HORIZONS

Vol. 1, No. 8 | Published biweekly for the people of the Department of Transportation/Federal Aviation Administration | September 18, 1967

Read About Omni On Wheels Page 3

Centerline Taxiway Lights Are Approved

WASHINGTON—To speed aircraft ground traffic, a new system of lighting airport taxiways with green centerline lights has been adopted as a U.S. standard by the agency.

Present taxiway lighting—a system in use for the past 20 years—is a series of elevated blue lights approximately 14 inches above the surface outlining the edges of the taxiways. While adequate to keep traffic moving, in low visibility the blue edge lights tend to fade out ahead of the pilot so that he cannot get a clear picture of the path he must follow.

Guidance provided by the green centerline lights, set semi-flush with the pavement, is positive and non-confusing and will give better visual guidance to taxiing pilots, particularly in bad weather. Where there are numerous taxiways and many taxiway intersections at large airports, they will avoid the sea of blue appearance of the elevated blue edge lights which at times may require pilots to taxi slowly, thereby reducing the flow of airport surface traffic. Airports using the centerline system will benefit from fewer ground delays and increased landing and takeoff capabilities.

Initially, centerline taxiway lighting will be recommended for installation at airports where low visibility operations are authorized, where other lighting may confuse taxiing and parking operations, and in new construction in lieu of blue edge lights.

Public airport sponsors may apply for federal grants under the Federal-aid Airport Program to help pay for these installations.

Cost of the new centerline system is expected to be comparable to the present edge light system.

Spacings between each light fixture, rising not more than one-half inch above the pavement, will vary along curves and straight sections and according to the visibility conditions under which they are planned to be used.

For Two-way Communications

Administrator Announces Personnel Q&A Program

WASHINGTON—This week Administrator McKee announced a new program to augment existing employee communications. Effective immediately, direct answers to employee questions concerning personnel management and training will be printed in *FAA Horizons*.

Employees are encouraged to discuss questions or problems with their supervisors or their local personnel office. For those who do not have ready access to a personnel office, this new feature in *FAA Horizons* will give them an opportunity to have their questions answered.

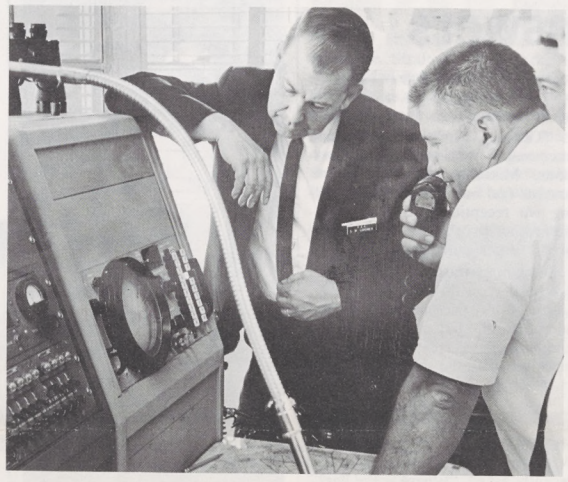
General McKee has asked Joseph H. Tippets, Associate Administrator for Personnel and Training, to see that all questions received are given prompt and thorough review. Employees throughout the agency are urged to write to Mr. Tippets, PT-1, Federal Aviation Administration, 800 Independence Avenue, S.W., Washington, D. C. 20590.

All questions will receive prompt attention. While it is not our intent to be restrictive, the following general ground rules have been adopted:

- All questions will be kept in the *strictest confidence*. The name of the questioner *will not be printed*.
- All questions must be signed by the employees. Anonymous questions cannot be answered.
- The question and answer section should not be used in place of the formal grievance and appeals procedures. Likewise, questions regarding grievance and appeal cases will not be answered in this column.
- The questions should concern personnel or training policies, programs, and procedures and not be operational or technical in nature.
- Every effort will be made to publish answers to all questions, but those of general, instead of specific, interest will be given preference. All inquiries will be acknowledged and eventually answered. How promptly will depend upon the volume of mail and the complexity of issues raised.

Administrator McKee and Mr. Tippets are most interested in this person-to-person column, and feel it is a valuable addition to our employee/management communications. By having knowledgeable, well-informed people up and down the line, the agency will be better able to direct its energies and talents toward accomplishing its fundamental missions.

Send in your questions today.



You're 10 Miles South . . .

David Poling (left), Western Region air traffic evaluator, checks in-flight performance of a battery powered mobile transceiver used successfully in a direction finding (DF) problem at the Daggett FSS. At right, air traffic specialist Schulyer Gardner (in coat) observes the DF procedure as Fred Vanderbusch, Daggett FSS, operates the equipment for locating and orienting pilots who call for aid.

NEWMAN HEADS FUND DIVISION

FORT WORTH—Henry L. Newman, Southwest Region director has been named chairman of the Public Employees Division of the Tarrant County United Fund. Newman's responsibility covers local federal, state, country and city employees.

'Lost' Flyers Easily Found

Doppler DF Use Told To Pilots Through AOPA

LOS ANGELES—Several Western Region air traffic control specialists were featured in an article in the August issue of *AOPA Pilot*.

The article, "A New Tool for MAYDAY," covered the new ground-based doppler VHF/DF being installed in flight service stations and combined station/towers.

Don Downie, well-known aerospace writer, described the installation, operation, and procedures used with the new equipment. He accompanied a Western Region evaluation team to Daggett, Calif., where the new DF's accuracy and utility were demonstrated.

The doppler DF is a direction finding unit that shows a flight service specialist the direction from which a radio signal is being transmitted. The information is projected on a cathode ray tube and shows up as a strobe line. Downie was very impressed with the operation and wrote, "It's this reporter's opinion that the new VHF/DF installations are the most important navigational aid to today's average pilot since radios were first installed in aircraft."

The DF's permit FAA specialists to locate and orient lost pilots. In an emergency, an instrument approach can be made with the aid of the new equipment.

FAA personnel participating in the evaluation and demonstration for the article were air traffic evaluators Schuyler "Slick" Gardner and David H. Poling; Daggett FSS chief Bill Atkins; and Fred Vanderbusch, Dale Brown, and James Lopez, air traffic control specialists.

ABQ Head Named

ALBUQUERQUE—E. D. Jacobson, a 20-year veteran with the agency, has been named manager of the area here. He succeeds Paul E. Cannom, who will head the Chicago office. Jacobson served as assistant manager, Houston Area, since 1965.

A pilot since 1940, Jacobson was a naval aviator in World War II, and currently is a commander in the Naval Reserve. He holds ratings as an airline transport pilot and flight instructor as well as other licenses.

Top-Level Moves

Three important regional reassignments have been announced. Oscar Baake (above left) until recently Eastern Region director, becomes Associate Administrator for Plans, a new position in Washington; George M. Gary (above), formerly director of the Alaskan Region, fills the post vacated by Baake, and Lyle K. Brown (left), Minneapolis Area Office Manager since 1965, replaces Gary as Alaskan Region director.

