



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

FAA World

May 1989
Volume 19 Number 5

Ralph Stokes was talking about the early days of aircraft accident investigations. "You could tell by the body language who knew what was going on and who didn't. If a guy had his hands on his hips with his thumbs pointed forward, you knew he had some idea of what was happening. If his thumbs were pointed backwards, he didn't have a clue."

The occasion was a ceremony marking the 25th anniversary of the National Aircraft Accident Investigation School at the Transportation Safety Institute in Oklahoma City. Stokes, the retired head of the

Institute's Aviation Safety Division and the master of ceremonies, was describing the unstructured days before the establishment of the school when the art and science of aircraft accident investigation was mostly learned in the military or in on-the-job training.

It was to correct this hit-or-miss situation that the school was founded in mid-1963 to train accident investigators for the Federal Aviation Administration and the Civil Aeronautics Board (CAB).

In attendance was the first dean of the school, Marion Roscoe, who later was to become head of the FAA's Office of Aviation Safety in Washington, D.C. To illustrate the need for the school, Roscoe quoted from a report on one of the early investigations.

"It said, in part, that 'all of the wreckage was accounted for at the accident site,' and the team's conclusion as to the cause of the accident was widely accepted."

"Then a couple of years later a pair of hunters came along, and a quarter of a mile away from the wreckage they found a propeller and dragged it in. As you can guess, that changed things in a hurry. And it got pretty embarrassing in a hurry, too."

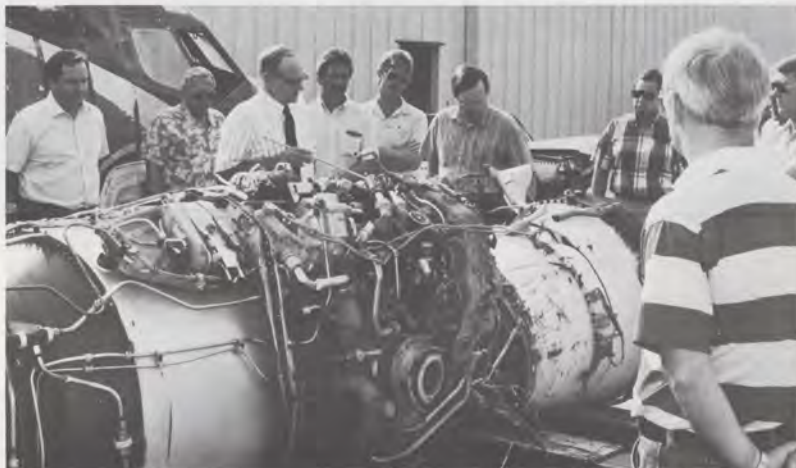
Roscoe summed up the purpose of the school by quoting from one of its veteran instructors:

"The evidence is there, but you've got to see it, then interpret it properly, and you've got your answer."

He gave much of the credit for getting the school established on a firm footing to Alan Boyd, then head of the CAB, and Najeeb Halaby, then FAA Administrator.

By Fred Farrar

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



Ron Shepherd (holding pointer), turbine engine instructor, shows students at TSI's Aircraft Accident Investigation School the burned up number three engine of the Boeing 720 that FAA crashed at Edwards Air Force Base for the Controlled Impact Demonstration in December 1984.

A Quarter Century of Learning To See the EVIDENCE

"There was tremendous interagency cooperation and coordination in the early days," Roscoe said: "some of the best I've ever seen."

In addition to teaching how to see and interpret the evidence, the school put heavy emphasis on the standardiza-

(Continued on page 2)

FAA Joins Cokebusters

By Roger Myers

*Demonic frenzy, moping melancholy,
And moon-struck madness.
John Milton's "Paradise Lost"*

The emerald green of the Atlantic Ocean merges with a clear blue sky over the Straits of Florida as the UH-60 Blackhawk helicopter descends from 3,500 feet on approach to the Bahamian island of Bimini.

The scene is an image of tropic paradise to many. Once the playground of a privileged few, these islands now witness cruise ships and airliners depositing their passengers almost daily.

Suddenly, the crackling static in the headphones aboard the Blackhawk is interrupted by an urgent call.

"Macho Man, Macho Man,* this is Macho Control, over."

"Macho Control,* this is Macho Man, go ahead, over."

"Ah, roger, Macho Man, we have a bogey just north of Andros [one of the islands in the Bahamas], on the deck at 300 knots; how about a pounce?"

(Continued on page 8)

*Call signs have been changed for security reasons.

The Southern Region's assistant public affairs officer and a former air traffic controller, Mr. Myers' stories have been published in newspapers and literary magazines.

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FAA World

May 1989

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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:

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Seeing Evidence

continued from page 1



This fuselage being examined and documented by student accident investigators was burned out in a post-crash fire.

tion of accident investigations to minimize the possibility of important aspects of the accident being overlooked.

It called for a systematic approach to accident investigation so that a Piper Cub accident would be investigated the same way as a 747 accident.

The school currently offers four courses. They are a 28-hour introductory course, a two-week advanced course, an eight-day helicopter accident investigation course and a one-week refresher course.

Another speaker, Chuck Mercer, president of the International Society of Air Safety Investigators (ISASI), said that there are two important reasons for training accident investigators in a formal classroom environment.

"The first is to improve the individual level of performance of the investigators and spread the lessons learned to as many federal investigators as possible.

"The second is to generate the knowledge required to keep up with the changes in accident investigation tech-



A pair of students document seat deformation in an actual accident investigation.

nology and transmit that knowledge to others in the aviation industry."

Mercer, who heads ISASI, an organization that was founded by Roscoe and other accident investigators a year before the school was established, said

that it is the goal of the FAA, the NTSB and the Society to "investigate

accidents carefully so something can be done to keep them from happening again."

Dr. H. C. McClure, director of the FAA's Mike Monroney Aeronautical Center, where the school is located, congratulated the school on "consistently delivering a quality product" in its 25 years of existence. At the school, he said, knowledge gleaned from past accidents is passed on to the investigators of the future.

"Then they take that knowledge and go out and make air travel safer than it is today. And it is never safe enough, as far as we are concerned."

McClure noted that over the years, a total of 6,380 people have been trained at the school (including many foreign accident investigators), with the vast majority coming from the FAA's Flight Standards Service. He said that many who have attended the school have told him that its greatest value grows out of "a cross-fertilization process" there.

