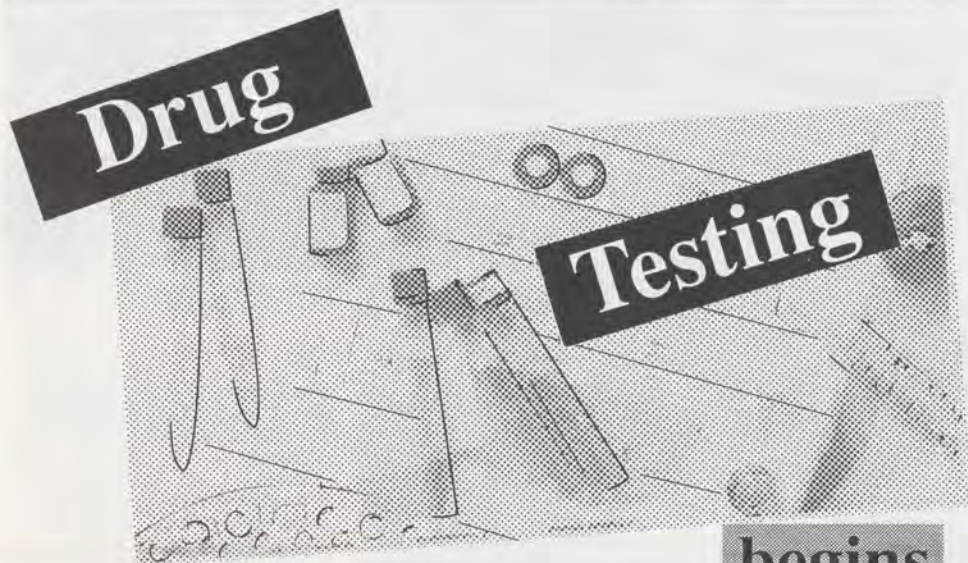




U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

# FAA World

January 1990  
Volume 20 Number 1



by Fraser Jones

**T**he airline industry is catching up with FAA's drug testing program. As of last month, a large segment of the airline industry became subject to the same kind of drug testing as FAA employees in safety-related positions.

Large airlines and regionals with 51 or more employees began drug testing December 18, 1989, to comply with an FAA rule announced in November 1988. Eventually, some 540,000 persons will be covered by the rule.

"The procedures in the regulation are designed to ensure the accuracy, integrity and effectiveness of testing and to protect the privacy of employees... We realize the necessity for emphasizing considerations of human dignity," said DOT Secretary Samuel K. Skinner before a conference designed to help transportation industry officials implement their drug testing programs.

Affected by the FAA rule are pilots, flight engineers, navigators, dispatchers, mechanics, repairmen, flight attendants, security personnel and those performing contract work related to safety. They

will be subject to pre-employment, random, periodic, reasonable-cause and post-accident testing for the presence of marijuana, cocaine, opiates, amphetamines and phencyclidine.

FAA Administrator James Busey said in a statement that he "strongly support[s] random drug testing for all safety-sensitive employees." He said that his personal experience with drug testing in the military convinced him "that it is a fair and strong deterrent to drug use."

"FAA is pioneering drug testing in the workplace for the aviation industry," said FAA's external drug testing manager Hedi Mayer. "We are way ahead of the other regulated transportation industry groups in providing technical assistance to industry and distributing guidance materials and conducting seminars," she continued.

The airline industry anti-drug program is being implemented in three phases: organizations with 51 or more covered employees; organizations with 10 to 50; and, finally, those with less than 10 employees.

Smaller carriers and operators in the

begins

in

Airline

Industry

11 to 50 category are required to begin testing by February 14, 1990; operators with 10 or fewer covered employees, and privately operated air traffic control facilities by August 13, 1990; and contractors who provide covered employee services to the above groups phase in drug testing programs 360 days after the groups they are providing services to implement their programs.

FAA initiated its own drug testing program in early 1987 as part of the periodic medical examinations controllers, pilots and other safety-related

*(Continued on page 2)*

*Fraser Jones is editor of FAA World. Until November 1989, he was associate editor for Commuter Regional and Airline Financial News.*

## In This Issue

- 1 Drug Testing Begins
- 3 Synthetic Vision's Promise
- 4 Regional Clips
- 5 "Skunk Works" Award Given
- 5 CAMI's Employee of the Year
- 6 Aviation's Milestones
- 8 Bill Jackson Remembered

- 10 People
- 11 Retirees
- 12 Federal Notebook

## Drug Testing

from page 1

### FAA World

January 1990

#### Secretary of Transportation

Samuel K. Skinner

FAA Administrator

James B. Busey

Assistant Administrator—

Public Affairs

Hugh O'Neill

Manager—Public & Employee

Communications Div.

Vacant

Editor

Fraser Jones

Art Director

Eleanor M. Maginnis

Staff Editor

Pat Tomasetti

FAA WORLD is published monthly for the employees of the Department of Transportation/Federal Aviation Administration and is the official FAA employee publication. It is prepared by the Public and Employee Communications Division, Office of Public Affairs, FAA, 800 Independence Ave., S.W., Washington, D.C. 20591. Articles and photos for FAA WORLD should be submitted directly to regional PAA public affairs officers:

John Clabes—Aeronautical Center

Paul Steucke, Sr.—Alaskan Region

Robert Raynesford—Central Region

Kathleen B. Bergen—Eastern Region

Merion Edelman—Great Lakes Region

Mike Ciccarilli—New England Region

Richard Meyer—Northwest Mountain Region

Jack Barker—Southern Region

Geraldine Cook—Southwest Region

Mike Jacobs—Technical Center

Barbara Abels—Western-Pacific Region

employees are required to take as a condition of employment. Also covered were flight service station specialists, aviation safety inspectors, federal air marshals, FAA police, firefighters and operations officers at Washington National and Dulles International airports.

Random drug testing was implemented for all DOT employees in safety-related positions in September 1987. It affected approximately one-half, or 32,548, of DOT's civilian employees. Approximately 95 percent for FAA.

FAA figures for the September 1987-November 1989 period show a positive rate of 0.5 percent, or 131 confirmed positives out of 24,705 random tests. Of nine reasonable suspicion tests over the period, four were confirmed positive. There were no confirmed positives out of 31 post-accident tests.

Approximately 65 percent of the positives have been for marijuana with 30 percent for cocaine and the remaining 5 percent for other substances.

As of December 11, the airline industry had 18 FAA-approved consortiums



A lab technician uses a screening instrument to check a quality control sample.

Individuals who have a verified positive test are removed from their sensitive safety- or security-related position. The rules encourage, but do not require, the operators to sponsor rehabilitation programs. The employee could be reinstated upon successful completion of a rehabilitation program, in which case he or she would be subject to unannounced follow-up tests.

Railroad Administration. In addition, the D.C. Circuit Court of Federal Appeals upheld random testing for FAA employees.

The FAA is well ahead of the game in the effort to achieve a drug-free transportation system. Thanks to Hedi Mayer and her team, as well as numerous other FAA employees, the airline industry is catching up. ■

**"FAA is pioneering drug testing in the workplace for the aviation industry. We are way ahead of the other regulated transportation industry groups...."**

**—Hedi Mayer, external drug testing manager**

from which to select for drug testing programs. The consortiums are equipped to provide some or all of the requirements to comply with the rule including specimen collection, medical review officers and submission of reports. Testing will be carried out by Department of Health and Human Services approved labs using proven procedures and in a manner designed to protect the privacy and dignity of those subject to testing. A total of approximately 60 HHS-approved labs will be involved, of which 38 are certified to date.

The procedures are identical to those used for testing FAA employees. All specimens identified as positive on the initial screening test will be confirmed with a second test using gas chromatography/mass spectrometry techniques. Positive results are then passed on to a medical review officer who must discuss the results with the employee to determine if there are legitimate explanations for the positive result.

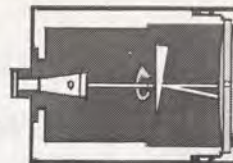
FAA is currently conducting a total of nine medical review officer training conferences across the United States, with the last one scheduled for February 9. The conferences "have been extremely well received," said Mayer.

Noting that oral arguments on the random drug testing issue have been heard by the Ninth Circuit Court of Appeals, Mayer said, "FAA is proceeding with the expectation that the courts will approve the random testing because of the safety-sensitive angle."

Last March, the Supreme Court ruled in favor of pre-employment testing at the U.S. Customs Service, and in favor of post-accident testing at the Federal

# Synthetic VISION

A Concept for the 90's



By Malcolm A. Burgess

"Synthetic Vision" sounds like a project on the cutting edge of new technology... and it is. Indeed, it may very well be the aviation concept of the mid-1990's. Synthetic Vision is promising because it will allow pilots to land safely in fog and other low-visibility conditions. The new concept will give them a reliable image of the runway environment on a heads-up display (HUD) located where pilots need it. That is, directly between the pilot and the window, exactly where it would be if the runway could be seen with the naked eye.

The technology would help to return control of the aircraft to pilots, giving them additional tools to overcome bad weather. Safety also would be enhanced by reducing cockpit workload during the most critical phase of flight when adverse weather conditions are most likely to contribute to an accident.

Innovative millimeter-wave sensors with weather penetration ability are being developed for Synthetic Vision. These sensors will provide the image of the runway area from about two miles out for the final phase of landing, rollout and taxi. Existing forward-looking infrared (FLIR) sensors will also be used to augment the visual picture at night in good weather.

In addition to the runway image, other data projected on the HUD include altitude, airspeed, pitch, heading and a velocity vector derived from the Inertial Navigation System to show the pilot exactly where the aircraft is pointing. Ideally, it will present all the information needed to make a safe landing in category III (most restrictive) conditions.

The benefits of an operational Synthetic Vision system go far beyond safety. The system will extend aircraft operations in extreme low-ceiling and low-visibility conditions and provide access to many airfields now available only in good weather. By presenting a real image of the runway complex, the decision to land can be made by the pilot from onboard systems complemented by existing ground navigation and approach aids such as instrument landing systems (ILS), microwave landing systems (MLS) or global approach systems (GPS).



The Synthetic Vision project is a joint FAA/DOD/industry effort that began at the direction of former Administrator Allan McArtor in July 1988. FAA's leadership in the project is provided by the Advanced System Design Service through its Engineering Field Office at the NASA Langley Research Center, Hampton, VA.

A technical team provides the expertise needed in the areas of sensors, image processing and systems integration. The team continues to build on work previously accomplished by the Air Force Flight Dynamics Laboratory and is using its contracting capabilities to launch the competitive development of the millimeter-wave sensors.

The initial proposal evaluation phase ended in late 1989, and contracts are to

be awarded early this year. Sensors will be available by late 1990 for testing in a tower facility at Wright-Patterson Air Force Base in Ohio, as well as on aircraft.

A certification study team composed of FAA and industry representatives was formed in March 1989 to identify the key issues of certification and to formulate a certification methodology. Issues such as reliability and performance are being analyzed using flight test data from a flying laboratory and simulator test results provided by industry. Studies will address cost-performance tradeoffs, workload, pilot/vehicle interface and display and imaging characteristics.

After defining the critical issues and providing a clearly developed methodology which, if followed, would support certification, the product of this work will probably be a draft advisory circular for use in the certification of Synthetic Vision.

In 1990, a systems integration contract will be awarded to develop the

necessary image enhancement techniques and to develop and integrate the functional prototype sensor, display system, computers and electronics on an executive-class aircraft. Completion of the flight demonstration and performance evaluation is expected in FY 1992.

In summary, the Synthetic Vision project capitalizes on new technology, innovative contracting, industrial investment, interagency cooperation and previous experience of similar programs to demonstrate and document the extent to which imaging systems can be used as a cost-effective means for aircraft landings in low-ceiling and visual range. It is a near-term, achievable and positive step to help meet the challenges of a safer, more efficient National Airspace System. It promises to be a major contributor in achieving the elusive goal of all-weather aircraft operations. ■

Malcolm A. Burgess is manager of the FAA Engineering Field Office at the Hampton, VA, NASA Langley Research Center.

**B**urlington, VT, recently witnessed the commissioning of a new FAA air traffic control tower and adjoining base building. These additions at the city's international airport cost \$3.6 million.

The Burlington facility has been called "unique" because the new tower, single-story tower base building and the \$2.5 million Automated Flight Service

Aviation." The first woman in the state to earn her pilot's license, Pugh took her initial flight in 1932 when her husband-to-be, Harold, flew her over the elementary school in Vergennes where she taught.

Controllers in the tower's cab work eight stories above the ground at a height of 77 feet. The tower itself rises to 95 feet.

## New ATCT Expands Burlington Complex

Station commissioned in 1987 are joined together by a glassed-in walkway. It's an innovation FAAers at Burlington will appreciate now that the winter winds are blowing.

A highlight of the commissioning ceremony was New England Regional Administrator Arlene B. Feldman's presentation of an FAA plaque to Grace Pugh, who at 80-plus is affectionately known as "Vermont's First Lady of

The 6,400-square-foot base building houses the terminal radar control facility, conference rooms, classrooms and space for Air Traffic and Airway Facilities personnel.

The New England Airway Facilities Division through its Establishment Engineering Branch and Burlington AFS office was responsible for the overall design, construction, electronics installation and equipment relocation for the new buildings. ■



The unique facility at Burlington, VT, is composed of a tower base building (at right), an AFSS (at left) and a tower joined together by a glassed-in walkway. The tower itself rises to 95 feet above ground. Controllers in the cab work at the 77-foot level.



New England Regional Administrator Arlene Feldman presented Grace Pugh, "Vermont's First Lady of Aviation," with an FAA plaque at the commissioning ceremonies for the ATCT. Joining Pugh were Burlington Mayor Peter Clavelle (left) and his son and Pugh's son and daughter.

## FAA Academy Collects Storms



Hurricane Hugo makes landfall near Charleston, SC. This looped segment of weather radar imagery was relayed to the FAA Academy's Enroute Radar Unit by the National Weather Service's Charleston radar. Unit instructor Jerry Jensen looks on as two minutes of hurricane imagery move across his screen.

Unit manager Nick Kozak says that radar tapes of severe weather are collected by the Academy under a NAS Plan hazardous weather program and used as course material during months when the local weather is too stable. The course teaches maintenance and operation of the radar remote weather system.

FAA Photo by Jack Iman



## Controllers Manage Quake Aftermath

Air Traffic Controllers Dave Berger, Don Netze and Hank Lopez are pictured in the San Francisco International Airport control tower one hour after the October 17 earthquake hit. Three controllers were injured due to falling glass and debris, but they have all returned to duty. They are: Tony Wakin, Barbara Stevens and Steve Skaggs.

When the photo was taken, one window and roof supports were missing, and the ceiling (not roof) had collapsed. Overhead electric fixtures also collapsed (note the silver conduit). The controllers wore hardhats and dust masks due to falling debris. Only one scope radar out of four was operable, and with the missing window, there was extreme noise from turboprop departures. The terminal was littered with debris and water from sprinklers.

