FAA HORIZONS

SEPTEMBER 1964

OFFICIAL EMPLOYEE PUBLICATION OF THE FEDERAL AVIATION AGENCY

EDITORIAL:

"Real Life—A 24-Hour-a-Day Event"

"I wish the old days were here again!"

"When will things be normal?" Often we hear such phrases, spoken casually but with feeling. Such sentiments, more often than not, emerge as a result of a hectic, frustrating day at home or at work, a day in which we felt inadequate to all the tasks at hand, a day with too many things to do and not enough time or energy to do them. The very mission of the FAA—air transportation and communications—stimulates many of the adjustments which bring about these "busy" days.

Actually, we don't really want the "old days" back. The world of "real life" moves on—swiftly and surely. We could not and would not reverse it, even were it possible. At the same time, the past is not without its purpose—it teaches us significant lessons.

Today's "real life" is a busy, strenuous effort; to avoid it is to retrogress; to accept it, to lead it and to help make the right things happen—represents progress and personal fulfillment. This holds true in your home, your community, your nation and your career in the FAA.

"Real life" is the family, the job, the giving and receiving, the goings and comings, the finances (or lack of them), the spirit and the will to do—to work and to rest. "Real life" is a busy experience, embracing every facet of our existence and excluding none of us from its reality.

Our struggle for economic security and our urge to do something constructive in our chosen fields motivates and drives us to gain a sense of accomplishment. Breadwinners in each family often become so engrossed in their careers that many of them overlook important parts to the balanced life and are deprived of opportunities for even greater fulfillment.

Joseph H. Tippets, Director
Western Region

In accepting community responsibilities, we become involved in PTA, civic organizations and social groups, all of which are essential to our well-being. Our children require parental attention, love and leadership. Family life is the true fulfillment of our purpose and desires and must receive its share of balanced time and resources.

At church, we yearn to show our love for our Creator and seek guidance, inspiration and vision for our total activities. Here we budget our thoughts and stress spirit-to-spirit and man-to-man relationships.

Fortunately, our Creator did not endow us with a quick-packaged, comfortable solution to success or achievement. He did provide each of us with mind, body and sensitivity mechanisms. Creative planning, hard work and the Golden Rule still provide a basis for dramatic fulfillment of our "real life" purpose. Herein lies a great deal of the secret in successful living. Here also lies the road to successful world relations in a time of rapid change and deep unrest. Yes, herein lies the key to FAA's past successes, current fulfillments and its future accomplishments.

Instead of yearning for the good old days, each of us could gain from re-evaluating our goals and objectives—resetting them and updating them to meet today's needs and tomorrow's plans. We should pursue these goals and objectives with energy and enthusiasm, looking forward with optimism, looking backward only to draw upon valuable experience and vital lessons, and taking new pride in home, nation and career. We can develop new ideas as well as listen to the ideas of others.

Today's FAA and today's America are the results of imagination, courage and initiative. Tomorrow's FAA and tomorrow's America will be the results of similar influences. The question for each of us, then, is, "If everyone is doing as I am doing, will the FAA, America and the world of tomorrow be what we want it to be?"

Joseph H Tippets

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

News and feature stories appearing in FAA HORIZONS which highlight regional personnel or the various aspects of regional activities are prepared by Regional Public Affairs Officers and members of their staff.

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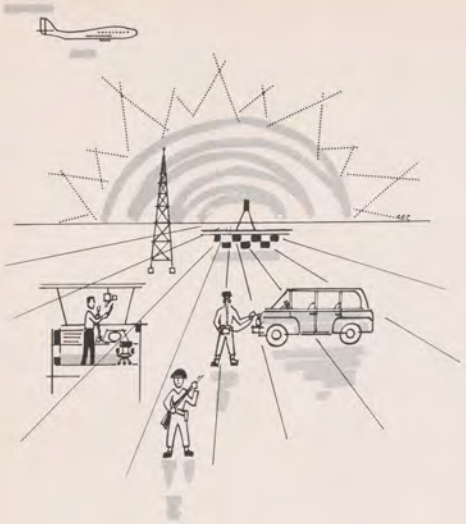
Hot Springs Tower controllers James M. Little (with mike) and Ronald V. McHenry, worked 155 aircraft operations during the dedication of the Mount Ida-Bearce Airport, Ark. Administrator Halaby participated in the ceremony and later conducted a "hangar flying" session where questions and answers flew thick and fast.



Alaska Region Stems Aggressor Thrust in

OPERATION: "MIDNIGHT SUN"

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

Such a plan was put to the test earlier this summer in the Alaskan Region when Lt. Gen. Raymond J. Reeves, USAF, Commander in Chief of the Alaskan Command, set in motion the machinery that activated operation "Midnight Sun." It was assumed for the defense exercise that for weeks earlier, unfriendly nations had been gradually turning up the cold war thermostats in places around the world where our military power confronts theirs.

This was the setting for joint exercises intended to test the defense readiness of the military services in the 49th State and their partners in aviation, the Federal Aviation Agency.

"Midnight Sun" was hardly underway when a simulated report was received in the Regional Command Control Center that an Air Force C-124, transporting hazardous cargo, reported engine trouble to the Northway station, saying that it was going to make an emergency landing. At 2:16 P.M. on Monday, June 15, the C-124 "crashed" at Northway, demolishing the aircraft, killing the crew and causing a nuclear accident.

FAA station personnel, already prepared for such emergencies, went to the crash site which was simulated by markings on the runway, cordoned off the area, and fought the fire. When the flames were extinguished, they started monitoring the area for radiation contamination with their detection equipment. The Alaskan Military Command was notified and a "Broken Arrow" team was dispatched to Northway from Eielson Air Force Base. "Broken Arrow" is the code name assigned to any accident or incident involving nuclear weapons.

Three hours later, the Eielson team, headed by Lieut. Col. Merle F. Mason, arrived at Northway in a C-123. It immediately took over from the station personnel the job of decontamination and cleanup. Disaster control teams from Fort Wainwright, Fort Richardson and Fort Greely also descended on Northway to help in the simulated emergency. FAAers continued to assist the team, turning over to Colonel Mason nose swabs and pathological samples taken from persons who were near the crashed plane. Actual samples with radiological contamination had been obtained from a laboratory and were handed over to the "Broken Arrow" team to add a measure of reality to the exercise.

At about the same time, "aggressor" forces 500 miles away prepared to capture King Salmon airfield in southwest Alaska, home of a jet fighter squadron of the Alaskan Air Command and a flight service station of the FAA. Shortly before, the invading forces had sailed up the Naknek River from Bristol Bay in fishing vessels and landed a short distance from the airfield. Their mission: To capture the field and secure it for an airborne invasion by aggressor troops scheduled to arrive later.

Tuesday evening at 8:00 P.M., the aggressors attacked. They closed off the ends of the runways and captured the FSS building which they used as a command post. They commandeered station vehicles and captured FAA personnel.

They held it during the night and well into the next day until they were driven off Wednesday afternoon by U. S. Army paratroopers who had been dispatched from Fort Richardson, near Anchorage, in C-124 Globemasters.

After the exercise began, Brig. Gen. Ralph G. Taylor Jr., the Deputy Director of the Alaskan Region, and key staff personnel moved to the Remote Regional Office south of Anchorage. They operated from the RRO throughout the

An Air Force C-124 "Globemaster" unloads an Army M114 armored reconnaissance vehicle from its enormous maw. The high-speed reconnaissance "cat" was used for an attack on the FAA's flight service station building which was later captured to serve as a command post. The triangular insignia identified the aggressor troops and equipment.

Left: Maurice D. Boslet and John F. Thome (standing), electronic maintenance technicians dressed in protective clothing, use radiological detection instruments to check for contamination following simulated nuclear detonation at Northway. Right: Aggressor forces form skirmish line prior to assault on King Salmon FSS building.

exercise, working out solutions to these and many other problems filtering in from stations in the region.

At the end of the exercise, ALCOM Chief of Staff Brig. Gen. William M. Lynn Jr. visited General Taylor and his battle staff at the RRO. He told General Taylor that he was very favorably impressed by the performance of FAAers through the exercise. He was impressed, too, with the thoroughness of the Agency's planning for such emergencies, and the manner in which our people responded to the simulated problems. FAAers in Alaska were indeed worthy partners of the military in providing for the security of Alaska and the Nation.

"Midnight Sun" was typical of the numerous war games held in Alaska each year in which the Agency plays an important part.

"Perhaps it is this role—defense readiness—which is least understood by some of our people," says Ralph F. Westover, the Region's Defense Readiness Officer. It's Westover's job to insure that FAAers in Alaska are ready, willing and able to meet their responsibilities in the event of an attack upon this nation.

The Federal Aviation Act of 1958 requires the Agency to develop plans for the discharge of wartime responsibilities. Recently, President Johnson issued an Executive Order spelling out in some detail the goals toward which such planning should be directed.

In view of the speed and massive destructiveness of warfare today, the Agency must be prepared to act effectively, at once, and without interruption if attack comes. Our nuclear defense preparations require a radiological monitoring capability adequate to detect, measure and interpret hazards to all manned facilities.

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

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.

Ralph Westover and his assistant, Nancy Stewart, have direct responsibility for the defense readiness program. They conduct continuous training and evaluation programs. "Defense readiness is our job," says Westover. "We owe it to our Government, the Agency and ourselves."

Brig. Gen. Ralph G. Taylor, Deputy Director, Alaskan Region, hosts Defense Readiness officers Thomas Huff, Western Region (left) and Oscar W. Holmes of Washington Headquarters.

Above: Nancy Stewart of the Defense Readiness office gives tips on the operation of a detection instrument to Bertram F. Cortright on training visit to McGrath. Below: Station Manager Ormond O. Robbins of Northway and USAF Lieut. Col. Merle F. Mason discuss local contaminated areas.

John M. Beardslee, Regional Director, Central Region, closes out 36 years of distinguished Government service with his retirement this month. Right: Jack, Mary and Laddie relax in the patio of their home in Kansas City.

FROM LIGHTHOUSES TO RADAR SCOPES

. . . Jack Beardslee's seen 'em all

Thirty-six years ago John M. (Jack) Beardslee was 21, a brand-new Government worker, a recent graduate of the Michigan State University School of Civil Engineering and almost, but not quite, a civil engineer—he needed two years of practical experience to qualify for a license.

This started Jack Beardslee on the long, eventful road that carried him from a junior civil engineer with the Commerce Department to the post of Director of the FAA's Central Region, where he closed out a career in Government with his retirement Sept. 1.

Beardslee appeared on the aeronautical scene when paved runways were a novelty and the Lighthouse Service was in charge of the nation's airways. He grew with aviation, playing an active "sleeves-rolled-up" role in surveying, designing and constructing airfields and airway lighting facilities. Jack recalls when low frequency radio stations were added to the infant airways system and operators exchanged weather data by "fist," rapping out the information on CW and later transmitting it by voice to pilots hardy enough to fly when birds had sense enough to walk. Jack was in the middle of it all, moving upward in responsibility as the technology of flight evolved.

In 1930, two years after joining the Government, Jack became assistant airways engineer in the San Francisco Lighthouse District and earned the accolade "best qualified employee."

He was on his way.

In the following 11 years his engineering and administrative talents took him to posts in Santa Monica and Oakland, Calif., and Anchorage, Alaska. Gradually shifting from engineering to management, Beardslee in 1941 became chief of the airways engineering branch in what today is the FAA's Western Region.

When the war in the Pacific was only a year old and growing in intensity, Jack was moved to the Hawaiian Islands. Within two years he was named as the first regional manager, later regional administrator, of what is now the Pacific Region.

