

# FAA HORIZONS

DECEMBER 1963

OFFICIAL EMPLOYEE PUBLICATION OF THE FEDERAL AVIATION AGENCY



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AGENCY

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## FAA HORIZONS



COVER: A star attraction at the Agency's 5th Anniversary Open House, Nov. 2-3, at Dulles International Airport was this instrument-packed C-130 used for high-altitude precision measurement of air navigation aids. Some 100,000 persons tramped the ramp to inspect the 50-plus military, civil aircraft on display.

## Who's Who and What's What

A LETTER from Goldee Boozer of Austell, Ga., states a recollection of a contest for a title for the FAA HORIZONS publication. "But," the letter continues, "I don't remember the results printed in the HORIZONS." Actually, no contest was conducted for the naming of FAA HORIZONS but the name was submitted by Bill Busching, Chief, SMDO-7, Portland, Maine, when a contest was run to find a name for its forerunner, FLY-BY. This contest ended on February 18, 1959. Some 2655 title suggestions were submitted by employees. The name FAA HORIZONS was one of these and Bill Busching was the one who submitted the name at that time.

MRS. HELEN BRUBAKER, wife of Wesley Brubaker, Chief, Flight Standards Division in the Alaskan Region, and member of the region's Civilair Flying Club, is the first one in the newly-formed club to solo.

**SELLING A GI HOME?** Veterans Administration officials emphasize that merely selling his GI home does not relieve the veteran of his liability to the Veterans Administration. Too often veterans who sold their GI homes found later that the buyer defaulted on the loan, the mortgage had been foreclosed, a deficiency resulted and the veteran was liable to VA for payment of the claim VA had to pay to the lender. The veteran may apply to the VA for a release from liability by submitting a written request addressed to the manager of the VA regional office which processed the loan. If a veteran plans to sell his GI home, he may take either of two steps to avoid future liability: (1) arrange for the GI loan to be paid in full; (2) allow the purchaser to assume his GI loan and obtain a release of his liability on the loan from the holder of the mortgage and the VA, provided, of course, both agree. A request for release from liability should include: VA loan number if known (shown on reverse of eligibility certificate), address of property, name and address of proposed purchaser, and name and address of mortgage holder. More complete details are available at any VA office.

**HOUSTON INTERNATIONAL** Airport controllers knew when the National Business Aircraft Association members held their convention in that city. Traffic at the airport during the five-day period jumped to an average of 801 operations a day—275 above the daily average. The peak day had 902 operations.

A HELPFUL GUIDE for visitors to the Agency's new headquarters building in Washington would include the building's numbering system. It is based on a 3-digit, 1-letter system, except for the tenth floor which uses a fourth digit. The first digit indicates the floor; the second and third numbers, the bay; and the suffix letter identifies a specific partitioned office in the bay. The northwest corner of the building has ten bays numbered 1 through 10, the northeast ten bays are numbered 11 through 20, the southeast bays, 21 through 30 and the southwest bays, 31 through 40. Corridors are not numbered. Office and Service heads' offices face the main corridor at the east end and west end of each floor. Zero numbers are added to floor numbers, e.g., 400 East, 400 West. Partitioned offices have the same number as the bay in which they are located. Suffix letters are added as required. For example, 740B is the second partitioned office in bay 40 on the seventh floor. All work (or open) areas within the bays are numbered with the bay number in which they are located. No suffix letter is used in these areas. The library, auditorium and clinic are not numbered and carry their own names. Vertical orientation is consistent throughout the building; thus, the number 426 will occur directly below 526, and the number 526 will be directly under 626, etc.



Veteran technician Alvin DeLong passes on information that doesn't come in books to beginner Horace Kushimi.

Generalizations frequently land far short of their marks and certainly no one would try to describe a "typical" maintenance technician except to say he has certain characteristics shared by all his colleagues. He may be a graduate engineer or he may be a boy a few years out of a technical high school, but he is a disciplined, self-sufficient individual whose middle name is safety.

His approach to his job is positive. Preventive maintenance is his watchword. He wants those air traffic control facilities operating when ceilings sink below minimums and visibilities become dangerous—no time for a breakdown because someone failed to interpret the meter readings; or a relay to lose continuity because of unburnished contacts. However, there are times when storms or extremes of temperatures or heavy usage cause tubes to burn out, resistors to fail or voltage to drop. When this happens, the maintenance technician, like the dependable family doctor, goes off to repair the damage regardless of the weather or the hour. Pride in his job; pride in the equipment and its proper operation is a way of life with him.

A great deal of the primary maintenance training is given

## A Salute to the Maintenance Technician

on the job, supplemented by correspondence courses. All advanced training is given at the FAA Academy. Certain mathematical backgrounds can be acquired in home study courses.

Navigation aids, or NAVAIDS, in FAA parlance, are grouped generally into two classifications—those used in communications and those used for en route flight on the airways and at terminals. On the first rung of the ladder the newcomer learns the tuning of transmitters, receiver sensitivity measurement, rigid tolerances of different navigation systems and the adjustments required to keep the systems within those tolerances; the overhaul and adjustment of teletypewriter equipment, the performance of audio runs. FAA equipment is so highly specialized that even the experienced engineer must do his homework. Regardless of the background, neither technician nor engineer is given responsibility for a NAVAID until he has proved himself master of his craft.

FAA electronic technicians have far greater responsibilities than those of electronics people in other organizations. Hundreds of lives and aircraft costing many millions of dollars depend upon the precise and exacting performance of the electronic aids, and there is no margin for error, doubt, or assumption.

### Air Route Traffic Control Centers

A Center is crammed full with radarscopes, RCAG (Remote Communications Air/Ground) control panels, interphone panels, audio amplifiers, emergency VHF and UHF air/ground panels, VHF direction finder indicators, area maps, flight progress boards, and numerous tape recording instruments which make a permanent record of the incoming and outgoing conversation from each sector position. Either the building itself or an adjacent structure will contain a large room where the many racks of remote control equipment required to operate the RCAG sites are located. The larger centers employ more than a hundred controllers and require many electronic and electromechanical technicians for support.

An RCAG installation consists of one to four communications channels, remote control equipment and automatic standby power generating equipment. Each communications channel is composed of one very high frequency transmitter and receiver and one ultra-high-frequency transmitter and receiver with complete standby equipment—total equipment per channel 4 transmitters and 4 receivers.

Radar lets the Center controller "see" the aircraft; RCAG gives him instant communication with it.

### Airport Control Towers

In addition to radar, the average tower will employ six to ten VHF transmitters and receivers, and four or five UHF transmitters and receivers (installed primarily for use by military aircraft); one low/medium frequency transmitter and a complementing receiver on a similar band. Equipment, of necessity, is removed from the cab, generally with the receiving and transmitting equipments also separate.

The fact that each of three or four tower operating positions must have separate control of each transmitting and receiving channel imposes the need for elaborate control equipment (including 4-channel expandable control equipment.) Several speech amplifiers serve the individual positions, and others act as line amplifiers for remote sites.

The radar equipped tower will employ additional communication channels for the specialized radar controlled approach feature. Voice recorders transcribe the two-way voice transmission for the purpose of establishing legal proof of instructions given to aircraft; weather data equipment; a drop or repeater of the ILS monitor system also appears in the tower. It is the alarming of this monitor drop which notifies controllers of ILS component failure.



Reading clockwise: Inside, the neat black boxes are a maze of tubes and meters; Technicians at the RCAG, Thermopolis, Wyo.; John Griffin trying to reach the breakers in the transformer cage, Mt. Equinox, Vt.; SM vehicle blasts through a mountain pass, and Geo. Hawkins digs his way along Ridge Rd., Salmon, Utah.



## FLIGHT SERVICE STATIONS

The many duties of the Flight Service Station requires use of a variety of receivers, transmitters, antennas, amplifiers, control panels, teletypewriter and telephone equipment, power supplies and weather instruments. The station may receive on one or more high-frequency channels; on four or more very-high frequency channels and one or more ultra-high-frequency channels. Transmitters, receivers and associated equipment are usually separated physically from the operating positions and this involves elaborate wiring and control equipment. Such functions as receiver selection, mixing, muting, transmitter selection, channel selection, intercommunication, and control and monitoring of remote facilities require special equipment.

Weather information, certain aircraft movement, control instructions and some administrative matters are conducted over landline teletypewriter circuits, involving the use of 100 wpm teletypewriters, tape perforators,

tape transmitters, and related switching units, all tied into wires leased from the telephone companies. Further leased wire services are the interphone drops by which the FSS is always in direct communication with one or more Centers.

Receivers have a wide range of complexity. Tuned radio frequency receivers may be used to monitor a low-medium frequency radio range; tunable and crystal-controlled superheterodyne receivers are used for high frequencies; both single and double conversion crystal-controlled superheterodynes are found in VHF and UHF work, some being tunable from a remote location; some single channel and others multi-channel. Standby equipment is available for most of the channels. Transmitters vary widely in frequency also from low to VHF and UHF. All are crystal controlled and may vary in output from 5 watts to nearly 200 watts, depending on the type, and are amplitude modulated for voice transmissions.

tion when making adjustments to those aids or evaluating their performance.

The maintenance of a safe airway system depends upon technical skill. Equipment must not only perform well, it must be absolutely reliable. The man certifying the performance of an FAA facility has accepted a great responsibility. If, after a major aircraft accident, malfunctioning of an electronic aid is suspected, all records are immediately impounded; a complete air/ground evaluation of the NAVAID is made and the responsible supervisors called before the Civil Aeronautics Board to answer questions. Thanks to the conscientious daily activities of our technicians this is seldom necessary.

NAVAIDS are located where they can best serve the pilot. Some are easily accessible, others so remote from civilization that the maintenance men on inspection trips carry food and water with them. The aids stand in cornfields, in swamps, in deserts, on the sides of mountains and the tops of mountains. Technicians get to them in trucks, jeeps, by boat and by tramcar, swinging on a cable hundreds of feet above the ground.

An electronic monitor stands constant guard over these NAVAIDS. These monitors give not only a visual or aural warning of malfunction but will actually cause the standby equipment to take over (in the case of a power failure) or to shut the facility down altogether. The monitor may get the technician out of bed when he'd rather be sleeping but by answering the summons aircraft accidents are prevented. The technician's creed is that the transmission of erroneous navigational information never can be tolerated.

Monitors flash their alarms in towers, centers, and flight service stations—different NAVAIDS sending messages to different facilities. The monitor at the glide slope of an instrument landing system, for example, will alert the Tower; a VOR (VHF Omnidirectional Range), will activate the alarm in the Flight Service Station and a long range radar in a Center. When this happens a NOTAM (Notice to Airmen) is quickly sent out alerting all concerned—pilots, airlines, the military service, etc., that—in the language of the technician—the NAVAID is "unavailable." After it has been put back in order, another is sent out pronouncing it is "available."

It is only practical good sense to recognize that navigation, ATC, and communications aids, must be shut down from time to time for routine, or remedial servicing, but whenever, or for whatever reason it happens the NAVAID is back in service as quickly as it can be done with safety.

A shutdown of a VOR even in good weather, can result in the unavailability of an entire sector of a major airway. As a consequence traffic has to be re-routed, and this taxes some other airway. Similarly an ILS (Instrument Landing System) outage in marginal weather can have the effect of closing the whole airport area. Here again results are far-reaching. The airport closure is serious enough but air traffic control can again be affected by having to route aircraft to other destinations.

When they are out of service in good weather, pilot training cannot be carried on. And it is pilot training under safe conditions which makes for pilot safety under adverse conditions.

FAA's maintenance technicians have to be proficient in a variety of skills. A check of the equipment listed in the boxes accompanying this article will show why, and remember, these are only the manned facilities. There are hundreds of unmanned NAVAIDS—VORs, VORTACs, homing beacons, long range radars and others—standing sentinel over the airways and the safety of flight.

Today thousands of FAA electronic technicians are at work throughout the United States, including the Pacific Islands and the Caribbean, keeping the world's greatest and most complex air navigation and air traffic control system at peak efficiency.



NAVAIDS stand on mountain peaks, in deserts, swamps, and wheatfields. This VOR is located in the middle of Lake Ponchartraine, New Orleans, La.



Technician works in high wind on Ft. Stockton, Texas, VORTAC. Below: ARSR at Francis Peak, Utah, one of the most desolate spots in the west, can be reached only on snowshoes during most of the cold winter months.





Tower operator (top, l.), sends trucks on their way. Tony Pawelski (above), in action during practice fire at Greater Rockford Airport. Firemen (l.) advance behind a wall of foam. (Lower r.), Rockford firemen line up for inspection.



## ROCKFORD'S 'CUSTOM-MADE' FIRE DEPARTMENT

Tony Pawelski, the combination Fire Chief and Safety Officer of the Greater Rockford, Ill., Airport, could never be accused of empire building. His fire fighting force numbers six, including himself and part-time employees, and his four fire trucks don't add up to a fleet no matter how you count them.

But what Tony's crew lacks in size it makes up in slick efficiency, polished smooth by a continuous training program that takes in almost everyone at Rockford. In a major emergency Tony can count on scores of volunteers he trained. During a recent simulated disaster 145 people swung into action wielding Geiger counters, administering first-aid, and carrying out pre-planned tasks with the practiced skill of professionals.

In a very real accident last December, when a two-engine plane was forced to make a wheels-up landing on the grass, the Rockford fire department extricated the two-man crew and six passengers in 30 seconds.

With traffic at Rockford growing at a brisk clip—80,000 operations in 1959; 104,986 in 1962; and an estimated 120,000 this year—fire and accident prevention looms large in Airport Manager Robert P. Selfridge's plans. Three of the airport's four fire trucks are "homemade", built from the chassis up

according to Selfridge's plans. Experts estimate the equipment is worth about \$50,000, but the real cost, thanks to the do-it-yourself approach, was considerably less.

Rockford is probably the only airport with an all custom-made fire department. The crash-rescue truck has underbody nozzles for fast foaming a runway, and to provide a knee-level blanket of foam to permit the truck to advance almost to the edge of the fire; its turret can discharge 750 gallons of water per minute. Aboard are cutters, grab hooks, and a power saw that can zip through metal.

Supporting the crash-rescue truck are two mobile tankers, and a chemical truck—and search jeep. All vehicles are equipped with two-way radio, a feature that in effect increases the size of the fire department because it can be deployed more effectively.

Fire drills are sprung with no warning. Selfridge believes fires rarely announce themselves in advance, at convenient hours in pleasant weather. He punches the alarm button with the unpredictable suddenness of a real fire.

Tony Pawelski understands the problem perfectly; he came to the Greater Rockford Airport after a four-year stint fighting aircraft fires as a member of the 'round-the-clock Strategic Air Command.



## HALABY FLIES 727 IN NOISE ABATEMENT TESTS



Administrator Najeeb Halaby flew an Agency 727 in a series of takeoffs to test current and proposed noise abatement procedures. Accompanying the Administrator were Regional Director Oscar Bakke (right), Congressman Joseph Ad-

abbo (left) and a number of Congressmen, airline, Port of N. Y. Authority, and local officials. The FAA flight was the first of a series to be conducted by the aviation community in a combined effort to minimize aircraft noise in N.Y.

## Certificate of Accomplishment Goes to Warner of D. C. Tower



Paul Moore, (left) Chief, Washington National Tower, watches as Howard C. Warner (center) also of Washington Tower receives a Certificate of Accomplishment and congratulations from Washington Area Office Supervisor George Freitag. Howard successfully completed a comprehensive course on the Economics of National Security sponsored by the USAF.

## Argentine Aviation Specialists Visit Albany FSS



Socrates Callejas and Jose Almada (standing, l. to r.) watch Albany ATS during air-ground operations.

Two Argentine aviation specialists are making a study of air traffic communications and navigation at the Albany County Airport as part of a year-long training program under sponsorship of the U. S. State Department.

The men, Socrates Callejas and Jose R. Almada, will spend two weeks in the Flight Service Station of the Federal Aviation Agency at the airport.

Mr. Callejas is chief of the Central Communications Station at Resistencia Airport in the heart of the Chaco Province jungle in northern Argentina, and Mr. Almada is communications specialist at Ezeiza International Airport, Buenos Aires, Argentina's largest airport and the second most active in South America.

Under Agency for International Development

sponsorship, the two Argentinians are studying the FAA's communications systems throughout the United States. Following their training program at Albany County Airport, they will make similar studies at Syracuse, Idlewild International Airport, and Washington National Airport, and will also spend several weeks at the FAA's training center in Oklahoma City.

When they return to Argentina they will help convert their country's aviation facilities to more modern equipment.

Ezeiza Airport handles a great percentage of South America's air traffic, and Resistencia, while not as large as Ezeiza, is the primary "emergency" airport for flights between North and South America.

## Standiford Tower Acclaimed by Louisville Chamber of Commerce

EA's AT personnel at Standiford field were congratulated recently by Louisville's Chamber of Commerce for providing indoctrination tours of the FAA facility for visitors and local citizens. A recent "indoctrination" tour conducted by Standiford tower personnel led to a happy plane ride for airport neighbors complaining about noise. The "ride" was conducted by FAA personnel during off-duty hours, and may lead to a better understanding of FAA operations—and fewer noise complaints.

## EXPLAIN "TWO-LAYER" SYSTEM



H. H. Helstrom, AT-120, briefs EA's Assistant AT chief Charles Newpol (left) and Deputy Director Wayne Hendershot (far right) on new route structure planning (modification of the "two layer" Airway Route System).

## AIR TRAFFIC DIVISION FACILITY CHIEF RETIRES



Howard Coyne says goodbye to "Pappy" with a plaque.

"Pappy" Clyde Turner (right) proudly displays a well-earned retirement certificate, with an assist from Howard Coyne, Cleveland ATAO.

Clyde Turner retired as Chief of Paducah, Ky., Flight Service Station on August 6, 1963 after more than 37 years of service. Although he had moved from Paducah before an appropriate presenta-

tion could be made, the AT Division could not let one of its "oldtimers" go without recognition. "Pappy" was in Louisville, Ky., recently and Howard Coyne, representing Cleveland ATAO traveled there to present him with a Certificate, a "We Point With Pride" plaque, and a letter from Regional Director Oscar Bakke thanking him for his service and wishing him well in retirement.

Turner began his Government career in February, 1926 in the U. S. Navy. He served as a Radioman and was honorably discharged in December, 1929. He then joined the Bureau of Lighthouses as an Assistant Radio Operator at Atlanta, Ga. In 1930 he transferred to Terre Haute, Indiana, where he established and commissioned the low frequency range station. During the next twelve years he served in Fort Worth, Shreveport, Little Rock, Memphis, Jackson and Nashville. In 1942 he was promoted to Communications Inspector in the Atlanta Regional Office. Subsequently he served as Facility Chief of Daytona Beach, Fla., Asheville, N. C., Terre Haute, Ind., and the Paducah, Ky., Flight Service Station.

Turner has been the recipient of many commendations for outstanding service and contribution to the Service.

## Junior "Jim" Hehnen Receives a Retirement Plaque in Cleveland



Junior "Jim" Hehnen (left) former SMS Chief at Cleveland, Ohio retires after nearly 38 years of Government Service. "Jim" is presented a retirement plaque by John Hanlon, Supervisor, Cleveland SMAO.

## ARTIFICIAL RESUSCITATION

To assure availability of qualified personnel and to participate in a drive to upgrade abilities and background in the health, safety and civil defense fields, all Systems Maintenance Sector personnel at Quonset Point, Rhode Island, were programmed by local FAA/Navy officials to receive training in artificial resuscitation. In addition to the First Aid Training Course, technicians got complete physical examinations, including electrocardiograms, through arrangement with Quonset Point Naval officials.

## NEW PROMOTION PLAN BRIEFING

Personnel and Training Division representatives "took to the field" to conduct an intensive information program for SMD personnel on the new employee promotion program. Scheduled to be conducted at ten separate locations in Eastern Region, the P & T program involves the showing of a film, a lecture, and presentation of handout material. SMD employees selected to attend will, in turn, brief subordinates and other adjacent organizational elements of SMD, since only one SMD representative will be present from a certain geographical area.

## SMS CHIEF LOMARTIRE CITED

Anthony F. Lomartire, Systems Maintenance Sector Chief at Concord, N. H., recently received an award for sustained superior performance. Lomartire was the only New Hampshire man to receive this award at a ceremony at the Portland, Maine, District Office. Lomartire received congratulations from Congressman Cleveland for having achieved this recognition.

## QUESTION BOX

Although jobs in the FAA vary to a great extent, many employees frequently raise questions on matters common to all. Below are a few questions most frequently asked by EA employees. In the future, if you should happen to think of a question of general interest, please submit it to EA-3 and we'll try to answer it.

**Q.** I had ten years of Federal Service as of April of this year. Why wasn't a Service Pin awarded to me recently when a number of other employees received their service pins?

**A.** December 31, 1962 was the cut-off date used to determine eligibility for the service pins just recently distributed. Another review of the records is being made to determine the names of the employees eligible to receive pins between January 1 and the present date. As soon as this review is made, the service pins will be distributed.

**Q.** How is it determined that a position comes under the Wage Board System rather than the Classification Act?

**A.** The Classification Act of 1949, as amended, identifies those positions which are included and those (Wage Board) which are exempt from the Act.

Briefly, Section 202(7) exempts from the Act employees in recognized trades or crafts, or in skilled, or other manual occupations, and other employees, including foremen and supervisors in positions having trade or craft, experience and knowledge as the paramount requirement. The compensation of employees in such positions is fixed and adjusted from time to time in accordance with prevailing rates.

The authority to determine which positions are covered by the Act is delegated to and exercised by classification specialists in the field organizations who apply the regulations and guides, and determine the series, title and grade of individual positions by application of official position classification standards. Authority for final determinations as to positions included or excluded from the Act is vested in the Commission.

**Q.** May I make deposits to the Retirement Fund in addition to the regular 6½% deduction from my salary in order to obtain a larger retirement annuity?

**A.** YES, subject to the following restrictions. Employees who have had creditable service for which deductions were not made for any reason must make a deposit to cover this service before making a voluntary contribution. Employees who received a refund of retirement deductions, under the Civil Service Retirement System or any other system for the retirement of Government employees, must make a redeposit to the Fund before making a voluntary contribution.

Voluntary contributions may be made only in amounts of \$25 or in multiples thereof. Total contributions may not exceed 10% of the aggregate basic salary you received for civilian service since August 1, 1920.

**Q.** What action must I take to make a voluntary contribution?

**A.** You may obtain a Standard Form 2804, Application to Make Voluntary Contributions, from the Chief, General Operations Branch, EA-16, or the warehouse. After completion, the form should be mailed to the Bureau of Retirement and Insurance, U. S. Civil Service Commission, Washington 25, D. C. The Commission will issue instructions for mailing contributions at the time the election is accepted.

**Q.** How much additional annuity is provided?

**A.** Each \$100 in an employee's voluntary contribution account at the time of retirement will provide additional yearly life annuity in the amount of \$7, plus 20 cents for each full year the employee is over 55 at that time.

**Q.** I am a Federal Aviation Agency employee, not in Air Traffic work, interested in becoming an Air Traffic Control Specialist. What do I do?

**A.** To be considered for an Air Traffic Control Specialist, GS-5 or GS-6 position, you must attain an eligible rating on a written test administered by the Personnel and Training Division.

**Q.** When should Savings Bonds normally be received by subscribers?

**A.** Savings Bonds are issued by the Treasury Department upon advice from the Accounting Division. Fully paid bonds should be received not later than Friday of the week following the pay day. Inquiries concerning receipt of bonds should be deferred until six work days elapse following the pay day.

a. be recommended by your present supervisor;  
b. pass a medical examination and obtain a second class medical certificate valid for Air Traffic Control duties;  
c. receive a favorable interview conducted by a member of the Air Traffic Division.

As an interested employee, you may contact the Placement Office, EA-12.1.

**Q.** What is the basis for computing night differential payments?

**A.** Night differential payments are computed on the basis of 10% of the employee's regular hourly rate as indicated in the salary table attached to regional Order EA 3500.1.

**Q.** Are night differential payments made to classified employees while on leave during a night tour?

**A.** Night differential payments will be allowed only if the leave taken by the employee does not exceed seven (7) hours in a pay period.

**Q.** When a Transportation Request is issued for travel where the claim for reimbursement will be on two or more vouchers, to which voucher should the Transportation Request be attached?

**A.** The Transportation Request should be attached to the first voucher submitted.

**Q.** Is the coding for financial transactions during Fiscal Year 1964 being revised?

**A.** Regional Order EA 2790.1 issued during July reflects the Fiscal Year 1964 Appropriation, Fiscal Program and Cost Center Codes. During Fiscal Year 1964, organizational codes have been discontinued and Cost Center codes implemented. This Cost Center coding which should be included on all financial documents initiated by personnel, will serve as the basis for compiling headquarters and area financial management cost accounting data.

**Q.** When should Savings Bonds normally be received by subscribers?

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# Eastern Region's Role: PROJECT FOCUS

Probably the largest test of organization ever undertaken by a Government Agency is underway in the Federal Aviation Agency. The test has been designated Project FOCUS and each of the five continental regions is conducting a portion of this test. The Eastern Region is conducting two tests which parallel each other. The first is called the Air Traffic/Systems Maintenance Coterminus-Test, the other Flight Standards Field Office Test. The Eastern Region has been divided into four test areas for Project FOCUS.

These areas are the Boston, Washington, Cleveland and New York areas. The Southern Region is engaged in a Center Area Manager Test at Jacksonville, Florida and the Central Region has a Hub Area Manager Test going on in Chicago. The Western and Southwest Regions are conducting what is called the Comprehensive District Office Test. Western is testing in the Los Angeles area and Southwest at Albuquerque, New Mexico.

Although these tests have different titles every attempt possible has been made to standardize or make comparable functions and responsibilities assigned and to allow for collection of uniform data for evaluation purposes. As stated above Project FOCUS is probably the largest test of a field organization configuration ever undertaken. It is an experiment in the substitution of scientific management for intuitive or subjective management. One of the main attempts is to decentralize decision-making authority closer to the problem areas in the field. It is intended that wherever possible decision-making authority be delegated to the lowest possible echelon.

As a consequence of Project FOCUS it has been necessary to impose certain restrictions on further reorganizations within our field structure. This should be looked on as a real attempt to stabilize our organization rather than an effort to immobilize it. A severe handicap could have been imposed on the Agency if the determination had been made

that the issuing organization be "frozen" while a study was made as to which direction the Agency should take in its future field organization. Rather, the Administrator saw fit to invite each region to participate in certain phases of one large test and at the same time provided a certain latitude by which necessary changes in the location or organization of field offices could be accomplished.

The effort in the Eastern Region is progressing satisfactorily. Since the test has only been underway from the beginning of October, it is rather premature to evaluate its effectiveness. However, reports coming from all regions tend to indicate that certain benefits are being achieved. Progress within the Eastern Region has been more than satisfactory and based on limited returns Project FOCUS is receiving an enthusiastic reception.

As with all test procedures, it is necessary that data be collected for future evaluation. This always imposes an additional workload on the participants. An intensive effort was exerted to assure that reporting requirements were contained to the absolute minimum. It is the intention of all concerned that individuals participating in Project FOCUS be allowed to operate under as "near to normal" conditions as is possible.

The data collection period for Project FOCUS extends from the beginning of October to the end of April, 1964. It is uncertain whether the test offices will continue in operation beyond that date. It appears likely that should test offices be serving their intended purpose they will be allowed to continue in existence until final Agency determination has been made on the field office configuration. The Administrator has set July 1 as the date on which announcement will be made regarding the direction which the Agency will take in establishing its future field office configuration. In the meantime the Regional Director wishes to extend his gratitude and appreciation to all personnel participating in the Project FOCUS test for their enthusiasm and efforts.



Eastern Region's Management Analysis Chief, Anthony Aliff, prepares progress report of Project FOCUS. Eastern is running two tests.



Watching IFSS 54 semi-automatic switching system in action are (l. to r.) Solomon Rebold, Asst. Chief, IFSS; M. Hammond, Supervisor, N. Y. ATAO; and C. Wychakinas, ATAO.



Boston Area bi-weekly joint conference (l. to r.), F. D. Pullis, F. J. Marley, L. E. Dettinger, SM; S. Poe, AT; and J. Chrastil, FS.



