FAA HORIZONS

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Read 'Satellites Are Here' Pages 4-5

Top Tower

When Administrator John Shaffer presented Memphis Tower Chief James Arthur a handsome plaque as the nation's best for the year, he cited the facility for developing new techniques to facilitate more efficient approaches and departures by turbine aircraft. Memphis won over 366 others.

Plans Launched for '72 Dulles Expo

WASHINGTON—Secretary of Transportation John A. Volpe recently assigned responsibility for conducting the 1972 United States International Transportation Exposition to the Federal Aviation Administration. Scheduled to be held at FAA's Dulles International Airport in early June 1972, the event is expected to attract more than 500 domestic and international exhibitors and over a million visitors.

An exhibit area of more than a million square feet will be put aside for the exposition, including an indoor area of about 270,000 square feet.

"This international exposition provides us a unique opportunity to sell America," Volpe said. "We will spare no effort to make it the most vigorous U.S. trade-oriented exposition of its kind ever held."

Concept Expanded

Envisioned originally as an aeronautical show, the concept of the exposition was expanded to make it intermodal, featuring all types of advanced transportation systems and technology, including air, ground, space and, if appropriate, marine.

"Our plan is to stimulate worldwide participation in this exposition," Volpe said. "However, our prime purpose is to improve the U.S. balance of payments. This will be done by focusing world attention on U.S. technical and production leadership in aerospace and ground transport systems, and help make it possible for our manufacturers to increase their domestic and international markets."

Has Ample Space

Administrator Shaffer said that Dulles will have ample space and facilities to accommodate all exposition activities without interfering with normal airport operations.

"We are planning to improve secondary roads leading into the airport, provide bus service and fringe parking areas," Shaffer said. "Provision for this work already exists in the Dulles Airport Master Development Plan."

Shaffer said special emphasis will be placed on attracting potential foreign customers, both government and private interests.

Other Events Urged

"In this regard, we will request other U.S. government departments and agencies to schedule, as appropriate, a variety of national and international meetings, conferences, symposiums and tours to be held concurrently with the exposition," Shaffer said. "This will give top level business, government and military customers from all over the world an added incentive to come to Washington and attend the exposition to look over the products on display."

Although one of the aims of the exposition is to stimulate air travel by Americans and to attract more foreign tourists, the main objective is to provide U.S. exhibitors an otherwise unavailable means of displaying a complete spectrum of their products to large numbers of foreign customers and afford them a real chance to carry on direct sales discussions with these individuals.

FAAers Play Key Role In Thwarting Smugglers

WASHINGTON—FAA employees played a key role in helping authorities foil an international drug smuggling attempt which culminated recently in the arrest of five Americans on the island of Crete.

FAA and foreign radar systems made possible step-by-step surveillance as the smugglers' aircraft moved across the nation and after it left Bangor, Me., with stops at Newfoundland, Greenland, Iceland, Amsterdam, Milan and finally Lebanon.

Lebanese authorities intercepted the offloading of a cargo of cigarettes and the onloading of 1,452 pounds of hashish—more than $2 million worth in the illegal drug trade. The plane was able to take off amidst a gun battle between police and about 40 smugglers.

Jet fighters unsuccessfully attempted to force the plane to land. Shortage of fuel finally compelled it to touch down on the island of Crete. Here, the five Americans aboard were nabbed and the drug cargo, obviously destined for the U.S., was seized.

Help Sought

So far as the FAA is concerned, the story began on Aug. 13 when the U. S. Customs Service asked FAA's Office of Air Transportation Security for assistance in locating a Martin 202 aircraft last known to be at Chico, Calif.

Names of suspects believed to be planning the smuggling attempt were furnished the FAA by customs. A search of agency aircraft, medical and airman records uncovered information that proved valuable to authorities.

To locate the plane, a Service B GENOT was sent to all facilities and brought prompt response from the Red Bluff, Calif., FSS. That facility advised that the plane left Chico on Aug. 11. The Williamsport, Pa., FSS subsequently reported that the aircraft was on the ground at Lock Haven, Pa.

On Aug. 17, Flight Standards Service disclosed that three auxiliary fuel tanks, each with a capacity of 250 gallons, were being installed in the plane's fuselage, increasing its range to 1,820 nautical miles. FAA data on aircraft performance was then used as the basis for furnishing the Customs Service with three possible routes that the plane might take to Lebanon where the smugglers' drug pickup was expected to take place.

Arrives in Maine

On Aug. 21, the plane left Pennsylvania and landed at Bangor, Me. After taking off once more, it was handed off from the New York Center to the Boston Center, then to Canada's Monkton Center where Royal Canadian Mounted Police entered the case, prior to the handoff, to assure smooth handling. Scotland Yard became involved when the flight crossed England after stops at Greenland and Iceland.

Through arrangements made by the Air Traffic Service with the European Region's Air Traffic representative in London, European air traffic personnel "tailed" the plane by radar as it moved from Amsterdam to Milan and Naples, Italy, then to Cyprus and Lebanon.

The agency's assistance to other Federal agencies was coordinated by John Graziano, chief of the Investigations Division in the Office of Air Transportation Security. He worked closely with the U.S. Customs Service throughout the case.

(Continued on Page 7)

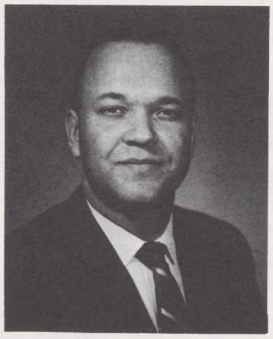
New Staff at Headquarters Will Spur Key EEO Programs

By Theodore Maher

WASHINGTON—"We must develop a program that people can believe in—a program that works," Herbert A. Scurlock, the first chief of the newly formed Equal Employment Opportunity Staff in the Office of Personnel, said last week.

In his new capacity, Scurlock will serve as principal advisor and consultant to the Director, Office of Personnel, on equal employment opportunities and other special employment matters with the agency. His staff will direct efforts toward implementing equal employment opportunity programs, handicapped programs, Federal women's programs and others.

Scurlock, who reported for duty at Headquarters last week, was Personnel Officer in the Washington Area Office before being selected for the new position.



Herbert A. Scurlock
Chief, EEO Staff

Objectives Cited

Speaking of the prime objectives of his new job, he said that his unit must develop a workable internal program for career development and must tap all available sources in the community for qualified employees.

"We must put together an effective program to help more employees develop capabilities needed by the agency," he said.

"In this way, agency employees, particularly those whose education is wanting, can fill more demanding jobs and, as they take on more responsibility, earn greater prestige and remuneration and personally share in the agency's growth."

In order to keep abreast of problems at the grass-roots level he hopes to do a considerable amount of traveling to work closely with the EEO personnel specialists in the field. "We will draw up directives and give general guidance to the field staffs, many of which have been organized during the past year," he said. He said that during the first six months, he hopes to visit all domestic regions.

