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Members of the FAA Headquarters Trips and Quads Technical Work Group and the Technical Center's Air Traffic Control Technology and Operations Branch worked with Dallas/Fort Worth air traffic controllers on multiple parallel runways simulation earlier this year.

Increasing Airport Capacity:

What About Triple/Quadruple Parallel ILS Approaches?

By Mike Jacobs

Handling the increases in air traffic within the National Airspace System (NAS) without reducing safety is the goal of the FAA in the decade of the '90s and beyond.

Achieving this objective might include redesign of the airways, central flow management and automation of the Air Traffic Control (ATC) system. The FAA, through a cross-functional technical work group (TWG) in Headquarters, and with support from the Technical Center in Atlantic City, New Jersey, is investigating the use of triple and quadruple parallel runways to increase airport capacity while maintaining a high level of safety. The research and development part of this effort is managed and directed by the Research and Development Service in ARD-240.

By using a realistic simulation environment, TWG seeks to develop national standards for using multiple simultaneous parallel ILS approaches with both existing and new technology. The study's goal is to determine by using a real-time ATC simulation if triple and/or quadruple parallel runways can safely increase the traffic handling ability at the Dallas/Fort Worth International Airport, and at other airports planning to expand as well.

What must be determined is whether this can be accomplished safely meeting all requirements and standards of Air Traffic, Flight Standards, and Aviation Standards. This is being tested through real-time simulation using live controllers and live flightcrew personnel.

In real-time simulation, air traffic controllers are performing tasks at a workstation using displays and controls. In conjunction with this, flightcrews are performing tasks in flight simulators interfaced into the controller displays. Alternately, fast-time simulation is based on a mathematical description of the system.

In FAA studies real-time simulation is normally used to observe and record how the controller/pilot interacts with the system because fast-time simulation does not accurately model human variability.

The number of aircraft that can land at an airport during instrument meteorological conditions (IMC) is a significant limitation on system capacity. Future capacity may be increased by increasing the number of independent parallel approaches that can be made during IMC. The present limit is two, but there has been an interest in triple and quadruple approaches for over 10 years.

Continued growth of the Dallas/Fort Worth aviation community has provided impetus for the D/FW Metroplex Air Traffic Systems Plan. A six-phase program currently under way addressed D/FW (site specific) in the first three phases. The remaining phases address the development of national standards (which will apply at many other locations).

Statistics compiled at the FAA Southwest Regional Office forecast that by 2005 D/FW airport will handle close to 2.5 million instrument flight rule (IFR) operations annually—an increase in traffic of more than 130% for the Dallas/Fort Worth area in 20 years.

Major factors supporting this forecast include completion of Delta Airlines' terminal expansion, construction of the proposed new American Airlines' terminal, and growth of the three new airports: North Dallas Jetport, Fort Worth

(Continued on page 4)

Introducing Children to Aviation

San Jose Tower Sets Up Videophone Link To Discovery Museum

By Fred O'Donnell

How many times are children told, "Don't touch that," or "Keep your hands to yourself"? Countless times, of course. Al Riedel, manager of the San Jose Air Traffic Control Tower in California, has done something to eliminate some of these times by using innovative ideas and community involvement.

San Jose International Airport in northern California is now undergoing major expansion programs adding new terminals, parking garages, and aircraft parking ramps. Part of the expansion will include a "Kidport" in the terminal area. Designed to help children expend some energy while waiting for their flights, the Kidport will be a play area with an aviation theme.

It was during the planning discussions for the Kidport that the idea of a video link with the air traffic control tower first surfaced. Riedel, who had been contemplating ways the tower could become more involved in the local community, saw the video link as a possibility.

(Continued on page 2)

In This Issue

1 Increasing Capacity
1 Children and Aviation
5 What's the EAP?
6 What Happened January–June
8 Lestor Cooling Profile
9 Polish Rotorcraft Review

10 People
11 Retirees
12 Oshkosh '90

Children and Aviation

from page 1

"Santa, I want a . . . for Christmas." Most youngsters find the telephone and the opportunity to talk with an adult fascinating. The video communications system adds to the enjoyment.

He had been concerned with the absence of a formal educational outreach program that involved his facility and its personnel. Conversations with Barbara Abels, public affairs/aviation education officer for the Western-Pacific Region, and her staff had produced several ideas for community involvement, but few had actually materialized except for an occasional tour of the air traffic control tower. While many air traffic managers are able to take children on limited tours of their facilities, that was out of the question for San Jose. Because the tower is located on the loading ramp and access requires walking across an open ramp through a baggage handling area, security and safety concerns associated with moving small legions of six-to-ten-year-old youngsters through a maze of security gates forced Riedel to limit tours to adults only.

A new tower, which will be located on the opposite side of the airport, will not have the same security/safety issues, but children's tours could not be conducted until it was put into operation.

Riedel also thought that the idea of a video link to the Kidport certainly had merit, but it could not be set up for some months until completion of several major construction projects at the airport. "So," Riedel pondered, "what can be done now?"

Discovery Museum of San Jose, located on Woz Way (named for Steve Wozniak of Apple Computer fame and a major benefactor to the museum), is designed as a hands-on learning experience for kids. Centered around a "street" theme, children are encouraged to step into the voting booth to pick one, just like adults do on voting day. Traveling down one street after another, the youngsters discover exhibits that are functional and are designed to learn through doing. Fire trucks, ambulances, bank vaults, a human skeleton, and telephone switchboards are but a few of the many hands-on exhibits available to the youngsters. The museum has used Panasonic videophones—a combination telephone, miniature television camera, and monitor—in many exhibits.

Robbie Eshelman of the museum staff suggested that a videophone link between the museum and the air traffic control tower would provide youngsters with an opportunity to see and hear what goes on in the tower and perhaps talk with an air traffic controller.

As Riedel listened and thought about the idea, many questions about allowing direct lines and video cameras in the tower came into mind. Do we want the distraction in the tower? Would employee unions agree? Would the equipment create electronic interface? Had this ever been done before? Who would install the equipment if approved? Who would be responsible for maintenance? If approved, and later the system became a distraction to controllers, how could we discontinue the link?

With more questions than answers, Riedel responded positively by saying, "Anything is possible; let's talk."

What followed was a series of meetings among Riedel; Jack Borrego, manager, Airway Facilities Sector Office; National Air Traffic Controllers Association (NATCA) representative, Wally Kearns; Professional Airways Systems Specialists (PASS) representative, DeWayne Collins; Marily Mora, San Jose International Airport Public Affairs; and Discovery Museum director of programs, Michael Openheimer. What came out of the many meetings is now history and is attracting national attention.

Of primary concern to Riedel was that controllers not be distracted by the cameras or the monitor. Another worry was the possibility of electronic interference with radio/radar equipment in the tower cab. Borrego agreed to test the video equipment for compatibility with existing tower equipment. His staff would provide the technical assistance and guidance necessary for the installation.

In discussions about the question of controller distraction, NATCA representative Kern's initial reaction was positive and very supportive of the videophone link. The provision that controllers would have the option to take calls made the program voluntary and made the idea acceptable. It was decided that the impact would be further evaluated after installation, and a final decision would be made at that time. Museum officials agreed to the provision that the equipment would be removed if it was detrimental to safety or in any way affected controller performance.

San Jose, which is in the heart of Silicon Valley, is blessed with an abundance of engineers who were more than willing to design the system. The Panasonic video equipment and telephones for the project were provided and installed by museum staffers. Volunteers use telephone lines provided by and paid for by the City of San Jose and the airport.

Discovery Museum, located downtown approximately one mile from the airport and directly under the flight path for runway 30L, is in an ideal location to introduce children to aviation concepts and ideas. Aircraft on final approach pass over the museum at approximately 800 feet. Children visiting the museum are immediately attracted to the sounds of the aircraft and react as children do to airplanes directly overhead and very close.

Once inside the museum, the child sees a large, six-sided, glass booth equipped with three videophones, part of the museum's Gilliland Global Communications Center. The videophones are connected to a local public service agency, with the center one being the link to the FAA control tower at San Jose International Airport. Inside the booth the child hears live air traffic control radio communications with pilots via a radio frequency scanner.

When the child activates the videophone linked to the airport, two cameras in the tower are activated and "freeze" their respective views. Camera number one is pointed at the American Airlines ramp area and shows aircraft arriving, being unloaded and loaded, and being pushed back. The second camera is aimed at the arrival end of runway 30L, the same runway that aircraft approach when passing over the museum.

These freeze frames are transmitted back to the child in 45 seconds as still pictures. Then a momentary flash appears on the tower monitor, the only signal to tower personnel that someone has activated the system at the museum. Unless a controller in the tower activates the third camera and the videophone system in the tower, the two freeze frames are all the child sees.

If an off-duty controller or supervisor wishes to talk to the child, they must first activate the system. Then by telephone, the two can talk about the pictures being transmitted and can even transmit pictures of each other.

The children love the description controllers use for certain aircraft such as "Fat Albert" for a Boeing 737 or "Silver Bullet" for a McDonnell-Douglas MD-80. The degree of interaction between child and controller varies due to the age of the child and the rapport established. Controllers have said they enjoy talking to the children and find it refreshing to converse with young, inquisitive minds.

Riedel adds, "Air traffic control is very demanding when you are responsible for the safety of air travelers. However there is a human side to our work, and we would like to share our interest and enthusiasm for aviation with children."

Jack Borrego emphasized the program is indeed a team effort. "The technicians at my facility are pleased to be part of this unique partnership, volunteering their time and technical knowledge to assist Discovery Museum in reaching its goal," he said.

What next? Riedel would be the first to say that this is only a small start. He would like to see color monitors, real-time scenes, and remotely controlled cameras used, but he realizes that money is a major stumbling block for the museum's support. The museum has paid for the procurement of the equipment and design, installation, and maintenance costs. Still, Riedel has said, "anything is possible." ■

Fred O'Donnell is a public affairs specialist in the FAA's Western-Pacific Region.

A cover over the telephone prevents mischievous fingers from dialing grandmother's house but does allow dialing the appropriate number to contact the air traffic control tower. Instructions located above the phone and the video camera explain how the system is activated.

Located in the telecommunications section of the Discovery Museum is a sound-proof booth where youngsters have the opportunity to speak to and see controllers simultaneously.

Al Riedel, manager, Air Traffic Control Tower, San Jose International Airport, explains the video communications system to a reporter from the Spanish-language television network.

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Airport Capacity

from page 1

Alliance Airport and Fort Worth Spinks Airport.

The progress of the study can best be seen through a description of its six phases.

Phase 1

Completed in June 1988, phase 1 provided a simulated operational test of the expanded airport envisioned in the Dallas/Fort Worth Metroplex Air Traffic Systems Plan. One of the major items in the plan involved the use of four simultaneous parallel approaches.

The simulation was based on not less than 5,000 feet centerline configuration with the new runway lengths at 6,000 feet.

Since there was no precedent established for running more than two simultaneous approaches under instrument conditions, numerous unexpected "blunders" were introduced to determine whether the controller could cope with them safely and quickly.

A blunder is an unexpected turn by an aircraft already established on the localizer. Without warning aircraft were turned towards traffic on adjacent runways, using 10, 20, and 30 degree turns. A number of these blundering aircraft also lost all communications.

A team evaluating the results of the test strongly endorsed the four simultaneous approaches, and the team affirmed that in each case the concept proved to be safe.

As a result simulation procedures were developed and approved (site specific) for conducting triple approaches at D/FW. Quadruple approaches required additional data and further development.

Phase 2

Ending in October 1989, this two-week simulation study evaluated independent triple parallel approaches at D/FW. The new east runway was lengthened to 8,500 feet, and there was not less than 5,000 feet between runway centerlines. Unlike the phase 1 project, turbojet aircraft were simulated on all runways.

Conclusions indicated that the triple simultaneous parallel ILS approaches with turbojet aircraft on all runways was a safe operation for the given D/FW configuration. No blunder in the triple configuration resulted in a slant range miss distance of less than the minimum acceptable criterion of greater than 500 feet.

Controllers, controller observers and ATC management observers concluded that the triple simultaneous parallel ILS approach at DFW is acceptable, achievable and safe.

As a result of this simulation, procedures were developed and approved for conducting triple simultaneous approaches at D/FW with turbojet aircraft on all runways.

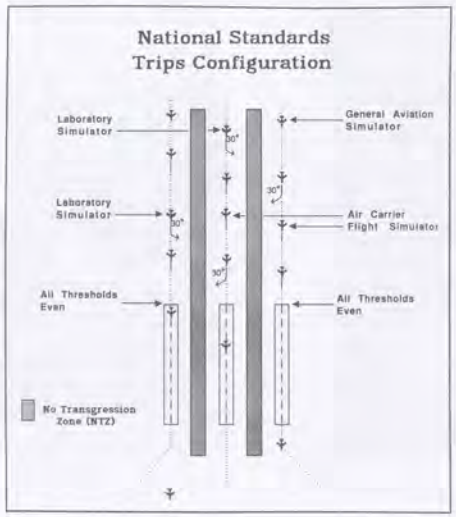
Phase 3

This phase involved simulation runs on the D/FW quadruple simultaneous ILS approaches. The new east runway and the new west runway were each lengthened to 8,500 feet. In this instance, there was not less than 5,000 feet between runway centerlines on the east runway and 5,800 feet on the west with turbojets on the inner runways, 18 right and 17 left, and props, turboprops, and turbojets on the outer runways.

The two-fold aim of this phase was to determine if controllers can intervene in the event of a blunder to provide an acceptable miss distance between the affected aircraft and if controllers and other participants in the simulation view the procedures as acceptable with regard to workload and usability, and safety.

Phase 3 simulation was conducted at the Tech Center from January 29 through February 8. The results will be published in a final report later this year.

Dallas/Fort Worth air traffic controllers guide airport traffic at the Technical Center's ATC terminal simulation facility. A simulation was conducted to test the concept of triple and quadruple parallel approaches and to define new separation standards.



Phase 4

This phase of the triple/quadruple approach program explored initial requirements for the development of national standards for triple simultaneous instrument approaches for application to any airport. This first stage addressed runways with centerlines separated by a minimum of 4,300 feet, with mixes of props and jets landing on all runways. Runways are not offset in the simulations for national standards. The second stage of this phase is scheduled to take place at the Technical Center from September 17–28.

The simulation considers any necessary modifications in operations, procedures, and/or equipment necessary to provide a required margin of safety in the triple simultaneous approach operation.

Phase 4, which started in April 1990, will seek answers to the potential for aircraft system failures or pilot errors that could threaten safety, the potential for ATC system failures or controller errors that could threaten a safe operation, and changes in standard operating procedures necessary for a multiple runway operation.

Phase 5

The dates and final criteria for phase 5 will be determined after the results of phases 1 through 4 are synthesized. It will explore the requirements for the development of national standards with high update rate technology. Phase 5 will address triple simultaneous approaches primarily for closely spaced runways.

Phase 6

The dates and final criteria for phase 6 will be determined after the results of phase 5 are synthesized. Phase 6 will explore the requirements for the development of national standards with technology varying from present-day systems to more advanced technology. ■

Mike Jacobs, former public affairs manager of the FAA Technical Center, last wrote on Runway Friction Measurement and Maintenance in the May issue of FAA World. *His byline was inadvertently left off that article.*

What's the EAP?

The Employee Assistance Program (EAP) is designed to help FAA employees or members of their family deal with personal problems. The FAAer, or a family member, can discuss the problem in confidence. The service is offered free of charge as an employee benefit.

Last year about 3,000 employees and family members used the EAP for a wide variety of personal problems. Typical problems include obtaining information and resources about the care of elderly parents and dealing with children experiencing learning disabilities, as well as marriage, financial, and stress problems. Eighty-nine percent of the caseload was within the areas of family, health, legal, and financial problems. Eleven percent of the caseload was for chemical dependency on alcohol and other drugs.

In everyday living, most problems do not require the services of a professional counselor, but sometimes professional help can really go a long way in solving a personal problem. The EAP offers this professional help.

Short-term counseling—up to four sessions—is available to help sort out personal and everyday problems that can affect all of us. Many problems can be solved during these four sessions. Sometimes, a person just needs some basic information, such as where to get information about child care, where to go for a free blood-pressure or cholesterol check, how to stop smoking, how to lose weight or reduce stress.

Other problems may require more than just four counseling sessions. A referral will then be made by the EAP counselor. When making a referral, the EAP counselor considers several factors, such as the nature of the problem, which professional has experience handling that particular type of problem, and the employee's ability to pay for the service based upon the employee's particular health insurance plan and financial resources.

If the EAP counselor suggests a referral, it is entirely up to the person seeking help whether to go or not. When people follow through on referrals, they are responsible for paying any fees that the provider may charge. Sometimes, health insurance will pay for all or part of the fees. Some services are free, such as many of the community-sponsored and self-help groups including Alcoholics Anonymous and Overeaters Anonymous. Other providers use a sliding fee schedule based upon an ability to pay.