During his four-year tenure he was commended for the aid given by his region to the Pacific-Asiatic Communications Survey and for assistance in the installation of the seismic sea wave detector at Palmyra Island.

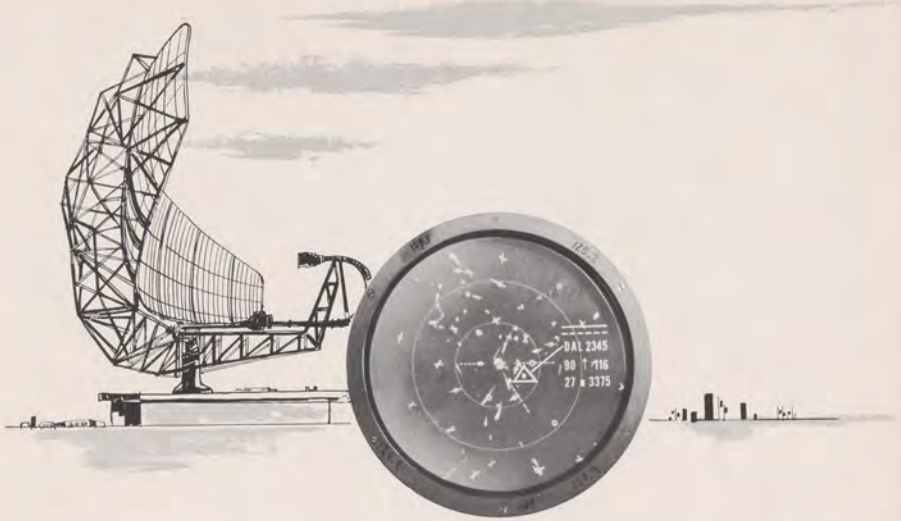
Following WW II Beardslee continued westward, directing an aviation survey in the Philippine Islands which set the stage for a technical assistance program for the rehabilitation of airports, navigational aids, radio homers, and construction of an air route traffic control center.

Jack returned to Washington in 1950 and served in a variety of important posts. Among the honors he earned in this period was the International Region Silver Medal for distinguished service to world aviation.

Beardslee returned to Honolulu to head the Pacific Region for six years before being assigned in 1962 to the FAA Central Region—first as assistant administrator and later as director.

At his retirement ceremony in Kansas City, Administrator Halaby presented Jack Beardslee with the Agency's Meritorious Service Award in recognition of his long and distinguished federal career in aviation.

Jack and his wife Mary plan to make Kansas City their home. Their many friends in and outside the Agency will remember Jack Beardslee's shrewd ability to examine and evaluate the facts, get to the heart of the problem, and come up with a concise and clear solution—blended with just the right amount of wry wit and subtle humor and all wreathed in the ever-present cloud of pipe smoke.



"3-D" AIR TRAFFIC CONTROL

Air traffic control history is in the making in the Southern Region. Teams of FAA technicians are installing the Advanced Radar Traffic Control System known as ARTS in the Atlanta Tower. ARTS has been described as one of the most significant developments in air safety since the introduction of radar because it gives the controller information in 3-D—identity of the aircraft, its altitude and its precise position.

Radar works on the echo principle. A signal goes out, hits something, and returns to its point of origin. With an echo it is sound waves; in air traffic radar it is radio waves, generated in a transmitter and broadcast from a rotating antenna over a 360 degree sweep. When the waves strike an aircraft they return to the antenna, are channeled into a cathode ray tube—the radarscope—and appear as blips on its face. All this happens so fast that time is measured in microseconds—millionths of a second.

Most blips look alike—targets about the size of a grain of rice, except that some are brighter than others. A large, metal-skinned aircraft "paints" better than a small fabric-skinned one, metal being more reflective than fabric. Whirling propellers make good reflectors, but small jet-powered aircraft, having no propellers, are harder to see. Until a few years ago, with only primary radar in general use, the controller had no way of identifying exactly the aircraft he was talking to—say Air Force 1792—except by asking the pilot to make a turn in a particular direction. Watching the scope, he knew the blip which made the turn was AF-1792. This was good but something better was needed and FAA went to work on it.

The result was to utilize secondary radar, which involved additional equipment, the so-called "interrogator" on the ground, and small "black boxes" called transponders, in the aircraft. The interrogator sends out a signal that, in effect, asks the aircraft, "Which one are you?" The pilot, his transponder set to transmit on a particular code, responds to the query with a particular signal which is reflected on the radarscope. If the controller needs further identification, the pilot can punch a button and the transponder will send back another signal, one that generates an identifying bar of light

George Algood and Vernon Greenwood (left) read simulated data block. Top two bars indicate handoffs or similar information. Third line indicates Delta Flight 2345; next, altitude and control symbol (ascent/descent). First two characters in last line are "track" number; others, beacon.

back of the blip. Positive identification is thus established.

These techniques are unquestionably better than primary radar alone, but FAA goes on the premise that the controller's job is to control—to make decisions—and that he should be relieved of as much other detail, including communications and identifying requirements, as possible. To accomplish this, the Systems Research and Development Service developed an entirely new, highly complex radar system, (ARTS) using advanced electronic equipment that tags the blips with symbols, letters and numbers called alphanumerics. These follow the blips across the scope, assuring positive and continuous identification.

Oversimplified in the extreme, it works something like this: the controller asks the pilot to transmit on a particular code and the pilot responds. Then the ARTS computer processes the transponder data and translates it into a "data block." The controller presses a button that directly associates the block with the blip. The block may contain up to 21 characters (three lines of seven each) up to four attention-getting symbols, and a leader that points right at the aircraft

Above: Delta Air Lines Capt. R. W. Ferguson presses the button of the "black box" (transponder) to identify himself to the Atlanta Tower. Observing the procedure are First Officer John J. Mason (right) and Second Officer Tom Delia. Below: Secondary radar receives transponder signal, passes it on to computers.

to unquestionably associate it with the data block. (See drawing.)

The ARTS system is also designed to work with only primary radar in order to accommodate planes not equipped with transponders. Using a special keyboard, the controller is able to tap out a data tag and "tie it on" to the blip on the scope.

Atlanta was selected for the field appraisal because it is a typical moderate-to-busy airport, served by eight major airlines operating some 500 flights daily. It also has a large amount of military and general aviation traffic with an additional average of 200 daily flights. With several smaller airports in its immediate vicinity, Atlanta adds up to an excellent proving ground.

The two UNIVAC 1218 digital computers now being installed at Atlanta will tie all of the ARTS elements—and there are many—together to form the heart of the system. For comparison, two different types of displays are being tested, both bright and flicker-free and both providing for positive radar handoff of aircraft from one controller to another.

The new procedures were theory-tested at the National Aviation Facilities Experimental Center (NAFEC) and are ready to be live-tested at Atlanta.

Several years of design, experimentation and simulation by SRDS preceded this step. Now, after further months of work by SO's IM personnel and personnel from NAFEC, the big day is almost here.

In addition to FAA's own technical specialists, many representatives of the electronics industry are closely associated with the ARTS project. The UNIVAC Division of the Sperry Rand Corp. has the primary contract to build the computers and bring all of the other components of the system into a unified whole. UNIVAC will also write the computer programs and check out the system when it is finally installed. Other contractors are building and installing various equipment elements.

The ARTS project has created a considerable amount of interest within the Agency, the aviation community, industry and the military services and requests for visits are being received.

Due to the limited space available and the workload over and above the normal traffic control functions, all such requests are being deferred until some time in early 1965.

Gary Sandlin, SRDS, and Clifford Culver, I&M, install beacon control box. Below: Controller team reviews procedures for Greater Atlanta Terminal Area. Reading clockwise, Alan G. Stoddard, J. Paul Scott, Joseph Foppiani, Sanford Rogers and William McFee. Engineers and technicians worked on the system for ten months.

Training Session. UNIVAC instructor Susan Brown with ATC students. Left to right: Milton Hatchell, Douglas Butler, Harry Crouse, William Boyer (USAF), Charles Mason, Roy Young, John Justice and Howard E. Burch. Below, left to right: Herschell V. Carr, Bobby G. Thompson and Frederick Lowndes discuss maintenance.

MAIN STREET AMBASSADORS

The Pendleton Woods family learn about Turkey from Serafettin Tetik as he explains the location of his country on a map and tells some of its history. Also listening is Aziz Farag of Egypt, holding child. Tetik and Farag were AC students.

Some people say that Oklahoma City will become the crossroads of the world when the supersonic transport flies in the early 1970s. Quite a few are aware that this city already has that title, if not in fact, at least in sentiment.

International exchange students are no longer a rarity in Oklahoma City high schools and universities. Business interests, military matters, or simply a wish to see the booming southwest draw a steady flow of foreign visitors.

Since the late 1940s more than 3,000 men, representing civil aviation in 77 countries, have lived in Oklahoma City. They came for periods ranging from two weeks to a year, taking advanced instruction in their specialties at FAA's Aeronautical Center. Last year more than 300 men from 54 countries visited or enrolled in formal courses or on-job training programs at the Center. Darwin Maurer, international liaison officer for FAA, currently is supervising and assisting 61 students from 22 countries.

The Chamber of Commerce International Visitors Committee is the hub of the international hospitality program. Its members work with the FAA international office in enrolling new volunteer host families, keeping contact with those already in the program and assigning international students to them.

Whole classes at the FAA Center have been "adopted" by host families within church and civic groups. President Eisenhower, who was actively interested in the people-to-people program, referred to such groups as "Main Street Ambassadors."

Towns outside Oklahoma City are beginning to play an important part in the international program, too. Host families from Meeker, Guthrie, Mustang and Moore have enrolled. For the third year in a row, FAA international students received an invitation from citizens of Mangum to spend a weekend with them.

The following excerpt from a letter by a former student, one of many received by the FAA international office, is typical of ideas and attitudes toward this country.

"America is not represented only like the movies or by rock and rollers (as I thought before I left home). I have studied. I have been working with people of different levels and diverse backgrounds; I have attended several meetings in which they pray devoutly; they sing with an enviable sense of humor and cooperation; and really, I think that a people who has so deep faith and such a strength of union and sense of collaboration is worthy of the whole world's respect."

The American viewpoint is represented in this letter:

"I cannot tell you what these people have meant to us. You see, we have four children, ages 3 to 15. We would like for them to know the world, its peoples, its cultures, its differences and its sameness. We have never been overseas, though we would like to go someday. But until then, we must bring the world to our children. I feel somehow that if our guests get half as much inspiration from a visit to our home as we get from having them, this program may be as much or more a deterrent of war as the United Nations."

In addition to individual families, local organizations and groups help in this community hospitality program for international visitors and students. The YWCA, through its world fellowship committee, has for several years provided a year-round program for the visitors. Many of the presentations are by community groups such as the Boy Scouts or Campfire Girls, the Oklahoma City public school system, local business women's clubs, Indian pow-wow clubs, etc. The committee also arranges tours of local businesses.

On four occasions, the Oklahoma County chapter of the American Red Cross set up equipment and provided volunteer workers for day-long recording sessions at the Aeronautical Center to allow the students to record messages to their families.

The sports world is not neglected in this business of international understanding and hospitality. Through arrangements made by Maurer with the University of Oklahoma, Oklahoma City University, and the Oklahoma City 89ers Baseball Association, FAA students usually get to see at least one football, basketball and baseball game. The Capitol Hill Junior Chamber of Commerce or the State Fair Association take them to a rodeo and the fair.

Another important contribution is made by the Oklahoma City Symphony Association and the Mummers Theater by inviting the international visitors to their performances as guests of their organizations. The language of music is indeed universal. The FAA international office this spring received the following letter from a former student, who is now home in Thailand.

