FAA HORIZONS

OFFICIAL EMPLOYEE PUBLICATION OF THE FEDERAL AVIATION AGENCY / **AUGUST 1966**

COVER

Atop the peaks of El Paso's majestic Franklin Mountain, 11 communications antennae form an impressive communications net. El Paso Airway Facilities Sector technicians daily ride a ski resort-type tramway to keep the communications equipment operating flawlessly. (Illustration by Gary D. Smith.)

CONTENTS/AUGUST 1966

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GO,GO,GO for a MILLION $ SAVING

Aircraft inspector William J. S. Chong in the Pacific Region has an extra $1,030 because he put an idea to work through FAA's Recognition and Awards Program.

Chong designed a tool for desludging and reassembling Hamilton standard propeller domes which will save the government an estimated $11,000 over a five-year period.

Chong was a big winner in the Agency's 1965 effort. In 1966 the Agency aims to join five other elite civilian agencies who have been able to demonstrate annual savings of a million dollars or more resulting from employee suggestions. Last fiscal year the FAA lagged behind with suggestions totalling $411,000.

So the push is on. The 12-month count began last January and will end on Dec. 31, 1966. The FAA has the caliber of personnel to demonstrate tangible savings of one million dollars or more from money saving employee ideas by Jan. 1, 1967, to put the Agency into the IN group—the Million Dollar Club. Who wants to be left out?

It is a come-as-you-are sort of thing whether the job is sweeping up paper clips or making the BIG decisions. There must be a better and less costly way to do it, whatever it is.

James F. MulCahy in Headquarters Office of Personnel and Training is the FAA's Recognition and Awards Program officer. He can pull out statistics on ideas submitted and awards made with the ease of a magician pulling rabbits out of a hat.

1 A notion of motion about propeller domes netted $1,030 for Honolulu's William J. S. Chong (left).
2 George Harless, supply inspector at FAA Depot, was rewarded for expediting material distribution at the Aeronautical Center.
3 Willis Cannon's idea modified the illumination on flight progress boards at the Honolulu ARTCC.
4 NAFEC's Allen Metzger received a cash award for suggestion relating to aircraft inspection.

1 Washington lawyer William J. Sullivan received a cash award for reducing massive paperwork in recording legal documents. **2** Samuel Marshall (left), whose money winning idea relating to voltameters on precision radar, talks to Anchorage assistant area manager William Conyers, about "red phone" communications. **3** Southwest's Clyde W. Chapman, flight inspection specialist, earned an award for his suggestion regarding approach procedures and the use of aeronautical charts. **4** At NAFEC, technician Anthony J. Barile figured out a way to increase the effective range of several antennas used in the avionics shop there. **5** John Moats, equipment maintenance mechanic at the two Washington airports, increased the safety of Dulles' unique mobile lounges by placing rubber guards on the doors. **6** Owen Crouch Jr., a coding clerk at CAMI, thinks up ideas between college assignments and his FAA work. One, having to do with the maintenance of airmen's medical files, eliminated one man-year of work. **7** Marine L. Haynes, clerk in the Southwest's Personnel and Training Division, earned cash for suggesting changing a bi-weekly report to a monthly. **8** Cleveland's ARTCC planning officer Robert Skufka, won cash for modifying the 300 switching system. **9** Roland Shellenberg at the Boston ARTCC changed flight plan requirements.

In the first three months of the 12-month race to a million dollars in FAA savings, the Agency met 78 per cent of its $250,000 quarterly goal. A total of 1,050 suggestions were submitted and 232 were adopted with net savings of $194,-042. The Pacific and Western Regions had the highest submission and suggestion-adoption rates. Greatest savings occurred in the Central Region which reported $99,000 savings and the Aeronautical Center $38,103. Numbers of suggestions submitted increased by 200 per cent over the previous three months in the Pacific Region. Other regional leaders were Central with a 75 per cent increase; Western, 55 per cent, and Eastern, 21 per cent.

Not all employee suggestions hit the thousand dollar jackpot. For some the payoff is literally in pennies. But like the Earl of Chesterfield once said to his son, "Take care of the pence, for the pounds will take care of themselves." A lot of little suggestions can add up to a lot of big dollars.

Marine L. Haynes, a clerk in the Southwest's Control Section, Personnel and Training Division, was awarded $135 for her adopted suggestion changing the format of the region's personnel reports which netted the Agency an estimated savings of $2,670.

Owen W. Crouch Jr., coding clerk in the Aeromedical Certification Branch of the Civil Aeromedical Institute in Oklahoma City, received a $210 award for a suggestion that saved the FAA an estimated $3,867 in the first year. Crouch recommended that certain transactions being performed in one office on the maintenance of airmen medical files be transferred to another area where similar work is routinely performed by persons more familiar with the desired information. His suggestion eliminated approximately one man-year of work. He recently was awarded $50 for another suggestion and said that he has a few more ideas he'll work on between college homework assignments. Crouch is attending night school at Central State College in Edmond, Okla., working toward a degree in business administration.

Administrator William F. McKee is vitally interested in the Agency's Recognition and Awards Program. "Many of the major cost reductions will be coming from ideas of FAA employees," Administrator McKee said. "I ask each of you to participate in the Agency's suggestion program. I am determined to reduce unnecessary costs. I shall, consequently, follow the results of our FAA suggestion program with a keen personal interest."

A TOWERING FIGURE

A contemporary of such aviation greats of the Roaring 20s as Lindbergh, Clarence Chamberlain and Billy Mitchell, was William J. (Whitey) Conrad, an Agency veteran who has been called the personification of air traffic control in the United States.

Whitey was a pioneer in developing air traffic control into the highly sophisticated art it is today. He was hired at Newark as operations manager, just about four years after his love affair with aviation had blossomed in nearby Rahway, N.J. "One day Billy Hughes landed his Jenny in a field near our house in Rahway," Whitey reminisced. "From then on I was hooked."

Whitey wangled a mechanic's job with Hughes in exchange for 15 minutes flying time a week. Short on flying time, because Hughes was busy barnstorming, and short on cash, Whitey left to take a job with a flying service at Hadley Field, Brunswick, N.J., as an "all-around man." In 1924, when National Air Transport was awarded a mail contract, Whitey joined that company as ground crewman and general factorum.

Newark Airport's opening in October 1928 signaled the beginning of Whitey's illustrious career in air traffic control, a profession that was literally on the rise. His first job was on a 25-foot high oil derrick type of tower in 1929, the world's first; then in 1934 he rose 10 feet higher into a radio-equipped tower atop the airport's Administration Building. His next move was into a 65-foot tower the Army Air Corps built at Newark in World War II, and finally, in today's 14-story steel, glass and concrete tower. Whitey has climbed to the top of his profession.

Today Whitey is back on the ground floor of the tower building in an office that befits the tower chief. Amidst all the old-time pictures and mementos Whitey displays in this office is a framed certificate dated Nov. 1, 1961, from the Air Traffic Control Association, which credits Whitey with many accomplishments. Whitey developed,


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1 In today's modern Newark Tower, its chief, Whitey Conrad can look back to 1929 when the tower was located atop an old oil derrick.
2 In 1961 Conrad was honored for 25 years of air traffic control development and operation by the Air Traffic Control Association.
3 That's Whitey's tower a la 1939 when he used flags to control air traffic.
4 Gangs of flood lights were used to light up the airport in those early days.

in 1929, a white and red flag system for controlling landings and takeoffs, and later that same year, inventing the hand-held light gun still in use today. This was long before 1936 when air traffic control services was created officially. On Jan. 1, 1942, when the CAA took over air traffic control and Whitey's Federal service actually began, he had worked at the airport for 17 years as a city employee.

He has been away from Newark for only three years, during World War II when he went to various stateside tower posts and late in 1943 when he accepted an assignment as a technical advisor to the Air Corps. In 1946 he returned to Newark as a watch supervisor. Twelve years later, Whitey was promoted to Newark Tower chief. Among his fondest memories during this colorful career was getting to know the pioneers of aviation.

Amelia Earhart, for example, used to base her aircraft at Newark.

"I still have a $3 check from her which I held onto for sentimental reasons," Whitey says. "It was payment for packing her chute once."

He first met Lindbergh in 1923 when the Lone Eagle was an air mail pilot. After Lindy conquered the Atlantic in his solo flight to Paris, he, too, used Newark as his base of operations and he and Whitey became close friends.

Operations at Newark averaged about 200 a day in 1928 and today Newark is one of the nation's busiest with a 1965 total of 229,514 landing and takeoffs. This year promises to exceed that figure. This growth pattern causes Whitey to remark: "Don't believe I'll ever live to see any 100 per cent automatic system. Somebody has to be there somewhere to push those buttons. You're never going to take the man out of ATC completely. Let's not forget that a man is a wonderful thing to have up there in that tower."