Weather Briefing

Anniston FSS Specialist Lloyd King shows fifth-graders how the latest weather information is gathered to keep pilots posted. Each student was given a personalized 'Junior Air Traffic Specialist' card signed by Southern Region Director Rogers. They treasure the visit—and the card.

HQ Receptionists Know the Answers

By Sandee Toothman

WASHINGTON — "How many desks are there in this building?" the little boy demanded with a ten-year old's impatient inflection.

The attractive receptionist at FAA Headquarters promptly answered, "4,180." The impressed youngster walked away smiling. Inquisitive ten-year old boys want quick straight answers, not vague generalities or, "Well, I don't knows."

Answering small fry's big questions is one of many demands of Darlene Smith's job. A former Civil Service Commission clerk-typist, Miss Smith now answers an almost countless variety of questions about FAA Headquarters here each day.

Because she must be prepared to answer questions of a technical nature from phone calls directed to the agency from the GSA switchboard, she has to understand thoroughly the complete FAA organization and functions.

"For instance, if someone wants to know if the city's tower got approved . . . we would connect him with air traffic service," she explains. "We have to know immediately where to direct all calls."

Giving visitors directions to landmarks and answering where-can-we-go-next suggestions is also part of her everyday routine.

"The way FAA's lobby is planned encourages tourists to ask questions," Miss Smith offered. "I think tourists feel more comfortable asking we receptionists for information rather than the guards at some of the other public buildings."

Sometimes the questions visitors ask border on the ridiculous. Miss Smith always tries to be courteous and helpful, but experience has taught her to treat the tourists' questions with the same seriousness in which they were asked.

"Where is the swimming pool?" and "Which way to the rest room?" are two frequently-asked questions. When a group of conventioneers recently asked, "Where is the bar?" Miss Smith had a hard time convincing them there was no bar!

Miss Smith shares receptionist duties with trainee, Mrs. Willistine Russell, who worked at FAA as a GSA cashier for two years.

Patience, diplomacy, and an understanding of human nature are qualities which make Darlene Smith and her co-receptionist popular at FAA Headquarters.

Sonics to Saucers

Each day Darlene Smith, FAA Headquarters receptionist, handles nearly 200 telephone calls, covering everything from sonic boom complaints to reports of flying saucer landings.

Business Trip Loss Covered By Insurance

NEW YORK—While Inspector Leo Nunes, of the Milwaukee GADO, recently attended a *Jet Falcon* pilot qualification course at LaGuardia Airport here, his clothing and personal belongings were stolen from his automobile—a not uncommon occurrence in the big city.

Much to his chagrin, Nunes learned his loss was not covered by his personal insurance.

But all was not lost. An article shortly appeared in the Central Region *INTERCOM* about the theft. The happy news about the unhappy incident quoted Donald F. Randolph, chief of administrative services for the region, to the effect that FAA employees, if on official business, may recover such losses—simply by submitting a claim, under provisions of Order OA P 2250.2.

Nunes got the word, and the word is that he is now a happier employee as a result of *INTERCOM*'s intercession.

Wasp Warrior

Hearing that swarms of wasps were giving FAA technicians in Savannah, Ga. a nervous fit, James Bridgman, facility supply specialist, quickly improvised this wasp-proof suit out of a grinder's face shield, raincoat, gloves and rubber boots. He holds the hastily vacated homes of the ill-tempered pests after completing his successful counter-attack.

Road Flares Help in Auto Crash Crisis

MIDLAND, Tex.—William P. Riley, Jr., watch supervisor at the FSS here, carried first aid equipment and emergency road flares in his car for 10 years and never used them.

But he was ready when the need came recently.

Traveling along the highway near here at 1:45 a.m., he was the first to come upon an automobile accident. The driver and a deer had met head-on.

Riley quickly set up the flares and checked the victims. He then gave first aid to a car passenger who was bleeding profusely from a severe leg cut.

When a highway patrolman arrived nearly an hour later, he congratulated Riley for his preparedness for such an emergency and his first aid treatment.

The aircraft registration branch of the Flight Standards technical division at the Aeronautical Center reports that an average of 1,200 new aircraft are registered each month. There are now 160,498 aircraft registered in the United States.

Flight of Angels

Technicians Charles Valdez (left) and Jaspar Black, both of the Civil Aero-Medical Institute at the Aero Center in Oklahoma City, recently accompanied three air-minded college girls on their "flight" in a high altitude chamber. The young women are (left to right): Kay Kirkpatrick, Charlotte Lee and Mettie Cummins. Miss Kirkpatrick is national commander of the 6,000 members of Angel Flight, an honorary collegiate society designed to stimulate young women's interest in aviation.

Junior ATCS Wallet Cards Big in South

By Gerrie Cook

ANNISTON, Ala.—"Never underestimate the attention span of a child," says James Ray, FSS chief here, "nor the public relations power of a handsome wallet card souvenir of a tour of your facility."

If you've paused to reflect on how long most people hold on to an attractive wallet card—for years, while handout literature often hits the wastebasket only hours after a facility tour—you'll agree with Chief Ray on the value of the unique FAA Southern Region souvenir.

The wallet card is but one of the tools used by Anniston FAAers to enhance the agency's 'Improved Service to the Public' programs. These include preparing special slides, obtaining 16mm films, developing presentations and making visits to local school classrooms to set up tours.

Anniston activity goes further than working with various pilot and civic groups, according to Ray. They find all grades in the local school systems highly responsive to visits by FAA personnel, who present brief aviation education programs providing basic aeronautical information, stressing career opportunities within the huge industry.

"Today's tot is tomorrow's pilot," says Ray. "At first, we took our story to high school juniors and seniors. Now we know that aviation fascinates students at all levels."

The attention six-year-old children will give can last from 30 to 45 minutes, Ray has found.

One child amazed him with the question, "Mr. Ray, can you tell me more about the aneroid barometer?"

More often the questions are simpler: "What makes an airplane fly?", "What keeps it from falling?", and the like, with their eyes glued on the speaker for an answer.

When they visit the FSS, students love the colored weather balloons and the action of the wind direction and velocity indicators. There the questions run in this vein:

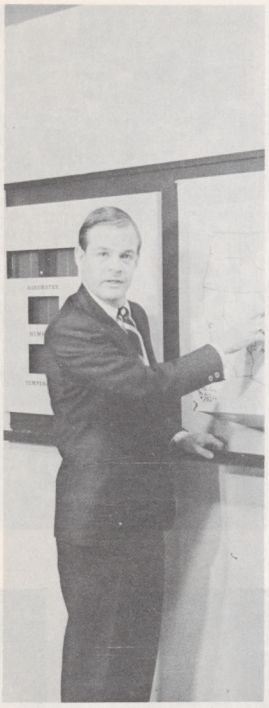
"What makes the balloon go up?", "How high will it go?", "What does the balloon tell you about the weather?", "Will you get it back?" and the expected, "May I have one?".

