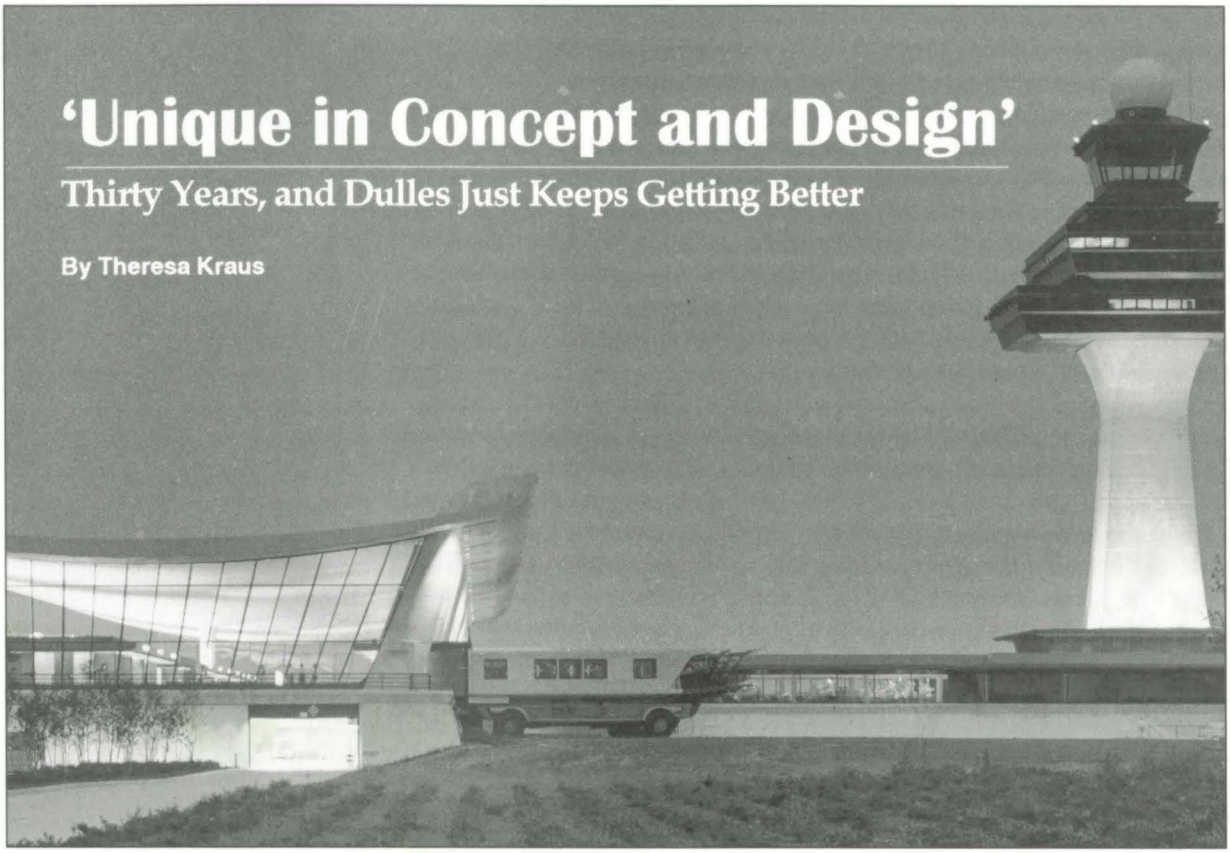
U.S. Department of Transportation
Federal Aviation Administration

FAA World
December 1992

'Unique in Concept and Design'

Thirty Years, and Dulles Just Keeps Getting Better

By Theresa Kraus



Dedicated on November 17, 1962, the new and visually striking Dulles Airport was noted for its modern design. "A very exciting day," was how Fred Pelzman remembered the event. Pelzman, who chaired the Dulles Dedication Staff, is now manager, APA-200.

"A distinguished ornament of a great country and a great governmental system," is how President John F. Kennedy described Dulles International Airport at its dedication. During the November 17, 1962, ceremony, the President praised the new terminal: "This building, I think, symbolizes the aspirations of the United States in the 1950s and the 1960s."

"We believe in the past and in the future," Kennedy continued, "and I think that this building symbolizes that great future."

Many national dignitaries attended the dedication, including former President Dwight D. Eisenhower, who unveiled a bust of John Foster Dulles, his Secretary of State, for whom the airport was named. Official operations at Dulles began two days later when an Eastern Air Lines Super Electra from Newark, New Jersey, became the first commercial plane to land at the new airport.

Built under the sponsorship of the Federal Aviation Administration, Dulles, with

continued on page 10

FYI

For our Information . . .

To minimize the risk of accidents caused by snow and ice buildup on the wings of large aircraft, the FAA adopted an interim rule requiring airlines to have FAA-approved **ground deicing programs** in effect by November 1.

"This action," FAA Administrator Thomas C. Richards said, "gives airline flightcrews the knowledge and guidance they need for safe winter operations."

The regulation requires airlines to train pilots and other personnel in the detection and removal of wing ice. It also establishes limits on how long and under what conditions an airplane can be exposed to snow or freezing rain before it has to be inspected or deiced again.

The FAA is using special operational procedures that control the flow of aircraft on the ground to reduce the time an aircraft has to wait for takeoff after being deiced. It is issuing guides explaining deicing and winter operations. Also the agency is making available Airport Improvement Program funds to help finance construction of deicing pads and drainage systems to collect used deicing fluid.

The interim regulation applies to passenger and cargo operations but not to foreign airlines. Richards said, "We are calling upon the international community to join us in reviewing and revising deicing procedures to ensure the safety of the traveling public."

Highlighting the National Black Coalition of Federal Aviation Employees' 16th national conference was the presentation of the annual **C. Alfred Anderson Award.** This year's winner was Frank E. Petersen, lieutenant general, U.S. Marine Corps. Currently vice president of DuPont Facilities Services in Wilmington, Delaware, Petersen was the first African-American to attain the rank of general in the Marines. This year's conference was held in Virginia Beach.

A nonprofit group of FAA ski enthusiasts—the Burlington, Vermont, Automated Flight Service Station Ski Club—is hosting its second annual **New England Ski Fest** at Killington, Vermont, January 24-29. For $365 per person, the package includes five days lodging at a mountainside condo; five-day lift pass; welcome party; slopeside barbecue; race with awards; and transportation to the ski area from Burlington Airport and back. Mike Chapman, (802) 863-1541, is the contact person.

continued on page 16

Contents

U.S. Department of Transportation
Federal Aviation Administration

FAA World

December 1992 *Vol. 22, No. 12*

Secretary of Transportation
Andrew Card

FAA Administrator
Thomas C. Richards

Assistant Administrator—Public Affairs
Hugh O'Neill

Manager—Public & Employee Communications Division
Paul Steucke, Sr.

Manager—Employee Communications Branch
Pat Cariseo

Editor
Pat Tomasetti
(202) 267-3448

Art Director
Michael A. Malden

FAA WORLD *is prepared by the Employee Communications Branch (APA-340) of the Public and Employee Communications Division, FAA Office of Public Affairs, 800 Independence Avenue SW, Washington, DC 20591.*

Articles and photos for FAA WORLD *can be submitted directly to APA-340 or to regional FAA public affairs officers:*
John Clabes—Aeronautical Center
Joette Storm—Alaskan Region
Sandra Campbell—Central Region
Bob Fulton—Eastern Region
Morton Edelstein—Great Lakes Region
Mike Ciccarelli—New England Region
Jane Inaba—Northwest Mountain Region
Kathleen Bergen—Southern Region
Roger Myers—Southwest Region
Holly Baker—Technical Center
Elly Brekke—Western-Pacific Region

Ideas on Job Accommodations

Job accommodations for people with disabilities require a partnership between the employee with a disability and the supervisor or manager. All parties must work together to come up with the best way for the employee to do the job. The job accommodations process is similar to many other workplace problems for which cost-effective solutions are developed—through research, common sense, and teamwork.

JAN, the Job Accommodation Network of the President's Committee on Employment of People with Disabilities offers assistance with worksite accommodations. The network, which has developed a large national data base of solutions to accommodation problems, offers examples to explain the concept.

These sample accommodations are not necessarily the "only" or "ideal" solutions.

Situation: A person had an eye disorder. Glare on the computer caused fatigue.

Solution: An antiglare screen was purchased ($39).

Situation: A worker had difficulty using the telephone due to a hearing impairment that required use of hearing aids. It was suggested by the company that the employee take a lower-paying job that did not require telephone use.

Solution: A telephone amplifier that worked in conjunction with hearing aids was purchased. The worker kept the same job ($48).

