticipate and meet the needs of civil aeronautics, both air carrier and general aviation. Today, there exists a basic system of public and private airports to serve the nation, representing a large investment of public and private funds. Growth in the volume of air traffic, technological developments in the science of aeronautics, shifts in the relationship between the airport and its neighbors, and other factors in this dynamic industry all combine to create a changing aeronautical demand, which in turn requires that the national system of airports be capable of adapting itself to varying conditions. The primary purpose of the Federal aid-to-airports program is to assist each community, irrespective of population, which has a substantial aeronautical requirement, to develop new facilities or to bring existing civil airports to a standard compatible with the present and future needs of civil aeronautics.

The FAA annually prepares a national plan for the development of public airports. This plan, known as the National Airport Plan, specifies in terms of location and type, the airport development considered necessary by the Administrator to provide a system of public airports adequate to meet the needs of civil aeronautics. Inclusion of an airport in the Plan does not indicate a commitment on the part of either the Federal government or the local community involved.

During the years 1946 to 1953, the Airports Division of the Civil Aeronautics Administration had the overall responsibility of seeing that the Federal aid-to-airports program functioned smoothly. Funds were expended for airport improvements such as runways, taxiways, lighting, aprons, buildings, and the purchase of land for expansion purposes.

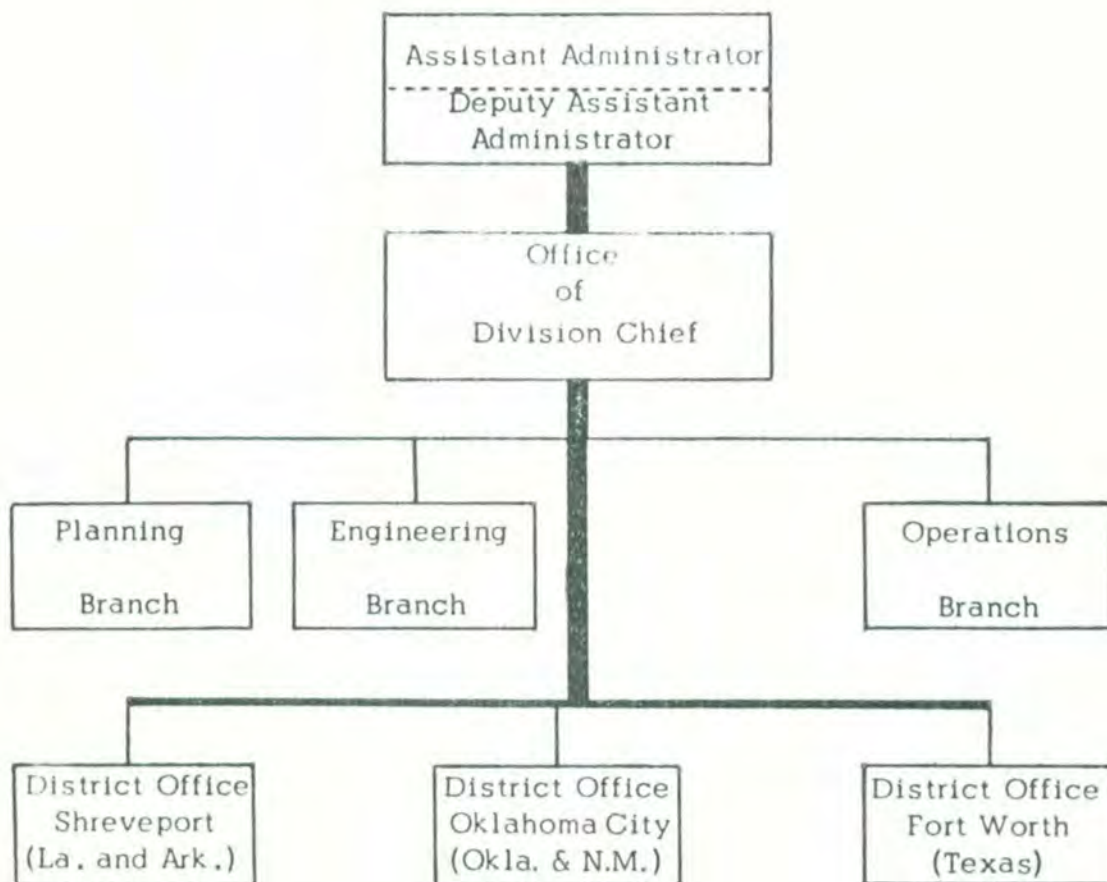
Fiscal Year 1953-54 found the Airports Division without funds and without a program. This was the year of long faces and worry about reduction-in-force notices. In 1954-55 the Washington Office of Airports kept what funds were available and earmarked the money for projects of high priority among the various Regions in the country, thereby keeping airport development rolling along, however slow, until a new program could be whipped into shape.

