

FAA HORIZONS

AUGUST 1965

OFFICIAL EMPLOYEE PUBLICATION OF THE FEDERAL AVIATION AGENCY



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ARVIN O. BASNIGHT

JOSEPH D. BLATT

ROBERT V. REYNOLDS

CHARLES O. CARY

EDWARD W. STIMPSON

KEY APPOINTMENTS ANNOUNCED

These 13 top level appointments to fill key positions in the FAA were announced recently by the Administrator:

ARVIN O. BASNIGHT, who has been director of FAA's Southern Region since 1961 and a 20-year veteran with CAA/FAA, has been named Associate Administrator for Programs. He replaces David D. Thomas, who became Deputy Administrator of the FAA.

JOSEPH D. BLATT, another longtime government employee with 28 years service, was appointed Acting Associate Administrator for Development. He was Director of the Agency's Systems Research and Development Service prior to this appointment. He replaces Robert J. Shank who resigned.

ROBERT V. REYNOLDS, who has spent 30 years in general aviation, was appointed Assistant Administrator for General Aviation Affairs. He steps into the vacancy left by William J. Schulte who resigned to return to private business. Reynolds formerly served as his deputy.

CHARLES O. CARY was named Assistant Administrator for International Aviation Affairs replacing Raymond M. Maloy who is now Assistant Administrator for Europe, Africa and Middle East. Cary came to the FAA directly from Hazeltine Corp. where he has been vice president of the electronic manufacturing firm in Little Neck, N. Y.

EDWARD W. STIMPSON, who joined the Agency in 1962 as chief of the Congressional Relations Division in the Office of General Aviation Affairs was named to the newly established position of Assistant Administrator for Congressional Liaison.

J. THOMAS TIDD moves up to the position of Director of the Office of Policy Development after serving as deputy director since April 1964. He replaces M. Cecil Mackey who resigned to take another position in the Department of Commerce. Tidd began his government career in 1951 as an intern in the Junior Management Assistant Program in the Department of the Air Force and joined the FAA in 1959.

GEORGE P. BATES JR., who has been serving as Acting Director, was named Director of the Office of Aircraft Development Service. Bates came to the FAA in 1962. An experienced government aeronautical engineer, he formerly managed flight research programs for the National Aeronautics and Space Administration.

JAMES H. MOLLENAUER was selected as Acting Director of the Systems Research and Development Service replacing Joseph D. Blatt who was made Acting Associate Administrator for Development. Mollenauer was Deputy Director for Technical Programs in the Systems Research and Development Service. Before joining the Agency he was with the USAF Cambridge Research Center.

JACK B. HOGAN was named Deputy Director of the Installation and Materiel Service, replacing Donald S. King who was recently made Deputy Director of the Central Region. Hogan had been Manager of the Headquarters Operations since that office was established two years ago.

JAMES T. MURPHY replaces Hogan as the Manager of Headquarters Operations. Murphy, a government employee since 1951 (FBI, Department of Labor) was Director of the Office of Compliance and Security since 1963.

RICHARD F. LALLY, who had served as Murphy's Deputy Director, moves up to the position of Director of the Office of Compliance and Security. Prior to joining the FAA in 1963, Lally was chief of the General Investigations Division of the Bureau of Labor-Management Reports, Department of Labor. He is a former FBI agent.

JAMES ROGERS, who has been Director of the Alaskan Region in Anchorage since 1963, replaces Arvin O. Basnight as Director of the Southern Region with headquarters in Atlanta. Rogers, a 20-year veteran of the Agency, began his career as an electronics technician in the Western Region.

GEORGE M. GARY replaces Rogers as Director of the Alaskan Region. He was chief of the Airports Division of the Southern Region, a job he has held since October 1961. Gary started his government career as an airport engineer in Austin, Texas, in 1946.



J. THOMAS TIDD



GEORGE P. BATES JR.



JAMES H. MOLLENAUER



JACK B. HOGAN



JAMES T. MURPHY



RICHARD F. LALLY



JAMES ROGERS



GEORGE M. GARY

FAA HORIZONS

F E D E R A L A V I A T I O N A G E N C Y

AUGUST 1965

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FAA HORIZONS, the official employee publication of the Federal Aviation Agency, is published monthly by the Employee Information Division, Office of Information Services in Washington, D.C.

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FAA HORIZONS



COVER

At Dothan, Ala., a hovering U. S. Army helicopter helps Southern Region's Paul A. Marshall, supervisory electronic installation technician, install a TACAN antenna. Precision teamwork between the pilot and the tow line operator, seen in the doorway, completed the project in 15 minutes.



Left: Catherine Kusaka, console operator, follows programming to wire control panel for conventional equipment to receive proper instructions. Right: Programmers Lawrence Goldman and Yoshio Fujita sets up the computer.



TAMING A PAPER BLIZZARD



Above: Arleen Higa (standing) hands a package of special cards to operator Jean Yoshimura. Below: Accounting Division Chief William Croyle and Employee Accounts Branch Chief Constance Ho helped to mastermind the work hours to dollars procedure. The new computer-directed system eliminates scores of hand operations, saves time and avoids errors.



Sixty-eight miles of paper, covering a half million square foot area—or roughly the size of eight and one half football fields—represents the amount of paper used and an indication of the amount of work produced in the Pacific Region's Data Processing Branch.

Here, where their motto is "The best possible service in the least possible time," the branch grinds out a tremendous volume of work. As part of its activity it produces eight daily, 10 weekly, 29 bi-weekly, 162 monthly, two quarterly and 13 annual reports, ranging in subject from motor vehicle management to aircraft cost accounting.

In addition to the large volumes of paper, the branch also uses approximately nine million IBM cards. The reports produced are used by management to conduct FAA affairs in the Pacific, and the time saved in their preparation since introduction of computers has saved the FAA many dollars.

A single pay check used to represent much tedious and time-consuming effort on the part of a lot of people. Each check had to be computed individually, with manually operated machines as the only available aids. Now, thanks to automation, electronic equipment is doing the routine arithmetic and freeing the manpower for the thinking side of the operation.

The earnings and leave statements issued on paydays is a good example of how automatic data processing has simplified payroll handling. Before data processing, every one of the items shown on the statement—upwards of 30—meant a separate action or computation. Today, once the basic data has been programmed into the computer the document can be produced, complete and up-to-date, with a single motion of the operator's hand.

For devising Pacific Region's exceptionally efficient payroll processing function, Data Processing Branch Chief Valentine Rowe and eight of his employees split a Special Service Award of \$450. #

Denver FSS Work Program Pays Big Dividends



Above, from left: Harry M. Davison at the flight data position, Harold E. Raines and Paul C. Marsh in pre-flight briefing positions. Below: Winfree A. Spodelett at the in-flight position, making a scheduled weather broadcast. Denver FSS has absorbed a 28 percent workload increase and handled it with less personnel.

Improved working conditions, better tools and streamlined operations are all in evidence at the Denver Flight Service Station where ingenious FAAers absorbed a 28 per cent increase in workload and reduced the station complement by three positions without any loss of efficiency.

The impressive achievement can be credited directly to the enthusiasm generated by Denver's "Work Improvement Program," introduced by Station Chief Robert M. Hacker and conducted monthly by Assistant Chief Vaughn D. Pattison. The program is an open forum during which current problems are collectively examined, debated and often solved.

Focal point at the Denver station is the Preflight/Flight Data complex developed from the consolidation of employee ideas! It somewhat resembles the sector control board formerly used in centers in that NOTAM and PIREP data are posted on magnetic aeronautical charts and the weather reports are posted on a series of clip boards. Eleven boards—the idea of Specialist Joseph J. Horvath—display basic weather data for the entire United States.

Three 30-button call directors (a fourth is soon to be added) having common telephone and interphone terminations are used at the preflight and flight posting positions (PF/FP). This arrangement allows maximum operating position backup. For additional back-up, the watch supervisor's desk is located so that he can assist at either position. Absent but unmissed is the jangle of telephones; the harsh ring has been replaced by illuminated buttons and a soothing ding-dong chime.

Flight data passes between the Service B teletypewriter position and the PF/FP positions through ingenious one-way slides, designed and built by Assistant Specialist John W. Vincamp. This assures positive separation and delivery of incoming and outgoing traffic.

Highlight of the Service B position (which handles flight plans, weather reports, accident notifications, aircraft control and movement messages, radiological hazards, forecasts for special missions, pilot weather reports, law enforcement and administrative messages, international flight movements, NOTAMS and forecasts for transcribed weather broadcasts) is the device designed and built by Watch Supervisor George W. McGowan. It cuts flight data directly from the teletypewriter copy in exact strip-holder size for suspense posting of incoming flights. Made from pipe cutter parts and double-grooved steel plate, this small instrument reduced the workload at Service B and saved one position.

The in-flight, or radio, position is located in a separate room behind the PF/FP console. Operational traffic is passed between the two positions through a "V" shaped metal box,



Preparing inbound flight plan for strip holder. The cutter saves time and money.

pivoted in the partition so that the wall opening is always covered—brain child of Specialist Eldon B. Huston.

Noticeably missing at the in-flight position are the traditional boom microphones. They gave way to hand mikes and telephone headsets so that magnetic charts, similar to those at the PF/FP position, can be mounted directly in front and within reach of the operator.

Under Denver's work improvement program every function of the Flight Service Station is periodically examined and these questions asked: "What is being done?" "What would happen if it were not being done?" and "If it is necessary, how can we do it better?"

Each employee is given the opportunity to express his views on the subject before a change is adopted. The formula has proved an outstanding success. #



LIBRARIES STORE a treasure of knowledge

FAA's modern Agency-wide library system is acknowledged to be one of the best of its kind.

Organized around the Washington Headquarters library, it provides books and services to the entire FAA and to other organizations as well. Today, also, there are professionally staffed libraries in the Southern and Alaskan Regions, at the Aeronautical Center and at NAFEC. Last January the Pacific Region got a head start and acquired a full-time librarian, William R. Ranger. The other regions are taking similar steps toward individual libraries.

The man responsible for all this was Wilmer H. Baatz, first chief of FAA's Library Services Division. Baatz, who recently left the FAA to accept an appointment as assistant librarian at the University of Indiana, his Alma Mater, brought order out of chaos and left as his memorial not only the several efficient and functional libraries now in operation, but also well-laid plans for the Agency-wide library system. In recognition of his work he was presented with the FAA Certificate of Achievement before his departure.

The FAA Headquarters library, presently being directed by acting chief Eugene Kennedy, occupies 25,000 sq. ft. of space on the 9th floor of the new building. It is flooded with daylight. The materials are indexed and easily accessible and there is always someone ready and willing to assist anyone who needs it.

The headquarters library is made up of four specialized branches:

1. **The Law Library.** The collection consists of more than 25,000 volumes on aviation and space law and is of such scope that our attorneys rarely are lacking for legal information. Branch chief John F. Whelen is presently working with the Atomic Energy Commission on a cooperative indexing of Congressional materials covering aeronautics, space

and pertinent subjects, which will immeasurably widen its potential.

2. **The Medical Library.** Here the basic collection comprises some 4,000 volumes. Claire R. Tedesco heads this branch. It services not only medical personnel in Headquarters but regional flight surgeons, the Civil Aeromedical Research Institute (CARI) in Oklahoma City and the Clinical Research Institute at Georgetown.

3. **Information Retrieval.** This is one of the most important services any library has to offer. Acting branch chief James Eller and his staff of 12 handle the multitudinous requests for information that come in daily through the mail and over the telephone. This branch also researches many technical publications. Among them are Air Force technical orders, manuals, regulations, pamphlets; Department of Defense nomenclature cards; FAA Academy manuals; military specifications and technical instruction books.

In addition, the Information Desk, Research and Reference Service, Document Ordering and Technical Publications are part of Information Retrieval.

