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Federal Aviation
Administration

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Good News for Prospective Controller Candidates

Shortened Screening Process under Review

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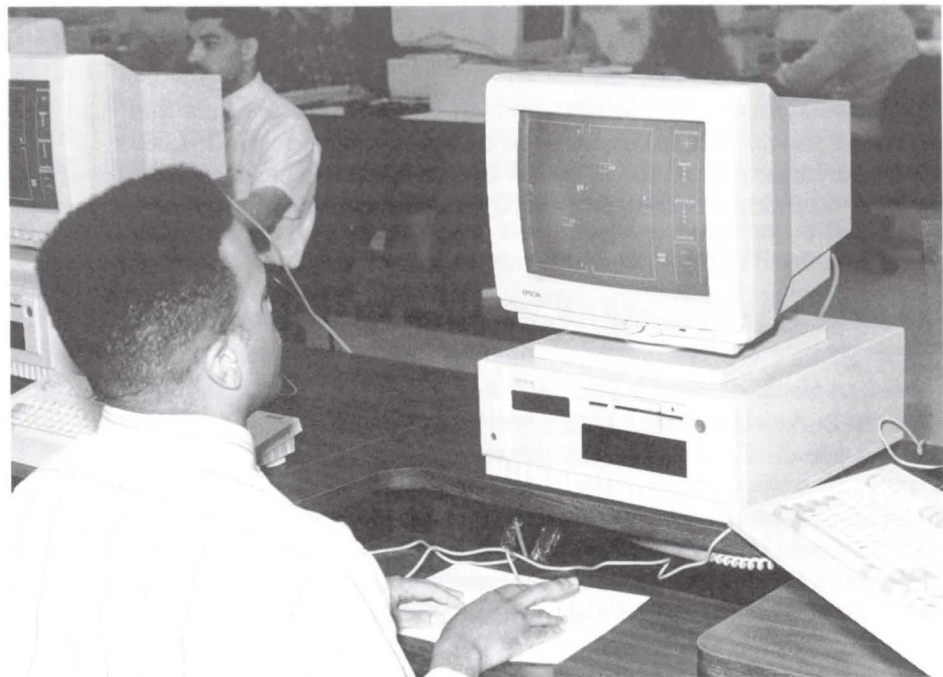


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Controller candidate vectors "aircraft" as part of the new screening test.

“We are on the verge of making some of the most significant changes in 20 years to the way we select and train our air traffic controllers,” said Barry Harris, FAA’s acting Administrator.

Harris was referring to preliminary recommendations recently presented to him by the Air Traffic Training Work Group (ATTWG). The ATTWG represents a broad-based group of Headquarters and field Air Traffic and Human Resource Management personnel. This group thoroughly studied the

current process of recruiting, screening, and training air traffic controllers and proposed sweeping changes to improve it.

“Just compare the proposed new air traffic controller selection screen to the current process,” stated Harris. “The improvements are substantial, and the benefits to the candidates and to the FAA are enormous.”

Air traffic controller candidates take a four-hour written test administered by the Office of Personnel Management (OPM). Currently, outside can-

See **AT Screen** on page 4

February is Black History Month
The theme this year is

*“African Roots Explore New Worlds:
Pre-Columbus to the Space Age.”*

See this month’s feature story on page 6 about an FAA retiree who started a nationwide program aimed at making things better for the next generation.

Just the Facts

Aviation Safety—1990 and 1991

Aviation safety data is now in for 1991, and the results point towards the increased safety of the U.S. aviation system.

Comparing 1991 to 1990—based on a 12-month cycle ending September 1—safety statistics show:

- Near midair collisions (NMACs) down, from 476 in 1990 to 369 in 1991.
- Operational errors down in 1991, from 871 to 749.
- Pilot deviations also down, from 2,508 in 1990 to 1,826 in 1991.
- Fewer runway incursions in 1991—191 from 281 in 1990.

National Transportation Safety Board data shows that accidents involving air carriers decreased 36% during the 12 months ending Au-

gust 1991 compared to the same period a year before—from 33 to 21. Accidents involving Part 135 commuter air carriers decreased 18% during the same 12 months compared to a year earlier (from 17 to 14).

In 1990 the number of aviation accidents and related fatalities in the United States had been the lowest in four years.

The number of estimated scheduled miles U.S. air carriers flew mounted—4,382,000,000 in 1990, an increase of 45,451,000 from 1989. Also on the upswing is the number of passengers that air carriers enplaned: 465,557,000 in 1990, a 2.6% increase over the 453,692,000 who flew in 1989. *

Upcoming Conferences

Women in Aviation. The third annual Women in Aviation conference will be held March 12 to 14 in Las Vegas.

The event is sponsored by Parks College of St. Louis University.

Highlights include talks by NASA astronaut Eileen Marie Collins, World War II Soviet woman pilot Nadya Popova, and legendary test pilot Chuck Yeager.

To register or for more information, write: Women in Aviation Conference, Parks College of St. Louis University, Cahokia, IL 62206, or call (618) 337-7500, ext. 203.

Women Controllers. The 14th annual Professional Women Controllers convention will be held in Seattle, March 19-22.

The conference costs \$110 if registered by February 17. Hotel reservations begin at \$70 a night and can be made directly with the Sheraton Seattle, (206) 621-9000.

For more information, contact Rocky Wisniewski, (206) 255-9399.

Aging Aircraft. An international workshop focusing on the structural integrity of aging aircraft will be held in Atlanta from March 31 to April 2.

The workshop is sponsored by the FAA, NASA, and the Air Force Office of Scientific Research. It is organized by the Computational Modeling Center at Georgia Tech.

The workshop will feature in-depth technical presentations.

For registration information, contact S. N. Atluri, (404) 894-2758, fax (404) 894-2299.

Federal Tower Update

In the November issue of *FAA World*, the tower at Floyd Bennett Field was incorrectly listed among those taken over by the Civil Aeronautics Administration in 1941, say the authors of "When Towers Went Federal."



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FAA World

A New Way of Schooling Executives

Heightened Focus on 'Comprehensive' Training, Improved Skills

Turn to page 20 for photo of graduates.

Better training and development opportunities are now at hand for FAA's senior managers and executives. The agency's new Executive Education Program (EXEP) has targeted ways to expand its executives' vision, knowledge, and skills. It is teaching them how to develop broader expertise, better communication skills, and renewed commitment to FAA's values and objectives.

Agency executives will soon be receiving a catalog that describes the recently introduced program and its specific courses.

Set up by the Office of the Assistant Administrator for Human Resource Management (AHR) to fill the need for a comprehensive way of training senior managers, EXEP now combines the development of members of the Senior Executive Service (SES), those in the SES Candidate Development Program, and senior GM-15 managers under a single program.

An EXEP Advisory Committee made up of members of FAA's senior management team will advise and guide change to the new training program.

EXEP incorporates some long-established executive training vehicles such as the FAA Executive School and the Office of Personnel Management Executive Seminar Centers, as well as a variety of newly developed courses. It is geared to improving three kinds of competencies:

- personal effectiveness
- interpersonal effectiveness
- organizational effectiveness

A comprehensive overview course forms the heart of each effectiveness area; the generalized core courses are then supplemented by more specific topics within each area.

One innovative EXEP course is the new organizational effectiveness core course, "Managing the Total Organization." Thirty-four FAA managers and executives attended its two-week

premiere session last September at the Kellogg Graduate School of Management, part of Northwestern University in Evanston, Illinois. Ranked among the top five business schools in the country, the Kellogg school hosted the residential course and also provided opportunities for participants to interact with managers in similar positions from the private sector.

The course itself features a general management approach designed to develop broad, cross-functional management skills. Course topics are similar to those of the Kellogg School's top-rated corporate programs but have been adapted to relate to the public sector as well. Marketing, accounting, capital budgeting, negotiations, ethics, strategy, and decision making are among the subjects examined.

FAA executives participated in the training as speakers and panel members. These sessions were particularly useful in relating the academic materials presented by Kellogg professors to specific issues within the agency.

Speakers included Ann Rosenwald, Director of Human Resource Development, AHD-1, whose office has oversight for EXEP, and Tony Broderick, Associate Administrator for Regulation and Certification, AVR-1. Presenting individual sessions were Joan Bauerlein, Director of the Office of International Aviation, AIA-

1; John Burt, Executive Director for System Development, AXD-1; and Brooks Goldman, Deputy Associate Administrator for Aviation Standards, AVS-2.

The final presentation was given by Kellogg's Dean Donald Jacobs and a panel of FAA's top executives. Panel members, who addressed class questions about the agency's future direction, were Joe Del Balzo, as Executive Director of System Operations, AXO-1; Arlene Feldman, New England's Regional Administrator, ANE-1; Ed Kelly, Deputy Associate Administrator for Airway Facilities, AAF-2; Nobby Owens, Deputy Associate Administrator for Air Traffic, AAT-2; and Stan Rivers, Regional Administrator for FAA's Central Region, ACE-1.

Feedback from participants has focused on the excellence of course programs and the Kellogg school's instruction methods. Despite long hours and intensive work, students praised the university setting and pointed out ways they profited from the experience, which was similar to that afforded top-level managers in the private sector over the years.

Plans are to offer this training opportunity at the Kellogg school again during this fiscal year.

For more information about the course or the EXEP program, talk to Paul Meyer or Jim Guy, FTS 267-8550. *

Diversity Includes You!

Send ideas on diversity to:
David Benton
Staffing Policy Division
APN-200



Air Traffic Screen

continued from page 1

didates must obtain an OPM rating of at least 90, and pass security and medical standards, to be hired by the FAA. Their continued employment with the FAA depends upon their successful completion of a nine-week screening program at the FAA Academy in Oklahoma City. Historically the failure and withdrawal rate for this "screen" has averaged about 50 percent.

"For those who fail, the personal costs are high and, in some cases, tragic," stated the acting Administrator. Unsuccessful candidates have often given up existing jobs to take what amounts to a 50/50 chance of success in the current nine-week program. "We want to make the process easier on the candidates. We also want to make much better use of FAA's limited training program resources," stated Harris. For candidates entering the current nine-week screen in the 1991 fiscal year, the training funds spent on unsuccessful candidates were about \$10 million.

The proposed new screen can be administered in one week or less. Candidates scoring high enough on the OPM test would be eligible for this second level of screening. This screen would be conducted before candidates are hired. Without having to quit jobs, candidates could take a one-week vacation or leave without pay and participate. FAA would pay travel expenses for those candidates selected to participate.

"The new screen is designed to assess whether a candidate has the aptitude to complete training and be certified as an air traffic controller," said Bill Pollard, FAA Associate Administrator for Air Traffic. FAA devised these tests specifically for the air traffic controller profession. Aptitudes being tested in the test battery include: memory, the ability to visualize the relationship of objects to one another, the ability to do several complex tasks at the same time, the ability to sort and

prioritize important tasks, and the ability to analyze situations quickly and to plan ahead.

The tests look somewhat like video games. One of the more realistic tests involves a simulated airspace scenario. Using simple rules, the candidate moves aircraft through simulated airspace on a computer screen and either maneuvers the aircraft out of designated airspace "gates" or lands the aircraft at designated "airports."

"The rules are simple, and while the test is challenging, many of the candidates are particularly enjoying this part of the test," Pollard said.