In 1955 Senator Mike Monroney of Oklahoma introduced a supplemental bill to the Federal Airport Act for the years 1956-59, inclusive. Forty million dollars was obligated for FY 1956, and sixty million for each succeeding year through 1959. The

program continued with similar appropriations for 1960 and '61. The national importance of the Federal aid-to-airports program has been further emphasized by new and greater annual appropriations of seventy-five million dollars for each of the years 1962-64, inclusive.

In addition to the Federal aid-to-airports program, the Airports Division is also responsible for the administration of the surplus airport disposal program, for compliance functions concerning agreements between airport owners and the Federal government, for the Airport Advisory Service, and for airport design standards. Runway approach protection and airport zoning in the interest of safety are no small part of the Airport Advisory Service.

Airports Division has played a major role in fostering aviation over the years, and will continue to do so in the future. Remember, when you board or leave a plane, the first or last thing you see is the AIRPORT.



AIRPORTS DIVISION
ORGANIZATION CHART

Three In Regional Office Get New Assignments



William E. Peterson, formerly Assistant Chief of Aviation Facilities Division, has been designated Chief of the newly-created Airports Division. Mr. Peterson, a veteran of 16 years' service with CAA/FAA, has held various positions of progressively increasing responsibility with the Agency. In 1956, he served on the staff of the Technical Assistance Mission in Cuba, receiving commendation from the president of the Cuban Civil Aeronautics Commission for outstanding service in that assignment. Mr. Peterson holds B.S. and M.S. degrees in electrical engineering from Massachusetts Institute of Technology. He is a licensed pilot, with commercial and instrument ratings. He and Mrs. Peterson are parents of a fifteen-year-old daughter and a thirteen-year-old son.

B.D. Alexander, formerly Chief of Establishment Branch, succeeds Mr. Peterson as Assistant Chief of Aviation Facilities. Mr. Alexander has had twenty years' service with CAA/FAA, advancing from junior engineer to his present position. He received his B.S. degree in civil engineering from the University of Texas, and was engaged in several Texas dam-building projects with the Lower Colorado River Authority before coming to work for CAA. Mr. Alexander carries on a family tradition of public service; his father served as a civil engineer with the Canadian government. The Alexanders have a teenage daughter, Becky, who will enter the University of Texas this fall.



Dr. Harry L. Gibbons was recently appointed Regional Flight Surgeon for the Southwest Region. Dr. Gibbons has been with FAA as Assistant Regional Flight Surgeon since July, 1961. He served previously as a U.S. Army Flight Surgeon at Fort Bragg, N.C., where he acquired extensive experience in the field of aviation medicine. A licensed pilot, Dr. Gibbons holds a private SEL rating, and hopes to be qualified soon for instrument and commercial ratings. He has logged a total of 290 hours in the air, including ten hours' helicopter time. Dr. Gibbons is a native of Logan, Utah, and a graduate of the University of Utah College of Medicine at Salt Lake City. He and his wife, Marjorie, have a three-year-old son, Scott.

Personnel and Training Division

Instructor Training Course

The photograph below is a typical representation of participants in the Instructor Training Course conducted throughout the Southwest Region by the Training Branch. This group was representative of FAA facilities in the New Orleans area, and included personnel from the Center, Tower, and SMS, as well as two international participants from Syria, and a U.S. Navy Chief Radioman from the 8th Naval District Headquarters.

The Instructor Training Course was developed for personnel who instruct others in small groups or in classroom situations. The course lasts 80 hours, and is conducted over a period of two weeks with a maximum of 14 participants. Areas covered by the course include instructional methods, learning processes, motivation techniques, individual differences, questioning techniques, evaluation of instruction, lesson planning, basic speed techniques, testing, counseling and interviewing, training aid selection and use, and self-development through evaluation.

Participants prepare and present a 5-minute talk, a 15-minute demonstration, a 20-minute lecture, and a 40-minute complete lesson. These assignments are conducted in a workshop atmosphere, followed by constructive critiques from each student. The instructor-trainees demonstrate their understanding and application of the basic course content through these performances, and through the discussions that follow. In addition to the class sessions, the course requires a considerable amount of outside reading and preparation, and employees who participate in it are relieved of all regular duties during the training assignment.

A total of 65 employees and five international participants have completed Instructor Training during this fiscal year. The course is scheduled in San Antonio March 19-30 and in El Paso April 30 - May 11.