"A couple of days ago we heard the Oklahoma City Symphony on the radio program and it really reminded me so much of the time while I was in Oklahoma City. I still remember everything during my stay in the wonderful town."

Scores of men around the world call Oklahoma City hometown number two—number one, of course, being their own.

Kent County Airport 1916 ...

THEN AND NOW

When aviation's old-timers settle down for a serious session of hangar flying, the conversation is bound to include the original Kent County Airport, aerial gateway to Grand Rapids, Mich.

The airport became a part of the American aviation scene in 1916 when a 140-acre parcel of the Kent County Fairgrounds was marked off as a "flying field." In the 48 years that have since elapsed, the airport changed location and grew to its present 1,844 acres. In the process it has become one of the best equipped in the United States.

The history of the airport was duly recounted earlier this year when Administrator Najeeb E. Halaby participated in dedication ceremonies on June 6, 1964. Officially opened for business at midnight, Nov. 23, 1963, the new Kent County Airport is new all over—buildings, runways, ramp, FAA facilities—even the fences.

The entire project, costing $8 million, is a long way from the sod and sand field used by some of the immortals of early aviation. At times it was the home base of William Stout, Charles A. Lindbergh, Adm. Richard E. Byrd, Eddie Stinson and Col. Roscoe Turner, to name only a few.

The new airport was several years in planning before final approval was granted. First of several district airport engineers to work on the project was L. D. Hale, in 1958. Hale is now with a private consulting firm. He was succeeded by James E. Waedekin, who held the DAE job from 1961 to 1963. He is now in the Planning Branch of the Central Region Airports Division. Rolland A. Heim then took over the reins of the project as acting DAE.

Kent County Airport incorporates many of the technological changes that weren't even wild dreams when it harbored its first rickety aircraft almost a half-century ago. A backward glance tells a story of progress of an airport and an airline, both closely linked to aviation development in the United States.

Following an unsuccessful attempt in 1920 by a firm called Roseswift to fly passengers and freight to Ionia, Mich., some 25 miles distant, William B. Stout formed the first regular airline flying between Detroit and Grand Rapids. The 1926 "airliner" was a ship of his own design: single engine, all metal, high wing monoplane with the name "Detroit-Grand Rapids Airline" emblazoned on its fuselage. The airplane could have been a single engine sister ship to the Ford Tri-Motor—it had the same corrugated metal skin and the same wing and fuselage shape. In fact, Stout named it the Stout-Ford Monoplane. The fledgling airline made one round trip daily between the Furniture City and the Motor City.

In the process of growing up, the Detroit-Grand Rapids Airlines eventually was absorbed by United Air Lines. It first became Kohler Airlines, flying Loening Amphibians; then Pennsylvania Airlines, with Ford Tri-Motors; Pennsylvania Central Airlines, with Boeing 247s; Capital Airlines, with DC-3s and Viscounts. Finally, through a merger with United Air Lines, Viscounts and other four-engine planes now serve Grand Rapids. United's planning calls for tri-jet Boeing 727 service in the area.

Two other airlines—North Central and Lake Central—use FAA's facilities and services at the New Kent County Airport. W. A. Robertson, Jr., Chief of the Combined Station/Tower, supervises a complement of 11 controllers serving the public from one of the world's most modern towers. Built before the new concept in tower design became effective, the new cab nevertheless permits the controllers to handle the 35 daily scheduled air carrier flights, as well as the routine traffic, that keeps them busy all day long.

Statistically the new Grand Rapids Airport looks like this: It covers 1,844 acres and has a modern terminal building costing more than $1.75 million; one runway 6,600 feet by 150 feet having concrete 8 to 10 inches thick; a runway 3,400 feet by 150 feet; 70,000 square yards of ramp space. Passengers enplaned in 1963 numbered 109,383; freight and mail carried was 4,276,469 pounds; total aircraft movements were 92,166; and last year's budget of $170,875 was increased to $290,000 for the current year.

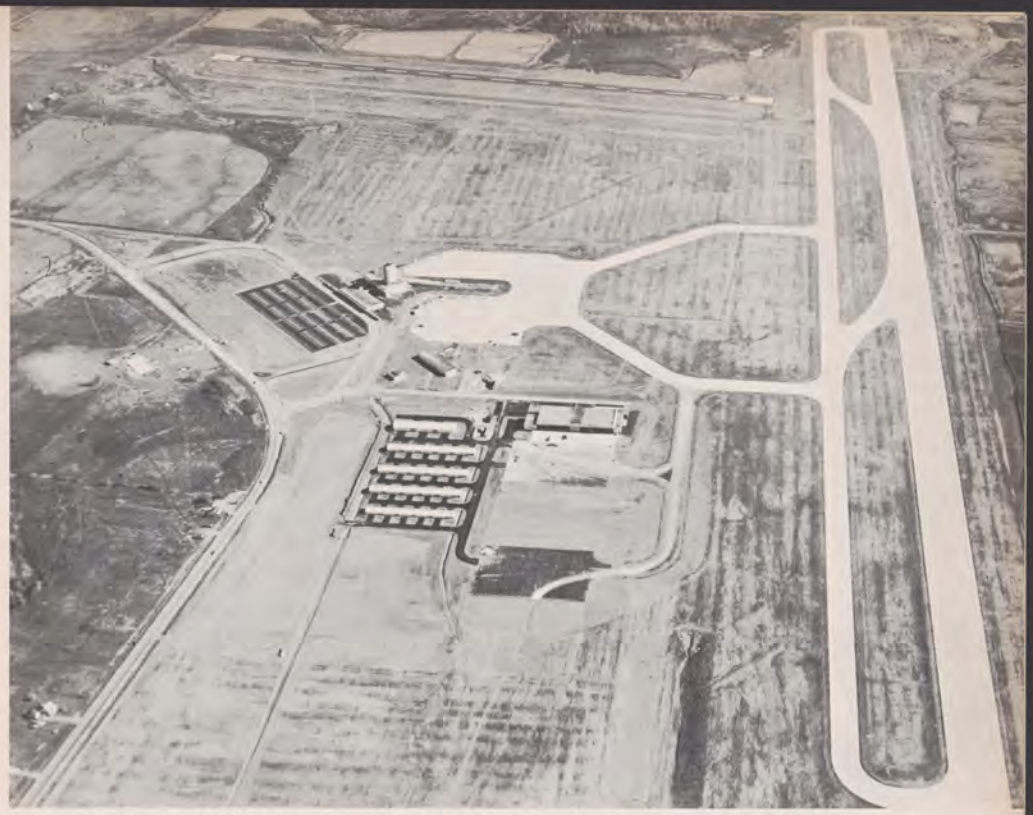
The growth of the CAA/FAA paralleled that of the airport. Present Agency facilities include, besides the CS/T, the Systems Maintenance Sector under the supervision of James C. Lupton, and the General Aviation District Office under R. B. Ruedy.

Electronic facilities serving the airport include a complete instrument landing system, an approach light system with automatic sequenced flashers, a remote transmitting site and a VOR. A peripheral radio site serving the Chicago Center is also located in Kent County.

Maintaining the airport's delicate "nerve system"—the electronic aids to air navigation—is the responsibility of the men in SMS-904. A hardy lot, like the others who follow their profession, they can be depended upon regardless of what nature brews in the way of weather.

The General Aviation District Office has also grown apace with aviation over the years. Originally a two-man operation, the office now has a staff of seven, including a supervising inspector, two operations inspectors, two maintenance inspectors, and two clerk-stenos. The increased staffing was a natural development to handle the growing number of corporate aircraft, an increase in the number of private pilots and a definite increase in the number of fly-in visitors—skiers in the winter and sun-fun crowds in the summer.

Grand Rapids participated in 48 years of aviation progress; it awaits the next 48 with the same enthusiasm that prompted the city fathers to slice off a piece of the old fairgrounds for a "flying field."



Above: the new Kent County Airport's 6,600-foot runway provides an unmistakable "signature" for the aerial gateway to Grand Rapids, Mich. Early birds first began flying in the Kent County area in 1916, making this one of the pioneer aeronautical centers in the country. Below left: a symbol of progress, the old administration building and control tower which served so well in the "in-between years" gives way to a new hub of activities (below right). Cost of the Kent County Airport was $8 million.

A SUN, FUN STRIP

Mrs. Della Bearce, donor of the airport land, made first flight on dedication day.

Congressman Oren Harris, Chairman House Interstate and Foreign Commerce Committee, Mr. Halaby with greeter, and Phillip M. Swatek, SW-2.

Air travel in the Arkansas vacation land got a boost in early July with the dedication of Mount Ida-Bearce Airport in the center of the beautiful Lake Ouachita recreation area some 34 miles from Hot Springs. Congressman Oren Harris was the principal speaker at the dedication. Administrator Najeeb E. Halaby also participated and held a "hangar flying" session.

Pilots of some 65 aircraft from a six-state neighboring area and their passengers landed at the new airport. More than 1,000 visitors, including local residents and tourists, came out for the ceremony.

A temporary tower, operated by controllers James M. Little and Ronald V. McHenry of the Southwest Region's Hot Springs Tower, logged 155 aircraft operations during the day's activities.

Built at a cost of $127,350 under the FAA's Federal-Aid-Airport Program, the Mount Ida facility opened this part of Arkansas' vast vacation land to the increasing number of outdoor enthusiasts who prefer to fly to recreation areas. It was named after Mrs. Della Bearce, who donated the land for the 2,600-foot strip.

The airport backers also predict an upward swing in general aviation interest in the area with the increase in adequate landing facilities.

Sixty-five planes from six neighboring states flew in to celebrate opening of new Mt. Ida-Bearce Airport. Visitors parked aircraft in space surrounded by scenic woodland.

CENTO'S ELECTRONIC OASIS

Constructing a VOR in the United States is no easy task, considering the fact that most of these airway sentinels are located far off the beaten path. Ask FAA's installations people. They can give you a few thousand well chosen words describing the many headaches suffered by field engineering parties.

Installation overseas is even rougher.

Take the stateside hard row of stumps and add to them the possibility of attack by smugglers or bandits—all of this occurring on a 2,000-year-old desert caravan trail between Afghanistan and the Persian Gulf—and you'll have an idea of what a combined FAA-Iranian group is currently experiencing.

Crew members Paul Taylor, Chief, Civil Aviation Group for Iran, Vaughn M. Clayton, Central Treaty Organization (CENTO) Aviation Advisor, and Thorlief Ellison, FAA civil engineer, are surveying VOR sites on the Iranian leg of the CENTO Regional Civil Airway. This 1,900-mile controlled route stretches from Ankara, Turkey, to Tehran, Iran, to Karachi, Pakistan.

Work on the leg from Tehran to Karachi has presented several unusual problems and the positioning of the two VOR facilities was one of them. Aircraft flying this desolate stretch have no navigational aids for about 600 miles and must depend largely for navigation upon non-directional radio beacons from Zahidan.

The FAA engineered VORs are located in remote, barren and little populated areas and will provide positive navigational checkpoints. One of these sites is near the small village of Anarak, about 200 miles from Tehran. The other is close to an ancient, abandoned caravanserai called Darband, where the crew is winding up the last land survey so that final contract specifications can be completed.

The Darband site, in the middle of a caravan trail, has been in use for over 2,000 years and used to be the major supply route from China to the Persian Gulf. Ancient rulers of Persia built forts at intervals along the route in an attempt to provide protection for caravans. These ancient caravanserais were used not only to house the guards but also to care for travelers during storms and bandit raids.

At the present time the primitive trail is used largely by smugglers, who find the sparsely populated area a convenient backdoor between Afghanistan and the Persian Gulf. Because of this smuggler activity, gendarmes are assigned to all American and most Iranian Government workers who venture into the area. All FAA survey crews working on these desert sites have private guards during their operations.