"You take people from all parts of the country and put them together to share their ideas, experiences and know-how, and they walk away better qualified from having done so."

Other speakers included John Rawson, manager of the FAA's Accident Investigation Division in the Office



In honor of the National Aircraft Accident Investigation School's 25th anniversary, Frank Del Gandio, manager of the Office of Accident Investigation, presents a plaque to H. Aldridge Gillespie, director of the Transportation Safety Institute.



Under the eyes of the instructor Carl Borchers (right rear) and instructor Burton Chesterfield (with tie), students examine a turbine engine for damage.

of Accident Investigation in Washington, and Frank Del Gandio, manager of the Recommendations and Quality Assurance Division, who presented Dr. H. Aldridge Gillespie, director of the

Transportation Safety Institute, with a plaque honoring the school's 25 years of service. ■

Feeling Fit

Spring Is Healthy Heart Time

Before summer's heat overwhelms us and consigns non-mad dogs to exercising in the cool of the evening, help your heart with aerobic exercise.

It's unlikely that exercise alone will prevent or cure heart disease, but a sedentary lifestyle may increase your risk. However, regular exercise—that is, three times a week for at least 20 minutes—is an important influence in reducing that risk. It improves blood circulation, helps control weight and releases tension.

Exercises like weightlifting or isometrics can build muscle strength, but they do little to promote cardiovascular fitness, as do walking, hiking, jogging, bicycling, swimming, aerobic dance and truly active sports. These increase the

blood flow to the working muscles.

No matter which kind you select, you should start slowly and build up as your stamina in muscle and breathing permit, and always warm up before and cool down afterwards. Begin each session with a three- to five-minute warm-up period to increase respiration, circulation and body temperature and to stretch muscles, tendons and connective tissues.

Exercise is a lifetime commitment, so pick an activity or activities you will be comfortable with and won't be too punishing for your age and condition. Further, you must discipline yourself not to become a couch potato in the winter; jog or walk or take up ice skating, cross-country skiing or alpine skiing. In bad weather, some people take to walking shopping malls in off-hours.

Walking is a fitness exercise that most people can handle at any age. Although it won't burn calories at the rate that more vigorous exercise will, walking won't damage joints and will help to maintain flexibility in them. It causes a reversal in factors that can bring on varicose veins, hemorrhoids and fainting spells.

While you're exercising your feet, you need to take care of them, as well. Keep your feet clean and dry and encased in comfortable socks and running shoes.

After buying good-fitting shoes designed for your particular activity, which will set you back from \$25 to \$100 or more, break them in before

doing aggressive conditioning exercises by walking in them for a while.

Then, don't let them get too ripe. Moist and dirty shoes breed bacteria and mildew, which can create odors, rot those expensive shoes and cause fungus diseases of those expensive feet.

Never machine wash or dry the shoes, which may shrink them or cause them to become unglued. Avoid bleach or detergents, which may fade them and damage stitching. Instead, wipe the shoes with a damp cloth and mild soap; scrub dirt with an old toothbrush. Stuff them with shoe trees or paper towels to maintain their shape, and let them air dry. Or... there are commercial products available to clean, deodorize, condition, protect the fabric and repair athletic shoes.

Now, get out of the house! ■

Let's Not Turn Backwards

By Jerome Lederer

[The following was a response to a letter to the editor of the New York Times that advocated rearward-facing aircraft seats to save lives.]

A study of this suggestion was made in 1955 and concluded that air-transport incidents of a survivable type do not follow a consistent pattern with regard to the direction of deceleration (stopping) forces and that there is no one seat-installation position that is safest for all conditions of survivable accidents. (A crash at cruising speed into a mountain would not likely be survivable.)

In many crashes, the airplane gyrates (changes direction), with high side and vertical forces, while coming to rest. The belted passenger in forward-facing seats swings with the direction of the resultant deceleration forces. In a rearward-facing seat, it is questionable whether the passenger's upper torso could remain against the seat back with deceleration 30 degrees or more to either side of dead ahead. Sidewise body movement resulting in loss of seat-back support would expose the passenger to severe backward tension of the upper torso. Severe spinal injury could then result as the torso snapped forward in the sudden stop.

During high deceleration, the contents of baggage bins above the seats are likely to spill out to become flying missiles. In rearward-facing seats, those objects would strike the face and front of the torso of passengers, whereas in forward-facing seats, the seat backs provide much more protection from such flying objects. Those that fail to be stopped by the seat back would strike the back of the passenger with probably less harm than striking the face in rearward-facing seats, especially if the passenger in the forward-facing seat

assumes the brace position [bent over with arms around head].

The forward-facing seat backs are padded and designed to give (break forward) with the impact of the torso of the passenger in the seat behind during a sudden stop.

On the other hand, upright passengers in forward-facing seats, with a reasonably snug seat belt, will tend to sit with their spines slightly curved. If this is followed by a vertical load, injury to the spine may result. Impact of the belt on the stomach may cause temporary disability and possibly delay escape activity. To reduce this risk, the belt should be snugged around the hips, below the stomach rather than on it.

Rearward-facing seats would be considerably stronger and heavier than forward-facing seats because of higher body loads imposed on the seat backs in a sudden stop, compared with forward-facing seats. The fact that the rearward-facing seats would be considerably heavier would undoubtedly result in

higher operating costs and air fares.

Some additional hazards would occur when crash loads are applied from rear to front (sliding backward as in a cart-wheel crash). The torsos would then rotate face forward, around the seat belt



The writer is a president emeritus of the Flight Safety Foundation.

to strike the heavy, less-forgiving seat backs in front of the passengers.

The steep climbing angle jet transports require for noise alleviation would cause passengers in rearward-facing seats to hang from their seat belts, instead of having the comfort that a backrest provides forward-facing seats in steep climbs. Because of this discomfort and the possible preference of passengers to look forward, coupled with the safety questions, the views of passengers should be established before rearward-facing seats are adopted. They offer a questionable increase in safety (and the major airlines now have less than one fatal accident per million flights, an extraordinary achievement).

A passenger who is facing forward in a braced position with the seat belt properly snugged around the hips is protected as well as can be in a survivable crash. ■

The Honorable Senator Brayer of Texas

By Sam Maloney

The honorable Senator Brayer of Texas—mention his name in the Southwest Region's Operations Center and you'll command smiles all around, rather than respect.