Participants in the New Orleans Instructor Training Course were, left to right (standing): Ray N. Brickey (Instructor), Charles L. Scott, James K. Northey, William A. Burke, Harold R. Bell, Jesse I. Berwick, Robert J. Chan, Dan T. Baird (USN), and Russell M. Currutt (Instructor). Seated, left to right: Sam J. Ballard, Haitham S. Habbab, Harry E. Byers, Owen R. Brown, and S. M. Kauffroth. Not pictured: Sadallah E. Nastat.





Contracts Awarded for Radar Beacons

The FAA has awarded two contracts for the development of lightweight altitude radar beacon equipment for general aviation aircraft in one of its first steps to implement the long range recommendations of the Project Beacon Task Force. The contracts, totalling approximately \$174,000, were awarded to Hazeltine Corporation's Technical Development Center at Indianapolis, and Transco Products, Inc., of Los Angeles.

One of the major recommendations of the Presidential task force which studied methods of improving the air traffic control system was the use of beacon transponders to provide altitude information. The Task Force suggested that all aircraft above 12,500 pounds -- airline and large executive planes -- be required to carry a beacon, and said its studies indicated that a low cost short range beacon for terminal area use should be developed, and when available, be required in all aircraft landing at controlled airports in certain terminal areas.

Both of the contracts call for the design, development, and production of low-cost altitude transmission equipment for installation in planes weighing less than 12,500 pounds. Hazeltine's contract calls for the completion of equipment within ten months, and is expected to produce a unit weighing approximately ten pounds. The Transco contract, which runs for a year, provides for the use of another approach to the development of the equipment, and is expected to make possible a unit weighing about five and a half pounds.

Inspectors to Get Jet Training

Under a contract with United Airlines, thirty-four safety inspectors will receive specialist pilot training in three types of turbine-powered transports. The training, which will be carried out at United's training base at Denver, Colorado, will include instructions in the operation of DC-8s, Caravelles, and Viscounts.

This training is part of an overall FAA program to insure that its inspectors have the same skill in each aircraft as the airline pilots whose operations they monitor. Training in other types of aircraft is conducted by FAA at its Aeronautical Center in Oklahoma City in its own planes.

Airline Group Confers with FAA On Supersonic Transport

An Airline Advisory group met recently in Washington with the Supersonic Transport Task Group to contribute airline technical advice to the joint government-industry research effort now under way to study the technical and economic feasibility of developing a commercial supersonic transport.

The initial meeting was devoted to a discussion of Airline Advisory Group tasks, and a review and assessment of the background material of the program. Industry study contracts will soon be awarded by FAA to continue research into FY 1963. A decision on the feasibility of the proposed transport is expected in the summer of 1963.

FAA Plans New Method of Recording Malfunctions

A summary of mechanical malfunctions in the operation or maintenance of airline aircraft will be available to all carriers within 24 hours after they have been reported under a new FAA system for gathering, analyzing, and distributing daily mechanical reliability reports. By using fast teletypewriter communications with 14 field offices, FAA can quickly alert all carriers to significant incidents and malfunctions which have occurred in the entire airline industry for the period covered by the report.

Airlines will report to selected district and Regional offices within 24 hours on 17 specified types of mechanical malfunctions, failures, and maintenance problems. These reports will be transmitted to Washington by teletypewriter, and within minutes, a daily summary will be returned. The old system of doing this by mail often resulted in a lag of several days.

To make reports uniform, a list of the types of incidents which must be reported has been issued. This list includes fires or false fire warnings during flight, engine shutdowns due to various causes, and major mechanical failures of other types.

Information obtained under the new reporting system will be subjected to statistical analysis in the interest of providing a basis for preventive action or possible changes in Civil Air Regulations.



Helicopter Director Appointed

The FAA has appointed Ward B. Masden to the newly-created position of Deputy Director for Helicopter Matters, Flight Standards Service, and promoted James F. Rudolph to succeed Masden as Chief of the Service's Operations Division. The new deputy position was created to meet demands for additional services and facilities resulting from the expansion of helicopter operations.

Masden, who has been serving as head of an FAA Helicopter Advisory Committee, will be responsible for the testing program of the Decca system of helicopter navigation which is being conducted in the New York area. He also will be responsible for FAA actions concerning the new performance rules for helicopter carriers and the services and regulations required for the introduction of new twin-turbine helicopters.

Rudolph, who succeeds Masden, has been Assistant Chief of the Air Carrier Branch, Operations Division. Both Masden and Rudolph are veterans of many years' service with FAA and its predecessor, the Civil Aeronautics Administration.

FLIGHT STANDARDS OFFICIALS MEET

Flight Standards Service officials from FAA's seven regions met recently with Administrator Halaby and other top Washington officials to discuss the responsibility and authority of field organizations in applying FAA safety policies and regulations uniformly throughout the Agency. Similar conferences will be held annually to help safety officials stay abreast of regulatory policy.