4. **Technical Processing.** All the new acquisitions are received here where they are catalogued and classified and circulated. Unable to find any systematic method for cataloguing and classifying aviation material, Virginia Earnshaw, the chief of Technical Processing compiled the list, "Aviation Subject Headings Used in the Federal Aviation Library System." Published last year it has proved to be one of the most valuable aviation references.

On hand at Headquarters are many hundreds of volumes covering aeronautics generally—avionics, electronics, engineering, aircraft design and power plants. For the non-technical FAAer there are all kinds of reference books: books on management, on English usage, on the development of

creative abilities, and countless other subjects. Added to all these are the resources of the Department of Defense, the Smithsonian Institution, the Library of Congress, the National Aeronautics and Space Administration and other libraries of similar caliber which the entire Agency can "tap" services or materials.

The library's biggest problem, once expansion began, was processing and servicing some 50,000 research and development reports scattered about the FAA in various offices, services and miscellaneous buildings. No central index or control existed; duplication was rife and subject indexing almost non-existent. After four years of intense effort, (including two major and one minor indexing contracts), there is light appearing on the horizon due, in part, to the Termatrix semi-automatic index and search system introduced last year. Termatrix makes it possible to give fast answers. More than 20,000 references are stored in its plastic memory cards and the figure is constantly increasing.

A tremendous amount of material is microfilmed—all FAA research and development reports for example—in order to provide permanent records and furnish the regional libraries with copies that are easily stored.

As to the program outside of Washington, Alaska's library, in addition to its aeronautical books has a growing collection of factual material on the State itself and on the Arctic. The library not only services the Anchorage headquarters personnel but also circulates every month a list of newly acquired books throughout the outlying stations and installations; requests are mailed back and filled as speedily as possible. In fact, the Alaskan Region runs a bookmobile with airplanes.

At NAFEC's library, as is logical, the collections are devoted largely to technical and scientific publications, so vital to an operation of this kind. Some 500 reports per month are

processed and the journal and periodical collection covers more than 400 titles.

"In order to keep the torrent of scientific and technical literature within reasonable bounds," says Wallace C. Olsen, NAFEC librarian, "the Center does not attempt to acquire everything of possible interest to its users, but relies on the resources of Washington and outside organizations."

In Oklahoma City, the Aeronautical Center has no less than three libraries; one at the FAA Academy under the direction of James E. Gourley; the film library in the Aviation Records Building where Thomas M. Burchette Jr., keeps some 2,500 films on 300 subjects in circulation and CARI's library, supervised by the capable Mrs. Alfreda Hanna, which is closely aligned to the Washington medical library.

The library at the Southern Region follows headquarters in its well-lighted contemporary design; in its comprehensive and ever-growing collection of books, technical reports, periodicals, microfilm, special law and training manuals and Air Force Manuals. Doris P. Little, Southern regional librarian, reports an almost daily increase in customers.

All FAA libraries subscribe to aviation periodicals and periodicals in related fields which are displayed attractively on easy-to-reach shelves and racks—Headquarters alone has 500 coming annually. All libraries have facilities for those who need privacy; comfortable furniture for those who are required to do extensive periods of reading. All libraries also conduct a public inquiry service and together answer thousands of questions ranging to the comparatively simple, "How can I become an airline stewardess," to those that require serious and extensive research. #

Left: Reading clockwise, Leonard Thornton, Regional Counsel's Office; Patricia Costello, Airports Division and Catherine Stoval, Regional Director's Office, find the Southern Region library very useful in their jobs. Below, Kathy L. Davis checks one of the 2,500 prints at the Aeronautical Center's film library. Right: The NAFEC library has an important collection of scientific and technical publications. Mrs. Dorothy Bulford, reference librarian, helps Albert Zelincki of the Center's Research Division.



Left: Wilmer H. Baatz was first chief of FAA's Library Services Division. Baatz, now with the University of Indiana, instituted Agency-wide library system and received FAA Certificate of Achievement for his work. Below, Southern Region librarian, Mrs. Doris P. Little, helps Joanne T. Underwood of the Regional Counsel's Office look up a point of law. Right: Dorothy Lewis of Headquarters library circulation staff charges a book to a customer. The book collection totals over 45,000 volumes.





Mullan Pass Systems Maintenance Service electronic maintenance technicians Russell L. Miller (left) and Fred E. Manthey clear the theodolite pedestal prior to a flight check. Storm blew door off shelter and the interior filled with snow.



Above: New 55-foot-diameter geodesic fiber glass dome encloses the conventional VOR antennas at Mullan Pass. Before installation accumulated snow affected VOR's accuracy. Below: Inside dome, normal antenna enclosure is at far right. Ample space is provided inside for electronic checks and measurements.



New Snow Dome Keeps Mullan Pass On the Air

Western Region's Mullan Pass, Idaho, besides being picturesque, is one of the country's snowiest areas, which explains why FAA's Systems Research and Development Service (SRDS) picked it to test a new type of dome designed to protect air navigation facilities from winter's ravages.

The VORTAC at Mullan Pass is at the 6,090-foot level of a mountain peak on the Idaho-Montana border, and the snow there is heavier and wetter than the common garden variety.

Instead of blowing clear after falling, snow would pile up around the VOR antenna and interfere with the radiation pattern. Consequently, the VOR's accuracy and monitoring was affected and snow had to be removed. This normally involved shutting down operations from 12 to 14 hours while systems maintenance personnel cleared the snow regardless of the time of day or weather conditions.

Last fall, Mullan Pass VOR antennas were enclosed in a 55-foot-diameter geodesic dome made of fiber glass which permits easy access to the antennas for electronic checks and measurements—a real time and work saver.

During the winter, flight and ground checks of the VOR signal were made to gather data for evaluating the new dome's effectiveness.

Snow was allowed to accumulate on top of the 300-foot diameter flat circular area around the dome while the facility's performance was monitored by frequent ground and flight checks. Later the VOR was shut down two weeks for more extensive evaluation. Snow was removed in segments from the area around the new dome and several flight checks were made after each section was cleared to detect performance changes.

The tests were controlled by Jack A. Muller of NAFEC and Jerry A. Cosner of SRDS, Washington Headquarters. They were assisted by Systems Maintenance Service personnel at Mullan: Russell L. Miller, Fred E. Manthey, Robert D. Allen, Robert S. Skavland, Ronald M. Way, and two relief technicians, Roger O. Wood and Virgil E. Eshelman and Clyde F. Brookman of Spokane.

Inspection flights were made by three Agency aircraft. Medium altitude tests were done by a Semi-Automatic Flight Inspection Convair turbo-prop based at Los Angeles International Airport. Low altitude theodolite flights were made by a NAFEC Convair and Seattle FIDO's DC-3, both operating out of Spokane International Airport.

Results of the snow affect on the VORTAC at Mullan Pass have been analyzed and a final report will be made later this year. #

FAA Horizons



Above: MERF-1 on location at Bucks Harbor, Maine. Trailers for all FAA mobile facilities are very similar in outward appearance. Inside, however, they are designed to support or replace a variety of specific facilities. MERF-1 is a complete air route radar surveillance transmitting and receiving system which is temporarily providing FAA radar service in the northeastern part of the United States. Right: Lester Smith, Eastern Region electronic technician, replaces chassis in the video distribution cabinet. MERF-1 designers provided room for an operating area and an equipment working area.



FAA's Zebra Striped Nomads

An orange and white striped trailer with the unlikely name of MERF-1 is helping Eastern Region engineers keep nav aids operating and air travelers moving.

The Mobile Enroute Radar Facility (MERF) is used at air route surveillance radar sites as a temporary system to eliminate outages caused by modifications, modernizations, relocations or other activities necessitating system outages and loss in air traffic control services.

Designed by the Engineering Branch and the Radar Systems Section of the Eastern Region Systems Maintenance Division, the mobile facility served as a prototype of an Agency-wide program of MERFs.

The idea for MERF dates back to December 1963 when two military ARSRs serving the New York Center failed. How to provide continuing radar service while the facilities were overhauled was a problem which caused Eastern Region Director Oscar Bakke and his Systems Maintenance Division Chief, Ernest L. Gale, to call a huddle with their engineers.

The solution was to install two temporary radar systems in existing buildings alongside the primary radars. The success of the two temporary installations in assisting the New York Center to continue radar service led to the MERF concept.

Melvin N. Watine's Engineering Branch designed a trailer, 10 by 30 feet, around the radar specifications drawn up by Fred A. Liebe's Radar Systems Section. The design provided an equipment working area and an operating area which

includes a plan position indicator (PPI) console, video map and communications equipment. This arrangement permits the installation and flight inspection of the system on location without any additional outage of the commissioned facility.

Before the finishing touches could be made on MERF-1, a temporary radar was urgently needed at the Bucks Harbor site which serves the Boston Center through a microwave link.

While MERF-1 fills in at Bucks Harbor, work continues on additional MERFs. The follow-on units are being handled by Eastern Region I&M Service as part of an Agency-wide program for developing mobile FAA facilities.

The Eastern and Central Regions already use mobile terminal very high frequency omnidirectional ranges designed in Central Region. Mobile vans for control towers, tactical air navigation systems, instrument landing systems, radar approach control, communications equipment, communications engineering and power plants are also under development.

This mobile equipment has many advantages in addition to serving as back-up for systems temporarily out of commission for scheduled maintenance, upgrading or overhaul. Its relatively low cost and ease of installation offers obvious advantages over on-site construction at many locations. Most important is the role these mobile facilities play in FAA's operational readiness. Neither earthquake, flood or hurricane can interrupt established FAA service for long. #

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Above: FAA chiefs at Portland participating in an emergency readiness exercise. From left: Eugene H. Miller, SMO; Lorin G. De Merritt, SMS; Byron W. Mabee Jr., SMO; Claude L. Thompson, Portland Tower; Wendell P. Haley, Portland Tower and Louis Yates Jr., Portland FSS. Left: Quick emergency exits for the handicapped are part of defense readiness planning. Right: Systems Maintenance personnel decontaminating electronics equipment as part of intensive radiological training at Idaho Falls Atomic Energy Commission facility.



Above: Umpires-for a defense readiness exercise check proficiency in use of Geiger counters. A radioactive substance was found under the paper cup in foreground. Left: Dosimeters which will show the cumulative radiation exposure of the wearer are being charged prior to being issued during an exercise. They are available for all employees for exercise or emergency use. Right: Washington FAAers return to their desks following all-clear. Such civil defense exercises are part, but far from all, of the readiness program.



DEFENSE READINESS *** it's everybody's business

A siren may sound, a bell may ring, or a man in a bright orange helmet may call, "This way, please."

For most FAA employees, signals like these mean that they should get out of the building or take shelter. School house fire drills taught them to know the nearest exit and the wisdom of "walk, don't run." But now when the alarm is sounded, most everyone has a gnawing feeling that there is more to it than the familiar old fire drill.

Code names like FADEOUT, DOUBLETAKE, ROUNDHOUSE, FAST PACE and COCKED PISTOL are heard, and the people who seem to know, associate these slang-sounding words with something called "DEFCON," or defense condition.

Is it civil defense?

It might be a civil defense exercise, or it might even be a fire drill, but in either case the object is survival. In FAA it is called "Defense Readiness," and the emphasis on personal survival associated with civil defense is only a small part of much broader plans for national survival.

Planning to this end starts in the Office of the President and continues through all FAA organizations.

"Each individual," a member of the Agency's Defense Coordination Staff said, "has a responsibility to know where he and his unit fits into the overall defense readiness plan."

Focal point for such planning within FAA is in the Office of the Deputy Administrator. Here a small group known as the Defense Coordination Staff headed by Navy Capt. William K. Hardaker, works closely with the White House Office of Emergency Planning (OEP) and the Department of Defense.

OEP is responsible for the planning which would preserve the vital elements of national and local government service during emergencies and disasters. It is also responsible for development of coordinated Federal plans for the emergency

management of resources in a post-nuclear attack situation. The FAA plays an important role in Federal non-military planning for national emergencies and it would play a vital role in providing direct support to military air operations in a defense emergency.