Many people would add that a man such as Whitey Conrad is a wonderful thing to have running that tower as only he can.

ALONG TORNADO ALLEY

Controllers Felix R. Burkhart and Joseph R. Marcum of the Topeka, Kan., Tower, live in "Tornado Alley." But neither thought they would ever get as close to one as they did this spring when a tornado made an 18-mile swath through the city and left 16 dead, scores injured and damages in the millions. Also damaged were 18 airplanes which were tossed about on the airport like corks.

Burkhart and Marcum who were on duty in the tower had been watching two suspicious-looking "bulbs" hanging from a black cloud deck far to the southwest following a severe weather warning issued by the U. S. Weather Bureau.

Suddenly their attention was diverted when the Forbes Air Force Base Control Tower hotline reported that a tornado funnel had struck the ground. (The air base is about eight miles south of the Topeka Airport.) Burkhart reported this to the Weather Bureau and resumed watching the progress of the funnel. By now it was moving in their direction. Suddenly a rain squall hit the airport. A second later the Forbes hotline said the tornado was one mile southwest of the Topeka Control Tower. The Weather Bureau called, too, stating the tornado was ¾ of a mile southwest and advised them to take cover.

Burkhart and Marcum headed down the stairs, and dashed into a hallway in the stone hangar below the tower.

Marcum said it got very black and the wind increased as the twister got closer. He could hear the swishing and whistling of the wind and debris crashing on the hangar and the ground outside. Burkhart said he heard the "roar of a thousand freight trains" so often described by tornado witnesses.

They watched in horror as debris of all sizes, shapes and descriptions blew into a shed off the hall, picked up speed, and flew right through the hall into the hangar. Then just as suddenly, they recalled, the pressure changed and the same debris zoomed back through the halls and shed to mix with the havoc outside.

"I was too fascinated to be scared," Marcum said. "One of the doors in the hall slammed three times and then was ripped off its hinges and disappeared. All the while pieces of paper, tin, screen, leaves and even small furniture flew through that hall."

"I could feel bits of glass and wood strike my face," Burkhart said. "When the wind suddenly changed, a 150-pound steel recorder tape cabinet slid out of its bay and careened upright down the hall."

"It was the strangest thing," Marcum said, "there seemed to be no wind yet the cabinet moved down the hallway."

Just as suddenly as it began, the noise died down, it became bright outside and the terror ended. The center of the funnel had passed 100 yards south of the tower.

FAA facilities fared well, generally. The tower's radio antennas and windows were either broken or torn off and two light guns and a pair of binoculars were swept away by the winds. Swirling debris in the tower damaged a teletype machine and tore off parts of the ceiling.

Carlysle P. Pipes, chief of the Topeka Airway Facilities Sector, and tower chief Cleo F. Noland headed for the tower as soon as it was over. Noland, who had heard reports on the radio, called the tower and told the controllers to evacuate the tower.

Pipes and technicians Dean Lenard, Kenneth Gestenslager and Paul Smith made a quick damage survey after the tornado. They found almost everything working. Land telephone lines were down but did not go out until morning when traffic over the downed cables eventually wore through and shorted the wires. There were also some power problems at the omni-range Pipes said. However, the tower's standby generator had taken over to supply power to the omni and a mobile phone was used after the telephone cable went out. The tower was back in business in the morning when the first planes started to land. Oddly enough, the phone lines to Forbes Air Force Base and the Kansas City Center never did go out.

William C. Noller was the only Topeka FAAer to suffer any major loss from the twister—his car. Noller was in a downtown bowling alley directly in the path of the tornado and scrambled into an equipment room when he heard the tornado hit.

The bowling alley manager took cover under a pool table and was crushed to death. After the twister passed, Noller wrenched his back as he and other patrons tried to free the victim.

Burkhart said the twister broke the windows on all the cars parked near the north side of the tower, including his own, but, otherwise no other car damage was reported.

The Topeka Tower windows have been replaced and the massive cleanup job on the rest of battered Topeka is largely over. But whenever Burkhart and Marcum are on duty, they still cast an occasional glance toward the southwest, looking right down "Tornado Alley."

After the tornado subsided, the wreckage of airplanes was scattered about the airport.

The twister damaged the tower ▲ and destroyed 18 airplanes on the Topeka Airport. Controllers Ralph Eilert, Ralph ► Marsh and Joseph Marcum returned to their damaged tower after the tornado swept through the area. (Photos courtesy of the Topeka Capital Journal.)

Once Again, OPHELIA

Turner's 'Lady' gets a face-lift and brings home the bacon . . .

"Ophelia Bumps" is the unlikely name of Eugene L. Turner's single seat sport plane now undergoing major remodification to make a family-type two seater out of it.

Turner is acting chief of the Aeronautical Center's Airframe Section, Flight Standards Technical Division. Ophelia is painted brown and white, made of fiberglass and wood, designed and built by Turner. She's a real winner, second in the nation among homebuilt aircraft for top prize money.

To make a two-placer out of Ophelia, Turner has already removed the wings and cut into the fuselage preparatory to enlarging the size of the cockpit.

"I spent 2,700 hours over a two year period building the ship originally," Turner said. "It cost $850. Subsequent addition of radio equipment increased the cost to around $1,450."

Making Ophelia into a two-seater will take from 600-800 hours of hard work. The 22-foot 3-inch wing span will be increased by 17 inches and the gross weight upped from 1,050 pounds to 1,260 pounds. "Its top speed of 170 mph probably will be cut only 5 mph because of the added weight," Turner said.

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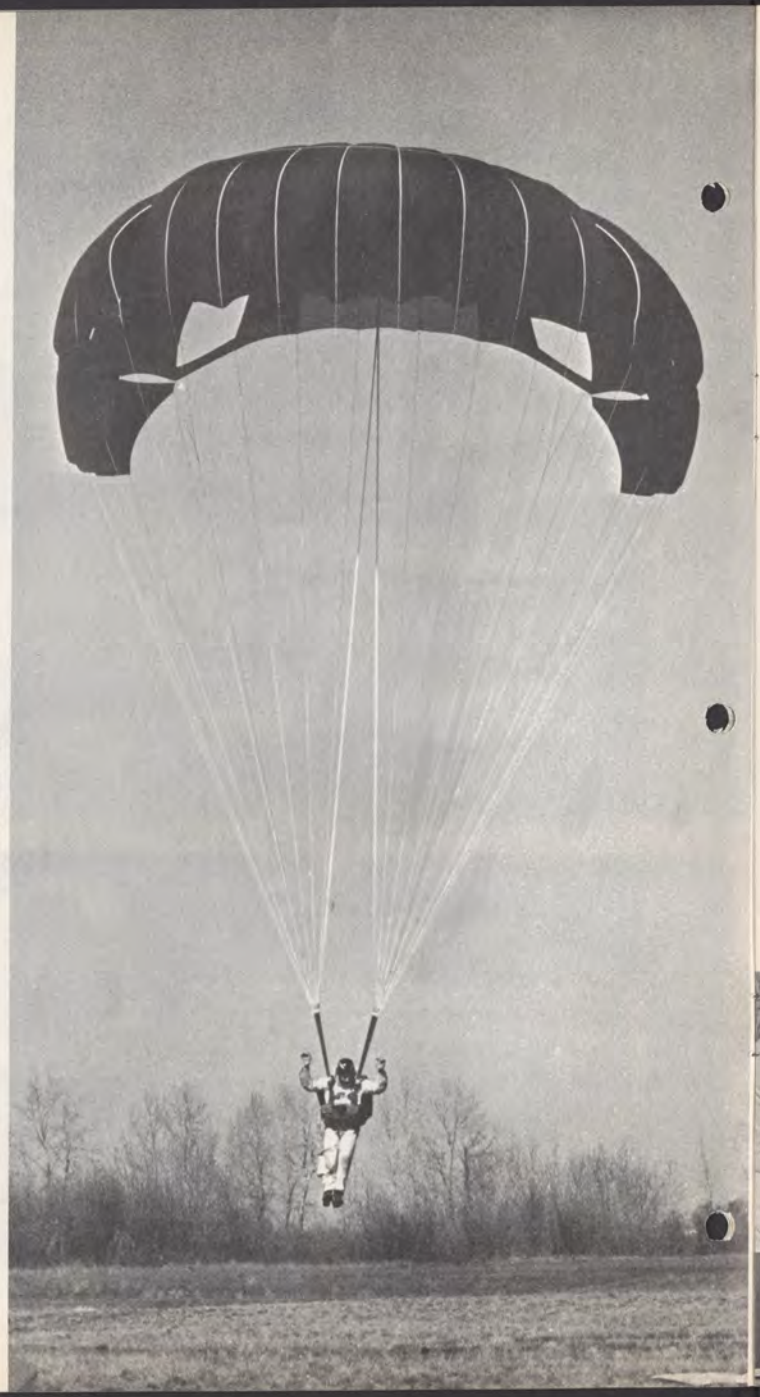
1 Passengers inside the modern terminal at Wiley Post Airport can get a glimpse of "Ophelia Bumps" who . . . 2 . . . is the nation's second-highest money-winner for homebuilts. 3 Here builder, Eugene Turner holds a model of an earlier design, based on the "flying wing" principle. 4 It was a labor of love for Turner when he made a two-placer out of Ophelia. Here he works over the center wing section during the remodeling. Spars are laminated Douglas fir. The wing "skin" is a ⅛" marine grade of mahogany plywood.



hitting the silk!

