

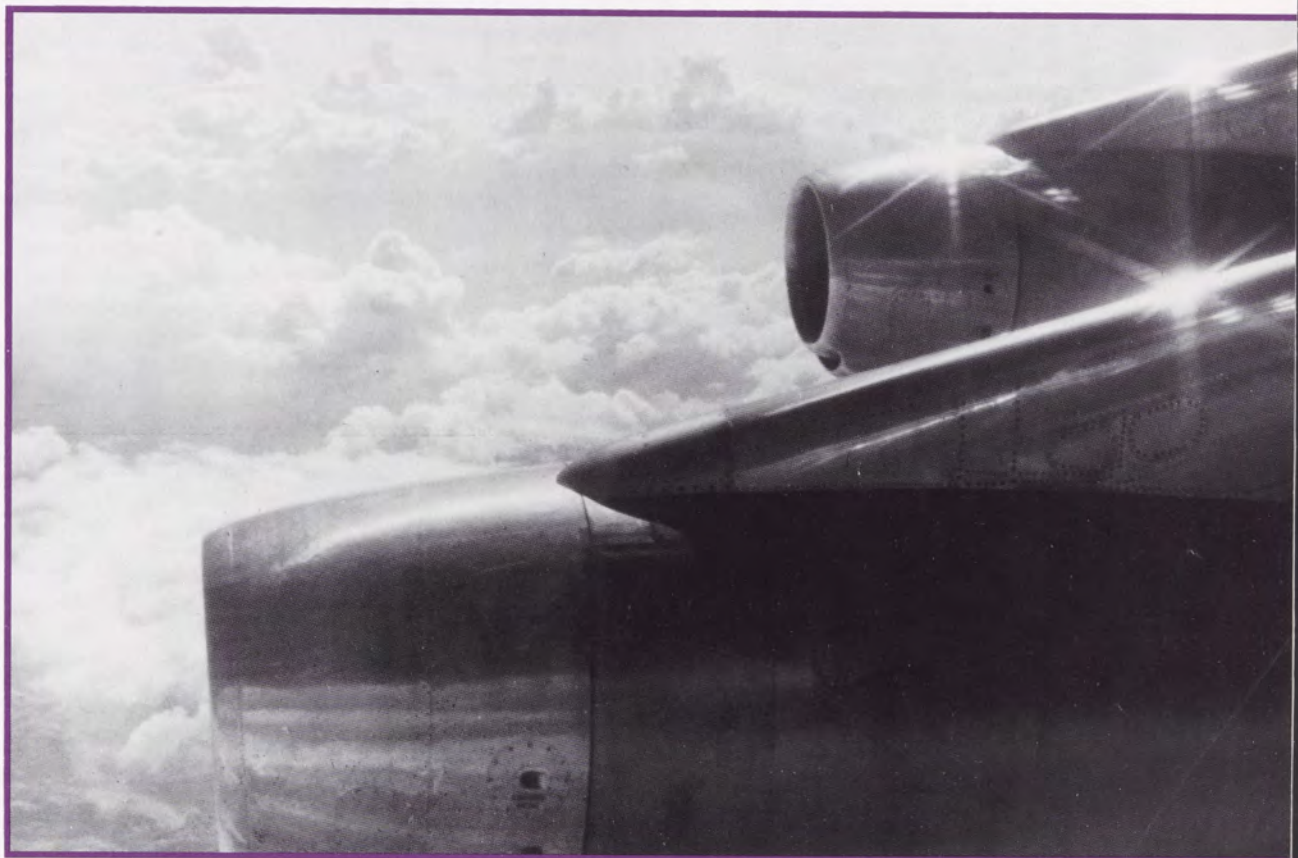
# World

March 1986  
Volume 16 Number 2



U.S. Department  
of Transportation

**Federal Aviation  
Administration**



## Feeling Fit

### Take a Walk! . . . Really!

The health benefits of jogging have been well documented, but those benefits can also be gained through sustained, brisk walking.

As a sustained cardiovascular exercise, jogging or walking has been shown to decrease blood pressure, reduce the content of triglycerides (a blood fat) in the body, tone the muscles, enhance the clotting ability of the blood and reduce the incidence of heart disease. And dieting combined with walking can take off weight, provided you don't wolf down a giant pizza following your stroll.

But walking avoids some of the problems of running. Each time your foot hits the ground in jogging, it is

subject to shock waves that are transmitted up through the leg to the hip and back. The longer and harder you run, the more impacts you receive. Especially for those who are out of shape or overweight, such impacts can cause foot and knee problems and throw the vertebrae out of alignment, possibly causing lower-back problems and sciatica.

Brisk walking, say at four miles an hour, will give the same benefits as jogging but without the problems. And one estimate is that three miles a day for four days a week can burn up about 1,500 calories, or about half a pound of weight.

So, what are you waiting for? Hit the road!

*People are our greatest resource. Despite the outstanding technological achievements during our eighty-two years of powered flight, people remain our least-known resource. We still have a great deal that needs to be achieved in aviation. The challenge for aviation excellence in the years ahead is to find ways to reach into the people of aviation to optimize the achievements that remain within them.*

—Donald D. Engen



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### Mike's Back

When tragedy struck this controller, his spunk and love of ATC combined with caring co-workers got him back on the job at his old facility.

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This is the third and final part of the history of the Federal Government's involvement in air traffic control: Following the debut of primary and beacon radar, automation held the key to ATC's growth.

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A Central Region training facility helps pre-developmental technicians get a leg up on the traditional technical training programs.

Secretary of Transportation  
Elizabeth H. Dole

Administrator, FAA  
Donald D. Engen

Assistant Administrator—  
Public Affairs  
Stephen D. Hayes

Manager—Public & Employee  
Communications Div.  
John G. Leyden

Editor  
Leonard Samuels

Art Director  
Eleanor M. Maginnis

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John Clabes—Aeronautical Center  
Paul Steucke, Sr.—Alaskan Region  
John Swank—Central Region  
Michael Benson—Eastern Region  
Morton Edelman—Great Lakes Region  
David Hess—Metro Washington Airports  
Mike Ciccarelli—New England Region  
Richard Meyer—Northwest Mountain Region  
Jack Barker—Southern Region  
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By John Swank

The public affairs officer of the Central Region, he also served the Maritime Administration and on Capitol Hill in that capacity.



## A Head Start for Budding ETs

Central Region Training Facility Helps Pre-Developmentals

One worked for J.C. Penney's in Burlington, Iowa. Another was a meat inspector in Dodge City, Kan. Some are college graduates; others are not. A few have technical backgrounds, but many don't.

What they have in common is the chance to start new careers with a better opportunity for success by attending Central Region's Airway Facilities Training Unit in Springfield, Mo. The program was established as part of the region's Upward Mobility Program to provide selected lower-grade employees and those who perceived their jobs as dead ends with the skills and knowledge to pursue positions as journeymen electronics technicians.

The training unit doesn't replace traditional FAA Academy training but is closely coordinated with it to achieve the greatest benefit from the resident Academy courses. It lays a better foundation for the technical education needed.

Having had some electronics courses in college helped Norma Lloyd. Still, for her, the hardest part of the training at Springfield was "just getting saturated with too much math; you feel you can't retain anything else." So, the Navy veteran's advice for those considering entering the program comes as no surprise:



Developing a new career as an electronics technician: former J.C. Penney employee Norma Lloyd in the FAA's Springfield, Mo., Training Unit laboratory.

"Get as much math as you can before you get here. Get your algebra and trig."

That perspective of the training is echoed by Bert McMillian, formerly of the Federal Housing Administration. She found the program to be a good challenge, but "the math was really tough, and the lab program—and putting it all together."

Traditionally, pre-developmental electronics technicians had been assigned to individual Airway Facilities sectors, usually one or two per sector. There, they worked alongside experienced technicians and learned through on-the-job training, correspondence courses and Academy resident training.

The quality of the training varied, depending on the location, the time



An electronics technician in Wichita, Kan., Glendye Reed, who took the Springfield training, considers it like "basic training for electronics technicians."