"In addition to supporting the Department of Defense and other elements of the National Government," FAA's Defense Coordination Staff chief said, "FAA shares heavy responsibility for the support of local communities and state governments in their own emergency planning for maximum use of air transportation and in their recovery from all types of emergencies."

The role of aviation in recovery from disasters has been illustrated recently during earthquakes, hurricanes and floods. These were, however, shadow boxing exercises compared to recovery from all-out nuclear attack.

"In the event of a nuclear war," the Office of Emergency Planning points out in a handbook for Federal, state and local planners, "with the isolation of areas and the disruption of our National Governmental, industrial and economic system . . . we could not hope to succeed nationally if we did not succeed locally. Communities need advance guidance and the benefit of the mature judgment of thousands of local leaders who have, pre-attack, soberly studied the problems of managing resources."

One of the most vital resources during emergencies, whether attack, earthquake or other natural disaster, is air transportation. FAA is helping to insure the vitality of state and regional air transportation with programs like SARDA (Horizons, December 1964). SARDA, the acronym of State and Regional Defense Airlift Planning, is a year-round program for the Defense Coordination Staff and for other FAAers who work with civil aviation. The periodic SARDA exercises carried out by state and local aviation authorities are

the tests of the year-long effort to develop procedures, train leaders, form organizations, stockpile resources, locate equipment and foster cooperation.

FAA's role in SARDA is to act as a catalyst to stimulate the necessary planning at other levels of government. Within FAA, the catalyst for planning is the Defense Coordination Staff. It's role of stimulating defense readiness planning at all levels of the Agency was highlighted by a conference at Washington Headquarters in March. Deputy Administrator Grant told the planners assembled from throughout FAA:

"Defense readiness is not something to be added on, but is a part of the regular responsibilities of all Agency organizational units. Staffing should be planned to incorporate the defense readiness functions as part of each job and echelon of the Agency."

The payoff for effective planning is continuity of operations. To this end, the FAA plans extend to protection of Agency people, preserving essential facilities and pre-stocking the necessary resources.

Preserving facilities extends from design and construction of damage resistant components through insuring quick repair or mobile temporary substitutes.

None of these vital steps is more important, however, than protection of FAA people. A recently established Agency training program in support of defense readiness is heavily laced with courses designed to help FAAers help themselves. These include such courses as Decontamination Procedures, Shelter Management, Medical Self-help and Civil Defense Adult Education.

The Agency's concern for its people is more than the normal obligation to preserve human lives. It is based on the realization that FAA's supply of highly trained people is the real key to continuity of operations. Without them, the Nation is deprived the use of organized air operations. Re-

sponsibilities for each individual extend to planning for, (1) the continuity of his official function, (2) his own survival, and (3) the capability of his family to survive without his leaving his official functions to provide for them.

Assistance for this type of planning is available in each Agency organization. Unfortunately, few people are aware of the defense readiness officer except when the sirens wail and the whistles blow. The defense readiness officer is the key man for defense planning and his storehouse of plans and procedures is always available to show individual planners. "This way, please." #

Do You Know the Language of Defense Readiness?

CHECKLIST FOR SURVIVAL
 DEFCON—Defense Condition
 DEFCON 5—(Fadeout) Peacetime Status
 DEFCON 4—(Doubletake) Review plans and brief personnel.
 DEFCON 3—(Roundhouse) Tighten security. Check facilities.
 DEFCON 2—(Fast Pace) Get ready for emergency operations and get critical personnel out of danger area.
 DEFCON 1—(Cocked Pistol) Maximum Readiness posture.

AIR DEFENSE EMERGENCY—

(Big Noise)—Highest state of alert required.
 ATTACK WARNINGS—(These transcend DEFCONS and indicate imminence of attack.)
 YELLOW—(Lemon Juice)—Attack probable.
 RED—(Apple Jack)—Attack imminent or actual.
 WHITE—(Snowman)—Attack over or not imminent.

CIVIL DEFENSE Warning Signals:
 ALERT—Steady blast 3-5 minutes—Walk.
 TAKE COVER—Wailing tone/series of short blasts—Run!



George W. (Bill) Hoy, Western Region evaluation pilot (left), checks his flight data prior to taking off on a safety evaluation mission.



MEN WITH A MISSION

Recently, two planes soared over a mountainous area of Idaho. One was piloted by a pretty young lady, alone, frightened, disoriented and lost, truly a "lady in distress." In the other plane an FAA pilot was on a vital mission affecting air safety—a skilled, confident pilot who knew exactly where he was and exactly how to get to his destination.

The FAA pilot heard the woman state over the radio that she was not sure of her position, and in a shaky voice declared: "I can't see very good . . . there's a big mountain in front of me." The Malad City Flight Service Station quickly came to her aid offering her help on the radio.

The FAA pilot in the meantime sighted the woman's plane and offered further assistance. Together the pilot and the Malad City FSS instructed the woman pilot to follow the FAA plane which would lead her to Malad City Airport.

When the pilot, Mrs. Vina Graham, of Ogden, Utah, stepped from her plane, after she made a safe landing, she declared: "I've never been so scared in all my life." She was profuse in her thanks to FAA for the assistance given to her by the FSS and the FAA pilot.

William R. Luedtke, chief of the Malad City FSS, credited the successful conclusion of Mrs. Graham's flight to the assistance given by the FAA pilot, Schuyler M. (Slick) Gardner, as well as the excellent coordination by Hubert M. Teater, specialist in the FSS.

This dramatic episode was only incidental to the purpose of the flight Gardner was on with Ernest F. Durbanio, chief

of the Ogden, Utah, Tower. Slick Gardner is one of the five men in the Western Region's Air Traffic Division who fly the airways throughout the nine states monitoring and evaluating the caliber of services being rendered by FAA employees in centers, towers and flight service stations. The other pilots, all with the Operations Evaluation Staff in the Western Region, are Wilkinson A. Stephens, chief of the staff; George W. (Bill) Hoy, Edgar G. Schmidt and Robin R. Boughn. Throughout the Nation, there are about 20 such FAA evaluation pilots.

The work they do is vital to the effectiveness of the Nation's air traffic system. Aerial evaluation of air traffic facilities is conducted on a routine basis as well as in response to complaints. Whenever a problem area is identified, an air traffic control expert visits the area to check it out, completely unannounced.

Operations Evaluation Staff pilots carefully follow up all such user complaints. Sometimes they rent an aircraft from a nearby airport and fly the local area to obtain a first-hand check on the efficiency of the facility in question. They also talk with local pilots and operators in determining the validity of specific complaints.

During aerial surveillance, all radio transmissions are recorded on a portable transistorized tape recorder. The evaluation pilot takes additional notes on a knee pad. Results of these evaluations are later transferred to a standard form known as the Facility Monitor Report (FMR). The original



Left: Bill makes a thorough check of his navigational equipment and flight plan before heading into the wild blue yonder. Checks such as these are all part of good pilot procedure. Above: Paper-work on evaluation flights is heavy. Here a Western Region pilot checks radio fixes, FAA procedures and maintains his log at the same time.

of this report is mailed to the facility chief for corrective action or for information purposes.

Last year, more than 700 of these FMRs were prepared by the Western Region alone. Not all of them are critical in nature; a good share commend the standard of service being rendered the flying public by FAA facilities.

Flight operations of the evaluation team are about as fair as it is possible to make them. Actually, the evaluator attempts to simulate as closely as possible the type of flight maneuvers and radio communications involved in a trip by the average pilot.

Three basic types of in-flight evaluation aircraft are used. Trainers like the Cessna 172, with minimum radio equipment are often flown in evaluating flight service stations. For longer range flights and limited IFR work, planes like the *Comanche* are used. Light twin-engine aircraft are used for simulated and actual IFR checks.

The key role played by FAA evaluation pilots in keeping facility standards high is not always fully appreciated, and many employees are totally unaware of the vital work these men do.

There is nothing punitive in their role. Actually, they are insuring that all pilots—whether they be caught in an emergency situation like that involving the "lady in distress" or merely out on a routine flight—receive the finest most efficient and accurate service it is possible for FAA employees to render. #



Above: This Piper is one of FAA's evaluation aircraft on its way to a check point. Occasionally aircraft are rented from a nearby airport and are flown over the local area to get a quick first-hand check of a facility. Below: Mrs. Vina Graham, Ogden, Utah, pilot, is one of many who have been assisted by Agency personnel during bad weather conditions or other adverse situations.





L. E. (Tex) Brooking, chief of the Airman Operations Examination Section, discusses correspondence to Connie Garoutte, secretary. Tex has passed the 25-year mark with CAA/FAA and Connie has been in civil service just over 2½ years. Below: Each written examination must actually be flown by specialists before it is used in the series. Robert C. Phipps (left) and Robert A. O'Neill (right) work on a sectional chart prior to flight checking the written examination.



MAKE YOUR MARKS HEAVY

...electronics grade your test



Which of the following terms describes the flow of air in a low pressure system?

1. Converging and descending.
2. Diverging and descending.
3. Converging and ascending.
4. Diverging and ascending.

You have just read a multiple choice question from a sample airline transport pilot written examination guide. This is but one question out of thousands generated by the Operations Airman Examination Section at FAA's Aeronautical Center in Oklahoma City. Among the lesser known, but a highly important element of the FAA, this group of specialists is part of the Washington Headquarters Flight Standards Operations Division.

The section develops written examinations, study guides and technical instructional material for use by the aviation public in acquiring aeronautical certificates and ratings except those pertaining to maintenance. And they do it with such frequency as to minimize obsolescence and familiarization through continued use.

"Our examination specialists," said L. E. (Tex) Brooking, chief of the section, "evaluate the adequacy of the aeronautical knowledge program and make adjustments whenever necessary.

"We take care of many other details too, including contacts with industry, technical schools and colleges. And we maintain liaison with operating segments within the Agency to check trends and developments affecting aeronautical knowledge standards."

The specialists prepare and update the exams for a total of 32 different airman ratings. Study guides and supplemental materials needed by an applicant to prepare for an examination also are kept current by regular updating. Most of these manuals and handbooks are available from the Government Printing Office at a small cost and are a definite aid to the person preparing to take a written examination.

The handbooks include the "Instrument Pilot Examination Guide," the "Commercial Pilot Examination Guide" and



A few of the section's products are displayed by Duida J. Chapman, administrative assistant. Left: George Lotz Jr., airman examination specialist, works on one of many details necessary in the preparation of an examination.

others which are helpful to gain various ratings. Some of the manuals available are: "Path of Flight," "Realm of Flight," "Facts of Flight" and still more designed to help the advancing pilot.

Equally beneficial to the more experienced pilot are the Exam-O-Grams published periodically by the section. Issued in two series, for the VFR and IFR pilot, they are brief, concise analyses and explanations of selected items of aeronautical know-how as they relate to safe flying. They were devised to counsel and provide the knowledge needed by general aviation enthusiasts in those areas where misunderstanding, lack of information, and improper practices would lead to hazardous attitudes and habits.

Ouida J. Chapman, administrative assistant, explained that "Exam-O-Grams are mailed to over 11,000 individual pilots and flight instructors who have asked for them. They go to flight schools, pilot associations and State Aviation Commissions who want them."

Prime products of the section are the written examinations, study guides and associated materials. The Agency favors the multiple choice examination over the essay type for several reasons. The multiple choice question requires a decision to be made based on the most correct answer from the available alternatives. Some authorities consider this factor a parallel to real life situations. In addition, these tests also can be prepared for specific objectives; they provide for high validity and reliability, and many are graded electronically which saves hundreds of man hours.

"In developing a written examination for a pilot certificate," said specialist Robert C. Phipps, "one man may spend over 150 hours getting all the required material needed to put the exam together."

Another part of test preparation often involves flying the flight portion of the exam with another specialist during which time they make detailed notes. Air/ground communications are frequently recorded on magnetic tape so as not to miss any necessary information for a complete and accurate examination.