Much credit to the successful campaign at Anniston goes to Lloyd King, FSS specialist who assists Chief Ray.

His reward: sincere appreciation from the youngsters, expressed in packets of handwritten letters —some scrawled, some roughly printed, and most of them crayon-decorated — received following each presentation to local elementary schools.

Williams Named To Information Panel

ATLANTIC CITY — James F. Williams, chief of the library at NAFEC here, has been appointed FAA representative to a panel on information analysis and data centers of the Committee on Scientific and Technical Information.



Storm Watcher

Jeff Jordan, station KUTV, Salt Lake City, uses joint FAA-WB weather data to keep viewers apprised of the weather over a vast Western area.

Storm-watching Is 'Really Big' In Mountains

SALT LAKE CITY—Sure, you know all about bird-watching—but did you ever hear of storm-watching?

In the Rocky Mountain area, FAA storm-watching is a serious endeavor. And it benefits not only pilots and ranchers, but almost every segment of the general public.

For more than a year, FAA and the Weather Bureau have coordinated to improve weather data in the Utah, Colorado, and Wyoming area known as the 'Intermountain West.'

Through use of data from seven mountain-top radars in this rugged area, storms can be pinpointed and their scope and direction charted.

In several instances the public has been told in advance about oncoming storms through the Weather Bureau's severe weather warnings. Radio and TV stations lean heavily on this data for their weather reports.

Radar weather maps are transmitted speedily by facsimile to FAA flight service stations, so pilots can be given up-to-date data on weather.

The Forest Service also finds this information helpful in fire-fighting and fire prevention programs.

Thanks to FAA radar stations and supporting data provided by the Weather Bureau, storm-watching has become a real public service.

Like Out of a James Bond Movie

A Strange Vehicle Travels Europe

By Olof E. Ohberg

FRANKFURT, Ger.—The square black box on wheels, carrying on its roof a large flat disc, and surmounted by a strange arrangement of metal tubes, rods, and plates, looked as if it might have come straight from a science fiction novel as it left Frankfurt, Germnay's Rhein/Man Air Base and headed south.

It didn't. It came straight from Dave Straiton.

And its inspiration was Dave Straiton's poor old aching back.

The 'it' is a mobile VOR used by the Frankfurt flight inspection group, with which Straiton is associated. The team has two primary responsibilities. One is to check assigned navaids. The other is to provide technical advice to both European aviation authorities and U.S. military officials.

When the Irish government asked for FAA assistance in selecting better sites for VOR transmitters at Dublin and Cork, Straiton packed a P- (for 'portable') VOR into 31 shipping crates and with his colleagues placed all 3,000 tons aboard a flight inspection Convair for Dublin.

Finding the Right Location

The advantage of the P-VOR is that it can be assembled in three days by three technicians. However, the local Irish technicians assigned to the project had never seen the equipment before, so the process was slower and more labored. Nevertheless, in five days the set was ready and the site survey performed.

Results showed this location to be unsuitable; so an alternate was proposed for further probing. In four days, the equipment was torn down, moved to the second location, and set up again. This time results were favorable. Dublin had its spot to erect a new VOR. Again the set was dis-assembled, hauled down to Cork, and again, two sites were tested. Results were similar: first choice—bad, second choice—good.

Shortly thereafter, the U.S. Army submitted a list of eight proposed new VORs in Germany. This would mean at least eight sites to be investigated, and more than likely two or three times that number before the job was finished. The mission to Ireland was successful in final results, but it was a slow, laborious procedure, devouring the work time of skilled personnel and costing Dave Straiton a sprained back during the second Dublin emplacement.

With this in mind and pain from an occasional twinge in his back to emphasize a point, he convinced his superiors that the time had come to put the P-VOR on wheels.

Built As Part-Time Project

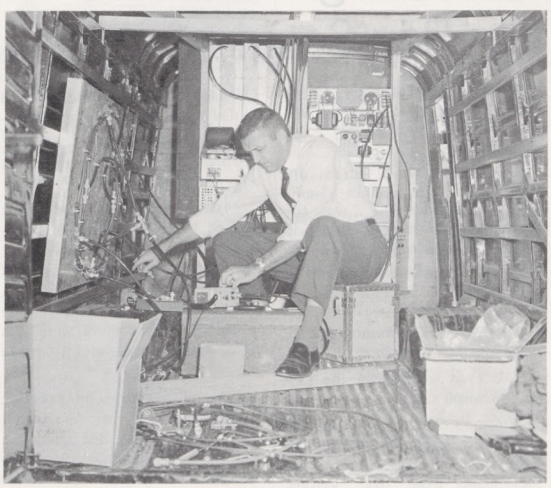
An Opel panel delivery van was furnished by the U.S. Embassy at Bonn. It had seen better days, but was basically sound and the right size. Straiton set to work, assisted by Avionics Technician Ray Stahl of the flight inspection group. Both men had their normal duties to perform, but managed to spare enough time for their project so that, through the autumn months, it slowly took shape. The electronics equipment gave no particular trouble, but mounting hardware had to be designed and fabricated, strong enough to safely hold the heavy racks even under the teeth-rattling impact of European country roads.

Considerable bracing was needed under the roof to sustain the weight of the antenna and its counterpoise, which doubles as a working platform when adjusting the antenna. In November the job was done and the *portable* VOR was now the *mobile* VOR. After a quick check-out on the ramp at Rhein/Main, off it went for its rendezvous with the Army at Gablingen, Schwabisch Hall, Grafenwohr, and Berlin.

So, success begets success; having demonstrated its capability, a useful tool was born for the European Region's use in encouraging the spread of a civil VOR system. The 'mobile' VOR also could be invaluable in establishing temporary service on very short notice under emergency conditions, such as in a disaster area.

Leisure Timer

Hardware for mounting the portable VOR in a van had to be specially designed and fabricated. Ray Stahl (above), avionics technician of Frankfurt flight inspection group, joined David Straiton in a spare-time project of converting their VOR from 'portable' to 'mobile'. The roof had to be braced to hold antenna, counterpoise and to serve as a work platform.



Count-Down

Before Electronics Engineer David Straiton started putting the inner works of his portable VOR into this van, testing each site possible for erecting a permanent VOR required multiple setting up and later tearing down components from 31 packing crates. Here he starts equipping the mobile VOR in the Frankfurt, Germany flight inspection group's back yard.

Goldfinger's Delivery Van?

This innocuous panel delivery van with piping on its raised circular platform is really a portable very high frequency omnidirectional radio range station (VOR). New mobile unit saves time, eliminates wear and tear of setting up and tearing down 3,000-pound portable unit when seeking locations suitable for permanent VOR installation.

