An aerial photograph of a coastline, showing a dark, jagged shoreline on the left side. The rest of the image is dark, possibly representing the ocean or a night sky. Three white circular punch holes are visible on the left edge. The title 'FAA WORLD' is printed in large, bold, white letters at the top. The word 'WORLD' is partially enclosed by a target symbol consisting of three concentric circles, with a small globe of the Earth in the center of the innermost circle. The date 'AUGUST 1976' is printed in smaller white letters below the title.

FAA WORLD

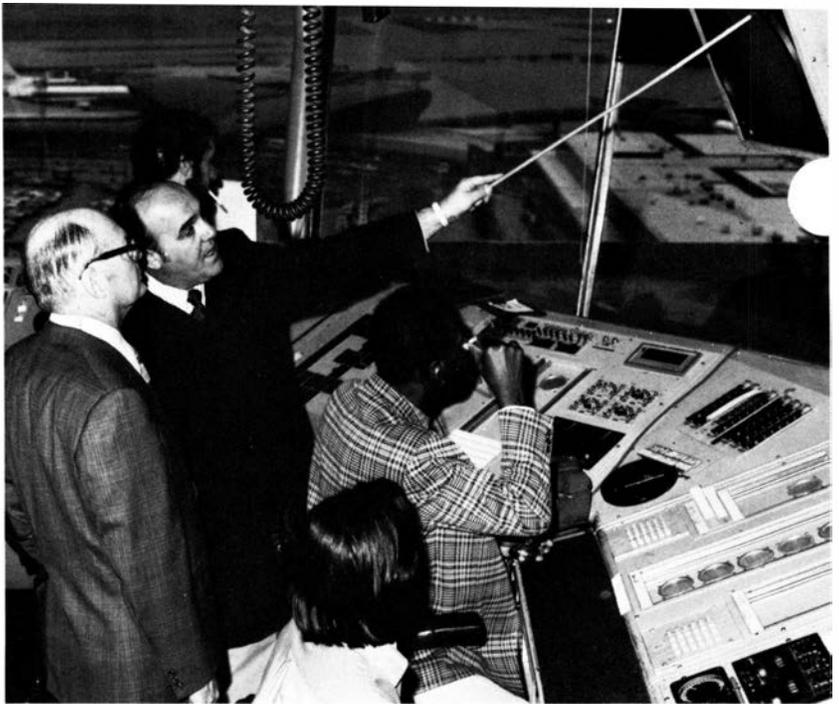
AUGUST 1976

DOGGING POLLUTERS

EDITORIAL

Energy Conservation Still a Priority

Administrator McLucas receives a briefing on the Brite scopes in the JFK International tower by the facility's chief, Peter Bernhard.



It's our world, and we owe it to ourselves and our children to use it wisely. We have been spendthrifts with its resources and, as a result, received a chilling reminder two and a half years ago when the handwriting on the wall was done in oil.

FAA has continued to track this national economic and environmental emergency. The flow-control procedures we tested are being promulgated this summer with a program called Fuel Advisory Departure procedures (FAD). The FAD restricts aircraft departures when an overload condition will exist at the arrival airport causing delays and fuel waste. We are continuing with other fuel-conservation measures such as terminal metering and spacing, optimum descent profiles, increased use of simulators for training and check flights, delayed engine startup and optimum aircraft cruising speeds and altitudes.

I mention this because it has become increasingly apparent that the lessons of energy conservation have been lost on many individuals. Everywhere we see evidence of backsliding into our old wasteful ways. Once again on the highways, the 55-mph driver is the slowpoke, with cars and trucks passing at 65, 70 and even higher speeds. In our offices and homes, lights are left burning in unoccupied rooms, air conditioners are turned on in spring and fall when screen doors would do the job and thermostats are being reset for extravagant comfort.

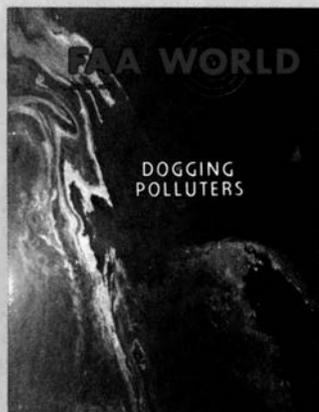
Research is going forward on alternative energy sources—nuclear, solar, geothermal, coal gassification, solid-waste fuel—that one day may make significant cuts in our reliance on oil and oil products. That day is not here nor are there alternatives just around the corner for our reliance on aviation fuels. If we don't husband our resources now, we may not be ready with those alternatives when the wells run dry.

I caution all FAAers as public servants and as citizens and consumers not to forget the lesson of 1973. Conservation must not be a sometime thing lest our industry and society become a onetime thing.

JOHN L. McLUCAS
Administrator

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The cover:

Spreading oil on troubled waters is fine in social relationships but not on the nation's waterways. With the help of FAA, the Coast Guard hunts for polluters and pollution. Story on page 18.

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RADAR SIMULATORS COMING

Simulation has been proving itself both in the cockpit and in the radar room and is about to come in its own for effective controller training.

The Great Lakes Region has built and is operating a radar simulation laboratory at O'Hare International Airport that is expected to enable controllers to reach the journeyman level in six months instead of the usual 18 at a high level of proficiency at a much lower cost.

Because O'Hare is the world's busiest commercial airport, with more runways and 27 separate arrival and departure configurations, it has a discrete lab with four simulators. Nevertheless, this installation is considered a prototype for 60 other terminal radar control facilities that will receive simulators for use alongside their operational scopes or at other suitable places in the facilities.

The equipment is real enough in the dynamic simulation laboratory at O'Hare Tower, but the data these controllers are concentrating on is computer simulated. These four of the first controllers to train here are (left to right) Tom Brockett and Bruce Johnson (foreground) and Bill Burns and John Misner.



FAA is also seeking simulation capability at all of its 20 domestic route centers.

While radar control simulation has been conducted at FAA facilities before, operational equipment was used for the purpose during off-peak hours when traffic was light.

O'Hare's lab, underground at the base of the tower, looks like a ter-

minal radar control room, although somewhat larger than some. The trainees sit in front of two vertical or two horizontal scopes, watching data-tagged targets. Voices of "pilots" and center and terminal controllers come over the standard headsets. It all looks and sounds very real, but the planes really aren't overhead—everything is being simulated through the tower's computer.

According to Steve Lechien, O'Hare's training officer, the lab provides "a controlled environment with less pressure and a more relaxed attitude, one conducive to a good training experience." A great advantage of the program, he adds, is the simulation of conflicts. "When training in the radar room, the controller has no opportunity to observe the results of a failure to correct a conflict, because we wouldn't permit such a situation to proceed. In the lab, however, he can see on his scope what actually would happen if he failed to provide adequate separation of the aircraft under his control."