Specialist Robert A. O'Neill added the fact that many

hours are spent in group discussions with other specialists, literally picking the project apart looking for flaws in each area of the exam.

The final product is then validated, coordinated with the Operations Division, Washington Headquarters, edited and printed and distribution made to the field. General Aviation District Offices and some selected Flight Service Stations are authorized to administer the tests.

Even after all this, the section isn't through with the examination. Each new one sent to the field is given continuing evaluation to determine its effectiveness.

To keep a test from becoming outdated or compromised through repetitive use in the field, each is subject to periodic review and updating. Through the section's contact with industry, specialists keep themselves informed of new instruments, devices, or changes that could have a bearing in the validity of any of the 32 tests.

Compromise is expected due to the large number of applicants taking exams. This is held to a minimum by frequent revisions. A review of test scores over a period will indicate when a test has become compromised and is no longer serviceable.

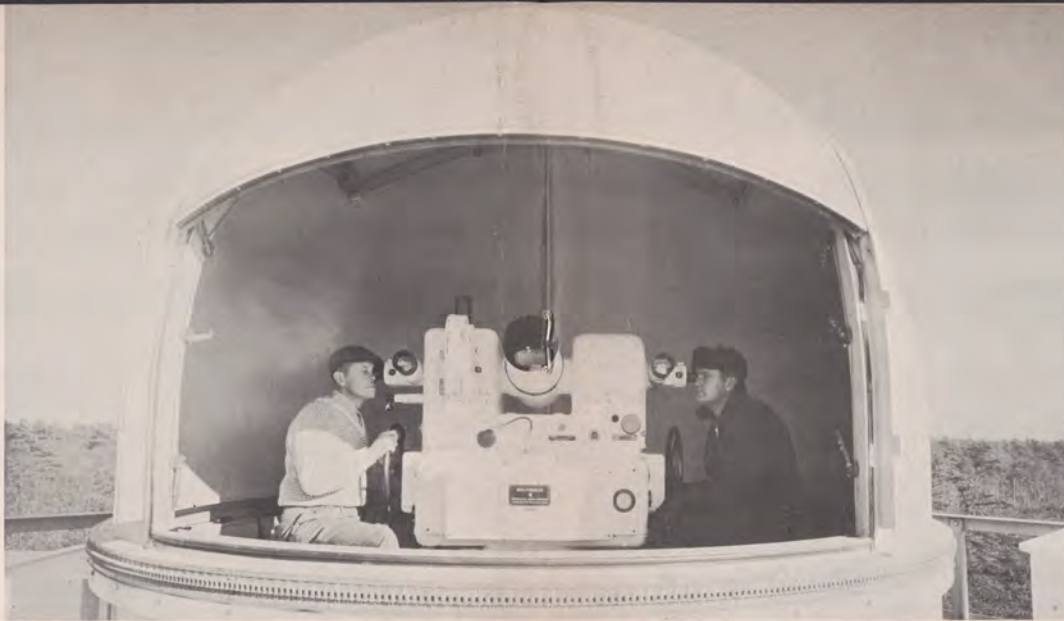
Besides continued revision of existing tests, another way to diminish compromise, is to have a series of exams in the field on each subject.

More than 110,000 tests were administered in Fiscal Year 1965, the largest number in any one year to date. Indications are for greater increases in the future. In FY-61 there were 38,000 private pilot written exams given. In FY-62 there were 40,000; 1963, 42,000; 1964, 49,000 and in 1965, 57,000. The big jump is anticipated in 1966 when 78,000 exams are expected and 98,000 in 1967. This upward prediction is based on figures indicating as much as a 50 per cent increase in students during those two coming years. Whatever the figure may be, the specialists of the Operations Airman Examination Section will continue to devise the best examination material possible as they are doing today.

Incidentally, in case you didn't know, the correct answer to the sample question is No. 3.



Above: One of four theodolite stations at NAFEC, these optical trackers are located on the airport perimeter. Right: Carl W. Cartwright and Paul J. Fisher, Technical Services Division, man a theodolite. The device has a range of 15 miles and can pinpoint exactly any aircraft it can sight. The operators ride the theodolite, which can track a full 360 degrees and follow targets up to a speed of 770 knots.



NAFEC's BIG GLASS EYES YIELD FLIGHT DATA

When the gross weight of an airplane is increased, how is its landing performance affected?

Can the plane be certificated at the new weight?

Answers to these questions were supplied by the big glass eyes of NAFEC's phototheodolite facility, the most modern of its type in the country. The theodolite is an optical tracking system that can pinpoint a plane in the sky at any given moment thereby yielding a continuous stream of information about a plane's performance.

The answers were sought by the Fairchild Hiller Corp. who flew a modified version of its turboprop F-27 transport, its weight increased by 1,500 pounds, to the FAA's National Aviation Facilities Experimental Center, near Atlantic City, for high gross weight and landing tests. Drilling through the air in a series of approaches and landings in the heavier plane, Fairchild Hiller engineers gradually accumulated the information they needed.

They also learned the precise sink rate, airplane attitude, speed at touchdown and length of roll-out. The data will be used in design studies of Fairchild Hiller's F-227, a stretched out version of the F-27, which will be six feet longer forward of the leading edge, 1,500 pounds heavier and powered by improved Rolls Royce Dart engines.

NAFEC's phototheodolites are part of Systems Research

and Development Service and are under the supervision of Harry R. Jackson, chief, Facilities Operations Section, who has over-all charge of all of NAFEC's space measuring facilities. The theodolites are managed by Charles B. Owens.

The theodolite facility consists of four stations spotted on the airfield perimeter so that all runways are in view. Looking somewhat similar to an observatory, each station includes a 60-foot tower topped by a telescope-like theodolite sheltered under a rotating dome. The theodolite is manned by two operators who "ride" the instrument like gunners on a warship as they track a plane through a full 360 degree traverse. Like gunners, they keep cross-hair sights zeroed in on a designated point on the plane and follow it as it moves through the air.

Information coming in from the theodolite stations is fed into the Range Control Central, nerve center of the system, where the entire operation is supervised by Albert J. Belli. Azimuth and elevation is plotted, a computer print-out is made and the plot taped so that it can be played back later. Other data, as programmed, is collected and tape-recorded for print-out by computer if desired.

Photographs are not needed for all tests, but when they are, they're reviewed by an operator in the data processing facility. Here each frame of the film is examined and per-

tinent flight progress information punched into IBM cards.

Determining performance of an airplane is only one of the many uses of the phototheodolite facility at NAFEC. More often, the facility is used in studies involving runways, landing systems, instrumentation and for deriving accurate information on glide paths and velocities. When the facility, for example, is used for testing, an experimental type of instrument landing system, the glide path of the plane can be plotted. The same can also be done when testing navigation equipment in order to show how well a given course can be followed. The system also measures and calibrates airplane altimeters and airspeed indicators.

NAFEC's theodolites can follow a fast-moving plane at a maximum tracking velocity of 770 knots at a minimum range of 2,000 feet. If the tracker in the tower does not place the cross-hairs in his sight exactly on the moving target the value of the exercise is not lost. The data processing operator examining the photos has moveable cross-hairs to correct the readings.

What happens if the plane flies out of the 15 mile nominal range of the phototheodolite system? NAFEC has two other ranges that use instrumentation radar. These systems perform a space-position-time function similar to the phototheodolite but have a range up to 200 miles. #



Above: A Fairchild Hiller F-27 shoots an approach to NAFEC. Theodolite is zeroed in on one engine of the plane. The scale at the lower left of the photo gives azimuth; elevation is indicated in the center scale; photo number is to right. Below: Aircraft position at moment of touchdown is recorded.



Below: Even if cross-hairs of theodolite sight are not precisely aligned on the predetermined bulls-eye of the target, data processing operators can make corrections using movable cross-hairs which compensate for the error. The theodolite facilities at NAFEC are available to industry on a rental basis.



NEW HOUSTON CENTER REPLACES NEW ORLEANS AND SAN ANTONIO ARTCCs

The final link in the Agency's air route traffic control center (ARTCC) consolidation program was completed in June with the opening of a new center at Houston.

The new facility was the last to be built in the current program and replaced centers at New Orleans and San Antonio. The New Orleans facility ceased operations on June 26 and San Antonio closed on July 10, when the Houston ARTCC became operational.

The merger of these two facilities into the Houston ARTCC, located at the Houston Intercontinental Airport, reduced to 21 the number of centers in the contiguous United States. There were 29 such facilities when the program was initiated in 1959.

Savings results from the overall consolidation program are estimated at better than \$100 million over a period of 16 years, which is the normal useful life of center facilities and equipment.

Equally important is the fact that the center consolidation program has promoted the safe and efficient flow of air traffic. There are now fewer centers for pilots to deal with, permitting a reduc-



Waiting for center cut-over are (from left): Donald E. McHam, chief, Air Traffic Division; C. Otho Reasoner, Houston Center chief; Henry L. Newman, Director SW; Lawrence C. Matthews, SMS; Gerald B. Fox, asst. chief, Houston Center and Charles Winnow, watch supervisor.

tion in pilot-controller communications, and fewer handoffs between centers.

The great expansion in the use of long range radar has helped to make consolidation of centers possible. In June 1958, there were only four long range radars available for air traffic control purposes. Today, there are more than 80 civil and civil-military joint use radars used to control en route traffic.

Air route traffic control centers control all aircraft operating IFR (instru-

ment flight rules) on the Federal airways. They provide separation service so that each aircraft, in effect, can fly in its own reserved block of airspace.

Houston's control area covers 310,000 square miles. The boundaries extend to Fort Stockton, Texas, on the west; Waco, Texas and Alexandria, La., on the north; Mobile, Ala., on the east; and the Mexican border on the south.

Radar coverage of this area will be provided by four long range radars. Their locations are Houston, Alexandria, New Orleans and San Antonio. In addition, 20 remotely controlled air/ground communications sites provide direct pilot-controller communications. Approximately 350 air traffic personnel will staff the Houston Center, plus supporting electronics maintenance technicians and other personnel.

With Houston the 21 domestic ARTCCs are: Albuquerque, Atlanta, Boston, Chicago, Cleveland, Denver, Fort Worth, Houston, Great Falls (Montana), Indianapolis, Jacksonville, Kansas City, Los Angeles, Memphis, Miami, Minneapolis, New York, Oakland, Salt Lake City, Seattle and Washington, D. C.

\$2.23 Million Contracts Awarded By FAA for Three New ATC Towers

The first three of 10 proposed concrete shaft airport traffic control towers to be built by the Federal Aviation Agency under contracts totaling \$2.23 million will be located at Houston International, El Paso International and Great Falls (Mont.) International airports.

The awards, which also call for erecting Government-furnished, factory fabricated control cabs atop the concrete tower shafts, were made to three companies: Manhattan Construction Company, Houston, for construction of a 130-foot tower at Houston costing \$914,000; Building Mart, Inc., El Paso, for construction of a 120-foot tower for El Paso costing \$720,303; and McLaughlin, Inc., Billings, Mont., for construction of a 90-foot tower for Great Falls at a cost of \$598,400.

All three towers are of one standard design adopted by the FAA for airports which provide radar air traffic control service. Distinctive features of the new towers will be a simple concrete shaft, topped by the control cab, rising from an expandable base. Construction of all three towers is expected to begin next month.

Scientists Make NAFEC Hum with Broad-Gauge Air Safety Studies

Greater air safety through continuing scientific research is the goal of Systems Research and Development Service scientists at the FAA's bustling National Aviation Facilities Experimental Center at Atlantic City.

Some current NAFEC safety projects include:

- Airborne radar for mapping was evaluated in a Los Angeles Airways helicopter over scheduled routes.

- Impact tests on the horizontal stabilizer of a Boeing 707 started, after similar tests were completed on a modified DC-7 wing. Coming up next are tests on DC-3 and Viscount stabilizers.

- A helicopter hovered over several radar microwave link reflectors near the Center to measure any stray radio energy which might interfere with satellite communications.