The airport was closed to arrivals throughout the evening due to the condition of passenger terminals, which were using emergency power. [Rob Voss provided photo and information.]

## FAA Innovators at Houston Win "Skunk Works" Award

**M**anagement Systems' "Skunk Works" Awards were presented recently to two innovative FAA automation specialists at the Houston Intercontinental Airport for their key roles in implementing revised air traffic controller staffing standards for terminal radar control rooms (TRACONs).

AMS Director Mike Sherwin made the presentations to Jim Goertz, assistant manager of automation, and Larry Haas, automation specialist, at the Houston TRACON. The two were cited for designing and producing a program to extract information from an offline ARTS IIIA processor to a personal computer (PC) within a timeframe of just six months.

Management Systems borrowed the idea for the awards from the Lockheed Corp., whose famous "Skunk Works," headed by Kelly Johnson, produced a number of advanced-technology aircraft including the first tactical U.S. jet fighter (XP80), which went from design development to flight in just 143 days.

Over the past five years, the FAA awards have gone to a "select few individuals" who have met the requirements for being innovative and showing tangible results in a short period of time. Sherwin has described a Skunk Works operation as "a highly innovative, fast moving, small and slightly

eccentric activity operating at the edges of an organization." He noted, "Successful 'skunks' are pragmatic, non-blue-sky dreamers who live by the dictum: Try it now."

What Goertz and Haas did was to develop a means for capturing traffic activity at each radar position in the TRACON in 15-minute intervals by extracting recorded tracking information and transferring it to a PC. This made it possible to identify peak traffic periods and apply and validate the staffing standards model.

Along the way, Sherwin said, the two men had to overcome considerable skepticism that such a program could be developed or could be adapted to different radar configurations. Without their efforts, it would not have been possible to apply the new staffing standards at the current level of detail, he added.

Southwest Region's Air Traffic Division manager, Larry Craig, agrees with Sherwin that the results made a significant contribution toward meeting FAA's organizational and operational objectives. He noted, "The development of

staffing standards for air traffic controllers is an important effort which helps to establish and maintain our credibility with OMB [Office of Management and Budget] and Congress as we set goals for future staffing."

However, award winner Jim Goertz admits that it was the intellectual challenge that motivated him and his partner as much as anything. "It was a problem we were interested in solving," he said. "We knew it could be done."

"That's what the 'Skunk Works' Award is all about. ■



Larry Haas and Jim Goertz display "Skunk Works" Awards with Larry Craig, manager, Air Traffic Division, Southwest Region.



AMS Director Mike Sherwin presents awards to Jim Goertz and Larry Haas as Fran Melone, manager of the Management Engineering Branch, AMS-500, looks on.

## Myers Gets CAMI's Top Employee Honors

**R**esearcher Jennifer Myers (AAM-522) is a hard-working professional. Her extensive involvement in a major 1988 project, and her positive attitude and sense of humor on the job, made her the Civil Aeromedical Institute's choice for employee of 1989.

Dr. Myers was responsible for all aspects of the 1988 employee survey. She worked late and on weekends for several months to complete the project, yet maintained a positive attitude and sense of humor.

Myers' professionalism and cooperativeness also extend to the rest of her work. She recently took on additional administrative responsibilities when her branch manager was promoted. She also

became involved in additional research tasks (even during the survey period) when a coworker was transferred.

CAMI's employee of the year is also active in the community. She is a Sunday school teacher and education committee member in her church and does volunteer work in a program for handicapped children. Additionally, she has served as a consultant to the Oklahoma University Health Sciences Center's department of psychiatry on a program evaluation of day care centers.

This year—1990—should be another memorable one for Myers, as she is expecting her third child in February.

Thanks go to Carol Manning for this information.



Top employee Jennifer Myers displays a proud smile.

Aviation's first century of flight is rapidly coming to a close. The following milestones mark a few significant events in aviation history over the last sixty years. The closer we get to the 21st century, the more remarkable it will seem that aviation has come so far so fast.

### Sixty Years Ago

**January 16, 1930:** Frank Whittle, a British Royal Air Force officer and engineer, filed a patent for his design of a turbojet aircraft engine. Manufacture of an experimental version of the engine began in 1936.

**May 15, 1930:** Airline flight attendant service was inaugurated by United Air Lines on a flight from San Francisco to Cheyenne, WY, with Ellen E. Church, a registered nurse.

**September 10, 1930:** The Taylor E-3 Cub made its first flight. This design evolved into the famous Piper Cub, which became one of the world's most popular general aviation airplanes.

### Fifty Years Ago

**May 4, 1940:** FAA type certificated the Boeing 307B Stratoliner, the first airliner with a pressurized cabin, as well as the first with four engines.

**June 30, 1940:** President Roosevelt reorganized the Civil Aeronautics Authority into an independent Civil Aeronautics Board, with responsibility for economic rulemaking and safety and a Civil Aeronautics Administration in the Department of Commerce which performed such functions as certification, safety enforcement, airways development and air traffic control.

**August 31, 1940:** An unprecedented string of 17 fatality-free months in scheduled domestic air passenger service came to an end when a Pennsylvania-Central Airlines flight from Washington to Pittsburgh struck a mountain near Lovettsville, VA, killing 25 people aboard. U.S. domestic air carriers flew 1.4 billion passenger-miles without a fatal accident during this period.

### Forty Years Ago

**September 7, 1950:** President Truman signed legislation authorizing construction of a second airport to serve the Nation's Capital.



Dulles International Airport was the second airport to serve the Nation's Capital.

**October 15-21, 1950:** During this seven-day period, the CAA put into operation the first omnirange (VOR) airways. The new routes, approximately 4,380 miles long, linked such major terminals as Kansas City, Denver, Albuquerque, El Paso, Omaha and Oklahoma City.

### Thirty Years Ago

**January 9, 1960:** Most U.S. airliners were required to be equipped with airborne weather radar within a two-year period.

**March 1-14, 1960:** FAA transferred from Washington to Oklahoma City its organizational elements responsible for aircraft registration and airman certification.

**March 15, 1960:** The "age-60 rule" went into effect prohibiting anyone who had reached his 60th birthday to serve as a pilot on aircraft engaged in certificated route air carrier operations or on large aircraft engaged in supplemental air carrier operations.



Leonardo da Vinci, often described as one of the great forerunners of aeronautics, illustrated the first recorded design for a flying machine in 1490.

**December 16, 1960:** A United DC-8 and a TWA Super Constellation collided in midair over Brooklyn, NY, killing all 128 occupants aboard the planes and eight persons on the ground.



The Boeing 307B Stratoliner was the first airliner with a pressurized cabin and the first with four engines.

### Twenty-Five Years Ago

**March 4, 1965:** Positive control of nearly all of the airspace in the contiguous 48 States between 24,000 and 60,000 feet was consolidated into one area known as the continental positive control area effective this date.

**March 6, 1965:** The first helicopter nonstop flight across the North American continent was made by a Sikorsky SH-3A.

**May 1, 1965:** Transfer of the Europe, Africa, and Middle East Region headquarters from London to Brussels was completed.

**June 16, 1965:** FAA issued a rule requiring installation of cockpit voice recorders (CVRs) in all turbine-powered and all large pressurized reciprocating four-engine airplanes used by air carrier or commercial operators. The rule was effective March 1, 1967.

### Twenty Years Ago

**January 29, 1970:** The Air Traffic Controller Career Committee (the Corson Committee) submitted its report to the Secretary of Transportation recommending, among other things, that the Nixon Administration seek legislation establishing an early retirement program for controllers.



Clement F. Adler became the first person to take off from level ground in a pilot-carrying, powered aircraft in 1890. Unlike Adler, the Wright brothers were able to repeat, sustain and control their flights.

**March 17, 1970:** The first death in a domestic U.S. aircraft hijacking incident occurred when the copilot on an Eastern Airlines shuttle died after a struggle with a hijacker in which both were shot. The captain also was wounded in both arms but landed the airplane safely in Boston.

**April 27, 1970:** The Central Flow Control Facility was established at FAA Headquarters as a permanent part of the air traffic control system.

**May 21, 1970:** The Airport and Airway Development and Revenue Acts of 1970 were signed by President Nixon. By establishing a trust fund fed by revenues from new user taxes, the new legislation assured a continuous flow of funds for airport and airway modernization.



Traffic management specialist Debbie Compton operates an Aircraft Situation Display at Central Flow Control, now the Air Traffic System Command Center.



President Richard Nixon prepares to sign the Airport and Airway Development Act. Looking on are DOT Secretary John Volpe (third from right, front) and FAA Administrator John Shaffer (light suit behind Volpe).

**June 25, 1970:** The first terminal control area (TCA) went operational at Atlanta.

**December 29, 1970:** The installation of an emergency locator transmitter (ELT) on certain U.S. civil aircraft was required by the Occupational Safety and Health Act of 1970, enacted this date.

### Ten Years Ago

**January 1, 1980:** Effective this date, FAA established the lead region concept under which designated FAA regions assumed certain responsibilities on a nationwide basis.

**May 29, 1980:** A new building complex was dedicated at the National Aeronautics Facilities Experimental Center, which was renamed the FAA Technical Center.

**September 10, 1980:** The Special Aviation Fire and Explosion Reduction (SAFER) Advisory Committee released its final report recommending, among other things, the investigation and validation of anti-misting kerosene (AMK) as a possible means of reducing the post-crash fire hazard.

### Five Years Ago

**March 29, 1985:** FAA published a rule that required each lavatory on Part 121 airliners to be equipped with a smoke detector and that each lavatory trash receptacle have an automatic fire extinguisher.

**April 16, 1985:** FAA published a rule establishing a blood alcohol standard (.04 percent by weight) for determining objectively when drinking had impaired the ability of aircrew members to perform their duties.

**July 26, 1985:** FAA announced the award of a contract to IBM to replace the existing IBM 9020 mainframe computers at the nation's 20 air route traffic control centers with new state-of-the-art "Host" computers.

## Remembering FAA's Bill Jackson



William E. Jackson, a former FAAer, was a prominent aviation pioneer who advanced the state of the art in airborne communications and navigation equipment.

William E. "Bill" Jackson has been retired from FAA for almost 25 years now, but his pioneer work in advancing the state of the art in airborne communications and navigation equipment continues to benefit aviation worldwide.

Moreover, the Radio Technical Commission for Aeronautics has ensured the perpetuation of his memory in the scientific and technical community by establishing the prestigious "William E. Jackson Award," first presented in 1975

Center in Indianapolis (predecessor to the FAA Technical Center in Atlantic City). The plane hangs beneath the venerable DC-3 identified as "the first truly modern airliner" with, unfortunately, no mention of its distinguished CAA service.

Jackson was born on May 8, 1904, in Bridgewater, MA. He was graduated from Brown University with a BS in electrical engineering in 1925.

A year earlier, his mentors at Brown had predicted his later pioneering achievements when they awarded him the Cull

The laboratory at Indianapolis, so much of Jackson's life for so long, was gradually disbanded during 1959 and moved to Atlantic City where the emphasis was no longer so much on research and development of nav aids as it was on product evaluation and testing.

Jackson, who did not make the move to New Jersey, accepted a staff job in Washington. By this time a mild heart attack had caused him to give up flying, and he had sold his personal plane.



Al Wuecker, a former RTCA chairman, Nellie Jackson and former FAAer Dave Shellet, who worked in research and development, stand by the newly founded Jackson award.

(RNAV) equipment and from the instrument landing system (ILS) to the new technology microwave landing system (MLS).

Jackson obtained his pilot's certificate in 1935. He learned to fly where many other aviation pioneers had begun, at College Park, MD—also the site where the Wright brothers taught the first Army pilots to fly.

Moreover, as an experienced instrument-rated pilot, he was never content to deal solely with concepts and theories. He demanded proof that new equipment worked in the real world and logged more than 5,000 hours in flight tests alone.

During World War II, Jackson shifted his emphasis to meeting the needs of the military. Jackson worked on a number of classified projects, several involving radio engineers at the National Bureau of Standards, as well as at Wright Field, Dayton, OH. However, it was to civil aviation that he devoted both his personal and professional life.

Prize, as the student most likely to contribute to the advancement of engineering. FAA can take special pride in Jackson because he was one of its own, having built an impressive record of achievement during a 40-year government career that began as a radio engineer for the old Bureau of Lighthouses in the Department of Commerce and continued through numerous organizational changes until his retirement in 1965.

As chief of the Radio Development Service at the Civil Aeronautics Administration's Technical Development Center, Jackson had a hand in the development or improvement of virtually every navigation and landing aid used in aviation over the past 40 years—from the low frequency (LF) ranges to modern area navigation



Mrs. William E. (Nellie) Jackson attended the presentation in 1975 of the first William E. Jackson Award to Peter Hvoschinsky, now manager of the Rotorcraft Technology Branch, ADS-220. The presenter (on the left) was then Radio Technical Commission for Aeronautics chairman, J. H. Dellinger.

to Peter Hvoschinsky, currently manager of the Rotorcraft Technology Branch, ADS-220. The award, which carries a \$1,500 honorarium, is given annually to the student author of the best paper on electronics.

Visitors to the Smithsonian can also be reminded of Jackson when they see the twin-engine Boeing 247-D—Jackson called it "Adaptable Annie"—that he used to test fly many of the early developments in airborne navigation aids when serving at the Civil Aeronautics Administration's Technical Development



During World War II, Jackson worked on various military projects, several of which involved radio engineers.



Circa 1945, Bill Jackson illustrates his ideas to Gen. Roger B. Colton at the Aircraft Radio Lab, Wright Field, Dayton, OH.

indispensable source for those seeking authoritative technical information on the development of the U.S. airways between 1918 and the early jet age.

In the 1972 editorial, Vickers summed up Jackson's contributions to aviation this way:

"Imagine what today's air traffic control system would be like without VOR, DME, ILS, fan markers, ADF, VHF communications, radar and beacon. In varying degrees, all these aids benefitted from the career of Bill Jackson. Wherever man flies, a little bit of Bill's technical contribution goes along too. He was truly a man to remember." ■

Photos from the Radio Technical Commission for Aeronautics

acceptance for the UHF communication and navigation systems being developed by the CAA. In one of these, published in *Aviation Magazine* (now *Aviation Week and Space Technology*), Jackson cited test results indicating that the UHF system offered "pronounced improvements over low frequency radio ranges" then in use. In 1940 Jackson publicized that the CAA was in the process of building a UHF radio range system between New York and Chicago. Nine range stations were being installed, he said.