EAP Managers

Aeronautical Center	Jim Bitner	*(FTS) 747-5583*
Alaskan Region	Carol Marvel	*(907) 271-5370*
Central Region	Susan Burleson	*(FTS) 867-3043*
Eastern Region	Jim Duffy	*(FTS) 667-1902*
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Susan Burleson, EAP Manager, Central Region

The EAP counselor will work to help decide the most appropriate referral based upon financial status and health insurance plan. The EAP has no affiliation or financial interest with the referral agents.

EAP services within the FAA are provided either by a contractor or an in-house counselor. The counseling sessions are confidential and protected under the federal confidentiality laws. No information can be released without a signed release form specifically authorizing the counselor to discuss the problem with the person designated on the release.

Safety-related employees who voluntarily come to the EAP for chemical dependency problems will be asked to sign a release authorizing the counselor to inform the employee's facility manager and flight surgeon of the chemical dependency problem. If the safety-related employee elects not to sign the release, the EAP counselor cannot continue to work with the employee, nor can the counselor inform the agency.

Full confidentiality exists for all problems, including chemical dependency, for both non-safety-related employees and family members.

FAA Headquarters, regions, and centers each have an agency employee who works as the EAP manager and oversees the program. To contact the EAP, just call the appropriate EAP contractor or EAP manager.

FAA employees or family members can directly contact the EAP for services. A supervisor can also refer an employee to the EAP when the supervisor has documented continuing performance and/or conduct deficiencies. However, acting on a supervisory referral is entirely voluntary. The supervisor cannot take any disciplinary action against the employee for electing not to go to the EAP, and the supervisory referral does not become part of the Official Personnel Folder (OPF).

Most personal problems don't go away if ignored. If you or someone you know has a personal problem, consider calling the EAP and talking with a professional counselor to get the help you need and deserve. ■

What Happened
January-June 1990

The Department of Transportation TransExpo Exhibit greeted visitors at the entrance of the trade show held in January.

January: *AGING AIRCRAFT*. The U.S. General Accounting Office, in a report issued this month, recommended that FAA develop a comprehensive plan to coordinate government and industry actions on aging aircraft.

January 3: *MIAMI TNA*. FAA announced that Pan American World Airways agreed to install a thermal neutron analysis (TNA) explosives detection system at the airline's baggage area at Miami International Airport.

January 5: *NEW ASSOCIATE FOR AIRPORTS*. Leonard L. Griggs, Jr., a former director of Lambert-St. Louis International Airport, was named Associate Administrator for Airports.

DELTA FINED. FAA announced that it had proposed a civil penalty of $70,000 against Delta Air Lines for operating a jetliner in scheduled passenger service that did not meet airworthiness standards.

January 6: *ENGINE SEPARATES*. The right engine of a Northwest Airlines Boeing 727 fell off an hour after the Minneapolis-bound airliner took off from Miami, Florida. The crippled jet landed safely at Tampa International Airport without injury to its 139 passengers and six crewmembers.

January 8: *TRANSEXPO*. Secretary of Transportation Samuel K. Skinner officially opened TransExpo, at the Sheraton Washington Hotel, raising the curtain on the biggest U.S. transportation trade show since Transpo 72. The three-day exhibition attracted between 8,000 and 10,000 people.

January 12: *AAS SUPPORT*. FAA announced the award of a $139 million contract to the Federal Systems Group of TRW for technical support and assistance in managing the agency's Advanced Automation System contract and other automation programs.

January 16: *HIJACKING FOILED*. A hijacking attempt was made on an American West 727, en route from Houston to Las Vegas, when a passenger grabbed a flight attendant and demanded to be taken to Cuba. The pilot diverted the flight to Austin, where the hijacker was apprehended.

January 18: *RUNWAY COLLISION*. An Eastern Airlines Boeing 727, on its landing roll at Hartsfield Atlanta International Airport, collided with a Beechcraft King Air 100 that had just touched down—killing the pilot of the King Air. FAA decertified the controller who cleared the Eastern flight to land on an occupied runway.

January 25: *AVIANCA CRASH*. An Avianca Boeing 707, running low on fuel while attempting to land at Kennedy International Airport during IFR conditions, lost power in all four of its engines and crashed near a Long Island residential neighborhood, killing 72 of the 161 people onboard.

January 29: *FISCAL YEAR 1991 BUDGET*. President Bush asked Congress for a fiscal 1991 FAA budget of $8.3 billion. The request represented an increase of $1.4 billion over the previous fiscal year. The budget proposed higher user taxes to fund the spending increase.

January 31: *PROTECTIVE BREATHING EQUIPMENT*. An FAA rule requiring airlines to provide flight attendants with protective breathing equipment, to be worn when fighting cabin fires, went into effect.

February 8: *NTSB CONFIRMATIONS*. The Senate confirmed the nomination of James L. Kolstad to be Chairman of the National Transportation Safety Board and of Susan M. Coughlin to be a member of the board.

February 12: *ASR-9*. The Salt Lake City ASR-9 went into operation, becoming the first ASR-9 to be commissioned with ARTS-III equipment.

February 13: *ST. THOMAS ATCT*. The air traffic control tower at St. Thomas, U.S. Virgin Islands, resumed its first operations since being severely damaged by Hurricane Hugo.

February 14: *DEREGULATION STUDY*. Secretary Skinner announced that a nine-month study conducted by the Department of Transportation concluded that deregulation had, on balance, increased airline competition and lowered airline fares.

INDIAN AIRLINES CRASH. An Indian Airlines Airbus A320, en route from Bombay to Bangalore, crashed 50 yards short of the Bangalore runway, killing 97 of the 146 people onboard. The crash, raising more questions about the A320s computerized "fly by wire" system, led the Indian government to ground all 14 of the A320s flown by the Indian air carrier.

February 16: *US-SOVIET COOPERATION*. Representatives of the Federal Aviation Administration and the Soviet Ministry of Aviation signed a memorandum of cooperation promoting civil aeronautics and air commerce between the two countries.

February 21: *HEADQUARTERS REALIGNMENT*. Administrator Busey announced the following changes would be made in the FAA Headquarters organizational structure:

- Establishment of an *EXECUTIVE DIRECTOR FOR ACQUISITIONS* in a move designed to streamline the agency's procurement process. The new organization would be headed by John A. Burt.
- Removing the Associate Administrator for Airports from under the Executive Director for System Development, renaming the office Assistant Administrator for Airports and having it report directly to the Administrator.
- Removing the Associate Administrator for Policy, Planning, and International Aviation from under the Executive Director for Administration and Resource Management, renaming the office Assistant Administrator for Policy, Planning, and International Aviation and having it report directly to the Administrator.

AIRPORT CAPACITY FUNDING. Secretary Skinner announced the appointment of former Deputy Secretary of Transportation Mimi Dawson to chair the Airport Capacity Funding Advisory Committee, which had been formed at the behest of Congress to recommend to the Secretary new approaches to funding airport capacity projects.

February 22: *FLIGHT DATA RECORDERS*. In a speech at San Diego, before the ALPA/Delta Air Lines annual safety meeting, Administrator Busey spoke in favor of using flight data recorders to monitor aircraft and pilot performance.

CHILD RESTRAINTS. The Air Transport Association, in a reversal of policy, petitioned the FAA to adopt a rule that would require infants and toddlers onboard airlines to be strapped into safety seats. Later that day, FAA announced a notice of proposed rule making that would require airlines to allow parents to use child-safety seats for children under two years of age; at the same time, FAA asked for public comment on whether the use of the seats should be made mandatory.

February 25: *SMOKING BAN*. A Congressionally mandated smoking prohibition on scheduled U.S. domestic airline flights of six hours or less went into effect.

February 26: *IN-FLIGHT RADIATION*. The Air Line Pilots Association requested the Department of Transportation to support a study of the effects on flightcrews of radiation encountered by aircraft at high altitudes.

February 28: *AIRLINER BRAKES*. The NTSB attributed the probable cause of the May 21, 1988, crash of an American DC-10 at Dallas/Fort Worth during an aborted takeoff on brake failure.

March 5: *COMPLIANCE & ENFORCEMENT*. FAA Administrator Busey announced a proposed series of changes in the way FAA fosters compliance with its regulations by private pilots. The proposals emphasized communication and education rather than sanctions.

March 6: *AGING AIRCRAFT ADs*. FAA adopted three airworthiness directives, effective April 17, that require extensive structural modifications to older Boeing 727s, 737s, and 747s. At the same time, the agency asked for comments on a proposed directive that would require the implementation of corrosion control programs for aging aircraft.

March 8: *NATIONAL TRANSPORTATION PLAN*. President Bush and Secretary of Transportation Skinner unveiled a National Transportation Plan, "Moving America into the 21st Century."

AVS-2 APPOINTMENT. Administrator Busey announced the appointment of Darlene Freeman as Deputy Associate Administrator for Aviation Standards.

PILOTS & DRINKING. FAA inspectors charged the three-man flightcrew of a Northwest Airlines flight (Fargo, North Dakota, to Minneapolis, Minnesota) of violating an FAR that prohibits the flying of an aircraft within eight hours of consuming alcohol. Blood tests also showed that all three airmen had violated a rule that prohibits the operation of an aircraft by a flight deck member with a blood alcohol level that exceeds 0.04 percent. The crewmembers' airman certificates were revoked the next day. As a result of this incident, FAA announced on March 14 a six-point action plan designed to tighten drug and alcohol enforcement investigation procedures.

PILOTS & SMOKING. The FAA confirmed reports that the Congressionally imposed smoking ban on certain flights did not apply to pilots, who were allowed to smoke in the cockpit. The agency, supported by findings of the National Institute on Drug Abuse, held that rapid decision-making and reasoning suffer during nicotine withdrawal; hence, to forbid smoking in the cockpit could be more deleterious than the effects of passive smoke on non-smokers.

March 12: *DEPUTY ADMINISTRATOR*. Barry Harris was sworn in as Deputy Administrator of the FAA.

March 15: *AIRPORT SECURITY PERSONNEL*. The FAA approved a new program designed to improve the standards for hiring, training, and testing personnel who conduct security screening of airline passengers.

March 19: *FAA REAUTHORIZATION BILL*. Legislation asking for $22.7 billion over a five-year period to finance airport and airway expansion went to Congress. This was the first major action taken to implement the National Transportation Plan.

March 27: *AMNESTY & SAFETY AUDITS*. In a speech delivered before the Aero Club of Washington, Administrator Busey urged all airlines to establish a safety audit program. If such an audit uncovers an inadvertent violation of FARs, but the airline corrects the problem and reports it immediately to the FAA, that carrier will not be cited for a rules violation.

DENVER AIRPORT GRANT. FAA announced it had approved a grant of $90 million to aid in the construction of a new air carrier airport for Denver.

April 4: *U.S.-U.K. AGREEMENT ON TNA*. The FAA announced the signing of an agreement with the British Airports Authority to install a thermal neutron analysis system at London's Gatwick Airport. Gatwick will become the first airport outside of the United States to be equipped with this explosives detection device.

NEW SCHEDULE FOR TCAS & WINDSHEAR WARNING DEVICES. The FAA announced a revised schedule for the installation of TCAS II and airborne windshear warning devices. Under the new rule, air carriers are required to equip airliners having more than 30 seats with these safety devices over a four-year period—with all such aircraft fully equipped by December 30, 1993.

April 5: *EXIT ROW SEATING*. The FAA issued a final rule that requires air carriers to restrict seats in exit rows to persons who are capable of activating emergency exits and performing other emergency functions during evacuation. Carriers have until October 5, 1990, to comply with the rule.

April 6: *TRANSPONDER REQUIREMENT*. An FAA rule went into effect that requires all civil aircraft conducting operations into, within, or out of a U.S. Air Defense Identification Zone (ADIZ) to be equipped with a transponder with automatic altitude reporting equipment.

April 10: *747 CARGO DOORS*. The NTSB released an accident report concerning the catastrophic failure on February 24, 1989, of a cargo door on a United Airlines Boeing 747 flying over the Pacific. On April 13, FAA issued an airworthiness directive requiring modification of 747 visual warning systems to signal flight and ground crewmembers when cargo doors were not fully closed, latched, and locked.

April 15: *COURT BARS FAA RULES OF PRACTICE*. The U.S. Court of Appeals for the District of Columbia declared that the FAA's rules of practice in assessing civil penalties not exceeding $50,000 had been improperly adopted and were therefore invalid. The court held that FAA had failed to give public notice of the proposed rules or to allow a period of public comment. Three days later, in response to this decision, the FAA reissued the rules as proposals and asked for comments.

April 17: *MD-11 FLIGHT TEST*. FAA certification personnel conducted the first FAA flight test of the McDonnell Douglas MD-11.

AAL-1 APPOINTED. FAA announced the appointment of Ted R. Beckloff, Jr., as Regional Administrator for Alaska (effective June 3).

April 18: *EASTERN TRUSTEE*. A federal bankruptcy judge took Eastern Airlines from under the control of Frank Lorenzo and put it in the hands of a court-appointed trustee. Eastern had lost more than $1 billion since it filed for Chapter 11 protection more than a year earlier.

MODE S. Officials of the General Accounting Office, testifying before the House Appropriations Subcommittee on Transportation, called for the FAA to re-evaluate the Mode S transponder program and consider "all alternatives . . . including terminating the contract in whole or in part."

April 22: *AGL-1 APPOINTED*. The appointment of Edward J. Phillips as Great Lakes Regional Administrator became effective.

April 26: *ROUTE TRANSFER*. The Department of Transportation gave Eastern Airlines approval to sell its Latin American routes to American Airlines.

FAA Administrator Jim Busey speaks from the podium during ceremonies announcing the Denver airport grant.

ILS ANTENNA. The first Redlich localizer antenna for the Instrument Landing System was commissioned at Dulles.

April 30: *AIRPORT GRANT ALLOCATIONS*. The FAA announced that in fiscal year 1990 it will distribute $814.3 million among the nation's airports for airport development and planning and for noise compatibility programs.

RANDOM DRUG TESTING UPHELD. The Supreme Court of the United States elected not to issue a writ of certiorari in a case involving the June 1987 DOT random drug testing program, thus letting stand the decision of a lower court upholding the program's legality.

May 1: *TAMPA TERMINAL CONTROL AREA*. FAA issued a rule establishing a TCA at the Tampa International Airport, effective September 20, 1990.

May 10: *NEW CMD CHIEF*. FAA announced the appointment of aviation security chief Raymond A. Salazar to head the agency's Center for Management Development (effective June 17).

May 13: *DEPOT RENAMED*. The FAA Depot at the Aeronautical Center was renamed the FAA Logistics Center.

May 15: *SECURITY COMMISSION REPORT*. The President's Commission on Aviation Security and Terrorism released its report, which focused on the December 1988 bombing of Pan Am Flight 103 and made recommendations for improving security and combating terrorism.

May 16: *BAKER TO RETIRE*. The Aircraft Owners and Pilots Association announced the retirement of John Baker as AOPA president, effective at year's end.

May 21: *MODE C*. FAA issued a proposal to suspend until December 30, 1993, certain provisions of regulations requiring altitude reporting (Mode C) transponders. The proposal would give aircraft without Mode C continued access to specified airports within 30 miles of a terminal control area primary airport.

June 1: *TERMINAL DOPPLER WEATHER RADAR*. The first terminal doppler weather radar, part of a projected nationwide system designed to detect windshear, went into operation at Denver's Stapleton International Airport.

U.S.-SOVIET AVIATION ACCORD. President George Bush and Soviet President Mikhail Gorbachev signed an aviation accord providing for expanded air service between their two countries. The agreement designated the following cities as gateways for U.S.-Soviet traffic: Anchorage, Chicago, Miami, San Francisco, Khabarovsk, Kiev, Magadan, Minsk, Riga, and Tbilisi. Pan American World Airways and Aeroflot currently operate between two U.S. and two Soviet gateways: New York, Washington, Leningrad, and Moscow.

June 6: *SECURITY MEASURES PROPOSED*. The FAA issued a notice of proposed rule making (NPRM) that would require both domestic and foreign air carriers operating in the United States to upgrade their standards for screening for weapons and explosives. Comments on the proposals are due by August 20.

June 14: *OFFICE OF INTELLIGENCE AND SECURITY*. Secretary Skinner announced that he intended to create within OST an Office of Intelligence and Security. At the same time, Admiral Busey announced the creation of the position of *ASSISTANT ADMINISTRATOR FOR CIVIL AVIATION SECURITY*.

June 15: *ANTITRUST PROBE*. The Justice Department announced that it was investigating USAir for possible antitrust violations at its Pittsburgh hub. Probe of other airlines that dominate air carrier markets may ensue.

June 20: *AVIANCA HEARINGS*. The NTSB began public hearings into the Avianca Airline crash that killed 73 people in January.

Keeping Up with Lester Cooling

By Lynn Jensen

In 1930, when Lester Cooling had his first airplane ride, powered flight was 27 years old. Cooling, who was 14 when he first went up in a plane, says he doesn't think the pilot had a license—a fairly new requirement then. During the 60-plus years since that event, powered flight had progressed to heights unimaginable to its pioneers, and Cooling, too, has been going strong.

