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An Uncluttered Radar

By Brad Dunbar

Former FAA Deputy and Acting Administrator David D. Thomas is awaiting the first delivery next month of the new generation of airport surveillance radar, the ASR–9, with almost as much curiosity as the current workforce of agency controllers and technicians.

Thomas and radar go back a long ways. He remembers traveling to Camp Springs, Md., as a young air traffic controller for the old Civil Aeronautics Administration in the early days of World War II, to view "a very interesting gadget" the U.S. Navy was developing. It turned out to be a forerunner of the Ground-Controlled-Approach (GCA) radar system that became the U.S. military's primary landing aid throughout the war.

By 1947, the "gadget" had evolved into the first terminal radar for separation and guidance of civil aircraft—the ASR–1. It was put into service initially at Washington National Airport, New York's LaGuardia Airport, Chicago's Midway Airport and a handful of other terminals.

But Thomas remembers that the equipment had had two serious inadequacies. Whether it was being used for landing guidance or traffic separation, "It didn't work at all in the rain, just when we needed it most." And its radio signal could not distinguish a low-flying aircraft over terain "cluttered" by trees, buildings or hills.

An operating ASR-9 at the manufacturer's hilltop facility serves Baltimore-Washington International Airport.

Joint effort by CAA and the Air Force produced "circular polarization" in the 1950s, an electronic means by which the air traffic controller could mask out the radar returns from precipitation without losing the returns from aircraft. Similar development added the first "moving target indicator" (MTI) as a partial solu-

(Continued on page 6)

The former public affairs officer for the National Transportation Safety Board, Mr. Dunbar has written extensively on aviation subjects for more than 25 years.

Feeling Fit

Don't Baby Those Aches

There are more than 100 types of arthritis that afflict tens of millions of Americans, but if we escape the others, most of us are likely to feel the effects of osteoarthritis as we age or as the result of sports injuries. Whether the pain is mild or severe, most of us back away from it and use it as an excuse for indolence.

Exercise means more than keeping fit, especially for arthritis sufferers. It is actually essential to managing many arthritic diseases—to reduce the pain and maintain flexibility.

"People with arthritis must exercise their joints daily to ensure adequate joint mobility and muscle strength," says Dr. Frederic C. McDuffie, the medical director of the Arthritis Foundation. "An exercise program that is properly designed and carried out can help keep joints flexible, help maintain muscle strength and help build overall stamina."

If you still harbor some doubts, consider that the Arthritis Foundation has found that there probably is no increased prevalence of osteoarthritis among runners. In fact, one study actually showed a higher incidence of osteoarthritis among non-runners than among runners. People who play football and other aggressive sports are prime targets for the disease because of the repeated beatings their knees and other joints must take. But intensive musculoskeletal examinations of high-mileage runners showed no signs of the cartilage loss characteristic of osteoarthritis over a five-year span.

The Arthritis Foundation recommends:

- Schedule exercise sessions for the

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Barbara Abels—Western-Pacific Region

Administrator Allan McArtor (second from right) offered his congratulations to Gold Medal winner Pozesky (fourth form left) and the winners of the Award for Meritorious Achievement—the Silver Medal: (left to right) Cynthia T. Zook, Office of the Associate Administrator for Human Resource Management; Benjamin Demps, Jr., director, Europe, Africa and Middle East Office; Franklin L. Cunningham, director of the Alaskan Region; Pozesky; Virginia S. Meadows, Program Operations Div., Office of Aviation Medicine; Thomas Williamson and Joseph J. Fee, Communications and Surveillance Division, Program Engineering and Maintenance Service; Virginia H. Krohn, Staffing Policy Div., Office of Personnel and Technical Training; Administrator McArtor; and Constantine P. Sarkos, Fire Safety Branch, Aircraft and Airport Technology Div., Technical Center. Not pictured here is Glenn A. Bales, Airspace and Procedures Branch, Air Traffic Div., Eastern Region.

Honors for Achievers

More FAAers than ever garnered laurels at the Secretary of Transportation's 20th Annual Awards Program in September. The 34 awardees earned one of two Gold Medals, a Presidential Ranks Award, nine Silver Medals, three of four Awards for Valor, five equal employment opportunity awards, the sole Lawrence R. Schneider Award for attorneys, 13 Awards for Excellence and an Award for Community Service.

Commenting on the winners' accomplishments on the 200th anniversary of the Constitution, then Secretary of Transportation Elizabeth Dole said that DOT "honors not only the document itself but the modern-day achievers who give character to its meaning and quality to the values it preserves."

Martin T. Pozesky, Deputy Associate Administrator for National Airspace System Programs, accepts the Award for Outstanding Achievement—the Gold Medal—from former DOT Secretary Elizabeth Dole. Pozesky was recognized for his leadership of the $12 billion NAS Plan that will transform the air traffic control system.

Glenn A. Bales of Eastern Region's Airspace and Procedures Branch, Air Traffic Div., received a Silver Medal for his work on the Expanded East Coast Plan.

John Ryan, director, Air Traffic Operations Service, received a Presidential Ranks Award for sustained accomplishment.

Thirteen Award-for-Excellence winners posed with Administrator McArtor. From the left are C. Lorraine Bush, Atlanta, Ga., Aircraft Certification Office; Jih Ng, Eastern Region Accounting Div.; Gloria N. Fullerton, Norfolk, Va., Airway Facilities Sector; Bobbie F. Jones, Oakland ARTCC AF Sector; Adele G. Harrison, St. Louis AFSS; Carol J. Montgomery, Office of Associate Administrator for Human Resource Management; Janet K. Walker, Southwest Region Airway Facilities Div.; Leila J. Flynn, Pittsburgh FSDO; Teri L. Nyhaug, Sioux Falls, S.D., AF Sector Field Office; Carolyn J. Walker, Alaskan Region Logistics Div.; Administrator McCartor; Beverly A. Sluder, Aeronautical Center Facility Support Div.; Dixie L. Dean, Headquarters Office of Program and Regulations Management; and Marilyn S. Gray (inset), Indianapolis Airway Facilities Sector.

Five out of the eight Awards for Outstanding Achievement in Equal Opportunity and three of four Awards for Valor went to FAAers. From the left are John M. Howard (EEO), Aviation Standards National Field Office; John B. Preuit (Valor), Fort Dodge, Iowa, AFSS; James E. McMahon (Valor), Monroe, La., Tower; Sydney F. Alleyne (EEO), Kansas City ARTCC; Gary J. Black (Valor), Houston ARTCC; Sherry E. Dottin (Award for Community Service), New England Civil Rights Staff; Administrator McArtor; Carmen Mena-Moreno and James I. Lucas (EEO), New England Air Traffic Div.; Linda S. Ross (EEO), Great Lakes Employment Branch, Human Resource Management Div.

Trial attorney Vicki S. Leemon was recognized for her work with the presentation of the Lawrence R. Schneider Award.

Dick Davenport (right), manager of the Seattle Aircraft Evaluation Office, discusses airworthiness directives with Don Riggen of the Seattle Aircraft Certification Office.

AEGs Probe High-Tech Aircraft

By Fred Farrar

They deal with an age-old problem that has taken on even greater meaning in a world of high technology: making sure that people can work in harmony with machines.

And their job isn't made any easier by the fact that the machines can sometimes be a little sneaky, particularly in their later ramifications.

They are the Flight Standards employees who make up the agency's Aircraft Evaluation Groups—the people who bridge the gap between the engineers who design and manufacture large transport aircraft and the people who fly and maintain them.

They are on the job from the moment a manufacturer applies for a type certificate for a new aircraft and then must deal with such diverse matters as how the aircraft should be maintained after it goes into service, the type rating needed to fly it and how user-friendly the cockpit is.

