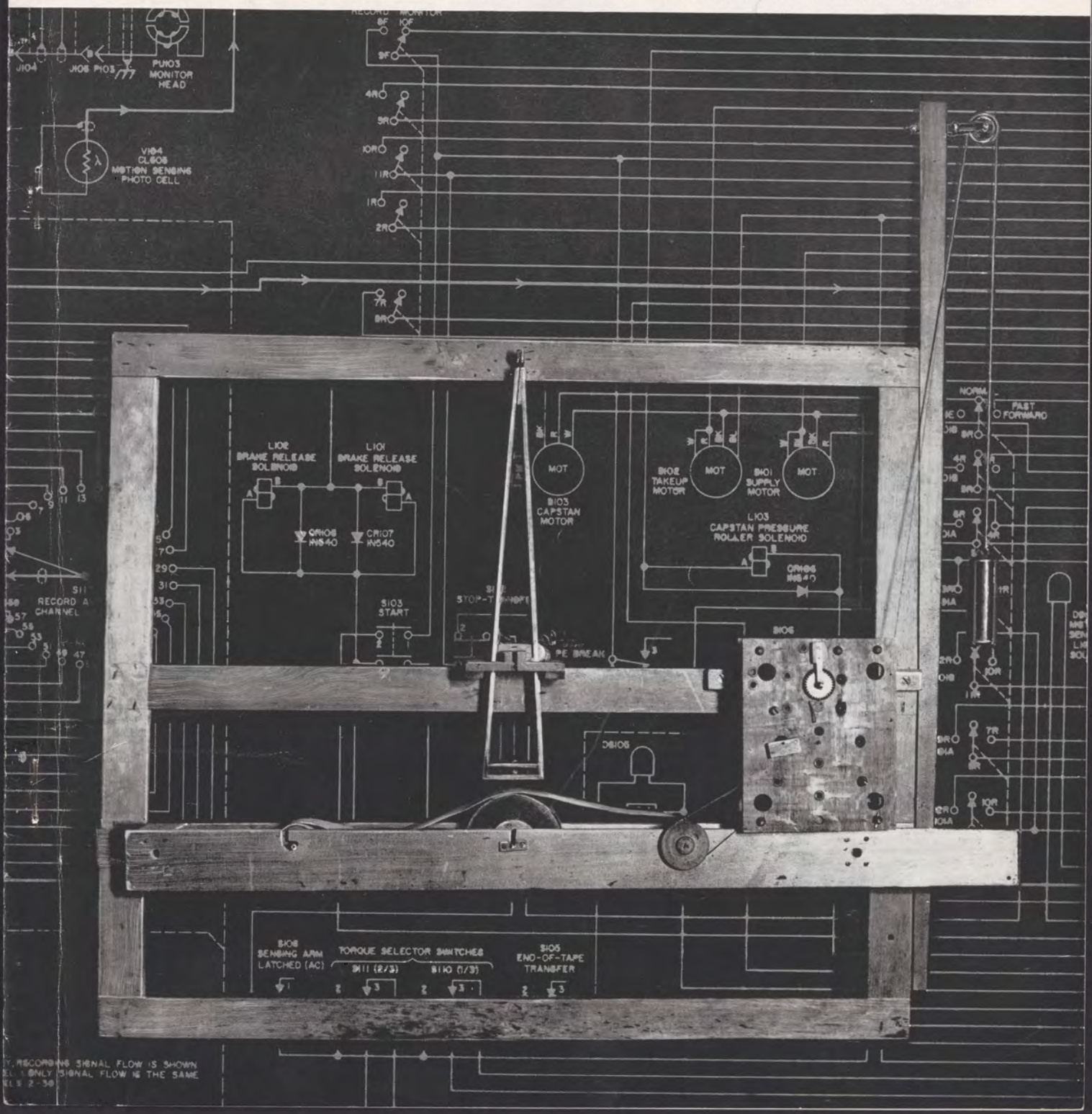
FAA HORIZONS

MAY 1964

OFFICIAL EMPLOYEE PUBLICATION OF THE FEDERAL AVIATION AGENCY



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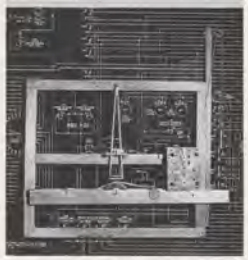

COVER. Artist-inventor Samuel F. B. Morse's 1837 crude telegraph receiver, symbolic of the break-through in rapid communications, is superimposed over the complex schematic drawing of a modern 30-channel voice recorder. For the story of modern communications in the Federal Aviation Agency and its role in air safety, see page 14.

EDITORIAL: *The Important Things*

James G. Rogers, Director Alaskan Region

Sometimes it takes a calamity, such as the earthquake which struck Alaska on Good Friday, March 27, to make us realize just what is important in our daily lives.

It's human nature for people to settle into routines, establishing patterns of living and working which are comfortable and convenient.

After a while we begin to take things for granted, failing to appreciate that which is good, and becoming indifferent or reluctant to change that which needs changing.

And then, without warning, Nature unleashes a great fury taking away the lives of some of us, maiming others, and destroying our homes and property. Everything is in upheaval and we wonder whether they'll ever be the same again.

Such was the situation in which Alaskans found themselves during the earthquake and its aftermath.

What was really important in the hour of disaster? Parents picking their way from a battered home and discovering that the kids were all right. Friends and neighbors—sometimes just nodding acquaintances—offering the shelter and hospitality of their homes to families in need. The hundreds of unheralded civil servants and utility company employees working tirelessly to restore essential services. The triumph of the human spirit overcoming adversity bringing order from the chaos, planning and working to restore things as they were before. These things were important.

It was in such a time that the real measure of the Agency, its people, and its methods could be taken. What kind of an outfit do we have? Are we lean, keen, and clean? The earthquake provided many answers—the hard way.

The personal courage and loyalty displayed by our people was something to behold. Those on duty when the earthquake struck, stayed "at the switch." They continued working at their positions performing their assigned duties and restoring disrupted services.

We are not a military organization working within the framework of the discipline required by the services of their personnel. People can quit or walk off the job. We hope that they won't when the chips are down; that recognizing their responsibilities as public servants providing a vital service, they'll stay on the job and carry on with the work of the Agency.

This they did. No one left or asked to be relieved when the reports of extensive damage and tidal wave warnings began to filter in. Many others who were at home returned to their offices and duty stations to do whatever had to be done.

It takes an outfit with fine morale and spirit to respond as the Agency did during the disaster. People worked together, forgetting job descriptions, cutting across division lines and performing tasks which were never required of them before.

We knew that we had many fine players on our side. The earthquake showed that we were a team made up of professionals at every level who turned in top-notch performances in their hour of crisis.

The lessons learned from the earthquake are many for the Agency and ourselves. With pride we can look back to a job well done. With confidence and teamwork we can plan for a better Agency in Alaska tomorrow.

James G. Rogers

NEW ATC EXAMINATIONS PROVE MORE EFFECTIVE

New entrance level Air Traffic Control examinations based on changed qualification standards developed by FAA and the Civil Service Commission have been announced by the Eastern, Southern and Southwest Regions. Other regions will issue examinations as needed.

There are several innovations in these new exams. A major change requires all candidates to pass an aptitude test. In addition, they must pass an oral interview before appointment. The new standards eliminate length of experience requisites for applicants with ATC certificates and sets up different requirements for flight service stations, towers and centers.

The modified exams put into effect recommendations designed to improve examining methods for ATC trainees. The improvements, which resulted from a series of studies made by the Civil Aeromedical Research Institute, Office of Personnel and Training and Air Traffic Service are designed to refine the quality of selections, reduce training failure rate and broaden recruitment.

Since 1960, CARI has been studying the effectiveness of a wide variety of aptitude and personality tests used for forecast success in training and on the job.

Over 50 different aptitude and personality tests, including those developed by CARI, were studied by commercial testing firms and the CSC. The five now in use include measuring numerical ability, spatial perception, abstract reasoning, ability to follow complex oral directions and the ability to solve relatively easy air traffic problems involving altitude and time separation standards. No previous aviation training is required to pass.

For several years the Agency has been interviewing applicants for these positions but never before has it been possible to require them to pass an oral examination. A big change in the interview process was setting up panels at several locations in each region.

Panel members are selected from each type of facility and applicants must be interviewed by at least two members of the panel. Those who fail to pass are disqualified for appointment.

Interviews include a question and answer period and a facility tour. The tour is designed for applicants to see what an ATC facility is like. In most cases applicants have no idea of the kind of work being done nor of working conditions.

It is expected that these examinations will lead to a significant improvement in selection quality. It is essential to use all available improvements in selection techniques since recruitment will continue to be severely reduced.

This will insure that only the best candidates will be selected for the few vacancies that will occur.

FAA HORIZONS TO CHANGE FORMAT

Starting with the June issue, FAA HORIZONS will consist of 32 pages and emphasize the one agency concept. It will contain feature articles of general interest to all, personality items, medical and safety tips, personnel information, some technical information, news of other agencies and departments and, all in all, what we hope will be a well-rounded and informative magazine. Many of these changes result from suggestions by employees to a survey conducted by FAA HORIZONS.

For the past year, you have been receiving a sectionalized issue of FAA HORIZONS, i.e., the outside 12 pages consisting of agencywide interest and the inside pages aimed toward your particular region or, as the case may be, the Aeronautical Center. It did not afford you the opportunity to know who was whom and what was happening throughout the agency. As part of the economy program, the new magazine's format will cut the cost considerably.

Since the magazine is one of interest to all employees and the copy you receive is yours, may we suggest that you take your copy home with you. It could be that your family also has an interest in what the FAA does and what is going on in the agency for which you work.

Send stories, articles, photographs or story ideas for inclusion in the new magazine to your regional public affairs officer.

Increased Air Traffic Problems Sharpen Controllers' Abilities

Today's air traffic controller resembles yesterday's in name only. The tremendous number of aircraft in use, their high performance and different speeds, added to the constantly increasing number of instrument flights on the airways, congestion at terminals, and all the problems inherent in millions of operations each year, demand a great deal more physically and mentally from the individual controller than in the past.

Since 1960 the number of new air traffic control trainees has declined. Air route traffic control centers have been consolidated; some flight service stations have been discontinued and others combined with control towers, causing the need for manpower to level off. At the same time there has been a significant increase in quality and proficiency at all levels; training in new fields, supervisory and management training and refresher training.

One of the programs that has had great impact on air traffic services is the Operations Supervision Course for First Line Supervisors. Another is the Air Traffic Specialists Administration Course, a master plan for developing, documenting and controlling training programs at ATC facilities. A third is in Air Traffic Facility Administration, designed to provide Chiefs with experience in job-related management practices, stressing problem areas peculiar to ATC facilities.

Comparatively new is the ATC Radar Instructor Standardization Course which applies to definite standards to the interpretations of radar ATC procedures and ATC facility radar training programs. New also is specialized training in the interpretation of airborne weather appearing on the radarscope. This course emphasizes the effects of turbulence on aircraft, and on services controllers can render pilots to help them avoid areas where extreme turbulence exists.

Robert L. Daymude escaped with minor injuries when the Anchorage tower collapsed.

THE BIG BREAKUP

The following article, written by Alaskan Region Public Affairs Officer George T. Fay, is a vivid account of the earthquake that rocked Alaska on Good Friday, March 27. Mr. Fay's article underscores what Lt. Gen. Harold W. Grant, Deputy Administrator said soon after he arrived in Alaska and saw FAA men and women in action under pressure. He said: "All of us have good cause to be proud of our FAA people in Alaska." This account demonstrates how accurately General Grant assessed the quality of the people who make the FAA something more than just another Agency. The photo above the headline shows the earthquake's reading as recorded on the seismograph in Washington, D.C.

Alaskans will long remember 1964 as the year of the big breakup. It wasn't caused by the thawing of a winter's accumulation of ice and snow—a usual late April occurrence—which buckles paved surfaces and turns the soil into a gumbo of mud. It was caused by a giant earthquake on Good Friday, March 27—one of the most severe ever to strike the Western Hemisphere, which centered near Anchorage and pegged needles on seismograph recording instruments at a maximum of 8.4 Richters.

What was it like to be trapped on the top floor of an eight story building in the grip of an earthquake? Oklahoma-bred James Ray, Duty Officer in the Region's Communication Control Center, likened the experience to breaking in wild horses.

Jim was serving the 4:00 p.m. to midnight shift in the RCCC located on the eighth floor of the Hill Building—the region's headquarters in Anchorage. At about 5:30 p.m., during a lull of activity, he went to the window to observe the city, Cook Inlet, and the snow covered mountains beyond. He watched as automobiles formed a number of long moving chains leading from the downtown area carrying workers and shoppers to their homes. There was still a lot of pedestrian traffic in town, Jim noticed; probably last minute shoppers buying gifts or some item of clothing to complete their Easter outfits. There was still some sunlight, skies were clear, and the temperature was a comfortable 28 degrees.

This peaceful scene changed abruptly at 5:36 p.m.

"It started as a slight back and forth movement underfoot," Jim Ray recalls, "not unlike brief earth tremors I've experienced a hundred times before. Only this one didn't stop. I was standing at the time and found myself being pitched crazily from wall to wall like a steel ball in a pinball machine as the oscillations increased in intensity." Desks, file cabinets, and equipment caromed about the room as the Hill building convulsed to the rippling underground pressure waves that were making a shambles of Anchorage and the coastal towns and villages to the south. When the pitching stopped about four minutes later, I rushed down the stairs and into the street. I had been the only one in the building except for a security guard in the lobby."

Stunned victims, including hundreds of FAAers and their families reacted mechanically when the quake subsided. They checked on loved ones, assessed the damage to their homes, removed valuable belongings, and extended a helping hand to neighbors.

For some, the earthquake brought tragedy. Virgil Knight, a member of the Director's staff, and his wife Leora, a teacher in the Central Junior High School, were on the porch of their home in the Turnagain section when the ground began to tremble. Their home, located on a bluff in the hardest struck area of the city, slid from its foundation and tumbled toward the inlet along with other homes in the neighborhood.

The Knights were crushed in the upheaval. Mrs. Knight never regained consciousness. She died on the way to the hospital. Virgil was hospitalized and lost a leg as a result of the accident.

Air Traffic Control Specialists William Taylor and Robert Daymude were on duty in the Anchorage International Airport tower when the quake struck. Minutes earlier, Daymude had left his seventh floor tower perch to get some information in the office on the fifth floor.

"I was heading upstairs, just passing the sixth floor," Daymude stated, "when the whole tower structure began to shake madly. It took all my strength to hold on to the stair railings. Bill Taylor brushed by me on his way down the stairs from

Left: Ruined control tower which killed Controller William Taylor when it fell during the earthquake. Anchorage traffic is now being handled from nearby Lake Hood. Below: Acting Regional Surgeon John E. Nepler's Hill office is in need of major first aid.

the tower. I never saw him again. Seconds later the tower collapsed and I was hurled downward into a twisted mass of concrete, steel and glass.

"I was only half conscious when the dust settled, but I knew I was okay. I was able to look straight up and see the sky. Almost immediately, three airline employees located me and pulled me from the wreckage. They took me into the Terminal where Pat Kelly, a pilot with Reeve Aleutian Airways, checked my head injuries and decided that I needed to see a doctor. He packed me into his station wagon and brought me to Providence Hospital. I was lucky to get away only with lacerations of the scalp."

Bill Taylor wasn't so lucky. His injuries were fatal. The 60-foot tower was reduced to a pile of rubble 30 feet high and lay extended like a tired accordion.

The Anchorage Center RAPCON situated on Elmendorf Air Force Base also was jolted by the earthquake. Jack Williams, the Watch Supervisor recalls that there were 20 on duty with him at the time. "The big job was trying to work aircraft while dodging overhead light fixtures and equipment that was sliding from wall to wall. No one headed for the door. Everyone stuck to his position. It was especially rough for controllers sitting in front of the large traffic status control boards, which started to sway and threatened to come tumbling down on their heads."

One of these was Gordon Halston, an Arrival Radar Controller, who was vectoring a Grumman into position to make a low frequency range approach to Merrill Field when the quake hit. He lost radar contact while being buffeted about and advised the pilot that an earthquake was in progress. Jeanne Collins and Lee Devlin, at great personal danger, remained at their radar scope positions and continued to work aircraft arriving and departing the Anchorage area. Jeanne had to keep bobbing her head up and down timing her movements with the swaying of a heavy light fixture that was swinging perilously close to her head. Delvin, sitting in a swivel chair on rollers was being slammed back and forth against his console while hanging on to the equipment with one hand and trying to talk to outbound aircraft. "My scope looked like it was being jammed," remembers Lee. "Big slashes of light obliterated everything while the earth was moving."

When the shaking subsided, Williams checked on injuries to watch personnel, inventoried traffic on the various positions, and tried to determine what traffic control capability remained. "Everyone was in good shape—although shaken up. We were hurting for communications. All landlines and radios were out, except for interphone drops to Elmendorf Airways and to Bryant Tower at Fort Richardson."

At all facilities in the Region, after the first shock had worn off, similar efforts were underway to determine what equipment and communications were out of commission. Within the hour, supervisors were back on the job making their own damage appraisals. Acting instinctively, they started the necessary actions to restore the region's facilities. There wasn't time to coordinate anything. Besides, no telephone or interphone lines were operating.

James G. Rogers, Director, and his Deputy, Colonel Ralph G. Taylor established the Regional Office in the Merrill Field FSS which had escaped serious structural damage.

Not knowing how their families had fared, it was difficult for those on duty to remain at their stations. It was almost as difficult for those off duty to leave frightened families and damaged homes to return to work—especially in the face of a reported tidal wave that was forecast to inundate the low-lying areas of Anchorage. Civil Defense headquarters reported on the radio that a tidal wave had caused great destruction to Kodiak Island, and that the people of Anchorage should attempt to get to high ground as soon as possible.

It is impossible to recount the many separate deeds performed by hundreds of employees in this turbulent period that were truly heroic. To highlight a few cases is to give recognition to the many who performed nobly during the earthquake disaster. And the light is intended to illuminate the spirit, the devotion to duty, and the professionalism of all the men and women of the Alaskan Region and their families.

William Conyers, the senior electronics expert of the Anchorage Station complex, was at his home recovering from

E. Finch (l.) rescued nine.

W. Conyers, R. Robey, S. Wagenius (above) aided rapid recovery of AL communications.

Director Rogers with Deputy Dir. Col. R. Taylor.

a severe cold and a sore throat. It didn't take much figuring for Bill to anticipate the damages to the communications complex at Merrill Field. Determining that his home was intact and his family safe, he raised the garage door, which had fallen on his car, and drove to Merrill Field. The rapid "snapback" of Agency Communications in the Anchorage area was the result of Bill's round-the-clock supervisory effort and technical know-how.

Lee Pitts, the supervisor for communications at Anchorage Center, was greeted by a jumble of communications gear which had tumbled from their racks. A series of transmitter-receiver patch panel racks approximately fifteen feet long had fallen and crashed against banks of recorders.

Lee and his assistants had the equipment righted and repaired in an hour. It was quickly determined that only three en route radar frequencies—123.7 Mc, 119.7 Mc, and 269.0 Mc—were still operational. The VHF backup transmitter was set up on 121.5 Mc. A Gonsett transceiver, a small portable piece of equipment, was tuned to this frequency. Initial communications between the center and the International Airport were established with Air Traffic Tower Specialists Russel A. Stalcup and James A. McDonald, who had come to the Airport to help out. They got into a parked Cessna and contacted the Center on this frequency.

Edward Finch brought his family with him to Merrill Field after finding his home totally destroyed in the Turnagain section. They had been eating dinner in a local restaurant and left for home as soon as the tremors subsided. He immediately began to help extricate eight families which were trapped in deep crevasses. This done, and having no place to take his family, he brought them to Merrill Field and installed them in the training room in the basement of the building and went upstairs to report for work.

Richard Young, Chief, Systems Maintenance Division, estimated that during the first hour of disaster, 75 per cent of the region's total capacity—some 2000 facilities— was out of commission. Ten hours later, 85 per cent of the decommissioned facilities had been restored. By noon the following day, the region was 99 per cent back in business.

The first big job was damage assessment. FAA facilities at Anchorage suffered the heaviest blow. Anchorage lost all commercial utilities; telephone and cable circuits were broken. As mentioned earlier, the International Airport Tower had collapsed; its instrument landing system was out of commission due to underground cable damage; its runway and approach lights were partially destroyed. The Airport Weather Bureau facilities—for which FAA furnishes support—were totally demolished.

Nearby Lake Hood tower was badly jarred, but it remained intact. It was later established as the control tower for the International Airport, taking over this function from the Cessna Aircraft—and later a Flight Standards flight check DC-3—which had served as interim control towers at the airport.

Flight Standards Chief Wesley H. Brubaker and his assistant Richard Thwaites arrived at the International Airport minutes after the earth stopped shaking to inspect their hangar, aircraft and equipment. They discovered Radio Technicians Jesse Gates and Verle Fowler working with Stalcup and McDonald in the DC-3 keeping communications humming during the time that the aircraft was serving as the temporary control tower.