He's T.C. Miller's prize donkey and the "Best Overall" award winner at the 1989 Southwestern Stock Show in Fort Worth.

A duty officer in the Operations Center since 1964 and a 38-year FAA employee, T.C. purchased his first donkey more than 12 years ago as a joke. Now, his entire family raises and shows animals throughout Texas and Louisiana.

Senator Brayer, a recent inductee into

the Versatility Hall of Fame (tops in a series of tests), is a large, standard spotted jack, who stands 14 hands tall (about 56 inches), weighs 850 pounds and is registered with the American Donkey and Mule Society. With all that, perhaps he does rate a bit of respect. ■

A public affairs specialist in the Southwest Region, Mr. Maloney is a former naval aviator and instructor at the Center for Management Development.



January

FAA announced that near midair collision reports from pilots dropped by 33 percent in 1988 from the 1987 total, and operational errors by controllers were down by 13 percent. In addition, flight delays of 15 minutes or more declined five percent.

Following the crash of a British Midlands Airways Boeing 737 on January 11 with 44 fatalities, FAA ordered a check for cross-wiring of the engine's fire-warning-and-detection system on the 737-300 and -400 models. None were found, but subsequent Airworthiness Directives turned up cases of miswiring in other Boeing aircraft.

In rulemaking actions, FAA mandated installation of the Traffic Alert and Collision Avoidance System (TCAS) in all airliners and ordered U.S. airports to install computer-card-identification or similar systems to bar unauthorized persons from entering security areas.

FAA and the National Air Traffic Controllers Association negotiated a tentative three-year contract agreement, which must be ratified by the union membership before it becomes effective. The agency also awarded a type certificate to Boeing for the 747-400 with Pratt & Whitney PW-4000 engines.



McArthur stepped down as FAA Administrator on February 17 and returned to private industry.

There were three fatal accidents involving large U.S. air carriers in February. A Boeing 707 operated by

A government-industry task force, led by the Air Transport Association and the Aerospace Industries Association, released a report recommending extensive modifications to older Boeing aircraft to ensure their continued airworthiness. The price tag for the modification program was put at \$800 million.

March

Eastern Air Lines mechanics and other service personnel went on strike at 12:01 a.m. March 4. When pilots refused to cross the picket lines, the airline was forced to shut down virtually



time. FAA's Human Resource Management Office was reporting the results of the 1988 employee survey, which showed that "job satisfaction" increased to 66.5 percent, compared to 56.3 percent in the 1986 survey.

As part of a continuing effort to enhance aviation security, the agency announced a new policy of mandatory fines for airline passengers who try to carry guns through airport screening points, either intentionally or unintentionally. In a related move, the agency proposed civil penalties, totaling over \$1.1 million, against 26 airlines for failing FAA security checks.

There was a fatal accident involving a large air carrier in March—a DC-9 operated by Logair and carrying military cargo at Carswell AFB, Texas, on March 18. Both crewmembers were killed.

The month's most significant rulemaking action was a proposal to limit exit-row seating on airliners to passengers who can operate emergency exits without assistance. ■

Milestones of 1989

—The First Quarter

FAA's significant activities of the new year



February

Samuel K. Skinner was sworn in as Transportation Secretary in the FAA headquarters auditorium on February 6, as President Bush looked on. Allan

Independent Air Corp. crashed in the Azores on February 8 with 144 fatalities, most of them Italian tourists. A Flying Tigers Boeing 747 cargo flight crashed while trying to land at Kuala Lumpur, Malaysia, on February 19 with the loss of all four crewmembers. A United Airlines Boeing 747 managed to return to Honolulu on February 24 after an explosive decompression tore a large hole in the forward fuselage and swept nine passengers to their deaths.

its entire operation except the Shuttle. The carrier filed for Chapter 11 bankruptcy on March 9.

On March 17, the White House announced its intention to nominate Admiral James B. Busey for the FAA Administrator's post. At about the same

Largest Women's Leadership Class Named



Sixteen FAA women from a wide range of jobs were selected recently for the 1989 class of the Women's Executive Leadership Program. The year-long class prepares talented women for competing for future supervisory advancement. Its members include (l-r, seated) Vemoris Jones, Thelma Bagley, Dorothy Warner, Pat Myers, Aline Keating and Donna Warren; (standing) Gwen Randall, Maggie Baker, Phyllis Duncan, Diane Ables, Vickie Anderson, WEL program coordinator Eleanor Quigley, Elaine Downey, Patty Booker, Carol Driscoll, Barbara Kish and Loretta Neal.

The Indianapolis ARTCC Airway Facilities Sector took the National Airway Facilities Sector of the Year award for the second time in a row in 1988. The Raleigh, N.C., AF Sector took top honors in the GNAS (General National Airspace System) category.

The accomplishments of the Indianapolis ARTCC AF Sector, with its 96 employees who maintain 106 facilities and services, included the performance of 95.65 percent of its facilities or services above the national reliability average; 99.05 percent of its required preventive maintenance tasks completed

on schedule; all its equipment modifications performed within six months of receipt; and all its critical test equipment calibrated on schedule.

All this was accomplished in spite of this ARTCC having 12 major overnight freight terminals located within its control area (all or part of Illinois, Indiana, Kentucky, Ohio, Tennessee, Virginia and West Virginia). These generate a high night-time traffic count, limiting to weekends scheduled maintenance and system-integration activities that require downtime.

The Raleigh AF Sector has 110 employees responsible for 584 facilities

covering about 37,000 square miles.

The sector encompasses several major military installations, which, with American Airlines choosing Raleigh-Durham as its major Southeast hub, have imposed a heavy demand on the maintenance of the air traffic system.

Not only did Raleigh move from twelfth to third place in the Southern Region reliability ranking, it also placed 78 percent of all reportable facilities above the national average, with 58 percent having 100 percent reliability, and it provided 22,779 hours of training, the equivalent of having 11 people at the FAA Academy continuously for a year. ■

Indianapolis ARTCC Sector



F&E (facilities and equipment) personnel reviewing installation plans are (left to right) Dave Stefonowicz, David Nguyen, Bill Orr, Dean Bradford, David Goffinet and supervisor Mel Maxey.



Computer operator Georgina Smith loads a tape program into the Host computer.