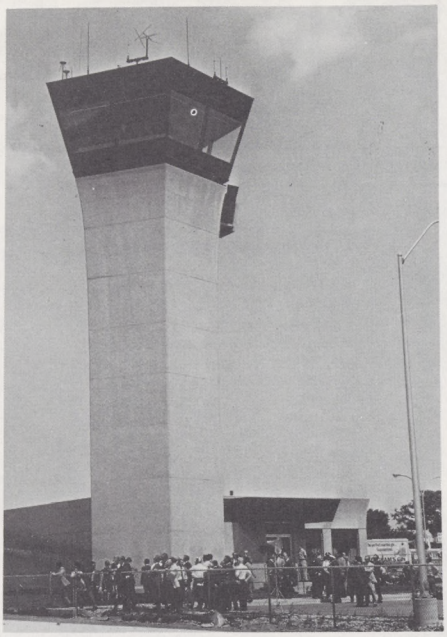
Commenting on the difference between the responsibilities of his staff and the Office of Civil Rights, he said that civil rights is concerned with the setting up and evaluating overall agency policy in the areas of employment, contract compli-

(Continued on Page 7)

Ex-FSS Men

Five former flight service specialists who got together to commemorate the 50th Anniversary of the service are (from left, with first station and year of employment given): John Lambiase, Washington, D. C., 1945; William Cantwell, Mercer, Pa., 1940; Wayne Hendershot, Ft. Plain, N.Y., 1937; George Freitag, Philadelphia, 1941; and Charles Wychakinas, Syracuse, 1939.

At top, a 1928 Ford Tri-Motor which flew symbolically over the new tower just as Tri-Motors did 40 years ago when the Detroit City Airport was dedicated. Below it, combination terminal-hangar as it looked in 1930, when it first opened.



At Bustling Detroit City Airport . . .

Four Decades—Two Dedications

By Neal Callahan

Undoubtedly, a few touches of humor found their way into the 1930 dedication program as they did in the most recent one. As the 1970 dedication party boarded the Island Airlines tri-motor for the symbolic flight, the stewardess welcomed them aboard "Aluminum Airlines Flight Seven and One-Half."

She then recited "flight procedures" including: "In the event we lose cabin pressure, please do not become alarmed. Just take deeper breaths and do not expect anything to drop from the ceiling of the aircraft."

The plane's "famous 4-80 air conditioning system" was explained in this way by the stewardess: "Its operation is very simple. After takeoff, we open four windows and cruise at 80 miles an hour."

There were no FAAers at the 1930 dedication. The Aeronautics Branch of the Department of Commerce—one of FAA's predecessors—was still comparatively new and had only a handful of employees.

Among FAAers at the 1970 dedication were Chicago Area Manager Paul E. Cannom, Cleveland Area Manager Clay Hedges, Chief of the Central Region Airway Facilities Division Alan Glass, Detroit Metro Tower Chief George Niles, Detroit Airway Facilities Chief Jesse Reed, Detroit Flight Service Station Chief Harry Yount, Willow Run Tower Chief James Lenhardt, the Flight Standards District Office Chief at Willow Run Airport, E. B. Shaeffer, and representatives of the Chicago Area Air Traffic Branch Joseph T. Bosslet and Harold Dingfield. Two former Detroit City Tower Chiefs—Bill Giddings and Art Waters—also attended.

No FAA controllers were present in the Detroit City Tower of 40 years ago. The old tower was operated by the City of Detroit beginning in the early forties. Among city employees on the 1946 staff was a controller mentioned above—James Lenhardt.

At left, new 75-foot high Detroit City ATC Tower, replacing a tower above the old terminal-hangar which had operated since the early 40s under the city, then the CAA and until last June by the FAA. At right, invocation to dedicate the new tower is given by a "flying padre." Present were (left to right): Paul E. Cannom, Chicago Area Manager; Solomon J. Ott, Detroit City Tower Chief; Rev. Walter Markowicz; Mayor Roman S. Gribbs; Stewardess Denise Johnson, American Airlines; and DOT Under Secretary James M. Beggs.

Forty years ago—back in April 1930—a fleet of five gleaming Ford Tri-Motors brought an official dedication party to the beautiful, new general aviation airport in downtown Detroit.

Recently, another dedication party came to the same airport aboard the same type of aircraft and with a similar mission. They came to dedicate the new air traffic control tower at Detroit City Airport.

What a difference 40 years makes! Between the two dedications, things have changed considerably at Detroit City Airport. Now, the airport is more than ten times as busy. It now has more operations in a month than the old field had in a year, and ranks 52nd among all U. S. fields having FAA control towers. During the last calendar year it had 254,923 takeoffs and landings.

The years have dramatically changed the outer appearance of Detroit City Airport, too. In sharp contrast to the old tower perched atop the airport terminal building dedicated 40 years ago is a spacious, new 75-foot-high structure—modern and functional.

Dedications Similar

In comparing the two dedications, there were similarities, too. Photos of the 1930 dedication crowd showed it was larger by far than the crowd at the recent event. But the 1930 dedication took place during Depression days and there were thousands of people then with very little to do.

Both the old and new dedications were attended by local, state and national dignitaries. Among the official party on the "Tin Goose" which flew over the new tower as part of the 1970 dedication program were Under Secretary of Transportation James M. Beggs, Detroit Mayor Roman S. Gribbs, Director of the Michigan Aeronautics Commission James D. Ramsey, representatives of the Michigan House and Senate and members of the Detroit Aviation Commission.

20 on Staff

The new tower has a staff of 20 FAAers including Tower Chief Solomon J. Ott and Supervisors Edward T. Kucyajda, Robert R. June and Leonard F. Klaker.

Controllers at the new tower are: Ernest F. Dillon, Charles W. Fahrenbruch, Walter G. Frame, Dianne J. Guldenzopf, Paul E. Haskins, Jr., Virgil L. Havens, David D. Hice, Vinton M. Lampton, Melvin R. Martin, Jerry R. Michnewicz, William J. Miller, Charles M. Rivard, Gary L. Vedder, Leo McDonald and Jesse J. Statham. Olga Krynski is the facility's secretary.

When the dedication was over, members of the official 1970 party reboarded the old Tri-Motor for their return flight. A green light signal flashed from the tower to clear the airworthy old "bird" for takeoff, just a few minutes after another plane became airborne. That other plane—a modern, twin-engine jet, Coast Guard One—might be considered a symbol of the difference 40 years can make.

In 1946 the Detroit City Tower was operated by the City of Detroit. Controller on the right is James Lenhardt, presently Chief, Willow Run Air Traffic Control Tower.

Huge is about the best term to be applied to the crowd that witnessed dedication of the Detroit City Airport back in 1930. Also huge was the crowd of more than 4,000 persons who toured the new tower during the two-day open house at the airport.

Alaskan Outstanding in Civic Work

ANCHORAGE — After an arduous day on the job as an investigator for FAA's Investigations and Security Division, E. L. (Turk) Mayfield often devotes long hours to volunteer work for the local Lions Club. Mayfield is one of the selfless minority found in civic organizations who take on the thankless tasks of seeing that the club's money-raising activities are successful. Quite often they are compensated for their efforts only in the personal satisfaction of having contributed to the general community welfare.

Last year, Turk Mayfield saw to it that at the broom sale for the Lions Club's Sight Conservation Committee not a single broom went unsold. Ditto, the fruit cakes at Christmas time. Mayfield also jumped with both hands and feet and mind into a collection project for the Salvation Army—with a predictable resounding success for the Lions campaign.

