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TNA

High-Tech Bomb Detector Debuts in New York

It traveled more than 2,200 miles—from Santa Clara, CA, to New York City—under deep cover. That cover was a Bekins Van Lines truck, where it was shielded from nicks and dents by padding that is more accustomed to protecting furniture than the latest in explosives detection technology.

The transcontinental shipment was the first production model of the thermal neutron analysis (TNA) system, an automated, highly sensitive device developed to screen checked luggage for explosives. Its destination was a specially constructed, prefabricated building adjacent to the Trans World Airlines international terminal at New York's John F. Kennedy airport.

Given the significance of the event—the arrival of the first operational TNA

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This big moving van crossed the country with its valuable cargo—the Thermal Neutron Analysis bomb detector—which was installed at New York's JFK Airport this summer. Initially, FAA requires these machines at 40 international airports. TNA's computer software (inset) searches for specific combinations of atomic elements that characterize explosives.

In This Issue

This youngster is having a ball at a Great Lakes Region day care center. More on page 8.

'Nothing Like a Calm, Soothing Voice'

The Amazing Saga of United Flight 232

Using his own description, Sioux City controller William Kevin Bachman is no hero.

When describing his actions in vectoring the ill-fated United Airlines flight 232 for an emergency landing at the Sioux City Airport on July 19, the 27-year-old FAA controller said, "I just basically did my job and concentrated on helping out as much as I could."

At a news conference in FAA Washington Headquarters one month after the tragic accident, Bachman added: "I would like to think that all 12,000 controllers would have been ... I mean, that's just it: you do your job. Throughout the system, everyone would have handled it the same way."

However, the pilot-in-command of UAL flight 232, Captain Alfred Haynes, was a bit more effusive in his praise of the controllers at the Minneapolis air route traffic control center and the Sioux City tower who tried desperately to guide the stricken DC-10 down to a safe landing. He singled out Bachman for special mention:

"There is nothing like a calm, soothing voice talking to you, giving the information you want to know. The gentleman [Bachman] was right on the money with everything we wanted to know—very calm, very professional. And I want to make sure the controllers' names get mentioned, because they certainly deserve a lot of credit for keeping us calm and getting us there."

Bachman's involvement with UAL 232 began at 3:23:18 p.m. on July 19 and would last for 33½ tension-filled minutes. Captain Haynes had declared an emergency after suffering an in-flight explosion in the number two (center) engine and advised the Minneapolis center controllers that he wanted to divert to the Sioux City Airport. Center controllers paved the way with an initial call up to the Sioux City (SUX) tower:

Sioux City, got an emergency for you ... I've got a United aircraft coming in. Lost number two engine. Having a hard time controlling the aircraft. Right now he's out of 29,000 and descending to Sioux City. He's east of your VOR, but he wants the equipment standing by right now.

The Sioux City tower quickly organized to handle the emergency. As the radar approach controller, Bachman became the point man in the exercise.

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TNA

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unit in the accelerated war against terrorism—some ceremony would have seemed appropriate. However, it was 8:30 on a Monday morning (August 14), and, probably, no one was feeling very ceremonial.

Instead, the TNA equipment was handled like any other cargo delivery to JFK that day. The Bekins truck rolled up to the TWA terminal, stopping 50 feet short of the TNA building because of a clearance problem with an elevated passenger walkway.

Then, under the watchful eyes of the installation team from the California manufacturer, a forklift moved in and took out the first of six modules that make up the unit. They removed the padding, unbolted the module from the pallet and then—very carefully—gave directions to the forklift operator as he eased the module through the door.

As soon as all six modules were inside, team members began the job of integrating the modules and checking out the unit. They started running baggage through the machine for calibration purposes on August 21 and the unit went operational on September 5.

The JFK scenario was a preview of one that will be played out at numerous airports in this country and abroad in the next several years as a result of a new FAA rule announced on August 30, 1989. The rule gives FAA the authority to require approved explosives detection systems for screening checked luggage at all airports handling international flights by U.S. air carriers over the next five years.

Initially, FAA will require the devices at approximately 40 airports in this country and abroad. Additional airports could be added to the list following the initial deployment but only after the airlines have been given notice and an opportunity to comment. The agency emphasized that expansion of the bomb detection requirement would be done on a case-by-case basis with cost-benefit considerations a major determining factor.

Although the rule does not specifically require the use of a particular bomb detection system, it concedes that TNA is the only currently available technology that meets the FAA performance requirements. Simply stated, these requirements are that the equipment be automated, detect defined quantities and configurations of agency-defined explosives and be safe for operators and baggage.

Wrapped in protective blankets, part of the thermal neutron analysis machine gets a ride on a forklift (top photo) as it nears its ultimate destination—the TWA terminal at New York's Kennedy Airport.

Workmen figure out moving strategy before a section of the high-tech device is placed in a specially constructed building.

TNA was developed for FAA under contract by Science Applications International Corporation (SAIC). It works by bathing luggage in low-energy thermal neutrons that interact with the contents to produce distinctive gamma rays. A computer then analyzes the gamma rays and triggers an alarm when the possible presence of explosive materials is detected. All functions are performed automatically in keeping with the FAA's goal of eliminating the factor of human error from the screening process.

Work on TNA has been underway for more than a decade. It is as an outgrowth of a technology being used to measure the elemental composition of such materials as coal. However, initial efforts to adapt the neutron/gamma ray phenomenon for screening checked luggage for explosives were disappointing.

SAIC was then selected by a competitive process to refine the design and reduce the overall screening time. The company built two prototypes, one using an electronic neutron source and the other using the element Californium-252 as the neutron source.

The prototypes were extensively tested at both the Los Angeles and San Francisco airports in late 1987 and early 1988. More than 40,000 pieces of passenger luggage were screened during the tests, with a 95 percent detection rate. The false alarm rate was only 4 percent.

The JFK system is one of six field test units ordered from SAIC. The original contract in the fall of 1988 called for five units to be delivered over a two-year period. However, the agency increased the order to six after Pan American Flight 103 was destroyed on December 21, 1988, with the loss of 270 lives, by what is believed to have been plastic explosives hidden in a radio/cassette player. The delivery schedule also was accelerated by six months, and a decision was made to go operational with the devices.

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.

After being placed at Kennedy Airport, the bomb detecting device was extensively inspected, tested and calibrated before it was put into operation.

Moving day shows the many pieces of the machinery beginning to take shape (top and bottom photos). Before this machine was built, several prototypes were tested at San Francisco and Los Angeles airports. More than 40,000 bags were screened.

Other U.S. airports scheduled to receive the FAA-funded TNA equipment for operational testing are Miami, Detroit and Washington's Dulles Airport. The two remaining units will go overseas to London's Gatwick and Germany's Frankfurt airports.

The TNA device is not dainty. It is 13 feet long, 6 feet high, 8 feet wide and weighs in at 10 tons. A conveyor belt takes luggage past the heavily encapsulated neutron source at a rate of 600 pieces an hour.

If there is no alarm, the luggage continues out the other end of the device and goes into the baggage makeup area ready for loading. A bag that has triggered an alarm, on the other hand, gets a check by a new type of computerized X-ray machine that an attendant will use to determine if the suspect bag is harmless or needs more detailed examination.

TNA equipment is not cheap either. The basic TNA unit price is approximately $7,500,000, and the associated X-ray device costs another $150,000. Added to this are expenses such as special housing, if needed; repair and maintenance; and operator training.

Volume production, however, is expected to bring the TNA cost down to the $500,000 range by 1992 and the X-ray equipment down to the $125,000 range. Competition also should help make the equipment more affordable as other companies join SAIC in the production process.

FAA expects 50 TNA units will be deployed by the end of 1990 and 150 by the end of 1991, achieving close to the 100 percent coverage at the 40 airports targeted by FAA for the initial implementation phase. If the agency exercises the option of requiring TNA at all airports handling U.S. international flights, the number could be as high as 860 by the end of the 1990s.

FAA officials believe that TNA will prove an effective new weapon in the battle against aviation terrorism, but their enthusiasm is tempered by the knowledge that there is no single solution to this on-going problem. This view was expressed by FAA's Associate Administrator for Aviation Standards Monte Belger in July before the Overseas Security Council.

"Although the current TNA technology has some limits and by no means eliminates the need for other security measures," Belger said, "it is the best technique available to detect 'hard-to-detect' plastic explosives."

The battle continues. ■

Experience Shows

Rayburn New to New England, Not to FAA

By Pat Tomasetti

Pat Tomasetti is a writer/editor in the Office of Public Affairs. She also works on the Headquarters Intercom.

Her career has been filled with awards, rewards and recognition with opportunities for more to come. So it wasn't a half-bad decision that Carol Rayburn made thirty-some years ago while still in grade school to pursue a profession related to aviation. "By the seventh grade, I knew I wanted to make flying my career," she said.

But for her, flying was only the beginning to a career in aviation. Today she manages the New England Region's Flight Standards Division, a complex organization that encompasses at least five branches at regional headquarters in Burlington, MA, as well as three Flight Standards district offices and one Flight Standards field office.

Her selection as manager of the New England division is a move to a different level of management for Rayburn. In the operational arena of the aviation field, women in high-level management positions are still rare. Currently, Rayburn is the only female regional Flight Standards Division manager, and there have been few, if any, before her.

As for the responsibilities of her new job, Rayburn likens it to being "a middleman." She serves as a conduit for channeling policy from developers to implementors, for exchanging information among units and for interpreting effects of Flight Standards programs and policies in the region.

The division, she said, is responsible for "all operational matters and airworthiness matters that relate to the continuing airworthiness of aircraft," in the New England Region. It deals with air safety programs relating to certification and surveillance of air carriers, commercial and general aviation operators, airmen, training and aircraft.

Rayburn's training in the aviation field began years ago. Getting her private and commercial pilots' certificates and flight instructor certificate before she was 20 was a reflection of her own and her family's interest in the field. Her father had been a pilot in World War II and, once back in civilian life, used an airplane in conjunction with the family's farming operation in Hurley, SD, for several years.

Rayburn recently moved to New England as the Federal Aviation Administration's Flight Standards Division manager in that region.

Her mother also took flying lessons, although never earning a certificate, and one of her brothers is still a pilot in the Air National Guard. A second brother was a professional pilot for several years before changing to a farming career.

Between stints at South Dakota State University in Brookings, Rayburn flew for agricultural operators, taught flying, worked as an air taxi pilot and, under contract to the Forest Service, seeded thunderstorms, flew fire patrols and moved smoke jumpers to fight forest fires.

After graduation, Rayburn worked in Montana and northern California before joining the FAA Denver regional office in 1974 as an aviation statistical assistant. From Denver, she moved with FAA to Salt Lake City, where she spent several years as an aviation safety inspector (operations), with part of that time as principal operations inspector.

In 1981 Rayburn accepted a job in the Washington Headquarters General Aviation and Commercial Division and the following year moved to California as the manager of the Fresno General Aviation District Office (GADO).

Promoted to assistant manager of the Western-Pacific Region Flight Standards Division in 1984, Rayburn returned to Washington in 1985 as manager of the General Aviation and Commercial Division, which, in her words, was "responsible for regulations and operational guidance that pertain to pilot certification and all types of aviation operations, with the exception of air taxis and air carrier operators."

As manager of the General Aviation and Commercial Division in 1985, Rayburn presents the Administrator's Distinguished Service Medal to Wayne Sharp, an attendant at Half Moon Bay Airport, CA, for his rescue of three people in a general aviation crash.

In the Salt Lake City Flight Standards District Office in 1979, Rayburn was the first woman inspector to be assigned as a principal operations inspector to a company operating large carrier-type aircraft—Key Airlines.

Another highlight of Rayburn's career happened in 1985, when she became the first FAA woman employee to enter the Senior Executive Service.

Then in 1988, she became Assistant to the Director for Special Programs in the Flight Standards Service. Primarily working on Project SAFE (Safety Analysis, Function and Evaluation), she participated in the "rebuilding of the Flight Standards program." This involved rewriting handbooks, compiling new position descriptions and a general revamping of the Flight Standards system.