Aviation Medical Division

Houstonians View FAA Medical Exhibit

FAA's Aviation Medical Service was represented at the Harris County Health Fair in Houston February 2-10. The Aviation Medical exhibit was one of about 200 exhibits viewed by more than 200,000 people. The exhibit covered such phases of Aviation Medical operations as pilot certification, special examinations, accident investigation, and research. Also included were facilities for viewers to check their own visual acuity and color perception. Personnel from the Houston Tower assisted with the showing of the display. They were indoctrinated in the aviation medical area by Regional Flight Surgeon Harry L. Gibbons, to enable them to answer viewer's questions.



Personnel who assisted in presenting the Aviation Medical exhibit are, left to right, James Holloway, John Sowell, Bill Caulfield, and Don McCoy, all of the Houston Tower, and Frank Sharpnack of the Publishing and Graphics Branch, Management Services, in Washington.

Health Note

Tetanus, or "lockjaw" is fatal to more than half the people who contract the disease. A puncture wound, such as caused by a nail, is the kind of accident which presents a special danger of tetanus infection. Symptoms, beginning with stiffness and pain in the neck and jaw muscles, usually appear within four days to three weeks after infection. Immunization should be routine for all children, and for adults who live or work where there is special risk.



Aviation Facilities Division

Navigation -- Then and Now

From the beginning of time man has been seeking a means for finding his way upon this earth. In the beginning, he used sticks, stones, and marks upon trees, and later he asked directions of the stranger at the crossroads. When sailing ships came into being, directions were determined by celestial navigation, or referring to the position of the heavenly bodies.

With the advent of aviation and the beginning of space travel, man began the search for faster and better means of finding his way. The traveler's two basic questions, "How far am I from my destination?" and "In what direction must I travel to reach it?" had to be answered more precisely than ever before. To answer the first question, a system of numbers had to be developed to communicate measurements. The answer to the second question required an exact method of indicating directions. In the beginning, directions were referred to simply as North, South, East, or West. But then numbers were added to the compass to indicate directions more precisely. The numerical system which indicates direction is known as "azimuth" or "bearing".

In times gone by, a navigator used charts or maps to locate his position in relation to the stars, thus determining the direction the ship had to travel in order to arrive at a given destination. With modern high-speed transportation, better and more precise methods of position determination have become necessary. Commercial aircraft are now traveling at speeds approaching that of sound, and military craft at speeds far in excess of sound. Navigation at such high speeds requires that vital mathematical computations be performed in an instant. Time must be measured accurately to inconceivably small fractions of a second. Electronic equipment is employed to perform these exacting tasks.

A typical work situation for electronic navigation equipment is a hundred different aircraft inquiring simultaneously, "How far am I from Carter Field?" The equipment is capable of computing the answer for each individual plane at lightning speed, without once becoming confused or giving a craft the information belonging to another ship. In addition to distance information, the equipment also computes and conveys azimuth information.

Remarkable as these tasks may seem, they represent but a small portion of the work electronics is capable of doing. The tiny electron, which makes these wonders possible, is expected to be equal to any needs that may arise in the future of aviation.

Messrs. Fix-It



Mobile Shop personnel, from left to right, are Dewey V. Young, James R. Owen, James M. Spears, Ward J. Lockhart, Henry E. Tidwell, Harry R. Maxwell, and Robert K. Atwell. Not shown are Edward A. Swan and Horace D. Birckett.

The familiar motto of the Post Office Department, "Neither snow nor rain nor heat nor the gloom of night stays these couriers from the swift completion of their appointed rounds," could be applied as well to the mechanics of the Mobile Shop as it is to the faithful postmen. Entrusted with the task of maintaining fixed industrial equipment at field facilities throughout the Region, these traveling handymen have covered nearly 200,000 miles in the past year and a half. Before the separation of the Southwest from the Southern Region, their duties took them as far east as Raleigh, N.C., and as far south as Key West, Fla.

The equipment serviced by Mobile Shop mechanics consists largely of stand-by power units and air conditioning equipment. Most installations have a commercial power source, but maintain stand-by generators for use in case of power failure. A few isolated facilities, such as the Zuni, N.M. VOR, do not have commercial power available, and so must maintain both a regular and an emergency power source. While power is an obvious necessity, air conditioning is no less important to the reliable operation of our air navigational facilities. Without it, temperatures rise to intolerable heights inside a glassed-in tower. Also, some sensitive equipment must have carefully controlled temperatures in order to function properly. An air conditioning failure is therefore almost as effective as a power failure in putting a facility out of operation.

