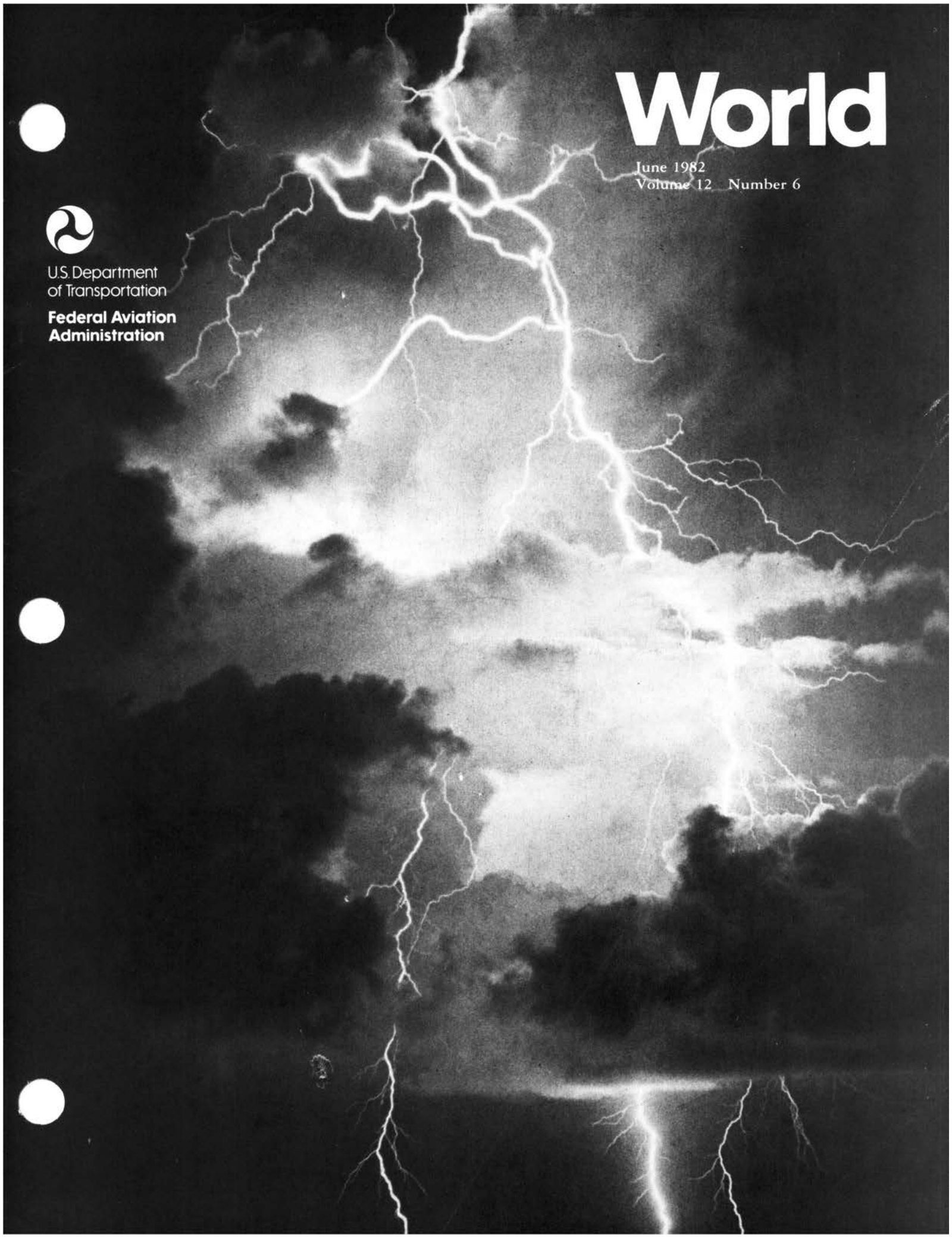

World

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**Federal Aviation
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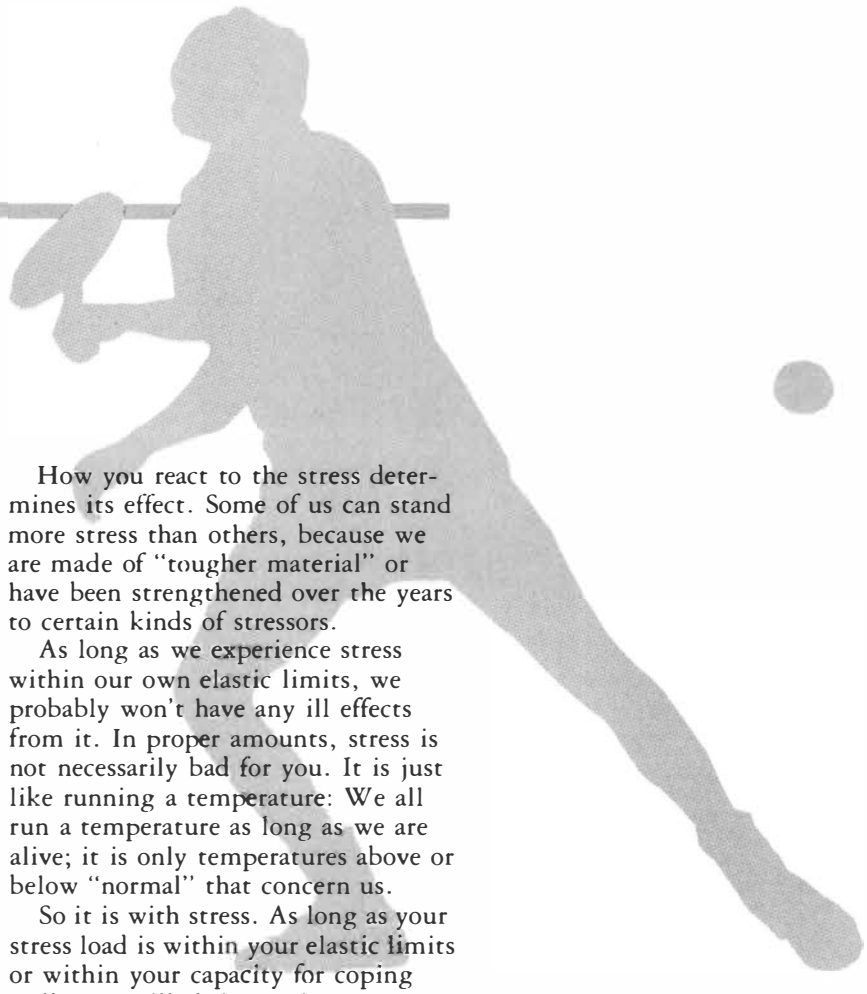

Feeling Fit

Edited by Henry J. Christiansen

Stress may be good for you.