"A battered wing tip and aileron on the C-123 was the only damage to any of our aircraft," Brubaker remembers. "Thanks to a helping hand from the Air National Guard, we had the C-123 repaired and in commission Saturday noon."

Johnny Johnson and Polly Johnson served almost continuous duty for the next 72 hour period in the hangar assuring that Flight Standards aircraft were ready for any emergency missions that might come their way. One of the first tasks was to flight check the instrument landing system at Elmendorf and other navigation aids in the area. The job was completed exactly 24 hours after the earthquake. High altitude flight checking was accomplished Saturday night by the Agency C-135 which had been dispatched from the Aeronautical Center at Oklahoma City. On its return, it transported damaged avionics equipment and calibration gear.

The Air Traffic Division went into high gear at Merrill Field at 8:30 p.m., Friday evening, to determine the air traffic control capability remaining in the region. One of their first tasks was to arrange for the Lake Hood Tower to assume control responsibilities for the Anchorage International Airport. Terminal weather observations were provided by Anchorage Station personnel who had been assigned to Lake Hood Tower. The Weather Bureau facilities located in the Terminal Building were completely destroyed.

A request was received from the Civil Air Patrol to establish tower service at the Seward field. An emergency air lift of supplies to Seward caused a high density of traffic flying in and out of the area. A service tower was in commission at noon the following day, with a battery-powered light gun and transceiver.

The Anchorage Air Carrier and General Aviation District Offices checked with aircraft owners and operators to deter-

Rogers (head of table) directs staff in basement "command post" at Merrill Field.

Brave lad gets typhoid shot.

Jim Ray was duty officer when the quake struck.

mine their losses. Some aircraft in hangars suffered light damage; those in the open suffered no damage at all.

At the first full staff meeting on Easter Sunday, James Rogers charted the course for the Region in the difficult period ahead. We are going to carry on the job of the Agency in Alaska providing for the air safety of aircraft operators and users. Second, we would lend all assistance possible to state and municipal agencies in disaster relief. Third, we would work to restore all FAA facilities to their previous state of usefulness.

He also emphasized that the earthquake—in spite of its catastrophic consequences—did present the Agency with an unusual opportunity to evaluate our organization, methods, equipment, and defense readiness capability. The lessons learned would be of inestimable benefit to the Agency in planning for the future.

"It was just like 'Keychain'," said Ralph Westover, the Region's Defense Readiness Officer, referring to a joint military-FAA earthquake disaster exercise we had participated in last October. "All the ingredients were the same." "Keychain" simulated an earthquake disaster at King Salmon, an airfield shared jointly by the Air Force and the FAA. In the exercise the control tower collapsed, communications were disrupted, casualties occurred and the Flight Service Station was destroyed. The Agency response to "Keychain" and the expeditious action to restore traffic control services drew the highest praise from the Alaskan Military Command Headquarters. "It was a dress rehearsal for the real thing," said Westover.

FAAers pitched in to help their stricken communities in countless ways. Some served with Civil Defense units. Others, whose services weren't needed at the time, answered emergency calls for their skills. Cy Brewer, a Master Electrician, helped restore the elevator service and lighting at the Alaskan Native Hospital after hearing an emergency call from Civil Defense headquarters on the radio. Herbert O'Brien, Cy Schneider and their crews worked with the State of Alaska crews at the International Airport to reestablish boundary and runway lighting. Warren Lindsey was appointed by the State Director of Civil Defense to serve as the director of petroleum resources. Electronic Engineers Robert Eskridge and William Isaac were assigned to the Alaskan Communications System to help restore their facilities.

Nancy Steward of the Defense Readiness office moved into the Civil Defense office in Anchorage to man a key position for the duration of the emergency. Jerry Kempton and his assistants in the Airport Division immediately contacted State of Alaska aviation officials to offer their services in appraising damage and returning airfields to full operational use.

Karol Hommon, the reigning "Miss Alaska" who will represent the state in the forthcoming Miss America contest to be held in Atlantic City this fall, added new luster to her crown during the earthquake. Karol, a secretary in the I&M Division, worked at a local radio station and was on continuous duty for 36 hours answering telephones and broadcasting bulletins and announcements and only took time out to serve at the Civil Defense Office on Easter Sunday. Patricia Mayo helped with telephone and typing chores at CD headquarters.

FAAers took strangers into their homes in their hour of need. Brendon Wentworth welcomed Scandinavian Airline System pilot Sven Fremberg and his wife and two children into his home after learning that the Frembergs were homeless.

Merrill Field International Flight Service Station became a message center for the commercial airlines operating out of Anchorage. With all communication lines out of order, the station handled two-way traffic and reservations messages for the companies.

Damages to Agency facilities were estimated very roughly at $900,000 by U.S. Culver, Chief of the I&M Division. This included the destruction of the FAA dock at Woody Island, broken underground cables at the International Airport, repairs to the FSS building and water supply system at Cordova, relocation of the Weather Bureau office and forecasting facilities at Anchorage International, and estimates for replacement of destroyed equipment and the building at new Anchorage tower.

People drew closer together during the Big Breakup of 1964. They discovered within themselves wellsprings of compassion for their fellow man which were brought to the surface as they helped the suffering and offered the shelter of their homes to complete strangers. Employees of the Region carried out their duties with the precision of a well drilled team. People knew what had to be done and they did it. In a message to all Alaskan stations, Jim Rogers expressed his appreciation for the effort put forth by everyone:

"I need not tell you how proud I am of the way each of you has responded to the call during this hour of disaster. Our very deepest sympathy goes out to our fellow workers and their loved ones who have suffered personal tragedy and loss. The days ahead will require further demands on each of us as part of the team in Alaska. I know we can meet the challenge. Let's get up, dust ourselves off, and emerge with even a better FAA."

FAA'S MICROSCOPE FOCUSES ON PLANNED CRASHES

Can a machine, especially one as complicated as a transport plane, be improved and made safer under all conditions by deliberately smashing it to pieces?

The answer is yes—provided the destruction is done under closely supervised conditions, following a carefully engineered plan, and if every instant of the "crash" is minutely photographed and reported by scientific instruments.

This is the sort of investigation underway under FAA sponsorship at Deer Valley Airport, a World War II military airfield now being used as a general aviation airport, some 20 miles northwest of Phoenix, Ariz.

The serious business of deliberately "crashing" two planes—one a DC-7, the other a Super Constellation, began in April and is expected to continue into June. Heading the project, which has a $275,000 price tag, is Donald Voyle, normally based at NAFEC, assisted by Isaac H. Hoover and Herbert C. Spicer, Washington, D. C. Hoover is in charge of fuel containment; Spicer, of structural crash-worthiness.

The experimenters will send the two craft roaring under their own power down a 4000-foot, specially constructed runway at take-off speed into a series of barriers scientifically designed to simulate conditions which might be encountered in a real crash.

The planes are elaborately instrumented, inside and out; the interiors painted distinctive colors to increase the effectiveness of movie cameras mounted at strategic points inside the planes.

Outside, additional high-speed and standard speed motion pictures cameras, most of them loaded with color film, will record each instant of the ground-bound "flight" from start to finish.

To insure that the planes strike the carefully planned obstacles, the engineers built a single track rail down the centerline which will be gripped by a special guide "shoe" fitted in place of the regular nose wheel.

At the 4000-foot mark the first barrier, a crosshatch of railroad ties will wipe out the undercarriage and propellers. Almost immediately, the left wing will smash into the first earth barrier and then instantly into a clump of poles which have been imbedded in concrete to simulate trees.

Scientific calculations figure the aircraft will be skating through the air at about 180 feet per second after the wing smacks the ground and poles on its way to the main earth barrier 150 feet beyond. The planes are expected to hit nose first on a 10 degree slope, skid for another 150 feet on flat land and come to rest against a 20 degree grade.

The main tanks will be filled with dyed water to simulate a full fuel load. One cell of a fuel tank in each wing will be filled with jelled water. The dynamics of the jelled water will be recorded by high-speed cameras during the tests.

Inside, a forward facing two-place seat will be installed in the forward and rear sections of the passenger cabin. A forward facing three-place seat will be put in the center section, and a three-place rearward facing seat directly across the aisle. An anthropomorphic dummy will be placed in one position in each set of seats.

The scientifically regulated tests will include experiments of crash effects on the galley, cockpit, and cargo palleting.

Look at New FAA Parachute Guide Before You Leap

When the first parachute regulations were written, jumping was strictly utilitarian; the rip cord was pulled only to save a life or to earn grocery money at the county fair.

In the first instance the jumper was awarded the golden insignia of the Caterpillar Club; in the second he took home his share of the gate.

But things change. For a long time people have been leaping out of airplanes just for the fun of it. Actually there are buffs who have made dozens of takeoffs and never returned to earth on wheels. Others jump for more practical reasons, to carry first aid to the injured, or to fight forest fires, but by far the greatest numbers are in the sports categories.

All this activity resulted in situations not anticipated in the regulations, with consequent misunderstandings, particularly among members of parachute clubs. In order to end the confusion and familiarize sportsmen parachutists and pilots who carry them with their responsibilities, FAA has issued a free guide explaining the rules and regulations governing the safe conduct of sports jumps. Information is also provided on rules for the manufacture, alteration, repair and packing of parachutes.

Copies of the guide, Advisory Circular AC-105-1, may be obtained from HQ-436, FAA Washington, D. C., 20553.

Airmen Advisories Reduce Load On Nation-Wide Weather Circuits

B. Jaeger, NFCC, holds tapes from NOTAM test run.

The new look in Notices to Airmen (NOTAM) which went into effect on March 15, is expected to reduce the load on the overworked nation-wide Service "A" weather circuits by at least 50 per cent, without depriving anyone of needed information. This was made possible by revising the criteria on what constitutes a NOTAM, by cutting the wordage and creating a new category called "Airmen Advisory."

A NOTAM is now defined as a telecommunications message requiring immediate dissemination, containing time-critical information not otherwise available, lack of which would preclude safe operation of aircraft. This could mean conditions at an airport which would normally cause diversion of aircraft; an unscheduled change in, or irregular operation of, an important NAVAID; new or modified instrument procedures, or changes in operating minimums.

Airmen Advisories are also time-critical but are confined to such incidents as the presence of birds or animals on the field; ramp or taxiway defects; fuel jettisoning in the area, etc., all of which are of local interest and can be handled on the spot.

In developing the shorter message procedures the word NOTAM was considered unnecessary and so was eliminated, as also were the date and time symbols. NOTAMs are now identified by the west wind arrow and a group of numbers.

The United States is divided into 15 Service "A" areas. Hourly weather reports are collected from within these areas and transmitted throughout the country via FAA's automatic data interchange centers at San Francisco, Cleveland, Atlanta, Fort Worth, and Kansas City. As each center feeds three circuits, weather reports from about 250 locations appear.

QUESTION BOX

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

Q. If I cancel my health insurance coverage will I be able to re-enroll under a health plan sometime in the future?

A. Yes. After cancellation has been effected, your next opportunity to enroll in a health plan will be during a general "Open Season" registration period determined by the Civil Service Commission at least once every three years (Last "Open Season" period—October 1963).

Q. How can I write a good position description?

A. Much has been written on the subject. Briefly, here are some high points. In preparing a description of your position you must first organize your thoughts in terms of the outline provided in PT P 3510.2, Position Classification and Job Evaluation for Supervisors, before starting to write. The introduction should contain a brief statement concerning the functions of the organizational unit in which the position is located, and the purpose for the existence of your position. Two or three sentences should suffice.

In describing the principal duties and responsibilities, list each major duty separately. Ordinarily, the duties and responsibilities should be listed in descending order of importance or in order of work sequence. Indicate the extent of authority for making decisions, recommendations, or official commitments, devising or revising ways of doing things. Give examples of work performed whenever possible. Describe each duty briefly and clearly so that what is involved in its performance can be understood. Do not use ten words where five will suffice.

In describing the supervision which you receive, identify the supervisor by title and organizational location. Describe the nature of the instruction, guidance and review provided by the supervisor and others. Indicate by example if necessary, the kinds of problems or matters referred to the supervisor for assistance.

Above all, don't worry about it! When you know well what your position is, writing a description is nothing more than making a report on a familiar subject.

Q. What is the meaning of the term "employee organization" for purposes of receiving recognition under the terms of Executive Order 10988, "Employee-Management Cooperation in the Federal Service?"

A. This question may best be defined by quoting directly from Section 2 of the Executive Order:

"When used in this order, the term 'employee organization' means any lawful association, labor organization, federation, council, or brotherhood having as a primary purpose the improvement of working conditions among Federal employees, or any craft, trade or industry union whose membership includes both Federal employees and employees of private organizations; but such term shall not include any organization (1) which asserts the right to strike against the Government of the United States or any agency thereof, or to assist or participate in any such strike, or which imposes a duty or obligation to conduct, assist or participate in any such strike, or (2) which advocates the overthrow of the constitutional form of Government in the United States, or (3) which discriminates with regard to the terms or conditions of membership because of race, color, creed or national origin."

The language of the Executive Order covers several basic tests an organization must meet before the Agency can consider it an employee organization for the purposes of the Employee-Management Cooperation Program. Whether or not the organization is called a union, association, or by some other name is not in itself significant. The basic purpose of the organization is important. Organizations whose primary purpose is social, fraternal, religious, and so on, may not be recognized under this Program although the views of such organizations may be considered in matters of interest to their members.

Richmond GADO Crew Earn Plaque For Its United Givers Fund Effort

The United Givers Fund at a ceremony held at the State Office Building, Richmond, awarded Richmond GADO personnel a plaque in recognition of the high per capita contributions made by GADO personnel during the 1963 campaign. One of ten given in the entire Richmond area, the award reads: "United Givers Fund Award for Outstanding Citizenship presented to General Aviation District Office." In the photo, the Honorable Jesse W. Dillon (left) (Judge, State Corporation Commission) presented plaque to Supervising Inspector H. B. Gowin, and secretary Mrs. Dorothy Dyer.

EA UNROLLS RED CARPET FOR EUROCONTROL GROUP

EA's Washington ARTC Center at Leesburg, Va., and New York ARTC Center at Islip, L. I., played host to visiting EUROCONTROL (European Organization for the Safety of Air Navigation) officials following their visit to Washington headquarters to discuss air traffic control in the upper airspace. Formed in March 1963 to provide AT service in the upper airspace above member nations (Great Britain, France, Germany, Belgium, Luxembourg, and the Netherlands) the group maintains liaison with the U.S. through EU Assistant Administrator George C. Prill. Need for Eurocontrol was precipitated by jet age speeds requiring pilots to switch frequently from one aviation support system to another. Marty Gach, Chief, En Route and Communication Section, and R. Jones, Air Navigation Branch, indoctrinated the group at regional headquarters.

In the photo, taken at Kennedy International Airport, are left to right: H. Omenitsch, Training Resources Group; M. Gach, Chief, En Route and Communications Section; R. Jones, Air Navigation Branch; Dr. Villiez, ATC Systems Engineering Directorate; R. Soward, Head of Operations, Policy Division; G. Trow, Director, Operations; Maj. Schmitz, Military Principal Expert, Detailed planning for Benelux/FRG Region; H. Moeshart, Head of Operations Detailed planning for Benelux/FRG Region; J. Leveche, Head of Operations, Detailed Planning Division for the French and United Kingdom Regions.

Dannhardt Gives High Marks to M'Arthur FSS Crew

While many pilots may have occasion to feel a glow of warmth when thinking of FAA's hard-working ATCS, it isn't too often that one sits down to pen a letter of thanks. New York's FSS at MacArthur Field, Islip, was the recent recipient of a letter from a pilot who made the jaunt from Islip to Grand Rapids, Mich., and who had occasion to utilize the region's FSS services from beginning to end of his trip. His letter, of interest to all, follows:

"Dear Gentlemen:
Just a word of thanks for the great job you fellows are doing. I am just a private pilot who first learned to fly about 20 years ago and after a couple years gave up flying. I have started in flying again about two years ago. Needless to say I was favorably impressed by the new equipment—Planes, VOR, (instead of the beam which often wasn't of much use where a private pilot wanted to fly), better weather information, RADAR, static free radio, etc. However most of all I have appreciated the effort you fellows have done in making the small time pilots, flying only a Cessna or a Beechcraft, feel really welcome to use your wonderful services and help. I especially like the Flight Following Service. I have recently made a trip from ISP to Grand Rapids, Michigan, and was impressed particularly on the return trip when weather started to turn bad over the Pennsylvania mountains. Your help was really welcome at that time. Without your services I probably would again give up private flying. With them I expect to be flying a long time. Many sincere thanks. Just a private pilot,

/s/ Harry Dannhardt."

2-Week Methods of Instruction Produces New Crop of Graduates

(First row) Leo Berek, Instructor, Alfred Leroy, ATCS, Albany Tower, Timoteo E. Viliate, Chief, Manila Tower, Dean Winslow, ATCS, N. Y. FSS, Baki Akansel, Turkey, Hyman J. Kaplan, Instructor. (Second row) Anthony Maugeri, Chief, Aircraft & Avionics Maintenance Section for FSD, Robert Marlott, Electronics Technician, Aircraft & Avionics Maintenance Section, FSD, Robert McDonald, ATCS, Cleveland FSS, James Painton, ATCS, New York Center, Joseph Johnson, ATCS, Kennedy Tower, Amado Bulactia Mendador, Philippines. (Third row) George B. Foss, ATCS, Washington FSS, George Mesmer, ATCS, N. Y. Center, Charles Tusso, ATCS, Norfolk Tower, George Zukowski, ATCS, N. Y. Center, Philip G. Rodgers, ATCS, N. Y. Center, John Foundos, ATCS, N. Y. Center. Participating in Certificate Presentation Ceremony, but not present for the picture were—John Wilson, Representative ATD and Theodore Uebel, Int'l. Liaison Officer.

EA's Training Branch has written "finis" to another course in Methods of Instruction for a group of regional technical experts. The two-week course, equivalent to a teacher training course, includes such subjects as educational psychology, methods of instruction, presentations, demonstrations, use of visual aids and tests. Course trainees,—technical experts selected primarily from the region's operating divisions, are given opportunities to make presentations before the group before graduation. Highlights of the individual presentations are group critiques and constructive group criticism.

In Living Color . . .

The 1964 edition of the New England Telephone Company's book for Nashua, N. H., carries a picture—in color, of the new Boston ARTCC at Nashua. Looking on, in satisfaction, are left to right: N. Talbot, Chief, SMS 413, B. Harriman, General Manager, New England T&T, and C. Kynock, Chief, Boston ARTCC.

1,000 VIEW NEW LA GUARDIA TOWER DEDICATION

April 16th saw the dedication of the new LaGuardia Tower. Approximately 1000 guests attended dedication ceremonies, including civic and civil leaders from New York and New Jersey, and members of the Port of New York Authority, and the FAA.

Highlight of the occasion was the unmasking of a bust of the former Mayor Fiorello LaGuardia by Mrs. LaGuardia, and presentations by N. Y. City Mayor Robert F. Wagner and Eastern Region's Director Oscar Bakke.

Following official dedication ceremonies, visitors toured the new $31 million dollar terminal and the new tower. Tower Chief Ed Skaggs and controllers guided the groups through.

2-Week Management Class Gives Students Work-Out

Members of EA's Management Class for first line supervisors pose following graduation ceremonies at regional headquarters. The two-week course covers human relations, management principles, communications and work management. Following regular morning sessions, interested class members also studied effective writing and management of personnel functions in afternoon sessions. Left to right (*indicates division representatives and staff members invited to graduation ceremonies) front row: Kenneth Persson, SMD*, Neil P. McGroarty, Budget Division*, Samuel Smith, Weather Bureau, A. Chiarito, I&M Division*, Wayne Hendershot, Deputy Director*, James Dollard, Assistant P&T Division*, Frank T. Gardner, Aircraft Mechanic Leader, Hangar 11, O. L. Villaume, Training Officer*, William G. Blythe, Louisville Tower, Edgar J. Wright, Jr., Lynchburg Tower, Fred W. Rochmis, Training Officer*, second row: George A. Fisher, ACMI, LGA FSDO, George F. McClure, EMT, Gibbsboro, N. J., William A. Dutton, EMT, Oakdale, Pa., Aldei A. Morin, EMT, Sayville, N. Y., Thomas A. Milici, Placement & Employment Mgt. Rel. Specialist, Clyde Cockrell, Construction Superintendent, Communications Plant Unit, third row: Alfredo Sanedrin, Philippines, Clarence H. Dasch, GAMI, Maintenance Branch, Eugene F. Assip, Supervisory Inspector, IDL ACDO, Gordon Barbour, EMT, Rome, N. Y., Ralph C. Craig, EMT, Jefferson, Ohio, Joseph Brewton, Supervisory Met. Tech., Wallops Island Station, Va., Bernard M. Greif, Aircraft Mechanic Leader, Hangar 11, Arthur P. Kohn, EMT, Toledo, Ohio, Alfred Moucka, ACMS, Maintenance Branch, Harry E. Rosenthal, Supervisory Control Specialist, Performance & Claims Unit, Eugene Metz, Elec. Engineer, Communications & Data Processing Unit, Fred D. Collins, EMT, Cleveland, Ohio, Edward J. Peik, Construction Mgt. Engr., Navaids Plant Unit, James Karuss, Supervisory Elect. Tech., Hangar 11, William Nantz, Teterboro FSS, and William L. Lovegreen, Aircraft Mechanic Leader, Hangar 11.