Lechien believes they are just scratching the surface of the lab's advantages. It also can be used for proficiency training in the handling of emergency procedures, for remedial training, for testing new air traffic procedures and for technicians who can work on operational radar equipment without removing vital scopes from the radar room. It also is expected to create a new route for recruitment, as new employees who work the simulators as "pilots" have already become interested in careers as controllers.

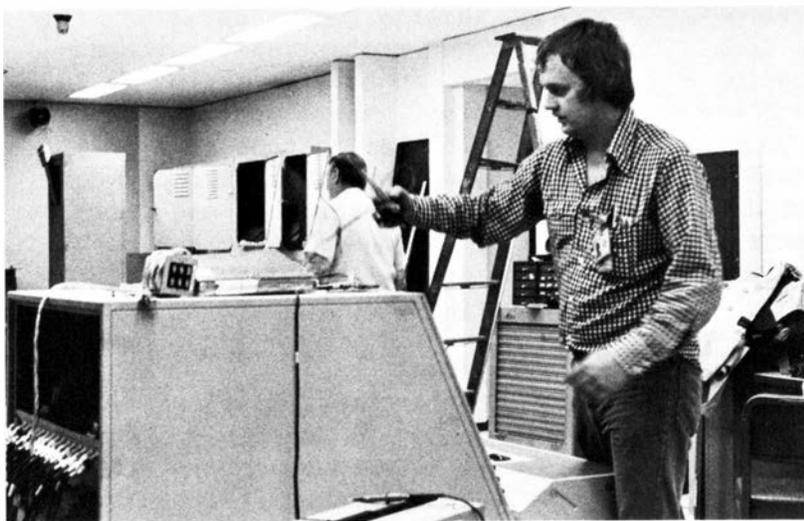
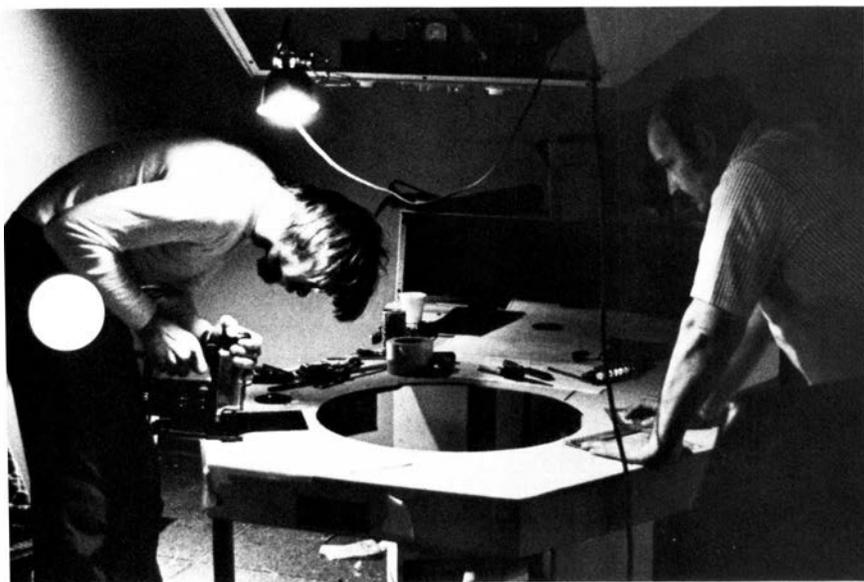
All five of the first class of controllers in the lab have been certified on departure control in less than three months and are maintaining this proficiency while attending class. They work three hours of the eight-hour shifts in the radar room and the balance in the lab. Lechien says controllers from other facilities are expected to be more interested in bidding for jobs at O'Hare, because they will be able to determine their own abilities in a shorter time.

Airway Facilities specialists from the tower's sector and from regional headquarters installed the lab's equipment and designed and fabricated a communications system. Faced with both space and funding considerations, the specialists came up with an intercom system to simulate inter- and intra-facility communications.

"O'Hare always accomplishes things in a big way," says tower chief Patrick O'Sullivan.

—By Majorie Kriz

Airway Facilities technicians Steve Diedrich (left) and Tom Couch are among the specialists who designed and installed the equipment in O'Hare Airport's simulation laboratory.



Installation specialist Mike Bezdon adjusts a vertical radar display in the simulation lab. Resident engineer Ed Hock is in the rear.

FEDERAL NOTEBOOK

PENSION RETRENCHMENTS

Rep. Paul Findley (Ill) has introduced a bill that would freeze pensions given between 1969 and 1981, or until the alleged 15% excess in pension raises over the cost-of-living has been wiped out. In response to criticism, Findley has said his bill would only apply to those who retired before 1969. However, Congressional opponents point to a Library of Congress study that shows Federal pensions have just kept pace with cost-of-living increases. It's reported that the House Post Office and Civil Service Committee is opposed to the bill. ■ The Senate Finance Committee has reported out the House-approved provisions of the tax reform bill that would eliminate or cut the \$100 a week sick leave tax exclusion permitted on income tax returns for employees and disability retirees. The exclusion would be permitted only to those permanently and totally disabled up to the age of 65, with a dollar-for-dollar reduction based on adjusted gross income. These provisions are retroactive for those already retired. However, Sen. J. Glenn Beall (Md) wants to amend the bill to eliminate retroactivity. ■ The Civil Service Commission is said to be planning to recommend legislation to make the criteria for disability retirement conform to tougher Social Security standards. The idea is to cut down the one-third of all retirements that are for disability. ■ The Senate Armed Services Committee has approved a defense authorization bill that includes the Administration-backed elimination of the 1% add-on to cost-of-living increases for retirees. ■ As an alternative to the 1%, Sen Lawton Chiles (Fla) has offered an amendment to

the bill eliminating the kicker that would give retirees an increase each April and October equal to the previous six months inflation.

BIAS TRIALS OKAYED

The Supreme Court has ruled in two cases that Federal employees have the right to full trials in a U.S. District Court in cases involving complaints of race, sex, religious or national origin discrimination, but only after exhausting administrative remedies in Title VII of the 1964 Civil Rights Act. As a result, the trial would not be limited to a review of the record, but would permit the introduction of evidence and witnesses.

A TIP FROM THE TOP

The Civil Service Commission's Appeals Review Board has ruled that Federal employees have the right (and have had for years) to file an adverse-action appeal in a reclassification demotion, instead of a job-classification appeal. The former entitles the employee to a more complete review of the classification decision, since he has a right to a hearing in an adverse-action appeal.