- Supersonic transport flights between Cleveland and New York were "flown" in the simulation laboratory. One of the aircraft was a flight simulator located at the National Aeronautics and Space Administration, Langley Field, Va., hooked up to NAFEC by telephone lines.

- As a result of a suggestion made by the Flying Physicians Association, an attention-getting, flashing coded signal light was tested on a VORTAC site.

- Airborne weather radar was modified and then flown to see if it could be used as a proximity warning device.

- At John F. Kennedy International Airport, radar displays were filmed to determine if cinematography could be used to re-create air traffic situations as magnetic tape is currently doing.

- Thunderstorms were tracked on instrumented radar to find unknown characteristics in echoes that might indicate turbulence.

MISS COCHRAN TALKS TURKEY

Yasar Yorukoglu, of Ankara, Turkey, won some unexpected, but friendly, publicity recently when he spent several weeks in the Fort Wayne, Ind., Tower under the auspices of the International Civil Aviation Organization.

Yorukoglu monitored the flight of famous aviatrix Jacqueline Cochran for about 20 minutes on air surveillance radar and the practice approach made the pages of the *Fort Wayne News-Sentinel*. Miss Cochran later said she could have landed sooner but we just practiced for a while. "I'll bet he was surprised," she added, "when I answered one of his questions in Turkish!"

FAA's LOVELY CROWNED HEADS



Some of the loveliest lasses are at FAA, as these pictures tell better than 10,000 words. Above: Miss NAFEC of 1965, Miss Ellen Orr, is crowned by Nancy McKinley, last year's queen. Center manager William F. Harrison presents her with a corsage. Marie Fusaro (left), won title of Miss Congeniality while Lolaine Reichert was first runner-up and Florence Nichols was second. Below, right: Eastern Region's Regina Malinowski is 1965's "Miss Federal Civil Service of New York." Below, left: Sonja Deithrick, "Miss FAA, Washington, D. C., with "Ladies in Waiting," Marci H. Blick (left) and Kathleen Johnson.



Lightning Repair Crew Puts TACAN Back on the Air

When lightning destroyed the TACAN at Hamilton Air Force Base, Calif., recently, the entire system had to be replaced. Within 24 hours a crew from Flight Inspection District Office in Oakland had it back on the air following a thorough flight check of the repaired facility.

FAA's fast action elicited an equally fast expression of appreciation from Col. Lowell F. Weyle, USAF, commander of the 1902nd Communications Squadron, in which he commended the

crew. John P. Hyde, Robert C. Shaw, Robert W. Burnter and Joseph E. Labrecque.

In a letter to Western Region Director Joseph H. Tippets, Colonel Weyle stated: "Despite the late hour of the request, the flight check crew arrived on the scene promptly. Without regard for unusually low temperatures and gusting winds, they carried out their duties in such a manner that in less than 24 hours after the antenna was struck by lightning, the flight check was completed."

POWDER PUFF POWWOW



FAA 1965 Powder Puff Derby entries and officials gather at Gillespie Field, San Diego, for a briefing. From left: Mrs. Ruth Fleisher, controller, Biggs AFB, Tex.; Miss Dimp Southard, flight service specialist, San Francisco IFSS; Miss Leah S. Learsch, flight service specialist, San Diego FSS; James F. Burkhardt, chief, Gillespie Tower; Mrs. Alice Hammond, FAA Advisory Council; Mrs. Hazel McKendrick, flight service specialist, Dallas FSS; Mrs. Jean Pearson, FAA Advisory Council and Cecil W. Elliot, FAA area coordinator, San Diego.

SOUTHERN REGION INVITES THE LADIES IN FOR A LOOK AT OPERATIONS



Eleanor Porter, Charlotte General Aviation District Office, peers into carton of records at the Federal Records Center, Atlanta. She was one of 33 top-level secretaries and administrative assistants visiting Southern Region HQ.

The Southern Region took a fresh approach to improving intra-regional relations by inviting 33 top level field secretaries and administrative assistants from seven southeastern states to attend a week-long workshop in Atlanta.

The comprehensive agenda was designed to provide the ladies with a wider perspective of the FAA and their jobs by giving them an inside view of a regional office in action.

They were briefed on such important and diverse topics as records management, travel, personnel relations, procure-

ment and executive secretarial training.

A tour of the headquarters building acquainted the ladies with the modern "datamation" center, the printing plant, communications and aircraft center and the modern reference library.

At the conclusion of the workshop the participants were presented with Certificates of Completion by Southern Region Deputy Director Paul H. Boatman, who said: "I believe this is just about the most pleasant duty I have performed since I have been here."

Those attending were: Lucille Par-

sons, EMDO, Miami; Eleanor Porter, GADO, Charlotte, N. C.; Grace Williams, GADO, Jackson, Miss.; Beryl Lindley, GADO, Opa Locka, Fla.; Pauline Huntley, GADO, St. Petersburg, Fla.; Rhoda Snoko, ACDO, Miami; Tommie Bennett, ACDO, Miami; Katharine Mansfield, ACDO, Nashville; Lillian Ward, GADO, Nashville; Sarah Bollinger, ACDO, Winston-Salem, N. C.; Evelyn C. Gober, ARTCC, Memphis; M. Elizabeth Davis, ARTCC, Miami; Annie M. Kirby, ATC Tower, Charleston, S. C.; Rebecca B. Stuart, RATCC/Tower, Pensacola, Fla.; Simone D. Vest, RAPCON/Tower, Tampa, Fla.; Marcella H. Waksunski, SMDO, Miami; Jean H. O'Steen, SMDO, Jacksonville; Ruby P. Davis, SMDO, Montgomery, Ala.; Lois McAfee, SMDO, Memphis; Patricia M. Fisher, APDO, Jackson, Miss.; Jean Bumgarner, APDO, Charlotte, N. C.; Florence F. Brooks, FIDO, Miami; Mary L. Culpepper, FIDO, Meridian, Miss.; Dorothy B. Carson, FIDO, Orlando, Fla.; Glenda S. Uehara, RAPCON/Tower, Savannah; Judy Hicks, EMDO, Marietta, Ga.; Marie Whitaker, GADO, Atlanta; Betty Walker, ARTCC, Jacksonville; Janie Chancey, ARTCC, Hampton, Ga.; Betty Carter, FSS, Atlanta; Lois Wallace, ATC Tower, Atlanta; Elizabeth Barrett, FIDO, Atlanta, and Lois Sandlin, SMDO, Raleigh, N. C.

Tightly Packed Agenda Emphasizes Safety at Flight Standards Conference

"Safety is our most important product," was the theme of the Eastern Region's annual Flight Standards Conference, held recently at Norfolk, Va.

Emphasis during the three-day meeting was placed upon methods to reduce accident rates.

Conferees covered such subjects as: Use of designated engineering represen-

tatives; coordination between branches on accident notifications; central aircraft dispatch responsibilities; coordination requirements relating to air-space and military activities; work program development; and the standard procedures for uniform reporting system. Also included were the mechanical reliability program; accident incident reporting; malfunction and defect program; compliance enforcement program; system worthiness and certification of air carrier/commercial operators and air agencies certification.

Key Flight Standards personnel from the Regional Headquarters and all district office supervisors and key personnel of the district offices were in attendance. Regional Headquarters attendees included: Regional Director Oscar Bakke, Regional Counsel Martin White, Gerald Lamberti and Gerald Gallagher from the Regional Counsel's office, and Thomas Toberty, chief, Employee-Management Cooperation Branch.

Washington Headquarters personnel attending the conference were: Alan L. Dean, Associate Administrator for Administration; George S. Moore, Director, Flight Standards Service; George Weitz, chief, Maintenance Division; James F. Rudolph, chief, Operations Division; William H. Weeks, chief, Engineering and Manufacturing Division; Anselm M. Tibbs Jr., Air Safety Investigator (General).

Personnel attending from Oklahoma City were: Clyde L. Daniels, chief, Appliance Branch, Engineering and Manufacturing Division; Felix E. Sanduski, General Aviation Maintenance Specialist.

DEVICES AVIATION COURSE

Robert L. Markwith, chief of the Tahoe Valley, Calif., Tower, recently developed a four-week aviation educational program for grade school students at the Bijou Elementary School at Tahoe, Calif.

FAA Administrator Warns Public Of Dangers in Low-Level Flying

"A dangerous menace as well as a public nuisance . . ." is how the FAA Administrator described pilots who delight in buzzing crowded beach and resort areas at low altitudes.

The Agency is prepared to take vigorous enforcement action against pilots who violate the minimum altitude restrictions over these or other areas. Violators not only face revocation of their pilot certificate but also a civil penalty of up to \$1,000 for each violation.

"The beach buzzer cannot be written off as just another seaside showoff, like the proverbial bully who kicks sand in everyone's face," the Administrator emphasized. "His capacity to kill and maim innocent people takes him out of the 'beach pest' category. He must be regarded as a dangerous menace as well as a public nuisance, and treated accordingly."

FAA records show that "buzzing and low acrobatics" are a major cause of general aviation accidents. During a recent 12-month period, 73 persons were killed and 62 seriously injured as a result of such accidents. In addition, a total of 96 aircraft, valued at three-quarters of a million dollars, were destroyed.

"Most—if not all—of these accidents could have been prevented if the pilots had observed—the simple rules governing minimum altitudes for aircraft operations," the Administrator said. "Compliance with these rules is fundamental to safety in the air and in many instances directly related to safety on the ground."

The general altitude minimums contained in FAR, Part 91, are: • Congested Areas. All flights over congested areas of cities, towns or settlements or over open air assemblies of people, must be at least 1,000 feet above all obstacles that are within 2,000 feet horizontal distance of the airplane. • Uncongested Areas. Airplane operations down to 500 feet above the surface are permitted over uncongested areas. • Open Areas. For flights over open water or sparsely populated areas, the airplane must remain at least 500 feet from any person or property on the surface.

The regulation further specifies that all flights anywhere must be conducted at an altitude which would permit the pilot to make an emergency landing, in the event of engine failure, without endangering people or property on the ground.

Anyone observing an aircraft in obvious violation of these rules should record its number and report the incident to the nearest FAA facility.

WESTERN REGION CLIPS BEACH BUZZERS' WINGS



The FAA works closely with Los Angeles County Sheriff's aero detail officers in controlling beach buzzing. Flight operations inspector William G. Reece, Santa Monica GADO, discusses operations with Lt. Charles Griggers.

With the help of the Los Angeles County Sheriff's Aero Detail, the Western Region has tackled the serious problem of beach-buzzing, or low level flights by aircraft over heavily-populated beach areas.

The Aero Detail reported that a number of violators already have been prosecuted and have paid substantial fines for low-flying over populated beach areas. Both state and federal statutes apply to such low-level flights.

After conferences between FAA officials and members of the Sheriff's Aero Detail, Joseph H. Tippets, Western Regional Director, asked general aviation district offices serving coastal areas to

give top priority to the problem.

"Pilots who persist in such practices are jeopardizing the lives of those on the ground and their own lives," Tippets said, "and are also leaving themselves open to enforcement action by FAA and the Sheriff's office."

The problem is especially acute at thickly-populated Southern California beaches and to a lesser degree at other beaches, inland lakes and rivers.

Area lifeguards have been instructed by the Sheriff's Aero Detail to obtain identification numbers of planes flying at unsafe altitude over beach areas. Also, an Aero Detail helicopter has been assigned to patrol the areas for violators.

Canal Zone FAAer Gets Medallion From Gorgas Hospital Blood Bank

James L. (Chubby) Dalton, Balboa IFSS chief, is the only FAA employee in the Canal Zone to gain membership in the Gorgas Hospital Blood Bank "Gallon Club."

At special ceremonies held recently in the Governor's Board Room at Balboa, Dalton received a Gorgas-Coco Solo Blood Bank Medallion as an expression of appreciation from the people of the Canal Zone for his blood donations.