Governor Presents Fred Hayunga With Aviation Mechanics' Award

Eastern Region's final Aviation Mechanic Award for 1963 was made recently when Governor Richard J. Hughes of New Jersey presented Fred Hayunga of Wyckoff, N. J., with the Agency's award plaque. Hayunga's contribution to the program was the invention of a bolt retaining device designed to prevent damage to aircraft brake elements and axles. Hayunga is employed by the Aviation Department, Olin Mathieson Chemical Corp., at Teterboro Airport. Jules De Crescenzo, General Aviation Inspector, Teterboro, was the Agency's key coordinator for the New Jersey area. Left to right: Frank E. Kimble, Jr., Assistant Chief N. J. Bureau of Aeronautics; Kenneth Kreveling, Director Division of Resource Development, Dept. of Conservation & Economic Development; John B. Rintaul, Assistant Manager, Aviation Department, Olin Mathieson Chemical Corp.; Fred Hayunga; Richard J. Hughes, Governor of State of New Jersey; Robert A. Roe, Commissioner, Dept. of Conservation & Economic Development; Jules De Crescenzo, General Aviation Principal Maintenance Inspector, Teterboro, N. J.; and Colonel Francis R. Gerard, Chief New Jersey Bureau of Aeronautics.

MINNIE WINS QUALITY AWARD

Minnie Sacks, Secretary at the General Aviation District Office, Allentown-Bethlehem-Easton Airport, Pa., receives Quality Within-Grade Increase Award from Supervising Inspector C. L. Clabaugh during ceremony conducted at the district office.

MAINTENANCE MEN RIDE HELICOPTER TO TUNE UP VOR ON MOUNTAIN TOP

A bulldozer opens access road to Ravine, Pa., VORTAC.

Bulldozer blade makes a "clean sweep, fore and aft."

Bowman took photo of snow-bound Ravine VORTAC.

The old Post Office Motto "Neither Wind nor Rain nor Sleet nor Hail can keep the Postman from his Appointed Rounds" applies equally as well to EA's tough lot of Electronic Maintenance Technicians.

When approximately 20 inches of snow fell on the Central Pennsylvania area during January 12 and 13, the electronics maintenance technicians at the Harrisburg-York State Airport never dreamed they would be taking their first helicopter ride to repair a very high frequency omni-range knocked out by the storm.

However, this is just what happened when the VOR called "Ravine" failed.

From the very moment that word was received at 3:00 p.m. on January 13, from the Flight Service Station, that "Ravine" had been knocked out by power surges, W. A. Huston, Chief of Systems Maintenance Sector 130, knew that he had more to worry about than just how to drive home in the blizzard.

"Ravine" is about 30 air miles from the airport. However, it is situated on top of an isolated mountain ridge in the middle of a heavily wooded state game area.

The access road to "Ravine" consists of a two-lane blacktop road going to within seven miles of the building which houses the "omni" and "tacan" which supplies ultra high frequency signals for jet aircraft. The rest of the trip to the VORTAC is over seven miles of dirt road.

An immediate check on the Pennsylvania State Highways Department disclosed that not only was the dirt road closed, but the two-lane blacktop was impassable because of snow drifts as high as 10 feet.

On Tuesday morning, January 14, the airport which closed on Sunday night due to the storm, opened without the "omni" in operation. State Police indicated that to attempt to reach the isolated building, "Ravine," in the near zero temperatures would be extremely dangerous.

However, the technician is accustomed to working against odds, and so undaunted, Mr. Huston called upon the U.S. Air Force at nearby Olmsted Air Force Base for assistance. Major Calvin J. Rupp, Operations Officer of the 2857th Air Base Wing indicated he would furnish a helicopter to take two technicians to the mountain top and land, if possible. If not possible, plans were to lower the two technicians in a basket close to the VORTAC building.

Huston and Section Chief, John Paul, gathered up insulated clothing which they keep in their cars for just such emergencies and in a few minutes they were airborne and on their way.

They described their first helicopter ride as follows:

"Within 45 minutes from the time Major Rupp was contacted, the 'chopper' had picked us up and we were on our way to the VOR. The helicopter was an H-9 and the crew consisted of Capt. Robert E. Smith, pilot; Lt. Harold Brattland, co-pilot and Airman First Class R. L. West, Crew Chief. We headed up the Susquehanna River to Halifax and then east along the mountains to the VORTAC. It was a beautiful sight. Below, you could see farms and small villages with no roads leading to them, protruding here and there from an ocean of white. It took us about a half hour to reach the VORTAC. As we approached it, we could see deer stirred to activity by the 'chopper.' However, the snow was so deep all they could do was make a few jumps here and there and leave imprints of their bodies in the snow. We wondered how we would get in, since the thought of being lowered in a basket was not so appealing now that the time had arrived. However, since this measure was to be used as a last resort, the pilot first made several low passes so that his rotors blew a clearing in the powdery snow. As soon as we landed, we grabbed snow shovels and dug our way toward the building.

"One set of equipment had a tube failure and was quickly rectified. Then we proceeded to work on the back-up equipment which required some improvising since some of the components which had failed were not on hand. The pilot stood by outside with the helicopter rotors turning so as to keep the area clear of snow and to make certain he could start again. However, he showed increasing concern since his fuel was running low. Finally, he indicated he must leave and we were requested to call when we were ready. Before he left, however, we checked the outside phone to make sure it was operating. Repairs were finally completed at 1:30 p.m. and we communicated with the base indicating we were ready to leave. By now, the outside temperature was about five degrees above zero, with gusts of wind up to 30 miles per hour. We had hoped to check the generator gasoline supply but the fuel pipe was covered in the drift. Several attempts were made to dig it out but were unsuccessful. The drifts were too high and it was bitter cold. We then checked the TACAN and waited for the ride home.

"At 2:25 p.m., the 'chopper' arrived and we headed home. The crew on the return trip were: Capt. James R. Reardon, pilot; Lt. Wesley P. Bowers, co-pilot; and Airman First Class R. L. West, Crew Chief."

As it turned out, Huston later said, "It was a good thing we made the trip, for it was late Thursday, three days after the storm ended, that we were finally able to get to the facility by vehicle and to make permanent repairs to the back-up equipment."

Inside the MIC. The Administrator (c.) with Associate Administrator A. Dear, Deputy Administrator H. Grant and Associate Administrators R. Shank and D. Thomas.

Rx FOR FACT FINDING

Effective planning and decision making requires timely, accurate and evaluated program and management information. Following this well established precept, the Office of Management Services developed a plan that assures the Administrator and his executives of a constant supply of this valuable commodity.

This plan, the Management Information System, is a visual presentation of the Agency's current resources and programs, furnished by the Directors of the Offices and Services. First, the multitudinous reports that channel into headquarters are analyzed; then those facts of greatest significance to top management are selected for inclusion in the MIS. Sifting and collating the reports is a continuous process that pays off in better and timelier information, with the added dividend of eliminating some reports as unnecessary, and revising others to bring out only what is relevent to the user. Increasing adaptation of the reporting systems to ADP is expected to bring about an even speedier and more meaningful integration of vital material as it accrues.

The decentralization of authority to Regional Directors and field offices has additionally emphasized the necessity for management information. The regions, in developing their own techniques, have found a need for comparative data and for national standards to assist them in evaluating their performances. Similarly, the Administrator and the office and service directors need this information.

Recently a working group representing the Regional Directors and the various services determined a set of key factors that can be used to measure regional performance on a comparable basis. These are now being reviewed, after which the program offices and services will establish an index and also develop uniform definitions and national standards for each factor. Uniform definitions will make more readily apparent the differences in facilities, cyclical workloads and workload mixes; permit a more penetrating analysis of any variance from standards, and finally will provide both headquarters and the regions with better and sounder information on which to base management actions.

The Management Information System comprises the following:

Management Information Center, (MIC). A conference room immediately adjacent to the offices of the Administrator and Deputy Administrator, where the Executive Committee meets and where management information of current and continuing interest is displayed for the use of the Committee and other top officials. Periodically Office and Service directors are called to brief the Committee on charts concerning their particular areas.

Management Information Manual, (MIM). A volume of statistics in chart form, updated every week, that provides an overview and indication of the general state of affairs within the Agency. Trends, deviations and slippages from plans, standards and goals, as well as problem areas, are presented here on a selective basis.

The Administrator's Alert Bulletin. A 24-hour roundup of developments and events within and without the Agency that have a major impact on FAA in the management, political, and public relations fields. Items are written in terse style, followed by the reference code of the submitting office.

The Administrator's Fact Book. Pocket size for ready-reference, it is a compendium of information directly affecting the FAA and the aviation industry.

These sources of information are supplemented by the Administrator's weekly telephone conference (TELECON) with the Regional Directors; Program Review Conferences, Regional Director's Conferences and other meetings that offer opportunity for personal discussion between the Administrator and the heads of major organization elements.

PERSON TO PERSON. The TELECON brings together once a week Regional Directors and executives at Hdqrs.

COMMUNICATIONS

Key to Safety, Progress, Understanding

It is Monday, 4:00 p.m., Eastern Daylight Saving Time in Washington and New York; 3:00 p.m. in Atlanta; 2:00 p.m. in Kansas City and Fort Worth; 12:00 noon in Los Angeles; 10:00 a.m. in Anchorage and 10:00 a.m. in Honolulu; and 8:00 p.m. in London. The Regional Directors and the Assistant Administrator, EU, have been alerted that the Administrator is calling. The Washington Communications Duty Officer gives the signal; Mr. Halaby or General Grant picks up his 'phone. In a matter of seconds the weekly telephone conference is on and men thousands of miles apart are deep in discussion of Agency matters—an example of management communications in action at the highest level.

All but the overseas cities are connected by FAA's Red network; Honolulu and London are brought in via the Air Force Gray phone.

The Red network consists of a primary circuit extending from Washington to all Regional Offices in the continental United States, and secondary circuits that connect the Regions with their air route traffic control centers.

The Gray is part of the U.S. Air Force Tactical Voice Network. All regions have access to it by means of a tail circuit to a nearby Air Force Base. The Gray is also used to coordinate with the various USAF commands, giving FAA top management almost instant contact with any military establishment in the world.

Hub of the entire system is the Communications Control Center on the top floor of the FAA building in Washington; a compact room housing telephones, interphones, radio receivers and teletypewriters. The facility functions as the Agency's Operational Control Center and is more or less duplicated in each Region's headquarters.

This interchange had its origin in the Executive Communications Program initiated by Mr. Halaby shortly after his appointment as Administrator. However, the real impetus was provided by the Cuban crisis in October 1962 which spotlighted the critical requirement for a central facility that would lend itself to effective control of the Agency during emergency conditions.

The Communications Control Centers provide a focal point for management continuity during non-duty hours and can serve as action centers in emergencies or periods of increased activity. The conference room adjacent to the Headquarters Control Center is provided with a speaker-microphone system by which the Washington staff may participate in telephone conversations with field personnel. In a serious emergency all concerned would assemble in this room and with worldwide communications at their fingertips could disseminate top level decisions in a matter of minutes.

All CCC's are in operation 24 hours a day, seven days a week. Washington's is manned by an Executive Communications staff reporting to the Executive Secretary; in the regions the staff reports to the Directors. CCC personnel have either flight standards or air traffic backgrounds and it is they, with their experience and know-how, who operate the Command and Control Communications system through which our widely scattered organization is welded into a cohesive whole.

Operational Communications

Communications is the very heart of the air traffic control system. Its effective operation depends upon rapid exchange of traffic and weather information throughout the U.S. and over most of the world. One of the largest networks of teletypewriter, telephone and radio circuits in existence is used to carry out this herculean task.

FAA leases major portions of its communications network from commercial telephone companies through the Defense Communications Agency at bulk or so-called "TELPAK" tariff rates. The TELPAK tariff benefits large users because the cost per mile decreases as the size and fill of the TELPAKS, or grouping of lines, increase.

FAA's operational communications include 188,314 miles of interphone lines between air route traffic control centers, airport traffic control towers, flight service stations, military radar approach control facilities, and airline offices; 12,000 miles of remote control air/ground communications lines for direct communications between pilots and air traffic controllers; 60,000 miles of communications lines for the weather network, and 56,586 miles for flight movement teletype network. In addition to the leased lines, FAA also leases switching equipment, or small telephone exchanges, at 309 locations.

Service B Teletypewriter System

Five separate communications networks make up the Service B teletypewriter system—Area B; Center B; International B; Military B; and Air Carrier B.

Area B consists of 24 individual circuits operating at 100 words per minute, with 53 automatic relay stations handling messages between adjacent circuits. Each circuit covers approximately the area served by an air route traffic control center. The Area B network is used primarily to handle notifications of accidents and emergencies, aircraft control and movement messages; radiological hazards; forecasts for special missions; pilot weather reports, law enforcement and administrative messages; international flight movements and NOTAMS, and forecasts for transcribed weather broadcasts.

First established in 1937 to serve a limited number of flight service stations, Area B had less than 4000 miles of lines and equipment that operated at 60 wpm. By 1954 it had grown to about its present configuration; 54 stations had fully automatic relays and speed had progressed to 75 wpm. Six years later all printers and relays were replaced with the most modern equipment available at that time and the speed was increased to 100 wpm.

Most recent (Feb. 1964) addition to the Area B network is a 10-station BDIS (Area B automatic data interchange system) operating at more than 1000 wpm, each serving two or three circuits. BDIS is used when a message is destined for a location not on the circuit of origin, or one adjacent to it. To explain: a message going from one station to another on the same circuit is transmitted directly; to a location on an adjacent circuit it is transmitted through a low speed (100 wpm) relay station; however, a message going beyond one adjacent circuit is routed through a BDIS. The time is not far distant when low speed relay functions will be discontinued entirely and all such traffic will be handled via BDIS.

Center B

This network consists of two circuits, Eastern and Western, connecting at Kansas City. All air route traffic control centers in the 48 contiguous states are served by these circuits for the exchange of IFR flight plan traffic.

International B

A single multipoint circuit that serves the International Flight Service Stations at New York, Miami, and San Francisco, the FAA headquarters message center and the message centers in the EA, SO, SW, CE and PC regions, the National Flight Data Center, the Aeronautical Center and NAFEC. Its primary function is the exchange of international flight plans but it is also used to carry administrative messages.

Military B

Military B comprises 22 separate teletypewriter circuits, each interconnecting an Air Route Traffic Control Center with one or more high activity air bases. The circuits transmit military IFR flight plans from 125 Army, Navy, and Air Force Operations offices to the Centers.

AIR/GROUND. Tower controllers direct arrivals to separate approach paths and runways; departures to takeoff positions, climb paths and altitudes.

ALOHA. The telephone links Honolulu and Washington for PC Director Gale.

CCC FORT WORTH. Two-digit dialing brings in Washington or any Region.

Air Carrier B

Only IFR flight plans are carried on this network which consists of 10 separate teletypewriter circuits. These are local in nature and connect air carrier operations offices with ARTCC's and some FSS.

Weather Communications

FAA's operational weather service consists of some 60,000 miles of teletypewriter circuits sending and receiving hourly surface reports, special reports, radar reports, pilot reports, supplemental reports and miscellaneous data, including upper air and forecast information. Notices to Airmen (NOTAMS) regarding status of radio aids, airports, lights and other facilities are also broadcast over this system. Designated Services A, C, and O, every airplane flying in or over this country today is dependent upon them.

Service A

Service A is the work-horse of the airways. It extends from coast-to-coast and border-to-border, is made up of 15 area circuits which enter airline operations office in every major city in every state in the country; each FAA facility, Weather Bureau office, and a great many private and military meteorological offices, plus assorted radio, TV, and other broadcasting stations.

Once each hour (more often in inclement weather) observers at some 800 points throughout the country record and distribute the surface weather—cloud heights, visibility, precipitation, wind direction and velocity, atmospheric pressures—the basics which tell the private pilot to go or stay home, and the airline dispatcher whether or not Flight One can go from Kennedy International Airport to Washington National. Heavy users of meteorological data who need more than is brought in on the area channels—for example Weather Bureau Forecast Centers and major airlines—are supplied this additional material through 14 supplemental and 70 local circuits.

Service C

Some users need to know the weather three, twelve, or even twenty-four hours in advance. They must know the winds to expect at different flight levels; if turbulence is to be expected; if hail, snow, or thunderstorms are in the offing. This type of information is collected and distributed over the 6-circuit, 22,000-mile Service C system from observations known as synoptic reports received from PIBALS (pilot

FLIGHT INFORMATION. Day and night the teletypewriter circuits send and receive reams of flight data.

AIR/GROUND. Center controllers keep in touch with aircraft flying "en route" on instrument flight plans.

ANCHORAGE. Instantaneous, round-the-clock communications for 49th State

balloons) and RAOBS (radiosonde observations) taken at various places over widely separated regions of the U. S., at or about the same time throughout the day. From the data received in this manner, meteorologists foretell the weather in greater detail, the forecaster draws his maps and bases his calculations.

Service C observations are obtained at some 200 selected locations and transmitted to Weather Bureau Forecast Centers, military and civil airline meteorological offices and other interested agencies. As Service A sums up the current weather situation, Service C looks into the future.

Service O

Services A and C do not tell the whole story. Weather information from all over the world is needed in immense quantities for international flight operations. This weather is brought in and distributed over the Service O System which extends for approximately 20,000 miles, via 20 teletypewriter and cable circuits, across the United States, to Europe, South America, the Caribbean area and assorted islands in the Atlantic and Pacific. Gateway stations at New York, Miami, and San Francisco collect, collate, edit and distribute the data to the domestic segments of the Service O system.

Air/Ground Communications

FAA has 6276 air/ground voice communications channels, or circuits, operated by 692 air traffic facilities. The channels are used by control towers, IFR rooms, international and domestic flight service stations, and air route traffic control centers to communicate with the aircraft they are serving. While the common denominator is safety, the services provided differ in many respects. Towers and IFR facilities use their air/ground channels to handle aircraft operating on or in the vicinity of airports or terminal areas, while flight service station channels are used for a variety of purposes—weather reports, Notices to Airmen (NOTAMs) special VFR functions such as flight following service, flight plan handling, and emergency orientation of lost aircraft; also as back-up for the ARTCC A/G system. Centers, on the other hand, use their A/G channels for controlling "en route" aircraft operating on IFR flight plans.

International Communications

Early in 1940 the Civil Aeronautics Administration as FAA was known then, established the first intercontinental radio station at New York with radiotelegraph circuits to Europe, the Azores, Bermuda and Newfoundland plus services for air-ground communications. This was the first International Flight Service Station and it handled trans-Atlantic operations. At the same time plans were in the making to install similar facilities near San Francisco, at Seattle and Anchorage for the Pacific and Alaskan areas. This was done and later on, under the impetus of the war effort (WW-II) stations appeared at Honolulu, New Orleans, Balboa and Miami. Also, to support the Navy they were built in the Caribbean, South America, Europe and Africa.

In the middle 1940's radioteletypewriters replaced manual radio on the busier trunk circuits and A/G communications were converted to radiotelephone. Over the years all categories of messages increased several hundred fold.

Today FAA's interational telecommunications services are largely provided by the IFSS' at Anchorage and Cold Bay, Alaska, Balboa, Guam, Honolulu, Miami, New York, Pago Pago American Samoa, San Juan, San Francisco, and Wake Island.

Radiotelegraph is used on a regular basis only at Balboa. HF air/ground communications have been supplemented by the VHF radiotelephone. Automation to cope with the floods of messages has been introduced at Honolulu and Balboa where fully automatic teletypewriter systems transmit messages in a matter of seconds and a third switching system of this type is due to be commissioned at Anchorage.

On a typical day the Balboa IFSS is in touch via radiotelegraph and radioteletypewriter with Miami, Bogata, Guyaquil, Cali, San Jose, Managua, Tegucigalpa, Curacao, Lima, Kingston, Medellin, Baranquilla, Maiquetia, Quito, San Salvador, Guatemala, Dallas and Tocumen. Approximately 103,000 messages are sent and 122,000 received every 24 hours—flight plans, arrivals and departures, NOTAMS, and weather, and during an average month the Station's 21 HF and VHF channels contact an average of 3840 aircraft ranging all the way from puddle jumpers to intercontinental jets.

This tremendous system of communications—management and operational—will not remain static. Extensions, improvements, and new facilities will be needed in the future to serve the expanding and changing requirements of its many users. Therefore, in every approach to communications problems in all its manifold communications plans, FAA keeps the future in mind, alert to anything which can be used for its own advancement and the national interest. For when we improve our communications we strengthen the Agency, and when we strengthen the Agency we strengthen the country.

REASONS FOR PERSONNEL MANAGEMENT SURVEYS

Left to right: Headquarters Manager Jack Hogan, and Headquarters Personnel Chief, Nelson Jump, receive briefing on the headquarters management evaluation from Ken Stallo and Ed Burstein of Personnel & Training.

Everyone knows that there are Government-wide systems for hiring, firing, retiring, demoting, promoting, training and paying people. And, you have some knowledge of the programs for equal employment opportunity, union recognition and bargaining, life insurance, health insurance and grievances and appeals. And, you also know that within the framework of governing law and regulation, the Agency has developed a comprehensive personnel and training system.