■ Another protection for the employee in an adverse action is in the offing. Rep. Patricia Schroeder (Colo) has introduced a bill now slated for hearings that would require a full hearing and decision by an appeals examiner before an agency could take major disciplinary action.

STILL TRYING

Rep. Charles Grassley (Iowa) reports he has 76 co-sponsors for his bill to remove members of Congress from the annual Federal pay raises each October.



August Martin team settled for a mockup that looks like the original engine from only a few feet away.

The fabric covering for the 40-foot wings was obtained from a company that was a successor to the firm that sold the material to the Wright Brothers. The airplane was built with all of the controls that existed on the original Flyer, including the elevator controls and the ability to warp the wingtips. The students also painstakingly copied the exact camber of the wings. A final touch was treating the wood and fabric to simulate the original plane's aging.

The August Martin vehicle had to be built in segments, since the largest door at the International Arrivals Building was only seven feet. But then again, the Wright Brothers had to build theirs in segments, too, assembling the plane on the beach at Kitty Hawk.

On June 8, the plane was disassembled at the school and transported by the Port Authority to JFK, reassembled, suspended from the ceiling and dedicated on June 11.

It was a unique educational experience for the August Martin students and not likely to be copied . . . at least for a hundred years.

The Wright Flyer hanging in the International Arrivals Building at JFK International Airport was not pilfered from the Smithsonian National Air and Space Museum. It's a virtually perfect replica built by the students of August Martin High School in New York City.

The school was approached by the Port Authority of New York-New Jersey, operators of the airport, and

agreed to undertake the job under a grant as an appropriate bicentennial project.

Work on the plane got under way in February from blueprints of the Wright Brothers "Flying Machine," patented in 1906. The eager and talented students duplicated almost every detail, the one major exception being the engine. Since the project had to be completed by the end of May, the

The Wright Flyer replica on display at JFK International Airport was dedicated in the presence of (left to right) airport manager Morris Sloan, Eastern Region Deputy Director Louis Cardinali, August Martin High School principal Lawrence Costello and Eastern Region acting civil rights officer Eugene Thomas.



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TRAINED AND READY

The Air Marshals Carry On



Although the use of firearms is considered a last resort, marshals must be prepared. Here, one of them fires a perfect score on the pistol range at the FBI Academy at Quantico, Va.

There are fewer than 100 sky marshals now, compared to 1,200 at their peak, and they don't ride shotgun much anymore.

This is because the mandatory screening of passengers and their luggage is preventing hijackings on the ground, and there is no longer any reason to have armed men riding aircraft in the hope of stopping air piracy.

But the Sky Marshal program of the early 1970s lives on today in the form of the FAA's force of Federal Air Marshals, a cadre of highly trained security specialists the agency can call on for such diverse missions as deal-

ing with bombs in flight and guaranteeing the safe delivery of sophisticated communications equipment used by the Secretary of State in delicate negotiations in the Middle East.

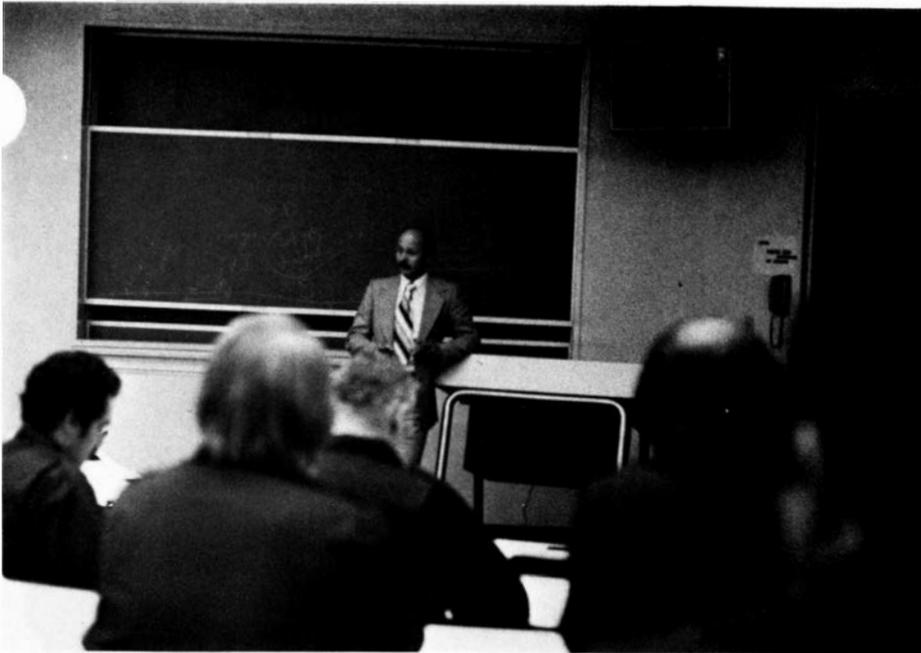
And it was Federal Air Marshals who mounted a guard over the exhibit of Chinese archaeological treasures when it was flown from city to city during its tour of this country in 1974 and 1975 and then escorted it home.

They were most recently called on last July 9 when the agency had reason to suspect that an attempt might be made to hijack a DC-10 between New York City and Miami. Seven air

marshals were stationed on the plane, but the suspected hijackers did not show up.

They are all volunteers and serve as air marshals in addition to their regular duties as FAA security specialists. All are special deputy U.S. Marshals who are authorized to make arrests and carry and use firearms, but they are trained to use the firearms only after all other alternatives have been tried and have failed.

There is no hard-and-fast job description, because what they do involves the unusual and the unexpected and an element of danger.



FBI Special Agent Tom Strentz instructs a class of Federal Air Marshals at Quantico, Va., on how to negotiate with hijackers and on the psychological factors that motivate hijackers.



A pair of FAA air marshals search for a simulated explosive device aboard a surplus DC-4 used for training.

An indication of what they might be called on to do, however, can be gotten by a look at the subjects covered at their annual one-week training session this spring at the FBI Academy at Quantico, Va. The classes, all taught by FBI or FAA experts, included: unarmed arrest-and-search techniques, self-defense, marksmanship, the psychological aspects of negotiating with hijackers, how to handle emergency situations during flight, where and how to place a bomb found in an aircraft that it will do the least damage to the aircraft or injury to the passengers, and the legal aspects of aviation security work.

In addition, they had to qualify as experts or sharpshooters on the pistol range and pass a physical-fitness test that included covering two miles on foot in 12 minutes or less.