For these and other good works for the Anchorage Lions, he recently was rewarded tangibly—Mayfield was named "Lion of the Year." He also received a warm personal letter of congratulation from Alaska Senator Ted Stevens.

". . . I am confident this was a well-earned award for you and that you will continue to work hard for the club," wrote Senator Stevens.

Mayfield came to the FAA in July 1967. Previous to that, he was with the Territory and State of Alaska for 21 years, stationed in Juneau, Fairbanks, Tok Junction and Anchorage. He began his career in law enforcement as a patrolman with the Territorial Police and went through the ranks to attain the position of district commander of the western district with the Alaskan State Police, holding the rank of captain. His district comprised approximately half of the State Police personnel in Alaska.

Mayfield and his wife, Mary Lee, live on the outskirts of Anchorage in a home they designed and constructed themselves ten years ago.

Lion of the Year

For his enthusiastic work chairing the Anchorage Lions' civic improvement and community betterment committee, FAA Investigator E. L. (Turk) Mayfield (left) received a golden statue as "Lion of the Year" from club president Edwin G. Beu, Jr. Mayfield has worked in Alaska 21 years. Alaska Senator Ted Stevens sent Mayfield a personal letter of congratulations.

Then and Now

Above is a photograph which long-time district resident, Mrs. Irene Harding, loaned Aubrey E. (Bud) Cole, chief of the ATS Command Control Systems Branch at Headquarters so "Horizons" readers could see what preceded Federal Office Building 10A. The 1918 vehicles were on Independence Ave.; Ninth Street is on the right between row houses and the onetime Roland Carr residence. The up-to-date wide-angle picture at top, taken from the same spot between the Smithsonian and the old Medical Museum, shows Headquarters and construction in foreground for the Hirshhorn Museum, scheduled for completion in 36 months. *Top photo by Thom Hook.*

'Father of the Year' Title Is Achieved by Oklahoman

OKLAHOMA CITY—Although the American "Dad" usually takes a lambasting on most TV situation comedies, he occasionally gets a bit of recognition and credit. One FAAer recently had the satisfaction of being singled out as an especially good father by both his family and a big city newspaper.

William T. Rotramel, computer instructor in Air Navigation Facilities Branch at the Aeronautical Center and recent recipient of a 30-year FAA service pin, was named father of the year by the *Oklahoma Journal*. The contest brought bushels of nomination letters to the *Journal*, where a committee selected the winner.

Letters that won the contest for Rotramel were written by his four children: (Julian 12, Merle 16, and Rachel and Garth, both 7 and adopted). Mrs. Rotramel added a postscript concerning Rotramel's qualities.

The Rotramels, who moved to Oklahoma in 1958, attribute part of today's parent-child conflict to the times we are living in. "Parents are failing their children in not being firm and holding the family together," Rotramel said. The Rotramel's try to make entertainment at home, and attend church and school functions together. Their family agrees that the things they enjoy most are fishing, camping and hiking—also together.

Honored

William T. Rotramel, computer instructor at the FAA Academy at Oklahoma City smiles after being presented with a giant trophy by Russell D. Vaught, general manager and vice-president of the Oklahoma Journal.

Aircraft Report Deadline Passes

WASHINGTON — Owners of 34,019 aircraft as of Aug. 31 still had not complied with a new FAA regulation requiring them to submit annual reports validating the registration of their aircraft. Deadline for submitting these reports was June 30.

The updating of aircraft registry is an action to inventory property—the plane can be airworthy or in pieces and "all over the barnyard," according to a spokesman—and is not an indication that the airplane is legal to fly or not.

Earlier this year, FAA mailed out slightly more than 190,000 preprinted reporting forms to aircraft owners of record.

The new regulation makes it illegal to operate an aircraft on which the registration has not been properly validated.

Aircraft owners who have either misplaced or failed to receive a preprinted form (AC-Form 8050-73, Aircraft Eligibility, Identification and Activity Report) should get blank forms from their local GADO, ACDO or Flight Standards area or regional office. The completed forms are to be sent to the FAA Aircraft Registry, AC-259, P. O. Box 26045, Oklahoma City, Okla., 73126.

2 Westerners Begin Academic Study

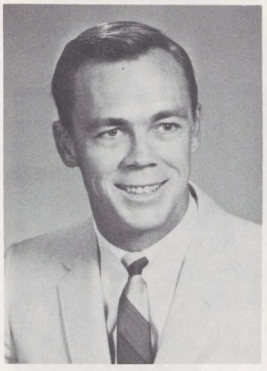
PHOENIX—An employee who told FAA how to save $342,000 is currently enrolled in the University of California's Institute of Transportation for a year's post-graduate study.

John R. Beagley, an electronics technician with the Phoenix Airway Facilities Sector, was recently approved by the Administrator for the special 1970-71 program which provides training for the planning, operation and design of transportation facilities and systems.

Beagley, one of six FAA employees picked for the national honor, recently submitted a suggestion on modifying the FA-7300 beacon which gives a 100-mile operational capability to the Phoenix TRACON. His suggestion is estimated to have a value of $342,000 in terms of savings to the agency.

Beagley has been stationed at Phoenix since July, 1965. Prior to that, he worked in the Western Region's Airway Facilities Division, Manpower and Training Section.

He received his Bachelor of Science degree in business administration from Arizona State University last June, working at night and attending school during the day.



John R. Beagley

SALT LAKE CITY—An expert in the evaluation of heavy equipment is among the six young FAA employees honored nationally by being included in the Air Transportation System Specialist Development Program.

He is James R. Houghton, Civil Engineer in the Salt Lake City Area Office, Airway Facilities Branch.

James R. Houghton

Houghton has enrolled in the University of California at Berkeley for the year-long course on transportation systems, with particular emphasis on the analytical approaches to decision making.

"I'm very interested in the future development of transportation systems, particularly around air terminal facilities," he said. "I'm looking forward to my year at Berkeley with a great deal of interest."

Houghton graduated from Brigham Young University in June of 1961, then joined the Bureau of Reclamation, participating in construction of the Curracanti Project—an earth-fill dam on the Gunnison river. In October of 1962, he joined the agency and was assigned to special maintenance projects in the Salt Lake City Area Office.

Since then, he has become one of the Western Region's experts in evaluating heavy duty equipment including the region's Snowblast machines, bulldozers and small over-the-snow vehicles.

Houghton's wife and three children accompanied him to Berkeley. His home is in Provo.

