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FAA **HORIZONS**

OFFICIAL EMPLOYEE PUBLICATION OF THE FEDERAL AVIATION AGENCY / MAY 1966





COVER

Coming or going, Mrs. Virginia Reid and Mrs. Victoria Koval who work at FAA Headquarters are a double exposure of "one and the same." They are one of 13 sets of twins employed by the FAA. Like most FAA twins, they are identical. (See pages 6 and 7)

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"El Paso Flight Service Station is the greatest!"

That is the message that came in loud and clear, over and over again, in a telephone interview with El Paso station personnel.

Whether or not all flight service specialists in the Agency's 329 FSSs feel that way about their own facility, we do not know. But this is a story of El Paso FSS which, in most respects, is typical of all the other stations.

General aviation pilots are the largest part of El Paso's clientele, although from 30 to 35 per cent of its business is military generated from Ft. Bliss and Biggs Air Force Base, both adjacent to El Paso International Airport, where the station is located.

"Bliss is one of the nation's largest and oldest Army installations," said John W. Collie, acting chief of the El Paso station. "Troops from all over the world come here for ground training. These flights operate from Biggs AFB and El Paso International. At Biggs, which abuts El Paso International on the north, the Army is housed on one side and the Strategic Air Command (SAC) on the other.

With Mexico just a wave away from El Paso across the Rio Grande, the station handles an average of 30 to 35 international flight plans a day for across-the-border traffic.

"Format of these international flight plans is entirely different from domestic flights," Collie said. "We have to be sure that the pilot doesn't run afoul of customs, immigration, public health and the border patrol. We must get him in and out of Mexico safely." These flight plans are sent by teletype to Mexico's Radio Aeronautica de Mexico Sude (RAMSA) at Juarez which, in turn, sends the flight plan by international code via Mexican communications nets and relays to the destination airport. The El Paso station also operates as a teletype relay for Mexican traffic originating at Los Angeles, San Diego

and other points in southwestern United States.

"Once in awhile we have a smuggling problem," Collie said. "Then we work closely with the border patrol and other enforcement people."

Missile range restricted areas pose a special problem for El Paso. They begin 18 miles north of the station and extend north for 130 miles. East-west traffic, both instrument and visual, funnels into the 18-mile strip on a busy airway between the Mexican border and the south end of the missile range. "With our help they can do it," Collie said.

Perhaps a key to the high morale at El Paso is the statement, offered by Jack W. Scott, senior air traffic control specialist and El Paso FSS watch supervisor, who said: "We are housed in a beautiful joint-use FAA-Weather Bureau building which is the most modern and up-to-date FSS that the FAA has."

According to Scott, as many as 171 persons have been briefed at El Paso FSS in a single day. This averages 14 persons per hour, or about one every four minutes during the busier hours of the day, which are 6 a.m. to 6 p.m.

Collie and Scott are CAA/FAA old-timers. Collie, the station's acting chief, joined the former CAA in 1940 as an assistant radio operator and since then has served at 11 different locations, domestic and overseas. Scott joined the agency in 1938 as a junior radio operator in El Morro, N. M. Later, after he became chief of the El Paso FSS, he was caught in a RIF (reduction-in-force) and transferred to the El Paso Air Route Traffic Control Center, which later moved to Albuquerque. He became an air traffic controller, but left the Agency briefly. On reflection, he decided "FAA was a pretty good place, after all, so I transferred back."

"Pilots who file flight plans by radio are briefed the same as those who come into the station."

Flight Service Station

El Paso Style



Pre-flight pilot briefing is one of the most important services offered by all FSSs. According to Willis A. (Bill) Garrett, El Paso flight service specialist, "Pilots get thorough briefings on weather conditions, navigation aids, airport conditions, restricted airspace, NOTAMS, and everything pertinent to a flight.

"Briefings vary according to the experience of the pilot and the nature of the flight. We have strong winds here and must pay special attention to wind conditions with student pilots. We have 55 displays on the weather board covering the latest available weather reports across the country, winds aloft, terminal forecasts, area forecasts, and 24-hour forecasts for the entire U.S., Mexico and many other parts of the world. We also have radar reports which show windstorms and precipitation areas.

"We have a special plotting table where all flight maps are available for pilots. If necessary, we help a pilot make out his flight plan, considering the best route and weather."

Garrett, a former Navy operations officer, charter pilot and flight instructor, has been with the FAA for eight years. He owns a Cessna 170 and has a commercial pilot's license.

El Paso FSS provides one-stop briefing through close cooperation with the Weather Bureau next door. "In the past," Collie said, "many pilots were concerned only with weather. With this one-stop briefing, we can ask the pilot about the type of plane he is flying, determine the altitudes best suited for the plane's performance in regard to current weather and give him up-to-the-minute information on navigation aids. We feel we can give him a more complete and effective information package, all for his one visit or call."

"Everything together like this is an excellent idea. It is cooperation at its best," A. E. (Buck) Buchanan, pilot-flight instructor of nearby Champs Aviation Co., said. "I now bring my students here regularly to show them everything. In fact, the station is just as popular with women and children, as everything is arranged to be easily seen and understood."

Pedro (Pete) Tellez, flight service specialist, talked of the varied aspects of the flight service job. "We have to be qualified in everything. Occasionally we take over the supervisor's position. We all are qualified in every aspect of the station, including teletype. We all have an air traffic control specialist certificate as well as a pilot weather briefer's certificate.

"In the air-ground room are the flight data positions. Several bays hold paper strips on flight progress boards similar to those in air traffic control centers. Each strip carries information pertinent to a particular flight such as aircraft identification and type, whether

instrument or visual, point of departure and destination, as well as estimated time of arrival and any other necessary information. Each strip is arranged chronologically.

"There is a bay for inbound civil aircraft to El Paso International, a bay for aircraft inbound to other airports in the El Paso area, another for military aircraft inbound to El Paso International and Biggs AFB, and another marked Mexico which is the international part of our operation. Here we keep strips on aircraft outbound from the United States, mostly to Mexico."

All strips are held on the boards until the flight arrives at its destination or the flight plan is otherwise closed. If no word is received within 30 minutes after the estimated time of arrival of a piston engine aircraft, or 15 minutes for a jet, a coded teletype message is sent to the departure airport which asks, in effect, "Has this aircraft arrived anywhere?" Again, if no word is received within one hour for piston aircraft and a half hour for jets, another coded message is sent with all information available on the flight including estimated fuel exhaustion time. This goes to selected enroute and departure stations. If the response is negative, an ALNOT (alert notice) is sent to all stations along the route of flight. These stations broadcast the alert notice on receipt and at the next two scheduled weather broadcasts. If this brings no response, search and rescue operations begin.

1 Flight crew checks flight plan. 2 FSS specialist Pedro Tellez briefs student pilot Bryan Shaw.



FAA Horizons



3 Francis C. Shepard plots plane on chart. 4 El Paso's chiefs are John Collie, FAA (left), and Arthur Brooks, Weather Bureau. 5 Navy pilot files flight with Robert J. Schmidt.



Scheduled weather broadcasts are made twice hourly. Special weather broadcasts and alert notices are made as necessary. El Paso FSS often relays air traffic control information between centers and instrument flights under the center's control, because the nearby mountains tend to disrupt direct center controller-pilot communications.

According to Tellez, "Pilots who file flight plans by radio are briefed the same as those who come into the station."

Tellez was an Air Force radio operator and, later, worked in the U.S. Border Patrol before joining the FAA in 1957 at El Paso, his home town. He speaks and reads Spanish fluently, which comes in handy at this border station.

Mrs. Martha L. Britton is a teletypist at the El Paso FSS. She was given on-the-job training and "after 18 months I was real comfortable in the position."

"There are five teletype operators at the station," said Mrs. Britton. "They call us 'TTO's'. We alternate on four eight-hour shifts and grab our lunches when things let up. Normally we have one operator on duty at a time, working all 6 machines. Some ma-

chines are send and receive, some send only, some receive only. Flight plans are prepared on tape which is fed into the teletype for sending. The tape leaves our machine at 100 words per minute and enters onto the leased communication lines where a relay facility forwards it to its destination circuit at the rate of 1,071 words a minute. When the message reaches its destination circuit a second relay facility transfers it back to 100 words per minute for teletype print-out at the destination station. Flight plans and messages reach their destination in a minute or two.

"Messages and flight plans coming into El Paso are all acknowledged, otherwise the sending station would have no way of knowing whether or not they were received. These are passed to the air-ground position via a chute and they land on a table at the flight data position. Outgoing messages come to us the same way—via the chute."

Coding is an important part of the teletypist job. Most messages are sent and received in code. In this connection, "Perfection is our first aim," says Mrs. Britton. "If we should miss one part of that code, the message is lost. The coding must be perfect."

Three teletype systems terminate in the station—Service A, B and C. Service A is used primarily for distribution of hourly weather; service B is used for flight plans, domestic messages and area pilot reports; service C is used for forecasts of national and international weather. All of this information is punched on tape by the teletypist and fed into the machines for transmission at the proper times.

About her job, Mrs. Britton says, "I love it. I can't think of anyone, anywhere, any more fortunate than I am to have this pleasant job with such security."

Harry C. Grafton, watch supervisor, had a few comments about his duties at the El Paso FSS. "We work eight hour shifts along with other station personnel and see that everything is carried out according to prescribed procedures and in an effective manner. We assign people to positions where they are most needed and handle the facility training which is rotated among the supervisors for six month periods."

Justin (J.J.) Lynch, flight service specialist, said, "The most interesting experience here is working with people who are themselves nice to work with. Pilots enjoy coming in here. Visibility 50 miles or more is common around here. When the weather comes to El Paso, there is no other place for it to go. I've been here since 1958 and have been with the FAA for 14 years."

Perhaps no story of the El Paso FSS would be complete without a mention of one of its unique features. It has a special emergency position to which a flight service specialist can immediately move when a pilot needs a special flight assist. Isolated from the regular air-ground position, it has all the necessary working materials for immediate use of the specialist in assisting lost aircraft or working with search and rescue.

At El Paso, a minimum of 816 weather reports are broadcast each day, in addition to approximately 555 scheduled teletype transmissions. The station has 55 weather displays, 15 pilot radio channels, 11 navigation aid alarm systems, 11 interphone circuits, six teletype circuits, four public telephones, two maintenance radio channels, and one automatic meteorological weather station.

A maintenance crew of four men keep the FAA communications equipment at El Paso FSS and the control tower in tip-top communicating condition. Working under the general supervision of Richard F. (Dick) Still, communications unit supervisor for all communications facilities in the El Paso area are Aaron R. Hill, Harry M. Matthews and Ray L. Hughes, all electronic maintenance technicians, who are on hand if anything goes wrong.

According to Scott at the El Paso FSS, "We are in business because we serve." 🌟

seeing double



The air traffic control profession seems to attract twins judging from a head count of the Agency's 26 twins (13 sets). Of this number 11 are air traffic control specialists. Looking at it from another way, the male sex is dominant in FAA twins, 18 males and eight females. The Agency may have other halves of twin sets with one twin employed elsewhere. The following are all reported full sets employed by FAA: 1 Joann and Maryann Patrick and Virginia Reid and Victoria Koval take twin headings down the Washington Headquarters escalator. 2 Alaska's Ray and Roy Downing see themselves in each other. 3 Jane and Joanne Ormsby are twin Youth Opportunity trainees in Miami. 4 Jack Cunningham at the Miramar RATCC and 5 Thomas Cunningham at the Denver Center are twin air traffic control specialists. 6 Ella and Della Bryan at the Aeronautical Center are native Oklahomans. NAFEC's identical twins are 7 John and 8 Daniel Sommers who both work in the Aircraft Branch, Test and Evaluation Division. 9 Indianapolis Tower controller Alan L. Schwitz and 10 Atlanta Tower controller James R. Schwitz are married to twin sisters. 11 Joseph Partridge works at Edwards AFB RAPCON while his twin 12 James Partridge is an airport tower controller at Los Angeles. 13 Memphis Center relief electronic technician Ray Bendall and 14 his twin Francis, Miami Area Office electronic engineer, are a pair of FAA twins who don't look alike. 15 William J. Gainey and his twin 16 Robert Gainey are both Southern Region tower controllers, William at the Miami Tower and Robert at Fort Lauderdale.