He also was editor of *The Federal Airways System*, published in July 1970 by the Institute of Electrical and Electronics Engineers. This volume has become an

# People

## Aeronautical Center

**James L. Conahan**, manager, Accounts Payable & Appropriation Accounting Branch, Accounting Div. • **James V. Kaczka**, manager, National Flight Procedures Development Branch, Flight Procedures & Inspection Div. • **William J. Martin**, supervisor, NAS Project & Provisioning Section, Supply Management Branch, FAA Depot, promotion made permanent • **James F. Ogbe**, supervisor, Management Support Section, Supply Management Branch, FAA Depot • **Larry L. Patterson**, manager, Oklahoma City FIO, promotion made permanent • **Leonard Roberts**, supervisor, Inventory Control & Transportation Section, Storage & Transportation Branch, FAA Depot, promotion made permanent • **Gary L. Vitt**, unit supervisor, Flight Procedures Inspection Section, Atlanta, GA, FIO, promotion made permanent • **Joe E. Wallis**, unit supervisor, Electro-Mechanical Production Section, Engineering & Production Branch, FAA Depot

## Alaskan Region

**Lawrence R. Belisk**, manager, Cordova, AK, FSS, from Anchorage FSS • **Leon F. Chesler**, manager, Telecommunications & Spectrum Management Branch, Airway Facilities Div. • **Steven C. Durand**, maintenance division foreman, King Salmon FSO, South Alaska AFS • **Robin J. Masek**, supervisor, Electronics Section, Establishment Branch, Airway Facilities Div. • **Roger Dean McManald**, area manager, Ketchikan, AK, FSS, promotion made permanent • **Dennis J. Nice**, manager, Bethel ATCT, from FAA Academy • **Karen Steen**, asst. manager for program support, Anchorage ATCT AFS • **Robert W. Stinson**, manager, Resource Management Branch, Air Traffic Div.

## Central Region

**Christopher R. Blum**, asst. manager, Olathe, KS, ARTCC, from Miami ARTCC • **Michael J. Brown**, asst. manager, traffic management, Olathe, KS, ARTCC • **Andrew J. Holcomb**, section supervisor, Establishment Engineering Branch, Airway Facilities Div. • **Bruce N. Houder**, traffic management unit supervisor, Olathe, KS, ARTCC • **Gary W. Knox**, area supervisor, Ft. Dodge, IA, AFS • **Paul E. Marchbanks**, manager, Facility Operations Branch, Air Traffic Div. • **Merritt K. Markussen**, systems engineer, Olathe, KS, AFS • **Patrick J. Mergen**, asst. manager, program, Des Moines, IA, ATCT • **Edward N. Noulin, Jr.**, group supervisor, Airway Facilities Div. • **Gerald D. Sanchez**, manager, Garden City, KS, AFS/O, Wichita, KS, AFS, promotion made permanent • **Harold C. Smith**, area supervisor, Spirit of St. Louis ATCT, Chesterfield, MO, from Salt Lake City, UT, ATCT • **Melvin P. Taylor**, manager, Systems & Equipment Branch, Chicago Aircraft Certification Office, Aircraft Certification Div., promotion made permanent • **Timothy Titus**, regional counsel, Office of the Asst. Chief Counsel, from Washington Headquarters • **Gerald A. Wiemann**, area supervisor, Wichita, KS, AFS • **Larry W. Wilson**, asst. manager for training, Ft. Dodge, IA, AFS.

## Eastern Region

**Barry M. Boshack**, manager, Telecommunications & Spectrum Engineering Branch, Airway Facilities Div. • **Thomas E. Skiles**, area supervisor, Washington ARTCC Leesburg, VA • **John M. Stuck**, asst. manager for training, New York ARTCC • **Deborah A. Treschitta**, area supervisor, Washington ARTCC, Leesburg, VA • **Olaf Vlnje**, unit supervisor, Terminal Sub Branch, Establishment Engineering Branch, Airway Facilities Div. • **Robert O. Cissel**, group supervisor (Leesburg, VA), Enroute Sub Branch, Establishment Engineering Branch, Airway Facilities Div. • **Kenneth G. Conrad**, manager, Allentown, PA, AFS/O, Harrisburg AFS, promotion made permanent • **Clinton C. Cottrell**, area supervisor, Allegheny County Airport ATCT, West Mifflin, PA, from Wheeling, WV, ATCT • **William Croghan**, asst. manager for training, Washington ARTCC, Leesburg, VA • **John W. Cuthel**, section supervisor, Enroute Sub Branch, Establishment Engineering Branch, Airway Facilities Div. • **William F. Davidson**, area supervisor, Millville, NJ, AFS • **William G. Davis**, area supervisor, Washington ARTCC, Leesburg, VA • **Joseph D. Donofrio**, asst. manager, Syracuse ATCT, promotion made permanent • **Mahlon R. Fuller**, manager, Lancaster ATCT, Neffsville, PA, from Greater Pittsburgh ATCT • **Renard A. Gaddi**, unit supervisor, Terminal Sub Branch, Establishment Engineering Branch, Airway Facilities Div. • **John C. Heudine**, area manager, Allentown, PA, AFS, from Dobois, PA, FSS • **Thomas Brun**, section supervisor, Terminal Sub Branch, Establishment Engineering Branch, Airway Facilities Div. • **Willie A. Hunter**, section supervisor, Terminal Sub Branch, Establishment Engineering Branch, Airway Facilities Div. • **Stuart R. James**, asst. manager, plans & procedures, New York ARTCC, idlg. • **Joseph L. Keinig**, area supervisor, Washington ARTCC, Leesburg, VA • **Robert M. Kitson**, manager, Terminal Sub Branch, Establishment Engineering Branch, Airway Facilities Div. • **Lauren S. Kittle**, unit supervisor (Albany, NY), Terminal Sub Branch, Establishment Engineering Branch, Airway Facilities Div. • **Mark E. Manoogian**, unit supervisor, Terminal Sub Branch, Establishment Engineering Branch, Airway Facilities Div. • **Frank C. Mascari**, manager, Establishment Engineering Branch, Airway Facilities Div. • **Joseph C. Mayers**, unit supervisor, Enroute Sub Branch, Establishment Engineering Branch, Airway Facilities Div. • **Harold D. McNemar**, area supervisor, Elkins, WV, FSS, from Parkersburg FSS • **Richard L. Miglietta**, section supervisor, Terminal Sub Branch, Establishment Engineering Branch, Airway Facilities Div. • **Ronald C. Orie**, unit supervisor (Coronapo, PA), Terminal Sub Branch, Establishment Engineering Branch, Airway Facilities Div. • **George F. Potts**, unit supervisor, Terminal Sub Branch (Lester, PA), Establishment Engineering Branch, Airway Facilities Div.

**Jerome P. Schofield**, unit supervisor (Newark, NJ), Enroute Sub Branch, Establishment Engineering Branch, Airway Facilities Div. • **Thomas E. Skiles**, area supervisor, Washington ARTCC Leesburg, VA • **John M. Stuck**, asst. manager for training, New York ARTCC • **Deborah A. Treschitta**, area supervisor, Washington ARTCC, Leesburg, VA • **Olaf Vlnje**, unit supervisor, Terminal Sub Branch, Establishment Engineering Branch, Airway Facilities Div. • **Robert O. Cissel**, group supervisor (Leesburg, VA), Enroute Sub Branch, Establishment Engineering Branch, Airway Facilities Div. • **Kenneth G. Conrad**, manager, Allentown, PA, AFS/O, Harrisburg AFS, promotion made permanent • **Clinton C. Cottrell**, area supervisor, Allegheny County Airport ATCT, West Mifflin, PA, from Wheeling, WV, ATCT • **William Croghan**, asst. manager for training, Washington ARTCC, Leesburg, VA • **John W. Cuthel**, section supervisor, Enroute Sub Branch, Establishment Engineering Branch, Airway Facilities Div. • **William F. Davidson**, area supervisor, Millville, NJ, AFS • **William G. Davis**, area supervisor, Washington ARTCC, Leesburg, VA • **Joseph D. Donofrio**, asst. manager, Syracuse ATCT, promotion made permanent • **Mahlon R. Fuller**, manager, Lancaster ATCT, Neffsville, PA, from Greater Pittsburgh ATCT • **Renard A. Gaddi**, unit supervisor, Terminal Sub Branch, Establishment Engineering Branch, Airway Facilities Div. • **John C. Heudine**, area manager, Allentown, PA, AFS, from Dobois, PA, FSS • **Thomas Brun**, section supervisor, Terminal Sub Branch, Establishment Engineering Branch, Airway Facilities Div. • **Willie A. Hunter**, section supervisor, Terminal Sub Branch, Establishment Engineering Branch, Airway Facilities Div. • **Stuart R. James**, asst. manager, plans & procedures, New York ARTCC, idlg. • **Joseph L. Keinig**, area supervisor, Washington ARTCC, Leesburg, VA • **Robert M. Kitson**, manager, Terminal Sub Branch, Establishment Engineering Branch, Airway Facilities Div. • **Lauren S. Kittle**, unit supervisor (Albany, NY), Terminal Sub Branch, Establishment Engineering Branch, Airway Facilities Div. • **Mark E. Manoogian**, unit supervisor, Terminal Sub Branch, Establishment Engineering Branch, Airway Facilities Div. • **Frank C. Mascari**, manager, Establishment Engineering Branch, Airway Facilities Div. • **Joseph C. Mayers**, unit supervisor, Enroute Sub Branch, Establishment Engineering Branch, Airway Facilities Div. • **Harold D. McNemar**, area supervisor, Elkins, WV, FSS, from Parkersburg FSS • **Richard L. Miglietta**, section supervisor, Terminal Sub Branch, Establishment Engineering Branch, Airway Facilities Div. • **Ronald C. Orie**, unit supervisor (Coronapo, PA), Terminal Sub Branch, Establishment Engineering Branch, Airway Facilities Div. • **George F. Potts**, unit supervisor, Terminal Sub Branch (Lester, PA), Establishment Engineering Branch, Airway Facilities Div.

## Great Lakes Region

**David L. Andress**, unit supervisor, Muskegon, MI, AFS/O, Michigan AFS, from Minnesota AFS • **David W. Christy**, area supervisor, Grand Forks, ND, AFS, from Miami, ND, FSS • **Brian F. Cukrowicz**, unit supervisor, South Bend, IN, R/N/AC/Indiana AFS, from Ohio AFS • **James M. Daugherty**, area supervisor, Indianapolis, IN, ATCT • **Thomas B. Howell**, asst. manager, Indianapolis ARTCC, from Southern Region • **Steven F. Kaddah**, area supervisor, Dayton ATCT, from Chicago O'Hare ATCT • **Diane C. Kapanowski**, asst. manager, plans & programs, Indianapolis ARTCC • **Richard J. McNeal**, asst. manager, quality assurance, Chicago O'Hare ATCT • **Bruce A. Meiz**, manager, Meigs Field ATCT, Chicago, from Midway ATCT • **William A. Meyers**, area supervisor, Grand Rapids, MI, ATCT, promotion made permanent • **Ann Spencer Miley**, manager, Milwaukee AFS/A, Wisconsin AFS, Green Bay, from Chicago AFS • **Douglas C. Motl**, supervisory engineering technician, Chicago AFS • **Richard C. Pippin**, asst. manager, Michigan AFS, Belleville • **James R. Ruddy**, area supervisor, Madison, WI, ATCT • **Russell P. Williams, Jr.**, supervisor, Operations Standards Section, Resource & Planning Branch, Airway Facilities Div. from Michigan AFS, Belleville • **Leo E. Wolbers**, area manager, Cleveland ARTCC, Oberlin.

## Southern Region

**Thomas H. Adams**, asst. manager, Douglas ATCT, Charlotte, NC, from regional headquarters • **Gene M. Barnett**, asst. manager for training, Miami International ATCT • **Elsbeth E. Barrington**, asst. manager, Hub AFS, Miami • **Charles B. Benefield**, manager, Jackson, MS, AFS, from regional headquarters • **Claude S. Chisam**, manager, Atlanta AFS/O, Hub AFS, Atlanta, from Tampa, FL, AFS • **Keyron R. Collins**, asst. supervisor, North Perry ATCT, Hollywood, FL, from Miami International ATCT • **Carole C. Cook, Jr.**, manager, System Requirements Branch, Air Traffic Div., from Hampton, GA, ARTCC • **Delmar N. Cyr**, crew chief, Jacksonville ARTCC AFS, Hilliard, FL, promotion made permanent • **Lester Finch, Jr.**, unit supervisor, Nashville, TN, AFS/O, Hub AFS, Memphis, promotion made permanent • **Gary D. Fossen**, area supervisor, Tampa ATCT • **Justin Garcia**, area manager, Miami International ATCT, from Miami ARTCC • **Robert P. Greene**, manager, Ft. Pierce, FL, ATCT, from Macon, GA • **Wilbur G. Gresham, Jr.**, crew chief, Miami ARTCC AFS, from Memphis ARTCC AFS • **Hershal S. Helton, Jr.**, asst. manager, plans & procedures, Raleigh, NC, ATCT •

## New England Region

**Richard E. Allard**, asst. systems engineer, Nashua, NH, AFS, promotion made permanent • **Edward J. Chesnul**, asst. section supervisor, Establishment Engineering Branch, Airway Facilities Div. • **Roger J. Couto**, asst. systems engineer, Nashua, NH, AFS, promotion made permanent • **Christine R. Dykeman**, area supervisor, Boston ARTCC, Nashua, NH, promotion made permanent • **Dennis T. Koehler**, manager, Boston ARTCC, Nashua, NH • **David E. Malouin**, unit supervisor, Bedford, MA, FSDO, from regional headquarters • **Edward T. Moore**, asst. systems engineer, Nashua, NH, AFS, promotion made permanent •

**Jay A. Murphy**, manager, Maintenance Operations Branch, Airway Facilities Div., from Nashua, NH, AFS • **James Rodriguez**, area supervisor, Boston ARTCC, Nashua, NH • **Jonathan M. Schippani**, area supervisor, Boston ARTCC, Nashua, NH • **Matthew J. Siwa**, manager, NAS Planning & Program Management Branch, Airway Facilities Div. • **Arnold W. Smith**, area supervisor, T.F. Green ATCT, Providence, RI, from Quonset Point TRACON • **Rafael E. Vargas**, area supervisor, Bridgeport, CT, AFS, from Poughkeepsie, NY, FSS • **Earlon L. Williams**, asst. systems engineer, Nashua, NH, AFS, promotion made permanent.

## Northwest Mountain Region

**Laral Carter**, Paie Field ATCT, Everett, WA, from Olympia, WA, ATCT • **Paul M. Cuzzaniga**, area manager, Stapleton ATCT, Denver, CO • **Clark R. Desing**, area supervisor, Salt Lake City ARTCC • **Gordon D. Dunn**, manager, Worldway, WY, AFS/O, Billings, MT, AFS, from Anchorage, AK • **Tamlyn R. Fogsongner**, unit supervisor, Boise, ID, AFS/O, Portland, OR, AFS, promotion made permanent • **Mikhael H. John**, area manager, Salt Lake City ARTCC • **James M. Kastner**, area manager, Salt Lake City ARTCC • **Jack T. Meligan**, asst. manager, programs, Portland, OR, ATCT • **Gary E. Moore**, area supervisor, Stapleton ATCT, Denver, CO, from Centennial ATCT • **Lonny G. Nordberg**, area supervisor, Salt Lake City ARTCC • **Scott F. Robinson**, unit supervisor, Seattle AFS, promotion made permanent • **Steven T. Storey**, manager, Twin Falls, ID, ATCT, promotion made permanent • **Mervyn L. Tatchler**, area supervisor, Salt Lake City ARTCC, promotion made permanent • **Duane I. Vanhousen**, area supervisor, Seattle-Tacoma ATCT, from Spokane International ATCT.