Supervisory instructor Wilbert Brewton, a radar communications specialist, explains a point about circuit testing to student Bert McMillan.



Instructor Fred Williams lectures to students on series and parallel resistance circuits.

### The agency is being rewarded with better-trained and highly motivated electronics technicians

available for training and even the journeymen's attitudes toward the additional responsibilities. Now, all pre-developmentals in the region are sent to the Springfield Training Unit.

The school's objective is to bring GS-4, 5 and 7 trainees with minimal electronics knowledge to the level where they can successfully progress to GS-9 developmental electronics technician positions, from which they can compete for full-performance-level jobs.

And minimal can be minimal. "Before coming here," says Norma Hoban, "my biggest electrical experience was screwing in a light bulb. I had to learn how to learn again."

The mother of five sons, she waited



Student John Taylor, Jr., takes the electronics technician qualification Phase I via computer-based instruction. To get through the program, "you have to sacrifice a few things and work hard. Liking what you do has a lot to do with it."

a long time after being widowed before undertaking this career training. After completing this stage of her training, her advice to others contemplating it is, "You must be patient. I wanted to learn it all today."

It's obvious that each person has to set an appropriate pace. For Craig Clark, who came from the Social Security Administration, it was a fast one. He set a record last year for completing the Springfield Training Unit program in 16 months.

Academy training can be difficult, but this program gives the students the basic knowledge to do well there, as well as understand senior technicians' explanations when actual work on field equipment begins.

But the staff of the training unit believes its role is to give the students more than just technical information. "It's our responsibility not only to teach electronics but also attitude and conduct," says supervisory instructor Wilbert Brewton. "It's our job to motivate them."

Brewton had been a radar commu-

nications technician in the Springfield sector. Instructor Allen Burrows was a navigation/communication relief technician there, and the third instructor, Fred Williams, was a sector field office manager in Casper, Wyo.

The three hold forth at the Springfield Municipal Airport, where the training unit has classrooms and fully-equipped laboratories for hands-on training. This permits the aspiring technicians to learn on live equipment right from the beginning. The equipment includes "breadboards" for showing circuit theory and demonstrating principles and fully operational tube-type and solid-state components.

The students' final exam involves certification on communications equipment, which would qualify them for the GS-9 level. Although it's then time to move on, their training is not complete.

Training plans are developed at the facilities to which they are assigned, for that one certification is just a small part of an electronics technician's job. Other certifications are required—in some cases 10 or more.

When Glendye Reed completed the Springfield portion of his training in April 1984, he worked on the facilities & equipment (F&E) program for a few months before his first long-term assignment. In the first half of



Instructor Wilbert Brewton points out equipment adjustment procedures to students (left to right) Craig Clark, Steve Smith and Josh Kennedy.

1985, he gained his second and third certifications and in the summer took up integrated communications switching system (ICSS) training.

His advice to those starting out was to strive for more certifications. "This puts you in a stronger position to get what you want in the way of assignments," he said.

The Springfield Training Unit and the Upward Mobility Program have helped develop a previously unreachable labor source, many of whom were minorities and female and have helped attract women to a tradition-

ally male career field.

The agency is being rewarded with better-trained and highly motivated electronics technicians—motivation that is reflected by people like Steve Smith, the former meat inspector: "I think it's great—an exciting field. I was in a dead-end job, and this is like starting over. And you can really go as far as you want. The only limit is yourself." ■

## Mike's Back

### Pluck and Co-Workers' Aid Overcome Controller's Handicap

**A** diversity brings a family together, and it's true of the FAA family, too. As a result, Mike LaJuene is back in air traffic control.

LaJuene's desire and drive alone would not have been enough, for a diving accident in the summer of 1984 left him a quadriplegic. With the physical and moral support of his co-workers and the financial support of FAAers everywhere, he's making a comeback, even though, in his own words, "I died twice."

After being pulled from the water and resuscitated with some difficulty, LaJuene spent four months in a hospital intensive care unit and six months in a rehabilitation center, rebuilding his strength and learning to live within the confines of his disability.

Actually, LaJuene went beyond those confines. With his love of air traffic control, he wanted to return to work at General Mitchell Field tower in Milwaukee, Wis. "He's got the drive, a super positive attitude," tower manager Ray Baran said of LaJuene's efforts.

Others at the facility helped him along. Controller Vince Palmby handled his insurance matters, and others helped financially. The controllers also established a trust fund to offset his expenses and to buy him

a specially equipped van that he could drive from his wheelchair.

LaJuene even visited the tower with his therapist, who was shown all the movements he would have to make to return to air traffic control. The therapist was given flight progress strips and a plastic holder so LaJuene could practice tearing the strips apart and inserting them.

Prior to his return, he visited the facility on several occasions, surveying his abilities and needs. When he



felt ready, facility staff personnel designed and administered an assessment test of skills necessary to perform air traffic assistant duties. LaJuene passed handily, and he's now working four hours a day.

After watching a "60 Minutes" segment on systems designed to stimulate the use of paralyzed limbs, fellow air traffic assistant Cheryl

Photo by Ryan Gove  
Milwaukee Mitchell Tower

By Russ Hansen  
An area supervisor at General Mitchell Field Tower, Milwaukee, he managed the trust fund for purchasing LaJuene's van.

Seifert wrote Dr. Jerrold Petrofsky about LaJuene. Dr. Petrofsky examined his medical records and then visited LaJuene, advising him of a soon-to-be-available vest designed to stimulate the use of hands by quadriplegics.

Airway Facilities technicians helped modify the TRACON data position to help LaJuene work, and George Coles, a navaid specialist loaned him a telephone speaker system.

The trust fund managers solicited one-dollar donations from FAA facilities worldwide, airport employees and the local aviation community. These contributions totaled over \$19,200. LaJuene also received \$3,000 from the Wisconsin Department of Vocational Rehabilitation and \$5,100 from local fund raisers.

With these donations, he was able to buy a 1985, fully equipped van with \$8,600 in modifications that allow him to operate the vehicle. The interior-exterior conversion was sponsored by his high school class at its tenth reunion and a raffle and auction at a local business. LaJuene recently passed his road test.

LaJuene wrote to his co-workers: "God has blessed me with so much more than I have realized. I am back to work, taking one day at a time. It's not easy, but at least I have a second chance. . . . I could not have achieved this goal without your help. I'm just happy to belong to the FAA family."

The success of Mike LaJuene's return to work was a team effort involving far too many people to name, but FAA knows about team efforts every day. ■

# Aviation's Indispensable Partner Turns 50

## ATC Automation Met the Challenge of the 70s

Automation of air traffic control was a foregone conclusion as early as the Great Depression, but each generation's view of the future is myopic—limited by the technology that can be perceived at the time. What can be said is that the need was felt from the first and was acted upon with the tools at hand.

In 1938, the Civil Aeronautics Authority recognized the virtue of providing controllers with automatically tabulated and posted flight data on flight progress strips.

In 1941, an experimental electrical flight posting board, similar to the one then in use on the New York Stock Exchange, was installed at the Washington Airway Traffic Control Center.

Although this board proved inadequate to handle wartime traffic, experimentation continued and automation invariably figured in the recommendations of major aviation study groups. For example, as early as 1948, the Radio Technical Commission for Aeronautics (RTCA) Special Committee-31 foresaw automation as among the main components of the postwar common system of air traffic control.

The automation envisioned by



lived, inefficient and fragile vacuum-tube triode.

The size and number of tubes determined the size of the apparatus in which they were used. Even computers of the very moderate capacities of that era used anywhere from 10,000 to 20,000 tubes. Just to house one computer sufficient to handle today's air traffic would have required more

space than in the Empire State Building. Moreover, since the tubes were subject to burning out, their replacement would have been an astronomical maintenance job in the National Airspace System.

The tube's main drawback, however, was its high power consumption for a small usable power output. As a vice president of Bell Labs put it succinctly, "This is like sending a 12-car freight train, locomotive and all, for a pound of butter." To boot, cooling tube computers would be a budget-busting proposition today.