A Department of Agriculture Forest Service smokejumper tries out an experimental parachute. The jumpers are constantly trying new parachutes and searching for improved jumping techniques which could be used to land in isolated wooded areas to fight forest fires.

the best way

to rig parachutes . . .

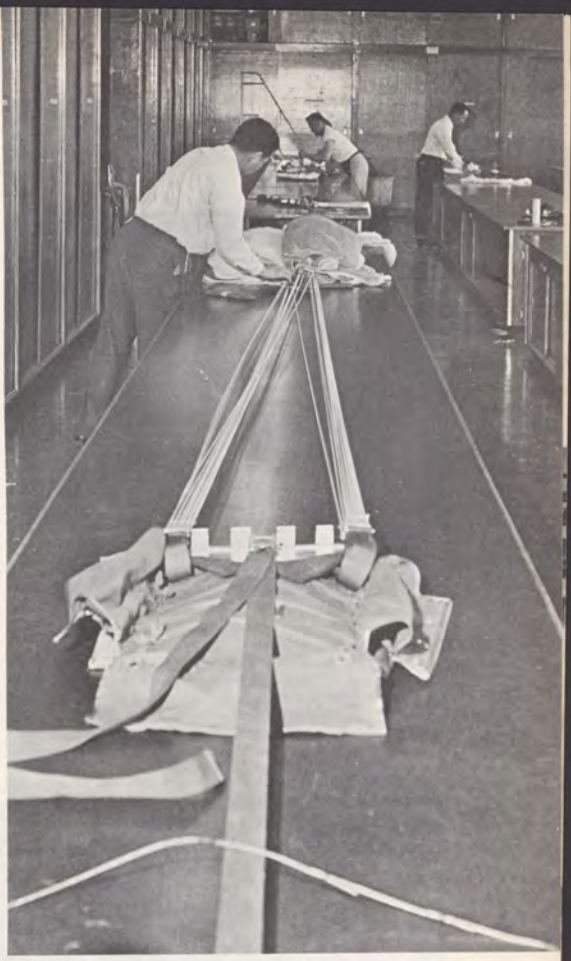
"To err is human, to forgive divine" may be a line from great literature, but it is anathema to FAA inspectors who certificate parachute riggers, not to mention the jumper whose life depends on the parachute.

FAA inspectors are trained to pack and maintain chutes properly so they can, in turn, certificate new parachute riggers in accordance with the "rigger's Bible"—Federal Aviation Regulations, Part 65.

This year, eight Flight Standards maintenance inspectors from General Aviation District Offices (GADOs) throughout the country spent two weeks at the Department of Agriculture's Forest Service Aerial Fire Depot and Parachute Training Center at Missoula, Mont., in a concentrated parachute-rigging school session. GADO scholars this year were: A. W. Brittain, San Diego, Calif.; Emil C. Hettich, Columbus, O.; H. K. Meyer, Sacramento, Calif.; Edward Pontarelli, Springfield, Ill; Robert P. Stone, Honolulu; Charles R. Taylor, Helena, Mont.; Carl E. West, St. Louis, Mo., and Walter B. Steigman, Washington, D.C.

Schoolmaster for the cram course was the Forest Service's Jack Nash who said, "The best way to learn how to rig parachutes is to rig parachutes." So each of the FAA students had to pack 40 chutes, 20 back type and 20 emergency chest type. Each time a chute was packed, Nash pulled the rip cord and unfolded it again, checking for the increased expertness each student was expected to show. If the packing job was what Nash expected, he signed the student's log book and went on to the next chute.

Whenever the inspectors were not packing chutes they were hunched over sewing machines repairing the chutes. They also practiced other seamstress duties such as installing snap buttons and eyelets and using needles, thread, thimble and scissors for small repair jobs. They learned how to clean parachute canopies and components and how to store parachutes to prevent mildew and mold.



▲ Learning the art of parachute rigging by doing is Carl E. West who folds his chute on a 40-foot packing table. H. K. Meyer and Charles R. Taylor put the finishing touches on a chute pack in the background.
◄ During a period of relaxation, FAA inspectors dress their mascot, a dummy, with some of the latest smokefighter parachuting equipment. From left, standing are: Carl E. West, Robert P. Stone, A. W. Brittain, the dummy, H. K. Meyer and W. B. Steigman. Kneeling are Edward Pontarelli, Emil Hettich and Charles R. Taylor.

. . . to rig parachutes / *continued*

Forest Service instructor Jack Nash ▲ (left) demonstrates the use of the sewing machine to repair parachutes to FAA maintenance inspectors Robert Stone of Honolulu and Edward Pontarelli of Springfield, Ill.
▼ The proper technique of folding a chute canopy is shown to a class of FAA maintenance inspectors by the instructor, Jack Nash, (third from left), who is a master parachute rigger and a former smokejumper.

After Carl West had packed his first chute, Nash asked him if he was ready to go out and try the chute. "Let's go," West replied. Later West admitted he knew Nash was kidding. "At least I hope he was," he said.

The trained inspectors not only certificate new parachute riggers, they also monitor sport parachuting. They examine equipment, pointing out deficiencies in repair and maintenance. They also advise sport jumpers on the best way to pack chutes. Parachutists must carry an emergency chest chute packed within the last 60 days by a certificated rigger, but they may pack their own back chute.

The FAA sent its first students to Missoula in 1963, after sport jumping had boosted activities in parachute production and packing. There were two FAA classes of seven and eight inspectors in 1963; two of eight each in 1964, and two of eight each in 1965.

This year's FAA class had only eight students because the objective of one trained man at each GADO has been nearly met. FAA Headquarters in Washington, D.C. and U.S. Forest Service worked out the initial agreement, and Lee C. Mills, supervising inspector of the Helena, Mont., GADO helped Nash on the curriculum. It is basically the same instruction Nash gives to Forest Service employees. Selections for the course are made by Area Offices.

VORS in Bolivia --OLÉ!

A BOLIVIAN newspaper carried a three-column picture of FAA's Charles R. Myers, chief of the La Paz Civil Aviation Assistance Group, explaining the workings of a VOR. Included in the story accompanying the picture was a paragraph (in Spanish) saying: "Lt. Col. Juan Moreira, Director of Civil Aeronautics, expressed his appreciation of the valuable services made by a group of FAA technicians who installed the VOR."

The story behind the story is one of FAA-AID-USAF teamwork in establishing two VORs at La Paz and Santa Cruz in Bolivia. The La Paz facility was financed through AID (Agency for International Development). The Santa Cruz VOR was donated by the USAF for use by the Bolivian Air Force and civil aviation.

Wheels started to roll when a USAF aircraft took off from Peru carrying FAA's portable VOR for site evaluation field tests at the two locations. Shortly thereafter FAA's Flight Facility Inspection Convair N-103, piloted by Ray Allensworth hand co-piloted by Harry Langdon, lifted off from the runway at NAFEC in Atlantic City for Santa Cruz and La Paz. The Convair crew included panel operator Fred Nipper and mechanic Archibald Terizan. Other members were Maurice R. McGranahan of the Miami Area Office and the Aeronautical Center's international liaison officer, Darwin Maurer.

The site evaluations paved the way for actual construction of the two VORs which long will stand as electronic symbols of U.S. inter-Agency and international cooperation with our neighbors south of the border working together for air safety.

Maurice McGranahan of the Miami Area Office takes a sighting through a theodolite during a VOR site evaluation check at Santa Cruz, Bolivia.

The Agency's Convair 103 was flown to Bolivia by Ray Allensworth, pilot, and Harry Langdon, co-pilot.

Technician John Hanna monitors transmission levels.

Brandon Boyles and Oxford Danner both worked on the mountain site in 1955.