FAA HORIZONS

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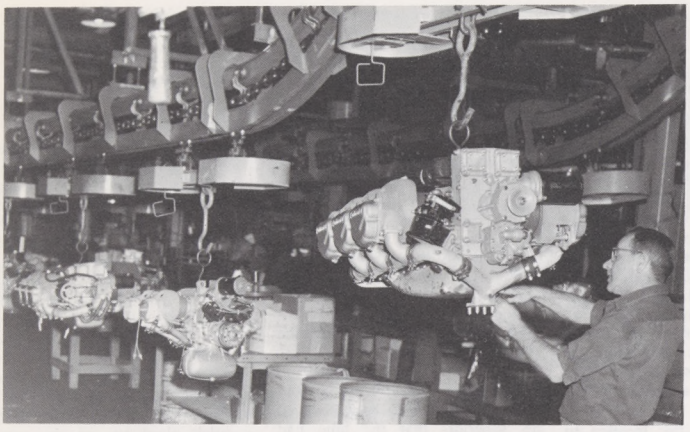


Piston Parade

Pistons manufactured by Metal Leve are inspected in this temperature and humidity-controlled room. In background, Metal Leve personnel Arthur Hirsch and Wilson Carvalho brief 'Salty' Juncker, FAA staff inspector, about their rigid quality controls.

Southern Region Director James Rogers (right) presents VARIG President Erik de Carvalho with three Repair Station Certificates for the airline's facilities at Porto Alegre, Sao Paulo, and Rio de Janeiro. The Brazilian Airline now can give technical and maintenance assistance to U. S. registered aircraft.

Powerplants Must Sing!

. . . in the United States

MUSKEGON, Mich.—Factors such as a perfectly designed airplane, with perfectly designed components, in the hands of a well-trained crew should add up to perfect safety . . . and engines that sing!

But they don't. Something else is needed—perfect manufacturing.

The men who make sure that FAA-approved designs result in aircraft engines worthy of approval make up the staff of the agency's engineering and manufacturing district offices (EMDO).

As an example, EMDO staff chief Alexander Samus, John Lyness and Barry Clements have to be experts in all phases of aircraft manufacturing. Their job requires that they inspect all aircraft manufacturing in an area which comprises northern Illinois, North Dakota, Montana, western Michigan, Idaho, Nebraska, and Wisconsin to see that it conforms with original FAA-approved type designs, both in the manufacturing process and in the finished product.

Their biggest customer is Continental Motors Corp. which builds engines for military, agricultural and industrial use and more than a thousand aircraft engines of eight basic types each month.

On a recent plant tour, Lyness and Clements peered at the screen of the 'optical comparator,' a highly accurate measuring machine. They were inside the metrology laboratory at Continental, where Lyness was giving Clements his first tour of the sprawling company's three plants here.

Clements had just joined the EMDO staff, and had much to learn about the quality assurance program at Continental.

"All standards for calibration and measurement are kept in this humidity- and temperature-controlled room," Lyness said, "and the standards are traced to those kept at the National Bureau of Standards.

Ralph E. Hillard, Continental quality assurance test analyst escorting the two FAA men through the plant, said "The accuracy of the standards and test equipment enables us to achieve tolerances as close as one millionth of an inch."

After the Continental engines are fired up and tested for power and fuel consumption in the test cell, one in every ten is torn down and checked against the standards.

One lay on a table in the tear down area, its pieces separated from cylinder head to the tiniest bolt. ing to FAA specifications."

"All critical parts of this engine have undergone machine inspection, before being test run," said Lyness. "After running it is rechecked to insure that the manufacturing and inspection process has produced an engine conforming to FAA specifications.

Clements took one more look around the plant that was to become very familiar to him.

"I'll see you tomorrow morning," he said after the tour. "I can't wait to get started."

Huck Finns

River expedition of Boy Scout Troop 185, an 85-mile river-raft expedition headed by acting scoutmaster Dick Whitson, ATCS, Sacramento tower.

Western River-raft Trip Is Exciting Adventure For Boy Scouts & FAAer

SACRAMENTO, Calif.—Huckleberry Finn had nothing on one FAA controller and his Boy Scout troop here.

Richard Whitson, Sacramento tower, recently headed an 85-mile river-raft expedition down the Feather and Sacramento Rivers in Northern California.

For Scoutmaster Whitson and 18 youngsters from Sacramento Troop 185, the trip was every bit as exciting as Huck's immortal trek down the Mississippi.

"We even went down the rapids," Whitson said.

Whitson's river run was launched at Gridley Bridge on the Feather River, and continued down the Sacramento River from Verona, Calif. The homemade rafts consisted of frames and decking floating on huge truck innertubes. All the essentials to sustain the expedition were carried on the rafts with the exception of cooking gear and gasoline. These two items were hauled on a catamaran towed behind.

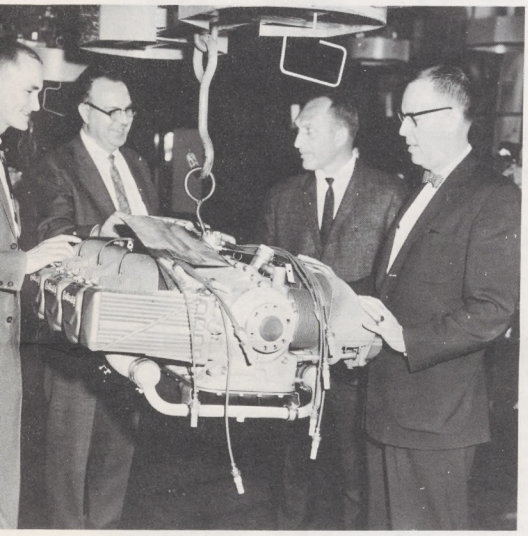
Three rafts, each carrying six boys and one adult, made the trip.

"Adults assigned to each boat advised the boys on watching out for snags, reading the current for the best route downstream, and offering directions," Whitson said. "The boys quickly learned the meaning of teamwork and the necessity to plan ahead to move the rafts."

Whitson has been in Scouting work for over 19 years. As an adult Scouter he has headed troops in California at Coalinga, San Luis Obispo, and Sacramento; at Battle Mountain, Nev. and Salt Lake City, Utah. He has served in all of those places with the FAA.

Dick is presently advisory committee chairman of his Boy Scout Troop 185.

Roger L. Harper, controller at the Decatur Aviation, and Mrs. L. B. Ritter, originator of look on. Harper, Dinsmore and Mrs. Ritter, (not shown), were responsible for the course trips.



◄ Barry D. Clements (left) finishes up his first tour of the Continental Motors facilities as a completed aircraft engine goes through final check and inspection before leaving the plant. Others are (l. to r.): John C. Curtice, Continental's superintendent of aircraft engine testing, John Lyness, EMDO inspector, and William A. Wiseman, Continental chief engineer aircraft engines.

◄◄ Lyness, Hillard and Clements (left to right) check an aircraft cylinder in the tear-down room at the Continental plant. One engine of every ten produced by the firm is completely taken apart and examined. The parts must conform to the original specifications set for the particular engine being tested.

. . . deep in South America

SAO PAULO, Brazil—This colorful country of coffee and cashews also has a one-of-its-kind company producing American aircraft engine replacements parts. It is especially unique because the U. S. and Brazil have no bilateral airworthiness agreement.