If you should meet James R. Schwitz, controller in the Atlanta Tower and then, a couple hours later, jet over to Indianapolis and meet him again controlling traffic in the Indianapolis Tower, don't take to the aspirin. The Indianapolis controller is James' twin brother, Alan. If you should meet James' and Alan's wives, that confused mixed up feeling might start all over again. They are married to twins.

That seeing double feeling might come over you in any one of five FAA regions, Washington Headquarters, Aeronautical Center and the National Aviation Facilities Experimental Center (NAFEC).

The Southern Region gets the brass ring on twins. They have three and one-half sets out of the Agency's 13 sets. Southern's twins are Ray A. Bendall, relief electronic technician in the Memphis Center, and his twin brother, Francis, an electronic engineer in the Miami Area Office. The others are Jane and Joanne Ormsby, Youth Opportunity trainees in the Miami Area Office; Robert T. Gainey, controller in the Ft. Lauderdale Tower and his twin, William J. in the Miami Tower; and, of course, one-half of the Schwitz twins, James R.

Runner-up in the twins sweepstakes are Washington Headquarters and the Western Region each with two full sets, and the Central Region with one full set and two halves whose twin counterparts work in other FAA regions.

Besides half of the Schwitz set, the Central Region has half of the Bennett set, Clarence E., a flight service specialist in the Omaha, Neb., Flight Service Station. His twin, Claude A. Bennett, is a controller in the Boston Air Route Traffic Control Center and the only twin in the Eastern Region. The Central Region also has the Rezac twins, Joseph W., who is an air traffic control specialist in the Lincoln, Neb., RAPCON and John A., who is chief of the combined station/tower in Peoria, Ill.

The Western Region has the Cunningham and Partridge twins, all air traffic control specialists. Jack Cunningham works at the Miramar RATCC and his twin, Thomas L., is a coordinator in the Denver Center. James Partridge is an airport tower controller at Los Angeles, and Joseph Partridge works at Edwards AFB, Calif., RAPCON.

For a change of pace at Washington Headquarters, it's four girls—secretary-clerk-stenos—all from Pennsylvania. Maryann M. Patrick brightens the Office of Information Services and her petite and identical twin, Joann P. works in the Office of General Counsel. Washington also has the only FAA twins with different last names (via marriage). They are Mrs. Virginia E. Reid in the Office of Headquarters Operations and Mrs. Victoria M. Koval in Flight Standards Service.

The Alaskan Region has look-alikes, think-alikes and act-alikes in Ray and Roy Downing. Ray is a frequency management officer in the Airway Facilities Division at Anchorage, and Roy is chief, Airway Facilities District Office at Anchorage.

John and Daniel E. Sommers at NAFEC are identical twins who lead almost identical lives. Both received aeronautical engineering degrees from Catholic University in Washington, D. C. and both now work in NAFEC's Aircraft Branch, Test and Evaluation Division. John is chief of the Structures Section; Dan is in the Propulsion Section.

Ella and Della Bryan are the only pair of twins at the Aeronautical Center. Native Oklahomans, Ella is supervisor of student records in the Air Navigation Facilities Training Branch and Della is an accounts payable clerk in the Accounting Division.

The Southwest and Pacific Regions have reported no twins.

For the statistically minded, every 1,627th FAA employee in the 50 states is an identical twin.



Managers are Developed

Successful managers are not born, they're developed. And FAA has adopted a program for developing more.

FAA people move from a world of microphones, soldering irons, airplanes and radar scopes to one filled with management concepts and supervisory techniques. The vehicle is training. More than a thousand are trained each year in the Agency under a broad program of executive development, and thousands more are taught higher level skills.

A much smaller group is trained under programs designed to spot top talent early and move it into the mainstream of management while it has years of productive life ahead.

Some of the Agency's most promising young people are being trained under two such programs. One is an FAA program called Personnel Management Specialist Training. The other, called Management Intern Training, is operated in cooperation with the Civil Service Commission.

Personnel Management Specialist Training

The Personnel Management Training program was designed by practical personnel officers in the Agency's Office of Personnel and Training (PT). They call the program "Career Development." Its objective is to provide to deserving young people, who have shown outstanding aptitude, all the tools and skills for advancing rapidly

to positions of greater responsibility. All are being groomed so that when important jobs open up they will be ready.

John W. Godbold, Deputy Associate Administrator for Personnel and Training, said, "Our program provides accelerated training for well-qualified Agency employees who have solid academic and technical backgrounds. We select three to six employees each year from the Agency mission components and give them intensive training in all phases of personnel work."

"Because of the highly technical nature of FAA operations, our top managers must have knowledge and experience in the technical areas of the Agency. In personnel work, an insight into the problems and needs of the mission components is essential to a responsive personnel and training program."

Some of the men who are providing this kind of insight today include Joseph Noonan, Gregory L. McGuire, William C. Murray, Edward J. O'Connor, James Dermody and Clifford Schum.

All of these men have been in the program from two to four years. Noonan, for example, was in the Boston Air Route Traffic Control Center when he entered the program in late 1962. Now he is an employee-management cooperation specialist. McGuire entered from the San Jose, Calif., Tower at the same time and is now a personnel management specialist. O'Connor, also an employee management cooperation specialist, came from the Seattle ARTCC. All have been promoted four grades during this process of training.

The program is designed to move the best qualified people from GS-7, 8 or 9 to journeyman level—about GS-13—in four or five years. This is much faster than the normal rate of progress, according to Robert H. Willey, Associate Administrator for Personnel and Training, but it is based on two factors:

One, the FAA has a very stable work force. The low turnover rate among Agency personnel leaves little room for infusion of new blood and new ideas from other organizations, except through special programs which identify people with high aptitudes.

Two, the training program given each selectee equips them for their new responsibilities and grades.

"Only the very best people are selected for this program," Willey explains. "Six were selected for this year's program from several hundred candidates. Each of the candidates had to pass the Federal Service Entrance Examinations with an educational equivalency level of college graduates, then we made the final selections based on supervisory evaluations, personal interviews and other selection techniques."

The 14-step training program covers an 18-month period. Each trainee works in a field personnel office six months before coming to Agency Headquarters. In Washington he starts by meeting with top Agency officials and hearing briefings on top-level Agency subjects such as personnel programs described by the Associate Administrator for Personnel and Training. Here he gains an insight into personnel programs that could be obtained normally only after years of experience. Later he is assigned to a personnel job, either in the Office of Personnel and Training or in Headquarters Operations, and he continues to attend lectures and formal training courses offered through universities, the Civil Service Commission and other Government agencies. Toward the end of his training phase, he attends the Middle Management Institute operated by the Civil Service Commission.

Watching and counselling them throughout their 18-month training period and beyond is the chief of PT's Management Systems Branch, James P. Gillespie.

"Their career development doesn't end with the formalized training program," Gillespie points out. "Because of the investment we have in them at this point and the aptitudes they have shown, their assignments are monitored throughout their working careers."

Does the personnel operation have exclusive right to these selected people? Not by a long shot, Gillespie says. The program aims to develop personnel management specialists, but many trainees move to other staff assignments. This helps the primary personnel mission—40 staff the entire Agency.

Management Intern Program

New blood for all management functions is developed from outside the Agency as well as from the inside. One FAA top staff officer, Associate Administrator for Policy Development Thomas J. Tidd, entered civil service less than 15 years ago under the Management Intern Program (MI) sponsored by the Civil Service Commission. This CSC program provided the inspiration as well as the pattern for FAA's personnel management specialists.

The MI program also gives the Agency some of its best new people in many staff areas. All management interns must pass the Federal Service Entrance Examination plus an additional test. They also must pass a series of personal interviews designed to detect young people with unlimited potential. The Agency is dotted with people who came in through this program. These include: Tidd, Eric Stork, executive officer for Airports Service, and Dana



This airplane was William L. Fallon's office during his study of airport economic feasibility near small cities.

Scott, executive officer in Headquarters Operations. All were MIs in other agencies before coming to FAA.

The Agency's MI program is monitored within the Headquarters by James Antonellis of the Headquarters Operations Personnel Division. It is run independently under broad guidelines set by CSC. Antonellis insures that the selections, as well as the training, fit Agency needs. To illustrate its success, Antonellis points to a dozen products of the six-year-old program who are now in responsible positions. The list includes J. Donell Becker, Harry Bolfig, Phillip G. Davidoff, Edwin Dettman, Donald L. Dunlap, Gilbert G. Engle, Richard D. Jackson, Vieikko V. Lepisto, Don Myers, David L. Rickard, Jean McKnight-Rickard and Carlton Steins.

Of this year's six selectees, several were recruited from within the Agency. Their backgrounds are much like those of the personnel management trainees.

MI training includes periods of formal instruction and after-hours graduate study, but the core of the program is job experience at the journeyman level in a variety of substantive assignments.

For example, Edmund V. Harstrom, the youngest of this year's group, was a full-fledged member of the Agency's staffing validation team. He then worked on the reports program when it was brought under automatic data processing.

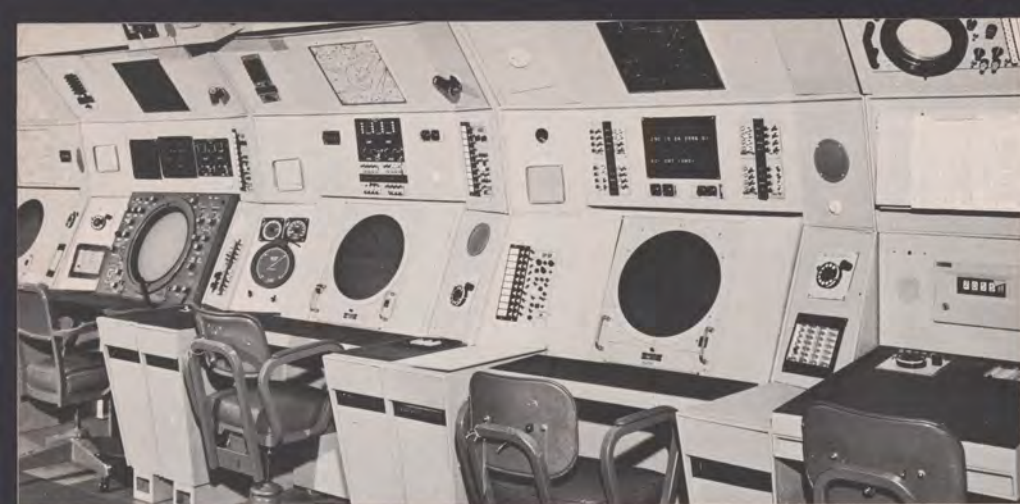
One of Dwaine Meskimen's many assignments was to develop a production measurement system in Management Services. William L. Fallon, a former Navy airborne intercept officer with a degree in economics, made a study of the economic feasibility of airports in various communities. Others worked in budget, accounting, airports, management services and general aviation, and all received a wide variety of job experience before being permanently assigned.

Training officials must prepare their people for the ever-broadening tasks of a constantly changing future. Through personnel development programs like the Management Intern and the Personnel Management Specialists Training programs, they provide the Agency's continuity. They develop potential executives with the necessary flexibility and professional background to cope with whatever the future might unfold.