Eastern Region's Air Traffic Chief W. Thomas Deason signs on the dotted line for Cleveland Area Office Conference. Secretaries (l. to r.), Louise Nievert, Helen Chawalyk.



Boston Flight Standards Area Supervisor W. E. "Bing" Crosby, (head of table), at meeting of District Office Chiefs in Burlington, Mass.



These very attentive gentlemen at the Cleveland Area Conference listen to the Air Traffic Facility Chief discuss Eastern Region's part of the Agency's "Project Focus."



(Top), Sid Poe, Boston Air Traffic Area Supervisor, Stan Baldinger, Management Analyst, and Cliff Weaver, Agency Team, review Air Traffic test results. (Below), New York ATAO staff takes a short break.



(Top), Joseph Ritz, Cleveland Air Traffic Area Supervisor, addresses facility chiefs, Regional Director Oscar Bakke at left. (Below), Joseph Doane, Chief of the Buffalo FSS, receives his retirement certificate from Mr. Bakke at the Cleveland AT Conference.



## RETIREMENT CEREMONIES FOR FACILITY CHIEF



Retiring Chief, Buffalo FSS, J. Doane (left) and V. Carroll, Chief, Niagara Falls Tower, pose with G. Hessler.

On September 12, 1963, George Hessler representing the Cleveland Area Office presented "We Point With Pride Plaques" to retiring Air Traffic Division Facility Chiefs Joseph Doane, Chief, Buffalo Flight Service Station and Vincent Carroll, Chief, Niagara Falls Tower.

Mr. Vincent Carroll retired on September 25, 1963, completing over twenty-one years with the Agency. Mr. Carroll started his aviation career fifteen years prior to his Government appointment. His career with the city of Buffalo as an aviation specialist provided him with such an excellent aviation background that

shortly after joining the CAA he rose to the position of Facility Chief at Providence Airport. In addition, he served as Chief of Harrisburg, Pa., Syracuse, N. Y., and Niagara Falls, N. Y., Tower.

Joseph Doane retired on October 12, 1963, after 30 years of Government service. Mr. Doane started his aviation career in 1932 at the Dunkirk, N. Y., Intermediate Airport as an Assistant Airway Keeper. After several years of overseas duty at Dakar, Africa, and Paris, France, Doane returned home, serving at Philadelphia, Pa. and Buffalo, N. Y., where he rose to the position of Facility Chief.

## Controllers Lauded in New York For Safety of Flying Businessman



A "flying" New Jersey businessman, in a letter to EA Headquarters recently expressed gratification to the FAA for its quick thinking and fast acting controller corps.

While enroute from Buffalo, New York; to Newark, New Jersey; in a Piper Comanche, his antenna was struck by lightning, knocking out almost the entire instrument panel.

Subsequent action by N. Y. ARTCC controllers Larry Garrett, John Miolla and James Ean above (left to right) resulted in pilot Andrew Serudato making a safe landing at Binghamton, New York.

## DR. ASSELIN FULL OF LAUGHS

Dr. E. Donald Asselin, an Eastern Region aviation medical examiner working in the area of Cape Cod, Nantucket and Martha's Vineyard, recently published his second book. Entitled "New England Laughs," the book contains humorous anecdotes told to him by fellow Vermonters—many of whom originally went to Dr. Asselin for aviation medical certification. Dr. Asselin formerly served in the Army Air Corps as a Flight Surgeon and is presently an Eye, Ear, Nose and Throat Specialist in New England.

## HOUSTON DOYLE NOW A SCHOLAR



Houston Doyle (left) Chief, Cincinnati FSS receives congratulations from Cleveland Area Office representative Jack Scully, upon successfully completing comprehensive course on the Economics of National Security.

## A.N.Y. CENTER "FIRST": CREW ACHIEVEMENT AWARD



New York Center's high altitude and dispatch crew received a "Crew Achievement Award" from Center Chief James Boyle (far left) during ceremonies conducted at the center. Scheduled to be a regular monthly feature at New York Center, the "Crew Achievement Award" will be bestowed upon groups or crews: (1) accomplishing the most flight assists during a regularly scheduled period of

time; (2) submitting the most beneficial suggestions; (3) receiving the most letters of commendation; and (4) proving to be most cooperative. Left to right: James Boyle, Chief; A. Riccio, Deputy Chief; Stanley Gordon, George Michaels, Syl Rosenberger, Nick Barlotta, George McAndrews, James Ean, Lynn Helfin, Ray Sulwowski, Gordon Harrington, and Crew Chief Tony Guardino.



## Employee Recognition and Awards

### FLIGHT SERVICE SPECIALISTS RECEIVE PINS



Sixteen Washington Flight Service Specialists receive Length of Service Award Pins in recent ceremonies. George Freitag Supervisor, Washington Area Office, made the presentation assisted by Gene Smith, Chief, Washington FSS, Mr. Joseph Greten, Assistant Chief and Area Office Specialists: Allen E. Taylor, Gerald Collins and Robert Logan.

Above left to right: (standing) Earl

Trimble, Frank Conley, Tom Sutton, George Freitag, Joe Zeal, Warren Chaplin, Richard Rettinger, Charles Horton, Arthur Brendel, William Coates, Fred Horton, John King, James Rotan, Ronald Culp, Jerry Collins, Robert Logan and Pappy Taylor. Seated (left to right) are: Leonard Skitzki, Gene Smith, Mariam MacFarlane, Tillie Balajh and Joseph Greten.

### Pins Presented to Air Traffic's Kehs and Moritz at Friendship



William E. Moritz (left) and Vernon W. Kehs, receive 20-year award from F. A. Kane while Lionel J. Cussons looks on. Moritz and Kehs were previously employed by the City of Baltimore and were at the original City Tower at Baltimore's Logan Field. They were then at the New Baltimore Municipal Airport which opened in June, 1941. CAA assumed operation of the Tower in June, 1942, and Moritz and Kehs transferred to Federal Service. When Friendship International Airport opened in June, 1950, they transferred to the new facility.



Lloyd Sykes (center) Washington Center receives congratulations for Sustained Superior Performance from his Area Office Supervisor George Freitag (left). Maurice Neils, Area Office Center Specialist, looks on.



New York Flight Service Station Air Traffic specialist, John W. Francett (right) receives award check for suggestion which improved Flight Following Service. FSS Chief Henry M. Feinberg makes presentation.



George Freitag, Supervisor, Washington Area Office (left) congratulates George Kurtz (center) of Dulles Tower after giving him an award check for beneficial suggestions. Walt Britten, Tower Chief, looks on.



Paul Hoskinson, (center) Chief, Elmira Flight Service Station, presents cash award to Flight Service Specialist Marcus O. Chase (left), Specialist Ronald Ogden (right) looks on. Specialist Chase received the prize for developing an improved strip holder.



Finlay Flight Service Specialist Gilbert Clark (r.) receiving cash award for suggestion to improve PIREP form. Clark is married, has three children, active "ham" operator with his own station. Clark plans to buy antenna with award. H. Coyne made presentation.



Cincinnati Area Coordinating Committee presented Sustained Superior Performance awards to tower personnel. Watch Supervisor Richard Heilman and Wayne Purtilow, Training Officer, get awards from Area Coordinator McKay—fourth time for both.

## TECHNICIANS RECEIVE FAA'S SPECIAL ACT AWARD



In official ceremonies conducted at EA headquarters, three I & M employees received Special Act Awards for restoring a critically-needed radar facility feeding information into NY's bustling ARTCC.

Recipients of the award—Theodore D. Johnson, Supervisory Electronic Installation Technician (SEIT); Jesse Turner, Electronic Installation Technician; and Norman Kusnetz, Electronic Engineer, were routed out of bed on an early morning emergency which seriously reduced NY's radar control capability.

The emergency—a fire at Idlewild's ARSR-2 facility, precluded its ability to function at a time when two other radars normally feeding NY Center were out of service due to relocation.

Johnson, off duty at the time, drove to the Idlewild site from N. J. Turner, on vacation, drove 200 miles from Shavertown, Pa. to reach the site. A few hectic hours later, Johnson and Turner had restored antenna rotation, and under the guidance of Kusnetz reestablished radar beacon operation. Working throughout the day and using jumpers, switches, and special hookups to bypass the damage, the trio completely restored the Idlewild system by 6:30 p.m.

Present for the award ceremonies were, left to right: Oscar Fisher, Chief, Electronic Engineering Section, Herb Ross, Chief, Radar Unit, Norman Kusnetz, Robert Brown, Chief, Installation & Material Division, Johnson and Turner.

## Amateur Aircraft Builders Seen On Increase in Eastern Region

On toward the latter part of September, Ben Rock, Supervising Inspector of the Engineering and Manufacturing District Office, Hasbrouck Heights, N. J., addressed approximately 50 amateur builders of the Philadelphia No. 78 Experimental Aircraft Ass'n. Chapter at North Philadelphia Airport.

In addition to a speech covering fabrication and design deficiencies noted in amateur-built aircraft, films were shown on troubleshooting, procedures, inspection and fabrication methods. More than 100 amateur-built projects are currently in the works within the New York-New Jersey area.

## SERVICE AWARDS TO FIDO MEN



Thomas J. Brown, Jr., Chief, Richmond FIDO (left) awards Length of Service pins to FIDO personnel. Above, receiving awards totalling more than 135 years of service are, left to right: Noah A. Cox, Pauline Clark, James Seymore, Walter Townsend, Henry Mathews, Edwin Gellely and Edward Bankston, FIDO employee Obie Whitehurst was not available at the time for the picture.

## CAHILL RECEIVES SSP AWARD



Mike Cahill, Chief, Publishing and Graphics (right) receives Sustained Superior Performance Award from Regional Executive Officer Irving Mark (left). Administrative Services Chief William Sigmund (center) looks on approvingly. Cahill received award for outstanding performance of duties associated with printing and publications.

## ROBERT V. REYNOLDS NEW DEPUTY TO SCHULTE



Robert V. Reynolds

Serving the needs of the general aviation community is no easy chore. Perhaps that is why Robert V. Reynolds was selected as Deputy Assistant Administrator in the Office of General Aviation Affairs.

Bob Reynolds became William J. Schulte's deputy early in October. Exceptionally qualified for the job, he is an experienced administrator, proficient pilot, deft troubleshooter, and a 16-year veteran of the FAA.

Reynolds is a familiar face to many Headquarters personnel who remember him as Special Assistant to former FAA

Deputy Administrator James Pyle, the position he held immediately prior to his Southwestern assignment. He joined the Agency (then the CAA) in 1947 as Airman Standards Inspector in the Denver GADO. He continued to serve in positions of increasing responsibility in the areas of flight operations and airworthiness. In 1957 he was named Chief of the General Safety Division in the Eastern Region, then transferred to the opposite coast in 1958 in the same capacity for the Western Region.

Prior to World War II, Reynolds owned and operated a fixed base operation and provided basic pilot training under the government-sponsored Civilian Pilot Training Program. During the war he served as Group Commander for the Army Primary Flying School and later as a Civilian and Military Ferry Pilot with the overseas duty in the China-Burma-India Theatre.

Mr. Reynolds is married and has two grown sons.

The Office of General Aviation Affairs promotes wider understanding of FAA activities among the American flying public. It is the focal point for the handling of Congressional matters and it develops aviation education programs in cooperation with state and local officials and aviation organizations. Today, there are more than 80,000 airplanes in the general aviation fleet and the number is expected to increase by over 20,000 before 1970.

## FAA Personnel on the Alert for Possible "Saves"

Flight assists, performed by FAA controllers, flight service specialists, and tower personnel saved 1909 aircraft from possible disaster in fiscal 1963, says the ATS Fact Book. Of the total, 325 were military.

Technically a "save" is an incident which might have resulted in loss of life if air traffic service were not available; however, it can be assumed that in the majority of cases reported the term is not incorrect.

Some saves are more dramatic than others, but all were calls from planes in trouble and reflect the confidence of the man in the cockpit for the man at the mike when the chips are down.

By far, lost aircraft got the greatest number of flight assists during the 12-month period; next came pilots caught on top of an overcast or in bad weather with neither the experience nor equipment to handle the situation; many were running

low on fuel when they called in and were directed to the nearest airport; hundreds of others were in mechanical trouble of some kind, engine failure or malfunction of navigational gear, etc.

Radar played a vital role in aiding the majority of the pilots. The Fact Book accounts for 1160 pilots tracked on the scopes and vectored to safety; several hundred others were located from ground stations by radio direction finders; many of the lost ones were put on the right course by geographical orientation which, simply stated, means that the specialist, from his intimate knowledge of the terrain, could tell the pilot where he was in respect to landmarks in the area. Some were saved by emergency runway lighting and some by foaming the runway to prevent fire.

Statistically, Centers gave assistance to 494 aircraft; Towers 960, and Flight Service Stations, 455.

## General Counsel Announces FY 63 Sets a Record for Enforcements

The General Counsel's annual report marks Fiscal 1963 as a record enforcement year in a number of ways. It was the first full year of the decentralized enforcement program; there was a marked increase in the number of cases filed—3705 general aviation and 1045 air carrier and 3026 general aviation.

A direct benefit of decentralization is reflected in time saved in processing enforcement actions. In both categories the time consumed from opening to closing a case has been reduced by fifty per cent.

Of the total actions taken, 1236 involved airmen certificates; 343 revocations and 893 suspensions. Informal conferences were requested by 414 airmen, 107 requested FAA hearings, and 98 chose to appeal their cases to the Civil Aeronautics Board where FAA's decisions were affirmed in 43 cases, modified in 19, reversed in 11. The final 25 were either dismissed by the Board or withdrawn by the appellant.

Civil penalties amounting to \$124,729 were collected by FAA and the Department of Justice for 863 violations of the safety regulations by companies and individuals.

Medical certificates were denied 79 airmen, 33 of whom chose to appeal to the CAB where only 2 decisions were reversed.

An analysis of the violations show private pilots to be the greatest offenders—1193; next commercial pilots, 940, and last, airline transport pilots, 378.

## FROM JENNIES TO FAN-JETS



In 1924, Wm. Boesch, Jr., joined the Air Mail Service as an electrician. When, 39 years later, Administrator Halaby presented him with a retirement certificate, he was the Acting Chief, Administrative Management Division, Systems Maintenance Service, having watched the progress of American Aviation from a grandstand seat.



FOCUS Team sits for its portrait. (Seated, l. to r.): W. Moon, WE: A. Kreticos, SW: Manager J. M. Levine; A. Alfifi, EA: C. Stewart, SO: N. Hudson, CE. Standing: Dr. W. Cusim, consultant; W. King, C. Weaver; D. Keys; D. F. Loekle; E. Thies; Deputy Manager M. Gluck; K. Stallo; W. Kruse; R. Endres. Not present: R. Slocum.



Area Managers confer. (l. to r.) W. A. Stephens, Los Angeles; L. Brown, Hub Area; M. Keplinger, Albuquerque; J. Pound, Jacksonville.



The fine details of Project Focus are explained in July meeting held in FAA Headquarters. Point being stressed is the 'oneness' of the test to determine the "one best" system.

## The Search for "THE ONE BEST"

What might prove to be one of the most far-reaching management experiments ever conducted by the Agency is now under way in the five FAA Regions in the continental U.S. The test, which started officially on Oct. 1, following a preliminary shakedown trial of several weeks, ends next spring with final reports due on the Administrator's desk no later than July 1, 1964.

Termed "Project FOCUS"—an acronym for Field Organization Configuration Study—it seeks to discover the "one best" organizational structure for sub-regional operational units.

"I'd like to stress the 'oneness' of the study. While there are five Regions participating it is actually one test with five parts," Project Manager Joshua M. Levine said.

His assistant, Morton Gluck, draws attention to the team concept. "There is only one team directing and moulding this project. We are not split into a Headquarters team and field teams. Decisions are made by the whole team and the interim and final reports will be team products."

Project Focus' chief tool is the yardstick of "scientific management" which measures the actual operating performance of management structures. This scientific approach to a plainly apparent but highly elusive problem is comparatively new in management. Traditionally, organizations are put together with the best of intentions, from bits and pieces of experience, theory, hope, expected results, and the knowledge that "we can always change it later."

Such a cut-and-try formula sometimes results in a hair-

raising organizational structure that rarely improves with age and generally collapses in a welter of confusing and overlapping lines of authority, outmoded functions, and clumsy compromises.

Project Focus seeks to annul this tradition by accurate evaluation of each of the organizational structures now under test in the Regions. The structure that emerges as the "one best" will qualify because it will have been thoroughly tested in a real-life laboratory populated by real people working in a real operational environment.

The thinking behind Project Focus is an extension of the Administrator's policy of decentralization, of bringing management closer to the scene of operations. This will provide faster, more efficient service to the flying public at less cost and will minimize the need for changes in the future except as required by the natural evolution of aviation.

To provide a stable environment for the test the Agency issued a "freeze" order last April that prohibited "... further changes in the location, number, functions, type, or geographical boundaries of subregional field offices ... within any region." To avoid personal inconvenience, the number of persons involved in the test, especially those who would have to be placed on temporary duty status, was held to a bare-bones minimum.

### Program Picks Up Speed

Director of Management Services, John R. Provan, gathered his Washington team in July and the program began to pick up speed. In addition to Levine and Gluck, the Headquarters team includes Eugene Thies and Martin S. Matthers, Management Services; Roy Klotz, who succeeded Frank Loekle, Air Traffic; C. L. Weaver, Flight Standards; William King, Installation and Materiel; and Carlton A. Keys, Systems Maintenance. Available for consultation are: Eric O. Stork, Airports Service; Richard Slocum, Budget; and Kenneth Stallo, Personnel and Training.

Each of the five continental Regions has a full-time liaison man to round out the Agency team.

The basic plan for each of the tests to be conducted in the Regions came from the Regional Directors themselves and represents their own evaluation of the needs of their own region. After fitting together and polishing by the Focus team, the various management structures were approved for the big test.

All plans are built around a single basic concept: establishment of an Area Manager below the regional office level with staff and authority to coordinate Agency actions at the local level and make final decisions on local problems. This concept creates a major change in the *line authority* relationship. In the Area Office scheme of things, the line of authority descends from the Administrator to the Regional Director to the Area Manager.

Under this plan Division Chiefs at Regional headquarters are removed from line authority and perform only staff services to the Regional Director. The Regional Director issues all operational and management policies and standards.

The variety of tests present an interesting insight into the wealth of management talent in the Agency.

Eastern Region is running two tests simultaneously. In the "Coterminous Centers and Systems Maintenance Districts" test, Eastern is exploring the possibility of placing all Air Traffic functions in a center area under one manager who reports to the Air Traffic Division Chief at Regional headquarters. Systems Maintenance activities in the same area are under another manager who communicates directly with the Systems Maintenance Division Chief. The Air Traffic and Systems

Maintenance test Area Managers are co-located in New York city, thus providing a point below Regional level where communication and coordination can take place.

Eastern's other test, the "Flight Standards Field Offices," based in Boston, gathers together Air Carrier District Offices, General Aviation District Offices, and Engineering and Manufacturing District Offices into a single Flight Standards District Office with the Manager reporting to the Flight Standards Division Chief.

The Western Region's Focus exercise, "Comprehensive Area Office," proposes establishment of an Area or Comprehensive District Office in Los Angeles which will be responsible for all activities assigned to the facilities and offices in the area. In theory the Region is cut up into five parcels with headquarters offices at or near the five Air Route Traffic Control Centers. For the test, operation will be confined to the Southern California-Arizona area. In addition to operating functions, the Western Test Area Office includes legal, personnel, budget, and administrative services.

The Western Region has an added "extra"—while the area office is physically located in Los Angeles it is "assumed" to be remote. Business is conducted by letter and simulated long distance phone calls even though the test organization is located in the Los Angeles Hangar-District Office complex.

Another Western Region test, the I&M District Office concept which decentralized most of the "doing" functions performed in the Los Angeles area closer to where the work is done, was well under way before Project Focus started.

Southern Region's test is being carried out in the Jacksonville, Fla., ARTC Center Flight Advisory Area. The Area Manager is responsible for the administrative and technical operations of air traffic, systems maintenance, and supply in the area. He reports directly to Southern Region Assistant Director.

### Hub Area

In the Greater Chicago area, Central Region is testing the "Hub Area Manager Concept" which establishes a counterpart to the Regional Assistant Director. The Area Manager has full line responsibility and authority over all FAA facilities and offices in the area, including the Chicago Air Traffic Supervisor, ARTC Center, GADO, ACDO, Systems Maintenance District office and its associated Systems Maintenance Sectors, the I&M offices, the District Airport office, and the four towers in the Chicago area. He communicates directly with the Regional Director. The field facility Chiefs in the Chicago area serve as his staff in the same relationship as the Division Chiefs in the Regional Headquarters are staff to the Assistant Director.

The "Comprehensive FAA District Office" is the title of Southwest Region's sub-regional management structure. Headquartered in Albuquerque, the experiment is directed by a District Manager with authority to administer and make decisions in all major phases of operations within prescribed geographical limits. Resembling the Western Region test, the Southwest test differs in that it is remote from Regional headquarters and has fewer provisions for administrative support and not as many facilities.

With the test now at mid-point Project Focus management has faced and overcome one set of problems after another. The team had anticipated problems, but as in any experimental undertaking, their exact shape and size were unknown until encountered face-to-face.

What has emerged so far is vindication of the Administrator's philosophy of decentralization, of creating "One Mr. FAA" in the field, where the aviation community operates.

## QUESTIONS AND ANSWERS OF INTEREST TO AVIATION MEDICAL EXAMINERS

**Q.** What are some procedures the aviation medical examiner should follow at the scene of the aircraft accident?

**A.** A certain amount of confusion is present at every accident. Circumstances may alter the sequence in which you are able to accomplish the following:  
A. Coordination with the Investigator-in-Charge

Make arrangements to coordinate with the Civil Aeronautics Board or Federal Aviation Agency Investigator-in-Charge. If the Investigator-in-Charge is not at the scene when you arrive, leave your name and phone number with the State police, local police, local airport manager, etc., with a request that you be called later. It is important to discuss the accident with the Investigator-in-Charge to summarize your findings and impressions, and to learn his initial impressions as to the possible areas of suspicion.

**B.** Personal examination of wreckage and bodies

1. Identify (if possible) and locate each body and tag accordingly.

2. If bodies are thrown clear of wreckage, mark the spot on the ground where the body or part of body was found. Try to effect as complete documentation as possible prior to removal of bodies, including taking any pictures you think may be of help to us. Taking of pictures is strongly recommended. Make notes of the following:

a. If at all possible, check medical certificate of person thought to have been piloting the plane.

b. List major gross injuries (complete examination may be accomplished later).

c. List position of bodies and how they came to rest or how they were removed.

d. Correlation of structure and safety devices with injuries. Were seat belts worn? Were shoulder harnesses worn? Did they hold or fail?

e. Was there fire?

f. Any evidence of alcoholism or drugs?

g. Any evidence to suggest incapacitation prior to the accident?

### Cyanosis

Pink hue of CO poisoning in skin, tissues, blood? (Absence of the pink hue does not rule out significant CO levels.)

### Vomitus

Lack of bleeding. (Clothing, medications, cigarettes, any other personal effects, should remain with the body until released by authori-

ties in charge of the accident.)

**C.** Contact the Coroner or Medical Examiner

Establish rapport with the local coroner. Prevent premature release of bodies and premature embalming of bodies. Request permission for a post-mortem examination. Remember that you have no authority to either prevent or order removal of the bodies from the wreckage; this is within the coroner's jurisdiction.

**D.** Prevent unnecessary disturbance of wreckage

Try to impress rescue squads, police, etc., with the importance of minimal disturbance of the wreckage pending examination by the Investigator-in-Charge. If possible, you may be able to counsel the coroner or other local authorities when they decide to remove the bodies, on how to remove the bodies with the least possible disturbance of the wreckage.

**E.** Handling of witnesses

Questioning of witnesses is usually performed by the inspectors. Spontaneous or volunteered information should be noted, and if possible, the names and addresses of the witnesses taken so that the Investigator-in-Charge may question them later.

If you feel that a critically injured survivor, who may later die, wants to volunteer some information, you may take a brief statement from him.

**Q.** If the AME suspects the pilot appli-

cant is an alcoholic, but cannot prove it, what course of action should be taken in denying the pilot?

**A.** Legally, it is hard to prove alcoholism. If it exists, there probably is a marked psychiatric defect; therefore, the AME should either deny the application or request a psychiatric consultation. Any objection to such consultation would, of course, result in denial of certification.

**Q.** If the AME is uncertain about the pilot psychologically, what course of action should be followed?

**A.** One of two courses may be followed: Either the AME may withhold certification pending a psychiatric consultation; or the AME may issue the pilot a denial making a statement concerning his action on the examination form. If the pilot wishes further consideration, he must request within 30 days reconsideration by the Federal Air Surgeon.

**Q.** If an airman loses his Medical Certificate, may he secure an extra one from the AME who issued the original certificate to him?

**A.** No. The airman should write directly to the Chief, Aeromedical Certification Division, Federal Aviation Agency, P.O. Box 1082, Oklahoma City, Oklahoma 73101, requesting the duplicate certificate, and enclosing a check, payable to the Federal Aviation Agency, in the amount of \$2.00 to cover the cost.

## VIDEO BRIEFING AIDS PILOTS



A new system to brief pilots via closed-circuit TV is being tested at Lambert Field-St. Louis Airport. Using a TV camera located in the FSS, a picture can be transmitted to any of three remote monitors at the airport. In photos, Roger Kwarta (right) uses a phone to talk to William Saucier (left), FSS specialist on duty. By means of the camera-monitor arrangement, pilot sees appropriate weather charts and NOTAMS related to his route. The present three installations are remoted by coaxial cable. Two more planned monitors will utilize a microwave link.

## HERCULES MASTERS THE ANDES

Hercules, the Greek mythological hero who won divine honors for his physical prowess, achieved a place on Mt. Olympus because of his strength in accomplishing 12 celebrated labors.

His 20th-century namesake has won laurels for colossal puissance, too, in mastering 11 formidable labors. Perhaps his deified shrine should be the summit of the Andes Mountains in Latin America.

The modern-day "Hercules" is a USAF C-130, one of two turbo prop transports which has brightened the prospects of aviation for Peruvians by airlifting 140 tons of earthmoving and construction equipment—in eleven separate trips—over mountain ranges with heights of twenty thousand to twenty-five thousand feet. The equipment will be used for enlarging and modernizing the airports of Tarapoto and Rioja in Northern Peru which serve a rich agricultural region. Eventually this area will be served by the Northern Transandean Highway, but completion is still several years in the future. More than 42,000 metric tons of air cargo passed through the airport of Tarapoto in 1962, by far the largest volume of cargo passed through any airport in the Republic, including Lima.

The loan of the "Hercules" from the Air Force for the mammoth skylift was arranged through cooperation of the FAA U. S. Civil Aviation Assistance Group in Peru, the U. S. Military Assistance Advisory Group, and the Agency for International Development. The thirty-one pieces of equipment flown from Lima belong to the Peruvian Airport Corporation (CORPAC), the Government organization in charge of the construction and operation of all public airports in the Republic.

Gordon Wight, FAA Electronics Engineer, CAAG/Peru, participated in ten of the eleven trips, assisting in the maintenance of communications.

The "Hercules" has a carrying capacity of 92 persons or 20 tons of cargo. It has a speed of six miles per minute and a ceiling of 40,000 feet above sea level.



December, 1963

**HEALTH FOR ALL**

OFFICE OF AVIATION MEDICINE

**THE SNEEZE MENACE**

*Atchoo! Atchoo!* This is probably one of the more familiar sounds to mankind and identifies the sneeze. Billy Gilbert, of movie fame, capitalized on his version of the sneeze. However, for the average person it is usually a prelude to a cold or some other misery.

You could practically go into orbit on the propulsive power of a sneeze. Research shows that cough or sneeze shoots out germ-laden droplets at a rate of 150 feet a second. The larger droplets usually travel for about five feet before they fall to the ground. They've been known to hit the twelve foot mark, though. Small droplets float onwards and upwards for hours.