FAA HORIZONS

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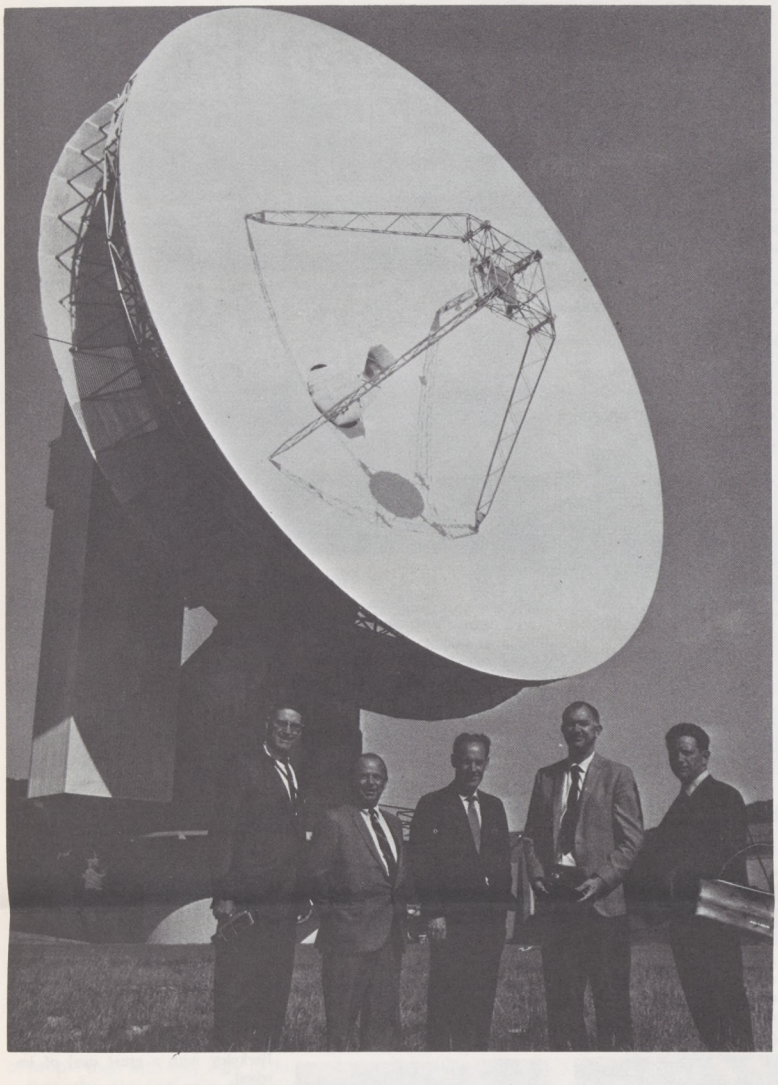
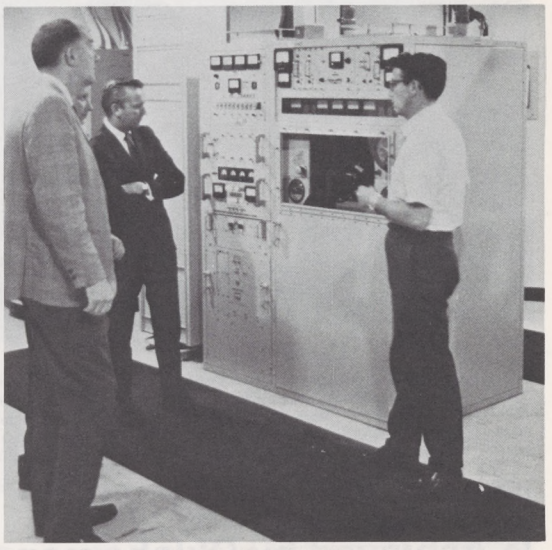


Visitors at the satellite communication system "Earth Station" at Jamesburg, Calif., are (from left): Udell Larsen, Assistant Chief San Francisco AF Sector; Herman Stewart, Chief, San Francisco. IATSC (IFSS); Leonard Galloway, Chief, San Francisco AFS; Kenneth L. Willits, Chief, AF Branch, San Francisco Area Office; and Bob Young of the AFS.



Final amplifiers at the INTELSAT antenna site are studied by (from left) Kenneth L. Willits, Chief, and Bob Young of the SFO Airway Facilities Branch; and by Leonard Wood, Chief Engineer, Western Union International.

The Satellites

By Leonard G. Gallo
San Francisco Local Coo

The FAA entered the Satellite Age on June 19, 1970.

That was the day on which two-way satellite communications were established between FAA facilities in San Francisco, Oakland and Honolulu. And that was the day that trans-Pacific high frequency circuits formerly serving the agency—voice and teletype circuits—suddenly became "old-fashioned."

The old, single-sideband communications link was subject to all kinds of vagaries, including sunspot interference and fading. Use of the military autovan backup system for trans-Pacific calls had the disadvantage of being subject to pre-emption by higher priority calls.

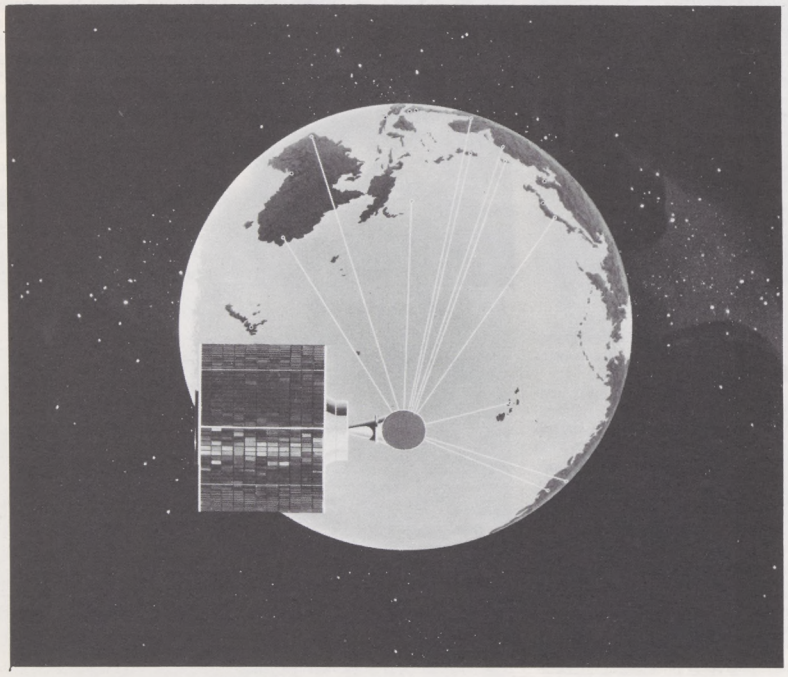
The agency's newly-commissioned satellite circuits terminate at the Oakland Center and the San Francisco International Aeronautical Telecommunications Switching Center (IATSC—a new designation which replaces the designation "IFSS.") In Honolulu, they terminate at the Honolulu Center and the Honolulu IATSC.

The Oakland Center is a temporary switching station for satellite and landline messages between Anchorage and Honolulu. On Oct. 6 the Alaskan and Honolulu facilities are scheduled to be linked directly by satellite.

Use of the new satellite system, which has achieved an enviable 99.8 per cent reliability, made it possible for the agency to decommission its old high frequency International Flight Service Transmitting and Receiving Service at Tracy, Calif. Resultant savings, in terms of lower manpower requirements and upkeep costs, are anticipated.