Interfacility Data (IFD) Unit technicians Lawrence William (left) and Don Ignuskiak check out a frequency problem.



Environmental Unit technician Kevin Conrad discusses a CBI (computer-based instruction) printout with proficiency development specialist Candy Close.



Radar Data Processing (RDP) Unit technicians Stormy Warren (left) and Steve Huney analyze a diagnostics printout from the computer display channel processor test cart.

Reliability Marks Top Sectors of Year

Raleigh, N.C., General NAS Sector



The staff of the Elizabeth City, N.C., AFSFO is made up of electronics technicians Bill Jones (left) and Ed Boncek.



Jon C. Ryberg (right), manager of the Raleigh, N.C., Airway Facilities Sector, meets with his staff (from the left): Ernie Foushee, general supply assistant; Robert Neilsen, proficiency development specialist; Liz Troublefield, program support specialist; Rick Woodlee, program support specialist; George Ivey, assistant manager for program support; Charles Kinkaid, assistant manager for technical support; and Susan Johnson, sector secretary.



Electronics technicians L.E. Rudisill (left) and William G. Lord service this doppler VORTAC located at the Greensboro, N.C., Airway Facilities Sector Field Office.



Fayetteville, N.C., AFSFO manager Wayne Creekmore (left) presents electronics technician Hi Demby with a 35-year service pin, as unit supervisor Richard Rasmussen (right) looks on.



Environmental technician Charles Byrd makes a routine check of the tower's backup engine generator at the Raleigh Sector Field Office.



Secretary Valerie Worthen's desk sports a new computer at the Ft. Fisher, N.C., Sector Field Office.



Lewis Thompson, supervisor of the Rocky Mount, N.C., unit in the New Bern, N.C., AFSFO, checks on a glide slope antenna for the local airport.



Wilmington, N.C., AFSFO electronics technician Russell Ballard fine tunes the airport surveillance radar.

Cokebusters (Continued from page 1)

"Roger, Macho Control, on the bogey, but no can do. I've an aircraft full of FAA folks for a sweep of Bimini, over."

"Ah, roger, Macho Man..."
"Macho Control, this is Top Hat Two.* We copied the bogey; we're in position to intercept, over."

"Roger, Top Hat Two, we copy; stand by for a vector..."

Just as quickly as the image of paradise comes, it is lost—lost in the real world of South Florida drug-interdiction and lost for those addicted souls who might well be described by Milton's words. It's hardly any secret that the U.S. Customs Service, along with the Drug Enforcement Administration, the U.S. Coast Guard and other law-enforcement agencies have been waging war on illegal drug-trafficking from South America, through the Caribbean and into the United States for three decades.

However, another combatant has been added. With the enactment of the FAA-Drug Enforcement Assistance Act of 1988, the Federal Aviation Administration now finds itself thrust into the thick of drug-interdiction activities.

The law requires, among other things, the FAA to address deficiencies and abuses of the Federal Aviation Regulations (FARs). Among the numerous illegal operations occurring under the present FARs are:

- Unsanctioned aircraft fuel-system modifications;
- Aircraft "sale reported" category abuse;
- Incorrect temporary registration outside the United States;
- Use of false names, addresses and certificates; and
- Illegal N-number changes.

When this piece of legislation became law, it was just what FAA was waiting for, according to Ray Salazar, director of the Office of Civil Aviation Security. "We now have an opportunity to really get involved and make an impact.

Before the act, we were only on the periphery, and we assisted other federal and state agencies as best we could. Now, however, we can legally devote resources, manpower and daily operations to combat drug-smuggling efforts."

Salazar continued, "With an estimated 37 percent of the drug-trafficking activities occurring in the Southeast, we

naturally focused our initial effort in the Southern Region, which we are happy to report has already begun operation under the new law."

Indeed, the Southern Region is off and running, with two drug investigation support units (DISUs) staffed and operating.

According to Chuck Middleton, manager of the region's Civil Aviation Security Division, not only is 37 percent of drug traffic activity in the Southeast, but also 28 percent is in Florida. "To be most effective with our resources," Middleton explains, "operations in Florida would have the most impact. We

than the DISUs being advised by Customs, DEA and other law-enforcement agencies of actions in progress, it was soon just the opposite—those agencies were initiating operations based on information furnished by FAA.

The Miami DISU was very early instrumental in two cases, where Customs seized a pair of aircraft based on FAA information. The Jacksonville DISU currently is involved in a similar case.

FAA's activities cover three broad areas—liaison, information gathering and investigation—according to Nick Scott, manager of the Investigations and



Lynn Collier and Charlie Brasher of the Jacksonville DISU discuss the results of an airport ramp check.



In a demonstration of its drug-interdiction activities at the Lakeland, Fla., airport, a Customs Service Cessna Citation and a UH-60 Blackhawk helicopter intercepted this "bogey." When a bale of marijuana was pushed out the door to waiting confederates, the Blackhawk dropped out of pursuit and landed to apprehend the recipients.

established two units there—one in Miami and one in Jacksonville.

"We initially felt that our activities would gradually phase in from the mode of assisting and advising to that of more direct involvement and controlling some of the activities. Boy, were we wrong!" Middleton exclaimed.

After operating for only a number of weeks, personnel in both units found themselves already an integral part of the drug-interdiction operation. Rather



This is a U.S. Customs Service intercept aircraft, a Cessna Citation with a radome on its nose. Its N number has been masked for security reasons.



The small N numbers on the aircraft in the foreground, although legal, raise suspicions and often bring a check with the aircraft registry in Oklahoma City.



Five-gallon portable gas cans are illegally hooked into the fuel supply of a Beech Baron, which was caught with 21 such containers and 800 pounds of cocaine.

Internal Security Branch in Atlanta.

"As with any situation that includes covert operations, liaison among all involved is important, not only on a per-case basis but also on a day-to-day basis.

"We provide support to the DISU personnel out of Atlanta," Scott continued, "but they are the ones who do the daily legwork that results in the successful conclusion of cases.

Rick Buezek and Cliff Weiss at the Miami DISU and Charlie Brasher and Lynn Collier of the Jacksonville DISU already have earned credibility with the other federal, state and local agencies, and liaison has been established with more than 15 agencies, both domestic and international.