TAKE COPY OF HORIZONS HOME

Your family and friends will enjoy reading about the Federal Aviation Agency and the activities of your associates. Why not take your copy of Horizons home each month?

C. B. Walk, Chief, Flight Standards Division addresses conferees at Eastern Region's Flight Standards meet.



THROW-AWAY MONEY FROM DULLES POOL BONANZA FOR TRAVELERS AID

Since Dulles International Airport opened for aircraft operations on Nov. 17, 1962, checks totaling \$6,701.93 have been turned over to the Travelers Aid Society by the Federal Aviation Agency. The money represents thousands of pennies, nickels, dimes, quarters and half dollars (no dollars!) tossed into the Dulles Memorial Pool for luck by travelers passing through the terminal.

William B. Kitchens of the Dulles Executive Staff, who is in charge of retrieving and counting these liquid assets, reports that on dedication day in 1962, two small barrels of money were taken from the pool and held, with subsequent accumulations, until a special Act of Congress authorized the Agency to dispose of it. The act specified that the Administrator donate the money to a "... non-profit organization which promotes and provides for the welfare of travelers in air commerce." Thus, the Travelers Aid became the beneficiary of Dulles' air travelers wishing well.

The pool is cleared of coins every two weeks in the winter, but in the summertime when visitors to Dulles more than double, it has to be done every week.

Coins from 37 foreign countries have been fished out of the pool—*groschen* from Austria; *centimes* from Belgium; *cruzeiro* from Brazil; *centimos* from Colombia; *centimos* from Costa Rica; *centavos* from Cuba, Guatemala, Honduras, Mexico, Peru, the Philippines and Portugal; *ore* from Denmark; pennies, half-pennies, sixpence, shillings and farthings



Dale Ann Swank, 18-year old daughter of Robert E. Swank, acting chief, Administrative Staff, Dulles, holds part of the weekly take from the Dulles pool. Right: Dale helps William B. Kitchens, contract assistant and agent cashier at DIA, transfer coins from scooping pan to sieve. Officer Herbert W. Ford, Dulles Airport police force, guards cash.



from England; *Penni* and *pennia* from Finland; *francs* from France; *pfennigs* from Germany; *aurar* and *krona* from Iceland; *prutot* from Israel; *lira* and *centesimi* from Italy; *Yen* from Japan; *fls* from Jordan; *piastres* from Lebanon and Viet Nam; *guilders* from the Netherlands Antilles and Netherlands East Indies; *piec* from Pakistan; *centesimos* from Panama; *pesos* from Spain; *centimes*

from Switzerland; *satang* from Thailand; *kurus* from Turkey; *cents* from Hong Kong, Canada, Ethiopia and the Netherlands.

A certain number of ringers turn up in every collection according to Kitchin. He has a fine collection of bus tokens, play money, slugs and souvenir medallions which are kept in a safe along with the foreign money.

COOL CONTROLLERS SAVE ICED UP AIRCRAFT



James E. Clark

William R. Caruso

Eastern Region's "We Point With Pride" plaque was presented recently to two deserving controllers.

William R. Caruso and James E. Clark, both of the Cleveland Air Route Traffic Control Center, teamed up in typical FAAmanship to vector an iced-up light aircraft on instrument flight

rules to a safe landing.

Caruso was the Center's manual controller and Clark handled the radar, a cool combination that saved an icy *Cessna* from a forced landing in bad weather.

Direction finders, radar, radio communication and courage all helped to pinpoint the distressed and fuel-hungry *Cessna*.

A volunteer general aviation pilot in the local area was contacted by the controllers and apprised of the situation.

The pilot took-off in his *Aero Commander*, following the controllers' instructions, made visual contact with the lost *Cessna* and led him to a safe landing—just one more example of how general aviation pilots and the FAA work together to promote flight safety.

Youth Opportunity Program Gets Big Boost in the Central Region



The Central Region was the first to complete summer hiring under the President's Youth Opportunity Program with 82 youngsters on board. Above the regional office contingent gets familiar with the FAA at an orientation class.

FAA Academy Used as Movie Set For Filming of ICAO Visual Aids

FAA Academy instructors turned movie stars recently when the International Civil Aviation Organization (ICAO) made 10 training films at the Oklahoma City facility.

Earl D. W. Beckett, technical officer for audio-visual aids at ICAO headquarters in Montreal, directed the series, assisted by J. W. (Buck) Winston of the Flight Standards Training Division.

The color films each run about 25 minutes. Each explains the operation of a system found in a modern jetliner, such as hydraulic, pneumatic, fuel, control and air conditioning.

They were shot during regular classroom activities and will be used to provide additional training for aircraft maintenance men attending ICAO sponsored Technical Assistance Centers, or by any of the 105 member nations of ICAO.

Camermen used the FAA Academy's jet engine simulator and Flight Standards Training personnel in a new film.



COUNTY FLY-IN IS 'FINEST'

More than 30,000 people visited the Poughkeepsie, N. Y., Dutchess County Fly-in during its two-day show in May. Sponsored by the Dutchess County Pilots Association and the Mid-Hudson Chapter of the National Association of Air Traffic Specialists, the fly-in was termed one of the "finest community events" in the history of local flying.

On display were antique and home-built planes and some of the latest configurations, including the AF's X-15, a C-123 and a Coast Guard twin-engine air-sea rescue plane.

Local FAAers and a special communication group from the Mid-Hudson Amateur Radio Club handled 800 operations in the two-day period and 260 operations within a two-hour period on Sunday. The event marked the first use of the tower since 1946. Eastern Region's Director Oscar Bakke, Deputy Director Wayne Hendershot and Air Traffic Chief Robert Martin appeared on the program as guests of honor.

TONS OF BABY FOOD AIRLIFTED TO LATIN BABIES

More than 40,000 meals have been given to poor children in Honduras through Operation Pablum, a project started by Air Traffic Control specialist Floyd L. Pileggi of the Balboa Center, Canal Zone.

Operation Pablum originated at a birthday party for young David Pileggi. Among the guests were Major and Mrs. Steven Falkenbury who shortly thereafter were transferred to the U. S. Army mission in Honduras.

At a later meeting the Falkenburys described the sad plight of many Honduran children and the Pileggis were so moved that they offered to send several cases of baby food to Honduras. They discovered, however, it was not easy.

Pileggi was confronted with seemingly insurmountable obstacles involving purchasing, shipping, coordination and customs requirements. But being an optimist at heart, he set up a one-man committee—himself—to develop a workable pipeline for direct delivery of the baby food.

His optimism was contagious. It attracted the attention of many local groups, including the Panama-Balboa Council of the Knights of Columbus. Pileggi, a Knight himself, convinced the membership to donate, on a matching

basis, one case of baby food for each

case produced by him.

The U. S. Air Force assisted by airlifting four tons of baby food to Honduras. The Honduran Air Force cooperated by re-distributing the food to needy children throughout the country.

The project generated so much gratitude that the First Lady of Honduras, Senora Gloria Figueroa de Lopez Arellano, journeyed to the Canal Zone to personally thank Pileggi for this worthy venture. At a reception in her honor she was presented with a surprise gift of an additional supply of baby food.

Operation Pablum is continuing and the roster of supporting organizations is growing. It now includes the Peace Corps.

Also, many other needed relief items are being received, including food blenders from the John Oster Company which enabled the Honduran people to produce baby food on their own. Some 650 pounds of assorted tools, new and used, have been donated to a home-building cooperative; large quantities of clothing, always in short supply, have been gathered and distributed.

FAA's Southern Region is proud of Controller Pileggi and commends him for his unselfish efforts in behalf of some of our less fortunate Latin American neighbors.



Honduras's First Lady, Senora Gloria Figueroa de Lopez Arellano presented air traffic control specialist Floyd Pileggi of the Balboa Center in the Canal Zone a special gift for the tons of baby food provided by his Operation Pablum. Rudy Burda (left) and Sgt. Harley Reynolds (right) of the Balboa Knights of Columbus were also on hand.

DONALD H. BOBERICK TAKES TOP HONOR IN WEST COAST ANTIQUE FLY-IN



Controllers in temporary tower set up at Merced Airport for Eighth Annual West Coast Antique Fly-In, bring in Clete Roberts, TV newsmen, flying Buhl Pup. John S. Zentner, (right) supervising inspector, Fresno, watches procedures.



Donald H. Boberick (in coveralls) flew his restored Ryan ST-3 to victory at the West Coast Antique Fly-In.

More than 25,000 persons recently jammed the Merced Airport, Merced, Calif., in one of the nation's leading antique aircraft events—the Eighth Annual West Coast Antique Fly-In.

Of the 16 FAA employees participating, one was a top winner in the event, Donald H. Boberick, an attorney with the Western Regional Counsel's office, captured an impressive trophy for the "Best in Class—Classic Age." One of the judges termed Boberick's entry one of the finest restorations of a Ryan ST-3.

Many of the 1,000 antique aircraft on display were flown great distances to Merced, a real tribute to the craftsmanship and airmanship of this unique group of pilots. Of these, 81 were of the antique variety, 20 were experimental,

and the remaining planes were of more modern vintage.

A temporary tower provided air traffic control for the fly-in. It was operated by the following Fresno Tower personnel: Robert E. Buckles, chief; Arthur B. Perry, J. B. Whalen and Lanny J. Caslin. A temporary Flight Service Station set up for the event was manned by Fresno FSS chief Eskel Daniels and Melville D. Jenkins.

Arthur Cazares, Air Traffic Service representative from Castle Air Force Base, was monitor for the air show while John S. Zentner, chief of the Fresno General Aviation District Office, checked pilot and aircraft certificates.

Tours through the Oakland Flight Inspection District Office DC-3 which was

on display were conducted for visitors by FIDO personnel John P. Hyde, Sygmund W. Kowalewski, Robert J. Martin and Joseph E. Labreque.

Among the many veteran pilots at the fly-in was Joe Pfeiffer, who was instrumental in getting the Merced Fly-In's started eight years ago. "Mr. Antique," as he is often called, is from Columbia, Calif. He has been flying for 42 years and for the past 27 years has been rebuilding antique model aircraft for movie and custom work. He is also a stunt pilot. Last year, Pfeiffer was given the title of Honorary Mayor of Merced.

"We sincerely appreciate the continued support the FAA has given the Merced Antique Fly-In," said Joe Crotti, Merced Airport manager.

Controller Searches More Than Three Hours to Locate Aircraft in Trouble

It was 1018 GMT when James T. Lewis began the task of locating a plane reported lost in the vicinity of Monroe, La. It took three hours and 16 minutes but the Fort Worth ARTCC air traffic control specialist, with the aid of other FAAers and the Air Force, successfully located and brought a lost general aviation pilot to a safe landing.

Lewis' outstanding performance gained him a citation from the Air Traffic Control Association and the Controller of the Year Award from ATCA's North Texas Chapter.

A series of problems plagued the lost, non-instrument rated pilot who was flying near Monroe, La., in his Piper PA-22. He couldn't receive the Monroe VORTAC, his to-and-from indicator was



Walling V. (Bud) Fox, chief, Fort Worth ARTCC, presents Certificate of Award to James T. Lewis for "save."

not performing correctly and he erroneously estimated his position as west of Monroe. Neither the Fort Worth

ARTCC nor the Shreveport RAPCON could find the target, and Lewis, after checking charts and pilot reports, narrowed the area down to Bastrop, approximately 35 miles northeast of Monroe. The pilot, after climbing, reported his cross-bearing on El Dorado, Ark., and Monroe.

With the help of Controller Robert Hennings, Lewis continued to work the lost aircraft and requested a plane from Barksdale AFB to help locate the lost plane. An Air Force T-39 was vectored to the estimated position of the lost aircraft. The Air Force plane located the Piper and directed it to a break in the clouds. The Fort Worth ARTCC handed off the Piper to Shreveport RAPCON, which guided it down safely.

SYMPOSIUM LOUD ON AIRCRAFT NOISE ABATEMENT

More than 250 aviation and Government officials attended the National Noise Abatement Symposium in June as guests of the Eastern Region at Jamaica, N. Y., to hear the Nation's experts discuss the state of the art of noise abatement and acoustics.