Answering service calls in the field keeps Mobile Shop personnel away from the Regional Office up to 90% of the time. Regular 8:30 to 5 working hours are unheard of for these men, who must remain on call 24 hours a day, seven days a week. While

itineraries are planned to include routine service checks, emergencies do arise which demand immediate attention. Several months ago, for example, the Culberson VOR at Carlsbad, N. M., was incapacitated by a local power failure, followed by a breakdown of the stand-by generator. Mobile Shop mechanics had the crippled VOR back on the air within 12 hours of receiving the service request.

The Mobile Shop, still a fairly new operation, began under the supervision of mechanical engineer James D. Montfort, and has progressed from the review of training films in October, 1960, to its present extensive maintenance duties. One of the most significant accomplishments to which Shop personnel have contributed has been the correction of design deficiencies in air conditioning equipment. The design modifications which were first developed in our own Region, and installed by the Mobile Shop, are expected to be adopted throughout the Agency.

Now under the combined supervision of electrical engineer Bill Messler and civil engineer James Ulmer, the Mobile Shop continues to provide the same efficient service that characterized its first year and a half of operation. Of the Shop personnel listed above, Spears, Young, Maxwell, and Swan are now with the Southern Region.

Navigation in the Electronics Age Requires Much More Than Sticks and Stones, As You Can See Here



Electronics Maintenance Technicians making an evaluation and adjustment of a VHF Omni-Directional Radio Range at the Carter VOR, Fort Worth. Kneeling in the foreground is Robert Hopper. Standing, left to right, are Enrique Dominguez, Johnny Hamilton, and Carl Stapp. Seated at right is James Stapp.

Flight Standards Division

C-141A Project Transferred to Atlanta

To the capable hands of the Southern Region Engineering and Manufacturing Branch, we commend the further type certification activities of the Lockheed Model C-141A program.

On February 1, 1962, the C-141A Project Office, under the supervision of R.C. "Bob" McKissick, was officially transferred to Atlanta. Former members of the Southwest Region Engineering and Manufacturing Branch who have transferred to Atlanta with the C-141A project, as a part of Bob's staff, are Min Dates, Charlie Schroeder, John James, George Carver, Ray Forrest, and Frank McGowan.

The C-141A project is unique as the first new all-cargo aircraft to be developed and procured by the USAF, and required to be designed and shown to comply with Civil Air Regulations for transport category aircraft. Under the Civil-Military Coordinated Method of Aircraft Procurement, the USAF through the C-141A Materials Handling System Program Office (SPMO) have management responsibility and design control for the aircraft and the FAA has the responsibility for making a finding of compliance with CAR's, issuing the Type Certificate, issuing a Conformity Certificate-Military Aircraft Form FAA 970 for each military production aircraft, and fulfilling the role of advisor to the USAF.

Coordination efforts during the initial phases of this program resulted in numerous conferences between representatives of the contractor (Lockheed Georgia Company), the USAF C-141A SPO, and the FAA (Washington, Southwestern, and Eastern Regions). These conferences resulted in many tangible accomplishments, such as mutually acceptable aircraft and engine model specifications, structural design criteria, a USAF-FAA Memorandum of Understanding, and a Procedures Manual for coordination procedures, as well as intangible benefits such as mutual respect and improved understanding between the USAF and the FAA.

The C-141A aircraft is an aftloading 4 engine turbo fan powered cargo transport which will be certificated for a maximum take-off gross weight of 116,000 pounds and a maximum loading weight of 257,000 pounds. It will have a maximum payload of 70,000 pounds and a design cruise speed of 350 knots or at altitude, .825 Mach with a limiting Mach of .89.

The structural design criteria for the aircraft incorporates the CAR 4b structural requirements and pertinent USAF structural design requirements. Concerning static and fatigue test programs, civil certification will be based upon the CAR 4b requirement for a fail-safe structure and the USAF is conducting a fatigue program on a military requirement basis. In some other cases where the military specification requirements exceed the CAR 4b requirements, Lockheed has requested, and in some cases has been granted, deviations from the military specification requirements.

The Pratt & Whitney TF33-F-7 (JT3D-8A) turbo-fan engines to be used in the C-141A are required by CAR 4b to be type certified. However, as the engines are to be government furnished equipment, they must meet the military specification requirements. Coordination between the C-141A SPO, the FAA engine controlling region (EA), the FAA aircraft controlling region (SW, now SO), and the engine and airframe contractors resulted in the development of an engine model specification mutually acceptable to all. To the extent possible, inter-related engine and installation requirements (as they are applicable to components furnished with the engine but not as a part of the engine) were integrated into the engine specification to assure acceptability of such components when installed in the aircraft.