It's true; the body's stress response is not only normal but essential. A fatigued body encountering danger will momentarily override its own exhaustion in order to deal with the danger.

Obviously, this short-term stress is functional. Your body becomes sensitized and alert, ready to respond to the stressor. When you have coped with the crisis, the stress drops, sometimes even below theoretical baseline levels.

An undesirable form of stress is not short-term but long-term stress. Long-term stress consists of levels of uninterrupted stress in which your system stays "hyped up" and never fully returns to baseline levels of activity. Gradually, over a perod of time, your baseline levels may stabilize at higher and higher levels.

Many people deal with complex problems that defy simple solutions. The result is that we may fret over them for days on end. This may cause more stressors to develop, and the cumulative effect may be prolonged, higher levels of stress.

How you react to the stress determines its effect. Some of us can stand more stress than others, because we are made of "tougher material" or have been strengthened over the years to certain kinds of stressors.

As long as we experience stress within our own elastic limits, we probably won't have any ill effects from it. In proper amounts, stress is not necessarily bad for you. It is just like running a temperature: We all run a temperature as long as we are alive; it is only temperatures above or below "normal" that concern us.

So it is with stress. As long as your stress load is within your elastic limits or within your capacity for coping well, you will thrive on it.

(Source: "Managing Stress—A Business Person's Guide" by Jere Yates)

Mr. Christiansen is the Southwest Region's Special Projects Coordinator, as well as an inveterate runner (his third year in the Boston Marathon) and health buff. This column was coordinated with the Regional Air Surgeon.

Front cover: **Photo courtesy of the National Oceanic and Atmospheric Administration**

Back cover: **Howard Hughes' "Spruce Goose" flying boat takes its final float to a permanent display home in an aluminum dome (rear) in Long Beach, Calif., harbor. The Hercules will join the former luxury liner *Queen Mary* as an exhibit.**

Wide World Photos

World

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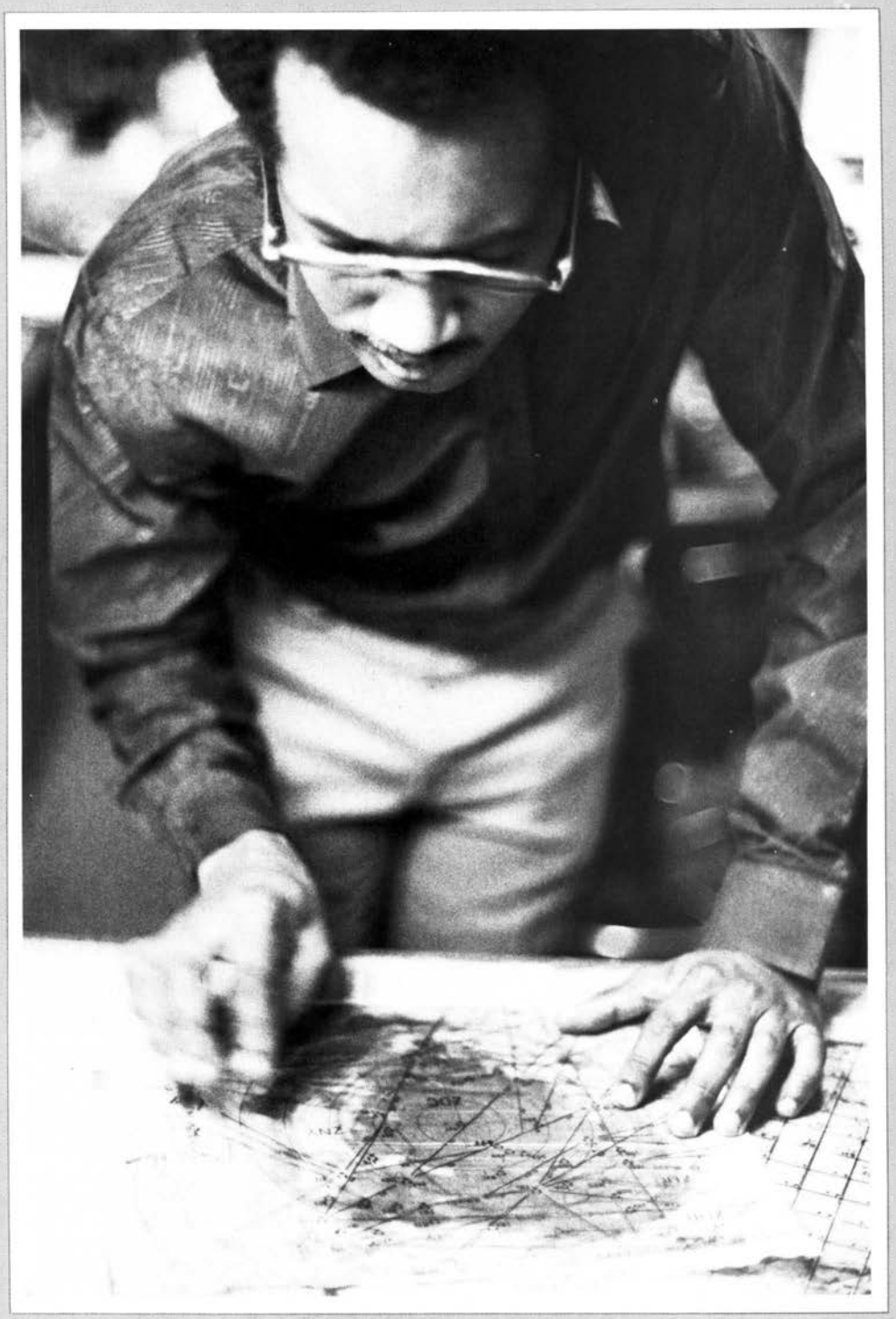
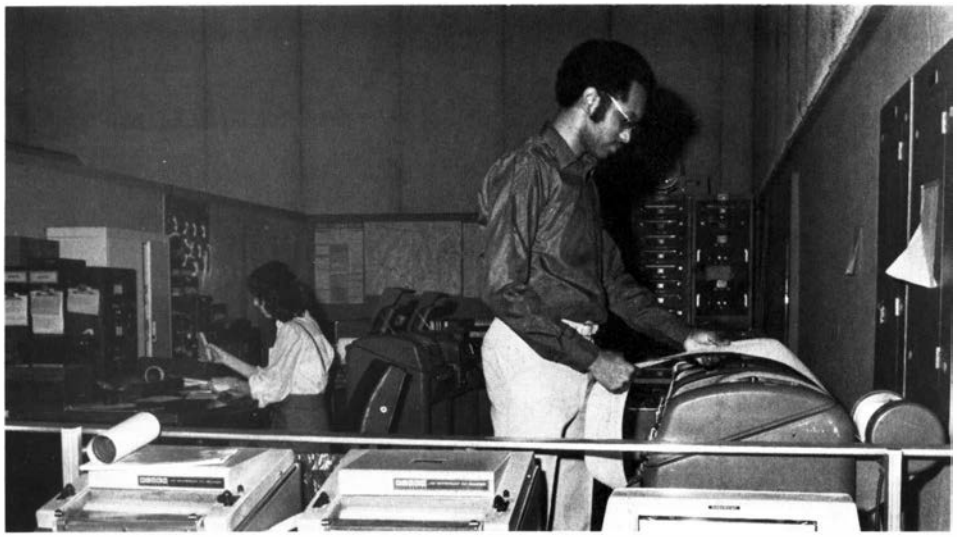