Eleven antennae cover the top of Franklin Mountain.

Mountaintop Communications

It seemed logical in theory, but floating balloons over the West Texas mountain with dangling piano wires wasn't practical. So an alternative plan, though dangerous, was chosen. A small statured FAA employee was fitted with a harness and lowered over a steep crest. He was able to complete the linkage of the tramway cable.

The precarious operation was one of the initial phases of installing one of the Agency's largest concentration of communications equipment. This galaxy of electronic facilities consisting of 11 towers and supporting buildings is located on Franklin Mountain, atop a 7,000-foot high peak that juts skyward along El Paso's western city limits.

The equipment sends and receives signals for the Flight Service Station, Air Route Surveillance Radar, Biggs Air Force Base RAPCON, and the Remote Center Air/Ground (RCAG) site for the Albuquerque Center. Information from the Automatic Meteorological Observation Station (AMOS) on Guadalupe Mountain, from the Salt Flat VORTAC, and from the Hudspeth VOR also is transmitted from the site.

The mountaintop was first used as a point of communications 40 years ago when an advertising firm erected a beacon on its windswept peak. In 1936, the Bureau of Air Commerce (an FAA forefather) acquired the site and constructed a new beacon to guide aircraft using the El Paso airways.

Later in the mid-1950's the site was surveyed for modern FAA facilities by Ernest W. Barr, now chief of the Frequency Management and Communications Service Branch in the Southwest Region; Oxford G. Danner, presently assigned to the Airway Facilities Section, Fort Worth Area Office, and Arlin W. Harness, an electronics installation technician now at the Regional Headquarters.

"We were to select a site in the El Paso area that would help radio transmissions to the west," Barr recalled. "We made several attempts to get on Guadalupe Mountain, but it was in the winter and we were unable to scale it. Tests from other areas around El Paso did not check out."

It was then that the trio obtained horses and mules from the Forest Service at Silver City, N.M., to take the test equipment to the Franklin Mountain site. It was almost a repeat performance of the first scaling of the peak, especially since the guide who was hired to take the train up the mountain, was the same one who made the initial trek with the advertiser's beacon equipment 30 years earlier.

"Vegetation hid the old trail," Barr said. "So the guide had to scale the mountain and mark a new trail as he descended. Then, we took the horses and mules up to the proposed site. Tests proved it to be an excellent choice."

After the site tests, two engineers, Brandon G. Boyles, currently in the Regional Plants and Structures Section, and resident engineer Wally V. Statler, helped shape the plans for the new facility.

The first project headed by Statler was to build a tramway linking the eastern rim of the peak and a suitable anchor point accessible to El Paso. A road up the eastern slope would have been too costly to construct because of the steep incline, and ice and snow would have made such a road virtually unnavigable.

To build the tramway a 3,750-foot-long cable had to be stretched from the peak to the El Paso anchor or starting point. Workers had to bring the cable up 3,000 feet of nearly straight cliffs that rise from the accessible areas of the mountain. They hit a bottleneck 40 feet from the peak. They tried to use balloons to carry piano wire up the steep sides where the wire could be shot down to the workers who had climbed the eastern slope to the top. They had hoped to use this idea to haul the heavy cable to the peak. However, tricky winds near the crest blew the balloons off course. An employee was finally fitted with a safety harness and lowered over the crest to get the rope being brought up by other workers scaling the western side.

The completion of the tramway thus paved the way for the construction of the microwave link and RCAG facilities. A third site for RAPCON/Tower and Flight Service Station communications equipment was added later. A total of 24 link channels are now provided.

As an indication of the indispensability of the tramway, it carried 404,859 pounds of material and 1,318 people for the construction of the last site alone—requiring more than a thousand trips. The peak speed of the tram is 329 feet per minute, and it takes about 22 minutes to make a round trip.

Today the site is maintained by airway facilities technicians John F. Hanna and Raul O. Parra and supervisory technician in charge Vernon L. Clower, all of the El Paso AFS.

Safety precautions dictate that technicians go to the mountain in pairs. A communications system keeps the passengers and tramway operator, Mack Laird, in contact with each other at all times. On icy mornings, an empty tramway car makes a dummy run to determine whether the tram's wheels are too heavily caked with ice.

"Technicians who work on Franklin Mountain," Clower said "are cross-trained and have a broad knowledge of all equipment. Each is highly trained and contributes to a high productivity level.

"When we leave this mountain at night, every switch is in place, and ready to serve pilots in the Southwest area."

Wally V. Statler

Mack Laird

Raul Parra

Site planners Ernest Barr and Arlin Harness.

Vernon Clower, AFS supervisory technician in charge, ascends Franklin Mountain on the tramway car.

The married midgets, the Kitchenses, check out own **Tripacer.**

Lofty little people

Some big little people are flying with a helping hand from principal operations inspector Menzies W. Turner of the Dallas General Aviation District Office and Bert Corry, an FAA-designated flight examiner.

These fliers, Lee and Mary Kitchens of Richardson, Tex., are both midgets. He stands four feet, one inch. She is three feet, 11 inches. Both, however, realized a lifetime dream in learning to fly and earning their private pilots licenses.

It took some doing, but they now own a Piper *Tripacer* which they flew last summer to Philadelphia to attend the Little People of America (LPA) Convention.

Realization of their dream began with the purchase of the *Tripacer* which a Dallas mechanic modified so they could fly it. Rudder pedals were extended, flap handles redesigned, and the brake handle was bent and extended upward. The starter button was moved to the instrument panel, and lightweight removable seats were made to set on top of the regular seats. When the modifications were completed, the Dallas GADO studied and approved the changes, and Mr. and Mrs. Kitchens were ready for their flying lessons.

The couple attended ground school together and both scored high on their written examinations. Bert Corry, owner of the airport flying school at Highland Park Airport in Dallas, gave Mr. Kitchens his private checkride which went off without a hitch.

Inspector Turner gave Lee Kitchens a medical checkride before his solo flight. The only restriction on his medical is that Kitchen must wear glasses while flying.

Turner also rode with Mrs. Kitchens for a medical checkride prior to her private flight test. She weighs only 60 pounds and had trouble with 720 degree turns because she didn't have the strength to hold back the wheel. She discovered that the trim tab works wonders in such a situation and the problem was solved.

In recounting their cross country flying last summer, the couple said, "Everyone was great to us, and we can't say enough about the people in the flight service stations across the country. They went out of their way to be helpful, and everywhere we went people were interested in us and our airplane."

The Kitchens are the first flying couple in LPA, and they hope others will see it can be done and take up flying too. Mrs. Kitchens has ambitious plans to enter local air races such as the Dallas Doll Derby and the Skylady Derby.

Above, the first flying couple in the Little People of America are from Richardson, Tex.
Below, their plane, modified by a Dallas mechanic. It has extended rudder pedals and other redesigned controls.

Man on the go

A man on the go is Eastern Region's Paul Baker. A pilot with more than 10,000 flying hours, Baker generally occupies the right seat as co-pilot when Regional Director Oscar Bakke makes one of his numerous business trips throughout the 15-state region area.

Ever since the Region obtained the Beechcraft *Queen Air* in 1963, Baker has logged more than 500 hours in the plane. Besides his duties as co-pilot, Baker has also checked out 50 other regional pilots in the *Queen Air*. When he isn't airborne, Baker works as an aviation operations specialist in the Flight Standard Division at Eastern Region Headquarters.

"The only thing I like to do better than flying is more flying," Baker states. He prefers being airborne to a chairborne operation.

"Sitting in a cockpit still gives me a thrill. It beats everything in relieving the frustrations and aggravations connected with sitting behind a desk," Baker adds.

Square-jawed and as trim as he was in his Army Air Corps cadet days, Baker has been with the CAA/FAA since 1957. Prior to his assignment at Regional Headquarters, Baker served at the Philadelphia, Richmond, Va., and Columbus, Ohio, general aviation district offices.

During World War II he was a C-47 pilot and a flight instructor. Baker recalls with amusement that he had never been higher off the ground than the attic of his Pittsburgh home before he took his first training flight with the Army.

Today, flying the Region's *Queen Air* from its base at New York's LaGuardia Airport, Baker reports a near perfect, trouble-free record with the airplane.

Only once, in 1965, a communications failure marred its trouble-free record. However, FAA teamwork came to his aid. Flying instrument flight rules on a flight on Long Island, the airplane's communications system went out. However, the New York Center sensing the problem, came through and asked him to press the "squawk ident" button to acknowledge instructions from the ground. This was done and the plane landed without incident.

Baker, who flies with his boss, Oscar Bakke, regularly says "we complement each other perfectly.