From an individual position in the FAA, you see the personnel and training system operate. How well does it work? Is it fair? Can it be done better? Where does the Agency go from here? These are the questions the Surveys Branch probes in depth.

To get these answers, personnel technicians from the Surveys Branch of the Office of Personnel and Training's new Program Evaluation Staff, are going to the field.

In 1962, Robert H. Willey, Assistant Administrator, Office of Personnel and Training, established a Program Evaluation Staff, headed by Kenneth J. Stallo, so that this systematic appraisal could begin. Since its beginning, surveys have been conducted under the leadership of Edward M. Burstein, the Surveys Branch Chief, at five regions and the Aeronautical Center.

Surveys are scheduled on a recurring cycle for all regions and centers. The review includes gathering of facts by random sampling of subordinate field facilities. They conduct questionnaire sessions and talk to employees as well as supervisors at all levels. The questionnaires are used as another check on personnel program information and understanding. These reviews are conducted by a four or five-man team which spends about three weeks in the field for each survey. At the end of the field visit, the regional director or center manager, the personnel officer and other key staff members are told of the findings. Later, the region or center gets a written report.

The Survey Staff also has been used effectively to analyze and evaluate other Agency efforts. For example, last year they conducted a thorough review of the Headquarters Redeployment; this year they were asked to gather information to assist in evaluating Project FOCUS tests.

Order Spells Out High Official Conduct Standards

Agency order OA 1000.7 of May 9, 1963 spells out official conduct standards which apply to all employees and representatives of the FAA. It assures the integrity of Agency operations, promotes compliance with applicable laws, policies and regulations and safeguards public confidence in the Agency.

The order has to do with employees or representatives accepting fees, gifts or any other thing of monetary value. Also it prevents employees from becoming involved in outside activities that are not compatible with the proper discharge of the responsibilities of their office or position.

The Administrator has directed that all violations of the policy be promptly reported to the Director, Office of Compliance and Security.

Check the FAA Flight Schedules Before You Dip into Travel Fund

One of the best ways to conserve scarce travel funds is to make your official trip via FAA aircraft whenever possible. The FAA fleet of over 100 aircraft is constantly performing such necessary missions as flight inspection and training. A simple phone call to the FAA flight operations office or the hangar will reveal the schedules. FAA employees traveling on official business are given high priority for all FAA flights.

The question has been raised, "Since FAA flights are non-scheduled, is my insurance good in the event of accident?" Eleven major insurance companies responded to Office of Personnel and Training that their policies would be paid under such circumstances. Of course, most insurance companies require the flying crews to acquire a special rider, but not passengers. Specific questions should be answered by your insurance agent.

In addition to your own life insurance, benefits are also provided for by the Federal Employees' Compensation Act. The law provides for compensation up to $525 a month (tax free!), full medical care and other benefits for disabilities sustained in the line of duty. Benefits applicable under the Federal Employees' Compensation Act represent the total claim employees may make against the Government.

If you're wondering about safety, remember that FAA governs the safety of commercial aviation and that the agency applies even more stringent rules to its own air fleet and crews. FAA's flight safety record compares favorably with any other fleet in the world.

NEW LOOK IN CONTROL TOWERS

Some time this summer the first of FAA's new-type control towers will begin to appear at airports throughout the country. These towers, built to FAA specifications and tailored to the needs of the air traffic controller, represent one of the most progressive steps taken in government architecture in recent years.

The smaller, for VFR airports, is pentagon shaped and free standing, with five floors of operating space from base to cab. The larger, for radar-equipped airports, is a concrete shaft, to be built wherever the requirement is generally 60 feet or higher. This has the radar room, communications and other equipment in the base structure, with provision made for future expansion at ground level.

FAA Goes "Underground" in Texas

Deep under the rolling prairie of the North Central Texas plains men are shaping the emergency operations plans of Federal government agencies. Here in the nation's first completed underground facility, 40 miles north of Fort Worth at Denton, vital decisions for survival and recovery will come in case of atomic attack.

Housing the five-state Regional headquarters of the Office of Civil Defense and the Office of Emergency Planning, the Denton Center also includes representatives of other agencies, among them the Federal Aviation Agency. This underground center may provide the lifeline of the FAA in the Southwest Region if an aggressor triggers atomic war against the United States.

Elmer A. Addington Jr., Defense Readiness Officer, or J. W. Skolaut, Assistant Defense Readiness Officer, work daily with Bill Parker and George Hastings, respective Regional Directors of the OCD and OEP, and their staffs in perfecting plans —the insurance—for survival and recovery. In case of imminent attack, certain Regional FAA headquarters personnel would be relocated to two locations; one of these is the Denton Center.

The bulk of these, under the control of Regional Director Archie W. League, would, if possible, carry on the duties of the FAA from another location, with Addington providing the defense coordination. Meanwhile, the group assigned to the Denton Center, working with other government teams, would plan for the necessary resources of manpower and materials for recovery. In addition to Skolaut, this group will be composed of the Deputy Director, the Chief, Materiel Branch, and one or more emergency engineering teams, each consisting of a civil, communications, electrical, mechanical, and electronic engineer.

This FAA group, working in the underground offices, would aim at restoring various facets of the civil aviation industry, including the restoration of airports and the acquisition of fuel and equipment for the operation of state and regional defense airlift programs. Engineers, until they are called to provide technical guidance in the reconstruction of essential FAA communications, air navigation aids, and air traffic control facilities, would help with the complex equipment within the underground facility.

Coordination between the two FAA relocation centers is maintained by landline and voice radio. This is only a small segment of the elaborate communications network connecting the Center to all vital local, state, and Federal governmental offices and major industry. Special communications equipment, including landlines, radio, and microwave, has been engineered to provide a reasonable amount of "survivability."

Air Force Chief of Staff Gen. Curtis LeMay once said, "Without communications I command only my desk." Similarly, forestalling any possibility that occupants of the Center under attack would command only the underground offices, engineers have constructed remotely operated antennas covering 20 acres two miles from the Center to support the radio communications. They are oriented to receive and transmit broadcasts from the national OCD headquarters, the seven other Regional Centers, and the five states (same as the FAA region) within the Denton defense region.

A new directional antenna is being installed at the site for long haul transmissions. This 120-foot-high antenna "concentrates and squirts" the Denton broadcasts to such distant points as Everett, Wash., and, if necessary, as far as London, England. The antenna would have difficulty reaching closer stations because it cannot be depressed sufficiently. If the shorter distance broadcasts became necessary, each station would direct its antennas in the opposite direction and broadcast around the other side of the earth to each other. A blast-protected antenna at the underground headquarters is designed to "pop up" if the regular antennas are destroyed or fail to work.

Landline portions of the national-to-region circuit are wired around likely target areas. As a backup, the OCD is providing radioteletype to each state government emergency headquarters. State and local systems, such as the Texas State Highway Department with its radio network of 50 base stations and 350 mobile stations, supplement the defense communications.

This type of communications network assists the FAA in its defense planning. Close coordination with many other Federal, state, and local governmental authorities is being mapped. These are included in Regional defense measures which have established and tested defense readiness plans for each field facility. Certain facilities are required to remain in operation as long as possible to support the military effort, while other personnel will be relocated as directed. Additionally, procedures for coping with emergency conditions and responsibilities in the post-attack period are rapidly being developed for effective and efficient accomplishment of defense readiness responsibilities. Emergency operations plans for airports are included.

An asset to this planning is the nearness of the Denton Center, a safe-as-possible facility also housing other government representatives from whom cooperation must come in an emergency. Actually a king-sized basement of 1.1 acres, the Center is cut off from the outside world by double doors, the outside one of steel and lead and weighing 13 tons. The facility can withstand 30 psi, but not a direct hit. A nearby blast would cause the underground building to shift, but it and the equipment in it are designed to shift without damage.

Everything in the Center is shock-mounted, either sitting on or hung from springs. Giant heating and cooling systems, power generators, and even the motor atop a 1200-foot well, sit on springs. Pipes are hinged on springs and rows of lights dangle from the ceiling—also from springs. The one destructible portion is the ground-level building, which is designed to blow clear of the area in case of a blast.

The Denton Center and its proximity to the Regional headquarters have given the Southwest Region greater meaning in its defense readiness planning. Much of the work of civil defense planning and the programs mapped for survival and recovery go unnoticed because the staffs are working for something everyone hopes will never come.

Loss of this handsome building (top) in an atomic attack would not destroy vital communications buried deep under its foundations. Shock-mounted pump (r.) gets water from wells in underground facility. In meeting at the Center (below, r.) are: (l. to r.) J. W. Skolaut, FAA Asst. Readiness Officer; E. A. Addington, FAA Defense Readiness Officer; Mrs. Z. Whatley; W. Parker, OCD Regional Director; L. T. Holland, Asst. Dir.; G. Hastings, Regional Dir., OEP; and V. Twaddell, OCD Field Service Dir. Defense Center building "going down" during construction of heavily-reinforced concrete walls up to 42 in. thick.

TECHNICIANS TO LEARN THE PERSONNEL BUSINESS

For the second year in a row, the Office of Personnel and Training has selected three young men from the technical side of the FAA workforce to learn the personnel and training business. Those selected were air traffic controllers.

This year, about 300 applications were received—many of them from personnel in the technical areas. The 26 highest ranked applicants took the Federal Service Entrance Examination—the U.S. Civil Service Commission's tough test. From the test results, supervisory evaluations and oral examinations, those selected were James M. Dermody, WNA Tower; Clifford L. Schum, Atlanta Center; and William C. Murray, Jr., Anchorage Center/RAPCON.

As Robert H. Willey, Assistant Administrator for Personnel and Training is quick to point out, this program is not simply to provide new career avenues for our employees. "In fact, this is really secondary," he says. "Our primary purpose is to achieve an even better balance of talent on our staff. Our programs affect all employees—and, we believe there is a need to blend men and women with other Agency experience into the OPT staff. Last year's selections are already integrated into our regular programs—Ed O'Connor has joined the Training Division; Greg Maguire and Don Heath are working in the OPT Career Planning Division; and Joe Noonan is a member of our new Employee-Management Relations Staff." This year OPT hopes to include training assignments in selected field personnel offices if they can be arranged economically.

This is a small program if judged by numbers alone. But it is one that may lead other administrative functions to consider a similar program. OPT officials believe that the Agency has young men and women in technical occupations who could be of great value working in some of the Agency's other programs.

Last Words, "That's Not in My Job Description"

The Civil Service Commission cautions government employees that they may face disciplinary action if they refuse to perform assignments.

Some employees occasionally are reluctant—even refuse at times—to perform assignments. Such hesitance or refusal is based on an erroneous idea that an employee is not required to perform any duty "that's not in my job description." This idea could not be further from the truth.

Supervisors have full authority to assign work to employees as they see fit within the scope of their operation. The employee is responsible for carrying out these assignments to the best of his ability, regardless of whether the duties are specifically included in the position description.

An employee who flatly refuses to carry out an order of a supervisor is committing insubordination and such a refusal may result in disciplinary action.

It isn't necessary for a job description to outline every duty expected of an employee. A description is adequate if it covers the principal duties, responsibilities and supervisory relationships in such a way that the job can be classified. Normally, minor duties are not included.

Assignments, of course, must be reasonably related to the employee's position and qualifications. For example, a stenographer could not be expected to solve a problem requiring knowledge of engineering nor to perform jobs involving strenuous physical labor.

Writing Workshop Helps Improve FAA Directives

Last February the Office of Management Services, through its Management Analysis Division, began an Agencywide campaign to improve the quality of FAA directives. The campaign was based on a six-hour workshop built around the special principles and procedures that govern directive planning and writing. It consisted of class instruction, slides, graphs, practice writing and discussion.

The workshop, originally developed by Fred Osgood, MS-530, was conducted by Carl Uhlig of GSA's National Archives and Records Service.

The campaign opened in Washington in February and the show went on the road in March. Five weeks later it closed in Los Angeles, having visited every region, the Aeronautical Center and NAFEC.

All told some 300 headquarters and 500 regional employees were exposed to the advantages of writing clearly, accurately, and to the point.

HEALTH FOR ALL

OFFICE OF AVIATION MEDICINE

POISON IVY

One or more varieties of poison ivy appear in almost every part of the country. These plants are responsible for about 350,000 cases of skin poisoning every year.

Poison ivy grows in the form of climbing vines, shrubs which trail on the ground, and erect shrubbery growing without support. The leaves vary in length from one to four inches. They are green and glossy in summer; in the spring and fall they are red and russet. The fruit is white and waxy and resembles mistletoe. *The leaves always grow in clusters of three.* The old jingle "Leaflets three, let it be" has helped children and adults to recognize poison ivy at a glance.

The irritating substance in poison ivy is the oily sap in the leaves, flowers, fruit, stem, bark, and roots. Most cases of ivy poisoning are due to direct contact with the plant. Some are caused by handling clothing, garden implements, and pets which have been contaminated by the oily sap. Some people are so sensitive that exposure to smoke from a brush fire containing poison ivy will cause inflammation.

The oil may be carried from the plant on clothing, shoes, tools, soil and animals to persons who never go near poison ivy plants. Poisoning may occur even if clothing is worn a year after contact with the plant.

Poison ivy extends from the eastern coast of North America westward to British Columbia and south to Florida and Mexico.

If, at any time, you realize that you have accidentally handled poison ivy or brushed against it, wash your skin as soon as possible. Yellow laundry soap is best for this purpose.

The first symptom noticed after ivy poisoning is a burning and itching sensation. This is followed by a rash and swelling and probably by small or large blisters. The length of time elapsing between contact and the first symptoms varies from a few hours to seven days. Any one of the following methods may be used.

Wet compresses with boric acid solution. Starch solution baths, or Calamine lotion may be applied to the affected areas.

"Now the First Step In Learning to Fly . . ." Mrs. J. B. Perry gets the feel of the "driver's seat" in the cockpit of a plane she is going to learn to fly. Her instructor, Miss Frances Miller, stands on the wing of the plane while three more students, Mrs. Bill Holecek, Mrs. Harold E. Gibson, and Mrs. Harold Hall, listen. The ladies decided to learn to fly in case they needed to make an emergency landing while in the air with their pilot-husbands. (Photo courtesy THE STATE, Columbia, S. C.)

BACK-SEAT FLYERS TAKE THE STICK

"Women are a little flighty," a lot of men have always contended, and a group of Columbia, South Carolina, women are setting out to prove the men are right.

While not "flighty" in one sense, they are setting out to prove that they *can fly*. They have been "back-seat flyers" for their pilot-husbands for many years, and now they want to show their better halves that they not only can keep up with them but can get down without them if they have to.

With the persistent urging of their husbands, and the brooding idea that they just might have to make an emergency landing some day, fourteen wives have enrolled in a special flying class at the Columbia Airport. Their instructor, Miss Frances Miller, a long-time pilot, had actually taught many of the ladies' husbands to fly years before.

Even though Miss Miller continually assured them about the safety of flying, many of the women, a few of whom had never even been up in the air, still had apprehensions about taking over the controls themselves.

As an example, when Miss Miller told the ladies one day that they were planning to make a trip to Greenville, S. C., to see the FAA radar system there, one of the non-flyers screeched, "Go in an airplane?" When Miss Miller, the experienced pilot that she is, said "the plane stays in the air because the air is solid," a skeptical skirted student came back with "Yes, but you can't get out there and sit on it!"

As of now, before the women actually take to the air, they are getting instructions in ground flight classes. Besides finding out exactly what makes an airplane stay up, they are adding words like "aileron," "stabilizer," "yaw," and "rudder," and phrases like "angle of attack" to their everyday vocabulary.

The women are interested not so much in how to take off and fly, but in how to land. After being shown a picture of the somewhat complicated instrument panel in the cockpit of an airplane, one bright lady had a penetrating question: "Which button do you turn to get FAA radio instructions for landing?"

Another lady, having had her first flying lesson only a few days before, remarked, "Just as long as I do not have to look outside the plane toward the ground, I am all right."

Miss Miller carefully and calmly explained to this lady that an instrument on the panel indicates the angle of the plane and it is not necessary to look outside to see if it is heading up or down or turning left or right. If the instruments are adjusted properly, she said, the pilot can relax. "The plane is just like a boat," she said. "A boat cannot be 'pushed' under water, and a plane cannot be 'pushed' out of the air."

Color slides and models of airplanes and instruments are used during classroom instruction, during which Miss Miller's informal lectures are interspersed by comments from her students. For instance, she draws models of airplane parts on a blackboard and asks the ladies to identify the various parts. At other times, they are asked to tell the use of various instruments or just what will happen to an airplane if a particular instrument is adjusted in a certain way.

Before the women will be eligible for their FAA pilot licenses, they must complete a total of 40 hours of instruction, including ground instruction, at least 20 hours of which is solo flight. "Some people learn to fly with just eight hours of flight instruction," Miss Miller told her students. "Some people take as many as 30 hours, but the average is about 12."

Bill Jones of our General Aviation District Office at Columbia, told our "FAA HORIZONS" reporter that after he talked with the group of ladies, he was "most impressed with their intense interest, and I know that one day they will make good 'back-seat flyers' for their pilot-husbands." As the advertisement says, "Never underestimate the power of a woman."

"FAA HORIZONS" Visits Orlando, Florida

The City Beautiful

Laughing children, splashing in sunlit pools, overlooked by swaying palm trees, entertainment from DeBussey to dog racing, exciting space-age industry, lush orange groves, all characterize Orlando, Florida, today.

Progress from a tiny indian trading post to a fast-growing, modern metropolitan complex has been sparked by various industries and Orlando's strategic location in the heart of Florida.

At the very hub of Florida's transportation system, Orlando has attracted many industries that desire economical distribution for their products, and aviation has played a very important role at this central transportation point.

Much of the new industry in Orlando is geared to the "Space Age," with electronics firms producing missiles and related systems for America's space exploration programs. Orlando's nearness to Cape Kennedy, only 65 miles away, has made it a space-age center.

Located right in the heart of the famed citrus region, Orlando has long been a major center of fresh fruit production. Not only is Orlando famed for fresh citrus fruit, but also for frozen concentrates, chilled and canned juices and related products.

Orlando's myriad lakes and scenic beauty lure vacationers by the thousands every year to lie in the sun, enjoy the culture, and fish in the more than 1500 nearby lakes that teem with large-mouth bass . . . literally a sportsman's paradise.

This life is enjoyed by 92 FAA men and women in Orlando. The Agency operates a control tower, a flight service station, and there is a systems maintenance district office, a flight inspection district office, and an I&M supply specialist.

Our FAA men and women contribute a great deal to the flourishing aviation industry in Central Florida in support of airlines, private aircraft and the military in the defense of our country.

FAA's local annual payroll of almost $900,000 and its investment in airports and air navigation aids, running into several millions of dollars, are indicative of its interest in promoting aviation in Orlando and FAA's air safety partnership with its citizens.

"FAA HORIZONS" salutes ORLANDO . . . THE CITY BEAUTIFUL . . . and the FAA men and women whose expert skills and aggressive attitudes help assure air safety in Florida.

Above: A skilled angler snares a beautiful, large-mouth bass at one of the more than 51 spring-fed lakes within the city limits of Orlando. Below: Some 350,000 (92 FAAers) Floridians make Orlando the progressive city it is today.

Above: Herdon Airport is one of the major hubs in Central Florida. The Federal Aviation Agency operates a busy approach control tower and flight service station here. Below: Water skiing in sunny weather on countless miles of waterways—a combination that has made the "Sunshine State" the official headquarters for this popular outdoor sport.

A Growing New Sport of Thrills And Sometimes Chills

"ARGOSY" Magazine "skydiving" model Leigh Hunt floats through space, "dressed for traveling" with parachute pack, sports clothes, luggage and reading matter.

SKYDIVING!

Many young Americans, always searching for exciting new adventure, have found this adventure in sport parachuting. Among these young daredevils, skydiving has become quite the rage.

Skydiving actually is floating and maneuvering through space, much like a graceful bird, as the skydiver delays opening his parachute. In free fall, sport parachutists plummet toward the earth at speeds up to 200 miles per hour!

This sport is considered to have started in about 1956, and today there are more than 18,000 active sport parachutists in the United States. Moreover, the number is *doubling* every year! Because of the many sunny days in the South, sport parachuting in the Southern Region is growing even more than in some other parts of the country.

There are many variations of this sport, from "baton-passing" in mid-air, to testing one's skill at landing on a predetermined target—the winner landing only inches away from the second-placer's mark.

The sport has attracted so many and is so unusual that there is even a television adventure series, "Ripcord," which features 'chutists. The jumper in the photograph is a stunt man.

Obviously, as the zest for sport parachuting increases, it injects a new dimension in the air safety activities of the FAA. We are most interested in seeing that this sport is conducted safely, and does not create tragic air accidents. Because of the increasing activity in skydiving, the FAA has issued a new regulation (Federal Air Regulations, Part 105—Parachute Jumping) which outlines certain requirements for conducting intentional sport parachute jumping.

FAA urges all sport parachutists to read these new rules and to sensibly follow them for their own safety and the safety of others in the sky and those on the ground.