Developing a shorter screen that measures a person's aptitude for doing the air traffic controller's work has been a critical human resource management objective for several years. Herb McClure, Assistant Administrator for Human Resource Management,



Acting Administrator Barry Harris

said, "Our goal has been to develop a screen that allows us to find people who have high aptitude for our work without disrupting their lives the way we have done in the past. We are also optimistic that this screen and other

improvements to air traffic training will provide us new opportunities to achieve a more diversified and better prepared controller work force."

Goals in developing the new screen included objectivity and the screen's fairness to women and minorities. To make sure the screen is fair, the FAA built practice time into the testing process. Regardless of a participant's familiarity with computers or video games, or even a candidate's participation in a privately offered practice course, the FAA wants to ensure that all candidates will compete on a level playing field. Current plans are for three or four days of practice during the test week. This allows students to be tested after their performance has stabilized.

Last March and April, 423 academy students who were entering the current nine-week screening course first participated in a one-week validation of the new screen. Results from this early phase of validation were encouraging—showing that the test is fair to women and minorities. Results also showed that the pre-training screen has the potential to predict success in training. "However, we want to ensure that any pre-employment screening tool is also identifying candidates who can make it successfully through all phases of development and be certified as an air traffic controller," Harris said.

On October 4, 1991, the FAA com-



FAA controllers assist in validating the test.

pleted seven weeks of testing involving about 300 controllers, both developmental and full performance level, who had volunteered to participate. The Office of Civil Rights provided great assistance in encouraging extensive participation by minorities and women to make sure that the tests would satisfy legal guidelines concerning fairness in employment screening.

"The results from this phase of validation are not yet known; however, we remain optimistic about its potential implementation," said Dr. H. C. "Mac" McClure, Director of the Mike Monroney Aeronautical Center. "We want to move the screening/employment decision out of the air traffic training program. Until we do that, our classroom environment cannot take advantage of true training techniques. When screening is removed from the classroom, we can offer tutoring and opportunities for more individualized instruction," McClure said.

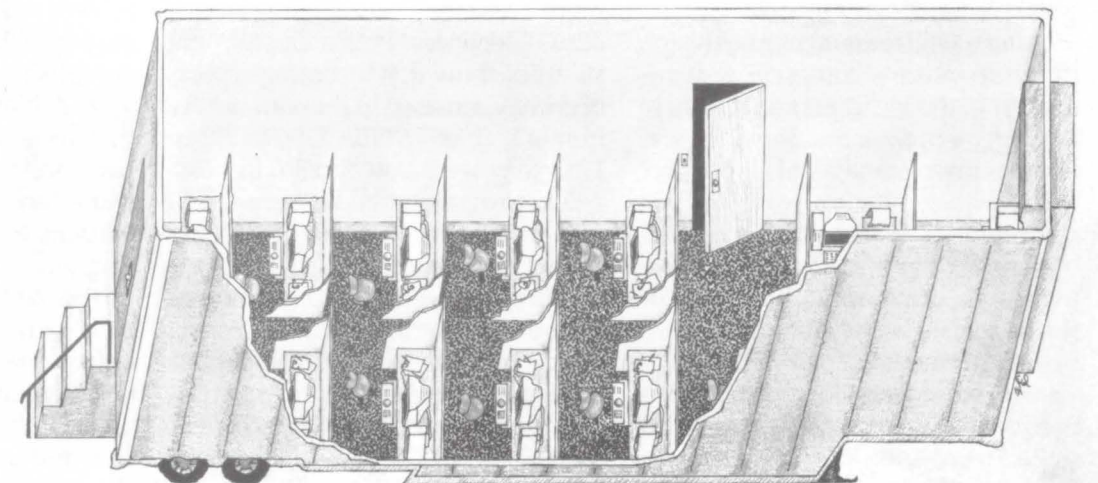
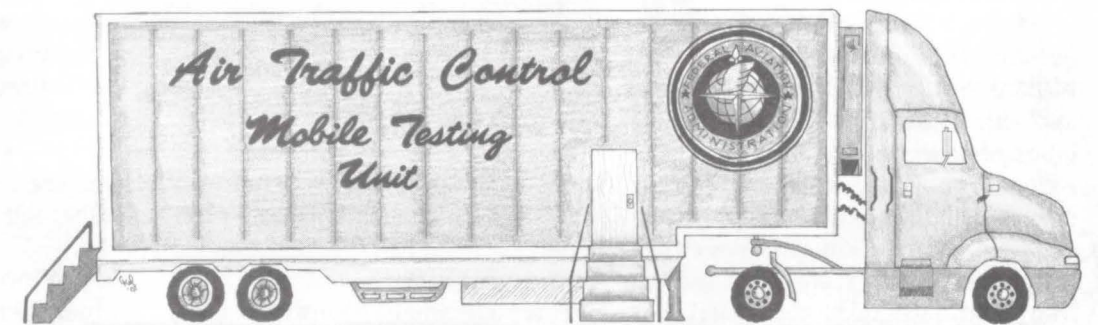
An element that is an essential part of the entire program is the addition of an objective performance verification process. The Air Traffic Training Work Group has recommended performance verification for all controllers who complete their initial training at the FAA Academy. "This feature will provide quality control," said Pollard, whose Air Traffic organization will administer the new per-

formance verification.

In performance verification, all controller trainees, including those who will be coming out of college and other special air traffic training programs, will be required to demonstrate certain knowledge, skills, and abilities before reporting to their field facilities for on-the-job training. "This is a unique and critical feature necessary to the success of the revised training program. The new centralized training program and performance verification process will ensure that students enter field facilities with a higher skill level," added Pollard.

The FAA is continuing to refine and validate the new screening concept. If the continued analysis demonstrates that the pre-training screen has validity and is fair, plans are to implement the system in late spring at the Aeronautical Center. After an initial one-year period of centralized administration at the Aeronautical Center, the FAA plans to move the administration of the screen to multiple locations, such as regional offices.

"Its ultimate mobility," said Harris, "is one added significant benefit. This will certainly enhance our air traffic controller recruitment capabilities." *



Ultimate portability of the new screening program could include use of mobile testing centers such as the one shown in this artist's rendition. This mobile testing concept could be expanded to include testing in other FAA occupations.

They Rendezvous at Midnight

Crime, Drug Abuse Targets of Former FAAer's Team

Few people have been the focus of the amount of media attention given retired FAAer Van Standifer. He's been written up in section one of the *New York Times*, in the *Washington Post*, and on the front page of the *Chicago Tribune*, among other newspapers. He's been interviewed for segments on both national and educational TV, including the ABC special *Over the Edge*. Currently he is featured in a nationwide public service announcement for the Points of Light Foundation.

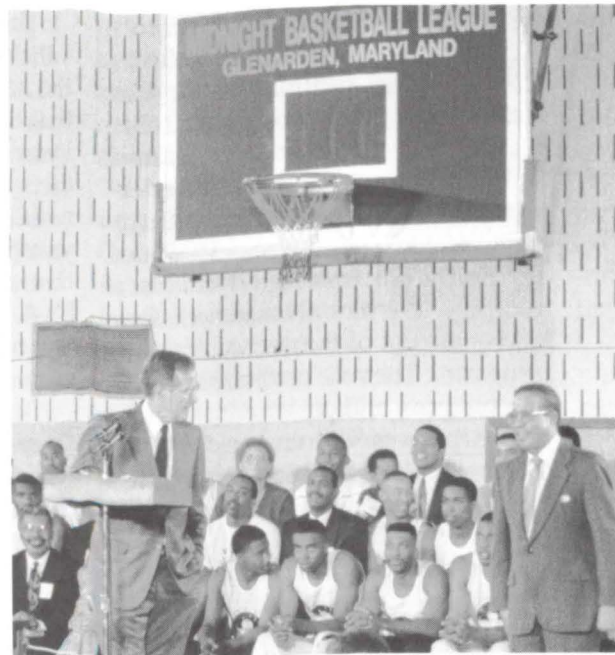
Midnight league

Media interest centers on Standifer's innovative contributions to youth, community, and country through his translation of a concept that aims to

reduce drug abuse and late-night crime into a program now sweeping the country. The Midnight Basketball League of Prince George's County, Maryland, a league he started in 1986, has become a nationally recognized, community-based program that begins its seventh year in 1992.

After a 1985 retirement from his job as a supervisory computer systems analyst in the Headquarters Office of Management Systems, Standifer was hired as town manager of Glenarden, Maryland. To help solve his community's problems with escalating crime rates and drug-related activities, he came up with the idea of starting a late night, summer basketball league aimed at older youth.

At first the league was funded entirely by the local businesses and staffed by volunteers. Today it is embraced by the law enforcement community, county political leaders, and the young people and families it serves. President George Bush has selected the league as his 124th Daily Point of



President Bush pays a visit to Van Standifer and Midnight Basketball team members at the Glenarden Community Center.

Light in the ongoing recognition of volunteer efforts to solve social problems.

Getting results

Few programs have worked as well and as quickly in getting youth off drugs and street corners as has Midnight Basketball, say its supporters. Also, Glenarden Police Department statistics show that incoming reports of crime decreased in the community from a high of 1,911 in 1986 to 793 in 1987; they were down to 770 in 1988.

The program operates between 10 p.m. and 2 a.m. three nights weekly during summer months. Its season is divided into regular and championship tournament sessions. Young people between the ages of 17 and 21 are eligible, with proof of county residence, on a first-come, first-served basis.

Highlights for players include the "MBL draft," with rules to select team members similar to those used by the professionals; an awards program; celebrity guest appearances; and in-

formal workshops. An unexpected spillover benefit of the league is the large number of spectators at the games; young people who would ordinarily congregate on dangerous street corners meet in gyms where they are supervised by adults and where they are safe. An unwritten code of behavior prevails.

Program premises

Standifer has some ideas on why Midnight Basketball gets results:

- Its four-hour period occurs when temptations to crime and drug activity are the greatest.
- Basketball is the sport of choice for the target population—black males, ages 17 to 21.
- Players are required to

learn about and attend workshops on drugs, self-esteem, and career planning.

- Winning requires both individual talent and group teamwork.
- Youths' commitment to the program and the discipline and rewards system within the program provide players with a sense of pride and accomplishment.

• A National Basketball Association-style draft at the beginning of each season spreads talent over all teams and brings out a maximum amount of competition within each league.

• Mandatory use of all players in each game and required one-on-one defense insures a high degree of participation and physical activity.

• The high ratio of adults to youth (1:6) and the fact that all coaches are community leaders give a sense of concern and commitment to the players.

• Players learn from the experiences of their peers in safe, supervised

settings at a time when they are experiencing rapid and difficult transitions in their lives.

• Media coverage of the league spurs players' enthusiasm.

• Interactions with prominent law enforcement, sports, and business leaders help form positive role models for the players.

• Workshops and scholarship opportunities encourage players to aim for higher goals.

• Some players find part-time, entry-level employment in the league.

• Adult volunteers and financial and in-kind contributions from businesses have provided the necessary resources.

Funds tight

Not surprisingly in a tight economy, Standifer has had increasing difficulty raising funds within the private sector. A real boost for the program's

finances could be on the way. In July legislation was introduced in Congress to provide federal grants to help establish Midnight Basketball Leagues around the country. The measure was added to the omnibus crime bill in November, which passed the House. It still faces the hurdles for acceptance by the U.S. Senate, and there's a tough legislative road ahead, say league supporters.

No longer Glenarden town manager, but still as closely involved as ever with Midnight Basketball, Standifer sums up what the program has meant in a personal sense. He tells how Midnight Basketball and its success in opening up options for young people has added to and transformed his own life.