Many illnesses, including the common cold, flu, pneumonia, and tuberculosis, are spread from person to person by jet-propelled germs in somebody's careless cough or sneeze.

It is possible to have an infectious illness without knowing it. So—anytime you feel a cough or sneeze coming on, whip out a tissue and cover your mouth and nose. A handkerchief will do as well, though it seems silly to put germs back in your pocket. Paper tissues are best, but don't forget to dispose of them.

Use the same method to protect yourself if you see someone about to cough or sneeze in your direction.

During the cold and flu season try to avoid large gatherings where the chorus of sneezes and coughs appears to be continuous. This is a perfect medium to disperse or contract the germs which produce infectious illnesses.

If you catch a cold, don't pester your doctor for an antibiotic. It won't do any good. You can keep yourself comfortable with nose drops, aspirin, and cough syrup. But if fever lasts more than three days, or you are short of breath or have a persistent cough, see your doctor at once.

Until medical science learns to prevent the common cold, do your part to prevent its spread by muffling that sneeze.

**SOME CREDIT GIVEN FOR STUDY**

Employees who take courses offered by the FAA Academy cannot have credits transferred to colleges and universities towards a degree.

It has been suggested that the Agency establish a plan whereby credits for FAA courses, either correspondence or in-residence at the Academy, could automatically be honored by a designated school. Such a plan could not work because colleges have individual methods of determining what credits they will grant.

However, almost all colleges and universities give varying amounts of credit for training acquired outside of their own academic programs. Students generally are required to present course outlines,

certificates of completion, and grades attained. On the basis of this evidence, colleges often will give some form of academic acknowledgment. Since there is no uniform method of crediting, training acceptable to one school may be unacceptable to another.

Academy students wishing credit for their work should retain the course material given to them and submit it to the college at which they are seeking a degree.

**COMMERCIAL OPERATING COSTS**

A new report put out by Policy Development takes a close look at operating costs and performance characteristics of commercial aircraft.

While some statistics can be dreary, those contained in this report are not. For example, do you know that it costs the airlines about \$1.11 less per seat-mile to operate a four-engine jet than it does a four-engine piston plane? Or that the maintenance of a four-engine turboprop is as expensive as the combined cost of its fuel and flight crew?

A collection of facts like these are a great help to the FAA. They are good guides for anticipating future standards and requirements for manufacturers, airlines, and airports. They provide yardsticks for measuring the operating costs of the Agency's own fleet of planes.

Limited copies are available from the Office of Policy Development in Washington. The title: *Direct Operating Costs and Other Performance Characteristics of Transport Aircraft in Airline Service.*



## AGENCY'S FIFTH BIRTHDAY CELEBRATED THROUGHOUT SOUTHERN REGION



**HERO-WORSHIP.** Eric Henshaw, 7-years old and freckle-faced, looks up with awe as FAA Atlanta pilot Jack Lawrence tests equipment that was used to make children "Honorary Jet Pilots," Sunday, Oct. 27, at Open House of Southern Region Hdq. Bldg.

The Federal Aviation Agency's Fifth Anniversary was gayly, proudly, and happily celebrated with Open Houses in 38 cities throughout the Southern Region between Oct. 25 and Nov. 3.

With great imagination and ingenuity, FAA employees did many interesting and exciting things to focus favorable public attention on the Agency, and the progress it has made in modernizing the Federal Airways during the past five years. Visitors toured facilities and offices and observed the interesting air safety work going on. Thousands of words and hundreds of pictures were used in newspapers and on radio and television stations.

Next month, we will run a number of pages in "FAA HORIZONS" depicting the many activities that took place during our Fifth Anniversary observance. Until then, congratulations to everyone who worked so hard to project a favorable FAA image!



Director Basnight and Air Carrier Branch Chief Commander prepare to board a Pan-American Aircraft in Miami to begin an inspection tour of Latin America. The trip proved most successful and informative as the Region assumes responsibility in those areas.

## JACKSONVILLE CENTER AREA MANAGER HEADQUARTERS NOW IN BUSINESS

Currently in progress in the Jacksonville, Florida, ARTC Center Flight Advisory Area is the Southern Region's part of the national Project FOCUS test. Our role is to "determine the practicality and feasibility of combining air traffic operations, maintenance, and supply in an ARTC Center Flight Advisory Area under one 'Manager' who reports to the Director."

Our Jacksonville test of this concept is on schedule, proceeding as planned, and is being constantly evaluated.

The Center Area Manager Jim Pound's headquarters staff is hard at work every day testing the plan.



Center Area Manager Headquarters at Jacksonville is in the Jacksonville ARTCC Building. From this place, a unified air traffic, systems maintenance, and supply team under an Area Manager create a common FAA system.



Evaluation of CAM organization requires great care in collection and analysis of data. James E. Pound, Center Area Manager, explains to Carl Stewart, Regional Project Coordinator, data collection activities.



Center operations are directed and supervised from office of Octavio J. Cowart, Acting Center Chief, during test as he confers with Joseph M. Hinson, Chief, Enroute operations of the CAM Headquarters staff.



Flight Service Station activities and Terminal activities get CAM coordination as Carl R. Leavitt, Jr., Chief of Terminal Operations, discusses a mutual problem with the Chief of FSS Operations, Carl G. Suber.



Plans and procedures are given the overall CAM "look" as Bently C. Wilkinson and Mary Bland are briefed by Lemuel E. Baker. All are in P&P Group.



Area liaison activities with both the military and NASA are coordinated by Earl G. Baker, who is Chief Military Liaison Officer from the CAM Headquarters.



Decentralization of funds by the Regional Office gets careful review in Program Control Group as Joseph A. Owen and Benjamin T. Baldwin, Jr., compare notes.



Area maintenance programs and problems are discussed and analyzed by Hal R. Culp, Chief of Systems Maintenance Operations with his assistant, A. B. Smith in the hopes of a workable solution.



Approximately 860 Air Traffic, Systems Maintenance and Materiel personnel receive guidance from Vernon Erickson of Manpower Control Group as he studies a program that combines training and manpower needs.



The flight advisory area continues to receive professional guidance as H. G. Dean and Leon DeVaughn from Engineering Group evaluate effectiveness of area maintenance effort from a CAM systems viewpoint.



(Left). This old sentinel of the airways—the Low Frequency Radio Range at Florence, S. C.—is the last of the "old timers" in the Southern Region to be decommissioned. They are being replaced by the modern Very High Frequency Omni-directional Radio Range with TACAN at right. New installation is more efficient.

## AN ERA PASSES

### *Last of the Old Low-Frequency Radio Ranges in Southern Region to be Decommissioned*

Memories are wonderful things.

One such memory will be reflected upon . . . perhaps with a little sadness . . . by many "old timers" in the actually "young" business of aviation . . . the first part of next year when a significant era in aviation passes.

One day, in early '64, a familiar voice will be silent . . . the "dah dit," "dit dah" . . . when the last old low-frequency radio range in the Southern Region is decommissioned at Florence, S. C.

Yes . . . an era has passed. It was late in the '20s when the Federal Government first assumed the responsibilities for providing an Airways System made up of these radio ranges which projected their "voices" in four directions . . . helping pilots find their way from point to point throughout the nation.

These were the days of the Ford Tri-motor . . . the Curtis "Robin" . . . the furlined helmets and jackets . . . the goggles . . . the little waxed mustaches of daredevil pilots . . . the romantic days of "flying by the seat of your pants" . . . of flying under bridges . . . of walking the wings . . . flying circuits . . . and knowing that you were a part of a vibrant new industry which was soon to amaze the world.

When it first came in, and for years afterwards, the old

low-frequency radio range did yeoman service for pilots . . . did a job that, in those days, could not be done better in any other way.

But all good things must come to an end . . . and so with the old four-course range.

As the young "giant" of flight grew and spread its wings, pilots needed greater flexibility . . . more than four courses. So, electronic engineers designed what we know as the standard of today—the Very High Frequency Omni-directional Radio Range, popularly called the "omni" or "VOR."

This "sentinel of the airways" . . . first, with its derby-type dome, and now, with its new "hat style" . . . sent out its powerful radio signals in four directions, offering pilots many courses from which to choose.

The "ball of progress" turns as new devices appear on the scene . . . the ball revolves around . . . and the older devices move to the dark side of history. So it has been with the replacement of the four-course range by the "omni."

Thus, today, while all of us who fly appreciate the safety and efficiency of the new electronic marvel of the "omni" . . . it is a little difficult not to get at least a small lump in your throat when you know that an aviation era has passed.



A tropical storm begins to brood as our Southern Region DC-4 Flight Inspection aircraft enters traffic pattern to land at the airport on desolate Ascension Island.

M. R. McGranahan, Chief of Miami FIDO, runs through check-list before departure for Caribbean flight check.



Nan-85, new DC-4 which performs facility flight checks throughout the Caribbean, is being readied for a long-range flight to Ascension Island.



## FLIGHT CHECK WITH A BRITISH ACCENT

### *Ascension Island . . . Barren . . . Isolated Volcanic Island in the South Atlantic*

**H**ow far does the Southern Region's responsibility extend in flight checking navigational aids?

Well, guess again! When our Region took over the flight inspection of all Air Force navigational facilities in October 1962, the Aircraft Management Division inherited responsibility on a waterless cinder pile known as Ascension Island.

Ages ago, volcanic fires spewed forth torrents of molten rock and glowing ash above the surface of the South Atlantic to create Ascension, one of the most barren, isolated spots on earth. This rugged island, 7½ miles long and about 6 miles wide, is found below the Equator, about midway between South America and Africa—or to be exact—1,223 nautical miles east of Recife, Brazil.

This island was discovered on Ascension Day by the Portuguese in 1501. It was never formally occupied by any nation until 1815, when the British made claim to it after Napoleon's exile to St. Helena, another island 700 miles to the Northwest.

After taking possession, the British maintained a naval and coaling station on the island. In later years, Ascension became the site of an international cable station connecting the two continents of South America and Africa.

World War II placed the immediate need for a staging point on the South Atlantic aircraft ferry system. The forty volcanic cones found on the island did not discourage the American Army Engineers from moving 380,000 cubic yards

of volcanic rock and cinders to build one 7,000 foot runway.

The runway was carved between steep ravines where the surrounding tablelands vary from 1,200 feet to 2,000 feet. Nearby Green Mountain, a huge elliptical crater, is 2,870 feet above the sea. In the midst of these rocky problems, the engineers found another . . . the wheeling, screaming, sooty terns . . . protesting man's intrusion upon their nesting grounds. These birds, known as "wideawakes," come here by the tens of thousands to roost and lay their eggs on the open ground. Engineers building the airstrip disturbed the birds, but failed to drive them away. Thousands insisted on parking on the runway. Appropriately, the airfield and tower were named "Wideawake."

Construction of the runway became such a rush project that time was not allowed the engineers to level the hills in the center of the field. Today, the extreme ends of the runway are reported to be 100 feet below the mid-field point. After passing the hump at mid-field, reverse thrust is really appreciated.

This cindery atom of the British Empire became an important air link between two continents. Through Brazilian cooperation, the British and the U. S. Navies were able to make full use of Ascension in the fight to sink German submarines. In both directions from Ascension, constant surveillance of the Atlantic Narrows by the Navy (if you can

call the bulge of Brazil to Africa narrow) resulted in more submarines sunk in that barrier patrol than in any comparable area of the ocean.

It also took some wideawake navigators in those World War II years. The pilots sang, "If We Don't Hit Ascension, My Wife Gets a Pension." They were briefed with assurance, "You'll Find It. Can't Miss It—Ain't Nothing Else Nowhere Near It." The same old feeling still persists today.

From the end of World War II until 1956, the remoteness of the island was again felt by the little band of approximately 200 British subjects living in the transoceanic cable settlement of Georgetown. To help supplement the food supply of the local people the Quartermaster of the United States Army Air Forces was requested in 1944 to test the practicability of hydroponic gardening. Five vegetables—lettuce, tomatoes, cucumbers, radishes, and green peppers were successfully raised in the black cinder beds which were irrigated with distilled sea water, mixed with chemicals.

Another migration of nature, in addition to the "Wideawake terns," was described by Darwin as the "strange invasion" of sea turtles. Each year, between January and May, thousands of sea turtles crawl up on the ash-laden beaches and dig holes in which to lay their eggs.

Probably the strangest and certainly the most scientific invasion started in 1957. The days of effective air power were being discussed as numbered. The new terms were "guided

and ballistic missiles." The big race was on. This last invasion of the lava hills of Ascension was set up as "Tail End Charlie" for the U. S. Long-Range Missile Proving Ground. Some 500-plus civilian personnel inhabit this remote island as engineers and technicians. Civilian workers get a monthly bonus of 40% over base salaries. Each man receives free room, board, and medical care; and Uncle Sam gives him an income tax refund if he remains out of the U. S., for 510 days during an 18-month period. Take it from this old writer, walking on cinders for a year and a half is not worth the extra compensation.

Logistical air support for this down-range operation is furnished by the U. S. Air Force Military Air Transport Service. Navigational aids at Ascension, as elsewhere, must have periodic flight evaluation by FAA Flight Inspectors. These facilities are maintained and operated by civilian contract personnel.

The Agency's DC-4 fleet has the equipment on board to inspect and certify these vital navigation facilities, and the fuel range to make the long leap across the South Atlantic. Every four months, a flight inspection crew heads out toward the barren cinder island at the end of Canaveral's 5,000-mile shooting gallery aboard a MATS aircraft, and it's always a pleasure to hear the controllers in Wideawake Tower, with visions of mail aboard and good things to eat, say, "Cleared to land!"

## Halaby's "Average Controller" in Southern Region



Dave Morrow, the Southern Region's "living" model of Administrator Halaby's "1963 Average Controller," stands beside his attractive Atlanta home with his wife, Jeanette, and his two children, Kathy Sue and Jeff.

At the Air Traffic Control Association's 1963 Convention in Dallas, Texas, this fall, Administrator Halaby described the average controller of today.

He said, "Try to visualize the average controller today . . . he is about 31 years of age . . . he is in good shape, physically . . . he is married . . . has two children, going on three . . . has had some college training, or its equivalent . . . is a veteran . . . and before coming to the FAA, chances were he had either been a mili-

tary controller or a pilot . . . his average salary and benefits are estimated at \$10,197.00 a year.

"HORIZONS" thought it might be fun to find an *actual* controller in the Southern Region who meets the Administrator's description of the "average controller." We found one that fits his description almost to a "T".

He is Dave Morrow of the Atlanta Center. So let's parallel the Administrator's description with the real Dave Morrow:

### DAVE MORROW, CONTROLLER, ATLANTA ARTC CENTER

. . . Dave is 31—born June 9, 1932.

. . . Dave has never failed to pass his Class II Medical!

. . . Dave is married . . . has a boy and a girl, but . . . oops . . . (the only place we slipped!) . . . here he does not meet the average . . . there isn't "one on the way!"

. . . Dave attended the University of Tennessee.

. . . Our controller was in the U. S. Air Force.

. . . Dave was an Air Force tower controller.

. . . Dave is a GS-12 controller—salary & benefits estimated at \$10,192.00 a year!

### WHAT A COINCIDENCE!

## GENERAL AVIATION WINNER



Ray Montgomery, general aviation mechanic, employed by Capitol Airways, Berry Field, Nashville, and State winner for Tennessee, has also been selected as the Regional Winner of the Administrator's 1963 Aviation Mechanic Safety Award, General Aviation Division, Southern Region.

## AIR CARRIER WINNER



J. R. Hollen, an Eastern Air Line aviation mechanic at Miami International Airport, has been selected as Regional Winner of the Administrator's 1963 Aviation Mechanic Safety Award, Air Carrier Category, Southern Region.

## NEW AREA MANAGERS



Jaime D. Serra is the new Caribbean Area Manager, with headquarters in San Juan, Puerto Rico. Below: Clifford P. Rosacrans, new Area Manager for the Canal Zone. He'll work in Balboa.



Modern freeways tie together old and new in San Juan.



Leathery-faced fishermen still go out in their small boats to fish in the sun off the Puerto Rican coast.



El Morro Fortress, symbol of San Juan's might in the days when conquistadores and pirates roamed the Caribbean. Below: one of the many quaint hotels in the City.



Contrasted with the old hotel, in the background is the strikingly contemporary Caribe Hilton Hotel.



# A CITY LIFTS ITS FACE

## Changing Skyline of San Juan

Stateside employees of the Federal Aviation Agency are well aware of the ever-changing and rapidly increasing number of skyscrapers which constantly alter the airspace in and around our cities.

Few of us realize, however, that the Agency is also vitally concerned with the skyline which greets the flying public on the island of Puerto Rico, a mere 1,000 miles east of Miami.

In recent years, San Juan, the capital of the island republic, has undergone a building boom which has necessitated constant coordination with Airspace Utilization Branch of the Southern Region's Air Traffic Division. Since the safety of the flying public is the primary concern of the Agency, the Airspace Branch must study each proposed skyscraper to insure that its construction on the desired site will not constitute a hazard to aircraft navigation.

The Federal Aviation Agency maintains an Air Route Traffic Control Center, an International Flight Service Station, and two Air Traffic Control Towers in Puerto Rico, manned by approximately 140 employees.

# PHOTO OF THE MONTH



Showing lights and shadows of a typical radar room, whether it be an FAA IFR room, an Air Force RAPCON, or Navy RATCC, this available light photo was taken by H. Turner, Asst. Chief, Pensacola RATCC/Tower. Exposure: 8 seconds, F8 on Plus X, using Minolta Autocord on tripod. Enlargement was over exposed and underdeveloped to prevent excessive contrast. (L. to r.) J. Sullivan and G. Harbison (foreground), controllers, and T. Huelsbeck, Coordinator.



Area Coordinators are shown attentively listening to a briefing during the Area Coordinators' semi-annual meeting at Regional Headquarters in early Fall.



This is the site of the new 3,000-foot-long, 50-foot-wide landing strip under construction at Kitty Hawk, N. C., where man's first powered flight was made. On December 17, 1963, the 60th Anniversary of Orville and Wilbur Wright's flights, impressive ceremonies will be held saluting this memorable achievement.



Named ATCA "Controller of the Year," at the Air Traffic Control Association's National Convention in Dallas recently, George N. Allgood is shown at the mike in the Atlanta Tower, where he is a Supervisory Air Traffic Control Specialist. To be selected as the outstanding man in a field where many outstanding people abound, especially when the selection is made by his fellow workers, is probably the greatest recognition a man can achieve. We are all proud of George for having reflected great credit upon himself and the Southern Region, and ultimately exemplifying the highest ideals of the services performed by FAA.

## MANAGEMENT INSTITUTE UPDATES PHILOSOPHY FOR MIDDLE MANAGERS

During the period of January 19-31, the Southwest Region will host the Third Management Institute for the Fiscal Year 1964. This is the third of six two-week sessions planned for middle management training in the Southwest and Central Regions and the Aeronautical Center.

Courses are conducted at the Hall of Advanced Studies, Center for Continuing Education, University of Oklahoma. Tailored especially for middle management, the Institute accepts branch chiefs and personnel in management positions through grade GS-14. Opportunity is afforded these personnel to receive the best of managerial training, a valuable asset in supervisory positions.

Through practical training and managerial education, these sessions stimulate interest in the practical aspects of management, its methods and techniques, skills and practices. Incentives and aids further develop these managers in the conceptual skills so necessary for success.

Formerly conducted by the Office of Personnel and Training, the Institute was conducted ten times in several regional locations before decentralization. During this time 280 middle managers completed the sessions, receiving invaluable training and stimulation in their work.

Acceleration of the program and its training is now possible with its decentralization to the Regions. As many as 16 Institutes a year can now be held throughout the Agency where an average of four to six was possible previously. This training will reach the great number of persons who can benefit from it—an estimated four times as many as during the centralized courses.

Decentralization also brought another benefit. It has given the Regions the opportunity to tailor the instructions to include their individual management problems. The training now reflects problems and areas needing priority attention, and thus adds "muscle" to Regional-level management. The Region's particular set of needs, attitudes, policies, and methods are reflected in discussions of its own objectives and future plans.

To accomplish this, the training officer from each Region and the Center serves as the director of two of the Institutes during the year. His staff officers are the other two training officers. Also, a staff member from the Region of the officer training for staff capability in future Institutes.

Three major subject areas are covered in each Institute: work management, people management, and communications

process. In the first major subject area are the functional activities of the manager, such as planning, organizing, directing, coordinating, and controlling. Effective human relations in the work situation is covered in the second phase with the study and the understanding of human behavior. Personnel management emphasizes the group aspect in dealing with situations encountered in the work environment and includes communications, leadership, training, and motivation.

Several authorities pool and blend their knowledge and experiences in the successful teaching at the Institute: management specialists in private industry, university and college professors, and top Agency managers. Lectures are interspersed with discussions and the interchange of ideas among the participants. Rounding out the list of learning tools are panel discussions, group workshops, films, and informal group meetings.

Students are expected to have attended the equivalent courses of Management for Supervisors, Phase I and Phase II, and have not attended a middle management course during the past two years. Special attributes of the participants should include a potential to absorb broad concepts, and ability to contribute to group discussion, and the intellectual curiosity, imagination, and desire to profit from the experience of others.

The Institute demonstrates the sincerity of the Agency to develop the potential in its managers, providing them with the tools for career development within the Agency. These main tools are the exchange of benefits of knowledge and experience to supervisory personnel to prepare them for added responsibilities and advancement.

A few years ago the frontier heritage still clung to management, and self-made managers reflected action rather than words, deeds instead of thought, and decision in place of philosophy. How much greater would have been the potential if the manager had a clear and positive philosophy of action?

Middle management today is in the center of a network of relationships with higher management, executives, staff specialists, and subordinate groups. A manager cannot rely on intuitions, past experiences, and hunches; he has been delegated the authority to make decisions in the area of certain responsibilities. He must act with clear thinking within certain guidelines of his organization.

Action is characterized by energy, initiative, and teamwork in the exciting



work where there are more activities, more technical specialties, new techniques of coordination and contact—and, indeed, more pressures. Decentralization of responsibilities has added greatly to the decision-making role in the field.

The Management Institute exists for this purpose. It offers a wider perspective, a broader range of knowledge, a greater understanding, and the flexibility of ideas to its students. Surely, some managers can grow without training, but are full potentials being developed without this help?

These potentials must be nurtured and kept off the path of chance growth and development. Building professional managers and organizing an effective management team whose decisions and actions influence the air safety of the nation cannot be left to chance. The Management Institute has eliminated this possibility in providing a tailor-made program of instruction for middle management personnel.

The Southwest Region is fortunate to have this marvelous opportunity for supervisory personnel to supplement their technical skills with sound management training. Those assigned to the course have displayed enthusiasm in their selection, and supervisors at all levels are pleased with the benefits brought back to the Region by those participating in the Institute.

*Archie W. League*

Southwest Region Director

## COUCH ASSISTS INTERCEPTOR; GETS WELL DONE



Controller Bobby L. Couch.

Four minutes elapsed from the time the pilot declared an emergency to the time he landed his plane safely on the runway!

Quick action by Bobby L. Couch, Air Traffic Controller at RAPCON, Perrin Air Force Base, in providing the pilot with flight assistance earned him an official commendation for his professional competence.

An F-104 interceptor from Homestead Air Force Base developed engine trouble while letting down to land at Perrin. The pilot declared an emergency.

Couch immediately picked up the plane on radar and vectored the pilot through a heavy overcast to a position four miles from the end of the Perrin runway. From this point the pilot was able to make a straight-in landing.

Controllers were not aware of the significance of the assist until Air Force commanders advised the Administrator of the superior handling of the emergency situation. Lee E. Warren, Director, Air-Traffic Service, sent his "Well Done," and Donald E. McHam, Southwest's Chief, Air Traffic Division, officially commended Couch for his actions.

Lt. Gen. Herbert B. Thatcher, Commander, Air Defense Command, cited Couch in the original dispatch to the Administrator: "It is significant to note that the time from the onset of the emergency to touchdown . . . was less than four minutes. If Mr. Couch had done less than a superior job, we most likely would have lost the aircraft and the pilot."

## Sub-Regional Field Test Activity



Desks, file cabinets, and personnel are crowded into the "Comprehensive FAA District Office" at the Sandia Base, Albuquerque, for the Southwest Region's study of the feasibility of further decentralization of activities to field locations. The sub-Regional office, under a District Manager, administers to facilities in New Mexico and parts of West Texas. After the test ends in April 1964, the results will be carefully evaluated with the possibility of adoption on an Agency-wide basis. Several other field tests are being conducted in various regions in this scientific approach to reorganization.

## What's That Page Number Again? Ask the Man on Duty, He Knows

Preston J. Gauthier, Flight Service specialist at Alexandria, was in the right spot and on the right page when he received a distress call. R. B. Bushnell, a local pilot on a flight from Alexandria to Baton Rouge, radioed the station he was at 5,500 feet and was suffering from dizziness and blurred vision.

Gauthier advised him to turn off his cabin heater, open a window, and descend to 2,500 feet. He was then directed to Marksville Airport, which by judging from his departure time, was estimated at ten miles directly ahead.

The FSS alerted the Louisiana State Police who rushed an ambulance to meet the aircraft when it landed at the airport. Bushnell was experiencing numbness and muscle spasms in his arms and legs when he made the landing. Rushed to a hospital, he made a quick recovery from apparent carbon monoxide poisoning.

Gauthier said that at the time of the incident the station had just received a copy of FAA AVIATION NEWS. It was at his air-ground position, opened to a story on page 14 entitled "Safety First—Carbon Monoxide Poisoning."

## GADO Inspector 'Cracks' Mystery Of Copter Hovering Over Stadium

As a rented helicopter hovered more than an hour over the University of New Mexico Stadium, worried residents in the area called Edward Leach, GADO-1 supervising inspector. A check revealed the police in action, spotting and pinpointing suspicious acts in the adjacent parking lot.

The police did a good job of nipping attempts of vandalism as they radioed to co-workers on the ground. Also, a photographer in the copter reported he got excellent pictorial coverage of the football game in progress.

## Instrument Society of America Tours Albuquerque ARTC Center

A tour of the Albuquerque ARTC Center planned as a field trip by about 20 engineers of the Instrument Society of America, Albuquerque Section, mushroomed into a "jolly jumbo" tour by 90 engineers and guests. The visit was considered by the Society to be one of their most successful field trips. Personnel from SMS-101 and the Center conducted the tour.

## SW REGIONAL CONFERENCE SHARPENS DISTRICT SECRETARIES' ABILITIES



Virgie Ellison receives award for her suggestion from A. L. Coulter, Flight Standards Division Chief.

A year ago Miss Virgie Ellison, secretary of GADO-5, Houston, suggested that Flight Standards secretaries and aviation clerks meet on a regional basis to discuss their work. This fall, Miss Ellison not only attended the meeting she suggested, but she was recognized for her suggestion.

Eighteen secretaries from the Air Carrier, Engineering and Manufacturing, Flight Inspection, and General Aviation district offices, plus the Aircraft Maintenance Base, met in Fort Worth. Flight Standards Division hosted the two-day training conference.

In addition to Flight Standards presentations, specialists from other divisions discussed topics of mutual interest. Presentations were made by specialists from



They participated in the Fort Worth conference for secretaries. Seated (l to r): Norma Adolph; Betty Graves; Olene Saunders; Dolly Palmer. Second row: James D. Ragsdale, Chief, Management Staff; Nancy Kemp; Mary Smith; Shirley Coffman; Virgie Ellison; Elizabeth Perry; Janice Brooks; Bette Scott; Hazel O'Shields. Back row: Anette Corley; Gloria Womble; Marie Gustafson; Carmela Stallings; Helen Pfeiffer; and Frances Lancaster.

Management Analysis, Accounting, Personnel and Training, Administrative Services, and Installation and Materiel divisions.

James D. Ragsdale, Chief of the Flight Standards management staff, was the conference leader. He attributed the success of the conference to communications and interaction among the secretaries and lauded the enthusiasm of the group.

Topics discussed included correspondence and paperwork assignment, accounting procedures, utilization, reports management, property and supply management and disposal, district office evaluations, employee health benefits, distribution of directives and aeronautical charts, and the recognition and awards program.