Similar training sessions are held once a year in the regions to which the air marshals are assigned. Many of them are also graduates of a course given by the Army on how to identify and defuse bombs and other explosives devices.

Among other things, all this training sometimes earns them the right to lose a lot of sleep. Such was the case for Ira H. McMullan, who in his full-time job is the principal security in-

spector for Pan American World Airways at the Eastern Region headquarters. He was one of two air marshals who were called on in October of 1974 to make sure that the aircraft carrying the communications equipment needed by the Secretary of State in Cairo didn't get hijacked.

"It was a regularly scheduled commercial flight," McMullan recalls, "and the equipment was in three large crates that rode in the hold just like checked luggage."

The first leg of the flight was from Dulles to Frankfurt," he continued, "and we had to stay awake all night. We got pretty sleepy and drank a lot of coffee.

"Then the Frankfurt airport was closed by weather and we had to go on to Zurich. This made us miss a connecting flight in Rome and we had to wait two days for another. We caught up on our sleep in Rome."

Karl Edgenton, an aviation security specialist at the Los Angeles International Airport, also lost some sleep as one of four air marshals assigned to guard the Chinese artifacts during their return flight from San Francisco to Peking.

It was an uneventful trip, Edgenton says, and the Chinese curators proved to be easy to get along with, plus they were served a sumptuous Chinese dinner in Peking that included Peking Duck and Chinese rice beer, which, Edgenton said, was delicious.

"But I'd like to go back again some time to see China. It was dark when we flew in and dark when we flew out. And for the few hours we were there, they never let us leave the airport."

—By Fred Farrar

FACES and PLACES



THE MECHANIC'S MECHANICS—William A. Enk (left) of Blue Springs, Mo., winner in the general aviation category of the 13th Annual Aviation Mechanic Safety Awards Program, and LaVerne L. Gondles of American Airlines Maintenance and Engineering Center, Tulsa, Okla., winner in the air carrier category, flank Administrator McLucas at the June awards ceremony. Enk owns and operates an aircraft sales and service firm.



TOP EMPLOYEES—John Gordon (left), electronics engineer, and Howard Flohra (right), chief of the General Aviation and Air Carrier Branch, are the Pacific-Asia Region's Employees of the Year. Region Director Robert Ziegler (center) presented trophies and certificates to the men and their wives. They were later honored by the Honolulu-Pacific Federal Executive Board.

ANOTHER FEB KUDO—Charles C. McCusker, San Francisco security inspector, was presented a certificate of appreciation by Brig. Gen. O. C. Metheny, chairman of the S.F. Bay Area Federal Executive Board, for his efforts to support community youth-oriented education, athletic and religious activities and organizations. Photo by F. Lee, U.S. Army



BEHIND THE SCENE—A film crew documents of Chicago-O'Hare International Airport Tower, Al Smith, John Yarman and Steven Aiken (left to right) in their duties. Photo by W.



MEDICAL CO-OP—Dr. Stanley R. Mohler, chief of the Aeromedical Applications Division of the Office of Aviation Medicine, signs a protocol with Dr. Eugene A. Karpov (left), Deputy Director of the Civil Aviation Scientific Research Institute, Ministry of Civil Aviation, Moscow. It provides for exchanges of information on "Aeromedical and Human Factors of Flight" and of aviation medical groups.



STERLING AMANUENSES—Three secretaries in the New England Region were honored as "Outstanding Secretaries by the Women's Opportunity Committee of the Boston Federal Executive Board. Shown (left to right) with their bosses are Nancy Gilmartin and John Van Horn, Portland, Me., GADO; Bernyce Roe and Vincent Scarano, Airports Division; and Linda Taylor and Robert Conrad, Airway Facilities Division.

Photo by Vet Payne

MLS TRACKER—NAFEC technician Paul Blumenauer checks over a new laser tracker that is capable of plotting the accuracy of an airplane that is testing microwave landing systems and other guidance equipment.



THE PERSONAL TOUCH—On his recent visit to Brussels, Administrator McLucas presented a 30-year service award to William H. Huebner, Jr., chief of European Region's Flight Standards.



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BLE DUTY—Northwest Region Director C. B. [Name obscured], Jr., presented Zoe Hermanson, chief of the [Name obscured] Operations Branch, with a Certificate of [Name obscured] for her 6½ years service as chairwoman of local Selective Service Board. The certificate was [Name obscured] by President Ford, Washington Gov. Dan Evans the Director of the Selective Service System.



WALL-TO-WALL AIRPLANES—Reading, Pa., tower controllers plus several from other Eastern Region towers handled all these planes in a record 9,928 operations for the 27th Annual Reading Air Show. The peak day total was 3,351 operations.

Photo by Jim Johnston

The somewhat somnolent U.S. man-in-space program is about to stir again, and the FAA will be there to test its wings. Yes, that's right, its wings. From now on astronauts will fly home for a landing on the wings of their reusable space shuttle. No more of that parachuting-into-the-ocean routine.

But first the shuttle will fly as cargo on the back of a Boeing 747, which is being converted into a space-ship freighter under FAA's watchful eyes.

The freighter is crucial for several reasons. First it will be used to carry the space shuttle/orbiter aloft during flight tests. The space shuttle, designed to glide back to earth when returning from space, must first be proved. So it will be carried up to 25,000 feet by the 747, much as the X-15 was carried up to altitude by a B-52 and released.

From there, the delta-wing spacecraft will glide back to a landing at Edwards Air Force Base in California just to prove that the thing really flies.