"For my first 56 years," he ex-



The league was named President Bush's 124th Daily Point of Light.

plains, "I was caught up in myself and my possessions."

Today his perspectives have widened. "I don't pretend to know why, but I've changed," he says. ✱

Midnight Basketball League Roster*

California

San Francisco
(415) 921-6276, Larry Gray

Colorado

Denver
(303) 321-2600, Joni Samuels

Connecticut

Bridgeport
(203) 334-5106, Marian Heard

District of Columbia

Tony Towns (202) 829-4952

Florida

Daytona Beach
(904) 258-7072, Danna Hendrickson
Melbourne
(407) 254-9704, Art Robbins

Georgia

Atlanta
(404) 420-6408, Emanuel Hunt

Illinois

Chicago
(312) 791-4768, Gil Walker

Indiana

Gary
(219) 886-0621, Michael Scott

Kansas

Topeka
(913) 232-5112, Samuel Wilkins

Maryland

Charles County
(301) 870-3388, Paul Wills
Prince Georges County
(301) 772-1711, Van Standifer

Michigan

Kalamazoo
(616) 343-6185, Michael Williams

New Jersey

Essex County
(908) 925-4738, Kirk Charles
Neptune
(908) 502-0308, Alex Navarro
New Brunswick
(908) 247-9811, Gregory Hall
Union County
(908) 925-4738, Kirk Charles

New York

New York City
(212) 769-0433, Ed Lally

Ohio

Cleveland
(216) 664-3987, Wayne Moss
Youngstown
(216) 744-2161, Rudy Vazmina

Puerto Rico

(809) 798-2040, Eddie Gonzalez

Texas

Austin
(512) 385-7725, Paul Vogel
Houston
(713) 671-3931, Lon Reynolds

*As of December 1991



A Team Approach

Managing FAA's Multibillion-Dollar Computer Upgrade

You may have read about the technical accomplishment itself in the news, but the team of employees behind-the-scenes have the real story to tell.

This past October 1, the FAA announced the achievement of a major objective. The first segment of the Advanced Automation System (AAS)—the Peripheral Adaptor Module Replacement Item—successfully completed its operational readiness demonstration (ORD) at the Seattle Center precisely on schedule on the exact date that had been set four years earlier. Then on November 22, it was dedicated at the center.

Like all programs to make technical improvements, AAS encounters its share of difficulties, but by using a team approach, those developing the system have been able to identify and correct them quickly.

T-Triple-Charlie

When the tower control computer complex (TCCC)—or T-Triple-Charlie—was demonstrated, for example, part of the equipment met the FAA's engineering specifications and was a showpiece of sophisticated systems planning, but it had two problems: The design neither let controllers spend enough time looking out

the window, nor could they move about the tower. Controllers were so tied to their workstations they wouldn't have visual contact with the airfield where events develop quickly.

A glitch like this could have resulted in a lot of intra-agency squabbling and finger pointing; but the Advanced Automation Program Office—the organization responsible for fielding the AAS, the multibillion-dollar air traffic control computer system that includes the computer complex—had just completed a training session in matrix management designed to fortify its key management structure.

Tackling the problem in the TCCC design was the first test of the team's new-found unity, and within a few months, an alternative was worked out to satisfy everyone involved in the project, especially the ultimate users of the system—the air traffic controllers.

'Matrix management'

The team approach, or "matrix management," is often used for managing large, complex projects at the agency. Team members, who are drawn from organizations throughout the FAA, have specific skills needed on a particular project. They represent their organizations in well-defined aspects

of a project and are responsible for the successful completion of those areas. Along with this responsibility goes the organizational "muscle" to do what needs to be done: Each team member is empowered with the necessary authority and access to resources.

Associate Administrator for NAS Development John Turner notes how empowerment is an issue for the organizations repre-

sented on the matrix team, whether within the FAA or outside contractors. "Each one has to solve this problem in its own way," Turner said, "but everybody realizes that success depends on giving team members the authority to make commitments, to speak on behalf of their organizations."

Even before the training session, the Advanced Automation Program Office had a strong matrix team in place, headed by Michael E. Perie. "We just weren't being as effective as we could be," Perie said.

Focus on 'customers'

The defect in the computer complex design was detected early in the project cycle because several team members represent the eventual users, the "customers" in the development process; they have the important task of making sure the finished system will satisfy their diverse needs and expectations. John Timmerman, who represents Air Traffic's requirements on the team, said: "By meeting together, through constant interaction, there's a climate where the customer can talk freely to the program office on a routine basis. We'll find problems earlier and correct them before the system design is all locked up and difficult to change."

The AAS team, which is made up of some 20 people, also drew upon the expertise of the general counsel, test and evaluation, contracting officer, and quality office, in addition to the senior-level management of the AAS Program itself and the "customer representatives" from the System Maintenance and Air Traffic Services.

'Roles and goals'

Gaining support from all the matrix team members meant they had to share a common objective and know precisely what to expect of each person and of the FAA unit that person represented. The aim of early meetings was to produce a tangible, hardcopy document that team mem-



Members of the Advanced Automation System Matrix Management Team are Brian Andrews, AAP-230; Frank Bassett, AAP-250; Michael Bateman, AAP-210; Greg Carter, AGC-520; Perry Copp, ACN-130; Floyd Etherton (acting), ATP-130; Philip Gill, AAP-201; Glen Halbert, AAP-10; Dick Marek, AAP-240; Donald Mullikin, AAP-200; Pat Myers, ASM-200; Michael Perie, AAP-1; Bob Riebau, ALG-420; Gary Rowland, AAP-220; John Scardina, ASE-100; Charles Stith, AAP-2; John Timmerman, ATR-320; Dennis Trippel, ALG-350A; and Gary Wieting, ANS-420.

The prime contractor is IBM, with subcontractors CSC and Raytheon and support contractors TRW, SEI, CTA, and MITRE.

bers could put in their attaché cases and carry back to their offices. This approach not only had wide-ranging effects within the organizations, but also helped to institutionalize the team concept, said Lynne Carbone, organizational development consultant.

The first phase was limited to the FAA members of the matrix team. A two-day session began with negotiating a statement defining the joint mission of everyone on the team. That's not as easy as it sounds, observed Charles (Chuck) Stith, deputy director

of the Advanced Automation Program, because "there has to be something in that mission statement for every team member to hang a hat on, to be able to say 'That's mine!'"

On the second day the team members defined their individual roles with respect to the common mission. They asked themselves, "What is it going to take individually and collectively to accomplish this? What do I bring to the table? What do you bring?" Role assignments are published in a notebook, and everyone on the team has a

copy. When someone has a question, they know exactly whom to contact, without having to go through the chain of command.

The "roles and goals" clarification also provided the foundation for writing formal program directives—operating agreements that spelled out the commitments each team member made to the others. "It turned out that a lot of little things were bothering people," observed Perie, "and the day-to-day operating agreements helped a

continued on next page



PAMRI, the first segment of the AAS was dedicated on November 22 at the Seattle Air Route Traffic Control Center. Program manager Mike Perie, AAP-1, presents an outstanding teamwork award to Seattle center's Airway Facilities manager Ralph Hushbeck, center, and Air Traffic manager Terry Falkner.

Some Definitions

➔ **AAS.** The Advanced Automation System is FAA's multibillion-dollar project to bring state-of-the-art technology to the air traffic control system through improved controller work stations, computer software, and processors.

It will ensure:

- Capacity to handle the projected air traffic load through the 1990s and beyond.
- Capability to perform the new functions to be introduced into the air traffic control system through the 1990s.
- Increased productivity through introduction of new sector suites.

- A high degree of reliability and availability.

- Capability for enhancement to perform other functions subsequently introduced into the system.

➔ **PAMRI.** The Peripheral Adapter Module Replacement Item is the first segment of the Advanced Automation System. It is a data communications link between the center's Host computer and outside data sources, including radar, flight, and weather information.

PAMRI substantially upgrades air traffic control system reliability. It expands the number of radars and

other sources feeding information to air traffic controllers at higher transmission rates.

➔ **TCCCs.** Under the Advanced Automation System, tower control computer complexes are being developed for use in air traffic control towers. Area control facility sector suite components will be used whenever possible but will have unique display characteristics for placement in the close spaces and brightly lit tower cabs.

TCCCs will satisfy the tower requirements for radar position display, flight data, weather data, and flow planning information.

A Team Approach

continued from page 9

lot. They formalized the working relationships so that each person knows what to expect from another."

For Dennis Trippel, the program directive had to be drafted so he could fulfill his obligation as a contracting officer to exercise independent judgment. On the other hand, he was needed as a full team player. The program directive makes it clear where the organizational lines are drawn, and "it's working very well," Trippel said. "I'm free to express my opinions, and I can address my concerns to Perie or my management directly when I need to," he said. "It takes different perspectives to pull a solution together."

Defining requirements

The team next focused on a definition of the customers and their requirements.

"Things that everybody agreed on were going pretty well," Perie said. We listed them, and then we listed some things that weren't going so well. We started to worry about how to fix them, and as soon as we began discussing real, live day-to-day work, it just fell into place."

Stith added, "That's when we began to have synergism in the team."

The change in attitude was quickly apparent in the greater willingness of team members to be less absolute and unbending in their demands. Effective teamwork required "a common understanding of what has to be done, an agreement on the critical requirements to be met, and a willingness to give up something for the overall good of the program," said Don Mullikin, manager of the Advanced Automation System Division. "Once we reached that point, we knew we were a team."

Expanded sessions

After completion of the first phase, the team building sessions were broadened to include people from outside the agency. Much of the



Lynne Carbone works toward institutionalizing the team concept. At right is Dennis Hupp.

work on the AAS is being performed by the prime contractor, IBM, and several support contractors, including MITRE, SEI, TRW, and CTA, and teambuilding promises to ease conflicts arising out of such working relationships. A significant part of teambuilding, says Carbone, is the attempt to mesh the cultures of organizations "which have the same mission but approach it very differently, with very different constraints and perspectives."

In a session with FAA's and IBM's management, the two groups first met separately, but answered the same four questions:

- How does the government support the mission?
- What does the government do to impede it?
- What does IBM do in support?
- How does IBM impede it?

Then everyone got together to compare answers. In almost every case, they came up with the same positives and the same negatives. IBM's Bill Carson said, "We knew we were all in the same choir. Now we're singing off the same page."

Next, a one-day session was held for a wider tier of FAA and IBM managers, and then the circle was expanded to key subcontractor and support contractor personnel. On the latter occasion, each group depicted its unique contribution to the AAS project as a coat of arms or a motto. A banner bearing the coat of arms of one con-

tractor now hangs in the office as a rallying symbol.

New insights

Over a year has elapsed, and the AAS team has gained insight into its new management approach.

First, it's clear that the team must be tuned up on a regular basis. "It takes continual maintenance," Stith observed. "We had a six-month renewal session where we again thought through our roles to make sure we were still in agreement, and we completed our first annual assessment in December."

Second, the actual empowerment of the program managers may be less than many would wish, says John R. (Bob) McCaw, assistant chief counsel for procurement. "They have a lot of responsibility, but they have not been fully empowered when it comes right down to it."