The development of the transistor in 1948 overcame all of these problems and made possible today's semi-automated Third Generation ATC System, as well as providing the foundation for the technology of the

RTCA, however, was somewhere in the stone age compared to what would be possible in a few years. Indeed, at the very time that the seers on Special Committee-31 were making their recommendations, a scientific breakthrough of incalculable significance to ATC was being made at Bell Laboratories—the discovery of the transistor.

Since the end of World War II, Bell's scientists had been trying to induce an amplified voltage across small silicon or germanium crystals in a multi-million-dollar search for a replacement for the bulky, short-



**By Joseph Garonzik**  
A historian and a freelance writer on aviation and urban affairs, he was on the staff of the Office of Public Affairs one summer.



One of the earliest attempts at automating ATC functions was this Teleregister Flight Progress Board at the Washington Airway Traffic Control Center in 1941. Airline radio operators would transmit flight information to the center, where flights could be rapidly resequenced. The board also provided collision alerts.



Primary and beacon radar required the use of shrimp boats to keep track of aircraft, as shown at the Kansas City Center around 1969 (top). With the advent of computer-assisted radar, alphanumeric data tags were placed right on the scope, shown here at the Washington ARTCC in 1983 (above).  
1983 photo by Robert Laughlin

Fourth Generation ATC System.

While much of the technology for a semi-automated ATC system was available or on the drawing boards in the mid-1950s, neither funding nor a consensus on what technology to adopt was at hand until 1961.

After the Grand Canyon midair of 1956 and a series of other collisions extending through 1960, which led to the establishment of FAA, federal funds poured into civil aviation for the purchase of primary radar and the air traffic control radar beacon

system (ATCRBS).

Thanks to primary radar, the controller could visually track air traffic. ATCRBS, or secondary radar, improved radar target reception and enabled the controller to identify specific aircraft from among a cluster of planes on his scope. Primary and secondary radar together set the stage for "positive control" of aircraft.

Radar alone, however, did not unburden the controller from his dependence upon frequent voice communication with pilots and time-consuming paperwork responsibilities. Something else was needed if ATC was to keep pace with the projected volume of jet traffic.

That something was the computer, for it promised to take the paperwork out of ATC, keep track of aircraft with an eye to potential conflicts more rapidly than the human mind, accentuate the controller's decision-making prowess and, in the process, expand the capacity of the system.

In 1961, the infant Federal Aviation Agency was considering two competing versions of a computer-assisted Third-Generation ATC System: the U.S. Air Force's Semi-Automatic Ground Environment (SAGE) and Data Processing Central (DPC), which had been developed by



Automation in NAS Stage A meant a computer complex like this prototype at the Jacksonville ARTCC in 1967.

the CAA's Airways Modernization Board.

FAA rejected both systems following a lengthy examination. Both were based on vacuum-tube computers that were too slow and too costly to maintain.

Instead, attention turned to the recommendation of Project Beacon, a high-level, blue-ribbon panel appointed by President John F. Kennedy, whose findings were adopted by FAA Administrator Najeeb Halaby in 1961.

Radar beaconry revolved around the interaction of a ground interrogator with an airborne Mode C, or altitude-reporting, transponder to produce a luminescent signal on the controller's radar display. Once automation was in place, it was hypothesized, the signal could be



An enhancement to the Third Generation ATC System was Direct Access Radar Channel, a back-up system with limited alphanumeric and shrimp boats that now has been enhanced with full alphanumeric.

Photo by Warren Holtsberg, Jr.



Computer update equipment (CUE) for flight data processing, shown here at the Memphis ARTCC, includes complete alphanumeric keyboard, flight strip printer and visual computer readout devices (on each side of the printer).

digitized to disclose the aircraft's identity, altitude and groundspeed in alphanumeric code, thereby providing far more specific flight data and cutting down on pilot-controller voice communications.

closely than did the terminals, and would help establish positive control throughout jet airspace.

NAS En Route Stage A had to surmount financial and conceptual problems. Because of the Vietnam War and Great Society programs, not until the passage of the Airport and Airways Development Act of 1970, which created a user fund to defray the final cost of the program, was the completion of the Third Generation ATC System assured. By 1974, the total cost of the systems installed at the ARTCCs came to \$640 million.

Then there were the human and technical problems. As Deputy Administrator David Thomas recalled, "You've always got the man who's got the machine trying to make the problem fit the machine, and the man who's got the problem trying to make the machine fit the problem."

"In one instance, a frustrated programmer who had been laboring over the design of the software package for Stage A complained that all the aircraft flew at different speeds, and if we could only get them to fly at the same velocity, the programming difficulties could be overcome."

IBM, which wrote the software for the en route system, had to double the amount of memory it had originally planned before it could deliver the operational prototype of the 9020 computer to the Jacksonville, Fla., ARTCC in 1967. The company at one point had 500 programmers at the Technical Center trying to debug the

software. By the time the original Stage A program was finished, it contained over 475,000 instructions, far more than any previous computer program.

The less-complex flight-data processing function was ready first, and controllers were able to learn its intricacies before radar-data processing was added.

By 1970, most of the problems had been resolved, and the last of the centers received flight-data processing in February 1973. Radar-data-processing became a reality at all 20 continental U.S. centers in August 1975.

For the terminals, which had different needs from the ARTCCs, FAA developed a system working from a single radar that was capable of displaying Mode C radar beacon signals in alphanumeric form. It was called the Advanced Radar Terminal Control System (ARTS). The original ARTS was installed at the Atlanta, Ga., terminal in 1965.

In 1968, ARTS was augmented by equipment from an experimental en route system called Stored Program Alphanumeric (SPAN), which had auditioned at the Indianapolis, Ind., ARTCC. The combined system was reconfigured as ARTS I.

When ARTS I proved a quick experimental success, FAA contracted with Sperry Univac for production of the data-acquisition, data-processing and data-entry display functions of a larger version that could accommodate the nation's busiest terminals. This was termed ARTS III.

Between the end of 1970 when Chicago's O'Hare Tower received the first ARTS III and August 1975 when Dallas-Fort Worth Tower did, 63 ter-

This is the third of three historical articles published in FAA World as part of a year-long observance of the July 1986 fiftieth anniversary of federal responsibility for the nation's air traffic control system. The other articles appeared in October and December 1985.



ARTS IIIA provides this Dallas-Fort Worth TRACON controller with alphanumeric data tags for all targets, beacon and non-beacon. Photo by S. Michael McKean

minals had acquired the basic ARTS system.

ARTS IIIA, first tested at the Tampa, Fla., Tower in 1979, added the capability of generating alphanumeric data on all targets, both beacon and primary, and its display could be remoted to satellite airports.

The installation of ARTS III and ARTS IIIA pushed the bill for automation of air traffic control over the \$1 billion mark by 1980.

FAA developed a similar system for smaller airports driven by mini-computers that was called ARTS II. It generates readouts of aircraft identity and altitude, but no groundspeed as its big brother does, because it's not a tracking system. By the end of 1985, 89 terminals had acquired ARTS II.

Since coming on line, both NAS En Route Stage A and ARTS III have been enhanced with Minimum Safe Altitude Warning (MSAW), which flashes "LOW ALT" on the radar screen, and Conflict Alert software, which continuously calculates aircraft flight paths and flashes "CA" on the scope when there's a potential collision course.

Other enhancements include the "quick look" weather advisory, which permits the controller to clear the scope of or bring up radar weather data at will, and the Direct Access Radar Channel (DARC), which is a back-up system that provides some alphanumeric instead of just broadband (primary) radar.

Just as the visual technology of radar made possible area positive control and an ATC system capable of meeting the needs of the airspace system of the 1960s, so automation

increased the capacity and efficiency of the radar-based ATC system to handle the ever-expanding traffic of the 1970s and 1980s.

Yet the system didn't just keep pace. Over the last quarter of a century, the overall accident rate of U.S. air carriers declined 750 percent and that of general aviation about 400 percent, according to National Transportation Safety Board statistics.

More meaningful for judging the effectiveness of air traffic control is the fact that there have been no mid-air collisions of U.S. air carriers under positive air traffic control in 20 years. (In one midair between an airliner and a general aviation aircraft in 1978, the airliner was not receiving radar separation.)