The company, Metal Leve S/ A, has a sub-contracting arrangement with Pratt and Whitney to produce pistons. The company, due to Federal Air Regulations restricting aircraft manufacturing facilities to the United States, has negotiated a special agreement with the State Department and the agency. The agreement specifies that Metal Leve will reimburse FAA for any expenses connected with the initial approval as well as for subsequent inspections required to assure continuing compliance with agency standards.

Air safety matters relating to Brazil fall under the Southern Region; so C. E. "Salty" Juncker, engineering and manufacturing staff inspector, recently was sent here for a semi-annual inspection.

Juncker found that personnel of Metal Leve had devoted hundreds of hours of overtime in their effort to get the parts manufacturing approval letter (PMAL) provided by FAA to show certification. His inspection showed that not only had the company met all FAA requirements, but their fabrication inspection system exceeds the standards of the Federal Air Regulations.

He came back highly impressed with the Brazilian company's "high degree of manufacturing capability, quality control, and compliance with Federal Air Regulations."

Metal Leve has a triple inspection system that includes an 'in-process inspection' wherein each characteristic of each part is 'dimensionally inspected' at the machine operation on the production line. Then, all completed pistons are given a 'final inspection' in a temperature and humidity-controlled room. Here a special group of inspectors use an entirely different set of tools and gauges to provide even more precise measurements.

Continuous Inspection Is Made

After the pistons pass final inspection, they are boxed and stored for shipment. However, finished products cannot be moved until released by Metal Leve's Quality Control Audit. This audit is a laboratory type inspection which uses a random sampling of each lot. A detailed report is prepared for each lot of pistons which records precision measurements, chemical analysis, tensile strength, hardness, grain structure, etc. If all tests are passed, the lot of pistons is released for shipment.

At this point, a Piston Quality Certificate is issued. This final certificate issued with the finished pistons bears a stamp reading, "Aircraft pistons listed below are manufactured under FAA/Parts Manufacturing Approval."

Juncker's semi-annual inspection covered nine major manufacturing control areas and three special processes.

His findings were entirely satisfactory.

. . . In The Right Seat

he Decatur, Ill. tower (left), chats with Thomas Dinsmore, instructor for Bi-State originator of a workshop for local pilots' wives, as ten other workshop participants Mrs. Ritter, along with Tower Chief Jack F. Davis and Controller William Huntley r the course which teaches the ladies how to assist their husbands on cross-country

So Everyone Will Know

HORIZONS Needs More Local News To Keep it Lively and Interesting

WASHINGTON — The staff of *FAA HORIZONS* is always on the lookout for news stories from the field of interest to all 43,000 FAA employees.

Such stories preferably should be double-spaced and be accompanied by photographs, if photographs are interesting and will help the story. Submission should be made by mail or in person *to your regional Public Affairs Officer.*

If your news story needs filling-in, your regional PAO or a staff-member will then get in touch with you and do any rewriting necessary. By giving him as much of the story as you can on paper, he can prepare the article quickly and send it on to headquarters ready for editorial consideration.

Headquarters personnel should turn their material in to their Director for forwarding to IS-40.

Material of interest to *FAA HORIZONS* can be put into two classifications in order of importance:

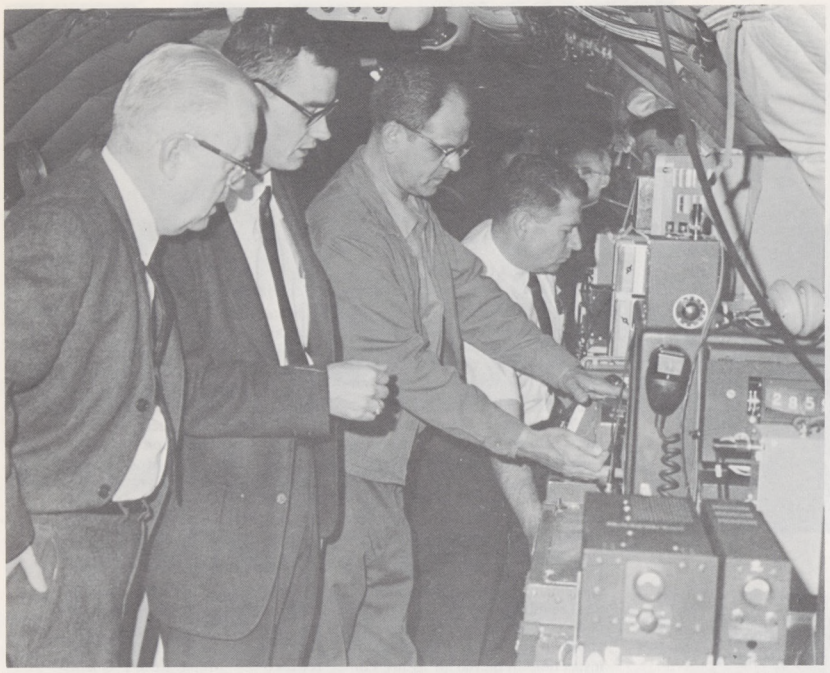
(1) Articles about FAA people on the job, telling what they do, how they do it, with a news angle and an in-action photo, rather than static group pictures, and,

(2) Articles on FAA employees whose activity is of interest agency-wide, but which is not necessarily job-related.

Neither your regional PAO nor Headquarters can guarantee that material always will be printed, because we are receiving material from 10 well-populated sources. However, all submissions through your local PAO will be appreciated, considered and will be printed or returned through your regional Public Affairs Office.

The regional PAOs to whom news stories can be sent are:

- George Fay, Alaskan Region, AL-5, 632 Sixth Avenue, Anchorage, Alaska 99501;
- Robert Fulton, Eastern Region, EA-5, JFK International Airport, New York, N. Y. 11430;
- Jack Barker, Southern Region, SO-5, P. O. Box 20636, Atlanta, Ga. 30320;
- Joseph Frets, Central Region, CE-5, 601 E. 12th St., Kansas City, Mo. 64106;
- K. K. Jones, Southwest Region, SW-5, P. O. Box 1689, Fort Worth, Texas 76101;
- Eugene Kropf, Western Region, WE-5, 5651 West Manchester Avenue, P. O. Box 90007, Los Angeles, Calif. 90009;
- George Mihachi, Pacific Region, PC-5, P. O. Box 4009, Honolulu, Hawaii 96812;
- Edwin Shoop Jr., NAFEC, NA-5, Atlantic City, New Jersey 08405;
- Mark Weaver, Aeronautical Center, AC-5, P. O. Box 25082, Oklahoma City, Okla. 73125.



Pre-Flight Check

Albert Machin, Alaskan Region air traffic specialist, and Tom Barton, NAFEC project engineer, look on as Technicians Albert Adams and Robert Black perform last-minute pre-flight equipment checks in testing for the application technology satellite.