"Quite frankly, I don't know how we did without them so long," said Russ Schult of the Customs Service in Miami. "We're glad to see the FAA get more actively involved. The personnel from the DISU now give us an added and very important dimension to our activities we did not have before."

FAA gathers information by making ramp checks and visually spotting illegal activities, through air traffic radar tracking and other sophisticated techniques.

Personnel at the DISUs attempt to identify bogus N numbers from the 300,000 aircraft listings at the Civil Aircraft Registry located at the Aeronautical Center in Oklahoma City.



Southern Region Civil Aviation Security Division Manager Chuck Middleton (standing) addresses a DISU meeting. Others visible at the head table are (from left) Ken Lauterstein, headquarters' Office of Civil Aviation Security; Nick Scott, supervisor of the regional Investigations and Internal Security Branch; and Dave Smith, manager of headquarters' Investigations and Security Div.

When they spot N numbers on crashed drug-running aircraft, they check with the registry to see if any of them have been transferred illegally to other aircraft.

The flight to Bimini described above was just such a mission and a fruitful one at that, according to Randall Duncan, a special agent in the Southern

Region's Civil Aviation Security Division.

"A dozen downed drug aircraft were photographed and the N numbers recorded and checked through Oklahoma City that afternoon. Bingo! Two of the N numbers turned up on currently flying aircraft, which we now have under surveillance."

An investigation may often be routine, but when a "hot spot" of suspicious activity is uncovered, it becomes anything but routine. For

security reasons, not a lot can be said about the agency's intelligence gathering and methods of investigation.

More than two dozen options are being considered to close loopholes in and prevent further abuses of the FARs. Some will require additional rulemaking. In the meantime, the DISUs will continue to make their presence felt in all areas.

"When all is said and done," said Southern Regional Administrator Gar-

land Castleberry, "it is the FAA professional who gets the job done. We are proud of the fact that we have gotten off to such an outstanding start with this new security program and see no reason why the Southern Region DISUs will not be a model for all to follow." ■

Former Deputy Admin. Dies



Air Force Lt. Gen. Harold W. Grant, 82, former Deputy Administrator under Najeeb Halaby, died on March 17 at Andrews Air Force Base, Camp Springs, Md. He served in that post from 1962 until 1965. In the Air Force, he was a specialist in communications, serving as deputy commander of the Fifth Air Force during the Korean War, director of communications and electronics at Air Force headquarters and commander of the Air Force Communications Service.

People

Aeronautical Center

■ **Quenton T. Duren**, unit supervisor, Review, Qualifications and Evaluation Section, Aeronautical Certification Branch, Civil Aeronautical Institute.

■ **Marjorie A. Espolt**, supervisor, Review, Qualifications and Evaluation Section, Aeronautical Certification Branch, Civil Aeronautical Institute.

■ **James W. Evans**, unit supervisor, Review, Qualifications and Evaluation Section, Aeronautical Certification Branch, Civil Aeronautical Institute.

■ **John K. Gardocki**, unit supervisor, Flight Inspection and Procedures Unit, General Operations and Airspace Systems Section, Aviation Standards Branch, FAA Academy, promotion made permanent.

■ **Frank J. Impagliazzo, Jr.**, supervisor, Aircraft and Avionics Maintenance Section, Atlantic City, N.J., Aircraft Services Branch, Aircraft Maintenance & Engineering Division, Aviation Standards National Field Office (ASNFO), promotion made permanent.

■ **Diana Jones**, unit supervisor, packer foreman, Storage and Transportation Branch, FAA Depot, promotion made permanent.

■ **Donald R. Krause**, supervisor, Avionics Engineering Section, Engineering Branch, Aircraft Maintenance & Engineering Division, ASNFO, promotion made permanent.

■ **James E. Lytle**, supervisor, Airworthiness Section, Aviation Standards Branch, FAA Academy, from Southwest Region.

■ **Walter C. Richardson**, group supervisor, materials expeditor foreman, Storage and Transportation Branch, FAA Depot, promotion made permanent.

■ **Elaine I. Rose**, unit supervisor, Review, Qualifications and Evaluation Section, Aeronautical Certification Branch, Civil Aeronautical Institute.

■ **Howard M. Ryder**, unit supervisor, Oklahoma City Flight Inspection Field Office, Flight Programs Division, ASNFO, promotion made permanent.

■ **Ralph D. Sexton**, supervisor, Standards and Criteria Section, Standards Development Branch, Flight Programs Division, ASNFO.

■ **Ronald A. Smith**, unit supervisor, warehouse worker foreman, Storage and Transportation Branch, FAA Depot, promotion made permanent.

Alaskan Region

■ **Michael R. Homa**, manager, Kodiak Tower, from the St. Paul, Minn., Tower.

■ **Cruz Torres**, maintenance mechanic foreman, South Alaska Airway Facilities Sector, promotion made permanent.

Central Region

■ **Merritt K. Markusen**, unit supervisor, Olathe, Kan., Airway Facilities Sector.

Eastern Region

■ **John R. Anderson, Jr.**, unit supervisor, Wilkes-Barre, Pa., Airway Facilities Sector Field Office (AFSFO), Harrisburg, Pa., AF Sector, promotion made permanent.

■ **Donald A. Ballan**, unit supervisor, New York ARTCC AF Sector, Islip, N.Y.

■ **Stephen Boroski**, unit supervisor, New York ARTCC AF Sector.

■ **Donald P. Bringmann**, area supervisor, LaGuardia Tower, New York.

■ **William R. Carver**, area supervisor, Washington Dulles International Airport Tower.

■ **Lemuel Clark**, assistant manager for program support, Metro New York AF Sector, Garden City, N.Y.

■ **Susan F. Comisso**, chief, Air/Ground Operations Branch, Civil Aviation Security Division.

■ **Joseph Davide**, unit supervisor, New York ARTCC AF Sector, Islip, N.Y.

■ **Walter Drelich**, principal operations inspector, New York Flight Standards District Office, Valley Stream, N.Y.

■ **Constantino A. Elias**, manager, Atlantic City Airway Facilities Sector Field Office (AFSFO), Tri-State AF Sector, promotion made permanent.

■ **John G. Esposito**, unit supervisor, JFK Airport AFSFO, Metro New York AF Sector, promotion made permanent.

■ **Daniel J. Hamilton**, manager, Metro New York AF Sector.