Situation: A clerk developed a condition that restricted hand use and became unable to reach across the desk for files.

Solution: A "lazy susan" file holder was provided so that the employee could access the files and perform the same job ($85).

Situation: A medical technician who was deaf could not hear the buzz of a timer, which signaled specific laboratory tests.

Solution: An indicator light was attached ($26).

Situation: An employee who used a wheelchair could not sit at a certain desk because it was too low for the person's knees to fit under it.

Solution: The desk was raised with wood blocks, allowing a proper amount of space for the wheelchair ($0).

Situation: An employee who worked outdoors had a medical condition that caused the person's hands to be intolerant to cold.

Solution: The individual wore gloves with pocket hand warmers such as those hunters use ($50).

Situation: A person had a condition requiring two-hour rest periods during the day.

Solution: The employee's hours were extended to allow for longer breaks while working the same number of hours ($0).

These ideas may help employers and people with disabilities in solving the problems they confront in an inaccessible environment. They also debunk the myth that has been widely circulated about job accommodations for people with disabilities—that the process is costly. Here are some statistics from JAN:

- 31 percent of accommodations cost nothing.
- 50 percent cost less than $50.
- 69 percent cost less than $500.
- 88 percent cost less than $1,000.

This article, based on information from the President's Committee on Employment of People with Disabilities, was published in Western-Pacific Region's *Intercom.*

The Job Accomodation Network can be contacted on (800) 526-7234. ✲

Some Statistics

- One out of five Americans has a disability.
- Of the 37 million people with disabilities in the United States:
  - Two million are in wheelchairs.
  - 8.5 million have a visual impairment.
  - 21.5 million have a hearing impairment.
  - 31 million have arthritis.
- 17 percent of all 18- to 64-year-olds have a disability that affects their work.

Up Against the Elements—

Recollections of Iniki, Omar, Andrew

Blasted by Iniki

By Joseph A. Davoust

The plate-glass window crashed into the bedroom spraying glass onto the bed, the floor, and into Tom Pactol's leg. Pactol was acting air traffic manager at Lihue Tower on the east coast of Kauai, Hawaii, when Hurricane Iniki ripped through the island.

Hawaii state officials had closed the airport shortly after 11 am Friday morning, September 11, in preparation for the storm. After the last Aloha Airlines flight departed, we closed the tower, and most of the staff headed to Pactol's apartment to sit out the storm.

Controller Ken Brissenden left for his Kapaa home, and Craig Arakaki was on Oahu. But other Lihue controllers, Todd Gandolph, Stacey Stange, and I, went to Pactol's place where family and friends were waiting. The apartment is situated well inland and away from Kauai's many rivers which were expected to flood.

We played cards and ate in the living room of the second-floor apartment while waiting for the worst to pass. Soon the wind picked up speed, and leaves and branches started flying past the windows. As the wind strengthened, rain started coming in through the partially opened windows. Power and telephone service went out, and the only radio stations we could pick up were those in Honolulu, some 90 miles away. We could barely hear each other over the wind as the house started to shake.

Pactol and Gandolph went to inspect a large sliding glass window in the bedroom. As Pactol passed in front of it, it shattered, sending a spray of glass throughout the room and slightly cutting his leg.

Hurricane Iniki ripped through the island of Kauai, Hawaii.

Large chunks of debris were flying through the now-open window. As other windows began breaking, we moved to the safety of a downstairs apartment. The wind continued, barometric pressure fluctuated rapidly, and our ears popped as we saw Pactol's bedding fly through the air among the debris. Then the roof of a neighboring house flew by. Once stately trees were being dismantled and uprooted by the destructive force.

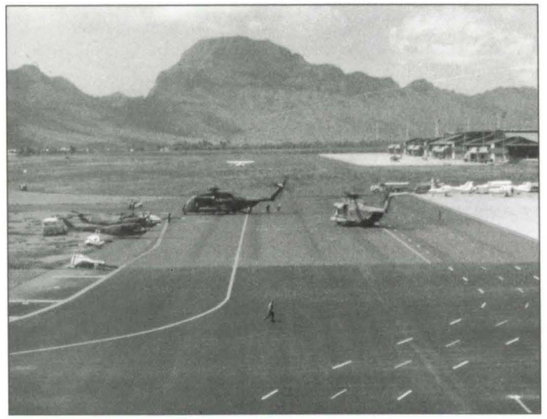
Wind came in through the shattered windows tearing up the house and taking paper and small objects with it. Just before nightfall, the weather cleared.

Throughout the night, which seemed to last forever, we sat in the dark. Local radio was off the air. Honolulu stations reported that there was no communication with us on Kauai, but damage was expected to be severe. Iniki's eye had passed directly over the island.

Early the next morning we caravaned into town and were awestruck by the devastation. Almost every roof had been destroyed, and buildings were flattened. As we drove toward Lihue, we had to snake around downed poles and low-hanging telephone and power lines. We were often forced to leave the road because of debris but eventually were able to make it to the control tower.

Damage was severe. The tower cab was littered with window glass and other debris. The dropped ceiling was gone as were most of the controllers' belongings. Almost all of the equipment in the cab was either badly damaged or destroyed. Debris was throughout the five-story building, and on the floors was an inch of water.

Helicopters lay on their sides. Small aircraft were upside down. Most of the aircraft that had been at the airport when the hurricane hit were now unusable. Tour company and car rental offices were flattened. Hangars' corrugated metal roofs were torn to shreds and scattered over neighboring sugar cane fields.



Lihue Airport was in the path of Iniki.

Already military relief aircraft were streaming into the airport. Seeing that the tower was unusable, Pactol acquired a vehicle and a transceiver and went to work. The other controllers left to inspect their homes and then returned to the airport to help.

A constant stream of military planes and helicopters landed and departed as we reestablished normal traffic patterns. We had no communications with Honolulu Center or our controlling Instrument Flight Rules (IFR) facility, so all who entered and exited the airport did so under Visual Flight Rules (VFR) conditions. We used arriving and departing aircraft to relay messages to center controllers and on to other FAAers in Honolulu.

Relief came soon. Honolulu air traffic manager Bob Rabideau and regional representative John Gordon arrived aboard military transports, along with food and goods supplied by the FAA. Arakaki made his way back on an Air Force C-130 as did former Lihue controller David Chang, who now works at Hilo Tower. Clerk-typist Joyce Hashimoto also made it to work after tending to her badly damaged home.

Airway Facilities personnel worked for the better part of two days, both cleaning up the tower and restoring tower cab equipment. All navaids had been put out of service. Within days the Instrument Landing System (ILS) was again functioning, and military personnel established a temporary TACAN navigational aid at the site of the severely damaged Lihue VORTAC.

After a speedy cleanup, the controllers moved back into the tower, now enclosed by temporary Plexiglass windows. The radio equipment had been restored and most of the glass had been removed. Tower operating hours were extended to accommodate increased numbers of military and civilian relief flights.

The state Department of Transportation arranged for some meals for FAA personnel working the tower, and the Navy sent four shipboard controllers from the helicopter carrier *U.S.S. Belleau Woods* to help coordinate a massive airlift of supplies from the ship to the airport.

One month later, most of the controllers were still without power, but most of the telephone service had been restored and goods were no longer in short supply. The tower, which is still in the recovery stage, operates on a normal schedule.

FAAers at Lihue thank all those in the Western-Pacific Region and the agency who expressed concern and sent relief. ✲

Joseph Davoust is an air traffic control specialist at Lihue Tower, Kauai, Hawaii.

Words of Thanks from Guam

The Western-Pacific regional office, Pacific Air Traffic Hub, Oakland Center, Honolulu Sector, Guam Sector, and many others responded to our needs during and after Typhoon Omar with a "can do" attitude that helped put Guam CERAP (Combined Center/Radar Control) back in service in the least amount of time. The compassion shown towards our families by sending relief supplies and equipment to ease the burden of the storm damage was appreciated by all of us.

Typhoon Omar wrecked havoc in Guam during late August.

Oakland Center worked with Guam CERAP to provide the best service available to the aircraft in the area and those responding with relief supplies.

Many of the Guam airway facilities technicians worked through the storm attempting to maintain the integrity of the air traffic control system. As the system began to fail, they secured equipment to limit damages.

There are too many people to thank individually, but you all know who you are. You being there made a difference. ✲

Information on Iniki and Omar was supplied by Carol Long and the Western-Pacific Region Intercom.

In Andrew's Path

By Ned Preston and Theresa Kraus

Havoc at Tamiami Airport.