Anybody for Anarak?

Above: Iranian guards stand by the abandoned desert caravanserai. Below: A survey crew winds up the final area survey of the desert facility near Darband.

From left rear: two guards; two drivers; Ike Hovasinian, Iranian civil engineer; driver; Vaughn M. Clayton, CENTO Aviation Advisor. Front row from left: guard; Robert Katchainian, Iranian civil engineer; Paul G. Taylor, Chief, CENTO Aviation Group, Iran, and Thorlief Ellison, FAA civil engineer, CAG/Iran.

A CHUNK OF CORAL... *A Glimpse of Guam*

Susan Stimson and friend ride a water buffalo.

Guam, the Pacific frontier of America, is a 30-mile-long land mass of volcanic origin and the largest of the Marianas Islands. Approximately 225 square miles in area, and located about 5,100 miles west-southwest of San Francisco, it is rapidly becoming one of the world's major aerial crossroads.

Top-ranking FAA official on Guam is Edward M. (Ed) Warner, a man whose aviation and administrative background makes him a natural choice for the top spot. His infectious enthusiasm has rubbed off on each of the Agency's 105 employees under his direction.

Ed's assistant, Jim Stimson, a retired Navy Captain, is equally enthused with his job. Other FAA officials on Guam are Homer Willess, Chief of the International Flight Service Station; Ed McCarter, Chief of the Guam Center Radar Approach Control (CERAP); Lyle Kirkpatrick, Chief of Systems Maintenance District Office (SMDO) #2; Les (Red) McQuay, resident engineer; and Eli Mikos, chief supply officer.

On Guam, the Agency's chief "customers" are the military. In 1963 the CERAP handled 43,335 military IFR flights, compared to only 4,429 civilian operations. Tiny Guam is an important refueling stop for military and civilian aircraft. No prudent pilot would dare pass up this tiny speck of coral where he has the opportunity to take on "one more for the road" to slake his engines' thirst. There simply is too much water north, south, east and west of Guam.

The majority of FAA's employees live at scenic Ocean View, a community of government-built family units overlooking the Pacific. While most agree that "Guam is good," and that they enjoy their assignments, they are quick to point out that all is not always rosy. The climate is pleasant enough: Temperatures range from 70 degrees to 90 degrees with a mean of 81. But the island is located in a typhoon belt and residents live under constant threat of disaster. Only those who have survived a similar experience can appreciate how much the islanders dread the thought of another typhoon. Reminders of "Karen" are plainly evident more than 18 months after she struck and memories of her 200-mph winds are still vivid.

Residents also point out the popular, but erroneous, notion that Guam's beaches all look like Waikiki. This just isn't so. Most are littered with coarse coral, objectionable marine life, and are so shallow that swimming is almost impossible.

FAAers on Guam are, nevertheless, an intrepid lot, not given to standing around complaining. They have found a way to enjoy the blue Pacific despite the drawbacks. On their free time they built a large screened shelter right on the beach and there, free from flies and crawling things, they can take the sun, have picnics, and enjoy themselves in comfort.

Their Community Association keeps a wide range of civic and recreational activities going. One of the most popular things they have done is organize a Meeting and Greeting Committee which provides a "royal" welcome to newcomers and shows them around the island.

In common with many outposts, shopping is a problem on Guam. Fresh vegetables are particularly hard to obtain. One might expect the opposite on a lush, tropical island but, as any farmer knows, vegetables demand arable soil. Rendering the soil of Guam arable presents almost insurmountable obstacles, involving removal of tons of coral, rock and dense jungle overgrowth. As a result, truck farming is limited and local-grown produce is not to be found in the markets. The community club tackled the problem with typical vigor and now FAAers on Guam are enjoying fresh produce purchased in Honolulu and flown to Guam aboard FAA aircraft making routine flight inspection trips.

In due time an enterprising, energetic farm boy from Rockwall County, Texas may change all this. Homer Willess, Chief of the Guam IFSS, and a 17-year FAA veteran, has started to grow vegetables locally. Homer has several acres of tillable land cleared and planted, and while he admits his garden is still an experiment, the results so far are promising. He and his partner, Charles Kile, a retired Weather Bureau employee, have some $1,700 in equipment invested in their joint venture. They hope to supply the FAA Community Association Commissary with fresh produce at a lower price. They have already sold several hundred pounds of green beans, lettuce, peppers, eggplants, cucumbers, and sweet potatoes. Later on, as the venture prospers, they expect to hire labor—they are doing it themselves right now.

Island living is not new to Homer. During World War II he manned a Navy communication station on Ta'u in the Samoan group and prior to his service at Guam he was assigned to Wake. At each post he created a successful garden and the betting is ten-to-one he will do it again on Guam.

In spite of complications, a tour of duty at Guam has much to offer. There are many and varied opportunities for vacation travel. From Guam, such points as Manila, Taiwan, Hong Kong, and numerous cities in Japan are only hours away by jet aircraft.

Left: Susan Stimson admires latte stone in south central portion of island. The builders and the purpose of the stones are unknown. Below left: Area Manager Edward Warner (left) and Mr. and Mrs. Marvin Rovner, Guam CERAP, inspect crate of "goodies." Below: IFSS Chief Homer Willess handles mechanized equipment while Charlie Kile turns the soil. Right: the Stimson family visit Ferdinand Magellan monument near Umatac Bay on trip around island.

NEW YORK CITY HOSTS FIRST MANAGEMENT SEMINAR

William D. Carey, Executive Assistant Director, Bureau of the Budget, was the principal speaker at the first Management Improvement Seminar conducted at Governor's Island, N. Y., by the Management-Improvement Committee of the New York Federal Executive Board. The committee is chaired by Oscar Bakke, Director, Eastern Region.

Mr. Carey presented the Administration's policy on manpower, productivity and cost consciousness.

Approximately 140 attended, including heads of agencies, management analysts and others concerned with management improvement in Federal agencies in the New York area.

Arthur K. Waale, Office of Management Services, Headquarters, discussed Project SCORE as a study for more effective use of manpower in air traffic control. Other speakers included: Eugene C. Smith, Veterans Administration, who spoke on work sampling techniques; Cecil E. Goode, Bureau of the Budget, who described the Raytheon Company's methods for controlling manpower costs, which had been presented to top Government officials under Bureau of the Budget auspices; and Wilbur Fuhro, U. S. Navy, who spoke on comprehensive operations analysis related to manpower use.

Thomas V. O'Keefe, Manager, N. Y. Regional Office, Veterans Administration, who is chairman of the New York Federal Executive Board and Oscar Bakke also addressed the participants.

The NYFEB is one of 12 boards set up in different parts of the country. The boards enable top Government managers to coordinate and supplement their individual efforts, advance programs of interagency and intergovernmental concern and to achieve greater efficiency and economy in government operations. Tangible benefits and management improvements are fostered through sharing of personnel, equipment, facilities, programs and ideas.

Eastern Region participants at the seminar included Irving Mark, Executive Officer, who is also the Executive Secretary of the NYFEB Management Improvement Committee. In addition to serving as Chairman of the seminar steering committee, Mark was moderator.

Anthony R. Aliffi and Edward Lerner of Eastern Region's Management Analysis Division were members of the Management seminar steering committee which arranged the proceedings.

Pedal Pushers Spin Wheels in Washington Area

Raymond C. Matthews, FS-60, demonstrates good form.

Alfred Sanell, FS-347, pedals 20 miles to work and back.

FAA's physical fitness program is gaining considerable mileage from two bicycle fans.

Raymond C. Matthews, FS-60, is president of the Federation of Washington Area Cycle Clubs, an organization comprising 12 groups of ardent riders from Maryland, Virginia and the District of Columbia. All but one of the groups go in for competition racing.

The exception, Touring Wheels, is on the social side and Albert Sanell, FS-347, is its chairman.

Members of TW spin around for fun and health; go on picnics, swimming jaunts, etc., and some of the hardiest take overnight bike-hikes, complete with sleeping bags.

NAFEC'S Newest Radar Facility Checks on Navigation Equipment

NAFEC's newest radar facility was activated in July at a ceremony with John C. Mercer, (left) chief of Technical Services, presenting a symbolic key to Joseph D. Blatt, Director of SRDS. Center manager William Harrison looks on.

Known as Extended Area Instrumentation Radar it automatically tracks FAA aircraft to determine the accuracy of airplane instruments and navigation equipment and ground-based navaids under test.

FAAERS FLY MERCY MISSION

Three members of Flight Inspection District Office 3, Seattle, Wash., recently were commended by an official of Larson Air Force Base.

The three are William A. McCall, William Brouse and John C. Biggs. McCall was in Larson base operations when a Larson control tower operator, A/1C Dennis L. Ferguson, telephoned from Pasco, Wash., requesting an emergency flight for his 13-month-old daughter, Tammy, injured in an auto accident.

Within 30 minutes, McCall and his crew prepared a flight plan and departed for Pasco with a doctor.

The little girl and her family were flown to a Spokane hospital. Tammy has since responded to treatment and will recover completely.

"Immediate response by these men to this emergency was most gratifying," Major Lee H. Umstattd, commander of the 2038th Communications Squadron at Larson Air Force Base, wrote Western Region Director Joseph H. Tippets.

MARSH TO OLD STAMPING GROUNDS IN TOP SLOT

Edward C. Marsh, left, newly appointed Director of CE gets a few clues from his predecessor, "Jack" Beardslee.

Edward C. Marsh, 53, became Regional Director of the Central Region on September 1. He succeeded John M. Beardslee who retired from the Agency after 36 years of Government service.

Marsh, former Deputy Director of the Western Region, brings more than a quarter of a century of experience to his new job. An engineer by profession, he was graduated from the University of California at Berkeley with a B.S. degree in aeronautical engineering. He has held positions of increasing responsibility with the Agency and its predecessor agencies. During World War II, he served as a colonel in the Air Force. He is a qualified pilot.

Marsh is no stranger to the Kansas City headquarters. He was Deputy Regional Director of the Central Region from March 1957 to June 1960. On his return, this time as Regional Director, he said: "It's a bigger job now than it was then since activity is much greater now. But of all the places I've been, I enjoy Kansas City the most."

The Central Region, with headquarters in Kansas City, Mo., is responsible for carrying out FAA activities in 12 states —Michigan, Indiana, Wisconsin, Illinois, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas and Montana. These activities range from the certification of new aircraft and licensing of airmen to air traffic control and the operation and maintenance of a vast complex of aerial navigation aids.

Marsh, a career Civil Service employee, started working for the Agency in 1937.

Schulte Helps Dedicate New Truckee-Tahoe Airport

Some 400 private aircraft and more than 3,000 spectators jammed the new Truckee-Tahoe Airport in California during recent dedication ceremonies there.

The new $430,000 airport, built in large part with Federal funds, was host to private flyers from throughout northern California and western Nevada, with some pilots coming from as far away as southern California, Oregon and Utah.

Principal speaker at the dedication of the new airport was William Schulte, Assistant Administrator for General Aviation Affairs. Others who spoke included William Piper, of Piper Aircraft Corp.; Clyde Barnett, California Director of Aeronautics; and Representative Harold T. Johnson.

The new airport is two miles southeast of Truckee in the rapidly growing Lake Tahoe area on the California-Nevada border. It is at an altitude of 5,900 feet. It is the second large airport in the Lake Tahoe area. The other, Tahoe Valley Airport at the lake's south end, has an 8,500-foot paved runway and is at an altitude of 6,200 feet. A new FAA control tower is now under construction at that field.