A majority of the aircraft systems are conventional and within the state of the art. However, to improve the all-weather capabilities of the aircraft, some systems will represent an advancement in the state of the art. A central air data computer (CADC) will be provided. The CADC will be supplied with signals of pitot and static air pressure, temperature, and other necessary data to permit correction to accurate altitudes, airspeed, rate of climb, and other data which will be supplied to the crew in their flight and engine instruments, to the autopilot system, and the navigation computer. In view of the importance of the CADC to flight safety, it is presently planned that two CADCs will be provided each aircraft with independent sensing and power sources.

The flight test program will be conducted by a joint test team consisting of pilot and engineer members from the FAA, USAF, and Lockheed. Proposed test programs based on known civil and military requirements are being prepared by Lockheed, and preliminary meetings of USAF, FAA, and Lockheed test personnel have been held. To develop a final test program which will accomplish the objectives of satisfying both the USAF and FAA requirements without duplication of effort and repetition of similar tests will require continued close coordination of the team members.

The C-141A program requires that a Conformity Certificate-Military Aircraft, Form FAA-970, be issued for each production aircraft delivered to the USAF. This is the means by which the FAA attests to the Air Force that each aircraft conforms to the type design and is in an airworthy condition. To satisfy their respective requirements, both the USAF and FAA must maintain quality assurance surveillance in Lockheed factory. A single contractor's quality control procedure will be acceptable to both the FAA and the USAF and procedures are being developed to assure that duplication of effort will be minimized.

Further development of the attitude of mutual respect and cooperation between the USAF and the FAA will undoubtedly result from the further joint efforts of the Air Force and the FAA Southern Region on this program.

AIRCRAFT MANAGEMENT BRANCH REPORTS --

A new type facility, called VASI (Visual Approach Slope Indicator), has been developed to aid pilots making approaches in instrument weather or under poor visibility conditions. The facility has been commissioned and is in service at Love Field, Dallas, and Kirtland Field, Albuquerque. A similar facility has been flight-checked at Will Rogers Field, Oklahoma City, and is expected to be commissioned soon.



Lockheed C-141A

HEADQUARTERS
Aeronautical Systems Division

AIR FORCE SYSTEMS COMMAND
UNITED STATES AIR FORCE
WRIGHT PATTERSON AIR FORCE BASE, OHIO

JAN 31 1962

Letter of Appreciation

Mr. H. H. Slaughter
Federal Aviation Agency
P. O. Box 1689
Ft Worth 1, Texas

THRU: Mr. A. L. Coulter
Federal Aviation Agency
P. O. Box 1689
Ft Worth 1, Texas

1. With the activation of the Southern FAA Region and the transfer of responsibilities from Ft Worth to Atlanta, we wish to express our appreciation and a "well done" for the manner in which you and your people have accomplished your mission on the C-141 project.

2. This has been a precedence-setting operation. It marks the first time the FAA and the AF have worked together as partners in the management of a development program. You helped us work out the details of the aircraft model specification, the Memorandum of Understanding, which outlines the responsibilities of our two organizations, and a procedures manual that covers the routing of reports and other documents.

3. It has been a real pleasure to work with you. We believe we have made tremendous strides towards the use of common standards in the development of an aircraft that can serve the national interest in a civil as well as a military environment. The cooperation, attitude and professional competence you and your people have displayed reflect a great deal of credit on the Southwest FAA Region and the personnel of your organization who have been involved in the C-141 project.

Max Hammond

M. B. HAMMOND
Colonel, USAF
Director, C-141/Materials Handling
System Program Office
Deputy for Systems Management

Air Traffic Division

What is a RAPCON?

In the late '40s and early '50s, the Air Force commenced the change from propeller-driven to turbojet-powered aircraft. In order to obtain maximum utilization of these aircraft, it was necessary to improve air traffic handling capabilities. Accordingly, the RAPCON (radar approach control) Program was developed to meet the growing needs of the impending jet age.

The standard RAPCON contains CPN-18 surveillance radar with three scopes, two FPN-16 precision approach radar indicators, and the FS-4A console, which contains the necessary communications equipment, landlines, and air ground. Since the RAPCON was capable of serving an entire terminal area, as well as the military base on which it was located, it was decided to staff RAPCON facilities with both CAA/FAA and military personnel. The FAA controllers provided the approach control service and the military controllers operated the precision approach radar.