## Southern Region

**Thomas H. Adams**, asst. manager, Douglas ATCT, Charlotte, NC, from regional headquarters • **Gene M. Barnett**, asst. manager for training, Miami International ATCT • **Elsbeth E. Barrington**, asst. manager, Hub AFS, Miami • **Charles B. Benefield**, manager, Jackson, MS, AFS, from regional headquarters • **Claude S. Chisam**, manager, Atlanta AFS/O, Hub AFS, Atlanta, from Tampa, FL, AFS • **Keyron R. Collins**, asst. supervisor, North Perry ATCT, Hollywood, FL, from Miami International ATCT • **Carole C. Cook, Jr.**, manager, System Requirements Branch, Air Traffic Div., from Hampton, GA, ARTCC • **Delmar N. Cyr**, crew chief, Jacksonville ARTCC AFS, Hilliard, FL, promotion made permanent • **Lester Finch, Jr.**, unit supervisor, Nashville, TN, AFS/O, Hub AFS, Memphis, promotion made permanent • **Gary D. Fossen**, area supervisor, Tampa ATCT • **Justin Garcia**, area manager, Miami International ATCT, from Miami ARTCC • **Robert P. Greene**, manager, Ft. Pierce, FL, ATCT, from Macon, GA • **Wilbur G. Gresham, Jr.**, crew chief, Miami ARTCC AFS, from Memphis ARTCC AFS • **Hershal S. Helton, Jr.**, asst. manager, plans & procedures, Raleigh, NC, ATCT •

**Thomas F. Hoffbauer**, manager, New Bern, NC, FSS, from St. Petersburg, FL, AFS • **Edwin C. Hoyt**, area manager, Miami ARTCC • **Thomas E. Irons**, manager, Florence, SC, ATCT, from Fayetteville, NC, ATCT • **Billy F. Jeffers**, manager, Resource Management Branch, Air Traffic Div. • **Eddie R. Jenkins**, section supervisor, Payroll Branch, Accounting Div., from Central Region • **Raymond R. Johnson**, area manager, Miami ARTCC • **Thomas H. Livingston**, unit supervisor, Hampton, GA, AFS/O, Atlanta ARTCC AFS • **William T. Martin**, manager, Raleigh, NC, AFS, from Hickory FSS • **Alynn O. Moody, Jr.**, asst. manager for technical support, Atlanta ARTCC AFS, Hampton, GA • **Robert E. Newkirk**, manager, Crestview, FL, FSS, from Jackson, TN, AFS • **David L. Piercey**, area supervisor, Raleigh, NC, ATCT • **William E. Schieder, Jr.**, area manager, Miami, FL, ARTCC • **David L. Stanford**, section supervisor, Miami FSDO, promotion made permanent • **Harold F. Warren**, area supervisor, Tampa, FL, ATCT • **James S. Weaver**, manager, Columbia, SC, AFS, from Charleston, WV, AFS • **Willie L. Weaver**, unit supervisor, Ft. Lauderdale FSDO, promotion made permanent • **Bobby F. Wetherington**, area supervisor, Pensacola, FL, ATCT • **Larry W. Wilson**, manager, Tamiama ATCT, Miami, from Miami International.

## Southwest Region

**George H. Alexander, Jr.**, area supervisor, Midland, TX, FSS, from San Angelo, TX, AFS • **Wilfred J. Biron**, unit supervisor, San Antonio, TX, FSDO • **Bruce W. Blair**, area supervisor, Dallas/Ft. Worth ATCT, from Abilene, TX, RAPCON • **David R. Burns**, area supervisor, Amarillo, TX, ATCT, from Beaumont, TX, ATCT • **Billy C. Clark**, area manager, Conroe, TX, AFS • **Bruce E. Cook**, unit supervisor, Albuquerque, NM, ARTCC AFS • **Randall L. Dailey**, manager, Lawton, OK, ATCT, from FAA Academy • **William T. Dault**, asst. manager for program support, Little Rock AFS, from Jilinos AFS • **Luis A. Flores**, unit supervisor, Construction Management Section, Environmental Engineering Branch, Airway Facilities Div. • **Louis W. Fountain**, unit supervisor, San Antonio FSDO • **Darward A. George**, asst. manager, plans & procedures, Will Rogers ATCT, Oklahoma City, from Wiley Post ATCT • **Mannuel R. Hugonnet**, area supervisor, Houston, TX, ARTCC • **Steven M. Johnson**, area supervisor, Lafayette, LA, ATCT, promotion made permanent • **David C. Lambert**, area supervisor, Waco, TX, ATCT, promotion made permanent • **Robert C. Leader**, unit supervisor, Dallas/Ft. Worth AFS/O, Dallas/Ft. Worth AFS, from Keller, TX, AFS/O • **Thomas R. Low**, area manager, Houston ARTCC, from Oakland TRACON • **Roland D. Mauldin**, area supervisor, Lubbock, TX, ATCT, from Abilene, TX, RAPCON • **Fernando A. Mendoza**, unit supervisor, Dallas/Ft. Worth Regional Airport AFS • **Ronald Nelson**, manager, Baton Rouge, LA, FSDO, from

Salt Lake City FSDO • **Frank Peere**, Jr., area manager, Ft. Worth ARTCC • **Federico Perales**, manager, Lake Charles, LA, AFS/O, New Orleans AFS, from San Antonio AFS • **Patil A. Pickard**, area supervisor, Hobby Airport ATCT, Houston, from Monroe, LA, ATCT • **James L. Ramirez**, area supervisor, Will Rogers Airport ATCT, Oklahoma City • **Robert G. Rightmer**, asst. manager, Lubbock, TX, ATCT, from Beaumont, TX, ATCT • **David L. Rye**, asst. manager for technical support, Ft. Worth ARTCC AFS, from Airway Facilities Div. • **Bertram N. Seearan**, manager, Dallas/Ft. Worth CASFO, Euless, from Civil Aviation Security Div. • **Oscar P. Simank, Jr.**, manager, Baton Rouge AFS/O, New Orleans AFS, from El Paso AFS • **Jesse R. Slater**, asst. manager for technical support, Houston ARTCC AFS • **Joseph D. Smith**, manager, Oklahoma City FSDO, from Baton Rouge, LA, FSDO • **Kenneth R. Talbert**, area supervisor, Intercontinental Airport ATCT, Houston, promotion made permanent • **Albert G. Tyson**, unit supervisor, Albuquerque ARTCC AFS.

## Technical Center

**Satish K. Agrawal**, manager, Airport Technology Branch, Airports Div. • **James G. Devlin**, unit supervisor, Materiel Management Section, Materiel Branch, Logistics Div., promotion made permanent • **Gordon W. Heritage, Jr.**, manager, National Terminal Field Support, Maintenance Branch, Automation Software Div., from Boston ARTCC, Nashua, NH • **Vincent J. Lawesicz, Jr.**, technical program manager, Advanced Systems Technology Branch, Concepts Analysis Div., promotion made permanent.

## Washington Headquarters

**Jerry C. Baker**, manager, NAS Planning Branch, NAS Planning & Program Management Div., System Engineering & Program Management • **Chester Chang**, staff chief, Civil Aviation Assistance Group, Jidda, Saudi Arabia • **Ellen J. Cook**, manager, Configuration Management Branch, Information Resources Management Div., Management Systems • **Frederick L. Gibbs**, manager, FSS Procedures Branch, Procedures Div., Air Traffic Operations Service, from Eastern Region • **David F. Hicks**, team leader, Human Resource Management Automation Div., Office of Personnel, promotion made permanent • **Mary N. Whigham Jones**, manager, Personnel & Labor Law Branch, General Legal Services Div., Office of the Chief Counsel • **Gary D. Titsworth**, manager, Office Automation Technology & Services Branch, Information Systems Support Div., Management Systems.

## Western-Pacific Region

**Harold A. Arals**, area supervisor, Honolulu FSS, promotion made permanent • **Linda J. Di Cicco**, area supervisor, Fullerton, CA, ATCT from Los Angeles TRACON • **Joseph R. DiMaggio**, environmental support unit supervisor, Burbank, CA, AFS/O, Los Angeles AFS, promotion made permanent • **Paul O. Dufstun**, systems engineer, Oakland, CA, ARTCC AFS • **Leon Grunert**, manager, Deer Valley Airport ATCT, Phoenix, AZ, from Las Vegas, NV, ATCT/

TRACON • **Alexander Gulyas**, environmental support unit supervisor, Oakland, CA, ARTCC AFS, from Golden Gate AFS, Hayward, CA • **Henry A. Harris**, manager, Establishment Engineering Branch, Airway Facilities Div. • **Michael E. Koons**, manager, Arcata, CA, FSS, from Hawthorne, CA, AFS • **Joseph J. Kozak**, asst. manager, Phoenix, AZ, AFS, from FAA Academy • **Kathryn E. Kuhlmann**, asst. manager, Los Angeles ARTCC, Palmdale, from Air Traffic Div. • **Patricia A. Meza**, area supervisor, Salinas, CA, FSS, from Oakland, CA, FSS • **Caroline D. Miller**, area supervisor, San Luis Obispo, CA, ATCT, from Ontario, CA, TRACON • **Billy D. Mooney**, area manager, Ontario, CA, TRACON • **Ricky A. Opperman**, area supervisor, Palo Alto, CA, ATCT, from San Francisco • **William J. Patterson, Jr.**, section supervisor, Facility Operations Branch, Air Traffic Div., from Phoenix, AZ, TRACON

• **Kenneth C. Powell**, area supervisor, Monterey, CA, ATCT, from Honolulu ATCT • **Duane C. Rakotz**, manager, Palomar Airport ATCT, Carlsbad, CA, from Los Angeles ARTCC, Palmdale • **Alvin B. Schene**, principal maintenance inspector, San Diego, CA, FSDO • **Terrill L. Schomburg**, area manager, El Toro, CA, TRACON, from Waterloo, IA, ATCT • **James H. Snow**, manager, McClellan Air Force Base TRACON, Sacramento, from Central Region • **James D. Swanson**, area supervisor, Los Angeles ATCT, promotion made permanent • **Kenneth E. Thomas**, asst. manager, traffic management, Oakland ARTCC, Fremont, CA, from FAA Academy • **Paulus A. Van Emmerik**, manager, Oakland, CA, FSDO • **Thomas L. Vanderveelde**, manager, San Francisco Certificate Management Office, from Los Angeles FSDO • **Darrell J. Walton**, asst. manager for technical support, Phoenix AFS • **Clayton E. Witherspoon**, area supervisor, Concord, CA, ATCT, from Oakland, CA, ATCT.

## Retirees

**AERONAUTICAL CENTER**  
Byron D. Boony  
Vernon V. Culbert  
William H. Goodnight  
Fred E. Green  
Thomas F. Grubbe  
George F. Lomask  
Bobby E. Shippe  
Charles E. Whitehair

## ALASKAN REGION

John D. Bromer  
Hildegard S. Newton  
Neil E. Schultz

## CENTRAL REGION

Dean P. Hatfield  
Delfon W. Herrmann  
Warren L. Kintze  
Gerald E. Visser

## EASTERN REGION

Robert C. Anderson  
Travis H. Bartfield  
Ronald M. Canon  
Charlie N. Dudley  
John R. Gilmore  
Edward F. Greene  
Norman E. Hall  
Julia M. Evans  
Fury L. Pugliano  
Louis N. Rabano

## WESTERN-PACIFIC REGION

John P. Bowers, Jr.  
Robert W. Carpenter  
Wayne L. Dart  
Franklin B. Dewese  
Dixie N. Evans  
Diane H. Finkel  
Frank P. Giannola  
James L. Higgins  
Henry M. Kallus  
Charles R. Keeney  
Ronald K. Kru  
George W. Marshbourne, Jr.  
Richard M. Serpico  
Larry E. Smith

## GREAT LAKES REGION

Robert J. Balden  
Nash G. Clark  
David L. Conner  
James L. McDonald  
Darell R. Richardson  
Dannel G. Sand

## NEW ENGLAND REGION

John A. Dancow  
Dean K. Gludtner  
George E. Pope, Sr.  
Dun A. Poshlan

## NORTHWEST MOUNTAIN REGION

Marion L. Fisher  
Virgil G. Henninger  
David A. Menasha  
Harold D. Males  
Terry W. Miller  
Owen E. Schrader  
Virginia L. White

## SOUTHERN REGION

John P. Bowers, Jr.  
Robert W. Carpenter  
Wayne L. Dart  
Franklin B. Dewese  
Dixie N. Evans  
Diane H. Finkel  
Frank P. Giannola  
James L. Higgins  
Henry M. Kallus  
Charles R. Keeney  
Ronald K. Kru  
George W. Marshbourne, Jr.  
Richard M. Serpico  
Larry E. Smith

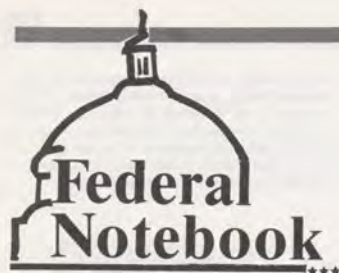
## TECHNICAL CENTER

Mary E. Baker  
Thomas H. Langdon  
Charles P. McGee  
John E. Walls  
Vincent J. Zampino

## WASHINGTON HEADQUARTERS

Robert L. Goodrich  
Leonard Samuels

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.



#### OPEN SEASON ABOUT TO CLOSE

One last reminder on the Thrift Savings Plan (TSP) open season. It closes January 31. CSRS employees are locked into the 'G' (government securities) Fund, but FERS workers have the additional options of the 'F' (fixed-income bonds) and 'C' (stocks) Funds.

The G Fund earned 8.93 percent interest in the 12 months ending October 30, 1989, whereas the F Fund paid 11.85 percent and the C Fund 26.09 percent in the same period, even with the big 190-point slide in the Dow Jones average on October 13.

#### INTERIM MERIT PAY REGS ISSUED

OPM has issued to federal agencies interim regulations on how to revise the Performance Management and Recognition System (PMRS) so managers will not suffer financially under the merit pay plan (54 FR 49075). The law, which extends the merit pay program until March 31, 1991, was approved last September. It corrected the "glitch" allowing some managers on the GM scale to receive smaller raises than they would have received had they remained on the General Schedule.

In addition, the new law requires agencies to incorporate a performance improvement plan for managers who rate lower than fully successful.