"We try to keep our flights as routine as possible," Baker said. "On the ground, at our destination we may receive special treatment because there may be FAA or other officials waiting to meet the Director. But, in the air we never ask for preferential treatment and expect none."

He'd rather be airborne than chairborne says Paul Baker, Eastern Region's 10,000 hour pilot.

PHOENIX'S NEW TRACOM

To serve Sky Harbor and nearby military airfields.

Phoenix's TRACON is located in the terminal next to the tower.

Phoenix's Sky Harbor Airport—the 11th busiest civil airport in the United States—now has terminal radar approach control (TRACON).

Five radar scopes were installed in the new TRACON room. Three will serve Sky Harbor Airport. A fourth is for traffic at nearby Luke Air Force Base, and a fifth is for Williams Air Force Base.

The TRACON will provide approach and departure control and radar service within a 50-mile radius of Sky Harbor's radar antenna, which is located on the east side of the airport.

A staff of 54 controllers man two facilities: 13 are assigned to the tower and 41 to the TRACON.

Chester A. Church, chief of the Phoenix Tower and TRACON and a veteran of 27 years with the CAA/FAA, played a major part in setting up the orignal Memphis Center, the McChord RAPCON, the Spokane RAPCON, the Phoenix Center and the Cleveland Center.

The TRACON operations officer is Alvah R. King, formerly El Toro RATCC assistant chief. Four watch supervisors: John R. Sindlinger Jr., James Ward Jr., William M. Cain and James T. Hudman, and five crew chiefs, Ivan L. Ellis, Warren I. Carter, Samuel Duncan, William Winnett and Charles E. Miller, are the supervision staff. The tower also has three working watch supervisors: Orville R. Stinson, Lewis G. Carrifee and Carl A. Swanson Jr.

Above: Charles Miller gets an inside view of a new ASR-5 radarscope. **Above right:** The crew tries the new TRACON room. From left are James Hudman, watch supervisor, and controllers Joe Jamison and Richard Reynolds and chief controller Chester Church. **Right:** Phoenix's ASR-5 radar antenna is located on the east side of the airport.

COL. KULLMAN NAMED ALASKAN DEPUTY DIRECTOR

Colonel John R. Kullman, a West Point graduate and career Air Force officer, has been named Deputy Director of the Alaskan Region.

He succeeds Brig. Gen. Ralph G. Taylor, Jr., USAF, who has been reassigned to Nellis AFB, Las Vegas, Nev., after a three year FAA tour of duty.

Before this FAA assignment, Col. Kullman was Commander of the 4780th Air Defense Wing, Perrin AFB, Texas.

After receiving his commission and wings in June 1940, Col. Kullman attended pilot transition school and then served with the 746th Bomb Squadron in Italy during World War II. Later he was assigned to the Strategic Air Command Headquarters at Bolling AFB, D. C., followed by a tour of duty in the Pentagon as executive officer in the Office of Deputy Chief of Staff for Operations, USAF. He served three years with the Third Air Force in England and returned to the states in 1955 and was assigned to the personnel staff, Headquarters Air Defense Command, Colorado Springs, Colo. In 1957, Col. Kullman became commander of the 355th Fighter Group in Knoxville, Tenn., and, a year later, became Commander of the 14th Fighter Group, Ethan Allen AFB, Vt. He returned to Washington, D. C. in 1960 as assistant executive, Secretary of the Air Force and as executive for the Deputy Chief of Staff for Personnel. He attended the National War College in 1963-64.

Col. John R. Kullman

The FAA currently has 75 military personnel assigned to it under agreements with the Secretary of Defense and the Secretaries of the Armed Services. Participation of military personnel is provided for in the Federal Aviation Act to insure that the interests of national defense are properly safeguarded and that the Administrator is properly advised on special problems of the armed services. It also permits the FAA to make use of the special training and experience of selected military officers.

New Airport in the Grand Canyon Is Product of Western Planners

The Grand Canyon now has a new aerial gateway—the Grand Canyon Airport.

Located near the southern rim of the scenic canyon, the airport was constructed in a long, broad valley which runs across a section of Kaibab National Forest. Its single runway is 6,800 feet long and 100 feet wide. The closest town is Tusayan; however, Grand Canyon Village is only five miles away.

The new airport is the first project proposed by the National Park Service under the Federal-Aid-to-Airports Program. Besides FAAP funds, the National Park Service, Department of Interior, allocated $900,000 for the project.

Western Region officials played an active part in the planning of the airport. These included Charles J. Winger, chief, Airports Division, and Harold Bean, retired, formerly Phoenix's district airport engineer, and Charles S. Benson, chief, Airport Engineering Branch.

THIS IS WB2WHR CALLING!

A new amateur radio station, WB2WHR, has been established at the National Aviation Facilities Experimental Center. It is now operational on the six and two meter bands.

The station is operated by NAFEC's Amateur Radio Club. The Club's officers are: Frank Cirone, president; Cy F. Clark, vice-president; Min Bouchard, secretary, and Alfred Weidner, treasurer.

CONTROLLERS COMMENDED

An Air Force C-121, loaded with supplies for U.S. troops in Vietnam, was provided an immediate vector for a safe landing at Tonopah, Nev., recently by Salt Lake City controllers, Kenneth D. McMillan and Richard L. Stout, when the pilot advised the Center he was in danger of immediate loss of all generator-operated equipment.

The two Salt Lake City controllers received a letter of appreciation for their assistance from the 167th Military Air Lift Squadron Commander.

Airport Beautification Program Begun by FAA Advisory Committee

A nationwide airport beautification program led by the Agency's Women's Advisory Committee on Aviation was announced recently by General William F. McKee, FAA Administrator, following the conclusion of the Committee's three day meeting in Washington.

The airport beautification plan, which will augment Mrs. Lyndon Johnson's national beautification program, was originally suggested to the committee by N. E. Halaby.

In a recent letter addressed to Mrs. Philip A. Hart, former Committee chairman and wife of the senior Senator from Michigan, the First Lady commented:

"What an appropriate place the airport is for communities to emphasize in their beautification programs, since it inevitably makes a first and vivid impression on arriving guests!

"It is my hope that civic officials, garden clubs, youth groups and service organizations will work with you and give airport beautification a high priority in their improvement programs in the weeks and months ahead."

The Women's Advisory Committee on Aviation is composed of 32 outstanding American women pilots and aviation authorities. It was formed in 1964 to make recommendations to the FAA Administrator for improving aviation facilities and services. Dr. Dora Dougherty, chief of the Bell Helicopter Company's Human Factors Group, was named Chairman of the group at the Washington meeting. She succeeded Mrs. Hart whose term expired.

The airport beautification program officially began in June during the Seattle convention of the Ninety-Nines, an international organization of women pilots. The Ninety-Nines, under guidance from the Women's Advisory Committee, will provide liaison between the communities in which individual members live, the airport and the FAA.

Assistance in promoting airport beautification will be provided by the 18 FAA area offices located at aviation hubs throughout the country.

Although airport beautification does not qualify for Federal-Aid Airport Program funds administered by the FAA, communities with comprehensive beautification programs may be eligible to apply for Federal grant-in-aid assistance under Federal aid programs administered by the departments of Housing and Urban Development and Interior.

Agency Engineer Assists Central America Set Up Aeronautical Facilities

Harold E. Robinson, an FAA electrical and electronics engineer on loan to the Agency for International Development (AID), is a key figure in providing Central America with urgently needed aeronautical facilities.

Working out of Guatemala City with AID's Regional Office for Central America and Panama Affairs (ROCAP), Robinson supervises an AID-financed Civil Aviation Assistance Group (CAAG) which includes electronics engineers and specialists in air traffic control, flight procedures and communications.

Robinson's ROCAP work not only is providing urgently needed aeronautical communications but also is making possible, as a by-product, vastly improved public telephone service.

Because the multi-channel telecommunications system has a basic capacity in excess of aeronautical requirements, a number of channels were made available to the Central American telecommunications agency, resulting in good 24-hour public telephone service—for the first time—among the capital cities of Central America.

NUMBER OF U.S. AIRPORTS INCREASE IN 1965; TEXAS LEADS WITH 846

Airports in the United States numbered 9,566 last year, an increase of 76 over 1964.

This increase reflects both new airport construction and more extensive airport reporting service on the part of the Agency. Last year's total showed 9,490 landing facilities on record. During 1965, 302 airports were reported abandoned and 378 airports were reported to FAA for the first time. FAA's current analysis of United States civil and joint civil-military airports, heliports and seaplane bases shows that Texas, with 846, leads all other states. California, with 624 landing facilities, is second, followed by Alaska with 547.

About two-thirds of the national airports—5,996—are privately owned. Lighted runways are provided at 2,878 airports and paved runways at 2,747.