The conference was Phase II of the Flight Standards Division's District Office Management Improvement Program. Phase I of the program consisted of two district office evaluations conducted by regional office personnel during FY 1962 and FY 1963. Consideration is being given for an annual or bi-annual conference.

When the secretaries departed for their regular duties they were given a "home work" assignment. They were asked to submit at least one idea for improving clerical or technical manpower utilization within their office or geographical area. A higher degree of uniformity in district office operations is expected as a result of the conference.

## FLIGHT SURGEON ASKS COOPERATION OF AMEs IN ACCIDENT INVESTIGATION

A policy of obtaining blood, alcohol, and drug determinations on all fatal aircraft accident victims, if possible, has been instituted by the Southwest Region Medical Division. If consent is given by survivors, the same determinations are desired on them. Cholinesterase levels are requested also in all fatal or survivor crop duster accidents.

All AMEs are being asked to participate. The CAB, under a public law passed in 1962, now has the authority to order autopsies, and AMEs are requested to cooperate with the CAB investigator in obtaining these samples for study.

It is suggested, in cases of survivor crashes, that the AME call the airman's

physician and inform him of the desired tests for research purposes. Reimbursement to the laboratory will be made by the Aviation Medical Service. The accident victim and relatives should be reassured that all findings on such tests are confidential and release can be made only by the CAB with the signed permission of the airman or his survivors.

Previously, AMEs were advised to send specimens to the Armed Forces Institute of Pathology in Washington. It is now suggested that specimens be sent to local pathologists so that the results of the study can be learned much quicker. Blood and tissue specimens may be frozen in latex bags and then packed in dry ice

or refrigerant. When thus preserved and packed, specimens can be shipped by bus or air express to the nearest pathologist.

Four pathologists have been designated in the Southwest Region. These are in New Orleans, Dallas, Tulsa, and El Paso, and their names may be obtained from the Aviation Medical Division. When shipped, a specimen should be labeled "Specimen—Rush—Fragile—Aircraft Accident." This applies to the forwarding of blood alcohols, cholinesterase levels, and all tissues.

Any AME who is asked to participate in an investigation and has any questions is advised to call the Regional Flight Surgeon's Office in Fort Worth.

*Fifty-four years  
of  
aviation progress*



Halaby (photo at left) tells Watson LaForce (l), World War I flyer and a leading developer of Midland Air Terminal, and George McEntire, a Lockheed test pilot with Halaby during World War II, "the sky's the limit" as they discuss West Texas aviation progress. During the fly-in session (above), Mimi Ann Muldrow discusses regulations banning the wearing of contact lenses by pilots as the Administrator interrupts her to ask for additional comments.

## West Texans Stage Fly-In Session



Odessa Chuck Wagon Gang (above) adds western flavor to the fly-in with barbecue. Participants (below) are attentive during sessions of the fly-in.

Administrator N. E. Halaby helped West Texans observe their 54 years of aviation progress. He was the guest speaker at the commemorative banquet held at Midland's Ranchland Hill Country Club October 18. The following day he held a Fly-In Hangar Session at the busy Midland Air Terminal, located midway between Midland and Odessa.

The Administrator kept a busy schedule during his visit. In addition to his planned activities, he visited with civic and aviation leaders and a few old acquaintances, finding time to reminisce about aviation of the past and of expected achievements in the supersonic age.

Also, he participated in the ground-breaking ceremonies for a museum in which will be enshrined the flying machine that possibly made the first powered flight in the Southwest. The museum is being donated by Mr. and Mrs. George T. Abell, business and civic leaders, and will be at the entrance to the Midland Air Terminal. In addition to Mr. Halaby, CAB Chairman Alan S. Boyd joined with civic leaders in the dedication ceremonies.

West Texas' rich heritage of aviation goes back to 1909 when Midland blacksmith John V. Pliska took to the air over the neighboring farms in his pusher-type flying machine. This short flight in his shop-built craft is recognized by some authorities as the first powered flight in West Texas and by others as the first recorded flight in the Southwest.

Sponsoring the commemorative events and the fly-in were the Permian Basin Aviation Association, the Permian Basin Chambers of Commerce, and the Odessa and Midland Chambers of Commerce. Adding a western flavor to the fly-in session was a barbecue luncheon served by the Odessa Chuck Wagon Gang.



Halaby (above photo) chats with Max Hendricks Jr., president of Permian Basin Aviation Association; Ray O. Howard, activities co-chairman; Midland Mayor Hank Avery; and George McEntire, Midland rancher and former test pilot. Archie W. League (below) congratulates E. C. Odle, Midland Tower Chief, in recognition of years of award for his men. Halaby and Donald McHam, SW ATD Chief, watch.



Ground-breaking is held for museum to house early flying machine. (l. to r.): Mrs. Dorothy Pliska MacNeill, Elsie Pliska, and Mary Pliska, daughters of developer; Mr. and Mrs. George T. Abell, museum donors; Halaby; Odessa Mayor Preston Parker; and Alan S. Boyd. Old Pliska flying machine will be housed in Midland Air Terminal Museum as it looked when first flown.



## PILOTS STAGE HOOTENANNY AT ADDISON AIRPORT



Miss Addison Airport (Elizabeth Schultz) is more interested in professional singers, for the moment, than in competing pilots. Event was a combined flying treasure hunt and musical, enjoyed by all who turned out for it.

There are many ways to spur interest in general aviation. Dallas' Addison Airport did it with a Hootenanny Race.

Twenty-one pilots signed up for the second annual race which turned out to be treasure hunt type of flying sprinkled with bits of guitar thumping and folk singing.

Pilots won points (measured in minutes) for their musical performances which would compensate in their race time. The treasure hunt flight led from the Addison Airport on a 290-mile course to North Texas and southern Oklahoma locations and return.

Contestants flew on a time handicap system, gaining or losing minutes for

Hazel McKendrick and Winner Henry Gable.



their entertainment and the type and number of passengers making the flights. Instructions for the race were sealed and were opened by each pilot at takeoff time. The rules and explanations were veiled in poetic language.

Everyone easily found his way to the seven points listed in the treasure hunt, but it was the entertainment which decided the winners. Pilots laid aside their computers, plotters, and pencils for the four hours of entertainment. One reporter among the spectators remarked that the judges were apparently trying to "pick the person most nearly a mixture of Eddie Rickenbacker and Burl Ives."

Hazel McKendrick, Flight Service Station Specialist at Love Field, was chairman of the race. She presented the winner's trophy to Henry Gable, who flew a Cessna 210. He gathered more bonus points by virtue of standing on his head, playing a musical instrument, having his blonde wife (an extra point) and secretary on the flight, and listening to an Air Force navigator riding in the back seat.

Airport President Henry Stuart said the idea of the hootenanny race with its post-flying entertainment was to have fun instead of grimly burning one's airplane engine up in a speed exercise. To add to the fun he brought in two professional guitar players and staged a contest in which Elizabeth Schultz was named Miss Addison Airport.

## State and Local Police Cooperate In Guiding Plane to Safe Landing

A businessman trying to find a place to land his Beechcraft Bonanza near Tucumcari got a lot of attention. The New Mexico State Police, Tucumcari Police, and the Tucumcari FSS cooperated in finding him a safe landing strip.

A State Policeman patrolling at San Jon noticed the aircraft circling the town and informed the FSS, via the Tucumcari Police, that the plane was apparently in trouble. Contacted by the FSS, the pilot said he was trying to find a place to land at San Jon to conduct personal business.

When the State Policeman was told of the pilot's intentions, he cautioned that the two dirt strips there were unsafe for landing. He suggested that the pilot be advised to follow the red flasher of the patrol car to a point east of town where he could land on a portion of an old highway.

This information was relayed to the pilot, and a safe landing was made. Cooperation, which is routine with the officials involved, had paid off again.

## Fort Worth Center Chief Crashes Sound Barrier; Flies at Mach 2

W. V. (Bud) Fox, Chief of the Fort Worth ARTC Center, is keeping up with aviation. In fact, he may be way ahead as the only Air Traffic Controller who wears a Mach 2 pin.

During a recent three-month period, Fox crashed through the sound barrier in three different types of aircraft. He flew in the T-38 twin-engine jet at Mach 1.2, the Lockheed 104 at Mach 1.5, and the McDonnell F4B (Navy) at Mach 2.

Also, in learning more about high-speed aircraft and air traffic control, Fox has flown 125 hours in the B-52, 50 hours in the T-33, 500 hours in the KC-135, and 25 hours in the B-47.

A 25-year veteran with the FAA, Fox has been at the Fort Worth Center since 1943. He has been in aviation work since 1929 and received his pilot's license in 1946 in a Piper J3.

## Beaumont Reservists Take Their Active Air Force Duty in Tower

Two members of the 9419th Air Force Reserve Recovery Squadron did their two-week duty tours under the supervision of FAA controllers in Beaumont Tower. The squadron is regularly based at the Jefferson County Airport there.

## FAA Conquers Franklin Mountain



New remote transmitter/receiver dominates mountain peak.

There is nothing unique or complicated about building a remote transmitter/receiver facility. This may even apply to building one atop a 7600-foot mountain, if it is easily accessible.

However, this wasn't quite the case when the FAA decided to build an additional site on Franklin Mountain near El Paso. The only access to the top was a 3380-foot tramway capable of carrying 1,000 pounds each trip.

Despite such handicaps, the building and towers were completed within the allotted time of 75 days. A few minutes on the adding machine revealed the following information: 404,859 pounds of material were carried to the mountain top in 1,071 trips; the tram travels at a peak speed of 329 feet per minute and required 22 minutes to complete a round trip, exclusive of loading and unloading; 1,318 workmen and FAA personnel rode the tram during the construction period; and sand, cement, gravel, and water were transported to the site and mixed at a rate of 1/12 of a yard at a time.

Everything that went into the new facility was carried up the mountain by tram.



Tramcar swings along on 3380-foot climb to peak. Biggs AFB is in background.



## SUPERVISOR KNOWS ALL ABOUT WATER; NOW PREFERS LAKE PONTCHARTRAIN

When Watch Supervisor Dan Rehm of the New Orleans ARTC Center, in a moment of reverie, glances at the waters of Lake Pontchartrain from the second floor of the Lakefront Airport administration building he may vividly remember the shark-infested waters of the Caribbean, or he may think of the rolling waves of the Pacific, or he may see the cold, unfriendly waters of the North Atlantic. His flashbacks of memory are valid for he struggled for survival in each of these waters.

World War II ace Rehm—he shot down 13 Japanese aircraft and had five probables—entered the service in May 1942 and subsequently became a naval aviator. That was just the beginning of his new adventures.

In November 1943, while flying an F6F near Port-of-Spain, Trinidad, Rehm's aircraft had a malfunction, and he was forced to bail out at 1500 feet over the Caribbean. The water was balmy and pleasant—it was the shark fins circling around him that caused concern. Before the sharks decided to attack, a surface vessel plucked him out of the water. During his 30 minutes in the water, Rehm got acquainted with the lifejacket named for the voluptuous movie star, Mae West.

The following year—in August—Rehm was leading a patrol of F6Fs 200 miles off the coast of Japan. Flying off the carrier Bunker Hill in search of the Japa-



Dan Rehm.

nese Imperial Navy, he had to ditch when his engine cut out at 200 feet. One of the pilots in the flight dropped a one-man raft, which became Rehm's "home" for the next three days.

On the second day he spotted the Imperial Fleet; it sailed past without sighting him. Enemy aircraft flew past, but there was no indication he was spotted by either the ships or the planes. Huge rolling waves flooded his raft, and his only nourishment was a fish he caught.

Rescue came on the third day when

the Submarine Saury, on the first leg of a 30-day patrol, surfaced nearby and took him aboard. Rehm served as a submarine officer during the patrol. The Saury engaged the enemy, fired torpedoes on several occasions and, in turn, was challenged by Japanese depth charges. When the sub finally put into port, Rehm became an aviator again.

Volunteering for active duty during the Korean Conflict, Rehm, now a reserve commander, served more than six months in the Far East flying AJs. He returned to New Orleans Center in 1954, but remained an active "Weekend Warrior."

While on reserve training in August 1959 Rehm experienced malfunctioning of his plane off the New England coast. All was routine until the control cables in the tail section became severed. Skillfully handling the almost uncontrollable aircraft, he was able to ditch the S2F within 100 yards of the shore. Although severely injured, Rehm swam ashore and spent eight months in the hospital.

In April 1960 Rehm retired from the Navy. It was in some respects a sad day for him, but the appeal of being a weekend naval officer and commanding officer of an anti-submarine reserve organization had dimmed, and he became a full-time civilian. He still enjoys being associated with aviation—especially in a position where "Mae Wests" and life rafts are no longer necessary personal gear.

## Reynolds Leaves Southwest Region



Bill Moore (l), General Aviation Branch, and Archie W. League (r), Regional Director, join in a bit of reminiscing with Robert V. Reynolds at his farewell party. Reynolds, who served as Deputy Director of the Southwest Region from January 1962, assumed new duties as Deputy Assistant Administrator, Office of General Aviation Affairs, in October. Moore, a 35-year veteran of the FAA and its predecessor agencies, hired Reynolds for his first CAA position in 1947 when he was Chief of the Airman's Certification Division in Washington.

## San Antonio Golfers Host Tourney As They Map Annual Links Events

San Antonio golf enthusiasts are making plans for an early 1964 tournament following the successful matches sponsored by Chapter 9, ATCA, last summer.

FAAers from the Southwest Region and Canal Zone converged on Lackland AFB to test their abilities. Al Hurt, on vacation from the Canal Zone, was a handsdown favorite to win until he sironed into sand near the fourth green.

Tournament winners placed as follows: Championship flight—Nick Francipane, San Antonio Center; Edwin Williams, Meacham Tower; Jim Hewitt, College Station FSS. First flight—Bob Metcalf, Junction FSS; Temple Johnson, Corpus Christi Tower; George Woods, San Antonio Center. Second flight—Marvin Yeats, Meacham Tower; B. Wiese, Meacham Tower; Randy Phelps, San Antonio Center. Third flight—Roy Mitchell, Rex Murdock, and E. J. Helton, all of San Antonio Center.

# WESTERN REGION ROUNDUP



## A Message from Joseph H. Tippetts

As we conclude this year and season may we all be mindful of Christianity's great annual celebration, the Birth of Jesus Christ, and the personal message of His life, "Peace on earth, good will toward men." In these few words are expressed the goal and aspirations of all men and women of good will. I hope and pray this sweeping objective will prevail in our personal and world affairs in the important year ahead.

The year 1963, now closing, seems to have moved with a frightening swiftness. Our traditional looking back on how well we have met our personal and professional goals will yield satisfaction and warm memories. This is always the case when we do our best. Next year's goals are now set and we will each pledge to do our best in 1964. In this way, progress and happiness are always our companions.

• **KUDOS**—To SUE PORTERFIELD, daughter of C. R. Porterfield, Seattle ARTCC. Sue was shown in a recent front-page picture in the *Auburn Globe-News* with a group of foreign exchange students. She's the president of the Auburn High School Foreign Club—and an outstanding student. . . . To the personnel at the Van Nuys tower for achieving the honor of "Runner-up Tower of the Year." . . . To the quick-thinking team at Hill RAPCON (DERRAL J. ALLEN, HAROLD A. ECKSTROM, DANIEL M. STEVENS, and GEORGE M. WHITMAN) for the assist they gave an F-84 after the pilot reported navigational equipment and transponder were out. . . . To MRS. LORETTA ALLEN, administrative assistant at the Denver ARTCC; her courtesy and friendliness have earned her countless friends—a recent example is a letter of profuse thanks from KAHLED LILA of Syria following his visit to the center. . . . To ARTHUR W. BOLAND, recently congratulated by the Mojave Desert Section Instrument Society of America for his lecture and tour of the Palmdale ARTCC. . . . To DONALD F. JUHNKE and DUNCAN A. BARDWELL of the Bryce Canyon FSS for recent assists they gave pilots in trouble. . . . To the Elko (Nevada) Free Press for outstanding coverage of FAA activities in that area.

• **IN THE PUBLIC EYE**—DON FROST'S speech to the Aviation Weather Seminar in Twin Falls, Idaho was given

front-page coverage in the *Twin Falls Times-News*. . . . Oakland's struggle to become an air traffic hub was covered in a detailed article in the *Los Angeles Times*. . . . *Arizona Republic* carried an article on the new radar microwave links being constructed in Arizona. . . . A full page of pictures on FAA facilities and personnel at Red Bluff appeared in a recent issue of the *Red Bluff* paper. The Public Affairs Office obtained copies of the page for distribution to all Area Coordinators as an outstanding example of "good press" for the Agency. . . . Portland papers gave excellent coverage to FAA participation in the 99's Flight Safety Aviation Weather Seminar, largely through the excellent press liaison work of L. S. YATES, Area Coordinator at Portland. . . . L. C. HAHN rated a photo and story in the Longmont paper on his appointment as chief of the Maintenance Sector at Denver. . . . A feature in the *Fresno Bee* told the story of MOHAMMED YAYA BIALLO of the Republic of Guinea, visiting trainee. A photo with the story pictured the Guinea youth in his native costume in the Fresno Air Terminal control tower. . . . *Seattle Post-Intelligencer* carried a photo and feature on newlyweds MR. and MRS. GENE P. MEYER. Meyer, a dentist, is the son of ROZ MEYER of the RO (WE-26.4). The new Mrs. Meyer is winner of the Miss International contest. . . . LEROY WEOSSNER, radar electronics technician at Fremont, was given write-

ups in the *Hayward Daily Review* and the *Fremont News-Register* for his suggestion award based on a new method of making radar alignments without having to halt revolving antennas.

• **IN THIS ISSUE**—One of our favorite spots is Bellingham, Wash. ORRAY BLANTON gave us a fine assist in telling you all about that beautiful area. . . . While we were at it, we thought we ought to tell you what a gruelling schedule the Administrator faces on his regional visits. The pace described in "When the Administrator Comes West" is not unusual, but is, in fact, typical. We hope it provides a better understanding of the heavy demands made on the Administrator's time at all points of the compass. . . . We have inaugurated the first "picture page" in this month's issue and hope to make it a regular feature. Your comments, suggestions, and criticisms on *Horizons* will be most welcome. Send 'em to WE-5.

• **SCATTER**—ADNAN TAHAWI, air traffic controller from Damascus, Syria was being interviewed by a reporter during Tahawi's visit to the Denver ARTCC. The topic turned to dancing. "Do they do the twist in Syria?" the reporter asked. "No," replied Tahawi. "Why not?" asked the reporter. "It's against the law," said Tahawi. . . . Employees of SMDO-3, Phoenix, held a farewell dinner to honor EDWARD H. BECKER and THEODORE Z. HOPPENBECK for their recent retirement. . . . MERRY CHRISTMAS, and a HAPPY NEW YEAR.



## Oakland Center Expands Toward Tahiti

Most of us have heard of instances where speculative land-buyers have purchased parcels of real estate only to discover at a later date that what they had believed to be "choice ocean front lots" were submerged beneath several feet of swamp water.

Not long ago, the Oakland Air Route Traffic Control Center acquired thousands of square miles of such "real estate." In this instance, however, the FAA had no illusions concerning the exact location—and the depth—of its new area. When the Oakland Center's Oceanic Control Area was extended southwestward to join the newly-established Tahiti Flight Information Region on September 26, the FAA was fully aware that the area was completely blanketed by the Pacific Ocean. A further "oceanic" development occurred on October 24. On that date, the entire oceanic control operation which had been accomplished previously by the Seattle Air Route Traffic Control Center came under the jurisdiction of the Oakland Center. As a result, a vast area nearly as large as the United States itself, was added to the Oakland center's control responsibilities.

Air traffic control activity for Oakland's new oceanic control area is provided by two controllers at the Oakland ARTCC. The service provided is in accordance with the standards set by the International Civil Aviation Organization.

Magnitude of the control area can be grasped by reference to the sketch reproduced on this page. Fred Marks, Chief of the Oakland Center, reports that the new Oceanic Control Area covers an area of approximately 3,500,000 square miles of ocean surface. In the north, the control area consists of a large, rectangular chunk of the North Pacific Ocean. The area's central portion extends almost to the Hawaiian Islands. Southward, in the direction of Tahiti, the control area extends almost to the Marquesas Islands.

This vast, watery expanse of Oakland control area will provide service to thousands of trans-oceanic flights each year.

The immensity of the new area inspired this remark at the Oakland Center: "It's sure a mighty big stretch of ocean. You know, I think our new control area is bigger than the State of Texas."

FAA Horizons

## WHEN THE ADMINISTRATOR COMES WEST

Meetings, speeches, press conferences, TV and radio appearances—all these and other responsibilities are part of Mr. Halaby's schedule when he visits the Regions.

An example of the demands on Mr. Halaby's time on a recent "routine" trip to the Western Region will give you some idea of the gruelling pace the Agency's Administrator must keep.

He arrived in the Region on a Wednesday evening. The same evening he was addressing the Douglas Aircraft Management Club. On Thursday morning, after breakfast, he faced five TV cameras and 15 newsmen at a press conference at the Ambassador Hotel. Included were representatives of the Huntley-Brinkley show, metropolitan newspapers, and aviation industry magazines such as *Aviation Week* and *American Aviation*.

Before lunch, he met with the national president of the Society of Automotive Engineers. After lunch, he addressed a large SAE audience, then left for KNX-CBS to participate in a one-hour radio program. Late in the afternoon, he toured aviation displays in the Pan Pacific Auditorium and conferred with aviation industry officials. En route to the auditorium, he was interviewed by Allan Todd of CBS for a 30-minute radio show.

On Friday, he faced another battery of reporters at the Beverly Hilton Hotel. Shortly afterward he addressed 600 persons at the annual symposium of the Society of Experimental Test Pilots. In the afternoon, the hour before he was scheduled to board the JetStar for Washington, he had an interval of "free time." He used this to confer with Mr. Tippetts and other Regional Office officials and to tour Western Region Headquarters.



Mr. Halaby is greeted at Regional Office by Mr. Tippetts, Deputy Marsh is at left; Gene Kroft, Public Affairs Officer, in background.



The Boys in a fast swing through the Regional Office (above) with Mr. Tippetts and Mr. Marsh. Facing the press is part of a busy day.



# A TEST IN THE WEST

## *Which Way Is Best?*

A wedge-shaped segment of the map of the Western United States—the Western Region's "Project Focus" test area—today is the proving ground for a type of organization that could point the way to a vastly different agency structure.

Headquarters of the Western Region's Comprehensive Area Office is a wing of the Hangar and District Office complex on Imperial Highway alongside Los Angeles International Airport. To conduct the business of the newly constituted office, 75 persons were diverted to Project Focus from the Regional Office. These were joined by approximately 20 others already located at the LAX hangar as employees of the Installation and Materiel District Office.

Few people realize how large a chunk of the Western Region—both in terms of geography and work load—has been carved out by the Area Office. As Area Manager, W. A. Stephens directs FAA activity in an area comprising about one-fifth of the entire nine-state Western Region. His test area takes in all of Arizona, Southern California, and Southern Nevada. It includes the center of America's aerospace industry in the Greater Los Angeles area. Stephens has jurisdiction over 18 air traffic control towers, 17 flight service stations, 19 systems maintenance sectors, 26 systems maintenance sections, and 6 general aviation district offices. In all, the Project Focus test area embraces 110 facilities served by 2,347 employees, not including those stationed at the Regional Office.

In terms of work load, management analysts have estimated that the Area Office has one-third of the Region's load.

How does the test area function?

Coordinator Walter Moon explains it this way: "In essence, the comprehensive Area Office is a small Region. It provides virtually every function and service now provided by the Region. You might say that the Area Office is to the Regional Headquarters as the Regional Headquarters is to the Washington Headquarters."

Moon reports that Area Office employees are showing "tremendous enthusiasm" for their assignments.

"Morale is high and there's exceptional teamwork being exhibited by all concerned," he said.

In assuring validity of the test, certain restrictions had to be set up because of the location of the Area Office within a few blocks of Regional Headquarters.

"In order to simulate the Area as being remote from Regional Headquarters, we established a sort of 'communications curtain' between the Area Office and Regional Headquarters," Moon said. "For example, we were able to split

the switchboard serving the Regional Office so that all calls between the Regional and Area Headquarters can be treated as long-distance calls. No direct dialing is possible in either direction. The same holds true of any visits of personnel; their trips are treated as long-distance travel and trip reports are filed."

Each Monday morning, Stephens and his Deputy, Robert Blanchard, confer with the Regional Director. Although they meet in person, the information exchanged is of the type that could be communicated in a weekly telecon between the Director and the Area Manager.

Stephens holds two regular staff meetings each week to bring together his Branch and Program Chiefs. His administrative support staff includes Chiefs of Personnel, Budget, Administrative Services, and Management Analysis.

Operations segments are similar to those already established in the Regional structure.

In maintaining a posture of isolation from the Regional Office, the Area Office has set up its own mail service, has its own box at the Post Office, and is served by its own teletype, which is a "drop-off" from the message center. This assures positive measurement of communications services.

In keeping with the basic premise of the test, the Area Office is a separate organizational entity, making decisions in much the same manner as those made in the Regional Office for the test area before it was set up. The line of authority is from the Regional Director to the Area Manager.

Initially, all correspondence from the Regional Office to the Area Office was routed through the Regional Director's office, but this was modified to apply only to certain policy and directive-type communications.

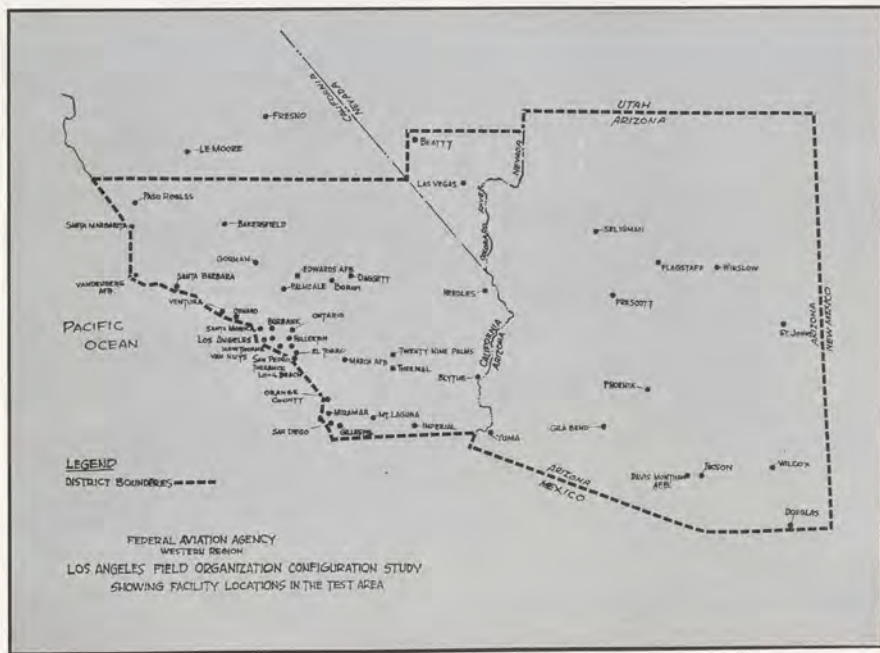
As of October 1 and through the present time, the Area Office is in full test operation. This phase will continue through March 31, 1964. From April to June 30, 1964, no further data will be gathered, but the Area Office will continue awaiting final evaluation and decisions.

Meanwhile, comparative data collection to be used as a basis for evaluating the test is continuing. This data, along with critiques and evaluation of officials will form one segment of a mass of comparative data on this and other tests being conducted throughout the Agency.

It is expected that from this data crucial decisions will result. These decisions could affect the entire Agency, its future structure, its efficiency, and the quality of its contribution to the nation.



Part of Comprehensive Area Test Headquarters at FAA hangar complex in wing of Hangar and D.O. complex.



# HORIZONS

## Visits Bellingham



Specialist Benton F. Croan mans the Teletype. Standing in the background is Bellingham FSS Chief Orray W. Blanton. Area's natural beauty is world famed.



The new Bellingham FSS.



The old FSS at Bellingham.

Bellingham—in the upper Puget Sound country, north of Seattle—would tax the travel-ad writer's skill and he wouldn't have to exaggerate.