As residents of the Miami area left work on Friday, August 21, few felt much anxiety about Andrew, a tropical storm gathering strength far out in the Atlantic. Such reports were an annual routine that had been followed by no real calamity in decades. Tension rose on Saturday, however, as Andrew graduated to hurricane status and grocery stores filled with citizens stocking for a possible emergency. The next morning, authorities began ordering the evacuation of over a million people living near the shore.

Preparations

In Washington, meanwhile, FAA emergency response staff members dispatched a Contingency Communications Support Team to Florida with satellite transceivers and other equipment to insure that the agency's information channels remained open. An emergency group assembled at Southern Region headquarters in Atlanta, opening a telephone network linking Airway Facilities and Air Traffic personnel. At Miami International, a local AF command center also established a communications network as technicians at the hub's facilities checked generators and took other readiness actions specified in their contingency plans. That evening, volunteers staffed Miami tower and center, as well as other key installations throughout the threatened area. Everyone knew that airports would become a lifeline if Andrew proved the killer now being predicted.

Late Sunday night, Andrew swamped parts of the Bahamiam island of Eleuthera with a giant tidal surge. By the early hours of Monday, the Category Four hurricane was attacking Florida with a fury that cost 44 lives. Though coastal flooding was locally heavy, the storm's worst effects came from winds that reached a sustained surface speed as high as 145 miles per hour. The storm centered near Homestead, some 24 miles south of Miami International, and traveled due west.

A harrowing night

As it moved inland, the north wall of Andrew's eye reached the Richmond long range radar, where FAA technicians had been joined by family members. Some of the group were with the facility manager in the office, while five others remained in a small structure close to the radar tower itself. As Andrew's roaring winds toppled the steel tower, the walls of the smaller building also began to collapse. Listeners on the communications network were stunned as the manager reported that he simply did not know what had happened to the people inside. In fact, all five had been able to reach a portion of the building that remained largely intact. Barricaded behind a desk in one corner, they huddled together until subsiding winds allowed them to reach the office just before dawn.

Another group of FAAers spent a frightening night at nearby Tamiami airport, where hangar walls buckled and flying debris smashed the windows of the tower cab. A pair of World War II bombers tethered outside the Weeks Air Museum saw new action as the storm dragged them beyond the airport boundaries. Thirty agency employees and dependents had elected to face the hurricane in the Automated International Flight Service Station. Shutters failed to prevent the loss of several windows, and invading winds converted three partitioned offices into a single space. As the wind gauge jumped to a maximum reading of 100 knots, parts of the metal roof ripped away. Ceiling tiles fell, and water streamed over automated equipment, while the occupants found what shelter they could under tables, door jambs, even a lavatory sink.

Contacting employees

On a bleak Monday morning, the highest nonoperational priority at FAA facilities was to locate employees and find out how they had weathered the storm. Although some individuals could not be contacted for days, the agency was eventually able to confirm the good news that none of its people had serious injuries. Unhappily, a large group of employees living in the south Miami area had suffered major losses of property. Many of these had shared the unnerving experiences of thousands who rode out the worst of Andrew in their homes. Often they retreated to interior hallways or closets, emerging at dawn to find the rest of their houses wrecked and possessions ruined.

In terms of facilities, the storm had knocked out two VORs in addition to the havoc at Richmond and Tamiami. Numerous other airway aids and airports had sustained varying degrees of damage, and many installations were using backup generators.

Sequel in Southwest

By Tuesday, Andrew had moved into the Gulf of Mexico, regaining some of the force lost in crossing Florida. FAA's Southwest Region worked to complete readiness actions as the swirling winds curved north toward Louisiana. Some of the technicians trying to prepare facilities encountered massive traffic snarls as evacuation emptied low-lying regions. Volunteers spent the night at major installations threatened by the storm, which hit land roughly 80 miles southwest of New Orleans in the early hours of Wednesday. Andrew struck Louisiana as a Category Three hurricane, spawning tornados and causing six deaths, but no FAAers were injured or left homeless. Although all airports with federal towers were able to open on that same day, some damage occurred at most of approximately 30 FAA facilities in the storm's path.

Among the hardest hit communication or navigation aids were those near the towns of Houma and Patterson, on Grand Isle facing the Gulf, and on three offshore oil rigs. Airway Facilities personnel, who used helicopters to help them survey damage in the flooded coastal areas, found such problems as downed antennas, missing roofing, and water in generator fuel tanks. Electronic equipment was largely intact, however, a fact which helped to speed recovery.

Focus on needs

In Florida, FAA moved to ensure that employees affected by the hurricane had time and resources to help them put their personal lives back together. The agency quickly granted such benefits as administrative leave, pay advances, Thrift Savings Plan account emergency loans, and per diem payments to those eligible. The Employee Assistance Program also made available both group and individual counselling sessions. Extra counsellors arrived in Florida, helping to provide information on dealing with the types of stress common after a natural disaster.

Useful as these benefits were, the FAAers battered by Andrew clearly required much additional assistance. This overriding need was met by a remarkable program that grew out of two separate initiatives at Miami's tower and center. Activities to aid the facilities' own staff rapidly became a coordinated drive to help all FAA people affected. A committee of a dozen employees from the agency's local organizations and unions guided the complex effort from its command center in a Miami Center conference room. The committee disseminated information, coordinated attempts to find temporary housing, and oversaw the collection and distribution of needed items. One of its subcommittees, headed by Mark Palazzo, established and managed a relief fund that began with $14,000 collected at Southern Region headquarters and grew rapidly with donations from employees across the country.

Supplies to employees

Immediately after the storm, employees wanting to help others began bringing food, water, and ice to facilities. Soon additional goods began to arrive from outside of the hub area. A small supply point set up at the center was quickly followed by a bigger one at relatively undamaged Opa Locka Airport, about six miles north of Miami International. For approximately 10 days, Opa Locka air traffic manager Rory Reed and Tom Benson from Miami Tower managed a busy, makeshift depot. Donated supplies came from every FAA region as well as some private individuals and companies. For example, 70 boxes of goods found their way from Washington Headquarters on a truck operated by federal prison au-

Top: FAA volunteers prepare to load pallets onto Army helicopters at Opa Locka.

Above: Relief workers prepare boxes of food and supplies for delivery to FAA families.

thorities. Approximately 45,000 pounds of material was delivered by an FAA 727, which made two trips jammed with roofing, disposable diapers, and other items purchased in Atlanta with relief funds left over from Hurricane Hugo. Trailer trucks full of supplies came from FAA facilities as far away as southern California and Boston.

With forklifts borrowed from fixed-base operators and the Army, volunteers organized about 83 tons of goods in six hangars loaned by the airport management. For delivery, they initially relied on helicopters operated by the military and by state and local authorities. Later, the volunteers used private vehicles and six flatbed trucks sent by NASA to take building materials and other supplies directly to the homes of FAAers identified by the relief committee's data base.

"The word got out somehow that FAA had some type of very efficient resupply operation going on . . .," recalled Benson. Other organizations brought relief materials to the volunteers' "little transportation company," and sometimes FAA-donated goods went to help others. For example, relief workers arranged for food and ice to be flown to a desperate family found stranded in western Dade County. They had been "forced to drink water out of the canal, and ended up eating the family dog . . .," Reed later recounted, "That's not a situation that you say 'no' to."

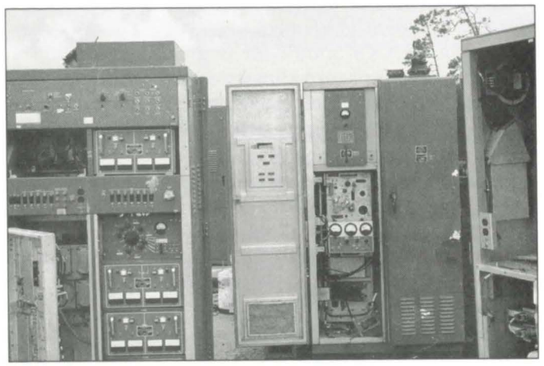
Continuing relief

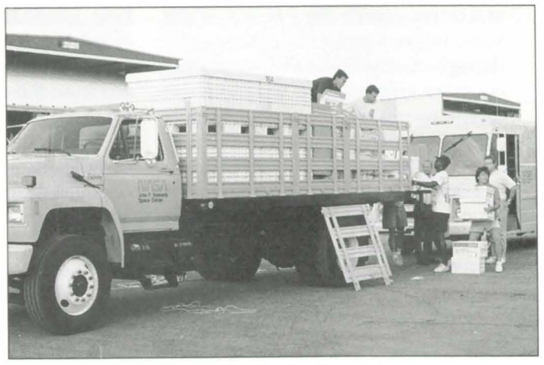
Because FAA wanted to move the relief effort closer to the devastated area, the main distribution point moved from Opa Locka to Tamiami airport at the beginning of September. The Tamiami operation was based in four tents donated by NASA and by Army engineers. It was headed by the flight service station's Albert Osborn, known as the "FAA scrounger" by the military units stationed at the airport. Osborn explained that he became "bold enough to ask for anything from anybody" in his quest to obtain useful equipment and helicopter flights. He and his volunteers had handled many tons of material by the time the relief effort wound down at the end of the month.