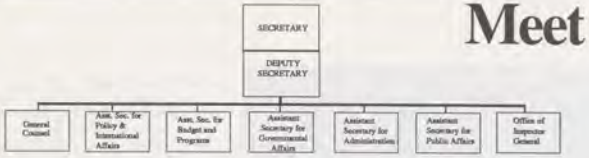
Rayburn's interest in aviation has never been confined to the workplace, as is attested to by her 6,400-plus hours of flying time. She is a long-standing and "quite active" member of the Ninety-Nines, Inc., an international organization of women pilots with a roster of 6,500. Rayburn describes the program of the 60-year-old organization as promoting aviation through education, local activities and providing scholarship opportunities for women. She has also belonged to various other organizations that keep members informed about what is going on in the aviation industry—the National Aviation Club in Washington, for example.

Looking ahead but speaking from years of experience, Rayburn singles out avionics as being vitally important to the future of aviation because of the growing complexities. This combination of *aviation* and *electronics* relates to the development, production and continuing maintenance of electrical and electronic devices for aviation.

Talking about another interest, the quality of training for those entering or working in the aviation arena, Rayburn points to the increase in related training over the past 15 years provided by universities, community colleges and the airlines. She terms military training in the field as "excellent" and emphasizes its piloting, avionics and maintenance focus.

Whether looking to the future or explaining the past, one thing is obvious—Rayburn knows a lot about her field. ■

Meet DOT's Execs



Samuel K. Skinner
Secretary of Transportation

Samuel Skinner, the 10th Secretary of Transportation, was previously the chairman of the Regional Transportation Authority of Northeastern Illinois, a member of the Department of Justice White-Collar Crime Committee and a member of the U.S. Attorney General's Advisory Committee. He graduated from the University of Illinois in 1960 and later received a law degree from DePaul University College of Law.

Elaine L. Chao
Deputy Secretary of Transportation

Elaine Chao was formerly Chairman of the Federal Maritime Commission in Washington, DC, Deputy Administrator of the Maritime Administration, a banker with Citibank, N.A., Vice President of Syndications for BankAmerica Capital Markets Group. Chao is the highest ranking Asian-American to serve in the federal Executive Branch.

Phillip D. Brady
General Counsel

Before joining DOT, Phillip Brady worked as Deputy Assistant to the President, Director of Cabinet Affairs and Deputy Assistant to the Vice President. Brady has also worked for the California Department of Justice and as an Associate with Spray, Gould and Bowers in Los Angeles. He received his bachelor's degree cum laude from the University of Notre Dame and his J.D. cum laude from Loyola University School of Law.

Jeffrey N. Shane
Policy and International Affairs

A graduate of Princeton University and Columbia University School of Law, Jeffrey Shane was Deputy Assistant Secretary for Transportation Affairs with the State Department and Deputy Assistant Secretary for Policy and International Affairs and Assistant General Counsel for International Law with DOT.

Kate L. Moore
Budget and Programs

Formerly a consultant in the Office of Policy Development of the Executive Office, Kate Moore was named the Assistant Secretary of Budget and Programs. She graduated from Yale University with a bachelor of arts degree and earned a master's at Stanford Graduate School of Business. Moore was Deputy Director for Planning in the Office of Policy Development for the President-Elect, Deputy Director of Domestic Policy for Bush-Quayle '88 and Media Coordinator for the Reagan-Bush Committee in 1980.

Galen J. Reser
Governmental Affairs

Before becoming the Assistant Secretary for Governmental Affairs, Galen Reser worked as Director of the office of Illinois State Governor James R. Thompson in Washington, DC, Director of Legislation and Projects and Director of Illinois Projects in the office of Senator Charles Percy. He graduated from Bradley University School of Arts and Humanities in 1973.

Jon H. Seymour
Administration

Jon Seymour became the Assistant Secretary for Administration in 1985, after two years as Deputy Assistant Secretary for Administration. He graduated from the University of Virginia with a bachelor of arts degree and received a master's of public administration from the University of Washington.

David P. Prosperi
Public Affairs

David Prosperi, was chosen Assistant Secretary for Public Affairs after working as the Deputy Press Secretary for the Office of then President-Elect Bush. A veteran of the presidential campaign trail, Prosperi was Dan Quayle's press secretary and press aide for the 1980 Ronald Reagan campaign. Later he served as Director of Public Affairs at the Department of Interior.

John W. Melchner
Inspector General

John Melchner began his government service in 1961 as an Air Force lieutenant. In 1981 he was named Deputy Assistant to the Secretary of Defense for Audits and was awarded the Paul R. Boucher Annual Public Service Award for his exceptional performance in fighting fraud and waste. He became the Inspector General for DOT in 1986.

Crash

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But he had plenty of help from supervisor Mark Zielezinski, who took over the radar handoff position; Jim Weifenbach, who was working the second radar position; Chuck Owings on local control; John Bates on flight data; and Dale Mleynek on ground control. Overseeing it all was facility manager Terry Dobson.

Bachman quickly zeroed in on the United target, and at 3:23:39 he advised Minneapolis that he had "radar contact." Meanwhile, the Minneapolis center continued to talk with the flightcrew of the stricken DC-10. At 3:25:09, it advised Sioux City:

He's having a hard time controlling the plane right now and trying to slow down and get steady on a heading. As soon as I get comfortable, I'll ship him over to you, and he'll be your control.

A minute later, UAL 232 made its initial call to Bachman:

Sioux City approach. United Airlines 232 heavy with you out of 26. Heading right now is two, nine, oh, and we've got about a 500-foot rate of descent.

Bachman responded with the Sioux City weather and altimeter setting and gave the captain a heading of 255 degrees for vectors to a visual approach to the 9,000-foot runway 31. A few seconds later, he learned the full extent of the DC-10's problems:

Okay, so you know we have almost no control ability, very little elevator and almost no aileron. We are controlling the turns by power. I don't think we can turn right, but I think we can only make left turns. We are starting a little bit of a left turn. I mean we can only turn right, but we can't turn left.

Bachman then sought and received confirmation that the aircraft could make only right turns and advised the pilot:

Roger. Your present tracks put you eight miles north of the airport, sir, and the only way we can get you around to [runway] ***three one is a slight left turn with differential power or, if you can, like jockey it over.***

The flightcrew responded: ... ***we'll be able to make very slight left turns on final but right now just going to make right turns to whatever heading you want.***

But the UAL 232 situation continued to deteriorate. At 3:32:22, it radioed the tower:

We have no hydraulic fluid, which means we have no elevator control, almost none, and very little aileron control. I have serious doubts about making the airport. Have you got some place near there that we might be able to ditch? Unless we get control of this airplane, we're going to put it down wherever it happens to be.

Kevin Bachman listens to questions during Washington, DC, press conference.

But three minutes later, the flightcrew had regained some control and confidence after being told it was "about 12 o'clock and 36 miles" from the airport. The pilot said:

Okay, we'll head for Sioux City. We got a little bit of control back now ...

Still the pilot was having extreme difficulty holding his heading and at 3:36:53 told the tower:

We are just going to have to keep turning right. Not much we can do about left. We're going to have to come back around to the heading.

Again, at 3:40:06, he reported: ***Okay, we're trying to control it just by power alone now. We have no hydraulics at all so we're doing our best here.***

And at 3:43:02: ***We're going to have to continue one more right turn. We've got the elevators pretty much under control within three or four hundred feet, but we still can't do much with the steering.***

Meanwhile, tower personnel had notified the airport crash rescue team and advised the flightcrew. UAL 232 still was 33 miles northeast of the airport, and both the flightcrew and the tower crew continued to look for alternative landing sites.

President Bush greets Bachman during a recent visit to the White House. The President praised the Sioux City controller and the crew of flight 232 for their aviation professionalism.

At 3:44:17, the controller advised that there were "a couple of really small airports out in the aircraft's vicinity." He cited one with a 4,200-foot runway about 15 miles east of the aircraft's position and another seven miles dead ahead with a 4,000-foot runway.

But the UAL crew now was determined to make the Sioux City Airport if at all possible. At 3:46:09, it told the tower:

We're starting a left turn back to the airport. Since we have no hydraulics, braking is really going to be a problem. We suggest the [fire and rescue] ***equipment be towards the far end of the runway, and I think, under the circumstances, regardless of the condition of the airplane when we stop, we're going to evacuate so you might notify the ground crew equipment that we're going to do that.***

Bachman acknowledged and told the pilot to continue the left turn to about a 220-degree heading, and that would take him "right to the airport."

Over the next five minutes, the flightcrew and the tower crew worked together to keep the aircraft on course for the airport. At 3:51:08, Bachman advised that the airport was dead ahead at 21 miles. Then, he added:

You are going to have to widen out just slightly to your left, sir, to make the turn to final and also to take you away from the city.

The pilot responded: ***Whatever you do keep us away from the city.***

Meanwhile, the Sioux City tower crew continued to search for possible emergency landing sites as a back-up. At 3:53:02, with the aircraft some 17 miles northeast of the airport, Bachman advised the pilot of "a four-lane highway up in that area."

The flightcrew's response was: ***Okay, we'll see what we can do here. We've already put the gear down, and we're going to have to put it down on something solid if we can.***

Time now was running short, and at 3:54:38, UAL 232 reported:

We've got about three or four minutes to go, it looks like.

But the issue was still in doubt, and at 3:55:20, Bachman told the pilot:

The airport is about 18 miles southeast of your position about two twenty on the heading, but we're going to need you southbound, away from the city first if you can hold a one eighty heading.

At 3:57:29, the pilot reported that he was "starting down a little bit" and added that he had "a little better control of the elevator." The airport was now dead ahead at 13 miles, but the tower crew continued to worry about the outcome and advised the pilot:

If you cannot make the airport, sir, there is an interstate that runs north to south to the east side of the airport; it's a four-lane interstate.

But the pilot responded: ***We're just passing it right now; we're going to try for the airport.*** The die was cast.

At 3:58:20 (UAL): ***Have runway in sight; we'll be with you very shortly. Thanks a lot for your help.***

At 3:58:23 (SUX) : ***The wind is currently three, six, zero at one one three sixty at eleven. You're cleared to land on any runway.***

At 3:58:30 (UAL, with laughter): ***You want to be particular and make it a runway, huh?***

At 3:58:49 (SUX) : ... ***There is a runway that's closed, sir, that could probably work, too. It runs northeast to southwest.***

At 3:58:59 (UAL): ***We're pretty well lined up on this one, or we think we will be.***

At 3:59:06 (SUX): ***That's a closed runway that will work, sir. We're getting the equipment off the runway, and they'll line up for that one.***

At 3:59:14 (UAL): ***How long is it?***

At 3:59:20 (SUX): ***Sixty-six hundred feet ... six thousand, six-hundred, and the equipment is coming off.***

At 3:59:33 (SUX): ***At the end of the runway, it's just a wide open field, sir, so the length won't be a problem.***

At 3:59:37 (UAL): ***Okay.***

That was the last transmission from the UAL 232 flightcrew. At 3:59:45, the tower tape records the sound of the ground proximity warning horn and a mechanical voice saying, "Pull up ... pull up."

Television network camera crews and aviation reporters jammed an FAA Headquarters press conference to listen to the tower tapes from United flight 232 and hear Kevin Bachman tell his story. Bachman told reporters he wept after the plane crash landed.

The tower crew watched in horror as the DC-10 cartwheeled across the field in what seemed like a completely unsurvivable accident. Yet, through some miracle, 185 of the 296 "souls on board" survived.

Although the tower continued in operation to handle emergency and news media flights, Bachman was left emotionally drained by the experience. As he told reporters at the Washington news conference: "Right after it happened I had to turn away because I really didn't think anyone would come out of it. Then I went downstairs and cried." ■

Little remained of the DC-10 after it crash landed at Sioux Gateway Airport on July 19.

End of an Era in New England

Air traffic control specialist Roger Wilson gives school children one of the last tours at the Lebanon Flight Service Station.

Material for this article and photograph were furnished by Bill Miner, Air Traffic AFSS associate program manager for the New England Region.

The New England Region has closed out another chapter in the long history of FAA flight service stations.