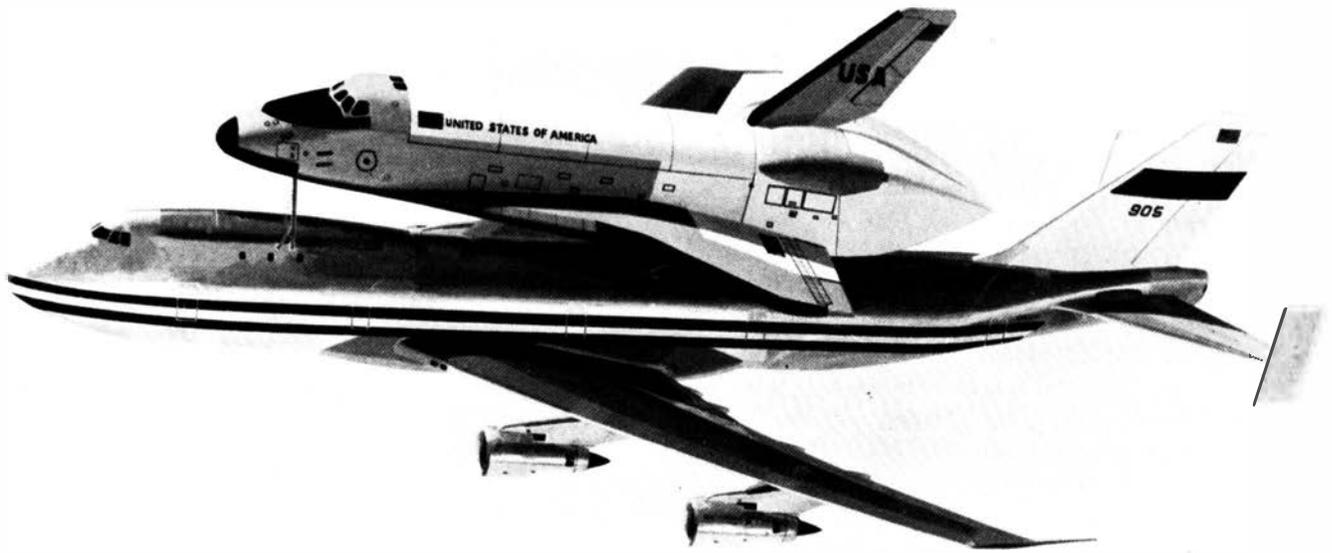
The 747 will also be used to transport the orbiter from the landing site to Cape Kennedy (or later to Vandenberg AFB) where it will be blasted off into space.

The wide-body 747, previously owned by American Airlines, is being

modified to carry the orbiter on its back, piggyback fashion. Work is being done at the Boeing Everett plant near Seattle, Wash., and it is the engineers in the Northwest Regional Office who will take charge of testing the airplane.

REACHING FOR THE STARS ON WINGS





According to Iven Connally, FAA project engineer, the major work to be done on the 747 includes beefing up the body, particularly around attach points—areas where the piggy-back cargo will be connected to the mother ship—and installing stabilizer fins on the tail. These fins, like small, additional rudders mounted at each end of the horizontal stabilizer, give the big jet additional stability. Also being fabricated by Boeing is a tail cone that will streamline the orbiter's engine when it is being carried as cargo.

According to the current schedule, a Boeing crew will first test the modified plane in November, and the FAA test pilot will take over in December to put the big jet through its paces.

Next spring, possibly in March, NASA test crews will fly the proven 747 with an empty space shuttle on its

back. Subsequently a manned space shuttle will be carried.

If all goes well, the first flight test of the space shuttle will take place in July. It will be carried up to altitude on the back of the 747 and dropped. The wide-bodied jet will fly a parabolic curve and the 93-ton shuttle will literally glide away. From there on, the shuttle will be on its own. It will head for a dead-stick, gliding landing at Edwards AFB. In this way, it will be tested extensively before it is first blasted up into orbit sometime in 1979.

The reusable space ship will substantially cut the cost of putting men

and material in space. Not only is the spacecraft itself reusable but so are the solid-fuel rockets that help boost the multi-ton package out of the atmosphere and on its way to earth orbit. After burning up their fuel, these rockets will parachute back to Earth to be cleaned up and used again.

The only expendable item on the space shuttle is the huge fuel tank—actually considerably larger than the space shuttle itself. This will fall back to Earth in a remote area of the Pacific or Indian ocean.

It's not a crash program as Apollo was, but it is a realistic way to keep our hand in space, and FAA inspectors will make it all a little safer.

—By Theodore Maher

MAYDAY!"

That call can fire up the adrenalin in even the most grizzled controller—especially when it comes from a single-engine airplane, over water and at night. To the TRACON crew at New Orleans International Airport, it usually means someone is in danger of going into nearby Lake Pontchartrain, perhaps never to be seen again.

That was the case on this night, as the pilot of a light plane felt the last few revolutions sputter from his failing engine. Like the controllers, he knew Pontchartrain is one big lake, more the size of a bay, really, and that a lone swimmer at night can be as hard to spot in its 640-square-mile expanse as a dust speck in an inkwell.

What the pilot didn't know was that phenomenal luck was on his side as he got off his last radio messages to controller James Blossman before ditching in the lake.

Lady luck that night was a man, data systems specialist Paul Chatelain, who was working a few feet away from Blossman when the distress call came through. Chatelain was testing a computer program developed for just such an emergency and, yes, he thought it could be put to work on this one. Chatelain and his fellow DSS Peter David had written the program only a few days earlier.

As the last few minutes of the flight ticked away and Chatelain initiated his program, controllers alerted Coast Guard helicopters at the New Orleans Naval Air Station and Jefferson Parish sheriff's department rescue boats. Blossman prepared to direct the rescue craft to the estimated ditching point, and there was the rub. Controllers can never be certain where a plane hits the water, because the aircraft's radar target usually disappears while the plane is still in the air but at low altitude—as in the last moments before a ditching.

Suddenly, on Blossman's ARTS III radar scope, a bright flashing "X" appeared, giving a computer-generated estimate of the plane's splashdown point. Blossman vectored the rescuers to the location, where the pilot was spotted almost immediately!

Other crashes in the lake have not always had such happy endings. In some cases, hours and even days have gone by with no trace of aircraft or occupants.

Pontchartrain is deceiving; its frequent haze creates instrument conditions on otherwise VFR days. The same haze also makes rescue efforts almost hopelessly complicated. Many times, survivors say they heard aircraft engines—even felt helicopter rotor wash in one night-time case—while in the water, but rescuers could not see them in the dark. Emergency locator transmitters can't

IDEA'S SHAKEDOWN BECOMES ACID TEST



A flashing "X" in the center of this New Orleans tower scope marked the computer-estimated position of the light plane that went down at night in Lake Pontchartrain.

be counted on, due to their unreliability when submerged.

Because the new ARTS III system provides a way to track airplanes and remember where they are, electronic technician Charles Giraud of the New Orleans Airway Facilities Sector began to wonder if the system's computer could be put to work marking downed aircraft positions. Giraud went to David and Chatelain with his ideas, and within a month a program was put together.

"It was a real problem trying to work the thing out," David recalled. "Paul and I were the only data systems specialists here, and two shifts had to be staffed nearly every day. We had to talk during the few minutes we saw each other at shift change."

On the night of the rescue "we just cranked it up and hoped it would work," Chatelain said.

The program operates by recording the last known location of any aircraft from which transponder replies are lost. (The program works only for transponder-equipped planes.) The aircraft N number and time of signal loss are both noted by the computer. Signals may be lost for relatively benign reasons, such as the pilot turning off the transponder or equipment failure.