Fishing? Salmon abound in the countless inlets, along the San Juan Islands (of which there are 172), the Straits of Georgia, and the numerous bays. Charter boat trips complete with gear, guides and meals are available almost everywhere along the coast—and no license is needed to fish salt water. Early-season catches of young salmon average more than 15 pounds each.

Scenery? Orray W. Blanton, chief of the Bellingham FSS station describes the area this way: "One of America's most extensive recreation areas lies at our back door. It is a sprawling vastness of rugged mountains, canyons, and tumbling waterfalls. An hour's drive from the city limits brings you to camp sites, picnic grounds, high meadows, rushing mountain streams and wilderness hiking trails."

Civic Beauty? Bellingham has 32 parks equipped with play and picnic areas. Several contain virgin timber and rustic trails. There are numerous waterfront beaches which provide a bounty of clams, oysters and crabs.

Last June, the new Flight Service Station was dedicated at Bellingham. The building is located on the city's Municipal Airport and is the third structure and fourth location to house the Bellingham FSS since its inception. The first building was a rough-hewn wooden structure; the second was a Type-S building which served in two locations and the new

building is attached to the last Type-S structure.

The Bellingham Low Frequency Range was commissioned on December 11, 1939. On March 31, 1949, the VOR was commissioned.

L. P. Hughey, now chief of the Field Administration Branch, Systems Maintenance Division, was the first Chief Communicator at Bellingham.

The present station complement consists of Blanton and six professional specialists with 110 years of combined service. Of these, five are licensed pilots, with Clarence Crosby acting as station liaison pilot. Crosby also owns and flies a P-51.

In Systems Maintenance there are two technicians with 48 years of combined service.

Blanton reports that a number of "international flights" set down in Bellingham since Canada is within 30 minutes flying time. The field is the first major airfield Canadian pilots encounter on their flights south.

With seemingly limitless year-round recreation opportunities, and a leisurely pace of living, the Bellingham area is highly favored as a duty station.

Blanton summed up his feelings in a sentence visitors to Bellingham probably won't dispute: "Nature has bountifully blessed this region."

(This is another in a series on distinctive Regional communities where FAA facilities are located and FAA families are stationed.)

## PICTURES HIGHLIGHT NOTEWORTHY EVENTS IN WESTERN REGION



Alan L. Dean, Associate Administrator for Administration, is shown here with Mr. Tippets.



Chester G. Bowers, Deputy Director, Airports Service, left, gets a briefing from Charles J. Winger.



Birds nested atop a soft drink dispenser in the patio at RO.



Zaddie Bunker, 76, the "first lady" of aviation in the West, greets Mr. Halaby during his recent trip to Palm Springs in connection with the AOPA meet there.

## REGION GOES ALL THE WAY FOR 5th ANNIVERSARY



Mayor Yorty, left, presents '5th Anniversary' Proclamation to Tippetts and A. B. Bush, L.A. Area Coordinator.

Mayor Samuel Yorty of Los Angeles officially proclaimed November 1 as Federal Aviation Day during a regular press conference which Mr. Tippetts attended with A. B. Bush, chief of the Los Angeles International Airport Control Tower.

This was typical of the many events conducted throughout the region to mark the Fifth Anniversary of the Federal Aviation Agency.

Area Coordinators and their committees throughout the nine Western states arranged newspaper publicity, displays,

tours and open houses, talks to civic clubs, and radio and TV coverage.

Mayors of many cities signed official proclamations for the occasion.

Mr. Tippetts commended Area Coordinators and their committees and all employees who assisted in plans for observance of the Anniversary.

"There was great enthusiasm and outstanding effort throughout the Region," he said. "Our employees are to be complimented for making possible a better public understanding of the FAA and its mission during the Anniversary period."

## FAA Employee Badly Injured in One-Car Accident

You, as an individual, share in the losses created by accidents. You can act to prevent these losses. What do you have to do with it personally? Safety Officer George McCord asks that you look at a recent vehicle accident and see how you could be affected. Assembly of facts is not yet complete, but these things are known:

One of your fellow employees is now hospitalized with crushed legs, ankles and feet, skull fracture, broken nose and possible other injuries. The vehicle he was driving apparently went into an uncontrolled skid when it passed over gravel at the side of the roadway. The skid developed into a roll-over. There were no witnesses and no other vehicles were known to have been involved. A seat belt was installed in the vehicle but it is not known to have been used. It was not latched when examined at the scene and was not damaged or defective. Dis-

ability may be a matter of a year. Definite medical information is not available. The employee has a wife and children who will be provided for during the disability, but at less than 100 per cent of base pay.

Without attempting a judgment as to the probable cause of this accident, let's consider what could keep you out of a like situation. Adjust your speed and other driving habits to prevailing conditions.

Do not take curves at the limit of adhesion of the tires with the road as this does not allow for unexpected changes in the road surface.

Use of seat belts, where provided, will not prevent an accident but will *minimize* the result.

Winter is here and with it comes even more hazardous driving conditions for which we must compensate. See the National Safety Council's booklet "Skid Stuff," now being distributed.

## Tippetts and Schulte on Programs For Weather, Safety and ATCA

There was both regional and national representation at two recent Western Region pilots' seminars.

At a Weather and Safety Seminar sponsored by the Oregon Chapter of the 99's, both Mr. Tippetts and Mr. Schulte spoke to a large audience. Schulte heads the Office of General Aviation Affairs.

They then went to Spokane where they were featured on the program arranged by the Air Traffic Control Association.

## VAN NUYS TOPS IN OPERATIONS

Van Nuys Airport again topped the entire nation in the field of private aviation activity, with a record number of operations during the 1963 fiscal year.

During the 12-month period, Van Nuys recorded 146,487 separate general aviation itinerant operations. Nearest competitor to Van Nuys was Long Beach which logged 140,597.

Carl A. Swanson, Jr., FAA chief controller at the Van Nuys tower, attributes the top ranking position to excellent facilities offered flyers at the airport.

## DIRECTOR, UNITED WAY LEADER

Regional Director Joseph H. Tippetts, working with Leslie Shaw, Postmaster of Los Angeles, is serving as Unit Chairman for the United Way Campaign in Los Angeles County.

The Los Angeles Postmaster is this year's Division Chairman for the campaign. This year's appeal is for \$127,291 from the more than 36,000 Federal employees in Los Angeles County. Shaw leads some 1800 volunteers who are canvassing the offices of the Armed Forces, Internal Revenue Bureau, Post Office, Federal Aviation Agency, and other Federal bureaus and agencies in the country.

As Unit Chairman, Mr. Tippetts is spearheading the Federal Drive.



Mr. Tippetts, Regional Dir., and L. Shaw, Postmaster of Los Angeles, confer on United Way Campaign.

## \$1,000 CHECK ATTACHED TO BOB SICARD'S SPECIAL ACT CERTIFICATE

"Outstanding leadership and managerial skills" is the way the citation reads.

Robert L. Sicard, Chief of the Aircraft Services Base at the Aeronautical Center was given the Federal Aviation Agency Special Act Award at an Aircraft Maintenance dinner late in October. With the certificate went a check for \$1,000.

In making the award, Lloyd Lane of the Flight Standards Service in Washington pointed to the efficiencies and economies carried out by Sicard during the preceding year. These have resulted in a reduced cost in maintaining the Agency's fleet of 141 aircraft. The largest savings came in the addition of a quick engine-change build-up shop and a control surface overhaul shop. In these two areas the FAA "do it yourself" procedure which replaced contractual cost saved nearly \$30,000. The high speed recap-

ping process in lieu of new tires saves an estimated \$42,000 a year. This has made the total tangible savings in the Aircraft Service Base more than \$71,000 a year.

Lane went on to point out other areas of improvement.

"Improvement of communication with the 1,000 employees under Sicard's direction can be seen in the setting up of an advisory committee; reorganization which eliminated two levels of supervisors, and a quicker means of communication with all ASB employees.

"Sicard has demonstrated a rare combination of vitality and intelligence," concluded Lane, "and an extensive knowledge of maintenance operations that have benefited the Agency greatly."

The Special Act Award certificate is signed by George Moore, Director of Flight Standards Service.



Robert Sicard (l.) Chief, Aircraft Services Base, receives \$1,000 check from L. J. Miraldi, FAA Hq.

## Flight Instructors Become Students in New School

Take as many as forty active flight instructors, some of them with thousands of hours in the air, mix with Federal Aviation Agency Academy, local FAA Facilities personnel and U.S. Weather Bureau instructors in a concentrated ground and air instructional course. Result: a new sharpness in aviation knowledge.

The course, state sponsored, with FAA help, is designed to bring the flight instructors up-to-date on the latest in procedures and training. So far, two states, Montana and Virginia, have been the scene of this instruction.

The course was originated by Richard Munroe of the FAA Academy, one of the instructors teaching the course.

Since he felt that instructors were the key to the future of general aviation, the Montana Aeronautics Commission, by whom he was employed at that time, sent him to Canada to attend a refresher course taught there. Canada has held such a program for a number of years.

Munroe was given permission by the Montana Aeronautics Commission to develop a like course. Montana, in 1961, became the first state to conduct the refresher course.

Last summer Munroe joined the FAA Academy. Academy officials agreed with him that this type of course was needed. The program is not an official FAA course as yet, but Munroe feels the Agency will continue to work with state aeronautics commissions to further this type of training.



Neal Whitten, flight instructors at special course.

The course is sponsored by the state where it is being held. The sponsors provide the physical facilities and the training aircraft.

The last course taught was the one sponsored by Virginia. Munroe, Neal Whitten and Samuel Lewis of the FAA Academy joined with FAA instructors in the Richmond area to give both the ground and flight instruction.

The schedule is a tough one, with trainees in school, or flying, from 8:00 a.m. to 8:00 p.m. every day.

Approximately half of the instruction is academic work in the classroom, and the remainder flight training.

More than 100 applications were received in Richmond. Forty applicants were accepted with twenty being the maximum in an instructional section.

The consensus can be seen in the comment from the General Aviation Safety Office in Richmond: "We feel this course will result in fewer accidents in Virginia."

## CIVIL AIR SURGEON VISITS CARI

Dr. M. S. White (fourth from left) newly appointed Federal Air Surgeon, visited the Civil Aeromedical Research Institute in mid-October. Dr. White, a Major General in the U.S. Air Force, and the second ranking Medical Officer in the Air Force, brings to his new post an extensive background in Aviation Medicine. Dr. White is shown discussing a recent Cari Report with Dr. Peter Siegel, (third from left). Others in the picture are Heber Holbrook, Dr. Robert Dille, Dr. Stanley Mohler and Vaughan Choate. Behind the group, in the glass case is "Oscar" the world's first articulated dummy, invented by CARI researcher John Swearingen for use in aeromedical impact studies.



## PLANE PORTRAIT PRODUCED BY PATIENT PHOTOG



These are the "birds" that check accuracy of air navigation aids. The venerable DC-3 is at left. The C-135 (center) operates above 20,000 feet; The Convair 440 (r.), performs between 10,000 and 20,000 feet.

In doing a job well, it is often necessary to coordinate many phases of the project.

The Aeronautical Center was called upon to produce some photographs to be used a short time after the original request.

The main theme of the operation was to take a number of photographs of a group of FAA aircraft.

The pictures were to be used in a press kit to be given out by the Washington Office of Information Services.

The aircraft needed were the C-135, Convair 440 and DC-3.

The latter two aircraft were relatively simple to have on hand, for these are often at the Aeronautical Center.

However, the C-135 aircraft is seldom at the Aeronautical Center, and is away from its Tinker Air Force Base more than it is home.

There are two C-135's operated by the FAA from Tinker. They are based there

for maintenance purposes.

Arrangements had to be made with the Assistant Division Chief Earl E. Blanchard of Flight Inspection and Procedures Division, National Field Operations Headquarters at the Aeronautical Center, and Chief of Jet Operations Sandy McBride, to have the C-135 brought to the Aeronautical Center flight line for the pictures.

The appearance had to be so timed to fit into the flying schedule of the plane.

The Aircraft Services Base cooperated on the plan, setting up the aircraft on the ramp.

A helicopter was obtained at the Center for aerials of the setup.

The photographic section provided three cameramen, with Chief Dave Brian taking the picture from the helicopter.

The many photographs, with both interiors and exteriors as well as the aerials, took three hours to complete.

It takes a crew of 15 to man this C-135 (left) posing in front of their plane. This is how she looks inside.



## NAVAIDS Under Constant Review To Insure Perfect Performance



These dapper gentlemen make up the crew of this 440. Their work makes flying safer for air voyagers.

A number of aircraft operate out of the Aeronautical Center in performing inspection of all air navigational aids used for safe flying in the 50 states.

These Flight Inspection aircraft and crews check low, intermediate and high altitude nav aids as a part of the operation of the Flight Inspection and Procedures Division, National Field Operations Headquarters.

These aircraft are equipped with specialized electronic devices to determine within less than one per cent the accuracy of such aids as VORTAC's and Instrument Landing System equipment.

The high altitude inspection is carried out by the two C-135's, similar to the Boeing 707.

These aircraft, based in Oklahoma City, fly over the entire United States in a grid pattern. This is a continuous inspection, and one plane may be over Hawaii and another over Florida or Maine at the same time.

The C-135 operates at 20,000 feet and above, flight checking the high altitude navigation aids.

The Convair turbo-prop 440's also do this type of work, but fly between 10,000 and 20,000 feet and the ever reliable DC-3's work up to 10,000 feet.



This is the kind of equipment that makes it possible to check navigation aids with split-hair accuracy.

FAA Horizons

## BLOND GOODWILL AMBASSADOR SPENDS A FRIENDLY SOONER WELCOME MAT

Oklahoma is a friendly land, where people go out of their collective ways to make a person feel at home.

This point was sharply brought into focus recently at the Terminal at Will Rogers Field.

Darwin Maurer, International Liaison Officer at the Aeronautical Center reported the following incident.

The Minister of State for Aviation of Nigeria, M. Amechi, was preparing to leave Oklahoma after a brief visit to the Sooner state.

His prime purpose here was to visit the Aeronautical Center.

He was sitting in one of the lounge chairs at the terminal, and two little children walked up.

Minister Amechi was wearing his native robes and hat and the children were interested in his attire.

Suddenly the very blond little boy spoke to the dark skinned man. . . . "What is your name?"

The foreign visitor said. . . "Amechi." There was a brief pause, and then the boy who was about six-years-old, turned to his smaller blonde sister, but said nothing.



M. Amechi, (second from left) Minister of State for Aviation of Nigeria, who made a friend in the Oklahoma City Air Terminal. Others in the picture, (l. to r.): J. B. Mitchell, Asst. Dir., FAA Academy, Will Ericson, Academy, J. N. Dambo and D. O. Okechukwu, of Nigerian staff and Darwin Maurer, A.C. International Officer.

Turning back to the man, the boy said, "Where are you from?"

"Nigeria" was the reply. "Do you know where Nigeria is?"

"Yes, in Africa," the boy said with a sweet smile.

Then, with all the poise of a person much his elder, the boy said, "Welcome to our country."

Then the two children walked away, and over his shoulder, the boy said, "Goodbye."

## Public Affairs Officers Meet at Center



Staff officers from the Office of Information Services in Washington, as well as Public Affairs Officers from the various FAA Regions met at the Aeronautical Center in October. Charles Warnick, Deputy Director of Information Services, Marshall Benedict, Chief of the Employee Information Division, his Assistant, Tom Wholey, and Murray Nathans, Chief of the Art and Design Branch, represented Washington. From left to right: Robert Johnson (Central); Bruce Chambers (Southern); Hugh Scott (Aeronautical Center); Marshall Benedict (Chief, Employee Information Division, Washington); Gene Kropf (Western); Joe Frets (Central); K. K. Jones, (Southwest); Murray Nathans (Washington); Robert Fulton (Eastern); Cliff Cernick (Western); Tom Wholey (HORIZONS Editor); George Burlledge (Southwest); Mark Weaver (Aeronautical Center); Gil McCoy (Pacific); and George Foy (Alaska).

## Chairman Boyd Visits Center



Alan Boyd, Chairman of the Civil Aeronautics Board, was a visitor to the Aeronautical Center in October. In the above picture, Boyd is shown as he visited the Civil Aeronautics Research Institute at the Aeronautical Center. Flanking Boyd on each side are Dr. Peter Siegel, Chief of the Aeronautical Certification Division, Dean Marion Roscoe, head of the CAB-FAA Accident Investigation School, Lewis N. Bayne, Manager of the Aeronautical Center and Dr. Stanley Mohler, Director of CARI.

December, 1963

9

Stóðliq jól  
farsalt niðan!

توی کمال دی مبارک شه

سال نو مبارک

أهنتام بهیة المیلاد الجیدیة  
وکل عام و انتم بخیر

¡ Feliz Navidad  
y Próspero Año Nuevo!



Olafur Haraldson, Iceland



Abdul Haldari, Afghanistan



Gregorio M. Dayao of the Philippines



Mohamed N. Shikh, Sudan



Luis Moneta, Argentina

## Season's Greetings From Many Lands

The night skies were clear, the stars were glistening in the December Oklahoma night, and from the homes came the warm glow of family enjoyment. The holiday season.

Aeronautical Center employees and their families, virtually as one, pause during the season to enjoy the companionship of their loved ones and close friends.

Always at Christmas time at the Aeronautical Center, is a group of foreign students not all of whom observe the holidays as do Christians in the United States.

At one time or other, virtually every free country in the world is represented in some phase of training in the FAA Academy by one or more students.

It would be impossible to tell all the stories of their festivals, but some did tell of the activities that are a part of their way of life. Let us see how these foreign students describe the holiday in their native land.

Mohammed N. Sheikh from Africa: "The Republic of Sudan is situated on the northeastern part of the African mainland. The greatest portion of its 12-million population, especially in the north, are Muslims and the official language of the country is Arabic. Most of the Christians, Catholics and Protestants, celebrate Christmas on Dec. 25th which is an official public holiday throughout the country. The Orthodox Christians celebrate it on Jan. 7th. The discrepancy derived from the fact that Orthodox base their calculations on the Coptic calendar which differs one day every 100 years, but the way of celebration is more or less the same.

"In Sudan the first of January is not celebrated as a New Year but as Independence Day.

"The Government and the public coordinate the celebration. They decorate the buildings and streets, as well as colorful illumination at night, with lots of entertainment and music in the public parks and also fireworks.

"Muslims celebrate the birthday of the Prophet Mohammed (peace be upon him) on the 12th of Rabie Awal the third month in the Hijri year. This event is called Mijad El Nabi. Muslims use the Lunar calendar year (called Hijri) which started 580 A.D. when the Prophet Mohammed (peace be upon him) migrated from his home town Mecca to Medina where he pursued his mission. The Hijri calendar year is approximately 11 days less than the Roman calendar year.

"People gather to hear sermons from the devout and learned leaders who relate events from the life of our Holy Prophet and passages from the Holy Koran so that the nation might be motivated to lead a righteous life and follow the example of the Holy Prophet.

"Mosques and other places of meetings are colorfully decorated and illuminated at night. The sermons continue for 11 days until late at night.

"All participate in reciting the holy deeds of Allah. For the very young generation there is fun and entertainment and big quantities of sweets and candies. Food and clothes are distributed to the poor."

Now, let Luis Moneta tell you about the holidays. Far

south of the Border, down Argentina way:

"Christmas and New Years are celebrated very much like in the United States. The expression of greetings and good wishes is traditional, by the exchange of cards and gifts. The presents are hung on the Christmas tree on Christmas Eve. Some noise is added to the celebration by firing rockets and fireworks. Since it is summer, instead of gathering around the family table, many people prefer to go out and celebrate in a nite-club or restaurant, especially those that provide big tables and places to dance in the open.

"The food also is traditional, with turkey served Christmas day at lunch time. Dried fruits like dates, and nuts are served. A special cake, called "pandulce" (sweet bread) is a favorite.

"The main thing is the ever present feeling of joy and happiness, as in the United States, and a feeling of goodwill to our fellowmen."

Far to the north, from Iceland, came Olafur Haraldsson to the Aeronautical Center to tell of the festival in that country.

"Christmas starts at 6:00 p.m., on Christmas Eve," he said. "Most people go to church and when they come home they have their dinner and the family opens the Christmas presents and cards. For the rest of the evening the people walk around the Christmas tree and sing Christmas hymns. The children play with their new toys.

"The homes are decorated very similar to the homes in

the U.S.A., but instead of turkey, on Christmas Day the traditional dish is smoked lamb.

"Christmas Eve is spent at home but on Christmas Day people go to visit their friends and relatives.

"On the second day of Christmas, December 26, which is also a holiday, people still are visiting each other and playing family games."

"On New Year's Eve, things start at 6:00 p.m., and at midnight the New Year is welcomed in with fireworks."

From the Middle East, Gull Mohammed Kahn, a Pakistan national remembered: "December 25 is celebrated around the world by Christians, but in Pakistan it holds an additional significance as the birthday of the founder of the State, Qaid-e-Azam Mohammed Ali Jinnah. The nation, predominantly Muslim, while celebrating this event, also wishes the Christian world a Merry Christmas.

"However, the gayest and most noteworthy event is the festival of EID, which marks the end of Ramadan, the month of fasting. The fact that the celebration of EID depends on the sighting of the new moon adds an element of uncertainty which causes greater excitement. If the moon is sighted, it will be EID next morning.

"The sighting of the new moon is heralded by sirens, horns, hooters, drums and firecrackers. The young people of the family visit their elders who give them their blessings, and everyone gets busy with the arrangements for the holiday."

## CARI GROUP TESTS WATER DITCHING PROCEDURES AT CENTER AND LAKE



The survival crew sits in a life raft and sends up flares. The tests were made on Lake Tenkiller.



CARI Skin Divers, called "Safety Monitors," were always on hand to prevent any accidents during the testing period. They stood by as the experimental crews were "evacuated" from the cockpit into the water.



Lake Tenkiller, the San Francisco-Los Angeles area, and the large survival tank at the Civil Aeronautical Research Institute building all have been scenes of action in specific tests by the Protection and Survival Branch of CARI.

One project, under the direction of J. D. Garner, involved the evacuation of crew members from cargo aircraft in the event of water ditching. Various tests had already shown the CARI researchers that to get crew members, life rafts and other survival equipment out through escape openings in the cockpit of certain aircraft was virtually impossible.

The ditching study was conducted in three phases. In the first, initiated in California, tests were conducted on a number of different types of aircraft in cooperation with various cargo-carrying operators. Crews and equipment were evacuated on to platforms located around the cockpit while motion picture cameras covered the evacuation both from the interior and exterior of the aircraft. Thousands of feet of film were taken and later studied by time-motion analysis.

In the second phase tests more extensive than those carried out in California were observed. A mockup was constructed at CARI utilizing the forward section of an aircraft fuselage altered to incorporate design modifications indicated by the earlier tests. The fuselage was positioned in a ditched attitude characteristic of the aircraft under study and



Pilot Howard Hasbrook took aerial photographs of ditching procedures from a birds-eye view, the T-34.



A commercial pilot demonstrates the difficulty of escape. The problem has been modified by installation of overhead hatches in cockpit area. In other photo, Jack Blethrow and R. L. Paulin collect anthropometric data.

could be submerged without damage. Factors such as delays due to cockpit flooding, launching and boarding of life rafts were evaluated without difficulty. However, wave and swell action, both of which have a significant effect upon evacuation from a ditched aircraft, could not be simulated in the survival tank, and were conducted at Tenkiller Lake in eastern Oklahoma where the water is so crystal clear that four of CARI's scuba divers, Don Rowland, E. B. McFadden, Bill Reed and Jim Simpson working in teams of two—could monitor the safety angles of the operation.

In this third phase of the study, large flotation tanks were attached to each side of the fuselage and the nose section filled with smaller flotation tanks and plastic foam. Once in the lake, flotation attitude of the fuselage was controlled by lead ballast.

The site for testing was chosen with the expectation that wind and wave action would be maximal, but nature refused to cooperate and the crew found lovely weather with no wind and a very rare glasslike surface on the lake.

This did not halt the work, however, as the Oklahoma Planning and Resources Lake Patrol created good sized waves for them by circling the fuselage in a large cruiser.

The crew was at the lake three days. During the first day Bill Reed developed a severe toothache, and his crew-mates

took him into a nearby town in the middle of the night and had the tooth extracted. Reed was to serve as the diving safety monitor, but wound up as the camp guard the first day due to the tooth trouble. But, in the process of "above and beyond the call of duty," was able to get the SCUBA mouthpiece into his sore mouth the second day and was on duty.

Other CARI personnel assigned to the project were motion picture photographers Greg Winters and J. D. Allred; Jack Blethrow served as test coordinator and communicator; Jim Turner maintained and operated the mechanical equipment; and Howard Hasbrook flew the T-34 during the tests and made a number of aerial photographs.

After dark each night Flight Standards personnel tested the efficiency of a new type of life-raft light that requires no batteries or other sources of energy because it is self-luminous. These particular lights are plastic tubes, coated internally with a phosphorescent material and filled with tritium gas, a radioactive isotope of hydrogen. Radiation from the tritium excites the phosphorus, which, thereupon, emits good light. The tubes will produce a continuous glow for 21 years and, it might be added, without radiation hazard.

The U. S. Army Corps of Engineers which supervises the overall operation of Tenkiller Lake provided invaluable assistance in the launching and retrieval of the fuselage.



FAA Horizons

## NAATS CONVENTION AT OKLAHOMA CITY ATTRACTS 300-PLUS DELEGATES

Oklahoma City hosted the national convention of the National Association of Air Traffic Specialists in October. More than 300 members attended the three-day session at the Oklahoma-Sheraton Hotel.

FAA Administrator Halaby spoke to the members at the Awards banquet.

Halaby touched on the question of the reduction in the 378 Flight Service Sta-

tions across the country; told those at the dinner that cross-training of people to work at FSS, Air Traffic Control Centers and Towers is a fixed policy of the Agency.

Two Flight Service Station men were given awards. The NAATS award for the Outstanding Flight Service Specialist was given to an Oklahoma City man, Ford Hubbert. He was a native of Enid be-

fore coming to Oklahoma City. He assisted a California pilot around a storm near Oklahoma City last March; took the man to a safe landing at Fairview.

The second award, presented by the Aircraft Owners and Pilots Association, went to Ed Danko, Dayton, Ohio, Flight Service Station.

Danko found and helped a pilot, lost at night over Ohio, to a safe landing.

## HOME STUDY GROUND SCHOOL TRAINING TRIED OUT AT THE AERO CENTER

A selected group of FAA employees and a few representatives of the general aviation industry took a pilot's ground training course recently by way of "programmed learning," a new concept devised by the E. P. Jeppesen Co., of Denver, long-time publishers of aeronautical charts and manuals.

The idea behind this particular type of home study is a departure from the standard practice of covering a subject chapter by chapter and answering a series of

questions at the end of each one. Instead, the student concentrates his efforts on a paragraph or two at a time and answers questions as he goes along.

The questions are based on the information he has just acquired and follow immediately that part of the text just covered. In other words, it is a fusion of learning and testing. So far as is known, this is the first attempt to use a method of self-instruction in the pilot training area.

The group went through the Private Pilot, Commercial Pilot and Instrument Rating ground school courses with results that are considered promising.

Much of the material used in the ground school manuals is supplied by the FAA's FS, Operations Airman Examination Section at the Center.

It is understood that some of these studies are being used to good effect by the Congressional Flying Club in Washington, D. C.

## IT'S ALL IN THE BOOK



L. T. Hancock, Assistant to the Vice President, General Aviation Sales, Jeppesen and Co., William A. Prescott, Vice President of the same organization, Donald W. Layman, Manager of Jeppesen's Aviation Education-Engineering Service Department and L. E. Brooking, Chief of the FAA's Operation Airman Examination Section, Flight Standards Service, look at some of the Jeppesen publications.

## Grimm Works With Astronauts



Dean Grimm, Aerospace Engineer, assigned to the Boeing 720 Section, Air Carrier Operations Branch, Flight Standards Training Division, is now working in Houston with the National Aeronautics and Space Administration.

He will work directly with the Astronauts.