New Flight Standards Group at NAFEC Operating in High Speed

The newly-formed Aircraft Services Facility at NAFEC swung into full operation late in July when 61 aircraft maintenance specialists from the Eastern Region at JFK moved to Atlantic City. In addition, 77 mechanics from Lockheed Air Service, the civil contractor whose maintenance contract at the center terminated on July 1, transferred over to the FAA.

The new group, designated FS-570, and headed by Vincent G. Sanborn, now handles major maintenance on all planes at the center, plus the Eastern Region flight inspection aircraft based at JFK, Bedford, Mass., and Richmond, Va., as well as some aircraft at Washington National and Columbus, Ga. Purpose of the move to Atlantic City was to get a more efficient operation in consolidating maintenance activities.

SM MAN SAVES GUIDE'S LIFE

Richard Shelmandine, electronics maintenance technician, SMS-163, Poughkeepsie, N. Y., saved a French-Canadian guide from drowning in a lake 200 miles north of Montreal, Canada. Shelmandine, a friend, and the guide were fishing in the lake in a canoe when the craft overturned. The three made it back to shore and after a rest, the guide swam back to get the canoe.

He was about three-quarters of the way out when, for some unknown reason, he went under. Shelmandine leaped into the lake and after reaching the spot where the guide had submerged, rescued him from the bottom, dragged him to shore 75 feet away and revived him.

ADMINISTRATOR HALABY TEST HOPS THREE PLANES

Hawker Siddeley chief test pilot Michael Maina chats with Administrator Halaby after Halaby flew the British DH-125.

The month of August, just like the other months in the year, was a busy one for Administrator Halaby. During one week last month he put three new aircraft through their paces. This is in line with his policy of personally handling the controls of new aircraft before they go into service.

At Wichita, Kan., Mr. Halaby took the eight-place *LearJet* through stalls sharp turns, maximum permissible speeds, emergency descents, take-offs and landings and other critical maneuvers. This followed a review of the results of airworthiness tests by FAA and company pilots and engineers. During the flights the Administrator was at the controls with a company test pilot serving as pilot-in-command.

Halaby also made a stop in FAA's *JetStar* at Bethany, Okla., visiting the Aero Commander factory. There he flew the *Jet Commander* through similar operational maneuvers. The *Jet Commander* is undergoing final preparation for FAA type certification which is anticipated shortly. August was also the month when the Agency awarded a type certificate to the LearJet Corp. for its first pure jet passenger model.

During the same week, Halaby shook down the British-made *Hawker Siddeley* DH-125 at Dulles International Airport.

LearJet type certification specifications include take-off weight of 12,500 pounds, landing weight of 11,880 pounds, operating limit speeds up to Mach .82, and operating altitude of 40,000 feet. These are maximum values.

The plane is designed to carry a crew of two, 500 pounds of baggage, and approximately 5,500 pounds of fuel. The aircraft is powered by two General Electric CJ 610-1 engines, with static take-off thrust of 2,850 pounds per engine and 2,700 pounds thrust for maximum continuous operation.

The Administrator observed, "With the early and rapid introduction of new model business jets—in addition to the *JetStar* and the *Sabreliner*—creating intense domestic and international competition, we must be sure that safety, good handling qualities, sound training and careful rating of pilots keep ahead of the greatly advanced performance."

Halaby has been a pilot since 1933. He was a test pilot for Lockheed Aircraft from 1941 to 1943 and during World War II served as a Navy test pilot. In 1945, he made the first coast-to-coast jet flight in a Navy *Shooting Star*. One of his first actions after his Presidential appointment as the Administrator in early 1961 was to flight test the *Electra* to assure himself that the aircraft was structurally sound following a major modification for wing cracks.

The Administrator has been invited to fly the French executive jet this month in France. The airplane, which has U. S. engines, will be marketed and serviced in the U. S. by Pan American World Airways, Inc., as the *Falcon Fan Jet*.

Research on Low-Cost ILS Pays Extra Dividend in New Antenna

An antenna developed by SRDS for use with the low-cost instrument landing system localizer has been adopted as standard airways equipment by FAA. Built by Scanwell Laboratories of Springfield, Va., under contract, it increases flight safety and at the same time cuts costs.

This antenna is a completely new design—an array of 15 circular radiating elements as opposed to the conventional 8-loop array. Each element has a tubular arm supporting a bent parasitic reflector—the "V" in the accompanying photograph—that provides a highly directional front and back course, almost completely free from interference.

Prefabrication adds economy to performance. The entire system, including transmission lines, is prefabricated and preadjusted by the manufacturer, minimizing tune-up time and installation costs. Nor does the V-ring require elaborate site preparation. At most locations nothing more than a simple concrete slab is needed.

Other points in its favor are: it can be used with existing transmitters and modulators; it is compatible with existing monitoring equipment and techniques, and it can be electrically heated against ice and snow, eliminating plastic domes or other shelters.

Evaluation was carried out at Jamestown, N. Y., but it was at Jackson, Miss., that the V-ring proved itself for general airport use. Here, reradiation interference from a water tank and the airport terminal building created serious difficulties, and here the V-ring reduced the roughness and improved the beam well beyond the required standard.

Prefabricated antenna system smooths rough beam.

DOORS CLOSED IN JULY ON TWO PIONEER CENTERS

The bell tolled twice in the Central Region during July, once in St. Louis and once in Detroit, to mark the passing of two of the earliest Air Route Traffic Control Centers. Detroit, actually, was the fourth oldest ARTCC in the country, opening for business on August 31, 1936, after New York, Cleveland, and Chicago had been commissioned.

At 12:30 A.M., July 5, the last remaining sectors of the Detroit Center were consolidated with the one at Cleveland, as four days earlier, on July 1, at the precise time and moment, the St. Louis Center, that began operations March 1, 1939, went off the air, its activities transferred to Kansas City.

Once crowded and full of life, the old facilities are now deserted; the personnel transferred: the equipment silenced, and it was not without nostalgia that many of those who took part in the cut-over ceremonies looked back over the years. They knew the time when aviation was still struggling, when the DC-3 was mistress of the airways, and air traffic control was taking its first progressive steps. They had not only seen history made, but had taken part in it.

A list of the "alumni" of both the Detroit and St. Louis Centers reads like a Who's Who in FAA. The first Chief (Manager) of the Detroit Center was Harry D. Copland. In its early complement were Chet Church, Charley Clift, Tad Matucha, Ray Petitte, Van Rawlings, Dave Thomas, Jack Tighe and Don Whitney, to name a few.

The first Chief Controller of the St. Louis Center was Clarence J. Stock, followed by John Knoell, Charles Clift, Robert Knenlein, Oliver Hasek and Theo Pope. Knenlein and Hasek each served as Chief on two different occasions. Archie W. League, Allen E. Taylor, Charles Carmody and Clark Zucker, all at one time or another served in the St. Louis Center.

When, on August 20, the Phoenix Center moved over to Albuquerque, the Center Consolidation Program announced two years ago came close to completion. Still left are the Centers at San Antonio and New Orleans due to be transferred to the new site at Houston some time in 1965.

Something for the Girls

Typical of the special services provided by FAA for the women flying in the recent All Women's Transcontinental Air Race, popularly known as the "Powder Puff Derby," was this temporary control tower at Cape Girardeau, Mo. Erected by the local airport officials, it was staffed by controllers from the Lambert-St. Louis Tower. On duty in the open-air cab are, from left: Paul Marchbanks and Gil Wallace, Jr. After race ended contestants rounded up at NAFEC for the third time.

Gebelin and Vandewark Honored For Their Services to Aviation

Seated: John Gebelin, right, and Wesley O. Vandewark of the Portland, Ore., GADO, were honored by their colleagues for long and commendable services to aviation. Standing are: Sanford Yates, (right), FAA Area Coordinator, and Burleigh Putnam, Program Evaluation Officer, FAA

John Gebelin, a man who has devoted virtually all of his adult life to serving aviation, was honored in Portland, Ore., recently.

Gebelin, Supervising Inspector for the FAA General Aviation District Office in Portland, received honors for 35 years of service at special ceremonies held at Portland International Airport.

His career started in Little Rock, Ark., in 1922 when he pumped gas, washed airplanes and performed other odd jobs to earn flying time.

Gebelin first soloed in an open biplane in 1927.

He flew *Jennys* and DH4's until he joined the U. S. Air Corps in 1928.

He then flew pursuit and transport planes until he was released from service in 1939 to join the Civil Aeronautics Administration.

Gebelin was recalled to Air Force duty in 1941, and participated in various campaigns during World War II. At the end of the war, he returned to his job with the Civil Aeronautics Administration at Fresno, Calif., and was transferred to the Portland office as Supervising Inspector in 1954.

At the same ceremony, Wesley O. Vandewark, principal maintenance inspector at the Portland District Office, received an award for 20 years of commendable service.

Regional officials present at the event included Burleigh Putnam, Program Evaluation Officer, Walter Elder, General Aviation Operations Section, Flight Standards Division, and Sanford Yates, FAA Area Coordinator, Portland.

Everyone agreed that, despite its ups and downs, there's no business like the flying business.

FAA WIVES AT COLD BAY ARE COMMUNITY NURSES

AIC Richard A. Myers is the center of attraction as Betsy Day, Brida Parker and Ila Adams administer "first aid."

Just the name of the place—Cold Bay—suggests isolation and loneliness. Located 610 miles southwest of Anchorage, Alaska, in the Aleutian Islands, it is home to a small community of 200 people who work for Federal and State agencies, airline companies and a commercial fish cannery.

The Federal Aviation Agency has an International Flight Service Station at Cold Bay to provide emergency landing and refueling facilities for flights to and from the Orient.

For all its isolation, it is a remarkably self sufficient place, reports Station Manager Elmer E. Williams. Social life includes service clubs, PTA, and other activities which people enjoy.

Williams and the Cold Bay community are especially proud of the wives of two FAAers based there. Mrs. Ila Adams and Mrs. Brida Parker are both registered nurses who spend much of their time—free of charge—tending to the medical needs of their neighbors. Ila's husband is Leland I. Adams, IFSS Chief; Brida's is Herbert A. Parker, an electronic maintenance technician.

Ila and Brida sometimes perform duties above and beyond the call of those required of an RN—like delivering babies when a doctor isn't around. On occasion, they have worked with doctors by telephone, describing symptoms to the doctor and then carrying out his instructions for the patient's care. A day's routine includes run-of-the-mill treatment for cuts and bruises and removing nails and splinters.

Ila Adams, Brida Parker and a third RN, Mrs. Betsy Day, wife of Frederick H. Day, Station Chief of the Weather Bureau, are the only nurses at Cold Bay.

In commenting on the role of the wives of FAA employees in the 49th state, James G. Rogers, the Regional Director says, "We're proud of our women in Alaska. They are the cement that holds the families together, making it possible for their husbands to endure the isolation of some of our stations and so do a better job for the Agency."

Able Seaman Robert J. Herring Commended for Response to SOS

The Federal Aviation Agency is not generally credited with having sailors on the payroll, but a Pacific Region employee recently received a commendation for his actions in preventing possible serious damage to a Pacific Far East Line ship at Wake Island.

The ship, *SS Canada Bear*, was in the process of docking at Wake Island when the wind suddenly shifted and threatened to ground her. Some damage was actually done when she struck a coral head. The ship's master requested assistance from FAA's lead foreman, Marine Unit, Robert J. Herring, who piloted the ship to a safe mooring to the buoys just outside the channel at Wake, with the assistance of FAA's two LCM boats.

After mooring the *Canada Bear*, Herring, a qualified diver, inspected the hull and certified the ship as being seaworthy.

Bob is nearing completion of a construction job of his own—a boat on which he and his wife expect to travel around the world. Latest reports indicate that the boat will be completed some time next year.