A typical RAPCON handles all arriving and departing traffic at the military base and at civil airports within a terminal area. The normal coverage of the CPN-18 radar is within a 40-mile radius of the antenna. Within this area, feeder fixes are developed wherein the Air Route Traffic Control Center clears arriving aircraft. The arriving traffic normally ar-

rives at the feeder fix with standard non-radar separation. After these aircraft are identified by radar, they are vectored with radar separation to the Instrument Landing System for an ILS approach at the civil airport, or to the ILS or precision radar for a ground controlled approach, as the pilot desires. Departures are normally provided radar separation while in the terminal area, and radar navigation until they are established enroute and transferred to control of the appropriate ARTC Center.

As the CAA/FAA gained experience with this type of equipment, certain modifications were made which improved our overall traffic handling capabilities. For example, circular polarization was added, which lessened the effects of precipitation on the radar displays and permitted the use of the equipment under all weather conditions. The Air Force added radar beacon transponder capability, which allows the controller to see an aircraft that would otherwise not be visible because of its small size and resultant poor radar return.

The addition of the RAPCONs to the traffic control system has considerably enhanced the traffic handling capabilities at many locations. Refinements which have been made over the years have improved the system to a remarkable degree.

Education makes a people easy to lead, but difficult to drive; easy to govern, but impossible to enslave. --Baron Brougham.

Through the centuries, controversy has been the servant of education. There can be no education without controversy. --H. Rowan Gaither, Jr.

Education is the only interest worthy the deep, controlling anxiety of the thoughtful man. --Wendell Phillips.

This is a RAPCON



Photo courtesy James Connally AFB, Waco, Texas

ACCIDENTS			
FOR THIS MONTH AND THIS YEAR			
This Month This Year			
	FIRST AID CASES 4 7	DISABLING INJURIES 4 5	DAYS LOST 15 17

DANGERS OF SEEING EYE-TO-EYE

Two employees were drilling a hole in the wall of a building recently to install a signal bell. The bit was not long enough to go all the way through the wall, so the men were drilling towards each other from opposite sides. One man peered into the hole to see whether he could see through it yet. At the same time, the man on the other side of the wall did the same thing. The first man saw dust in the hole and blew it -- right into the other man's eye. Fortunately, no serious injury resulted from this incident, but this is how accidents happen.

Hatch Act Restricts Political Activity

All employees need to remind themselves of the special legal restrictions on their political activity. Following are some questions and answers on this subject:

Q. Who is affected?

A. Employees of the executive branch of the Federal Government, including part-time workers. Also, most employees of state or local agencies financed wholly or partly by federal funds.

Q. What are the penalties?

A. Maximum, loss of job. Minimum, suspension without pay for 90 days.

Q. Are there any exceptions?

A. Yes. White House staff members, heads and assistant heads of agencies, policy-making officials appointed by the President who must be confirmed by the Senate. On the state and local level, teachers are exempt.

Q. I come under the Hatch Act. What may I do and what is barred?

A. You may vote and express your political opinions. You may not take an active part in partisan campaigning. You may not run for office, even as an independent, in any election in which party designations are used. You may not campaign for any party candidate. You may attend a political rally, but you may not make a public speech at one. You may belong to a political club, so long as you do not hold an office in it. You may not let your car be used to drive anyone to the polls except members of your immediate family. You may not distribute campaign literature or sell tickets to political affairs.

Q. I am a part-time employee. Does the Act apply to me?

A. Yes, on any day you perform work for the government. This includes the entire 24 hours.

Q. May I make a campaign contribution?

A. Yes, but you may not solicit contributions nor can you be forced to contribute.

Q. May I serve as an election official?

A. Yes, but only on a purely impartial basis. You may not be a poll watcher, checker, challenger, or perform any other service for a partisan candidate.

Q. My wife does not work for the government but I do. May she campaign?

A. Yes.

Q. May a government employee wear a campaign button?

A. Yes, but not while on duty conducting the public business.

Additional information on this subject is available in Regional Bulletin of October 11, 1960, Subject: "Questions and Answers on the Hatch Act." Still further references are SP 3016, AP 3-735.2, and the Employee Handbook. Questions not clearly answered by these references should be referred to the Personnel and Training staff in the Regional Office.



Emblem of

Pride and Honor

Let the public service be a proud and lively career. And let every man and woman who works in any area of our National Government, in any branch, at any level, be able to say with pride and honor in future years: "I served the United States Government in that hour of our Nation's need."

-- JOHN F. KENNEDY

State of the Union Message,
January 30, 1961.