Grimm came to the FAA Academy at the Aeronautical Center in June, 1961, from the Boeing plant at Seattle, Wash., where he worked as an aerodynamicist in the certification of the Boeing 707/720 air transport.

A Kansas University graduate in Aeronautical Engineering, Grimm worked with Convair in flight testing the B-58 supersonic bomber before he became affiliated with Boeing.

## CARI STAFFERS BATTLE FLAMES TO SAVE CAMPER

When the Protection and Survival Branch people were at Lake Tenkiller for a series of tests, some quick thinking probably saved a man's life.

Ernest "Mac" McFadden and Jim Simpson were sitting around the camp area, getting ready for some night tests.

About this time an Oklahoma City man arrived a short distance away and set up his own camp by himself.

Around 8:00 p.m. McFadden and Simpson were sitting on the camp table, discussing final plans for the night tests with Bob Massler of the United States Radium Corp., who had fabricated the experimental tritium light source according to McFadden's specifications.

As McFadden and Simpson were looking over toward the lone camper, the whole area was illuminated and they were terrified to see the man burst into flames and suddenly start running around his car.

McFadden and Simpson saw the trouble immediately and dashed toward the man and caught up with him and tore the flaming shirt from his body.

The man's portable stove had exploded and showered him with gasoline. The fuel had been ignited by a nearby lamp.

The CARI men threw a blanket over the brightly burning stove and wrapped the man in more blankets.

They noticed he had severe second and third degree burns on his arms and hands and was going quickly into shock.

They covered his hands and arms with ointment and dressed the burns.

They put the man in their station wagon and raced 30 miles to Tahlequah, Oklahoma and the nearest hospital.

The doctor who treated the patient at the hospital gave the crew a compliment when he said wryly that their immediate first aid was probably better than the second aid he could give the patient.

## Jones Is 1963 Chairman of AIAA Oklahoma Section Is 1 Year Old



John Paul Jones, Chief of the Engineering and Manufacturing Branch, Flight Standards Training Division of the FAA Academy, is the 1963 Chairman of the Central Oklahoma Section of the American Institute of Aeronautics and Astronautics.

The AIAA is the organization which emerged from consolidation of the Institute of the Aerospace Sciences and the American Rocket Society. Both these organizations were preeminent in their particular fields of engineering and their consolidation has created the outstanding institute in the field of aerospace engineering.

## DR. GOGEL'S 5,000-MILE REACH TO AUSTRALIA

Serving on a committee for a student who is working on a Ph.D. is not unusual to those in the field of higher education, but when the request to serve on such a committee comes from thousands of miles away, that is very unusual.

Dr. Walter Gogel, head of the Sensory Psychology Section of the Civil Aeromedical Research Institute at the Aero-

nautical Center, received a letter from The Australian National University asking if he would serve on a committee for a thesis being written by a student.

Miss Barbara Gillam, the student is writing in the field of interest to Dr. Gogel, and he is serving as a long distance advisor. Dr. Gogel will do his advising via the mails.

## STUDENTS VISIT STATE CAPITOL



The FAA International Students at the Academy recently paid a visit to the Oklahoma state Capitol. As part of the visit, they were introduced to Oklahoma Gov. Henry Bellmon. Eleven countries were represented. They were: Afghanistan, Argentina, Burma, Iceland, Iran, Pakistan, Philippines, Sudan, Thailand, Turkey and Yugoslavia.

## AMA Head Gets 'Pinned'



Dr. Stanley Mohler, Director of the Civil Aeromedical Research Institute, is shown making Dr. Edward Annis, President of the American Medical Association, an honorary member of the Flying Physicians Association. The meeting held at Aurora, Illinois, featured N. E. Halaby, FAA Administrator, who also was made an honorary member as key speaker. Mrs. Harold Brown (an M.D.) and Dr. Brown, President, FPA are also shown.

# CENTRAL REGION NEWS

## Can You Find Your P.D. ?



The implementation of the Performance Standards Program and the new Position Classification Maintenance Programs (Whitten Reviews) caused a run on the "extra copy" file of position descriptions in the Personnel Office. The sudden need by employees and supervisors for copies of position descriptions and the apparent inability to locate the official copies furnished when the position was established or filled, are con-

sidered "proof positive" that these documents have not been considered important in some quarters of the Central Region.

If this situation exists in some offices and with some employees, we raise the general question: How often do employees and their supervisors look over the written assignments for their jobs or their units? While not the most fascinating reading when compared to certain paperbacks, the Position Description is a major employment document in the Federal Service.

Supervisors and employees have the responsibility for keeping official descriptions current and accurate. The basic principle of fair and equal pay for equal work and good internal organization rests primarily on properly documented individual and/or group assignment of duties. Position descriptions must be reviewed and, if necessary, revised or abolished whenever significant organizational changes are made or when realignment of work is made within a unit.

The addition of significant new tasks or new responsibilities always requires a review of the assignments involved and the revision of position descriptions affected. Supervisors must assure themselves that all descriptions for positions

under their jurisdiction are accurate. A responsibility also rests with individual employees to advise supervisors or the Personnel and Training Division of descriptions no longer providing an accurate picture of their positions.

Position descriptions are important. Accurate descriptions (1) assure fair compensation to employees; (2) provide supervisors and managers a tool whereby overlapping and duplication of work can be identified and corrected; (3) assure proper records for employees to receive qualification credit for specific tasks performed or responsibilities exercised; and (4) when used by supervisors and managers collectively for an entire organization or function, tell the story on such matters as supervisory ratios and the effectiveness of management practices.

Do you have a copy of your PD? Can you locate it? Do you have a complete file of descriptions for the employees under your supervision? Are the position descriptions accurate? Position descriptions are legal documents, they must be considered **IMPORTANT** legal documents and treated accordingly.

Director, Central Region

## TWO CENTRAL REGION EMPLOYEES AND ONE FACILITY HONORED BY ATCA



George W. Kriske

Two Central Region employees and one facility received honors at the annual meeting of the Air Traffic Control Association held in October at Dallas.

George W. Kriske, Chief, ATC Division, was presented the 1963 Medallion Award, "In recognition of his distinguished contributions to the improvement of the air traffic control system and the enhancement of the profession accomplished during his service as a professional controller and as an executive officer of the Air Traffic service."

For writing an article on "Parallel Approaches at O'Hare" controller Duane W. Freer was awarded the Association's top 1963 technical writing award sponsored by the Air Transport Association. Freer's story describes methods used to increase the landing acceptance at O'Hare airport.

The "Facility of the Year Award" presented to the O'Hare Tower was accepted by Tower Chief George Niles. For this story turn to page 14.



Duane W. Freer

## AUTO-POWERED CESSNA 182F GETS OKAY IN AN EXPERIMENTAL CATEGORY



Working in close cooperation with General Aviation District Office #5 in Ypsilanti, Michigan, the Hughes Flying Service in Lansing together with the Oldsmobile Division of General Motors Corporation recently won certification of an automobile engine-powered Cessna 182F in an experimental category.

Late in August this year Mr. Richard Marsh of Hughes Flying Service contacted General Aviation Maintenance Inspector Martin Oosta concerning the

possibility of certification of a Cessna aircraft with an Oldsmobile Jetstar Rocket engine, Model 64-654 installed. Told by Oosta that such a project could be accomplished under CAM 1 which provides for research and certification under an experimental category, Mr. Hughes began at once to organize the forces of his company together with powerplant engineers from Oldsmobile and the Demmer Tool Company of Lansing.

Cessna officials were enthusiastic and offered their assistance plus information concerning a previous conversion using a Buick engine.

The installation was planned in such a way that the aircraft could be returned to standard category when the research development project was completed. For this reason, modifications aft of the firewall were kept to a minimum. The engine, a stock thin-wall cast iron model, was disassembled and completely X-rayed and magnaflux inspected before being re-assembled and mounted reversed from a normal automotive installation. Prior to mounting in the airframe it was dynamometer-tested for 30 hours at maximum

throttle.

Since the engineers had decided to turn the engine at 4000 RPM (providing 230 horsepower) a way had to be found to reduce propeller speed to 2600 RPM. The final decision was to use a conventional gear drive. Oosta suggested a firewall dishpan be installed to provide clearance for the engine water pump.

The completed engine weighs approximately 300 pounds over that of the original Continental 0-470 engine making it necessary that some fixed ballast be placed in the baggage compartment to maintain the center of gravity within its original limits.

The entire package was conceived and constructed in great secrecy in a locked room of the Demmer Tool Company under FAA and Hughes Flying Service supervision.

GA Maintenance Inspectors Martin Oosta and Robert Koester were in touch with the project and certification in the experimental category was made on October 4, 1963, by Inspector Koester.



## Flight Standards Mean Safe Flying

Last year, more than 55 million passengers streaked across the American skies in powerful airliners . . . the Twentieth Century "Magic Carpet."

These giants of the airways carried their precious cargo—people searching for new commercial horizons and pleasure—with astounding safety. The marvelous safety record achieved by the nation's airlines is a tribute to the thousands of dedicated airline employees who maintain and operate the U. S. fleet of some 2000 air carrier airplanes.

This safety record is also an achievement in which the Air Carrier personnel of Flight Standards can take justifiable pride.

When a traveler goes to the airport, checks his baggage, boards the sleek airliner, and takes off on his journey through the air, he does so with faith in the dependability of the airplane, faith in the flight crew, and faith in the Airways System. It is the responsibility of the Flight Standards' Air Carrier Branch to see that this faith is justified.

To do this, highly trained FAA Air Carrier experts work closely with airline management to assure that the highest safety standards are maintained. Let's look for a moment at the fascinating and responsible work that the FAA Air Carrier inspectors do.

### The Airline Airplane

Night and day, United States airlines fly their busy schedules with rugged dependability and reliability. Behind the scenes, remote to the traveler's eye, these airplanes, their engines, and components are constantly maintained in modern overhaul bases in which the airlines have millions of dollars invested.

Trained FAA Air Carrier maintenance inspectors closely scrutinize the techniques and procedures used to maintain and service these airline aircraft. From the assembly line in the overhaul shop to the fueling truck at the most remote station in the system, these inspectors watch to see that each airplane receives meticulous care and attention.

With the introduction of the turbojet, the complexity of their work has greatly increased. They must stay constantly

"on their toes" to keep abreast of modern technological developments.

### Safe Operation of the Airliner

Not only are the Air Carrier people concerned with how well the airline airplane is maintained and serviced, but also with how safely it is operated.

To assure this, Air Carrier inspectors regularly check the "101" things that go to make up safe operation. Safe flight is not just one thing . . . it is a combination of many things.

Inspectors want to be sure that the highest operational standards are maintained. Is the baggage loaded properly to assure proper weight and balance? Are passengers put aboard without experiencing such possible hazards as walking into a spinning propeller, being overrun by ground-handling equipment, tripping over cables and hoses, etc.? Are factors such as weather information, communications and navigational facilities, etc., available and satisfactory? And on and on . . . details . . . details . . . details. Air Carrier inspectors check every detail to assure that the safest procedures are used.

### Flight Crew Performance

Airline flight crews must not only be highly trained, but they also must keep constantly proficient.

During the normal course of their everyday work, pilots of the modern airline aircraft are seldom faced with an emergency situation. For this reason, each year, these pilots must demonstrate to the Federal Aviation Agency their ability to fly under adverse circumstances, and prove that they are thoroughly familiar with current procedures and techniques.

FAA Air Carrier Operations inspectors also observe the cockpit techniques of airline pilots on regularly scheduled flights.

Overall, in the Flight Standards' "total systems worthiness" approach, Air Carrier Operations and Maintenance inspectors continually help assure that Americans who ride the airlines do so with the knowledge that their flights will not only be comfortable and fast . . . but safe.

## CE REGION REVEALS WINNERS OF FIRST MECHANICS SAFETY AWARDS

The Central Region announced winners in the first Aviation Mechanic Safety Awards program recently. John Motta, of Trans-World Airlines, was named regional winner in the Air Carrier division of the program. John works at the TWA maintenance base at Los Angeles International airport as an electro-mechanic.

Regional winner in the General Aviation division was Erwin A. Schwarzkopf. Schwarzkopf is employed by the Lincoln Aviation Institute, Inc.

Other state winners and their employers are: Harold E. Roberts, St. Louis, St. Louis Flying Service; Carl E. Stine, Springfield, Illinois, Capitol Aviation; Michael Petras, Ft. Wayne, Indiana, Zollner Corporation; Roger D. Frick, Des Moines, Iowa, Elliott Flying Service; Lawrence J. Walter, Overland Park, Kansas, Spencer Chemical, Kansas City, Missouri; William J. Granton, Plymouth, Michigan, Burrough Corporation; Edward B. Caldwell, Minneapolis, Minnesota, Peavey Airmotive; Clark Burton, Belle Fourche, S. D., Busfield Air Service; Robert E. Huston, Great Falls, Montana, Skyway Aircraft Repair (self-employed); James Stevens and Laverne Kerbaugh, both of Williston, N. D., Aero Spraying Service; Charles H. Napier, Hales Corners, Wisconsin, Outboard Marine, Inc.



Above: TWA's John Motta, Air Carrier Winner in Region. Below: Missouri State winner Harold E. Roberts gets award from Secretary of State Warren Hearnes.

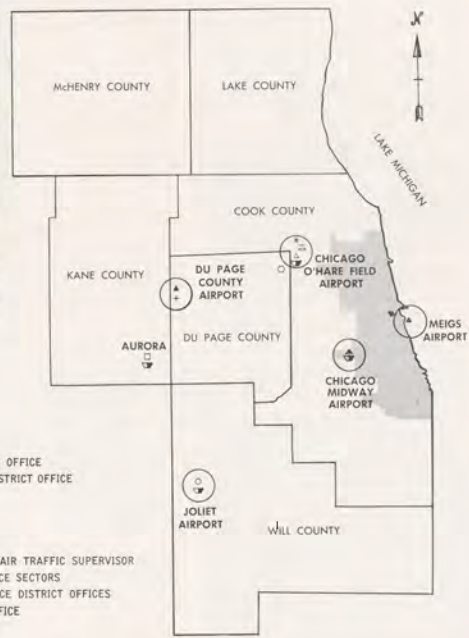


Above: General Aviation victor Erwin A. Schwarzkopf. Below: South Dakota Clark Burton (l.) receives State award from Gov. Grubbard and Fritz Reiger, GADO 16.





Gathered for a staff meeting are the members of the Hub Area Office. From the left: Paul Cannom, Assistant Hub Manager; Lyle K. Brown, Hub Area Manager; Ralph C. Hottman, Chicago Air Traffic Supervisor; Joseph Wujcik, Personnel Staff Advisor; Harold Poggemeyer, Program Management Officer. Secretarial duties for the Hub staff are performed by Marjorie Rucinski, standing and Elsie Lipski.



# CHICAGO HUB AREA TEST

The Hub Area Office was devised as a test bed for one phase of an Agency-wide program designed to evaluate objectively a number of sub-regional organizational structures in an effort to find the "one best way." This program has been given the name—"Project Focus."

In actuality, Project Focus consists of six tests being conducted by the Agency, the Hub Area Manager concept being the one assigned to the Central Region. This latter concept envisions the establishment of a counterpart to the Regional Director in a major hub area with full line authority and responsibility for all programs of all facilities that are geographically located in the hub test area.

The area which was chosen for the test encompasses six counties comprising the Greater Chicago metropolitan area. Shown on the accompanying map are the facilities involved in the test. Basically these are the Air Route Traffic Control Center at Aurora; the four control towers (located at O'Hare, Midway, Meigs and DuPage); the Flight Service Station at Joliet; the Air Traffic Supervisor; the GADO, ACDO, SMDO and associated SMS's; the I&M offices and the District Airport office.

In order to readily envision the scope of responsibility of the Hub Area Manager, a comparison can be drawn with those of the Regional Director. The Hub Area Manager has generally assumed all responsibilities of the Regional Director

in the assigned test area, but is subject to some limitations in budget and personnel areas. Hub representatives in the various field offices serve as staff members to the Hub Manager much the same as Division Chiefs in the Regional Headquarters are staff to the Regional Director.

The various test plans come under Administrator Halaby's policy of decentralization which he voiced in 1961 when he said: "Since our programs and services are actually accomplished by people in the field, we must place the operational responsibility, authority and management resources in their hands, so they can do the job." The sub-regional tests are part of the plan to find the "one best way" mentioned before.

Objectives of the Hub Area test are as follows:

1. Determine the extent to which efficiency is affected by placing decision-making authority as close as possible to the point where actions occur.
2. Validate advantages and disadvantages to be derived by streamlining chain of command and line of authority—clarify line and staff relationship of Regional Office elements to field (facility level) operations.
3. Pinpoint what authorities, functions and responsibilities should properly exist at sub-regional level.
4. Verify the most effective system of controls and evaluative techniques at successive organizational levels essential to

satisfy accountability and responsibility requirements.

5. Assess the most effective system of "communications" for providing policy and procedural guidance at sub-regional level.

6. Evaluate operational impact on such overriding criteria as (1) cost vs. benefit concept, (2) public relations, (3) "one FAA" image, (4) quality of technical service performed, (5) coordination and control, and (6) career development opportunities.

7. Determine the extent to which results have national application or are susceptible for use in existing organizational patterns.

Placed in effect on September 1, 1963, the test period is scheduled to extend through April 1964, with findings and conclusions to be summarized by June 30, 1964. The immediate staff at the Hub Area office, as now operating, is listed below showing the position from which each was detailed to the test program: Hub Area Manager, Lyle K. Brown, Chief, Operations Branch, Air Traffic Division; Assistant Hub Area Manager, Paul Cannom, Supervising Inspector, GADO-11; Personnel Staff Advisor, Joseph Wujcik, Chief, Employment Branch, P&T Division; Program Management Officer Harold Poggemeyer, Administrative Officer, I&M Division. Ralph Hottman was detailed in his present position as Chicago Air Traffic Supervisor.



There are five major airports in the Hub Area. Three of them are shown here: O'Hare International (upper left); Midway (upper right); and Meigs (below).



## HORIZONS

### Visit the Aeronautical Center



The Aeronautical Center at Oklahoma City plays a major role in making air travel as safe and dependable as possible. This capsule story of the facilities of "Oke City" explains in brief what these 4000 employees do to assure safer, faster and more convenient air travel here and abroad.

The Aeronautical Center is made up of a number of tenant organizations which perform more or less unrelated functions, each reporting to its parent office at the Washington Headquarters of the Agency.

Providing necessary centralized services and functions for the entire complex is the Office of Manager, Aeronautical Center, headed by Lewis N. Bayne.

One of the largest of the tenant organizations is the Installation and Materiel Depot under Warren E. Nauman, Acting Manager. The Depot provides engineering, shop and supply support to the many facilities that make up the Federal Airways System. The Depot operates in a huge warehouse and shops building of 15 acres under one roof.

All Federal Aviation Agency aircraft, some 130 at the present time, receive major overhaul and modification in the Aircraft Services Base headed by Chief Robert L. Sicard. Three large hangars, two big enough for the largest jets, provide the work area for this operation.

Also located at the Center is the FAA Academy, one of the world's largest basic training areas for aviation skills. Approximately 1500 students are in daily attendance in more than 150 different courses. Enar B. Olson is Director of the FAA Academy, and is thereby responsible for the many programs designed to give the governments of the United States and other nations of the Free World the specialized manpower needed to keep civil aviation and the airways operating safely and efficiently.

Housed in a six million dollar building is the Civil Aero-medical Research Institute, better known as CARI, under the directorship of Doctor Stanley Mohler. Truly the exotic side of Aviation Medicine, CARI offers researchers an atmosphere where they can delve into the physical and psychological factors of today's airman. Other areas of Aviation Medicine doing business under CARI's roof are the Certification Division, which issues medical certificates for all civil airman, and the Clinical Services Division, which administers the employee and executive health program throughout the Agency. Also, within the scope of operation is the Georgetown Clinical Research Institute located in the District of Columbia area, where studies on geriatrics, with particular emphasis on aging factors in airman, are being carried out.

Other activities located at the Center are High Altitude and Intermediate Altitude Facilities Flight Check Field Offices and Intermediate Altitude Operations Office. This is the National Field Operations Headquarters, directed by Earl Blanchard. Located outside the Aeronautical Center environs in Oklahoma City and awaiting construction of a new building at the Center is the part of the Agency that handles examinations for all airman and keeps all airman and aircraft records.

The FAA Aeronautical Center started its present mushrooming growth in 1956-57 during the period of intense attention given to civil aviation matters as a result of the tragic "Grand Canyon Accident." Today an investment of more than 30 million dollars in modern buildings and millions of dollars in equipment from the physical nucleus of this important aviation facility. There are more than 4000 employees, with a 28 million dollar annual payroll. The annual student enrollment is approximately 12,800.

## CROSS-TRAINING PROGRAM INCREASES SKILLS, SAVES TIME AND MONEY

Central Region Flight Standards' personnel recently participated in a cross-training program that will save the Agency a considerable number of man-hours during the course of a year and will also save the local aircraft owner and operator a great deal of time and inconvenience.

The week-long training course indoctrinated General Aviation Operations Inspectors from six GADO's in the basic elements of the Flight Test program as performed by the Flight Test Section of the Flight Standards Division. The men involved received sufficient academic and flight training to enable them to perform engineering flight tests following minor

alterations or modifications to an aircraft engine, airframe or instrument installation. Many stops on the itinerary of a flight test pilot might include tests to determine the airworthiness of a newly installed rotating beacon or some piece of radio navigation equipment. With the General Aviation Operations Inspector qualified to perform checks after such minor changes the regular Flight Test Specialist can eliminate one, or more stops from his itinerary. Also persons desiring to have their aircraft meet all FAA requirements need not wait long periods of time for the flight test to be performed.

Central Region is the first to put this program into effect.



In the flight testing course were, from left, front row: Bill Abram, GADO 5; Ron Puckett, CE-216; Bob Blair, GADO 13; Paul Clark, CE-216; Hal Hermes, Chief, CE-216. Standing: Lew Axford, GADO 12; Don Kuebler, CE-216; Peter Campbell GADO 17; John Hunt, GADO 3; Eli Jerome, GADO 10; and Les Melton, CE-216.

## CE PROGRAM OFFICERS CONVERGE ON KC FOR 4-DAY BUSINESS SESSIONS

Program Officers, all lawyers, from the six Central Region Airport District Offices met in Kansas City October 1-4 to discuss their special fields with members of the Airport Division staff under Wendell V. Butcher, Chief, Operations Branch.

Since most of them are new to the Agency, the first day was confined to a general orientation of the Agency itself. On succeeding days the men discussed their work in legal liaison with their respective communities pertaining to the Federal Aid Grant Program and the Compliance and Surplus Property Program.

Shown in the photo from the left:

Front row—Keith M. Watkins, ADO #6, Helena, Montana; Earl L. Nelson, ADO #3, St. Paul, Minnesota; Donald C. Bolland, Jr., ADO #1, Kansas City; Wendell V. Butcher, Chief, Operations Branch, CE-660; Hugh E. Dobbs, ADO #5, Lansing, Michigan.

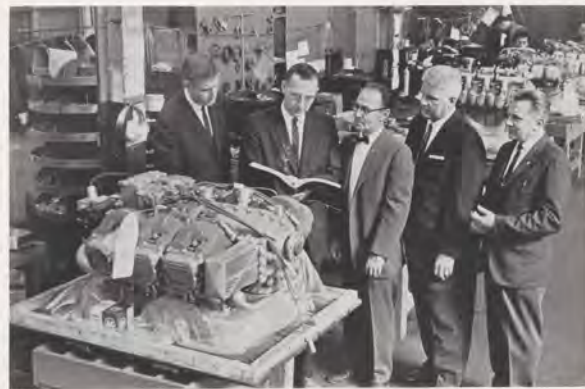
Standing from left—Joseph K. McLaughlin, Program Officer, CE-661; Raleigh P. McClintock, Program Officer, CE-662; Ervin J. Stettina, Program Officer, CE-665; William H. Quinn, Program Officer, CE-664; Carl L. Lindberg, ADO #4, Chicago; Thomas R. Coleman, ADO #2, Lincoln, Nebraska.



Program Officers break during Kansas City meeting.

## Survey Board Looks Over Continental

The Triennial Production Certification Board Survey was completed at Continental Motors Corporation, Muskegon, Michigan in mid-October by a team composed of Central Region and Washington personnel. The surveys are performed every three years to assure compliance with all regulations and to determine eligibility for continuing production certificate privileges. Members of the board shown in the above photo are from left: Fred G. Bozarth, CE-214; Keith I. Blythe, EMDO 42, Indianapolis; Julius B. Dickert, Continental Motors Corporation and FAA Designated Manufacturers Inspection Representative; James A. Cecil, Chief CE-218; Victor Sage, Chief FS-180, Washington.



December, 1963

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# O'HARE TOWER NAMED FACILITY OF THE YEAR

Chicago O'Hare Tower, the world's busiest airport traffic control facility, was presented with the Earl F. Ward Memorial Medallion Award by the Air Traffic Control Association during that group's annual meeting at Dallas, Texas, in October.

Sponsored by the Air Transport Association of America, the award was presented to Mr. George Niles, Chief of the tower. It cited the air traffic personnel for their adaptability in facing the challenge of new traffic control techniques while continuing to provide outstanding traffic control services.

Many changes have been pioneered by the personnel of the O'Hare Tower, most significant being the side-by-side approaches for aircraft landing on parallel runways under IFR conditions, and a common radar approach and departure control facility for IFR flights.

The parallel landing concept proven at O'Hara, and discussed by Duane Freer in his award winning article, grew out of a need to increase the rate at which an airport can accept landing aircraft. Since bad weather increases congestion at an already busy facility, some method had been sought to increase the number of landings that could be handled safely and swiftly. The parallel runway procedure was the answer.

The common IFR room now operating at the tower provides radar approach and departure control services for aircraft operating from five airports in the greater Chicago area. Prior to the consolidation, two IFR rooms had been utilized—one at O'Hare and one at Midway. However, because increasing traffic complicated coordination between two facilities, the operation was changed to provide a common IFR room located at O'Hare. Now, controllers can handle traffic from all five airports with considerable improvement in coordination. Airspace users have benefited from a better flow of traffic resulting in less delay to the flying public.

HORIZONS joins with others in the Region in expressing congratulations to the personnel of O'Hare Tower for gaining national recognition as the "Facility of the Year."



Scenes from the Facility of the Year starting from above show Tower Chief George Niles who accepted the award at Dallas, Texas. Next Hugh Doyle, Supervisory Coordinator, handles a question on the telephone while Dalton Sessions handles mike. Other controllers Paul Schmitt, left and Raymond Baran are shown in third photo. Norman G. Oleson, Gloria Hanus and Donald Kemmerling are shown adding up the monthly traffic count. Other photos show Operations officer Carl E. Joritz, center, and Assistant Chief Robert C. Schwank and Secretary Mary C. Sanaghan.





## NEW FAA CHAPLAIN AT WAKE ISLAND

If a handsome face, a dynamic personality, a good sense of humor, and the enthusiasm of a boy with a brand new bicycle are assets to a person administering to the spiritual needs of a populace, then Father Canice F. Cartmell, Wake Island's new Chaplain, is well stocked, and well equipped for the job.

Father Cartmell relieved Father Leon Murphy as Wake's Chaplain on October 4. Both are Catholic missionaries, and both have spent considerable time in the Marianas. Father Cartmell's most recent assignment, prior to Wake, was on the Island of Rota. He has, during his ten years in the Marianas, been assigned to all islands of the group. He is a member of the Order of Friars Minor Capuchin, a branch of the Franciscan Order.

Among his other assignments, Father Cartmell was Chaplain of the Guam legislature for five years. He speaks Chamorro, the language of the Marianas, fluently.

Father Cartmell would appear to be out of his territory, but not out of his field. He was born in Manhattan, and educated in Indiana, Wisconsin, and New York. His mother lives in Manhattan, and a brother operates a trucking firm in New Jersey. His father was a casualty of World War I, having been severely shellshocked.