Views Sunspots

Alaskan Region satellite communications project engineer Ted Young views the sun through a 'Questar' telescope to determine possible relationships between sunspot activity and satellite communications.

Successfully Tested in Alaska

Satellite Radio Will Give Pilots Fade-Noise Free Communications

ANCHORAGE — "Kenai Radio —this is *Cherokee* 9296 Juliet, over."

"*Cherokee* 9296 Juliet this is Kenai Radio, go ahead."

"96 Juliet, roger. I am three miles southwest of the glacier in Lake Clark Pass."

"96 Juliet, roger. Kenai radio out."

Some time in 1975 or 1980 a routine radio conversation like this may take place via a satellite located about 22,400 miles above the equator at Christmas Island in the Pacific Ocean, thereby solving the problem at locations where the FAA cannot now contact aircraft because VHF and UHF are limited to line of sight coverage.

Within the next several years, a pilot of a small airplane will be able to leave Anchorage, fly under the cloud deck, through Rainy Pass or Ptarmigan Pass, to McGrath and never lose communication with FAA stations. The satellite will repeat pilots' transmissions back to the earthbound station for them. What's more, pilots could be using this same satellite for their navigation.

On December 6, 1966, the Application Technology Satellite was launched by NASA from Cape Kennedy. It now is in stationary orbit over the equator at 150 degrees west longitude, near Christmas Island. It is 22,400 miles above the earth and moves at the same rate of speed as the rotation of the earth.

An FAA Boeing KC-135 has been in Alaska recently coordinating satellite communication flight checks with Regional officials and Anchorage ARTCC operations and maintenance personnel.

Personnel On Flight

Accompanying the flight were Oliver DeZoute, manager of the agency's satellite sub-program and Tom Barton, NAFEC project engineer. Electronics engineer Ted Young is the Alaskan Region's satellite communications project engineer. He was accompanied by Albert (Whitey) Machin of the Alaskan Region's air traffic division. Actual communications on the ground were handled by Anchorage Center controller Sam Stinchcomb.

Results of the test to date have been very promising.

First of Several Satellites

The ATS-I satellite is the first of a planned series of five and can be classed in the 'Model T' category. The later models will be progressively more sophisticated in design and capability.

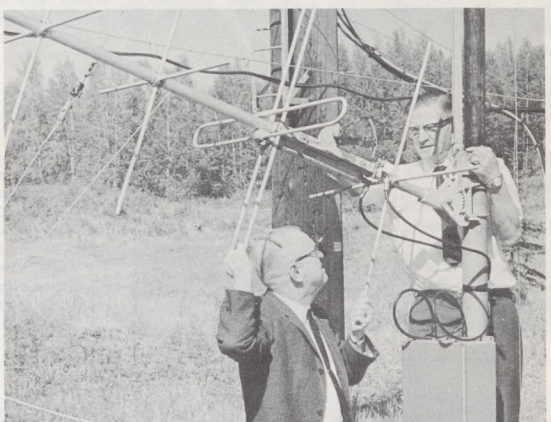
Some key features of follow-on Application Technology Satellites will be a large-aperture antenna, 30 feet or greater in size, for continuous coverage, and a phased-array antenna capable of multiple highly directive radio beams. Such features are to provide communications with the small aircraft, spacecraft and ships.

The FAA in Alaska is particularly interested in the outcome of the tests, since the Anchorage Center controls a vast oceanic control area from north of Seattle to where it joins the Japanese control area. Oceanic air traffic is completely reliant upon high frequency communications, which are subject to atmospheric conditions.

Noise Interferes With Signals

At the present, signal fades can occur for several hours at a time. At other times, signals cannot be heard because of noisy frequencies. The satellite will not be subject to such signal fades or noise.

Because of the many problems concerned with today's state-of-the-art satellite communications over the North Polar Region, the FAA will continue to rely upon high frequency transmissions from Point Barrow for at least another 10 years.



Elevation Check

Ted Young, right, checks critical elevation of the NAFEC-built seven-element crossed Yagi antenna. Air traffic specialist Albert Machin lends a hand.

Flight Testing Satellite Radio

Arthur Heavenor, flight data system engineer for the ATS-1 test, and Alaskan Region air traffic specialist Albert Machin (center back) look on while technician Robert Black adjusts overhead equipment in flight tests of the Application Technology Satellite.

Oakland Controllers

Play 'Bingo' Aboard U.S. Aircraft Carrier

OAKLAND — Eighteen employees of the Oakland Center boarded the aircraft carrier *U.S.S. Oriskany* recently to 'play Bingo.'

A junket? No—'Bingo' refers to flights in which an aircraft returns to its carrier low on fuel and must abort attempts to land on the carrier. Instead, the aircraft must immediately return to a specified airport on the mainland.

Carrier-based aircraft may have to be diverted to airports in cases of inclement weather, problems on the landing deck, or insufficient fuel to attempt successive landings on the carrier after missing an approach.

The 'Bingo' flights, therefore, are of vital concern both to the FAA and the Navy, since they are controlled by the Oakland Center.

To discuss problems associated with 'Bingo' flights, arrangements were made to bring Oakland Center personnel aboard the Oriskany. Werner Renfer, Oakland Center crew chief, devised the plan, in cooperation with the Oriskany's air control officer.

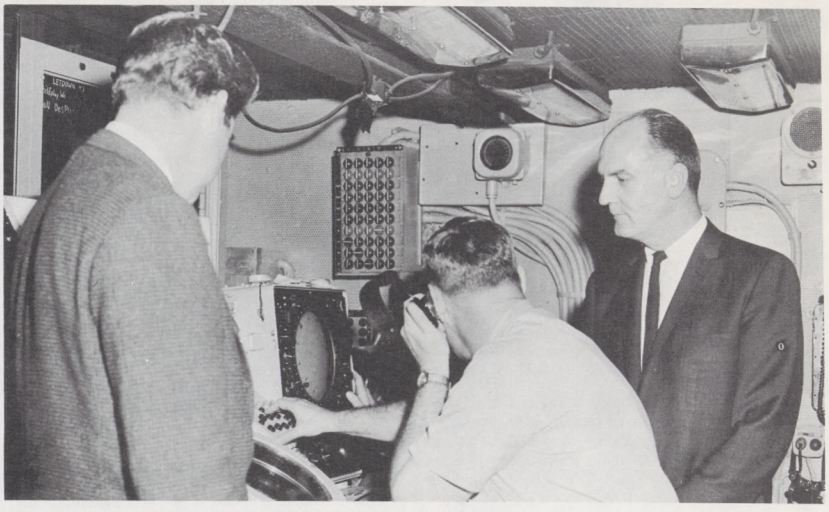
During the overnight stay, center personnel took part in carrier pilot briefings, conferred with carrier radar air traffic controllers, and observed various aspects of aircraft carrier operations.

Frank Happy, Oakland Center chief, accompanied the group which visited the ship. Commander Hal Hall, chief of the carrier Combat Information Center, presented Happy with a plaque inlaid with the Oriskany's shield to mark the visit.