#### LOOKING FOR GOOD MEN AND WOMEN

According to the *Wall Street Journal*, the private sector doesn't move any faster than the U.S. Government when it comes to filling top-level executive positions. In fact, the bigger the job, the more time it takes to fill it.

The rough rule of thumb is one month of job search for every \$10,000 in compensation. For example, 89 percent of all jobs paying up to \$50,000 are filled within six months of the vacancy, whereas only 36 percent of those paying \$100,000 to \$150,000 are filled in that timeframe. When you get up in the area of really big bucks (\$200,000 and over), one-third of the jobs still are not filled after 12 months.

#### HOTLINES IN GOOD SHAPE

Although a recent union survey found that many employees mistrust the government's telephone hotlines for reporting fraud, waste and abuse, the General Accounting Office recently checked 25 of them and found they generally are working quite well. GAO's major recommendation where the hotlines are concerned is that the agencies do a better job of advertising their availability to outside audiences, particularly federal contract personnel.

For the record, the DOT Inspector General's Hotline is 800-424-9071 (366-1461 in the Washington, DC, area). An incentive program allows monetary awards of up to \$10,000 to an employee whose information results in significant cost savings. Employees may remain anonymous, and information given is confidential.

#### WOMEN/MINORITIES LAG AT MID-LEVEL

OPM Director Constance Newman is concerned about the poor government-wide representation of women and minorities in mid-level positions. She pointed out that only 9.7 percent of employees in GS-13 through GS-15 positions are women, and 7.3 percent are minorities. Her concern stems from the fact that tomorrow's top agency executives will be drawn from these ranks during a time when the federal workforce is increasingly made up of women, minorities and immigrants.

#### SES EMPLOYEES SET FOR '91 RAISE

The 80,000 members of the Federal Senior Executive Service are in line for pay raises ranging up to 24 percent, beginning in January 1991, as part of the Congressional pay and ethics package approved in the last session. Under the bill, approved by Congress just before Thanksgiving, SES pay will range from \$84,000 at the ES-1 level to \$105,400 at ES-6. Most SES employees are taking a cautious "wait and see" posture, however, instead of running up IOUs. As one said, "They have a whole year to take it away from us."

#### SOCIAL SECURITY TAX BASE BOOSTED

Just before it adjourned for the holidays in late November, the Congress approved legislation that effectively raises the amount of 1990 earnings subject to Social Security (FICA) withholding. The amount will increase to \$50,400 from \$48,000 in 1989. The FICA tax rate also increases in 1990, under previously enacted legislation, from 7.51 to 7.65 percent.

U.S. Department  
of Transportation

#### Federal Aviation Administration

800 Independence Ave., S.W.  
Washington, D.C. 20591

FORWARDING AND RETURN  
POSTAGE GUARANTEED

Official Business  
Penalty for Private Use \$300

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

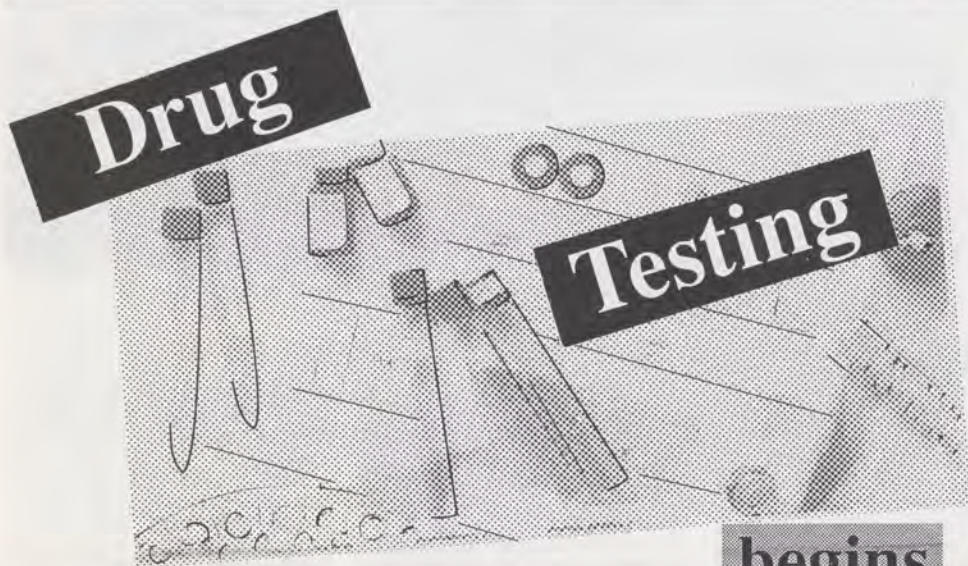
Jan 90



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

# FAA World

January 1990  
Volume 20 Number 1



by Fraser Jones

begins

in

Airline

Industry

**T**he airline industry is catching up with FAA's drug testing program. As of last month, a large segment of the airline industry became subject to the same kind of drug testing as FAA employees in safety-related positions.

Large airlines and regionals with 51 or more employees began drug testing December 18, 1989, to comply with an FAA rule announced in November 1988. Eventually, some 540,000 persons will be covered by the rule.

"The procedures in the regulation are designed to ensure the accuracy, integrity and effectiveness of testing and to protect the privacy of employees . . . We realize the necessity for emphasizing considerations of human dignity," said DOT Secretary Samuel K. Skinner before a conference designed to help transportation industry officials implement their drug testing programs.

Affected by the FAA rule are pilots, flight engineers, navigators, dispatchers, mechanics, repairmen, flight attendants, security personnel and those performing contract work related to safety. They

will be subject to pre-employment, random, periodic, reasonable-cause and post-accident testing for the presence of marijuana, cocaine, opiates, amphetamines and phencyclidine.

FAA Administrator James Busey said in a statement that he "strongly support[s] random drug testing for all safety-sensitive employees." He said that his personal experience with drug testing in the military convinced him "that it is a fair and strong deterrent to drug use."

"FAA is pioneering drug testing in the workplace for the aviation industry," said FAA's external drug testing manager Hedi Mayer. "We are way ahead of the other regulated transportation industry groups in providing technical assistance to industry and distributing guidance materials and conducting seminars," she continued.

The airline industry anti-drug program is being implemented in three phases: organizations with 51 or more covered employees; organizations with 10 to 50; and, finally, those with less than 10 employees.

Smaller carriers and operators in the

11 to 50 category are required to begin testing by February 14, 1990; operators with 10 or fewer covered employees, and privately operated air traffic control facilities by August 13, 1990; and contractors who provide covered employee services to the above groups phase in drug testing programs 360 days after the groups they are providing services to implement their programs.

FAA initiated its own drug testing program in early 1987 as part of the periodic medical examinations controllers, pilots and other safety-related

*(Continued on page 2)*

*Fraser Jones is editor of FAA World. Until November 1989, he was associate editor for Commuter Regional and Airline Financial News.*

## In This Issue

- 1 Drug Testing Begins
- 3 Synthetic Vision's Promise
- 4 Regional Clips
- 5 "Skunk Works" Award Given
- 5 CAMI's Employee of the Year
- 6 Aviation's Milestones
- 8 Bill Jackson Remembered

- 10 People
- 11 Retirees
- 12 Federal Notebook

## Drug Testing

from page 1

### FAA World

January 1990

#### Secretary of Transportation

Samuel K. Skinner  
FAA Administrator

James B. Busey  
Assistant Administrator—  
Public Affairs

Hugh O'Neill  
Manager—Public & Employee  
Communications Div.

Vacant

Editor

Fraser Jones

Art Director

Ekanot M. Magazinis

Staff Editor

Pat Tomasetti

FAA WORLD is published monthly for the employees of the Department of Transportation/Federal Aviation Administration and is the official FAA employee publication. It is prepared by the Public and Employee Communications Division, Office of Public Affairs, FAA, 800 Independence Ave., S.W., Washington, D.C. 20591. Articles and photos for FAA WORLD should be submitted directly to regional FAA public affairs officers.

John Clabes—Aeronautical Center  
Paul Stoeck, Sr.—Alaskan Region  
Robert Raynesford—Central Region  
Kathleen B. Bergen—Eastern Region  
Martin Edelstein—Great Lakes Region  
Mike Ciccarelli—New England Region  
Richard Meyer—Northwest Mountain Region  
Jack Barker—Southern Region  
Geraldine Cook—Southwest Region  
Mike Jacobs—Technical Center  
Barbara Abels—Western-Pacific Region

employees are required to take as a condition of employment. Also covered were flight service station specialists, aviation safety inspectors, federal air marshals, FAA police, firefighters and operations officers at Washington National and Dulles International airports.

Random drug testing was implemented for all DOT employees in safety-related positions in September 1987. It affected approximately one-half, or 32,548, of DOT's civilian employees. Approximately 95 percent work for FAA.

FAA figures for the September 1987-November 1989 period show a positive rate of 0.5 percent, or 131 confirmed positives out of 24,705 random tests. Of nine reasonable suspicion tests over the period, four were confirmed positive. There were no confirmed positives out of 31 post-accident tests.

Approximately 65 percent of the positives have been for marijuana with 30 percent for cocaine and the remaining 5 percent for other substances.

As of December 11, the airline industry had 18 FAA-approved consortiums



A lab technician uses a screening instrument to check a quality control sample.

Individuals who have a verified positive test are removed from their sensitive safety- or security-related position. The rules encourage, but do not require, the operators to sponsor rehabilitation programs. The employee could be reinstated upon successful completion of a rehabilitation program, in which case he or she would be subject to unannounced follow-up tests.

Railroad Administration. In addition, the D.C. Circuit Court of Federal Appeals upheld random testing for FAA employees.

The FAA is well ahead of the game in the effort to achieve a drug-free transportation system. Thanks to Hedi Mayer and her team, as well as numerous other FAA employees, the airline industry is catching up. ■

**"FAA is pioneering drug testing in the workplace for the aviation industry. We are way ahead of the other regulated transportation industry groups...."**

—Hedi Mayer, external drug testing manager

from which to select for drug testing programs. The consortiums are equipped to provide some or all of the requirements to comply with the rule including specimen collection, medical review officers and submission of reports. Testing will be carried out by Department of Health and Human Services approved labs using proven procedures and in a manner designed to protect the privacy and dignity of those subject to testing. A total of approximately 60 IHHS-approved labs will be involved, of which 38 are certified to date.

The procedures are identical to those used for testing FAA employees. All specimens identified as positive on the initial screening test will be confirmed with a second test using gas chromatography/mass spectrometry techniques. Positive results are then passed on to a medical review officer who must discuss the results with the employee to determine if there are legitimate explanations for the positive result.

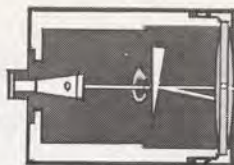
FAA is currently conducting a total of nine medical review officer training conferences across the United States, with the last one scheduled for February 9. The conferences "have been extremely well received," said Mayer.

Noting that oral arguments on the random drug testing issue have been heard by the Ninth Circuit Court of Appeals, Mayer said, "FAA is proceeding with the expectation that the courts will approve random testing because of the safety-sensitive angle."

Last March, the Supreme Court ruled in favor of pre-employment testing at the U.S. Customs Service, and in favor of post-accident testing at the Federal

# Synthetic VISION

A Concept for the 90's



By Malcolm A. Burgess

"Synthetic Vision" sounds like a project on the cutting edge of new technology ... and it is. Indeed, it may very well be the aviation concept of the mid-1990's.

Synthetic Vision is land safely in fog and other low-visibility conditions. The new concept will give them a reliable image of the runway environment on a heads-up display (HUD) located where pilots need it. That is, directly between the pilot and the window, exactly where it would be if the runway could be seen with the naked eye.

The technology would help to return control of the aircraft to pilots, giving them additional tools to overcome bad weather. Safety also would be enhanced by reducing cockpit workload during the most critical phase of flight when adverse weather conditions are most likely to contribute to an accident.

Innovative millimeter-wave sensors with weather penetration ability are being developed for Synthetic Vision. These sensors will provide the image of the runway area from about two miles out for the final phase of landing, rollout and taxi. Existing forward-looking infrared (FLIR) sensors will also be used to augment the visual picture at night in good weather.

In addition to the runway image, other data projected on the HUD include altitude, airspeed, pitch, heading and a velocity vector derived from the Inertial Navigation System to show the pilot exactly where the aircraft is pointing. Ideally, it will present all the information needed to make a safe landing in category III (most restrictive) conditions.

The benefits of an operational Synthetic Vision system go far beyond safety. The system will extend aircraft operations in extreme low-ceiling and low-visibility conditions and provide access to many airfields now available only in good weather. By presenting a real image of the runway complex, the decision to land can be made by the pilot from onboard systems complemented by existing ground navigation and approach aids such as instrument landing systems (ILS), microwave landing systems (MLS) or global approach systems (GPS).



The Synthetic Vision project is a joint FAA/DOD/industry effort that began at the direction of former Administrator Allan McArator in July 1988. FAA's leadership in the project is provided by the Advanced System Design Service through its Engineering Field Office at the NASA Langley Research Center, Hampton, VA.

A technical team provides the expertise needed in the areas of sensors, image processing and systems integration. The team continues to build on work previously accomplished by the Air Force Flight Dynamics Laboratory and is using its contracting capabilities to launch the competitive development of the millimeter-wave sensors.

The initial proposal evaluation phase ended in late 1989, and contracts are to

be awarded early this year. Sensors will be available by late 1990 for testing in a tower facility at Wright-Patterson Air Force Base in Ohio, as well as on aircraft.

A certification study team composed of FAA and industry representatives was formed in March 1989 to identify the key issues of certification and to formulate a certification methodology. Issues such as reliability and performance are being analyzed using flight test data from a flying laboratory and simulator test results provided by industry. Studies will address cost-performance tradeoffs, workload, pilot/vehicle interface and display and imaging characteristics.

After defining the critical issues and providing a clearly developed methodology which, if followed, would support certification, the product of this work will probably be a draft advisory circular for use in the certification of Synthetic Vision.

In 1990, a systems integration contract will be awarded to develop the

necessary image enhancement techniques and to develop and integrate the functional prototype sensor, display system, computers and electronics on an executive-class aircraft. Completion of the flight demonstration and performance evaluation is expected in FY 1992.

In summary, the Synthetic Vision project capitalizes on new technology, innovative contracting, industrial investment, interagency cooperation and previous experience of similar programs to demonstrate and document the extent to which imaging systems can be used as a cost-effective means for aircraft landings in low-ceiling and visual range. It is a near-term, achievable and positive step to help meet the challenges of a safer, more efficient National Airspace System. It promises to be a major contributor in achieving the elusive goal of all-weather aircraft operations. ■

Malcolm A. Burgess is manager of the FAA Engineering Field Office at the Hampton, VA, NASA Langley Research Center.

**B**urlington, VT, recently witnessed the commissioning of a new FAA air traffic control tower and adjoining base building. These additions at the city's international airport cost \$3.6 million.