But when a target disappearance seems suspicious, or a distress call is heard, the aircraft identification number is punched into the controller's console keyboard. The radar scope then flashes an "X" at the plane's projected place of impact, based on the computer's memory of the last known position, direction, speed and estimated seconds of flight after the aircraft descends below radar coverage.

If the controller does not actually see the radar target disappear at the instant it happens, the automatic system gives a faster, more accurate estimate of position than a mental reconstruction by the controller. When a controller does see a target disappear, he can manually put a flashing "X" on the scope which will be supplemented by an "X" from the automatic system, providing a refined estimate.

While the program is now operational, there have been no more rescues—yet. Its capability is easily demonstrated, however. Tower chief Herman Reyenga delights in taking visitors out in his personal plane over a recognizable point in the lake, where he'll turn off his transponder and ask the radar controller to vector him back over the spot, using only the information supplied by the computer. It works like a charm every time.

Reyenga is justifiably proud of data systems specialists David and Chatelain and ET Giraud. "These boys worked real hard and made this thing a success. I think the day will come again when someone will owe his life to this program."

And perhaps lives will be saved in places besides Lake Pontchartrain. The Southwest Region office, at Reyenga's request, is sending a description of the program to all ARTS III terminals, and some of them may well end up using it to help rescuers get to watery crash sites in a hurry.

—By Jon Ellis



JUST WIND UP THE RUBBER BAND AND LET HER GO . . .

Sometimes you wonder if what we call technological progress is really technological progress after all. Take the case of Grand Canyon Airlines, which recently won permission from FAA to operate its Ford Tri-Motor on a scheduled basis between the north and south rims of the Grand Canyon without a co-pilot. The airline argued that the Ford Tri-Motor (circa 1927) is an easy-to-fly, extremely simple machine, having fixed landing gear, no flaps, gravity-feed fuel system and slow-flying capability and is powered by one of the most reliable engines ever built—the Pratt & Whitney R-985. In addition, the airline said that the airplane has no pneumatic system or complicated hydraulic or electrical system to distract the pilot, and its handling is docile without any traps or pitfalls for the pilot. Swayed by this logic, the agency agreed that the operations over the 23-mile route could be conducted safely without a co-pilot because of the short duration of the flight and "the simplicity of the design and operation of the Ford Tri-Motor."

HIS FATHER'S FOOTSTEPS . . .

FAA controller Robert Wiese of the Ft. Worth Meacham Tower had heard about the "loneliness of the long distance runner" but had never really understood the meaning, until he got lost during a 16-mile marathon race and logged an extra three miles before getting back on course. As might be expected, he finished out of the money. But there is hope for the future in the Wiese household. Bob has a son and namesake with the same long-distance running ability and a much better sense of direction. Bob Jr. recently won the Texas State mile championship, and his excellent 4:16 clocking for the event indicates that he didn't take any detours along the way.

DON'T GO NEAR THE WATER . . .

A mother and her two little ones were strolling along the banks of an irrigation ditch adjacent to the Imperial, Calif., Airport one morning when the two youngsters ventured too near the edge and fell in. The scene was observed from the Imperial Tower, and controller John McNeese and ETs Marcel Edwards and Charlie Palmer went to the rescue. McNeese pulled out the first youngster, wet and unhurt, and Edwards and Palmer grabbed the second one. Unfortunately, the incident never got the publicity it deserved, maybe because the rescues were German Shepherd puppies. But hey, fellas, "Small World" thinks you're great, and we understand you're also very big with the SPCA.

DIRECT LINE



Q Does the FAA provide any college scholarship programs for children of employees?

A There are at present no scholarship programs being administered by the FAA for employees or their families. After three years of operation, a scholarship program established in 1970 in honor of retiring Deputy Administrator David D. Thomas, under which 18 individuals received awards, was terminated due to lack of funds. The program was national in scope and its purpose was to make cash awards to FAA employees or their dependents on the basis of scholastic merit and achievement. It was funded by voluntary contributions, not by appropriations.

Q A vacancy announcement in my region states that applicants normally should have completed two semesters of calculus, as well as two semesters of physics. My supervisor has refused to write a letter of recommendation as is required in the job announcement because he feels it would be an exercise in futility and that these requirements are lock-out features. I have completed enough college hours to obtain a Bachelor of Science with a double major and one minor. I have not yet received my diploma because I feel this might lock me out of the Engineer in Training (EIT) program. With shift work and Academy training, I haven't been able to schedule those classes. But I have worked in private industry as an aerospace engineer and am a fully trained medically disqualified controller. With this background, I don't feel it's fair to be locked out of bidding on the EIT program because the word "normally" to me does not mean "always" or "must have."

A It is true that the completion of two semesters of calculus and physics is not a mandatory or lock-out requirement for the Cooperative Engineer Development Program. Applications are evaluated as to eligibility by the Personnel Management Division, with reference to college and university officials to determine scholastic credentials, if necessary. FAA Order 3410.10A, Appendix 1, para. 3c, defines the immediate supervisor's responsibilities under this program. These responsibilities require the supervisor's personal recommendation, pro or con, for the applicant's selection to the program, giving reasons for any statements made. We don't doubt your stated credentials, but a thorough review of your qualifications would have to be made when your SF-171 is submitted. Unfortunately, the cooperative engineer development announcement is now closed. Should it reopen in the future, we suggest you do make application.

Q I'm an electronics technician and deeply concerned about the agency's certification program and how it involves me. Recently, I was told that the program is strictly internal and that FAA has no legal responsibility to the flying public. As a certifying technician, am I subject to litigation? Can I be sued personally or would the agency act on my behalf? Can I be directed to work on systems for which I haven't been assigned certification responsibilities; that is, work independently and restore service to the system? If the answer to this last is yes, what is my position if I was the last technician to work at this facility and it's involved in an incident?

A The United States Government can be sued under the Federal Tort Claims Act for any alleged acts of negligence by a Federal employee acting within the scope of his employment. Since the U.S. is liable in such cases, normally the plaintiffs would sue the U.S. and not the individual. However, any individual can be sued personally for an alleged act of negligence. If such acts are committed within the scope of your employment, the U.S. would make every effort to substitute itself for you as a party to the lawsuit. If unsuccessful at this, we would try to represent you, if you so desired. It's noteworthy, though, that we have no record of an FAA technician ever being sued for the performance of his job. Even if you were to be sued, the plaintiff is simply alleging negligence; he must prove his case to recover anything. Again, according to our records, no judgment has ever been granted against any FAA employee under the Federal Tort Claims Act—that is, no FAA employee has ever had to pay any money as a result of a lawsuit for actions within the scope of his employment. Finally, if a judgment were rendered against an individual employee, the FAA would probably make every effort to obtain private legislation to pay that judgment. You can be assigned to work on systems for which you do not have certification responsibility, if the work performed does not affect certification parameters. Restrictions on the extent of the work that may be assigned to personnel without appropriate certification credentials are imposed by Order 6030.22A, para. 9a. This specifies that anytime a technician performs maintenance work that may affect the certification parameters, the system, sub-system or equipment shall be certified at the conclusion of such work or prior to returning it to service. The identification of tasks by system, sub-system or equipment that can or cannot be assigned without assignment of certification responsibility belongs to local supervisory/management officials who are most familiar with the individual technician's abilities and the equipment configurations at the duty station. If a facility were involved in an incident where negligence of an FAA employee were an alleged factor, the legal alternatives described above would apply. Under the rules

for assignment of work described above, your particular exposure to individual liability would appear to be minimal.