Below left: Associate Administrator for Personnel and Training Robert H. Willey (pointing) personally briefs all trainees early in their training. From left, Morris J. Friloux, William J. Sasser, Alexander Faison, Paul J. Pascel, Willey, Donald R. Johnston and Lee R. Duncan. Below right: John W. Godbold, Deputy Associate Administrator for Personnel and Training, was the chief architect of the personnel training program. He is shown with trainees Alexander Faison, Samuel J. McKoy, Donald R. Johnston and Lee R. Duncan.

Trained similarly in Southern Region's program are John M. Hunter (top) and Martin F. Hogan.





Left: Four arrangements for TRACON arrival and departure positions. Right: Testing displays are NAFEC controllers, from left: Edmund Spring, John C. Ludlam, Vincent J. Sampano and William B. Checcio. Below: Jack F. Horvath at present-day TRACON console.



DESIGN FOR WORKING

Building a better "office" for the air traffic controller has the top priority of a group of FAA engineers and design experts at the National Aviation Facilities Experimental Center, Atlantic City.

Their ingenuity and the incorporation of new ideas and new methods will make the controller's job easier and help him provide better service to the aviation public.

"Controllers often work at top speed and under tremendous pressure. Their duties require intense concentration and alertness. Anything that detracts from their job—controlling air traffic—must be corrected," explained Maurice H. Raifsnider, head of the Applications Section. Air Traffic Control Systems Branch at NAFEC, who is responsible for the improvement of the Air Traffic Service system requirements. "Our job is to put the things that a controller needs to see and touch at his fingertips, where he can operate swiftly, surely and efficiently without fumbling, groping or reaching," Raifsnider said.

"In the console improvement program," Donald S. Schlots, an assistant to Raifsnider, said, "we must build on to present-day console layouts. As new equipment comes into use, and as improvements are made, we plan for systematic, orderly development. This is easier in ARTCCs because they are similar. However, TRACONs differ considerably. One of the aims of the Applications Section is to standardize TRACON consoles as much as possible."

Close liaison between the field and

NAFEC designers place controls at controllers' fingertips.

NAFEC's Applications Section is maintained. For example, the latest Center consoles were completed with the aid of eight ARTCC planning officers detailed to NAFEC.

"The field officers not only brought some of their own equipment problems with them, but they also came up with some helpful solutions in the exchange," explained Robert L. Tarr, who is responsible for new console configurations at a project level.

Configurations do not evolve overnight, Tarr pointed out. First, the floor plan is designed on paper, and then scale models are made. Finally, a full-size model console is constructed.

In answer to the question of what controllers in the field should do when they have problems or suggestions on placement or layout of equipment and controls, the section advises that they tell their designated planning officer,

who can forward the suggestions to NAFEC.

"We welcome and encourage any improvement ideas that can be universally adopted at a reasonable cost," Schlots said.

"It may be reassuring to controllers in the field to know that NAFEC does not 'sit on' its improvements," Schlots said. "There is a continuous flow to centers and towers of in-service changes and recommendations which continually modernize and up-date equipment and layouts. We pass them on as soon as they are developed and proved here in our lab," he said.

As a result of the program, some center console improvements recently recommended to Air Traffic Service were: better lighting for maps, improved strip lighting, and extension of controller's equipment racks so they can be reached more easily.

Improvement of TRACON consoles comes under the direction of project manager J. Roy Bradley, whose program on consoles and layouts started in mid-1964. He visited 11 different TRACON rooms throughout the country to check various equipment layouts. On his return to NAFEC, mock-ups were constructed, first of styrofoam, then later of wood and steel. After the completed console was installed in a TRACON room, 12 controllers from various towers throughout the country came to NAFEC and worked at the new consoles, controlling both simulated and live traffic. This group provided further rec-

ommendations and refinements to the layout. The results were sent to the field as in-service improvements.

Jack F. Horvath, assistant to Bradley, points out that innovations in TRACON rooms which will be expedited in the field soon include:

- The radar console writing area will be lighted by a recessed projector lamp which can be adjusted to reduce the size of the lighted area to as small as a pin-point.
- Fluorescent lights in console separator posts for floor lighting.
- Illumination for map displays and frequency identification strips with a night glow effect from minute wiring encased in thin plastic strips called electro-luminescent lamps.
- Display of weather observations on an 8-inch TV screen.

All these improvements will be surrounded by walls and ceilings painted with a non-reflective paint that absorbs light and eliminates reflections on radar displays. The floor will be covered with nylon carpeting in a radiant red color so that things dropped from the console will be easy to see on the floor.

In the future, according to NAFEC experts, we will see hardware improvements and new provisions for conflict predictions. Later, we will get miniaturized and consolidated equipment configurations. Still later, displays of radar targets, video mapping, alphanumeric—all coming from different sources—will pass through a computer to present an integrated picture on one display. ☀





Above: Director Phillip M. Swatek (left) examines weapons used in an airliner hi-jacking attempt. His aides, Jim Yohe, Deputy Director Hugh K. Laing and John M. Cyrocki, discuss the problem. Below left: Christian Deming signs in at the Honolulu ARTCC as asst. C&S chief. Mel Ferrera and Guard Sgt. Rodney C. Freitas check security. Below right: Rachel Aniya takes photos for ID cards.

HAWAIIAN EYES



Traveling into tomorrow or back into yesterday sounds more like the fantastic pace of our astronauts. Actually, this juggling of time is also familiar to the Agency's "Hawaiian Eyes"—the Pacific Region's Compliance and Security (C&S) Division—as they crisscross the International Date Line with regularity.

A Pacific C&S specialist may leave Regional Headquarters in Honolulu on a Saturday, travel eight hours on an airliner to Guam and lose a day in the process, arriving on a Monday morning. "This happens each time they head westward over the International Date Line," Jim Yohe, chief, Pacific C&S Division, relates.

"At Guam the same agent may then work a full week, from Monday through Friday night when he returns on an east-bound flight across the Date Line. When he arrives in Honolulu it is Friday morning and time to put in another work day."

This time problem is only one of the situations that face each Pacific C&S man. Another problem is the vast distances they must travel to make various investigations. Their investigations could take them to Samoa, Guam, Wake Island, Canton Island, Taiwan, Hong Kong, Japan and the Philippines. A single trip may total 17,000 miles.

The importance of these ocean-hopping investigators is stressed by Regional Director Phillip M. Swatek who looks upon their work in this manner:

"Conducting public business successfully requires trust and confidence," Swatek stated. "Rumors tried in the court of public gossip can do a man a great injustice. If a man errs, then I should be given the facts so that I can justly weigh the gravity of his error. On the other hand, rumors and allegations which remain neither proven nor disproven can damage the Agency's reputation and sully a man's character as viciously and slanderously as though he had committed the act rumor had him do."

"Therefore, I depend upon my C&S Division to protect the innocent as well as to find those who stray. Since here in the Pacific rumors sometime seem to speed faster over the bamboo wireless than by electrical communications, I expect the Pacific C&S to travel into tomorrow, if necessary, to perform their fact-finding missions. This, they have thus far done and this I expect they will continue to do."

When the Agency operated Canton Island the huge pig population which outnumbered people became an object of investigation. Because the island is on a flat, nearly continuous rim of coral that encircles a triangular lagoon eight miles long and four miles wide and, not suitable for much agriculture, most of the food for people and livestock must be brought in by ship or plane. The

Pacific C&S learned that someone was diverting food from the commissary to feed the pigs. Once this illegal practice was detected, commissary food requirements and costs were reduced and the culprit resigned.

Such private-tying is routine for C&S chief Jim Yohe and his staff, Mel Ferrera, George Houghton and Bernie Molmen. Their combined 60 years of experience in FAA, the military and the FBI makes short order of such matters.

International intrigue also appears from time to time. Contraband articles were being smuggled aboard United States aircraft flying between Japan and Korea. The Government of Korea, through the Department of State and FAA in Washington, requested an investigation. Although Americans were not directly involved, the investigation turned up South Korean customs violations. The Seoul government then took remedial action based on FAA findings.

When trade problems are involved, the C&S agents work closely with the customs officials of the Department of the Treasury to enforce Government trade regulations. A recent C&S study has centered around the apparent import of goods from Red China, as well as other proscribed trade practices on Wake Island and other Pacific outposts.

On Wake Island, where the FAA handles all the housekeeping facilities, it also provides technical assistance to the island's police force. The island's police chief, Stan L. E. Ho, an FAA employee, is also the special deputy U.S. Marshal. He relies on the C&S Division to investigate major crimes and to train his policemen.

Security is a big item on the island of Guam, where the constant presence of Russian trawlers near and around the island emphasizes the need for communications security.

George Harris, PAA's area manager at Guam, says that like elsewhere in the Agency, "Security is everybody's business—all the time." Constant compliance with FAA Regulations governing security of classified matter, including use of guards, fences, locks, crypto systems and control of classified documents, is a must, he said.

In a multi-racial populace where there is no majority group or, in fact, a single minority group, Pacific C&S, like its mainland counterparts, is responsible for assuring the highest possible standards of ethical, trustworthy and non-discriminatory conduct among employees and representatives; nondiscriminatory practices by contractors and sponsors; contractors and related organizations; personnel security; security of information and property, and for the conduct of investigations to meet the needs of the Agency.

C&S special agent George Houghton checks an aircraft for alleged traces of sabotage.



Jim Yohe, C&S chief, and Honolulu Police Chief Dan Lieu watch chemist Raymond K. T. Yee check a gun.



Security requires lock combination changes Bernie Molmen tells Al Schilling, Comm Center chief.



After Charles F. Holland got his gear aboard an FAA jet in Oklahoma City, the plane began its six-hour 40-minute flight to Paramaribo, Surinam, in South America. Holland, lead mechanic in a four-man engine change crew, sat back in the cabin with mechanics Myrl E. Cooper and Kenneth L. Tenpenny and electrician Gale E. Braden. They were crammed in with their gear—a dismantled Allison turboprop engine, engine work stands and other mechanical paraphernalia. Up front in the cockpit were FAA pilot Leo J. Suter, co-pilot C. D. Chapman and navigator Will E. Gresham.

N-98, the Boeing jet C-135, was on its way to help N-102, a turbo-prop Convair, grounded at Zandery Airport in Paramaribo. N-102 had one engine go out while on a routine SAFI (Semi-Automatic Flight Inspection) mission in South America. A call for help to the Power-plant Section of the Aircraft Services Base Overhaul and Modification Branch at the Aeronautical Center, Oklahoma City, started N-98 on its way.

Such calls are somewhat routine and could come from any one of the FAA's five Convair and 47 DC-3 flight inspection crews flight checking the vast airspace system used by pilots all over the world.

Each call means special problems. At Zandery Airport, a fork lift and a hoist were needed to get the heavy engine and other equipment out of the airplane. None were available until Pan American World Airways' chief mechanic located one in a local bauxite mine. It was available for one day only to unload the equipment. Since a hoist was needed later to hang the new engine, another was borrowed from

KLM Royal Dutch Airlines at Zandery. Pan American loaned its baggage cart to the FAA engine crew to transport heavy engine parts.

Six days after Holland's crew had arrived at Zandery, N-102 was ready to go back to work. Run-ups, checks, inspections and flight tests were completed and the aircraft was back on the line.

While the South American trip posed its special problems, other trips are equally challenging to the crews. One crew made an engine change in Akron, Colo., while the temperature was 20 degrees below zero. Another crew made a change in Duluth, Minn., while the thermometer read minus eight on the warmest day. There was no shelter for the men other than a three-sided windbreak. Another crew made an engine change in an Arizona temperature of 120 degrees. They kept their tools in the shade of the aircraft so they wouldn't be too hot to handle.