Captain Billy D. Holder, commanding officer of the vessel, invited center personnel to observe operations from his bridge on several occasions.

"A great deal was accomplished by the visit," Happy said. "Our personnel were given a better understanding of carrier air traffic operations, and carrier pilots became acquainted with Center activity. This mutual understanding of each other's role will benefit both FAA and the Navy for a long time to come."

Shortly after the FAA visit, the carrier departed for Vietnam, where it is currently performing combat operations in the Gulf of Tonkin.



Fuel Low No Show

As jets streak by topside, low on fuel and aborting their landings aboard the aircraft carrier U.S.S. Oriskany, Oakland Center's Lee C. Stracner (left) and Center Chief Frank Happy watch their targets on the carrier's radar.

Agency Helps Islanders Observe Liberation Day

AGANA, Guam—Liberation Day is celebrated here each July 21st, marking the happy day the island was freed from Japanese control in World War II.

Highlights of the five-day fiesta and carnival are the crowning of a beauty queen and a three-hour parade of gaily decorated floats.

This summer, for the first time, the FAA Guam Area was represented at the carnival grounds with a booth manned by air traffic and airway facilities specialists, who were kept busy answering questions and handing out FAA literature on many subjects.

The FAA movies, "Flight," and "A Traveler Meets Air Traffic Control," were shown continuously on a semi-opaque screen that made daytime viewing possible. Another popular feature was an "air-to-ground" radio receiver that monitored actual traffic in the Guam area.

Over 3,000 persons visited the FAA booth during the five-day carnival. Most of the visitors had little or no concept of FAA's role in flight safety or of the FAA services provided on Guam.

Island Queen

Frances Toves, Guam Queen of 'Liberation Day' this summer, visited the FAA booth at the carnival grounds along with 3,000 other islanders to see films on flight safety and obtain FAA literature. Greeting her are (left to right) William Crouch and Cleo Long, who manned the booth.

Scout Jamboree Is Challenge To Idaho ATC Men

COEUR D'ALENE, Idaho—Providing temporary tower service for the World Boy Scout Jamboree turned into the FAA lending a helping hand to the Air National Guard and the U. S. Forest Service as well.

It all started when Vaughn M. Clayton, Salt Lake City area manager, was asked to provide temporary tower service here during the Jamboree at Farragut State Park. Normally this wouldn't have been too big an order, but an interest in maximum economy resulted in some old-fashioned Western 'hoss trading.'

To get a mobile control tower from the Washington Air National Guard, Clayton promised to provide tower service for the Air Guard's two-week summer tour preceding the Jamboree here. There were a few fringe benefits along with the trade in the FAA's favor. The mobile tower had a portable FM link communications system that could be used to set up a direct line to the Spokane, Wash., FSS.

Clayton detailed Clark M. Couch, Boise tower chief, and Kenneth Olsen, controller from Boise, to Coeur d'Alene. They trained and supervised a crew of Air Guard controllers during the two-week guard encampment.

When the Guard tour ended, Couch and Olsen had eight Guard controllers certified with area ratings. The newly-trained crew remained at Coeur d'Alene with the veteran Boise pair and military maintenance personnel. The end result was that 16 hours daily traffic control service was provided for the Boy Scout Jamboree.

During the Jamboree a forest fire suddenly broke out 50 miles north of Coeur d'Alene. The Forest Service moved in a squadron of borate bombers and they had to be worked in with the booming Farragut traffic.

FAA 'Old-timers' Learn Use of Texas Leaguer

FORT WORTH—As every baseball *aficionado* knows, 'Texas leaguer' is a fly ball belted to fall between the infield and outfield for a safe hit. Agency employees here have fielded a team for the first time in the Federal Business Association league and are belting out plenty of them.

The FAA team's group of 'older' players refuses to let 'Father Time' curb their talents with the *Louisville Slugger*.

Facing stiff competition from seven other government teams, the graying belters are getting a high-scoring, hitter's game with the slow-pitch ball they've invoked. The old-timers would rather hit than bunt or steal a base, and these routine, muscle stretching plays have been ruled out in the league.

The pitcher must arc the ball to the plate, and the creaky 'Sultans of Swat' respond with healthy Texas leaguers that give them ample time to make the plate.

Although predominately senior citizens (to a teenage spectator, this is around forty years old), the player roster has a few 'ringers' in their early twenties, while the rest lean upwards to the sixties.

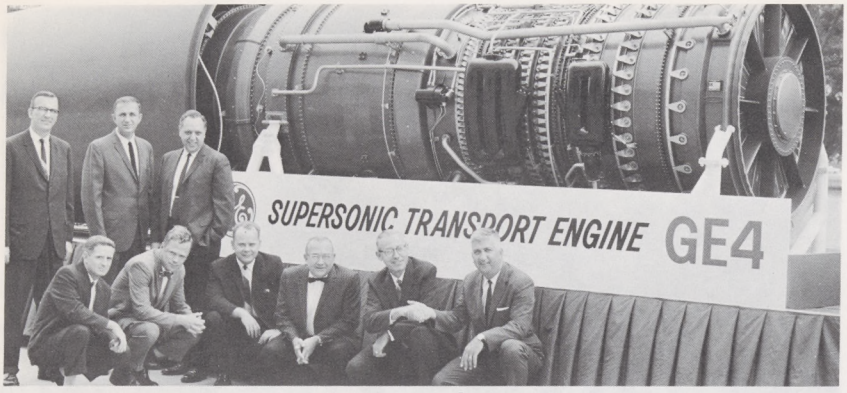
The FAA Club is headed by Tom Hazle, who also serves as player-manager of the ball team, sponsors the team and buys the necessary equipment.

Play is popular with the team members. When the eight-game schedule was completed this summer, the teams got together and voted to extend play through another month.

Besides Hazle, FAA players are: Bill Allred, Tom Atherton, Ray Bolsenga, A. C. Caviness, Jim Franklin, Charles Fulkerson, Bill Gallemore, Bob Higgins, Clarence Holden, Maurice McCabe, Melvin McClendon, Chuck Miller, Al Neuschwander, Dan Powhatan, Bill Record, Bill Reinwald, George Rostron, Cliff Weber and Billy Franklin.

Texas Leaguers

"I'm first at bat," seems to be the idea of Forth Worth FAAer Melvin McClendon (right), but he is contested by co-worker Bill Record (left) as the group of senior athletes gets ready for workout. Others (left to right) are: Tom Atherton, Clarence Holden, Tommy Burger, and Charles Fulkerson, all agency employees.



1,800 m. p. h. Jet

A mockup of the United States supersonic transport engine, GE4, manufactured for the 306-foot long SST by General Electric was displayed recently at the FAA Dept. of Transportation Building in Washington, D. C. Posed in front of the 25-foot jet engine are members of FAA's SST propulsion branch which worked on the engine project with Anthony L. Rodes, (far right) Washington GE representative. In the photo are: (standing) from left—Robert L. Krick, Joseph C. Saia and Jack S. Schmugar; others, from left, are John J. McGee, Francis B. Howard, Thomas J. O'Brien, A. K. Forney, Robert W. Pinnes, FAA SST propulsion branch chief and Rodes of General Electric.