Q Last year, FAA WORLD carried an item in "Federal Notebook" on an alleged overcharging of Federal employees of \$3 million by Blue Cross. Whatever happened to this money, considering that we got stung for a whopping premium increase this year?

A The \$3 million you refer to is still a matter of contractual dispute over allowable administrative expenses between the Civil Service Commission and the health insurance carrier. This dispute is currently before arbitration. Although \$3 million is a sizable sum, its relationship to the total health insurance program is relatively small. Even if the dispute is arbitrated in favor of the CSC, any money recovered probably would be used to cover other health insurance administrative expenditures and, thus, would not be reflected as a tangible refund in each employee's paycheck. The recent rise in insurance premiums was a result of our inflationary economy and the tremendous increase in all medical costs that had to be passed to the insured.

Q I fail to understand why husband and wife are not allowed to work as controllers at the same facility, provided they are on separate crews and shifts and neither serves in a supervisory capacity. Would this policy also apply if one worked at a center and the other at an approach control in the same area? It seems this policy is discriminating against those who choose to live together legitimately. Why are other male and female controllers who are openly cohabiting permitted to work not only at the same facility but on the same crew? I also noticed that on the SF-171 under the explanation for Item 35, regarding living with relatives employed by the government, a response is required if an applicant is not entitled to veterans' preference. Does this mean that the nepotism policy applies only to non-veterans? What is FAA's policy?

A Section 3110 of Title 5 of the U.S. Code states that an individual may not employ, promote or advocate for employment, promotion or advancement in the agency in which he is serving or over which he exercises jurisdiction or control any individual who is a relative. The provisions of this statute are implemented in Chapter 310 of the Federal Personnel Manual and by Chapter 4 of Order 3300.7. The FAA policy is that close relatives (as defined in 3300.7) may not be assigned to any position in which one relative may directly or indirectly supervise, control or influence the work or the employment status of the relative or the affairs of the organizational unit in

which the other relative is accepted. A determination as to whether employment of relatives is a violation of this policy can only be made on a case-by-case basis after careful examination of all the facts. In Washington headquarters, the policy is that close relatives of a current employee will not be assigned to positions within the same office or service. Although the practice of cohabitation has come into vogue, I'm afraid that government nepotism regulations haven't been changed to recognize that situation. Then again, there are other rules that do benefit a legal marriage. Question 35 of the Personal Qualifications Statement results from the restrictions placed on employment of relatives by 5 U.S.C. 3319. This section states that when two or more members of a family are employed in the competitive service, another member of the same family, except for preference eligibles, is not eligible for appointment in the competitive service. Since veterans are preference eligibles, this statutory restriction does not apply to them. The FAA's policy is in compliance with these statutory restrictions.

Q I am in the flight-inspection program. There's been a complete reorganization of our activities because of the new jet aircraft. All personnel positions were cancelled, and a new, revised Personnel Placement Plan and Retention List was established. What bugs me is that this priority personnel placement list uses total U.S. Government service for seniority. I understand that controllers in similar reorganizations use an "on-duty date" as a high priority in establishing the seniority list. Does the Civil Service Commission have an established procedure for all FAA occupations that reorganize?

A The CSC has established exacting procedures for carrying out all reorganizations in the Federal government. These procedures vary according to the reason for and type of reorganization and whether or not it results in a reduction in the number of grades of personnel needed. Procedures are outlined in Chapter 351 of the Federal Personnel Manual, including crediting service and veterans' preference. Since there were insufficient vacancies to provide jobs of comparable grades to all GS-7 to 13 employees under FINFO, the employees were ranked by retention preference, as required by Chapter 351, on a FINFO-wide basis to determine the surplus. These employees were considered for vacancies for which they were qualified or were separated by RIF procedures. In reorganization situations where there is no reduction in the number or grades of personnel needed, use of RIF procedures to determine placement is not always necessary. In these cases, criteria may be established by management to determine reassignment. Since we don't have details concerning the controller reorganization to which you refer, we presume the "on-duty date" mentioned was used in this type of situation.



A Coast Guard helicopter on pollution patrol over Chicago's lakefront routinely contacts Chicago-Meigs Field.



Chicago FSS specialist Alice Henson talks with a Coast Guard helicopter pilot about the weather over Lake Michigan.

DOT COOPERATION DOGS POLLUTERS

They're on the prowl for oil spills around Chicago. Like hawks in search of prey, helicopters drone over the territory, looking for offending blotches of discolored water. When they find one, cameras and notepads are at the ready—time, place and pictures are all recorded. The culprit will be found.

The Coast Guard, with invaluable cooperation from the FAA, is patrol-

ing the southwestern shores of Lake Michigan from Milwaukee to Gary, Ind., as well as inland waterways and rivers between Chicago and Peoria, Ill.

Flying helicopters out of the Glenview Coast Guard/Naval Air Station, the Coast Guard crews depend on FAA control towers at Midway Airport and Meigs Field on the lakefront for safe passage through Chicago's busy skies. Seldom, however, is there communication with the O'Hare control tower. "We try to stay out of the O'Hare control area because it's just too busy," said Coast Guard Air Station Commander Robert Houvener.

Several other FAA facilities in the area serve the copters during their reconnaissance missions, which are flown

mostly in VFR weather at less than 1,000 feet. These include towers at Palwaukee Airport and General Mitchell Field, the Milwaukee Flight Service Station and occasionally the Chicago Air Route Traffic Control Center, as well as navigation aids at Northbrook, Chicago Heights and Joliet.

The towers keep the helicopters and other traffic safely separated, the FSSs provide weather information before and during the flights and distance-measuring equipment (DME) and radar vectors help the crewmen pinpoint the exact location of oil spills. Though most of their patrols are VFR, these services are indispensable in being both around the nation's busiest airspace and over Lake Michigan where there are no landmarks.