Although chaplains by and large are generally thought of as being a rather staid, serious, and reserved lot, Father Canice (as he prefers to be called) doesn't fall into this category at all; this must necessarily be qualified to the extent that he certainly can be serious. He is highly serious, for instance, when he states that the Wake Island Chapel, a World War II Quonset hut in need of paint and in a state of deterioration, will look, by comparison, more like a place of worship one of these days, given about one year and some perseverance. A few Pacific Region folk, who chanced to know Father Canice on Rota and other Pacific Islands, insist that if the padre runs true to form, the Wake Chapel, by comparison, will more nearly resemble St. James' Cathedral than a Quonset hut.

Though still quite young—a modest thirty-six (and looking five or six less than that)—Father Canice has built quite a reputation for acquiring an immediate and close association with volunteers willing to help build anything from a chapel to a recreation center to a new kindergarten—and with

potential "donors" willing to dig way down deep and give till it hurts. The modest chaplain would neither confirm nor deny that he once "promoted" an entire shipload of cement on the West Coast of the United States, delivered, by the way, to a small island in the Western Pacific.

He would admit, however, that he is one man—possibly the only man known to man who has ever been blasted with 13,800 volts of electricity and lived to admit it. He has the scars—on one hand and one foot—to prove that he had holes burned through both. It happened when he was on a construction project. He was holding on to a huge concrete bucket swinging on a cable from the boom of a huge crane. The boom came into contact with a high tension line, and Father Canice was considered dead. By all odds he should have been killed instantly, but he stubbornly insisted that he had too much work to do to die so young, and steadfastly refused to die. Of course, his abiding faith in his Creator, his dedication to a clean and useful life in service to God must have been appropriately recognized by Higher Authority.

All who know Father Canice (and you don't have to know him long to KNOW him) insist that he is equally stubborn and steadfast in completing any project he thinks worthy of his attention, and they hasten to point out that no worthy project is too small to demand his attention.

OUR new Chaplain doesn't necessarily hold to the somewhat popularly used cliché that "a priest's place is in the pulpit." He subscribes to the more realistic and practical theory that a priest's place is with people—wherever they may be. In any event, the people on Wake Island will not want for a true friend, companion, or spiritual counselor. He already has extensive plans for community programs which will tend to minimize problems which otherwise have a tendency to be magnified on an isolated post like Wake.

One of Father Canice's happy thoughts as he assumed his new duties on Wake, was one inspired by Reverend G. M. Needham, Episcopal Pastor of St. John's Church, Guam, when wishing Father Canice success in his new assignment. Father Needham contemplated a wonderful, most beautiful thought: because of its geographical location, Father Canice, in saying morning services on Wake, would be offering the very first worship to God every given day of the year.



During the morning hours they viewed the displays in small groups.

## FAA ON DISPLAY

October was a busy month. FAA went to two Fairs and three Federal Career Day programs. For four days on the Island of Maui, FAA exhibits met the public and put on a show of electronics test and teletype equipment.

On October 15, FAA participated with a display at a Federal Career Day program at the University of Hawaii's Honolulu campus, where thousands of students eyed the attractive exhibits showing the various occupations in the technical fields of the Agency, and spoke to representatives of the Personnel, and other Regional Headquarters offices. Pamphlets and brochures were freely passed out, and the various phases of the Federal Aviation Agency's Career Development Program explained to students, who were briefed on employment opportunities that the Federal Government offers.

During the latter part of October, exhibits at the Hilo Fair were viewed by tens of thousands who, fascinated by the lash-up of two one-hundred-word-per-minute teletype printers, stood in awe as the dancing typing head invited them to try their skill. A continuous chatter of Tower frequencies, issuing instructions to aircraft, poured forth, holding in rapt attention not only youngsters, but attracted thousands of adults, whose myriad of questions did not go unanswered.

It was a busy month—a profitable month—for the FAA is better known by the people of Hawaii and to them means the Federal Aviation Agency, whose mission is service in their common interest, is concerned with fostering the highest standards in aviation safety on the ground and in the air.



Fascinated by the dancing type-box of the 100-per-minute teletype print, Duane and Joyce Yugawa listen to Art Medeiros, Chief, SMD0 #1, Systems Maintenance Division, explain its use and ask Joyce to try the keys.



Above: Herbert Q. C. Chang, Chief SMS #7, Hilo, brought his family to the Hilo Fair, where his daughter discovered "Daddy and his VOR Mom" pictured on display. Below: By noon, and throughout the afternoon and evening, they were all attracted to the FAA displays by the thousands.



FAA Horizons



Left: The group watches intently as Robert I. Gale reads message to Tokyo; Standing (l. to r.): James A. McBride, Carl Clifford, Donald Long; seated: Roy Y. Nakano, Gale, Letwell P. A. Duvauchelle. Right: Roy Nakano did fine job translating and reading message in Japanese.



## HONOLULU-TOKYO VOICE LINK COMMISSIONED

A 3400-nautical-mile voice circuit between the Honolulu Area Control Center and the Tokyo Area Control Center was commissioned at 100130Z October. This single sideband circuit, a part of the vast Defense Communication Agency's network, gives the Honolulu Air Route Traffic Control Center in Diamond Head Crater a total voice circuitry of over 8,000 miles for traffic control purposes.

The opening of the new circuit was the occasion for mild celebrations on both ends of the circuit. A group of dignitaries which gathered for the occasion in Tokyo Area Control Center included Mr. Shinichi Ohsawa, Deputy Director for Engineering, Japan Civil Aviation Bureau; and Mr. Yoshio Kawakami, Director, Tokyo Area Control Center. In the Honolulu Center for the occasion were Robert I. Gale, Director, Pacific Region; Carl W. Clifford, Chief Advisor, Tokyo IFO; Donald H. Long, Chief, Air Traffic Division; James A. McBride, Chief, Program Planning Branch, ATD; Letwell P. A. Duvauchelle, Acting Chief, Honolulu ARTCC; and Roy Nakano, Procurement Agent, Installation and Materiel Division.

Mr. Gale read the first message over the circuit, as follows:

"Greetings from the United States to Japan. This is Robert I. Gale, Director, Pacific Region, Federal Aviation Agency, speaking to you from the Area Control Center in Diamond Head Crater in Honolulu, Hawaii.

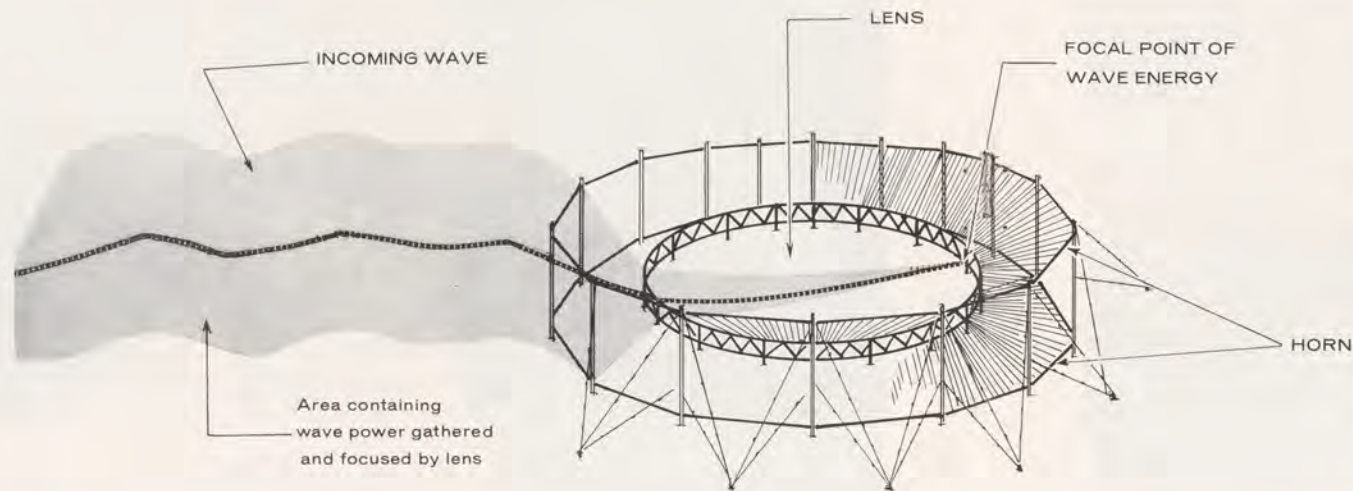
"The commissioning of this very long range full-time voice communications circuit between our Area Control Centers for air traffic control purposes is truly an example of splendid mutual planning and cooperation in providing another service which increases the safety of international aviation operations. We are very proud to join with you in this ceremony which marks the opening of this new service.

"I send my congratulations and best wishes to all the officials of the Japan Civil Aviation Bureau, and to the controllers of your Area Control Center in Tokyo."

The message was then read in Japanese by Roy Nakano, after which the following message was read by Mr. Ohsawa, from Tokyo:

"Mr. Gale, this is Ohsawa speaking. Congratulations on the commissioning of the High Frequency Voice Circuit. Mr. Gale, as a personal favor, would you please extend to your staff my personal appreciation for their support made on the establishment of this new circuit."

Mr. Duvauchelle and Mr. Kawakami then exchanged brief messages on behalf of the controllers of both installations. The ceremony over, business as usual was the order of the day, and an extension of the close coordination between facilities became another routine in the process of providing a safe, orderly and expeditious flow of air traffic.



## LUNEBURG LENS LATEST IN HIGH FREQUENCY ANTENNAS

The highly reassuring tests recently conducted on the latest in radio transmitting and receiving antenna theory have proven the wisdom of the Federal Aviation Agency in electing to construct the first Wire Grid High Frequency Luneburg Lens receiving antenna. The site is on the Island of Molokai, fifty miles east of Honolulu.

This antenna is the world's first application to long distance radio communication of a principle commonly employed at the much shorter wave lengths of visible light, the wave-focusing principle of the lens.

The operation of the wire grid lens antenna depends strongly on two relatively recent inventions.

The first of these is Luneburg optical lens, invented by the late Dr. R. K. Luneburg, Professor of Optics at Brown University. He designed the general concept of the lens, which has a circular cross-section (rather than the more familiar lenticular cross-section found in the lenses of eye-glasses, cameras, telescopes, and other optical devices) and which will bring to a focus waves falling on it from any direction. Thus, a spherical Luneburg optical lens is in focus for rays arriving from any direction, while the disk form of the lens is in focus for rays arriving from all directions in the plane of the disk.

The second important invention is that of Dr. Robert L. Tanner, of Technical Research Group-West, Menlo Park,

California. Dr. Tanner, employing Dr. Luneburg's theory of the optical lens, showed that a radio wave traveling between two wire grids can be refracted, or bent, in a manner analogous to the bending of light waves traveling through glass. Reducing the spacing between the grids causes a reduction in the speed of travel of the radio waves in a manner completely analogous to the slowing of light waves produced by increasing the optical density of glass (the original principle of the Luneburg optical lens). Invention of the wire-grid refractive medium enabled the utilization of the Luneburg Lens at radio communication frequencies.

The wire grid lens consists of a pair of circular grids of wire, 600 feet in diameter, suspended one above the other on an aluminum framework. At the center of the lens the spacing between the grids is small (seven inches) compared to the size of the meshes in the grid (five feet), while at the edge of the lens the spacing between the grids is large (twelve feet) compared to the mesh size.

Surrounding the lens is a concentric structure (110 feet high), also made of wire and supported by cables and tall poles, known as an electro-magnetic horn. The purpose of the horn, which increases the diameter of the total structure to 850 feet, is analogous to that of the old-fashioned ear trumpet. It intercepts the power contained in a broad area of the arriving wave front, concentrates it in the vertical direction,

and channels it into the lens—the space between the two grids. As the wave travels through this space, a focusing action takes place that causes the wave, initially a plane wave, to converge on a focal point at the perimeter of the lens opposite the side from which the wave entered. (Note drawing.) At this focal point, where the power concentration is approximately 100 times greater than in the free space arriving wave, a signal output coupler is placed and connected by coaxial cable to the receiver equipment.

As an antenna, the wire-grid lens has the unique feature that it can concentrate many waves from many different directions and at many different frequencies simultaneously. Thus, an output coupler placed at the West point of the lens circle will respond strongly to signals arriving from other directions, while at the same time a coupler at the South point of the lens circle will detect signals from the North and discriminate against other signals. The FAA lens at Molokai has been equipped initially with seven output couplers to receive signals from San Francisco, Anchorage, Tokyo, Wake Island, Sydney, the Fiji Islands, and Samoa. As many as thirty-six couplers could be installed. Each would have its own highly directive receiving pattern and all could operate simultaneously, as with the present seven.

Refraction, or bending of a wave occurs because of the slowing of the wave in the refractive medium. As the wave

enters the lens, the portion of the wave traveling in the lens is slowed, with the part of the wave passing through the center being slowed most. Those parts of the wave front which experience most slowing lag behind the rest, producing a curvature in the wave front.

This curvature increases as the wave progresses through the lens, so that by the time the wave has traversed the entire lens the wave fronts have been transformed from straight lines into circles converging on the focal point. All the wave energy contained in a channel equal in width to the entire lens is now concentrated in the small area at the focal point.

To achieve its all-angle focusing characteristic, the Luneburg lens requires maximum wave slowing at the center, where the wave travels only 70 per cent as fast as in free space. The slowing diminishes smoothly in all directions from the center, so that at the edges, the wave velocity is the same as in free space.

The antenna on Molokai covers an area of thirteen acres, while the rhombic antennas presently used for reception from eight directions require an area of approximately 800 acres.

The lens and its surrounding feed horn are formed with approximately 1000 miles of aluminum-clad steel wire which is interlocked and connected by some 40,000 "cross-ties."

Cost of the project is approximately half a million dollars.



Top, left: Luneburg Lens receiving antenna at Molokai. From this angle (top, r.), the antenna looks like a circus safety net. Grid pattern (below, l.) of antenna can concentrate many waves from many directions and frequencies simultaneously. Inspecting the installation are: H. O. Williams, Area Coordinator; J. Libbert, NSA; R. Gale, PC Director; Gen. G. A. Blake, USAF; L. Rosen, NSA; Dr. R. Tanner, C. Rose, Project Superintendent for the lens on Molokai; and W. A. Gaspar, Chief, Compliance and Security, PC.

## Rescue at Wake Island

What started out as a pleasure fishing trip for five members of the United States Coast Guard stationed on Wake Island nearly ended in disaster when the outboard motor gave out and the skiff drifted into darkness. The happy ending was not limited to the fact that the Coastguardsmen were rescued, but that a coordinated search was organized in a minimum of time and effort, involving the Coast Guard, Navy, MATS, and FAA.

It was 2 p.m. on September 24, 1963, when the 16-foot skiff put out to sea, bearing U. S. Coast Guard Loran Station personnel Craig L. Simmons, Raymond H. Lewis, Daniel J. McCormick, Charles B. Ronquist, and Charles A. Branton. At approximately 4 p.m. the engine failed internally, resulting in a broken crankshaft. A northeasterly wind at 12 knots carried the skiff rather rapidly away from the island to the southwest in the three- to four-foot swells. Attempting to row was futile; also, attempts to contact the Loran station on the FM transceiver produced no results. When the boat failed to return on schedule, a search of the shoreline was initiated by the U. S. Navy Search and Rescue Detachment and the Federal Aviation Agency.

FAA Sea Rescue Unit Chief Ichito Nagao, who was at his quarters at the time of notification of the search, immediately proceeded to pick up Chief Mate Walter Paulo and Engineer Alex Kahalepuna. Lieutenant E. Hickey, USCG Loran Station Commanding Officer, and FAA Fire Department Crew Chief Tandy Kualii, joined the FAA Crash Boat "Sapphire Wake" crew at the boathouse, where Engineer Kahalepuna was standing by, ready for departure; at 8:45 p.m. they were heading out of the channel for a check of the shoreline.

At approximately the same time the U. S. Navy's Search and Rescue Plane "Dumbo 50," with Pilot Lieutenant R. S. Lacher, Co-Pilot Lt. (jg) R. R. Appel, and crewmembers W. S. Gibbons, ADR2, and S. O. Scott, AT2, was flying west of Wake Island.

A MATS C-124 aircraft, with Aircraft Commander Major Cleston M. Glasgow at the controls, was inbound from Guam. FAA controller Philip Grover asked Glasgow to be on the lookout for the overdue USCG boat, since it was probably in the vicinity of the approach pattern.

Thirty-four miles from Wake Island the MATS aircraft spotted a light. The area was searched, but what seemed

to be a light had apparently disappeared. The sighting was relayed by the MATS crew to Wake Control Tower. SAR "Dumbo 50," after being informed by the Control Tower, investigated the area and identified a large surface vessel there — not the USCG boat.

The MATS aircraft subsequently began its approach to Wake Island. Just prior to turning inbound on the final leg of its approach, eleven miles out by TACAN, the navigator, Captain Marshall, saw on radar "something that looked like a small boat." Simultaneously, one of the five scanners on board the aircraft said he, also, saw a light in the same direction that the navigator had seen the "blip" on the radar. The approach to Wake Island was discontinued to search the area, and "Sapphire Wake" and SAR "Dumbo 50" were contacted.

When the personnel in the skiff heard the MATS aircraft approaching in the distance, a couple of the boys ripped off their tee-shirts, soaked them with gasoline and set them afire amidship to attract the aircraft. It worked.

"Sapphire Wake" asked for a flare drop from the MATS aircraft in order to get a bearing to the skiff. "Sapphire Wake" was then five miles from the object of the search, and it proceeded on course given by the MATS aircraft for approximately four miles. Visibility was practically nil because of water over the starboard quarter in the nearly six-foot swells of the sea.

SAR "Dumbo 50," meanwhile, arrived on the scene, whereupon the MATS aircraft, its fuel supply running low, proceeded to Wake.

"Dumbo 50" was asked to drop a flare to illuminate the rescue area; "Dumbo 50" complied with two smoke flares, then an illumination flare. The disabled boat was finally sighted by "Sapphire Wake," and it pulled alongside. All five tired and weary, but happy and grateful Coastguardsmen were taken aboard; they appeared to be in good physical condition and no medical attention was required. With the USCG boat in tow, "Sapphire Wake" returned to the boathouse at midnight, its mission accomplished.

This successful rescue work was the result of the coordinated efforts of the United States Air Force Military Air Transport Service, United States Navy Search and Rescue Detachment, the United States Coast Guard, and the Sea Rescue Unit of the Federal Aviation Agency.

Crew of "Sapphire Wake" that participated in rescue of Coast Guardsmen. (l to r) Engineer Alex Kahalepuna; Capt. Ichito Nagao; and Chief Mate Walter Paulo.



FAA Horizon

## AIR TRAFFIC CONTROL ADVISORS MEET AT PC HQ



Air Traffic Control Advisors gather around a globe to discuss duty stations. The advisors are PC's newest organizational acquisition. Before moving on to take up their duties they stopped at Regional HQ for conferences with ATD personnel. Doing the finger pointing is Gordon O. Pearson, Assistant Chief, Air Traffic Division. The advisors (l to r): Ben Lawson; Fred Fairweather; Rex McQueen; and Horace Adams.

The four FAA Air Traffic Control Advisors to the Pacific Air Forces Command visited Pacific Region Headquarters recently for conferences with the Director, and for briefings by various staff and division heads. The Advisors were recently transferred to the Pacific Region from the Office of International Aviation Service. They are assigned to posts in Hawaii, Japan, Okinawa, and the Philippines.

Rex W. McQueen is Advisor to the Pacific Communications Area at Wheeler Air Force Base in Hawaii. He was formerly assigned as an Instructor-Advisor with the Japan Civil Aviation Bureau and the United States Air Forces in Japan to help prepare for the assumption by the JCAB of air traffic control responsibilities in the Far East. He arrived in Hawaii in 1959.

Benjamin Lawson is attached to the Headquarters, 13th Air Force at Clark Air Base, Manila, Philippine Islands. Lawson started with CAA/FAA in 1945 in the New York ARTC Center. He served in Tokyo for two years (1958-1960) and spent two years in Kandahar, Afghanistan, as Advisor to the Civil Aviation Assistance Group. He moved to

Clark Air Base in 1962. In addition to his Advisor post he also acts as liaison with most governments in South Vietnam, Thailand, Taiwan, Singapore, Australia, and the Philippines.

Fred Fairweather is attached to the 5th Air Force in Japan, with Headquarters at Fuchu. In addition to Japan, his assignment includes Korea. Fred started with the CAA/FAA in 1948 in Memphis, Tennessee. He attended the FAA Academy at Oklahoma City in 1956 and remained there until his assignment to Japan in November, 1962. His last post at the Academy was Chief of the En Route Training Branch.

Horace O. Adams is the youngest member of the group in time of service on the international scene, having joined International Aviation Service earlier this year. He started his career with CAA/FAA in 1948 at Merrill Tower, Anchorage, Alaska. He also had experience in the control center at Anchorage prior to transferring to Washington, D. C., ARTC Center in 1962. He spent some time at Griffiss RAPCON, Rome, N. Y., as supervisor, and a hitch with Research and Development, Atlantic City, New Jersey, prior to his present assignment.

## Maui Sign-In, Sign-Out Register Sees Brisk Action in Transfers

The big item for Maui CS/T this summer has been the turnover in personnel. DON EPLER, Watch Supervisor from the Honolulu Tower, has replaced EARL PATTEE as Chief. Earl transferred to Honolulu Center. BOB AVE newly arrived from Wake IFSS. Bob was formerly in the San Juan Center. LEON MUSGROVE, a new hire, is a former Hawaiian Airlines and Hawaii Air Tour Service pilot. BOB MUCHOW transferred to Guam CERAP and JOHN SULLIVAN to Honolulu Tower.

The Maui ILS has been installed, but the commissioning date is indefinite. Expect an increase in our IFR count when commissioned.

August was the busiest month in total operations at Kahului Airport since the commissioning of the tower in 1952.

CAPTAIN LAING, PC-2, accompanied by NORMAN THOMPSON, PC-800, visited the facility early in September. CHARLIE MIESEL, Chief SMS-9, escorted the party to Haleakala.

The FAA had a booth in the Maui County Fair this year (September 2-5). Our facility participated in setting up and operating the display.

## VISITOR FROM MANILA



Pacific Region played host to Pedro ("Call me Pete") S. Reyes, personable manager of Manila International Airport, who spent several days in Honolulu on a familiarization tour of aviation facilities. Above, he talks to Robert I. Gale, Director, Pacific Region. Looking on is Clyde Carlstrand, Asst. Chief, Airports Division, Pacific Region, who escorted Pete around town.

## NOTES AND COMMENT FROM HILO'S STATION/TOWER

Once again, Aloha from Hilo Station/Tower. A belated congratulation to TOKI NAGATA and his wife on the fairly recent (1963) acquisition of a "tax deduction" in the form of a lovely daughter, SANDRA. TOKI's on our maintenance staff, and an abler technician than he is hard to find. The blessed event was in July . . . both mother and daughter are fine. Dad's probably okay, too, by now.

While we're in a congratulating mood, let's not forget RON SPIKER and TOM CHUN, both of whom were recently promoted to GS-10s. Well, so much for the cheering.

Another member of our maintenance staff enjoyed a long vacation in the land of cherry blossoms and geisha girls, HARRY DONALDSON and his wife visited with her folks in Japan. Harry enjoyed the cherry blossoms, anyway.

There's the smell of sea air and the feel of salt water spray around here lately. There's also the sound of the surf, the cry of "It's a strike!"—the sudden splash and the whir of a fishing reel as a monstrous marlin takes the lure! Yes, all this is in store for the captain and crew of the good ship—er, umm,—well, as soon as she's named, we'll let you know "who she be."

"And what's this all about?" you ask. Well, for you unnautically inclined, it means that PETE MORRISON (our Chief—formerly of the U. S. Navy) has gone and done it. He's bought a boat—er—ship? Well, a seaworthy craft she is, anyway, all nineteen feet of her. With her twin outboards revving upwards of seventy horsepower, she should cut some fancy wakes on the blue Pacific. Well, in

Hilo Bay, anyway.

At present, Pete's spending all his spare time getting her in shape to ship out, with, of course, spirited help from his family and "expert" advice from his friends. We should have a naval type report on her trial run and seaworthiness test by our next report, provided the Coast Guard doesn't have to come to the rescue!

At this point, some of you may wonder why we use the feminine gender in referring to this ship. Well, for the edification (check that \$2.00 word) of you landlubbers, we, of the seagoing fraternity (and sorority) *always* refer to sailing vessels (and this includes boats and ships) as we do the gentler sex. This, you understand, is for two reasons: (1) a ship, like a woman always manages to get you into deep water; (2) my wife told me so!

Aside from the scraping and painting to be done on Pete's pride and joy, there's the problem of selecting a name. Countless suggestions have been offered to Captain Pete (he, of the steady nerves and steel-like gaze, whose veins course with sea water; who—(sorry, I got carried away). But he was a Navy man—U. S. Navy, too.

Where was I? Oh, yes! A name for the boat—ship, er—well, a name for *her*. Space and time forbid me from listing all the names suggested so far, but they range from "SASHIMI MARU" to "PT-109½." Well, nameless or not, everyone here is anxious for a ride on her; so, just pass me the dramamine and "FULL SPEED AHEAD!"

After all that, you want more? There is no more, so—Aloha!

Tom Chun

## UP TO THE MINUTE NEWS FROM HONOLULU TOWER

Now that the greatest influx of summer tourists in Hawaii's history has departed, along with the cute, wholesome, bikini-clad coeds, we can now devote all our efforts to preparing the facility for the commissioning of the Terminal Radar Service Area (TRSA), an improved means of spacing aircraft in and out of this high density area. Haden Rogers has been detailed to the Regional Office to help formulate the plans and directives required to launch such a project. Here at the Tower, we still have to face the ordeal of trying to operate while walls are torn down and drills are screeching to set up the new receivers.

Another program currently receiving a lot of attention is our IFR count. It seems

we are nearing the open sesame for a level-four facility, and a nod of qualification usually means a facility upgrade.

Since our labors occupy such an integral part of commerce, it's only fair to assume that our personnel will travel, and that they do (what with Public Law 737 mainland leave thrown in), with people on the go at all times. Our Chief, Don Tierney, was recently on the mainland attending school in California; prior to returning home he visited high density facilities to gain ideas for our own facility.

Newly arrived at the facility are Messrs. K. S. McClelland, from Guam; J. D. Sullivan, from Maui; and C. J. Pearson, from the Center. A warm aloha to them all.

Vern Daigle

## Fire Prevention Poster Winners See Demonstration of "Hot Drill"



Pictured above with Cy Amerling, Acting Area Manager, Canton Island (left), and John Barboza, Fire Chief (right), are the top five finalists in the Canton Island Fire Prevention Poster Contest. Sitting high on the fire truck is Eugene Stewart, first; others are, left to right: Marty Martison, third; Bevie Chung, second; Linda Takeuchi and Charles Takeuchi, Honorable Mention.

The entire student body witnessed a "hot drill" by the Fire Department, which consists of one professional fireman, the Chief, and a dozen or more trained FAA employees as auxiliary members of the department.

The students then participated in extinguishing small fires, using CO<sub>2</sub> and wet extinguishers. Following the exercises, the winners in the poster contest were given a ride on the main fire truck and a trip in the airport crash rescue boat. The exercises were directed by Chief Barboza, and student activities were arranged by Rodney Patterson, Principal-Teacher, and Mrs. Agnes Chung, Teacher.

The Canton Island School is operated by the Department of the Interior, but is under the direction and supervision of the FAA Area Manager. The school has an enrollment of thirty-five in grades one through eight, most of whom are dependents of FAA employees.

## EXPERT IN PARLIAMENTARY LAW

Richard Caldwell, Training Officer, Honolulu Air Traffic Control Tower, recently taught a ten-week course in Parliamentary Law at the Kailua Intermediate School as part of the Adult Education Program of the Hawaii Department of Education. Eighteen students registered for the classes.

"Dick" is a registered Parliamentarian and is looking forward to establishing a Parliamentarian Chapter in Hawaii. About four more members are needed.

## GENL'S REEVES, LYNN, GUESTS AT FAA BRIEFING



FAA hosts Generals at briefing.

Lieutenant General Raymond J. Reeves, USAF Commander-in-Chief, Alaska (center) and Brigadier General William M. Lynn, Jr., USA Alaskan Command Chief of Staff (right), were hosted by James C. Rogers, Director, Alaskan Region and his staff at FAA Headquarters.