At the stroke of midnight, July 15, it became the first region to be consolidated into an exclusively Automated Flight Service Stations (AFSS) network. It achieved that distinction by decommissioning the region's last "old-style" FSS at Lebanon, NH, and consolidating that operation into the Bangor, ME, AFSS.

Air traffic control specialist Tom Halligan had the honor of giving the last weather briefing from the Lebanon FSS and also accepting the last IFR flight plan at 11:45 p.m. on Saturday, July 15. The flight plan was filed by Charles A. Lindeberg, which is close enough to the name of famed transatlantic flyer, Charles A. Lindbergh, to add a historical footnote to the closing. (No, Mr. Lindeberg was not flying to Paris but was returning to Nashua, NH.)

For the Lebanon FSS, it was the end of almost half a century of providing continuous service to the flying public. The facility was commissioned at the Lebanon airport in 1942 and has been operating out of the same building since 1951.

The closing of the Lebanon FSS was another milestone for the New England Region in its role as a pacesetter for the AFSS program. The region also presided over the first FSS consolidation in connection with the AFSS program on March 3, 1984. That was the merger of the Boston and Windsor Locks FSSs into the Bridgeport, CT, AFSS. It also was the first to have all of its AFSSs operational with model 1 equipment.

New England currently provides flight services to pilots in the six-state area from three AFSS locations. They are Burlington, VT, Bridgeport, and Bangor. ■

The Children's Hours

Child care may be the workplace issue of the '90s.

Anyone who followed the last Presidential campaign knows that it's already a hot political issue. Both candidates took strong positions on the matter.

And Transportation Secretary Samuel Skinner and FAA Administrator James Busey have followed President George Bush's lead and voiced support for day care as well. For example, Busey has called child care one of his "major concerns and commitments."

Actually, FAA has been something of a pace setter in this area among government agencies. The Washington Headquarter's day care facility has been in operation since 1985 and currently has 81 children enrolled.

Wendy Baldwin, the center's assistant director, is proud of the fact that it is able to meet the needs of working parents for quality day care.

"It's important to offer a place the children like," she said. "We try to provide a loving atmosphere for them to grow in and learn. It's also important to have a place where the children and parents feel it's safe."

The Seattle ARTCC and the Central Regional Office also provide child care facilities for employees in conjunction with the General Services Administration. In April ground was broken for a second FAA-participating facility in Kansas City. This summer facilities were opened at the Great Lakes Region Headquarters and the Technical Center.

The Great Lakes children's center held its grand opening on July 6 with a capacity to handle 80 preschoolers. However, the behind-the-scenes planning and preparation took more than a year with a small group of employees showing the way. Among other things, the group reviewed the many child-care options, solicited funds and space and, finally, selected a contractor to run the facility.

Pictures of children in the Washington Headquarters day care facility show some happy faces. It's a place that children and parents like because of the high-quality care it provides.

By Kristy Wooley

Kristy Wooley is a University of Maryland journalism student who worked in the FAA Headquarters Office of Public Affairs this past summer. She has been a regular contributor to FAA publications.

The facility at the FAA's Technical Center in Atlantic City opened its doors on July 24 after almost two years of planning and preparation. It accepts children of Technical Center and other federal employees, contractors or members of the New Jersey Air National Guard.

Like the other child care centers, the staff does more than just "babysit." They run a full range of structured activities such as teaching readiness skills, music, art, motor skills and outdoor playtime.

In addition to the five child care centers currently in operation, others are in the works. Janice Armstrong, Washington Headquarters coordinator of the child care program, says 12 of 29 additional locations identified as candidates for child care facilities have planning projects or follow-up studies underway.

Those that are actually well along include ones at the Alaskan Regional Office in Anchorage and the Oakland Air Route Traffic Control Center. In addition, the planned child care facility at the Aeronautical Center was recently funded, and a contract was let. Dallas-Fort Worth and Houston Air Route Traffic Control Center are working in a joint effort with DFW Airport and the City of Houston Aviation Department to establish a child care center.

In this day and age, Busey's "concerns and commitments" regarding child care centers are widely shared. ■

Child care instructors at the facility at the Technical Center are, from left, Missy Helm, Debra Mossbrook, Acilla Brewner, Director Karen Litchko, Melissa Barnaby, Dawn English and Margaret Keith.

The opening of the facility at the Technical Center attracted more than 200 visitors. "To know your child is getting the best care possible, and the convenience of getting that care in the same building that you work, gives a parent a peace of mind," said Patty Dollin an ACT-1 employee.

Pictured are the staff and facility of Willow Place Day Care Center serving the Seattle Air Route Traffic Control Center in Auburn, WA.

Central Region's Freddie Thompkins (second from left) helped break ground for an all-new day care facility in the Bannister Federal Complex in South Kansas City.

People

AERONAUTICAL CENTER

Billy L. Bunting, group supervisor, Line Maintenance Section, Atlanta FIFO, promotion made permanent ... **Forrest L. Carter,** unit supervisor, Radar Training Section, FAA Academy ... **Paul R. Chadderdon,** unit supervisor, Flight Operations/Scheduling Section Battle Creek, MI, FIFO, promotion made permanent ... **Carolyn S. Coy,** manager, Purchasing Branch, Acquisition Div. ... **Calvin C. Fox,** supervisor, Systems Management Section, Operational Systems Branch, Regulatory Support Div. ... **Michael L. McKenzie,** unit supervisor, Nav/Comm/Env Section, Airway Facilities Branch, FAA Academy, promotion made permanent ... **Larry L. Patterson,** unit supervisor, Flight Procedures/Inspection Section, Atlanta FIFO, from Oklahoma City FIFO ... **Janice E. Perry,** unit supervisor, Training Operations & Support Section, Training Methods & Operations Branch, FAA Academy ... **Charles R. Peters,** manager, Operations Branch, Headquarters Aircraft Management Staff, Aviation Standards National Field Office ... **Claude J. Schuldt,** unit supervisor, Revision & Development Section, Air Traffic Branch, FAA Academy ... **Philip R. Sherman,** manager, Support Branch, Acquisition Div.

ALASKAN REGION

Chandler D. Carter, unit supervisor, FSDO 03, Anchorage ... **Richard A. Ericson,** asst. manager for training, Anchorage FSS, from Air Traffic Div. ... **Eugene J. Wehe,** manager, Yakutat FSS, from Kodiak ATCT.

CENTRAL REGION

James E. Adelman, unit supervisor, St. Louis AFS, Bridgeton, MO ... **Ralph Chavez,** foreman, Field Maintenance Party, Kansas City, MO, Operations Technical Field Office, promotion made permanent ... **Abby L. Correll,** assistant manager for program support, Wichita, KS, AFS, promotion made permanent ... **Ronald W. VanPelt,** unit supervisor, Des Moines, IA, AFS.

EASTERN REGION

Frank R. Albert, unit supervisor, Washington AFS (ARTCC), Leesburg, VA ... **William H. Bennett III,** asst. systems engineer, Washington AFS (ARTCC), Leesburg, VA ... **Maurice B. Berberich,** asst. manager, plans & programs, Washington ARTCC, Leesburg, VA, from Washington Headquarters ... **Russell S. Brewer,** asst. systems engineer, Washington AFS (ARTCC), Leesburg, VA ... **David C. Burr,** unit supervisor, Teterboro FSDO, promotion made permanent ... **Raymond B. Connors,** systems engineer, Washington AFS (ARTCC), Leesburg, VA ... **Peter J. Forte,** asst. manager for technical support, Metro New York AFS, Garden City, from Airway Facilities Div. ... **Robert J. Franz,** asst. systems engineer, Washington AFS (ARTCC), Leesburg, VA ... **John C. Harder,** area supervisor, Norfolk ATCT, promotion made permanent ... **Darele E. Kennedy,** unit supervisor, Charleston AFSFO, Charleston, WV, AFS, promotion made permanent ... **Arthur Kish,** unit supervisor, Washington AFS (ARTCC), Leesburg, VA ... **Robert M. Kitson,** manager, Electronic Engineering Branch, Airway Facilities Div. ... **Carroll E. Koller,** unit supervisor, Washington AFS (ARTCC), Leesburg, VA ... **David M. Lattanzio,** unit supervisor, Washington AFS (ARTCC), Leesburg, VA ... **Vincent LePera,** ACDO manager, Pittsburgh FSDO, Coraopolis, PA ... **George F. Martel,** asst. systems engineer, Washington AFS (ARTCC), Leesburg, VA ... **Donald L. Rausch,** asst. manager, Metro NY AFS, Garden City ... **Bruce R. Robinson,** area supervisor, Washington ARTCC, Leesburg, VA ... **Edwin C. Satterfield,** asst. systems engineer, Washington AFS (ARTCC), Leesburg, VA ... **James W. Scanlon, Jr.,** manager, Clarksburg, WV, AFSFO, Charleston, WV, AFS, from Harrisburg AFS ... **Samuel W. Shelton,** area supervisor, New York ARTCC, MacArthur Airport, Islip ... **Robert G. Trauger,** asst. systems engineer, Washington AFS (ARTCC) Leesburg, VA.

GREAT LAKES REGION

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NEW ENGLAND REGION

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NORTHWEST MOUNTAIN REGION

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SOUTHERN REGION

Stephen P. Alogna, traffic management unit supervisor, Hampton, GA, ARTCC ... **Robert Berlucchi,** area supervisor, Miami International ATCT, promotion made permanent ... **Ellsworth F. Burch,** manager, Florence, SC, AFSFO, Columbia AFS ... **Fred Carroll,** asst. manager, traffic management, Hilliard, FL, ARTCC ... **Robert W. Chasse,** unit supervisor, Miami, FL, AFS (HUB), promotion made permanent ... **Nancy W. Collins,** supervisor, Services Section, Materiel Management Branch, Logistics Div., promotion made permanent ... **Clarence Crimm,** unit supervisor, Columbus, MS, AFSFO, Jackson AFS, from Meridian, MS ... **John S. Davis,** traffic management unit supervisor, Hampton, GA, ARTCC ... **Tommy L. Guillebeau,** manager, Augusta, GA, AFSFO, Columbia, SC, AFS, from Lincolnton, GA ... **Larry Hagan,** unit supervisor, Columbus, GA, AFSFO, Montgomery, AL, AFS, from Savannah, GA ... **Robert F. Head,** area supervisor, Bowman Field ATCT, Louisville, KY ... **George E. Ivey,** asst. manager, Raleigh, NC, AFS, promotion made permanent ... **Liesa A. Johnson,** supervisor, Resource & Evaluation Management Section, Safety Analysis & Resource Management Branch, Flight Standards Div., promotion made permanent ... **Richard E. Miller,** area manager, Tampa, FL, ATCT ... **Robert J. Morgan, Jr.,** asst. manager, Tampa AFS, from Birmingham, AL, AFSFO ... **Steven G. Rose,** unit supervisor, Miami AFS (ARTCC, promotion made permanent ... **Thomas Ruffin,** area supervisor, Macon, GA, AFSS, promotion made permanent ... **John R. Schroeter,** area supervisor, Jacksonville, FL, ATCT, from Atlanta Hartsfield ATCT ... **Barbara A. Shivers,** area supervisor, Fulton County ATCT, Atlanta, promotion made permanent ... **Paul T. Stephens,** area supervisor, Miami ARTCC, promotion made permanent ... **Edward J. Sullivan,** manager, Key West, FL, ATCT, from Bangor, ME, ATCT ... **Jeffrey A. Tuttle,** area supervisor, Hebron, KY, ATCT, promotion made permanent ... **Kenneth R. Vanauken,** asst. manager, plans & programs, Miami ARTCC ... **Eugene W. Wygal,** area manager, Hilliard, FL, ARTCC.