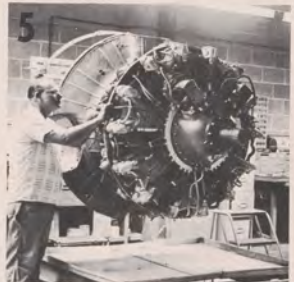
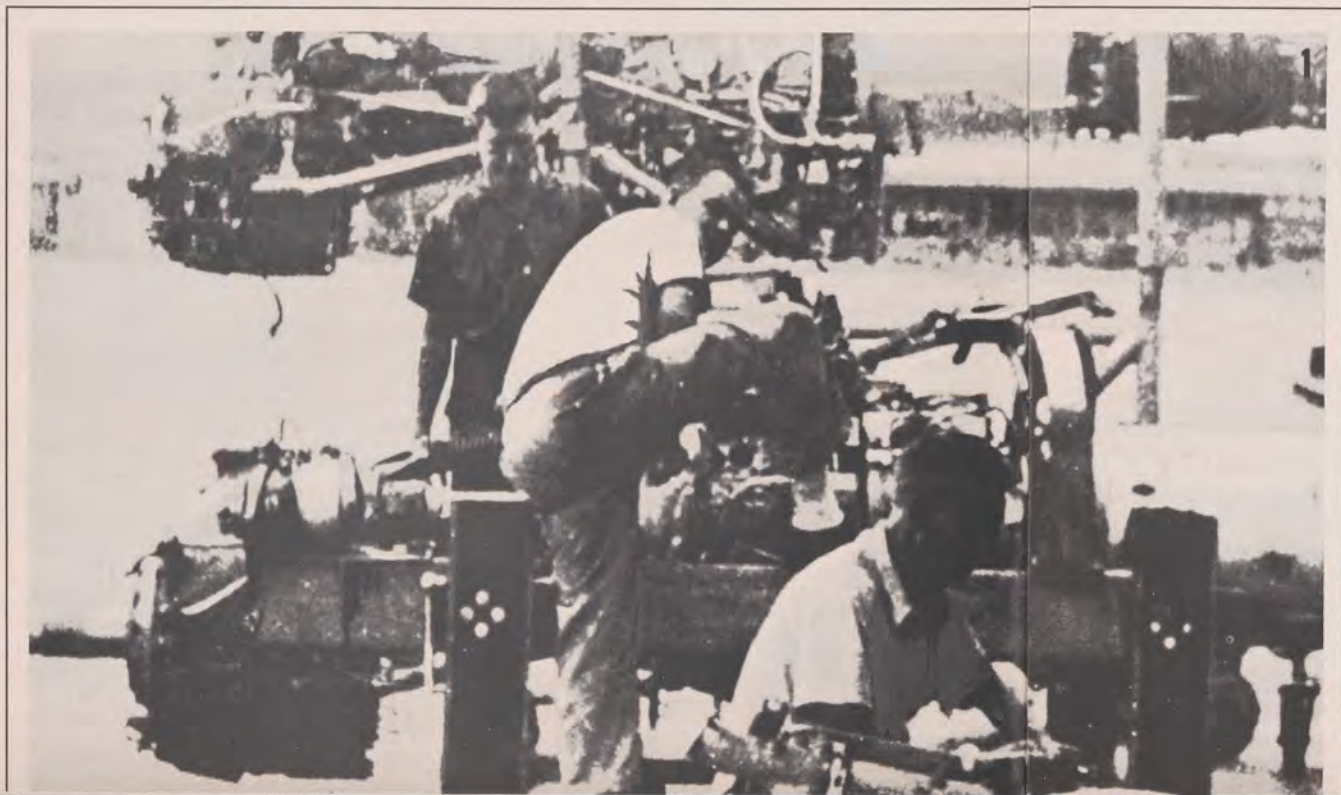
Although the Aircraft Services Base supplies all types of engines throughout the continental U.S. and elsewhere on occasion, emergency crews do not make all the changes. Some are performed by regional personnel.

Each call for help is treated according to its own particular set of circumstances. However, in fiscal year 1965, Aeronautical Center mechanics answered 28 emergencies. In fiscal 1966 through the first part of February, they answered 19 calls.

Members of the engine change crew are on call around the clock, work in all kinds of weather and never know where they might go next.



engine out over **SURINAM**



1 An engine change crew works on an engine in Surinam. 2 Using one of many skills needed in rebuilding aircraft engines, electricians are shown in different stages of wiring two aircraft engines. From left are Donald L. Scholle, William Sheltman, Henry Harden and H. O. Nordman. 3 FAA inspector Virgil Turner, second from left, checks Convair engine repaired by mechanics, from left, Royce R. Dale, Auddie Howards and Lyndall Linder. 4 Lee Williams adjusts vacuum test machine to check relief valves. 5 Burdette E. Brown builds up PW R-2000-4 engine for DC-3, one of 208 engine changes completed by his branch during fiscal year 1965.

Over These Prison WALLS



An incredibly modest person, Lee Mercure would disclaim credit—but the truth is that this General Aviation District Office supervisor in Atlanta has helped to write a remarkable chapter in American aviation. It is part of an unusual story about a prisoner, prison officials and a few outsiders who have accomplished an extraordinary first: the introduction of FAA-approved, aviation ground school instruction within a penal institution.

The prisoner's name is Doug; he entered the Federal Penitentiary in Atlanta four years ago. Doug had been a pilot with one of the nation's major airlines, a 48-year-old flying veteran with more than 12,000 hours of flight time. Before joining the airline, Doug had seen aerial combat during the Battle of Britain. He had flown the "Hump" as a civilian pilot with the Air Transport Command, had served two years as a naval flight instructor, and had done some bush flying in Canada. But Doug, the man—not Doug, the pilot—made a costly mistake and is now serving his sentence.

In September 1963, "just for something to do," Doug went to the official of the prison's education department with his proposal for a course in "Dynamics of Aviation." Although there were neither funds nor facilities available for such a program, Doug argued that he could develop, organize and teach the class himself—especially since he was a licensed instructor. The officials gave Doug a classroom, but made it clear that his new project could not interfere with his regular prison assignments.

Through the prison's assistant supervisor of Education, Rex F. McMullan, Doug corresponded with members of the

aviation community to obtain current data for his instruction materials. Four government departments, his former airline and three major aircraft manufacturing companies provided enough statistical information, charts and maps for Doug to prepare a comprehensive text book entitled *Pre-Flight to Flight*. This 150-page manual, which Doug personally wrote, typed, illustrated, mimeographed and bound in his spare time, comprises most phases of aeronautical knowledge. It includes the theory of aerodynamics, design of an airplane, instrumentation, navigation, meteorology, teletype reporting, radio direction finding, air traffic control, medical certification and flight and written prerequisites for a private pilot's license.

As supplemental material, Doug fashioned replicas of cockpit instruments from black construction paper, glue and white ink. He gave his remarkably accurate drawings to another inmate, Tony, the prison photographer. Tony photographed the separate instruments and enlarged the prints. Together, Doug and Tony designed a mock-up of a cockpit panel and installed it in the front of the classroom. Doug also constructed model planes from scratch and posted other graphic material on magnetic boards.

In one month, Doug had collected enough materials to begin the course. Notices announcing the course were posted on bulletin boards throughout the prison, and toward the end of October Doug opened his classroom door to a handful of curious students. The classes were scheduled for two and a half hours each week for 20 weeks, amounting to a total of 50 classroom hours.



Lee Mercure is the only outsider actively participating in the program.



◀ Doug, the prisoner who initially developed the program, shows a cockpit instrument display he made from scratch to Lee Mercure, Atlanta GADO supervisor. An inmate, John, studies today. He looks forward to tomorrow when he plans to get his private pilot license.



One of the outsiders who was contacted for information was Lee Mercure, supervisor of the FAA's General Aviation District Office in Atlanta. A soft-spoken, sympathetic man, Mercure has rendered enormous contributions to aviation development. Characteristically, he approached the project gingerly, lest Doug or the prison officials think he was moving in uninvited. Mercure visited Doug and the prison's educator, McMullan, and learned what had been accomplished. He attended class as an advisor and as guest lecturer. He sent FAA pamphlets and publications to all class members. Then, impressed by the professionalism of the instruction and the progress of the students, he volunteered to administer the written section of the Private Pilot Examination to all those who had graduated from "Dynamics of Aviation."

On Dec. 28, 1965, the test was given to the 19 inmates then enrolled in the course. Ten passed. This was discouraging to the inmates until Mercure told them that he had administered the same test on the outside to 40 students and not one had passed. According to Mercure, approximately 70 per cent of those who take the written section of the exam fail on their first try.

To those inmates who are not scheduled for imminent release, the aviation ground school course can continue to provide diversion from the more austere aspects of their daily lives. It has proven to be both therapeutic and motivational. But for those who will be leaving Atlanta soon to begin life anew, flying could open new doors of opportunity—vocational or recreational—if they continue to take flight training.

Because of his exceptional prison record, Doug will be released in June. He will get a second chance. Lee Mercure, having written one chapter, now is working on the epilogue. Impressed with Doug's understanding of aviation and his ability to infuse others with enthusiasm and patience, he has pledged to make Doug's talents known to those who might benefit from them. 🌻

From left: Mercure shows results of prisoners' written Private Pilot exams to prison officials C. J. Eckenrope, associate warden, and Rex McMullan, education supervisor.

FLAWLESS OPERATIONS EARN UNIT 'PROUD' AWARD



Aeronautical Center Director W. Lloyd Lane (left) poses with members of the first unit to receive the Center's PROUD Award. From left are: Arthur L. Moss, Betty C. Lane, Albert R. May, Mrs. Betty J. Bullington, Larry A. Martin and Vincent F. Burton. Five other members of the Communications Unit were proudly working at the time.

Nine Aeronautical Center employees in the Teletype Unit were honored recently when they received the Center's first unit PROUD award.

Center Director W. Lloyd Lane presented the award to the group in recognition "of their sustained error-free performance during October 1965."

The unit, which is part of the Center's Communication Section, processed 2,403 messages during that period without a single error.

According to their supervisor, Albert R. May, the group is on its way to another error-less period. At this writing they have already recorded another month and a half of error-free operation.

The nine honored were: Albert R. May, unit supervisor; Larry A. Martin, chief, Communication Section; and general communications operators Mrs. Betty C. Lane, Waymon C. Allen, Donald R. Brumbaugh, Mrs. Barbara R. Taylor, Mrs. Jewel S. Ramsey, Mrs. Dorothy J. Whitley and Mrs. Betty J.

Agency to Save \$200,000 with NAFEC Developed Kit

A modification kit for the Radar Bright Display Equipment (RBDE-5) was devised recently to permit its storage tube to be used in another model, the RBDE-4. Interchangeability of the tube will save the Agency \$200,000 annually.

Other projects underway at the National Aviation Facilities Experimental Center are:

- Air traffic in the New York area is being duplicated on radar in the simulation lab. Here, the approach controls of the three major New York airports

Bullington.

In addition to the Center's award, the unit was singled out as the "Tributary of the Month" by the Defense Communication Systems (DCS) Newsletter recently. The unit is one of the stations on the network of the Joint Chiefs of Staff Defense Communication System. It was cited as one of the most effective stations in the DCS network for a one month period.

The PROUD award program at the Aeronautical Center was initiated in September 1965 to encourage employees to perform perfect workmanship. Since that time employees have been singled out because they have followed the philosophy of the PROUD program which states, "If any job can be done right the second time, it can be done right the first time."

Monthly PROUD recognition certificates are presented by Director Lane to those employees or employee groups who have turned in error-free performance.

have been combined into a single super approach control for observations and testing purposes.

- Auto-rotation tests on the Sikorsky S-58 helicopter ended. The flights, taking place at several sites in California, were run to determine minimum altitudes and airspeeds that a large single rotor helicopter could safely auto-rotate (glide) to a landing if its engine lost power.

- A new radio altimeter was flight tested using the phototheodolite range to double-check its accuracy.

Eighteen Prescott FAAers Adopt Boy in the Foster Parent Plan

The Prescott, Ariz., Flight Service Station and Airway Facilities Office adopted an 11-year-old Filipino boy, Dante Sadsad, through the Foster Parent Plan.