Clarence (Rocky) Burke, National Weather Service meteorologist at the Washington ARTCC Center Weather Service Unit, plots thunderstorms in the area using a plastic major air route overlay on a WBRR facsimile.

By Gerald E. Lavey
Asst. chief of the Public & Employee Communications Div., he previously worked for the Federal Railroad Administration and DOT's Denver SecRep.

What Pilots Don't Know Can Hurt

So, Center Weather Reporting Gets Faster, Accurate Updates



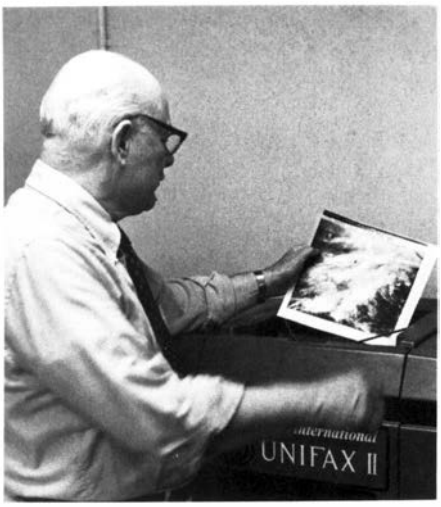
Meteorologist Burke checks teletypewriter weather reports at the Washington Center that are transmitted from FAA's Weather Message Switching Center located in Kansas City.

Aviation weather reports are like most other forms of news—they're perishable. There's a big difference, though. With most news items, what you don't know won't hurt you. When it comes to weather, however, what you don't know can not only hurt you but sometimes even kill you.

In fact, according to statistics from the National Transportation Safety Board (NTSB) for 1979—the latest year the board has complete accident analysis data—weather was a factor, if not necessarily a cause, in approximately 34 percent of all aviation accidents and 44 percent of fatal accidents.

Undoubtedly, some of the pilots involved in those accidents may have been armed beforehand with complete and timely weather reports but chose to ignore them or decided to gamble—and lost. But many other cases involved responsible pilots who simply didn't have the weather picture they needed to make a prudent flying decision. As a result, they ended up as statistics in a weather-related accident record that has remained frustratingly high over the years.

Mother Nature's turbulent side, of course, has been the nemesis of flying since humans first took wing, and she's likely to continue that role to some degree in the future. But it is a matter of degree, and the FAA has al-



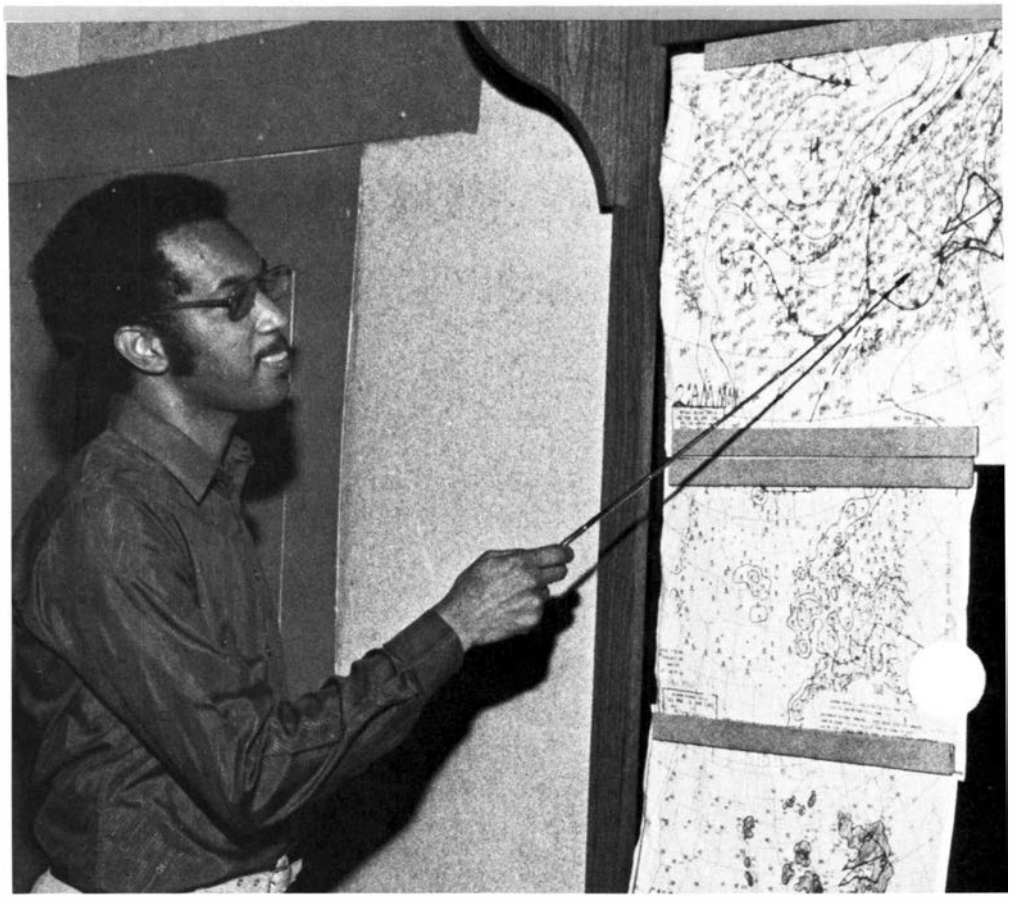
National Weather Service meteorologist Bud Lacey removes high-resolution glossy satellite photo (from 22,300 miles up) from a United Press (UPI) Unifax machine at the Central Flow Weather Support Unit.

ways believed that the role of weather in aviation accidents can be substantially reduced. To that end, the agency has concentrated its efforts over the years at improving forecasts of hazardous weather and getting that information as quickly as possible to pilots.