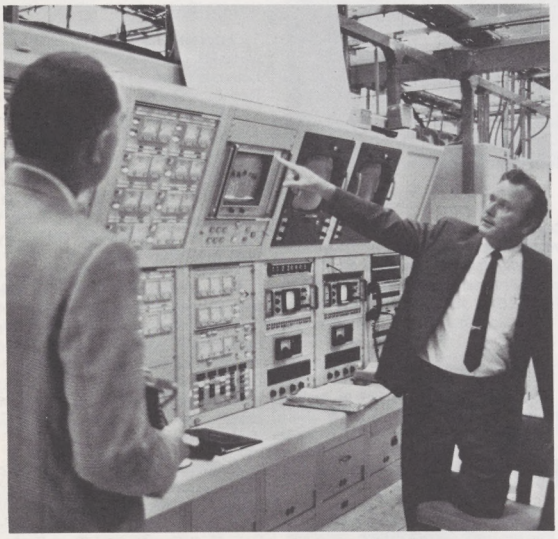
How does FAA's new leased satellite communication system work?

Trans-Pacific signals are routed via a satellite owned and operated by INTELSAT (International Telecommunications Satellite Consortium), the firm which has used satellites to bring TV viewers such on-the-spot telecasts as the return to earth of America's moon voyagers and live broadcasts of the Olympic Games.



Relaying messages between FAA facilities in San Francisco and Honolulu is an INTELSAT III satellite pictured by an artist. The satellite, in a synchronous orbit 22,300 miles above the equator, makes one revolution around the earth as the earth rotates once. It stays above one spot on earth and appears to be stationary.

At the Honolulu end of the communications link is the Paumalu "Earth Station." The dish antenna has a 97-foot-diameter.



Satellite circuit monitor system is pointed out by Assistant Station Manager Michael Downey of INTELSAT.

Here es Are Coming

nard G. Galloway
co Local Coordinator

One of the nerve centers of the satellite system is located on a 170-acre site about 150 miles south of San Francisco—the Jamesburg, Calif., Earth Station. Signals are routed to Jamesburg from San Francisco via Telco lines.

The Earth Station's large antenna stands taller than a ten-story building and weighs about 695 tons including its pedestal. The smooth surface of the huge "dish" was designed to critical specifications of within a 50 thousandth of an inch. So sensitive is the antenna and receiver that the structure was initially tested and calibrated by listening to known radio emissions from the star Cassiopeia A, which is many light years away.

To assure receiving the fraction-of-a-watt satellite signal, liquid helium is used to cool receiver amplifiers to temperatures approaching absolute zero. Cooling minimizes molecular noise which tends to interfere with signal quality. Location of the Jamesburg Earth Station was specially selected because it is relatively "radio quiet" and in a valley that provides natural shielding from sources of ground interference.

The big antenna's auto-track system keeps the "dish" pointed at the satellite to an accuracy of within hundredths of a degree.

After signals are transmitted by the Jamesburg Earth Station, they are picked up by a INTERSAT III satellite located over the Gilbert Islands. From there, signals are retransmitted to the Paumalu, Hawaii Earth Station and subsquently routed by landline to the Honolulu Center and IATSC.

Two-way communications are transmitted and received simultaneously at microwave frequencies. (For the technically oriented, these frequencies are six giga-hertz transmit and four giga-hertz receive.)

The system's spectacular capabilities have profoundly affected worldwide communications. There are now 22 Earth Stations located in various countries and owned by the countries they serve. The stations provide communications through an agreement with INTELSTAT, which now operates five satellites in cooperation with 63 nations.

Members of the team that helped put the satellite communication system in operation are (from left): Leonard Galloway, Chief, San Francisco AF Sector; Henry Hartmen, vice-president, Western Union International Corp.; Herman Stewart, Chief, San Francisco IATSC (IFSS); Hervey Aldridge, San Francisco Area Manager; and Leonard Wood, Chief Engineer, Western Union International.

Satellite communications are now generally used by many commercial and military overseas services. Through a subcontract with Western Union International, FAA is leasing service consisting of three teletypewriter channels providing overseas Aeronautical Fixed Telecommunications Network service and en route center-to-center voice communications.

Instrumental in laying the groundwork for FAA's satellite communication system were personnel of the San Francisco Airway Facilities Sector and the IATSC. Herman Stewart, chief of the latter office, and Kenneth L. Willits, chief of the Airway Facilities Branch in the San Francisco Area Office, coordinated mainland details. In Honolulu, arrangements were coordinated by Airway Facilities Sector Chief Peter L. Ellena, Airway Facilities Division Chief Norman Thompson and IATSC Chief Roy Kobayashi. Leonard Galloway, chief of the San Francisco Airway Facilities Sector, also played a key role.

The overall FAA plan for using the satellite communication system was finalized at an AFTN-AFS communication conference in Los Angeles last March. That conference was chaired by John D. Whiteside of the Operational Systems Branch, Communications Staff.

The new satellite system has been "good from the word go," according to Jack Thomas, Deputy Chief of the Oakland Center.

"It may be a little early for us to be wildly enthusiastic, but that's the way we feel," Thomas said. "Our overseas reception is now so clear it seems we're talking to the man in the next office."

The promise of satellites—in the science-fiction stage only a few years ago—is thus being fulfilled in the day-to-day working environment. "Far out" dreams of global communications have now become reality.

And FAA is fully utilizing these advances.

Legislators-FAA Hold 2-Day Meet In Chicago Area

CHICAGO—Members of the Indiana Regional Airport Commission recently attended a two-day aviation conference held by the Chicago Area Office. The conference aim was to familiarize the group with the FAA and functions of the Chicago Area Office.

Included in the commission group were a number of Indiana state legislators—Representatives Richard A. Boehning, William Babincsak, George Gardiner and Mike Engber. Also attending were Indiana Senator Charles B. Kleinkott and research specialist James Proctor.

Chicago Area Office participants included John F. Wubbolding, Assistant Area Manager; William H. Quinn, Airports Branch Chief; Robert J. Roche, Assistant Airports Branch Chief; Floyd C. Emanuel, Airway Facility Branch Chief; Eugene E. Walker, Flight Standards Branch; and Doyle Hegland of the Air Traffic Branch.

The Indiana officials were briefed by FAA personnel on functions of the different branches. A conference highlight was presentation of a 35mm color slide production, "The Indianapolis Story," by Indianapolis Tower Controllers John Reel and Dale Nestel. The slides portray the role aviation plays in Indianapolis and throughout Indiana. Roche then presented a detailed briefing on the Airport-Airway Bill.

The Indiana Commission toured the new air traffic control tower under construction at O'Hare International Airport. They were also given a briefing and tour of the airport by O'Hare's Manager, Pat Dunne. Tours of the present O'Hare Tower and IFR Room were conducted by O'Hare Tower Chief Dan Vucurevich.

This was the second such conference held by the Chicago Area Office in recent months. A similar conference was conducted previously for key aviation officials from Michigan.

Joint Conference

Participants in the recent Indiana Regional Airport Commission and FAA Conference in Chicago were (left to right, first row): John F. Wubbolding, Asst. Chicago Area Manager; State Representatives Mike Engber and George Gardiner; and State Senator Charles B. Kleinkott. Second row (left to right): Doyle Hegland, Chicago Air Traffic Branch; State Representative William Babincsak; Research Specialist James Proctor; and Chicago Airports Branch Chief William H. Quinn. (Last row, left to right): State Representative Richard A. Boehning; Eugene E. Walker, Chicago Flight Standards Branch; Assistant Chicago Airports Branch Chief Robert J. Roche; and Chicago Airway Facility Branch Chief Floyd C. Emanuel.