While boosting the system's capacity and safety, automation in the Third Generation ATC System also transformed the controller's world. Radar made an historical artifact of the brass shrimpboat, and automation consigned the plastic one to the dustbin. The flight data strip for its remaining days is no longer something to write upon or to carry in a handoff.

The computer used for simulation is of great importance in controller training and engineering modeling. Simulation studies with computers

have already been used to site new radars, nav aids and airports and to predict the effects upon the ATC environment of new aircraft.

And, of course, the computer is being used in the development of the advanced systems of tomorrow's Fourth Generation ATC System.

That system is spelled out in the National Airspace System Plan, whose development is already underway. It recasts the technical framework of the air traffic control and air navigation system to create a less labor-intensive and more-efficient one that is less expensive to operate and maintain.

The higher levels of automation will encompass the "private line" between pilot and controller, which RTCA envisioned, via Mode S transponder data link, airborne Traffic Alert and Collision Avoidance (TCAS), the automated flight service station system, all solid-state electronics, new computer hardware and software to accommodate the evolution to still higher levels of automation, new controller sector suites and the ultimate blending of en route and terminal functions.

In an era when the limiting factor in civil aviation is becoming the number of runways, Deputy Administrator David Thomas' view still applies: "It's just a matter of being smart enough to adapt the changing technology to the problem you know you have." ■

By Rebecca Nedderman

An Administrative Officer in Airway Facilities, she has been a USAF controller and a journalism teacher.



## Keeping Warm on the Cheap

Facility Heated Through Application of Waste Not, Want Not



Jerry Pierce communicates with the ARSR-3's maintenance computer about its operating parameters.



At the Arlington, Iowa, radar, Harold Wohlford sets up some test equipment for checking some components.

Winter comes early in the Hawkeye State. The first storm of the season swept across Iowa in early November, dumping up to 10 inches of snow.

And winter is severe. In north-eastern Iowa, home of the Arlington ARSR-3 antenna, temperatures occasionally drop below minus 20 degrees Fahrenheit, and the wind chill index can reach minus 70.

Heating such a facility can be difficult and costly. It has run \$800 or so a month in the past. The important word here is "past." For the last two years, technicians at the radar site are staying warm despite extreme temperatures with no heating bills at all.

In 1982, electronics technicians Jerry Pierce and Harold Wohlford submitted an employee suggestion to reclaim heat released from radar transmitter exterior radiators by add-



Part of the Pierce-Wohlford waste heat conversion is this heating coil fan unit attached to a cooling unit.

ing interior radiators and control circuits.

A feasibility study of the suggestion was followed by a prototype installation in July 1984. Its cost of \$2,210 was recovered in less than three months during the first winter. Heat can be retained in the building during the winter or passed to the outside during the summer.

Before tackling this project, the technicians made certain the facility was adequately caulked and insulated. Now, they are still thinking energy conservation and have plans underway to reduce costs for heating an office area isolated from the rest of the building at Arlington.

For their efforts, Pierce and Wohlford recently received a Beneficial Suggestion Award. It was well-earned, for their suggestion is expected to reduce or eliminate heating costs for long-range radar sites all across the nation. ■

## Aeronautical Center

■ **Betty H. Daugherty**, manager, Application Processing & Certification Branch, Special Examining Division, promotion made permanent.

■ **Trimuel C. Jones**, unit supervisor, Electronic Production Section, Engineering and Production Branch, FAA Depot, promotion made permanent.

■ **Elizabeth A. Kimberling**, supervisor, Cashier Control Section, Aircraft Registration Branch, Airmen and Aircraft Registry.

■ **Thomas W. Morris**, supervisor, Airmen Systems Section, Aviation Systems Branch, Data Services Division, promotion made permanent.

■ **Nevin G. Summers**, supervisor, Flight Inspection Section, Flight Inspection Field Office, promotion made permanent.

## Alaskan Region

■ **Ronald B. Barnes**, manager, Merrill Field Tower, Anchorage.

■ **Russell D. Nelson, Jr.**, area supervisor, Anchorage ARTCC, from the Minneapolis ARTCC.

■ **Russell L. Oyster**, manager, Safety and Standards Branch, Airports Division.

■ **William M. Penland, Jr.**, area manager, Kotzebue Flight Service Station, from the Anchorage FSS.

■ **Darrel L. Zuke**, unit supervisor, North Alaska Sector Field Office, Fairbanks.

## Central Region

■ **Timothy E. Halpin**, manager, Quality Assurance Staff, Air Traffic Division.

■ **David W. Hope**, area supervisor, Kansas City International Airport Tower.

■ **Edgar K. Huff**, manager, Traffic Management & Airspace Branch, Air Traffic Division.

■ **Joseph P. Kenny**, manager, Automated Information Resource Branch, Resource Management Division.

■ **Felton R. Lancaster**, manager, Kansas City ARTCC, from the New York ARTCC.

■ **Paul E. Marchbanks**, manager, Planning Branch, Air Traffic Division.

■ **Robert R. Myers**, manager, Salina, Kan., FSS, from the St. Louis FSS.

■ **Walter L. Roberts**, area supervisor, Columbia, Mo., Automated FSS, from the Sidney, Neb., FSS.

■ **Jack F. Schaeffer**, manager, Goodland, Kan., AF Sector Field Office, Wichita, Kan., AF Sector, from Scottsbluff, Neb.

■ **Elizabeth S. Wallis**, area supervisor, Kansas City ARTCC.

## Eastern Region

■ **Wayne C. Bevan**, assistant manager, quality assurance, Washington ARTCC.

■ **Charles Cassella**, supervisor, Frequency Management Staff, Electronics Engineering Branch, Airway Facilities Division.

■ **Drexel D. Collins**, manager, Islip, N.Y., AF Sector Field Office, New York ARTCC AF Sector.

■ **Albert F. Douglas, Jr.**, assistant manager, airspace and procedures, Philadelphia Tower, from Camp Springs, Md.

■ **Wayne H. Fischer**, area supervisor, New York ARTCC.

■ **Ronald R. Haggerty**, assistant manager, military operations, Washington ARTCC.

■ **Leonard U. Hopkins**, area supervisor, Danville, Va., FSS, from Teterboro, N.J.

■ **Lawrence S. Jezouit**, area supervisor, New York ARTCC.

■ **Helen Krywka**, area supervisor, Poughkeepsie, N.Y., FSS, from Albany, N.Y.

■ **George A. McConnachie**, traffic management coordinator, Washington ARTCC.

■ **Paul C. Mitchell**, assistant manager for training, Washington ARTCC.

■ **Brian J. Pantle**, area supervisor, New York TRACON, from Pittsburgh, Pa.

■ **Charles R. Reavis**, manager, Washington ARTCC.

■ **Herbert J. Rossell, Jr.**, area manager, Norfolk, Va., Tower, from AT Division.

■ **Raymond L. Shannon**, assistant manager for automation, Washington ARTCC.

■ **Raymond J. Taheny**, area supervisor, New York ARTCC.

■ **Lawrence D. Thompson**, systems engineer, New York ARTCC AF Sector.

■ **Curtis L. Zimmerman**, assistant manager, airspace and procedures, Washington ARTCC.

## Great Lakes Region

■ **Gerald R. Akers**, manager, West Lafayette, Ind., AF Sector Field Office, Indiana AF Sector, from AF Division.

■ **James F. Anez**, area supervisor, Watertown, S.D., Flight Service Station, promotion made permanent.

■ **Pamela J. Batson**, manager, Traverse City, Mich., FSS, from Minneapolis, Minn.

■ **Jay A. Baumann**, area supervisor, Cleveland, Ohio, Automated FSS, from the Columbus, Ohio, FSS.

■ **Robert P. Beatty**, manager, Detroit Ypsilanti, Mich., Tower, from Detroit Metro Tower.

■ **Ronnie L. Broadnax**, watch supervisor, Michigan AF Sector.

■ **Richard A. Carney**, environmental support engineering technician, Indiana AF Sector.