The 10 leading states in number of airport facilities reported to the FAA are: Texas, 846; California, 624; Alaska, 547; Pennsylvania, 463; Ohio, 401; New York, 328; Illinois, 323; Nebraska, 269; Florida, 266, and Kansas, 263.

Tunisian Construction

Reinforced concrete piles 17 meters long are driven into the ground during the early stages of construction of a new tower at the Tunis-Cathage International Airport in Tunisia. The construction is through the assistance of United States AID and the FAA.

Jack Hammond Heads New Bakersfield FEA Group

A new Federal Executive Association has been organized in Bakersfield, Calif.

Jack F. Hammond, head of the Bakersfield Airway Facilities Sector and local coordinator who helped organize the new FEA, was elected its first president at the organizational meeting. Of the 26 Federal agencies in the Bakersfield area, 18 are represented.

The new FEA was officially launched at a luncheon on May 25, with Joseph H. Tippets, Western Region Director and Chairman of the Los Angeles Federal Executive Board, as principal speaker.

The Bakersfield mayor and the Kern County Board of Supervisors chairman also attended the organizational meeting of the Bakersfield FEA.

Around the Agency: Numismatist, Flight Inspection Trio Honored

Lawrence E. Morton, watch supervisor at Los Angeles International Airport Tower was the first place winner at the Numismatic Association Convention in Los Angeles recently.

His exhibit, a collection of Cuban coins, was rated "Best of Show," in a competition which attracted 72 entries.

Three NAFEC men in the Flight Inspection Field Office were commended by Bolivia's Director of Civil Aviation for outstanding work in selecting and testing two VOR sites in that country. The three are: Raymond Allensworth, Harry A. Langdon, and Fred A. Nipper. (See story on page 15.)

Japanese Visitors

Officials of the Japan Civil Aviation Bureau (JCAB) — Japan's FAA— visited San Francisco recently to study FAA operations and facilities. San Francisco local coordinator and IFSS chief Thomas Dowling (left) was host to the three visitors, T. Naruse, Y. Yokoyama and H. Nakano, all of Tokyo.

West Coast FLY-IN

Gene Kropf, Western Region Public Affairs Officer (right), accepts a special trophy from George Fuller for FAA help at the Antique Fly-Ins.

One of the Western Region's biggest aviation events, the Ninth Annual West Coast Antique Fly-In, attracted more than 30,000 persons and 1,100 aircraft to Merced Municipal Airport.

FAA's flight check aircraft was on display and a temporary tower and a temporary flight service station were operated by the Region.

O. B. Cox, of the Fresno Airway Facilities Sector, worked with the Merced Pilots Association and City of Merced in planning the event. The FAA coordinator for the fly-in was Arthur Cazares. Robert B. Asbury, of the Oakland GADO, provided FAA surveillance for the event.

Other FAAers who assisted included George Orr, Stockton Tower; Larry W. Bowen and John A. Miller, electronic specialists from the Fresno Airway Facilities Sector; David S. Myers and Richard V. Powers, Fresno Tower; Joseph E. Labrecque, Gordon D. Brisco and Robert W. Burtner of the Oakland FIDO.

Temporary tower operations totaled 3,120 for the two days.

The FAA was given a special trophy for its cooperation with Fly-In officials during the past six years at a special luncheon.

During the fly-in, many FAAers also won awards for their antique aircraft. These included Donald Boberick of the San Francisco Area Legal Branch, a two-year winner, who received an award in the Classic Age category for his 1941 Ryan ST-3KR. The award for the youngest pilot to fly an antique to the show went to 16-year-old William R. Tymczyszyn, who flew his Buhl *Bull-Pup* in from Los Angeles. His brother, John, won the award two years ago, and brother Joseph won it five years ago. Their father, Joseph J. Tymczyszyn, is an engineer and test pilot with the Western Region's Aircraft Engineering Division.

▲ Working in the temporary FAA tower were, from left, David Myers, Richard Powers, O. B. Cox and George Orr.
◀ There were 30,000 visitors.

Biorka Technicians to Install and Maintain Coast Geodetic Seismometer

A defunct, World War II underground bunker will see new light when FAA technicians install seismometer equipment in one of its concrete-walled rooms.

Airway Facilities technicians will install and maintain the equipment on Biorka Island in southeast Alaska. The island is the site of air navigation aids and approach facilities for the Sitka Airport, 15 miles away. FAA will do this work on a cost reimbursable basis for the U.S. Coast and Geodetic Survey.

The new system will determine the exact location of an earthquake when it occurs, will immediately measure its intensity, and will record tidal action along the coast from the end of the Aleutian Chain to southeast Alaska. A cable from the seismometer will lead to the Remote Center Air/Ground (RCAG) site. Electronically, information will enter the Ballistic Missile Early Warning Site (BMEWS), and will terminate at a new installation located in Palmer, Alaska.

your health

Statistics show that about 6,500 people drown each year. Many individual drownings are tagged as mysteries because the victim was a good swimmer and was in excellent health. Also, the drowning occured in well-supervised pool or beach areas. So, what caused these drowning accidents?

Recent studies show that two factors, both related to breathing, are frequently the cause of mystery drownings:

- Swimmers sometimes over-breathe or hyperventilate before going under water. This over-breathing depletes the supply of carbon dioxide causing a delay of the natural urge to breathe.
- Swimmers hold their breath for too long a period underwater, causing an oxygen insufficiency.

In each case, the swimmer loses consciousness with little or no warning. He may even continue to swim for a few seconds. This is the reason that other swimmers, and even well-trained lifeguards, may not sense the trouble until it is too late.

To prevent such accidents swimmers should obey their natural urge to breathe normally and avoid over-breathing.

-and safety

Did you ever listen to someone account for an injury he suffered? Chances are his story went something like this: "I was walking through the building ruins when a nail punctured my foot." Think about that statement. Was it a vicious nail or a careless foot?

It is common for people to blame accidents and injuries on their surroundings—machines, tools, etc., both on and off the job. That's the trouble with safety—people. For without people these objects would lie in peaceful inertia.

Hazardous conditions exist both on and off the job, but these conditions can be corrected or avoided if people use their heads.

Here are a few basic safety measures that are "good anytime." Before you start a job:

- Observe all existing and potential safety hazards.
- Eliminate all the hazards you can.
- Plan to cope with the hazards that cannot be eliminated.

IT'S OFFICIAL: ALASKA HAS BECOME A STATE

The last step in Alaska's transition from territory to Statehood was the transfer of Federally-owned airports to the state. The program was coordinated by Alaska's Lars Johnson (left) and FAA's Virgil Knight.

President Johnson singled out the FAA for its part in completing Alaska's unique program of transition from territorial status to statehood. The transfer in June of eight federally-owned airports to the State represented the last major step.

In a letter to Alaskan Governor William A. Eagan, the President said, "I am gratified that the transition has gone so well. I commend the employees of your State and the Federal Government, particularly the Federal Aviation Agency, who worked so cooperatively during this period."

FAA's Virgil E. Knight, Special Projects and Planning Coordinator in the Region, was instrumental in the successful transfer of a total of 21 airports to state ownership. The Agency will continue to operate seven airports in the Region, primarily for logistic support of FAA facilities.

A Walking Blood Bank Sees FAAers on the March

Thirteen FAA employees in Truth or Consequences, N.M., are now members of the "Sierra County Walking Blood Bank" which supplies blood for emergency tranfusions to approximately 2,000 residents and visitors.

Electronic maintenance technician George R. Clark was one of the more recent donors when he responded to a call this spring. He furnished blood for a transfusion to an unidentified tourist.

Others who participated in the blood bank program are airway facilities technicians William L. Rickey, AFS chief; Harold L. Stigers, Charles R. French, Roy A. Huling, David M. Landis, and Thomas L. Garza of the AFS remote unit, and specialists Cecil F. Lakey, FSS chief; Paul D. Pruitt, Emmitt T. Laporte, William R. Underwood and Dagoberto D. Cisneros Jr., all of the FSS and Wally Vollbrecht, AFS custodian.

Casper, Wyoming, FSS Specialist Lauded for his Emergency Assist

Specialist James W. (Rusty) Gates of the Casper, Wyo., FSS has won the praise of Natrona County Hospital officials in Casper for coordinating the delivery of plasma from Cheyenne to Casper to meet an emergency.

Gates maintained continuous communication with the pilot of the mercy plane and at the same time kept a steady flow of information to the hospital and the Highway Patrol concerning the flight's progress.

Despite heavy fog at Casper Airport, the plane carrying the plasma landed safely at 1:30 a.m. and the Highway Patrol rushed the plasma to the hospital.