International Aviation Affairs Plays Important Role in Agency Activities

By skipping hostile terrain and bypassing poor roads, the airplane plays an important role in regions of the earth which are in the early stages of technological development.

FAA's Office of International Aviation Affairs serves as the focal point for guiding the Agency's international activities.

Regional International Aviation Affairs Offices are extensions of FAA's decentralization program, transferring operational activities from Washington headquarters to the local level.

Guided by policies and standards set up by IA, the regional IAA officer acts as advisor to the Regional Director on aspects of regional programs relating to U. S. international airline operations; flight inspection activities; certification of foreign-made aircraft for use by U. S. international airlines; air traffic control liaison under agreements with the military and other aviation matters subject to the jurisdiction of the U. S. or to services provided by FAA under agreements with other agencies or foreign governments.

Regional personnel handling Agency international aviation affairs are, full time: Daniel W. Ward, PC; James S. Beasley, SO; part-time, D. S. Wolfe, AL; Henry L. Newman, CE; Stanley W. Bobskill, EA; Phillip M. Swatek, SW. WE's is soon to be assigned.

FAA representatives for Europe are, George C. Prill, EU-1, Overseas headquarters, and Herbert E. Stats, EU-3, continental U. S.

FOX GOES SUPERSONIC

Walling V. (Bud) Fox (left), chief of the Fort Worth ARTCC, received a certificate of membership in the exclusive "Mach 2 Club" after he flew a supersonic run over the Gulf of Mexico in a B-58 HUSTLER. Fox flew in the second station of a trainer version of the Hustler from Carswell Air Force Base, Fort Worth, and became one of the few civilians to become a member of the elite club.

SW EMPLOYEE IGNORES DANGER, RESCUES PILOT

SW's Arville J. Ludwick, SMS-503, was in the rescue slot when he saw a Navy twin-engine TS-2A aircraft crash and cartwheel during a simulated single-engine landing at the Corpus Christi International Airport. Ludwick, servicing the approach light system, moved back from the runway approach to watch whenever the practice landing and take-offs interrupted his work. Noticing that an aircraft was coming in short, he started to run to the point where he thought it would crash. He reached the wreckage as the second member of the three-man crew crawled out.

Disregarding the threat of fire from the ruptured fuel tanks, Ludwick helped remove the injured student-pilot who had been trapped inside and carried him a safe distance from the plane to get first aid.

The Corpus Christi experience was the second close-up crash for Ludwick. While stationed at Bergstrom Air Force Base at Austin, he escaped injury in an aircraft that crashed on take-off.

Japanese Aviation Officials Tour WE Facilities

Two top officials of Japan's Civil Aviation Bureau, the equivalent to our FAA, recently paid visits to Western Region facilities.

The two are Kazuhiko Tochinai, CAB Director, and Shozo Harada, Chief of CAB's international section. They were met by Charles Hawks, Chief of the Western Region's Aircraft Engineering Division, and Walter Spelman, Chief, Systems and Equipment Branch. Hawks and Spelman had just returned from three weeks in Tokyo in connection with certification discussions and were able to renew acquaintances with the top Japanese officials.

The visitors were given a tour of the airport and other aviation facilities in the Los Angeles area. The FAA arranged a flight to Long Beach where they were taken on a tour of the Douglas plant and a trip to Disneyland.

ICAO Schedules Special Program To Find Causes of Turbulent Air

The Council of the International Civil Aviation Organization has set aside four five-day periods per month during December 1964 and March, June and September 1965, in an effort to determine the causes and distribution of turbulent areas in the upper atmosphere.

During each period all turbine-powered civil aircraft flying above 20,000 feet will report to specially designated collecting and analysis centers whether or not turbulence was encountered on the flight.

The report will include the location and intensity of turbulent areas, whether the turbulence was in cloud or in clear air, aircraft speed and reaction of aircraft.

Results of the program will be analyzed by the meteorological services of Argentina, Australia, France, India, Japan and the United States.

Since 1959, the FAA has been exploring every facet of the turbulence problem as it specially applies to jet transports.

BEASLEY HONORED BY ITALIANS

James S. Beasley, Acting International Aviation Affairs Officer in the Southern Region, was recently presented "The Order of Merit of the Italian Republic" and appointed Officer of the Order for contributions to Italy's civil aviation.

John A. S. Fornara, Italian Consul in Atlanta, presented the gold and enamel medal to Beasley at the Atlanta regional headquarters. The award was made by decree of the President of Italy.

Beasley was instrumental in making and changing many policies and procedures for modernizing Italy's airline operations, airmen certification, and aircraft engineering and manufacturing standards.

James S. Beasley (center) receives Italian medal from John A. S. Fornara (right), Italian Consul in Atlanta as SO's executive officer, Chester W. Wells, looks on.

ON THE SCOPE

RETIREMENTS

• *S. C. (Si) Aarskaug,* Aug. 31, after 35 years of Government service, Chief of the Fargo, N. D., combined Flight Service Station and Tower. • *Charles R. Horan,* Chief of En Route Navaids Plant Engineering Unit, I&M at SW headquarters, Aug. 1, after 35 years with CAA/FAA. • *Frank S. Endicott,* Fire Chief at NAFEC. Endicott has been at the Atlantic City Airport since WW II and started as a member of the fire crew at the Naval Air Station. • *Norman R. (Huck) Smith,* Chief of the Operations Research Section, NAFEC, after 23 years of CAA/FAA service. "Huck" was one-time Chief of the Chicago Municipal Tower. He served on the Curtis Committee which established the first master plan for air system modernization in the mid-1950s. • *Paul Morris,* June 30, Acting Chief, Airports Safety Division, Washington headquarters, after 35 years CAA/FAA service that began with the Bureau of Lighthouses.

TRANSFERS

• *Arthur R. Marcus,* to Wake Island as Area Manager. Marcus was Chief of the Honolulu ARTCC and also did a six-month tour on Wake in 1955. • *Roy N. Pickett,* formerly with the radar beacon program in Washington headquarters. Pickett goes to Guam as Assistant Chief, SMDO No. 2. • *Frank S. Kadi,* to Washington headquarters. Named for Kadi's job in PC was *John Truhan* to be Assistant Chief, Systems Maintenance Division. • *Haden E. Rogers,* Honolulu Tower supervisor, to fill the post of ATC advisor to Hq., Far East Communications Region, Fuchu Air Station, Tokyo.

Arthur R. Marcus and wife, Barbara, take off for Wake.

CERTIFICATE OF ACHIEVEMENT FOR WORK IN SW

Karen Novak and Regional Director League smile along with Donald G. Schuler as he reads his citation.

Donald G. Schuler, newly-appointed executive officer of Systems Maintenance Service, was awarded a Certificate of Achievement prior to his departure from the Southwest Region. Regional Director Archie W. League made the presentation to Schuler during the annual employee awards and recognition program.

Schuler was cited for his accomplishments during nearly four years of service in the Southwest Region—first as assistant regional manager and, since 1962, as executive officer.

A 34-year veteran of Federal service with more than 12 years in the FAA and CAA, Schuler has a broad background in budget work and business management. He spent five years in the Executive Office of the President, receiving budget estimates for the CAA. In 1947 he was appointed executive officer of the CAA regional office in Chicago and two years later became budget officer for the CAA in Washington, D. C.

During 1952-57 Schuler was with the Department of State as director of the Office of the Budget after which he was selected to become executive officer of the Airways Modernization Board. When the board was merged with the FAA he served as assistant director of NAFEC until his Fort Worth assignment in 1960.

Schuler holds a BCS degree in accounting from Southeastern University.

Schulte Wins NBAA Award for Meritorious Service

William J. Schulte, Assistant Administrator, Office of General Aviation Affairs, will receive the National Business Aircraft Association annual award for Meritorious Service to Aviation at the association's annual convention in Miami, Nov. 5-7.

Schulte was selected for his leadership in the Agency's effort toward service to the general aviation segment of the industry. Presentation will be made by NBAA's immediate past president John H. Winant. Bill Schulte is the first Government official so honored.

AFTER HOURS

NO FISH STORY THIS

This one didn't get away. Paul J. Timmerman, controller at Detroit City Tower, caught this whopper in Sawbill Lake in northern Minnesota while he was assigned to the Duluth RAPCON/Tower. Timmerman caught the Northern Pike on a three and one-half inch Silver Talus lure using a spincast reel and 15 pound test line. The fish weighed 30 pounds, was 45 inches in length and 20 inches in girth. Too heavy to boat, the fish also destroyed Timmerman's landing net before he succeeded in beaching the boat in order to keep from losing the fish.

RECRUITING OFFICER FRAMES WORK

There's art in choosing the right person for the right FAA job and then there's the easel type of art. Herbert N. Faintich, Recruiting Officer for the Western Region, is familiar with both kinds. Herb graduated Magna Cum Laude from Iowa State University in 1954 (Phi Beta Kappa, too) and has since won an impressive string of awards for his paintings. His work has been displayed at art museums in Atlanta, St. Louis, Omaha, and numerous other major cities. Herb came to FAA in May 1960, after three years in the Air Force as a radar intercept controller.

AWARD FOR MOM

A letter written by the three daughters of Mrs. Ruth Leighton, wife of FAA employee Wayne Leighton, on Guam, won for her the "Mother of the Year" award of the FAA Wives Club.

The letter recited the activities of Mrs. Leighton teaching Sunday School at church and otherwise participating vigorously in community affairs while raising a family of four.

From left: A family friend, Mrs. Leighton, and daughters Faith and Waynette admire "Mother of the Year" award.

The Leightons have been on Guam for over two years. They survived Typhoon Karen, which devastated the Island in the fall of 1962.

The judges for the "Mother of the Year" award were from the non-FAA community on Guam.

WORLD OF ART

Mrs. Charles Boutilier, wife of a controller at the Denver ARTCC, Longmont, has achieved local distinction as an artist.

Recently, her work was placed on display at the Longmont Public Library and an article on her painting was featured on the family page of the Longmont *Daily Times-Call.*

Boutilier, besides being a controller, is a spare-time woodworker, fisherman, hunter and farmer.

The *Times-Call* article quotes him as commenting: "At times, everything in our house either smells or tastes like turpentine."

Western Region Breaks Ground For Three New Control Towers

Western Region personnel participated in three ground-breaking ceremonies in recent weeks, marking the start of work on new Type O Airport Traffic Control Towers in the Region.

Director Joseph H. Tippets and members of his staff took part in ceremonies at three California airports, Brackett Field near LaVerne; Riverside; and Montgomery Field, San Diego.

The events received extensive local publicity in community newspapers and were sponsored in each case by the city or the Chamber of Commerce.

"While a ground-breaking ceremony may seem trite to some," Tippets commented, "we consider these events important as symbols of projects which bring lasting benefits to communities."

At each event Director Tippets made a brief speech highlighting FAA's role in the community and in local aviation by its establishment of the new facility.

Dedication ceremonies, still about a year away, are nevertheless being planned for the new towers in the Western Region.

Joseph H. Tippets, Director, WE, speaks at ceremony.

ON THE HORIZON

• **Real Property**—A new Order, 1M 4634.5 (June 30, 1964) has been issued to cover the management and disposal of Government owned real property. The order also covers procedures for quarterly reporting of surplus real property disposals and inventory.

• **Cryptographic Authorizations**—The importance of cryptographic information to the defense of the United States requires unique measures for its safeguarding. One of these is that before data of this nature may be released to any individual, irrespective of his security clearances, he shall have formal authorization to its access. Agency policies and procedures are contained in Order CS 1600.4 (June 30, 1964).