Cooling is respected throughout the Federal Aviation Administration, his current and long-standing employer, and the aviation field. He has earned that status by more than mere longevity.

Secretary of Transportation Sam Skinner calls on him, and he has given Bill Lear, developer of the Lear Jet, some advice. Recently he went to Washington to meet President George Bush.

Cooling, who coincidentally completed his fiftieth year of federal government service on the day his boss turned 50, continues his personal activity at a level that inspires those half his age. He still participates in the sports that blossomed during the early 1930's when he was a math and physics student at Columbia College in his hometown of Dubuque, Iowa.

Cooling's graduation from Columbia College in 1935 led to a substitute teaching assignment at St. Columbhilles High School in Dubuque, where he also coached basketball and football. That was a lively experience because some of his students were actually his seniors. Cooling had graduated from high school at the age of sixteen, having completed the kindergarten/first grade and sixth/seventh grades in only two years.

As teaching was not to be his final career choice, Cooling found his way to the increased job security of the U.S. Post Office. After experience in a number of different jobs at that department, he became a postal inspector, and he also became seriously engaged in flying. A coworker, a fellow postal clerk, gave him a ride in a Taylorcraft BC-12, a popular two-seat sports plane of the time. Cooling claims to have had only a lukewarm interest in the notion of flying then, but he must have already been bitten by the flying bug. Although he claims he never had a desire to fly for the then-developing airline industry, the flying bug was there just waiting to be fed.

Cooling continued flight training during the years of economic depression, often by being paid for grass cutting and other odd jobs with a 15-minute flying lesson. He earned a private pilot license and, with five others, formed the Jaybird Flying Club, Inc., with a brandnew Piper J-5 state-of-the-art airplane.

Cooling remembers his trip to take the written test for the private pilot rating as "adventurous." By that time he had gained enough experience and skill in his flying lessons to be able to fly the Taylorcraft from Dubuque to Waterloo, a testing location of the Des Moines office of the Civil Aeronautics Administration (CAA—FAA's predecessor). The plane he was flying had no compass installed, although a compass was a required instrument even then; it had been removed for repairs. Cooling's solution was simple. He took a compass from the repair shop and placed it on the empty seat beside him. Not exactly an installation, he admits, but there was now a compass in the airplane.

The weather for the trip was lousy. The fog was so thick that following the railroad line to Waterloo offered the only hope for navigation. The first part of the trip did not go well. Lost and concerned, he happened upon a town with a train station. He tried to read the name on the station's sign from the air, but he could only make out the last three letters—"ora." He finally made his way outside of town, landed in a farmer's field, and discovered he was near Aurora, Iowa. Oriented again, he got back in the air and, with map in lap and railroad tracks in view, proceeded uneventfully to the CAA testing site. He passed the written test, had no problem with the compass, and returned home.

Cooling entered the military in 1942, hoping to be a pilot for the U.S. Army Air Force (USAAF). He was disqualified from being a USAAF pilot when a complete physical examination disclosed a knee injury he had received while playing college football. He was qualified as a "service pilot," however, and assigned as the flight commander of a training unit at Coleman, Texas. In that capacity, he instructed and gave flight tests in the PT-19 primary training aircraft and was heavily involved in the selection of those moving up to basic training.

A flight training cutback in 1944 caused Cooling's reassignment to school at Homestead, Florida, where he learned to fly the C-54, the military version of the four-engine Douglas DC-4. That led to an assignment to serve as a pilot with a Trans World Airlines (TWA) contract carrier flying for the military Air Transport Command. That assignment lasted until 1946 when TWA offered Cooling a job flying from the company's Kansas City base.

Although he still professed little interest in flying for an airline, Cooling accepted the job. He says he really wanted a job as an inspector with the CAA, but one was not then available for him. His short career with TWA was not short on adventure.

His airline pilot career began with flying the DC-3 between Kansas City and Albuquerque, New York, and Newark. In 1947 he progressed to flying the Lockheed Constellation, going through flight training at Reading, Pennsylvania. That began his experience with flying the international routes for TWA, including regular routes from New York to Shannon, Paris, Rome, among others.

Cooling, third from left, participates in a signing ceremony earlier this year at the White House marking National Transportation Safety Week. With him are Vice President Dan Quayle, DOT Secretary Sam Skinner, and representatives of other DOT modal agencies.

Cooling then helped open a new route for TWA, from Cairo to Bombay, and that afforded him the adventure of living in Egypt—then a frontier of airline flight. Cooling describes the challenge: "I used to fly from Karachi to Bombay with a map on my lap like I did years before in the Taylorcraft."

In 1948, Cooling finally received what he had wished for for several years—an offer to become an aviation safety inspector for the CAA—but the news of his impending departure was not received well by his supervisor at TWA. In fact, Cooling was fired on the spot, an action the supervisor later rescinded, along with giving Cooling good wishes for the future.

Cooling's career with the CAA, and later FAA, has been diversified and full of firsts. He has served in offices in Milwaukee, South Bend, St. Louis, Kansas City, and Chicago. Some of his more interesting agency flying experiences came in St. Louis and Kansas City.

While at St. Louis, he became the first civilian pilot rated to fly the North American Sabreliner, a military light jet transport aircraft being converted to civilian business use. For a year-and-a-half, Cooling provided oversight for all the training conducted for the airplane and gave the flight tests to the corporate customers of the distributor.

Late in 1965, he began a repeat performance in Kansas City with the newly developed Lear Model 23. That airplane had much appeal and potential; it was the beginning of the low cost business jet, costing about $700,000 a copy, but Cooling was not impressed with its capabilities. Later models offered more safety and reliability than the earlier Lear 23, said Cooling. In a later assignment, Cooling was also the first inspector to give airmen certification tests in the Cessna citation.

Today Cooling is an active aviation safety inspector in FAA's Great Lakes Region and an FAA resource in the investigation and reporting of aircraft accidents. He is an active pilot and serves as a mentor to others in the agency.

Cooling's interests other than aviation continue to give him pleasure, as well. His love of sports, beginning in high school, has stayed with him through his life. When he first saw the game of handball in high school, he was not a fan. "I thought it was a sport for people not able to make it in real sports," he says, but one day he was asked to fill in during a match. "It was tougher than I thought," he recalls.

Cooling prepares to depart on a flight check at Coleman, TX, in 1944.

The short version of the long story is that he was hooked on handball, and he soon went on to win a Young Men's Christian Association championship. His interest has never waned. In his younger years, he says, "I played all the time—before every date. If the game ran long, I was late for the date. Lots of girls were very upset."

He continues to play in tournaments to this day, and not just in tournaments for his age group. "Most people my age don't play very well," he says. "I need to play younger people for the competition."

Cooling added racquetball to his sports repertoire, and that sport became a family affair. One of his two sons worked as a professional instructor, and the youngest of his three daughters was national doubles champion at Memphis State University.

Eubie Blake, the Jazz pianist, was nearly 100 when he said that if he knew he was going to live so long, he would have taken better care of himself. Lester Cooling, who is not that age yet, may not know of Blake's quote, but he seems to have always lived by the idea. ■

Lynn Jensen is the manager of the Technical Evaluation Certification Branch, Flight Standards Division, Great Lakes Region.

Ready, Willing, and Technical

FAAers Review Polish Rotorcraft

By Debra Myers

The Pezetel facility at Swidnik in southeastern Poland is where that country's grassroots independent trade union movement Solidarity began. The movement then spread to the major shipbuilding facilities of the north and culminated in the building of a new Polish democracy.

The Pezetel company is also where a team of engineers and pilots from FAA's Rotorcraft Standards Staff, Rotorcraft Directorate, Fort Worth, Texas, recently participated in an event that was a "first" for aviation on the international front. The Fort Worth FAAers had the opportunity to complete a week-long technical review of the SOKOL (Falcon) helicopter at the same Pezetel facility.

The aircraft under review, which received its Polish type certification in 1987, is the first transport category Polish design, either fixed or rotary wing, to be submitted to the FAA for approval.

The PZL W-3 SOKOL is a twin-engine, multi-purpose helicopter with configurations for operations such as emergency medical service, 12-passenger transport, and cargo. The helicopter also incorporates full icing capabilities and has accumulated 82 hours of flight testing in actual icing conditions.

Fort Worth engineers sent to Swidnik by Rotorcraft Directorate manager James Erickson in response to Pezetel's application for an FAA type certificate included Eric Bries, Wayne Barbini, Tom Richeter, John Swihart, and Bob Weaver. Also assisting were Leonard (Bo) Korenek from the Fort Worth Flight Standards Office and Sam Grober from the Brussels certification office.

Also in Swidnik for the certification activities was Frank Piasecki, the well-known pioneer of vertical-lift aircraft in the United States, who is now the U.S. representative and technical advisor for Pezetel. He, along with daughter Nicole and son Fred, were instrumental in getting the certification action started and were able to provide valuable assistance throughout the meetings.

Mr. Piasecki's career in vertical-lift aircraft started in 1936, and, to date, he has designed, flight tested, and produced numerous vertical-lift aircraft.

Eric Bries, Rotorcraft Policy and Procedures Branch manager and flight test pilot, and Wayne Barbini, flight test engineer, conducted a short flight evaluation and found the SOKOL to have many desirable characteristics, including excellent engine response and low vibration levels. They will be conducting additional certification flight tests.

Wayne Barbini, the certification project manager, looked into the background of the Pezetel facility in Swidnik and its development of the SOKOL. He learned that the facility was organized in 1951, and it now employs over 8,000 people who make all its assembly jigs and fixtures with no major outside vendor involvement.

Pezetel's work in helicopter development, which had begun in 1973, produced the technical specifications for the SOKOL by 1974. The resulting design specifications included: a 6-ton class with two 1,000 horsepower engines, a maximum speed of 260 kilometers per hour, and a cruise speed of 230 kilometers per hour.

The SOKOL's first flight was in 1979, and production tests began in 1984. Between 1984 and 1987, Soviet civil certification activities were conducted, with numerous flight tests taking place in extreme climates and altitudes. For example, cold weather and icing tests were conducted in Siberia at temperatures down to −42 C.

Standing in front of the SOKOL helicopter are Wayne Barbini, Sam Grober, Frank Piasecki, Bo Korenek, and Eric Bries.

Team members enjoying those 27-cent Polish hot dogs (including mustard) and 20-cent ice cream cones are Sam Grober, Wayne Barbini, John Swihart, Eric Bries, and Bo Korenek.

Currently five SOKOL aircraft are in operational tests in the Soviet Union and two in operational tests in Poland. To date, the aircraft has accumulated over 7,000 hours of flight testing, and Soviet certification is expected by late 1990.

At this stage of the SOKOL's development, Polish officials believe that the technical assistance provided by FAA engineers is much more valuable than any direct financial aid to the government.

From the beginning of the engineers' review, those connected with the Polish rotorcraft knew that the success of their venture in the international market would be contingent upon FAA's approval, since markets in eastern Bloc countries are tenuous, at best.

Because the SOKOL was originally designed to meet Russian civil certification regulations, the issues needing inspection were many and intricate, and a number of design modifications will be needed before the aircraft can meet the U.S. certification standards under Part 29 of the Federal Aviation Regulations.

According to Bries, the technical knowledge of the Pezetel engineers is on par with those in the United States. They very much want to learn and understand the relatively complex system of FAA standards and certification.

During the technical breakout sessions that were part of the review, each FAA technical specialist guided a group of Polish engineers and certification authorities through a comprehensive comparison of the SOKOL's design to the FAA's certification standards. The result of the team's long hours of work included providing Pezetel with a detailed certification "road map" to follow in gaining FAA's approval of the Polish rotorcraft.

To the team's credit, Polish officials talked about how "astonished" they were at the speedy progress of the technical review. The officials were quick to recognize the technical competence and dedication of those performing the review.

The experiences in Poland left the team members from Fort Worth with some lasting memories and a sense of pride in being a part of establishing a successful working relationship between the United States and Poland. Team members are also proud to think that they may have made a difference to the future economic success of the new Polish democracy. ■

Debra Myers is a technical publications writer/editor at the Rotorcraft Directorate in Fort Worth.

People

Aeronautical Center

Cheryl I. Jackson, manager, Program Analysis Branch, Management Programs Staff, promotion made permanent . . . **Patricia A. Mabis,** supervisor, Operations Section, Supply Management Branch, FAA Logistics Center, from Washington Headquarters . . . **Carl L. McManus,** unit supervisor, Atlanta FIFO, Flight Procedures & Inspection Div., promotion made permanent . . . **Judith A. Morris,** chief, Administrative Staff, FAA Academy . . . **James H. Owens,** manager, Department Systems Support Branch, Data Services Div. . . . **Janice E. Perry,** supervisor, Office Automation & CPMIS Section, Program & Project Management Branch, FAA Academy . . . **Mary L. Rickey,** supervisor, Certification Section A, Airmen Certification Branch, Airmen & Aircraft Registry Div. . . . **Robert E. Rolling,** supervisor, NAS Section, Academy Maintenance Support Branch, Facility Support Div., promotion made permanent . . . **Jimmy R. Tyler,** supervisor, Operations Section, Facility Maintenance & Operations Branch, Facility Support Div.

Alaskan Region

Gary E. Childers, accident prevention specialist, Anchorage FSDO . . . **Raymond C. Christensen,** manager, Cold Bay, AK, FSS, from Kenai AFSS . . . **Paul L. Fischer,** unit supervisor, Resource Management Branch, Flight Standards Div. . . . **Gerald C. Paterson,** unit supervisor, Anchorage FSDO . . . **Louis F. Press,** area supervisor, Fairbanks ATCT, promotion made permanent . . . **John D. Rennie,** unit supervisor, Sitka, AK, AFSFO, South Alaska AFS, Anchorage, from FAA Academy . . . **Robert C. Walker,** area manager, Anchorage ATCT, from regional headquarters . . . **Julius K. Wery,** manager, Dillingham, AK, FSS, from Kenai AFSS . . . **Jed T. Williams,** unit supervisor, Bethel, AK, AFSFO, North Alaska AFS, Fairbanks, promotion made permanent.

Central Region

W. Alan Cunningham, unit supervisor, St. Ann, MO, FSDO, Berkeley, MO . . . **Arthur E. DeSalme,** unit supervisor, Kansas City, MO, FSDO, promotion made permanent . . . **John M. Djukic,** area supervisor, Kansas City International ATCT, from Chicago O'Hare ATCT . . . **David A. Felber,** unit supervisor, St. Louis, MO, AFS, Berkeley, MO, promotion made permanent . . . **William E. Jennen,** unit supervisor, Establishment Engineering Branch, Airway Facilities Div. . . . **Kenneth M. Ornes,** supervisor, Programming Section, Planning & Programming Branch, Airports Div., promotion made permanent . . . **Naomi L. Saunders,** manager, Civil Aviation Security Div., Kansas City, MO, from Rome, Italy . . . **Lawrence P. Smith,** area manager, Kansas City International ATCT, from St. Louis, MO, ATCT.

Eastern Region

Paul Bartko, area supervisor, Newark, NJ, International Airport ATCT, promotion made permanent . . . **Paul L. Bendigo,** area supervisor, Reading, PA, Municipal Airport ATCT, promotion made permanent . . . **James T. Bryant,** area supervisor, New York ARTCC, Islip, NY, promotion made permanent . . . **George Chopay,** unit supervisor, New York Flight Standards District Office . . . **Glenn M. Eggleston,** unit supervisor, Syracuse, NY, AFSFO, Empire AFS, promotion made permanent . . . **Margaret A. Hartman,** area supervisor, LaGuardia ATCT, promotion made permanent . . . **James M. Huber,** unit supervisor, Establishment Engineering Branch, Airway Facilities Div., promotion made permanent . . . **Debra Jacobs,** area supervisor, New York ARTCC, Islip, NY, promotion made permanent . . . **Sheldon R. Moskowitz,** unit supervisor, LaGuardia AFSFO, Metro NY AFS . . . **Peter A. Mulligan,** area supervisor, New York ARTCC, Islip, NY, promotion made permanent . . . **Samuel W. Shelton,** area supervisor, New York ARTCC, Islip, NY, promotion made permanent . . . **Barry J. Streisfeld,** unit supervisor, JFK AFSFO, Metro NY AFS, promotion made permanent . . . **Raymond J. Taheny,** asst. manager for automation, New York ARTCC, Islip, NY . . . **John S. Walker,** asst. manager, Air Traffic Div.