General Reeves and General Lynn were briefed on the mission of the Federal Aviation Agency in Alaska and the sup-

porting role the Federal Aviation Agency plays in the Alaskan Command Defense Operation.

Each division chief explained his particular role in accomplishing the overall mission of the Agency. A question and answer period followed which enabled the military to further question our division chiefs regarding clarification of certain areas and duties.

## Cookies, Candies, \$\$\$ at Credit Union Open House



CAA-8 Credit Union holds open house.

In observance of International Credit Union Day, October 17, our regional CAA-8 Credit Union held an open house.

Cookies and candies were served and all new accounts opened on this date were credited with one dollar.

Jorene Reimer, Administrative Services

Division, is shown making out a new account card. Credit Union officials taking part in the celebration were: left, Richard A. Foster, W.B., President Board of Directors, CAA-8 Credit Union; Mrs. Betty Klokkevold, Office Manager; and Peter Verdin, Treasurer.

## Dogs and Manpower Provide Light For New School at Minchumina

October 6th was a bright day for Minchumina literally when eleven dogs and ten men pulling together carried electricity to the newly established grade school.

The school children had only gasoline and kerosene lanterns, so the local power company, for a fee, offered to furnish electricity to the school if the community would stretch and bury the cable that was furnished. All hands turned to to dig the ditch and in a week's time we were ready for the big pull.

Over 1200 feet of cable had to be dragged out through the woods. The eleven dogs were hooked up to the end of the cable, each man stationed 50 to 100 feet along the line and off we went along the narrow ditch, around trees, through brush, over stumps, knee deep in mud . . . and the job was done. Amazing what a little equipment and a lot of man and dog power can accomplish.

## NOME AIRPORT MUCH IMPROVED



Airline and FAA personnel meet at Nome.

An informal gathering of local airline and FAA personnel held at the Nome FSS marked the official opening of the final 600 feet of runway 9-27. This extended length will permit higher gross takeoff and landing weights to accommodate larger aircraft.

Another airport improvement receiving favorable comments from local airport users is the Runway End Identification Lighting. This installation was completed by a special maintenance project crew, flight checked and commissioned, to the satisfaction of all concerned.

Among those present were: left rear, Dick Galleher, George Lienard, Harry Lewis; left front, Roy Wall, Roy Snyder.

## AGENCY CERTIFIES 26 ARMY HELICOPTER PILOTS

Fort Wainwright's 65th Transportation Company (Lt Hel) recently joined forces with the Federal Aviation Agency to qualify all 26 helicopter pilots for commercial pilot ratings.

After informal instruction by the unit instrument examiner and the instructor pilot, the 65th invited an FAA examiner to Wainwright to administer the written tests.

This is just one of the services provided by Flight Standards District Office personnel. The certification procedure involves checking the application form, examining the applicant's flying records for eligibility, administering and grading the written examination, issuing the appropriate pilot certificate and ratings and processing the file. This service is available at any Flight Standards or Inter-

national District Office throughout the world.

Based upon Civil Air Regulations, the examination consists of 50 questions designed to thoroughly test the aviator's knowledge of regulations governing the operation of civilian commercial helicopters.

In addition to all pilots of the 65th, the unit's primary supporting organization, the 18th Detachment (CHFM), also qualified its pilots for commercial ratings.

Flight requirements for the commercial license were met through graduation from the U. S. Army Aviation School and experience in field units during the pilots' careers.

Military records substantiating the flight experience and proficiency are maintained by all aviation units.

## BLM Thanks Agency for Forest Fire Control Aid

A letter was received from the Fairbanks District Office of the Bureau of Land Management to our Fairbanks station expressing appreciation for our help and cooperation in reporting forest fires.

Richard H. Le Dosquet, Fire Control

Officer for the Department of the Interior, further points out that he wishes to thank our FAA personnel for our working together and striving for the ever better protection of Alaska's resources from the ravages of fire.

## Civilair Club Holds Crab Feed



Wiley W. Knighten, Jr., Flight Inspection Technician, Avionics Section, Flight Standards Division and his friend Carol Herring, are helping themselves to the buffet crab feed dinner sponsored by the Civilair Club. The party, welcoming our new Director, James G. Rogers and Deputy Director Colonel Ralph G. Taylor, was a gala event. Dance music and delicious food added to the enjoyment of this employees get-together.

## Cold Bay Fire Station Open House Is Typical of Other Celebrations



"I like him," says unidentified school girl and points to a firefighter. Left, George P. Overly, Charles Muhs, Robert Livingston, John Fisher and Billie Crow.

The open house celebration at the Cold Bay fire station during Fire Prevention Week, October 6-12, was typical of similar programs held at many of our FAA stations.

At the evening open house, three volunteer firefighters received 30-hour training certificates—Robert Livingston, John R. Fisher and Billie Crow. The highlight of the evening was the awarding of the 100-hour certificate to Charles W. Muhs, the first such award given by FAA to a volunteer for fire-training. George P. Overly was also awarded the 100-hour certificate. While George Overly is a paid firefighter, he has given many hours of his own time to train firefighters.

Cold Bay is proud of the men that gave unselfishly of their free time for the betterment of the community and for the safety of life and property.

## FOOD FORAGING BEAR IS SHOT



Fred T. Barnett, Supervisory Firefighter, FAA Cold Bay Station, snaps a picture of a brown bear shot by two local Reeve airline personnel. It seems they helped solve the bear problem around the FAA housing.



Alfred K. Young, Flight Standards, maintenance advisor, discusses flight and stall characteristics at briefing before aero club. Lorna Ridley, WB, preflights plane.



## Civilair Flying Club Scans the Alaskan Skies

The regional Civilair Flying Club, organized in the Anchorage area during the past month of September, now claims twenty-two members. The club's newly acquired two place aircraft is in constant use as only approximately four members have some type of license. This leaves eighteen members in the student classification who are working on getting their hours and instruction.

Familiarization classes are given one night a week to help students in acquiring the right and adequate background knowledge of flying. Members have a chance to talk over their difficulties and to have their questions answered by volunteer specialists from various regional divisions who donate their time.

Club regulations require radio navigation training prior to cross-country flights. This is covered in orientation classes through the use of various FAA manuals and publications.

Helen Brubaker, wife of Wesley H. Brubaker, Chief Flight Standards Division, is the first person in the flying club to re-solo.

Her first solo was in 1937 and she acquired approximately 150 hours of flying time before allowing her private pilot certificate to expire in early World War II years. She now hopes to renew her certificate. She remarks, "This solo was only slightly less thrilling than the first."

Mrs. Mary Smith, the club's secretary, now has five hours of flying time to her credit. Mary started ground school during World War II with the intention of becoming a ferry pilot. However the minimum age was changed from 18 to 21 years which excluded her at that time. In the meantime she married and is now the mother of six. Mary still has the desire to fly and is enjoying her flight lessons each week. "I was a bit frightened at first," Mary says, "but each succeeding lesson gives me more confidence and the urge to keep going."

As the membership of the club grows, so will grow the fleet. The club's next purchase will be a four-place aircraft to accommodate family groups.

All members of the Civilair Club, Regional FAA and WB employees, are eligible to join the Civilair Flying Club.

Kenneth Collins, instructor, briefs student Lorna Ridley, meteorologist, WB, on VOR navigation equipment. Helen Brubaker checking engine oil before she soloed.





The Finale of the Aviation Mechanics Safety Award program, conducted in the Alaskan Region, was held in the Director's Office on October 25. Pictured left to right are Alaska's Governor William A. Egan who presented the awards, James G. Rogers, the Director, Wesley K. Landes, winner in the General Aviation category, and co-winners Robert E. Lilly and Edward N. Rozmenski in the Air Carrier category. Landes, in business for himself, designed a Fiberglass, foam filled, nonsinkable seaplane float for installation on small aircraft. Lilly and Rozmenski, employed by Northern Consolidated Airlines, designed a plexiglass shell to cover windows on F-27 transports to prevent propeller ice and rock damage. All were eligible for a national prize.

## THE MECHANIC'S ROLE IN AVIATION



Joseph Fitzgerald, Gills Aircraft Service in Anchorage, makes voltmeter check; one of many maintenance types required of aircraft mechanics.



Joseph Fitzgerald works on a small aircraft. It takes knowledge in many fields to become a certified Aircraft and Powerplant mechanic.



Wesley H. Brubaker (left), Chief of the Flight Standards Division, discusses the mechanic certification program with F. Borys (c.), General Aviation Inspector and G. Edmondston (r.), Air Carrier Inspector.



Paul Koppin (left), who escaped from East Germany and came to Alaska as an immigrant, works on a wing brace under the supervision of Joseph Fitzgerald of Gills Aircraft Service in Anchorage, Alaska. Eighteen months of supervised work or successful completion of an FAA approved school are prerequisites for becoming certified as a mechanic.



Charles Ross (left), NCA's Chief Instructor, explains the Rolls-Royce Dart engine to Clarence Anderson, Ground School Instructor. Ground school instruction is a must for mechanics who wish to become licensed.



Written examination is first step for Clarence Anderson of NCA on his way to becoming licensed. It is designed to measure his knowledge. Although he looks worried, HORIZONS happily reports that he passed.



Gordon Anderson, FAA Maintenance Inspector (left), administers practical exam to Clarence Anderson of Northern Consolidated Airlines. The practical examination is designed to test mechanic's skills. Here Clarence Anderson installs a spark plug lead under Gordon's watchful eye.

Roger Staubach completes 12 passes and leads Navy to victory. Alabama's Joe Namath's throwing arm and jitterbug running racks up another win. And in the Pro ranks, Bart Starr gets hot and completes 17 of 22 passes as Green Bay wins again.

The fans leave the stadium marveling at the passing wizardry and running of the backs. The other players on the team? Hardly anyone remembers a name—especially if it was a lineman whose gummy blocking and well disciplined play made victory possible.

This is not a football story. It is a story, however, about another group of men who work behind the scenes in the aircraft maintenance trades. Like the lineman on a football team, they perform their vital tasks and make it possible for others to pilot their aircraft in safety or fly as passengers.

Unlike the Airline Captain with braid on his cap and coat sleeve, or the chic stewardess who pampers the passengers, the labors of the aircraft mechanics rarely come to the attention of the flying public.

To shine a spotlight on the aircraft mechanics and the many tasks they perform to make flying the safe activity it is today, FAA Administrator Najeeb E. Halaby designated 1963 as Aircraft Maintenance Year. The programs which he

directed to be held throughout the regions have been concluded and the outstanding mechanics in the Air Carrier and General Aviation categories have been selected and honored at the State, Regional and National levels.

What are some of the things aircraft mechanics do? Do they receive much training before they are permitted to work on an airplane? Who determines whether or not they are qualified?

These are some of the questions *Horizons* asked Frank Borys and George Edmondstone who head up the General Aviation and Air Carrier Maintenance sections of the Flight Standards Division in the Agency's Anchorage Headquarters. Borys and Edmondstone have responsibility for the evaluation and the certification of every mechanic who works on an aircraft—large or small.

"You just don't start working on the carburetor of an aircraft engine like you do a car," explains George Edmondstone. "It takes more training and preparation to become an aircraft mechanic than it does to become a pilot." Frank Borys added that a private pilot can solo in seven or eight hours and receive a license. A commercial pilot's license can be earned after 200 hours of pilot experience. "But to qualify for an Aircraft or a Powerplant mechanic's certificate," Borys

adds, "takes 18 month's experience under the supervision of a qualified mechanic or 960 hours of training in an agency sponsored school. To qualify for a combined Aircraft and Powerplant certificate requires a minimum of 30 months of supervised work, or 1650 hours in an approved school."

The types of aircraft maintenance the mechanics perform are as varied as the aircraft flying today. Electrical, ignition, hydraulic, propeller and engine—reciprocating and jet—are some. In airframe work, fabric, doping, woodworking, welding, sheetmetal and rigging repair are others.

The steps for an applicant to become licensed are not difficult—if he is qualified. He must be at least 18 years of age to be issued a mechanic certificate. Having the formal school training or experience requirements, as explained earlier, he must pass a written examination to test his knowledge.

Next come the oral and practical examinations for demonstrating mechanical skill. They are administered by an FAA inspector or by FAA designated mechanic examiners. The oral questions cover the same areas as the written examinations and are designed to test the applicant's ability to make use of the knowledge he has demonstrated by passing the written exam.

The practical examination consists of assigned work projects to test mechanical skill and ability to organize work, select and follow correct procedures, apply the right techniques and demonstrate an acceptable level of workmanship.

If he clears these three hurdles, he is certified as an Aircraft or a Powerplant mechanic and is ready to hang out his shingle. Now he is ready to accept responsibility and work alone with limited supervision performing the many vital mechanical tasks on aircraft. They are vital because they do indeed affect the lives of the people who fly or travel in airplanes.

As additional experience is obtained, the mechanic may advance up the ladder in his company or shop to supervisory or inspector roles—or perhaps go into business on his own.

The work of aircraft mechanics is as noble as any performed by man. In their unobtrusive way, they go about their duties with an unusual dedication, fully cognizant that any shoddy workmanship could result in an air tragedy.

That air travel, air commerce and private flying are on the increase in America today is eloquent testimony to the professionalism of aircraft mechanics, supervisors and inspectors.

## ANCHORAGE

Since moose season began this year, I have noticed quite a few happy faces from among the ranks of moose hunters. I suppose they are dreaming of ways to spend the money that they normally would have used to buy beef at the grocery store. A surprising number of Electronic Technician Trainees, who arrived at the Station late last winter, have gotten their moose. Perhaps the FAA Academy is running a special one-week course in moose hunting for trainees going to Alaska.

EMT Leslie Prestegard has arrived at the Station after completion of VOR school at the FAA training Academy. Leslie was formerly the EMT at Farewell. EMT Dale Horner departed the 8th of October to attend Transistors, Computers and APULS courses at the FAA Academy.

A sustained superior performance award ceremony was held at Merrill Field on October 4th. Among those to receive awards was Morris L. Lee, the SEMT of the Anchorage IFST/IFSR Sites.

*Ernesi F. Shorb'*

## ANIAK

October was a busy month for Aniak. Stanley Erickson and Max Cutshall overhauled our generators. Walter Spivy and Victor Shearer arrived to assist with the dike repair. Allen Hanson, John Wetland and Harold Sherman spent a few weeks at the VORTAC Test Site at Napamute. They brought A. S. (Hoppe) Hopkins along with his helicopter to transport the gear up to the hill.

Our new Chief Robert Thomas arrived late in the month. ATCS Richard Strassel returned from vacation to find that he had been selected for Nenana and expects to depart shortly. ATCS Walter Miller and family departed for their new assignment in Tonapah, Nevada. Leader Mechanic Wilson Smith and wife Sevilla left for Fairbanks.

REMT John Trent was here for two weeks while the writer went on a hunting trip which was a big success. I bagged my sheep, better than a full curl, a fine grizzly, two nice caribou and could have shot a moose from the cabin door. The sheep was downed with one shot at about 350 yards. The grizzly was shot 30 feet from the cabin door at 3 in the morning.

Recreation-wise this month the Square Dancers are going hot and heavy. A welcoming party was given for Al and Claire Burnham and a going away party for the Millers.

*J. M. Christensen*

## ANNETTE

The Annette Rod and Gun Club was recently reorganized and has a membership of thirty-three. Numerous events are planned for the coming year. The Annette Cub Scouts have also reorganized and at present, fourteen are enrolled in the program.

Messrs. George and William Wilson, representatives of ALTA Construction Co., Anchorage advised their company had been awarded the construction of an elementary school in Metlakatla. Construction is to be completed prior to the beginning of the next school year.

Station Mechanic Foreman David R. Fuller was elected president of the Annette Parents Group at the Annette school for the 1963-1964 school year. STCS Leonard J. David was elected vice president. Eighty-two children are presently enrolled in the school.

The survey being conducted by the Bureau of Public Roads for the Bureau of Indian Affairs on the relocation of approximately 3500 feet of roadway adjacent to runway 12-30, and paving of the road from the hangar to Metlakatla is expected to be completed within a month. Construction is expected to begin early in the spring of 1964.

*Nathan B. Newcomb, Jr.*

## COLD BAY

All our finger crossing didn't do one tiny bit of good weatherwise for our Silver Salmon Derby held over the Labor Day holiday. In fact, it was so bad and fishing so poor, that the derby was extended over another weekend. No one was prouder however, than Supervisory Fire Fighter John R. Fisher who won first prize with his 10 pound, 10 and 3/4 ounce Silver, and with all the good food served up at the banquet, everyone forgot about the weather.

Ben Holeman, SMDO/4 paid us a visit as did Fred Allnutt, AL-728.1. Mr. Dishaw, AL-831.2, also popped in for a day.

Our new ATCS James Allen and wife arrived from Anchorage to make Cold Bay their home.

An "Our Good Friends of CDB" party was given by the Site personnel and their new Medic had us all agog with his magic tricks.

The Expansion put into Cold Bay Dock, which made everyone happy—everyone except possibly those who were involved in the offload in the midst of a little gust of around 30 knots...but then this kept everything clean!

*Fred E. Barnett*

## FAIRBANKS

We don't see much of our Center/RAPCON Chief, Bill Murphy, these days. Early in September he was detailed to the Civil Service sponsored training session for Middle Managers at Homer where he served as instructor and conference leader. Currently, he is on a 30-day training assignment with the Personnel and Training Division. Ron Logan is serving as Acting Facility Chief during Bill's absence.

September marked the end of an era, namely the operation of the Fort Yukon FSS. This facility was decommissioned as a locally manned FSS and became a Fairbanks satellite. The NAVAIDS remain in operation and the associated air-ground communications are now remotely controlled from the Fairbanks combined Station/Tower. Fort Yukon Station Manager/FSS Chief, Bob Thomas, was transferred to Aniak as FSS Chief. ATCS Ignace Ban was transferred to the Nome ATC. Remaining at Fort Yukon are Senior Technician Edgar O. McKamey, EMT David Shewfelt and Equipment Engineering Mechanic Frank D'Estrella. The Weather Bureau has employed Mrs. McKamey and Mrs. D'Estrella to perform the weather observing program eight hours daily plus two 6-hourly observations during the night.

## GUSTAVUS

Wein Alaska Airlines is taking over the Juneau-Fairbanks portion of the route formerly serviced by Pan American and intends to use Gustavus for an alternate airport for Juneau. Wein may install fueling facilities and starting equipment here. Merrill Wein, pilot of the Wein

F-27 visited Gustavus during September with several of the company people and Hugh B. Erminger of the FAA in Fairbanks.

Charles Osgood of the Juneau tower and Kenneth Peaveyhouse of Gustavus FSS in a CAP PA18 located a downed Piper Aztec. The Aztec had run out of gas and had made a successful belly landing on the mud flats ten miles north of Hoonah.

Robert Eskridge, Lawrence Byrd and William Noblett came down from Anchorage and installed a new Modulator/Power supply at the Pleasant Island fan marker.

Station Manager Ray Slack departed for the Oklahoma City Academy. STIC C. Gordon Smith took over as acting Station Manager.

*R. Melander*

## JUNEAU

Juneau personnel were involved in a lost plane incident that worked out well. An Aztec ran out of fuel while being given a VOR steer to Sisters Island. Tower Chief Bill Hester was on watch when the plane advised he was going down. He called Gustavus where ATCS Charley Osgood had just arrived in a CAP cub. Osgood started a search and located the downed plane an hour and eighteen minutes after the last radio contact. It had belly landed in a slough about five miles west of Hoonah. Both the pilot and passenger were uninjured.

Station Manager and Mrs. Johnson attended a formal reception for Admiral Synon, new Commandant of the 17th Coast Guard District.

*W. J. Johnson*

## KENAI

Moose season is over and as usual the freezers are again full and the stories are beginning to quiet down. All personnel agree that Walter Hart is the most persistent hunter as rumors have it that his moose literally surrendered after Walt's relentless chase.

New personnel on the station are REMT Ken Zahn relieving for EMT Malcolm Manning while he is in school at Oklahoma City and EMT Paul McSmith newly assigned to Kenai. REMT Ted Hamby spent two weeks at Kenai during

October. Art Lappie and crew also departed Kenai for King Salmon.

New airport manager for the city of Kenai is George Jaynes and plans are underway for constructing a new paved runway adjacent to the present strip.

*John H. Hummel*

## KOTZEBUE

This area experienced exceptionally fine weather in October with mostly clear skies and only occasional light frosts at night. Those personnel who could take leave have been actively engaged in getting their moose, caribou and fish put up for the winter.

The last barge of the season is presently in Nome awaiting weather to accept freight off the last boat. Everyone is anxiously watching weather reports and keeping track of progress for there is always the question at this time of the year as to whether or not the barge will make it back to Kotzebue before the freeze-up.

*Joseph E. Walsh*

## MOSES POINT

Our nice October weather finally came to an end. We are getting our first signs of snow, and although it's melting as it hits the ground, it's a sure sign of fast approaching winter.

Seems as if nobody wants to stay at Moses Point. Mechanic Tommy Sageonick is trying to swap jobs with a mechanic at Unalakleet, and even Relief/ATCS Earl Perry bid out and got Aniak. The rest of us have decided to stick out the winter.

ATCS Bill Harms held "open house" at the BQ to celebrate his being at Moses Point one year. He admits he's getting a little bushy, and we're all sure of it now—*ugh!* The women have threatened him with no invitations to dinner unless he shaves it off.

The Army flew supplies in here last month for a survival test cross country trek from Moses Point to Nome. Everything went off as expected, with helicopters tracking the group to make certain they were okay.

The nurse flew in here two weeks ago to give everyone flu and polio shots. We feel this is a worthwhile program that

the agency extends to its employees, and one that is greatly appreciated.

*Cora M. Narcisso*

## NENANA

September brought some personnel changes in FSS. ATCS Donald Loesche resigned to enter private business in Nenana. ATCS Cummins received a bid on Yakutat and will leave here shortly. Relief ATCS Joe Dale is presently filling in for ATCS Raborn who is on leave. Frye returned from extended leave to lower states where he attended the graduation of his oldest son Bill from college. A pilot meeting is being formulated to be scheduled late in October at Clear.

A new electronics residence on North Nenana hill is due for completion about October 28th. This will relieve the EMT relief situation at that facility. No information as yet on hand regarding household furnishings for this dwelling.

*Ralph L. Hazleton*

## NOME

Voit Gilmore, Director of the U. S. Travel Agency, visited Nome, and outlined a busy future for the Northwest in air travel. It indicated that the Nome airport will play an important part in future tourist travel in this area.

FSDO representatives from Fairbanks conducted an Airman Safety Meeting at Nome's FSS on the 11th. We took advantage of this meeting to discuss local problems with the pilots.

With the retooling of Fort Yukon into Fairbanks, we acquired ATCS Ignace B. Dan, Jr. by reassignment to fill the vacancy left by Mr. Kessler.

Mr. Evans, FSS Chief, conducted a two hour tour and slide show for CAP Cadets, with the emphasis on communications. His outstanding efforts were well received.

*Joel R. Caudle*

## NORTHWAY

One night of hard frost nipped lawns and flower gardens during the month, but at this particular time there is no threat of early freeze-up. Long reaches of Indian summer brought a mass movement of hunters into the Northway-Tok area. Traffic continued heavy.

Station personnel have begun and all but completed an extensive program of

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winterizing quarters, warehouses, remote sites and heavy duty maintenance equipment. Relief mechanic Donald T. Bogi is assisting in this program pending selection of a new general mechanic for Northway. We have also had the help of general mechanic Victor Shearer, carpenter Frank McCune, and electrician Ordeen Jallen.

With the completion of work now in progress on the court type apartment building, we hope in the near future to be able to reclassify these apartments as standard three-bedroom units.

Through the good offices of Roy Wall and others, we have begun to receive excess materials for rehabilitation of our community service building, which during the summer we towed from its old site to a central location in the quarters area. Although the project is far from complete, several months of volunteer labor should make this building a fine recreational facility.

Station visitors included Colonel R. G. Taylor, en route with his family to Anchorage.

*Ormond O. Robbins*

## TALKEETNA

Nearly everyone at this station had time off during the summer. ATCS Bud Kowske and family drove to California and back, picking up a later Ford station wagon for the return trip. General mechanic Harold Perkins and wife flew out to Seattle where they picked up the wagon in which they toured the northwest before driving back up the highway. ATCS William Brown and family spent leave in Talkeetna, Kenai and Anchorage. Station mechanic Frank DeSylva and ATCS Albert Weed spent leave in the Talkeetna area, each bringing home a moose. EMT Jack Baldwin spent considerable time in Portland on the way home from school in Oklahoma City. ATCS William Price spent a short leave in Anchorage, and was looking forward to a week in Hawaii during October. Clarence Holmberg expects to visit the smaller states during December.

There is now a road of sorts from Anchorage to Talkeetna, but it is very rough and not recommended for passenger type vehicles.

*Clarence C. Holmberg*

## TANANA

EMT Jarold Benson and family were welcomed to Tanana from Fairbanks. Ginny McCotter, wife of ATCS Doug McCotter was elected President of the Parent-Teachers of Tanana. That association is very active in setting up a school lunch program and assisting the school in preparing a boys' school dormitory for out of town students. A request for a heavy equipment loan to the school was coordinated with and approved by the Regional Office.

## UNALAKLEET

During October we were fortunate in having good weather which enabled us to complete, or nearly complete, most of the maintenance work projects underway at Unalakleet.

The new fire house required only a few weeks' work for completion. Remodeling of the old engine generator building is also nearing completion, which will give us storage space for maintenance project materials. Storm entrances for the apartment house and duplex buildings are framed in and approximately 75% complete.

The new Alaska Airlines terminal building, located near the FSS building, is approximately 80% complete. Northern Commercial Company's new, modern department store is in full operation.

*William H. Blacka*

## YAKATAGA

Carpenters have completed repair work on the recreation room, which was severely damaged by fire last fall. The ladies are painting and making draperies. Although interior decorating is still in process the Glacier Club has convened in the room for several meetings. It is also being used for viewing films. We initiated use of the Club room with a potluck dinner welcoming EMT Gene Zumwalt and family and the returning school teacher, Miss Jacobson. School opened right on schedule with eleven pupils in six grades.

Beautiful weather and a beach picnic helped welcome foreman mechanic and Mrs. John D. Skipper, formerly of Annette. Reluctant goodbyes were waved to relief mechanic "Springy" Springburg, who had been here for several months.

Jerry Turner also departed recently, scheduled to return to Florida. Jim Formella is here as relief ATCS.

Berry picking and salmon fishing have helped fill freezer space this season, but ducks, geese and cranes are winging over Cape Yakataga without yielding much exercise for retrieving dogs. Dr. Kostal from Hastings, Nebraska and his pilot, Bill Hansen, stopped at the station during his annual goat hunt. He reported that a heavy September rain interfered and the hunt was not successful. Dick Jensen, of Anchorage, was also a favorite guest at the field, particularly after taking all the station youngsters on outings in his Wiedgon.

The Cape Yakataga amateur-radio-operator population has swelled to five now, with three FAAers "currently" represented. Station manager Harman Williams newly assigned call is KL7ETD.

*Gene Zumwalt*

## YAKUTAT

Today is one of those days when a person's thoughts are disorganized, disassociated and dislocated. A pre-winter storm is in progress. The writer is sitting in a top floor of hangar office listening to things shudder and shake as the heavier gusts of wind hit the place, and having pleasant thoughts about southern California or Miami.

This year's fishing season is about over. Silver salmon are colored red for the most part, but a few silver silvers can still be caught. Moose season is in full swing. There are plenty to be had by those willing to work for them. This does not include driving back and forth on the main roads hoping to get one without too much packing out. The canneries, oil companies and other seasonable enterprises have departed for the winter.

The Station Manager, Artie Porter, is sweating out acceptance on a bid to the Canal Zone . . . which will be calamity for Yakutat if he does make it. EMT Bob Westwood and ATCS Jim Lockard are waiting return to conterminous states. Mechanic Dic Bedlington is waiting transfer to Galena. ATCS Orvis Clark has transferred to Gulkana and ATCS James Cummins arrived from Nenana.

Various other personnel have bid in or out or something, but they just remain in the wishful thinking stage.

*Harold H. Griffith*