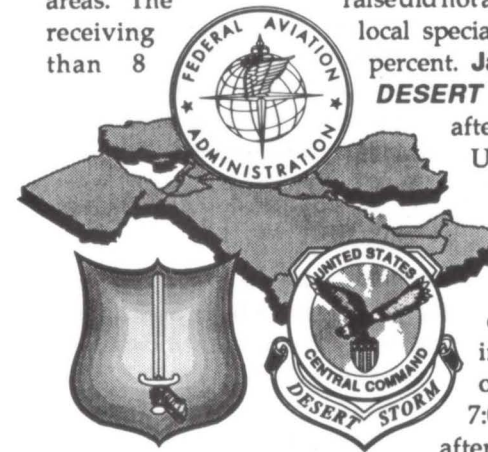
Third, the energy and elan so evident among matrix team members can dissipate within the parent organizations. "What I would criticize our performance the most on is getting team building—the spirit and the actions—throughout our organizations," says Perie.

In any case, completing the operational readiness demonstration of the PAMRI right on schedule shows that team building can work on a large scale. One team member said of the experience, "It was like being on a winning team. I haven't had that feeling since high school." *

Aviation in 1991

JANUARY

Jan 1: NEW AOPA AND ALPA CHIEFS—Phil B. Boyer, a general aviation pilot and broadcasting executive, became president of the Aircraft Owners and Pilots Association. Capt. J. Randolph Babbitt became president of the Air Line Pilots Association. **Jan 8: PAA BANKRUPT**—Pan American World Airways filed for protection from its creditors under Chapter 11 of the bankruptcy laws (See Aug 12.). **Jan 10: ADS ON REAR EXITS**—FAA issued an airworthiness directive requiring repetitive inspections of the tailcone release system of DC-9 aircraft. The action was prompted by the failure of a tailcone to deploy during an evacuation following an accident at Detroit on Dec 3, 1990. On March 1, 1991, FAA issued another AD requiring similar inspections for MD-80 and MD-88 aircraft. **Jan 13: PAYBOOST**—An "interim geographic adjustment" gave an 8 percent pay raise to 5,933 FAA employees at facilities in the New York, Los Angeles, and San Francisco areas. The raise did not apply to those already receiving more than 8



local special pay rates of more percent. **Jan 16: OPERATION DESERT STORM**—One day after the expiration of a United Nations deadline for Iraqi withdrawal from Kuwait, military aircraft of the U.S.-led coalition began striking targets in Iraq and occupied Kuwait. At 7:00 p.m. EST, shortly after the attacks began,

FAA declared level 4 airport/airline security, the highest domestic level ever imposed (See March 29.). **Jan 18: EAL STOPS FLYING**—Eastern Airlines ceased flight operations as of midnight on this date, after nine months under the control of a trustee appointed by a bankruptcy judge. On Jan 24, the International Association of Machinists and Aerospace Workers ended their strike of over 22 months against the airline. Eastern had been originally organized as Pitcairn Aviation in 1927. **Jan 21: CRAF LEVEL 2**—The Defense Department declared an "airlift emergency" under the Civil Reserve Air Fleet program, which had been first activated on Aug 7, 1990, to assist Operation Desert Shield. DOD's initial action under this CRAF level 2 was to call upon U.S. airlines to provide 17 aircraft for long-range international cargo operations (See May 24.).

Jan 23: FOREIGN INVESTMENT LIMIT EASED—DOT Secretary Sam Skinner announced that DOT would relax restrictions on foreign investment in U.S. airlines. Under the new policy, investment of up to 49 percent of total equity obtained from foreign sources would not generally, by itself, be considered an indicator of foreign control (See June 20.).

Jan 23: KLM FLIGHTS—DOT granted the application of KLM Royal Dutch Airlines to fly between Amsterdam and Minneapolis/St. Paul. The action was part of a program begun in 1990 to expand international service to U.S. cities.

Jan 25: TOWER SIMULATORS—FAA dedicated a voice-controlled tower cab simulation laboratory at the Aeronautical Center's new General Thomas P. Stafford Building. The facility features two advanced simulators, known as Tower Operator Training Systems (TOTS). Students began using the TOTS in June.

FEBRUARY

Feb 1: LAX COLLISION—In a night approach to Los Angeles International, a USAir 737 landed atop a Sky West commuter Fairchild Metroliner III. Fatalities included all 12 persons aboard the commuter flight and 22 of the 89 aboard the USAir flight.

Feb 6: HEARINGS ON NOISE—FAA announced three hearings to obtain comment on proposed rules being developed to implement provisions of the Airport Noise and Capacity Act of 1990. The hearings were held on March 5-6 in Alexandria, VA; March 11-12 in suburban Chicago; and March 14-15 in Seattle (See Sept 19.). **Feb 6: REGIONAL APPOINTMENTS**—FAA announced the appointment of Carl B. Schellenberg as Western-Pacific Regional Administrator and Clyde M. DeHart, Jr., as Regional Administrator, Southwest Region.

Feb 6: PAA ROUTES—Confirming a tentative decision rendered on Jan 8, DOT approved the transfer of a number of Pan American's transatlantic routes to United Airlines. The approval was conditional upon United's receiving authority to serve London Heathrow, a subject of U.S.-U.K. negotiations (See March 11.).

Feb 7: RUNWAY INCURSION PLAN—FAA announced a plan to cut runway incursions through actions that included tests of advances in runway marking, lighting, and signs at four airports: Boston, Seattle-Tacoma, Pittsburgh, and the new Denver airport expected to open in 1993. **Feb 14: FIRST LADY'S FLIGHT**—Barbara Bush took a commercial flight from Washington to Indianapolis to reassure the public about the war-related terrorist threat to airline security. **Feb 15: HOLDING AT INTERSECTIONS LIMITED**—FAA amended its "ATC Handbook" to prohibit controllers from authorizing aircraft to hold at a taxiway/runway intersection at night or when the intersection is not visible from the tower. **Feb 17: RYAN DC-9 CRASH**—A Ryan International DC-9-10 carrying mail crashed on takeoff from Cleveland, killing both crewmembers. The National Transportation Safety Board linked the accident to ice on the wings in a Nov 13 finding. **Feb 18: NEW CHICAGO TRACON**—FAA announced plans to build a new terminal radar control (TRACON) facility at Elgin, IL, to handle air traffic in the Chicago-metropolitan area. **Feb 24: NEW REGIONAL CHIEF**—Effective this date, Stan Rivers became Regional Administrator, Central Region. **Feb 27: GULF CEASE-FIRE**—A cease-fire proclaimed by the United States took effect in

Southwest Asia at midnight EST. Iraqi forces had been routed by a ground assault that began on Feb 24.

MARCH

March 1: TREATY ON EXPLOSIVES

The United States and 39 other nations signed a pact requiring the addition of a chemical marking agent to plastic explosives during manufacture to assist their identification by vapor detectors.

March 3: COLORADO SPRINGS

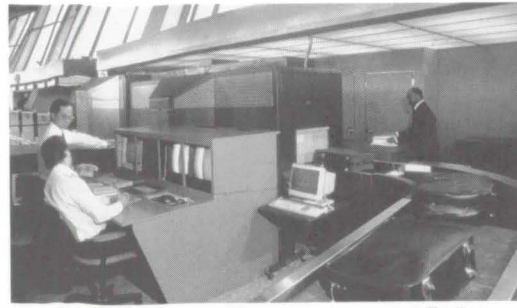
CRASH—All 25 persons aboard a United Airlines flight died when their 737 crashed on approach to Colorado Springs Municipal Airport. Reported theories as to the cause included a "rotor" mountain wind pattern.

March 7: PILOT TRAINING RULE—FAA issued a rule updating standards of performance for pilots, flight instructors, and pilot training schools. **March 7: NEW TCA**—The new Washington Tri-Area Terminal Control Area became effective this date, encompassing four major airports: Washington National, Dulles International, Baltimore Washington, and Andrews Air Force Base.

March 11: NJ NOISE HEARINGS—FAA began a series of hearings in five New Jersey communities to obtain public comment on the effects of air traffic changes under the Expanded East Coast Plan (EECP), which was implemented in phases between Feb 1987 and March 1988. Citizens voiced strong discontent at some of the meetings, the last of which took place on April 18 (See June 28.). **March 11: U.S.-U.K. PACT**—The United States and the United Kingdom reached a liberalized agreement on airline service. Features included permission for United and American Airlines to succeed Pan American and Trans World Airways in serving London Heathrow. In return, British airlines would get more access to U.S. airports.

March 16: MUSICIANS DIE IN CRASH—A chartered Hawker Sidley crashed after takeoff from Brown Field, near San Diego, killing all ten aboard. The fatalities included the road manager and seven members of the band of country singer Reba McEntire, who was not on the flight. **March 20: EAL GUILTY**—A Federal court fined Eastern Airlines \$3.5 million after the airline pleaded guilty to seven counts of criminal charges relating to falsification of maintenance records. The judgment followed a plea bargain in which prosecutors agreed to drop other related charges against the airline and its employees.

March 21: PIPER MALIBU RESTRICTIONS—FAA issued an emergency airworthiness directive banning operation of Piper Malibu Models PA-46-310P and PA-46-350P under instrument weather conditions. In a revision issued on April 19, FAA instead prohibited pilots from flying the aircraft into known or forecasted thunderstorms, icing, or severe/moderate turbulence. **March 21: TNA NEGOTIATIONS**—FAA announced negotiations for installation of two thermal neutron analysis explosives detection systems at San Francisco International Airport. The negotiations progressed during 1991, while TNA tests were completed at Miami airport in January and at New York Kennedy in September. At year's end, TNA units were operating at Washington Dulles and London Gatwick.



TNA explosives detection system at Dulles

March 25: RUNWAY

TRAFFIC LIGHTS—A Stop Bar System featuring red and green traffic lights for runways and taxiways began a one-year test at Kennedy International Airport. The system had been enhanced since a previous evaluation at JFK during 1989. **March 26: MIDWAY**

BANKRUPT—Midway Airlines filed for protection from its creditors under Chapter 11 of the bankruptcy code (See Nov 13.).

March 29: SECURITY ADJUSTMENTS—FAA confirmed that some adjustments had been made to airport and airline security requirements, which had been raised to level 4 due to Operation Desert Storm. Transition to a modified level 2 was completed by May 27. **March 31: DDF CONSTRUCTED**—Construction of the Development Demonstration Facility to assess segments of the Advanced Automation System was completed in Gaithersburg, MD. FAA accepted the facility on May 31, and the first operational suitability demonstration began on Aug 13.

APRIL

April 1: SATELLITE SYSTEM TESTS—A Northwest Airlines 747 began a series of test flights in Soviet airspace as part of a cooperative program to develop a satellite navigation system in which aircraft would receive signals from both the U.S. Global Positioning System (GPS) and the Soviet Global Orbiting Navigation Satellite System (GLONASS). A U.S./U.S.S.R. exchange of receivers took place in Montreal on April 27.

April 4: MIDAIR NEAR PHILADELPHIA—A Bell 412SP helicopter collided with a Piper Aerostar PA-60 during a visual check of the Piper's landing gear. The accident killed both occupants of the helicopter, all three persons aboard the Piper (including Senator John Heinz, R-PA), and two children struck by wreckage that fell onto the grounds of their school in Lower Merion Township. On Sept 17, NTSB cited poor judgment by the pilots of both aircraft as the probable cause. **April 4: OCEANIC AIRSPACE**—FAA completed transfer of more than 600,000 square miles of oceanic airspace from the Miami and Boston en route centers to the New York center. The action completed the last phase of a larger restructuring begun in September 1989 with transfer of airspace from the San Juan center to the New York center. **April 4: FIRE PROTECTION RULE**—FAA issued a rule increasing protection against cabin fires by upgrading requirements for lavatory fire detectors, lavatory trash receptacles, and hand fire extinguishers. **April 4: NPRM ON EXITS**—FAA issued a notice of proposed rulemaking to make it easier for passengers to use Type III exits (typically smaller overwing exits) on transport aircraft. The proposal included placards with improved instructions and two options for increasing access space.