Great Lakes Region

Bernard F. Baeb, area supervisor, Austin Straubel Field ATCT, Green Bay, WI, promotion made permanent . . . **William R. Beynon,** manager, Clinton County, MI, AFSFO, Belleville AFS, promotion made permanent . . . **Bradley J. Chandler,** asst. manager for program support, Aurora, IL, AFS . . . **William D. Coppernoll,** unit supervisor, South Bend, IN, FSDO, promotion made permanent . . . **Ralph D. Forrest,** unit supervisor, Chicago, IL, AFS . . . **Jeffrey L. Griffith,** manager, Wold Chamberlain ATCT, Minneapolis, MN, from Tampa, FL, ATCT . . . **James A. Grover, Jr.,** supervisory electronics technician, Oberlin, OH, AFS . . . **Roger Henry,** asst. manager, Dakota AFS, Bismark, ND, from Aurora, IL . . . **Leonard U. Hopkins,** asst. manager, Grand Forks, ND, AFSS . . . **Kathryn M. Hughes,** area supervisor, Indianapolis, IN, ARTCC, from Memphis, TN . . . **Richard J. Kettell,** area supervisor, Cleveland, OH, ARTCC, Oberlin, promotion made permanent . . . **Thomas A. Olsen,** security specialist, Air Security Branch, Civil Aviation Security Div. . . . **Douglas F. Powers,** unit supervisor, System Management Branch, Air Traffic Div., from Minneapolis, MN . . . **Salvador Salinas,** unit supervisor, Itasca County, MN, AFSFO, Minnesota AFS, Minneapolis, promotion made permanent.

New England Region

Allan J. Bogusz, systems engineer, Nashua, NH, AFS . . . **Howard M. Gotham,** systems engineer, Nashua, NH, AFS . . . **Richard Hopkins,** manager, Air Security Branch, Civil Aviation Security Div., promotion made permanent . . . **James E. Tremblay,** manager, Brainard-Hartford, CT, ATCT, from Bradley-Windsor Locks, CT, ATCT.

Northwest Mountain Region

Mark A. Baird, unit supervisor, Boise, ID, AFSFO, Portland, OR, AFS, promotion made permanent . . . **Maureen L. Coulter,** section supervisor, Employment Branch, Human Resources Div., promotion made permanent . . . **John T. Maxwell II,** manager, Miles City, MT, FSS, from Cold Bay, AK . . . **Gary E. Moore,** area supervisor, Colorado Centennial ATCT, Arapahoe County, CO, from Denver ATCT . . . **Bobby E. Mullikin,** asst. manager, Denver ARTCC, Longmont, CO . . . **Robert H. Neale, Jr.,** area supervisor, Seattle ARTCC, Auburn, WA . . . **Charles H. Terry,** unit supervisor, Boise, ID, AFSFO, Portland, OR, AFS, from Denver AFS.

Southern Region

Dewey L. Allen, Jr., asst. manager, Greenwood, MS, AFSS, from Jackson, MS, FSS . . . **Cathy L. Bailey,** unit supervisor, West Palm Beach AFSFO, Hub AFS, Miami, from Tampa, FL, AFS . . . **Gregory A. Barrett,** area supervisor, Memphis International Airport ATCT, promotion made permanent . . . **Jerry R. Bennett,** unit supervisor, Greensboro, NC, AFSFO, Raleigh AFS, promotion made permanent . . . **James R. Blumberg,** area supervisor, Florence, SC, ATCT, from Raleigh, NC . . . **Barry C. Broughton,** asst. manager for training, Jackson, TN, AFSS . . . **Darrell E. Brown,** supervisor, Operations Section, Resource & Planning Branch, Airway Facilities Div., promotion made permanent . . . **Earl F. Bryan,** area supervisor, Gainesville, FL, AFSS, from Orlando . . . **Roy L. Doolittle,** area supervisor, Hebron, KY, ATCT, from Orlando ATCT . . . **Julian Doskow,** section supervisor, Miami FSDO . . . **Edward F. Drury,** asst. manager, Hilliard, FL, ARTCC, from Hampton, GA, ARTCC . . . **Jeffrey P. Forman,** area supervisor, Charlotte, NC, Douglas Municipal Airport ATCT, promotion made permanent . . . **Truman L. Glisson,** area supervisor, Greenwood, MS, AFSS . . . **Ronald L. Gray,** supervisor, Pensacola, FL, AFSFO, Monigomery, AL, AFS, promotion made permanent . . . **Joseph W. Greenwell,** area supervisor, Bristol, TN, Tri-City Airport ATCT, promotion made permanent . . . **Haskel W. Griffin, Jr.,** crew chief, Miami, FL, ARTCC AFS . . . **Ronald W. Halman,** area supervisor, Pensacola Regional Airport ATCT, from Nashville, TN . . . **Bruce E. Hargis,** area supervisor, Savannah, GA, Municipal Airport ATCT, from Columbus, GA . . . **Jessie D. Horn,** area supervisor, Chattanooga, TN, ATCT, promotion made permanent . . . **Bayard M. Irwin, Jr.,** supervisor, Real Estate/Utilities Section, Real Estate Branch, Logistics Div., promotion made permanent . . . **John T. Jennemann,** supervisor, Knoxville, TN, AFSFO, Covington AFS, from Hebron, KY, AFS . . . **Ronnie Johnson,** supervisor, Real Estate/Space Management Section, Real Estate Branch, Logistics Div., promotion made permanent . . . **Billy J. Langley,** manager, Airports District Office, Memphis, TN, promotion made permanent . . . **Randell D. Nutt,** area supervisor, Orlando, FL, ATCT . . . **Ronald T. Piasecki,** area supervisor, Asheville, NC, Municipal Airport ATCT, from Jacksonville ATCT . . . **Stephen W. Pulak,** asst. manager, plans & procedures, Daytona Beach, FL, Regional Airport ATCT . . . **Billy K. Reed,** area supervisor, Jackson, MS, Municipal Airport ATCT, from Huntsville, AL . . . **John C. Riggs,** area manager, Jacksonville, FL, Municipal Airport ATCT, from West Columbia, SC, ATCT . . . **Elizabeth M. Shockley,** unit supervisor, Atlanta, GA, CASFO, Civil Aviation Security Div. . . . **John L. Simpson,** unit supervisor, Miami, FL, ARTCC AFS . . . **Charles R. Taylor,** manager, Memphis, TN, ARTCC . . . **Larry L. Welsh,** manager, Greenville, SC, Downtown Airport ATCT, from Macon, GA, ATCT.

Southwest Region

Jerry D. Biewen, systems engineer, Houston ARTCC AFS . . . **Bobby E. Casto,** unit supervisor, Tulsa AFSFO, Oklahoma City (Bethany) AFS, promotion made permanent . . . **John C. DeLarosa,** navaids/communications specialist, Harlingen, TX, AFSFO, San Antonio AFS, from Albuquerque AFS . . . **Larry W. Douglas,** unit supervisor, Houston, TX, ARTCC AFS, promotion made permanent . . . **James R. Edwards,** unit supervisor, Houston, AFS, promotion made permanent . . . **Fred J. Fox,** environmental support engineering technician, Austin, TX, AFSFO, Austin AFS, promotion made permanent . . . **Glenn A. Herrington,** area supervisor, Albuquerque, NM, AFSS, from Montgomery County AFSS, Conroe, TX . . . **Mildred G. Howe,** unit supervisor, Accounting Operations Section, Accounting Branch, Resource Management Div., promotion made permanent . . . **John P. Karman,** unit supervisor, Dallas/Fort Worth AFSFO, from Washington ARTCC AFS, Leesburg, VA . . . **Dixie J. Norton,** unit supervisor, Lubbock, TX, FSDO, from Sacramento, CA, FSDO . . . **Thomas Ochello, Jr.,** area supervisor, Albuquerque, NM, AFSS, from De Ridder, LA, AFSS . . . **Robert T. Owens,** Laredo, TX, AFSFO, San Antonio AFS, promotion made permanent . . . **Edwin L. Patterson,** section supervisor, National Airspace System Program Coordination Staff, Airway Facilities Div. . . . **William T. Pendarvis, Jr.,** section supervisor, Establishment Engineering Branch, Airway Facilities Div., from FAA Academy . . . **Russell T. Pickvance,** asst. manager for technical support, Austin, TX, AFS, from regional headquarters . . . **James G. Thompson,** asst. systems engineer, Houston, TX, ARTCC AFS, promotion made permanent . . . **Alan P. Turner,** unit supervisor, El Paso, TX, AFS, from FAA Academy . . . **Major C. Watts,** area supervisor, Jonesboro, AR, AFSS, from Little Rock, FSS.

Technical Center

Clifton F. Bailey, unit supervisor, Supporting Services Section, Plant Services Branch, Plant Engineering & Services Div., promotion made permanent . . . **Frances A. Mackuse,** technical program manager, Surveillance & Weather Systems Branch, Communications/Navigation/Surveillance Div., promotion made permanent . . . **Paul J. Tucci,** manager, Systems Engineering Branch, National Automation Engineering Field Support Sector . . . **Paul J. Wolownik,** technical program manager, Advanced Automation Systems Branch, Automation Div.

The information in this feature is extracted from the Personnel Management Information System (PMIS) computer. Space permitting, all actions of a change of position and/or facility at the first supervisory level and to branch manager in offices are published. Other changes usually cannot be accommodated because there are thousands each month.

Washington Headquarters

Barbara Aleshire, manager, Administrative Management Branch, Flight Standards Service . . . **David T. Bailey,** team supervisor, Advanced Automation Branch, Contracts Div., Logistics Service . . . **James K. Buckles,** asst. air traffic manager, operations, En-route Procedures Branch, Procedures Div., Air Traffic Operations Service, from New York ARTCC . . . **Lionel R. Driscoll, Jr.,** staff officer, Project Safe Staff, Flight Standards Service . . . **Felix L. Lococo,** manager, Certificate Management Branch, Field Programs Div., Flight Standards Service, from Van Nuys, CA, FSDO . . . **Gary P. Martindell,** manager, Current Operations Branch, Field Programs Div., Flight Standards Service, promotion made permanent . . . **L. Willene Minnick,** deputy director, Executive Secretariat, Office of the Administrator, promotion made permanent.

Western-Pacific Region

Charles B. Aalfs, manager, Operations Branch, Air Traffic Div. . . . **Jon-Paul Ammirata,** manager, Pago Pago ATCT, American Samoa, from Stockton, CA, ATCT . . . **Tommy E. Barclay,** asst. manager, plans & procedures, Oakland, CA, TRACON . . . **Jack D. Borrego,** manager, San Jose, CA, AFSFO, Golden Gate AFS, Hayward, promotion made permanent . . . **Alvin C. Cook,** manager, Oakland, CA, AFSFO, Golden Gate AFS, Hayward, promotion made permanent . . . **Gloriane M. Cooper,** area supervisor, Honolulu CERAP . . . **Lee R. Daniel,** area supervisor, Riverside, CA, AFSS . . . **Arthur Grueneberger,** area manager, McClellan AFB TRACON, Sacramento, CA, from regional headquarters . . . **Richard A. Gutterud,** area supervisor, Oxnard, CA, ATCT, from Oakland, CA, TRACON . . . **Richard T. Harris,** manager, Oakland, CA, FSS, from regional headquarters . . . **Harvey L. Hartmann,** area supervisor, Oakland, CA, TRACON . . . **Willoughby E. Henshaw,** project manager, Air Traffic Div. . . . **Stanley A. Huff,** area supervisor, Oakland, CA, ATCT . . . **Kenneth J. Hyman,** area supervisor, Fresno, CA, ATCT, promotion made permanent . . . **Russell M. Johnson,** area manager, Los Angeles, CA, AFS, promotion made permanent . . . **Wayne A. Mackenzie,** manager, Riverside, CA, ATCT, from regional headquarters . . . **Mauro M. Martinez,** supervisor, Navigation/Communications/Data Section, Systems Maintenance Engineering Branch, Airway Facilities Div. . . . **Garold D. Meyers,** systems engineer, Los Angeles, ARTCC AFS, Palmdale . . . **Daniel Olivas,** unit supervisor, Air Traffic Control Automation & Flight Information Program Section, Establishment Engineering Branch, Airway Facilities Div. . . . **William M. Reidy,** section supervisor, Air Traffic Div., from Van Nuys, CA, ATCT . . . **Kenneth S. Sander,** asst. manager for program support, Operations Program Section, Program & Planning Branch, Airway Facilities Div., from Los Angeles AFS . . . **Ralph O. Schneider,** manager, Contracting & Acquisition Management Branch, Logistics Div., promotion made permanent . . . **Dale S. Tengan,** area supervisor, Honolulu CERAP . . . **Robin F. Wilkerson,** manager, Pago Pago AFSFO, Hawaii-Pacific AFS, Honolulu, from regional headquarters.

FAA Remembers

Joseph D. Blatt. Joseph D. Blatt, 77, a retired Associate Administrator for Development at the FAA, died of cancer May 30 at George Washington University Hospital.

Blatt's achievements covered 33 years of service to the FAA and its predecessors and included receiving the agency's Exceptional Service Award and the Administrator's Career Achievement Award.

Starting in 1937 as a field engineer in Jacks Creek, Tennessee, Blatt's long FAA career included service in the Kansas City Region, where he set up the agency's first soils testing laboratory; the New York Region, where he was appointed Regional Administrator; and Washington, DC, at his retirement in 1970.

Blatt was a graduate of the College of the City of New York with a bachelor's degree in engineering and a master's in civil engineering.

He was a member of the American Society of Civil Engineers, the Radio Technical Commission for Aeronautics, the Aero Club, the Wings Club, the National Aviation Club, and the Society of Airway Pioneers.

Survivors include his wife of 56 years, Ethel "Eddie" Blatt of Washington.

We'd like to know. News about agency employees—both current and former—can be sent for publication to *FAA World*, Federal Aviation Administration, Office of Public Affairs, APA-300, 800 Independence Avenue SW, Washington, DC 20591.

Retirees

Aeronautical Center

Benny J. Allen
H. Lamoyne Brooks
Lester D. Cagle
Rolland E. Gerdes
Adelle W. Gilbert
Annabelle B. Haraway
Merwyn O. Huntress, Jr.
Mary W. Jones
Evangeline J. Mobley
George F. Murray
Gerald D. Orten
Albert D. Rockwell
James W. Strahan

Alaskan Region

Ruth L. Craig
Robert E. Elzig
Sylvia K. Kobayashi
Ray E. Marley

Central Region

Archie R. Carter

Eastern Region

Donald E. Brown
Donald M. Diperna
Allen E. Dorwin
Warren N. Mawhinney
John B. Newell
Sankey E. Parsons
Kenneth N. Patton
William M. Polson

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Stefan Bates
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Dennis E. Fink
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Richard A. Garmany
Frederick C. Heavland
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Edward E. Johnson
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James B. Lawler
James J. Lawrence
Elwood R. Olson
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Mary L. Bretz
Joseph E. Chrastil
Edward A. Crossley
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Maynard W. Maddocks
William O. Robbins, Jr.

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Teddy J. Lane
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Lester Z. Powell
Robert A. Reeves
Jesse A. Sims
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Technical Center

Norman G. Shumsen

Washington Headquarters

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Donald R. Brooks
Oreste E. Fulsetti
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Major Myles

Western-Pacific Region

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Nancy J. Clarke
Willis D. Coyle
Luis F. Gomez
James J. Guinassio
Robert L. Jessup
Roy M. Killgore
Jackie L. Lyons
Adelbert E. McIntyre
Dewey Nardini, Jr.
Douglas B. Pemberton
Richie B. Phillips
Richard E. Rippe
James Edwin Yakal

Concorde Visits Oshkosh '90

Each year for about 10 days, Oshkosh, WI, and surrounding towns play host to hundreds of thousands of aviators and spectators who gather to be part of the world's largest experimental aircraft convention.

Up to 15,000 aircraft will tie down at Wittman Field and take part in the estimated 60,000 landing and departures that take place during the convention. The skies are filled each day with everything from motorized parachutes to fighter jets and tankers.

In the October issue of *FAA World*, Dolores "Dodie" Hartigan, an air traffic control specialist at the Bedford, MA, ATCT, writes about her experience at Oshkosh from the perspective of an air traffic controller.

FAA Photo by Rocky Kiesen

The Concorde visits Oshkosh in conjunction with the 50th anniversary of the Battle of Britain. British flags and World War II aircraft are visible to the right of photo.

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Federal Aviation Administration

FAA World

August/September 1990 Volume 20 Number 7

Members of the FAA Headquarters Trips and Quads Technical Work Group and the Technical Center's Air Traffic Control Technology and Operations Branch worked with Dallas/Fort Worth air traffic controllers on multiple parallel runways simulation earlier this year.

Increasing Airport Capacity:

What About Triple/Quadruple Parallel ILS Approaches?

By Mike Jacobs

Handling the increases in air traffic within the National Airspace System (NAS) without reducing safety is the goal of the FAA in the decade of the '90s and beyond.

Achieving this objective might include redesign of the airways, central flow management and automation of the Air Traffic Control (ATC) system. The FAA, through a cross-functional technical work group (TWG) in Headquarters, and with support from the Technical Center in Atlantic City, New Jersey, is investigating the use of triple and quadruple parallel runways to increase airport capacity while maintaining a high level of safety. The research and development part of this effort is managed and directed by the Research and Development Service in ARD-240.