The financial aspect of the aid program continued to assist Andrew's victims. By November 6, donations from FAA employees and outside concerns totaled $156,000, of which approximately $105,000 had been disbursed. While the relief committee spent a limited amount buying supplies, most of the money went directly to affected employees. Almost 300 individuals received a $150 grant in a program that ended on September 30. A second program, scheduled to run through November 30, issued grants ranging from $100-$500 to help employees cover expenses not paid for by insurance.

Facility restoration

While helping its own people harmed by Andrew, FAA moved swiftly to minimize the storm's effect on airspace users. Reinforced by Airways Facilities teams dispatched by the region, technicians and security personnel worked closely with Dade County to reopen the three airports most affected by the hurricane. Opa Locka, the least damaged, reopened at 10:30 p.m. on the Monday that the storm passed through. Miami International's problems included downed perimeter fencing, roof damage to the terminal, and inoperable passenger ramps; nevertheless, it received some emergency flights on Monday, and was open to commercial traffic by late the following day. Tamiami, the airport hit hardest, reopened on Friday afternoon, August 28, after a temporary tower had been installed and flight checked.





Top: AIFSS building at Tamiami suffered damage.
Middle: FAA hopes some of the equipment salvaged from the Richmond Radar facility can be repaired.
Above: One of the trucks lent by NASA, being loaded.

Top: Destroyed building near the Richmond Radar facility.
Middle: Much housing was destroyed near Tamiami.
Above: An FAA 727 delivers relief supplies to Opa Locka.

In the wake of the storm, air traffic controllers revised procedures to compensate for inoperable navigation aids and devised methods of safely handling the heavy military relief traffic that soon appeared. The calls normally handled by the Tamiami AIFSS were immediately transferred to other automated flight service stations, and the facility itself went back into partial operation, housed in a double-wide trailer, on October 19. Replacing the Richmond long range radar with a portable ARSR III proved a difficult task, but this temporary unit was commissioned on October 23. By that time, one of the two VORs knocked out by Andrew had also been repaired. The agency decided not to recommission the other at its former location in Biscayne Bay, but amended procedures to ensure that traffic capacity was not reduced.

An extraordinary effort

In addition to performing its duties to aviation, FAA also supported the broader disaster response effort by DOT and the Federal Emergency Management Agency (FEMA). Officials from FAA's Southern Region served as DOT's Regional Emergency Transportation Coordinator and Representative (RETCO and RETREP). As RETCO, Deputy Regional Administrator Woody Woodward accompanied DOT Secretary Andrew Card on his August 27 visit to the disaster area, a trip that proved an important step in expediting the federal relief program. Assisted by other FAAers, RETREP Bernie Gunnels headed the emergency support team for the transportation function at FEMA's Miami headquarters. Other FAA people worked in FEMA's Satellite Teleregistration Center in Columbus, Ohio.

Perhaps the most memorable aspect of FAA's experience with Andrew was the agency's in-house relief effort, an extraordinary venture that united managers, union members, and individuals of diverse skills. Its success was all the more remarkable because few of those involved had specific training or experience in such an undertaking. "I would be less than honest if I said that we weren't winging it . . .," remarked Palazzo, "We were just doing the best we could in the situation we were faced with." The result meant much to those trying to cope with the frustrating problems left by the storm. As one recipient of aid stated, "That's a nice feeling . . . to feel like we're all one family helping each other out." ✲

Historians Preston and Kraus are at work on a more detailed history of Hurricane Andrew. They thank all those assisting this continuing project. Those wishing to share documents or photos should address them to FAA's Office of Public Affairs, APA-4, 800 Independence Avenue SW, Washington, DC 20591.

Dulles

from page 1

Washington National Airport, was one of only two major civil airports federally owned and operated. National, in operation since 1941 and overcrowded by the end of forties, was the subject of years of debate because of its heavy use. Despite much interest in building a second airport in the Washington area, it took over a decade from the time Congress approved the construction project until funds were allocated and the new airport site was approved.

At the dedication ceremony for the airport, Presidents Kennedy and Eisenhower and FAA Administrator Najeeb Halaby view the sculpture of John Foster Dulles.

The Second Washington Airport Act of 1950 provided for the construction, protection, operation, and maintenance of a second public airport in the Washington area. Early site acquisition centered around Burke, Virginia. Controversy erupted over that location, delaying further action until 1957. In August Congress appropriated funds for the initial development of an airport with the condition that no funds be spent until a special Presidential task force selected a site.

Mobile lounges that docked at the terminal and mated with the door of an aircraft were featured at Dulles.

After a full study, the commission—under the direction of Elwood Quesada, then special assistant to the President—recommended a location 23 miles west of Washington, near Chantilly, Virginia. Official announcement of the selection was made on January 14, 1958.

Land acquisition began on January 27, 1958, with the government purchasing some 9,600 acres of sparsely populated agricultural land in Fairfax and Loudon counties, Virginia. It contained approximately 15 miles of secondary roads, which had to be closed, and 250 pieces of privately owned property containing 300 homes which had to be moved or destroyed.

On May 1 the New York engineering firm of Ammann and Whitney was selected as the prime contractor for airport design. Eero Saarinen, the primary architect, also designed the St. Louis Memorial Arch, the U.S. Embassy in London, and the TWA terminal at the now John F. Kennedy International Airport. Actual construction of Dulles began on September 2, 1958, when clearing operations started.

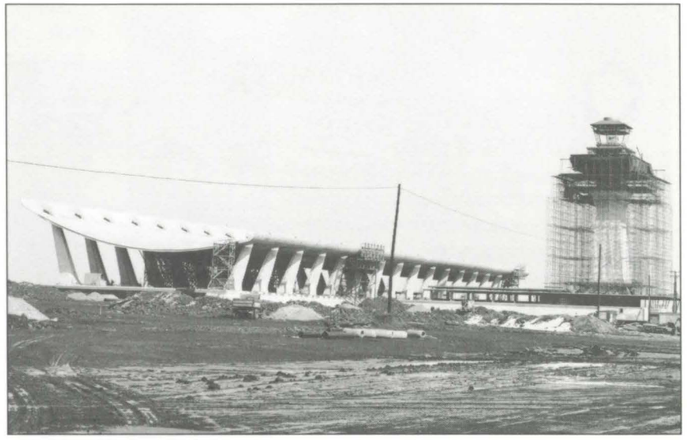
Dulles' terminal, later placed on the National Register of Historic Places, was unique in concept and design. Saarinen's building consists of a sloped roof of immense proportions, supported by monumental columns. The equivalent of two acres of glass, with some panes 18 feet long, augments the dramatic look. Adding function to form, the designer conceived of mobile lounges that could dock at the terminal and mate with the door of an aircraft. At Dulles, passengers would not have to descend from the vehicle or climb steps into the aircraft.

Despite its beauty and utility, the public initially did not flock to the new airport. National remained more popular because of its easy access to Washington. In the 1960s, partly to build up traffic at Dulles, FAA Administrator Najeeb Halaby prohibited jets at National, forcing them to land at Dulles. This controversial move was quickly abandoned. Also to make Dulles more attractive to the flying community, the bus line between Dulles and Washington was improved. Perhaps more significant, however, in 1983 work was completed on a 3.4-mile extension of the Dulles access road connecting the airport to an interstate highway, I-66, and linking it directly to Washington.

Shown is the field side of the new Dulles terminal. At the right are the departure gates to the mobile lounges. Escalators service the baggage arrival area.

Despite the beauty and utility of the new airport, the public did not at first flock to Dulles.

After a slow start 30 years ago, Dulles has come into its own. Hotels, restaurants, and shopping areas have moved into the Chantilly area. The airport terminal and grounds have been continually updated to keep pace with modern technology. Better roads and more access to public transportation have eased public use of the airport.



Construction at Dulles Airport began on September 2, 1958. Here the tower and terminal building are well on their way to completion.

These improvements have brought about a gradual increase in the airport's traffic count over the past three decades. Dulles can now be called an integral part of the transportation system for the nation. ✲

Dr. Theresa Kraus is a historian and a member of FAA's history staff.

Concorde service began at Dulles in the mid-1970s.