April 5: GEORGIA CRASH—An Embraer 120 operated by Atlantic Southeast Airlines crashed on approach to Georgia's Brunswick/Glynco Jetport, killing all 23 persons aboard. Fatalities included former Senator John G. Tower (R-TX) and astronaut Manley Lanier "Sonny" Carter, Jr. Press reports indicated

the investigation was centering on the engines and propellers. **April 11: U.S./CANADA TALKS**—The United States and Canada began negotiations aimed at updating their 1974 aviation agreement, with prospects for increased air service between the two nations.

April 16: ENGINE INSPECTIONS—FAA issued an emergency airworthiness directive requiring inspections of Garrett TFE-731 engines used on business jets. The National Transportation Safety Board had recommended such a directive on March 22, 1991, following its investigation of a nonfatal engine explosion on Oct 28, 1990. **April 16: FEDIX AVAILABLE**—FAA announced that educators could now obtain information on the agency's aviation education programs by using any modem-equipped personal computer to access the Federal Education Information Exchange System (FEDIX).

April 23: CIP ISSUED—FAA issued the first annual Capital Investment Plan (CIP) to the public. The plan had become effective on Feb 8, superseding the National Airspace System Plan.

MAY

May 1: UNION VOTE—A majority of those aviation safety inspectors casting ballots voted for representation by the Professional Airways Systems Specialists (PASS). On May 10, PASS was certified as the bargaining agent for this previously non-union group of 1,913 FAA employees. **May 2: TCAS II PROBLEM**—FAA ordered the Collins version of the Traffic Alert and Collision Avoidance System used on some airliners taken out of service pending correction of a computer problem that led to false traffic warnings. **May 9: DIRECTIVE ON PROPELLERS**—FAA issued an emergency airworthiness directive requiring inspections of certain Hamilton Standard propellers used on the Embraer 120 and some other aircraft types. A second AD issued on May 22 broadened the scope of the requirements. **May 14: LORAN C GAP CLOSED**—DOT completed the Loran C long range navigation system by closing the mid-continent coverage gap. **May 22: PFC RULE ISSUED**—FAA issued a rule under which U.S. airports can be authorized to impose passenger facility charges (PFCs) to finance airport-related projects, in accordance with the Aviation Safety and Capacity Expansion Act of 1990. **May 23: NEW ADVISORY COMMITTEE**—The FAA Aviation Rulemaking Advisory Committee, which had been established on February 5, 1991, held its first meeting. **May 24: CRAF DEACTIVATED**—The Civil Reserve Air Fleet program, which had been downgraded from level 2 to level 1 on May 17, was deactivated on this date. The CRAF fleet had transported over 709,000 personnel and 126,000 tons of materiel during the Desert Shield/Storm operation. **May 26: LAUDA AIR TRAGEDY**—All 223 persons aboard a Boeing 767 operated by the Austrian airline Lauda Air died when the aircraft was destroyed after takeoff from Bangkok, Thailand. Reported theories as to the cause included accidental deployment of an engine thrust reverser. On June 6, FAA confirmed that the thrust reverser on one engine was found fully deployed (See July 3.). **May 30: MILITARY AIRPORT PROGRAM**—DOT announced a \$5 million grant to Stewart International Airport, Newburgh, NY, the first award under the Military Airports Program mandated by the Aviation Safety and Capac-

ity Expansion Act of 1990. The new program uses Airport Improvement Program funds to assist former military airports and joint civil/military airports. **May 31: U.S./SPANISH ACCORD**—The United States and Spain reached an agreement assuring the beginning of new U.S. airline services to Spain and granting Spanish carriers rights that included authority to serve three additional U.S. cities.

JUNE

June 2: PDC SYSTEMS OPERATIONAL—As of this date, Pre-Departure Clearance was operational at all 29 continental U.S. airports designated to receive the system. Operational evaluation of the first PDC workstation had begun at Dallas/Ft. Worth in July 1989. **June 5-6: INTERNATIONAL AIR SERVICE**—On June 5, DOT selected three airlines to provide four new services to the Soviet Union: TWA, American, and the newly organized Baltia Air Lines. The next day, DOT announced approval of Jes Air's application to begin the first Bulgarian airline service to the United States, non-stop flights between New York and Sofia. Also on June 6, DOT announced a new U.S.-Greek agreement expanding opportunities for air travel. **June 6: RELIEF FOR GULF PERSONNEL**—FAA issued a rule giving civilian and military personnel who served in Operation Desert Shield/Storm additional time to renew or use FAA flight instructor certificates, inspection authorizations, and written test results. **June 7: HOUSTON TCA PROPOSAL**—FAA issued a proposal to expand the Houston Terminal Control Area to encompass the airport radar service area (ARSA) surrounding William P. Hobby Airport. **June 11: THREAT NOTIFICATION RULE**—FAA issued a rule requiring air carriers to notify aircrew members when there is a specific and credible security threat to their flight. **June 12: PAY HIKE AT FOUR TOWERS**—FAA announced the upgrading of four airport towers from level 4 to level 5: San Francisco and the New York area's LaGuardia, Kennedy, and Newark. The pay of controllers at the facilities would become comparable to the other level five towers: Atlanta, Los Angeles, Dallas, and Chicago O'Hare.

June 17: ALASKAN/U.S.S.R. SERVICE—Alaska Airlines became the first and only U.S. carrier to offer scheduled service from the West Coast to the Soviet Far East, flying from Anchorage to Magadan with continuing service to Khabarovsk. **June 17: COURT RULING ON WMAA**—The Supreme Court ruled that the law establishing the Metropolitan Washington Airports Authority, which operates Washington National and Dulles International Airports, violated the constitutional separation of powers by giving a Congressional review board veto rights over WMAA's decisions. New legislation will be required.

June 20: FOREIGN INTERESTS IN AIRLINES—DOT Secretary Sam Skinner announced that the Bush Administration now supported raising the maximum foreign ownership of voting stock in U.S. air carriers from 25 to 49 percent.

June 21: MLS CONTRACT—FAA awarded a contract to Bendix for two Microwave Landing Systems. The contract included an option for 26 additional units, which the agency subsequently ordered. **June 21: FOREIGN AIRLINE SECURITY RULE**—FAA issued a regulation requiring foreign air carriers operating into or out of the United States to provide a

level of protection similar to that of U.S. carriers serving the same airports.

June 25: U.S./ARGENTINE ACCORD—The United States and Argentina signed a bilateral airworthiness agreement.



FAA Administrator James Busey and Argentina's Brig. Gen. Juan Baigorria at signing ceremony.

June 25: AD ON FAN DISKS—FAA issued an airworthiness directive requiring inspections of certain fan disks on General Electric CF6-6 turbojet engines. The action was prompted by concern that defects might exist in additional fan disks besides those covered by directives issued as a result of the DC-10 crash in

Iowa on July 19, 1989.

June 26: NTSB MEMBERSHIP CHANGE—John A. Hammerschmidt became a member of the National Transportation Safety Board, succeeding Jim Burnett. **June 27: AMERICA WEST BANKRUPT**—Phoenix-based America West Airlines filed for protection under Chapter 11 of the bankruptcy code. **June 28: CONTRACT ON NJ NOISE IMPACT**—FAA announced a contract with PRC, Inc., to assist in developing an environmental impact statement on the effects of New Jersey flight patterns revised under the Expanded East Coast Plan (EECP).

JULY

July: MODE S DELIVERY—The first of two Mode S production systems was delivered to the Technical Center in preparation of formal acceptance of this new radar beacon system, 137 of which will be implemented in the airspace system.

July 1: PIPER BANKRUPT—Piper Aircraft Corporation filed for protection under Chapter 11 of the bankruptcy code. **July 1: NEW BRANIFF**—A new Braniff International Airlines began scheduled service; but on Aug 7 the carrier filed for Chapter 11 bankruptcy protection. (The original Braniff ceased operations in 1982, then was revived during 1984-89.)

July 3: 767 THRUST REVERSER ADS—In an action stemming from the May 26 Lauda Air crash, FAA issued the first of a series of airworthiness directives requiring inspections of and adjustments to thrust reversers on 757s and 767s powered by Pratt and Whitney PW4000 series engines. **July 8-12: VOLCANIC ASH**—The First International Symposium on Volcanic Ash and Aviation Safety took place in Seattle with FAA among the sponsors. The event had been planned before the Philippines Mt. Pinatubo began eruptions on June 12, posing a threat to aircraft that encountered ash clouds. **July 9: PROGRESS ON PILOT/ALCOHOL ISSUE**—Praising FAA's work in identifying pilots with records of alcohol-related driving offenses, the National Transportation Safety Board removed a recommendation on this subject from its "most wanted" list of safety actions. **July 10: COMMUTER CRASH IN ALABAMA**—A Beech 99 operated by the com-

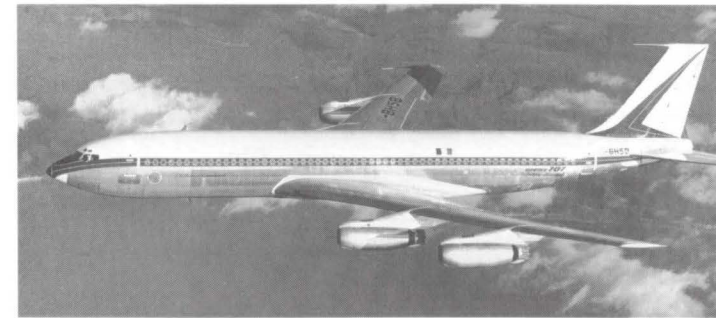
muter airline L'Express crashed into a residential area of Birmingham, AL, killing all 13 persons aboard. **July 11: DC-8 CRASH IN ARABIA**—A DC-8 chartered from the Canadian carrier Nationair crashed after departure from Jiddah, Saudi Arabia, costing the lives of all 261 persons aboard. Media reports indicated that a landing gear fire on takeoff was followed by control problems and possible cabin fire before the aircraft was destroyed while attempting a return landing.

July 25: DRUG TEST RESULTS—FAA announced the results of the first full year of drug testing of employees in and applicants for safety/security positions in the aviation industry (CY90). Of 230,621 tests conducted, 966 (or 0.4 percent) were positive for drug use. **July 25: LUFTHANSA SERVICE EXTENDED**—DOT extended Lufthansa's authority to fly between Frankfurt and Charlotte, NC, until Feb 18, 1992, but the department stated that there would be no further extension without a satisfactory U.S.-German accord on fare pricing.

July 26: PRIMARY AIRCRAFT COMMENTS—FAA announced the reopening of the comment period on a rulemaking proposal (originally issued March 7, 1989) to establish a new "primary aircraft" category for certain small personal-use airplanes. The two-month comment period began Aug 1, 1991.