The one-day symposium focused attention of the aviation community on aircraft noise and its associated problems, and also highlighted recent accomplishments and current research.

FAA Administrator Najeeb E. Halaby, who headed the list of speakers, pointed out the annual rise in expenditures from \$100,000 in 1961 to \$1.3 million to be spent by FAA alone in 1965 to alleviate aircraft noise. "The Administrator called attention to the need for compatible land use in the vicinity of airports as a possible solution. The beneficiaries of air transportation, the Administrator stated (the travelers, shippers, airlines and airport operators, etc.), should share equitably the costs of achieving these benefits with those who suffer loss of enjoyment of their property rights. The Administrator empha-

sized that officials in the public road, highway, freeway, and urban development programs, by proper planning and coordination, could assist the nation's airports and help alleviate community noise problems.

The program participants included: Administrator Halaby; Harold E. Gray, president, Pan American World Airways; E. C. Wells, vice president, Product Development, The Boeing Company; William T. Burns, president, Airport Operators Council; Gordon Bain, Deputy Administrator for Supersonic Transport Development, FAA; John Tyler, Pratt & Whitney; Mel Nolan, U. S. Public Health Service; James Woodall, Program Manager Acoustics, FAA; Charles W. Harper, Director, Aeronautics Division, NASA Headquarters; Harvey H. Hubbard, Acoustics Branch, NASA, Langley Research Center; Robert Buck, Trans World Airlines, and Beverly Shenstone, chief, engineer, -British Overseas Airways Corp. and Eastern Regional Director Oscar Bakke, who acted as master of ceremonies at the symposium, summarized the important points of the session.

Oldest Pilot to Solo in Utah Is Granddaddy of Controllers



Bert Robinson and Arthur R. Mortensen, Ogdan Airport manager, chat about Utah's early aviation in front of Cub similar to one that Robinson soloed at the age of 65.

"I was a grandfather when I soloed, and now I'm a great-great-grandfather and I still have my pilot's license."

So spoke 88-year-old Bert Robinson at Ogdan, Utah, recently on a visit to the location of his first flight.

Bert was chatting with Ernest F. Durhano, Ogdan Tower chief and A. R. Mortensen, Ogdan Airport manager.

Robinson explained that the main reason for returning to Ogdan was to see his old friend and instructor, Mortensen.

"Art was the man who taught me to fly," said Robinson, "and I soloed here in a Piper J-3 Cub 'way back in 1941—I was 65 then and the oldest pilot to solo in Utah."

Mortensen, taking up the story, said he had soloed in an OX-5 *Travel Air* in 1929 and has been an active pilot and flight instructor ever since.

"Back in 1943 we had an airport and tower here but no controller," said Mortensen. "I recalled that Bert had just retired from the Southern Pacific Railroad so I offered him the controller's job."

For the next two years Robinson was the chief and only controller at Ogdan and this was when the wartime V-5 Navy flying cadet program started.

Operating a light-gun, his only communication equipment, from atop the old wooden tower, he kept the Navy's Cubs flying so well that 500 cadets completed the program without a single fatality.

While Robinson was controller, the CAA and the Weather Bureau also maintained offices on the field. Since then many changes have taken place, with operation of the tower coming under the City and later the CAA.

Today, Bert Robinson is completely retired and, when not prowling about the aviation community, he's busy with his ranch in Nevada.

Southern Region FAAer Awarded High Agency Honor



Nevin D. Wherrell receives FAA's Meritorious Service Award from Southern Region Director Arvin O. Basnight.

FAA's second highest honor, the Meritorious Service Award, was presented to Nevin D. Wherrell, electronic maintenance technician in the Systems Main-

tenance Sector at Orlando, Fla., for saving a co-worker's life.

On Feb. 17, while Wherrell and Jerry J. McCarthy were performing corrective maintenance on an approach lighting system in Orlando, McCarthy came in contact with a metal chain fence which had been accidentally charged with 230 volts of alternating current. Without regard to personal risk, Wherrell freed McCarthy from the fence and saved his life.

During the presentation of the Meritorious Service Award to Wherrell, Arvin O. Basnight, Southern Region Director, said, "Your personal disregard for yourself as an individual in behalf of a co-worker typifies the finest spirit of American life."

FAA Radio Amateurs Help Emergency Hospital Test

Two FAA amateur radio operators of the Systems Maintenance Sector at Casper, Wyo., recently played key roles in an emergency hospital exercise conducted at Douglas, Wyo. The two, Merle L. Olmstead and Lavin F. Farrar, pro-

vided two-way radio communications and simulated emergency messages which would be received in a real disaster. Olmstead and Farrar have also participated in activities of the Amateur Radio Emergency Corps.

ON THE SCOPE



WINNERS: Freda Karris and William A. Hankins hold certificates presented to them by the Fort Worth Federal Business Association for outstanding work.



FOR SERVICE RENDERED: Edward J. Slaga (right) of Lone Rock, Wis., FSS receives citation from Chief Gaylord Trumble for expediting help to air crash.



IN THE MONEY: Harrison B. Austin (right) receives a \$250 check from Robert G. Turner, crew chief at the Cleveland Center, for sustained superior work.



SALUTE TO THE FLAG: The flag is raised daily at the South Bend, Ind., GADO as employees participate. From left: David W. Kress, Jay A. Peterson, Louise Scamehorn, Irene V. Jonas and Ralph D. Hixon.



HONORS NIGHT: At the Pacific Region's Annual Awards Banquet, 83 employees were honored. From left: Sen. Daniel K. Inouye, principal speaker, Director Phillip M. Swatek, helping William A. Croyle hold the Director's Unit award, won by Accounting Division which he heads, and James A. McBride of the Air Traffic Division who was presented with the Employee of the Year Award. Ceremonies were held at Ala Moana Hall.



THEY'LL SHOOT IT OUT: G. Ward Hobbs, Bureau of National Capital Airports Director, flanked by Police Chiefs James P. Dillon of WNA and Michael D. Benarick of DIA. Beginning this September, the trophy Hobbs is showing will be competed for annually in pistol matches between officers of both airports.



TRAINER: James B. McGee (second from right) Balboa, C.Z., IFSS, is congratulated upon election to Presidency of Isthmian Society of Training Officers.

AFTER HOURS



DIPLOMA DUO! Mona Gay and her father, Adolph Kurek, FAA Academy, compare diplomas following their graduation recently from the U. of Oklahoma.



SCRUMPTIOUS: John J. Ryan, National Aviation Facilities Experimental Center pilot, with his XKE Jaguar, judged third best in "d'elegance" contest.



ANCIENT ARMS: Earl L. Turbyfill, Central Region, with his samurai sword, believed to have been made in 1414. Small object is ancient Chinese pistol.



ACES: Paul Darwin (right), 14-year-old son of a Fort Worth Controller, shot 153 in an 18-hole competition to win the 5th Annual FAA Golf Tournament in Fort Worth. He was followed by Ted B. Stablein (center) Albuquerque Center with 159 and Charles Gambel, Lubbock Combined Station Tower, 160.



ARTY: Miss Catherine A. O'Brien (center) cartographer at the Denver Center, hangs one of her paintings at annual art exhibit in Longmont, Colo.



GOOD NEIGHBORS: William F. Zaucha (right), Seattle ARTCC chief, with Harold H. Heath visit school. Zaucha is high official in United Good Neighbors.



MR. CHIPS: After a tough day in the Detroit City Tower Lyle E. Ostrander relaxes with wood carving tools. He's a specialist in wild life and nature.



DEAD EYE: Neal D. Railey, Aeronautical Center, with 357 magnum he used to win second place in Oklahoma State Pistol matches, competing against 85.

TECH TALK

WHILE THE MARCH OF PROGRESS toward fully automatic landings under "zero-zero" conditions is progressing favorably, Systems Research and Development engineers are now probing a related problem that might be just as tough a challenge:

How to navigate after touchdown or before liftoff and while taxiing under "zero-zero" conditions.

Ground operation of aircraft is considerably more difficult in extremely adverse weather than for other vehicular traffic. SRDS engineers say it presents almost as many problems as those encountered in developing an automatic approach and landing system.

A study recently completed for Systems Research and Development Service examined in detail the store of technical knowledge available and made recommendations of avenues to explore in preparation for Category III operations—fully automatic landings under "zero-zero" conditions.

It was confined to six possible solutions to the ground-guidance problem:

- ILS localizer techniques
- aircraft directional-gyro systems
- infrared detection
- magnetic fields
- aircraft radar
- radioisotope guide lines

Refinements of the present instrument landing system (ILS) will provide the basis for future lower minimums on approach and landing, and it may be possible to extend the usefulness of the localizer for roll-out guidance. This, in conjunction with the DME (distance measuring equipment), appears to have the best possibilities for success. Runway turnoff and taxiing, however, will require some other form of electronic guidance.

The FAA is also considering further investigation of the radioisotope guide line technique to determine its application to solving runway turnoff and taxi guidance.

STEVENS PACKS HIS SEA BAGS

James D. Stevens, 18-year-old son of Lloyd J. Stevens, a flight service specialist at the Sacramento, Calif., FSS, has received a Presidential appointment to the U. S. Naval Academy at Annapolis. Jim's dad is a retired Navy man.

GOLFERS IN BOSTON-MONTREAL AREA FLAIL AWAY

A high count of 22 on one hole at the Third Annual Boston Area-Montreal Area Challenge Golf Match won a prize (a stroke counter) for William Bartowski, but low scores turned in by other golfers from the Boston Center captured the winner's cup.

The challenge match is played annually between FAA personnel in the Boston and Montreal areas, plus representatives of New York Center, Westover AFB, 99th Bomb Wing, Hanscom Field and Air Defense Command. In addition to competition between Boston and Montreal for the cup, individual matches were held using the Calloway system of handicapping.

Winners of trophies for gross and net scores were: J. Dorque, low gross; J. Selin, 2nd gross; R. Coady, 3rd gross; F. Doss, 4th gross; C. Reich, low net;



After the Annual Boston-Montreal area Challenge Golf Match, but ready for another 18 holes are (from left) R. Santa Paula; A. Hill; P. Toursie; B. Forbes and J. Baskin. Match is played between Agency personnel in the Boston and Montreal areas and by local Air Force buffs.

L. Nangle, 2nd; P. Toursie, 3rd; and E. Chicoine, 4th. Additional winners were: J. Pasquin, A. Casciano, R. Vervel, T. Torney, J. Dohaney, H. Helstrom, R. Jaworski, and R. Heckman.

Barrage of Arrows Bag Championships for Family

Three and a half years ago when Gay Herrin was a student at Arlington State College, Texas, she got stuck on archery and ultimately it affected the family.

Since then her father, Gordon Herrin, a controller at Dallas-Love Field, and her mother, Mary Lee, an illustrator in the Planning Branch, Air Traffic Division, and her brother, Tommy, 14, have won many state archery titles.

Herrin is the current Texas men's free-style Class B champion and is the vice president of the Panther City Archery Club. Last year he and his wife teamed up to take the Texas husband-wife Instinctive Trophy. His wife also has won many trophies.

Tommy, who holds the Texas archery free style junior boys championship, is recognized for both his field archery and target shooting. He is the first boy in the United States to be admitted to the select "500 Club," a group of archers who have shot over 500 out of a pos-



With bows drawn tight, and arrows ready for flight, the Herrin family shows off the championship form that won them a quiver-full of trophies. From left, Gordon, Mary Lee and Tommy line up and zero in on their bullseyes.

sible 560. There are five other archers in the club.

This year Tommy broke the tournament record in the Deep South Tournament held at Hot Springs, Ark. This assures him an archery scholarship to Louisiana Polytechnic Institute.

Electronics Technician Keeps Cool, Saves Office

Alertness and quick action by Lyle D. Myers, electronics maintenance technician at Prescott, Ariz., are credited with averting what might have been a tragedy at the FAA office in Prescott.