The need for that was tragically highlighted by the 1977 crash of a Southern Airways DC–9 at New Hope, Ga. The jetliner crashed when trying to make an emergency landing on a state highway, killing 62 of the 85 persons on board. Another nine persons on the ground also were killed when the aircraft struck several cars and a combination grocery store/gas station alongside the highway.

In its report on the accident, the NTSB concluded that "extremely heavy rain and hail" from a severe thunderstorm caused a "total and unique loss of thrust in both engines." As major contributing causes, the board cited the air carrier's flight-dispatch system for failure to provide the crew with up-to-date severe-weather information and the pilot's exclusive reliance on airborne weather radar to penetrate a thunderstorm area. But, at the same time, the board also faulted the FAA's air traffic control system, which "precluded the timely dissemination of real-time hazardous-weather information to the Southern flight crew."

Actually, at the time of the accident, FAA was in the midst of negotiations with the National Weather Service (NWS) to have NWS meteorologists assigned to each of the



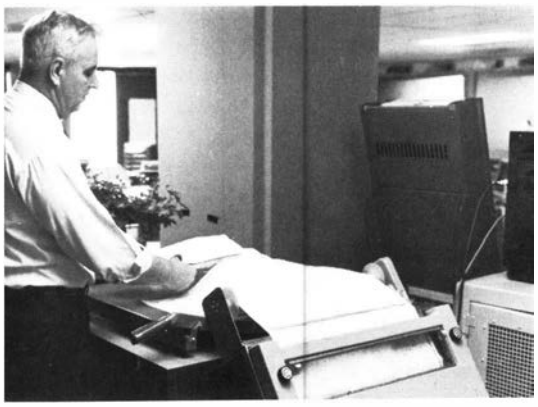
enroute centers in the conterminous U.S., plus Anchorage, so that pilots could be provided precisely the same kind of real-time hazardous-weather information that the NTSB said was lacking.

Those negotiations were speeded up as a result of that accident, and, by the following spring, 13 of the ARTCCs had Center Weather Service Units; now 21 ARTCCs have them in operation, with NWS meteorologists on duty approximately 16 hours per day.

At the Washington Center near Leesburg, Va., for instance, meteorologists are on staggered duty from 6:00 a.m. to 9:00 p.m., says Norb Novocin, supervisor of the unit. The morning shift runs from 6:00 a.m. to 2:00 p.m. and the afternoon shift from 1:00 p.m. to 9:00 p.m. In addition, a third meteorologist works from 10:00 a.m. to 6:00 p.m. during the summer months and from 8:00 a.m. to 4:00 p.m. during the winter.

Clarence (Rocky) Burke is one of the meteorologists on the current crew at the Washington Center. He came to Leesburg just over two years ago after spending five years as a meteorological intern at the NWS Washington Forecast Office and a year at Penn State University in a graduate program in meteorology that is sponsored by NWS's parent agency, the National Oceanic and Atmospheric Administration (NOAA).

Part of Burke's job in the Center Weather Service Unit is to brief team supervisors, the assistant-chief-in-charge and flow controllers on the existing weather and what can be expected through the day.



Ray Stralka, meteorologist-in-charge of the Central Flow Weather Support Unit in headquarters, cuts weather maps from a facsimile machine linked to the National Meteorological Center, Suitland, Md.

When he works the morning shift, for instance, Burke tries to get in at 5:30 a.m., a half hour before the shift begins, so he can sift through the many weather reports that have come in overnight via teletypewriter or facsimile machine. The accumulation includes surface observations, forecasts, pilot reports, SIGMETs (significant meteorological information) and AIRMETs (airman's meteorological information) that are transmitted via teletypewriter from FAA's Weather Message Switching Center in Kansas City.

In addition, there's a separate teletypewriter circuit that provides radar warning alerts from the NWS Severe Weather Forecast Center in Kansas City. Facsimile capabilities include a WBRR (for Weather Bureau Radar Remote), which produces a chart showing severe weather conditions around various radar sites, and another facsimile machine—or in some centers a laser recorder—for satellite photos, which are processed through the National Meteorological Center in Suitland, Md., outside of Washington, D.C.

Burke reviews this material quickly, looking particularly for SIGMET and other pertinent weather data. At the same time, he is taking notes in preparation for a 7:00 a.m. briefing for the FAA weather coordinator and flow control personnel who report for duty then.

Between 7:15 and 7:30 a.m., Burke calls the approach control facilities at Washington National, Dulles, Baltimore-Washington International and Norfolk, Va., to brief them on current weather conditions and provide them a forecast of what they can expect of the weather throughout the day. That is followed at 8:15 a.m. by a similar briefing for team supervisors, the assistant-chief-in-charge and the flow controllers. The team supervisors then return to the sectors to brief the controllers, who are required to be familiar with the weather situation. Also available to the controllers for that purpose is a phone message which Burke records earlier in the morning. It includes terminal forecasts, IFR/VFR conditions, thunderstorm activity, if there is any, icing conditions, turbulence below 10,000 feet and a report on the jet stream.

Later in the morning, Burke will participate in telecons with the regional office in New York, the adjoining ARTCCs and major terminals, other CWSU units and the Central Flow Control Facility at FAA Washington headquarters.

Burke's morning routine is essentially repeated by the meteorologist on duty during the 1:00–9:00 p.m. afternoon shift.

Burke says the CWSU plays a significant role when a major terminal, like National Airport, for example, is socked in with fog. "It's my job to predict when that fog will lift," he says, "so that air traffic control will know when to take off any flight restrictions that may have been imposed. That affects not only aircraft at National, but planes on the ground

Washington ARTCC photos by Jay Carroll
CFCF photos by Joe Wenzel

at other airports waiting to take off for National."

He says he tries to make his forecast as accurate as possible, "at least within a half hour," adding that he's "missed that goal only twice so far this year." Both times, he says, it was because of what controllers jokingly refer to as the "Burke Effect." That's when the fog lifts as forecast, but then drops right back in a few minutes later, he explains.