By using a realistic simulation environment, TWG seeks to develop national standards for using multiple simultaneous parallel ILS approaches with both existing and new technology. The study's goal is to determine by using a real-time ATC simulation if triple and/or quadruple parallel runways can safely increase the traffic handling ability at the Dallas/Fort Worth International Airport, and at other airports planning to expand as well.

What must be determined is whether this can be accomplished safely meeting all requirements and standards of Air Traffic, Flight Standards, and Aviation Standards. This is being tested through real-time simulation using live controllers and live flightcrew personnel.

In real-time simulation, air traffic controllers are performing tasks at a workstation using displays and controls. In conjunction with this, flightcrews are performing tasks in flight simulators interfaced into the controller displays. Alternately, fast-time simulation is based on a mathematical description of the system.

In FAA studies real-time simulation is normally used to observe and record how the controller/pilot interacts with the system because fast-time simulation does not accurately model human variability.

The number of aircraft that can land at an airport during instrument meteorological conditions (IMC) is a significant limitation on system capacity. Future capacity may be increased by increasing the number of independent parallel approaches that can be made during IMC. The present limit is two, but there has been an interest in triple and quadruple approaches for over 10 years.

Continued growth of the Dallas/Fort Worth aviation community has provided impetus for the D/FW Metroplex Air Traffic Systems Plan. A six-phase program currently under way addressed D/FW (site specific) in the first three phases. The remaining phases address the development of national standards (which will apply at many other locations).

Statistics compiled at the FAA Southwest Regional Office forecast that by 2005 D/FW airport will handle close to 2.5 million instrument flight rule (IFR) operations annually—an increase in traffic of more than 130% for the Dallas/Fort Worth area in 20 years.

Major factors supporting this forecast include completion of Delta Airlines' terminal expansion, construction of the proposed new American Airlines' terminal, and growth of the three new airports: North Dallas Jetport, Fort Worth

(Continued on page 4)

Introducing Children to Aviation

San Jose Tower Sets Up Videophone Link To Discovery Museum

By Fred O'Donnell

How many times are children told, "Don't touch that," or "Keep your hands to yourself"? Countless times, of course. Al Riedel, manager of the San Jose Air Traffic Control Tower in California, has done something to eliminate some of these times by using innovative ideas and community involvement.

San Jose International Airport in northern California is now undergoing major expansion programs adding new terminals, parking garages, and aircraft parking ramps. Part of the expansion will include a "Kidport" in the terminal area. Designed to help children expend some energy while waiting for their flights, the Kidport will be a play area with an aviation theme.

It was during the planning discussions for the Kidport that the idea of a video link with the air traffic control tower first surfaced. Riedel, who had been contemplating ways the tower could become more involved in the local community, saw the video link as a possibility.

(Continued on page 2)

In This Issue

1 Increasing Capacity
1 Children and Aviation
5 What's the EAP?
6 What Happened January–June
8 Lestor Cooling Profile
9 Polish Rotorcraft Review
10 People
11 Retirees
12 Oshkosh '90

Children and Aviation

from page 1

"Santa, I want a . . . for Christmas." Most youngsters find the telephone and the opportunity to talk with an adult fascinating. The video communications system adds to the enjoyment.

FAA World

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Holly Baker—Technical Center
Barbara Abels—Western-Pacific Region

He had been concerned with the absence of a formal educational outreach program that involved his facility and its personnel. Conversations with Barbara Abels, public affairs/aviation education officer for the Western-Pacific Region, and her staff had produced several ideas for community involvement, but few had actually materialized except for an occasional tour of the air traffic control tower. While many air traffic managers are able to take children on limited tours of their facilities, that was out of the question for San Jose. Because the tower is located on the loading ramp and access requires walking across an open ramp through a baggage handling area, security and safety concerns associated with moving small legions of six-to-ten-year-old youngsters through a maze of security gates forced Riedel to limit tours to adults only.

A new tower, which will be located on the opposite side of the airport, will not have the same security/safety issues, but children's tours could not be conducted until it was put into operation.

Riedel also thought that the idea of a video link to the Kidport certainly had merit, but it could not be set up for some months until completion of several major construction projects at the airport. "So," Riedel pondered, "what can be done now?"

Discovery Museum of San Jose, located on Woz Way (named for Steve Wozniak of Apple Computer fame and a major benefactor to the museum), is designed as a hands-on learning experience for kids. Centered around a "street" theme, children are encouraged to step into the voting booth to pick one, just like adults do on voting day. Traveling down one street after another, the youngsters discover exhibits that are functional and are designed to learn through doing. Fire trucks, ambulances, bank vaults, a human skeleton, and telephone switchboards are but a few of the many hands-on exhibits available to the youngsters. The museum has used Panasonic videophones—a combination telephone, miniature television camera, and monitor—in many exhibits.

Robbie Eshelman of the museum staff suggested that a videophone link between the museum and the air traffic control tower would provide youngsters with an opportunity to see and hear what goes on in the tower and perhaps talk with an air traffic controller.

As Riedel listened and thought about the idea, many questions about allowing direct lines and video cameras in the tower came into mind. Do we want the distraction in the tower? Would employee unions agree? Would the equipment create electronic interface? Had this ever been done before? Who would install the equipment if approved? Who would be responsible for maintenance? If approved, and later the system became a distraction to controllers, how could we discontinue the link?

With more questions than answers, Riedel responded positively by saying, "Anything is possible; let's talk."

What followed was a series of meetings among Riedel; Jack Borrego, manager, Airway Facilities Sector Office; National Air Traffic Controllers Association (NATCA) representative, Wally Kearns; Professional Airways Systems Specialists (PASS) representative, DeWayne Collins; Marily Mora, San Jose International Airport Public Affairs; and Discovery Museum director of programs, Michael Openheimer. What came out of the many meetings is now history and is attracting national attention.

Of primary concern to Riedel was that controllers not be distracted by the cameras or the monitor. Another worry was the possibility of electronic interference with radio/radar equipment in the tower cab. Borrego agreed to test the video equipment for compatibility with existing tower equipment. His staff would provide the technical assistance and guidance necessary for the installation.

In discussions about the question of controller distraction, NATCA representative Kern's initial reaction was positive and very supportive of the videophone link. The provision that controllers would have the option to take calls made the program voluntary and made the idea acceptable. It was decided that the impact would be further evaluated after installation, and a final decision would be made at that time. Museum officials agreed to the provision that the equipment would be removed if it was detrimental to safety or in any way affected controller performance.

San Jose, which is in the heart of Silicon Valley, is blessed with an abundance of engineers who were more than willing to design the system. The Panasonic video equipment and telephones for the project were provided and installed by museum staffers. Volunteers use telephone lines provided by and paid for by the City of San Jose and the airport.

Discovery Museum, located downtown approximately one mile from the airport and directly under the flight path for runway 30L, is in an ideal location to introduce children to aviation concepts and ideas. Aircraft on final approach pass over the museum at approximately 800 feet. Children visiting the museum are immediately attracted to the sounds of the aircraft and react as children do to airplanes directly overhead and very close.

Once inside the museum, the child sees a large, six-sided, glass booth equipped with three videophones, part of the museum's Gilliland Global Communications Center. The videophones are connected to a local public service agency, with the center one being the link to the FAA control tower at San Jose International Airport. Inside the booth the child hears live air traffic control radio communications with pilots via a radio frequency scanner.

When the child activates the videophone linked to the airport, two cameras in the tower are activated and "freeze" their respective views. Camera number one is pointed at the American Airlines ramp area and shows aircraft arriving, being unloaded and loaded, and being pushed back. The second camera is aimed at the arrival end of runway 30L, the same runway that aircraft approach when passing over the museum.

These freeze frames are transmitted back to the child in 45 seconds as still pictures. Then a momentary flash appears on the tower monitor, the only signal to tower personnel that someone has activated the system at the museum. Unless a controller in the tower activates the third camera and the videophone system in the tower, the two freeze frames are all the child sees.

If an off-duty controller or supervisor wishes to talk to the child, they must first activate the system. Then by telephone, the two can talk about the pictures being transmitted and can even transmit pictures of each other.

The children love the description controllers use for certain aircraft such as "Fat Albert" for a Boeing 737 or "Silver Bullet" for a McDonnell-Douglas MD-80. The degree of interaction between child and controller varies due to the age of the child and the rapport established. Controllers have said they enjoy talking to the children and find it refreshing to converse with young, inquisitive minds.

Riedel adds, "Air traffic control is very demanding when you are responsible for the safety of air travelers. However there is a human side to our work, and we would like to share our interest and enthusiasm for aviation with children."

Jack Borrego emphasized the program is indeed a team effort. "The technicians at my facility are pleased to be part of this unique partnership, volunteering their time and technical knowledge to assist Discovery Museum in reaching its goal," he said.

What next? Riedel would be the first to say that this is only a small start. He would like to see color monitors, real-time scenes, and remotely controlled cameras used, but he realizes that money is a major stumbling block for the museum's support. The museum has paid for the procurement of the equipment and design, installation, and maintenance costs. Still, Riedel has said, "anything is possible." ■

Fred O'Donnell is a public affairs specialist in the FAA's Western-Pacific Region.

A cover over the telephone prevents mischievous fingers from dialing grandmother's house but does allow dialing the appropriate number to contact the air traffic control tower. Instructions located above the phone and the video camera explain how the system is activated.

Located in the telecommunications section of the Discovery Museum is a sound-proof booth where youngsters have the opportunity to speak to and see controllers simultaneously.

Al Riedel, manager, Air Traffic Control Tower, San Jose International Airport, explains the video communications system to a reporter from the Spanish-language television network.

Airport Capacity

from page 1

Alliance Airport and Fort Worth Spinks Airport.

The progress of the study can best be seen through a description of its six phases.

Phase 1

Completed in June 1988, phase 1 provided a simulated operational test of the expanded airport envisioned in the Dallas/Fort Worth Metroplex Air Traffic Systems Plan. One of the major items in the plan involved the use of four simultaneous parallel approaches.

The simulation was based on not less than 5,000 feet centerline configuration with the new runway lengths at 6,000 feet.

Since there was no precedent established for running more than two simultaneous approaches under instrument conditions, numerous unexpected "blunders" were introduced to determine whether the controller could cope with them safely and quickly.

A blunder is an unexpected turn by an aircraft already established on the localizer. Without warning aircraft were turned towards traffic on adjacent runways, using 10, 20, and 30 degree turns. A number of these blundering aircraft also lost all communications.

A team evaluating the results of the test strongly endorsed the four simultaneous approaches, and the team affirmed that in each case the concept proved to be safe.

As a result simulation procedures were developed and approved (site specific) for conducting triple approaches at D/FW. Quadruple approaches required additional data and further development.

Phase 2

Ending in October 1989, this two-week simulation study evaluated independent triple parallel approaches at D/FW. The new east runway was lengthened to 8,500 feet, and there was not less than 5,000 feet between runway centerlines. Unlike the phase 1 project, turbojet aircraft were simulated on all runways.

Conclusions indicated that the triple simultaneous parallel ILS approaches with turbojet aircraft on all runways was a safe operation for the given D/FW configuration. No blunder in the triple configuration resulted in a slant range miss distance of less than the minimum acceptable criterion of greater than 500 feet.

Controllers, controller observers and ATC management observers concluded that the triple simultaneous parallel ILS approach at DFW is acceptable, achievable and safe.

As a result of this simulation, procedures were developed and approved for conducting triple simultaneous approaches at D/FW with turbojet aircraft on all runways.

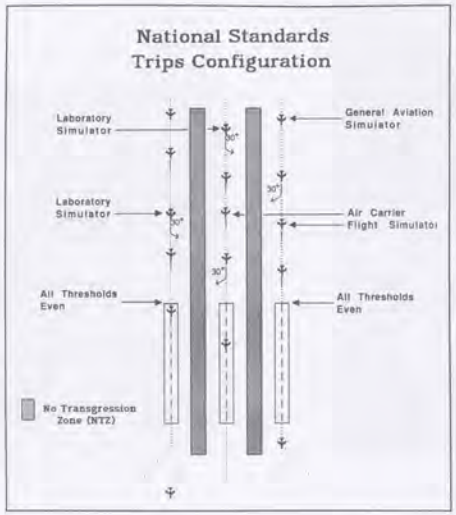
Phase 3

This phase involved simulation runs on the D/FW quadruple simultaneous ILS approaches. The new east runway and the new west runway were each lengthened to 8,500 feet. In this instance, there was not less than 5,000 feet between runway centerlines on the east runway and 5,800 feet on the west with turbojets on the inner runways, 18 right and 17 left, and props, turboprops, and turbojets on the outer runways.

The two-fold aim of this phase was to determine if controllers can intervene in the event of a blunder to provide an acceptable miss distance between the affected aircraft and if controllers and other participants in the simulation view the procedures as acceptable with regard to workload and usability, and safety.

Phase 3 simulation was conducted at the Tech Center from January 29 through February 8. The results will be published in a final report later this year.

Dallas/Fort Worth air traffic controllers guide airport traffic at the Technical Center's ATC terminal simulation facility. A simulation was conducted to test the concept of triple and quadruple parallel approaches and to define new separation standards.



Phase 4

This phase of the triple/quadruple approach program explored initial requirements for the development of national standards for triple simultaneous instrument approaches for application to any airport. This first stage addressed runways with centerlines separated by a minimum of 4,300 feet, with mixes of props and jets landing on all runways. Runways are not offset in the simulations for national standards. The second stage of this phase is scheduled to take place at the Technical Center from September 17–28.

The simulation considers any necessary modifications in operations, procedures, and/or equipment necessary to provide a required margin of safety in the triple simultaneous approach operation.

Phase 4, which started in April 1990, will seek answers to the potential for aircraft system failures or pilot errors that could threaten safety, the potential for ATC system failures or controller errors that could threaten a safe operation, and changes in standard operating procedures necessary for a multiple runway operation.

Phase 5

The dates and final criteria for phase 5 will be determined after the results of phases 1 through 4 are synthesized. It will explore the requirements for the development of national standards with high update rate technology. Phase 5 will address triple simultaneous approaches primarily for closely spaced runways.

Phase 6

The dates and final criteria for phase 6 will be determined after the results of phase 5 are synthesized. Phase 6 will explore the requirements for the development of national standards with technology varying from present-day systems to more advanced technology. ■

Mike Jacobs, former public affairs manager of the FAA Technical Center, last wrote on Runway Friction Measurement and Maintenance in the May issue of FAA World. *His byline was inadvertently left off that article.*

What's the EAP?

The Employee Assistance Program (EAP) is designed to help FAA employees or members of their family deal with personal problems. The FAAer, or a family member, can discuss the problem in confidence. The service is offered free of charge as an employee benefit.

Last year about 3,000 employees and family members used the EAP for a wide variety of personal problems. Typical problems include obtaining information and resources about the care of elderly parents and dealing with children experiencing learning disabilities, as well as marriage, financial, and stress problems. Eighty-nine percent of the caseload was within the areas of family, health, legal, and financial problems. Eleven percent of the caseload was for chemical dependency on alcohol and other drugs.

In everyday living, most problems do not require the services of a professional counselor, but sometimes professional help can really go a long way in solving a personal problem. The EAP offers this professional help.

Short-term counseling—up to four sessions—is available to help sort out personal and everyday problems that can affect all of us. Many problems can be solved during these four sessions. Sometimes, a person just needs some basic information, such as where to get information about child care, where to go for a free blood-pressure or cholesterol check, how to stop smoking, how to lose weight or reduce stress.

Other problems may require more than just four counseling sessions. A referral will then be made by the EAP counselor. When making a referral, the EAP counselor considers several factors, such as the nature of the problem, which professional has experience handling that particular type of problem, and the employee's ability to pay for the service based upon the employee's particular health insurance plan and financial resources.

If the EAP counselor suggests a referral, it is entirely up to the person seeking help whether to go or not. When people follow through on referrals, they are responsible for paying any fees that the provider may charge. Sometimes, health insurance will pay for all or part of the fees. Some services are free, such as many of the community-sponsored and self-help groups including Alcoholics Anonymous and Overeaters Anonymous. Other providers use a sliding fee schedule based upon an ability to pay.

EAP Managers

Aeronautical Center	Jim Bitner	*(FTS) 747-5583*
Alaskan Region	Carol Marvel	*(907) 271-5370*
Central Region	Susan Burleson	*(FTS) 867-3043*
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Great Lakes Region	Jeri LeVine	*(FTS) 384-7416*
Headquarters	Jerry Meade	*(FTS) 267-3945*
New England Region	Harrison Beckman	*(FTS) 836-2494*
Northwest Mountain Region	Rob Ramsey	*(FTS) 446-2309*
Southern Region	Dell Powell	*(FTS) 246-7666*
Southwest Region	Randy Williams	*(FTS) 734-5848*
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Dell Powell, EAP Manager, Southern Region

Chris Greco, EAP Manager, Technical Center

Jim Bitner, EAP Manager, Aeronautical Center

Susan Burleson, EAP Manager, Central Region

The EAP counselor will work to help decide the most appropriate referral based upon financial status and health insurance plan. The EAP has no affiliation or financial interest with the referral agents.