While checking wiring for outlets in the Prescott office, Myers smelled gas in the furnace room located under the FSS.

He located a faulty connection leading

to the floor heater in the building and immediately turned off the main valve until it could be repaired.

Charles Piccone, Systems Maintenance chief at Prescott, commended Myers stating, "It's extremely fortunate Myers discovered this leak. An explosion could have occurred with possible loss of life and destruction of the FSS."

YOUR HEALTH



DIAGNOSING FROM BLOOD TESTS

Blood tests are essentially painless and safe, despite the fears of some people, and provide much information that saves lives. The hundreds of different tests can be divided into three categories: those that count the cells; those that carry out various chemical analyses on the liquid part of the blood and those that do bacteriological studies.

Blood is composed of cellular elements suspended in plasma, a thick protein-containing fluid that constitutes a little more than half of the total blood volume. These cellular elements consist of three main types: red blood corpuscles, white corpuscles and tiny but important particles known as platelets.

The red corpuscles transport oxygen from the lungs to the tissues and carry carbon dioxide from the tissues to the lungs before it is exhaled as waste matter. This process is done with hemoglobin, which is what colors the corpuscles red.

The white cells really are colorless, and consist of several different types to combat infection, help ward off irritating substances, and heal wounded or infected tissues. The platelets help blood clot, and are decreased (or malfunction in some other way) when abnormal bleeding occurs.

In testing for an ordinary count of red and white cells or for a hemoglobin estimation, the doctor pricks the skin of the finger tip or ear lobe and takes a drop or two. When

more blood is needed, as for a chemical test, a little more than an ounce is drawn with a needle and syringe from a vein near the surface, usually in the bend in the elbow. Normal blood generally indicates good health, though one can be sick and still have a normal count. If the red cell count is low and the cells contain less than a normal amount of hemoglobin, some form of anemia probably is present.

Too many white cells suggest an infection; if normal white cells are present in large numbers, there's a strong possibility of leukemia. In other diseases, and in drug reactions or high-intensity X-ray therapy, the number of white cells may be greatly decreased.

When the cells are removed from the fluid part of the blood, many tests can be done to find whether the patient may have had or still has one or more of many bacterial and viral diseases.

Chemical blood tests help to diagnose illness and then to prescribe treatment. In diabetes, for instance, there tends to be an excess of sugar in the blood. Tests also give a good indication of jaundice and can help determine both the type and degree of the disease.

Kidney diseases produce various kinds of waste blockages resulting in wastes accumulating in the blood. These wastes can be measured, with the amount and type of wastes indicating the degree and type of kidney malfunction.

...AND SAFETY



HOW TO CALL FOR HELP

How well you use the telephone in an emergency can mean the difference between life and death. Many persons in a crisis become so flustered that they give wrong addresses and even the wrong town to police and fire departments and to telephone operators.

If you know ahead of time what to say, you won't be so apt to make a mistake.

Here are four areas that you should cover clearly and quickly in an emergency call for help:

- Tell where it happened. Give the complete address number and name. Repeat it. A brief description of the house will be helpful. This is especially important at night.
- Tell what has happened. Is your house on fire? Is someone bleeding badly? Has someone had a heart attack?
- Tell what kind of help is needed. Explain what kind of equipment you think will be necessary.
- Tell who you are. This is important when the emergency is not obvious from the outside, especially if a multi-family dwelling is involved. A neighbor, asked for directions, will be more likely to recognize your name than your house number.

A lot to remember? No—it takes about 10 seconds. After

you've finished don't hang up immediately. Pause and give the person you're talking to a chance to ask a question.

Aid in an emergency is as close as the nearest telephone—if you're able to give essential information quickly.

A LIFE AND DEATH DIFFERENCE

A black eye, a bruise and a few chipped teeth were the only evidence a 30-year-old man of Pueblo, Colo., had to show for his narrow brush with death in a head-on collision.

One night he was traveling 50 mph in the left lane of a Pueblo freeway and suddenly saw two headlights coming directly at him—a car, traveling the wrong direction on the freeway.

Trapped by another car on his right and a railing on his left, he had nowhere to go but straight into a head-on collision. There was a sickening crash and he was knocked out for a moment when his head flew forward and hit the steering wheel. But his body was restrained by a seat belt that saved his life.

The driver of the other car? She died instantly when the impact lifted her up and sent her head crashing through the windshield. Like the other driver, she had seat belts. But, unlike him, she was sitting on them.

PERSONNEL PIPELINE



IT'S ALL IN A DAY'S WAGES

A reminder that among FAA's many fringe benefits are compensation and medical care for on-the-job injuries. If you are injured while working, the Government pays for all medical services and medicines, including such things as physical or vocational rehabilitation. Your sick leave is already provided or you can elect to receive compensation up to \$525 a month for the entire period of disability. For loss of a finger, toe, etc., payments are paid for a fixed period ranging from 15 to 300 weeks. Lump sum payments up to \$3,500 are paid in cases of disfigurement which affects future employment. If death results from on-the-job causes, the widow is entitled to compensation until she remarries or dies. In the absence of a widow, other bona-fide dependents may receive it. Complete information is available in the *Injury Compensation Handbook, PT P 3800.3* and from supervisors and personnel officers. Federal employees can be covered also for injuries and illness which are not job-connected. This coverage, however, comes under the Health Benefits program. Payments under the two programs are not interchangeable in any way.

DID YOU ASK . . . ?

What is FAA's position regarding employees joining or not joining employee organizations? Management must be neutral on this subject. Supervisors cannot encourage or discourage employees on the matter of joining unions. This position of neutrality also prohibits supervisors from reflecting approval or disapproval by actions or attitude.

WANT TO BE BOSS? USE MITTS.

The FAA now offers a combination correspondence course and group study plan designed to teach management improvement. The correspondence section offers an overview of the principles of good management. The classes, made up of people from the same area, will offer student members a chance of practicing what they learned in the correspondence courses. Recent subjects available include "A Positive Approach to Discipline" and "Use of Conference Techniques in Everyday Management." Courses now under development include "Effective Job Organization," "Uses and Conservation of Manpower, Money and Material." The program, known as Management Improvement Through Team Study (MITTS), is prepared by the FAA Academy. Those interested in enrolling in the program should forward their requests on AC Form 288 to their appropriate Training Officer.

TECHNICIANS DOUBLE AS INSTRUCTORS

The Central Region has found the best way to accomplish training is to use technical personnel as instructors. Arnold Anderson of the Region's Training Staff recently set up a training course for teachers and went to work. In a few months, he trained 11 traffic controllers and systems maintenance technicians to be instructors in two important subjects—Effective Writing and Briefing and Presentation Techniques. As a result of this enlarged faculty "decentralized" throughout the Region, more students could take the courses. In one year enrollment increased from 175 to 450. In 1964 11 classes were held in five cities while the 1965 training program increased to 51 classes held in 11 cities, attesting to the success of the program. The program was conceived in 1963 by Ernest J. Thomas, chief of Central Region's Personnel and Training Division, and Bernard M. Anderson, chief of the Training Branch. The selected instructors were: Don George, Indianapolis Tower; Carl Greening, Indianapolis ARTCC; Willard Reazin, Des Moines Tower; Forrest Houdyshell, Detroit Tower; Dale Girls, Chicago ARTCC; Ralph Murkin, St. Louis Tower; Russell Schroeder, Omaha SMS; Robert Fisher, Great Falls RAPCON; Francis Ferguson, Wichita Tower; Phillip Stepanki, Milwaukee Tower and Mark Wilson, Minneapolis ARTCC.

THAT ADDED TOUCH

Selecting 18 area managers from among 650 candidates was the most challenging phase in the recent FAA subregional reorganization. Agency officials recognized that the success of the area manager concept depended on filling the positions with the best managerial talent available. Because there were no similar positions, something beyond the normal Executive Selection and Inventory System (ESIS) was needed.

The computerized ESIS process, which is used to fill GS-15 positions and above, identifies employees, GS-14 and above who meet required qualifications. This relieves those who make selections from the mechanics of sorting data and allows objective candidate considerations.

Selecting area managers, however, called for additional steps. The unique system devised for this purpose by the Office of Personnel and Training (OPT) used the best features of ESIS plus the judgment of top Agency officials.

The first step was to invite all interested employees above GS-13 to apply. Applicants, plus those nominated by regional directors, produced a list of 650 names which had to be narrowed to 18. The screening process started with regional panels interviewing and rating each applicant. This produced 110 top-notch finalists. Next, the finalists were interviewed by three teams, each made up of three members representing the Office of Personnel & Training, a service and a regional headquarters. Finally OPT prepared ESIS data on each candidate which gave detailed information on his qualifications, rating factors and team evaluation. This material was sent to the five continental regional directors. Then the Directors met with the Executive Personnel Board to make the final selections. When the panel picked a division chief or higher to be an area manager, it had to review the list once more to pick a back-up. On July 8, right on schedule, the 18 names were submitted to the Administrator for approval.

The process not only identified the best potential managers, but it reassured the Agency that a bountiful supply of reserve management talent exists within the Agency. The Executive Opportunity roster has served its purpose and has been retired. Experience will be used to further improve FAA's managerial selections.



DOCTOR MAKES CALLS BY AIR

The Alaskan Region embraces 586,400 square miles, almost all of it virgin frontier land much of which has never been seen by man—even from the air. Its 1,713 employees scattered in "bush" and tundra country, however, are closer to medical services than most people would think. Take the X-ray survey program conducted by the Aviation Medical Division, for example. Yearly, employees and dependents in remote stations are X-rayed and inoculated against disease. On these occasions, the Region's C-123 becomes a flying medical laboratory, making the rounds, bringing Dr. John E. Hepler and his helpers. From top left, clockwise: ● The C-123 at Bettles, Alaska, gets the once-over from interested clients. ● Nonchalance is the watchword as McGrath FAAers line up for X-rays in the C-123. ● Doctor Hepler, acting medical chief in the Alaskan Region, measures chest depth of Cynthia Stith, daughter of Ray Stith, ATCS, McGrath, with calipers to determine X-ray exposure. ● Nurse Maebelle Nielson inoculates Terri, daughter of George T. Derby an ATCS, Big Delta, with gamma globulin. ● Jack T. Jefford, chief, Air Support Branch, lines up Brian Figley, son of area manager Marion J. Figley, McGrath. ● Not everyone is wildly enthusiastic about the preventive health program. Little Jean Nesbitt, daughter of chief ATCS William O. Nesbitt, at Bettles, registers her total disapproval of the carryings on.



FAAers ON THE JOB



Jo Ellen Holt

This perky young lady, surrounded by the paraphernalia of the secretarial trade, has a not too secret secret. Most of her friends and co-workers know that Jo Ellen Holt is receptionist at the Civil Aeromedical Research Institute, Oklahoma City. Not so well known is that she never knows from day to day when she will be invited to take a dip in the CARI pool—not entirely for fun, although she enjoys swimming, but as a key participant in escape and rescue studies of aircraft which accidentally land in water. When the call comes, Jo Ellen doffs her secretary outfit, slips into a bathing suit and over this pulls on a stewardess, flight nurse or “civilian” outfit and heads for the pool. It makes an “interesting interlude” in the day, she says. And, it beats the heat.

Donald A. Willis

This desk-bound picture belies the true nature of a fast moving chap who is a trouble shooter for Eastern Region's Air Traffic Division. He may be seen at any hour of the day or night on the scene of an accident or unusual incident, investigating, reviewing, getting the facts. Don's background as an air traffic controller and pilot (commercial certificate with instrument rating) provides him with the ability to sift facts thoroughly in order to get to the root of the problem. Maintaining aircraft currency is no problem for him—his job takes him constantly to the region's far corners, via his favorite mode of travel. Before coming to Regional Headquarters in 1958, Don served in the Pittsburgh and New York Air Route Traffic Control Centers. He's a man in motion.