They also are involved with such things as operational reliability, minimum equipment lists, supplemental inspection documents and changes in technology that affect how a plane is flown. (It is in the last area—technological change—that "sneaky" comes in, but more on that later.)

They've been heavily involved and continue to be involved in the process of approving twin-engine aircraft for extended over-water operations.

There are five such groups in the agency. Two are in the Northwest Mountain Region and are responsible for large transport aircraft. Another is in the Central Region and deals with small airplanes. The fourth is in the Southwest Region and concentrates on helicopters. The fifth is in the New England Region and deals with engines.

Michael Zielinski is the manager of the Aircraft Evaluation Group in the Northwest Mountain Region. His people are responsible not only for new types of aircraft but also for derivatives of existing aircraft and for the continuing proper deportment of older aircraft.

This region's mandate extends beyond the Seattle-based Boeing Company. Through a second AEG in Long Beach, Calif., it also is responsible for McDonnell Douglas and Lockheed and for any airliner for which a foreign manufacturer is seeking a U.S. type certificate.

As a result, Zielinski's people are now involved with derivatives of such current aircraft designs as the Boeing 747-400, the MD-11 (a new version of the DC-10) and the Airbus A300-600R, a two-crewmember version of the A300. There's also the A320, the A330 and the A340 (a four-engine version), the Boeing 737-400, the 737-500, the MD-92 and a small-package freighter version of the 757. And then there's the 777, Boeing's newest design now scheduled for production in 1992.

However you measure it, that adds up to a lot of responsibility.

A textbook example of the magnitude of that responsibility grew from an incident last June 30 when the flight crew of a Delta 767, which had just taken off from Los Angeles, inadvertently turned off the fuel flow to both engines at approximately 1,700 feet. They managed to get the engines going again, but only after the aircraft had dropped to a few hundred feet from the surface of the Pacific Ocean.

It was later established that the crew had an indication of a malfunction in the Electronic Engine Control (EEC) system and decided to shut it off. But instead of hitting the two switches controlling the EEC, they flipped two others nearby that control the fuel flow.

Dick Davenport, head of the Seattle Aircraft Evaluation Office, heard about the incident shortly thereafter when he got a call from the region's duty officer. "Within five minutes," Davenport said, "Don Riggen of the Seattle Aircraft Certification Office was in my office saying, 'Have you heard? We have got to AD [Airworthiness Directive] those switches out of there.' I agreed, but first we had other things to do.

The assistant manager of the Public & Employee Communications Division, Mr. Farrar is a former Washington correspondent for the Chicago Tribune.

"As an immediate action, we issued an Operations Bulletin warning flight crews that this can happen and urging them to be on guard against it.

"Then on July 2, we issued an interim AD calling for the installation of a physical barrier between the two sets of switches—a barrier that would make it hard indeed to confuse which is which.

"Finally, we are now working on a subsequent AD which will move the EEC switches from the engine/throttle control complex between the two pilots to the overhead instrument panel."

Davenport noted that the incident proves a theory doesn't always work out in practice. "The theory, from the human engineering point of view, is that all controls for related systems—such as all engine controls—should be in the same area.

"Now we know that that's not necessarily a good idea."

Lew Axford, the head of the AEG in the Central Region, said his people have some interesting technical challenges, too. Foremost among these is the Beech Starship, a new business aircraft that is of all-composite construction and of canard design (with the wing in the rear and the horizontal stabilizer up front) and has pusher propellers.

"What we have," Axford says, "are three major innovations for the price of one, and each is a challenge.

"On top of that, we have the Piaggio P.180 Avanti, an Italian entry in the high-tech business aircraft field that has all the new features of the Starship except the all-composite construction."

At the Southwest Region's AEG, the current challenge is the tilt-rotor aircraft, a cross between a helicopter and a fixed-wing aircraft whose engines with oversize propellers swivel in unison to the vertical for vertical liftoff and to the horizontal for cruise flight. (See FAA WORLD, October 1987.)

Leonard Korenek, the head of this group, said they are now evaluating the aircraft, which is being built by Bell Textron in cooperation with Boeing. Vertol, "for acceptability and compliance with operating regulations."

Zielinski says that the approval of twin-engine airliners for transoceanic operations is another example of what the Aircraft Evaluation Groups do.

Manager of the Aircraft Evaluation Group in the Northwest Mountain Region, Michael Zielinski has the responsibility for large air transport aircraft.

"In the process," he says, "we had to get into all the aspects of the aircraft and how it is flown. We had to consider the equipment redundancies needed for such operations, such as back-up electrical power supplies, the level of reliability of the engines and other systems and the special training needed. We had to make sure that all the airlines that applied for the approval did indeed meet the special requirements."

The Aircraft Evaluation Groups also have to be concerned with changing demands on the crew. "An example of this," Zielinski says, "is the workload on a two-member flight crew in the new wide-body aircraft. A two-member flight crew can be more than adequate to fly the airplane, but what if there's an emergency aboard? What about crowd control then? Should there be a third person up front—not necessarily a flight crew member—who would be responsible for handling that?

"Right now, I'm not sure, but it's something we've got to think about."

Another concern is what Zielinski calls "creeping mods," the sneaky factor mentioned earlier. "This is an area that involves type ratings and the fact that later versions of an aircraft can differ markedly from the first.

"A classic case is the 737-300," he continues. "It is so much advanced over the first version, particularly in terms of digital technology and CRT instrument displays on the flight deck that a pilot trained in the 737-100 doesn't know how to fly it." ■

Q & A

ATC Handbook 7110.65E, para. 2-77a states, "use the identification prefix and the last three digits of letters of the aircraft identification after communications have been established and the type of aircraft is known." Para. b says, "Omit the facility identification after communication has been established."

These paragraphs seem to be clear, but in the Western-Pacific Region, we have been told to repeat the full call sign and state the facility identification each time a new controller in our facility begins talking to an aircraft. As a result, the amount of verbiage and workload at our facility has risen.

Some of us "old" controllers who are not used to this interpretation of the handbook find our "tape talks" and over-the-shoulder evaluations severely deficient in phraseology. If the handbook did not allow for abbreviated transmissions for a facility, what did it allow for? Who's right on this?

The handbook reference is correct, but the emphasis is on "after communications have been established." The interpretation, which is national rather than regional, is that communications are established when the aircraft checks on *each* sector's or operating position's frequency.

This interpretation is obvious when seen in the proper context. The communication link between aircraft and controllers must be as clear and unambiguous as possible. The misstating of a frequency, an error in selecting the frequency or the possibility of a misunderstood transmission makes understandable the requirement to state the full call sign and facility identification during the initial transmission at each sector or operating position. It always has been and remains a national requirement.

Is a helicopter considered an aircraft when using "cleared to land, hold short of runway ..." procedures? If so, can a Group 2 helicopter land on a runway to hold short of another if the crossing runway is only 800 feet from the approach end of the helicopter's runway since that type of aircraft needs 3,000 feet of runway? If the hold-short procedures do not apply to helicopters, why are some of them listed as Group 2? Finally, to use a portion of a runway in the hold-short procedures, does that length and section of runway have to be listed in the facility directive as usable for short takeoff and landing (STOL) aircraft (as specified in Handbook 7110.65, para. 3-123b) if that is the only kind of aircraft that can use it?

A helicopter is an aircraft by definition, per Part 1 of the FAR. As such, it is controlled by ATC procedures that address aircraft in general, unless specifically excluded. If a helicopter is engaged in simultaneous intersecting operations and is making an approach to the runway, the distances specified in the Aircraft Group/Distance Minima Table in para. 1226, Handbook 7210.3G, apply and must be complied with. Helicopters are separated in the table using 12,500 pounds maximum gross takeoff weight as the dividing line, above which they are in Group 2.