FAA also helps in another way. Since 1968, the Great Lakes Region has been asking pilots to report pollution sightings to flight service stations, which, in turn, advise the Coast Guard.

According to the Coast Guard, the relatively few major oil spills in Lake Michigan are usually simple to detect and the perpetrators easy to find. Oil seepage in rivers and shipping canals is difficult to track down since there are so many possible sources along the waterway.

As the Environmental Protection Agency develops its list of hazardous substances under the Federal Water Pollution Control Act and detection technology is developed, the Coast Guard will seek out other pollutants.

Right now, it's a mixed picture, so the Coast Guard concentrates on oil spills, said Lt. David Bailey, formerly assistant chief of the Surveillance and Monitoring Branch of the Marine Environmental Protection Division, USCG, and now deputy commander at

the USCG station at Sault Ste. Marie, Mich. For example, if spills of polychloride bi-phenyls, a suspected carcinogen, are not reported, there's not much that can be done now, because they sink to the bottom where it's difficult to detect them.

Sightings of thermal pollution are passed on to the EPA. Forward-looking infra-red detectors are useful for eyeball and low-light spotting, and during daylight, ultraviolet detectors are also used to distinguish thermal pollution from normal temperature variations by the reflectance of the water.

Other equipment now available includes side-looking radar (an oil slick calms the water surface), passive microwave imager (for brightness temperature of oil) and low-light-level TV or active-gated TV (for identifying suspect vessels).

"I don't know whether our three weekly patrols are making a difference or if people are just learning that pollution is bad, but we do notice less pollution in the area than three years ago when we started," said pilot Lt. John Yirak.

Patrols are not made on a regular timetable—a calculated attempt to discourage would-be polluters from dumping something in the water when they think no one is looking or to catch them when they do.

The Chicago area isn't the only place the Coast Guard is hunting down oil spills. All 27 Coast Guard air stations are looking for oil—and other pollutants—at major industrial centers around the U.S. And wherever possible, FAA is helping out its fellow DOT agency by smoothing the way for planes and helicopters, as they track down these 20th Century menaces.

A late afternoon sun vividly reveals an oil slick and the direction it's coming from to the helicopter's crew.



Detroit Airway Facilities Sector manager and local coordinator Daniel Reid (left) views a murky water sample held by Coast Guard co-pilot Aviation Machinists Mate Bruce Huntsman at the Coast Guard air station at Glenview, Ill., as pilot Lt. Roger Argalas looks on. Getting the sample is tricky: It can't be taken at too high an altitude and at low altitude, the rotors disperse the oil slick.

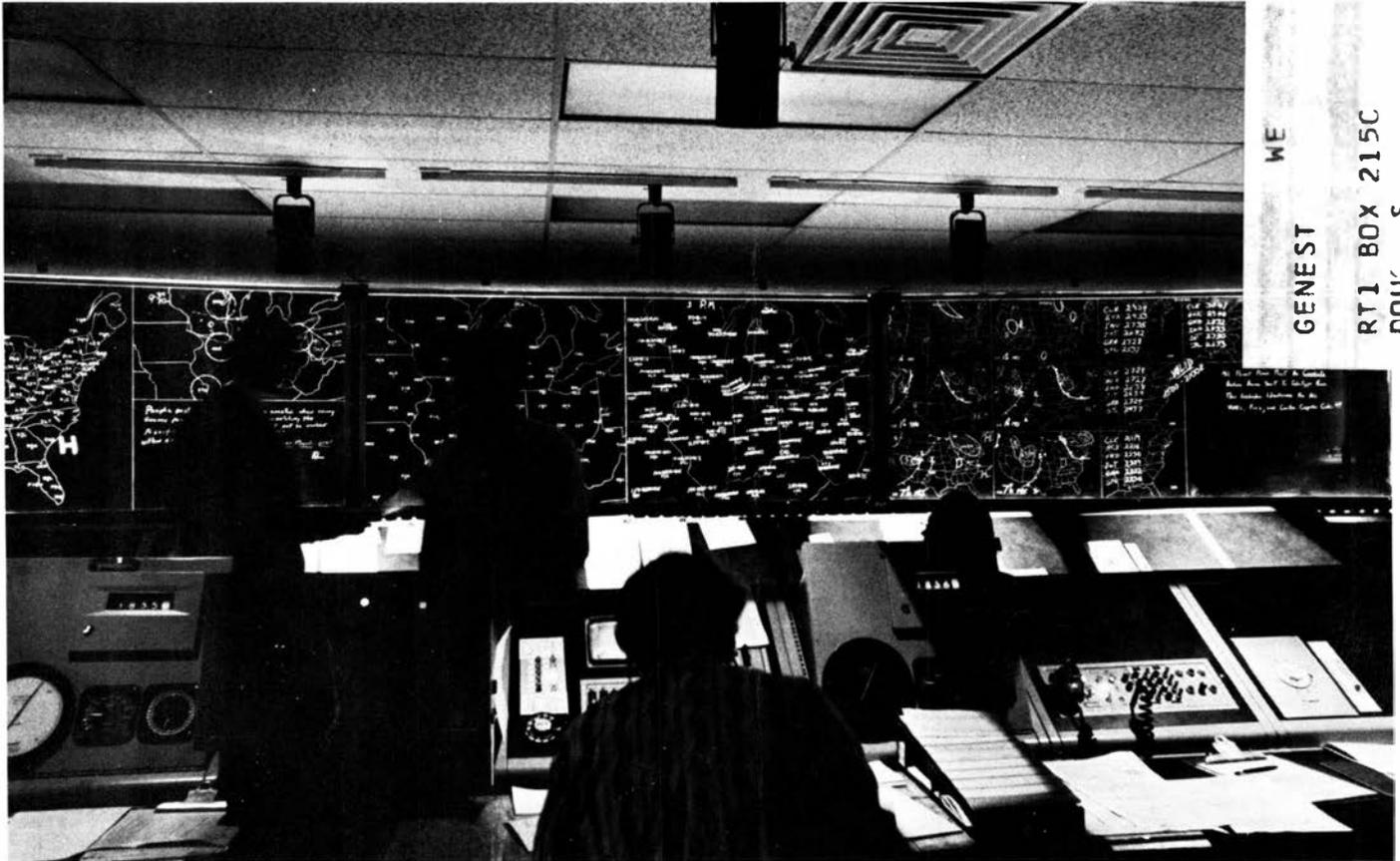
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It's not the hushed control room of mission control but the new South Bend, Ind., Flight Service Station. The modernistic FSS features sleek consoles and projected large weather maps.

Photo by Neal Callahan