AUGUST

Aug 2: AGREEMENT ON LA NOISE—A working group of FAA and Los Angeles officials completed a memorandum of understanding on aircraft noise at Los Angeles and Ontario International Airports. On Aug 6, the city council endorsed the MOU and referred a proposed noise ordinance back to subcommittee for review. **Aug 8: SOUTH AFRICA SANCTIONS END**—DOT ended all aviation sanctions against South Africa and said that it would consider applications for air carrier routes between the two countries. The action followed a DOT show cause order issued on July 11, the day after President Bush declared South Africa had met conditions set by the 1986 anti-apartheid law under which the sanctions were imposed. **Aug 12: DELTA/PAA DEAL**—A federal bankruptcy judge approved a deal under which Delta Air Lines would acquire major Pan American World Airways assets and also own 45 percent of a downsized PAA. On Sept 1, Delta began operating PAA's Washington/New York/Boston shuttle. On Oct 18, DOT gave final approval to the sale of most of PAA's remaining transatlantic routes to Delta (See Dec 4.). **Aug 13: TECH CENTER LABORATORIES**—FAA Administrator James Busey participated in groundbreaking ceremonies for the FAA Technical Center's new Advanced Automation System Laboratory and Aviation Security Laboratory. **Aug 14: O'HARE SLOT RULE**—FAA issued a rule to permit airlines serving Chicago O'Hare Airport to use large jets in some commuter slots normally reserved for smaller aircraft. **Aug 15: SECURITY PERSONNEL STANDARDS**—FAA issued a rule prescribing more stringent standards for hiring, training, and performance of airline and airport security personnel. The rule was mandated by the Aviation Security Improvement Act of 1990. **Aug 30: BOEING ENDS 707**—Boeing announced an end to production of the 707, an aircraft type in service since 1958. The



Boeing ends 707 production, an aircraft type in service since 1958.

company built 857 of the 707s, selling the last as a radar surveillance plane earlier in 1991.

SEPTEMBER

Sept 1: NEW NATCA LEADERS—Barry Krasner replaced R. Steve Bell as president of the National Air Traffic Controllers Association, and Joe Bellino replaced Ray L. Spickler as the union's executive vice president. The change resulted from mail balloting during June and July. **Sept 5: GPS OFFER**—FAA Administrator James Busey announced at an International Civil Aviation Organization meeting that the U.S. is offering world civil aviation the use of its Global Positioning System for at least 10 years, starting in 1993 when GPS is to be fully operational. **Sept 9: AIRPORT SLOT PROPOSAL**—FAA proposed to revise its high density rule to make it easier for new entrant airlines and those with fewer than 12 slots to obtain takeoff and landing rights at LaGuardia, Kennedy, O'Hare, and Washington National airports. **Sept 11: COMMUTER CRASH IN TEXAS**—An Embraer 120 operated by Continental Express crashed near Eagle Lake, TX, killing all 14 persons aboard. Circumstances reported by the media included an inflight explosion and maintenance personnel's failure to replace screws attaching the deicer boot to the tail section. **Sept 13: ASBESTOS REMOVAL**—FAA shutdown the Kansas City International Airport tower for asbestos removal. Visual air traffic control was provided from a temporary tower, and radar control was handled by the ARTCC at Olathe, KS. By Oct 28, visual control operations had resumed at the regular tower, and radar approach control followed on Nov 14.

Sept 17: PHONE OUTAGE—An AT&T equipment failure at 4:57 p.m. in New York City caused widespread interruption in long distance service, cutting controller communications and disrupting airline travel in the Northeast. Virtually all flights at New York's three major airports halted for nearly four hours. The system began returning to normal by about 11:30 p.m., but some effects were felt on Sept 18 (See Nov 5.). **Sept 17: NWA FIRE IN TOKYO**—Returning to Tokyo due to engine-cooling trouble, a Northwest Airlines 747 made an emergency landing during which one engine strut caught fire. Some 30 passengers were injured during evacuation. Since the fire might have been caused by electrical arcing between a power cable and a fuel line, FAA on Sept 24 required inspections of cables and lines on certain 747 models.

Sept 19: NOISE RULES—FAA issued two rules that had been mandated by the Airport Noise and Capacity Act of 1990 and preceded by rulemaking proposals issued on Feb 25, 1991.

One rule required airlines to eliminate noisier Stage 2 aircraft by the year 2000, and provided interim deadlines and options for transitioning to Stage 3. The companion rule set procedures for any new local restrictions on Stage 2 operations, and required that local restrictions on Stage 3 be achieved by voluntary agreements with the airlines or receive FAA approval. **Sept 20: ARTS III DEDICATED**—A dedication ceremony for the New York Terminal Radar Approach Control facility's ARTS III marked completion of Stage II of the upgrade of the TRACON's Automated Radar Terminal System. **Sept 25: NEW AIR SURGEON**—Dr. Jon L. Jordan became Federal Air Surgeon. The appointment was announced on Nov 20. **Sept 26: TELECOM AGREEMENT**—FAA signed a memorandum of understanding with the General Services Administration, which since May had opposed FAA's acquiring the Leased Interfacility National Airspace Communications System (LINCS) for air traffic control. The agreement allowed FAA to proceed with LINCS while committing the agency to convert at least 1,100 intercity circuits to the Federal Telecommunications System 2000 (FTS 2000). **Sept 28: KEITH POTTS**—Assistant Administrator for Aviation Safety Keith Potts died at a hospital in Fairfax, VA. In over 34 years with FAA, he served as an air traffic controller and in such management positions as Associate Administrator for Air Traffic. **Sept 30: ORGANIZATIONAL CHANGES**—Joseph Del Balzo became FAA's Executive Director for Systems Operation, and the position's responsibilities were expanded. Elements assigned to Del Balzo included Airway Facilities, Air Traffic, System Capacity, Aviation Standards, Regulations and Certification, the Aeronautical Center, and the regional administrators. Other changes announced included integration of the contracts function into Del Balzo's former position of Executive Director for System Development.

OCTOBER

Oct 1: SECURITY MANAGERS—FAA announced that security managers were on the job at 18 of the nation's major airports as mandated by the Aviation Security Improvement Act of 1990. **Oct 1: FIRST PAMRI OPERATIONAL**—The first Peripheral Adapter Module Replacement Item became operational at the Seattle ARTCC. PAMRI is the initial element of the Advanced Automation System.

Oct 11: LLWAS II COMPLETE—Ceremonies at Lexington, KY, marked completion of the second-generation Low Level Windshear Alert System at all 110 airports designated to receive the equipment. **Oct 16: NOISE TEAM FOR NYC AREA**—FAA announced that a special team of experts will explore ways of reducing noise in the New York area and will hold public hearings in New York and Connecticut. The first hearing took place Nov 5 at Rye, NY.

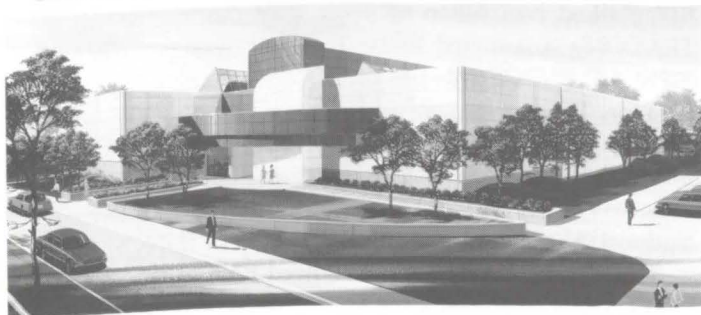
Oct 23: SOUTHERN CA TRACON—A ceremony in San Diego marked the start of construction of a new Southern California Terminal Radar Approach Control facility into which five existing TRACONs will be consolidated. **Oct 23: AVED RESOURCE CENTERS**—A ceremony in Boston marked the establishment of FAA's 50th aviation education resource center.

Oct 26: ÉVAC TEST INJURIES—Over 40 persons were injured at McDonnell Douglas' plant in Long Beach, CA, during two evacuation tests of a 400-seat version of the MD-11. **Oct 29-**

31: WAKE VORTEX SYMPOSIUM—Nearly 250 persons attended an international wake vortex symposium in Washington sponsored by FAA and other organizations.

NOVEMBER

Nov 1: NEW REGISTRY BUILDING—A groundbreaking ceremony at the Aeronautical Center marked the start of construction of a new airman/aircraft Registry Building. **Nov 5:**



Drawing of new Registry Building at the Aeronautical Center

ANOTHER PHONE OUTAGE—AT&T errors in performing maintenance caused a break in long distance telephone service in much of New England from about 8 p.m. to 11 p.m., delaying some 90 flight operations at Boston Logan Airport. **Nov 8: AUXILIARY FSSs**—FAA notified Congress of an Auxiliary Flight Service Station Plan to add 26 permanent and five seasonal auxiliary stations to supplement the 61 automated flight service stations already planned. The project was mandated by the Aviation Safety and Capacity Expansion Act of 1990. **Nov 13: MIDWAY STOPS FLYING**—Northwest Airlines dropped plans to acquire Midway Airlines, claiming that the data on which the plan was based had been flawed and citing potential liability for environmental problems with buried fuel tanks. Midway ceased operations at midnight of the same day.

Nov 13-15: EXPLOSIVES SYMPOSIUM—FAA sponsored the first International Symposium on Explosives Detection Technology, in Atlantic City, NJ. **Nov 13-15: PACIFIC RIM CONFERENCE**—FAA sponsored an International Oceanic Airspace



Pan Am jumbo jet similar to the one destroyed over Lockerbie, Scotland, in 1988.

Conference in Honolulu, attended by representatives of nations providing air traffic control services within the Pacific Rim.

Nov 14: FLT 103 INDICTMENTS—The U.S. Justice Department indicted two Libyans, Abdel Basset Ali Megrahi and

Lamen Khalifa Fhimah, for the bombing of Pan American Flight 103, a 747 destroyed over Lockerbie, Scotland, on Dec 21, 1988. Libya reportedly detained the suspects but refused to extradict them.

Nov 19: LAST 747-200—Boeing delivered the last 747-200 to Nippon Cargo Airlines, ending 21 years of 200 series production. The 747-200 roll-out was on Sept 10, 1970. **Nov 19: McDD-TAIWAN DEAL**—McDonnell Douglas announced a preliminary agreement under which the Taiwan Aerospace Corporation would buy 40 percent of the company's commercial aircraft business for \$2 billion and much of the projected MD-12 would be built in Taiwan. The deal required the approval of the U.S. and Taiwan governments.

Nov 19-21: AGING AIRCRAFT CONFERENCE—FAA and NASA sponsored an international conference in Washington on aging aircraft, the fourth such conference since the Aloha Airlines accident on April 28, 1988. **Nov 20: LEADERSHIP SELECTIONS**—The White House announced the selection of FAA Administrator James Busey to become DOT Deputy Secretary, succeeding Elaine Chao, who left DOT on Oct 22 to become Peace Corps Director. On Nov 22, the White House announced the choice of NHTSA Administrator Jerry R. Curry (Maj. Gen., U.S. Army, Ret.) to become FAA Administrator. The Senate confirmed Busey's appointment on Nov 25. **Nov 21: U.S./MEXICAN ACCORD**—DOT Secretary Sam Skinner and his Mexican counterpart signed an agreement expanding aviation opportunities. The accord permits each country to designate a carrier to fly between any U.S. city and any Mexican city, a level of flexibility unique in U.S. international aviation relations. **Nov 21-23: MAGNET SCHOOL CONFERENCE**—The first annual National Leadership Institute on Aerospace Magnet Schools took place in Little Rock, AR, with FAA and the Little Rock School District as sponsors. **Nov 25: R&D PANEL REPORT**—The R&D Plan Review Panel of FAA's Research, Engineering, and Development Advisory Committee submitted its final report, recommending increased R&D emphasis and funding.