'Airport of the Future' Begins Operations

By Jeff Demme

On October 1 at 5:24 a.m. USAir flight 620 from San Diego, California, arrived at gate A1 of the new Midfield Terminal, Pittsburgh International Airport (PIT). It was the first officially scheduled commercial flight to arrive or depart at the new $690 million complex.

Hailed as the "airport of the future," PIT is the first major airport opened since Dallas-Fort Worth in 1974. FAA's Eastern Region played a major role in assisting Allegheny County in the planning, development, and financing of the new Midfield Terminal.

The new Midfield complex replaces a 1952-vintage terminal one-and-a-half miles to the east. The runways, kept in their original locations, are much closer to the new complex. This closeness and two-way taxiing capability around and within Midfield will save an estimated $12 million yearly in fuel cost for PIT's airline users.

The airport has a layout friendly to users, advanced operational functions, and an expandable design to accommodate the projected passenger increase. In 1993 some 24 million passengers are expected to pass through its gates. By the year 2003 that number should increase to 32 million.

Initially there are 75 jet gates—70 domestic, 5 international—and 25 commuter gates. With full expansion, 118 gates will be in use, including 93 jet gates of which 11 will handle international travel.

The new airport has three separate buildings: a three-story landside building containing ticketing, baggage handling, and administrative areas; a three-story central services and commuter terminal building, which includes the only security checkpoint, a transit station, gates for commuter aircraft, and more operational area; and a two-story, four-level core airside building that houses jet gates, airline clubs, and shops.

Ribbon cutting kicked off the opening of Midfield Terminal, Pittsburgh International Airport.

A new Southern Expressway providing direct connection to the Midfield complex opened concurrently with the terminal. Over 17,400 parking spaces can be accessed via climate-controlled moving sidewalks and shuttle buses servicing long-term parking areas. People-mover rail cars briskly move passengers among buildings.

The Midfield Terminal is a model that will influence airport plans not only in this country but around the world as well. Yet PIT's vision for tomorrow is not at an end. There are plans for a fourth parallel east-west runway with independent triple approach capability. The future may also include a mirror image of the terminal, if necessary, and a "magnetic levitation" connection—an above-ground train run by magnets—to downtown Pittsburgh. ✲

PIT Tower's Jeff Demme edits a newsletter at the facility.

Fast Facts

- PIT's 12,080-acre airport site is the third largest in the country. Atlanta Hartsfield and Chicago O'Hare airports combined could fit into the land area.
- The 1,000-acre terminal and hotel site is equal to the entire airport land mass at both LaGuardia and National airports.
- More than 18 million cubic yards of ground were excavated at the airport site. This could fill Pittsburgh Three Rivers Stadium over 30 times.
- The "people mover" covers one-half mile in 63 seconds.
- PIT's apron allows one plane to back out of a gate while another one is pulling into the same gate.
- With automated baggage handling, luggage can be moved from a gate to the baggage claim area in the same amount of time it takes passengers. The people mover, moving sidewalks, and straight-line layout of the airport are also time savers.
- More than 14,000 sensors constantly monitor the heating, air conditioning, ventilation, electrical, and fire protection equipment.
- Retail shops and restaurants at the airport charge no more than those in the local Pittsburgh area.
- The new airport has 800 public telephones and 74 public restrooms.

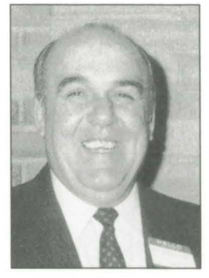
Pittsburgh International Airport's Midfield Terminal is now in operation. Some 24 million passengers are expected in 1993.

Retiring at PIT Tower

Things are changing fast for Pete Bernhard, Pittsburgh Tower's air traffic manager since 1977. The new Pittsburgh International Airport to which he devoted much attention opened for business on October 1, and its operations with PIT Tower are going smoothly. So now after 37 years of federal service Bernhard is gearing up for a January retirement.

"He has been a standard for FAA's modern manager by combining a commitment to excellence with a warm heart," tower employees say. "His ability to recognize the importance of all employees and his belief in Total Quality Management philosophy has gained Pete respect and accolades throughout the air traffic and aviation community," they believe. Under his management the tower has been honored as Radar Facility of the Year three times, the last being in 1991, and Bernhard himself received the 1991 Manager of the Year Award.

Bernhard began his career in aviation in 1956 as a controller at Idlewild—now JFK—Tower. His positions have included deputy chief of Eastern Region's Operations Branch and JFK Tower chief.



Pete Bernhard

In 1970 he was asked to serve on Transportation Secretary Volpe's Blue Ribbon Panel, the Corson Committee, to address controller unrest. The committee findings were the stimulus for implementing early retirement and the inception of the management academy in Lawton, Oklahoma.

Bernhard, who has a reputation for being a compassionate manager with a thorough understanding of the air traffic field, has gone through some traumatic times in his job. In 1981, for example, he was PIT Tower manager during the air traffic controller strike with a duty to keep the facility operational.

Eligible to retire for several years, Bernhard stayed on to support the increased role of PIT Tower in handling higher traffic at the new airport. "The region has been very supportive in providing new equipment and increased staffing. People here were eager to prepare for the major traffic increases and the new operational procedures," he relates.

To start off retirement, Bernhard and wife Sandra are planning visits to their three children—Keith in Charleston, South Carolina; Pamela, who is married to Atlanta center employee Mike Pappas; and Lori in Zelinople, Pennsylvania.

Those interested in attending a January 22 retirement dinner for Bernhard can contact Paul Arnholt or Tom McDonough, (412) 269-9237. ✲

Thanks to PIT's Jeff Demme for this information.

Special Reports

TQM Update

Savings for Public, Private Sectors

By Carol Dieterle

Quality works in FAA

Some results are in on the workings of Total Quality Management, or TQM as it is more often called. Recent studies have found that it can increase efficiency in the government by giving workers more authority and solving problems through teamwork.

Following a request from Congressman Donald Ritter of Pennsylvania, the U.S. General Accounting Office (GAO) set out to determine the impact of formal TQM practices on the performance of U.S. companies and the federal government.

The initial study focused on TQM practices of selected U.S. companies. The published report (GAO NSIAD 91-190) shows that companies using TQM practices experienced an overall improvement in corporate performance, including better employee relations, higher productivity, greater customer satisfaction, increased market share, and improved profitability.

After its analysis of TQM in private industry, the General Accounting Office turned attention to federal quality efforts. Information was collected on the status and scope of TQM implementation in the federal government, the barriers to implementation, and the benefits realized when TQM practices were adopted.

It sent out a comprehensive, 20-page questionnaire to more than 2,800 civilian and Department of Defense installations. The survey group represented federal installations with work forces of at least 100 noncontractor employees. Also visits were made to a selected number of installations to validate questionnaire responses.

The return rate for the detailed questionnaires was 80 percent. Approximately 68 percent of the organizations that responded reported having a TQM initiative. About half of those began their TQM efforts within the last two years.

Findings of the study—published in briefing report GAO/GGD-93-9BR—indicate that TQM is a method that makes government more efficient and effective by returning power to front-line workers and using teams to attack problems. They show that the results have been worth the effort.

Congress will use these findings in improving related legislation, regulations, and policy. Proposed legislation would establish a bipartisan Congressional Commission on Total Quality Government. "The commission's goal," says Ritter, "is to get Congress to become aware of the potential cost savings Total Quality can bring to government and to make recommendations to do what the private sector is doing—decreasing costs while increasing productivity, decreasing employee turnover, meeting and exceeding our customers' needs." ✲

Interested in receiving a General Accounting Office report. For a free copy, call the office's publications section at (202) 275-6241 with report numbers.

Carol Dieterle is a total quality management analyst in AXQ-3.

Survey Scene

This month a new feature—"Survey Scene"—debuts. It follows up the article on Survey Feedback Action (SFA) in the September FAA World *and features information about the status of the agency's employee surveys. Keep a check on what's being done with your survey input in future editions of* FAA World.

• Revised to include topics pertinent to today's work force—such as dependent care, alternate work schedules, and diversity—the Job Satisfaction Survey is scheduled to be distributed in January.

• The national evaluation of the 1991 SFA is scheduled for January-February 1993. The focus will be on post-survey activities.

• Why survey? By answering survey questions, employees can target issues for improvement. Surveys provide information on attitudes and trends. They alert management to problem areas and show what's working right. Participation in surveys is voluntary, but a high rate gives a more accurate picture of supervisor and work group interactions and employees' attitudes.