The Burlington facility has been called "unique" because the new tower, single-story tower base building and the \$2.5 million Automated Flight Service

Aviation." The first woman in the state to earn her pilot's license, Pugh took her initial flight in 1932 when her husband-to-be, Harold, flew her over the elementary school in Vergennes where she taught.

Controllers in the tower's cab work eight stories above the ground at a height of 77 feet. The tower itself rises to 95 feet.



The unique facility at Burlington, VT, is composed of a tower base building (at right), an AFSS (at left) and a tower joined together by a glass-enclosed walkway. The tower itself rises to 95 feet above ground. Controllers in the cab work at the 77-foot level.



New England Regional Administrator Arlene Feldman presented Grace Pugh, "Vermont's First Lady of Aviation," with an FAA plaque at the commissioning ceremonies for the ATCT. Joining Pugh were Burlington Mayor Peter Clavelle (left) and his son and Pugh's son and daughter.

## New ATCT Expands Burlington Complex

Station commissioned in 1987 are joined together by a glass-enclosed walkway. It's an innovation FAAers at Burlington will appreciate now that the winter winds are blowing.

A highlight of the commissioning ceremonies was New England Regional Administrator Arlene B. Feldman's presentation of an FAA plaque to Grace Pugh, who at 80-plus is affectionately known as "Vermont's First Lady of

The 6,400-square-foot base building houses the terminal radar control facility, conference rooms, classrooms and space for Air Traffic and Airway Facilities personnel.

The New England Airway Facilities Division through its Establishment Engineering Branch and Burlington AFS office was responsible for the overall design, construction, electronics installation and equipment relocation for the new buildings. ■

## FAA Academy Collects Storms



Hurricane Hugo makes landfall near Charleston, SC. This taped segment of weather radar imagery was relayed to the FAA Academy's Enroute Radar Unit by the National Weather Service's Charleston radar. Unit instructor Jerry Jensen looks on as two minutes of hurricane imagery move across his screen.

Unit manager Nick Kosak says that radar tapes of severe weather are collected by the Academy under a NAS Plan hazardous weather program and used as course material during months when the local weather is too stable. The course teaches maintenance and operation of the radar remote weather system.

FAA Photo by Jack Iman



## Controllers Manage Quake Aftermath

Air Traffic Controllers Dave Borger, Don Netze and Hank Lopez are pictured in the San Francisco International Airport control tower one hour after the October 17 earthquake hit. Three controllers were injured due to falling glass and debris, but they have all returned to duty. They are: Tony Wakin, Barbara Stewart and Steve Skiggs.

When the photo was taken, one window and roof supports were missing, and the ceiling (not roof) had collapsed. Overhead electric fixtures also collapsed (note the silver conduit). The controllers wore hardhats and dust masks due to falling debris. Only one scope radar out of four was operable, and with the missing window, there was extreme noise from turboprop departures. The terminal was littered with debris and water from sprinklers.

The airport was closed to arrivals throughout the evening due to the condition of passenger terminals, which were using emergency power. [Rob Voss provided photo and information.]

## FAA Innovators at Houston Win "Skunk Works" Award

**M**anagement Systems' "Skunk Works" Awards were presented recently to two innovative FAA automation specialists at the Houston Intercontinental Airport for their key roles in implementing revised air traffic controller staffing standards for terminal radar control rooms (TRACONS).

AMS Director Mike Sherwin made the presentations to Jim Goertz, assistant manager of automation, and Larry Haas, automation specialist, at the Houston TRACON. The two were cited for designing and producing a program to extract information from an offline ARTS IIA processor to a personal computer (PC) within a timeframe of just six months.

Management Systems borrowed the idea for the awards from the Lockheed Corp., whose famous "Skunk Works," headed by Kelly Johnson, produced a number of advanced-technology aircraft including the first tactical U.S. jet fighter (XP80), which went from design development to flight in just 143 days.

Over the past five years, the FAA awards have gone to a "select few individuals" who have met the requirements for being innovative and showing tangible results in a short period of time.

Sherwin has described a Skunk Works operation as "a highly innovative, fast moving, small and slightly

eccentric activity operating at the edges of an organization." He noted, "Successful 'skunks' are pragmatic, non-blue-sky dreamers who live by the dictum: Try it now."

What Goertz and Haas did was to develop a means for capturing traffic activity at each radar position in the TRACON in 15-minute intervals by extracting recorded tracking information and transferring it to a PC. This made it possible to identify peak traffic periods and apply and validate the staffing standards model.

Along the way, Sherwin said, the two men had to overcome considerable skepticism that such a program could be developed or could be adapted to different radar configurations. Without their efforts, it would not have been possible to apply the new staffing standards at the current level of detail, he added.

Southwest Region's Air Traffic Division manager, Larry Craig, agrees with Sherwin that the results made a significant contribution toward meeting FAA's organizational and operational objectives. He noted, "The development of

staffing standards for air traffic controllers is an important effort which helps to establish and maintain our credibility with OMB [Office of Management and Budget] and Congress as we set goals for future staffing."

However, award winner Jim Goertz admits that it was the intellectual challenge that motivated him and his partner as much as anything. "It was a problem we were interested in solving," he said. "We knew it could be done."

That's what the "Skunk Works" Award is all about. ■



Larry Haas and Jim Goertz display "Skunk Works" Awards with Larry Craig, manager, Air Traffic Division, Southwest Region.



AMS Director Mike Sherwin presents awards to Jim Goertz and Larry Haas as Fran Melone, manager of the Management Engineering Branch, AMS-560, looks on.

## Myers Gets CAMI's Top Employee Honors

**R**esearcher Jennifer Myers (AAM-522) is a hard-working professional. Her extensive involvement in a major 1988 project, and her positive attitude and sense of humor on the job, made her the Civil Aeromedical Institute's choice for employee of 1989.

Dr. Myers was responsible for all aspects of the 1988 employee survey. She worked late and on weekends for several months to complete the project, yet maintained a positive attitude and sense of humor.

Myers' professionalism and cooperativeness also extend to the rest of her work. She recently took on additional administrative responsibilities when her branch manager was promoted. She also

became involved in additional research tasks (even during the survey period) when a coworker was transferred.

CAMI's employee of the year is also active in the community. She is a Sunday school teacher and education committee member in her church and does volunteer work in a program for handicapped children. Additionally, she has served as a consultant to the Oklahoma University Health Sciences Center's department of psychiatry on a program evaluation of day care centers.

This year—1990—should be another memorable one for Myers, as she is expecting her third child in February.

Thanks go to Carol Manning for this information.



Top employee Jennifer Myers displays a proud smile.

Aviation's first century of flight is rapidly coming to a close. The following milestones mark a few significant events in aviation history over the last sixty years. The closer we get to the 21st century, the more remarkable it will seem that aviation has come so far so fast.

### Sixty Years Ago

**January 16, 1930:** Frank Whittle, a British Royal Air Force officer and engineer, filed a patent for his design of a turbojet aircraft engine. Manufacture of an experimental version of the engine began in 1936.

**May 15, 1930:** Airline flight attendant service was inaugurated by United Air Lines on a flight from San Francisco to Cheyenne, WY, with Ellen E. Church, a registered nurse.

**September 10, 1930:** The Taylor E-3 Cub made its first flight. This design evolved into the famous Piper Cub, which became one of the world's most popular general aviation airplanes.

### Fifty Years Ago

**May 4, 1940:** FAA type certificated the Boeing 307B Stratoliner, the first airliner with a pressurized cabin, as well as the first with four engines.

**June 30, 1940:** President Roosevelt reorganized the Civil Aeronautics Authority into an independent Civil Aeronautics Board, with responsibility for economic rulemaking and safety and a Civil Aeronautics Administration in the Department of Commerce which performed such functions as certification, safety enforcement, airways development and air traffic control.

**August 31, 1940:** An unprecedented string of 17 fatality-free months in scheduled domestic air passenger service came to an end when a Pennsylvania-Central Airlines flight from Washington to Pittsburgh struck a mountain near Lovettsville, VA, killing 25 people aboard. U.S. domestic air carriers flew 1.4 billion passenger-miles without a fatal accident during this period.

### Forty Years Ago

**September 7, 1950:** President Truman signed legislation authorizing construction of a second airport to serve the Nation's Capital.

**October 15-21, 1950:** During this seven-day period, the CAA put into operation the first omnirange (VOR) airways. The new routes, approximately 4,380 miles long, linked such major terminals as Kansas City, Denver, Albuquerque, El Paso, Omaha and Oklahoma City.

### Thirty Years Ago

**January 9, 1960:** Most U.S. airliners were required to be equipped with airborne weather radar within a two-year period.

**March 1-14, 1960:** FAA transferred from Washington to Oklahoma City its organizational elements responsible for aircraft registration and airman certification.

**March 15, 1960:** The "age-60 rule" went into effect prohibiting anyone who had reached his 60th birthday to serve as a pilot on aircraft engaged in certificated route air carrier operations or on large aircraft engaged in supplemental air carrier operations.



Leonardo da Vinci, often described as one of the great forerunners of aeronautics, illustrated the first recorded design for a flying machine in 1490.

**December 16, 1960:** A United DC-8 and a TWA Super Constellation collided in midair over Brooklyn, NY, killing all 128 occupants aboard the planes and eight persons on the ground.

# Only Yesterday: 1990



Clement F. Adler became the first person to take off from level ground in a pilot-carrying, powered aircraft in 1890. Unlike Adler, the Wright brothers were able to repeat, sustain and control their flights.



The Boeing 307B Stratoliner was the first airliner with a pressurized cabin and the first with four engines.

**March 17, 1970:** The first death in a domestic U.S. aircraft hijacking incident occurred when the copilot on an Eastern Airlines shuttle died after a struggle with a hijacker in which both were shot. The captain also was wounded in both arms but landed the airplane safely in Boston.

**April 27, 1970:** The Central Flow Control Facility was established at FAA Headquarters as a permanent part of the air traffic control system.

**May 21, 1970:** The Airport and Airway Development and Revenue Acts of 1970 were signed by President Nixon. By establishing a trust fund fed by revenues from new user taxes, the new legislation assured a continuous flow of funds for airport and airway modernization.



Traffic management specialist Debbie Compton operates an Aircraft Situation Display at Central Flow Control, now the Air Traffic System Command Center.

### Twenty-Five Years Ago

**March 4, 1965:** Positive control of nearly all of the airspace in the contiguous 48 States between 24,000 and 60,000 feet was consolidated into one area known as the continental positive control area effective this date.

**March 6, 1965:** The first helicopter nonstop flight across the North American continent was made by a Sikorsky SH-3A.

**May 1, 1965:** Transfer of the Europe, Africa, and Middle East Region headquarters from London to Brussels was completed.

**June 16, 1965:** FAA issued a rule requiring installation of cockpit voice recorders (CVRs) in all turbine-powered and all large pressurized reciprocating four-engine airplanes used by air carrier or commercial operators. The rule was effective March 1, 1967.

### Twenty Years Ago

**January 29, 1970:** The Air Traffic Controller Career Committee (the Corson Committee) submitted its report to the Secretary of Transportation recommending, among other things, that the Nixon Administration seek legislation establishing an early retirement program for controllers.



President Richard Nixon prepares to sign the Airport and Airway Development Act. Looking on are DOT Secretary John Volpe (third from right, from) and FAA Administrator John Shaffer (light suit behind Volpe).

**June 25, 1970:** The first terminal control area (TCA) went operational at Atlanta.

**December 29, 1970:** The installation of an emergency locator transmitter (ELT) on certain U.S. civil aircraft was required by the Occupational Safety and Health Act of 1970, enacted this date.

### Ten Years Ago

**January 1, 1980:** Effective this date, FAA established the lead region concept under which designated FAA regions assumed certain responsibilities on a nationwide basis.

**May 29, 1980:** A new building complex was dedicated at the National Aeronautics Facilities Experimental Center, which was renamed the FAA Technical Center.

**September 10, 1980:** The Special Aviation Fire and Explosion Reduction (SAFER) Advisory Committee released its final report recommending, among other things, the investigation and validation of anti-misting kerosene (AMK) as a possible means of reducing the post-crash fire hazard.

### Five Years Ago

**March 29, 1985:** FAA published a rule that required each lavatory on Part 121 airliners to be equipped with a smoke detector and that each lavatory trash receptacle have an automatic fire extinguisher.

**April 16, 1985:** FAA published a rule establishing a blood alcohol standard (.04 percent by weight) for determining objectively when drinking had impaired the ability of aircrew members to perform their duties.

**July 26, 1985:** FAA announced the award of a contract to IBM to replace the existing IBM 9020 mainframe computers at the nation's 20 air route traffic control centers with new state-of-the-art "Host" computers.



Dulles International Airport was the second airport to serve the Nation's Capital.

## Remembering FAA's Bill Jackson



William E. Jackson, a former FAAer, was a prominent aviation pioneer who advanced the state of the art in airborne communications and navigation equipment.

William E. "Bill" Jackson has been retired from FAA for almost 25 years now, but his pioneer work in advancing the state of the art in airborne communications and navigation equipment continues to benefit aviation worldwide.

Moreover, the Radio Technical Commission for Aeronautics has ensured the perpetuation of his memory in the scientific and technical community by establishing the prestigious "William E. Jackson Award," first presented in 1975

Center in Indianapolis (predecessor to the FAA Technical Center in Atlantic City). The plane hangs beneath the venerable DC-3 identified as "the first truly modern airliner" with, unfortunately, no mention of its distinguished CAA service.

Jackson was born on May 8, 1904, in Bridgewater, MA. He was graduated from Brown University with a BS in electrical engineering in 1925.

A year earlier, his mentors at Brown had predicted his later pioneering achievements when they awarded him the Cull



Mrs. William E. (Nellie) Jackson attended the presentation in 1975 of the first William E. Jackson Award to Peter Hwoschinsky, now manager of the Rotorcraft Technology Branch, ADS-220. The presenter (on the left) was then Radio Technical Commission for Aeronautics chairman, J. H. Dellinger.

to Peter Hwoschinsky, currently manager of the Rotorcraft Technology Branch, ADS-220. The award, which carries a \$1,500 honorarium, is given annually to the student author of the best paper on electronics.

Visitors to the Smithsonian can also be reminded of Jackson when they see the twin-engine Boeing 247-D—Jackson called it "Adaptable Annie"—that he used to test fly many of the early developments in airborne navigation aids when serving at the Civil Aeronautics Administration's Technical Development

Prize, as the student most likely to contribute to the advancement of engineering.

FAA can take special pride in Jackson because he was one of its own, having built an impressive record of achievement during a 40-year government career that began as a radio engineer for the old Bureau of Lighthouses in the Department of Commerce and continued through numerous organizational changes until his retirement in 1965.

As chief of the Radio Development Service at the Civil Aeronautics Administration's Technical Development Center, Jackson had a hand in the development or improvement of virtually every navigation and landing aid used in aviation over the past 40 years—from the low frequency (LF) ranges to modern area navigation

(RNAV) equipment and from the instrument landing system (ILS) to the new technology microwave landing system (MLS).