■ **David E. Hammer**, area supervisor, Richmond, Va., Tower, promotion made permanent.

■ **Chester M. Hayden**, unit supervisor, Pittsburgh, Pa., AFSFO, Pittsburgh AF Sector, promotion made permanent.

■ **Albert W. Kelley**, unit supervisor, Wilkes-Barre AFSFO, Harrisburg AF Sector, promotion made permanent.

■ **Raymond C. Kopka**, unit supervisor, New York ARTCC AF Sector.

■ **Glenn E. Madison**, unit supervisor, Metro New York AFSFO, Metro New York AF Sector.

■ **Françis G. Marsh**, unit supervisor, New York ARTCC AF Sector.

■ **Alain Mathurin**, assistant manager for program support, Empire AF Sector, Syracuse, N.Y.

■ **Correction:** Peter A. Nelson, manager, System Capacity Branch, Airports Division.

■ **Joseph J. Patrick**, unit supervisor, New York ARTCC AF Sector.

■ **Carmine A. Pellecchia**, unit supervisor, New York ARTCC AF Sector.

■ **David R. Sprague**, manager, Richmond Tower, from the Air Traffic Division.

■ **Peter J. Striano**, unit supervisor, JFK AFSFO, Metro New York AF Sector, promotion made permanent.

■ **Patrick A. Thawley**, area supervisor, Washington National Airport Tower.

■ **Leroy Thomas**, unit supervisor, New York ARTCC AF Sector.

■ **Beverly C. Tyler**, area supervisor, New York Automated Flight Service Station, promotion made permanent.

■ **Joseph P. Vanston**, unit supervisor, New York ARTCC AF Sector.

■ **Kevin T. Watson**, area supervisor, New York TRACON, Garden City, N.Y., from the Farmingdale, N.Y., Tower.

■ **Richard L. Barnett**, area supervisor, Cleveland, Ohio, ARTCC, promotion made permanent.

■ **Richard M. Barzky**, area supervisor, Cleveland ARTCC, promotion made permanent.

■ **Susan F. Engler**, area supervisor, Chicago ARTCC, promotion made permanent.

■ **Ned A. Gibson**, unit supervisor, Michigan Airway Facilities (AF) Sector, Belleville, Mich.

■ **Robert W. Himes**, area supervisor, Cleveland ARTCC, promotion made permanent.

■ **Leonard U. Hopkins**, area manager, Grand Forks, N.D., Automated Flight Service Station (AFSS), from Columbia, Mo., AFSS.

■ **Howard B. Kehlenbeck**, systems engineer, Minneapolis, Minn., ARTCC AF Sector.

■ **Lawrence D. Le Clair**, area manager, Lansing, Mich., AFSS.

■ **Gerald C. Lewis**, area supervisor, Chicago ARTCC, promotion made permanent.

■ **Alan R. J. Lindquist**, manager, Flying Cloud Airport Tower, Eden Prairie, Minn., from Minneapolis International Airport.

■ **George B. Meiners**, assistant manager, plans and procedures, Terre Haute, Ind., AFSS, from the Kankakee, Ill., AFSS.

■ **Robert D. Molen**, manager, South Bend, Ind., General Aviation District Office, promotion made permanent.

■ **Ronald E. Mulgrew**, assistant manager for training, Kankakee AFSS.

■ **John E. Porter**, supervisor, Telecommunications Management and Operations Section, Program and Planning Branch, Airway Facilities Division.

■ **Steve E. Roper**, assistant manager for technical support, Illinois AF Sector, Springfield, Ill., promotion made permanent.

■ **John J. Schoeller**, assistant manager, traffic management, Minneapolis ARTCC.

■ **Jack P. Smith, Jr.**, assistant manager, plans and procedures, Minneapolis International Airport Tower, from the Madison, Wis., Tower.

■ **Edward D. Standal**, area supervisor, Flying Cloud Airport Tower, from Minneapolis International Tower.

■ **Arnold E. Yeske II**, area supervisor, Minneapolis International Airport Tower.

New England Region

■ **Raleigh W. Beach**, manager, Providence, R.I., Tower, from Quonset Pt. TRACON.

■ **Sandra V. Bogosian**, manager, Groton, Conn., Tower, from Otis AFB Tower.

■ **Mark A. Gudod**, manager, Worcester, Mass., Tower, from the Boston Tower.

■ **Ronald E. Johnson**, area manager, Bradley Airport Tower, Windsor Locks, Conn., from Branford Tower, Hartford, Conn.

■ **Arthur J. Woolley**, area supervisor, Danbury, Conn., Tower, promotion made permanent.

Northwest Mountain Region

■ **James A. Allig**, area supervisor, Denver, Colo., ARTCC.

■ **Clarence Boren**, manager, Cedar City, Utah, Airway Facilities Sector Field Office (AFSFO), Salt Lake City, Utah, AF Sector.

■ **John G. Bunderson**, area supervisor, Billings, Mont., Tower, promotion made permanent.

■ **Eugene P. Cope**, supervisor, Traffic Management Unit, Jacksonville, Fla., ARTCC.

■ **Felix J. Enriquez**, unit supervisor, Miami ARTCC AF Sector, promotion made permanent.

■ **William E. Cavassa, Jr.**, area supervisor, Denver Tower, from Cheyenne, Wyo.

■ **Jerry D. Clemons**, area supervisor, Denver ARTCC.

■ **Charles E. Dailey, Jr.**, manager, Walla Walla, Wash., Flight Service Station (FSS), from the McMinville, Ore., AFSS.

■ **Gene L. Dunham**, manager, Maintenance Branch, Flight Standards Division, from the Seattle Flight Standards District Office (FSDO).

■ **William D. England**, area supervisor, Pasco, Wash., Tower, from Boise, Idaho.

■ **Adrian D. Fox**, unit supervisor, Portland, Ore., FSDO.

■ **Max A. Hall**, assistant manager for training, Salt Lake City ARTCC.

■ **Colin C. Hiebert**, area supervisor, Boise Tower, promotion made permanent.

■ **Stanley H. Magnuson**, unit supervisor, Seattle FSDO, from Flight Standards Div.

■ **John M. Martin, Jr.**, unit supervisor, Denver FSDO, promotion made permanent.

■ **Frederick W. McCannan**, unit supervisor, Denver FSDO.

■ **Robert P. McClary**, area supervisor, Portland Tower.