Currently, only one aircraft is designated as STOL—the DeHavilland Dash 7. This aircraft is authorized to use a 2,000-foot runway stub during simultaneous intersecting operations when it has been stipulated in a Letter of Agreement. The cited para. 1226 clearly requires the facility directive to identify all runways to be used for simultaneous intersecting operations.

ASR-9

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tion, which could distinguish moving objects from static ones and suppress the static ground clutter. By the early 1950s, terminal area surveillance radar was in wide use for civil as well as military air traffic control.

As its numerical designation suggests, the ASR–9 is an evolutionary product of 40 years of American technological progress, but it's more than that, too. The solution it promises for the remaining problems of detecting both weather and small, low-flying aircraft establish it as one of the true cornerstones of FAA's 10-year, $12.2 billion National Airspace System Plan (NASP) for future air traffic control.

Carmine Primeggia, FAA's ASR–9 manager, describes the new system as one of "extreme reliability, availability and maintainability with features that provide substantial operating costs savings."

In what Primeggia terms "the largest single procurement of terminal radar in the agency's history," FAA is purchasing 101 dual-channel ASR–9s from the Westinghouse Electric Corps.'s Defense Business Unit in Linthicum, Md., under a multi-year, $397 million contract that was awarded in the fall of 1983. Following a five-month field test and evaluation of the first system, delivery will be up to three systems per month.

The first of the FAA units will be installed at Huntsville, Ala., in December, where the terrain promises an immediate test of its ability to detect small, low-flying aircraft over ground clutter. Such concern with terrain, together with growing air traffic volumes and the age of the radars being replaced, helped to determine the current schedule for the other installations over the next three years. (See delivery schedule below.) Fifty-six of them will replace ASR-7s and -8s, and 40 will replace ASR-4s, -5s and -6s—radars of such long service that their components include vacuum tubes. The 56 solid-state -7s and -8s, in turn, will be rotated to terminals now equipped with -4s, -5s and -6s. Two radars to support facilities will not be replacements.

Early in 1988, the second, third and fourth ASR–9s will be delivered to the FAA Academy and its depot repair facility at the Aeronautical Center and to the Technical Center.

Now in the final stages of contractor testing at Westinghouse's plant, where it has been tracking traffic in and out of Baltimore-Washington International Airport, the ASR–9 offers these giant strides in space-age ATC technology:

Weather detection and assessment—For the first time, the air traffic controller's console will display the radar returns of both precipitation and individual aircraft in a given sector of airspace. While one channel tracks aircraft, a second views weather, measures its intensity and classifies it into six levels of severity, any two of which can be called up by the controller at one time.

The manufacturer's operating ASR-9 overlooks Baltimore-Washington International Airport (left), whose tower it provides with radar data for a 55-mile radius.

The entire FAA ASR-9 team visited the Westinghouse facility in Linthicum, Md., where the dual-channel ASR-9 systems (behind them) are being built. From the left are Tony Garka, technical officer (TO), hardware; Bill Goodchild, TO, testing; Milt Borkowski, vice president, Westinghouse; Carmine Primeggia, ASR-9 manager; Bill Chin, TO, integration; Darrell Carlson, TO, software; Bill Reytar, TO, hardware; Art Monheit, general manager, Westinghouse; and Dennis Kolb, TO, implementation. All the FAAers are from Washington headquarters.

Bill Goodchild (left) and Bill Chin discuss the assembly of the remote SCIP (surveillance communications interface processor).

Looking over the ASR-9 transmitter at the manufacturing plant are Dennis Kolb (left) and Bill Reytar.

No longer must the controller wash out weather returns with circular polarization to retain aircraft targets. And pilots no longer need advise controllers that their last vector is unacceptable because it would take the plane into storm-laced cumulonimbus cloud formations. In short, controllers can make vectoring decisions based on both traffic separation and weather avoidance.

Catastrophic takeoff and landing crashes—at New Orleans in 1982 and Dallas/Fort Worth in 1985—have underscored the need for improved ground-based detection of low-level windshear in the terminal area. Studies are already underway to determine if the ASR–9 computer equipment and software can be modified to detect windshear associated with precipitation. Accordingly, FAA is proceeding with the procurement of terminal Doppler systems specifically designed for windshear detection under the umbrella of the next generation of weather radar (NEXRAD).

Moving target detection—Since the start of the commercial jet age almost 30 years ago, air traffic experts have been concerned about the dangers of mixing high- and low-speed planes in terminal areas. And those concerns have grown along with the increase in air traffic. To aid controllers in detecting and tracking small planes, FAA has established terminal control areas (TCAs) at the nation's busiest airports and requires all flights in that airspace to carry a transponder. The ASR–9 will provide additional detection capability and will be especially valuable at those airports where a transponder is not required equipment.

In the 1940s, the CAA and the Air Force joined to produce the first moving target capability. By the 1970s, FAA-industry efforts resulted in the application of advanced Doppler processing to vastly improve the capability of terminal radar to sort out aircraft traffic from clutter and to detect small planes. Such detection is possible even when the planes are at low altitudes and flying on a course tangential to the sweep of the radar antenna, which is not possible with MTI.

Westinghouse says the ASR–9's Moving Target Detector (MTD) represents a significant improvement over existing radars. According to the company, it is 100 times better able to detect a small aircraft over clutter. It can detect a one-square-meter target 55 nautical miles away and is subject to only one "false alarm" per scan compared to "hundreds" with older, MTI-based systems.

Reliability—"Downtime"—the bane of the radar controller, who must revert to his manual procedures when his radar malfunctions—will be greatly reduced simply by redundancy in the ASR–9. The radar is a twin-channel system; when one fails, the other, standby channel takes over automatically and virtually instantaneously. The controller need not trust his mental "picture" of his sector because his scope does not go blank.

Redundancy also applies to antenna drive motors and related gear. FAA has required a mean time between failures of 750 hours, a mean repair time of 30 minutes and a 99.9 percent availability.

Remote maintenance—The agency's goal of a terminal radar that needs no on-site maintenance personnel is as important to FAA budgeters as the weather channel and the MTD will be to controllers. The "remote maintenance system" of the ASR–9 constantly monitors the radar's own performance, detects failure and switches to the redundant processor. Westinghouse says that from a remote site, the system will trace 85 percent of all faults to an individual electronic circuit board, and fault alarms can be displayed at the air traffic maintenance equipment room or at a separate FAA facility.

The bottom line of both the reliability and the remote maintenance features, according to Westinghouse: To maintain the ASR-9, FAA will spend only about a third of what it now must budget for other ASRs.

ASR–9 manager Primeggia is highly confident that the system will prove itself in its initial, field-test installation at Huntsville and in its second operational use at Newburg, N.Y., in mid-1988.

Dave Thomas shares Primeggia's enthusiasm but tempers his own confidence in it with the conservatism of one who has watched the controller's console develop from an array that originally resembled a pre-war Wall Street stock price board.

"We won't know for sure until we have a few 'Murphys' try it," says Thomas. ■

Status of Other Key Aviation Weather Programs

Hazardous In-Flight Weather Advisory System
Currently operational in three air route control centers; nationwide implementation scheduled for end of 1988.

Mode S Data Link Program
Data Link Capability to be operational in 1990; capability to transmit hazardous weather data to be operational in 1991.

FAA/NASA Development Program for Airborne Wind Shear Detection Systems
Five-year program initiated in fall of 1986.

NWS/DOD/FAA En Route Next Generation Weather Radar (NEXRAD)
Contract award projected for fall 1987; deliveries starting in 1989; full installation in 1994; deliveries of modified terminal versions to 17 airports 1990 through 1992.

Terminal Doppler Weather Radar
First installation early 1992.

Low-Level Wind Shear Alerting Systems (LLWAS)
Ninety-five now operational; another 15 will be operational by early 1988; Enhanced LLWAS to be installed from 1988 through 1992.

NWS Automated Weather Observation Systems
Beginning delivery in early 1991.