Jackson obtained his pilot's certificate in 1935. He learned to fly where many other aviation pioneers had begun, at College Park, MD—also the site where the Wright brothers taught the first Army pilots to fly.

Moreover, as an experienced instrument-rated pilot, he was never content to deal solely with concepts and theories.

He demanded proof that new equipment worked in the real world and logged more than 5,000 hours in flight tests alone.

During World War II, Jackson shifted his emphasis to meeting the needs of the military. Jackson worked on a number of classified projects, several involving radio engineers at the National Bureau of Standards, as well as at Wright Field, Dayton, OH. However, it was to civil aviation that he devoted both his personal and professional life.

The laboratory at Indianapolis, so much of Jackson's life for so long, was gradually disbanded during 1959 and moved to Atlantic City where the emphasis was no longer so much on research and development of nav aids as it was on product evaluation and testing.

Jackson, who did not make the move to New Jersey, accepted a staff job in Washington. By this time a mild heart attack had caused him to give up flying, and he had sold his personal plane.



Al Wueker, a former RTCA chairman, Nellie Jackson and former FAAer Dave Sheftel, who worked in research and development, stand by the newly founded Jackson Award.

Tirey Vickers, editor of the *Journal of Air Traffic Control*, noted in a 1972 editorial written shortly after Jackson's death that this man's interest in new technology carried over into his private life as well. He was the first general aviation pilot to have VOR/DME radio navigation equipment in his own airplane. Later, he became the first pilot to install a DME (distance measuring equipment) ground speed indicator.

Vickers pointed out that Jackson looked at all new developments from the pilot's viewpoint. "In every case," he added, "he was always interested in the flyability, reliability and safety of the system. A spinoff of this viewpoint was the development of the flag alarm system for various navigation instruments."

Jackson also was a prolific technical writer, authoring or coauthoring more than 150 papers on such subjects as "Applying the Radio Range to the Airways" and "Radio Aids to Air and Marine Navigation" in 1926 and "Ultra-High Frequencies and Their Application to Aeronautics," published in the *Journal of Aeronautical Sciences* of November 1940.

Jackson also wrote more popular articles in his campaign to build pilot



During World War II, Jackson worked on various military projects, several of which involved radio engineers.



Circa 1945, Bill Jackson illustrates his ideas to Gen. Roger B. Colton at the Aircraft Radio Lab, Wright Field, Dayton, OH.

indispensable source for those seeking authoritative technical information on the development of the U.S. airways between 1918 and the early jet age.

In the 1972 editorial, Vickers summed up Jackson's contributions to aviation this way:

"Imagine what today's air traffic control system would be like without VOR, DME, ILS, fan markers, ADF, VHF communications, radar and beacon. In varying degrees, all these aids benefitted from the career of Bill Jackson. Wherever man flies, a little bit of Bill's technical contribution goes along too. He was truly a man to remember." ■

Photos from the Radio Technical Commission for Aeronautics

acceptance for the UHF communication and navigation systems being developed by the CAA. In one of these, published in *Aviation magazine* (now *Aviation Week and Space Technology*), Jackson cited test results indicating that the UHF system offered "pronounced improvements over low frequency radio ranges" then in use. In 1940 Jackson publicized that the CAA was in the process of building a UHF radio range system between New York and Chicago. Nine range stations were being installed, he said.

He also was editor of *The Federal Airways System*, published in July 1970 by the Institute of Electrical and Electronics Engineers. This volume has become an

# People

## Aeronautical Center

**James L. Conahan**, manager, Accounts Payable & Appropriation Accounting Branch, Accounting Div. ... **James Y. Kazama**, manager, National Flight Procedures Development Branch, Flight Procedures & Inspection Div. ... **William J. Martin**, supervisor, NAS Project & Provisioning Section, Supply Management Branch, FAA Depot ... promotion made permanent ... **James F. Ogbe**, supervisor, Management Support Section, Supply Management Branch, FAA Depot ... **Larry L. Patterson**, manager, Oklahoma City FIDO, promotion made permanent ... **Leonard Roberts**, supervisor, Inventory Control & Transportation Section, Storage & Transportation Branch, FAA Depot ... promotion made permanent ... **Gary L. Vitz**, unit supervisor, Flight Procedures Inspection Section, Atlanta, GA, FIDO, promotion made permanent ... **Joe E. Wallis**, unit supervisor, Electro-Mechanical Production Section, Engineering & Production Branch, FAA Depot.

## Alaskan Region

**Lawrence R. Belisle**, manager, Cordova, AK, FSS, from Anchorage FSS ... **Leon F. Chisler**, manager, Telecommunications & Spectrum Management Branch, Airway Facilities Div. ... **Steven C. Durand**, maintenance mechanic foreman, King Salmon FSO, South Alaska AFS ... **Rubin J. Masak**, supervisor, Electronics Section, Establishment Engineering Branch, Airway Facilities Div. ... **Roger Dean McDonald**, area manager, Ketchikan, AK, FSS, promotion made permanent ... **Dennis J. Nice**, manager, Bethel ATCT, from FAA Academy ... **Karen Steen**, asst. manager for program support, Anchorage ARTCC AFS ... **Robert W. Stinson**, manager, Resource Management Branch, Air Traffic Div.

## Central Region

**Christopher R. Blum**, asst. manager, Olathe, KS, ARTCC, from Miami ARTCC ... **Michael J. Brown**, asst. manager, traffic management, Olathe, KS, ARTCC ... **Andrew J. Holcomb**, section supervisor, Establishment Engineering Branch, Airway Facilities Div. ... **Brook N. Hoover**, traffic management unit supervisor, Olathe, KS, ARTCC ... **Gary W. Knes**, area supervisor, Ft. Dodge, IA, AFSS ... **Paul E. Marchbanks**, manager, Facility Operations Branch, Air Traffic Div. ... **Merritt K. Marcussen**, systems engineer, Olathe, KS, AFS ... **Patrick J. Mergen**, asst. manager, programs, Des Moines, IA, ATCT ... **Edward N. Nordin, Jr.**, group supervisor, Airway Facilities Div. ... **Gerald D. Sauech**, manager, Garden City, KS, AFS/O, Wichita, KS, AFS, promotion made permanent ... **Harold C. Smith**, area supervisor, Spirit of St. Louis ATCT, Cheslerfield, MO, from Salt Lake City, UT, ATCT ... **Melvin D. Taylor**, manager, Systems & Equipment Branch, Chicago Aircraft Certification Office, Aircraft Certification Div., promotion made permanent ... **Timothy Titus**, regional counsel, Office of the Asst. Chief Counsel, from Washington Headquarters ... **Gerald A. Wiermann**, area supervisor, Wichita, KS, AFSS ... **Larry W. Wilson**, asst. manager for training, Ft. Dodge, IA, AFSS.

## Eastern Region

**Barry M. Boshnak**, manager, Telecommunications & Spectrum Engineering Branch, Airway Facilities Div. ... **James Y. Kazama**, manager, National Flight Procedures Development Branch, Flight Procedures & Inspection Div. ... **William J. Martin**, supervisor, NAS Project & Provisioning Section, Supply Management Branch, FAA Depot ... promotion made permanent ... **James F. Ogbe**, supervisor, Management Support Section, Supply Management Branch, FAA Depot ... **Larry L. Patterson**, manager, Oklahoma City FIDO, promotion made permanent ... **Leonard Roberts**, supervisor, Inventory Control & Transportation Section, Storage & Transportation Branch, FAA Depot ... promotion made permanent ... **Gary L. Vitz**, unit supervisor, Flight Procedures Inspection Section, Atlanta, GA, FIDO, promotion made permanent ... **Joe E. Wallis**, unit supervisor, Electro-Mechanical Production Section, Engineering & Production Branch, FAA Depot.

**Jerome P. Schofield**, unit supervisor Operations Branch, Airway Facilities Div., Newark, NJ, Enroute Sub Branch, Establishment Engineering Branch, Airway Facilities Div. ... **Thomas E. Skiles**, area supervisor, Washington ARTCC Leesburg, VA ... **John M. Stuck**, asst. manager for training, New York ARTCC ... **Deborah A. Treuschitta**, area supervisor, Washington ARTCC, Leesburg, VA ... **Olaf Vinje**, unit supervisor, Terminal Sub Branch, Establishment Engineering Branch, Airway Facilities Div. ... **Stephen E. Vuocolo**, area manager, Washington ARTCC, Leesburg, VA, from Washington Headquarters ... **William M. Wallick**, area supervisor, Wilkes-Barre ATCT, Avoca, PA, from FAA Academy ... **Gerald E. Wilson**, unit supervisor, Reading, PA, AFS/OU, Harrisburg AFS, from New Cumberland.

## Great Lakes Region

**David L. Andress**, unit supervisor, Muskegon, MI, AFSSO, Michigan AFS, from Minnesota AFS ... **David W. Christy**, area supervisor, Grand Forks, ND, AFSS, from Minot, ND, FSS ... **Brian F. Cukrowicz**, unit supervisor, South Bend, IN, R/N/A/C, Indiana AFS, from Ohio AFS ... **James M. Daugherty**, area supervisor, Indianapolis, IN, ATCT ... **Thomas B. Howell**, asst. manager, Indianapolis, IN, ATCT, from Southern Region ... **Steven F. Kaldahl**, area supervisor, Dayton ATCT, from Chicago O'Hare ATCT ... **Diane C. Kapanowski**, asst. manager, plans & programs, Indianapolis ARTCC ... **Richard J. McNeal**, asst. manager, quality assurance, Chicago O'Hare ATCT ... **Bruce A. Metz**, manager, Meigs Field ATCT, Chicago, from Midway ATCT ... **William A. Meyers**, area supervisor, Grand Rapids, MI, ATCT, promotion made permanent ... **Ann Spencer Milley**, manager, Milwaukee AFSSA, Wisconsin AFS, Green Bay, from Chicago AFS ... **Douglas C. Mott**, supervisory engineering technician, Chicago AFS ... **Richard C. Pippin**, asst. manager, Michigan AFS, Belleville ... **James R. Ruddy**, area supervisor, Madison, WI, ATCT ... **Russell P. Williams, Jr.**, supervisor, Operations Standards Section, Resource & Planning Branch, Airway Facilities Div., from Michigan AFS, Belleville ... **Leo E. Wolbers**, area manager, Cleveland ARTCC, Oberlin.

## New England Region

**Richard E. Alford**, asst. systems engineer, Nashua, NH, AFS, promotion made permanent ... **Edward J. Chesnut**, asst. section supervisor, Establishment Engineering Branch, Airway Facilities Div. ... **Robert J. Coutin**, asst. systems engineer, Nashua, NH, AFS, promotion made permanent ... **Christine R. Dykeman**, area supervisor, Boston ARTCC, Nashua, NH, promotion made permanent ... **Dennis T. Koehler**, manager, Boston ARTCC, Nashua, NH ... **David E. Malouin**, unit supervisor, Bedford, MA, FSDO, from regional headquarters ... **Edward T. Moore**, asst. systems engineer, Nashua, NH, AFS, promotion made permanent ...

## Northwest Mountain Region

**Larry W. Wilson**, asst. manager for training, Ft. Dodge, IA, AFSS.

**Jay A. Murphy**, manager, Maintenance Operations Branch, Airway Facilities Div., from Nashua, NH, AFS ... **James Rodrigues**, area supervisor, Boston ARTCC, Nashua, NH ... **Jonathan M. Schippani**, area supervisor, Boston ARTCC, Nashua, NH ... **Matthew J. Sliva**, manager, NAS Planning & Program Management Branch, Airway Facilities Div. ... **Arnold W. Smith**, area supervisor, T.F. Green ATCT, Providence, RI, from Quonset Point TRACON ... **Rafael E. Vargas**, area supervisor, Bridgeport, CT, AFSS, from Poughkeepsie, NY, FSS ... **Earon L. Williams**, asst. systems engineer, Nashua, NH, AFS, promotion made permanent.

## Northwest Mountain Region

**Laroi Arter**, Paie Field ATCT, Everett, WA, from Olympia, WA, ATCT ... **Paul M. Cazanigal**, area manager, Stapleton ATCT, Denver, CO ... **Clark R. Desing**, area supervisor, Salt Lake City ARTCC ... **Gordon D. Dunn**, manager, Worldview, WY, AFSSO, Billings, MT, AFS, from Anchorage, AK ... **Tamlyn R. Fogelonger**, unit supervisor, Boise, ID, AFSSO, Portland, OR, AFS, promotion made permanent ... **Mikhail H. John**, area manager, Salt Lake City ARTCC ... **James M. Kastner**, area manager, Salt Lake City ARTCC ... **Jack T. Meligan**, asst. manager, programs, Portland, OR, ATCT ... **Gary E. Moore**, area supervisor, Stapleton ATCT, Denver, CO, from Centennial ATCT ... **Gordon W. Heritage, Jr.**, manager, National Terminal Field Support Maintenance Branch, Automation Software Div., from Boston ARTCC, Nashua, NH ... **Vincent J. Laszewicz, Jr.**, technical program manager, Advanced Systems Technology Branch, Concepts Analysis Div., promotion made permanent ... **Bobby E. Wetherington**, area supervisor, Pensacola, FL, ATCT ... **Larry W. Wilson**, manager, Tamiama ATCT, Miami, from Miami International.

## Southern Region

**Thomas H. Adams**, asst. manager, Douglas ATCT, Charlotte, NC, from regional headquarters ... **Gene M. Barnett**, asst. manager for training, Miami International ATCT ... **Edward S. Barrington**, asst. manager, Hub AFS, Miami ... **Charles R. Benefield**, manager, Jackson, MS, AFS, from regional headquarters ... **Claude S. Chisam**, manager, Atlanta AFSSO, Hub AFS, Atlanta, from Tampa, FL, AFS ... **Keyron R. Collins**, area supervisor, North Perry ATCT, Hollywood, FL, from Miami International ATCT ... **Carlyle C. Cook, Jr.**, manager, System Requirements Branch, Air Traffic Div., from Hampton, GA, ARTCC ... **Delmar N. Cyr**, crew chief, Jacksonville ARTCC AFS, Hilliard, FL, promotion made permanent ... **Lester Finch, Jr.**, unit supervisor, Nashville, TN, AFSSO, Hub AFS, Memphis, promotion made permanent ... **Gary D. Fossum**, area supervisor, Tampa ATCT ... **Joselin Garcia**, area manager, Miami International ATCT, from Miami ARTCC ... **Robert P. Greene**, manager, Ft. Pierce, FL, ATCT, from Macon, GA ... **Wilbur G. Gresham, Jr.**, crew chief, Miami ARTCC AFS, from Memphis ARTCC AFS ... **Hershal S. Helton, Jr.**, asst. manager, plans & procedures, Raleigh, NC, ATCT ...