Questions, comments on FAA surveys? Send them to the Employee Survey Program Manager, AHD-300, 400 7th Street SW, PL 1200, Washington, DC 20590, FAX (202) 366-4440. ✲

Weather Briefings

Vital Network Goes National on FTS2000

Talk about the weather can range from a passing-the-time-of-day kind of thing to a top-priority, need-to-know transfer of information. When aviation is involved, it's usually the latter.

FAA's 800 WXBRIEF system is one of the largest, most complex, toll-free 800 systems in the United States. Designed to give pilots better access to weather, NOTAMs—notices to airmen—and flight plan filing, the system routes calls from all over the continental United States to over 70 facilties, which include 61 automated flight service stations and 9 flight service stations.

It has eased the consolidation of flight service stations into automated facilities. The single 800-number national network allows facilities to assist each other when user overload or facility outages occur, with little or no degradation of service. At the same time it saves the FAA $2 million annually in leased communications costs.

To get to this point, however, major improvements had to be made in FAA's weather briefing system. Not too long ago the agency still used a costly, inflexible system with no redundancy—or repetition of a message to prevent transmission errors. Complaints from pilots about long wait times were many. When failures occurred, calls could not be rerouted; also, because the system did not recognize routing to the telephone exchanges in states such as California, Florida, and Missouri, there were major problems in getting calls to the proper facility. Clearly, operations personnel needed better management and control of pilot briefing communications.

The solution became apparent when features of FTS2000 advanced 800 service were identified and implemented to satisfy FAA's requirements. The virtual banding feature—allowing a facility to receive calls from anywhere in the country regardless of distance or time zone—means any automated flight service station can back-up any or all other automated flight service stations in the country.

Another feature of the new system is the 800 Routing Control Service II (RCS). It allows for rapid reconfiguration of traffic to redirect service on demand during line outages, emergencies, limited staffing, and the like. FAA's two national monitoring/control points equipped with RCS capability are at the Conroe, Texas, and Green Bay, Wisconsin, facilities.

Using the 800 WXBRIEF system the FAA can supply uninterrupted service to pilots under almost any disaster situation. When Hurricane Andrew destroyed the Miami International AFSS, traffic was rerouted immediately to St. Petersburg, Florida. St. Petersburg traffic was then split between Gainesville, Florida, and Macon, Georgia.

The 800 WXBRIEF was the first of FAA's operational services to be converted to the FTS2000 network. Begun a year ago this month, the 11-phase conversion of more than 1,050 commercial 800 lines at 70 automated flight service stations was completed on August 21 with the conversion of Alaska's automated flight service stations. The transition included a four-month suspension of the project to deal with service outages. A joint working group of employees from the Federal Aviation Administration, AT&T, and the General Services Administration developed network maintenance and service procedures to meet FAA's telecommunications requirements for the system. They also dealt with and significantly reduced the number of outages as well as restoration times. ✲

The transition to FTS2000 took teamwork, coordination, and dedication of employees from all over the FAA. It was completed with the hard work of staff members of Air Traffic Requirements' Flight Service Station/Weather Branch, ATR-130; the System Maintenance Service's Telecommunications Management and Operations Division, ASM-300; regional Air Traffic System Requirements Branches, 510s; regional Airway Facilities Spectrum Management and Operations Branches, 480s; and flight service stations.

Project team members were Sam Acquaye, ASO-482; Rosalyn Asbury, ATR-133; Darlene Cooper, AAL-481; Ella Dexheimer, AWP-481; Mary Kessler, AGL-481; Lucy Lenuzza, AEA-481; Carl Menard, ANE-423; David Nixon, ACE-428; Ann Peacock, ANM-428; Steve Serpico, Conroe AFSS; Ed Simpson, Green Bay AFSS; John Spear, ASM-310; chair Shirley Terrell, ASM-340; and Joe Zaremba, ASW-480.

Photo Credits

New Partners

New England Region's 15th aviation education resource center, located in Lexington, Massachusetts, High School was dedicated recently. The partnership formally links the Federal Aviation Administration, the high school, and the Massachusetts Port Authority in the only known education-industry partnership of its kind in the nation.

Photo by Mike Ciccarelli

Other aviation education resource centers have been located in colleges and universities while Lexington's is the first to be located in a high school. Additionally, Lexington High School will manage the nation's first satellite center located at Hanscom Field in Bedford, Massachusetts. The Massachusetts Port Authority donated space for the satellite classroom.

Attending the opening of the Lexington High School Aviation Education Resource Center were, from right, Shelia Bauer, New England Region's Aviation Education Program manager; Dr. Jeffrey Young, Lexington's superintendent of schools; New England Deputy Regional Administrator Robert Bartanowicz; Barbara Patzner, manager, Hanscom Airport; and Lexington High staff members.

Information from Jean Mullins, New England Region Public Affairs, ANE-5

Wood Awarded

Kathryn Wood, a health technician in the Vision Research Section of the Civil Aeromedical Institute is 1992's American Optometric Association (AOA) Paraoptometric of the Year.

Wood is the 13th winner of the award sponsored by the AOA and Liberty Optical. They select Paraoptometrics of the Year to exemplify the best of their profession and who exhibit technical competence in their work, service to optometry and the community, and interest in optometric education.

Kathryn Wood

Wood, who has been with the FAA for over five years, was nominated for the award by Van B. Nakagawara, manager of the Aviation Physiology Laboratory. Previously she was a registered optometric assistant and technician in private practices in New Mexico and Colorado. She has also been Colorado's Paraoptometric of the Year.

A strong advocate for her profession, Wood has led many local, state, and national paraoptometric groups. She has also been involved in such community activities as volunteering optometric services and AOA's "Save Your Vision Week" programs.

Especially interested in optometric education, the award winner presents many continuing education courses to paraoptometrics.

FYI

from page 2

FAA has approved $29.7 million in allocations under the Airport Improvement Program to **14 Alaska airports**. This is in addition to the $37.3 million in AIP funds FAA has already granted to Alaska in fiscal year 1992. The Alaska State Aviation System also received a planning grant of $238,165.

Airport Improvement Program funds are drawn from the Aviation Trust Fund, which is financed by aviation user fees, with Congress approving annual funding levels.

On December 1, Wayne County began charging departing passengers at the Detroit Metropolitan **Wayne County Airport** a $3 fee for passenger facility charges (PFC). Plans are to raise $640.7 million over the next 16 years to fund such projects as a south airport access road, stormwater and drainage facilities, noise berm construction, a noise mitigation program, midfield terminal facility, reconstruction of existing terminals and concourses, and land acquisition and design for a fourth parallel runway.

Detroit's Willow Run Airport also has been approved to impose passenger facility charges.

Information in the "People" section is extracted from the Consolidated Personnel Management Information System.

Space permitting, actions of a change of position and/or facility are published. The time lag before personnel actions appear is due to data compilation, format, and publication times.

Aeronautical Center

Walter K. Ahlstedt, supervisor, Flight Operations & Procedures Section, Tokyo Flight Inspection Field Office, Yokota Air Force Base, Japan, from Sacramento, CA, FIFO ... **James W. Craig,** manager, Accounting System Branch, Departmental Systems Div., promotion made permanent ... **Vivian S. Davis,** supervisor, DUI/DWI Section, Compliance & Enforcement Branch, Civil Aviation Security Div., promotion made permanent ... **Joel A. Erickson,** supervisor, Flight Operations & Procedures Section, Honolulu Flight Inspection Field Office, promotion made permanent ... **Harold K. Everett,** manager, Airmen Certification Branch, Airmen & Aircraft Registry Div. ... **Teddy C. McIlwain,** asst. manager, Flight Procedures & Inspection Div., from Atlantic City FIFO ... **James C. Nocker,** manager, Radar Support Engineering Branch, National Airway Systems Engineering Div., from Washington Headquarters... **Linda S. Ross,** director, Office of Aviation Careers, from Great Lakes regional office... **Richard E. Russell,** manager, Standardization & Evaluation Staff, from Reno, NV, Flight Standards District Office ... **Keneith E. Shepherd,** unit supervisor, Aircraft Maintenance Section, Aircraft & Avionics Maintenance Branch, Aircraft Maintenance & Engineering Div. ... **John H. Smith,** manager, En Route Performance Verification Branch, Air Traffic Performance Verification Program Div., from Ft. Worth, TX, ARTCC.

Alaskan Region

Robin A. Badger, area supervisor, Anchorage ARTCC, promotion made permanent ... **Thomas C. Eisenmayer,** area supervisor, Anchorage ATCT ... **David B. Epstein,** manager, Establishment Engineering Branch, Airway Facilities Div., from North Alaska AFS, Fairbanks ... **Donald C. Hall,** area supervisor, Merrill ATCT, Anchorage, from Anchorage ATCT ... **Verne L. Jensen,** unit supervisor, Maintenance Operations Section, Anchorage ARTCC ... **Julius K. Wery,** area supervisor, Juneau AFSS, from Dillingham FSS ... **John W. Williford,** special assistant, Airway Facilities Div.