Flow control also relies heavily on the CWSU meteorologist to forecast when thunderstorms moving to the center's area are likely to cause them to shut down a major airway. And the meteorologists, in turn, rely heavily on reports from pilots, who provide valuable information from their unique perspective.

The ability to provide accurate weather information involves not only safety but "a lot of fuel and money, too, so it's extremely important that our forecasts be as accurate as possible," says Burke.

John Sullivan, a team supervisor at the Washington Center, says, "the meteorologists are particularly good when it comes to reports on freezing levels, forecasts of wind shear, information on the jet stream and clear air turbulence." He is not that impressed with their thunderstorm forecasting, but admits that faulty forecasts are often due to a unique meteorological phenomenon beyond the control of the CWSU: "Quite often," he explains, "a thunderstorm will be heading in from the west, hit the Blue Ridge Mountains and be deflected north towards Harrisburg, Pa. There's no way the meteorologists can foresee that."

It's generally agreed that improvements are still needed in the collection and distribution of weather information throughout the National Airspace System (NAS), as the June 1980 accident of an Air Wisconsin aircraft at Valley, Neb., so clearly demonstrated. The Swearingen Metro commuter ran into severe thunderstorms, lost power in both engines and crashed, killing 13 of the 15 aboard and seriously injuring the other two.

Actually, according to the NTSB, the meteorologists in the Minneapolis ARTCC had alerted supervisory controllers of the severity of the weather conditions, but somehow that information was not disseminated to the controllers who were working the Air Wisconsin flight.

Bud Lacey, National Weather Service meteorologist at Washington headquarters' Central Flow Weather Support Unit in the Systems Command Center, demonstrates the depiction of various precipitation intensities on the facility's new color weather radar display.

Some have argued that it wouldn't have made any difference if the controller had relayed the severe thunderstorm warning to the aircraft, because the pilot could see the thunderstorm ahead on his own radar and flew into it anyway. Nonetheless, the accident served to pinpoint weaknesses in FAA's system for disseminating weather information.

Although some improvements have been made since that accident, more needs to be done, and the National Airspace System Plan, the agency's blueprint for modernizing the facilities and equipment in the National Airspace System, clearly recognizes that fact. Released in January, the plan calls for the development of center weather processors, computerized systems which will automatically collect and disseminate real-time aviation weather throughout the entire NAS system simultaneously. This, in turn, will allow CWSU meteorologists to spend more of their time analyzing and interpreting the weather data and tailoring it to better suit air traffic control needs. Current projected schedules call for all ARTCCs in the conterminous U.S. and Anchorage to be equipped with the center weather processors by 1990.

In the meantime, other improvements will be coming on line, says Jim Norton, air traffic specialist in the ATC Systems Program Division of the Air Traffic Service. Perhaps the

Flow controller Bob Walker in the ATC Systems Command Center checks a color weather radar monitor perched atop a computer terminal, which is linked to the main flow control computer at the Jacksonville ARTCC.

most notable of these, he says, will be color weather radar, which will give the meteorologists a picture of the weather "in living color" on a TV-like display, with as many as six different colors to indicate various intensity levels of thunderstorms. Norton says e color units will be situated in ch a way that controllers also will nave access to them, as they report for duty, for instance, or during breaks.

Color weather radar units are scheduled to be installed in centers in the Western and Gulf states later this year and in the Central and Eastern states early next year, he says.

Color displays are now in use at the Central Flow Control Facility in Washington headquarters and at the Albuquerque and Atlanta centers.

Meteorologist Steve Henderson, who has been using the color weather radar since it was installed at the Atlanta Center in 1978, says: "We're very pleased with it. It's far and away better than the present system," referring to the WBRR system cited earlier. A person really can't appreciate the color units, he adds, until they've worked with the old WBRR facsimile. "It's like an electric starter on an automobile," he says. "It may not be perfect, but it's a lot better than using a hand crank."

The Atlanta system uses yellow for intensity level 1, light blue for level 2, red for 3, darker blue for 4, lavender for 5 and green for level 6.

According to the Airman's Information Manual (AIM), a level 1 thunderstorm is weak with light turbulence and possibly lightning, whereas a level 6 thunderstorm is characterized by severe turbulence, large hail, lightning and extensive wind gusts.

Henderson notes that the meteorologists at Atlanta chose red, normally associated with the most danger, for level 3 instead because "that's where thunderstorms start becoming a problem for aircraft."

A disadvantage with the color weather radar system, he says, is the lack of a hard copy printout that would allow meteorologists to follow the movement of a thunderstorm better. The system also doesn't give the tops of thunderstorms, he adds.

While the new color weather radar units going into the centers won't give the tops, says Norton, that information will be readily available, as it is now, by teletypewriter. In addition, he says, the CWSU personnel can always pick up the phone and call the meteorologist on duty at the NWS radar site to get data.

The major problem with teletypewriters, however, besides the reams of paper they generate, is their slowness. Reports came clacking over these wires at a rate of about 100 words per minute. These old units, however, soon will be replaced with high-speed, computer-based systems that will display weather data for meteorologists and flow controllers on a TV-like screen at the touch of a typewriter key, says Norton. These leased Service A units, identical to those already in use at the "Flight Watch" positions in 44 flight service stations nationwide, are 30 times faster than the old Service A units they are replacing, he says.

Improved weather services are a recurring theme in the National Airspace System Plan. Besides the flight service station automation program, with direct pilot access to weather and other data bases, it includes plans to develop ground-based automated weather sensors and a new generation of weather radars, called NEXRAD, that will vastly improve the detection of hazardous weather. The list goes on. Every program on the list is designed to do a different job, but all of them share a common purpose—to reduce the number of weather-related accidents and air traffic delays caused by weather.