Dante lives in Manila with his mother, three sisters and a brother. Since the father's death, the family has been subsisting at poverty level.

Adoption through the Foster Parent Plan assures Dante a monthly cash grant of \$8, food, special assistance, medical care and professional counseling for the entire family by personnel connected with the plan.

IFR-SIP Test Program Underway In Seven Southern Region States

A test program known as the Instrument Flight Rules—Systems Indoctrination Program (IFR-SIP) has been designed to introduce the benefits of the national airspace system to general aviation pilots while also encouraging their greater use of it. The test got underway in February in the seven states that comprise the Southern Region.

IFR-SIP encourages instrument qualified pilots to gain instrument operating experience in the national airspace system by providing them with special pre-flight and inflight services. Pilots need only request SIP handling when filing IFR flight plans.

Prior to take off, each pilot participating in the SIP program is given a detailed weather briefing by FAA personnel. Clearances also are reviewed to make certain the pilot understands fully the assigned altitudes, routes and radio frequencies.

In flight, air traffic control radar service is provided each SIP pilot. He is briefed frequently on his radar position and distance to his destination. Reminders on radio frequency and direction changes also are given regularly.

"Many instrument rated pilots tell us that they are reluctant to fly on instruments in the national airspace system because they believe the system is too complicated for their limited experience," said James D. Rogers, Southern Region Director. "However, we believe that less experienced pilots who participate in the SIP program will find the system to be less complicated than they imagine. It will help them become so proficient they will be able to fly on instruments in the future with increased confidence."

NEW TOWER AT ANDREWS WILL SYMBOLIZE FAA-AIR FORCE COOPERATION



Top brass dig in at March 4 ground breaking ceremony for a new FAA tower at Andrews Air Force Base. From left are: Brig. Gen. John S. Chandler, Commander of Andrews; Major General Rollen H. Anthis, Commander of the Headquarters Command; Oscar Bakke, Eastern Region Director, and Stanley W. Henceroth, Washington Area Manager.

A ground breaking ceremony officially launched construction of a new air traffic control tower at Andrews Air Force Base, Md., on March 4.

Eastern Region Director Oscar Bakke hailed the new tower as "a significant new chapter in the FAA-Air Force relationship," and noted that "this will be the first FAA tower to be built on a U.S. Air Force installation."

Air Force Maj. Gen. Rollen H. Anthis, Commander, Headquarters Command, Bolling Air Force Base, declared that "the scope of operations at Andrews

are such to demand the finest facilities. The arrival and departure of the President of the United States alone attests to this."

General Anthis added that air operations at the base have risen sharply from about 150,000 in 1960 to 228,000 in 1965.

The new Andrews Tower is expected to be commissioned on or about Sept. 30, 1967.

The design provides for a free-standing, reinforced concrete tower shaft, with equipment areas and administrative

space in a special concrete building at the base of the shaft. A pentagon-shaped control tower cab, approximately 400 square feet in area, will be located atop the shaft at a nominal height of 120 feet above ground level. The base building will contain approximately 11,500 square feet in area.

The new tower will also include an airport surface detection equipment (ASDE) radar system, with the ASDE radar antenna located on the roof of the tower cab. Adequate lateral expansion will be available in the base structure to allow the facility to keep pace with increased air base activity and improvements in technology which may call for additional equipment installation in the future.

Resident engineer for the construction work will be Leon DeLude of Eastern Region's Washington Area Office.

The new tower will house the RAPCON facility which is located three miles from the present tower, thus alleviating a problem in effective controller use.

Eastern Region officials attending the ceremony included Air Traffic Division chief Robert W. Martin, Airway Facilities Division chief Ernest Gayle, Washington Center chief Joseph Wilson, Andrews Tower chief Robert Beck, AFS-312 chief James Brinkley and Lt. Col. Alan B. Thomas, Eastern Region Air Force Representative.

The Region's Washington Area Office was represented by area manager Stanley W. Henceroth, Air Traffic Branch chief L. I. Pearce and Airway Facilities Branch chief John McGiverin.

Minneapolis Shares Conference Room

Minneapolis area manager Lyle K. Brown introduced the Area Office to city and airport officials by the simple device of inviting the Minneapolis-St. Paul Airports Commission to hold its regular meeting in his conference room. Following the first meeting, Minneapolis Mayor Arthur Haftalin and St. Paul Mayor George J. Vavoulis, with other commission members, were given a tour of the Area Office.



Fibber McGee's Closet Had Nothing on Wanamaker's

Air travelers tend to be honest, but they also tend to be careless with their personal belongings. The man who made these observations emphasized his point with a \$20 bill found on the lobby floor in the main terminal of Washington National Airport.

Police Officer Herbert G. Wanamaker of FAA's Bureau of National Capital Airports police force tells dozens of similar stories to illustrate his faith in human honesty—and carelessness. Wanamaker runs the lost and found service at the Washington National Airport. (Airlines provide their own service for items lost on aircraft.)

Cameras, glasses, golf clubs and even a wig clutter the storeroom where lost and found items are held for safekeeping. The most puzzling items in Wanamaker's collection are two pairs of crutches.

The lost glasses, books, earrings and umbrellas are easy to understand, he agrees. Most are found in or near telephone booths. The lady removes her earring before putting the phone receiver to her ear. The man refers to his address book for a local number then forgets it as he talks to a friend.

The address book, even with all its names and numbers, is one of the hardest items to trace. Wanamaker said. The owner seldom puts his name in an address book.

A friend's phone number left in a telephone booth did help a man recover his wallet containing \$640. The only clue was a number scribbled on a piece of paper left in the phone booth. A telephone call revealed that a service-



All these items were left in the terminal building of Washington National Airport. Wanamaker catalogs and cares for the lost goods while he tries to trace owners with every sleuthing technique he learned during 30 years on the District of Columbia Police Force. The unclaimed crutches are the big puzzle.

man returning from Panama had just called his uncle at that number. Soon he came to recover his money.

Not everybody is as prompt in picking up lost possessions, even after they are contacted. Books, handbags, briefcases and cameras remain unclaimed for weeks after their owners have been notified. Serial numbers of articles so marked are checked with manufac-

turer's and all items are thoroughly searched for clues.

Washington National Airport Police Chief James P. Dillon says as many as three or four letters often are sent to trace a single item. Even when a local owner is identified, he doesn't always take the trouble to call for his property. A set of golf clubs has been held since December, but Dillon predicts that the owner and good weather will show up at the same time. Others who have had property mailed to them, after astute detective work has traced them, fail to acknowledge its receipt. Even when money is returned, police often have to depend on money-order receipts to be sure the owner received it.

During the first two months of this year, 183 items were found in the Washington National Airport terminal. Of these, 50 per cent were returned to their owners in less than 90 days. Items unclaimed after 90 days can be claimed by the finder, unless he is an employee of the Bureau of National Airports. Policemen and other airport employees are the most frequent finders, but they cannot claim the items even if the owner is never found. After 120 days, unclaimed items are sent to the General Services Administration Surplus Disposal Office.

Wanamaker, keeper of the lost and found department, has the expertise developed during 31 years on the District of Columbia police force, 15 as a detective and later as a lieutenant. He says the \$20 will be turned over to the U. S. Treasurer unless the loser or the finder shows up to claim it.

Joint CAB-FAA Accident Investigation School Has the International Look



Accident Investigation School Instructor Clifford G. Sheker (with pointer) uses a damaged airfoil to illustrate his lecture. His students are, from left, Capt. Jorge Daza of Colombia; Lennart A. Bergstroem of Sweden; Sheker; W. James Dick of Canada; Capt. Patrick McCabe of Ireland; and Chavez J. Munguia of Mexico.

The 18th accident investigation graduating class at the National Aircraft Accident Investigation School (NAAIS) in Oklahoma City was represented internationally by students from five countries who completed the four-week course. Eleven other students represented the armed forces, the Civil Aeronautics Board and the FAA.

The NAAIS, a joint CAB-FAA venture, trains personnel in all areas of accident investigation techniques from the searching of the crash site for possible clues to witness interrogation.

The March graduating class included: from FAA—John A. Calton, Kansas City,

and Thomas J. Sharp, Miami; from CAB—William H. Collins, Des Plaines, Ill.; Thomas W. Lewis, Washington; Edwin V. Nelmes and Thomas W. Watson, both of Miami Springs, Fla.; from USAF—Capt. William E. Branch Jr., Scott AFB, Ill.; Capt. Don L. Dinger, Stewart AFB, Tenn.; Col. William R. Grady, Norton AFB, Calif.; Maj. Walter F. Pratt, Stewart AFB, N.Y.; and from Army—Richard K. Bell, Fort Rucker, Ala.

Graduates from foreign countries were: L. A. Bergstroem of Sweden, Capt. J. Daza of Columbia, W. J. Dick of Canada, Capt. T. McCabe of Ireland and C. J. Munguia of Mexico.

FLY-AWAY ACCIDENT KITS GET COLD TREATMENT

The Western Region "fly-away" accident investigation kit recently was tested successfully under high altitude, cold weather conditions by the Airway Facilities Branch of the Los Angeles Area Office.

The Forest Service set up two mountaintop sites for the tests in the San Bernardino National Forest near Los Angeles. One was at the 8,500-foot level and the other at 6,850.

The tests showed that good communications could be established between the mountain test sites and Regional Headquarters, Regional Director Joseph H. Tippett said. They also demonstrated the feasibility of establishing communications with four stations in the region's Emergency Communications Network, at distances up to 260 miles.

Communications components of the special kit are designed to allow accident investigators to contact aircraft flying in the vicinity of the accident site or with the Regional Headquarters Communications Center.

Temperatures at the test sites dropped to 10 degrees above zero during the test period. Portable engine generators included in the "fly-away" kit started easily even after overnight storage at these low temperatures.

The kit also contains a portable antenna, tape recorders, walkie-talkies, a tent, an autopsy kit, miscellaneous tools and a supply of bright-colored orange coveralls for accident investigators to wear.

Representatives from Salt Lake City and Seattle participated in the tests.

Southwest Region Assured Power Priorities in Five-State Area



Southwest Regional Director Henry L. Newman signs an agreement for priority power with a group of electrical companies represented by Charles N. Custer (right, seated). Watching the signing were, from left, division chiefs, Leland H. Hayden, Airway Facilities and J. W. Skolaut, Defense Readiness, and Regional Deputy Director A. L. Coulter. It provides emergency power.

FAA's electrical power needs in the Southwestern Region now rank with the emergency needs of hospitals, fire and police stations.

Henry L. Newman, Regional Director, signed an agreement to that effect with an industry group represented by Charles N. Custer, executive director of the Southwest Region Group which supplies electrical power to FAA facilities in a five-state area.

The agreement assures FAA of the retention and priority restoration of electrical power to critical air traffic control and air navigation aids in time of national disaster. It is an out-growth of the devastation wrought by Hurricane Betsy in Gulf Coast areas last year.

Listings of FAA facilities in preferential order showing geographical location as well as the voltage phase and kilovolt-amperes (KVA) load will be coordinated by Custer with individual electrical power supplies. It will assist crews in locating and providing emergency service.

IT'S A MATTER OF DIRECTION

If you want to know how to set up your antenna properly to receive VHF signals transmitted from a satellite such as the Early Bird, you should get in touch with Thomas H. Barton, NAFEC communications engineer.

Barton completed a study recently that indicated how antennas must be changed during the day to get optimum signals from a satellite. Variations in the ionosphere throughout the day make it necessary to shift antenna positions, Barton said.