SOUTHWEST REGION

Suzanne G. Alexander, area supervisor, Ft. Worth ARTCC ... **Terry L. Askew,** supervisor, Information Processing Center Section, Information Resources Management Branch, Resource Management Div., promotion made permanent ... **Oletha R. Bien,** unit supervisor, Ft. Worth ARTCC, promotion made permanent ... **Leland R. Busbee,** area supervisor, Ft. Worth ARTCC ... **Dennis D. Cloyd,** asst. manager, traffic management, Albuquerque, NM, ARTCC ... **James A. Cozby,** manager, Houston Hobby AFSFO, Houston AFS, from Oklahoma City (Bethany) AFS ... **Kenneth G. Crittendon,** manager, Dyess AFB AFSFO (Abilene, TX), Austin AFS ... **Michael E. Daniel,** team supervisor, Dallas FSDO ... **John D. Fuller,** manager, Alliance ATCT, Ft. Worth, from Love ATCT, Dallas ... **Ramon Garcia,** unit supervisor, Andrews, TX, AFSFO, El Paso AFS ... **Hubert L. Garrison,** traffic management unit supervisor, Ft. Worth ARTCC, promotion made permanent ... **James H. Gilbert,** asst. manager, Houston Intercontinental ATCT, from Air Traffic Div. ...

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

Ronald L. Hess, supervisory civil engineer, Engineering Section II, Safety & Standards Branch, Airports Div., promotion made permanent ... **Darwin J. Husbour,** unit supervisor, Ft. Worth ARTCC (AFS), promotion made permanent ... **Stefany E. James,** unit supervisor, Ft. Worth ARTCC (AFS), from FAA Academy ... **Michael J. Johanson,** group supervisor, Electronics Engineering Branch, Airway Facilities Div. ... **Dana C. Jones,** area supervisor, Ft. Worth ARTCC ... **Gregory L. Juro,** area supervisor, Dallas/Ft. Worth TRACON, promotion made permanent ... **Richard J. Kervin, Jr.,** area supervisor, Ft. Worth ARTCC ... **Frederick R. Krug,** area supervisor, Houston ARTCC ... **James L. La Fayette,** area supervisor, Jonesboro, AR, AFSS, from Little Rock FSS ... **John D. LeBlanc,** unit supervisor, Ft. Worth ARTCC (AFS), promotion made permanent ... **John B. Martinez,** area supervisor, San Angelo, TX, AFSS, from Midland, TX, FSS ... **Dean R. Matson II,** area supervisor, Houston ARTCC ... **Jack D. Overfield,** area supervisor, Houston ARTCC ... **Edwin L. Patterson,** manager, NAS Coordination & Implementation Staff, Airway Facilities Div., from Albuquerque ARTCC (AFS) ... **J. C. Pierce, Jr.,** team supervisor, Dallas FSDO ... **Samuel Prince,** team supervisor, Dallas FSDO ... **Beatrice G. Robles,** unit supervisor, Albuquerque, NM, ARTCC, promotion made permanent ... **Daniel J. Sieczkowski,** manager, Austin, TX, AFS, from Longmont, CO, AFS (ARTCC) ... **Leon Stinson,** area supervisor, Ft. Worth ARTCC ... **Ernest V. Valdez,** area supervisor, Ft. Worth ARTCC ... **Felipe Villarreal,** manager, Houston AFSFO, Houston AFS, from San Antonio AFS ... **Lloyd W. Wellman,** manager, Lafayette, LA, AFSFO, New Orleans AFS, from El Paso AFS.

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WASHINGTON HEADQUARTERS

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FAA World

October 1989

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Federal Notebook

COURT BACKS DRUG TESTING

DOT's drug testing program has scored another victory in court. This time, the U.S. Court of Appeals for the District of Columbia ruled that "extraordinary safety sensitivity of the bulk of the covered positions" outweighs the privacy rights of the people in those jobs. The program covers approximately 30,000 DOT employees, 95 percent of whom work for FAA. The suit had been brought by the American Federation of Government Employees on the contention that the program violated the Fourth and Fifth Amendments of the Constitution. But the court held that, "Ensuring that these employees—whose exclusive assigned duties are so intimately related to the prevention of public harm—are certified drug-free is, in our view, a reasonable precaution against the occurrence of the feared harm [from the drug test]."

HEALTH PREMIUMS INCREASING AGAIN

Some of that January pay raise will go toward the payment of higher health plan premiums, as average costs will go up about 13.3 percent in 1990. Just going by the "average," however, would be a big mistake—i.e., last year Bill Cosby and I had an "average" income of several million dollars. So everyone needs to study the plans carefully during open season, November 13 through December 8. Meanwhile, OPM is working on a proposal for reforming the health benefits program which by law must be submitted to the Congress in early February.

DOING AN 'OUTSTANDING' JOB

We have some suggestions for FAA managers who would like to receive an "outstanding" rating next year: Work harder, be nice to the boss and transfer to the State or Justice Departments. A Washington newspaper recently published an OPM chart showing that 62.2 percent of State's Civil Service management employees got an "outstanding" rating in 1987, slightly ahead of the 57.3 percent at Justice. By comparison, the DOT percentage was 17.9 percent, but that was still more than twice as high as the Agriculture Department's 8.4 percent.

NO MORE MR. NICE GUY

With all the books on management style published in recent years, it was almost predictable that someone would come out with a book like *Leadership Secrets of Attila the Hun.* That someone is Wess Roberts and Warner Books. Some of the books' "Attila-isms" are: (1) Do not let your chosen enemy have the advantage in any way. (2) Do not insult unless you mean it. (3) Huns make enemies only on purpose. (4) And, if it were easy to be a chieftain, everyone would be one. These are words that Attila could still live by—or at least, manage by.

PAY RAISE APPROVED

President Bush has approved a 3.6 percent pay boost for federal workers, effective with the first full pay period in January. The action pushes up the General Schedule pay ceiling to $78,200. The pay range for those in the Senior Executive Service will now be $71,200 through $83,600. So-called "blue collar" pay increases also will be limited to 3.6 percent in 1990.

LOCALITY PAY ON THE WAY?

OPM has hired a Chicago firm to make a $300,000 study of private sector pay rates for professional and administrative employees in 113 cities. The study could produce data to support geographic pay rates for Federal workers in high cost of living areas.

GOOD GRIEF, MORE PAY STUDIES

Still nobody seems happy with the Federal "white collar" pay system. Two new studies released by the Office of Personnel Management (OPM) have concluded (Surprise!) that current pay inequities cannot be corrected under the current system. So... OPM is establishing a "broad based task force" that, among other things, will try to come up with recommendations for making the present system "more responsive to occupational and geographic labor market differences." A report is expected this fall.

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U.S. Department of Transportation
Federal Aviation Administration

FAA World

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TNA

High-Tech Bomb Detector Debuts in New York

It traveled more than 2,200 miles—from Santa Clara, CA, to New York City—under deep cover. That cover was a Bekins Van Lines truck, where it was shielded from nicks and dents by padding that is more accustomed to protecting furniture than the latest in explosives detection technology.

The transcontinental shipment was the first production model of the thermal neutron analysis (TNA) system, an automated, highly sensitive device developed to screen checked luggage for explosives. Its destination was a specially constructed, prefabricated building adjacent to the Trans World Airlines international terminal at New York's John F. Kennedy airport.

Given the significance of the event—the arrival of the first operational TNA

(Continued on page 2)

This big moving van crossed the country with its valuable cargo—the Thermal Neutron Analysis bomb detector—which was installed at New York's JFK Airport this summer. Initially, FAA requires these machines at 40 international airports. TNA's computer software (inset) searches for specific combinations of atomic elements that characterize explosives.

In This Issue

This youngster is having a ball at a Great Lakes Region day care center. More on page 8.

'Nothing Like a Calm, Soothing Voice'

The Amazing Saga of United Flight 232

Using his own description, Sioux City controller William Kevin Bachman is no hero.

When describing his actions in vectoring the ill-fated United Airlines flight 232 for an emergency landing at the Sioux City Airport on July 19, the 27-year-old FAA controller said, "I just basically did my job and concentrated on helping out as much as I could."

At a news conference in FAA Washington Headquarters one month after the tragic accident, Bachman added: "I would like to think that all 12,000 controllers would have been ... I mean, that's just it: you do your job. Throughout the system, everyone would have handled it the same way."

However, the pilot-in-command of UAL flight 232, Captain Alfred Haynes, was a bit more effusive in his praise of the controllers at the Minneapolis air route traffic control center and the Sioux City tower who tried desperately to guide the stricken DC-10 down to a safe landing. He singled out Bachman for special mention:

"There is nothing like a calm, soothing voice talking to you, giving the information you want to know. The gentleman [Bachman] was right on the money with everything we wanted to know—very calm, very professional. And I want to make sure the controllers' names get mentioned, because they certainly deserve a lot of credit for keeping us calm and getting us there."

Bachman's involvement with UAL 232 began at 3:23:18 p.m. on July 19 and would last for 33½ tension-filled minutes. Captain Haynes had declared an emergency after suffering an in-flight explosion in the number two (center) engine and advised the Minneapolis center controllers that he wanted to divert to the Sioux City Airport. Center controllers paved the way with an initial call up to the Sioux City (SUX) tower:

Sioux City, got an emergency for you ... I've got a United aircraft coming in. Lost number two engine. Having a hard time controlling the aircraft. Right now he's out of 29,000 and descending to Sioux City. He's east of your VOR, but he wants the equipment standing by right now.

The Sioux City tower quickly organized to handle the emergency. As the radar approach controller, Bachman became the point man in the exercise.

(Continued on page 6)

TNA

from page 1

unit in the accelerated war against terrorism—some ceremony would have seemed appropriate. However, it was 8:30 on a Monday morning (August 14), and, probably, no one was feeling very ceremonial.

Instead, the TNA equipment was handled like any other cargo delivery to JFK that day. The Bekins truck rolled up to the TWA terminal, stopping 50 feet short of the TNA building because of a clearance problem with an elevated passenger walkway.

Then, under the watchful eyes of the installation team from the California manufacturer, a forklift moved in and took out the first of six modules that make up the unit. They removed the padding, unbolted the module from the pallet and then—very carefully—gave directions to the forklift operator as he eased the module through the door.

As soon as all six modules were inside, team members began the job of integrating the modules and checking out the unit. They started running baggage through the machine for calibration purposes on August 21 and the unit went operational on September 5.

The JFK scenario was a preview of one that will be played out at numerous airports in this country and abroad in the next several years as a result of a new FAA rule announced on August 30, 1989. The rule gives FAA the authority to require approved explosives detection systems for screening checked luggage at all airports handling international flights by U.S. air carriers over the next five years.

Initially, FAA will require the devices at approximately 40 airports in this country and abroad. Additional airports could be added to the list following the initial deployment but only after the airlines have been given notice and an opportunity to comment. The agency emphasized that expansion of the bomb detection requirement would be done on a case-by-case basis with cost-benefit considerations a major determining factor.

Although the rule does not specifically require the use of a particular bomb detection system, it concedes that TNA is the only currently available technology that meets the FAA performance requirements. Simply stated, these requirements are that the equipment be automated, detect defined quantities and configurations of agency-defined explosives and be safe for operators and baggage.

Wrapped in protective blankets, part of the thermal neutron analysis machine gets a ride on a forklift (top photo) as it nears its ultimate destination—the TWA terminal at New York's Kennedy Airport.

Workmen figure out moving strategy before a section of the high-tech device is placed in a specially constructed building.

TNA was developed for FAA under contract by Science Applications International Corporation (SAIC). It works by bathing luggage in low-energy thermal neutrons that interact with the contents to produce distinctive gamma rays. A computer then analyzes the gamma rays and triggers an alarm when the possible presence of explosive materials is detected. All functions are performed automatically in keeping with the FAA's goal of eliminating the factor of human error from the screening process.

Work on TNA has been underway for more than a decade. It is as an outgrowth of a technology being used to measure the elemental composition of such materials as coal. However, initial efforts to adapt the neutron/gamma ray phenomenon for screening checked luggage for explosives were disappointing.

SAIC was then selected by a competitive process to refine the design and reduce the overall screening time. The company built two prototypes, one using an electronic neutron source and the other using the element Californium-252 as the neutron source.

The prototypes were extensively tested at both the Los Angeles and San Francisco airports in late 1987 and early 1988. More than 40,000 pieces of passenger luggage were screened during the tests, with a 95 percent detection rate. The false alarm rate was only 4 percent.