■ **Joaquin A. Castrejon**, facility coordination officer, Aurora, Ill., AF Sector, promotion made permanent.

■ **Bradley J. Chandler**, facility coordination officer, Aurora, Ill., AF Sector.

■ **Thomas J. Drabik**, central computer complex supervisor, Cleveland ARTCC AF Sector, promotion made permanent.

■ **Philip J. Gutkoski**, assistant systems engineer, Cleveland ARTCC AF Sector.

■ **John P. Kleber**, assistant manager for training, Terre Haute, Ind., Automated FSS, from the FAA Academy.

■ **James T. Lake**, area supervisor, Champaign, Ill., Tower, from Bloomington, Ill.

■ **Pascal J. Mazuc**, facility coordination officer, Aurora, Ill., AF Sector.

■ **John T. McGowan**, manager, Du Page County AF Sector Field Office, Chicago AF Sector, from Airway Facilities Div.

■ **Richard J. McNeal**, manager, Meigs Field Tower, Chicago, from Midway Field.

■ **Robert D. Mitchell**, unit supervisor, Illinois AF Sector, from AF Division.

■ **Joseph O. Perkins**, assistant systems engineer, Cleveland ARTCC AF Sector, promotion made permanent.

■ **Raymond A. Whitaker**, area supervisor, Detroit, Mich., FSS, from FAA Academy.

■ **Curtis L. Wixon**, manager, Du Page County AF Sector Field Office, Chicago AF Sector, from the Illinois AF Sector.

■ **Leo E. Wonderly**, manager, Indianapolis General Aviation District Office, from the Flight Standards Division.

## New England Region

■ **Douglas R. LeBlanc**, area manager, Bridgeport, Conn., Automated FSS.

## Northwest Mountain Region

■ **Dennis D. Barth**, area supervisor, Denver ARTCC, promotion made permanent.

■ **Richard W. Blondefield**, manager, Operations Branch, Flight Standards Division, from Salt Lake City, Utah, FSDO.

■ **Denney L. Bridges**, manager, Helena, Mont., Tower, from McChord AFB RAPCON.

■ **Milton Lee Brown**, area supervisor, Denver ARTCC, from Salt Lake City ARTCC.

■ **Lawrence K.C. Chang**, unit supervisor, Seattle ARTCC AF Sector.

■ **James E. Collins**, area supervisor, Seattle ARTCC, promotion made permanent.

■ **Joe E. Gingles**, area supervisor, Seattle ARTCC, promotion made permanent.

■ **Michael P. Hipsler**, evaluation specialist, Denver ARTCC.

■ **Peter G. Hooper**, area supervisor, Denver ARTCC, promotion made permanent.

■ **Robert L. Horsley**, manager, Salt Lake City AF Sector, from AF Division.

■ **Billy E. Jack**, unit supervisor, Denver ARTCC Airway Facilities Sector, promotion made permanent.

■ **Darrell E. Jefferson**, manager, Idaho Falls, Idaho, Tower, from Salt Lake Tower.

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 branch managers in offices are published. Other changes cannot be accommodated because there are thousands each month.

■ **Richard Martinez**, enroute automation supervisor, Salt Lake City ARTCC, from the Portland, Ore., FSS.

■ **William E. O'Neill, Jr.**, manager, Airspace and System Management Branch, AT Div., from Salt Lake City ARTCC.

■ **John V. Owen**, manager, Seattle AF Sector Field Office.

■ **David L. Paswaters**, area supervisor, Denver ARTCC, promotion made permanent.

■ **Jed G. Snow**, area supervisor, Denver ARTCC, promotion made permanent.

■ **Peter C. Sweets**, manager, Salt Lake City ARTCC, from the Denver ARTCC.

■ **Alton E. Tolson**, unit supervisor, Salt Lake City AF Sector Field Office.

■ **William W. Wallis**, area supervisor, Salt Lake City ARTCC, promotion made permanent.

■ **Ralph A. Wozniak**, assistant manager, Salt Lake City ARTCC, from Denver ARTCC.

## Southern Region

■ **Leonard J. Bennett**, enroute automation supervisor, Jacksonville, Fla., ARTCC.

■ **Kenneth M. Berkey, Jr.**, assistant manager for training, St. Petersburg, Fla., Automated FSS, from Birmingham, Ala.

## A Change in the World

Effective with the April 1986 issue, *FAA World* will cease home-mailing to employees because of the budget constraints imposed by the Gramm-Rudman-Hollings Act. In the future, *FAA World* will be shipped to all field facilities, regions and centers.

■ **Mark E. Blackburn**, area supervisor, Memphis, Tenn., Tower, from Hobby Field Tower, Houston, Texas.

■ **Charles S. Buzard**, area supervisor, Fort Lauderdale, Fla., International Airport Tower, promotion made permanent.

■ **Thomas G. Carroll**, assistant manager, plans and procedures, St. Petersburg Automated FSS, from Greer, S.C., FSS.

■ **Melvin A. Cooper**, assistant manager, for training, Nashville, Tenn., Automated FSS, promotion made permanent.

■ **Phillip H. Crawford III**, area supervisor, Raleigh, N.C., Tower, from Seymour Johnson AFB, Goldsboro, N.C.

■ **Rebecca A. Dangler**, supervisor, Southern & Technical Center Payroll Section, Payroll Branch, Accounting Division.

■ **Truman L. Glisson**, area supervisor, Jacksonville FSS, from Brunswick, Ga.

■ **George T. Harrell**, assistant manager, quality assurance, Miami, Fla., ARTCC.

■ **James E. Harris**, assistant manager for automation, Miami Automated FSS.

■ **Cecil A. Hoyer**, area manager, Miami ARTCC.

■ **Ronald L. Hubbard**, area supervisor, Melbourne, Fla., FSS, from Bristol, Tenn.

■ **Geraldine A. Jackson**, group supervisor, Northern Acquisition Team, Procurement Branch, Logistics Division.

■ **Leonard E. Jankowski**, area manager, Memphis ARTCC.

■ **Lowell L. Lunn**, assistant manager, plans and programs, Memphis ARTCC.

■ **Charles E. Miller**, manager, St. Croix, Virgin Islands, Tower.

■ **Harry D. Pelphrey**, manager, Greenville, Miss., Tower, from Opa Locka, Fla.

■ **Michael J. Powderly**, chief, Evaluations Staff, Air Traffic Division, from Atlanta, Ga., Tower.

■ **Scott L. Seriff**, supervisor, Engineering and Construction Section, Atlanta Airports District Office, promotion made permanent.

■ **Ellis H. Thorp, Jr.**, assistant manager for automation, Atlanta ARTCC.

■ **Elbert R. Turner**, assistant manager for training, Memphis ARTCC.

■ **Stephen C. Watson**, group supervisor, Southern Acquisition Team, Procurement Branch, Logistics Division.

■ **Carl White**, area supervisor, Florence, S.C., Tower, from Fayetteville, N.C.

### Southwest Region

■ **Daryl W. Autry**, area supervisor, Little Rock, Ark., FSS, from Jonesboro, Ark.

■ **Anthony Brescia III**, area supervisor, Fort Worth, Texas, ARTCC.

■ **Stephen T. Byrd**, area supervisor, Albuquerque, N.M., ARTCC, promotion made permanent.

■ **Robert F. Cortez**, area supervisor, Albuquerque ARTCC.

■ **Monico Garcia**, area supervisor, McAlester, Okla., Automated FSS, from Fort Worth FSS.

■ **Jack L. Hardy**, manager, Houston, Texas, ARTCC, from Houston Intercontinental.

■ **Richard V. Harter**, unit supervisor, San Antonio, Texas, AF Sector, from Houston ARTCC AF Sector.

■ **Jose R. Hernandez**, manager, McAllen, Texas, Tower, from Beaumont, Texas.

■ **Bill J. Howard**, manager, Bethany,

Okla., Airports District Office, from the Albuquerque ADO.

■ **David B. Johnson**, area supervisor, Fort Worth ARTCC.

■ **Edward E. Martinez**, area supervisor, Fort Worth FSS, from Las Vegas, Nev., FSS.