Essentially, the parachutist, before making a jump, or the pilot of an aircraft before allowing a jump to be made, should contact the local FAA office well in advance of the jump.

On the front cover of the March issue of the men's magazine, "ARGOSY," there appeared an unusual photograph (taken by expert parachuting photographer Bob Buquor) which captures the exuberance of skydiving.

"FAA HORIZONS" asked the publishers of "ARGOSY" if it might reproduce the photograph which appears at the top of this page. They not only readily agreed, but told us an exciting story about the photographing of this picture.

Mr. Al Podell, Director of "ARGOSY" photography, tells the story:

"I thought you might be interested in a little sidelight to the shooting of that cover, and I think your readers might like to know that it was an FAA regulation that saved the life of our model.

"You see, the first shooting did not come out as well as I wanted, and I asked the skydiver to dress himself to look more like a man in a business suit than a skydiver. He switched his jump suit for a pair of slacks and a sport jacket, switched his boots for shoes, etc. Then, I suggested that he dispense with the emergency 'chute since it blocked the view of his suit, and again made him look too much like a jumper. From my (very) limited knowledge of parachuting, I assumed that he'd have very little need for his emergency 'chute. Our jumper, Leigh Hunt, being the rather fearless daredevil that he is, agreed with me and said he would be willing to make the jump without his emergency 'chute, but he said he could not do so since it was contrary to FAA regulations. I grudgingly then gave my OK for him to make the jump wearing the emergency 'chute.

"As it turned out, that emergency 'chute saved his life. He jumped from about 8000 feet and attempted to pull his ripcord at about 1500 feet. He could not do this with the suitcase in his hand, so he had to drop it. This suitcase then fouled up his 'chute and got so tangled in it that it rendered it useless. Leigh continued to plummet and was finally able to pull his emergency cord at about 500 feet. Thank God for that emergency 'chute and thank the FAA for that regulation requiring jumpers to wear two 'chutes!"

Enough said!

MIAMI CENTER "LANDS" LOST AF JET AT NASSAU

Pictured after saving an Air Force F-102 is the Miami Center's "lifesaving team." Left to right: Lance Murphy, Acting Watch Supervisor and Edwin Weinrich, Coordinator. Left to right seated are: Joseph Bosley, Low Altitude Controller; Roy Mahoney, High Altitude Radar Controller, and Richard Pilkenton, Sector Controller.

A lost Air Force supersonic jet interceptor was landed safely at Nassau rerecently by remote control from the Federal Aviation Agency's Air Route Traffic Control Center in Miami—160 miles away.

When the pilot landed after 13 tense minutes in what controllers called "a real cliffhanger," he found he didn't have enough fuel to make even one circuit of the Nassau airport if it had been required.

The F-102, a single-seat plane, capable of speeds close to 1500 miles an hour, was piloted by Captain R. B. Roberts of the 328th Fighter Wing, Richard-Gebaur Air Force Base, near Kansas City. It was en route from Ramey Air Force Base, Puerto Rico, to Homestead when all navigational equipment failed.

Roberts called the FAA Center in Miami and was picked up by Radar Controller Roy Mahoney. "I'm at 39,000 feet, above the overcast, and all navigational equipment out," he reported. "I'm running low on fuel."

Mahoney found a "blip" on his radar scanner that he thought might be the F-102. "Turn on your 'IDENT,'" he advised, and when Roberts complied, the "blip" was bigger on the next turn of the scanner, identifying the target.

"You're 50 miles south of Nassau," Mahoney informed the pilot, giving him a heading to Nassau International Airport.

Supervisor E. L. Murphy alerted other controllers and operators; and, in moments, Miami was talking to Nassau on a direct telephone line.

The pilot could not talk to Nassau direct, but landing instructions were relayed to him from Miami.

All Nassau air traffic was suspended. Roberts broke out of the clouds at 4000 feet, still south of Bahama, but squeezed his altitude, and made a "straight in," perfect landing. In less than 15 minutes after his first distress call to Miami, Captain Roberts was safely on the ground in Nassau.

On the Safe Side

Ed Tamas, Southern Region Defense Readiness Officer, shows pretty Mary Ann Pinkston (left) and Receptionist Peggy Coleman the last carton of fallout shelter supplies that have been received to complete the 11,000 pounds of supplies in the Southern Region Headquarters basement shelter. This two weeks' worth of supplies, furnished by the Office of Civil Defense, includes food, water, radiation detection equipment, complete medical kits, and other vital provisions.

FAA Sees F-102

Fighter pilots of the 326th Fighter Interceptor Squadron "Skywolves" explain the amazing F-102 to 197 Federal Aviation Agency Canal Zone employees and their families. The striking power of the F-102's and the mobility of the EC-121 Airborne Radar Reporting Post (ARRP) aircraft awed the FAAers, and made them appreciate the important role we play in support of the military.

CARGO CARRIER INSPECTION

Members of an FAA Southern Board, led by Robert McKissick (L) and Robert Stanton, vice-chairman and chairman, respectively, inspect the Lockheed 300 (C-141A) at Marietta, Georgia, as the new fan-jet cargo carrier moved towards flight testing by FAA crews. Following the issuance of a Type Inspection Authorization, FAA crews began to flight test the airplane, leading toward its certification.

New Assistants Named

R. C. CHALFONTE
Asst. Regional Counsel

R. J. CANNON
Asst. Div. Chief, SMD

CENTRAL REGION NEWS

THE HUMAN MOTIVATION AND WORK PERFORMANCE

That motivation is the driving force within man that can change his actions, his attitudes and even his destiny, has long been accepted by scientists and laymen alike.

Just what may motivate each individual to great accomplishments can, and does, vary to some extent although there are many forms of motivation which affect all of us in much the same manner.

For example, long exposure to sunshine will motivate us to quench the resultant thirst. Or consider the motivation to swim, which overwhelms even a non-swimmer when placed in deep water. Think along these lines as we consider environment and its effect on the working man or woman.

Time and motion experts can use their charts and slide rules to compute the most effective practices to be followed in performing any mechanical action. But they cannot estimate the difference in output or performance by an individual when he is first placed in a situation where conditions are substandard and then placed where conditions are excellent. Certainly, the scientist can anticipate an improvement in performance when an environment is improved. And they can indeed measure the improvement following a change. But the change must be made, to be measured.

If we accept this theory, we can admit freely, then, that environment can and does have a decided effect on the job performance of an individual. Because it does, it behooves those of us in supervisory positions to provide the best possible working conditions for those in our employ. This does not refer only to physical surroundings, however. Much more is involved.

It goes without saying that an office or work area should be clean, well-lighted and properly heated and ventilated. In addition, every employee is entitled to an adequate amount of working room, although at times our set of standards must be compromised to meet existing demands.

Some other factors to be considered in the over-all question of environment include decor, background music, distracting noise and nearness of neighbors. Particularly must the temperament and attitudes of supervisor and fellow employees be taken into account, for a good two-way communications link between supervisor and employees and between fellow-employees is essential to strong beneficial motivation.

That the Agency is indeed interested in the environmental factor and its power in motivation is testified to by the constant program of upgrading which is taking place at all facilities and areas where the FAA is located. New buildings are being built, older ones are being renovated, unsuitable ones are not being utilized after existing leases have expired. And this is as it should be.

In order that we may expect the best in performance from our employees, we must provide them with an environment which is conducive to excellence and in which they will be motivated to do their best work. By this I mean, as supervisors, we must do whatever we are able to promote and foster good motivation for all employees whether it means a new coat of paint on an office wall, the acceptance of a good suggestion or the replacement of an undersirable employee. We must be cognizant of every opportunity to provide this environment of excellence.

In doing this we will not only be improving our operation performance-wise, but also morale-wise; and as an adjunct, we will be complying with the government-wide call to economize in all agencies. For to economize does not necessarily mean to spend no money; it means to spend money wisely. And if money spent wisely will motivate our employees to better performance of their jobs, we will be well on our way toward a "work-day Utopia."

J. W. Brandeles

Director, Central Region

PUNGENT POLECAT PREMPTS PROTECTIVE PROCEDURE

PESTIFEROUS PERSISTENT POLECAT PERPLEXES PROTESTING PERSONNEL

Gas masks were in order at GADO-12 when an uninvited visitor left invisible but potent traces of his call.

Not invaders from outer space, nor employees conducting a Civil Defense exercise . . . these people are just dedicated FAA employees of the GADO and FSS at Union Airport, Lincoln, Nebraska, carrying on in a "business as usual" manner after an unscheduled inspection by a 'genus' Mephitis (just plain skunk) with a pair of overactive perineal glands. The untimely guest who came bearing gifts of scent brought tears to the eyes of all present.

The entire building was equally affected. However, all employees stood steadfastly at their stations, well above and beyond the call of duty.

Above, John J. Faltermeier, Watch Supervisor at Lincoln FSS carries on despite cumbersome equipment.

DULUTH HAS FIRST JOINT RAPCON

This country's first joint FAA/U.S. Air Force Mobile Radar Approach Control was commissioned March 3, 1964, at Duluth International Airport, Minnesota.

Under the agreement with USAF, FAA and Air Force employees will man this facility around the clock with the FAA maintaining over-all supervisory responsibility.

The radar site located on the field has been operating for a number of years as an Air Force GCA (Ground-Controlled Approach) unit which was available to non-military planes but necessitating a cumbersome communications problem with voice message relays being made through the FAA control tower.

Under the new status as an Approach Control facility the radar unit is an extension of the eyes of the control tower operators and permits control of all traffic within a designated radius of the airport.

One of the big advantages to the Air Force is faster recovery of interceptors which will expedite turn around missions. The air carrier aircraft will notice less delay in holding, thereby showing a marked increase in on-time scheduling.

The new system also will be utilized in assisting "lost" aircraft of all types during all weather conditions.

The combined system is being proposed at a number of other sites where joint use of a civilian/military airport permits. The operation permits considerable budgetary savings by eliminating duplication of both men and equipment.

Lt. C. H. Anderson, foreground, mans the surveillance scope while E. J. Formiller (center) handles incoming flight data. A1C R. H. Hinton conducts a precision approach for an incoming jet fighter of the Air National Guard based at Duluth.

Cooperation between Air Force and FAA is shown as Michael Maxim, Tower Controller, and MSgt. D. W. Shields compare notes regarding inbound aircraft. A1C D. L. Swaim looks on. Controllers alternate between Tower and radar unit.

Dr. C. W. McMillin, Regional Flight Surgeon, discusses with his assistant, Dr. M. P. Eanet, one of 800 cases that are acted upon monthly in Central Region.

Anthony DiMaio, Medical Administrative Assistant, keeps Division's administrative functions running. Taking dictation is Eileen Smith, Certification Clerk.

REGIONAL FLIGHT SURGEON

One of the most vital aspects in Airman Certification is that of ascertaining the qualifying health of each applicant. In the Central Region, this program is administered by Dr. C. W. McMillin, Regional Flight Surgeon, and his staff.

Airman Certification, medically speaking, begins in the field when the pilot applicant contacts one of approximately 1300 designated Aviation Medical Examiners in the Central Region.

Provided the applicant is qualified, the examiner issues the airman his medical certificate and then sends the medical report to the Aeromedical Certification Division in Oklahoma City. There the report is reviewed for satisfactory completion, processed, coded and made a permanent part of that airman's record.

Should some portion of the examination cause any doubts regarding the applicant's ability to meet the physical standards of the Federal Aviation Regulations, the report is forwarded to the Regional Flight Surgeon for investigation and further action.

A small percentage of airman examinations, where the airman is making his original application for medical certification, are sent directly to the Regional Office by Aviation Medical Examiners. In these cases, the AME may have some doubt as to the airman's ability to meet the medical standards and wishes to obtain an opinion or decision from the Regional Flight Surgeon. The Regional staff handles some 800 individual cases each month.

Aviation Medical Examiners who conduct the physical exams for the FAA are appointed on a yearly basis subject to redesignation according to performance and training. All are licensed practitioners in their respective states.

In addition to giving physical examinations, many volunteer to participate in the Agency's Aircraft Accident Investigation Program. About 60% of the AMEs in the Central Region have volunteered to assist in these investigations.

In all of their work the AMEs are governed by Federal Aviation Regulations, Guide for Aviation Medical Examiners, policy memoranda from Washington, and are assisted through periodic visits by the Regional Flight Surgeon or his assistant.

Employee Health Program

The Employee Health Program designed to provide such services as first aid and emergency treatment; immunizations and health screening, is also a responsibility of the Regional Flight Surgeon. The program is administered with the support of the staff of the Aviation Medical Division.

For field personnel, the medical staff promotes immunization programs regularly throughout the year and either provides the vaccine or advises where and how the innoculations are to be received. Health records of all employees participating in the Employee Health Program are maintained in the Division.

Regional area employees, participating in the immunization and health screening programs, receive these services from the Clinic staff.

During an average month about 275 employees take advantage of the proximity of the Flight Surgeon's Office to go on "sick call." Only emergency first aid and preventive health care can be given by staff personnel, however, during the season when colds and allergies are prevalent, required medication is dispensed to those with sniffles and sneezes to provide for their comfort on the job.

Although one of the more unsung services of the Agency, the Aviation Medical Division provides yeoman service to the FAA with regard to Airman Certification, Accident Investigation and Employee Health Programs.

"Sick Call" brings employees to clinic daily for minor ailments. Here "Doc" McMillin treats patient as Lorraine Campbell, R.N., looks on.

Certification Clerks who handle the bulk of the paperwork in the division are shown here in their office. Clockwise from front left: Nancy Turner, Jean Metcalf, Dorothy Dobbs and Eileen Smith.

Secretary to Dr. McMillin, Doris Snow, can reach into files to retrieve folder of any of 1300 Aviation Medical Examiners quickly.

CENTRAL REGION AME WINS COVETED SILVER WINGS

Dr. John H. Davis, pioneer in aviation medicine shown with one of the early planes he flew, an Eagle Rock.

Many of the Aviation Medical Examiners designated by the FAA are pilots in their own right, but few qualify for membership in an organization called Silver Wings which is composed of persons who have flown for 25 years or more.

Presented his Silver Wings at a ceremony a few months ago is Dr. John H. Davis of Belle Fourche, South Dakota, an AME who started flying 35 years ago when the popular planes of the day were the Eagle Rock, Travelaire and Curtis Robin.

Dr. Davis built his first glider in 1912. He began his serious flying in Belle Fourche after becoming a physician and frequently flew to outlying ranches and towns to reach his patients. Appointed as an AME in October 1959, he has served the Agency well in performing pilot physicals for airman certification.

As a pilot and physician the doctor's interest in modern aeromedical concepts is maintained through continued study and participation in seminars conducted by the FAA. Dr. Davis recently attended the advanced seminar for AME's presented at the Lovelace Foundation at Albuquerque, New Mexico.

WATCH SUPERVISOR COORDINATES MERCY FLIGHT

Watch Supervisor Billy J. Cunningham handles many phones and many phone calls during a shift but few cause the concern or the ultimate satisfaction than the recent one coordinating a mercy flight as described here.

Kansas City Center Watch Supervisor Billy J. Cunningham recently coordinated efforts between an airline and the Air Force to insure expeditious handling of a mercy flight shipment of rare blood bound from Birmingham, Ala., to Scottsbluff, Neb.

Contacted at 1:00 a.m., by the Operations Office of Continental Air Lines in Kansas City, Cunningham learned of the blood shipment which had missed a connecting flight to Scottsbluff where it was urgently awaited by a patient at West Nebraska General Hospital.

After informing the Continental representatives that there was no available aircraft under Center control from whom he could request assistance, Cunningham suggested contacting the U.S. Air Force base at Richards-Gebaur, Grandview, Mo. Realizing some help would be necessary in doing this, Cunningham volunteered to make the contact. After approval was gained, an Air Force U3A was readied for the flight while Kansas City police transferred the blood from Municipal Airport to the Air Base.

Heavy icing en route was encountered but the pilot arrived at the North Platte Airport by 5:40 a.m., where the blood was further transported by the Nebraska Highway Patrol to Scottsbluff. At last report the patient was recovering nicely thanks to a great number of persons and coordination efforts effected by Watch Supervisor Billy Cunningham.

Security Precautions Should Be Heeded by All FAA's Employees

Recent international events and leaks of vital information from within the Federal complex point up the need for all of us to tighten up our adherence to security precautions.

No one would knowingly give valuable American defense information to an enemy agent. Of course not! Not only would he be selling out his country, but he would be endangering his own life and the lives of his family and friends.

Yet, some Americans are giving military secrets to the potential enemy. Not on purpose, understand. They just talk too much in the wrong places and at the wrong time. What they say is overheard and remembered by trained enemy agents.

Despite constant warnings, loose talk by employees continues to be one of the enemy's chief sources of information concerning this country's defense and other vital activities. The relatively unimportant matters which many of our employees feel are overclassified become extremely important to espionage agents when pieced together with other bits of information they have gathered. Many times the seemingly "unimportant" comments you might make in the course of friendly conversations can be just as destructive to our nation as a bomb.

It is just as important to keep YOUR MOUTH SHUT during peacetime as during wartime. Security violations are generally caused by conceit and boasting. Conceit is relatively harmless by itself, but it leads to boasting . . . another favorite American pastime. Boasting isn't always harmless. Boasting is the result of trying to show friends or associates that one is "in the know"—that one is "on the inside." To prove it, the boaster may blurt out vital information including classified matter.

Another point to remember is, "Don't add to or explain what you read in a newspaper or hear on the radio despite the fact that you may be anxious to reveal that you know the whole story." By adding to such accounts you will be revealing details which the government feels requires safeguarding.

The skilled agent will attempt to get information by various tactics. He might try by belittling the importance of an individual's work or pretending not to believe what he is told; and if neither of these plans work, he may change his tactics by praising the individual. Remember, KEEP YOUR MOUTH SHUT, don't fall for any tricks, and develop the habit of saying, "I don't know."

NEW PUBLICATION FILLED WITH AVIATION MEDICAL FACTS FOR PILOTS

General aviation pilots, from the beginning student pilot to the oldtimer with many hours' flight time, should take a close look at a new book just released by FAA Aviation Medical Service.

"Medical Facts for Pilots" was written by Doctors Stanley Mohler and Peter Siegel. Mohler is Director of the Civil Aeromedical Research Institute. Siegel heads the Aeromedical Certification Division.

The eight-page book highlights certain Aeromedical factors. Among them are fatigue, hypoxia, alcohol, drugs, vertigo, carbon monoxide, vision problems, middle ear difficulties, and piloting an aircraft after a SCUBA diving session.

Hypoxia, in simple terms, is a lack of sufficient oxygen to keep the body functioning properly. Wide individual variation occurs with respect to susceptibility to hypoxia. Not only high altitude, but anything interfering with the blood's ability to carry oxygen can bring on hypoxia. Mentioned in the book are anemia, carbon monoxide, certain drugs, and alcohol. Heavy smokers also may experience early symptoms of hypoxia at altitudes lower than nonsmokers.

"Medical Facts" points to drugs as extremely hazardous for the pilot. Even simple home remedies, and drugs such as aspirin, antihistamines, cold tablets, cough mixtures, laxatives, tranquillizers, and appetite suppressors, can seriously impair the judgment and coordination. The safe rule is this: Do not take medicine of any kind while flying except on the advice of your Aviation Medical Examiner.

Vertigo has been a familiar word to pilots for many years. To earthbound individuals it means dizziness or swimming of the head. To the pilot it means, in simple terms, that he doesn't know which end is up. Vertigo in flight can be fatal.

On the ground we have reference points such as fixed objects which we can check visually; gravitational pull tells us which way is down.

In the air, with no reference to a fixed object, acceleration forces can be misinterpreted by the inner ear. So the pilot suffers disorientation and dizziness. There is a mechanical way to avoid the effects of vertigo. Check the aircraft instruments and know how to use them. They tell the truth about your vertical and lateral direction.

In recent years studies have been made of a different type of vertigo. "Flicker vertigo" is caused by light flickering at certain frequencies, four to twenty times per second. This flicker can be induced by light off helicopter blades or propellors. The flickering light bouncing off helicopter blades has been known to bring on dangerous reactions, as has the bounce-back from rotating beacons on aircraft which have penetrated clouds.

Reaction may include nausea, dizziness, unconsciousness, or even reactions similar to an epileptic fit. This reaction may be avoided by not staring directly through the propellor for more than a moment, or making frequent, small changes in RPM.

SCUBA diving and piloting seem, at first glance, to be unrelated. However, you may use your plane to fly to a sea resort or a lake for a day's SCUBA diving, and then fly home, all within a few hours. This is dangerous, particularly if you have been diving to depths for any period of time.

Under the increased pressure of the water, excess nitrogen is absorbed into your system. You must permit sufficient time to lapse prior to take-off for your system to rid itself of this excess nitrogen. If you don't, you may experience "the bends" at altitudes under 10,000 feet where most light aircraft fly.

The authors of "Medical Facts" point out that many defects can be compensated. Wearing glasses will take care of visual defects in most cases. The pilot may be required to demonstrate by a medical flight test that he can compensate for any other defect of potential significance to flight safety.

Persons with conditions which are apt to bring on sudden incapacitation, such as serious heart trouble, epilepsy, uncontrolled diabetes or diabetes requiring insulin injections, cannot be medically certified.