Central Weather Processor (CWP)
Meteorological Weather Processor (MWP), using a series of five-year leases, will be available initially in 1990. *Real-Time Weather Processor (RWP)*, scheduled to be operational in 1995.

Source: Congressional Testimony by Ed Harris, ADL–1, Sept. 30, 1987.

Where the New Radars Go

As of this writing, the following civil field sites are scheduled to receive the 97 ASR–9s that will follow the initial Huntsville, Ala., operational installation:

Second Quarter, 1988
Newburgh-Stewart, N.Y.
Salt Lake City, Utah
Pasco, Wash.
Moses Lake, Wash.

Third Quarter, 1988
Harlingen, Texas
Los Angeles (ASR–7), Calif.
Los Angeles (ASR–4), Calif.
McClellan AFB, Sacramento, Calif.
Beale AFB, Marysville, Calif.
Wichita, Kan.

Washington-Dulles, Chantilly, Va.
Tulsa, Okla.
Charleston, S.C.

Fourth Quarter, 1988
Addison, Texas
Colleyville, Texas
Syracuse, N.Y.
Quonset Point NAS, R.I.
Raleigh, N.C.
Rochester, N.Y.
Toledo, Ohio
Austin, Texas
Andrews AFB, Camp Springs, Md.

First Quarter, 1989
Charlotte, N.C.
Birmingham, Ala.
Offut AFB, Omaha, Neb.
Ft. Lauderdale, Fla.
Madison, Wis.
Chicago-O'Hare, Des Plaines, Ill.
Chicago-Tenley, Ill.
Atlanta, Ga.
Washington National, Arlington, Va.

Second Quarter, 1989
Oakland, Calif.
Norfolk, Va.
Richmond, Va.
Pittsburgh, Pa.
Boston, Mass.
Miami, Fla.
Philadelphia, Pa.
Detroit, Mich.
JFK, New York, NY

Third Quarter, 1989
Lambert, St. Louis, Mo.
Denver, Colo.
Cleveland, Ohio
Seattle, Wash.
Minneapolis, Minn.
Phoenix, Ariz.
Houston, Texas
Baltimore, Md.
Kansas City, Mo.

Fourth Quarter, 1989
Indianapolis, Ind.
Sarasota, Fla.
Columbus, Ohio
Moisant, New Orleans, La.
San Antonio, Texas
Long Beach, Calif.
Buffalo, N.Y.
Covington, Ky.
Hobby, Houston, Texas

First Quarter, 1990
Tampa, Fla.
Milwaukee, Wis.
Newark, N.J.
Dayton, Ohio
Portland, Ore.

Las Vegas, Nev.
Nashville, Tenn.
Ontario, Calif.
Louisville, Ky.

Second Quarter, 1990
Windsor Locks, Conn.
Jacksonville, Fla.
Hillsboro, Ore.
Will Rogers, Oklahoma City, Okla.
White Plains, N.Y.
Albuquerque, N.M.
Orlando, Fla.
Greensboro, N.C.
Knoxville, Tenn.

Third Quarter, 1990
Burbank, Calif.
Harrisburg, Pa.
Des Moines, Iowa
Maxwell AFB, Montgomery, Ala.
Albany, N.Y.
Biggs, El Paso, Texas
Reese AFB, Lubbock, Texas
Barksdale AFB, Shreveport, La.
Davis-Monthan AFB, Tucson, Ariz.

Fourth Quarter, 1990
Grand Rapids, Mich.
Ft. Wayne, Ind.
Islip, N.Y.
Daytona Beach, Fla.
Atlantic City, N.J.
Asheville, N.C.
Cedar Rapids, Iowa
Memphis, Tenn.
Honolulu, Hawaii

First Quarter, 1991
Moffett NAS, Mountain View, Calif.
Miramar NAS, San Diego, Calif.
El Toro MCAS, Santa Ana, Calif.

People

Aeronautical Center

■ **James A. Harmon,** unit supervisor, Electro-Mechanical Production Section, Engineering and Production Branch, FAA Depot, promotion made permanent.

■ **Phyllis A. Howard,** manager, Program Analysis Branch, Management Programs Staff, Aviation Standards National Field Office (ASNFO).

■ **Teddy C. McIlwain,** supervisor, Operations Information Center, Fleet Support Branch, Aircraft Maintenance & Engineering Division, ASNFO.

■ **Dana L. Moffatt,** manager, Facility Planning Staff, Facility Support Div., Aeronautical Center, promotion made permanent.

■ **Betty J. Moon,** supervisor, Navigation Systems Section, Standards Development Branch, Flight Programs Division, ASNFO, promotion made permanent.

■ **Robert E. Murati,** supervisor, Flight Inspection Section, Anchorage, Alaska, Flight Inspection Field Office (FIFO), ASNFO, promotion made permanent.

■ **James K. Reid,** supervisor, Technical Support Section, Fleet Support Branch, ASNFO, promotion made permanent.

■ **Bernard V. San Filippo,** unit supervisor, Line Maintenance Section, Frankfurt, Germany, FIFO, *Flight Programs Div.*, ASNFO, promotion made permanent.

■ **Jerry L. Sparks,** supervisor, CBI Systems Section, Training Methods and Operations Branch, FAA Academy, promotion made permanent.

■ **Jerry R. Swanson,** supervisor, Line Maintenance Section, Anchorage FIFO, ASNFO.

Have a Heart

Here is another chance to prove that FAA is one big family with a heart.

Because of a serious automobile accident in March 1985, the son of an FAA controller at the Miami International Airport Tower now requires full-time institutional care. Sixteen-year-old Craig Potts has gone from a strapping six-foot-two football player to a 126-pound invalid who "can't eat, talk or walk and has to struggle to barely move an index finger at the command of his physical therapist."

The Potts family's financial burden is already at the $100,000 mark and climbing. Those who would like to extend a helping hand should make their checks payable to the "FAA Florida Credit Union" and mail them to the Miami ATCT, P.O. Box 526700 GMF, Miami, FL 33152-6700, Attn: Craig Potts Fund.

■ **Theodore L. Whitman,** supervisor, Line Maintenance Unit, Battle Creek, Mich., FIFO, ASNFO, promotion made permanent.

■ **Don L. Williams II,** unit supervisor, Airworthiness Section, Aviation Standards Branch, FAA Academy, promotion made permanent.

Alaskan Region

■ **Harry J. Brown,** assistant manager for training, Anchorage ARTCC.

■ **Douglas W. Cook,** assistant manager, plans and programs, Anchorage ARTCC.

■ **Allen F. George,** assistant manager, South Alaska Airway Facilities Sector in Anchorage, from the Anchorage ARTCC.

■ **Larry G. Giles,** assistant manager, Anchorage ARTCC, from the N.Y. ARTCC.

■ **Mark J. Kelliher,** unit supervisor, Anchorage ARTCC AF Sector.

■ **Richard J. Kutz,** assistant manager, Anchorage ARTCC AF Sector.

■ **Earl A. Packer,** construction & maintenanced foreman, Environmental Section, Maintenance Branch, AF Division, promotion made permanent.

■ **Gerald C. Paterson,** chief, Situation Monitor Staff, Flight Standards Div.

■ **Gary W. Stadig,** watch supervisor, Anchorage ARTCC AF Sector.

Central Region

■ **John C. Beisner,** manager, Materiel Management Branch, Logistics Div.

■ **Lloyd G. Crowl,** unit supervisor, National Communications Center, Kansas City, Mo.

■ **Jon R. Deflon,** supervisor, Iowa/Nebraska Installation Unit, F&E Electronics Section, Establishment Engineering Branch, Airway Facilities Division.

■ **Donald G. Eddy,** assistant manager, Wichita, Kan., Tower, from HQ.