For his quick, efficient response to the emergency situation, Gates also won praise from Denver Area and Western Region FAA supervisors.

West African Visitor

When Michel Johnson, Commandant of Freetown Airport in Sierre Leone, came here for training in airport management, he stopped at FAA's Aeronautical Center's Flight Standards Training Laboratory to chat with Hope Biggers (left) and W. D. Crawford.

THE OLD GANDER STILL HANGS HIGH IN ALASKA

The old bird—a Grumman *Goose*—was given new life when its gait was stepped-up from a waddle to a whiz. Bob Stephens, chief of the Alaskan Region Engineering and Manufacturing Division, was instrumental in the spruce-up in which the plane's older reciprocating engines were replaced by new two-prop jets.

The conversion plan was the idea of Alaska Coastal Ellis Airlines, who invested $300,000 to re-equip 15 of the Grumman amphibians FAA certification of this particular modification was as complicated as starting from scratch with a new airplane.

Stephens, also an aerospace engineer-pilot in the Region's Flight Standards Division, was in on the beginning of Coastal Ellis' modernization program.

Because Coastal Ellis retained the Strate Engineering Company of Burbank, California, to design the engine mounts, faring and other equipment needed for the engine switch, Western Region staffers also played a part in the certification process. They were Gary L. Killion and Martin Krupitsky of the Aircraft Engineering Division.

The streamlined engine, manufactured by United Aircraft of Canada, Ltd., weights 280 pounds, half the weight of the recip it replaces. Yet it develops twice the thrust.

Alaskan air travelers got their first gander at the *Goose* this summer as it splashed in and out of scenic towns and fishing villages.

The Grumman **Goose** was gussied up for the use of Alaska Coastal Ellis Airlines, whose president, Shell Simmons is on right. Alaska's FAAers who helped step up the **Goose's** gait were Stanley Feber at the left and Robert Stephens.

NAFEC, ISLIP JOIN TO RESCUE A LOST FAMILY

When a pilot in a light plane became lost on top of clouds, with his wife and three children aboard, Eastern Region and NAFEC personnel came to their assistance.

New York ARTCC relayed the situation to two pilots from the National Aviation Facilities Experimental Center, Irving Budoff and Kenneth B. Johnson, who were enroute from the Aeronautical Center in Oklahoma City to Atlantic City. Then controllers at the Atlantic City Tower, Robert McGuckin, Carl V. Del Negro and Emil H. Weaver, vectored the NAFEC pilots until they made visual contact with the lost plane.

The lost pilot was then directed down through 10,000 feet of clouds for a safe landing at Atlantic City. When he cut the switches he had only ten minutes of fuel remaining.

Just another example of FAA service!

tech talk

While the more sophisticated ARTS (Advanced Radar Traffic Control System) is still undergoing field appraisal in the Atlanta Tower, a new Direct Altitude and Identity Readout (DAIR) system is now under joint development by the Department of Defense and the FAA.

Described as a derivative, the DAIR system will display beacon-derived aircraft identity and altitude information directly on the plan position indicator (PPI). Unlike ARTS, DAIR will not have computer-derived automatic tracking or other advanced functions performed by the computer. Instead, the altitude and identity of the aircraft are obtained by a beacon reply processor and associated display processor directly from information supplied by the airborne transponder through the radar beacon interrogator.

Data Every Four Seconds

The beacon reply processor design, based on the Beacon Video Digitizer (BVD) originally developed for ARTS, counts, compares, decodes and validates transponder reply codes. It also accurately determines center of target azimuth and range, associates identity code replies with altitude reports from the same aircraft and transmits this data onto the PPI once per antenna scan (every four seconds) for each replying aircraft.

In ARTS, this information is fed into the computer, where it is used to provide automatic tracking. Since DAIR target reports are updated on the scope every four seconds, the ARTS requirement for automatic tracking is not considered an absolute necessity at a low-density terminal.

Of particular usefulness at military fixed and mobile air traffic control facilities, the joint DAIR program is actively supported by the Department of Defense. It is expected that the DAIR will achieve some of the benefits of automatic radar beacon processing at a cost and simplicity suitable for use at FAA low-density terminals.

As an all-purpose civil/military system, the DAIR was designed to meet the limitations imposed by the military's most severe requirements, those of the mobile ground control approach (GCA) facility. To achieve this, the DAIR uses a maximum of integrated circuitry and microminiaturization techniques.

names & faces

Terrence Troyer (left) and his twin, ► Tom, inspect an aircraft at Merrill Field during one of their work breaks. They're enrolled in FAA's Alaskan Youth Opportunity Campaign with 45 other youngsters.

▼ FAA's Senior Representative in Frankfort, Germany, Jimmy James is a big shot in the shooting world. He qualified for the 1966 Olympic Try-outs.

Alaskan Region headed all re-► gions in Savings Bond Drive participation. Director Gary (left) thanks Scotty Riggan, Bond Coordinator, for pushing the Region over its goal after being "goat" of the Agency last year in last place.

◄ When the Fort Worth Federal Business Association had its annual awards luncheon, two FAAers were right there to get laurels. Certificates of Achievement went to Annie Crouse and to Warren Conrad for outstanding service.

◄ "Prop and Rudder Club" is name of new Prescott, Ariz., flying club. Three FSS men are officers: from left, Messrs. McCart, Shire, non-FAAer Lanman and Barila.

▼ Without cap and gown, Oke City's Franklin Fitzgerald just got his M.A. with high honors in Industrial Management.

▲ An Eastern Region first was recorded by the Boston Center Air Traffic and Airway Facilities Sector personnel who recently completed the Training Techniques Course conducted by FAA Academy instructors. Standing from left: Messrs. Scibilia, Finn, Koza, Mullen, Cargill, Francis, Bisbing, Babinski, McMakin. Seated: Fountaine, Boegel, Addrisi, Mauro, Boston Area Manager Brown, Center chief Kynock, and instructors McKinney, Bray and Simonson.

Frank Allen, chief of Western ► Region's General Aviation Branch, seems to have a tough time judging industrial art exhibits at California Museum of Science and Technology.

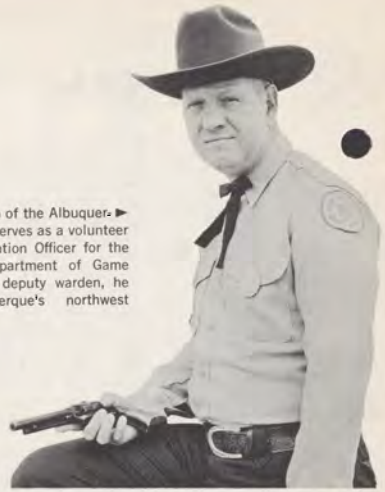
▲ Kodiak Area Manager Darrell Chaffin and his wife waged a "War on Litter" and martialled young mercenaries to fight the battle.

▼ Harry Arnold (left) risked his life during the Salt Lake airliner crash to save others. Denver Area Manager W. A. Stevens congratulates him for FAA Meritorious Service Award.

The benefits of resolving local ► problems on an area, rather than regional level, were demonstrated recently when Cleveland Area Office hosted meeting with top aviation officials in Ohio, Kentucky and Pennsylvania. Manager Ralph Link presided over meeting which focused upon highway and airport planning coordination, accident investigation, airspace obstruction and other matters relating to aviation.

John K. Hall of the Aeronautical ▲ Center is newly-elected veep of Federal Government Accountants Association.

Feminine beauties were on both ► sides of the U.S. Savings Bond booth when the campaign began in the Denver ARTCC. Mrs. Marcie Cropp, Center secretary, with the high hat, signs up Mrs. Helen Hamilton (left) and Mrs. Maizie Bergstrom, both administrative secretaries. The drive netted more than 86 per cent.



Carmen DeFranco of the Albuquer- ► que Center also serves as a volunteer Reserve Conservation Officer for the New Mexico Department of Game and Fish. As a deputy warden, he patrols Albuquerque's northwest valley.

▲ John Haskew of Salt Lake City's Center was cited recently for his work as the Facility Air Defense Officer. His likeness was preserved on canvas by his wife who has also won many awards for her paintings.

Pilot Brian Peck tries the new ► tie line to the Anchorage FSS to obtain preflight information for his flight from Lake Hood. AFS chief Wayland Lipscomb said other tie lines are planned.

▲ Eastern Regional Director Oscar Bakke pins an Air Force Commendation Medal on Lt. Col. Ernest A. Via for meritorious service in the transfer of air navigation flight checking, both domestic and in the North Atlantic, from the Air Force to the FAA.

◄ Toledo Combined Station/Tower radar operators Robert Walczak (left) and Louis Streb received certificates of commendation and a check for their superior performance by ir chief, Fred Hjortsberg.