■ **William H. Miller**, area supervisor, Addison, Texas, Tower, from San Antonio.

■ **William M. Moman**, area supervisor, Fayetteville, Ark., FSS, from the De Ridder, La., Automated FSS.

■ **Victoria L. Morgan**, area supervisor, Hobby Field Tower, Houston.

■ **Oscie C. Perkins, Jr.**, chief, Human Resource Planning Staff, Human Resource Management Division.

■ **Everett J. Simon, Jr.**, manager, Houston Intercontinental Tower, from the Phoenix, Ariz., TRACON.

■ **Larry L. Taylor**, manager, Compensation & Employment Branch, Human Resource Management Division.

■ **Roger M. Trevino**, manager, McAllen FSS, from the Dallas, Texas, FSS.

■ **Robert S. Ward**, area supervisor, De Ridder AFSS.

■ **Donald G. West**, area supervisor, McAlester AFSS, from Tulsa, Okla., FSS.

### Technical Center

■ **Robert B. Marks**, supervisor, Visuals and Publications Section, Technical and Security Services Branch, Plant Engineering & Services Division.

■ **Richard B. Shinpaugh**, manager, National Automation Field Support Branch, Automation Software Division.

### Washington Headquarters

■ **Joseph James Fee**, manager, TCAS Program, Communications/Surveillance Div., Program Engineering & Maintenance Service.

### Western-Pacific Region

■ **John R. Carlson**, assistant manager, Las Vegas, Nev., Airway Facilities Sector, from the Riverside, Calif., AFSFO.

■ **Richard A. Cox**, manager, Resource Management Branch, Air Traffic Division, from the Los Angeles TRACON.

■ **Gerald F. Dunn**, area supervisor, Oakland, Calif., Flight Service Station,

from the Juneau, Alaska, FSS.

■ **Albert S. Greenberg**, supervisor, Airworthiness Section, Flight Standards Branch, Flight Standards Division, promotion made permanent.

■ **Lewis D. Hawkins**, systems engineer, Oakland ARTCC Airway Facilities Sector.

■ **Gregory L. Hill**, assistant systems engineer, Los Angeles ARTCC AF Sector, from the FAA Academy.

■ **John K. Hoffman**, area supervisor, Edwards Air Force Base RAPCON, from the Casper, Wyo., Tower.

■ **Hobart Martin**, manager, Edwards AFB AF Sector Field Office, from the Lancaster, Calif., AF Sector.

■ **Richard A. Muckle**, manager, Los Angeles AF Sector, from the AF Division.

■ **Gary P. Munnell**, area supervisor, San Francisco Tower, from the Tucson, Ariz., TRACON.

■ **Phillip A. Shelstad**, assistant manager for technical support, Las Vegas AF Sector, from the Riverside AFSFO.

■ **Lowell E. Thomas**, assistant manager, Hawthorne, Calif., Automated FSS, from the Los Angeles FSS.

## Retirees

Anderson, Kermil B.—AC  
Beli, George W.—AC  
Beli, Marie J.—AC  
Bilten, Clarence C.—AC  
Bunney, Hazel M.—AC  
Dillon, Jesse M.—AC  
Eckhoff, Charles F.—AC  
Edwards, Chester L.—AC  
Frank, Wilbur L.—AC  
Gistrap, Donald R.—AC  
Houston, Shirley R.—AC  
Jackson, Estes R.—AC  
Josephson, Harry C.—AC  
LaFreniere, Harry V.—AC  
Landsraf, Edward F.—AC  
Largess, Donald P.—AC  
Leddin, Roy—AC  
McGuire, Joe W.—AC  
Maupin, Jimmy G.—AC  
Napostello, Philip J.—AC  
Oliver, Robert S.—AC  
Perry, George R.—AC  
Post, Lamoyne J.—AC  
Punkafich, George F.—AC  
Rice, Phillip G.—AC  
Sowald, John L.—AC  
Star, William W.—AC  
Stone, Warren D.—AC  
Terry, Luther E.—AC  
Thomas, Walford M.—AC

Walden, Elbert L.—AC  
Weaver, Mark W.—AC  
Wilson, George L.—AC  
Winfield, Samuel A., Jr.—AC  
Wood, Joe L.—AC  
Halloway, Donald G.—AL  
Walton, Jim C.—AL  
Beyer, William J.—CE  
Blackstad, Robert N.—CE  
Brussell, William L.—CE  
Burnsted, Charles M.—CE  
Campbell, George A.—CE  
Cornaal, Paul A.—CE  
Dartington, Bobby E.—CE  
Fischer, Melvin J.—CE  
Goodwin, Chester A.—CE  
Harimann, Henry J.—CE  
Hill, Harry D.—CE  
Hogan, Bernard W.—CE  
James, John R.—CE  
Krambler, Leif F.—CE  
Luskman, Royal O.—CE  
Mack, Gerald S.—CE  
Maine, Robert B.—CE  
Noe, Barbara A.—CE  
Ottman, Ervina L., Jr.—CE  
Page, Donald E.—CE  
Price, Elmer L.—CE  
Robertson, Flora M.—CE

Romfeldt, William N.—CE  
Rudolf, Joseph H.—CE  
Stringfield, William F.—CE  
Travis, Kenneth E.—CE  
Vasick, Joseph J.—CE  
Warring, Eugene R.—CE  
Winchester, Alice L.—CE  
John, Florence M.—CT  
Liesck, Peter, Jr.—CT  
Lewis, Elizabeth W.—CT  
O'Brien, Paul J.—CT  
Padick, Alexander—CT  
Ramsay, Lawrence—CT  
Reed, Joseph H.—CT  
Sawette, Edward M.—CT  
Thompson, Lomis M.—CT  
Westfall, Charles C., Jr.—CT  
Barilla, Rosario—EA  
Bonello, Salvatore M.—EA  
Booker, William L.—EA  
Borenzki, Rudolf R.—EA  
Bouchard, Maryann H.—EA  
Clark, Ray—EA  
Citt, Billie J.—EA  
Davis, Henry W.—EA  
DeBatis, Dalany H.—EA  
Derron, Phillip A.—EA

Duke, Helen M.—EA  
Ryan, John F.—EA  
Rudolf, Albert J.—EA  
Leshchyn, Walter—EA  
Littel, William A.—EA  
Logan, Robert A.—EA  
Maggiali, Joseph C.—EA  
Makela, Victor—EA  
Marrin, Donald D.—EA  
Marrino, Benedict J.—EA  
Massamroff, Paul—EA  
Mawyer, William K.—EA  
Metalko, John J.—EA  
Garitz, Edward F.—EA  
Garone, Peter J.—EA  
Gillard, Joseph A., Jr.—EA  
Goins, Kenneth W.—EA  
Greenman, Samuel L.—EA  
Harrinet, Timothy L.—EA  
Heffrich, Paul P.—EA  
Herlich, Edward J.—EA  
Hirsch, Raymond—EA  
Hobbs, Frank J.—EA  
Hudson, Bruce A.—EA  
Jennings, James J.—EA  
Johnson, Edmond R.—EA  
Kelly, James J.—EA  
Kiebler, Wayne D.—EA  
Kline, Paul L.—EA  
Knoshton, William—EA  
Lucas, Charles F., Jr.—EA  
Laws, Edward F.—EA

Lawton, Marion L.—EA  
Lengyel, Albert J.—EA  
Leshchyn, Walter—EA  
Littel, William A.—EA  
Logan, Robert A.—EA  
Maggiali, Joseph C.—EA  
Makela, Victor—EA  
Marrin, Donald D.—EA  
Marrino, Benedict J.—EA  
Massamroff, Paul—EA  
Mawyer, William K.—EA  
Metalko, John J.—EA  
Garitz, Edward F.—EA  
Garone, Peter J.—EA  
Gillard, Joseph A., Jr.—EA  
Goins, Kenneth W.—EA  
Greenman, Samuel L.—EA  
Harrinet, Timothy L.—EA  
Heffrich, Paul P.—EA  
Herlich, Edward J.—EA  
Hirsch, Raymond—EA  
Hobbs, Frank J.—EA  
Hudson, Bruce A.—EA  
Jennings, James J.—EA  
Johnson, Edmond R.—EA  
Kelly, James J.—EA  
Kiebler, Wayne D.—EA  
Kline, Paul L.—EA  
Knoshton, William—EA  
Lucas, Charles F., Jr.—EA  
Laws, Edward F.—EA