Eastern Region

■ **Kevin P. Browne,** area supervisor, Erie, Pa., Flight Service Station, from the Burlington, Vt., Automated FSS.

■ **Sherelle T. Carper,** manager, Trenton, N.J., Tower.

■ **Anthony V. Ciccone,** unit supervisor, Albany, N.Y., Airway Facilities Sector Field Office, Empire AF Sector, promotion made permanent.

■ **Marian F. Clemens,** aviation safety inspector, Pittsburgh, Pa., General Aviation District Office, from Washington HQ.

■ **Lawrence Eng,** area supervisor, New York AFSS, Islip, N.Y., from the Teterboro, N.J., FSS.

■ **Joseph J. Toland,** area supervisor, Philadelphia Tower, from N. Philadelphia.

■ **Otis T. Turney,** area supervisor, New York AFSS.

■ **John W. Wenderoth,** area manager, New York, AFSS.

Great Lakes Region

■ **Kenneth W. Baenen,** area supervisor, Huron, S.D., Flight Service Station.

■ **Preston M. Banning,** area supervisor, Minneapolis, Minn., ARTCC.

■ **Mary C. Beebe,** manager, Meigs Field, Chicago, from the FAA Academy.

■ **Michelle M. Behm,** area supervisor, Chicago O'Hare Tower.

■ **Raymond A. Chezem,** area supervisor, Terre Haute, Ind., Automated FSS.

■ **William D. Christensen,** area supervisor, Chicago O'Hare Tower, promotion made permanent.

■ **John A. Clayborn,** area manager, Chicago ARTCC.

■ **Robert L. Collette,** assistant manager, plans and procedures, Wold-Chamberlain Airport Tower, Minneapolis.

■ **John C. Cooley,** area supervisor, Minneapolis ARTCC.

■ **Michael K. Farrell,** manager, Rochester, Minn., FSS, from Kankakee, Ill.

■ **Henry G. Fields,** unit supervisor, Michigan Hub AF Sector, Belleville, Mich., promotion made permanent.

■ **Douglas E. Fralick,** area supervisor, Chicago O'Hare Tower, promotion made permanent.

■ **Zonnie J. Fritsche,** manager, Oshkosh, Wis., Tower, from Lansing, Mich.

■ **Ralph E. Gehrig,** area supervisor, Chicago O'Hare Tower.

■ **Margaret A. Israel,** area manager, Chicago ARTCC.

■ **Ronald A. Kreienkamp,** area supervisor, Grand Forks, N.D., AFSS.

■ **Daniel J. Kuhn,** manager, Aurora, Ill., Tower, from Chicago O'Hare Tower.

■ **Lawrence M. Munson,** area supervisor, Huron, S.D., AFSS.

■ **Richard K. Petersen,** area manager, Wold-Chamberlain Tower, Minneapolis.

■ **Richard C. Pippin,** field office manager, Michigan Hub AF Sector, from NE.

■ **James S. Rood,** area manager, Minneapolis ARTCC, from Washington HQ.

■ **James B. Sagen,** manager, Appleton, Wis., Tower, from Champaign, Ill.

■ **Harvey S. Schwartz,** manager, East St. Louis, Ill., Tower.

■ **Daniel J. Smejkal,** area manager, Chicago ARTCC, from the Boston ARTCC.

■ **Mark S. Smith,** manager, Decatur, Ill., Tower, from W. Lafayette, Ind., Tower.

■ **Shawn M. Solem,** area supervisor, Cincinnati, Ohio, FSS.

■ **Melvin L. Suko,** unit supervisor, Chicago AF Sector, from Dakota AFS.

■ **John A. Thomas,** area supervisor, Indianapolis, Ind., ARTCC.

■ **John B. Thomas,** principal maintenance inspector, Minneapolis/St. Paul Air Carrier District Office, promotion made permanent.

■ **Clair E. Wilson,** assistant manager, Huron AFSS.

New England Region

■ **Robert L. Anderson,** supervisor, Technical Inspection Section, Facilities Operation Branch, Airway Facilities Division, promotion made permanent.

■ **John A. Butler,** assistant manager, plans and programs, Boston Logan Tower.

■ **Clement R. Dion,** assistant manager for training, Boston Logan Tower.

■ **Ronald L. Ellis,** manager, Bangor, Maine, Automated Flight Service Station.

■ **William T. Fuller, Jr.,** unit supervisor, Bedford, Mass., Flight Standards District Office, promotion made permanent.

■ **Carl R. Gray,** manager, Lebanon, N.H., Tower, from the Manchester, N.H., Tower.

Northwest Mountain Region

■ **J. David Adams,** area supervisor, Seattle ARTCC, promotion made permanent.

■ **Robert W. Arrell,** area supervisor, Seattle ARTCC.

■ **Kathleen Child,** manager, Sheridan, Wyo., FSS, from the Spokane, Wash., FSS.

■ **Joseph G. Conner,** assistant manager for automtion, Seattle ARTCC.

■ **Alan R. Davis,** unit supervisor, Billings, Mont., Airway Facilities Sector.

■ **Carl C. Dennhardt,** area supervisor, Seattle-Tacoma, Wash., Tower.

■ **Dennis L. Ferguson,** manager, Moses Lake, Wash., Tower, from Seattle ARTCC.

■ **John H. Gagnon,** area supervisor, Seattle ARTCC, promotion made permanent.

■ **Donald L. Gutman,** manager, Aspen, Colo., Tower.

■ **David F. Homer,** area supervisor, Boeing Field Tower, Seattle, promotion made permanent.

■ **Randall J. Huber,** area supervisor, Denver ARTCC, promotion made permanent.

■ **Frederick G. Jenkins,** supervisor, Mechanical Systems and Equipment Section, Los Angeles Aircraft Certification Office, Long Beach, Calif.

■ **Paula R. Kaneski,** administrative officer, Aviation Medical Division, promotion made permanent.

■ **Dennis J. Knust,** area supervisor, Seattle ARTCC, promotion made permanment.

■ **Michael J. Larson,** unit supervisor, Seattle Flight Standards District Office, promotion made permanent.

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.

■ **Janice L. Lee,** supervisor, Leased Communications and Frequency Management Section, Program and Planning Branch, AF Div., promotion made permanent.

■ **David G. Lehman,** unit supervisor, Seattle FSDO, promotion made permanent.

■ **John H. Potts,** group supervisor, Nav/Com Installation Engineering Section, Establishment Branch, AF Division, promotion made permanent.

■ **Larry R. Rockhold,** unit supervisor, Denver FSDO, promotion made permanent.

■ **David W. Schroth,** area supervisor, Denver ARTCC, promotion made permanent.

■ **Dalton F. Sessions,** manager, Plans and Automation Branch, Air Traffic Division, from the Billings Tower.

■ **Richard L. Stonacek,** assistant manager for systems performance, Denver ARTCC AF Sector.

■ **Marion E. Tilton,** unit supervisor, Seattle FSDO, promotion made permanent.

■ **Juan E. Trujillo,** unit supervisor, Great Falls, Mont., AF Sector Field Office, Billings AF Sector, promotion made permanent.

■ **John R. Tutora,** unit supervisor, Seattle FSDO.

■ **Susan J. Underwood,** supervisor, Staffing Section, Staffing and Compensation Branch, Human Resources Division, promotion made permanent.

■ **Gary L. Wilson,** area supervisor, Seattle ARTCC, promotion made permanent.

■ **Michael Zielinski,** chief, Aircraft Evaluation Group, Aircraft Evaluation Staff, Flight Standards Division.

Southern Region

■ **James L. Baker,** assistant manager for training, Louisville, Ky., Automated FSS, promotion made permanent.

■ **Michael R. Barry,** manager, St. Petersburg-Clearwater, Fla., Tower, promotion made permanent.