Nov 26: HQ REORGANIZATION—Administrator Busey announced a reorganization at FAA Headquarters, including:

- A new Assistant Administrator for Information Technology, Theron A. Gray, with responsibility for administrative and operational information resources. The Office of Management Systems at Headquarters was abolished, and its former director became Acting Deputy for the new Assistant Administrator.
- A new Assistant Administrator for Budget and Accounting, Nicholas S. Stoer, with responsibility for the Office of Budget and the Office of Accounting. These two offices had previously reported to the Associate Administrator for Administration, a position which was abolished.
- A new Executive Director for Acquisition and Safety Oversight position, with the responsibilities of the former Executive Director for Acquisition expanded by the addition of the Office of Aviation Safety and the appraisal functions of the former Deputy Associate Administrator for Appraisal.

Nov 29: IRENE BARNETT—Irene A. Barnett died. Her 26 years with FAA included service in several key positions, most recently as Director of the Office of Program and Resource Management.

DECEMBER

Dec 3: HOWE LEAVES NBAA—Jonathan Howe resigned as president of the National Business Aircraft Association after a tenure of five years. No replacement was announced.

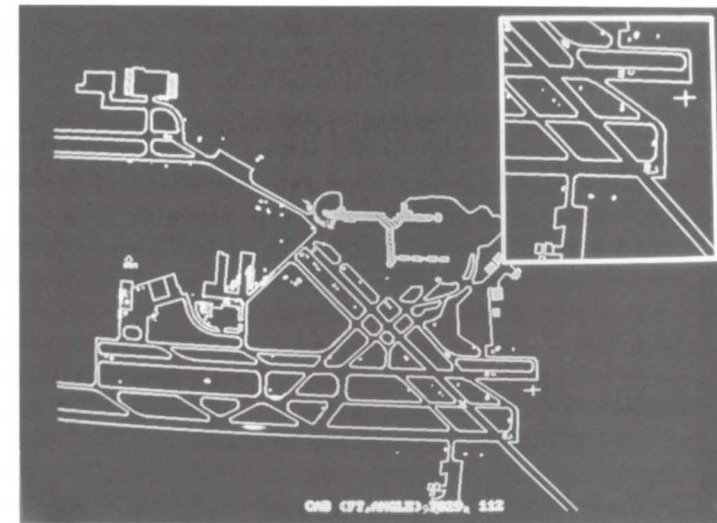
Dec 4: PAN AM SHUTS DOWN—Pan American ceased flying after 64 years of operations. On the previous day, Delta Air Lines had told a bankruptcy court that it would not supply further financing for Pan Am. At an auction of Pan Am's assets on Dec 9, United emerged as the largest purchaser, acquiring most of the defunct airline's Latin American routes. The deal required regulatory approval. **Dec 4: LEADERSHIP CHANGES**—James Busey became Deputy Secretary of Transportation, FAA's Deputy Administrator Barry Harris became acting Administrator, and Executive Director for System Operations Joseph Del Balzo became acting Deputy Administrator. On Dec 6, President Bush announced the choice of DOT Secretary Sam Skinner to become his Chief of Staff on Dec 16, replacing John Sununu.

Dec 12: SOVIET GROUNDINGS—Lack of fuel caused closure of more than half of the Soviet Union's airports and grounded most of its domestic airline flights. **Dec 17: AIRSPACE CLASSIFICATION**—FAA published a rule establishing six classes of airspace designated by a single letter (A, B, C, D, E, and G) effective Sept 1993. The new designations will replace current terms such as positive control airspace, terminal control area, and others.

Dec 20: EXECUTIVE APPOINTMENTS—Acting Administrator Barry Harris announced the selection of:

- Monte Belger to become Executive Director for Acquisition and Safety Oversight.
- Executive Director for Acquisition John Burt to become Executive Director for System Development.
- Southern Regional Administrator Garland P. "Cas" Castleberry to replace Belger as Associate Administrator for Aviation Standards.

Dec 26: USSR NO MORE—On the day following President Mikhail Gorbachev's resignation, the Soviet legislature voted



ASDE-3 display

the Soviet Union out of existence.

Dec 27: SWEDISH MD-80 CRASH—A Scandinavian Airlines MD-80 broke into three pieces in a crash landing near Stockholm. About 40 of the 129 persons aboard were injured, but all survived. One theory ascribed the accident to engine ingestion of ice broken off from the wings. **Dec 27: DALLAS TCA EXPANDED**—FAA issued a rule expanding the Dallas/Ft. Worth Terminal Control Area and revoking the Dallas Love Field Airport Radar Service Area, effective Jan 9, 1992.

Dec 31: ASDE-3 ACCEPTANCE—The first ASDE-3 airport surface detection equipment for operational use was accepted by FAA at Pittsburgh. **Dec 31: VSCS CONTRACT**—FAA awarded a 15-year, \$1.66 billion contract to Harris Corp. for the Voice Switching and Control System, which will provide improved voice communications among controllers and between controllers and aircrews. VSCS will be installed at the Aeronautical Center, New York TRACON, and all 22 ARTCCs. *

People

Aeronautical Center

Beverly A. Feller, supervisor, Certification Section D, Airmen Certification Branch, Airmen & Aircraft Registry Div. ... **Robert R. Joyner**, manager, Operations & Capital Branch, Budget Div., promotion made permanent ... **Willie M. McGary**, supervisor, Certification Section C, Airmen Certification Branch, Airmen & Aircraft Registry Div. ... **Garnet Alan McLean**, section supervisor, Cabin Safety Research Section, Protection & Survival Laboratory, Aeromedical Research Div., promotion made permanent ... **Amos S. Wamble**, unit supervisor, Engineering Section, Engineering & Production Branch, FAA Logistics Center, promotion made permanent ... **Deborah A. Wilcox**,

unit supervisor, Programs & Contracts Management Section, Regulatory Standards & Compliance Branch, FAA Academy.

Alaskan Region

Benny A. Notti, manager, Fairbanks AFSS, from Northwest Mountain Region Headquarters ... **Ann M. Roberts**, supervisor, Accounts Payable Section, Accounting Branch, Resource Management Div. ... **Allen L. Upickson**, unit supervisor, Nome SFO, Kotzebue, North Alaska AFS, Fairbanks ... **Rosendo A. Vasquez**, manager, Juneau AFSS, promotion made permanent ... **Douglas C. Vaubel**, unit supervisor, Anchorage FSDO, promotion made permanent.

Central Region

Patricia D. Begley, unit supervisor, Kansas City, MO, CASFO ... **Bryan H. Burleson**, manager, Facility Operations Branch, Air Traffic Div. ... **Rocco Cangelosi**, area supervisor, Des Moines, IA, ATCT, from Washington Headquarters ... **Larry E. Daniels**, unit supervisor, Operations Technical Field Office, Maintenance Engineering Branch, Airway Facilities Branch ... **Robert E. Davis**, staff chief, National Communications Center, Air Traffic Div. ... **Robert E. Gentry**, area supervisor, Olathe, KS, ARTCC ... **Robert E. Guffey**, area supervisor, Olathe, KS, ARTCC ... **Clarence A. Hill**, area supervisor, Olathe, KS, ARTCC ... **Nancy K. Housh**, area supervisor, Olathe, KS,

ARTCC ... **Robert P. Kovar**, area supervisor, Olathe, KS, ARTCC, promotion made permanent ... **William J. Mumper**, area supervisor, Olathe, KS, ARTCC ... **Keith J. Vanloo**, area supervisor, Olathe, KS, ARTCC.

Eastern Region

James D. Allen, unit supervisor, Air Carrier Section, Operations Branch, Flight Standards Div., promotion made permanent ... **Richard A. Bleck**, area supervisor, Dulles ATCT, Loudoun County, VA, promotion made permanent ... **Herbert R. Brown**, systems engineer, Washington ARTCC AFS, Leesburg, VA ... **Mathew M. Calendar**, asst. manager for automation, New York TRACON, Garden City ... **Edward A. Davenport**, area supervisor, Norfolk ATCT, promotion made permanent ... **George A. Dodelin**, manager, System Management Branch, Air Traffic Div., from Norfolk ATCT ... **William S. Friel**, asst. manager, Shenandoah AFS, Clarksburg, WV ... **George Leo Glock**, unit supervisor, New York ARTCC AFS, Islip, from Washington Headquarters ... **William T. Holland**, area supervisor, Atlantic City ATCT, promotion made permanent ... **Frances L. Kortland**, section supervisor, Data Processing Branch, Management & Budget Div. ... **Helmut K. F. Krueger**, unit supervisor, Harrisburg, PA, AFSFO, Middletown, Susquehanna AFS, promotion made permanent ... **Martin J. Lilly**, asst. manager, NAS Implementation, New York TRACON ... **Iris Lupu**, supervisor, Facilities & Equipment Section, Resource Planning Branch, Airway Facilities Div., promotion made permanent ... **Gilbert Magnan**, area supervisor, Syracuse ATCT, from Binghamton, NY, ATCT ... **Loretta J. Martin**, area manager, New York TRACON, from Washington Headquarters ... **Ellis L. Powell**, manager, Syracuse, NY, AFSFO, Empire AFS ... **Waldo A. Rodriguez**, section supervisor, New York ARTCC, promotion made permanent ... **Donald O. Snyder**, asst. manager for program support, Susquehanna AFS, New Cumberland, PA, promotion made permanent ... **Cheryl L. Soucy**, area manager, Dulles

ATCT, from Washington Headquarters.

Great Lakes Region

Daniel L. Anteau, area supervisor, Detroit Metro ATCT ... **Kevin R. Barttel**, area supervisor, Detroit Metro ATCT, promotion made permanent ... **Randall W. Brown**, area supervisor, Champaign, IL, ATCT, from Carbondale ATCT ... **Claudia M. Brumbaugh**, asst. manager, plans & procedures, Wold Chamberlain ATCT, Minneapolis ... **Daniel C. Bussey**, area supervisor, Detroit Metro ATCT, promotion made permanent ... **Richard G. Egan**, unit supervisor, Minneapolis, MN, FSDO ... **Alberto R. Ferran**, area supervisor, Minneapolis Crystal Airport ATCT, from Janesville, WI, ATCT ... **Charles R. Foster**, manager, Decatur, IL, ATCT, from Youngstown, OH, ATCT ... **Gary L. Helms**, area supervisor, Detroit Metro ATCT, from Indianapolis ATCT ... **Steven A. Kaufman**, area supervisor, Peoria, IL, ATCT ... **Suzanne E. Leech**, manager, Bismarck, ND, AFSFO, Dakota AFS, from Chicago AFS ... **Merlin Oetken**, area supervisor, Carbondale, IL, ATCT ... **Terrance M. O'Neill**, area supervisor, Ft. Wayne, IN, ATCT ... **James S. Rood**, asst. manager, airspace & procedures, Minneapolis, MN, ARTCC, Farmington ... **Rick S. Sandvig**, area supervisor, East St. Louis, IL, ATCT, from Springfield ATCT ... **Charles R. Smith**, area supervisor, Dayton Vandalia ATCT, from Love Field ATCT, Dallas, TX ... **Elizabeth L. Swenson**, area supervisor, Huron, SD, AFSS ... **David W. Vian**, area supervisor, West Lafayette, IN, ATCT, from Pontiac, MI, ATCT ... **Bruce E. Wagoner**, manager, Wold Chamberlain ATCT, Minneapolis ... **Curtis F. Wynkoop**, unit supervisor, Farmington, MN, AFS ... **Clark W. Young**, asst. manager for technical support, Engineering Support Section, Establishment Engineering Branch, Airway Facilities Div.