Rodgers, Randolph E., Jr.—EA  
Ryan, John F.—EA  
Sacco, Halo J.—EA  
Schaffner, Glen F.—EA  
Shriver, Robert W.—EA  
Small, Emma H.—EA  
Smith, Marvin B.—EA  
Sperry, Herbert E.—EA  
Stierin, Harry—EA  
Suzell, John L.—EA  
Straub, Robert T.—EA  
Sumner, Elliot—EA  
Sykora, Edward C.—EA  
Sylvan, Georges—EA  
Thomas, Kenneth G.—EA  
Torre, Biagio A.—EA  
Virts, George F.—EA  
Walker, Robert L.—EA  
White, Robert L.—EA  
Albrecht, George L.—GI  
Andrews, Thomas J.—GI  
Archibon, James J.—GI  
Belt, Russel A.—GI  
Brunner, Harry F., Jr.—GI  
Buchanan, Albert E.—GI  
Campbell, Charles W.—GI  
Cunningham, Charles F.—GI  
Day, John A.—GI  
Diehl, Carroll D.—GI

Ditch, Diane M.—GI  
Edmonds, Vernon E.—GI  
Glockner, Walter J.—GI  
Hoffman, Kenneth J.—GI  
Johnson, Albert E.—GI  
Johnson, Richard L.—GI  
Jones, Gerald R.—GI  
Kelley, David J.—GI  
Kendzior, Gerald A.—GI  
Klein, Robert F.—GI  
Kramer, Robert E.—GI  
Leibe, Robert W.—GI  
Lorenz, Stella J.—GI  
Mason, Ralph D.—GI  
Maurer, Herold J., Jr.—GI  
McCormick, Alfred R.—GI  
McClaren, David R.—GI  
Mello, Raymond—GI  
Meyer, Robert K.—GI  
Miller, Melvin L.—GI  
Neish, Richard L.—GI  
Newbury, James N.—GI  
Pester, Gus R.—GI  
Ramsey, John R.—GI  
Rappoport, Robert J.—GI  
Redietalo, Wallace—GI  
Rost, Herbert J.—GI

Russell, Charles E.—GI  
Pike, Edwin E.—NE  
Schofield, Kenneth—NE  
Scolville, William L.—NE  
Stuckdale, Donald R.—GI  
Strachan, David C.—GI  
Thomas, John H.—GI  
Van Ekeren, James H.—GI  
Vidmar, Frank—GI  
Vorobran, Richard—GI  
Wagner, Ralph E.—GI  
Weishaar, Alfred E.—GI  
Whitman, Frank R., Jr.—GI  
Call, James V.—MA  
Fritts, Clarence N.—MA  
Grubbs, James W.—MA  
Hagood, M. Lindsey—MA  
Keeran, Harvey W.—MA  
Neel, Ellen M.—MA  
Schuster, Kenton M.—MA  
Copado, Demetrios C.—NI  
Cryler, Frank L.—NE  
Daquette, Charles F.—NE  
Earlight, Daniel J.—NE  
Houston, Alvin, Jr.—NE  
Johnston, Royce E.—NE  
McDonald, Ralph D.—NI  
Meli, Dominic—NE

Nimesken, Phillip W.—NE  
Pike, Edwin E.—NE  
Schofield, Kenneth—NE  
Scolville, William L.—NE  
Stuckdale, Donald R.—GI  
Strachan, David C.—GI  
Thomas, John H.—GI  
Van Ekeren, James H.—GI  
Vidmar, Frank—GI  
Vorobran, Richard—GI  
Wagner, Ralph E.—GI  
Weishaar, Alfred E.—GI  
Whitman, Frank R., Jr.—GI  
Call, James V.—MA  
Fritts, Clarence N.—MA  
Grubbs, James W.—MA  
Hagood, M. Lindsey—MA  
Keeran, Harvey W.—MA  
Neel, Ellen M.—MA  
Schuster, Kenton M.—MA  
Copado, Demetrios C.—NI  
Cryler, Frank L.—NE  
Daquette, Charles F.—NE  
Earlight, Daniel J.—NE  
Houston, Alvin, Jr.—NE  
Johnston, Royce E.—NE  
McDonald, Ralph D.—NI  
Meli, Dominic—NE

Giroux, Marilyn C.—NM  
Guithie, Francis L.—NM  
Haldan, Eugene J.—NM  
Hansen, Grant A.—NM  
Hughes, Weldon W.—NM  
Ignacio, Benham E.—NM  
Jones, Howard G.—NM  
Joubert, James W.—NM  
Joyal, Hubert W.—NM  
Karklin, Herbert E.—NM  
Kluich, George—NM  
Leshman, James W.—NM  
Lencho, Orest J.—NM  
MacGillivray, Bryan D.—NM  
Manning, Louise J.—NM  
Marzoukian, Charles—NM  
McDonnell, Jack G.—NM  
Meador, Lowell A.—NM  
Milward, Frank L.—NM  
Newier, Leonard W.—NM  
Nelson, Richard W.—NM  
Patz, Ernest A.—NM  
Paxman, Mark W.—NM  
Pfligrin, Lawrence V.—NM  
Potter, Roy—NM

Continued on page 20

# A Catalyst for Improvement

## New Organizational Development Unit Assists in Change

**D**o you have a management problem and don't know where to turn? Help is at hand, even under the most trying conditions.



Braving a 78-degrees-below-zero wind chill, Bob Mitchell of the Alaskan Region flew to Bettles in a cargo plane to chair an employee-participation meeting on staffing problems. Where? In the belly of the C-123 after the cargo was unloaded, with the pilot keeping the engines going to heat the impromptu auditorium.

This is all in the day of an organizational development (OD) consultant. As part of FAA's efforts to be responsive to employee concerns and improve management, the agency last August established an Organizational Development Division under the Office of Organizational Effectiveness (AOE). This division, headed by Bill Masters and staffed by Harold Alexander, Frederica Dunn, Lilith Ren and Barry Williams, coordinates with regional OD field consultants and performs consulting services.

By Frederica Dunn

A specialist in the Organizational Development Division, she is the author of "The Successful International Executive," published in 1980.



The use of OD is designed to foster organization and management practices that assist managers in anticipating FAA's future planning and effecting positive change, says Director of Organizational Effectiveness Howard Richardson.

Dead organizations have no conflict, notes Harold Alexander. Management-employee, interpersonal and intrapersonal problems are inevitable and exist in virtually all work organizations. They will never go away, he says, but their existence is not a sign that the organization is in bad shape.

Staff conflicts come about because the organization often likes to have its employees perform in a way that isn't always congruent with their individual needs, desires or abilities.

Bill Masters points to making more imaginative and innovative options available to employees and using behavioral science skills to increase organizational effectiveness and productivity.

Successful managers focus their energy and time not on differences between management and staff but on similarities, he says. What are the common needs? What is in the best interest of both parties?

Here is where OD comes in. As one manager said recently, following discussions, "It takes someone at the top to want to change a situation and a third party consultant to assist in the mechanics of effecting the desired changes."

As that catalyst, OD has supported or initiated:

- A relocation assistance contract for employee transfers,
- An employee assistance program that provides comprehensive counseling and rehabilitation efforts for drug and alcohol users,
- A Western-Pacific Region evaluation of the success of the Aviation Safety Analysis System.
- Stress-management seminars for employees,
- A facilitator training course at the Management Training School to assist managers in problem-solving and employee participation processes,
- An agreement with the Professional Airways System Specialists (PASS) for a joint labor-management employee-involvement program at three sites in the Eastern Region,
- The development with regional OD personnel of FAA Attitude Survey action plans for field facilities,
- A skills inventory with field OD personnel in the Memphis, Tenn., area to aid managers in diagnosing their human resource management skills and developing a plan to improve their deficiencies,
- A joint committee between FAA and the National Association of Air Traffic Specialists (NAATS) to review and propose improvements in the transition to automated flight service stations.