The JFK system is one of six field test units ordered from SAIC. The original contract in the fall of 1988 called for five units to be delivered over a two-year period. However, the agency increased the order to six after Pan American Flight 103 was destroyed on December 21, 1988, with the loss of 270 lives, by what is believed to have been plastic explosives hidden in a radio/cassette player. The delivery schedule also was accelerated by six months, and a decision was made to go operational with the devices.

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.

After being placed at Kennedy Airport, the bomb detecting device was extensively inspected, tested and calibrated before it was put into operation.

Moving day shows the many pieces of the machinery beginning to take shape (top and bottom photos). Before this machine was built, several prototypes were tested at San Francisco and Los Angeles airports. More than 40,000 bags were screened.

Other U.S. airports scheduled to receive the FAA-funded TNA equipment for operational testing are Miami, Detroit and Washington's Dulles Airport. The two remaining units will go overseas to London's Gatwick and Germany's Frankfurt airports.

The TNA device is not dainty. It is 13 feet long, 6 feet high, 8 feet wide and weighs in at 10 tons. A conveyor belt takes luggage past the heavily encapsulated neutron source at a rate of 600 pieces an hour.

If there is no alarm, the luggage continues out the other end of the device and goes into the baggage makeup area ready for loading. A bag that has triggered an alarm, on the other hand, gets a check by a new type of computerized X-ray machine that an attendant will use to determine if the suspect bag is harmless or needs more detailed examination.

TNA equipment is not cheap either. The basic TNA unit price is approximately $7,500,000, and the associated X-ray device costs another $150,000. Added to this are expenses such as special housing, if needed; repair and maintenance; and operator training.

Volume production, however, is expected to bring the TNA cost down to the $500,000 range by 1992 and the X-ray equipment down to the $125,000 range. Competition also should help make the equipment more affordable as other companies join SAIC in the production process.

FAA expects 50 TNA units will be deployed by the end of 1991, achieving close to the 100 percent coverage at the 40 airports targeted by FAA for the initial implementation phase. If the agency exercises the option of requiring TNA at all airports handling U.S. international flights, the number could be as high as 860 by the end of the 1990s.

FAA officials believe that TNA will prove an effective new weapon in the battle against aviation terrorism, but their enthusiasm is tempered by the knowledge that there is no single solution to this on-going problem. This view was expressed by FAA's Associate Administrator for Aviation Standards Monte Belger in July before the Overseas Security Council.

"Although the current TNA technology has some limits and by no means eliminates the need for other security measures," Belger said, "it is the best technique available to detect 'hard-to-detect' plastic explosives."

The battle continues. ■

Experience Shows

Rayburn New to New England, Not to FAA

By Pat Tomasetti

Pat Tomasetti is a writer/editor in the Office of Public Affairs. She also works on the Headquarters Intercom.

As manager of the General Aviation and Commercial Division in 1985, Rayburn presents the Administrator's Distinguished Service Medal to Wayne Sharp, an attendant at Half Moon Bay Airport, CA, for his rescue of three people in a general aviation crash.

Rayburn recently moved to New England as the Federal Aviation Administration's Flight Standards Division manager in that region.

In the Salt Lake City Flight Standards District Office in 1979, Rayburn was the first woman inspector to be assigned as a principal operations inspector to a company operating large carrier-type aircraft—Key Airlines.

Her career has been filled with awards, rewards and recognition with opportunities for more to come. So it wasn't a half-bad decision that Carol Rayburn made thirty-some years ago while still in grade school to pursue a profession related to aviation. "By the seventh grade, I knew I wanted to make flying my career," she said.

But for her, flying was only the beginning to a career in aviation. Today she manages the New England Region's Flight Standards Division, a complex organization that encompasses at least five branches at regional headquarters in Burlington, MA, as well as three Flight Standards district offices and one Flight Standards field office.

Her selection as manager of the New England division is a move to a different level of management for Rayburn. In the operational arena of the aviation field, women in high-level management positions are still rare. Currently, Rayburn is the only female regional Flight Standards Division manager, and there have been few, if any, before her.

As for the responsibilities of her new job, Rayburn likens it to being "a middleman." She serves as a conduit for channeling policy from developers to implementors, for exchanging information among units and for interpreting effects of Flight Standards programs and policies in the region.

The division, she said, is responsible for "all operational matters and airworthiness matters that relate to the continuing airworthiness of aircraft," in the New England Region. It deals with air safety programs relating to certification and surveillance of air carriers, commercial and general aviation operators, airmen, training and aircraft.

Rayburn's training in the aviation field began years ago. Getting her private and commercial pilots' certificates and flight instructor certificate before she was 20 was a reflection of her own and her family's interest in the field. Her father had been a pilot in World War II and, once back in civilian life, used an airplane in conjunction with the family's farming operation in Hurley, SD, for several years.

Her mother also took flying lessons, although never earning a certificate, and one of her brothers is still a pilot in the Air National Guard. A second brother was a professional pilot for several years before changing to a farming career.

Between stints at South Dakota State University in Brookings, Rayburn flew for agricultural operators, taught flying, worked as an air taxi pilot and, under contract to the Forest Service, seeded thunderstorms, flew fire patrols and moved smoke jumpers to fight forest fires.

After graduation, Rayburn worked in Montana and northern California before joining the FAA Denver regional office in 1974 as an aviation statistical assistant. From Denver, she moved with FAA to Salt Lake City, where she spent several years as an aviation safety inspector (operations), with part of that time as principal operations inspector.

In 1981 Rayburn accepted a job in the Washington Headquarters General Aviation and Commercial Division and the following year moved to California as the manager of the Fresno General Aviation District Office (GADO).

Promoted to assistant manager of the Western-Pacific Region Flight Standards Division in 1984, Rayburn returned to Washington in 1985 as manager of the General Aviation and Commercial Division, which, in her words, was "responsible for regulations and operational guidance that pertain to pilot certification and all types of aviation operations, with the exception of air taxis and air carrier operators."

Another highlight of Rayburn's career happened in 1985, when she became the first FAA woman employee to enter the Senior Executive Service.

Then in 1988, she became Assistant to the Director for Special Programs in the Flight Standards Service. Primarily working on Project SAFE (Safety Analysis, Function and Evaluation), she participated in the "rebuilding of the Flight Standards program." This involved rewriting handbooks, compiling new position descriptions and a general revamping of the Flight Standards system.

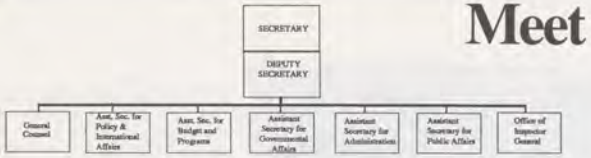
Rayburn's interest in aviation has never been confined to the workplace, as is attested to by her 6,400-plus hours of flying time. She is a long-standing and "quite active" member of the Ninety-Nines, Inc., an international organization of women pilots with a roster of 6,500. Rayburn describes the program of the 60-year-old organization as promoting aviation through education, local activities and providing scholarship opportunities for women. She has also belonged to various other organizations that keep members informed about what is going on in the aviation industry—the National Aviation Club in Washington, for example.

Looking ahead but speaking from years of experience, Rayburn singles out avionics as being vitally important to the future of aviation because of the growing complexities. This combination of *aviation* and *electronics* relates to the development, production and continuing maintenance of electrical and electronic devices for aviation.

Talking about another interest, the quality of training for those entering or working in the aviation arena, Rayburn points to the increase in related training over the past 15 years provided by universities, community colleges and the airlines. She terms military training in the field as "excellent" and emphasizes its piloting, avionics and maintenance focus.

Whether looking to the future or explaining the past, one thing is obvious—Rayburn knows a lot about her field. ■

Meet DOT's Execs



Samuel K. Skinner
Secretary of Transportation

Samuel Skinner, the 10th Secretary of Transportation, was previously the chairman of the Regional Transportation Authority of Northeastern Illinois, a member of the Department of Justice White-Collar Crime Committee and a member of the U.S. Attorney General's Advisory Committee. He graduated from the University of Illinois in 1960 and later received a law degree from DePaul University College of Law.

Elaine L. Chao
Deputy Secretary of Transportation

Elaine Chao was formerly Chairman of the Federal Maritime Commission in Washington, DC, Deputy Administrator of the Maritime Administration, a banker with Citibank, N.A., Vice President of Syndications for BankAmerica Capital Markets Group. Chao is the highest ranking Asian-American to serve in the federal Executive Branch.

Phillip D. Brady
General Counsel

Before joining DOT, Phillip Brady worked as Deputy Assistant to the President, Director of Cabinet Affairs and Deputy Assistant to the Vice President. Brady has also worked for the California Department of Justice and as an Associate with Spray, Gould and Bowers in Los Angeles. He received his bachelor's degree cum laude from the University of Notre Dame and his J.D. cum laude from Loyola University School of Law.

Jeffrey N. Shane
Policy and International Affairs

A graduate of Princeton University and Columbia University School of Law, Jeffrey Shane was Deputy Assistant Secretary for Transportation Affairs with the State Department and Deputy Assistant Secretary for Policy and International Affairs and Assistant General Counsel for International Law with DOT.

Kate L. Moore
Budget and Programs

Formerly a consultant in the Office of Policy Development of the Executive Office, Kate Moore was named the Assistant Secretary of Budget and Programs. She graduated from Yale University with a bachelor of arts degree and earned a master's at Stanford Graduate School of Business. Moore was Deputy Director for Planning in the Office of Policy Development for the President-Elect, Deputy Director of Domestic Policy for Bush-Quayle '88 and Media Coordinator for the Reagan-Bush Committee in 1980.

Galen J. Reser
Governmental Affairs

Before becoming the Assistant Secretary for Governmental Affairs, Galen Reser worked as Director of the office of Illinois State Governor James R. Thompson in Washington, DC, Director of Legislation and Projects and Director of Illinois Projects in the office of Senator Charles Percy. He graduated from Bradley University School of Arts and Humanities in 1973.

Jon H. Seymour
Administration

Jon Seymour became the Assistant Secretary for Administration in 1985, after two years as Deputy Assistant Secretary for Administration. He graduated from the University of Virginia with a bachelor of arts degree and received a master's of public administration from the University of Washington.

David P. Prosperi
Public Affairs

David Prosperi, was chosen Assistant Secretary for Public Affairs after working as the Deputy Press Secretary for the Office of then President-Elect Bush. A veteran of the presidential campaign trail, Prosperi was Dan Quayle's press secretary and press aide for the 1980 Ronald Reagan campaign. Later he served as Director of Public Affairs at the Department of Interior.

John W. Melchner
Inspector General

John Melchner began his government service in 1961 as an Air Force lieutenant. In 1981 he was named Deputy Assistant to the Secretary of Defense for Audits and was awarded the Paul R. Boucher Annual Public Service Award for his exceptional performance in fighting fraud and waste. He became the Inspector General for DOT in 1986.

Crash

from page 1

But he had plenty of help from supervisor Mark Zielezinski, who took over the radar handoff position; Jim Weifenbach, who was working the second radar position; Chuck Owings on local control; John Bates on flight data; and Dale Mleynek on ground control. Overseeing it all was facility manager Terry Dobson.

Bachman quickly zeroed in on the United target, and at 3:23:39 he advised Minneapolis that he had "radar contact." Meanwhile, the Minneapolis center continued to talk with the flightcrew of the stricken DC-10. At 3:25:09, it advised Sioux City:

He's having a hard time controlling the plane right now and trying to slow down and get steady on a heading. As soon as I get comfortable, I'll ship him over to you, and he'll be your control.

A minute later, UAL 232 made its initial call to Bachman:

Sioux City approach. United Airlines 232 heavy with you out of 26. Heading right now is two, nine, oh, and we've got about a 500-foot rate of descent.

Bachman responded with the Sioux City weather and altimeter setting and gave the captain a heading of 255 degrees for vectors to a visual approach to the 9,000-foot runway 31. A few seconds later, he learned the full extent of the DC-10's problems:

Okay, so you know we have almost no control ability, very little elevator and almost no aileron. We are controlling the turns by power. I don't think we can turn right, but I think we can only make left turns. We are starting a little bit of a left turn. I mean we can only turn right, but we can't turn left.