• **Pledge Plans**—On September 15, 1964, FAA's official policy on "pledge plans" goes into effect. Pledge plans are privately operated funds that provide financial help to survivors of deceased members. As such, Agency resources—teletype, mail facilities, manpower and supplies—may *not* be used in their support, nor may the Agency's name be associated with any pledge plan. However, because pledge plans are sponsored by employee organizations, the Agency has authority to extend certain services to them, including the opportunity to solicit members and the use of facilities for meetings, etc., provided these activities are conducted outside of scheduled working hours. Also, literature may be posted and distributed subject to management review and approval. Order OA 3710.6 (May 15, 1964.)

• **New Insurance Benefits**—Two bills recently signed into law by President Johnson will benefit veterans who hold National Service Life Insurance policies.

More than 5½ million WW II and Korean Conflict veterans who hold NSLI policies will benefit from an extension of premium waiver provisions. At present the law provides for the waiver of premiums if the insured becomes totally disabled before his 60th birthday.

The new law, applying to all NSLI policies, raises the disability deadline to the insured's 65th birthday and will be automatically included in all policies.

The second law authorizes the granting of a new total disability income provision which provides a monthly income of $10 for each $1,000 of insurance if the insured becomes totally disabled before reaching his 65th birthday. The present law has an income provision if the disability occurs before the insured's 60th birthday. Both laws take effect on Jan. 1, 1965.

Service-disabled veterans holding "RH" insurance policies will not be eligible for this new total disability income provision. Those who are eligible must be in good health, must file an application and must pay an additional premium.

Application forms for the disability riders will be available this fall. GI policyholders affected will be advised.

• **In-Flight TV**—A unique four-part entertainment system for passengers was introduced by a major air carrier last month. The first in-flight program was presented on flights between Chicago and Los Angeles.

The system offered passengers motion pictures and live television as well as stereophonic musical programs and in-transit pictures of the terrain, take-off and landings.

The personalized closed circuit television monitors and earphone headsets that are part of the system assured privacy for those passengers who wished to work or read.

All 45 of the airline's aircraft are equipped with the system. Each aircraft has nine-inch monitors, one for each two passengers in the first class section, and one for each nine coach passengers.

The sets in the first class compartment are installed between the backs of the two seats ahead; in the coach section they are attached to the overhead service consoles.

The system features an earphone headset with individual volume control for each passenger. Convenient jacks make it easy to select either the picture soundtrack or the music channel. Each monitor has the conventional control for regulated brightness, contrast and vertical and horizontal line adjustment.

Astrovision presents movies, short subjects, live television, or a picture being made at the moment by a camera installed in the nose of the airplane—but only one of these will be shown at any one time.

• **Helipads for Centers**—Because many air route traffic control centers are removed from large airports and population hubs, helicopters are being used with increasing frequency for official transportation. This is particularly true of the military representatives who visit centers on coordinating missions, etc. To meet this need, FAA has developed a set of standards for building helipads at those centers which have need for such facilities.

• **Safety in Numbers**—The driver who has lost his operator's permit because of drunken driving or involvement in a fatal accident can forget about obtaining a new permit from another state, thanks to the National Driver Register Service, a clearing house of information on irresponsible drivers.

Maintained in Washington by the Department of Commerce's Bureau of Roads, the Register now has information on a half-million drivers stored in electronic computers and 50,000 identifications have been made since operations began July 1, 1961. All 50 states have agreed to use the facilities of the Register Service.

Legislation is in the works to permit states to submit information on licenses lost for *any* reason. Object: to clear the highways of irresponsible motorists.

• **If You Have Troubles**—FAA's Interchange of Service Experience is covered in Advisory Circular 20-23 (June 4, 1964). The Agency encourages the prompt reporting of all aircraft mechanical service difficulties by using FAA Form 1226.

All reports are brought to the attention of Flight Standards Service. Often, as a result of review by Maintenance and Engineering/Manufacturing personnel, improved standards are developed.

• **Films Upon Request**—FAA has a collection of 16 mm films, both technical and non-technical (some in color) available to employees for showing before interested groups. Three of the most popular are, *A Traveler Meets Air Traffic Control*, an explanation of the ATC system angled at the layman; *Private Pilot*, which explains flight following service and how it serves the VFR flier, and *Flight*, a prize winner, that describes the purposes and responsibilities of the Agency with emphasis on the air carrier field. Write to the FAA Film Library at the Aeronautical Center, P.O. Box 1082, Oklahoma City, for a catalog and further information.

PERSONNEL PIPELINE

HIGHLIGHTS OF P&T CONFERENCE

A full summary of the 1964 Personnel and Training Officers' conference has been sent to all participants. These brief notes highlight conference action on those subjects considered to be of top importance to Regional Directors.

The Administrator, Deputy Administrator and others see the Agency now moving from massive expansion which stressed quantity in recruitment, training and advancement to a period of greater selectivity, productivity and accountability. From this point forward, increasing emphasis must be given to individualized personnel administration, featuring great care in employee selection, assignment and promotion. There will be a marked shift from mass training to individual development, and more attention given to training requirements and the cost-benefits aspects of training programs.

Productivity improvement is to be a priority goal of FAA personnel management and training; all related functions should be brought to bear to help increase productivity throughout the Agency. The objective and careful analysis of facts must now be applied to the problems of management. To increase productivity without increasing manpower, we must measure and relate workload and staff capacity, evaluate program performance and anticipate and forestall deficiencies.

The Administrator is not satisfied with the Agency's performance under the Equal Employment Opportunity Program. Commendable efforts have been made to find qualified minority candidates for FAA employment, but effort alone does not satisfy our public responsibility—we must achieve tangible results.

The average Classification Act grade in FAA continues to rise. Operating personnel officers generally believe: (a) top management support is needed to make any grade control policy effective, (b) line management should have a prime responsibility for controlling grades, and (c) any governing Agency directive must be firm and definitive.

Regional Directors have seen and commented on the FAA Academy survey report. Conference discussion of the survey results indicates that the Academy should become the hub of Agency training services. The future role of the Academy also should include its becoming the center of management training. Possibly one of the greatest challenges the Academy will have is the retraining of displaced technical specialists. When the Academy training program is realigned, college accreditation will be sought for selected courses.

Agency precedents are being established in employee-management contracts, and accordingly the EMC program requires a high degree of coordination and full exchange of information among regions, centers and Washington headquarters. The Office of Personnel and Training needs complete knowledge of EMC activities throughout the Agency to provide the most effective guidance to operating personnel offices. Gains won at the bargaining table can be lost through lax administration: supervisors and other line managers must be trained to interpret labor contracts and to document systematically interpretations, grievances and other related actions.

At this point, it seems likely that Project FOCUS will lead to further decentralization of personnel management activities to subordinate levels within the region or other field area involved. Therefore, Regional Directors and their personnel officers should begin planning how the personnel management job can best be performed under these changes.

140 ATTEND UNION SEMINARS

The Agency's Employee-Management Cooperation program passed a milestone last June. At that time, 35 of the Agency's top executives completed a two-day seminar at the FAA Academy on how to negotiate agreements with employee unions. In four such seminars conducted since January of this year, 140 officials have received this training.

Before attending the seminars, trainees were briefed on employee-management cooperation in one-day programs held at each of the regions, Washington headquarters and the Aeronautical Center. These briefings provided management and supervisory personnel with a background in the Government and FAA's program of employee-management cooperation.

These seminars were designed to give officials who will negotiate agreements with employee unions intensive training in the techniques of preparing for, and engaging in, collective bargaining. The training was directed by Dr. Charles Rehmus, Co-Director, Institute of Labor and Industrial Relations, Ann Arbor, Mich.

In structured role playing sessions, officials gained experience in negotiating with union representatives on realistic union proposals. These proposals were centered around the Mid-City Air Route Traffic Control Center, a hypothetical FAA facility.

Mr. Kent Fendler, personnel officer, Aeronautical Center, discussed with trainees his own experiences in recent negotiations at the Aeronautical Center. Industrial relations representatives from the airline industry and the Tennessee Valley Authority also lectured on administering union agreements.

Instructors and administrative personnel assigned to the Academy played roles as union representatives, presented union demands to management and then took part in negotiation sessions.

Participating officials say they now feel well equipped to negotiate with employee groups within an atmosphere of cooperation.

In several role-playing sessions, top executives gained experience in negotiating realistic union proposals.

TECH TALK

VALUE ENGINEERING

The Installation and Materiel Service has recently initiated a value engineering program to help attack the problem of steadily increasing costs. The program will be introduced in the Agency on a gradual and selective basis, beginning with several small pilot projects.

This program does not envision cost cutting by simply reducing costs within the framework of stated requirements, such as specifications, designs, standards, policies, etc. It is a fundamental approach to cost reduction based on detailed functional and cost analysis techniques. It takes nothing for granted and challenges everything about a product or service including the very purpose for its existence. There is one overriding restriction—the required function or performance must not be degraded.

Value engineering starts with the simple premise' that there is *always* a better and less expensive way to design, build or do anything. Our attitudes influence our success in finding it. To get the most out of value engineering a state of mind must be cultivated beginning with the recognition that there *are* unnecessary costs in our products and procedures. Once this hurdle is overcome, the way is paved to the correct attitude toward costs and significant cost reduction.

The term "value engineering" is somewhat misleading in that it connotes or implies—incorrectly—that this is solely an engineering function to be practiced only by professional engineers. Nothing could be farther from the truth. Where costs are involved it follows that all professions and occupations at all levels should be concerned. This is particularly true today when there is a New Look, not alone in the FAA but also throughout the Federal government—the look for greater cost reduction.

Value engineering is not magic. It is not a panacea, nor is it the ultimate discipline, but it does produce results not obtained in traditional ways. Actually, value engineering is the purposeful and organized application of common sense, skepticism, inquisitiveness and imagination to an old objective —get more of what you need for the money you want to spend.

THEY'RE DOING SOMETHING ABOUT THE WEATHER

One of the most important factors concerning everyone in aviation—and the one least controllable—is weather. SRDS has launched a multi-pronged attack on this problem, intending to bring benefits to both air traffic controller and pilot.

The solution is expected to come from improved radar. In this connection, two contracts were awarded recently, one to the Raytheon Company for experimental weather surveillance radar and the other to Westinghouse Electric for a weather information remoting and display system.

One project uses special air route survillance radar (ARSR) antenna elements which bypass the circular polarization to collect the information, and a separate receiver/processor to develop a special format of weather in video form. The picture will be transmitted from the ARSR in Suitland, Md., to the Washington ARTCC in Leesburg, Va., and mixed with the radar ATC information. Weather video will be displayed in the form of coded contour lines representing three levels of precipitation intensity—similar to the technique used in depicting topographic contours on maps. This will enable controllers to "see through" and take the obscurity out of precip areas.

The other project is under joint FAA/Weather Bureau sponsorship. Weather data will be acquired originally by the Weather Bureau's WSR-57 radar at Washington National Airport. Next, their meteorologist will interpret and add weather data, procured from other sources, to the original picture through an overlay technique. A slow scan television camera will then photograph the composite display and transmit it to the Washington Center for mixing with ATC information on the radar display.

This technique will also be tested with the airport surveillance radar displays at the Washington National Airport control tower.

Weather is also being investigated from the airborne point of view, giving particular attention to clear air turbulence (CAT). Limited data available from a Weather Bureau-Eastern Air Lines program indicates some correlation between CAT and change in air temperature. Following through on this, 10 air carrier jet aircraft will be equipped with temperature gradient sensors and recorders to provide more comprehensive data for investigating the turbulence/temperature relationship.