■ **Steve E. Mullens**, area supervisor, Denver ARTCC.

■ **John F. Olson**, systems engineer, Seattle ARTCC AF Sector, from AF Division.

■ **Wayne M. Patrick**, area supervisor, Denver ARTCC.

■ **Michael S. Turner**, area supervisor, Denver ARTCC.

■ **Arthur G. Wadlen**, supervisor, Radar/Automation Section, Maintenance Branch, Airway Facilities Division.

■ **Joseph F. Woodford**, area manager, Seattle-Tacoma, Wash., Tower, from the Air Traffic Division.

■ **Ralph A. Wozniak**, manager, Spokane, Wash., Tower, from the Salt Lake City ARTCC.

■ **Mark A. Gudod**, manager, Worcester, Mass., Tower, from the Boston Tower.

■ **Ronald E. Johnson**, area manager, Bradley Airport Tower, Windsor Locks, Conn., from Branford Tower, Hartford, Conn.

■ **Nils B. Anderson**, area supervisor, Tallahassee, Fla., Flight Service Station (FSS), from the Pensacola, Fla., FSS.

■ **John H. Brooks**, assistant manager for program support, Miami ARTCC AF Sector, promotion made permanent.

■ **Jack D. Bush**, supervisor, NavCom Unit, Gulfport, Miss., AF Sector Field Office, Jackson, Miss., AF Sector.

■ **Justo P. Casablanca-Garcia**, area supervisor, Pensacola Tower, from the San Juan, Puerto Rico, CBRAP.

■ **Eugene P. Cope**, supervisor, Traffic Management Unit, Jacksonville, Fla., ARTCC.

■ **Felix J. Enriquez**, unit supervisor, Miami ARTCC AF Sector, promotion made permanent.

■ **Michael M. Gionble**, area supervisor, Melbourne, Fla., Tower, promotion made permanent.

■ **Jose A. Garcia**, area supervisor, Miami ARTCC, promotion made permanent.

■ **Emmanuel Green, Jr.**, group supervisor, Procurement Branch, Logistics Division.

■ **Ronald J. Helmke**, area manager, Anderson, S.C., Automated FSS, from the Florence, S.C., FSS.

■ **Richard A. Jehlen**, assistant manager for automation, Miami ARTCC.

■ **Dell T. Jernigan, Jr.**, manager, Planning & Development Branch, Airports Division.

■ **George E. Mattern**, manager, Ft. Lauderdale, Fla., Flight Standards District Office, from the Flight Standards Division.

Retirees

AERONAUTICAL CENTER
Malcolm E. Farbusch
Bruce F. McGabec
Norman L. Payne
Donald E. Robertson
Howard D. Swanson

ALASKAN REGION
Richard Griffin

CENTRAL REGION
Norbert J. Basar
William M. Diehl
Charlotte J. Lande
Jerry L. Wallis

EASTERN REGION
Donald E. Anders
Elson C. Bind, Jr.

John H. Dester
Ramona L. Harmon
Thomas E. Heller
Richard H. Jenkins
Steve T. Kildomas
Charles H. Moyer
Charles W. Parker
Robert L. Peck
Walter E. Wert

GREAT LAKES REGION
Gary R. Bennett
Robert B. Burchall
Virginia A. Christ
Warren R. Heidemann
Henry R. Healy
Lester R. Johnson

SOUTHERN REGION
Kenneth W. Anderson
Alice B. Bachman

Armad A. Michael
William E. Nash
Harold E. Greer
Martin R. Lamb III
James R. Lindsey
John Makin, Jr.
Harry W. Massau
Walter J. McEive
Arminia B. Oates
Melvin F. Robertson
Jack E. Wilkes

NORTHWEST MOUNTAIN REGION
Preston E. Dickson
Chester D. Hewes
JoAnn E. Kinball
Robert W. Macey
Raymond E. Versaw

SOUTHWEST REGION
Kenneth W. Anderson
Alice B. Bachman

■ **Michael L. Pritchard**, area supervisor, Midland, Texas, Tower, from the Houston Intercontinental Tower.

■ **Stephen L. Serpio**, area supervisor, Comstock, Texas, Automated FSS.

■ **Richard W. Simmons**, assistant manager for technical support, San Antonio AF Sector, from the AF Division.

■ **Donald R. Smith**, area supervisor, Albuquerque ARTCC.

■ **Larry M. Uterback**, area supervisor, Albuquerque ARTCC.

■ **Stephen P. Van Sickle**, area supervisor, Albuquerque ARTCC.

■ **James L. Webb**, area supervisor, Houston ARTCC, promotion made permanent.

■ **Wayne M. Brodd**, area supervisor, Hobby Airport, Houston, Texas, from Houston Intercontinental Airport.

■ **Jimmy B. Brown**, area supervisor, Albuquerque ARTCC.

■ **Joe P. Carrigan**, manager, Addison, Texas, Tower, from Little Rock, Ark.

■ **James A. Caudle**, manager, Operations Branch, Air Traffic Division, from the Air Traffic Operations Service's Executive Staff.

■ **Janel Childree**, area supervisor, Houston ARTCC, from the Fort Worth ARTCC.

■ **Frank L. Clausen**, supervisor, Traffic Management Unit, Houston ARTCC.

■ **John C. De LaRosa**, manager, Santa Fe, N.M., Airway Facilities Sector Field Office (AFSFO), Albuquerque AF Sector, from the San Antonio, Texas, AF Sector.

■ **Douglas E. Felix**, area supervisor, Houston ARTCC, promotion made permanent.

■ **Steven F. Juricek**, supervisor, Environmental Support Unit, Houston ARTCC AF Sector, promotion made permanent.

■ **Gary A. Postlewait**, area supervisor, Albuquerque ARTCC.

■ **Charles P. Potts, Jr.**, area supervisor, Fort Smith, Ark., Tower, from the Albuquerque Tower.