Alaskan EMTs Learn About Low Frequency Ranges



Some Alaskan electronic maintenance technicians are coming around full circle as they once again turn their attention to the intricacies of the low frequency radio range in an EMT training course conducted at Anchorage. Above left: Chad L. Jasper from Biorka and Lee H. Sarver, senior technician in charge at Moses Point, work out a graph problem. Top right: Jasper, Sarver and Phillip J. Kish of Bettles listen as Fred Biesemeyer, Airway Facilities Division instructor, shows them how to tune a low frequency range transmitter. Below right: course instructor Don L. Scroggs double checks computations with Gary L. Aune from Duncan Canal during the LF course.

Electronics maintenance technicians in the Alaskan Region are returning to school to learn how to service and maintain low frequency radio ranges in Alaska.

"This is where I came in," some thought when instructor Don L. Scroggs discussed the new course with prospective EMTs. Most of the technicians had long since graduated from radio ranges to the more sophisticated, modern nav-aids—the VORS.

The low frequency radio ranges and beacons have been retained in Alaska to



FSS CONTROLLERS WIN PRAISE FOR PILOT SAVE

Administrator McKee commended two Morgantown, W. Va., FSS controllers for talking down a pilot in distress to a safe landing.

Charles Derry and Dominick Bellotte were commended by Administrator McKee who said: "... It is clear that you have more than met the President's objective that every American receive from his Government the fastest, most efficient and most courteous service. I am proud to express my appreciation for your splendid performance in carrying out FAA's primary mission—to provide safety and service to the public."

The Administrator's praise was prompted by a letter from pilot George W. Fallon who credited Derry and Bellotte with saving his life.

While en route from Winchester, Va., to Morgantown in his Cessna 175, Fallon ran into bad weather. His plane started to ice-up, his omni was not working properly, his fuel was running low and he was lost.

Then Fallon contacted the Morgan-

town FSS for assistance. Derry and Bellotte obtained VOR bearings on his plane and figured his position as over Parsons, W. Va.

The State Police at Parsons were asked to clear the town's main street for a possible emergency landing and to ask some of the townspeople to put their cars on facing into the wind at an old emergency field. Fallon, who was told to take his choice, chose the field.

Ten minutes later the silence was broken and a State trooper reported, "The pilot's down. He's okay and so is his plane. Not a scratch."

In a letter to the Administrator, Fallon said, "The efforts of Charles Derry and Dominick Bellotte saved my life."

Congressman Harley O. Staggers of West Virginia also commended the two FAAers for their assist, crediting them with courage, coolness and ingenuity. The Congressman also voiced his praise of Derry and Bellotte on the floor of the House, where he read accounts of their deeds into the Congressional Record.

Flying Dental Services on Trial In Alaska; First Round A Success



Dr. Joseph R. Cumming prepares his portable equipment to fill a tooth of Kotzebue facility chief Anthony J. Narcisso, while Cumming's nurse, Muriel Borden, stands by. Alaska's Flying Dentist Program was tested in Kotzebue and will be continued at other remote places.

Alaska's first Flying Dentist program was termed a success recently when a dentist and an assistant were airlifted to Kotzebue, north of the Arctic Circle, to perform dental work on FAA and ESSA (Weather Bureau) personnel and their families.

Dr. Joseph R. Cumming and his assistant, nurse Muriel Borden, were given complete Agency support—transportation, office space, lodging and use of equipment—during this four-day trial in Kotzebue.

Other trials, with other dentists from the Alaskan Dental Association participating, are being planned for other remote Alaskan locations.

Praising the new program, Regional Director George M. Gary said, "We estimate that our personnel saved \$3,900 in travel expenses and saved the Agency 25 days of sick leave."

Previously, Alaskan FAAers serving in bush stations had to take sick leave and pay their own travel expenses to visit a dentist in one of the larger Alaskan cities.

Modesto Controller's Eye View Appears on Telephone Directory

A controller's eye view of the Modesto, Calif., Airport including the VOR, hangars and tiedown areas decorates the cover of the new Modesto, Calif., telephone directory. The foreground of the color photograph is a section of the FAA tower cab interior.

Tower Chief Clyde C. Hengl assisted the Pacific Telephone Company photographer who took the photo which will be seen by all telephone subscribers in Stanislaus County.

TWO TRI-CORNERED PANTS SET 'SAVES' REPORTED

A frantic mother tried desperately to help her seven-month-old son who had choked on a lollipop as she drove through suburban Atlantic City. When another motorist spotted her standing by her car, he stopped, held the child upside down by the ankles and patted him on the back. Out popped the lollipop.

Several thousand miles away another baby was in trouble. Two Salt Lake City men, en route to work on a bitterly cold night, rescued a one-year-old child they found crawling through the snow.

Both babies were rescued by FAA men who are experienced in effecting "saves" but whose beneficiaries are more apt to be in Tri-Pacers than tri-cornered pants.

The Atlantic City good Samaritan was a controller at NAFEC, Friend J. Whipple. He left the scene of his rescue without identifying himself, but the mother suspected that he was a NAFEC employee and reported it through the weekly INTERCOM. Later, NAFEC Director Jack G. Webb presented Whipple a letter of commendation for the deed, his fifth citation in 19 years service.

Controllers Saylor C. Jeppson and Earl M. Turner of Salt Lake City



NAFEC Director Jack G. Webb (left) received the thanks of Mrs. Florence String for the baby "save" that Friend J. Whipple, a NAFEC air traffic controller, accomplished when he dislodged a lollipop which was stuck in her son's throat. Son Michael minus the lollipop is held by Whipple who came to Mrs. String's rescue.

ARTCC didn't have a chance for anonymity after they rescued the snow-bound baby. They knocked on several doors before finding the baby's parents. The shocked parents thought the baby was still sleeping safely in his crib.

Jeppson remarked, "The lower half of the little fellow's fuselage was saturated with icy water from a ditch he'd just forded." Their quick application of warm overcoats saved him from an ordeal that could have been fatal in another 20 or 30 minutes.

Alaskan Region Conducts 'Wide Awake II' Exercise



Ralph F. Westover, defense readiness office of the Alaskan Region (left), explains the simulated conditions of the defense readiness exercise to Edward Tomas, his Southern Region counterpart, an observer.

A report that four parachutists had killed two Alaskans and held another at gunpoint for nearly two days touched off the simulated conditions for an Alaskan defense readiness exercise recently.

The Region-wide exercise called "Wide Awake II" pressed into action all the Alaskan field stations. It gave Regional Director George M. Gary and his staff

experience in operating from an emergency headquarters during simulated war conditions.

Elements of the Regional Headquarters were airlifted to the Regional Records Center south of Anchorage for the exercise. Here they evaluated reports of battle damage, sabotage to FAA facilities and injuries to Agency personnel and their dependents. The reports provided the basis for decisions to restore disrupted services, evacuate personnel and move men and equipment where they were needed.

The exercise, planned by Defense Readiness officer Ralph F. Westover, stressed realism.

"A defense readiness plan is not worth the paper it is written on unless each and every participant knows his role and can be counted on to carry it out under unpredictable conditions, night or day, summer or winter," Westover said.

The exercise assumed that for weeks unfriendly nations had been turning up the cold war thermostats gradually at points around the world and that saboteurs had actually invaded Alaska.

Pilot's 'Mayday' Call in Pueblo Is Answered; It All Ends Happily

A "Mayday" call recently at Pueblo, Colo., resulted in a happy ending.

The light plane pilot was approaching his destination when his engine began to lose power. The pilot declared an emergency and told the Pueblo Tower he was approximately 10 miles southeast of the airport and he had to land. Then no more was heard.

An Army L-20 pilot from Fort Carson and two Army helicopters began to search for the downed plane.

Another aircraft, piloted by Robert Cloqitt en route from Albuquerque to Denver, joined the search. Two hours and 20 minutes later, Cloqitt found the downed airplane.

He circled the site until the Pueblo Tower dispatched the helicopters to the scene. One of the helicopters picked up the uninjured pilot and flew him to the Pueblo Airport.

The Pueblo Combined Station/Tower crew that handled the affair so efficiently were Marvin C. White, Dewey Donato, Frank Rose and James Baldwin.

Anchorage Federal Executives Pick George M. Gary President

Alaskan Regional Director George M. Gary was elected president of the newly organized Anchorage Federal Executive Association recently.

The Anchorage Federal Executive Association joins 68 similar associations and Federal Executive Boards located in centers of major Federal activities throughout the country. The groups are an outgrowth of the President's desire to coordinate national goals that are common to most agencies. These goals include equal employment opportunity, manpower utilization, State and local liaison and management improvement.

Describing the new association, Gary pointed to the need and opportunity for joint action among Federal agencies in such activities as emergency readiness, community relations, fund raising, automatic data processing and joint use of facilities.

"This association represents the first formal framework to strengthen inter-agency understanding and mutual assistance in the Anchorage area," Gary said. "We shall seek ways to improve management and broaden the perspectives of field officials on an organized regional basis in south central Alaska."

MAINTENANCE BASE WINS DIRECTOR'S TROPHY



Phillip M. Swatek, Pacific Region Director, third from left, presented the Pacific Region Director's Safety Trophy for 1965 to the Honolulu Aircraft Maintenance Base at Honolulu International Airport for "your noteworthy interest in making the base a safer place to work." From left, are: John Cyrocki, Herbert Gardiner, Swatek, William Chang, Paul Moy, James Forsyth, and Roy Johnson.

Flight Inspection Pilots Report Hourly Weather in Eastern Region

Flight inspection pilots in the Eastern Region's 15-state area this month concluded a 90-day test program of radioing hourly weather reports to flight service stations as they regularly conducted in-flight accuracy checks of ground navids. The program now being evaluated, was carried out to determine whether such reports can improve weather briefing and forecasting services to general aviation pilots.

The FAA pilots reported the presence of turbulence, thunderstorms, visibility under five miles, cloud ceilings under 5,000 feet and any unusual weather conditions which could affect flight safety.

Nearly 300 flight service stations provide pre-flight and in-flight weather briefing services to pilots. These briefings, for the most part, are based upon regular surface weather observations made by both FAA and U.S. Weather Bureau observers and transmitted to all flight service stations via the Weather Bureau's teletype network. General aviation pilots rely almost entirely upon this information for planning and conducting their flights.

Currently, to supplement surface observations, pilots are encouraged to radio flight service stations with reports of adverse weather conditions. But these reports are received only sporadically. The FAA test provided regular weather observations by pilots flying daily missions and who, oftentimes, were in a much better position to observe weather movement and changes.

FAA TALKS JOBS



Oakland Center flight data aid Alex C. Sola and classification specialist Jeanne Honck (center) discuss job needs at the San Francisco Job Fair.

COMMUNITY AID IS AIM OF OKLAHOMA EMPLOYEES



Aeronautical Center employees in Oklahoma City who helped organize a Moore, Okla., defense and disaster rescue program are, front—William H. Barnes, Depot; Ronald R. Templin, Aircraft Services; and Defense Readiness Officer William H. Bond. Rear—Bernard Waddell, Depot; Kenneth E. Baker, Depot; John Gordon, Academy, and Leonard Daily, Aircraft Services. Not in the photograph—Leander F. Walker Jr., Academy.

Aeronautical Center employees who live in the Moore, Okla., area recently established a local Civil Air Patrol Squadron for the betterment of their community.

Maj. Stephen E. DuLude, FAA Material Depot, is commander of the Moore CAP Squadron. Other members include Lt. Kenneth E. Baker; Capt. William H. Barnes, and Capt. Bernard Waddell, all

of the FAA Material Depot, and Lt. Leonard A. Dailey, Aircraft Services Base. Others in the squadron are John Gordon, past president of the Moore Kiwanis Club, and Leander F. Walker, photographer for the group. Both are with the FAA Academy. Ronald R. Templin of the Center's Aircraft Services Base is past commander of the unit.

During the fall of 1965, the Moore Civil Air Patrol Squadron began a civil defense and disaster-rescue program for the community. William H. Bond, Aeronautical Center defense readiness officer, the local Civil Defense Director and other officials met with the squadron's planning group.