New England Region

Steven L. Anderson, area supervisor, Boston TRACON, from Cape TRACON, Otis Air Force Base ... **Joseph S. Cretella**, deputy div. manager, Airway Facilities Div. ... **John J. Gaynor**, branch

manager, Employee Relations Staff, Airway Facilities Div. ... **James F. McGarry**, area supervisor, Boston TRACON, from Boston ATCT ... **Theodore M. Pas**, area supervisor, Windsor Locks, CT, FSDO ... **Allan R. Turmelle**, area supervisor, Portland, ME, ATCT, from Worcester, MA, ATCT.

Northwest Mountain Region

Larry S. Bird, unit supervisor, Seattle, WA, FSDO, promotion made permanent ... **Terry A. Braesch**, asst. manager, traffic management, Denver ARTCC ... **Dan R. Bui**, section supervisor, Seattle Aircraft Certification Office, Transport Airplane Directorate ... **Barbara K. Cassada**, traffic management unit supervisor, Denver ARTCC ... **Gregory L. Dyer**, traffic management unit supervisor, Denver ARTCC ... **David K. Etheridge**, area supervisor, Medford, OR, ATCT, from Hillsboro ATCT ... **John P. Kleber**, area manager, Denver, CO, AFSS, from Ft. Worth, TX ... **Donald L. Kurle**, section supervisor, Seattle Aircraft Certification Office, Transport Airplane Directorate ... **Edward D. Olsen**, area manager, Denver ARTCC ... **Ralph D. Walters**, area manager, Denver ARTCC ... **William L. Watson**, section supervisor, Seattle Airports District Office, Airports Div.

Southern Region

George W. Antrim, asst. manager, Hebron, KY, ATCT, from College Park, GA ... **Harold R. Cadmus**, unit supervisor, North Carolina FSDO, Charlotte, promotion made permanent ... **Craig Chandler**, area supervisor, Orlando, FL, ATCT, from Nashville, TN, ATCT ... **Herbert Chennault**, manager, Management Engineering Branch, Management Systems Div., promotion made permanent ... **Dennis E. Delaney**, area supervisor, San Juan, PR, CERAP, from Columbus, MS ... **Robert P. Hildebidle**, area supervisor, Miami International ATCT, promotion made permanent ... **John L. Hill**, manager, New Bern, NC, AFSFO, Raleigh AFS, from Fayetteville ... **Daniel G. Howorth**, asst.

manager, plans & programs, Macon, GA, AFSS ... **Thomas F. Lane**, unit supervisor, Mobile, AL, AFSFO, Citronelle, Montgomery AFS ... **Carl B. Peebles**, unit supervisor, Huntsville, AL, AFSFO, Haleyville, Montgomery AFS ... **Ronald T. Piasecki**, area supervisor, Greensboro, NC, ATCT, from Asheville ATCT ... **John A. Pivacco**, environmental support unit supervisor, Miami Hub AFS, promotion made permanent ... **Karen M. Smith**, manager, Winston-Salem ATCT, from Greensboro, NC, ATCT ... **Ellis H. Thorp**, area manager, Hampton, GA, ARTCC ... **Linda D. Turner**, deputy manager, Payroll Branch, Accounting Div., promotion made permanent ... **William F. Whitehead**, asst. manager, Nashville, TN, ATCT, from College Park, GA ... **Larry W. Wilson**, asst. manager for training, Miami International ATCT, from Ft. Lauderdale ATCT, promotion made permanent ... **Larry R. Youngren**, manager, Miami FSDO.

Southwest Region

Lawrence F. Allen, area supervisor, Addison, TX, ATCT ... **Henry E. Beck**, area supervisor, Shreveport, LA, RAPCON, from San Antonio, TX, ATCT ... **Mark E. Blackburn**, asst. manager, Shreveport, LA, RAPCON, from Memphis, TN, ATCT ... **Arlen L. Byrd**, manager, McAllen, TX, FSS, from San Angelo AFS ... **Jerry L. Cearley**, area manager, Houston ARTCC ... **Steven R. Davis**, security officer, Dallas/Ft. Worth CASFO, promotion made permanent ... **Billy G. George**, journeyman, Corpus Christi AFSFO, San Antonio AFS ... **Reynaldo P. Juarez**, environmental support unit supervisor, Corpus Christi AFSFO, San Antonio AFS, promotion made permanent ... **Kyle R. Keifer**, unit supervisor, Dallas, Dallas/Ft. Worth AFS ... **Thomas R. Lon**, asst. manager, airspace & procedures, Houston ARTCC ... **Earnest W. Perkins**, area supervisor, David Wayne Hooks ATCT, Tomball, TX, from Houston Intercontinental ATCT ... **Mary A. Pugh**, area manager, Ft. Worth, TX, ARTCC, from Washington Headquarters ... **Madelyn I. Sawyer**, unit supervisor,

Dallas/Ft. Worth CASFO, promotion made permanent ... **Kenney B. Sharpton**, area supervisor, Tulsa International ATCT ... **Manuel Silva**, asst. manager, San Antonio AFS ... **Robert N. Stevens**, quality assurance specialist, System Effectiveness Section, Facility Operations Branch, Air Traffic Div. ... **Albert L. Viselli**, asst. manager, Dallas/Ft. Worth ATCT, from Fresno, CA, ATCT.

Technical Center

Joseph A. Manning, technical program manager, Airport Technology Branch, Airports Div. ... **William A. Wall**, technical program manager, Propulsion & Structures Branch, Aviation Safety Div.

Washington Headquarters

John S. Jamison, deputy director, Office of the Director, Brussels, Assistant Administrator for Policy, Planning & International Aviation ... **James J. Jamitis**, manager, Facilities & Equipment Program Analysis Div., NAS Program Management Service ... **Michael A. Morse**, deputy director, Office of Civil Aviation Security Intelligence ... **Richard V. Powell**, section supervisor, Cartographic Standards Branch, Airspace-Rules & Aero Information Div., Air Traffic Rules & Procedures Service, promotion made permanent ... **Richard K. Stevens**, manager, Domestic Operations Branch, Security Operations Div., Office of Civil Aviation Security Operations ... **George W. Terrell**, programs officer, Technical Standards Program, Maintenance Engineering Div., Systems Maintenance Service.

Western-Pacific Region

Charles A. Baratta, area supervisor, Napa, CA, ATCT, from San Francisco ATCT ... **Ronald G. Beckerdite**, area supervisor, El Toro, CA, TRACON ... **Stephen E. Beckmann**, area supervisor, Monterey, CA, ATCT ... **Stephen D. Bueltel**, area supervisor, Edwards AFB, CA, RAPCON ... **Jane M. Coe**, area supervisor, El Toro, CA, TRACON, from John Wayne ATCT, Santa Ana ... **Jeffery A. Cunnyngham**, area supervisor, Ontario,

CA, TRACON, from El Toro TRACON ... **Richard D. Dilley**, asst. manager, plans & programs, Los Angeles ARTCC, Palmdale ... **Stanley C. J. Faulk**, area supervisor, Los Angeles ARTCC, Palmdale, promotion made permanent ... **Michael S. Johnston**, manager, Palmdale, CA, ATCT, from Edwards AFB RAPCON ... **Thomas S. Kamman**, manager, Lindbergh ATCT, San Diego, from Western-Pacific Region Headquarters ... **Willie J. McGee**, unit supervisor, Southern California TRACON AFS, Miramar, promotion made permanent ... **Jon P. Siverly**, area supervisor, Oxnard, CA, ATCT, from Santa Barbara ATCT ... **Todd A. Smith**, area supervisor, Santa Barbara, CA, ATCT, promotion made permanent ... **Charles S. Waters**, environmental support unit supervisor, Diamond Head, HI, AFSFO, Honolulu AFS, promotion made permanent.

Retirees

Aeronautical Center

Wesley D. Dunning
Dudley Mason
Joe H. Robinson
Earl R. Winford

Central Region

Jack D. Cotterman

Eastern Region

Dolores L. Euell
William D. Lutgen
Gary S. Silverman

Great Lakes Region

Charles J. Fortman, Jr.
Edward W. Symons
Helen B. Tews

New England Region

Michael E. Coleman
Maurice Georgian
Carl N. Goodwin

Northwest Mountain Region

Noel T. Guthrie
Jack M. Highfill
Ralph Hillen
DeWayne K. Ivie
Richard J. Klundt
John L. Knauff

continued on next page

People

Wayne A. Oberhansley
 Garland L. Pryor
 James K. Shafer
 Norma M. Simmons
 Thomas Tamparo
 Ronald Werner

Southern Region

Larry G. Berry
 Robert P. Cassidy
 Robert S. Harrison
 Richard L. Haskins
 Vicente Laboy-Gonzalez
 Edward W. Oliva
 Charles B. Siceloff, Jr.
 Linda R. Snell

Southwest Region

Harold E. Cole
 William E. Quinn
 John J. Shapley
 John D. Swihart, Jr.

Technical Center

Arline I. Braithwaite
 Stephen W. Devlin

Washington Headquarters

Anees A. Adil
 Laverne B. Lucas
 James A. Moreland
 James J. Wiggins

Western-Pacific Region

Judy E. Inokuchi
 Saeko E. Onitsuka
 Thomas L. Vandervelde
 Norman R. Weeks

Schooling Executives

Thirty-Four FAA Managers, Executives at Kellogg School

An article about FAA's new Executive Education Program is on page 3.



Here graduates of the first session of "Managing the Total Organization" course, which is part of FAA's new Executive Education Program (EXEP), are seen at the Kellogg Graduate School of Management's Northwestern University campus.

Row by row, participants are: Front: Paul Meyer, EXEP program manager, AHD-240; Alan Hanson, AWP-480; Charles Taylor, Memphis ARTCC; Bonnie Pankalla, AGL-201; Gary Baldwin, ALR-2; Gwen Jones, ACR-3; Al Isenman, Kellogg's faculty coordinator; Dipak Jain, Kellogg professor; and James Guy, program coordinator, AHD-240.

Second row: Don Briggs, ABU-310; Bob Cook, ASW-50; Dale Huddleston, ASO-10; Jacque Smith, AGL-2; Ken Goodsell, ANE-201; Ken Lauterstein, ACP-200; Lou Cusimano, AFS-801; Mary Barnett, ATZ-300; Peggy Smith, AAL-420; and Rick Cambra, AWP-40.

Third row: Barry Bermingham, ANE-4; Bill Peacock, ACE-501; Gene Nobles, Atlanta AFS; Doug Murphy, Wichita ATCT; Lindy Ritz, AAC-401; Jim Duea, AVN-4; Roger Martino, ACQ-1; Rod Gill, ANN-1; Bob Kitson, AEA-451; and Judy Piper, Kellogg's course administrator.

Fourth row: Bob Enoch, AVN-5; Bill Jeffers, ASO-520; Doug Powers, AGL-530; Hugh Lyon, ASW-600; Stan Rivers, ACE-1; Ray Pinkerton, ASO-400; Dennis Koehler, ATR-301; Bruce Butterworth, ACP-1; George Williams, Los Angeles ARTCC; and Richard Cox, AAT-3.

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