Effort is also being directed toward improving airborne weather radars. At this point, the program is limited to investigating the value of a dual frequency radar that would fully paint low altitude precipitation for penetrations on one frequency, and also provide adequate range against high altitude ice particle clouds (which usually are accompanied by turbulence) on another frequency.

This "Wren" Has No Feathers

This peculiar plane bears the fetching title of "Wren", a name extracted from its maker, the Wren Aircraft Corporation, Fort Worth, Texas, which took a standard Cessna 182 and blended in some of its own ideas to create a very effective STOL. Added are full-span, double-slotted flaps, dropped wing leading edge, and ultra slow speed nose control system, and aileron activated drag plates. With the modifications the plane can take off and land in 300 feet.

YOUR HEALTH

THE SILENT CHILD KILLER

This year, according to past experiences as cited by the U. S. Public Health Service, half a million children will swallow potentially poisonous substances—and 500 will die. This needless loss of life can be stopped if parents "poison-proof" their houses.

Accidental poisonings kill five times as many American children under five years of age as poliomyelitis, and two and one-half times as many as tuberculosis Most of these deaths can be prevented.

The problem is aggravated by the fact that parents, and even physicians, cannot be expected to know the potential hazards in the thousands of household articles appearing on the market each year. The best we can do is to regard all of them with due suspicion as poison in the stomach or as burners of the skin. Keep them where the child cannot reach them and keep all medicines locked away. The mere observance of these precautions educates the child to beware of any product in a vial, bottle or can.

The Utah State Department of Health suggests the following check list in your home for these preventives against poisoning your children:

YES NO

- ☐ ☐ Do you keep household products and medicines out of the sight and reach of children? Even if you leave the room for an instant be sure the container is in a safe place.
- ☐ ☐ Do you store household products only in their original containers? Cups, glasses, and soft drink bottles are for food and beverages—not for bleach, kerosene, turpentine, etc.
- ☐ ☐ Do you store medicine separately from other household products?
- ☐ ☐ Are you sure that all your household products and medicines are properly labeled?
- ☐ ☐ Do you always call medicine by its proper name? Medicine is not candy.
- ☐ ☐ Do you clean out your medicine chest and storage cabinets regularly?
- ☐ ☐ Do you use caution when you throw away an old container? The contents should be flushed down the drain and the container rinsed.

FOOD POISONING

Food poisoning is a serious potential threat to your health. It is more likely to occur in warm weather, but cold weather will not prevent it. It generally results from one of the following causes:

1. Contamination of food by food handlers who are suffering from disease or skin infection.
2. Contamination of food by flies, roaches, rats, or mice.
3. Inadequate cooking of food. Certain foods are especially likely to contain germs which cause food poisoning: pork, fowl, and some sea foods.
4. Allowing prepared foods to stand at room temperature between the time of preparation and the time of eating. Certain foods are especially dangerous in this respect: creamed foods, cream soups and sauces, custards, custard pastries, puddings, mayonnaise, and salads containing mayonnaise.

Exercise extreme caution when planning picnics and camping trips.

...AND SAFETY

Are 110 Volts Really Dangerous? The danger of high voltages are well known and widely advertised by warning signs, but it is sometimes hard to believe that normal home voltages can be equally dangerous. People who wouldn't go within 50 feet of a high-power transmission line will blithely fool around with 110-120 volts at home or at work with the mistaken idea that it can't give a fatal shock. It can—and does—quite often.

Some 1,000 electrocutions happen every year, the National Safety Council reports. Examples are as numerous as they are needless: A five-year-old boy brushed against a metal stand supporting a "live" television set and was killed instantly; a do-it-yourself using a defective power drill in the basement was electrocuted when he leaned against metal laundry tubs; after a flash flood, a woman waded through water in the basement to get food, and was shocked to death when she touched the lid of a shorted electric freezer; two children in a bathtub were killed when their sister, holding a defective radio, dangled her legs in the tub, transmitting a deadly current into the water. The sad roll call goes on and on.

How Can Low Voltages Kill? It's not the number of volts that causes shock. It's the amount of current (amperage) that enters the body, how long the shock lasts and also the current's path. Tests show that one milliampere (.001 ampere) passing through the skin causes a tingling sensation about ten milliamperes (.01 ampere) can rob you of muscular control, so you "can't let go." One hundred milliamperes (.1 ampere) can kill if the shock lasts for one second or longer.

Usually the current passes in a hand and out a foot, which is not so bad. It's worse when the current passes through the chest, say on the way in one arm and out the other.

In such an instance, the current can paralyze the respiratory muscles, causing breathing to stop. Such paralysis may last even after a person is disconnected from the electrical source. Or the current can strike the heart, causing fibrillation and resulting in instant electrocution.

Because of the way shock kills, low voltages, surprisingly, can be more dangerous than high ones. A large jolt may "clamp" the heart, preventing the fibrillation that's so deadly in milder shocks. Persons have been known to recover from a 750-volt charge. Yet, under some conditions, as little as 50 volts can cause death.

(To be continued next month—Ed.)

SINCE YOU ASKED

FAA HORIZONS welcomes any and all comments from employees regarding any aspect of the Agency. No anonymous letters will be used. Names will be withheld or initials used on request.

• Interpreting Form 3092

Is it necessary to make out a Form 3092 when the video level of a bridging amplifier is adjusted by as little as two-tenths of a volt, or the sensing signal level changed by one or two-tenths of a DB?

W.M.T.

The new Systems Maintenance Handbook SM P 6040.1B which became effective August 1, 1964 covers the use of FAA Form 3092, the Facility Outage and Equipment Report. Par. 5, Page 5, defines the types of incidents that will be reported. These are full outage; partial outage, and equipment failure. Form 3092 is not required when adjustments are made solely for the purpose of peaking or optimizing equipment performance. The only time a Form 3092 should be submitted to report an adjustment operation is when the adjustment is required to restore equipment to a within-tolerance condition after an out-of-tolerance condition has become evident.—Ed.

• Dual Compensation Act

I am a civil service career employee and have been working for the FAA for almost two years since I retired from the Armed Services after serving over 20 years as a reserve officer.

Recently I have heard a lot of talk about having to forfeit part of my retired pay if the Dual Compensation Act goes through.

Is this true? What is the status of the Act?

Harold McNaught

The answer to your first question is no, you won't have to forfeit any of your retired pay insofar as the way the bill currently reads.

Regarding the second question, the Senate has given its okay to the House-approved bill permitting retired regular military officers to take Government civilian jobs and still retain much of their military retired pay.

The measure is now back in the House for adjustment of some slight differences. The legislation modernizes dual employment and compensation laws.

It allows retired regular military officers to draw the full pay of their civilian Government jobs, plus the first $2000 of their military retired pay, plus one half of the remainder.

Also, it eliminates a provision of the 1916 Dual Compensation Act which prohibits the employment of civilians in more than one Government job if the total basic compensation exceeds $2000 annually.

Under the new legislation, the holder of two or more part-time Federal jobs could collect basic pay for those jobs for a total of 40 hours a week, plus overtime.

The new bill prevents retired military personnel from being hired for Defense Department civilian jobs for at least six months after their military retirement.

The bill does not affect retired reserve officers, enlisted men and regular officers retired for combat disability who have the rights to draw full civilian job pay as well as full military retired pay. (Late information shows that President Johnson signed the dual compensation bill at the White House on August 19.)—Ed.

• Increased Annuities

Please explain voluntary contributions to the Civil Service Retirement Fund.

G.W.L.

Some employees do this in order to obtain larger annuities when they retire. Voluntary contributions to the Retirement Fund may be made only in amounts of $25 or multiples thereof, and total contributions may not exceed 10 per cent of the aggregate basic salary received for civilian service since August 1, 1920. Every $100 in an employee's voluntary contribution account at the time of retirement will provide additional yearly life annuity in the amount of $7.00 plus 20 cents for each full year the employee is past 55 at the time of retirement.—Ed.

• CARS/FARS

I have been told that there is no difference between the Civil Air Regulations and the Federal Aviation Regulations. If this is so, why is not one or the other term used consistently.

F.L.W.

In September 1961 the Administrator announced that Agency regulations would be recodified and that the CARs and related regulatory materials would be combined, streamlined and presented in simplified form as the Federal Aviation Regulations. The name was changed because, under the Federal Aviation Act of 1958, FAA's authority to prescribe regulations goes beyond civil aviation to include aspects of military aviation. As the recodification proceeds, Civil Air Regulations become Federal Aviation Regulations. At the completion of codification, the CARs will cease to exist.—Ed.

• Per Diem

Is per diem allowed for travel time if the business takes only one day?

L.C.E.

Per diem is allowed for travel of 10 hours or less when the travel period is six hours or more and either begins before 6:00 A.M., or ends after 8:00 P.M. This pertains to all travel that is official. —Ed.

• Social Security Points

I am a WWII veteran and served between Sept. 16, 1940 and Dec. 31, 1956 and would like to know if I earned any Social Security wage credits during that period.

J.O.

Yes, you did. These credits amount to $160 for each month of duty, both wartime and peacetime, but are not listed on the Social Security earnings record until benefits are applied for.—Ed.

• Politicos Please Ponder

I think active participation in politics is a responsibility that every citizen should take seriously. What scares me, though, is how far I can go, as a Federal employee, in supporting the slate of my choice. Where can I find the guidelines?

Patrick C.

You'll find the ground rules in Section 9 of the Hatch Political Act and Civil Service Rule 4. You would be well advised to read Section 21 of PTP 3750.1A, "Conduct and Discipline Handbook." If still in doubt speak to the designated person in your P & T office.—Ed.

FAAers STUDY FIRE

The nature and characteristics of aircraft fires and how to control them was the subject of a series of scientifically controlled tests at the Agency's National Aviation Facilities Experimental Center at Atlantic City in July. Five surplus USAF C-97s, all highly instrumented to obtain maximum data, were used in the 22-test program. The Systems Research and Development Service Program Manager Thomas O. Arntsen, Headquarters, was over-all director, assisted by Project Manager Donald W. Conley and Project Coordinator Ralph A. Russell, at NAFEC. Clockwise, from top left: • The test environment with fuel reservoirs in foreground. • Firemen touch off the flames. • At fire's peak H-43 "Huskie" moves in. • Fire rages as firemen douse the plane with foam. • With the blaze extinguished, firemen struggle through sea of foam. • John J. Ryan, FAA test pilot at NAFEC, flew the 13 'copter missions in the program. • Coordinator Russell (left) crouches over movie camera "pill-box", one of several spotted around the test area to make precise recordings of what happened. A complex instrument net measured temperatures, air velocity and toxic gases.

FAAers ON THE JOB

Nicholas Soffos

The French have a word for it—courtesy—and Washington National Airport Police Officer Nicholas Soffos is a master of the gracious, helpful gesture. The-41-year-old New Yorker, a member of the WNA force since 1956, found the limelight focused unexpectedly on him recently because he responded characteristically to help a harried traveler make split-second connections for an important meeting in upstate New York. Unknown to Soffos was the fact that the traveler is one of aviation's best known writers and publishers. A writer writes, and he did, to Headquarters, citing the outstanding performance of "Badge 127." We thought you'd like to meet Officer Soffos.

Florence VorKeller

Southern Region's Florence VorKeller, a flight service specialist at Jacksonville, Florida, says she "stumbled" into communications—thanks to a push from her father, who believed teen-agers should have after-school jobs. She didn't fight the idea and became an operator for a local phone company. After graduation she moved on to Banana River Naval Air Station (now Patrick AFB, the flying facility of the Kennedy Aerospace Center) to become a teletype operator. In 1944 she joined the FAA. Her highly specialized store of knowledge was acquired bit by bit through on-the-job-training and experience. Does she know her stuff? Ask the flyers who ask her for preflight planning.