The unit was organized after a tornado ripped through the town's outskirts, leaving ragged edges on an otherwise beautiful community. Now it has a well-organized team centered around the squadron's rescue facilities that are used in numerous search and rescue operations for lost aircraft. The group is equipped with a crash-rescue vehicle, an ambulance and communications gear.

San Joseans Get Tower Look-See on Airport Day

More than 125,000 persons visited San Jose, Calif., Municipal Airport recently on "Visit Your Airport Day." Tower visitors numbered 852 and about 100 others had to be turned away because only 15 persons could be allowed in the tower cab at one time.

Despite the crush of visitors, controllers at San Jose chalked up a new service record. They handled a total of 1,557 operations during the day. Martin W. Henkel, tower chief, reported that busy hour counts ran up to 222 and averaged more than 200 per hour between 1 and 6 p.m.

"No overtime was required and other than hoarse voices among the controllers, there were no accidents, incidents or injuries," he said.

Glenn E. Miller, chairman of the Santa Clara County Airmen's Association, sponsors of the event, had high praise for San Jose Tower personnel.

"I personally observed them carry out their duties efficiently in the face of the disconcerting problem of handling the visitors," Miller said. "Despite this, they worked smoothly and handled heavy incoming and outgoing traffic."

Western Region Director Joseph H. Tippetts also commended the San Jose staff. "You merit high praise for ex-

cellent work under difficult circumstances," he stated.

Besides Henkel, the San Jose Tower crew consisted of William L. Botkin, James J. Dovali, Dale Greenberg, Sam D. J. Sabela, Donald V. Hart, Jackie Hughes, Roy N. Johnston, Donald Mullin, Charles R. Orr and Dale W. West.

SHOW AND TELL



James R. Latham and Aloysius F. Fenwick (right) of Headquarters Data Processing Division demonstrate Agency operations while personnel staffing specialist Mrs. Betty M. Seaman (fourth from right) answers questions of visiting school seniors.



todo which means "rice with everything."

INGREDIENTS

- 3 cups rice
- 8 tablespoons olive oil
- 2 lbs. diced chicken
- 2 large green peppers—diced
- 3/4 lbs. ripe tomatoes—peeled and quartered
- 3/4 lbs. fresh string beans—cut
- 3/4 lbs. fish of your choice—diced
- 3/4 lbs. boiled lobster meat—diced
- 3/4 lbs. salmon (or another seafood such as clams, crab, etc.)
- 1/2 cup olive oil
- Food coloring (optional)
- 3 tsps. salt
- 1 can pimientos—7-ounce
- 1 can artichokes—8 1/2-ounce
- 1 can peas—1-lb.
- 1 can asparagus tips—10 1/2-ounce

Bolivar Perez-Rios' fluency in the Spanish language is matched by his flair for traditional Spanish cooking.

He was hired originally by the FAA in Atlanta to give Spanish lessons to Southern Region personnel who needed help in preparation for Latin American assignments. Later, Bolivar transferred to his home town, San Juan, as administrative assistant to the San Juan Area Manager, Mack R. Wood. This was a natural assignment which provided the Agency with a native employee who could expedite troublesome matters that had "lost something in translation."

Bolivar's recipe for *Paelles* is easy to make and permits the cook to come to the party. He calls it *arroz con*

Soak rice one hour in one quart water. Boil 1/2 cup olive oil and food coloring (if desired) for 5 minutes and set aside for later use. Brown chicken for 15 minutes in 8 tablespoons hot olive oil. Add peppers, tomatoes, stringbeans, fish, lobster, shrimp, salmon and 2 1/2 quarts water. Cook uncovered at high temperature for 20 minutes. Add 2 tsps. salt and cook an additional 20 minutes. Add artichokes, one tsp. salt, drained rice and colored olive oil. Cook 10 minutes. Add 1/2 can of peas and cook 20 minutes on medium heat. Warm other half of peas, pimientos and asparagus tips. Serve paella in soup bowls, garnished with warmed peas, pimientos and asparagus tips. Serves eight.

PROCUREMENT PICTURED



Congresswoman Patsy T. Mink studies a display of FAA's financial contribution to Hawaii's economy through local procurement. Pacific Region's contract chief S. F. Provencher explains the figures at Business Opportunities Meet.

Stethoscope Helps in Diagnosis Of Antenna Drive Gear Problems

Washington National's airport surveillance radar (ASR) was given a clean bill of health recently after a major antenna pedestal modification by technicians of the Airway Facilities Sector 377, Washington.

The modification consisted of replacement of azimuth drive gear bolts and the tightening of azimuth bearing bolts.

The antenna's drive system was then given a thorough "cardiogram" by sector technicians. Using a stethoscope, the technicians listened to every part of the antenna assembly's "heart" to determine its flawless operation and to assure that the vital ASR continues to keep a watchful eye on the area's air traffic.



Technician Warner Turner uses a stethoscope to check antenna drive gear assembly at Washington National.

O'HARE STILL TOPS AS AVIATION FIGURES CLIMB

Flight operations in 1965 surpassed all previous years, according to figures released in the annual FAA Air Traffic Activity report.

The 292 FAA airport traffic control towers, 14 more than in 1964, reported a record 37.9 million takeoffs and landings during the year. This is a 11 per cent increase over 1964. Nearly one-fourth of the airport operations were conducted under instrument flight rules (IFR), an increase of 15 per cent.

IFR aircraft handled, for the second consecutive year, increased by 10 per cent. There were 12.9 million IFR flights handled by FAA air route traffic control centers. The largest increase, nearly 34 per cent, was in general aviation flying. In comparison, airline activity increased by only 14 per cent.

In total operations (each takeoff or landing is counted as one operation), the five busiest airports were: Chicago

O'Hare International—519,430; Van Nuys, Calif.—439,563; Opa Locka, Fla.—425,323; Long Beach, Calif.—393,892; and John F. Kennedy International, N.Y.—389,917.

Leaders in airport itinerant operations, which exclude purely local flights, were: Chicago O'Hare—519,344 operations; John F. Kennedy International—389,047; Los Angeles International—366,531; Washington National, D.C.—307,839; Dallas Love Field, Tex.—270,034.

O'Hare also led in air carrier operations with 443,026; John F. Kennedy International had 352,469; Los Angeles International—288,610; Washington National—219,108 and San Francisco International—210,948.

The five busiest general aviation airports were: Opa Locka, Fla.—211,868; Van Nuys, Calif.—205,193; Long Beach, Calif.—203,135; Fort Lauderdale, Fla.—160,660, and Phoenix, Ariz.—151,246.

your health

SEE YOUR DOCTOR if you have a goiter or any swelling in the neck. Self-diagnosis and treatment can be dangerous.

Goiter is an enlarged thyroid gland and, if treated early, it will sometimes shrink or disappear. If not, surgical removal may be necessary or some form of radiation treatment may be needed.

Generally, goiter is caused by lack of iodine in the diet. Luckily, a small amount of iodine added to common table salt has reduced the incidence of goiter in the United States in recent years.

While the body needs very little iodine, without a sufficient amount, the thyroid cannot produce a necessary substance called thyroxine, and the gland enlarges to make up the deficit. As it enlarges, the eyes may protrude accompanied by increased sweating and nervousness.

Besides iodine, other things such as improper thyroid function or inflammation may cause goiter growth.

See your doctor for a diagnosis.

-and safety

HOME IS NOT FOR BURNING. Due respect for electricity and its potential hazards can save your house and mortgage from going up in smoke. Hot light bulbs removed from the socket and portable units without wire guards for the bulbs when placed close to combustibles are the rough equivalent of a match.

Increased loads from a new freezer and clothes dryer added on to old wiring will trip fuses, make the lights go out, warm the ginger ale in the refrigerator which has stopped humming and keep the furnace from glowing and blowing. It's better to stay in the dark bundled against the cold, drinking warm ginger ale, than to install a larger fuse which will light your lamps and quite possibly start a fire from overheated wiring. Wiring should never be fused above the amount of current it is designed to carry. When it doubt leave electrical installations to the experts. They know their nuts and volts.

PRESIDENTIAL VISIT PLANNERS RECEIVE KUDOS

The Los Angeles Area staff recently received KUDOS from Western Region Director Joseph H. Tippetts for the planning they did for the West Coast visit of President Johnson and Vice President Humphrey.

On short notice, FAA Area Office officials made arrangements for the appearance at Los Angeles of the President and Vice President.

Their nationally-televised statements were issued from the FAA Hangar at Los Angeles International Airport at the Area Office Headquarters. California Governor Edmund G. Brown and Los Angeles Mayor Samuel Yorty also took part.

Among those who assisted in preparations for the high-level visit on February 9 were John H. Hilton, area manager; Joseph A. Orr, assistant area manager; Richard Doms, chief Management Services Branch, George C. Sanders, executive assistant; Trudi Ruzicka, area manager's secretary; Fred H. Mangels and J. D. Land of the Management Service, Branch, and Barbara R. Perez of the Air Traffic Branch.

Area Manager Hilton also commended Earl E. Rosenberger, aircraft shift supervisor, and the entire night shift of the Los Angeles Maintenance Base for their excellent assistance.

Aeronautical Center Radio Hams Modernize Communications Setup

The Aeronautical Center Amateur Radio Club, one of the FAA ham groups, recently installed at its own expense a complete new communications system at the Center. The new equipment consists of a transmitter-receiver combination capable of utilizing all three of the generally accepted modes of transmission, CW (code), AM (amplitude modulation similar to regular broadcast) and SSB (single sideband).

"It replaced equipment which could operate only on CW and AM modes," William O. Todd, club president, said. The new system now permits full frequency coverage as well as the use of all modes of transmission and reception at one operating position.

In an emergency, the facilities of the Radio Club can be on the air within five minutes during working hours and within one hour at other times.

At no cost to the FAA, the Agency has gained emergency communications.



Hit Million Mark

An Eastern Airlines jet was the millionth flight recorded by the New York ARTCC in 1965. Director Oscar Bakke (left) presented a plaque to Eastern vice-president, Capt. John H. Halliburton, to commemorate the new record.

Facilities Readied for 20th Powder Puff Derby

From Seattle, Wash., to Clearwater, Fla., FAA facilities are preparing for the 20th annual Powder Puff Derby. More than 90 planes are expected to enter the popular cross-country race for women pilots.

This year's race will be flagged off on June 28 from Boeing Field in Seattle.

In last year's race from Gillespie Field, El Cajon, Calif., to Chattanooga, Tenn., Hazel McKendrick and Dimps Southard FAAers were participants. Hazel, training officer at the Dallas Flight Service Station, piloted a 230-horsepower Sky-

lane in her second try for Derby honors last year. Dimps, assistant flight service specialist at San Francisco, was co-pilot in a 160 horsepower Beechcraft Musketeer 23.

The annual race is sponsored by the Ninety-Nines, and it is open to all qualified women pilots. It is limited to stock model aircraft, either single or multi-engine, in the 145 to 400 horsepower category.

For the 14th year, an amateur radio network will supplement regular communications provided by FAA.

RETIREMENTS



Mary E. Walsh



James F. Copp

This month's retiree with the longest reported period of Federal service was Mary E. Walsh. She received a retirement certificate signifying 42 years Federal service from William E. Cunningham, chief advisor, San Francisco International Field Office. She rounded out her career after Agency assignments in Europe, Hawaii and Washington, D.C., where she started her career and plans to return to live.

In Eastern Region's Washington area, radar controller Raymond Sink of Roanoke, Va., Tower called it a career after 40 years service, and Raymond Lucia,

chief of Roanoke, Va., Airway Facilities Sector, relinquished the reins of the Roanoke facility after 36 years service.

Southwest Region's Gladys P. Acers retired from her clerk-stenographer position in the Administrative Services Division after 25 years service.