Acute infections, anemia, and peptic ulcers, are temporarily disqualifying.

Consult your Aviation Medical Examiner about your health status, just as you would consult a licensed aviation mechanic when in doubt about your aircraft engine status.

ACADEMY'S OLSON FEATURED IN CAP PUBLICATION

Enar B. Olson, Director of the FAA Academy was recently selected to be featured in the *CAP Times*, national Civil Air Patrol newspaper.

The FAA Academy annually hosts the Civil Air Patrol FAA Orientation Course. Each state and U. S. possession sends two Cadets to the program.

Olson joined the Agency in 1948 as head of the Organization and Methods Office, Headquarters, Civil Aeronautics Administration. Since 1951 he has served as Deputy Director of the Aeronautical Center, Deputy Regional Administrator of the former Region 6 of the CAA, and since 1960 has served as Director of the Academy.

During this period he left government service for almost a year, serving as Director of Administration for Northwest Airlines during 1956 and 1957.

SSP for Ferguson

Jack W. Ferguson, right, of the Installation and Materiel Depot's Procurement Division, recently was given a Sustained Superior Performance Award. The presentation was made by Warren E. Nauman, left, Depot Manager.

FAA Administrator Halaby was photographed recently during a visit to Oklahoma City. This portrait series is an excellent character study of the man in action.

Administrator Explains SST Program

Federal Aviation Agency Administrator N. E. Halaby faced a forest of television cameras and newsmen during a recent visit to Oklahoma City where he was the featured speaker at a building fund campaign of the Oklahoma City YWCA.

However, the news entree for the evening's conference dealt with the sonic boom studies being carried out over Oklahoma's capital city. Halaby told newsmen that the sonic boom studies are vitally important to the nation's supersonic transport program.

Public reaction to the sonic booms can prevent the government from making a grave mistake.

He added, "You will enable the government to design a supersonic plane better than the ones that other countries plan to put into production."

Halaby said the boom studies can save the SST program as much as a billion dollars, the difference in development costs between proposed types of aircraft.

In his comments to the newsmen, Halaby described the opportunities in aviation and stressed the need for more men and women in the industry.

He called the proposed SST the "gee-whiz aircraft" for which foreign and domestic airlines have deposited $7,000,000 in options with the federal government.

Halaby pointed to the many billions of dollars the SST would add to the nation's economy, not only in the manufacturing of these 1600 mile-an-hour aircraft, but in the allied areas such as maintenance, freight and passenger handling.

Three airframe companies—Boeing, Lockheed, and North American have submitted design proposals; engine proposals have been made by Curtiss-Wright, General Electric and the Pratt and Whitney Division of United Aircraft.

There is an SST in your future.

PILOTS RACE TIME TO DON OXYGEN MASKS

Upon rapid decompression (above), the chamber instantly fills with clouds of vapor. The pilot must don the oxygen mask and headphones before he can return to his tasks. The panel of lights (below) keeps the pilot alert to the problems at hand. He must keep hands and feet perfectly coordinated during the test.

A series of tests is being conducted at the Civil Aeromedical Research Institute at Oklahoma City's Aeronautical Center to determine loss-time factors in putting on and using different types of oxygen masks by pilots flying at simulated altitudes above 35,000 feet.

The questions being posed are these: How quickly can pilots of jet air carriers don oxygen masks and earphones and retain control of their aircraft in such emergencies as explosive decompression? What type of mask is most easily handled and is the most comfortable?

Presently, rules are in effect to require one of the two pilots in commercial airliners to wear a mask continuously when the aircraft is flying at and above 35,000 feet. The pilots alternate in wearing the masks.

Pilots, who claim the masks are uncomfortable, would like to wait for higher altitudes before putting on the gear. Physiologists and medical specialists want to lower the limits to 25,000 or 30,000 feet.

Explosive decompression is the major concern when a leak or sudden hole in the fuselage lowers the pressure inside the aircraft.

Masks drop automatically for passengers when the pressure drops suddenly. However, passengers are required only to wear the masks, not to carry out active tasks.

Pilots must start an emergency descent in the event of decompression. How long will their hands be off the controls?

A machine designed for this type of coordination, dubbed the "pinball machine," is testing reaction time on pilots.

A panel of lights must be lined up in specific patterns either with hand levers or foot pedals. The test is for eye-hand, eye-foot coordination.

Inside an altitude chamber, the pilot "flys" at 30,000 feet. The pressure inside the coordinator cockpit is regulated at 3000 feet.

Outside controls suddenly "blow" a hole of 225 cubic inches in the simulated cockpit. The hole is about the size of an airliner port.

When the pressure inside the cockpit drops, or thins, to what it would be at 14,000 feet outside because of the hole, a red light comes on. This light corresponds to the warning signal on commercial air carrier panels. Pressure at 14,000 feet is considered survivable for passengers.

At this point, the test subject yanks down his oxygen mask, suspended normally to his right. When he does it, he also must reach for earphones, suspended to his left.

George E. Pendergrass, chief of physiological support service at CARI, says loudspeakers usually provide signals in the pilots' compartment. But sound travels by movement of air. When the air is thinning the sound diminishes. The signal needs electrical amplification.

In a recent test the time without control was 27 seconds—the time lapse until the pilot again was coordinating the panel lights.

"This could be extremely critical," says Doctor William O'Connor, head of the systems analysis section of CARI's Psychology Branch.

"High speed involved in today's aircraft gives very little time for loss of control. Higher altitudes also tend to increase physiological effects which may impair performance.

"Forty thousand feet is coffin corner. If the pilot can't coordinate and goes faster, he may approach Mach One and buffet the aircraft. He could exceed the plane's structural capacity.

"If he goes too slow, he may stall. It's a fairly narrow envelope of safety in which the airline pilot has to operate."

Tests are planned at various altitudes to determine the safest and shortest performance time so the FAA may recommend regulations for the continuous wearing of oxygen masks for commercial pilots.

ARMY MEN LEARN TRAFFIC CONTROL PROCEDURES

The FAA Academy recently conducted two courses for the U.S. Army, one for enlisted men and the other for officers.

These men, for the most part, are members of the 72nd Air Assault Division, Fort Benning, Ga.

The course trained selected personnel in en route air traffic control procedures and operations. The U.S. Army is currently developing an air assault concept, looking toward maximum effective utilization of helicopters and fixed-wing aircraft for Army combat and support movements.

The enlisted men's course, "Basic En Route Traffic Control Course for the U.S. Army Participants," is six weeks in length. The first class began early in December and the second finished late in February. Sixteen students were in each class.

The enlisted men had previously been trained in Terminal Visual Flight Rules control and, in some cases, have considerable experience in this area.

Upon completion of the Academy course the men will serve as the en route controllers and supervisors in the air assault system.

The Officers course, "Indoctrination Course in Basic Air Traffic Control Systems Planning for U.S. Army Participants," is four weeks in length. The first class began February 10 and the last was completed May 1.

The officers received training, not only in en route control, but also in the development, establishment and monitoring of an air traffic control system that is compatible with Army requirements.

All of the officers had considerable experience in piloting either rotor-wing or fixed-wing aircraft. In many cases their experience involves both types of flying.

Since the 72nd ATC Company is the only one of its kind in the Army, it is involved in the formulation of ATC techniques and procedures that will be compatible with the Army's Air Assault Concept. A unique feature of the Army operation is the number of helicopters flying in Instrument Flight Rules weather. Since the FAA has limited experience in controlling helicopters with instrument capabilities, Air Traffic instructors at the Academy have been watching with particular interest the effectiveness of the present ATC system in its application to this type of flight problem.

Sustained Superior Performance Rewarded by IM's Materiel Depot

Four employees of the Installation and Materiel Depot received Sustained Superior Performance Awards recently from Warren E. Nauman, Depot Manager. Left to right are: Robert E. Scheulen; Marie Davis; Mr. Nauman; Orville D. Harlow; and Rachel S. Attebery.

Former Oklahoman the Recipient Of Certificate No. 5,000,000..

Chisum gets five millionth FAA certificate.

Oklahoma was involved in two ways when the five millionth pilot medical certificate was issued by the FAA.

Frank Chisum, a former Oklahoma City native, received the historical certificate at San Francisco.

The certificate was issued from the Aviation Medical Certification Division at the Aeronautical Center.

Chisum is the great grandson of Jesse Chisum for whom the famed Chisum Trail is named.

Chisum flies both for business and pleasure. He was presented the five millionth certificate at a joint FAA-University of California Seminar in San Francisco earlier this year.

$300 FOR DR. TRITES

Dr. David Trites (center), Chief of the Selection Section, of CARI's Psychology Branch, is shown receiving a $300 check as a reward for discovering an efficient means by which applicants for air traffic controller training can be tested for their aptitude for controller work. Dr. Trites has been on another project, the testing of color blind persons with aviation signal colors. With him are his Branch Chief, Dr. George Hauty (right) and CARI Director Dr. Stanley Mohler.

ACADEMY COURSES FOR FIRST LINE SUPERVISORS

Eleven controllers sharpened their management philosophy during a five-day course, "Operational Supervision for Air Traffic Facility First Line Supervisors," held in March at the Fort Worth ARTC Center. Instructors were from the FAA Academy in Oklahoma City.

They are, seated from left to right, Horace C. Rodgers, Fort Worth Center; James Cooper, Fort Worth; Derman T. Burchfield, Little Rock Tower; and E. C. Vaughan, Oklahoma City RAPCON. Standing from left to right are Thomas H. Hubbard, Fort Worth; W. J. Shelton, Love Field Tower; Jefferson D. Lee, Fort Worth; Jerald A. Davis, Fort Worth; Robert C. Ballard, Fort Worth; Rex Flowers, Abilene RAPCON/Tower; Myron Davidson, Fort Worth; and Instructors Gerald M. Walch and Boyce N. Hill.

Center Controller Adept at Building Plane Models

Controller Ed Hayes proudly poses with some of his models and several trophies. Included in his group are the fighter models: P-51, Focke-Wulf, and Zero.

If a New Orleanian sees a Japanese Zero zooming through the air, it doesn't really mean he is seeing an apparition. Nor does it signify he has been concentrating too much on pressing office matters.

It could well be that Ed Hayes, New Orleans Center controller, is working out with his scale model airplanes. He has built models of the Zero, German Focke-Wulf, P-51, B-29, civilian version of the B-26, and of numerous other types.

Hayes began building and flying gasoline models in 1946 when he was eight. He began to specialize in scale in 1950. As his skill and interest increased, he compiled a record of accomplishments in handling scale and speed models which now reads like a champion's log:

First, scale model, Alabama State, 1958; first, speed model, and second, scale model, Alabama State, 1959; first, scale model, Gulf States, 1960; first scale model, Ravin Cajuns, New Orleans, 1961; third, speed model, Gulf States, 1962.

The average speed of his scale models is 65 mph, while the average for his speed models is 120 mph.

Hayes' interest in aviation has not been limited to working with models. He soloed when he was 16, now holds a multi-engine commercial license and instrument rating, and is a qualified instructor. He has logged 2400 hours.

Although he has not competed since 1962, Hayes is working with his models. His next competition will be at the national championship meet set for Dallas this year.

I&M's PERT Workshops Stress Definitions and Problem Solving

Two workshop courses in Program Evaluation Review Technique (PERT) were conducted this spring by the Installation and Materiel Division. Training covered the basic elements of planning and scheduling the utilizing techniques of PERT/TIME and PERT/COST, with emphasis on problem solving.

Emphasis was placed on basic definitions common to network systems, time curve theory, and resource allocations.

The two courses, each of five night sessions, were especially prepared for the FAA by the Independent Consultant's Bureau of Fort Worth under the direction of A. F. Moravec, who was also the principle lecturer. Fifteen engineers from I&M's Program and Fiscal Planning and Project Management branches attended the first class designed for technical level engineers. The second class covered several aspects of management.

Those attending the management-oriented class were Leland H. Hayden, B. G. Boyles, William H. Howe, J. S. Fox, B. D. Carpenter, W. R. Landon, B. D. Alexander, Earl Meador, and Maurice Shepherd, all of I&M Division; J. C. Creager, Systems Maintenance; Charlie Fulkerson and C. H. McMillen, both of Flight Standards; and W. W. Hendrickson and C. D. Skelton, both of Accounting.

Engineers attending the technical class included B. D. Carpenter, L. M. Curry, Jack B. Campbell, C. A. Dickerson, Fred H. Williams, John E. Bramall, R. L. McDaniel, Jack Mincy, Varris Halm, Harry R. Guiberson, Victor A. Friese, Hugh C. Drenner, Ray H. Fowler, Sam C. Keim, and W. M. Few.

Waco Controllers Develop Bond With Military and Civilian Visits

Visitations and guided tours of the Waco RAPCON/CS/T are developing a closer bond and better relationships between pilots at Connally AFB and controllers. Some 15,000 persons have toured the facilities during the past seven years.

Waco personnel started showing off the equipment and explaining FAA services when the facilities were in cramped quarters and visits were limited. Three years ago when new quarters were opened, tours were expanded to include pilots, navigators, airborne radar officers, students, wives of locally based crew members, and civilian pilots.

Cleared for landing. FSS Chief William L. Davis (r) greets 11 of the women pilots when they made emergency landings at Ponca City Airport because of weather. Missing is their flight leader, Mary Kemper, who attempted to make Oklahoma City before turning back. On the left is Larry Paulson, a California newspaper reporter.

Ponca City FSS Rescues the Ladies

Specialist Joe B. Welch briefs three of the lady pilots on latest flying weather. They are (l to r) Mary Kemper, flight leader, Loretta Foy, and Jean Rose.

William L. Davis, Chief of the Ponca City FSS, and his men can take emergencies in stride. They proved it in early February when 12 women pilots, in a mass solo flight from Wichita, Kansas, to Van Nuys, California, were grounded by weather in this north central Oklahoma city.

All members of the San Fernando Valley Chapter of the Ninety Nines, Inc., the women were each flying a Cessna from the Kansas factory to Van Nuys. They had scheduled Will Rogers Airport in Oklahoma City for the first refueling stop, but set down at the big Kay County airport because of rain. Mary Kemper, leader of the 12-plane ferrying flight, was within 10 miles of Wiley Post when she turned back because of snow and fog.

As weather conditions made an overnight stay in Ponca City inevitable, the FSS personnel assisted the pilots to make their stay comfortable and enjoyable. After Davis greeted them at the airport he alerted the Chamber of Commerce, Junior Chamber of Commerce, a local automobile dealer, and the Cessna dealer, all of whom assisted the ladies. The pilots, plus three members of the press from California and the sales manager for Van Nuys Skyways, spent the night in Ponca City's newest motel.

In addition to the flight leader, the pilots included Elizabeth Crowley, Florence Dittmer, Loretta Foy, Lois Miles, Lola Ricci, Jean Rose, Trixie Ann Schubert, Audrey Schutte, Ardie Trenholm, Ellen Trindle, and Janet Hardin. This group includes five flight instructors, four commercial pilots, and three private pilots. They were ferrying the planes for Van Nuys Skyways, which plans to put them to use in student pilot training.

William Schulte, Assistant Administrator, Office of General Aviation Affairs, and Joseph Tippets, Director, Western Region, were at the California airport to applaud the conclusion of the mass flight, the first of its kind with all women pilots and through all types of weather. The women told the two FAA directors they had gathered new fortitude from the manner with which the FAA literally took over on their first unscheduled layover in Ponca City.

Gratitude for the Ponca City hospitality was expressed by a spokesman for the group who wrote Davis: "The FAA reached a new high in status among us 12 women ferrying a dozen planes from the factory at Wichita to the West Coast. Having that many females and that many planes suddenly grounded at Ponca City on the first leg of a weather-frustrated flight can pose problems not even a larger city could handle at a moment's notice. Your immediate arrival at the airport with Mrs. Davis, who, incredibly enough, offered the 12 of us, plus three press members, the use of her home for a night's lodging, was our first indication that the FAA was there to-the-rescue, and far above and beyond the call of duty. . . . We went out into that wet night singing the praises of the FAA in the person of William Davis, and have been doing so ever since."

FLIGHT SERVICE *in the Valley*

Controller Milton Morgan helps pilot file flight plan.

In the vast Rio Grande Valley of Texas, now almost denuded of public motor transportation to the larger cities of the state, greater numbers of people are traveling by air—and stopping at McAllen.

Three years ago when the Flight Service Station was opened, the Valley was already a thriving center of aviation. It continues to grow, with the station reaching second place in the Southwest Region last year in aircraft advisories, with 27,811. Last January it broke an all-time record with 7032 aircraft contacts, only to exceed the record again in February with a total of 7257 contacts.

Located in a one-story building on the flight line of Miller International Airport, the FSS is the center of activities for pilots, either by a convenient walk-in or by radio or telephone. Eighty-five of the 212 aircraft in the surrounding two-county area served by McAllen are based at the airport. Trans-Texas Airways schedules six flights a day to McAllen.

Much of the air travel is business-connected, although tourists have given it a hefty upswing. An average of 100 border crossings are logged each month; many are in connection with the truck crops, citrus, and oil interests on both sides of the border. Flying becomes important in some businesses as the closest large Texas city, San Antonio, is more than 300 miles away.

Twice a year sportsmen swell the aviation activities. The long-established White Wing Season in the fall attracts hunters from various parts of the United States to the area where the coveted doves inhabit the citrus groves. Hunters are permitted only on the Mexican side of the Rio Grande. At the height of the last hunting season, 20 airplanes landed in a 25-minute span and the total aircraft population was swelled by about 125 planes.

Also in the fall the McAllen Fly-In Golf Tournament is staged on the greens which virtually surround the airport. One of the qualifications for entry by non-local linksters is to fly to the tournament. The maximum limit of 288 players is expected to be reached in the second annual event later this year.

Purpose of the golf tourney is the promotion of aviation in the valley as well as golf, thus bringing aviation-enthusiasts together for play and friendship. Joining them in boosting aviation are the FSS specialists: Chief A. D. Rosser, Joe J. Benson, Luther L. Carney, Joseph B. Craft, Gene Fitch, James Leonard, Milton Morgan, Michael Pavlik, and Clifford Westbrook. Rounding out the complement are EMT's Joe Herrera and Pete Flores.

Station personnel offer other volunteer services. With the establishment of the McAllen FSS the station became an important stop to and from Mexico as pilots shifted their air routes to avoid high mountains in Mexico and to take advantage of the McAllen service. Pilots returning from Mexico request the FSS personnel to arrange customs inspection for them. This is done by calling customs officials at the International Bridge to meet the arriving plane. All personnel stay current on regulations concerning Mexican travel to be of better service to the air traveler.

Although McAllen is the end of the line for United States air travel, aviation importance in this part of the Rio Grande Valley is brought into focus by the work of the FSS. In business, in sports, and in other activities, aviation is expanding, and the McAllen FSS is keeping pace.

Sign in front of the three-year-old McAllen FSS shows easy accessibility of station to the airport for pilots to visit in person to file flight plans.

A busy day for controllers—Joe J. Benson talks on the radio, Michael Pavlik on the telephone, and Chief A. D. Rosser answers question for visiting pilot.

AFTER THREE THE CONTROLLER CALLED IT QUITS

Things just happen by "threes." That is what Richard W. Young, veteran controller at the Bergstrom Air Force Base RAPCON, found during a day's work.

The first event, a response to an emergency call, resulted in one of the most exhaustive "saves" by the controller in his eight years with the FAA. Young's calm instructions brought to a safe landing a professional cowboy-private pilot who had found the fog and clouds over Central Texas quite different from the dusty rodeo arena. With the pilot were his wife, young daughter, and dog—all ill from airsickness and fright.

Although the weather was far from perfect when the pilot left Fort Worth for San Antonio to participate in an Alamo City rodeo, the pilot had no idea he would experience difficulties in landing his plane under VFR. Problems arose: the pilot was not instrument qualified, the San Antonio weather was below VFR, and his remaining fuel would not allow him to reach Junction, the closest field reporting clear weather. The pilot had been in voice communication with the San Antonio Center, but was now out of range, flying toward Austin.

Establishing voice contact with the pilot who was now asking for emergency assistance, Young drew on his experience as a World War II pilot and his control work to start an almost impossible task. He advised the pilot that radar picked up his plane 15 miles from Austin and asked him to take a heading that would bring the plane in line with the ILS. Young's progress in guiding the plane was broken by several steep spirals when the pilot attempted to control the plane instead of following Young's instructions of flying "hands off."

Richard W. Young

Clayton J. Collins

After the safe landing, there was still an unanswered question: the airplane had a 45-gallon fuel capacity, with 43 gallons usable. During the flight 44 gallons were registered as used.

Within an hour Young was helping to bring in another plane after the pilot of a Cessna 170 asked for assistance. Clayton J. Collins, Austin FSS Chief, had advised the pilot of the airport location after he reported he was over Austin but couldn't find the airport because of the lowering ceiling of 200 feet.

Clayton asked Young to vector the plane for him while he relayed the information to the pilot. Guided to the airport for a landing approach, the pilot reported he was too high and would go around. Again, Young guided him around the numerous radio towers and the University of Texas Tower to the final approach.