Working on planning activities with a Washington headquarters human relations committee is organizational development specialist Harold Alexander (standing).

In addition, the OD Division is planning to provide assistance to line managers on the best ways to function in this era of extreme fiscal constraints, such as with circular A-76 and the Gramm-Rudman-Hollings Act.

Organizational development deals with changing the culture of the organization so as to function better. There are no easy solutions or quick fixes. It is a long-term process that must be integrated into the day-to-day way we do business.

It can pay to talk to your local OD specialist. ■



Shelly Thomas (left) of the Office of Human Resource Planning and Evaluation discusses field action plans for the FAA Attitude Survey with the author.



ORGANIZATIONS MUST REWARD HIGHLY VALUED PERFORMANCE BUT STILL ENCOURAGE EXPERIMENTATION



Organizational development specialist Lilith Ren makes suggestions to Program Engineering and Maintenance Service staff about sector office staffing.

## Retirees continued

Radawick, Charles E.—NM  
 Radloff, Clyde A.—NM  
 Smith, Mildred Y.—NM  
 Sorensen, Grant J.—NM  
 Swanson, Duane L.—NM  
 Thompson, Everett L.—NM  
 Thurston, Glen E.—NM  
 Townsend, Ernest A.—NM  
 Warren, Morris G.—NM  
 Waterfall, Gerald M.—NM  
 Weldon, Lloyd L.—NM  
 Wilcox, Donald E.—NM  
 Wilder, Llewellyn O.—NM  
 Wood, Vernal T.—NM

Anderson, Joseph E., Jr.—SO  
 Autenrieth, Elizabeth W.—SO  
 Ayala-Placeres, Nicolas—SO  
 Bianco, Pasquale A.—SO  
 Bostwick, Louise—SO  
 Braswell, Samuel W.—SO  
 Bray, Andrew B.—SO  
 Camp, Felix W.—SO  
 Campbell, Charles L.—SO  
 Campbell, Jack C., Jr.—SO  
 Carr, Daniel E.—SO  
 Carroll, Jack—SO  
 Charron, Albert P.—SO  
 Church, Robert D.—SO  
 Cofer, John W., Jr.—SO  
 Dail, Walter G., Jr.—SO  
 Davis, Troy R.—SO  
 De Jesus, Armando Luis—SO  
 Dean, Donald A.—SO  
 DeLong, David P.—SO  
 Dozier, Don W.—SO  
 Drum, Connie Mack—SO  
 Ernst, Andrew M.—SO  
 Estep, Hubert L.—SO  
 Foy, William T.—SO  
 Froitzheim, Norman P.—SO  
 George, Lucia D.—SO  
 Goodale, James E.—SO  
 Green, John H.—SO  
 Green, William L., Jr.—SO  
 Guenther, Leland H.—SO  
 Gutierrez, Julio—SO  
 Hamilton, James D.—SO  
 Harris, Cameron R.—SO

Harrison, Leon H.—SO  
 Hayden, Frank A., Jr.—SO  
 Hegeheiser, Armin P., Jr.—SO  
 Herring, Donald E.—SO  
 Hill, Carl R.—SO  
 Hinkle, Turner T.—SO  
 Houghtaling, Ronald W.—SO  
 Hunter, J. B.—SO  
 Jackson, James H.—SO  
 Johnson, John F., Jr.—SO  
 Jones, Stanley F.—SO  
 Kalnin, George, Jr.—SO  
 Kemmerling, Donald R.—SO  
 Kotis, Nicholas E.—SO  
 Lewis, James N.—SO  
 Mabry, Donald L.—SO  
 Massengale, Donald L.—SO  
 Matthews, Charles E.—SO  
 McCombs, Donald W.—SO  
 McDonald, Henry H., Jr.—SO  
 McDonald, Joseph B.—SO  
 McIntosh, James P.—SO  
 McInturff, Richard E.—SO  
 Ming, Willie J.—SO  
 Moor, Edmund E.—SO  
 Morgan, Andrew G.—SO  
 Morris, Marvin E.—SO  
 Murray, Thomas E.—SO  
 Nevins, Robert W., Jr.—SO  
 North, William E.—SO  
 Pittman, Harvey E.—SO  
 Prudhomme, John L.—SO  
 Rabe, Flora T.—SO  
 Reynolds, Edward R.—SO  
 Rosati, Carl A.—SO  
 Schellenberg, Hans K.—SO  
 Schimk, Richard G.—SO  
 Scott, Charles H.—SO  
 Selby, William R.—SO  
 Simmons, Oliver D., Jr.—SO  
 Smith, Irving J.—SO  
 Snyder, Charles E.—SO  
 Sowell, John B.—SO  
 Thrasher, William—SO  
 Tunnell, William P.—SO  
 Vartti, George A.—SO  
 Velez, Fred N.—SO  
 Vinci, Angelo S.—SO  
 Weber, Charles E.—SO  
 Webster, Ernest L.—SO  
 Womble, Olive B.—SO  
 Yost, Erma L.—SO  
 Young, Ora W., Jr.—SO

Avet, James M.—SW

Barnett, J. C.—SW  
 Brasko, Thomas S.—SW  
 Bricker, Edgar L.—SW  
 Briggs, John F.—SW  
 Bull, Fred C., Jr.—SW  
 Carney, James J.—SW  
 Cobb, Lloyd H., Jr.—SW  
 Cole, John W., Jr.—SW  
 Dawson, James A.—SW  
 Day, Wilburn B.—SW  
 Deupree, Joe M.—SW  
 Elston, Robert J.—SW  
 Erikson, Everett H.—SW  
 Floyd, Joe T.—SW  
 Frederick, O. D., Jr.—SW  
 Fredrick, Thomas W.—SW  
 Gardner, Daniel C.—SW  
 Harris, Corrie W.—SW  
 Healy, Elbert V.—SW  
 Heller, Bettie A.—SW  
 Hoover, Robert C.—SW  
 Hurley, Royce G.—SW  
 Jordan, Verman V.—SW  
 Kibbe, Lee L.—SW  
 Landis, David M.—SW  
 Lee, Curtis M.—SW  
 Lewis, Donald R.—SW  
 Long, Donald E.—SW  
 Mangano, Marjorie C.—SW  
 Manning, William C.—SW  
 McKinney, Doris L.—SW  
 McNully, Denison D.—SW  
 Melgar, Julio—SW  
 Miller, John J.—SW  
 Milner, Chester G.—SW  
 Moore, Sid M.—SW  
 Palla, Milton J.—SW  
 Patterson, Pete—SW  
 Pawkett, Viola—SW  
 Pillow, Robert W.—SW  
 Rucker, Merritt J.—SW  
 Sager, Albert E., Jr.—SW  
 Schrank, Arno A.—SW  
 Sheehan, John F., Jr.—SW  
 Shell, Seaward J.—SW  
 Smith, Bob A.—SW  
 Snowberger, John A.—SW  
 Steelman, Buck C.—SW  
 Stiles, Jackie P.—SW  
 Strobel, William H.—SW  
 Stutzman, Robert J.—SW  
 Talley, Robert A.—SW

Taylor, Herman J.—SW  
 Trammell, Deibert A.—SW  
 Trowbridge, Gail L.—SW  
 Tubbs, Jimmie—SW  
 Turner, John J.—SW  
 Upton, Jr. Berlie R.—SW  
 Webster, Charles L.—SW  
 Wilson, Oran E.—SW  
 Wright, Henry D.—SW  
 Zarkowski, Walter C.—SW

Anderson, David L.—WA  
 Beaudoin, Joseph A.—WA  
 Bennett, Glyndon P.—WA  
 Cate, Joe N., Jr.—WA  
 Courlas, John G.—WA  
 Crown, Charles E.—WA  
 d'Aulerio, Herman—WA  
 Femrite, Cyril H.—WA  
 Foster, Frank W.—WA  
 Hovis, Richard M.—WA  
 Hughes, Paul L.—WA  
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