TECHNICAL CENTER
Donald J. Laurelli
John C. On
Melvin Rosenbaum
William J. Emsmann
Robby T. Jones
Eddie McIntosh
Mike Mogg
Robert S. North
Lyndon D. Parrish
Marion E. Pitzer
Alphonse G. Santarelli

WASHINGTON HEADQUARTERS
Lyke L. Adams
Richard L. Adams
Roy A. Constantineau
James C. Drisk
William V. Emsmann
Robby T. Jones
Eddie McIntosh
Mike Mogg
Robert S. North
Lyndon D. Parrish
Marion E. Pitzer
Alphonse G. Santarelli

WESTERN-PACIFIC REGION
June T. Anderson
Ulana B. Cook
John O. Eard
Alton R. Holsley
Ray D. Hughes
Lois H. Karrant
Lawrence H. Kruse
Helen J. Monk
Gene L. Orjanita
Douglas D. Palquist
Joe R. Partridge
Alfred C. Pater
Jean P. Roger
Lawrence E. Ward

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

Western-Pacific Region

■ **John S. Andrews**, supervisor, Flight Data Section, Oakland, Calif., ARTCC, promotion made permanent.

■ **Dennis R. Beres**, manager, Santa Maria, Calif., Tower, from the Honolulu Tower.

■ **Nick Boyiazis**, manager, Program and Planning Branch, Airway Facilities (AF) Division.

■ **Thomas E. Carman**, area manager, Los Angeles TRACON.

■ **Beverly J. Clark**, manager, Ukiah, Calif., Flight Service Station (FSS), from the Riverside, Calif., Automated FSS.

■ **Norman L. Crews**, area supervisor, Bakersfield, Calif., Tower.

■ **Robert G. Fahrenbruch**, manager, Elko, Nev., FSS, from the Reno, Nev., AFSS.

■ **Robert A. Gore**, area supervisor, Los Angeles Tower, from Bratley International Airport Tower, Windsor Locks, Conn.

■ **Lee S. Longmire**, manager, Civil Aviation Security Division.

■ **Harry L. Marks, Jr.**, manager, Molokai, Hawaii, Tower, from the Honolulu Tower.

■ **Harvey R. Riebel**, area supervisor, Ontario, Calif., Tower, from the Los Angeles Tower.

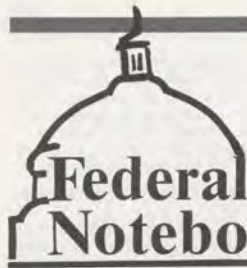
■ **Gregory F. Smith**, area supervisor, Oakland TRACON, from the San Francisco Tower.

■ **Peter P. Tarasiewicz**, assistant manager, San Diego, Calif., AF Sector, from AF Div.

■ **Harvey H. Theiss, Jr.**, supervisor, Environmental Support Unit, Las Vegas, Nev., AF Sector Field Office, Phoenix, Ariz., AF Sector, promotion made permanent.

■ **Donald H. Vernon**, area supervisor, San Jose, Calif., Tower, from Oakland ARTCC.

■ **Calvin Yuen**, unit supervisor, San Francisco Civil Aviation Security Field Office, from Civil Aviation Security Division.



Federal Notebook

FUNDING CUT FOR PAY DEMO PROJECT

The five-year FAA pay-demonstration program for hard-to-fill safety-related positions (see *FAA World*, December 1988, p. 2), which was approved by the Office of Personnel Management (OPM), has been whittled way down by a House appropriations subcommittee. What was to have been in place at 11 locations in June has been cut to two facilities—Chicago O'Hare tower and the Chicago ARTCC—and will be limited to two years.

LUMP SUM STILL A ?

The Administration corrected an error in its budget proposal, saying that it was requesting the end of the lump-sum annuity payment effective July 1. With time so tight, it's seen more likely (take your choice) that Congress will act to terminate the benefit with the beginning of the fiscal year on October 1 or to extend the 60-40 split payment for another year, or spread it to 50-50 or over three years. If Congress does nothing, the entire lump sum would be paid at retirement beginning October 1.

PAY UPS AND DOWNS

Another negative for pay for the time being is that the Administration is seeking to boost the pay of federal

judges but isn't asking for raises for executive-level employees.

The White House and the House Budget Committee have reached a tentative agreement to give general schedule employees the same raise next January as military personnel—3.6 percent instead of two percent. As it stands, it has been suggested that agencies would have to come up with only 22 percent of the raise's cost. In the Senate, language has been inserted in its pay plan calling for equal pay increases for civilian and military employees.

DEPT. OF LITTLE-KNOWN FACTS

A growing number of retirees are up in arms about a matter of taxation without representation. Unfortunately, tea chests are not involved. As many as 39 states have laws on the taxation of non-resident annuities. Only a year ago, there were only five. The basis is that you earned the annuity in the state, even if you haven't been a resident since you drew your first annuity check. California has even hired collection agencies to track down erstwhile employees.

Two Nevada senators and one representative have introduced bills (S.434 and H.R.1227) to bar the practice, and bills are underway in the California and New Jersey legislatures.

HATCHING AN ACT

H.R.20 to permit federal employees to participate in partisan politics passed the House overwhelmingly, but the weaker Senate version (no running for office) at this writing had only 20 sponsors and administration officials are recommending a veto. The Senate bill would need 47 more votes to make it veto-proof.

THE HEALTH INSURANCE SCENE

• Congress and the administration are looking into revamping the much-maligned Federal Employee Health Benefit (FEHB) Plan with a view to drafting legislation this year for passage next year. Nearly every employee group and insurance company has expressed its opinion, and Congress will view the recommendations in studies by the Office of Personnel Management and the Congressional Research Service.

Already in their hands is one by the Urban Institute, which believes that reforms could cut premiums while permitting employees the choice of a fee-for-service plan with high and low options or, depending on location, health maintenance organizations.

Unions with health plans are not anxious to lose their associate members—those who belong only for the health plan. The National Treasury Employees Union has suggested a free basic health plan, with employees able to purchase additional benefits through employee groups like the unions.

In general, the recommendations are expected to revolve around reducing the hundreds of health plans to one or a very few.

• Meanwhile, the hubbub over the cost of catastrophic coverage under Medicare has prompted Congress to take a new look at its surtax financing provisions. The House voted 408 to 0 and the Senate 97 to 2 for an amendment to the minimum wage bill that called for hearings this year. There are also bills to that effect—Sen. John McCain's (R-Ariz) S.335 and Rep. Peter DeFazio's (D-Ore) H.R.1564. There are 16 other bills that have been introduced to reform or repeal the catastrophic law, with 214 members signed on to one or more of them as co-sponsors.

U.S. Department
of Transportation

**Federal Aviation
Administration**

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