Lost Pilot Provides No Time for Changes

NEW ORLEANS—Ernest N. Currence, air traffic control specialist at the terminal radar control (TRACON) here, had no time to ponder alternatives when a pilot reported himself lost with only 15 minutes supply of fuel. Currence had him pinpointed on radar 37 miles from New Orleans International Airport or 30 from Baton Rouge. Currence immediately started vectoring him to New Orleans.

"I was sure the pilot was more familiar with the area," the controller later rationalized, "and if I changed his direction to Baton Rouge, I was afraid he would become lost again."

The pilot had departed Dallas' Redbird Airport for New Orleans' Lakefront Airport, with a refueling stop scheduled for Baton Rouge. Now he was lost, disoriented and had exhausted nearly all his fuel.

As Currence vectored the aircraft toward the airport, he alerted the Louisiana State Police, who set up patrol check points for visual reference. A four-lane major highway stretched below the path of the plane in case an emergency landing had to be made.

With precision, Currence brought the aircraft to the end of the runway. As the plane landed and started its roll the engine sputtered to a stop.

It had run out of fuel completely.

Like Father . . .

Joseph G. Sellick, assistant personnel chief, office of Headquarters Operations, Washington, recently shed civilian attire for the garb of LCDR Sellick, USN-R to swear in his 18-year old son, Allen, for six years of Navy Reserve duty. Two years of Allen's service will be full-time active duty.

NAFEC Engineers Gear For Presentation Time

ATLANTIC CITY—Apart from official efforts at program reviews and technical symposiums, FAA engineers at the National Aviation Facilities Experimental Center (NAFEC) here continue to earn additional esteem through presentations on their specialties before technical societies during off-duty hours.

Many of these presentations originate as parts of special NAFEC programs developed for meetings of the Southern New Jersey Section of the Institute of Electrical and Electronics Engineers (IEEE).

Many NAFEC engineers have served as officers and comitteemen in the relatively new Southern New Jersey Section. Last year it was decided that complete programs on FAA/NAFEC activities would be of interest and benefit to the membership, and such programs would also provide NAFEC specialists with a better grasp of what was taking place in other areas, thereby aiding in career development.

This season, under the guidance of program chairman Bill Dogantzis, chief of the Center's Voice and Special Communication Section, NAFEC will again provide four of the eight scheduled technical programs.

The first, scheduled for September 21, will present 'measurement techniques' at NAFEC and will be moderated by Harold Williamson, chief of the measurement branch. Arthur Heavener, measurements engineer, will discuss a new system applicable to airborne and field test data collection. Joseph Marshall, airborne instrumentation chief, will explain the technical characteristics and performance of NAFEC's space positioning data collection systems, and Marvin Tyndall, chief of the photo instrumentation unit, will discuss and show examples of photographic instrumentation techniques.

Other NAFEC programs for the season are scheduled for December, February and May.

South Jersey's IEEE meetings are held on the third Thursday of each month. Any FAAer coming into or through the area is welcome to attend.

Show 'n' Tell

Special Act Award and $200 check winners Horace Moore, air traffic controller (left), and Walter Watson, logistics and public information officer (right), join Balboa center chief John Cofer, in a look at the many colored slides they took to show the FAA at work in the Canal Zone.

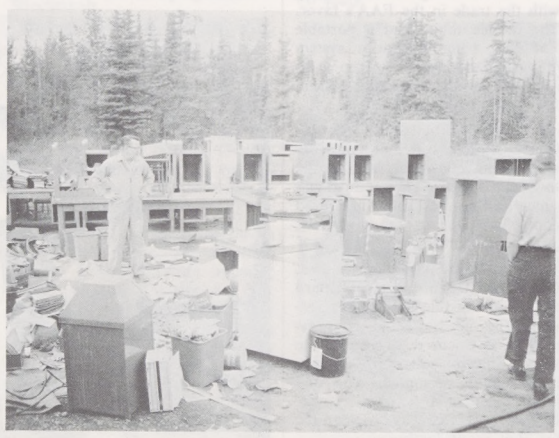
Detroit Riots Add More Hours To Workload

DETROIT—Recent rioting here resulted in long hours on the part of a number of FAA employees. The siege, lasting several days, virtually isolated all FAA facilities at the Detroit City Airport until order was returned.

Thanks to the dedication and extra hours put in by employees able to get to their stations, all facilities remained in service and no damage was incurred.

Those putting in extra duty time at Detroit City air traffic control tower were: Chief Bill Giddings, Harlen Townley, William Brabant, Mel White, Robert June, Harold Briar, Joe Woodward and Al Sylvester; at Detroit FSS were: Chief Harrison Yount, Mary Bissonette, Ronald Harris, Harold Weller, Macy Hight, Laurence Green, Stuart Draper, Tom Lark, William Preston and Maurice Fowler. At Detroit City Sub-Sector, overtimers were: Eugene L. Deadrick and Samuel E. Abrams.

FAA employees have shown time and again that they can get the job done even under the most adverse conditions.



Damp Aftermath

Joseph F. Husa, Fairbanks airways facilities chief, surveys Area headquarters office files and equipment that were seven feet under water in the recent devastating flood. Alaskan FAAers express thanks to all for voluntary cash donations sent to the FAA Flood Fund, for 3,000 pounds of clothing, transportation, care and housing of dependents, laundry services and to cleanup teams who helped.

FAA Helps Firefighters With Air Communications

MISSOULA, Mont.—Raging forest fires ravaged thousands of acres throughout much of the northwest U. S. this summer. Because of widespread devastation, much of this state's vast Glacier National Park was declared a disaster area on August 22nd.

Early fire fighting efforts were hampered by a lack of communications equipment to coordinate air and ground activities, leading the National Park Service to call on the FAA for assistance. Immediately, local FAA offices here went into action to establish air/ground communications at West Glacier Park, headquarters for the air operations office.

Desmond W. McDonald, electronics technician of the airway facilities here, installed crystals to guard 122.9 megacycles in two gonsets (portable transmitters and receivers) loaned by the sector. These were flown in by Emil W. Olson, Missoula FSS chief, to Kalispell, Mont., where he was met by Ralph Cripe, electronic technician there. Cripe then delivered the equipment and set it up at the West Glacier Park headquarters.

Terry Jarvi, also an electronics technician from the Kalispel subsector, although officially on leave, accompanied Cripe to West Glacier on his own time to be checked out on the situation so he would be available to provide any needed maintenance, and to pick up the gonsets after the fires were brought under control.

According to Frank Betz of the air operations office, the communications equipment installed by FAA personnel aided fire fighting efforts greatly, making it possible to relay instructions from ground control points to aircraft spreading borate over the fire area and to helicopters supporting ground crews.