Crash Protection

Sudden stop inflates large air bag in the cockpit of a simulator at NAFEC, cushioning dummies in the front seat and preventing them from pitching forward into the plane's instrument panel. NAFEC tests offer hope that such devices might shield persons involved in future crashes.

Panel-top Air Bags Tested In Light Plane Safety Study

ATLANTIC CITY—Tests conducted at NAFEC indicate that an air bag restraint system in the cockpit of a light airplane shows promise in saving lives in an accident.

Although tests of a prototype air bag prove the inflatable bag concept to be feasible, additional study and testing has been recommended to develop a bag which can be retrofitted to current light airplanes.

The bag, made of nylon polyurethane material, is folded across the top of the pilot's instrument panel. A sudden stop automatically inflates it instantly to cushion the chest and head, preventing those in the front seat from injuring themselves by pitching forward on the panel.

The bag could be used with or without shoulder harnesses, according to project manager Hugo P. Scheuerman, who is in charge of feasibility testing which began in February and will end this month.

In the tests, life-like anthropomorphic dummies fitted with deceleration sensors were placed in the front seat of a cockpit section of a typical four-place plane. The section was catapulted down a 100-yard track at 85 miles per hour and brought to a sudden stop with loads up to 90 Gs.

The bag is activated by an inertia switch set off by a 5-G deceleration that inflates the bag with high pressure nitrogen gas in 30/-1000 of a second. Immediately after inflation, the bag gradually deflates.

Assigned to the project besides Scheuerman are Harry J. Hogg, Walter M. Sturko and John Costello.

The tests are part of an agency safety program to improve survivability in aircraft accidents.

FAA Middle East Pair Adopt Lebanese Child

BEIRUT, Lebanon—A one-time U. S. Air Force pilot and ex-airline captain before coming with the FAA as an air carrier operations inspector, Argyle L. Smith admits to a few thrilling times during his career in aviation. But adopting a little "angel" from a small Middle East village tops them all.

Last Christmas, Smith and his wife, Virginia, took six-year old Ursula Baroudgian into their home for the holidays in answer to a request that they consider doing so from an Armenian Bishop. Charmed during the brief Yuletide sojourn of the attractive youngster, they were sorry to see her return to her remote mountain village. As time wore on, they missed Ursula deeply, and so decided to petition the Bishop to see if they could adopt her—unsure that Americans could make a Lebanese-Armenian girl a member of their own family.

The Bishop encouraged the Smiths to undertake formalities leading to adoption, and after five months of red tape, little Ursula was able to make "Baroudgian" her middle name and become a "Smith" and an American. And what more fitting addition to the papers for a young, new citizen than the official recording of her birth as July 4, 1964?

Ursula B. Smith

The Smiths have served in Beirut for four years. This coming Christmas there will have a special meaning—for Argyle, Virginia and Ursula Smith.

And the New Year should be the happiest one ever.

Prettiest New Pilot

One of the most pleasurable tasks to be performed by Boston Area Manager William Cullinan in the day's work is presenting a private pilot certificate to Georgina Hossfeld, the reigning "Miss Massachusetts." Also present for the ceremony was Robert Jones, Flight Standards Branch Chief.

REPORTS and PAPERS

Unless noted otherwise, the source for the reports and papers listed is TAD-484.3.

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Live Tests of Tower Cab Radar Approach Control Procedures, Bradley, J. Roy, Jr. and Hugh D. Milligan. Technical Final Report RD-70-31, prepared for SRDS by NAFEC, Aug. 1970.

Executive Summary of Technical and Operational Evaluation of the Direct Altitude and Identity Readout (DAIR) System (Interrogator Set AN/TPX-42), Bradley, Anthony D. and Robert L. Tarr. Technical Final Report RD-70-29, prepared for SRDS by NAFEC, Aug. 1970.

A Comparative Analysis of Individual and System Performance Indices for the Air Traffic Control System, Buckley, Edward P., William F. O'Connor and Tom Beebe. Technical Final Report RD-69-50, prepared for SRDS by NAFEC, Sept. 1969.

Navaid Flight Check Console, Jensen, John E. Technical final report NA-70-57, prepared for SRDS by NAFEC, Aug. 1970.

The Next Steps in ATC System Modernization, Blake, Neal A. Technical paper prepared for the WESCON Electronic Show and Convention, IEEE, Los Angeles, Aug. 24-28, 1970. Source: RD-52.

Aircraft Engine Noise and Sonic Boom, Dr. Powers, John O. and Pianko, M. Technical Evaluation Report on Advisory Group for Aerospace Research and Development, Neuilly-Sur-Seine, France. Microfiche copy, .65¢; Hard copy, $3. Source: Clearinghouse for Federal Scientific and Technical Information (CFSTI). Springfield, Va. 22151.

ATS-1 VHF Communications Experimentation, Jefferson, F. W., Report FAA-RD-70-12 and FAA-NA-70-22, NAFEC, June 1970.

A Study of the Compatibility of a Four Engine Commercial Jet Transport Aircraft Fuel System With Gelled and Emulsified Fuels, Ralph A. Russell, project engineer, Final Report FAA-NA-70-11 (FAA-DS-70-1), Apr. 1970.

Fire Test Criteria for Recorders, Thomas Rust, project engineer, Final Report FAA-NA-70-25 (FAA-DS-70-16), July 1970.

An Engineering Investigation and Analysis of Crash-Fire Resistant Fuel Tanks, Robert Ahlers, Project Engineer, Final Report FAA-NA-69-43 (FAA-DS-69-7), July 1970.

Economic Analysis on the Use of Gelled Fuels in Jet Transport Aircraft, Thomas G. Horeff, Contracting Officer's Technical Representative, Final Report FAA-NA-70-45 (FAA-DS-70-13), July 1970.

Operational Evaluation of a Ceiling and Visibility Prediction Technique, Allen, Roger A. Technical Final Report RD-70-17, prepared for SRDS by Weather Bureau, Silver Spring, Md., Dec. 1969.

DIRECT LINE

This is your direct line to the top! Your questions will get answers! Employees are encouraged to discuss questions with supervisors or their local personnel office, but for those who do not have ready access to a personnel office, this column will provide an opportunity to get questions answered. Send your letter to: The Associate Administrator for Manpower, Direct Line, FAA, 800 Independence Avenue, S.W., Washington, D.C., 20590. Ground Rules: • All questions must be signed. • This column should not be used to supplant formal grievance and appeals procedures. • Questions should concern personnel and training policies, programs and procedures, not operational or technical matters. What's your question?

Question: At my facility, there appears to be favoritism in work assignments, performance evaluations, incentive awards and promotions. What recourse does an employee have in such a case?

Answer: Employees are encouraged to try to resolve their complaints through informal discussions with supervisors and personnel representatives. If this cannot be done to the employee's satisfaction, formal grievance procedure is suggested. Your personnel office can advise you on the proper courses of action to follow in this regard.