EAP services within the FAA are provided either by a contractor or an in-house counselor. The counseling sessions are confidential and protected under the federal confidentiality laws. No information can be released without a signed release form specifically authorizing the counselor to discuss the problem with the person designated on the release.

Safety-related employees who voluntarily come to the EAP for chemical dependency problems will be asked to sign a release authorizing the counselor to inform the employee's facility manager and flight surgeon of the chemical dependency problem. If the safety-related employee elects not to sign the release, the EAP counselor cannot continue to work with the employee, nor can the counselor inform the agency.

Full confidentiality exists for all problems, including chemical dependency, for both non-safety-related employees and family members.

FAA Headquarters, regions, and centers each have an agency employee who works as the EAP manager and oversees the program. To contact the EAP, just call the appropriate EAP contractor or EAP manager.

FAA employees or family members can directly contact the EAP for services. A supervisor can also refer an employee to the EAP when the supervisor has documented continuing performance and/or conduct deficiencies. However, acting on a supervisory referral is entirely voluntary. The supervisor cannot take any disciplinary action against the employee for electing not to go to the EAP, and the supervisory referral does not become part of the Official Personnel Folder (OPF).

Most personal problems don't go away if ignored. If you or someone you know has a personal problem, consider calling the EAP and talking with a professional counselor to get the help you need and deserve. ■

What Happened
January-June 1990

The Department of Transportation TransExpo Exhibit greeted visitors at the entrance of the trade show held in January.

January: *AGING AIRCRAFT*. The U.S. General Accounting Office, in a report issued this month, recommended that FAA develop a comprehensive plan to coordinate government and industry actions on aging aircraft.

January 3: *MIAMI TNA*. FAA announced that Pan American World Airways agreed to install a thermal neutron analysis (TNA) explosives detection system at the airline's baggage area at Miami International Airport.

January 5: *NEW ASSOCIATE FOR AIRPORTS*. Leonard L. Griggs, Jr., a former director of Lambert-St. Louis International Airport, was named Associate Administrator for Airports.

DELTA FINED. FAA announced that it had proposed a civil penalty of $70,000 against Delta Air Lines for operating a jetliner in scheduled passenger service that did not meet airworthiness standards.

January 6: *ENGINE SEPARATES*. The right engine of a Northwest Airlines Boeing 727 fell off an hour after the Minneapolis-bound airliner took off from Miami, Florida. The crippled jet landed safely at Tampa International Airport without injury to its 139 passengers and six crewmembers.

January 8: *TRANSEXPO*. Secretary of Transportation Samuel K. Skinner officially opened TransExpo, at the Sheraton Washington Hotel, raising the curtain on the biggest U.S. transportation trade show since Transpo 72. The three-day exhibition attracted between 8,000 and 10,000 people.

January 12: *AAS SUPPORT*. FAA announced the award of a $139 million contract to the Federal Systems Group of TRW for technical support and assistance in managing the agency's Advanced Automation System contract and other automation programs.

January 16: *HIJACKING FOILED*. A hijacking attempt was made on an American West 727, en route from Houston to Las Vegas, when a passenger grabbed a flight attendant and demanded to be taken to Cuba. The pilot diverted the flight to Austin, where the hijacker was apprehended.

January 18: *RUNWAY COLLISION*. An Eastern Airlines Boeing 727, on its landing roll at Hartsfield Atlanta International Airport, collided with a Beechcraft King Air 100 that had just touched down—killing the pilot of the King Air. FAA decertified the controller who cleared the Eastern flight to land on an occupied runway.

January 25: *AVIANCA CRASH*. An Avianca Boeing 707, running low on fuel while attempting to land at Kennedy International Airport during IFR conditions, lost power in all four of its engines and crashed near a Long Island residential neighborhood, killing 72 of the 161 people onboard.

January 29: *FISCAL YEAR 1991 BUDGET*. President Bush asked Congress for a fiscal 1991 FAA budget of $8.3 billion. The request represented an increase of $1.4 billion over the previous fiscal year. The budget proposed higher user taxes to fund the spending increase.

January 31: *PROTECTIVE BREATHING EQUIPMENT*. An FAA rule requiring airlines to provide flight attendants with protective breathing equipment, to be worn when fighting cabin fires, went into effect.

February 8: *NTSB CONFIRMATIONS*. The Senate confirmed the nomination of James L. Kolstad to be Chairman of the National Transportation Safety Board and of Susan M. Coughlin to be a member of the board.

February 12: *ASR-9*. The Salt Lake City ASR-9 went into operation, becoming the first ASR-9 to be commissioned with ARTS-III equipment.

February 13: *ST. THOMAS ATCT*. The air traffic control tower at St. Thomas, U.S. Virgin Islands, resumed its first operations since being severely damaged by Hurricane Hugo.

February 14: *DEREGULATION STUDY*. Secretary Skinner announced that a nine-month study conducted by the Department of Transportation concluded that deregulation had, on balance, increased airline competition and lowered airline fares.

INDIAN AIRLINES CRASH. An Indian Airlines Airbus A320, en route from Bombay to Bangalore, crashed 50 yards short of the Bangalore runway, killing 97 of the 146 people onboard. The crash, raising more questions about the A320's computerized "fly by wire" system, led the Indian government to ground all 14 of the A320s flown by the Indian air carrier.

February 16: *US-SOVIET COOPERATION*. Representatives of the Federal Aviation Administration and the Soviet Ministry of Aviation signed a memorandum of cooperation promoting civil aeronautics and air commerce between the two countries.

February 21: *HEADQUARTERS REALIGNMENT*. Administrator Busey announced the following changes would be made in the FAA Headquarters organizational structure:

- Establishment of an *EXECUTIVE DIRECTOR FOR ACQUISITIONS* in a move designed to streamline the agency's procurement process. The new organization would be headed by John A. Burt.
- Removing the Associate Administrator for Airports from under the Executive Director for System Development, renaming the office Assistant Administrator for Airports and having it report directly to the Administrator.
- Removing the Associate Administrator for Policy, Planning, and International Aviation from under the Executive Director for Administration and Resource Management, renaming the office Assistant Administrator for Policy, Planning, and International Aviation and having it report directly to the Administrator.

AIRPORT CAPACITY FUNDING. Secretary Skinner announced the appointment of former Deputy Secretary of Transportation Mimi Dawson to chair the Airport Capacity Funding Advisory Committee, which had been formed at the behest of Congress to recommend to the Secretary new approaches to funding airport capacity projects.

February 22: *FLIGHT DATA RECORDERS*. In a speech at San Diego, before the ALPA/Delta Air Lines annual safety meeting, Administrator Busey spoke in favor of using flight data recorders to monitor aircraft and pilot performance.

CHILD RESTRAINTS. The Air Transport Association, in a reversal of policy, petitioned the FAA to adopt a rule that would require infants and toddlers onboard airlines to be strapped into safety seats. Later that day, FAA announced a notice of proposed rule making that would require airlines to allow parents to use child-safety seats for children under two years of age; at the same time, FAA asked for public comment on whether the use of the seats should be made mandatory.

February 25: *SMOKING BAN*. A Congressionally mandated smoking prohibition on scheduled U.S. domestic airline flights of six hours or less went into effect.

February 26: *IN-FLIGHT RADIATION*. The Air Line Pilots Association requested the Department of Transportation to support a study of the effects on flightcrews of radiation encountered by aircraft at high altitudes.

February 28: *AIRLINER BRAKES*. The NTSB attributed the probable cause of the May 21, 1988, crash of an American DC-10 at Dallas/Fort Worth during an aborted takeoff on brake failure.

March 5: *COMPLIANCE & ENFORCEMENT*. FAA Administrator Busey announced a proposed series of changes in the way FAA fosters compliance with its regulations by private pilots. The proposals emphasized communication and education rather than sanctions.

March 6: *AGING AIRCRAFT ADs*. FAA adopted three airworthiness directives, effective April 17, that require extensive structural modifications to older Boeing 727s, 737s, and 747s. At the same time, the agency asked for comments on a proposed directive that would require the implementation of corrosion control programs for aging aircraft.

March 8: *NATIONAL TRANSPORTATION PLAN*. President Bush and Secretary of Transportation Skinner unveiled a National Transportation Plan, "Moving America into the 21st Century."

AVS-2 APPOINTMENT. Administrator Busey announced the appointment of Darlene Freeman as Deputy Associate Administrator for Aviation Standards.

PILOTS & DRINKING. FAA inspectors charged the three-man flightcrew of a Northwest Airlines flight (Fargo, North Dakota, to Minneapolis, Minnesota) of violating an FAR that prohibits the flying of an aircraft within eight hours of consuming alcohol. Blood tests also showed that all three airmen had violated a rule that prohibits the operation of an aircraft by a flight deck member with a blood alcohol level that exceeds 0.04 percent. The crewmembers' airman certificates were revoked the next day. As a result of this incident, FAA announced on March 14 a six-point action plan designed to tighten drug and alcohol enforcement investigation procedures.

PILOTS & SMOKING. The FAA confirmed reports that the Congressionally imposed smoking ban on certain flights did not apply to pilots, who were allowed to smoke in the cockpit. The agency, supported by findings of the National Institute on Drug Abuse, held that rapid decision-making and reasoning suffer during nicotine withdrawal; hence, to forbid smoking in the cockpit could be more deleterious than the effects of passive smoke on non-smokers.

March 12: *DEPUTY ADMINISTRATOR*. Barry Harris was sworn in as Deputy Administrator of the FAA.

March 15: *AIRPORT SECURITY PERSONNEL*. The FAA approved a new program designed to improve the standards for hiring, training, and testing personnel who conduct security screening of airline passengers.

March 19: *FAA REAUTHORIZATION BILL*. Legislation asking for $22.7 billion over a five-year period to finance airport and airway expansion went to Congress. This was the first major action taken to implement the National Transportation Plan.

March 27: *AMNESTY & SAFETY AUDITS*. In a speech delivered before the Aero Club of Washington, Administrator Busey urged all airlines to establish a safety audit program. If such an audit uncovers an inadvertent violation of FARs, but the airline corrects the problem and reports it immediately to the FAA, that carrier will not be cited for a rules violation.

DENVER AIRPORT GRANT. FAA announced it had approved a grant of $90 million to aid in the construction of a new air carrier airport for Denver.

April 4: *U.S.-U.K. AGREEMENT ON TNA*. The FAA announced the signing of an agreement with the British Airports Authority to install a thermal neutron analysis system at London's Gatwick Airport. Gatwick will become the first airport outside of the United States to be equipped with this explosives detection device.

NEW SCHEDULE FOR TCAS & WINDSHEAR WARNING DEVICES. The FAA announced a revised schedule for the installation of TCAS II and airborne windshear warning devices. Under the new rule, air carriers are required to equip airliners having more than 30 seats with these safety devices over a four-year period—with all such aircraft fully equipped by December 30, 1993.

April 5: *EXIT ROW SEATING*. The FAA issued a final rule that requires air carriers to restrict seats in exit rows to persons who are capable of activating emergency exits and performing other emergency functions during evacuation. Carriers have until October 5, 1990, to comply with the rule.

April 6: *TRANSPONDER REQUIREMENT*. An FAA rule went into effect that requires all civil aircraft conducting operations into, within, or out of a U.S. Air Defense Identification Zone (ADIZ) to be equipped with a transponder with automatic altitude reporting equipment.

April 10: *747 CARGO DOORS*. The NTSB released an accident report concerning the catastrophic failure on February 24, 1989, of a cargo door on a United Airlines Boeing 747 flying over the Pacific. On April 13, FAA issued an airworthiness directive requiring modification of 747 visual warning systems to signal flight and ground crewmembers when cargo doors were not fully closed, latched, and locked.

April 15: *COURT BARS FAA RULES OF PRACTICE*. The U.S. Court of Appeals for the District of Columbia declared that the FAA's rules of practice in assessing civil penalties not exceeding $50,000 had been improperly adopted and were therefore invalid. The court held that FAA had failed to give public notice of the proposed rules or to allow a period of public comment. Three days later, in response to this decision, the FAA reissued the rules as proposals and asked for comments.

April 17: *MD-11 FLIGHT TEST*. FAA certification personnel conducted the first FAA flight test of the McDonnell Douglas MD-11.

AAL-1 APPOINTED. FAA announced the appointment of Ted R. Beckloff, Jr., as Regional Administrator for Alaska (effective June 3).

April 18: *EASTERN TRUSTEE*. A federal bankruptcy judge took Eastern Airlines from under the control of Frank Lorenzo and put it in the hands of a court-appointed trustee. Eastern had lost more than $1 billion since it filed for Chapter 11 protection more than a year earlier.

MODE S. Officials of the General Accounting Office, testifying before the House Appropriations Subcommittee on Transportation, called for the FAA to re-evaluate the Mode S transponder program and consider "all alternatives . . . including terminating the contract in whole or in part."

April 22: *AGL-1 APPOINTED*. The appointment of Edward J. Phillips as Great Lakes Regional Administrator became effective.

April 26: *ROUTE TRANSFER*. The Department of Transportation gave Eastern Airlines approval to sell its Latin American routes to American Airlines.

FAA Administrator Jim Busey speaks from the podium during ceremonies announcing the Denver airport grant.

ILS ANTENNA. The first Redlich localizer antenna for the Instrument Landing System was commissioned at Dulles.

April 30: *AIRPORT GRANT ALLOCATIONS*. The FAA announced that in fiscal year 1990 it will distribute $814.3 million among the nation's airports for airport development and planning and for noise compatibility programs.

RANDOM DRUG TESTING UPHELD. The Supreme Court of the United States elected not to issue a writ of certiorari in a case involving the June 1987 DOT random drug testing program, thus letting stand the decision of a lower court upholding the program's legality.

May 1: *TAMPA TERMINAL CONTROL AREA*. FAA issued a rule establishing a TCA at the Tampa International Airport, effective September 20, 1990.

May 10: *NEW CMD CHIEF*. FAA announced the appointment of aviation security chief Raymond A. Salazar to head the agency's Center for Management Development (effective June 17).

May 13: *DEPOT RENAMED*. The FAA Depot at the Aeronautical Center was renamed the FAA Logistics Center.

May 15: *SECURITY COMMISSION REPORT*. The President's Commission on Aviation Security and Terrorism released its report, which focused on the December 1988 bombing of Pan Am Flight 103 and made recommendations for improving security and combating terrorism.

May 16: *BAKER TO RETIRE*. The Aircraft Owners and Pilots Association announced the retirement of John Baker as AOPA president, effective at year's end.

May 21: *MODE C*. FAA issued a proposal to suspend until December 30, 1993, certain provisions of regulations requiring altitude reporting (Mode C) transponders. The proposal would give aircraft without Mode C continued access to specified airports within 30 miles of a terminal control area primary airport.

June 1: *TERMINAL DOPPLER WEATHER RADAR*. The first terminal doppler weather radar, part of a projected nationwide system designed to detect windshear, went into operation at Denver's Stapleton International Airport.

U.S.-SOVIET AVIATION ACCORD. President George Bush and Soviet President Mikhail Gorbachev signed an aviation accord providing for expanded air service between their two countries. The agreement designated the following cities as gateways for U.S.-Soviet traffic: Anchorage, Chicago, Miami, San Francisco, Khabarovsk, Kiev, Magadan, Minsk, Riga, and Tbilisi. Pan American World Airways and Aeroflot currently operate between two U.S. and two Soviet gateways: New York, Washington, Leningrad, and Moscow.

June 6: *SECURITY MEASURES PROPOSED*. The FAA issued a notice of proposed rule making (NPRM) that would require both domestic and foreign air carriers operating in the United States to upgrade their standards for screening for weapons and explosives. Comments on the proposals are due by August 20.

June 14: *OFFICE OF INTELLIGENCE AND SECURITY*. Secretary Skinner announced that he intended to create within OST an Office of Intelligence and Security. At the same time, Admiral Busey announced the creation of the position of *ASSISTANT ADMINISTRATOR FOR CIVIL AVIATION SECURITY*.

June 15: *ANTITRUST PROBE*. The Justice Department announced that it was investigating USAir for possible antitrust violations at its Pittsburgh hub. Probe of other airlines that dominate air carrier markets may ensue.

June 20: *AVIANCA HEARINGS*. The NTSB began public hearings into the Avianca Airline crash that killed 73 people in January.

Keeping Up with Lester Cooling

By Lynn Jensen

In 1930, when Lester Cooling had his first airplane ride, powered flight was 27 years old. Cooling, who was 14 when he first went up in a plane, says he doesn't think the pilot had a license—a fairly new requirement then. During the 60-plus years since that event, powered flight had progressed to heights unimaginable to its pioneers, and Cooling, too, has been going strong.