FAA isn't foolhardy enough to think it can fool Mother Nature, but it still believes it can help pilots stay out of her way when she's angry. ■

on the job

Best Sectors Do Usual Job

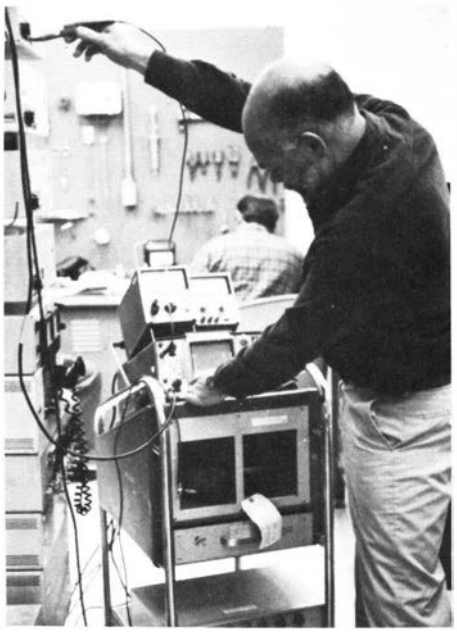
Performing their duties out of the public's eye and often under adverse conditions are the technicians and support personnel of Airway Facilities sectors. Without their efforts, however, the National Airspace System could not function.

In recognition of their efforts, the FAA selects a best General NAS Sector of the Year and a best ARTCC Sector of the Year. For 1981, the kudos have gone to the Atlanta, Ga., Sector and the Albuquerque, N.M., ARTCC Sector.

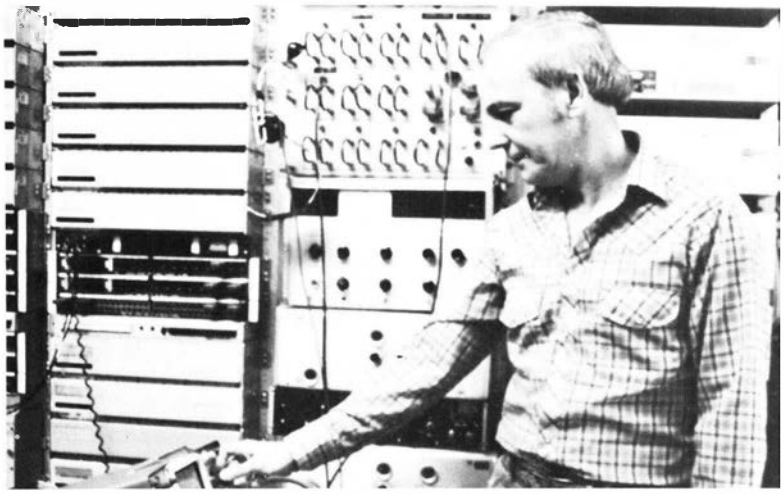
While a sector needs to have a dedicated workforce, good teamwork and a lot of hard work to win in the competition, Atlanta Sector manager James G. Bryant said that no special effort was made by his sector. "We simply continued to do our job in the ususal manner, constantly striving to improve service." That says it for all the sectors. ■

Marcia Stove is a developmental electronics technician at the Fulton County Sector Field Office of the Atlanta Sector.

Atlanta



A general NAS sector like Atlanta has many facilities to worry about. Here, electronics technician Charlie Johnson of the Marietta Sector Field Office checks the microwave link for the ASR–8 airport radar at Dobbins AFB.



Radar technician D.J. Bourque, Marietta Sector Field Office, sets his test equipment before checking a radar microwave link at the Atlanta long-range radar.

Atlanta photos by Cesar Padilla

Environmental technician Walt Zarkowski adjusts one of the center's four diesel generators.

Albuquerque

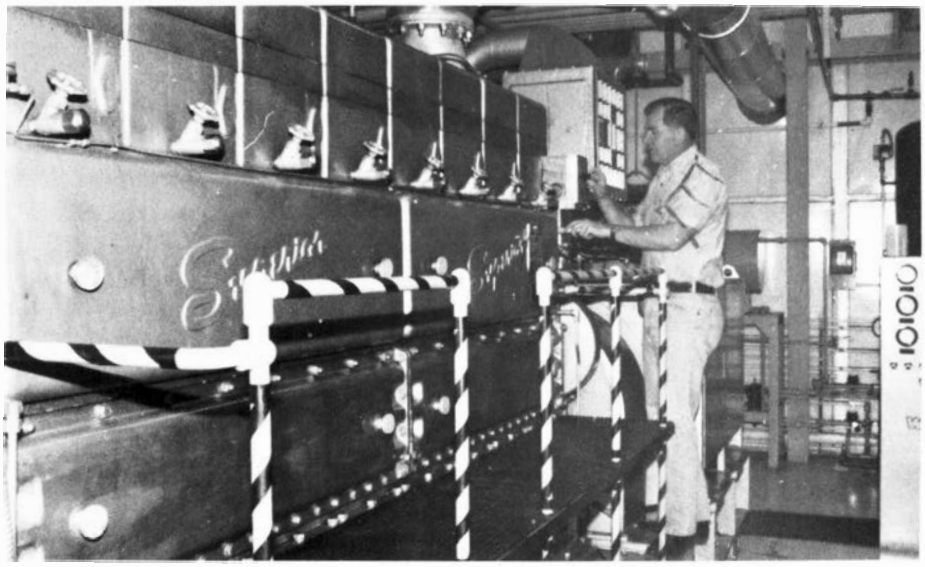


Photo by Jack Mitchell

Environmental technician Henry Harris makes a routine check on the computer monitoring system (CCMS) at the Atlanta Hartsfield International Tower.

Martha Hunter, secretary at the Fulton County Sector Field Office.