Bachman then sought and received confirmation that the aircraft could make only right turns and advised the pilot:

Roger. Your present tracks put you eight miles north of the airport, sir, and the only way we can get you around to [runway] ***three one is a slight left turn with differential power or, if you can, like jockey it over.***

The flightcrew responded: ... ***we'll be able to make very slight left turns on final but right now just going to make right turns to whatever heading you want.***

But the UAL 232 situation continued to deteriorate. At 3:32:22, it radioed the tower:

We have no hydraulic fluid, which means we have no elevator control, almost none, and very little aileron control. I have serious doubts about making the airport. Have you got some place near there that we might be able to ditch? Unless we get control of this airplane, we're going to put it down wherever it happens to be.

Kevin Bachman listens to questions during Washington, DC, press conference.

But three minutes later, the flightcrew had regained some control and confidence after being told it was "about 12 o'clock and 36 miles" from the airport. The pilot said:

Okay, we'll head for Sioux City. We got a little bit of control back now ...

Still the pilot was having extreme difficulty holding his heading and at 3:36:53 told the tower:

We are just going to have to keep turning right. Not much we can do about left. We're going to have to come back around to the heading.

Again, at 3:40:06, he reported: ***Okay, we're trying to control it just by power alone now. We have no hydraulics at all so we're doing our best here.***

And at 3:43:02: ***We're going to have to continue one more right turn. We've got the elevators pretty much under control within three or four hundred feet, but we still can't do much with the steering.***

Meanwhile, tower personnel had notified the airport crash rescue team and advised the flightcrew. UAL 232 still was 33 miles northeast of the airport, and both the flightcrew and the tower crew continued to look for alternative landing sites.

President Bush greets Bachman during a recent visit to the White House. The President praised the Sioux City controller and the crew of flight 232 for their aviation professionalism.

At 3:44:17, the controller advised that there were "a couple of really small airports out in the aircraft's vicinity." He cited one with a 4,200-foot runway about 15 miles east of the aircraft's position and another seven miles dead ahead with a 4,000-foot runway.

But the UAL crew now was determined to make the Sioux City Airport if at all possible. At 3:46:09, it told the tower:

We're starting a left turn back to the airport. Since we have no hydraulics, braking is really going to be a problem. We suggest the [fire and rescue] ***equipment be towards the far end of the runway, and I think, under the circumstances, regardless of the condition of the airplane when we stop, we're going to evacuate so you might notify the ground crew equipment that we're going to do that.***

Bachman acknowledged and told the pilot to continue the left turn to about a 220-degree heading, and that would take him "right to the airport."

Over the next five minutes, the flightcrew and the tower crew worked together to keep the aircraft on course for the airport. At 3:51:08, Bachman advised that the airport was dead ahead at 21 miles. Then, he added:

You are going to have to widen out just slightly to your left, sir, to make the turn to final and also to take you away from the city.

The pilot responded: ***Whatever you do keep us away from the city.***

Meanwhile, the Sioux City tower crew continued to search for possible emergency landing sites as a back-up. At 3:53:02, with the aircraft some 17 miles northeast of the airport, Bachman advised the pilot of "a four-lane highway up in that area."

The flightcrew's response was: ***Okay, we'll see what we can do here. We've already put the gear down, and we're going to have to put it down on something solid if we can.***

Time now was running short, and at 3:54:38, UAL 232 reported:

We've got about three or four minutes to go, it looks like.

But the issue was still in doubt, and at 3:55:20, Bachman told the pilot:

The airport is about 18 miles southeast of your position about two twenty on the heading, but we're going to need you southbound, away from the city first if you can hold a one eighty heading.

At 3:57:29, the pilot reported that he was "starting down a little bit" and added that he had "a little better control of the elevator." The airport was now dead ahead at 13 miles, but the tower crew continued to worry about the outcome and advised the pilot:

If you cannot make the airport, sir, there is an interstate that runs north to south to the east side of the airport; it's a four-lane interstate.

But the pilot responded: ***We're just passing it right now; we're going to try for the airport.*** The die was cast.

At 3:58:20 (UAL): ***Have runway in sight; we'll be with you very shortly. Thanks a lot for your help.***

At 3:58:23 (SUX) : ***The wind is currently three, six, zero at one one three sixty at eleven. You're cleared to land on any runway.***

At 3:58:30 (UAL, with laughter): ***You want to be particular and make it a runway, huh?***

At 3:58:49 (SUX) : ***... There is a runway that's closed, sir, that could probably work, too. It runs northeast to southwest.***

At 3:58:59 (UAL): ***We're pretty well lined up on this one, or we think we will be.***

At 3:59:06 (SUX): ***That's a closed runway that will work, sir. We're getting the equipment off the runway, and they'll line up for that one.***

At 3:59:14 (UAL): ***How long is it?***

At 3:59:20 (SUX): ***Sixty-six hundred feet ... six thousand, six-hundred, and the equipment is coming off.***

At 3:59:33 (SUX): ***At the end of the runway, it's just a wide open field, sir, so the length won't be a problem.***

At 3:59:37 (UAL): ***Okay.***

That was the last transmission from the UAL 232 flightcrew. At 3:59:45, the tower tape records the sound of the ground proximity warning horn and a mechanical voice saying, "Pull up ... pull up."

Television network camera crews and aviation reporters jammed an FAA Headquarters press conference to listen to the tower tapes from United flight 232 and hear Kevin Bachman tell his story. Bachman told reporters he wept after the plane crash landed.

The tower crew watched in horror as the DC-10 cartwheeled across the field in what seemed like a completely unsurvivable accident. Yet, through some miracle, 185 of the 296 "souls on board" survived.

Although the tower continued in operation to handle emergency and news media flights, Bachman was left emotionally drained by the experience. As he told reporters at the Washington news conference: "Right after it happened I had to turn away because I really didn't think anyone would come out of it. Then I went downstairs and cried." ■

Little remained of the DC-10 after it crash landed at Sioux Gateway Airport on July 19.

End of an Era in New England

Air traffic control specialist Roger Wilson gives school children one of the last tours at the Lebanon Flight Service Station.

Material for this article and photograph were furnished by Bill Miner, Air Traffic AFSS associate program manager for the New England Region.

The New England Region has closed out another chapter in the long history of FAA flight service stations.

At the stroke of midnight, July 15, it became the first region to be consolidated into an exclusively Automated Flight Service Stations (AFSS) network. It achieved that distinction by decommissioning the region's last "old-style" FSS at Lebanon, NH, and consolidating that operation into the Bangor, ME, AFSS.

Air traffic control specialist Tom Halligan had the honor of giving the last weather briefing from the Lebanon FSS and also accepting the last IFR flight plan at 11:45 p.m. on Saturday, July 15. The flight plan was filed by Charles A. Lindeberg, which is close enough to the name of famed transatlantic flyer, Charles A. Lindbergh, to add a historical footnote to the closing. (No, Mr. Lindeberg was not flying to Paris but was returning to Nashua, NH.)

For the Lebanon FSS, it was the end of almost half a century of providing continuous service to the flying public. The facility was commissioned at the Lebanon airport in 1942 and has been operating out of the same building since 1951.

The closing of the Lebanon FSS was another milestone for the New England Region in its role as a pacesetter for the AFSS program. The region also presided over the first FSS consolidation in connection with the AFSS program on March 3, 1984. That was the merger of the Boston and Windsor Locks FSSs into the Bridgeport, CT, AFSS. It also was the first to have all of its AFSSs operational with model 1 equipment.

New England currently provides flight services to pilots in the six-state area from three AFSS locations. They are Burlington, VT, Bridgeport, and Bangor. ■

The Children's Hours

Child care may be the workplace issue of the '90s.

Anyone who followed the last Presidential campaign knows that it's already a hot political issue. Both candidates took strong positions on the matter.

And Transportation Secretary Samuel Skinner and FAA Administrator James Busey have followed President George Bush's lead and voiced support for day care as well. For example, Busey has called child care one of his "major concerns and commitments."

Actually, FAA has been something of a pace setter in this area among government agencies. The Washington Headquarter's day care facility has been in operation since 1985 and currently has 81 children enrolled.

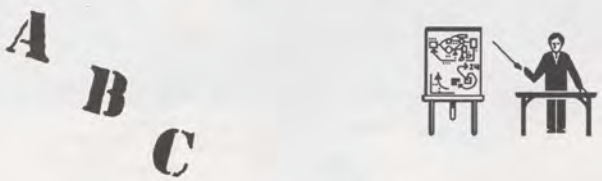
Wendy Baldwin, the center's assistant director, is proud of the fact that it is able to meet the needs of working parents for quality day care.

"It's important to offer a place the children like," she said. "We try to provide a loving atmosphere for them to grow in and learn. It's also important to have a place where the children and parents feel it's safe."

The Seattle ARTCC and the Central Regional Office also provide child care facilities for employees in conjunction with the General Services Administration. In April ground was broken for a second FAA-participating facility in Kansas City. This summer facilities were opened at the Great Lakes Region Headquarters and the Technical Center.

The Great Lakes children's center held its grand opening on July 6 with a capacity to handle 80 preschoolers. However, the behind-the-scenes planning and preparation took more than a year with a small group of employees showing the way. Among other things, the group reviewed the many child-care options, solicited funds and space and, finally, selected a contractor to run the facility.

Pictures of children in the Washington Headquarters day care facility show some happy faces. It's a place that children and parents like because of the high-quality care it provides.



By Kristy Wooley

Kristy Wooley is a University of Maryland journalism student who worked in the FAA Headquarters Office of Public Affairs this past summer. She has been a regular contributor to FAA publications.

The facility at the FAA's Technical Center in Atlantic City opened its doors on July 24 after almost two years of planning and preparation. It accepts children of Technical Center and other federal employees, contractors or members of the New Jersey Air National Guard.

Like the other child care centers, the staff does more than just "babysit." They run a full range of structured activities such as teaching readiness skills, music, art, motor skills and outdoor playtime.

In addition to the five child care centers currently in operation, others are in the works. Janice Armstrong, Washington Headquarters coordinator of the child care program, says 12 of 29 additional locations identified as candidates for child care facilities have planning projects or follow-up studies underway.

Those that are actually well along include ones at the Alaskan Regional Office in Anchorage and the Oakland Air Route Traffic Control Center. In addition, the planned child care facility at the Aeronautical Center was recently funded, and a contract was let. Dallas-Fort Worth and Houston Air Route Traffic Control Center are working in a joint effort with DFW Airport and the City of Houston Aviation Department to establish a child care center.

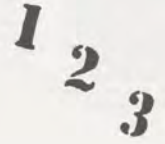
In this day and age, Busey's "concerns and commitments" regarding child care centers are widely shared. ■

Child care instructors at the facility at the Technical Center are, from left, Missy Heim, Debra Mossbrook, Acilla Brewner, Director Karen Litchko, Melissa Barnaby, Dawn English and Margaret Keith.

The opening of the facility at the Technical Center attracted more than 200 visitors. "To know your child is getting the best care possible, and the convenience of getting that care in the same building that you work, gives a parent a peace of mind," said Patty Dollin an ACT-1 employee.

Pictured are the staff and facility of Willow Place Day Care Center serving the Seattle Air Route Traffic Control Center in Auburn, WA.

Central Region's Freddie Thompkins (second from left) helped break ground for an all-new day care facility in the Bannister Federal Complex in South Kansas City.



People

AERONAUTICAL CENTER

Billy L. Bunting, group supervisor, Line Maintenance Section, Atlanta FIFO, promotion made permanent ... **Forrest L. Carter,** unit supervisor, Radar Training Section, FAA Academy ... **Paul R. Chadderdon,** unit supervisor, Flight Operations/Scheduling Section Battle Creek, MI, FIFO, promotion made permanent ... **Carolyn S. Coy,** manager, Purchasing Branch, Acquisition Div. ... **Calvin C. Fox,** supervisor, Systems Management Section, Operational Systems Branch, Regulatory Support Div. ... **Michael L. McKenzie,** unit supervisor, Nav/Comm/Env Section, Airway Facilities Branch, FAA Academy, promotion made permanent ... **Larry L. Patterson,** unit supervisor, Flight Procedures/Inspection Section, Atlanta FIFO, from Oklahoma City FIFO ... **Janice E. Perry,** unit supervisor, Training Operations & Support Section, Training Methods & Operations Branch, FAA Academy ... **Charles R. Peters,** manager, Operations Branch, Headquarters Aircraft Management Staff, Aviation Standards National Field Office ... **Claude J. Schuldt,** unit supervisor, Revision & Development Section, Air Traffic Branch, FAA Academy ... **Philip R. Sherman,** manager, Support Branch, Acquisition Div.