A third emergency, lasting through a few anxious moments, followed closely. A Convair airliner had been circling during the time the Cessna 170 pilot was being assisted and now came in for its landing. As the plane touched down one of the tires on the main landing gear blew, but without any passenger injuries.

It had been more than a routine day, but four persons, the pilots and two passengers of two light planes, were alive.

SCIENCE CLASS VISITS

EMT John Sharber (right) SMS-407, Sulphur Springs, Texas, explains the operations and maintenance of the omnirange aviation navigation facility to a group of freshman general science students from the local high school. This group is one of four science classes, totaling 86 students, that toured the FAA facilities. Field trips are part of the students' training to demonstrate the practical application and functions of electronics discussed in the classroom.

Aviation Seminars Urge Pilots To Seek Greater Aviation Data

Pilots are always eager to attend seminars and discussions on aviation matters. This eagerness to learn more was reflected in the Oklahoma City and Dallas seminars held recently.

A light twin-engine seminar was hosted in Oklahoma City by the Oklahoma City GADO personnel. Dean Cornish and Gene Maulding, both of the General Operations Branch, FAA Academy, were the instructors for the one-day session. About 60 persons, most of them in the professional pilot category, participated.

Presentations were made with the aid of graphic slides and covered light twin performance and limitations, CAM3 certification requirements (as they pertain to the pilot), and take-off variables. The same program is now being planned for the Tulsa area.

Assisted by the Dallas FSS, the Texas Aeronautical Commission held an eight-day seminar in Dallas. Subjects ranged from air traffic rules and weight and balance, through meteorology and the use of the VOR. Primarily held for the "low time" pilot, the seminar was attended by about 250 pilots, both beginners and veterans.

Specialist Hazel McKendrick of the Dallas FSS assisted the state officials with her discussion of services available at all flight service stations.

Albuquerque Center Group to Brush Up on Advanced First Aid

Five members of the Albuquerque ARTC Center's first aid committee have completed a Red Cross advanced first aid course. They are SATCS Harold S. Olson, ATCSs William A. Oden, Jr., Charles P. Nelson, Nicholas A. DiLorenzo, and E. W. Northnagel (committee chairman).

Earlier, ATCS Billy Sullivan and Northnagel completed a 40-hour medical self-help course. Other members of the 11-man committee hold Red Cross standard first aid certificates.

Wink FSS Specialist Makes Plans To Leave Agency for Church Work

Irby P. Cheatham is making plans to leave the FAA in the near future to devote full time to the ministry. He recently received ordination rites in the First Baptist Church of Wink. A veteran of six years with the FAA, he also served six years in the U.S. Navy.

WESTERN REGION ROUNDUP

A Message from Edward Marsh

On recent trips to the field I have, again, been very impressed with the high calibre of First-line Supervisors found in our organization. These individuals have impressed me with their dedication to the job and their enthusiastic approach to their daily problems. There is every indication that the quality of our First-line leaders has been improving throughout the FAA and especially in the Western Region. This quality of leadership is reflected in better morale and more efficient operations. It is a gratifying thing, indeed, to see the Agency's training programs and selection processes successful in so vital an area.

It is my belief that the Supervisory job requires a great deal of courage. Where the supervision has been effective, I find that the Supervisor has the *courage* to use all of his authority and fulfill all aspects of his job. The strong leader has the *courage* to be a vigorous manager of people. He will have the *courage* to "stand up and be counted" on major issues and, most importantly, he will have the *courage* to admit he is wrong when he makes a mistake.

I find these qualities of courage in abundant supply among our field leaders and, even better, I believe we will be able to find new leaders as we need them with the courage and know-how and inherent personal qualities necessary to provide us with strong leadership throughout the organization.

• **KUDOS**—To personnel of Orange County Airport, Santa Ana, Calif., who were officially commended for courtesy, efficiency and service by the County Board of Supervisors . . . to ROBERT W. SPERLING, SLC-700, for his work in arranging an FAA program for the Salt Lake City Elks Club . . . to MANLEY DIBBLE, FRED CARPENTER, and ART BOLAND for their talks to the North American Aviation, Inc. Management Club at Palmdale, where these three employees are stationed.

• **SCATTER**—The FAA is providing a temporary tower at Angels Camp., Calif., in connection with the 1964 Jumping Frog Jubilee. CARL ESTEP, Stockton tower chief, is coordinating the project . . . Temporary service is also being provided for the Porterville, Calif., Moonlight Fly-In June 20 and 21 . . . ROBERT W. GORDON, SMS-240, sent in an interesting item about a plane that landed at the Olympia airport under almost impossible conditions—a driving rainstorm, swirling winds, and extremely low visibility—all thanks to the Olympia VOR-TAC . . . Engineering & Manufacturing has approved a new rocket engine for installation on civil aircraft for emergency standby power. The certificate is the third issued by the Federal Government and went to Aero-Jet-General Corp. in Sacramento . . . THOMAS J. CRESWELL, FAA's Agency Safety Engineer, was among keynote speakers in the federal section of the Western Safety Congress held recently in Los Angeles . . . All FAA personnel in the Western Region who can arrange to do so are invited to attend the start of the All-Woman Transcontinental Air Race (Powder Puff Derby) at Fresno on July 4. The invitation to FAA was extended by Kay A. Brick, Chairman, AWTAR Board of Directors . . . JOHN BARNEY, Elko, who was seriously injured in a vehicle accident last September, is still recovering in the Elko County General Hospital . . . A unique Exhibit on Southern California air traffic has been unveiled at the Los Angeles Chamber of Commerce. The display, part of a Stanford Research Institute study, uses colored strings to represent flights of every aircraft on instruments during an 8-hour period over a high-relief map of the Los Angeles basin, involving a 60-mile by 26-mile area . . . Deputy Director EDWARD C. MARSH was guest of honor at the La Fayettes Toastmistress Club . . . JOYCE MARGUERITE PIERCE, 6, and DAMON PATRICK PRIETO, 5, received checks of $175,000 each from the City of Palm Springs which purchased 80 acres of land for the municipal airport. The youngsters are members of the Agua Caliente band of Palm Springs Indians. A Palm Springs dispatch states that an FAA tower is hoped for in the future.

• **IN THE PUBLIC EYE**—EDWARD G. DEZIEL, Chief of the Fresno FSS was featured in the *Fresno BEE* on his retirement. Among the quotes in the interview: "I ran into all of them—Wiley Post, Eddie Rickenbacker, Paul Mantz, Roscoe Turner—who always flew around with a lion cub in the plane until the cub got too big. And there was Wallace Beery. You never had to ask him to identify himself over the radio. Once he opened his mouth, you knew who it was." . . . Transfer of E. WALLACE KNIGHT to North Bend, Ore., as Chief of the FSS there was the subject of a lengthy story in the *Coos Bay, Ore. World*. . . . MARTIN BANGOURA, 22-year-old Republic of Guinea trainee, was featured in two different articles in the *Las Vegas Review-Journal*. A photo was used showing him on duty at the FAA Control Tower at McCarran. . . . The radiological instructor training being provided by Emergency Readiness Officers THOMAS HUFF and W. O. JOHNSON was reported on in the *Idaho Falls Post-Register* . . . *L. A. Times* carried a half-page spread on "Cargo City"—the intensive development surrounding LAX. The coverage included an artist's sketch of the entrance to the FAA Hangar complex. . . . NORTON G. STUBBLEFIELD of Boise, Idaho, winner of the 1963 Aviation Maintenance Award, was termed "Man of the Month" by the magazine *Business/Commercial Aviation*.

• **SAVES**—Some outstanding FSS "saves" recently: Tonopah, Nevada—WALTER E. MILLER safely brought down a pilot at night. The pilot was not thoroughly familiar with the use of VOR and experiencing severe turbulence. . . . North Bend, Ore.—JESSIE E. LEWIS and ARDEN R. OLSEN assisted a lost, confused pilot. . . . Prescott, Arizona—JAMES D. BRAY and N. C. WHITTINGTON gave a helping hand to a pilot of a disabled plane who thought he was over Prescott when he was actually over Cottonwood, Ariz. BRAY and JEROME BARILA assisted another lost pilot who was dangerously low on fuel and brought him in to a safe landing.

Back row (l. to r.): Public Affairs Officer Gene Kropf, Charles Grosh, I&M, and M. W. Claar, ATS. All were advisers on Warner Bros. film "The Crowded Sky."

Visitors at Lemoore RATCC. Gene Kropf (l) John Campbell, John Hilton and Regional Director Tippets (seated) hear A. E. Andrews (pointing) explain console.

WE-5 - - MAN ALIVE!

(Although Mr. Kropf supervises preparation of copy for the Western Region's section of FAA HORIZONS, *it was arranged to have this article written without his knowledge so that it would serve both as a pleasant surprise to him and as a means of acquainting readers with the vital role he fills.)*

In a sweepstakes for the hardest-working, most-dedicated, most energetic employee in the Western Region, Gene Kropf's name would undoubtedly rate among the "Top Ten."

Gene, who has headed the Public Affairs Office, WE-5, since September of 1957, seems to thrive on a heavy work schedule—and one not confined to Monday-Friday, 8 to 5.

So absorbed does he become in the thousand and one projects which concern public affairs that he is apt to forget not only the clock but the fact that he is entitled to annual leave. More than once, he has lost healthy chunks of leave accumulated beyond the maximum.

In "covering" the nine Western states as one of Mr. Tippet's principal assistants, Gene has become one of the best customers for the airlines. More than once, he has returned from one field trip on Sunday evening only to depart for another the following morning. He sticks to a staggering schedule of field travel. Last year, he was out of the Los Angeles office 152 days. During this time, he addressed countless pilots' meetings, aviation education seminars, and other public groups, and arranged for numerous ground breakings, dedications, open houses and meetings, and met with FAA employees throughout the Region.

One mail boy recently expressed amazement at the volume of correspondence, reports, wires, news releases and other tangible results of production pouring out of Gene's office. This occurred at a time Gene considered a "slack-period."

His capacity for intensive work was reflected long before he came to FAA. At Parks College, Saint Louis University, East St. Louis, Ill., he served as Director of the Aeronautical Administration Department, handled public relations for the college, instructed classes, and spoke to literally hundreds of high school assemblies throughout the Midwest. He rewrote the school's program dealing with management and administrative subjects.

Noting the scarcity of comprehensive literature on airline management, he wrote a book on "Airlines Traffic Procedures," published by McGraw-Hill in 1949. During the same period he wrote numerous magazine articles for aviation magazines.

Gene has friends in aviation circles throughout the nation. He keeps active in aviation organizations and was one of the founding fathers of the National Aviation Education Council. He has been a past president of the California Aviation Education Assn., western vice president of Alpha Eta Rho, International Aviation Fraternity, and past president of the University Aviation Association.

He is a devotee of aviation history, Western Americana (he's an expert on Custer), and antique planes. One of his greatest disappointments was the loss of a priceless collection of aviation historical material in a blaze which destroyed his home in St. Louis some years back. At present, Gene has more than 50 scale model airplanes from the Wright era to the present.

His enthusiasm for the job is infectious. L. S. Yates, Portland Area Coordinator, wrote him not long ago: "During the past year, I have been inspired by your achievements, your generous understanding, your incredible capacity for work, and your infinite devotion to the FAA."

The quality of his services to the Agency were summed up in another note directed to him recently by Mr. Tippets:

"Your energetic and tireless efforts to assure that the Agency and its people are identified in the highest possible dignity and public service is gratifying and is continuously being reflected throughout the Western States."

HORIZONS Visits Burbank

FAA facilities at Burbank, California, have just undergone an extensive $700,000 modernization program. A new IFR room and streamlined communications have given Burbank one of the finest tower facilities in the nation.

Completion of the modernization program was the occasion recently for a special press preview for Western Region news media. Los Angeles area radio, television, and newspaper representatives were taken on guided tours of the remodeled facility which is located adjacent to the huge Lockheed plant. The Burbank airport, the largest privately owned field in the Nation, is maintained by Lockheed.

Among those who attended the dedication were Joseph H. Tippets, Regional Director; W. A. Stephens, Director of the Project FOCUS Los Angeles Area Office; John H. Hilton, Chief of the Air Traffic Division; Ben L. Freiman, Chief of the Air Traffic Branch, LAX Area; and Allan E. Horning, Chief of the I&M Division.

Plans for the dedication were coordinated by Leslie A. Songstad, FAA Tower Chief at Burbank; John L. Shaw, Chief of the Systems Maintenance Branch Sector Office; Gordon Stanton, Director of Public Relations for Lockheed Air Terminal, Inc., and Gene Kropf, Western Region Public Affairs Officer.

The tower handles all instrument traffic for Lockheed Air Terminal and Van Nuys Airport, and instrument departures for El Monte, Whiteman, and San Fernando Airports. En route air traffic in the north portion of Los Angeles on an en route system from Burbank to San Diego also is handled by the Burbank tower. The facility serves IFR flights from Los Angeles International Airport north or south-bound across the Burbank area.

The field is frequently used as a location for motion picture productions based at nearby Hollywood. Among Hollywood personalities who use the field constantly are Frank Sinatra and Danny Kaye. Walt Disney Productions maintains an aircraft at the field, as does Edgar Bergen. The Warner Brothers Studio is located in Burbank.

FAA's payroll at Burbank amounts to about $338,000 a year. The Agency employs 51 persons at Burbank; 37 of them associated with tower operations and the remainder assigned to positions as electronics technicians.

The tower is one of the busiest air traffic hubs in the nation, ranking 53rd in the nation in terms of total aircraft operations during 1952. Total operations in 1963 amounted to 153,733, including 44,283 instrument operations.

(This is another in a series of articles on communities where FAA has facilities.)

Columbia Broadcasting System reporter (with mike) interviewing Leslie Songstad, FAA tower chief, at Burbank dedication. Looking on and later participating were Regional Director Joe Tippets (far left) and Charles G. Warnick, Director, Office of Information Services, Washington, D. C.

Left to right: John Shaw and Bill Batemen, both SMS Burbank, discuss new facilities with David C. Early, Chief SM Branch, Los Angeles Area.

John Shaw (second from left) explains radio equipment to group. From left: Joe Fowler, Burbank controller; Shaw; Allan E. Horning, Chief, IM Division, Western Region; David C. Earley, Chief, Systems Maintenance, L. A. Area Office, and W. A. Stephens, Manager Los Angeles Area Office.

PERSONNEL PIPELINE

Q. When withholding a periodic pay increase on a marginal employee, is it necessary for the superior to advise an employee in writing or can this be done orally?

A. The supervisor must notify the employee in writing and such written notice must contain information as to why the within-grade increase is being withheld and inform him of his right to seek reconsideration by the next supervisor in the line of authority. Oral discussions to supplement this are, of course, effective and are advised.

Q. What is the status of a military retiree who is a "boot" in FAA as against a 20-year FAA non-veteran in RIF procedures?

A. A military retiree who is a "boot" in FAA is credited with veteran preference and with all military honorable service toward his service computation and leave earning date. Assuming that he is appointed with a career-conditional status, he is placed in Group II-A for RIF purposes. The 20-year non-vet is I-B; consequently, at this point in time the non-vet would have superior status on a RIF. After three years of continuous service, the military retiree is accorded career status and is then placed in Group I-A. At this point in time he would have a higher retention standing than the non-vet, who remains in Group I-B.

Q. How long does it normally require the Personnel Office to develop a register under the Merit Promotion Plan?

A. For jobs under the jurisdiction of the Region, the Personnel Office objective is to furnish the selecting official a promotion plan register within five work days after closing date. In a majority of the cases, this objective is achieved. There have been instances under the new plan, however, where the register has been delayed due to such factors as (1) tremendous number of bidders (as is often in Air Traffic), (2) all Personnel Data Summaries and/or SF-57's are not received on a timely basis and it is necessary to follow up to get them, (3) workload in the Personnel Office as versus staffing during vacation periods, sickness, high workload periods, etc.

Q. Form FAA 2062 (Personnel Data Summary) is filled out when an employee bids on a vacancy. If this same employee bids on a second vacancy which has slightly different duties, who determines if a second Form 2062 must be prepared and what is the basis for this determination?

A. The primary responsibility to determine whether a second 2062 is required rests with the supervisor. If the supervisor believes that the first form accurately reflects the employee's promotability for the job in question, an additional form is not needed. If, on the other hand, the type of work is different for which different traits, requirements, qualifications, etc., are needed, the supervisor would in all likelihood want to submit a second 2062. The basis for his determination, therefore, would be: Do both jobs call for the same basic skills, knowledges, education, aptitudes, experience background? Does the second job call for more decision-making ability, more chance for meeting and dealing with others, greater technical or creative ability, ability to communicate more effectively, either orally or in writing? If there is any doubt, the supervisor would consult the Personnel Office for guidance or advice.

Q. I am aware that Part III of Public Law 87-793, which was approved October 11, 1962, increased the Civil Service Retirement survivor benefit. How does this increase in the survivor benefit affect the amount of annuity that I will receive?

A. If you designate your spouse to receive a survivor annuity upon your death, the reduction you must take in your retirement annuity is lessened by the new provision. Here is an example: assume that your annuity is $5000 and that you specify all of it to be used as a base for your wife (or husband) survivor annuity. Under the old method your annuity would be reduced by 2½% of the first $2400 which would be $60; and by 10% of the remaining $2600, which would be $260. Thus, $320 a year would be the reduction from your retirement annuity. Under the new method, your $5000 annuity is reduced by 2½% of the first $3600, which would be $90; and by 10% of the remaining $1400, which would be $140. Thus, you would have to take only $230 a year reduction in your annuity, compared to the $320 reduction under the old law.

Q. Using the above example, how much would my wife receive if I should die before her after my retirement?

A. Your survivor would receive 55% of all your annuity, or $2750 a year. Under the old law her annuity would have been 50% or $2500 a year.

Q. How do I designate the amount of my annuity that I wish used as a base for the survivor annuity?

A. Section F on the new Standard Form 2801 (issued April 1963), Application for Retirement, has a space provided for the portion of your annuity you wish to specify as the base. It also has a space to be initialed by anyone who does not desire his or her spouse to receive a survivor annuity benefit.

Q. I understand that Public Law 87-793 also provided survivor annuities for unmarried student children of deceased employees or annuitants up to age 21. Would a child over age 19 who is a full-time student and who qualifies for a survivor annuity be covered under my health benefits plan?

A. No. Children of employees or annuitants who reach age 19 lose their health benefits coverage unless disabled. Arrangements should be made by the parent with the insurance carrier to enroll the child in a private policy. (The House Civil Service Committee has approved a measure which would continue health insurance for children of Government employees until they reach the age of 21.) Employees will be informed if this legislation passes.

Q. When can Outstanding Rating and Cash Award recommendations be submitted?

A. The Awards Program and Performance Rating Programs are separate programs. The rating date for Performance Ratings is January 31 each year and regional deadlines are established each year as to when Outstanding Ratings must be received in order to complete the program. Recommendations for Performance Awards (Quality Increase, Sustained Superior Performance, Special Act, Special Service) can be submitted at any time during the year as long as they are submitted within six months after completion of the performance period cited.

Q. What happens to a beneficial suggestion that cannot be evaluated or adopted in the Western Region?

A. If your suggestion cannot be evaluated or adopted locally, the appropriate Recognition and Awards Coordinator will forward your suggestion to the Coordinator of the appropriate service or office in Washington Headquarters, NAFEC, Aeronautical Center, or other Region for evaluation and action. Following evaluation, the suggestion will be returned to the local coordinator who processes it to completion.

HARRIS, MONAGHAN, NAMED PA REGION ATCOR'S

George Harris

Harry E. Monaghan

Two air traffic control representatives have been selected to conduct front-line liaison in connection with Pacific Region's role in the agreement for fighter/interceptor and strike-target operations.

Harry E. (Gene) Monaghan, Career employee with thirty-three years of government service, will inaugurate the program from Kokee radar site on Kauai, while George Harris, also a career employee, with 19 years of service, will get the program under way at Koko Crater.

The new program, somewhat similar to the AFIO program on the mainland, is an agreement between FAA, Pacific Region, and the Hawaiian Air Defense Division, to integrate Air Defense activities into a Hawaiian air traffic control system.

Monaghan returned to the Pacific Region, where he served in the Honolulu Center from 1946 to 1951, from the Airspace Division in Washington. Gene and his family will live on Kauai.

Harris returned to Hawaii (he, too, formerly worked in the Honolulu Center) after serving five years as Chief of the Guam CERAP. George was one of the original organizers of the Hawaii Air National Guard, and served for approximately 12 years as a fighter pilot, jet qualified, with the organization. He now holds the rank of Major in the inactive reserve. He and his family will live in Kailua as soon as their Enchanted Lakes home is completed.

Quin Seeks Patent for Teletype Error Detector He Put Together

The complicated-looking electronic gadget being examined above by Kenneth Quin, Chief, Technical Intelligence Section, Systems Maintenance, is called an "error detector," for use in checking teletype circuits. Quin designed and assembled it in his home workshop. He plans to apply for a patent. Basically, the device measures circuit efficiency by comparing the number of characters received correctly with the actual number of characters. If this appears complicated, it's only because that's all that can be told at present, out of deference to Quin's patent application.