ATTENTION SECRETARIES (and Others Who Write Letters):

HELP STAMP OUT GOBBLEDYGOOK

Former Congressman Maury Maverick of Texas coined the word "gobbledygook", which means "inflated, involved, and obscure verbiage characteristic of the pronouncements of officialdom". In order to eliminate gobbledygook, learn to streamline your letters. Try not to use a whole phrase where a single word will serve the purpose adequately. Read over your first draft and cut out excess padding. Here is an exercise to test your skill in wiping out gobbledygook:

GOBBLEDYGOOK PHRASES:

SUGGESTED ALTERNATIVES:

1. a long period of time	1. a long time
2. main problem is a matter of cost	2. main problem is cost
3. at the price of \$12	3. at \$12
4. in this day and age	4. now (or today)
5. the important essentials	5. the essentials
6. in regard to	6. regarding (or about)
7. remembering the fact that	7. remembering that
8. made the announcement that	8. announced that
9. held a meeting	9. met
10. until such time as we can	10. until we can
11. during the course of the day	11. during the day
12. engaged in making a survey	12. making a survey
13. arrived at the conclusion	13. concluded
14. in reply we wish to state that we are	14. we are
15. according to Mr. Smith	15. Mr. Smith says
16. there is only one point that is clear and that is that we are	16. only one point is clear; we are
17. if it is possible	17. if possible
18. that is the situation as the	18. that is the situation now
19. these facts serve to give an idea	19. these facts give an idea
20. decided at a meeting which was held on Monday	20. decided at a meeting Monday
21. during the time that	21. while
22. fifteen in number	22. fifteen
23. in the event that	23. if
24. throughout the entire month	24. throughout the month
25. at all times	25. always
26. at an earlier date	26. earlier
27. charging the sum of \$53	27. charging \$53
28. came at a time when	28. came when

After you have thought of a shorter, clearer way of expressing each item in the left-hand column, check your answers against the suggested answers printed upside down in the right-hand column.

A.L. Coulter, Chief of Flight Standards Division, presents certificate of retirement to J. Howard DeCelles, FAA's first flight inspector.



After a 25-year career with FAA that included piloting for Will Rogers, aviation inventing, and flight inspection, J. Howard DeCelles received official recognition of his loyal, trustworthy public service in a recent surprise ceremony at the Regional Office. Although there

are now more than 1,000 flight inspectors in FAA, DeCelles recalls when he was the only one in the country. Highlights of his aviation career include an endurance record established by staying aloft 19 hours in an OX-5 Curtis-Robin, and the invention

of the De Celles altimeter. During WW II, DeCelles flew a secret mission to survey an arctic route to England for fighter planes. He was a pioneer in the flight checking of Instrument Landing Systems, and helped put in more than 40 of the first ILS's in the country, including those in New York, Washington, Chicago, Detroit, and Cleveland. DeCelles instigated the district office concept for Flight inspection, which was later adopted for all regions.



CERTIFICATE OF RETIREMENT

THIS IS TO CERTIFY THAT

John Doe

HAVING BEEN RETIRED UNDER THE PROVISIONS OF
THE CIVIL SERVICE RETIREMENT ACT
AFTER SERVICE IN THE

FEDERAL AVIATION AGENCY

IS AWARDED THIS TESTIMONIAL AS AN
ACKNOWLEDGMENT OF DUTY FAITHFULLY PERFORMED.

DONE AT *Washington DC* THIS *Twenty Third*
DAY OF *September* IN THE YEAR OF OUR LORD
ONE THOUSAND NINE HUNDRED AND *Forty One*



A. L. Coulter
ADMINISTRATOR

Other recent recipients of this certificate were Voice A. Jones, ATC specialist at Shreveport RAPCON, who retires after 24 years of service, and Elmo E. Cone, Chief of Gage, Oklahoma FSS, who has 32 years of service behind him.



For those who have not yet submitted an employee suggestion, Donna Cunningham, Incentive Awards clerk in the Regional Personnel and Training office, invites attention to a poster publicizing the Region's employee suggestion program. Sorry, men, it's Mrs. Cunningham. Now, all you men, look at the nice poster.

A MESSAGE FROM THE PRESIDENT OF THE UNITED STATES

"In every field of endeavor, we must have the courage to accept the need for change as a necessary element of progress. We must search vigorously for new, imaginative ideas that bring better solutions to the problems of our times.

"The reservoir of creativity in the minds of our people is one of the great strengths of our nation. I know that the objective of your Association is to encourage the men and women in industry and government to develop and submit suggestions that will help management carry out its mission. Ideas developed through suggestion systems have saved millions of dollars and man-hours for both industry and government. The result has been better products and services at less cost to the consumer and taxpayer.

"Suggestion systems and the improvements that flow from them are a true demonstration of the progress that can be achieved through the cooperation of management and employees in a free society."

--JOHN F. KENNEDY

Excerpts from a message to the
National Association of Suggestion Systems



Photo by Royce Craig of the Tulsa Tribune

An American Airlines DC-6 B lands at Tulsa Municipal Airport after an ILS approach.