ALASKAN REGION

Chandler D. Carter, unit supervisor, FSDO 03, Anchorage ... **Richard A. Ericson,** asst. manager for training, Anchorage FSS, from Air Traffic Div. ... **Eugene J. Wehe,** manager, Yakutat FSS, from Kodiak ATCT.

CENTRAL REGION

James E. Adelman, unit supervisor, St. Louis AFS, Bridgeton, MO ... **Ralph Chavez,** foreman, Field Maintenance Party, Kansas City, MO, Operations Technical Field Office, promotion made permanent ... **Abby L. Correll,** assistant manager for program support, Wichita, KS, AFS, promotion made permanent ... **Ronald W. VanPelt,** unit supervisor, Des Moines, IA, AFS.

EASTERN REGION

Frank R. Albert, unit supervisor, Washington AFS (ARTCC), Leesburg, VA ... **William H. Bennett III,** asst. systems engineer, Washington AFS (ARTCC), Leesburg, VA ... **Maurice B. Berberich,** asst. manager, plans & programs, Washington ARTCC, Leesburg, VA, from Washington Headquarters ... **Russell S. Brewer,** asst. systems engineer, Washington AFS (ARTCC) Leesburg, VA ... **David C. Burr,** unit supervisor, Teterboro FSDO, promotion made permanent ... **Raymond B. Connors,** systems engineer, Washington AFS (ARTCC), Leesburg, VA ... **Peter J. Forte,** asst. manager for technical support, Metro New York AFS, Garden City, from Airway Facilities Div. ... **Robert J. Franz,** asst. systems engineer, Washington AFS (ARTCC), Leesburg, VA ... **John C. Harder,** area supervisor, Norfolk ATCT, promotion made permanent ... **Darele E. Kennedy,** unit supervisor, Charleston AFSFO, Charleston, WV, AFS, promotion made permanent ... **Arthur Kish,** unit supervisor, Washington AFS (ARTCC), Leesburg, VA ... **Robert M. Kitson,** manager, Electronic Engineering Branch, Airway Facilities Div. ... **Carroll E. Koller,** unit supervisor, Washington AFS (ARTCC), Leesburg, VA ... **David M. Lattanzio,** unit supervisor, Washington AFS (ARTCC), Leesburg, VA ... **Vincent LePera,** ACDO manager, Pittsburgh FSDO, Coraopolis, PA ... **George F. Martel,** asst. systems engineer, Washington AFS (ARTCC), Leesburg, VA ... **Donald L. Rausch,** asst. manager, Metro NY AFS, Garden City ... **Bruce R. Robinson,** area supervisor, Washington ARTCC, Leesburg, VA ... **Edwin C. Satterfield,** asst. systems engineer, Washington AFS (ARTCC), Leesburg, VA ... **James W. Scanlon, Jr.,** manager, Clarksburg, WV, AFSFO, Charleston, WV, AFS, from Harrisburg AFS ... **Samuel W. Shelton,** area supervisor, New York ARTCC, MacArthur Airport, Islip ... **Robert G. Trauger,** asst. systems engineer, Washington AFS (ARTCC) Leesburg, VA.

GREAT LAKES REGION

Martin L. Albers, area supervisor, South Bend, IN, ATCT, promotion made permanent ... **John E. Anderson,** area supervisor, Dayton, OH, AFSS, promotion made permanent ... **Thomas P. Austin,** area supervisor, Cleveland Hopkins ATCT, promotion made permanent ... **Robert B. Benjaminson,** asst. manager, quality assurance, Chicago ARTCC, Aurora ... **Howard A. Brady,** unit supervisor, Minneapolis ACDO, from Frankfurt, Germany ... **Paulette L. Coleman,** area supervisor, Watertown, SD, FSS, from Terre Haute, IN, AFSS ... **Carol E. Gaunt,** asst. manager, Dayton, OH, AFSS, from Cleveland AFSS ... **Donald E. Hahn,** systems engineer, Radar Engineering Section, Operations Engineering Branch, Airway Facilities Div., promotion made permanent ... **Robert E. Haselton,** area supervisor, Indianapolis ARTCC, promotion made permanent ... **August C. Hesse,** unit supervisor, Fargo, ND, AFSFO, Dakota AFS, Bismarck, promotion made permanent ... **Alvin L. Johnson,** manager, Huron, SD, AFSS, from Air Traffic Div. ... **Eileen Weikel Johnson,** regional counsel, Great Lakes Region Headquarters, promotion made permanent ... **Richard V. Kelterman,** area manager, Cleveland ARTCC, Oberlin, OH ... **James R. Knight,** AF watch supervisor, Dakota AFS, Bismarck, ND, promotion made permanent ... **Robert Kohls,** unit supervisor, Minneapolis ACDO ... **Gerald M. Lobien,** unit supervisor, Huron, SD, AFSFO, Dakota AFS, from Des Moines AFS ... **Charles D. McGrady,** area supervisor, Indianapolis ARTCC ... **Douglas L. Molin,** area supervisor, Indianapolis ARTCC ... **Gordon E. Musser,** AF watch supervisor, Indiana AFS, Indianapolis ... **Steve Osipowich,** unit supervisor, La Grange, IN, AFSFO, Indiana AFS, promotion made permanent ... **Robert M. Schilling,** unit supervisor, Columbus, OH, FSDO ... **Timothy L. Szobody,** manager, Green Bay AFSFA, Wisconsin AFS, from Great Lakes Region Headquarters.

NEW ENGLAND REGION

Francis M. Bujak, area supervisor, Boston ARTCC, Nashua, NH, promotion made permanent ... **Gary L. Christiansen,** manager, Bangor, ME, ATCT, from Omaha TRACON ... **Timothy A. Creedon,** area supervisor, Boston ARTCC, Nashua, NH, promotion made permanent ... **Ted T. Ebina,** manager, System & Propulsion Branch, Boston ACO, Burlington, from Brussels, Belgium ... **Robert E. Faherty,** unit supervisor, AFS 820, Boston ... **William H. Fogerty,** manager, Technical & Internal Security Branch, Civil Aviation Security Div., promotion made permanent ... **Janet R. Malonin,** unit supervisor, Plans, Programs & Evaluation Branch, Flight Standards Div.

NORTHWEST MOUNTAIN REGION

Arnold R. Ainge, traffic management unit supervisor, Salt Lake City ARTCC, promotion made permanent ... **Jerald R. Berube,** principal maintenance inspector, Los Angeles MIDO, Long Beach ... **Cynthia J. Brown,** manager, Procurement Branch, Logistics Div. ... **Roger G. Bruce,** area manager, Denver ARTCC, Longmont, CO ... **James E. Collins,** area manager, Seattle ARTCC, Auburn, WA ... **Gary K. Kamisky,** area supervisor, McMinnville, OR, AFSS ... **Thomas L. Kuhlman,** unit supervisor, FSDO 67, Salt Lake City, promotion made permanent ... **Debra K. Larson,** area supervisor, Seattle-Tacoma ATCT ... **Mark A. Lewis,** area supervisor, Peterson Field ATCT, Colorado Springs, promotion made permanent ... **Chester L. Miller,** unit supervisor, Great Falls, MT, AFSFO II, Billings AFS, promotion made permanent ... **Stewart R. Miller,** asst. manager, Seattle ACO ... **Loren F. Nakayama,** unit supervisor, Longmont, CO, AFS (ARTCC) ... **Rolf D. Odenbach,** area manager, Seattle AFSS, promotion made permanent ... **Richard D. Powers,** unit supervisor, Seattle FSDO 61, from Anchorage, AK, FSDO ... **Dennis S. Sherwood,** unit supervisor, Cedar City, UT, AFSFO, Salt Lake City AFS, promotion made permanent ... **Richard L. Troup,** area supervisor, Seattle-Tacoma ATCT ... **George E. Wagner,** supervisory electronics technician, Redmond, OR, AFSFO, Portland AFS, promotion made permanent.

SOUTHERN REGION

Stephen P. Alogna, traffic management unit supervisor, Hampton, GA, ARTCC ... **Robert Berlucchi,** area supervisor, Miami International ATCT, promotion made permanent ... **Ellsworth F. Burch,** manager, Florence, SC, AFSFO, Columbia AFS ... **Fred Carroll,** asst. manager, traffic management, Hilliard, FL, ARTCC ... **Robert W. Chasse,** unit supervisor, Miami, FL, AFS (HUB), promotion made permanent ... **Nancy W. Collins,** supervisor, Services Section, Materiel Management Branch, Logistics Div., promotion made permanent ... **Clarence Crimm,** unit supervisor, Columbus, MS, AFSFO, Jackson AFS, from Meridian, MS ... **John S. Davis,** traffic management unit supervisor, Hampton, GA, ARTCC ... **Tommy L. Guillebeau,** manager, Augusta, GA, AFSFO, Columbia, SC, AFS, from Lincolnton, GA ... **Larry Hagan,** unit supervisor, Columbus, GA, AFSFO, Montgomery, AL, AFS, from Savannah, GA ... **Robert F. Head,** area supervisor, Bowman Field ATCT, Louisville, KY ... **George E. Ivey,** asst. manager, Raleigh, NC, AFS, promotion made permanent ... **Liesa A. Johnson,** supervisor, Resource & Evaluation Management Section, Safety Analysis & Resource Management Branch, Flight Standards Div., promotion made permanent ... **Richard E. Miller,** area manager, Tampa, FL, ATCT ... **Robert J. Morgan, Jr.,** asst. manager, Tampa AFS, from Birmingham, AL ... AFSFO ... **Steven G. Rose,** unit supervisor, Miami AFS (ARTCC, promotion made permanent ... **Thomas Ruffin,** area supervisor, Macon, GA, AFSS, promotion made permanent ... **John R. Schroeter,** area supervisor, Jacksonville, FL, ATCT, from Atlanta Hartsfield ATCT ... **Barbara A. Shivers,** area supervisor, Fulton County ATCT, Atlanta, promotion made permanent ... **Paul T. Stephens,** area supervisor, Miami ARTCC, promotion made permanent ... **Edward J. Sullivan,** manager, Key West, FL, ATCT, from Bangor, ME, ATCT ... **Jeffrey A. Tuttle,** area supervisor, Hebron, KY, ATCT, promotion made permanent ... **Kenneth R. Vanauken,** asst. manager, plans & programs, Miami ARTCC ... **Eugene W. Wygal,** area manager, Hilliard, FL, ARTCC.

SOUTHWEST REGION

Suzanne G. Alexander, area supervisor, Ft. Worth ARTCC ... **Terry L. Askew,** supervisor, Information Processing Center Section, Information Resources Management Branch, Resource Management Div., promotion made permanent ... **Oletha R. Bien,** unit supervisor, Ft. Worth ARTCC, promotion made permanent ... **Leland R. Busbee,** area supervisor, Ft. Worth ARTCC ... **Dennis D. Cloyd,** asst. manager, traffic management, Albuquerque, NM, ARTCC ... **James A. Cozby,** manager, Houston Hobby AFSFO, Houston AFS, from Oklahoma City (Bethany) AFS ... **Kenneth G. Crittendon,** manager, Dyess AFB AFSFO (Abilene, TX), Austin AFS ... **Michael E. Daniel,** team supervisor, Dallas FSDO ... **John D. Fuller,** manager, Alliance ATCT, Ft. Worth, from Love ATCT, Dallas ... **Ramon Garcia,** unit supervisor, Andrews, TX, AFSFO, El Paso AFS ... **Hubert L. Garrison,** traffic management unit supervisor, Ft. Worth ARTCC, promotion made permanent ... **James H. Gilbert,** asst. manager, Houston Intercontinental ATCT, from Air Traffic Div.