▼ Mrs. Gerry Bugbee, wife of James who is a Western Region flight test engineer, was Mrs. California and one of the 10 finalists in the Mrs. America Contest of 1966. Both are avid golfers.

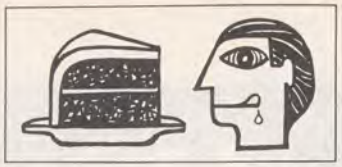
▲ Sixteen Guam employees received awards at their Annual Award Ceremony held recently in the FAA Community Building in Finegayan, Guam. They included: from left—front row, Mrs. D. Kunitomo, Mrs. E. Minnich, L. Jones, E. Jones, C. Whitfield, C. L. Aiu and C. E. Damron; in rear, Mrs. J. B. Pratt, J. M. Connors, D. C. Dickinson, W. A. Edenfield, J. G. Lassen, I. W. Starkey, G. DeLima, E. L. Claus and C. Minnich.

▲ Western Region Director Joseph H. Tippets (left) presented the Agency's Distinguished Service Award to a Continental Air Lines crew for their action in a takeoff emergency. From left are: C. L. Rogers, Capt. C. E. Hersche, hostess S. N. Smith, and R. E. Stunkard, and Airline president Robert F. Six. Not shown in photo are C. R. Kelly and S. White.

◄ Dayton RAPCON chief Arvid Eide (left) presents a certificate to his crew chief Robert Wagner for his superior performance at the facility.

▲ Charles Thomas of the Alaskan Region Air Traffic Division takes time off to work on an access road for the Civilair Club's new recreation site.

◄ As the key inspector in the Category II certification of United Air Lines, Oscar Berge (right) of the Denver Air Carrier District Office receives an award from Charles Stacy of the Denver Area Flight Standards Branch.



personnel pipeline

DO YOU WANT A PROMOTION?

Having the little lady bake the boss's favorite cake was one way of getting a promotion in the old days, or maybe you could have wrangled one by volunteering for all the extra chores around the office. But no longer.

Today, all FAA promotions are granted on an equal and fair system—under a **Merit** Promotion Program—which identifies and selects the best qualified people for advancement. Experienced people move to the top—and those who don't meet the standards for promotion are told why and how they should prepare themselves.

Contrary to the wide-spread belief that the economy drive has put a lid on all promotions and advancements, there is still ample room at the top in FAA. In the period between 1958 and 1962, when the Agency literally was growing by leaps and bounds, the FAA's promotion rate was considerably larger than other Government agencies. However, today with the number of positions leveling off there will be correspondingly fewer vacancies. The result is keener competition for current jobs.

THREE PROMOTION PLANS

All promotions in the FAA comply with the basic guidelines established by the Civil Service Commission. However, to better manage FAA's system of advancement, the Agency has developed three separate promotion plans: the Washington Promotion Plan; the Field Promotion Plan and the Executive Promotion Plan. **Minimum** requirements for all three are the qualification standards prescribed by the Civil Service Commission. While it is the general policy of the Agency to try to promote from within, consideration will be given to outside candidates in the effort to find the very best person for the job. In no case will discrimination ever be shown because of race, color, creed, national origin, sex, physical handicap, age, marital status, political affiliation or employee organization affiliation, except as may be required by law.

IN WASHINGTON

Positions at FAA Headquarters in Washington at grade GS-14 and below are filled by the Washington Promotion Plan. A promotion list is established to serve as an inventory of vacancies. This list can be established either by announcing the vacancy and considering those who apply, or by considering all qualified applicants within a given area of consideration (at a minimum the principal organizational unit within the employing jurisdiction). In either method, the names of highly qualified individuals can be added as "management candidates." If a job is advertised, it appears on a Promotion Plan Vacancy Notice. It announces new openings and lists people who have been selected for jobs previously advertised.

IN THE FIELD

The same general principle holds true in the field outside Washington. At one time, when a job was advertised at a particular facility, the list was open to everyone in a large geographic area. Now, under the Field Promotion Plan, the area of consideration can be limited to a smaller sphere. But like the Washington plan, the jobs always are filled by the best qualified people—within or outside the Agency.

THE COMMON DENOMINATOR

When an organization is small, it is not difficult to identify the best qualified people. The cream always flows to the top. But in an organization such as FAA, where 43,000 people are distributed throughout the world, what guarantees a uniform system of evaluation of "best qualified" people? In the FAA, the Employee Appraisal Record Form (EAR) combines Promotion Evaluation, Performance Rating and Certification of Acceptable Level of Competence requirements on **one** form and provides much of the evaluation material needed to make a selection.

This EAR lists 11 major areas which reflect career potential and requires supervisors to assess an employee's demonstrated ability in each. When a vacancy occurs, the most critical of those factors to a given job serves as a basis of evaluation. Any awards or commendations received by a candidate must also be considered. Other factors may be added, but it is the employee's past performance—as reported on the EAR—that serves as the most tangible yardstick of judgment.

THE EXECUTIVES

Whether in the Field or in Washington, all Agency positions in grades GS-15 and above are filled through the Executive Promotion Plan. This plan uses the Executive Selection and Inventory System (ESIS), a computerized program in which basic career and personal information is stored on all employees GS-14 and above. When a vacancy occurs, the IBM 1401 (machine) produces a list of candidates who qualify for that job, and selection (human) is made from this list of eligibles. GS-16 positions and above require that the candidates be reviewed by the Executive Personnel Board and their choice approved by the Administrator, before being forwarded to the Civil Service Commission.

FOREIGN ASSIGNMENTS

The 1401 computer also is part of the Foreign Assignment Resources Employee (FARE) System, a separate program used to fill most overseas vacancies. Employees interested in foreign assignments are required to submit a foreign Assignment Application (FAA Form 3639) to the Executive Operation Branch, PT-73, in Washington. This form is coded, and when run off, matches an individual(s) with the vacant job requirements. Because of the small number of jobs to be filled and the unusual qualifications required, consideration is not automatic. To be considered for foreign assignment one must submit a Foreign Assignment Application. (There are only a handful of foreign positions below GS-12; these are filled by normal promotion plans.)

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Chapel for Guam's Worshippers

The old quonset hut that served as Wake Island's chapel has been replaced by a modern, peaked-roof edifice. Most of the FAA families on the remote Pacific Island were on hand to dedicate the new memorial chapel. The chapel has a spacious interior, a high, open peaked ceiling and the traditional stained-glass windows. A nine-foot cross made of koa, a wood native to Hawaii, towers above the pulpit. **1** The principal address was given by Regional Director Phillip M. Swatek. **2** The clergymen who participated at the dedication were: from left, Navy Chaplain Orlando Ingvoldstad Jr.; the Most Reverend A. W. Baumgartner, Bishop of Agana, Guam; Rev. Douglas Olson, FAA Wake Island Chaplain; Guam's Rev. Timothy Kavanaugh, and FAA's other chaplain on Wake, Rev. Canice Cartmell. **3** At a post-dedication luau Tandy Kaulii (right) roasts a succulent fare in a primitive ground oven. **4** Since the chapel is always open, the presentation of the keys to Wake's Area Manager George LaCaille (left) by contractor Charles W. H. Yee was merely symbolic.

James Addison and Harwood Shumaker

During one day's hunt in North Carolina, James Addison (left) and Harwood Shumaker can find dozens of rubies, sapphires and other precious stones to add to their collections. The two gemologists, both based in the Southern Region, are shown in front of their lapidary machine, a mechanism for cutting and polishing rare gems. Addison is an airport engineer in the Atlanta Area Office. Shumaker is program officer, Airports Program Branch in the Southern Region Headquarters. Both men are experts in making mountings for jewelry—Addison specializing in earrings, cuff links and necklaces, and Shumaker in tie clasps. The two men are members of the Georgia Mineral Society which frequently sponsors field trips in the area. Their wives and children are enthusiasts, too.

FAAers on the job

John V. Peterson

"The Gently Orbiting Blonde," "Voyage Beyond the Night" and "The Oddly Elusive Brunette" are some of the highly provocative science fiction stories written by John V. Peterson, a realty officer in the Eastern Region's Airway Facilities Division. His imaginative works have appeared in many science fiction pulp magazines ever since his initial article, "Martyrs Don't Mind Dying," was first published in 1938. After joining the FAA in 1939, Peterson capitalized on his aviation environment to write such aviation-oriented fiction stories as "Lie on the Beam," which forecasts a future radio range system, and "Mission to Oblivior," which describes the creation of an instrument landing system built by "way-out" engineering techniques. Currently, Peterson is working on a full length science fiction book.