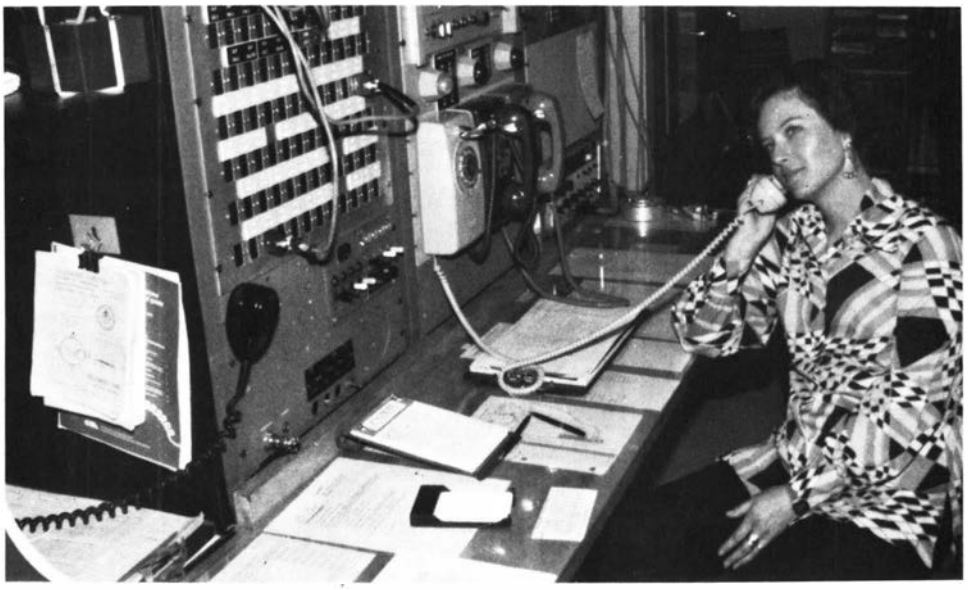
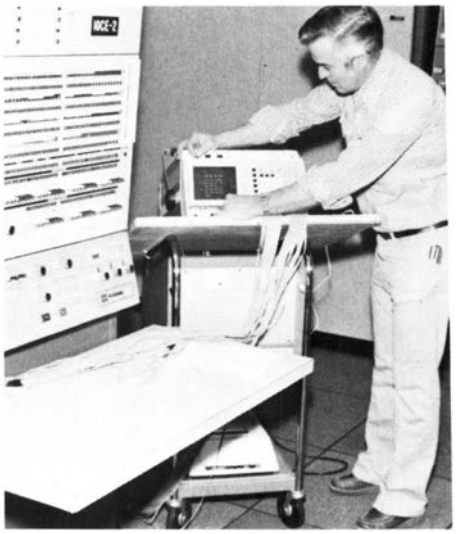


Photo by Jack Mitchell

Originally a clerk-stenographer at the ARTCC, Mary K. Roach now is a communications technician.

Albuquerque Center assistant sector manager Norman Kusnetz believes the award is really a tribute to the success of the entire Airway Facilities Service.

Glever Murray, computer display channel technician, has a 660-pound display on the PVD lift for hard-to-get-at adjustments. Photo by Daryl Olson



John Gardner, systems performance specialist in the Albuquerque ARTCC Sector, uses a Biomation Analyzer for computer problem analysis. Photo by Daryl Olson

By Cliff Cernick
The Alaskan Region public affairs officer, he is a former newspaper editor in Anchorage and Fairbanks.

Alaska Tames Paperwork Tiger

Computers Continue To Prove Their Superior Efficiency

The rustle of paper is being heard less in our land, a boon from the growing use of computers.

By now, most of us are aware of the plans for flight service station automation that will eliminate the tedious rummaging of specialists through reams of teletypewriter paper to pick out a few bits of data. Management Systems in the Alaskan Region has done as much for the massive paperwork operation in the field of procurement.

The search throughout procurement documents for acquiring and then accounting for goods and services has given way to the swift, silent and almost effortless computer retrieval of up-to-date procurement and supply data, which Alaska calls the Material Support System (MSS). MSS's memory banks store voluminous data needed for ordering, such as catalog description, latest costs and lists of vendors.

The payoff, according to Dick Brindley, chief of the Management Systems Division, has been significant savings through increased productivity, not only in Procurement and Accounting but also in user offices. Lending emphasis to that is equipment specialist Cliff Roberson: "I fought the system at first. Now, I'm a believer."

Gone are the hours spent in individual typing of project material lists, procurement requests, purchase orders, invitations to bid and requests for quotes. Now, MSS cranks out such documents automatically.

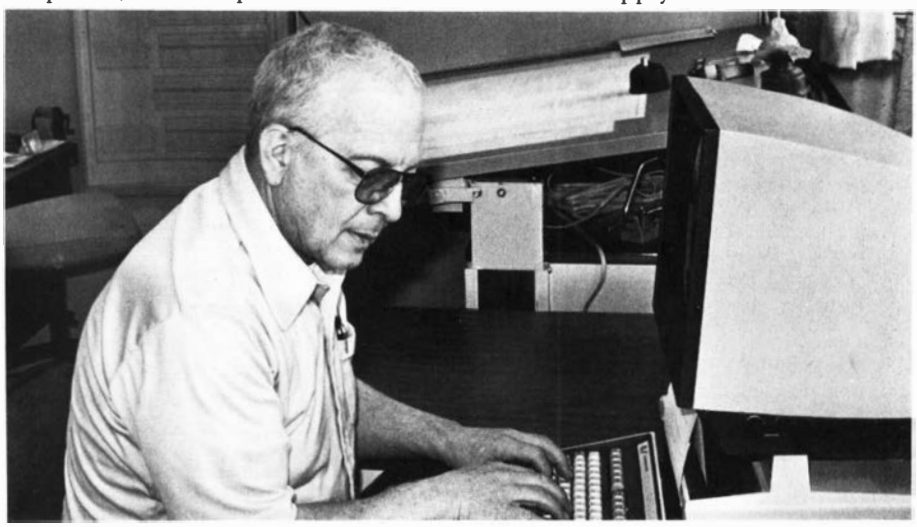
In preparing procurement requests (PRs), Roberson simply keys in catalog numbers for required items. If an item hasn't been ordered previously, he calls up on his screen a computer section named "Catalog Update" and enters the item for retention in the catalog. Having digested that information, the computer automatically returns to preparing the PR. The MSS permits Roberson to review items on procurement requests to see which purchasing agent is handling them, what has been received and what should be back-ordered.

A procurement agent can assign priorities to orders and decide which procurement method is best—purchase order, invitation for bid or request for quote—and keys it into the computer. MSS provides the names of vendors who have supplied the items in the past or who have expressed an interest in supplying them and on command cranks out whatever procurement document is needed.

As each action in the process is completed, MSS keeps the PR file updated with status information. When accountable property is acquired, the system will convey data to the on-line property accountability system and the accounting system. MSS also acknowledges deliveries and receipts to insure prompt payment of vendors' bills.

"A key feature of the MSS is that it's user-oriented," points out division chief Brindley. Del Thomas, another equipment specialist, knows that very well. "When I need parts and ask MSS how many items of a specific kind are on hand, I've got the information before I can snap my fingers twice," he says.

If it's such a snap, other regions ought to be interested in adopting this streamlined approach to procurement and supply. ■



Electronics engineer Jim Gillen sets up a project material list for a construction project simply by keying in catalog numbers in the MSS memory.

By Fred Farrar
A public information specialist in the Office of Public Affairs, he is a former Washington correspondent for the *Chicago Tribune*.

Her Name is Jacque

Woman ARTCC Deputy Chief Finds It a Demanding Job

As a controller at the Los Angeles Center, Mrs. Wilson was interested in military "fam" flights, Here, she's buckled up in the rear seat of a Navy A4–D Skyhawk.