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

Ronald L. Hess, supervisory civil engineer, Engineering Section II, Safety & Standards Branch, Airports Div., promotion made permanent ... **Darwin J. Hushour,** unit supervisor, Ft. Worth ARTCC (AFS), promotion made permanent ... **Stefany E. James,** unit supervisor, Ft. Worth ARTCC (AFS), from FAA Academy ... **Michael J. Johansen,** group supervisor, Electronics Engineering Branch, Airway Facilities Div. ... **Dana C. Jones,** area supervisor, Ft. Worth ARTCC ... **Gregory L. Juro,** area supervisor, Dallas/Ft. Worth TRACON, promotion made permanent ... **Richard J. Kervin, Jr.,** area supervisor, Ft. Worth ARTCC ... **Frederick R. Krug,** area supervisor, Houston ARTCC ... **James L. La Fayette,** area supervisor, Jonesboro, AR, AFSS, from Little Rock FSS ... **John D. LeBlanc,** unit supervisor, Ft. Worth ARTCC (AFS), promotion made permanent ... **John B. Martinez,** area supervisor, San Angelo, TX, AFSS, from Midland, TX, FSS ... **Dean R. Matson II,** area supervisor, Houston ARTCC ... **Jack D. Overfield,** area supervisor, Houston ARTCC ... **Edwin L. Patterson,** manager, NAS Coordination & Implementation Staff, Airway Facilities Div., from Albuquerque ARTCC (AFS) ... **J. C. Pierce, Jr.,** team supervisor, Dallas FSDO ... **Samuel Priace,** team supervisor, Dallas FSDO ... **Beatrice G. Robles,** unit supervisor, Albuquerque, NM, ARTCC, promotion made permanent ... **Daniel J. Sieczkowski,** manager, Austin, TX, AFS, from Longmont, CO, AFS (ARTCC) ... **Leon Stinson,** area supervisor, Ft. Worth ARTCC ... **Ernest V. Valdez,** area supervisor, Ft. Worth ARTCC ... **Felipe Villarreal,** manager, Houston AFSFO, Houston AFS, from San Antonio AFS ... **Lloyd W. Wellman,** manager, Lafayette, LA, AFSFO, New Orleans AFS, from El Paso AFS.

TECHNICAL CENTER

Dolores G. Charap, supervisor, Computer Operations Section, ATC Facilities Operations Branch, Technical Facilities Div, promotion made permanent ... **Joyce A. Landing,** unit supervisor, ATC Facilities Operations Branch, Technical Facilities Div., promotion made permanent ... **Allan O. Oswald,** manager, Budget Branch, Financial Management Service, promotion made permanent ... **Herman E. Regal,** unit supervisor, Fire Safety Branch, Aviation Safety Div., promotion made permanent ... **Wayne L. Rogers,** supervisor, Data Base Field Support Section, National Automation Flight Services Branch, Automation Software Div., promotion made permanent.

WASHINGTON HEADQUARTERS

Thomas R. Anthony, manager, Investigations Branch, Investigations & Security Div., Civil Aviation Security ... **James H. Enias ,** manager, All Weather Operations Branch, Technical Programs Div., Flight Standards Service, promotion made permanent ... **James J. Jamitis,** deputy chief, Program Management Staff, Associate Administrator for NAS Development ... **Harry B. Kane,** manager, Advanced Systems Program, Advanced Traffic & Weather Systems Div., Advanced System Acquisition Service ... **David A. Lantzy,** manager, Leased Services & Fiscal Management Program, Telecommunications Management & Operations Div., Systems Maintenance Service ... **Barrett J. Lutz,** manager, Technical Standards Branch, General Aviation & Commercial Div., Flight Standards Service, promotion made permanent ... **Reginald C. Matthews,** manager, National Flight Data Center, Airspace Rules & Aeronautical Information Div., Air Traffic Operations Service ... **Dawna L. Scott,** supervisor, Cost & Property Section, General Accounting Branch, Accounting Operations Div., promotion made permanent.

WESTERN-PACIFIC REGION

Arthur W. Barton, Jr., area supervisor, Los Angeles ARTCC, Palmdale, promotion made permanent ... **Gene R. Burgandine,** unit supervisor, Miramar NAS AFSFO, from El Toro, CA ... **John B. Carroll, Jr.,** area supervisor, San Diego AFSS, promotion made permanent ... **Gale C. Coffey,** unit supervisor, Oakland, CA, AFS (ARTCC), Fremont ... **Edward L. Couch,** manager, Honolulu ATCT, from Air Traffic Div. ... **Kari M. Gonter,** area supervisor, Los Angeles ATCT, promotion made permanent ... **Donald J. Harand,** unit supervisor, Los Angeles Civil Aviation Security Field Office, promotion made permanent ... **Earl Hardy,** asst. systems engineer, Oakland, CA, AFS (ARTCC), Fremont ... **Dene P. Jones,** asst. manager, traffic management, Los Angeles ARTCC, Palmdale ... **Michael P. Jones,** area supervisor, Oakland, CA, ATCT ... **Kenneth R. Key,** supervisor, F & E Program Section, Program and Planning Branch, Airway Facilities Div. ... **Robert A. Kivitt,** manager, NAS Program Management Staff, Airway Facilities Div. ... **Felix L. Lococo,** principal inspector, Van Nuys, CA, FSDO, Los Angeles, from regional headquarters ... **Fernando A. Lorenz,** manager, Hawaii-Pacific (Honolulu) AFS, from regional headquarters ... **Archie L. Millhollon,** area manager, Phoenix AFS ... **Leonard A. Mobley,** manager, Operations Branch, Air Traffic Div. ... **Morgan R. Rodney,** unit supervisor, Riverside, CA, FSDO, promotion made permanent ... **Carol L. Savage,** area supervisor, Los Angeles ARTCC, Palmdale ... **Nancy A. Trndell,** principal aviation safety inspector, Long Beach, CA, FSDO, from regional headquarters ... **Gary K. Yamamoto,** unit supervisor, Radar Automation Section, Maintenance Operations Branch, Airway Facilities Div.

Retirees

AERONAUTICAL CENTER
Robert H. Barnes
Charles F. Davis
William V. Flores
Ollie C. Foxhall
Robert E. Miller
Joe R. Newton
William A. Stealer, Jr.

ALASKAN REGION
Richard W. Brindley
Helen M. Hall

CENTRAL REGION
Argil L. Axford
William H. Griffiths
Benjamin E. Hermon
Ernest J. Misek
Donald J. Schneider
George E. Short
Carl E. West

EASTERN REGION
Eugene Bryant, Jr.
George M. Cronin
Roy Downs
Mary A. Fleming
George G. Gatta
Joseph H. Kelley

GREAT LAKES REGION
Jay A. Baumann
August E. Brueckner
Charles L. Burwood
Walter G. Conway
Dwight D. Farr
Harland F. Hinkel
Constance M. Hooks
Richard W. Kraus
Edward Lefko
Oliver W. Moore, Jr.
Lorene A. Nelson
Andre E. Nosier
Harry R. Scharlach
Thomas J. Wilkins

NEW ENGLAND REGION
John C. Boyd
Joel A. Fournier
William J. Griffith
Linwood R. Pierce

NORTHWEST MOUNTAIN REGION
John A. Carter
Gordon E. Dillard
Loren D. Heyne
John G. Hilpert, Jr.
Michael A. Knight
Boyd L. Lawson
Brendan M. Moriarty
James C. Muir
Frank J. Shade
Bernard E. Spaquid

SOUTHERN REGION
James E. Baggett
Ronald A. Bilib
Marion A. Bond
George N. Clark
Henry S. Crawford
Ronald J. Helmke
Claude G. T. Johnson
Bobby S. Kellett
Joseph W. Kelso, Jr.
Fred D. Lacy
Keith W. Lutz
James A. Mc Cormick
John H. Patterson
Donald M. Preisen
Alfred L. Ramsdell
Clifford D. Ross
Donald J. Shipley
Billy J. Staton
James W. Summers
Charles H. Tenney
Estus A. Triggs
Donald E. Weathers
Robert W. Yarber

SOUTHWEST REGION
William D. Brunk
Evelyn H. Chandler
Charles W. Dendy
James B. Flener
Frank W. Johnson
Thomas J. Knoll
Robert K. Leimas
Warren H. Morey
Thomas R. Nance
Donald L. Stoddard
Bobby G. Tarpenning
Marion L. Ward

TECHNICAL CENTER
Edward L. Dean
Elmer E. Hayden
Harlan L. Hollenbeck
Charles O. Kuzis
Jeffrey L. Matthews

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James W. Hines
Robert H. Kunz
Floyd T. Messick
Ronald M. Price
John R. Ryan
John A. Sekman

WESTERN-PACIFIC REGION
David R. Babem
Charles B. Bryan
Murray Gross
David A. Hatcher
Yoshio Isobe
Henry K. Miyamoto
Thomas T. Murata
Robert T. Nashiro
Louis R. Soberano

FAA World

October 1989

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Federal Notebook

COURT BACKS DRUG TESTING

DOT's drug testing program has scored another victory in court. This time, the U.S. Court of Appeals for the District of Columbia ruled that "extraordinary safety sensitivity of the bulk of the covered positions" outweighs the privacy rights of the people in those jobs. The program covers approximately 30,000 DOT employees, 95 percent of whom work for FAA. The suit had been brought by the American Federation of Government Employees on the contention that the program violated the Fourth and Fifth Amendments of the Constitution. But the court held that, "Ensuring that these employees—whose exclusive assigned duties are so intimately related to the prevention of public harm—are certified drug-free is, in our view, a reasonable precaution against the occurrence of the feared harm [from the drug test]."

HEALTH PREMIUMS INCREASING AGAIN

Some of that January pay raise will go toward the payment of higher health plan premiums, as average costs will go up about 13.3 percent in 1990. Just going by the "average," however, would be a big mistake—i.e., last year Bill Cosby and I had an "average" income of several million dollars. So everyone needs to study the plans carefully during open season, November 13 through December 8. Meanwhile, OPM is working on a proposal for reforming the health benefits program which by law must be submitted to the Congress in early February.

DOING AN 'OUTSTANDING' JOB

We have some suggestions for FAA managers who would like to receive an "outstanding" rating next year: Work harder, be nice to the boss and transfer to the State or Justice Departments. A Washington newspaper recently published an OPM chart showing that 62.2 percent of State's Civil Service management employees got an "outstanding" rating in 1987, slightly ahead of the 57.3 percent at Justice. By comparison, the DOT percentage was 17.9 percent, but that was still more than twice as high as the Agriculture Department's 8.4 percent.

NO MORE MR. NICE GUY

With all the books on management style published in recent years, it was almost predictable that someone would come out with a book like *Leadership Secrets of Attila the Hun.* That someone is Wess Roberts and Warner Books. Some of the books' "Attila-isms" are: (1) Do not let your chosen enemy have the advantage in any way. (2) Do not insult unless you mean it. (3) Huns make enemies only on purpose. (4) And, if it were easy to be a chieftain, everyone would be one. These are words that Attila could still live by—or at least, manage by.

PAY RAISE APPROVED

President Bush has approved a 3.6 percent pay boost for federal workers, effective with the first full pay period in January. The action pushes up the General Schedule pay ceiling to $78,200. The pay range for those in the Senior Executive Service will now be $71,200 through $83,600. So-called "blue collar" pay increases also will be limited to 3.6 percent in 1990.

LOCALITY PAY ON THE WAY?

OPM has hired a Chicago firm to make a $300,000 study of private sector pay rates for professional and administrative employees in 113 cities. The study could produce data to support geographic pay rates for Federal workers in high cost of living areas.

GOOD GRIEF, MORE PAY STUDIES

Still nobody seems happy with the Federal "white collar" pay system. Two new studies released by the Office of Personnel Management (OPM) have concluded (Surprise!) that current pay inequities cannot be corrected under the current system. So... OPM is establishing a "broad based task force" that, among other things, will try to come up with recommendations for making the present system "more responsive to occupational and geographic labor market differences." A report is expected this fall.

U.S. Department
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