"Pete" Morrison of Hilo Tower Is "Mr. Morale" to Co-Workers

MORALE-BUILDER. One good reason for the above-average morale in the Hilo Combined Station/Tower is Ambrose "Pete" Morrison, shown above with the Hilo Tower in the background. Pete, a former center controller, has been chief of the Hilo facility for nearly two years.

Lum, Employee of Month

Richard W. S. Lum is shown above receiving a citation as the Wake Island Employee of the Month for January, from Area Manager Cy Amerling. Lum was commended for his capabilities and production in performance of his duty as Acting Lead Foreman in the Automotive Shop when the shop was understaffed and confronted with a heavy workload. Lum was in close competition with five other nominees for the award.

Puu Keeps Current

IT'S IN THE BOOK. Controlling traffic is more than just controlling. Here, Henry Puu, Radar controller, reaches for manual to keep up with latest directives.

Ed Masuoka, Facilities Engineer, operates a transit to find airport approach obstructions.

Walt Barbo, Planning Engineer (left in left photo) and Clyde Carlstrand, Assistant Chief of Airport Division, prepare for a small plane trip to inspect the site of a proposed GA airport. (Below) Tad Iimura, Chief of Engineering, Division Secretary Betty Woo and Secretary Doris Iwamura.

M. M. Morton, Program Officer (left) confers with Dick Puckey, Chief of Airports Division, on funding of Federal Aid to Airports project.

Airstrip on Truk (above); Airstrip on Majuro (below).

AIRPORTS ARE PLANNED . . . NOT JUST BUILT!

What does an "Airports Division" do? Since it neither owns nor operates an airport, one might think it had little to justify its existence. But nothing could be farther from the truth.

As a rule, the function of an Airports Division is purely regional; in the Pacific Region, however, the Airports Division performs, additionally, work which is normally the function of lower-level district offices. While the Division's principal mission is to assist communities in matters of airport development and operation (under the provisions of the Federal Airport Act of 1946), a major portion of its efforts is related directly to the Federal Aid to Airports Program.

It undertakes a survey of improvements considered necessary to provide an adequate system of public airports so as to determine where and how the local share of aid moneys will be spent each year. Following the survey, the projects are submitted as recommendations for inclusion in the National Airports Plan. If approved, Federal aid for accomplishment of the projects is assured.

But planning for future airport requirements is somewhat frustrating. Guidelines and parameters normally used in estimating airport requirements are relatively weak for determining requirements for the Pacific area. For example, the number of air carrier passengers has no relationship to the population of most communities here. With a high tourist-passenger movement, forecasts of traffic can be little more than "guesstimates." Since passenger volumes, air carrier movements, sizes and types of aircraft, and consequently, airport requirements, are so closely correlated to tourism promotion, airport requirements in Hawaii are geared more closely to the tourist industry than to the population.

But Airports' problems don't stop in Hawaii, and the Division finds itself serving as consultant to the Government of American Samoa and the Territory of Guam, making surveys and recommendations for airports on the scattered islands of the Trust Territories.

Managing this impressive airports program throughout the 25 million square miles of the Pacific area is Airports Division Chief Richard T. Puckey and his able staff of seven. Dick took over the reins of the region's Airports Division about a year ago, succeeding Merl W. Hemphill, who retired, and brought with him some 28 years of airport business experience. Much of it was gained while serving in Washington, D. C., headquarters of Airports Service. A Pennsylvanian, and with a degree in Engineering, he came to Hawaii from the Seattle, Washington, District Office, where he served as the District Airport Engineer. In developing his staff, he has surrounded himself with a group of technically qualified personnel with backgrounds in aviation.

Maurice M. Morton is a member of the bar in three states, and was a practicing trial attorney before joining FAA in 1946. During WW II he served in the CIC in Italy and Austria. Prior to transferring to the Pacific Region last year, Mort was Program Officer in Airports Service. Keeping the State Legislature advised of FAA policy on airport development matters is part of a public advisory service that Mort performs. In the construction of a new airport, Mort's responsibility is to process requests for Federal aid, project applications, grant agreements, and handle fiscal items. In other words, after the airport is planned, Mort helps in the financing.

Clyde Carlstrand, also a veteran of FAA since 1946, is Assistant Chief of Airports Division. Prior to transferring to Hawaii in 1957, he served in Washington in engineering and planning. Clyde was a Civil Engineer with the Navy during WWII, designing and building many of the airports in the Pacific. Because of his strong interest in aviation, Clyde has geared his career and hobbies around flying and airport development. An active pilot since 1946, Clyde continues to make use of small aircraft in his work.

A new arrival to the Division in February, Walter Barbo, Planning Officer, is just celebrating his first-year anniversary with FAA. When recruited from private enterprise, he was Airport Engineer, Planner, and Acting Manager of Boeing Field, Seattle. Walt's background includes over 15 years in the field of urban planning, and three engineering degrees. His aviation experience extends back to 1944, when he flew fighters in the Pacific. He continues very actively in aviation. While most folks feel fortunate to have two cars in the garage, Walt and his wife, Terry, at one time had two planes in the hangar; they disposed of them prior to coming to Hawaii. Walt's primary assignment is to assist and advise communities and the State in airport-planning matters.

Tad Iimura, a native of Hawaii and a graduate engineer from the University of Hawaii, is Chief of the Engineering Branch. After a community has been allocated Federal funds for airport improvement work, it is Tad's job to make certain that the work is constructed according to acceptable standards. His responsibilities include reviewing plans and specifications, accomplishing field inspections of construction, and advising airport sponsors on construction and maintenance problems. A typical assignment took him to the islands of the Trust Territory for a site evaluation of proposed new airports. While there, he had some interesting pictures taken of himself with natives of the area. (Censorship precludes showing the snapshots.)

Ed Masuoka, also a native of Hawaii, is a Civil Engineer, a graduate of the University of Hawaii, and a new member of FAA. Among his other duties, Ed has the responsibility of developing and maintaining facility records of all airports in the region. His schedule, which takes him at least twice a year to each airport in the region, includes all of Hawaii, as well as Canton Island, Guam, Wake Island, and American Samoa.

If you wish to know about runway approach obstructions on Pago Pago, or the airport layout of Kaanapali, on Maui, or facilities on any of the airports in the Pacific . . . call Ed. He has the information.

NAMES IN THE NEWS: HIRINGS; TRANSFERS; SEPARATIONS; PROMOTIONS

EMPLOYED. *Edmund E. Giroux,* Electronics Maintenance Technician (Radio), Relief Staff, Systems Maintenance; *Edward K. Davis,* Heating Equipment Mechanic, Systems Maintenance, Honolulu; *Amy S. Fujitani,* Clerk Typist, Flight Standards, Honolulu; *George M. Ginoza,* Civil Engineer (General), Installations and materiel, Honolulu; *Jeannette M. Barnes,* Clerk-Typist, Air Traffic, Guam IFSS.

TRANSFERRED. Into Region: *Laurel L. Thompson,* Electronics Maintenance Technician (Radio), from Alaskan Region, to Relief Pool, Systems Maintenance; *Harold L. Forester,* Administrative Officer, from Trust Territory, Saipan, to Flight Standards, Honolulu; *Jean K. Ganiko,* Clerk Stenographer, from Social Security Administration, San Francisco, to Flight Standards, Honolulu; *Francis R. Buck,* Assistant Budget Officer, from PMR, Point Magu, to Budget Division, Honolulu; *Arnold Smith,* Property and Supply Officer, from White Alice Comm. Agency, Anchorage, to Installation and Materiel, Guam; *Eric T. Iha,* Electronics Maintenance Technician (Gen.), from Burbank (Western Region), to Relief Staff, Systems Maintenance; *Charles E. Chadwell,* Supervisory Air Traffic Control Specialist (Tower), from ATS, Washington, D. C., to Air Traffic, Honolulu Tower; *Walter A. Barbo,* Airways Engineer, from Western Region to Airports Division, Honolulu; *John F. Cassidy, Jr.,* Construction Management Engineer, from Eastern Region to I&M, Honolulu; *Harry E. Monaghan,* Air Traffic Control Specialist (Center), Washington, D. C., to Air Traffic, Kokee, Kauai; *Marie I. Downing,* Secretary (Steno.), Hq. COMNAVMARIANAS, to Area Manager's Office, Wake Island. Out of Region: *James W. Mitchell,* Electronics Maintenance Technician (Radar), Systems Maintenance, to Southern Region.

SEPARATED. *Kenjo Tengan,* Cook-Helper, Canton Island; *Eileen Memory,* Accounts Maintenance Clerk, Accounting, Honolulu; *Takashi Fukumoto,* Warehouseman, I&M, Honolulu.

PROMOTED. *Elaine Y. T. Cho,* Administrative Clerk, Executive Staff, Air Traffic; *Sherman W. Amador,* ATCS (Station), Honolulu IFSS; *Edwin K. S. Chun,* ATCS (Station), Honolulu IFSS; *Guy I. Wagatsuma,* Aircraft Mechanic Leader, Flight Standards, Honolulu; *Herbert W. M. Chun,* Electronics Maintenance Technician (Wire Communication), I&M, Honolulu; *Victor F. Ventura,* Electrical Lead Foreman, Systems Maintenance, Wake Island; *Harry Sperling, Jr.,* Maintenance General Foreman, Systems Maintenance, Wake Island; *Archibald B. Trent,* Diesel Powerhouse Mechanic Leader, Systems Maintenance, Wake Island; *Katsumi Kaneshiro,* Insect and Rodent Controller, Systems Maintenance, Wake Island; *Samuel L. White,* Diesel Powerhouse Mechanic, Systems Maintenance, Wake Island; *James K. Pualoa,* Diesel Powerhouse Mechanic, Systems Maintenance, Wake Island; *Albert A. Lincoln,* Diesel Powerhouse Mechanic, Systems Maintenance, Wake Island; *Benedict K. Kekuewa,* Diesel Powerhouse Mechanic, Systems Maintenance, Wake Island; *Sidney Y. Kim,* Diesel Powerhouse Mechanic, Systems Maintenance, Wake Island; *Carl L. Anderson,* Diesel Powerhouse Mechanic, Systems Maintenance, Wake Island; *Charles F. Popp,* Diesel Powerhouse Mechanic, Systems Maintenance, Wake Island; *Herbert S. C. Ho,* Supply Commodity Management Officer, I&M, Honolulu, *Susumu Shinagawa,* Engineering Draftsman, I&M, Honolulu; *John D. Rasmussen,* ATCS (Station), Honolulu IFSS; *Harry T. Tome,* Aircraft Mechanic, Flight Standards, Honolulu; *Kam Wing J. Yap,* Equipment Specialist, Flight Standards, Honolulu.

REASSIGNED. *William F. Clark,* ATCS (Station), from Lihue FSS to Honolulu FSS; *Marvin J. Burrier,* ATCS (General) from Honolulu Center to Guam CERAP; *Carol C. Wood,* Administrative Clerk, Executive Staff, Air Traffic, to Honolulu Center; *Edward R. Keiber,* Electronic Installation Technician, I&M, to Systems Maintenance, Honolulu; *Donald L. Van Ausdeln,* Electronics Maintenance Technician (Radio), Systems Maintenance, Kauai, to Honolulu Airport; *Robert B. Bolden, Jr.,* Electronics Maintenance Technician, Systems Maintenance, from Honolulu Airport to Diamond Head; *Leslie A. Nunes,* Electronics Maintenance Technician (Radio), Systems Maintenance, from Relief to Diamond Head; *George T. Harris,* ATCS (Center), from Guam CERAP to Koko Crater, Oahu (ATCOR); *Noboru Nakoa,* Electronics Maintenance Technician (Radio), Systems Maintenance, from Molokai to Maui; *Merlin D. Huffaker,* Electronics Maintenance Technician (Radio), Systems Maintenance, from Maui to Molokai; *Byron H. Tureman,* ATCS (Station), from Canton International Flight Service Station to Samoa.

Laing Marries His Darling

Horizons extends best wishes for years of happiness to Captain and Mrs. Hugh K. Laing, recently married at the Navy's Makalapa Chapel. Captain Laing has been Deputy Director, Pacific Region, for the past year. Mrs. Laing is the former Betty Jane Darling, of Honolulu.

NEW DISPLAY EQUIPMENT EASES CONTROLLER JOB

Traffic controllers follow aircraft on new bright display scope, the first of its kind in the Alaskan Region. (From left) Richard Brannon, Derwin Haommon, Roy Williams, Lawrence Brown, Kay Falke and Jack Fielding.

I&M Division installed new Radar Bright Display Equipment at the Anchorage Air Traffic Control Center in February. It is the first of its kind to be used in the Alaskan Region.

Called the RBDE-4, this system presents radar, beacon, map, and background information within a range of 200 nautical miles in a panoramic display. A brighter image is the primary advantage of this system. It may be viewed under normal room lighting. This allows the operator a better view of controls, charts, and other surroundings. In addition, an indication of aircraft course and speed is provided in the form of a trail following each target. The length of the trails is adjustable to meet changing operating conditions.

The addition of this equipment to the Anchorage Traffic Center has improved working conditions for the controllers and has increased their efficiency.

This equipment is built for the Agency by the Radio Receptor Division of the General Instruments Corporation.

SOLO SHORTENS SHIRTTAIL

Civilair Club fledgling pilot is initiated after solo flight at Merrill Field. Verle Collar (left) has shirttail snipped by Dusty Rhode (center) Anchorage Station Manager. Looking on is W. L. Stripling, Airports Division, who recently soloed.

Rosemary Schairer Is Subjected To the Rigors of Shelter Living

Spending 24 hours in a fall-out shelter is not exactly fun. It all started for Rosemary Schairer, an Alaskan Region Headquarters employee, when she was asked to participate in a fall-out shelter test. The test was part of a course in Shelter Management for Instructors given by the University of Alaska under the auspices of the Department of Defense.

The 24-hour test started at 5:00 p.m., Feb. 27, 1964. The alarm came with the Anchorage mayor directing all citizens to seek shelter immediately. The test group entered their underground shelter in the rifle range of West High School. Here the group of 29, including three women, were to spend the next 24 hours.

No one was aware of just what to expect. Miss Schairer reports that the biggest surprise was the fact that minimum shelter supplies, as authorized and supplied by the Federal Government, constitute the barest necessities for survival. Supplies included: 50-gallon water containers, tins of crackers, a chemical toilet set-up, and a box of medical supplies. There were no cots, blankets, or C-rations —just the barest essentials.

Organization was the keynote of the exercise. The Shelter Manager proceeded to appoint his deputies and chiefs for such assignments as sanitation, food service, safety, communications, radiological monitoring, recreation, etc.

By noon on Friday the rigors of shelter living were beginning to tell. Headaches and a generally dull feeling were prevalent. When the test ended 24 hours later, all were ready to depart.

The next day the test group assembled and critiqued the exercise. This resulted in a lively discussion and a set of resolutions for presentation to the Anchorage City Council for improvement in the shelter program.

Karol Hommon (l), "Whitey" Machin, Pres. of Civilair Club, and Lois Cook who worked hard for success of Mardi Gras.

Karol Hommon, "Miss Alaska" with her four closest contestants.

World Champion Dogsled Races took spotlight during final three days. Photo shows "musher" driving 10-dog team over the 25-mile route

Left: Jimmy Attla, FAA entry in sled races, poses with his lead dog, and on the right Andy Chikoyak is shown viewing his own entry in art exhibit.

Parade had many floats. Army tank from Ft. Richardson is passing in review.

St. Lawrence Island Eskimos danced and played native instruments.

Fur auction at City Hall offered pelts and skins at bargain prices.

Above: IM's Flora Dora girls wear costumes to work. Below: Spectators enjoy blanket tossing exhibition put on by Alaskan Eskimos.

ANCHORAGE RENDEZVOUS - "MARDI GRAS OF THE NORTH"

It starts with the sun rising a little earlier each day, lingering a bit longer, bestowing its heat and brightening the landscape, before nudging down behind Point Woronzof to the west. Spirits begin to perk up as Anchoragites shake off the gloom of the long, dark winter days and contemplate the pleasures of the spring and summer seasons just ahead.

It's mid-February—time for the Anchorage Fur Rendezvous, sometimes referred to as "The Mardi Gras of the North."

The 1964 edition of the week-long community event was the most successful according to oldtimers who have followed the Rendezvous since its inception in 1936. Originally billed as a winter sports carnival, it has snowballed into a spectacle that offers something for everyone, young and old alike. Sporting events, parades, beauty pageants, exhibits, ferris wheels, cotton candy, sports-car races, and Eskimos dancing are a sampling of the types of entertainment that attracted visitors from all over the State.

The World Championship Dogsled Races took the spotlight during the final three days of the Rendezvous. Starting in the heart of downtown Anchorage, they attracted crowds which lined the streets to cheer their favorite mushers. Television and radio crews increased the excitement with reports from checkpoints along the 25-mile route. Prize money totaling $7000 attracted mushers from all over the United States. This year's winner was Dr. Roland Lombard, a veterinarian from Wayland, Mass.

Agency employees and their families living in the Anchorage area went all-out in supporting the '64 Rendezvous. The most spectacular achievement was the crowning of Karol Mommon, a stenographer in the I&M Division, as "Miss Alaska." Karol was the judges' choice in the Beauty Pageant —a major event of the Rendezvous. She will represent the State of Alaska in the "Miss America" contest to be held in Atlantic City, N. J., this fall. She was sponsored by the Civilair Club.

Anchorage Center employees also were represented in the Rendezvous. They sponsored famed Alaskan musher, Jimmy Attla in the dogsled races, paying for his roundtrip transportation by air to Anchorage from Fairbanks.

Andy Chikoyak, an artist in the Administrative Services Division entered one of his paintings in the Art Exhibit which attracted very favorable attention from the judges.

And, of course, there were the ladies in the I&M Division who really got in the swing of things and wore "turn of the century" costumes to their work in the Hill Building.

Looking back, it was a week of fun and thrills for everyone with Anchorage-based employees feeling proud of their accomplishments and participation in this community event.

Nancy Stewart explains the operation of a radiation detection instrument to a training class. Continuous training in the various techniques of survival is carefully given by the Defense Readiness Officer.

Col. C. E. Cox (left), Assistant Chief of Staff for Operations and Training, Alaskan Command, discusses mutual area of defense responsibility with Regional Deputy Director Col. R. G. Taylor, Jr., (center) and R. E. Westover, Defense Readiness Officer.

FAA Supports Military Role in Alaska

A fishing boat breaks away from the fleet and heads for a tiny inlet, one of hundreds, along Alaska's western coast. It stops a half-mile from the shore. Six men debark in a collapsible rubber boat and paddle silently to a landing area.

At this moment, other comrades are making landings at a dozen similar locations. They are highly trained saboteurs from "Aggressor Nation X." Their mission: To destroy radar of the Alaskan Air Command and disrupt communication services as a prelude to a missile and bomber attack against the Continental United States. Posing as hunters, their plan is to arrive at their destinations at "D" day plus 10.

A plot for a television spy thriller or a Cold War novel? Not at all. It is a hypothetical problem designed to exercise Alaska's military defenses and to determine the defense readiness of FAA personnel in the region. It is typical of the numerous "War Games" held each year in Alaska in which the Agency plays an important part.

"Perhaps it is this role—that of defense readiness—which is least understood by some of our people," advises Ralph Westover, the Region's Defense Readiness Officer.

It's Westover's job to insure that FAAers in the Alaskan region are ready, willing, and able to meet their responsibilities in the event of an attack upon this nation.

"What are these responsibilities?" Horizons asked Westover. "How does defense readiness fit into the Agency's mission of providing for air safety?"

"Actually, the Federal Aviation Act of 1958 spells out the Agency's responsibilities in the event of war," Westover informed us. "In view of the speed and destructiveness of warfare today, the Agency must be prepared to act effectively, at once, and without interruption if attack comes. Thus our nuclear defense preparations require a radiological monitoring capability adequate to detect, measure, and interpret hazards at all manned facilities."

Our commitments to the Department of Defense require that many FAA employees remain on duty and in operation during an emergency, even though other elements of the civil population may be evacuated or sent to a shelter.

In Alaska, FAA is equipped to give unique support to the military command. The agency has airports, aircraft, communication stations, navigation aids, road machinery and trained personnel dispersed throughout the state. Station Managers and key personnel are fully briefed on their duties during an emergency, despite disruption to normal communications and transportation services. Employees with secondary skills useful to the military have been identified and stand ready for any eventuality. The FAA-MARS communications net is an excellent example of close Agency—Military cooperation.

Actually everyone in the region has a responsibility to maintain himself and his family in a state of readiness to survive a nuclear attack. While it is true that many of us do not have an Agency task assigned in current plans, it nevertheless behooves each employee to learn as much as he can about survival, and that he become knowledgeable about the plans in support of the military effort in Alaska.

Ralph Westover and his assistant Nancy Stewart have direct responsibility for the defense readiness program. They conduct continuous training and evaluation programs. If you're in the dark on where you fit into the picture or if you could stand some brushing up in the techniques of survival, the door to Westover's office is always open to you.

Defense readiness is your job. You owe it to your government, the Agency, and yourselves. "While hoping for the best, we should prepare ourselves for the worst," counselled the late President John F. Kennedy in his inaugural address.