Central Region

Terri R. Breitstein, asst. manager for technical support, Olathe, KS, AFS ... **Russell S. Crooks,** asst. manager, Grand Island, NE, AFS, from Western-Pacific regional office ... **Richard L. Day,** manager, Systems Management Branch, Air Traffic Div., from Minneapolis ARTCC, Farmington ... **Stephen J. Favitta,** area supervisor, Wichita, KS, AFSS, promotion made permanent ... **Franklin T. Kilbane,** unit supervisor, Regional Control Center, Kansas City, MO, promotion made permanent ... **Robert L. Miller,** manager, Anchorage Aircraft Certification Office, from Atlanta ACO, College Park, GA ... **Dennis L. Portlance,** asst. manager, Civil Aviation Security Div., from Aeronautical Center ... **Lovia M. Riding,** section supervisor, Recruitment & Special Programs Staff, Human Resource Management Div. ... **Charles A. Van Sloten,** manager, Sioux City, IA, AFSFO, Des Moines AFS, from Wichita, KS, AFS.

Eastern Region

Hilton L. Bateman, area supervisor, Washington ARTCC, Leesburg, VA, promotion made permanent ... **Jeffrey I. Brooks,** area supervisor, New York TRACON, Garden City, NY, from LaGuardia ATCT, Queens ... **Thomas A. Bruker,** area supervisor, Pittsburgh (Allegheny) ATCT, from Wheeling, WV, ATCT ... **Frank J. Cullen,** unit supervisor, Resource Management Section, Resource & Planning Branch, Airway Facilities Div. ... **Alan Gershon,** manager, Resource & Planning Branch, Airway Facilities Div., from LaGuardia AFSFO ... **Bruce D. Klinger,** supervisory air traffic asst., Washington ARTCC, Leesburg, VA ... **Doyal W. Miller,** unit supervisor, Pittsburgh FSDO ... **David John Paguaga,** area supervisor, Kennedy ATCT, from New York TRACON ... **Arnold J. Palumbo,** area manager, New York TRACON ... **Gilbert L. Shade,** asst. manager, Altoona AFSS ... **Roger F. Stebbins,** asst. manager, quality assurance, New York TRACON ... **Donald W. Tenney,** unit supervisor, Washington National AFSFO, Capital AFS, Arlington ... **Daniel E. Vallish,** unit supervisor, Charleston, WV, AFSFO, Shenandoah AFS.

Great Lakes Region

Patrick M. Berra, area supervisor, Saginaw, MI, ATCT, promotion made permanent ... **Richard I. Borden,** area manager, Dayton ATCT, Vandalia ... **Vincent A. Bridgeforth,** staff engineer, Chicago AFS, Schiller Park, IL ... **James A. Helmuth,** unit supervisor, Farmington, MN, AFS, promotion made permanent ... **Frederick L. Jenner,** unit supervisor, Minneapolis-St. Paul Certificate Management Office, Minneapolis, promotion made permanent ... **Gary M. Klingler,** asst. manager, Detroit Metro ATCT, Romulus, MI, promotion made permanent ... **James E. Krieger,** area manager, Chicago O'Hare ATCT (Cab) ... **Robert J. Kuh,** area manager, Indianapolis ARTCC ... **David P. Machala,** staff engineer, Ohio AFS, Cleveland ... **Charles D. McGrady,** area manager, Indianapolis ARTCC ... **Andrea M. Orr,** asst. manager for technical support, Minnesota AFS, Minneapolis ... **John D. Peterson,** area supervisor, Minneapolis ARTCC, promotion made permanent ... **Claude T. Pine,** asst. manager, Systems Maintenance Engineering Branch, Airway Facilities Div., from Ohio AFS ... **Clyde J. Pittman,** supervisor, Spectrum Engineering Section, Telecommunications & Spectrum Engineering Branch, Airway Facilities Div. ... **Robert J. Reed,** technical coordinator, Michigan AFS, Belleville, from Washington Headquarters ... **Steve E. Roper,** staff engineer, Illinois AFS, Springfield ... **Thomas V. Rucker,** asst. manager, traffic management, Chicago ARTCC, promotion made permanent ... **Roger W. Zahm,** area supervisor, Toledo, OH, ATCT, promotion made permanent.

New England Region

Lauren L. Grace, asst. manager, Bridgeport, CT, AFSS, from regional office ... **Richard A. Kiczek,** traffic management unit supervisor, Boston ARTCC, Nashua, NH, promotion made permanent ... **Timothy K. Patten,** asst. manager, plans & procedures, Manchester, NH, ATCT ... **Earl S. Seabrooks,** manager, New Cumberland, PA, MIDO, from Ft. Worth, TX ... **Arthur E. Totman,** unit supervisor, Bangor, ME, AFS, Bucks Harbor, promotion made permanent.

Northwest Mountain Region

Suzanne G. Alexander, manager, Boeing ATCT, Seattle, from regional office ... **Lawrence D. Anderson,** staff chief, Aviation Drug Abatement Program Staff, Aviation Medical Div. ... **Joseph A. Deherrera,** manager, Grand Junction, CO, AFSFO (Nav/Com), Salt Lake City AFS, from Denver AFS ... **James C. Frisbee,** manager, Glenwood Springs, CO, AFSFO, Salt Lake City AFS, from Denver AFS ... **William E. Leonard,** area supervisor, Portland, OR, ATCT ... **Stephen P. Long,** area supervisor, Salt Lake City ARTCC, promotion made permanent ... **William M. Matson,** unit supervisor, Salt Lake City FSDO, from San Diego FSDO ... **Lewis D. Olsen,** area supervisor, Boeing ATCT, Seattle, from Seattle-Tacoma ATCT ... **John H. Potts,** asst. manager for technical support, Portland, OR, AFS ... **Brazel D. Schreiber,** area supervisor, Portland, OR, ATCT ... **Michael W. Tebbs,** unit supervisor, Radar/Auto Construction Engineering, Establishment Engineering Branch, Airway Facilities Div. ... **Glen A. Wood,** area supervisor, Seattle ARTCC, Auburn, WA, promotion made permanent.

Southern Region

James R. Borders, manager, Savannah, GA, AFSFO, Columbia, SC, AFS ... **Oscar E. Branch,** area supervisor, Jackson, MS, ATCT, from Meridian, MS, ATCT ... **Lewis A. Butler,** supervisor, Traffic Management & Procedures Section, System Management Branch, Air Traffic Div. ... **Howard G. Callon,** area supervisor, Hilliard, FL, ARTCC, promotion made permanent ... **Mark A. Christensen,** area supervisor, St. Petersburg-Clearwater, FL, ATCT, from North Perry ATCT, Hollywood, FL ... **Gary F. Fournier,** manager, Miami ARTCC ... **Paul H. Greer,** unit supervisor, Covington, KY, AFS, Hebron, from College Park, GA ... **Sherrie K. Klarfeld,** area supervisor, Hilliard, FL, ARTCC, promotion made permanent ... **Albert H. Linton,** unit supervisor, Jacksonville, FL, ARTCC AFS, promotion made permanent ... **Amiel Maness,** manager, Bowling Green, FL, AFSFO, Tampa AFS, from regional office ... **Warren C. Murphy,** unit supervisor, Installation Unit, Telecommunications Section, Establishment Engineering Branch, Airway Facilities Div., promotion made permanent ... **Eric Rutherford,** area supervisor, Hampton, GA, ARTCC ... **Detlev F. Scheer,** unit supervisor, San Juan, PR, AFS, from Windsor Locks, CT, AFS ... **David T. Siggers,** foreman, Miami Hub AFS, promotion made permanent ... **Roland G. Tucker,** asst. manager for program support, Jacksonville, FL, Hub AFS, from Chicago AFS ... **Samuel L. Tyson,** area manager, Miami ARTCC, from regional office.

Southwest Region

Alfonso L. Aguilar, unit supervisor, Albuquerque AFS, promotion made permanent ... **Charles R. Bono,** manager, Ft. Worth, TX, ARTCC, from Albuquerque, NM, ARTCC ... **Thor B. Cornell,** area supervisor, Houston ARTCC ... **Robert E. Deering,** asst. manager, airspace & procedures, Ft. Worth ARTCC ... **Mary C. Dreessen,** manager, Dallas-Ft. Worth CASFO ... **Kristine E. Fletcher,** area supervisor, Corpus Christi, TX, ATCT ... **Thomas W. Glover,** team supervisor, Dallas/Ft. Worth FSDO ... **James L. Jones,** unit supervisor, Ft. Worth ARTCC AFS ... **Glynn P. Kohler,** area supervisor, Lake Charles, LA, ATCT ... **Linda S. Longoria,** field office unit supervisor, Dallas/Ft. Worth AFS, from Addison, TX, AFSFO ... **James W. Lyon,** area supervisor, Alliance ATCT, Ft. Worth, from Dallas/Ft. Worth ATCT ... **Richard J. Macha,** asst. manager for technical support, Albuquerque AFS.