**Thomas F. Hoffbauer**, manager, New Bern, NC, FSS, from Ft. Eustisburg, FL, AFSS ... **Edwin C. Hoyt**, area manager, Miami ARTCC ... **Thomas E. Irons**, manager, Florence, SC, ATCT, from Fayetteville, NC, ATCT ... **Billy F. Jeffers**, manager, Resource Management Branch, Air Traffic Div. ... **Eddie R. Jenkins**, section supervisor, Payroll Branch, Accounting Div., from Central Region ... **Raymond R. Johnson**, area manager, Miami ARTCC ... **Thomas H. Livingston**, unit supervisor, Hampton, GA, AFSSO, Atlanta ARTCC AFS ... **William T. Martin**, manager, Raleigh, NC, AFSS, from Hickory FSS ... **Alwyn O. Moody, Jr.**, asst. manager for technical support, Atlanta ARTCC AFS, Hampton, GA ... **Robert E. Newkirk**, manager, Chesview, FL, FSS, from Jackson, TN, AFSS ... **David L. Piercey**, area supervisor, Raleigh, NC, ATCT ... **William E. Schieder, Jr.**, area manager, Miami, FL, ARTCC ... **David L. Stanford**, section supervisor, Miami FSDO, promotion made permanent ... **Harold F. Warren**, area supervisor, Tampa, FL, ATCT ... **James S. Weaver**, manager, Columbus, SC, AFS, from Charleston, WV, AFS ... **Willie L. Weaver**, unit supervisor, Ft. Lauderdale FSDO, promotion made permanent ... **Bobby E. Wetherington**, area supervisor, Pensacola, FL, ATCT ... **Larry W. Wilson**, manager, Tamiama ATCT, Miami, from Miami International.

## Southwest Region

**George H. Alexander, Jr.**, area supervisor, Midland, TX, FSS, from San Angelo, TX, AFSS ... **Wilfred J. Biron**, team supervisor, San Antonio, TX, FSDO ... **Bruce W. Blair**, area supervisor, Dallas Ft. Worth ATCT, from Abilene, TX, RAPCON ... **David R. Burns**, area supervisor, Amarillo, TX, ATCT, from Beaumont, TX, ATCT ... **Billy C. Clark**, area manager, Corcor, TX, AFSS ... **Bruce E. Cook**, unit supervisor, Albuquerque, NM, ARTCC AFS ... **Randall L. Dailey**, manager, Lawton, OK, ATCT, from FAA Academy ... **William T. Dulik**, asst. manager for program support, Little Rock AFS, from Illinois AFS ... **Luis A. Flores**, unit supervisor, Construction Management Section, Environmental Engineering Branch, Airway Facilities Div. ... **Louis W. Fournier**, unit supervisor, San Antonio FSDO ... **Darward A. George**, asst. manager, plans & procedures, Will Rogers ATCT, Oklahoma City, from Wiley Post ATCT ... **Manuel R. Hugonnet**, area supervisor, Houston, TX, ARTCC ... **Steven M. Johnson**, area supervisor, Lafayette, LA, ATCT, promotion made permanent ... **David C. Lambert**, area supervisor, Waco, TX, ATCT, promotion made permanent ... **Robert C. Leader**, unit supervisor, Dallas/Ft. Worth AFS/O II, Dallas/Ft. Worth AFS, from Keller, TX, AFSSO ... **Thomas R. Lon**, area manager, Houston ARTCC, from Oakland TRACON ... **Roland D. Mauldin**, area supervisor, Lubbock, TX, ATCT, from Abilene, TX, RAPCON ... **Fernando A. Mendoza**, unit supervisor, Dallas/Ft. Worth Regional Airport AFS ... **Ronald Nelson**, manager, Baton Rouge, LA, FSDO, from

Salt Lake City FSDO ... **Frank Peere**, Jr., area manager, Ft. Worth ARTCC ... **Federico Perales**, manager, Lake Charles, LA, AFSSO, New Orleans AFS, from San Antonio AFS ... **Paul A. Pickhard**, area supervisor, Hobby Airport ATCT, Houston, from Minerva, LA, ATCT ... **James L. Ramirez**, area supervisor, Will Rogers Airport ATCT, Oklahoma City ... **Robert G. Rightmer**, asst. manager, Lubbock, TX, ATCT, from Beaumont, TX, ATCT ... **David L. Rye**, asst. manager for technical support, Ft. Worth ARTCC AFS, from Airway Facilities Div. ... **Bertram N. Seesaran**, manager, Dallas/Ft. Worth CASFO, Euless, from Civil Aviation Security Div. ... **Oscar P. Simank, Jr.**, manager, Baton Rouge AFSSO, New Orleans AFS, from El Paso AFS ... **Jesse R. Slater**, asst. manager for technical support, Houston ARTCC AFS ... **Joseph D. Smith**, manager, Oklahoma City FSDO, from Baton Rouge, LA, FSDO ... **Kenneth R. Talbert**, area supervisor, Intercontinental Airport ATCT, Houston, promotion made permanent ... **Albert G. Tyson**, unit supervisor, Albuquerque ARTCC AFS.

## Technical Center

**Satish K. Agrawal**, manager, Airport Technology Branch, Airports Div. ... **James G. Devlin**, unit supervisor, Materiel Management Section, Materiel Branch, Logistics Div., promotion made permanent ... **Gordon W. Heritage, Jr.**, manager, National Terminal Field Support Maintenance Branch, Automation Software Div., from Boston ARTCC, Nashua, NH ... **Vincent J. Laszewicz, Jr.**, technical program manager, Advanced Systems Technology Branch, Concepts Analysis Div., promotion made permanent.

## Washington Headquarters

**Jerry C. Baker**, manager, NAS Planning Branch, NAS Planning & Program Management Div., System Engineering & Program Management ... **Chester Chang**, staff chief, Civil Aviation Assistance Group, Jidda, Saudi Arabia ... **Ellen J. Cook**, manager, Configuration Management Branch, Information Resources Management Div., Management Systems ... **Friedrick L. Gibbs**, manager, FSS Procedures Branch, Procedures Div., Air Traffic Operations Section, from Eastern Region ... **David F. Hicks**, team leader, Human Resource Management Automation Div., Office of Personnel, promotion made permanent ... **Mary N. Whigham Jones**, manager, Personnel & Labor Law Branch, General Legal Services Div., Office of the Chief Counsel ... **Gary D. Titoworth**, manager, Office Automation Technology & Services Branch, Information Systems Support Div., Management Systems.

## Western-Pacific Region

**Harold A. Arab**, area supervisor, Honolulu FSS, promotion made permanent ... **Linda J. Di Cicco**, area supervisor, Fullerton, CA, ATCT, from Los Angeles TRACON ... **Joseph R. DiMaggio**, environmental support unit supervisor, Burbank, CA, AFSSO, Los Angeles AFS, promotion made permanent ... **Paul O. Dastman**, systems engineer, Oakland, CA, ARTCC AFS ... **Leon C. Gruenert**, manager, Deer Valley Airport ATCT, Phoenix, AZ, from Las Vegas, NV, ATCT/

TRACON ... **Alexander Gulyas**, environmental support unit supervisor, Oakland, CA, ARTCC AFS, from Golden Gate AFS, Hayward, CA ... **Henry A. Harris**, manager, Establishment Engineering Branch, Airway Facilities Div. ... **Michael E. Kouns**, manager, Arcata, CA, FSS, from Hawthorne, CA, AFSS ... **Joseph J. Kovak**, asst. manager, Phoenix, AZ, AFS, from FAA Academy ... **Kathryn E. Kuhlmann**, asst. manager, Los Angeles ARTCC, Palmdale, from Air Traffic Div. ... **Patricia A. Meza**, area supervisor, Salinas, CA, FSS, from Oakland, CA, FSS ... **Caroline D. Miller**, area supervisor, San Luis Obispo, CA, ATCT, from Ontario, CA, TRACON ... **Billy D. Moore**, area manager, Ontario, CA, TRACON ... **Ricky A. Opperman**, area supervisor, Palo Alto, CA, ATCT, from San Francisco ... **William J. Patterson, Jr.**, section supervisor, facility Operations Branch, Air Traffic Div., from Phoenix, AZ, TRACON

**Kenneth C. Powell**, area supervisor, Monterey, CA, ATCT, from Hanford, ATCT ... **Duane C. Rakotz**, manager, Palomar Airport ATCT, Carlsbad, CA, from Los Angeles ARTCC, Palmdale ... **Alvin B. Schene**, principal maintenance inspector, San Diego, CA, FSDO ... **Terrill L. Schomburg**, area manager, El Toro, CA, TRACON, from Waterloo, IA, ATCT ... **James H. Snow**, manager, McClellan Air Force Base TRACON, Sacramento, from Central Region ... **James D. Swanson**, area supervisor, Los Angeles ATCT, promotion made permanent ... **Kenneth E. Thomas**, asst. manager, traffic management, Oakland ARTCC, Fremont, CA, from FAA Academy ... **Paulus A. Van Emmerik**, manager, Oakland, CA, FSDO ... **Thomas L. Vanderveile**, manager, San Francisco Certificate Management Office, from Los Angeles FSDO ... **Darrell J. Walton**, asst. manager for technical support, Phoenix AFS ... **Clayton E. Witherspoon**, area supervisor, Concord, CA, ATCT, from Oakland, CA, ATCT.

## Retirees

### AERONAUTICAL CENTER

Byron D. Bonty  
Vernon W. Calhert  
William H. Goodright  
Fred E. Green  
Thomas E. Gribble  
Floyd E. Lonnevik  
Billy E. Shapp  
Charles E. Whitehair

### ALASKAN REGION

John D. Bruner  
Hildebrand S. Newton  
Neil E. Schultz

### CENTRAL REGION

Dean P. Hatfield  
Delbert W. Herrmann  
Norman E. Hall  
Gerald F. Visser

### EASTERN REGION

Robert C. Anderson  
Travis H. Barfield  
Ronald M. Cain  
Charles N. Dudley  
John R. Gilmore  
Edward E. Greene  
Norman E. Hall  
Jafar Anu Luciano  
Furey L. Pugh  
Louis N. Rabeno

### SOUTHERN REGION

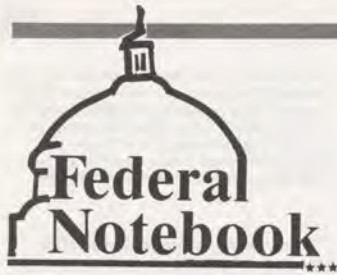
John P. Bowers, Jr.  
Robert W. Carpenter  
Wayne L. Durr  
Franklin B. Deese  
Billy N. Evans  
Dixie H. Fraley  
Frank P. Giannola  
James L. Higgins  
Henry N. Kallin  
Charles R. Keener  
Ronald K. Krut  
George W. Marshall, Jr.  
Richard M. Serrico  
Larry E. Smith

### WESTERN-PACIFIC REGION

Leon E. Isley  
Curtis H. Johnson  
Vinton M. Lampton  
Ellen A. Liman  
Daniel A. Lusk  
Dewey S. Pike  
James L. Poo  
Raymond J. Simkin  
Herbert H. Sugitaya  
Richard N. Weining

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.

JAN 20



**OPEN SEASON ABOUT TO CLOSE**

One last reminder on the Thrift Savings Plan (TSP) open season. It closes January 31. CSRS employees are locked into the "G" (government securities) Fund, but FERS workers have the additional options of the "F" (fixed-income bonds) and "C" (stocks) Funds.

The G Fund earned 8.93 percent interest in the 12 months ending October 30, 1989, whereas the F Fund paid 11.85 percent and the C Fund 26.09 percent in the same period, even with the big 190-point slide in the Dow Jones average on October 13.

**INTERIM MERIT PAY REGS ISSUED**

OPM has issued to federal agencies interim regulations on how to revise the Performance Management and Recognition System (PMRS) so managers will not suffer financially under the merit pay plan (54 FR 49075). The law, which extends the merit pay program until March 31, 1991, was approved last September. It corrected the "glitch" allowing some managers on the GM scale to receive smaller raises than they would have received had they remained on the General Schedule.

In addition, the new law requires agencies to incorporate a performance improvement plan for managers who rate lower than fully successful.

**LOOKING FOR GOOD MEN AND WOMEN**

According to the *Wall Street Journal*, the private sector doesn't move any faster than the U.S. Government when it comes to filling top-level executive positions. In fact, the bigger the job, the more time it takes to fill it.

The rough rule of thumb is one month of job search for every \$10,000 in compensation. For example, 89 percent of all jobs paying up to \$50,000 are filled within six months of the vacancy, whereas only 36 percent of those paying \$100,000 to \$150,000 are filled in that timeframe. When you get up in the area of really big bucks (\$200,000 and over), one-third of the jobs still are not filled after 12 months.

**HOTLINES IN GOOD SHAPE**

Although a recent union survey found that many employees mistrust the government's telephone hotlines for reporting fraud, waste and abuse, the General Accounting Office recently checked 25 of them and found they generally are working quite well. GAO's major recommendation where the hotlines are concerned is that the agencies do a better job of advertising their availability to outside audiences, particularly federal contract personnel.

For the record, the DOT Inspector General's Hotline is 800-424-9071 (366-1461 in the Washington, DC, area). An incentive program allows monetary awards of up to \$10,000 to an employee whose information results in significant cost savings. Employees may remain anonymous, and information given is confidential.

**WOMEN/MINORITIES LAG AT MID-LEVEL**

OPM Director Constance Newman is concerned about the poor government-wide representation of women and minorities in mid-level positions. She pointed out that only 9.7 percent of employees in GS-13 through GS-15 positions are women, and 7.3 percent are minorities. Her concern stems from the fact that tomorrow's top agency executives will be drawn from these ranks during a time when the federal workforce is increasingly made up of women, minorities and immigrants.

**SES EMPLOYEES SET FOR '91 RAISE**

The 80,000 members of the Federal Senior Executive Service are in line for pay raises ranging up to 24 percent, beginning in January 1991, as part of the Congressional pay and ethics package approved in the last session. Under the bill, approved by Congress just before Thanksgiving, SES pay will range from \$84,000 at the ES-1 level to \$105,400 at ES-6. Most SES employees are taking a cautious "wait and see" posture, however, instead of running up IOUs. As one said, "They have a whole year to take it away from us."

**SOCIAL SECURITY TAX BASE BOOSTED**

Just before it adjourned for the holidays in late November, the Congress approved legislation that effectively raises the amount of 1990 earnings subject to Social Security (FICA) withholding. The amount will increase to \$50,400 from \$48,000 in 1989. The FICA tax rate also increases in 1990, under previously enacted legislation, from 7.51 to 7.65 percent.

U.S. Department of Transportation

**Federal Aviation Administration**

800 Independence Ave., S.W.  
Washington, D.C. 20591

**FORWARDING AND RETURN POSTAGE GUARANTEED**

Official Business  
Penalty for Private Use \$300

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