■ **Freddie E. Broadway,** assistant manager for technical support, Covington, Ky., Airway Facilities Sector.

■ **Barry C. Broughton,** area supervisor, Jackson, Tenn., AFSS, from FAA Academy.

■ **James W. Bullock,** unit supervisor, Jacksonvile, Fla., ARTCC AF Sector.

■ **James E. Carroll,** assistant manager, Raleigh, N.C., Tower, from Charlotte.

■ **Daniel Cilli,** area supervisor, Daytona Beach, Fla., Tower, from Tampa, Fla.

■ **Larry P. Connor,** area supervisor, Miami, Fla., International Airport Tower, from St. Thomas, V.I.

■ **John M. Cowan,** area supervisor, Nashville, Tenn., Tower, promotion made permanent.

■ **Richard W. Farrell,** project manager, F&E, NAS Program Management Staff, Atlanta, Ga., ARTCC AF Sector.

■ **Richard L. Gaines,** field office manager, Tampa, Fla., AF Sector.

■ **James R. Green,** unit supervisor, Jacksonville ARTCC AF Sector.

■ **Harold E. Greer,** manager, Muscle Shoals, Ala., FSS.

■ **Thomas B. Howell,** supervisor, Advanced Planning & Automation Section, Plans and Programs Branch, Air Traffic Division, from the Miami ARTCC.

■ **John M. Hughes,** unit supervisor, Atlanta Hub AF Sector, promotion made permanent.

■ **Raymond E. Jackson,** assistant manager, Jacksonville ARTCC AF Sector.

■ **John C. Jacques,** area supervisor, West Palm Beach, Fla., Tower, promotion made permanent.

■ **Gerald R. Jamison,** unit supervisor, Technical Inspection Field Office, Atlanta.

■ **Marion A. Jennings,** area supervisor, Ft. Lauderdale, Fla., Executive Airport Tower, from the Miami Tower.

■ **Robert R. Johnson,** supervisor, Navaids/Communications Section, Maintenance Program Branch, AF Division.

■ **Edgar V. Lewis,** supervisor, Operations Section, Mid-South Flight Standards District Office, Atlanta.

■ **Billy F. Mercer,** area manager, Atlanta International Airport Tower.

■ **Thomas B. Miller,** area supervisor, Miami Tower, promotion made permanent.

■ **Phillip D. Morris,** area supervisor, Miami Tower, from Charlotte, N.C., Tower.

■ **Daryl D. Peterson,** area supervisor, Memphis, Tenn., ARTCC.

■ **Foy L. Prater,** assistant manager, plans and procedures, Nashville Tower.

■ **Garland E. Raiford II,** assistant manager for technical support, Atlanta Hub AF Sector.

■ **Floyd E. Shaw,** supervisor, Maintenance Section, Mid-South FSDO, Atlanta.

■ **William E. Smith, Jr.,** field office manager, Atlanta Hub AF Sector.

■ **Danny M. Thompson,** area supervisor, Nashville Tower, promotion made permanent.

■ **Frederick D. Torrible III,** project manager, F&E, NAS Program Management Staff, Jacksonville ARTCC AF Sector.

■ **Kenneth R. Vanauken,** area supervisor, Miami ARTCC, from the Boston ARTCC.

■ **John H. Williams,** manager, Technical Inspection Field Office, Atlanta.

■ **Mary Ann Zdunczyk,** assistant manager, plans and programs, Miami AFSS, promotion made permanent.

Southwest Region

■ **Robert T. Allen,** area supervisor, Oklahoma City Tower, from Houston, Texas.

■ **Secundino O. Baca,** area supervisor, El Paso, Texas, Flight Service Station, promotion made permanent.

■ **Reginald C. Brunson,** team supervisor, Dallas/Fort Worth, Texas, Flight Standards District Office.

■ **Reymundo T. Cabrera,** area supervisor, San Angelo, Texas, Automated FSS.

■ **Brent A. Chance,** area supervisor, Las Vegas, N.M., FSS, from Gallup, N.M., FSS.

■ **Dean H. Child,** manager, Labor & Employee Relations Branch, Human Resource Management Division.

■ **Timothy A. Daniel,** area supervisor, Midland, Texas, Tower, from Shreveport, La.

■ **Harvey L. Dockery,** team supervisor, Dallas/Fort Worth FSDO.

■ **Raymond J. Dornak,** assistant manager for training, Conroe, Texas, AFSS.

■ **Gwin C. Drummond,** unit supervisor, Evaluation Staff, AF Division, promotion made permanent.

■ **Gary W. Fritz,** area supervisor, San Angelo AFSS, from the San Antonio FSS.

■ **Joseph M. Haynie,** area supervisor, Jonesboro, Ark., FSS, from Little Rock.

■ **Clifford E. Hubbs,** area supervisor, Fayetteville, Ark., FSS.

■ **Walter H. Hunter,** team supervisor, Dallas/Fort Worth FSDO.

■ **Paul A. Laven,** assistant manager, Houston AF Sector, from Eastern Region.

■ **John K. Marut,** assistant manager, Environmental Engineering Branch, AF Div.

■ **Lawrence R. Paschich, Jr.,** assistant manager, programs, Corpus Christi, Texas, Tower, from Brownville, Texas.

■ **Thomas G. Patterson,** assistant manager for program support, San Antonio AF Sector.

■ **Leonel Perez,** manager, Silver City, N.M., AFSFO, El Paso AF Sector.

■ **Gaylon G. Raiden,** maintenance mechanic foreman, Oklahoma City AF Sector.

■ **Jay D. Rollmann,** assistant manager for technical support, Oklahoma City AF Sector.

■ **Leonard L. Sanders,** area supervisor, Abilene, Texas, FSS, from Fort Worth.

■ **Richard A. Small,** unit supervisor, Dallas FSDO.

■ **Steven E. Stephens,** area supervisor, Love Field Tower, Dallas.

■ **James E. Stevens,** assistant manager, Moisant Tower, New Orleans.

■ **Thomas Lee Ward,** manager, Dyess AFB, Texas, AFSFO, Austin, Texas, AF Sector.

■ **Donald F. White,** team supervisor, Dallas/Fort Worth FSDO.

(Continued on page 11)

Retirees

AERONAUTICAL CENTER
Burbank, Brian S.
Gerien, Dale E.
Gonsky, Marilyn M.
Heisler, James F.
Hunt, John U.
Jones, Marguerite L.
Merritt, William T.
Mitchell, Daisy S.
Nelgen, James
Sims, John E.
Smith, Tony D.

ALASKANREEGION
Mallander, Harold R.
Mitchell, James Robert

CENTRAL REGION
Davis, Richard B.
Fleming William M.
Goodblood, Gerald F.

EASTERN REGION
Bowers, George T.
Bowling, Ronald L.
Cramer, Richard C.
Gallagher, Philip F.
Haley, John C.
Holt, Leonard
McConnell, Frances
Parowitz, Harold H.
Simchick, John J., Jr.

GREAT LAKES REGION
Peterson, Ronald E.
Traxel, Fred
Trimas, Foster G.

NEW ENGLAND REGION
Barrett, James H.
Davis, Warren W.
Haywood, Daniel H.
Shannon, Harold D.

NORTHWEST MOUNTAIN REGION
Bredsgaard, Roger H.
Edwards, Desmond
Edelson, Oral W.
Graziano, John B.
Lumsden, William S.
Mike, Carl L.
Steeber, Donald J.
Welsh, J. Wilma

SOUTHERN REGION
Austin, Frances M.
Belcher, Harold A.
Calderwood, Robert K.
Clark, Dewey M., Jr.
Francis, Dewitt T.
Kick, Donald J.
Mitchell, Melvin L.
O'Neill, Glenn F.
Petit, Raymond H.