Technical Center

William E. Benner, technical program manager, Weather/Primary Radar Div., promotion made permanent ... **Jack Bernstein,** technical program manager, System Design/Transition/Communications Div. ... **Gary Frings,** technical program manager, Propulsion & Structures Branch, Research Directorate for Aircraft Safety ... **John P. McDade,** technical program manager, ATC Sustaining Engineering Branch, Automation Div. ... **Bill R. Smith,** supervisor, Operations Section, Flight Service Field Support Branch, National Automation Field Support Div.

Washington Headquarters

Ralph W. Davis, area supervisor, En Route/FSS Operations Branch, Civil Operations Div., Office of Air Traffic System Management, from Oakland ARTCC ... **James H. Farrell,** supervisory program analyst, Strategic Initiatives Div., Office of Civil Aviation Security Policy & Planning ... **Larry W. Herrell,** area supervisor, Operations Branch, National Flight Data Center, Office of Air Traffic System Management ... **John Humfleet,** branch manager, Gatwick International Field Office, London, from Louisville, KY, FSDO ... **Diane C. Kapanowski,** asst. air traffic manager, operation, Operations Branch, ATC Systems Command Center, Office of Air Traffic System Management ... **Steven G. Keenley,** manager, Investigations Branch, Investigation & Security Div., Office of civil Aviation Security Operations, from Great Lakes regional office ... **Louis J. Martin,** unit supervisor, Frankfurt, Germany, International Field Office, from Minneapolis-St. Paul CMO.

Western-Pacific Region

Gary L. Blom, manager, Oakland, CA, FSDO, from San Jose, CA, FSDO ... **Patricia L. De Pauw,** asst. manager, plans & procedures, Ontario, CA, TRACON ... **Randall S. Genest,** area supervisor, Torrance, CA, ATCT, from Los Angeles ATCT ... **David W. Hartman,** area supervisor, Ontario, CA, TRACON, from Oakland TRACON ... **David E. Hegy,** manager, San Francisco CMO, from Salt Lake City FSDO ... **Ralph A. Hiller,** area manager, Ontario, CA, TRACON ... **Steven J. McKinty,** area supervisor, Metropolitan ATCT, Sacramento, CA, promotion made permanent ... **Billy D. Mooney,** asst. manager for training, Ontario, CA, TRACON ... **Thomas A. Rea,** manager, Honolulu ARTCC, from Santa Ana TRACON ... **Wolfgang D. Ruegner,** area supervisor, Deer Valley ATCT, Phoenix, AZ, from Phoenix TRACON ... **Robert J. Sinz,** asst. manager for technical support, Oakland, CA, ARTCC AFS ... **Michael G. Snyder,** area supervisor, Tucson, AZ, TRACON ... **William R. White,** manager, Hawthorne, CA, ATCT, from Los Angeles TRACON.

Retirees

Aeronautical Center

James E. Cash
Phillip K. Felder
Gerald W. Hill
Randy G. Smith

Alaskan Region

Eugene K. Armstrong
Leonard J. Grau
Phyllis P. Taylor
Richard W. Thomas

Central Region

Jerry M. Colster
Richard D. Davis
Paul G. Evans
Charles P. Gray
Darlene L. Higdon
Donna R. Keenan
Oscar C. Tidwell

Eastern Region

Rocco Iannone
James F. Reilly

Great Lakes Region

Robert W. Heminger
Robert A. Hermer
Paul F. Homman
Joseph R. Lemieux
Paul Lockmondy
Edward R. Roever
Patricia C. Sample
Willis K. Shirk
Sally A. Wilkinson

New England Region

C. Louise Long

Northwest Mountain Region

Richard L. Carpenter
John D. Coffey
Milton R. Cooper
Robert E. Follensbee
Eugene E. Porter
Richard S. Saul
Betty E. Yamauchi

Southern Region

George R. Clark
Bobby G. Durham
Patricia S. Hamit
Joseph S. Hearn
Polly F. Hope
Dorse C. Lambert
Charles E. Miller
Albert R. Outen
Robert E. Pacetti
James G. Riley
Donald M. Sorrell
Frederick Steeves
Johnny B. Wagers
James S. Weaver
Willie J. Welch

Southwest Region

Ellen M. Adams
Forrest Barnett
Donald K. Blanchard
Troy E. Bowman
John W. Clark
Dennis D. Cloyd
Eugene G. Devlin
Frederick A. Doolen
Russell T. Dorr
Barbara C. Fernandez
Jerry L. Groves
Jasper Od Johnson
Robert B. Parkinson
Bobby K. Riley
Harold L. Stovall
Diane M. Stryker

Washington Headquarters

Avon W. Bailey
Michael F. Cieslak
Seymour Everett
Kurt P. Frenzel
Gene S. Mercer
Harold J. O Connell

Western-Pacific Region

Richard E. Anderson
Robert H. Murray
Jean A. Pardo
Melvin K. Spencer
John Y. Yoshida

FAA Remembers. **Joseph Levy** of Bronx, New York, died after a short illness. He was 73.

Until his retirement in 1978, Mr. Levy was a labor relations specialist with the Federal Aviation Administration's Eastern Region's Labor Relations Branch, AEA-16.

Mr. Levy was born in Greenwich Village. He graduated from Boys High School and attended Brooklyn College.

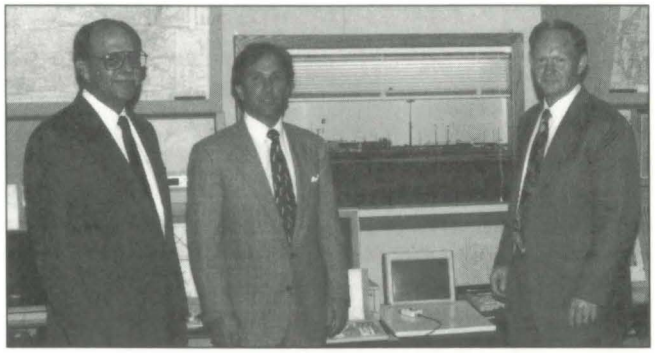
He is survived by his wife of 43 years, Celia; daughter, Karen; son, Mark; and two grandchildren, Shaun and Jonathan.

Firsts

Grand Forks Has 'Window on the World'

Poet Robert Frost wrote of taking the road "less traveled"—the unconventional decision to be sure. Grand Forks, North Dakota, Automated Flight Service Station also prides itself on following some unconventional paths.

Therefore, it came as no great surprise when it was suggested that a window be constructed in the operating quarters. Station employees all agreed that this would maintain a high level of morale and improve the aesthetic quality of their work environment.



Sharing in the new view of Grand Forks are, from the left, John Cuprisin, manager, AGL-500; Bob Fishman, AFSS manager; and Bill Pollard, AAT-1.

They could not cut through the wall to mount the window, so they decided to hang one on the wall. Quality assurance specialist Steve Hunter applied his planning and carpentry skills and soon produced an oak-framed window complete with marbelite sill, mini blinds, and rheostat controlled lights to simulate night and day.

The next important step was to add a realistic view. Area manager Gary Griffin and plans and procedures specialist Steve Sims ventured outside to take wide-angle photos of exactly what would be seen from a real window. These pictures were enlarged and placed in the window frame. The result was a beautiful panorama of Grand Forks International Airport.

All that remained was an official dedication. Following the presentation of the Regional and National Facility of the Year Awards (see June 1992 *FAA World*), the window was unveiled by Bill Pollard, Associate Administrator for Air Traffic; John Cuprisin, manager, Great Lakes Air Traffic Division; and Bob Fishman, air traffic manager, Grand Forks Automated Flight Service Station.

To our knowledge Grand Forks is the only automated flight service station in the country to have such a "view." ✲

U.S. Department
of Transportation

**Federal Aviation
Administration**

800 Independence Ave, SW
Washington, DC 20591

**FORWARDING AND RETURN
POSTAGE GUARANTEED**

Official Business
Penalty for Private Use $300

BULK MAIL
POSTAGE & FEES
PAID
FEDERAL AVIATION
ADMINISTRATION
PERMIT NO. G-44