Cooling is respected throughout the Federal Aviation Administration, his current and long-standing employer, and the aviation field. He has earned that status by more than mere longevity.

Secretary of Transportation Sam Skinner calls on him, and he has given Bill Lear, developer of the Lear Jet, some advice. Recently he went to Washington to meet President George Bush.

Cooling, who coincidentally completed his fiftieth year of federal government service on the day his boss turned 50, continues his personal activity at a level that inspires those half his age. He still participates in the sports that blossomed during the early 1930's when he was a math and physics student at Columbia College in his hometown of Dubuque, Iowa.

Cooling's graduation from Columbia College in 1935 led to a substitute teaching assignment at St. Columbhilles High School in Dubuque, where he also coached basketball and football. That was a lively experience because some of his students were actually his seniors. Cooling had graduated from high school at the age of sixteen, having completed the kindergarten/first grade and sixth/seventh grades in only two years.

As teaching was not to be his final career choice, Cooling found his way to the increased job security of the U.S. Post Office. After experience in a number of different jobs at that department, he became a postal inspector, and he also became seriously engaged in flying. A coworker, a fellow postal clerk, gave him a ride in a Taylorcraft BC-12, a popular two-seat sports plane of the time. Cooling claims to have had only a lukewarm interest in the notion of flying then, but he must have already been bitten by the flying bug. Although he claims he never had a desire to fly for the then-developing airline industry, the flying bug was there just waiting to be fed.

Cooling continued flight training during the years of economic depression, often by being paid for grass cutting and other odd jobs with a 15-minute flying lesson. He earned a private pilot license and, with five others, formed the Jaybird Flying Club, Inc., with a brandnew Piper J-5 state-of-the-art airplane.

Cooling remembers his trip to take the written test for the private pilot rating as "adventurous." By that time he had gained enough experience and skill in his flying lessons to be able to fly the Taylorcraft from Dubuque to Waterloo, a testing location of the Des Moines office of the Civil Aeronautics Administration (CAA—FAA's predecessor). The plane he was flying had no compass installed, although a compass was a required instrument even then; it had been removed for repairs. Cooling's solution was simple. He took a compass from the repair shop and placed it on the empty seat beside him. Not exactly an installation, he admits, but there was now a compass in the airplane.

The weather for the trip was lousy. The fog was so thick that following the railroad line to Waterloo offered the only hope for navigation. The first part of the trip did not go well. Lost and concerned, he happened upon a town with a train station. He tried to read the name on the station's sign from the air, but he could only make out the last three letters—"ora." He finally made his way outside of town, landed in a farmer's field, and discovered he was near Aurora, Iowa. Oriented again, he got back in the air and, with map in lap and railroad tracks in view, proceeded uneventfully to the CAA testing site. He passed the written test, had no problem with the compass, and returned home.

Cooling entered the military in 1942, hoping to be a pilot for the U.S. Army Air Force (USAAF). He was disqualified from being a USAAF pilot when a complete physical examination disclosed a knee injury he had received while playing college football. He was qualified as a "service pilot," however, and assigned as the flight commander of a training unit at Coleman, Texas. In that capacity, he instructed and gave flight tests in the PT-19 primary training aircraft and was heavily involved in the selection of those moving up to basic training.

A flight training cutback in 1944 caused Cooling's reassignment to school at Homestead, Florida, where he learned to fly the C-54, the military version of the four-engine Douglas DC-4. That led to an assignment to serve as a pilot with a Trans World Airlines (TWA) contract carrier flying for the military Air Transport Command. That assignment lasted until 1946 when TWA offered Cooling a job flying from the company's Kansas City base.

Although he still professed little interest in flying for an airline, Cooling accepted the job. He says he really wanted a job as an inspector with the CAA, but one was not then available for him. His short career with TWA was not short on adventure.

His airline pilot career began with flying the DC-3 between Kansas City and Albuquerque, New York, and Newark. In 1947 he progressed to flying the Lockheed Constellation, going through flight training at Reading, Pennsylvania. That began his experience with flying the international routes for TWA, including regular routes from New York to Shannon, Paris, Rome, among others.

Cooling, third from left, participates in a signing ceremony earlier this year at the White House marking National Transportation Safety Week. With him are Vice President Dan Quayle, DOT Secretary Sam Skinner, and representatives of other DOT modal agencies.

Cooling then helped open a new route for TWA, from Cairo to Bombay, and that afforded him the adventure of living in Egypt—then a frontier of airline flight. Cooling describes the challenge: "I used to fly from Karachi to Bombay with a map on my lap like I did years before in the Taylorcraft."

In 1948, Cooling finally received what he had wished for for several years—an offer to become an aviation safety inspector for the CAA—but the news of his impending departure was not received well by his supervisor at TWA. In fact, Cooling was fired on the spot, an action the supervisor later rescinded, along with giving Cooling good wishes for the future.

Cooling's career with the CAA, and later FAA, has been diversified and full of firsts. He has served in offices in Milwaukee, South Bend, St. Louis, Kansas City, and Chicago. Some of his more interesting agency flying experiences came in St. Louis and Kansas City.

While at St. Louis, he became the first civilian pilot rated to fly the North American Sabreliner, a military light jet transport aircraft being converted to civilian business use. For a year-and-a-half, Cooling provided oversight for all the training conducted for the airplane and gave the flight tests to the corporate customers of the distributor.

Late in 1965, he began a repeat performance in Kansas City with the newly developed Lear Model 23. That airplane had much appeal and potential; it was the beginning of the low cost business jet, costing about $700,000 a copy, but Cooling was not impressed with its capabilities. Later models offered more safety and reliability than the earlier Lear 23, said Cooling. In a later assignment, Cooling was also the first inspector to give airmen certification tests in the Cessna citation.

Today Cooling is an active aviation safety inspector in FAA's Great Lakes Region and an FAA resource in the investigation and reporting of aircraft accidents. He is an active pilot and serves as a mentor to others in the agency.

Cooling's interests other than aviation continue to give him pleasure, as well. His love of sports, beginning in high school, has stayed with him through his life. When he first saw the game of handball in high school, he was not a fan. "I thought it was a sport for people not able to make it in real sports," he says, but one day he was asked to fill in during a match. "It was tougher than I thought," he recalls.

Cooling prepares to depart on a flight check at Coleman, TX, in 1944.

The short version of the long story is that he was hooked on handball, and he soon went on to win a Young Men's Christian Association championship. His interest has never waned. In his younger years, he says, "I played all the time—before every date. If the game ran long, I was late for the date. Lots of girls were very upset."

He continues to play in tournaments to this day, and not just in tournaments for his age group. "Most people my age don't play very well," he says. "I need to play younger people for the competition."

Cooling added racquetball to his sports repertoire, and that sport became a family affair. One of his two sons worked as a professional instructor, and the youngest of his three daughters was national doubles champion at Memphis State University.

Eubie Blake, the Jazz pianist, was nearly 100 when he said that if he knew he was going to live so long, he would have taken better care of himself. Lester Cooling, who is not that age yet, may not know of Blake's quote, but he seems to have always lived by the idea. ■

Lynn Jensen is the manager of the Technical Evaluation Certification Branch, Flight Standards Division, Great Lakes Region.

Ready, Willing, and Technical

FAAers Review Polish Rotorcraft

By Debra Myers

The Pezetel facility at Swidnik in southeastern Poland is where that country's grassroots independent trade union movement Solidarity began. The movement then spread to the major shipbuilding facilities of the north and culminated in the building of a new Polish democracy.

The Pezetel company is also where a team of engineers and pilots from FAA's Rotorcraft Standards Staff, Rotorcraft Directorate, Fort Worth, Texas, recently participated in an event that was a "first" for aviation on the international front. The Fort Worth FAAers had the opportunity to complete a week-long technical review of the SOKOL (Falcon) helicopter at the same Pezetel facility.

The aircraft under review, which received its Polish type certification in 1987, is the first transport category Polish design, either fixed or rotary wing, to be submitted to the FAA for approval.

The PZL W-3 SOKOL is a twin-engine, multi-purpose helicopter with configurations for operations such as emergency medical service, 12-passenger transport, and cargo. The helicopter also incorporates full icing capabilities and has accumulated 82 hours of flight testing in actual icing conditions.

Fort Worth engineers sent to Swidnik by Rotorcraft Directorate manager James Erickson in response to Pezetel's application for an FAA type certificate included Eric Bries, Wayne Barbini, Tom Richeter, John Swihart, and Bob Weaver. Also assisting were Leonard (Bo) Korenek from the Fort Worth Flight Standards Office and Sam Grober from the Brussels certification office.

Also in Swidnik for the certification activities was Frank Piasecki, the well-known pioneer of vertical-lift aircraft in the United States, who is now the U.S. representative and technical advisor for Pezetel. He, along with daughter Nicole and son Fred, were instrumental in getting the certification action started and were able to provide valuable assistance throughout the meetings.

Mr. Piasecki's career in vertical-lift aircraft started in 1936, and, to date, he has designed, flight tested, and produced numerous vertical-lift aircraft.

Eric Bries, Rotorcraft Policy and Procedures Branch manager and flight test pilot, and Wayne Barbini, flight test engineer, conducted a short flight evaluation and found the SOKOL to have many desirable characteristics, including excellent engine response and low vibration levels. They will be conducting additional certification flight tests.

Wayne Barbini, the certification project manager, looked into the background of the Pezetel facility in Swidnik and its development of the SOKOL. He learned that the facility was organized in 1951, and it now employs over 8,000 people who make all its assembly jigs and fixtures with no major outside vendor involvement.

Pezetel's work in helicopter development, which had begun in 1973, produced the technical specifications for the SOKOL by 1974. The resulting design specifications included: a 6-ton class with two 1,000 horsepower engines, a maximum speed of 260 kilometers per hour, and a cruise speed of 230 kilometers per hour.

The SOKOL's first flight was in 1979, and production tests began in 1984. Between 1984 and 1987, Soviet civil certification activities were conducted, with numerous flight tests taking place in extreme climates and altitudes. For example, cold weather and icing tests were conducted in Siberia at temperatures down to −42 C.

Standing in front of the SOKOL helicopter are Wayne Barbini, Sam Grober, Frank Piasecki, Bo Korenek, and Eric Bries.

Team members enjoying those 27-cent Polish hot dogs (including mustard) and 20-cent ice cream cones are Sam Grober, Wayne Barbini, John Swihart, Eric Bries, and Bo Korenek.

Currently five SOKOL aircraft are in operational tests in the Soviet Union and two in operational tests in Poland. To date, the aircraft has accumulated over 7,000 hours of flight testing, and Soviet certification is expected by late 1990.

At this stage of the SOKOL's development, Polish officials believe that the technical assistance provided by FAA engineers is much more valuable than any direct financial aid to the government.

From the beginning of the engineers' review, those connected with the Polish rotorcraft knew that the success of their venture in the international market would be contingent upon FAA's approval, since markets in eastern Bloc countries are tenuous, at best.

Because the SOKOL was originally designed to meet Russian civil certification regulations, the issues needing inspection were many and intricate, and a number of design modifications will be needed before the aircraft can meet the U.S. certification standards under Part 29 of the Federal Aviation Regulations.

According to Bries, the technical knowledge of the Pezetel engineers is on par with those in the United States. They very much want to learn and understand the relatively complex system of FAA standards and certification.

During the technical breakout sessions that were part of the review, each FAA technical specialist guided a group of Polish engineers and certification authorities through a comprehensive comparison of the SOKOL's design to the FAA's certification standards. The result of the team's long hours of work included providing Pezetel with a detailed certification "road map" to follow in gaining FAA's approval of the Polish rotorcraft.

To the team's credit, Polish officials talked about how "astonished" they were at the speedy progress of the technical review. The officials were quick to recognize the technical competence and dedication of those performing the review.

The experiences in Poland left the team members from Fort Worth with some lasting memories and a sense of pride in being a part of establishing a successful working relationship between the United States and Poland. Team members are also proud to think that they may have made a difference to the future economic success of the new Polish democracy. ■

Debra Myers is a technical publications writer/editor at the Rotorcraft Directorate in Fort Worth.

People

Aeronautical Center

Cheryl I. Jackson, manager, Program Analysis Branch, Management Programs Staff, promotion made permanent . . . **Patricia A. Mabis,** supervisor, Operations Section, Supply Management Branch, FAA Logistics Center, from Washington Headquarters . . . **Carl L. McManus,** unit supervisor, Atlanta FIFO, Flight Procedures & Inspection Div., promotion made permanent . . . **Judith A. Morris,** chief, Administrative Staff, FAA Academy . . . **James H. Owens,** manager, Department Systems Support Branch, Data Services Div. . . . **Janice E. Perry,** supervisor, Office Automation & CPMIS Section, Program & Project Management Branch, FAA Academy . . . **Mary L. Rickey,** supervisor, Certification Section A, Airmen Certification Branch, Airmen & Aircraft Registry Div. . . . **Robert E. Rolling,** supervisor, NAS Section, Academy Maintenance Support Branch, Facility Support Div., promotion made permanent . . . **Jimmy R. Tyler,** supervisor, Operations Section, Facility Maintenance & Operations Branch, Facility Support Div.

Alaskan Region

Gary E. Childers, accident prevention specialist, Anchorage FSDO . . . **Raymond C. Christensen,** manager, Cold Bay, AK, FSS, from Kenai AFSS . . . **Paul L. Fischer,** unit supervisor, Resource Management Branch, Flight Standards Div. . . . **Gerald C. Paterson,** unit supervisor, Anchorage FSDO . . . **Louis F. Press,** area supervisor, Fairbanks ATCT, promotion made permanent . . . **John D. Rennie,** unit supervisor, Sitka, AK, AFSFO, South Alaska AFS, Anchorage, from FAA Academy . . . **Robert C. Walker,** area manager, Anchorage ATCT, from regional headquarters . . . **Julius K. Wery,** manager, Dillingham, AK, FSS, from Kenai AFSS . . . **Jed T. Williams,** unit supervisor, Bethel, AK, AFSFO, North Alaska AFS, Fairbanks, promotion made permanent.

Central Region

W. Alan Cunningham, unit supervisor, St. Ann, MO, FSDO, Berkeley, MO . . . **Arthur F. DeSalme,** unit supervisor, Kansas City, MO, FSDO, promotion made permanent . . . **John M. Djukic,** area supervisor, Kansas City International ATCT, from Chicago O'Hare ATCT . . . **David A. Felber,** unit supervisor, St. Louis, MO, AFS, Berkeley, MO, promotion made permanent . . . **William E. Jennen,** unit supervisor, Establishment Engineering Branch, Airway Facilities Div. . . . **Kenneth M. Ornes,** supervisor, Programming Section, Planning & Programming Branch, Airports Div., promotion made permanent . . . **Naomi L. Saunders,** manager, Civil Aviation Security Div., Kansas City, MO, from Rome, Italy . . . **Lawrence P. Smith,** area manager, Kansas City International ATCT, from St. Louis, MO, ATCT.

Eastern Region

Paul Bartko, area supervisor, Newark, NJ, International Airport ATCT, promotion made permanent . . . **Paul L. Bendigo,** area supervisor, Reading, PA, Municipal Airport ATCT, promotion made permanent . . . **James T. Bryant,** area supervisor, New York ARTCC, Islip, NY, promotion made permanent . . . **George Chopay,** unit supervisor, New York Flight Standards District Office . . . **Glenn M. Eggleston,** unit supervisor, Syracuse, NY, AFSFO, Empire AFS, promotion made permanent . . . **Margaret A. Hartman,** area supervisor, LaGuardia ATCT, promotion made permanent . . . **James M. Huber,** unit supervisor, Establishment Engineering Branch, Airway Facilities Div., promotion made permanent . . . **Debra Jacobs,** area supervisor, New York ARTCC, Islip, NY, promotion made permanent . . . **Sheldon R. Moskowitz,** unit supervisor, LaGuardia AFSFO, Metro NY AFS . . . **Peter A. Mulligan,** area supervisor, New York ARTCC, Islip, NY, promotion made permanent . . . **Samuel W. Shelton,** area supervisor, New York ARTCC, Islip, NY, promotion made permanent . . . **Barry J. Streisfeld,** unit supervisor, JFK AFSFO, Metro NY AFS, promotion made permanent . . . **Raymond J. Taheny,** asst. manager for automation, New York ARTCC, Islip, NY . . . **John S. Walker,** asst. manager, Air Traffic Div.