SOUTHWEST REGION
Conley, Harry D.
Garrett, J.W.
Hinkson, William H., Sr.
Mangano, Andrew
Owens, James L.
Shatter, Betty L.
Smith, George M.
Van Zandt, James A.

TECHNICAL CENTER
Coin, John N., Jr.
Hamelin, Adele B.
O'Brien, Paul John
Reyes, Robert R.

WASHINGTON HEADQUARTERS
Aikins, John G.
Boggs, Travis R.
Guerra, Santiago
Munroe, Frank D.
Smith, Leonard R.

WESTERN-PACIFIC REGION
Cunningham, Thomas L.
Davis, Geneva
Harris, Elizabeth
Killian, Don F.
Kokko, Erik L.
McCutcheon, Frank F.

Airport Woes and Trust Fund 'Surpluses'

By James C. Miller III

There is a deepening suspicion among air travelers that the delays and frustrations they are experiencing at busy airports are the result of a conspiracy—a conspiracy hatched in Washington. Rumors abound that the government is diverting funds earmarked for better aviation to reduce the deficit. That the Federal Airport and Airways Trust Fund has an uncommitted balance of $5.6 billion is often cited as proof that something fishy is going on.

In truth, however, this uncommitted balance, or "surplus," is not a surplus at all. It is an optical illusion created by focusing on the trust fund and not on total spending for federal aviation.

The trust fund was created to finance capital improvements at the nation's airports, to modernize the computers, radars and other equipment used by air traffic controllers and to defray part of the costs of operating and maintaining the air traffic control system. It also was designed so that those who enjoy the benefits of modern air travel would be the ones to pay, rather than the general taxpayer. Accordingly, the fund's revenues come from an 8 percent tax on airline tickets, taxes on aviation fuels and interest earned on cash in the fund.

Understandably, aviation users, who have steadily been paying taxes into the trust fund, would like to know why it has a large and growing uncommitted balance. Contrary to popular opinion, it is not because the Administration has been hoarding the money in an attempt to reduce the federal deficit. In fact, fiscal 1987 aviation user taxes of $3.2 billion were less than estimated spending of $5 billion for the Federal Aviation Administration, thereby increasing the federal deficit by $1.8 billion. The trust-fund balance has grown because Congress has forced the government to use general fund revenues—including personal income taxes—to pay for aviation programs, instead of allowing money to be spent out of the trust as intended.

Congress created this situation by putting "penalty provisions" into the 1982 law that authorized the trust fund. First, Congress limited the amount of money that could be paid out of the trust fund to a percentage of funding for airport improvement. Thus, only about 71 percent

of FAA costs could be paid for out of the trust fund, even though several studies have shown that those paying into the fund account for about 85 percent of that agency's costs. Then, Congress reduced that even further by tying trust-fund spending for operational costs, such as air traffic controllers, to the amount of money spent each year for capital-improvement programs, such as replacing outdated computers.

Although the penalties were intended to keep the trust fund from being used primarily for operating costs at the expense of capital improvements, the restrictions backfired. Because of technological problems, it was not possible to spend all of the money authorized for capital improvements. Moreover, between 1982 and 1987, Congress consistently provided even less funding than the President requested for modernization projects, cutting out $945 million. Therefore—presto—because of the law, trust-fund spending for operations also was reduced.

What was the result? Since less money was available to support FAA operating programs from the trust fund, the rest had to come from general revenues. Because the aviation community continued to pay taxes into the trust fund, but the government was paying for aviation programs out of other revenues, the government developed a $5.6 billion "surplus" in the trust fund—a surplus more than offset by the $7.5 billion spent out of general revenues to support civil aviation programs during the 1982–87 period.

Over the past six years, the government has spent almost $27 billion on FAA programs. Civil aviation users were responsible for 85 percent of these costs, or $22.7 billion, but only $15.2 billion was paid from the trust fund—57 percent of the total. If Congress had made aviation users pay their full share of costs, today the trust-fund balance would be negative. If Congress had provided all the funds for air-system modernization the President requested and had not imposed "penalties," the balance would be only half a billion dollars.

Removing the aviation trust fund from the unified budget—an idea, with some support in Congress, proposed by several aviation interest groups—would be unlikely to accomplish anything for aviation and would confuse the nation's budget picture. The unified budget, as its name implies, should record all receipts and outlays of the federal budget, including trust funds, in order to give an accurate picture of spending revenues and the deficit. Removal of the aviation trust fund from the budget would violate this principle. The surplus in the fund, as noted above, has not accumulated because of a desire to hold back funding on aviation, and removal of the trust fund from the budget would not guarantee any more spending.

The Administration would like to see an end to congressionally mandated bookkeeping gimmickry by eliminating penalties and requiring that more aviation costs be borne by users rather than the general taxpayer. In addition, we would like Congress to appropriate the amounts requested—nearly a 20 percent increase for the next fiscal year. Far from wanting to hoard the trust fund to reduce the deficit, we would like nothing more than to spend it on making air travel more pleasant for millions of Americans. ■

Mr. Miller is the director of the Office of Management and Budget.

Feeling Fit

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times of day when you generally have the least pain and stiffness and when you are not tired. If the best time is in the morning before you go to work and when you feel the stiffest, do it but slowly. You may even find that a little exercise then will back off the stiffness and get you started for the day.

■ Warm up before exercising. This should include gentle stretches of those parts of your body that you intend to exercise.

■ Be consistent—stick to your prescribed set of exercises. To be effective, exercise must be done regularly. Don't excuse yourself for any reason and intend to make it up. It is better to exercise for 15 minutes every day than to do two hours once a week.

■ It may help to exercise to some type of slow, rhythmic music or vary your method of counting to fight boredom. For non-counting exercise, like on an exercycle, turn on the TV to make the time go faster.

■ Coordinate your breathing with your exercising. If you hold your breath while tensing your muscles, they won't get oxygen and will tire easily. Counting your moves out loud will help you to breathe deeply and often enough.

■ Know what your tolerance level is and don't exercise beyond it. Include rest periods in your exercise session. Never go for more than 20 minutes without a rest period. A good general rule of thumb is: If it hurts, stop. Joints affected by arthritis should not be pushed beyond the point of pain without the supervision of a specially trained therapist.

■ Don't be too ambitious. Start your programs by doing each exercise a comfortable number of times and gradually increase the repetitions and quantity of exercise as you become more proficient.

■ Before you start any exercise program, check with your doctor. Too much exercise can be as harmful as too little. You do need to balance periods of exercise with periods of rest and do the right exercises for the joints affected.

■ Your doctor, working with a physical or occupational therapist, can help you begin an exercise program tailored to your needs that will permit you to continue a productive life.

EXPANDING Their Horizons

Carl McKinney (right), traffic management specialist in the Central Flow Control Facility, briefs visiting controllers (left to right) Jerome Egan, area supervisor from the Oakland, Calif., Tower; and area supervisor Tom Freeman, ATCS Glenn Vanicek and ATCS Keith Walker, all of the Memphis Tower. Photo by Thomas Hughes

Washington headquarters is host to many FAA visitors from the field. Most of them are on orders to consult, confer and work on agency programs, and they worry about how much the trip will cost them out-of-pocket in this high-priced town. Not so for one trio of controllers that recently entered 800 Independence Avenue.

Controllers Keith Walker and Glenn Vanicek and area supervisor Tom Freeman left the Memphis, Tenn., tower on their own—but with the manager's blessing—to get the big picture.

"We're always talking about what goes on in the regional office or headquarters," explains Freeman, "wondering about these facless people who send down directives and about FAA operations above the facility level.

"One day during a briefing session, the team agreed it would be a good idea to go to Washington on a 'fam' flight and see some of these people."

Walker chimed in, "We've spoken to a lot of people on the phone; now it's nice to put a face with a voice. Besides, most of us are aviation buffs who want to see the Air and Space Museum" (which they did).