Question: What subjects are not covered by the suggestion system? May employees submit formal suggestions on personnel policies or practices?

Answer: Yes. The suggestion system is a valid means of bringing about changes in personnel policies or practices which directly relate to accomplishment of the agency's mission. Since your letter indicates that a local suggestion committee returned your suggestion because it was contrary to personnel policies and practices, you may wish to resubmit your suggestion. If you have not already done so, try to make clear what specific regulation needs changing and why you are suggesting the change. Bear in mind, however, that anything in the nature of a grievance or complaint is not eligible for processing under the suggestion system. For more information on employee suggestions, see FAA Handbook 3450.7A, Recognition and Awards Program, Chapters 1 and 5.

Question: How can an employee prevent publication of personal activities in the minutes of the local staff meeting?

Answer: Bring the matter to the attention of your local personnel office, preferably through supervisory channels. If the matter is not resolved satisfactorily, you may wish to file a formal grievance in accordance with FAA Handbook 3770.2, Adverse Actions, Appeals and Grievances.

Question: How is an employee's "high three" computed for retirement purposes?

Answer: The "high three" average salary is the highest salary obtainable by averaging the rates of basic salary in effect during any three consecutive years of service. Each of the rates is weighted in terms of the time it was in effect. The following example covers the three-year period from July 1, 1967 to June 30, 1970. Let's say that for the period July 1, 1967 to Nov. 15, 1967—3 months and 15 days—you were paid at an annual basic rate of $7,303, figuring out to a total of $2,130 for that time period. Then, for the period Nov. 16, 1967 to July 6, 1968—eight months and 21 days—your annual basic rate amounted to $7,630, or $5,532 in salary. For the period July 7, 1968 to July 5, 1969—11 months and 29 days—your annual basic rate is $7,956, working out to $7,934. Finally, for the period from July 6, 1969 to June 30, 1970—11 months and 25 days—the annual basic rate was $8,731, amounting to a salary total of $8,610. Adding up the salary paid for each of the four periods—$2,130, $5,532, $7,934 and $8,610—shows you received a total of $24,206 during the three-year period. Your "high three' average pay amounts to $8,069, a figure arrived at by dividing $24,206 by three. Further information on retirement computation can be found in FAA Handbook 3800.5A, Employee Benefits.

Question: What is FAA policy on awarding Quality Increases to employees when it is known they will be promoted in the next six or eight weeks? If the Quality Increase can be held up until the promotion is effected, can the increase be applied to the new salary level?

Answer: FAA policy requires that a lump-sum cash award be granted rather than a Quality Increase if the employee is scheduled for a promotion (for example, progression to journeyman level) that would minimize the monetary effect of the Quality Increase. Since a Quality Increase is based on employee performance of assigned duties over a minimum period of six months, it may not be applied to performance in a different higher graded job or to a new salary rate as you suggest. See FAA Handbook 3430.3, Evaluating and Improving Employee Performance, paragraph 58 and 59 for more information.

Question: An investigation has been conducted based on information supplied by an anonymous informant. Although I have been advised that "no further action will be taken and the matter will be closed," I would like to know if the report is filed in my Official Personnel Folder.

Answer: Based on what you say, Direct Line sees no reason to file such a report in your Official Personnel Folder. Your best bet is to contact your personnel office to determine the disposition of the report you mention in your letter to "Direct Line."

Question: When I ask to see my Official Personnel Folder, I am advised to wait for a few minutes so that certain information can be "pulled" from the file. Does an employee have the right to see everything that is filed in his Official Personnel Folder?

Answer: No. Before the contents of the folder are disclosed to an employee, certain information is removed, such as medical information, test materials, confidential questionnaires, and employment inquiries, and the like. See Order 3290.3A, Official Personnel Folders for more specifics.

Weather Radar Unit Established At Seattle Center

AUBURN, Wash.—The FAA and the Weather Bureau have jointly established a new Air Route Traffic Control Weather Radar Unit at the Seattle Air Route Traffic Control Center here. This marks the fourth ARTCC with a joint weather radar program in the Western Region.

The Seattle Center monitors four radar locations in the Pacific Northwest, bringing the total of air route traffic control radars involved in the western weather radar network to 20. Location of the Seattle radar sites are: Spokane, Salem, Klamath Falls and Seattle.

While these radars are not specifically designed for weather surveillance, they have served the region well. They lack the special circuitry normally incorporated in weather radars, but through judicious use of the FAA radar systems, valuable weather information is gathered.

Observations from the four radar sites in the Pacific Northwest are prepared hourly and transmitted over the Western Region Weather Bureau Facsimile Circuit. The data are composited by the Salt Lake City ARTC Center Radar Unit and then transmitted to Kansas City via the data phone link and thence on the National Weather Facsimile Circuit.

These new radars with the satellite pictures improve the Weather Bureau's ability to track organized weather systems across the Pacific Northwest. This information is furnished the ARTCCs for application in traffic control and is also relayed via facsimile to FSSs and Weather Bureau stations.

Also of considerable importance to this area is the vital role radar plays in providing support to fire-weather and hydrologic programs. Air route traffic control radars at Salt Lake City, Palmdale and Albuquerque have many times demonstrated their value in locating mesoscale storms with flash flood and lightning potential. Radar is especially well suited for thunderstorm detection, particularly over the vast wilderness area.

Smugglers

(Continued from Page 1)

(One of the missions of the Office of Air Transportation Security is participating in the national effort to combat organized crime and illegal operations of U.S.-registered aircraft and airmen.)

Apart from use of an aircraft in an illegal activity, persons involved in the smuggling attempt violated Federal statutes on a number of counts, including failure to obtain certification on modifications to the aircraft.

Carl F. Maisch, Director of the Office of Air Transportation Security, paid tribute to all FAA personnel who participated in the case.

"Without the cooperation of these dedicated FAA employees, this successful endeavor could not have been accomplished," Maisch said,

He singled out Air Traffic Service Director William Flener and Richard S. Sliff, Deputy Director of Flight Standards Service as having been especially helpful and added that Addison Johnson of the European Region did an outstanding job of securing the cooperation of foreign air traffic authorities.

For Special Service

A special award honoring the excellence of Air Navigation Facilities training was presented Charles Mueller (right), ANF Branch Chief at the Aeronautical Center. The award came from the Airways Engineering Society at its recent Oklahoma City annual convention. Center employee Bill Archer (left), the society's vice president, joined Administrator John H. Shaffer in congratulating Mueller.

Airways Engineers Honor ANF Branch Chief Mueller

OKLAHOMA CITY—For the excellent quality of the Air Navigation Facilities training program at the Aeronautical Center, ANF Branch Chief Charles W. Mueller recently received a special Airways Engineering Society Award.

The award, together with lifetime membership in the society, was presented to Mueller at the organization's recent national convention at the center.

Discussing the ANF training, Mueller explained that few people realize that the total curriculum covers more than 450 weeks. This means that in order to study all airways equipment, a person would have to be in training 52 weeks a year for nine years. A college student attends class only 12 to 16 hours each week, Mueller explained, while the ANF courses require 40 hours a week, so the nine year term becomes 20 years in terms of college training hours.