Air traffic controller James F. Copp retired from the Los Angeles ARTCC after 35 years Federal service. Copp joined the CAA in 1937 at the airways radio station at Wendover, Utah, and held air traffic control assignments in Burbank, Fresno, Santa Barbara, Needles and finally, Los Angeles.

Air Force Association Salutes FAA Air Pioneer Blanche Noyes

For her long service to aviation, Blanche W. Noyes was cited as an Air Pioneer by the Iron Gate Chapter of the Air Force Association at the Third Annual Air Force Salute at the Hotel Americana in New York City in February.

Mrs. Noyes, a pioneer pilot, heads the Air Marking Staff in Installation and Materiel Service.

The AFA affair paid tribute to Air Pioneers and the Air Chiefs of Latin America and Canada before 1,500 AFA members and guests.

INSPECTOR SCORES WITH PILOTS

Donald Frost, supervising inspector of the Seattle GADO, recently received high praise from the Washington Pilot's Association for his talk to the Pierce County Chapter.

The Chapter's newsletter said: "Donald Frost our guest speaker, managed to give us a great deal of food for thought while thoroughly entertaining us. If, in the past, we were inclined to think of the FAA as bad guys, I'm sure we left the meeting with a new concept."

ALASKA CLUB TOPS



Robert V. Reynolds, Assistant Administrator for General Aviation Affairs (left), accepts a citation on behalf of the FAA's Alaska Flying Club from Congressman Don H. Clausen. The Alaska Club won top honors among other clubs with less than 50 members for management operations, service to members and safety. The safety award was sponsored by Flying Clubs International in cooperation with FAA and the Flight Safety Foundation.

tech talk

COMPUTER AIDS APPROACH SPACING. Limited runway acceptance (landing) rates at major high-activity airports is one of the most critical bottlenecks in the National Airspace System.

Under visual flight rule (VFR) conditions, with a selection of takeoff and landing runways available, controllers often can equalize the traffic flow among several runways and thus reduce or eliminate delays.

When, on the other hand, weather conditions require an instrument flight rule (IFR) operation, landing aircraft generally are all funnelled to only one ILS (instrument landing system) runway and the airport acceptance rate is greatly reduced. Moreover, in IFR weather, aircraft arrive at the runway with slightly wider spacing (three miles is minimum radar separation).

With automation to supplement the controller's manual ability, however, it is possible to slightly increase the IFR rate.

The Systems Research and Development Service has two projects underway, one at the National Aviation Facilities Experimental Center in Atlantic City and one at the Atlanta Tower, to evaluate computer assistance in the final approach spacing of aircraft. The Atlanta system is known as Final Approach Spacing for ARTS (FASA).

First, the computer calculates the estimated time of arrival at the runway (ETAR) from tracker-derived position and speed of the aircraft. The computer also calculates the arrival pattern, intended approach speed, existing wind and standard aircraft performance characteristics (profile). The aircraft is then scheduled and sequenced with other traffic. Once a firm schedule has been established, FASA provides the controller with a radar alpha-numeric display which compares the aircraft's actual position with certain checkpoints along the suggested path for best arrival spacing.

This computation is performed periodically and a "countdown" is developed for each turn in the landing pattern. As the plane's radar blip approaches the computed checkpoints the controller issues new computer-suggested magnetic headings to the pilot.

Initial FASA test runs at Atlanta, in which several different types of aircraft were handled simultaneously, were very satisfactory. Atlanta controllers are enthusiastic over the potential of FASA.

names & faces

1 Miami area manager Paul H. Boatman and FSS chief Willis R. Singletary presented Sustained Performance awards to, from left, Morris E. White, Stanley E. Kukla, Boatman and Singletary, Doris I. Russo and Winford P. Bowden. **2** Joe Tippets, Western Region Director, made awards to region engineers during Engineer Week. From left, Thomas J. Butters, Cyril E. Richards, Allan E. Horning, Tippets, John J. Crenshaw Jr. and Frederick J. Doering. **3** Charles F. Butler receives Quality Within-Grade increase

from instructor supervisor E. H. Malone at FAA Academy. **4** Operations Inspector Wayne M. Canney, now at the Aeronautical Center, was made Honorary TWA Captain after spending seven years inspecting TWA from Kansas City ACDO. **5** It was awards day in the Office of International Aviation recently when honors were bestowed on, from left, Le Roy W. Wood, Lynn I. Jones, Ernestine C. Barnett, Sandra E. Jawley, Benjamin M. Deutsch, Dorothy E. Krone and Kathleen W. Gorman. Director Charles Cary (right) made the awards. **6** Bernard P. Dorey presents awards to Western Region illustrators, from left, Richard W. Gipson and Delbert O. Thompson. **7** Toastmasters in session at FAA Headquarters with Alan Klevit, double winner in area speaking contest, on the floor. **8** Maxine McCarthy of Central Region's Compliance and Security receives award from her boss, William A. King. **9** Dorothy Herkalo of the Office of Information Services, Washington, demonstrates the delivery that helped her win the Women's Double Championship in DC and improve her 164 average. **10** Aeronautical Center Director W. Lloyd Lane is PROUD of Jewel Toberman for savings she brought about in the Publishing and Graphics Branch.

11 For landing a jet airliner with malfunctioning controls, Delta Capt. Billie Burke Barelay receives FAA's Distinguished Service award from Southern Region Director James G. Rogers. **12** Hildegard H. McShane who works for the Air Force representative at Kennedy International Airport Lt. Col. Alan B. Thomas was honored recently for 30 years Federal Service. **13** For superior electronics maintenance work at Woody Island, Alaska, Waldemar H. Johnson received special recognition from Kodiak Area manager Darrell Chaffin (left). **14** Howard L. Flohra earned a performance award from Central Region's Flight Standards chief Browning Adams and the admiration of friends in background, from left, John E. Caquelard, Zella E. Faulkner, Pauline E. Hinson and Kenneth W. Gordon. **15** Lowell H. Sanquist of Omaha FSS with his LK-10A glider. Now he wants to launch a glider club. **16** Cleveland ARTCC chief George H. Campbell (left) presents cash award to radar controller James Ervin for his pilot "save." **17** Wake Island resident engineer Robert Swan was honored by his Alma Mater for his gridiron prowess during the '20s. Swan was an all around athlete at the University of Dayton.



personnel pipeline

This year's administrative Management Development Program will end on July 29 when the 20 participants will be assigned to new positions throughout the Agency. Their year-long program included one semester at Syracuse University and specialized training at the Washington FAA Headquarters. John Finney of NAFEC was the program manager.



John Finney of the Management and General Training Schools at NAFEC, has been responsible for the Agency's AMDP program.

New assignments—1 Allan E. Andrews from the LeMoore, Calif., RATCC to a Western Region position. 2 Coleman J. Archer from Fort Worth, Tex., Flight Standards Division, Southwest Region to the Office of Budget, Washington. 3 James P. Chadwick from supervisory, flight inspection, Salt Lake City to Office of Audit, Washington. 4 Leon C. Daugherty from Systems Research and Development Service, Washington to Alaskan Region. 5 Ralph C. Grossman from Airway Facilities Division, Alaskan Region, to Installation and Materiel Service, Washington. 6 Donald F. Herndon from Flight Standards Service, Washington to chief, Engineering Branch, Flight Standards Technical Division, Aeronautical Center. 7 Phillip E. Jemison from Great Falls, Mont., ARTCC to Planning and Evaluation Staff, Alaskan Region. 8 Robert E. Jones from NAFEC to Office of Management Services, Washington. 9 William C. Keepers from J. F. Kennedy Tower, New York, to National Airspace System Special Projects Office, Washington. 10 Roe C. Kincannon air carrier operations inspector, Seattle, Wash. to Flight Standards Division, Central Region. 11 Robert A. McEwing from Airway Facilities Division, Anchorage, to Planning and Evaluation Staff, Alaskan Region. 12 William J. McGill from assistant chief, Airports Division, Central Region to chief, Airports Division, Southern Region. 13 Philip A. Palmer from chief, Atlantic City SMS to Manpower and Standards Group, Systems Maintenance Service, Washington. 14 Lonnie D. Parrish from Air Traffic Service, Washington to Air Traffic Division, Central Region. 15 Robert S. Pinnock from Norfolk, Va., Tower to Procedures Section, Air Traffic Branch, Boston Area Office. 16 Bob A. Smith from Supply Catalogue Supervisor, Aeronautical Center to Bureau of National Capital Airports, Washington. 17 Robert E. Swanson from NAFEC to Office of Policy Development, Washington. 18 Clayton O. Thompson from Avionic Equipment Overhaul Branch, Aeronautical Center to Airway Facilities Division, Southwest Region. 19 John Wichels Jr. from Airway Facilities Division, Honolulu, Hawaii to Procurement Operations Division, Installation and Materiel Service, Washington. 20 Elmer I. Williams from Area Manager, Cold Bay, Alaska to Evolution Staff, Southern Region.



$$\phi_E = \phi_C - \phi$$

$$\phi_C = \eta R \left[K_D + \frac{K_{RS}}{R \cdot St1} + \frac{K_L}{S} \right] + \frac{K_{\phi_L} \phi}{T_L \cdot St1}$$

$$AC \approx \sqrt{\left(\frac{\partial C}{\partial X_1} \Delta X_1 \right)^2 + \left(\frac{\partial C}{\partial X_2} \Delta X_2 \right)^2 + \dots + \left(\frac{\partial C}{\partial X_n} \Delta X_n \right)^2}$$

$$C = f(X_1, X_2, \dots, X_n)$$

$$\Delta y_A = L \sin \psi = \frac{V}{VA} \left[\sin^{-1} \left(\frac{V}{VA} \right) \right]$$

1. Industrial engineer Clifton W. Darby taught a week-long course for Pacific Region engineers and technicians on Value Engineering, or, how to design for a specific function at the lowest overall cost. 2. After general sessions on theory, classes were divided into project teams. Here team chief Koken Higa holds a transfer panel for which his group has value engineered a more economical design. His teammates were Hing Chock Lau and Douglas Koki. 3. Merits of a new safety device for a safety ladder are discussed by project team members, seated, from left—Charles Baker, Capt. John E. Pearson Jr., standing—Daniel S. Sato, August P. Perry and instructor Darby. 4. A cheaper way to build a fuse panel is discussed by project team members, from left: Manuel Marin, Lawrence Trombly, Dalton P. Petterson, John Kaneshiro and David Yokoyama. The yardstick for evaluating designs adopted by all trainees was, "If it were my money, would I be willing to pay that much for it?" Pacific's equipment and facilities will be analyzed accordingly.





Christian Deming

Are some people born lucky? "Not so," says Christian Deming, administrative clerk at the Honolulu Air Route Traffic Control Center.

"It's a matter of perseverance."

To prove her point, Christian has only to refer to the many prizes—from theater tickets to a trip to Paris—that she has won since she began some years ago to seriously pursue her pet hobby—entering contests to win. Her most recent prize was a 54-volume set of "Great Books of the Western World," by Dr. Mortimer J. Adler. She won the books by submitting a winning question to his "Great Ideas" newspaper column.

Christian originally is from California. She came to the Pacific Region via Alaska. Holder of a bachelor of arts degree from the University of California, she still attends night classes at the University of Hawaii.

FAAers on the job

Charles Cook and Robert Bennett

Their exacting duties as controllers in Atlanta's Air Route Traffic Control Center permit little improvisation, so Charles Cook (left) and Robert Bennett find a creative outlet in their hobby: interior decorating.

The two have been partners in their mutual hobby for the last year. Their portfolio includes the renovation of a barber shop, the design of showcase windows and the building of a house. Their efforts span almost every facet of interior decoration, from the selection of upholstery to the actual chore of hanging wall paper. Bennett is also the chairman of the Atlanta Chapter of the Air Traffic Control Association and Cook is director of the Hampton, Ga., Junior Chamber of Commerce.