It was an idea that appealed to the entire eight-man team and facility manager Walter Coker. Using the airline familiarization flight program saves the controllers travel costs, but that's all. Hotel and meal costs come out of their own pockets, and the time out of their annual leave. Says Walker, "Everyone puts a different value on his free time. I enjoy my job, and with this opportunity, it's a great way to spend my days off."

Freeman says that the tower manager would like to see the whole facility participate and wants to ask the airlines to cooperate in using the 'fam' program this way. Otherwise, it could get very expensive, since the government isn't subsidizing this.

Only three made this trip because of the difficulty in coordinating the schedules of eight persons, their families and the airlines. All wanted to go, says, Freeman, but it became a logistics problem.

The controllers are interested in the entire system, but for this trip focused in on the Central Flow Control Facility. They're interested in flow control because "it's a very valuable tool. We're saturated four times a day and we're seeking ways to spread it out," notes Freeman.

Vanicek spent six years at the Memphis ARTCC and could explain center flow control, but "after this visit, we all can explain central flow control and understand more of the concept," he said.

"We need to continue to seek information," Walker noted. "It allows us to interact; it allows us to become a tighter team. The more information we can share, the more we can work together. ■

People

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Technical Center

■ **David W. Nesterok,** manager, Logistics Services Branch, Acquisition & Materiel Services Division.

■ **Richard D. Page,** technical program manager, Flight Information Systems Branch, Engineering Division.

Washington Headquarters

■ **Michael E. Chase,** manager, Certification Law Branch, Regulations & Enforcement Div., Office of Chief Counsel.

■ **Kenneth R. Laenger,** manager, Quality Assurance Branch, Industrial Division, Acquisition and Materiel Service.

■ **George S. O'Connell,** manager, Quality Standards Branch, Industrial Division Acquisition and Materiel Service.

Western-Pacific Region

■ **Wilbur S. Benner,** manager, Hawthorne, Calif., Tower, from Los Angeles TRACON.

■ **Theodore R. Bernez, Jr.,** area supervisor, John Wayne Airport Tower, Santa Ana, Calif., from El Toro MCAS TRACON.

■ **Norman L. Butner,** supervisor, Information Resource Management Section, Program and Planning Branch, Airway Facilities Div.

■ **Edward B. Castagna,** manager, Arcata, Calif., Flight Service Station.

■ **Edward L. Couch,** manager, Quality Assurance Staff, Air Traffic Division.

■ **Richard A. Cox,** manager, Field Management Branch, Air Traffic Division.

■ **Ralph W. Davis,** area supervisor, Oakland, Calif., ARTCC.

■ **William T. Doyal,** area supervisor, Fresno, Calif., Tower.

■ **Larry A. Fiscus,** area manager, El Toro MCAS TRACON, Santa Ana, Calif.

■ **Michael J. Fitzgerald,** assistant manager, Oakland TRACON.

■ **Jon E. Flippen,** area manager, Los Angeles TRACON, from Ontario TRACON.

■ **David K. Fowler,** assistant manager, programs, Ontario, Calif., TRACON.

■ **Jimmie L. Haralson,** manager, Hawthorne Automated FSS.

■ **Ronald R. Hayes,** area manager, Ontario TRACON.

■ **Thomas B. Huntington,** assistant manager, Miramar NAS TRACON, San Diego.

■ **Max E. McCollam,** assistant manager, military operations, Los Angeles ARTCC.

■ **Donald B. Mullin,** area manager, Ontario TRACON.

■ **Robert M. Olsen,** area manager, El Toro MCAS TRACON.

■ **Thomas A. Smith,** unit supervisor, CSIF Program Section, Establishment Engineering Branch, AF Division.

■ **Maurice D. Thompson,** manager, Deer Valley Airport Tower, Phoenix, Ariz.

■ **Leroy W. Uncles,** area supervisor, Reno, Nev., Tower.

■ **Stanley R. Watt,** area supervisor, Deer Valley Airport Tower.

'The Third Man' Exposed In New FAA History Book

The "third man" in the cockpit is almost a dead issue today, but for more than three decades, it was one of aviation's most contentious disputes.

FAA Historian Nick Komons examines this controversy in a new book entitled, appropriately enough, "The Third Man" and concludes that most of the rhetoric may have been directed at safety, but economics was the real issue.

Komons notes that FAA was caught between the proverbial rock and a hard place in trying to balance the competing positions of the airlines and their unionized flight crews. However, you'll have to buy the book—or check it out of your library—to find out how the agency resolved the problem. Copies are available through the Government Printing Office for $5.50 a copy. Stock # 050-007-00761-2.

Federal Notebook

HEALTH PLAN OPEN SEASON BEGINS

The average premium for the Federal Employee Health Benefit (FEHB) plan will rise by 31 percent next year, but--says the Office of Personnel Management (OPM)--296 plans, primarily pre-paid health maintenance organizations, will actually show a decrease in premiums. In its annual Guide to Health Insurance Plans for Federal Employees, Washington Consumers Checkbook says that some federal employees can save more than $1,200 on their health bills next year by choosing wisely among the plans.

OPM also notes that there will be 92 new pre-paid plans joining FEHB in 1988.

HOLD SOUGHT ON CATASTROPHIC PLAN

The Medicare catastrophic health care bill has been passed by both the House of Representatives and the Senate and must go to conference. Under the House version, the premiums in part are based on taxable income, and federal annuities are mostly taxable. This would result in high premiums for federal retirees. The Senate bill would restrict federal retiree premiums to those of Social Security recipients and alter retiree health plan coverage to avoid overlapping coverage.

The director of the Office of Personnel Management has asked that Congress delay the effective date of the legislation as long as two years for federal retirees to permit changes to the law or to federal health plans. Such a move also would avoid the appearance of indifference to the needs of the federal workforce. Director Constance Horner believes that without these changes, many federal retirees would withdraw from Medicare Part B or from FEHB. This would result in big increases in health plan premiums for employees as well.

HOLD SOUGHT ON FERS ELECTION

Similarly, Rep. Constance Morella (R-Md) has asked that the deadline for deciding between staying with the Civil Service Retirement System (CSRS) or switching to the new Federal Employees Retirement System (FERS) be delayed beyond December 31. The problem is that very few employees have elected to switch, which may be due to changes in FERS Social Security benefits and the thrift plan that Congress is still considering. Employees may be waiting to find out which changes become law and how they will affect benefits.

Another change being sought is to detach the thrift plan from the rules for civilian 401(k) tax-deferred plans, which limit upper-income contributions to two percent above the average contributed by lower-income employees.

HATCH ACT CHANGES EXPECTED

The House Post Office and Civil Service Committee approved HR-3400 by a bipartisan 22-0 vote. This is legislation to relax the restrictions in the 48-year-old Hatch Act on political activity by federal employees. Many believe that it definitely will pass the House this year and the Senate next spring. The bill also prohibits federal employees from giving, receiving or soliciting political contributions from or to a superior or from accepting contributions from contractors or industries regulated by an employee's agency.

While the bill is viewed as a matter of fairness for federal employees, many still fear political coercion.

LUMP SUM RELIEF POSSIBLE

Sen. Spark Matsunaga (D-Haw) is proposing legislation that would permit federal employees to avoid immediate taxation of lump-sum annuities and penalties for early retirement. It would permit employees to roll them over into private individual retirement accounts and would eliminate the 10 percent penalty tax on lump-sum withdrawls by retirees under the age of 55. Lump-sum rollovers would then become taxable after age 59-1/2, and the penalty would apply only to retirees under 50.

Under current law, retirees may withdraw a lump sum equivalent to all their contributions to CSRS, reducing their monthly annuity by 8 to 12 percent. The tax bite on the lump sum is in the year of retirement.

U.S. Department
of Transportation

**Federal Aviation
Administration**

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

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