In addition to the sheer magnitude of the program, Mueller calls attention to the wide diversity of subject areas. In fiscal 1971, 99 different subjects will be taught. There is also a wide range of technical complexity, and both factors influence the size of the training staff required to teach each equipment area.

383 Manuals Used

Mueller mentioned that in addition to the numbers of weeks of resident courses, there is also a tremendous volume of resident training materials to be maintained (383 manuals with 38,925 pages of materials) with more being added all the time as equipment is improved and becomes more complex.

More than 42 directed study courses are also available and the ANF branch also arranges for out-of-agency technical training. Each year, about 450 of the agency's ANF personnel are sent to various contractors' facilities to receive maintenance and engineering training. As many as 35 different courses and 130 classes are required annually to satisfy this demand, Mueller said. Complexity of this training ranges from air conditioning controls to electronic computer courses.

Joined FAA After War

Mueller joined the agency in 1946 as a maintenance technician in California after Navy service as a lieutenant in World War II, when he was a carrier aircraft service electronics officer. He became a member of the first class at the Oklahoma City Academy in 1947. Following graduation, he was sent to the Western Region to work in San Diego. He returned to the Academy in late 1947 as an instructor, rose to section chief and finally to branch chief, a position he assumed in 1954. Reminiscing about the early days of the Academy, Mueller recalled that when he came to class in 1947, the Academy had less than 300 people.

However, he recalls that by 1962 there were 353 employees in his branch alone. Currently, he lists 295 employees working with 630 students. He said it is possible the number of students may increase to some 900 in fiscal 1971.

EEO

(Continued from Page 1)

ance and non-discrimination at airports and in housing, whereas his staff will deal with developing affirmative recruiting and career progression programs to translate the EEO policy into meaningful results.

"My staff will be recruiting new people at all levels, but our prime effort will be directed at getting new air traffic control specialists and technicians," he said.

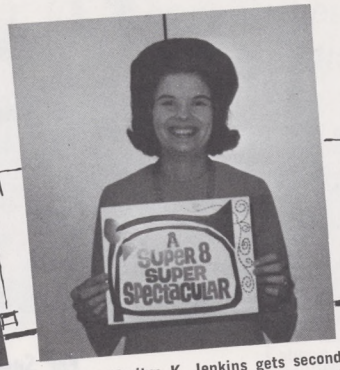
He also emphasized that he will be responsible for finding capable people already in the agency and helping them along the career progression ladder.

Scurlock joined the agency in 1959 as an electronics technician in the Eastern Region. In 1965, he was reassigned to the position of Manpower and Training Officer and the next year was promoted to Employee-Management Specialist in the regional headquarters.

He was appointed Personnel Officer for the Washington Area Office in 1968 and as such, was the highest ranking minority group member on the agency's personnel staff.

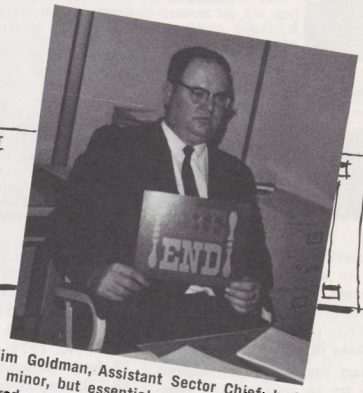
A native of Washington, he is married and currently lives in Laurel, Md.

Sector Chief Tom Landers, Jr., gets into the act as an assistant production man during filming.



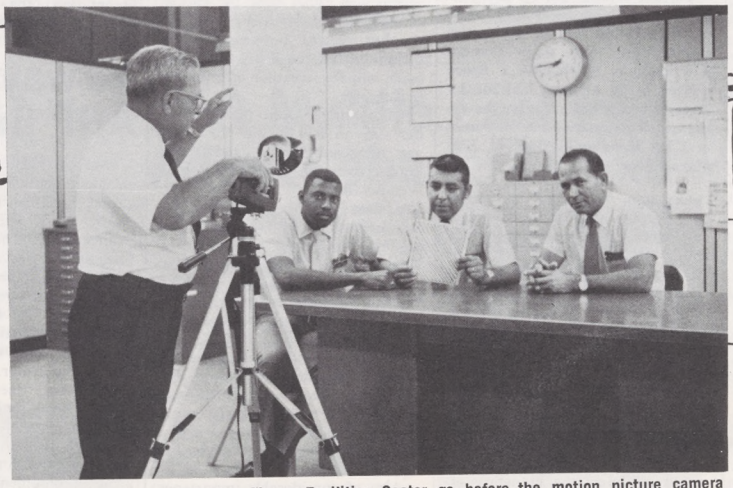
Secretary Marilyn K. Jenkins gets second billing to the document which is the real star. She boosts the film as a "Super Spectacular."

Louis M. Bowen holds the "silent hero" of the movie before it starts its rounds.



Jim Goldman, Assistant Sector Chief, had a minor, but essential, part in the unique production.

The producer—Carlos F. Montemayor—made the film possible.



Personnel of Houston Center Airway Facilities Sector go before the motion picture camera operated by FAA Communications Specialist Carlos Montemayor for an 18-minute film showing how the "word"—a document—gets passed from the chief to sector personnel. Seated are (from left): Robert Jordan, Art Contreras and William Brunk.

EVERYONE'S A STAR at HOUSTON SECTOR

A communications specialist with a flair for movie-making has put his camera to work to keep employees well informed at the Houston Center Airway Facilities Sector.

The project has paid off handsomely in terms of more effective management.

Using his own equipment, Communications Specialist Carlos F. Montemayor has produced an 18-minute Super-8 mm. color motion picture that "stars" virtually everyone in the sector.

Montemayor wore several hats in making the film. He wrote the scenario, produced, directed, narrated, operated the camera and edited the production.

Basically, the film tells sector employees how "the word" is passed from the facility chief to sector personnel.

The film's "hero" is an agency document, marked with black stripes for ready identification. The picture starts with a sequence showing Sector Chief Tom Landers, Jr. reading the document. The camera then follows the paper as it makes its rounds. In the process, the narrator introduces each technician and briefly describes the job he does.

To provide dramatic opening and closing scenes for the film, Montemayor took to a helicopter and filmed a bird's eye view of the entire center complex.

"Some of the technicians were a bit camera shy—others didn't mind at all," Montemayor said. "A few of them missed being included in the film because they were on duty at other locations."

The Houston Sector film is Montemayor's seventh. Among his other productions is a poignant, short documentary depicting the life and activities of a retarded child.

The basic purpose of his latest film is to depict the steps required to insure immediate distribution of a management directive. The film has several broader objectives, however.

Sector Chief Landers and Assistant Chief Jim Goldman consider it another means of giving each employee a sense of belonging to the FAA.

"When new personnel are assigned to the sector, the film provides them with a vivid introduction to facility personnel," Landers said. "Members of the sector staff are no longer strangers to the newcomers—and the important role that each member of the staff plays is recognized and emphasized."

Landers believes the film is doing an excellent job of promoting teamwork among technicians.

Employees who are well-informed—and given recognition for the vital job they do—are able to make greater contributions to the overall FAA mission. And use of motion pictures has made this possible at the Houston Center Airway Facilities Sector.