Great Lakes Region

Bernard F. Baeb, area supervisor, Austin Straubel Field ATCT, Green Bay, WI, promotion made permanent . . . **William R. Beyoon,** manager, Clinton County, MI, AFSFO, Belleville AFS, promotion made permanent . . . **Bradley J. Chandler,** asst. manager for program support, Aurora, IL, AFS . . . **William D. Coppernoll,** unit supervisor, South Bend, IN, FSDO, promotion made permanent . . . **Ralph D. Forrest,** unit supervisor, Chicago, IL, AFS . . . **Jeffrey L. Griffith,** manager, Wold Chamberlain ATCT, Minneapolis, MN, from Tampa, FL, ATCT . . . **James A. Grover, Jr.,** supervisory electronics technician, Oberlin, OH, AFS . . . **Roger Henry,** asst. manager, Dakota AFS, Bismark, ND, from Aurora, IL . . . **Leonard U. Hopkins,** asst. manager, Grand Forks, ND, AFSS . . . **Kathryn M. Hughes,** area supervisor, Indianapolis, IN, ARTCC, from Memphis, TN . . . **Richard J. Kettell,** area supervisor, Cleveland, OH, ARTCC, Oberlin, promotion made permanent . . . **Thomas A. Olsen,** security specialist, Air Security Branch, Civil Aviation Security Div. . . . **Douglas F. Powers,** unit supervisor, System Management Branch, Air Traffic Div., from Minneapolis, MN . . . **Salvador Salinas,** unit supervisor, Itasca County, MN, AFSFO, Minnesota AFS, Minneapolis, promotion made permanent.

New England Region

Allan J. Bogusz, systems engineer, Nashua, NH, AFS . . . **Howard M. Gotham,** systems engineer, Nashua, NH, AFS . . . **Richard Hopkins,** manager, Air Security Branch, Civil Aviation Security Div., promotion made permanent . . . **James E. Tremblay,** manager, Brainard-Hartford, CT, ATCT, from Bradley-Windsor Locks, CT, ATCT.

Northwest Mountain Region

Mark A. Baird, unit supervisor, Boise, ID, AFSFO, Portland, OR, AFS, promotion made permanent . . . **Maureen L. Coulter,** section supervisor, Employment Branch, Human Resources Div., promotion made permanent . . . **John T. Maxwell II,** manager, Miles City, MT, FSS, from Cold Bay, AK . . . **Gary E. Moore,** area supervisor, Colorado Centennial ATCT, Arapahoe County, CO, from Denver ATCT . . . **Bobby E. Mullikin,** asst. manager, Denver ARTCC, Longmont, CO . . . **Robert H. Neale, Jr.,** area supervisor, Seattle ARTCC, Auburn, WA . . . **Charles H. Terry,** unit supervisor, Boise, ID, AFSFO, Portland, OR, AFS, from Denver AFS.

Southern Region

Dewey L. Allen, Jr., asst. manager, Greenwood, MS, AFSS, from Jackson, MS, FSS . . . **Cathy L. Bailey,** unit supervisor, West Palm Beach AFSFO, Hub AFS, Miami, from Tampa, FL, AFS . . . **Gregory A. Barrett,** area supervisor, Memphis International Airport ATCT, promotion made permanent . . . **Jerry R. Bennett,** unit supervisor, Greensboro, NC, AFSFO, Raleigh AFS, promotion made permanent . . . **James R. Blumberg,** area supervisor, Florence, SC, ATCT, from Raleigh, NC . . . **Barry C. Broughton,** asst. manager for training, Jackson, TN, AFSS . . . **Darrell E. Brown,** supervisor, Operations Section, Resource & Planning Branch, Airway Facilities Div., promotion made permanent . . . **Earl F. Bryan,** area supervisor, Gainesville, FL, AFSS, from Orlando . . . **Roy L. Doolittle,** area supervisor, Hebron, KY, ATCT, from Orlando ATCT . . . **Julian Doskow,** section supervisor, Miami FSDO . . . **Edward F. Drury,** asst. manager, Hilliard, FL, ARTCC, from Hampton, GA, ARTCC . . . **Jeffrey P. Forman,** area supervisor, Charlotte, NC, Douglas Municipal Airport ATCT, promotion made permanent . . . **Truman L. Glisson,** area supervisor, Greenwood, MS, AFSS . . . **Ronald L. Gray,** supervisor, Pensacola, FL, AFSFO, Montgomery, AL, AFS, promotion made permanent . . . **Joseph W. Greenwell,** area supervisor, Bristol, TN, Tri-City Airport ATCT, promotion made permanent . . . **Haskel W. Griffin, Jr.,** crew chief, Miami, FL, ARTCC AFS . . . **Ronald W. Halman,** area supervisor, Pensacola Regional Airport ATCT, from Nashville, TN . . . **Bruce E. Hargis,** area supervisor, Savannah, GA, Municipal Airport ATCT, from Columbus, GA . . . **Jessie D. Horn,** area supervisor, Chattanooga, TN, ATCT, promotion made permanent . . . **Bayard M. Irwin, Jr.,** supervisor, Real Estate/Utilities Section, Real Estate Branch, Logistics Div., promotion made permanent . . . **John T. Jennemann,** supervisor, Knoxville, TN, AFSFO, Covington AFS, from Hebron, KY, AFS . . . **Ronnie Johnson,** supervisor, Real Estate/Space Management Section, Real Estate Branch, Logistics Div., promotion made permanent . . . **Billy J. Langley,** manager, Airports District Office, Memphis, TN, promotion made permanent . . . **Randell D. Nutt,** area supervisor, Orlando, FL, ATCT . . . **Ronald T. Piasecki,** area supervisor, Asheville, NC, Municipal Airport ATCT, from Jacksonville ATCT . . . **Stephen W. Puluk,** asst. manager, plans & procedures, Daytona Beach, FL, Regional Airport ATCT . . . **Billy K. Reed,** area supervisor, Jackson, MS, Municipal Airport ATCT, from Huntsville, AL . . . **John C. Riggs,** area manager, Jacksonville, FL, Municipal Airport ATCT, from West Columbia, SC, ATCT . . . **Elizabeth M. Shockley,** unit supervisor, Atlanta, GA, CASFO, Civil Aviation Security Div. . . . **John L. Simpson,** unit supervisor, Miami, FL, ARTCC AFS . . . **Charles R. Taylor,** manager, Memphis, TN, ARTCC . . . **Larry L. Welsh,** manager, Greenville, SC, Downtown Airport ATCT, from Macon, GA, ATCT.

Southwest Region

Jerry D. Biewen, systems engineer, Houston ARTCC AFS . . . **Bobby E. Casto,** unit supervisor, Tulsa AFSFO, Oklahoma City (Bethany) AFS, promotion made permanent . . . **John C. DeLarosa,** navaids/communications specialist, Harlingen, TX, AFSFO, San Antonio AFS, from Albuquerque AFS . . . **Larry W. Douglas,** unit supervisor, Houston, TX, ARTCC AFS, promotion made permanent . . . **James R. Edwards,** unit supervisor, Houston, AFS, promotion made permanent . . . **Fred J. Fox,** environmental support engineering technician, Austin, TX, AFSFO, Austin AFS, promotion made permanent . . . **Glenn A. Herrington,** area supervisor, Albuquerque, NM, AFSS, from Montgomery County AFSS, Conroe, TX . . . **Mildred G. Howe,** unit supervisor, Accounting Operations Section, Accounting Branch, Resource Management Div., promotion made permanent . . . **John P. Karman,** unit supervisor, Dallas/Fort Worth AFSFO, from Washington ARTCC AFS, Leesburg, VA . . . **Dixie J. Norton,** unit supervisor, Lubbock, TX, FSDO, from Sacramento, CA, FSDO . . . **Thomas Ochello, Jr.,** area supervisor, Albuquerque, NM, AFSS, from De Ridder, LA, AFSS . . . **Robert T. Owens,** Laredo, TX, AFSFO, San Antonio AFS, promotion made permanent . . . **Edwin L. Patterson,** section supervisor, National Airspace System Program Coordination Staff, Airway Facilities Div. . . . **William T. Pendarvis, Jr.,** section supervisor, Establishment Engineering Branch, Airway Facilities Div., from FAA Academy . . . **Russell T. Pickvance,** asst. manager for technical support, Austin, TX, AFS, from regional headquarters . . . **James G. Thompson,** asst. systems engineer, Houston, TX, ARTCC AFS, promotion made permanent . . . **Alan P. Turner,** unit supervisor, El Paso, TX, AFS, from FAA Academy . . . **Major C. Watts,** area supervisor, Jonesboro, AR, AFSS, from Little Rock, FSS.

Technical Center

Clifton E. Bailey, unit supervisor, Supporting Services Section, Plant Services Branch, Plant Engineering & Services Div., promotion made permanent . . . **Frances A. Mackuse,** technical program manager, Surveillance & Weather Systems Branch, Communications/Navigation/Surveillance Div., promotion made permanent . . . **Paul J. Tucci,** manager, Systems Engineering Branch, National Automation Engineering Field Support Sector . . . **Paul J. Wolovnik,** technical program manager, Advanced Automation Systems Branch, Automation Div.

The information in this feature is extracted from the Personnel Management Information System (PMIS) computer. Space permitting, all actions of a change of position and/or facility at the first supervisory level and to branch manager in offices are published. Other changes usually cannot be accommodated because there are thousands each month.

Washington Headquarters

Barbara Aleshire, manager, Administrative Management Branch, Flight Standards Service . . . **David T. Bailey,** team supervisor, Advanced Automation Branch, Contracts Div., Logistics Service . . . **James K. Buckles,** asst. air traffic manager, operations, En-route Procedures Branch, Procedures Div., Air Traffic Operations Service, from New York ARTCC . . . **Lionel R. Driscoll, Jr.,** staff officer, Project Safe Staff, Flight Standards Service . . . **Felix L. Lococo,** manager, Certificate Management Branch, Field Programs Div., Flight Standards Service, from Van Nuys, CA, FSDO . . . **Gary P. Martindell,** manager, Current Operations Branch, Field Programs Div., Flight Standards Service, promotion made permanent . . . **L. Willene Minnick,** deputy director, Executive Secretariat, Office of the Administrator, promotion made permanent.

Western-Pacific Region

Charles B. Aalfs, manager, Operations Branch, Air Traffic Div. . . . **Jon-Paul Ammirata,** manager, Pago Pago ATCT, American Samoa, from Stockton, CA, ATCT . . . **Tommy E. Barclay,** asst. manager, plans & procedures, Oakland, CA, TRACON . . . **Jack D. Borrego,** manager, San Jose, CA, AFSFO, Golden Gate AFS, Hayward, promotion made permanent . . . **Alvin C. Cook,** manager, Oakland, CA, AFSFO, Golden Gate AFS, Hayward, promotion made permanent . . . **Gloriane M. Cooper,** area supervisor, Honolulu CERAP . . . **Lee R. Daniel,** area supervisor, Riverside, CA, AFSS . . . **Arthur Grueneberger,** area manager, McClellan AFB TRACON, Sacramento, CA, from regional headquarters . . . **Richard A. Gutterud,** area supervisor, Oxnard, CA, ATCT, from Oakland, CA, TRACON . . . **Richard T. Harris,** manager, Oakland, CA, FSS, from regional headquarters . . . **Harvey L. Hartmann,** area supervisor, Oakland, CA, TRACON . . . **Willoughby E. Henshaw,** project manager, Air Traffic Div. . . . **Stanley A. Huff,** area supervisor, Oakland, CA, ATCT . . . **Kenneth J. Hyman,** area supervisor, Fresno, CA, ATCT, promotion made permanent . . . **Russell M. Johnson,** area manager, Los Angeles, CA, AFS, promotion made permanent . . . **Wayne A. Mackenzie,** manager, Riverside, CA, ATCT, from regional headquarters . . . **Mauro M. Martinez,** supervisor, supervisor, Navigation/Communications/Data Section, Systems Maintenance Engineering Branch, Airway Facilities Div. . . . **Garold D. Meyers,** systems engineer, Los Angeles, ARTCC AFS, Palmdale . . . **Daniel Olivas,** unit supervisor, Air Traffic Control Automation & Flight Information Program Section, Establishment Engineering Branch, Airway Facilities Div. . . . **William M. Reidy,** section supervisor, Air Traffic Div., from Van Nuys, CA, ATCT . . . **Kenneth S. Sander,** asst. manager for program support, Operations Program Section, Program & Planning Branch, Airway Facilities Div., from Los Angeles AFS . . . **Ralph O. Schneider,** manager, Contracting & Acquisition Management Branch, Logistics Div., promotion made permanent . . . **Dale S. Tengan,** area supervisor, Honolulu CERAP . . . **Robin F. Wilkerson,** manager, Pago Pago AFSFO, Hawaii-Pacific AFS, Honolulu, from regional headquarters.

FAA Remembers

Joseph D. Blatt. Joseph D. Blatt, 77, a retired Associate Administrator for Development at the FAA, died of cancer May 30 at George Washington University Hospital.

Blatt's achievements covered 33 years of service to the FAA and its predecessors and included receiving the agency's Exceptional Service Award and the Administrator's Career Achievement Award.

Starting in 1937 as a field engineer in Jacks Creek, Tennessee, Blatt's long FAA career included service in the Kansas City Region, where he set up the agency's first soils testing laboratory; the New York Region, where he was appointed Regional Administrator; and Washington, DC, at his retirement in 1970.

Blatt was a graduate of the College of the City of New York with a bachelor's degree in engineering and a master's in civil engineering.

He was a member of the American Society of Civil Engineers, the Radio Technical Commission for Aeronautics, the Aero Club, the Wings Club, the National Aviation Club, and the Society of Airway Pioneers.

Survivors include his wife of 56 years, Ethel "Eddie" Blatt of Washington.

We'd like to know. News about agency employees—both current and former—can be sent for publication to *FAA World*, Federal Aviation Administration, Office of Public Affairs, APA-300, 800 Independence Avenue SW, Washington, DC 20591.

Retirees

Aeronautical Center

Benny J. Allen
B. Lamoyne Brooks
Lester D. Cagle
Rolland E. Gerdes
Adelle W. Gilbert
Annabelle B. Haraway
Merwyn O. Huntress, Jr.
Mary W. Jones
Evangeline J. Mobley
George F. Murray
Gerald D. Orton
Albert D. Rockwell
James W. Strahin

Alaskan Region

Ruth L. Craig
Robert E. Elzig
Sylvia K. Kobayashi
Ray E. Marley

Central Region

Archie R. Carter

Eastern Region

Donald E. Brown
Donald M. Diperna
Allen E. Dorwin
Warren N. Mawhinney
John B. Newell
Sankey E. Parsons
Kenneth N. Patton
William M. Polson

Great Lakes Region

John J. Baldwin
Robert D. Ballou
Stefan Bates
Philip E. Crawford
Dennis E. Fink
Betsy T. Foster
Richard A. Garmany
Frederick C. Heaviland
Richard L. Hoppe
Edward E. Johnsen
George R. Lasko
James B. Lawler
James J. Lawrence
Elwood R. Olson
Darrel L. Pittman
Gerald D. Probst
Howard C. Riemensperger
McKinley Toney
Clair E. Wilson

New England Region

Solomon J. Beaulieu
Mary L. Bretz
Joseph E. Chrastil
Edward A. Crossley
Richard R. Deshaies
Maynard W. Maddocks
William O. Robbins, Jr.

Northwest Mountain Region

Edward F. Browne
Jerry M. Cheatham
Richard J. Ebling
Donald H. Elgin
William H. Fennell
Thomas A. Higgins
Harold M. Hogness
Dean C. Martin
Shirley S. Pratt
Rex K. Pugmire

Southern Region

George W. Bennett
Herbert B. Campbell
Charles R. Cole
Zane G. Crabtree
Thomas M. Crafty
Joseph C. Domino
Lawrence G. Gray
Teddy J. Lane
David M. McComb, Jr.
Eugene L. Parker
Lester Z. Powell
Robert A. Reeves
Jesse A. Sims
David L. Stanford
William S. Whitmore

Southwest Region

Geraldine T. Cook
James H. DeLong
Oscie C. Perkins, Jr.

Technical Center

Norman G. Shumeau

Washington Headquarters

Gale E. Braden
Donald R. Brooks
Oreste E. Falsetti
Eleanor M. Magimis
Major Myles

Western-Pacific Region

Arlene L. Brixius
Nancy J. Clarke
Willis D. Coyle
Luis F. Gomez
James J. Guinasso
Robert L. Jessup
Roy M. Killgore
Jackie L. Lyons
Adelbert E. McIntyre
Dewey Nardini, Jr.
Douglas B. Pemberton
Ritchie B. Phillips
Richard E. Rippe
James Edwin Yakal

Concorde Visits Oshkosh '90

Each year for about 10 days, Oshkosh, WI, and surrounding towns play host to hundreds of thousands of aviators and spectators who gather to be part of the world's largest experimental aircraft convention.

Up to 15,000 aircraft will tie down at Wittman Field and take part in the estimated 60,000 landing and departures that take place during the convention. The skies are filled each day with everything from motorized parachutes to fighter jets and tankers.

In the October issue of *FAA World*, Dolores "Dodie" Hartigan, an air traffic control specialist at the Bedford, MA, ATCT, writes about her experience at Oshkosh from the perspective of an air traffic controller.

FAA Photo by Rocky Knoten

The Concorde visits Oshkosh in conjunction with the 50th anniversary of the Battle of Britain. British flags and World War II aircraft are visible to the right of photo.

U.S. Department
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