She could have picked an easier time to become the first woman deputy chief of an air route traffic control center, but not worrying about what she can't change is her philosophy.

So, on Oct. 20, 1981—two and a half months after the PATCO strike and the firing of 11,500 strikers had stripped the facility of 72 percent of its controllers—Jacque Wilson took over as second-in-command of the Cleveland ARTCC. And Wilson, whose first name is pronounced *Jackie,* hasn't slowed down since.

"There are times," she says, "when I need a 26-hour day." Wilson, who joined the FAA in 1968 as a developmental controller at the Los Angeles Center, says her job is "a demanding one that calls for a lot of listening and problem solving." Much of her time, she says, is devoted to listening to complaints the controllers have about such matters as shift schedules, leave, days off and overtime.

Don Enders, the chief of the center, says she is very good at it. "She has a rare ability to listen to what a person has to say, follow through on it and come back with an answer—favorable or unfavorable—and the rationale for it."

The problems run the gamut, from staffing to equipment to flow control procedures.

"The biggest problem, of course, is staffing," Wilson points out. "We have a constantly increasing demand for service, mostly to airports in the area that are not among the 22 controlled ones, and with no increase in the number of controllers. At the same time, I am trying to give everybody at least one week off and maybe more.

"And morale is another problem," ıe continued. "Right after the ɜtrike, everyone was on a high—like those few Marines hanging in there. But that couldn't last, and things have changed. Morale is a little down.

"Beyond that, our team supervisors, all of whom are working airplanes, are beginning to have an identity problem. They are asking themselves and me, 'When can I be a supervisor again and will I ever?'"

Finally, there's the problem of the developmental controllers. "We've got about 30 of them now," she says, "and somehow we've got to get them trained. It won't be easy, but we'll do it."

Wilson, who worked her way up to team supervisor at the Los Angeles Center before moving on to the Western Region Air Traffic Division and then to the Great Lakes regional headquarters, portrays her typical day like this:

—8 a.m.: Visit control room to confer with area managers and flow control people on what happened vernight and what's coming up.

—9 a.m.: Answer calls from two local newspapers about the recently issued Jones Report.

—10 a.m.: Get updated report on flow control problems and thunderstorms expected later in the day.

Jacque Wilson now occupies the right seat at the Cleveland ARTCC.

—11:15 a.m.: Data systems officer comes in with a report on automation problems and recommendations by the Facility Advisory Board.

—Noon: Lunch at desk.

—12:30 p.m.: Talk to a controller about the possibility of his being detailed to one of the other centers harder hit by the strike than we were.

—1 p.m.: Meet with assistant chiefs to discuss staffing, overtime and leave schedules.

—2:45 p.m.: Meet with assistant chiefs again to talk about a controller who is being considered for promotion to team supervisor.

—3:30 p.m.: Listen to a conference call by Deputy Administrator Fenello on the Jones Report.

—4:30 p.m.: Tackle some paperwork on the desk.

—5:30 p.m.: Leave for home. Once there, try to wrap up other various bits and pieces.

Referring to her comment about a 26-hour day, Wilson says, "My overall feeling is that there is just not enough of me. This is a very demanding, very busy job. I thought that being a team supervisor was very busy, but in this job, things happen faster and they don't all get done like you planned.

"And things go home with you more. You just can't walk away from them at the end of the day like you used to. In the final analysis, I guess that's because every job in the center is the job and concern of the chief and deputy chief." ■

OJT Elsewhere

Technical Center Relieves Facility Workload

The controllers

This story by Barton Jones was excerpted with permission from the Atlantic City *(N.J.)* Press.

A Boeing 727 and a DC–8 are on a collision course on the screen in front of Bernie Martin. The lives of 400 passengers depend on the 27-year-old former Air Force air traffic controller from Santa Barbara, Calif.

Martin, smoothly issuing directions into the mouthpiece on his headset, orders the 727 to give way to the DC–8. The pilots follow the directions and land safely.

It isn't live traffic and it isn't radar training at the Aeronautical Center. It's facility training but not at a facility.

It is Martin's second day of training in a sophisticated program at the FAA Technicial Center to help facilities recover from last August's nationwide air traffic controllers strike. The planes on his screen are fictitious. The pilots are sitting across the hall, not in cockpits but in front of video screens.

But the environment of these drills is real. Martin and eight other trainees arrived from California for the six-week course. During the training, the controllers practice on a grid modeled after Los Angeles International Airport, because that is where they will be working.

The strike severely handicapped some airports like Los Angeles International, which lost about 95 percent

of its controllers. With the supervisors and the importation of controllers from other airports, however, safety was never compromised. The problem was the hours and the workload.

The first program in the country to deal with the problem of facility training workload in the wake of the strike was devised by the Tech Center's Carlo Yulo, who moved on-the-job training from towers to the Tech Center. It reduced the burden on tower controllers who normally help train developmentals.

The instructors at the center drill the trainees until they can direct 110 ercent of the air traffic they would ormally handle at the airport, which is sometimes as many as 60 landings on several runways in an hour.

The program is a good substitute for on-the-job training, said Yulo, who is chief of the System Simulation and Analysis Division. Instructor Joe Ellerman agreed. "It's a good program because we treat it like it's the real thing."

Martin left the military before the strike but later decided to return to the job of controlling as a civilian because of the wide-open market after the strike. Former military controllers must still be trained to become civilian controllers because commercial traffic operates differently.

This is one of the few times since the Technical Center opened in 1958 that the special air traffic simulation facility—normally used for research— has been used for operational

The pilots

training programs. Last year, the Tech Center screened and trained applicants for positions at the Chicago O'Hare TRACON. In 1978, the facility was used to prepare controllers for the cutover from the New York Common IFR Room to the New York TRACON. ■

People

Aeronautical Center

■ **Robert T. Nashiro,** unit chief in the Line Maintenance Section of the Honolulu, Hawaii, Flight Inspection Field Office, Flight Standards National Field Office.

■ **Clifford R. Tucker,** group chief in the Avionics Maintenance Section, Aircraft Services Base.

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■ **Victoria H. Clark,** team supervisor at the Anchorage Flight Service Station/International Flight Service Station.

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■ **Jimmie L. Vaughan,** deputy chief of the Anchorage ARTCC.

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■ **John Mayrhofer,** evaluation & proficiency development officer at the New York TRACON.

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■ **Edward D. Sabol,** chief of the Elmira, N.Y., AF Sector Field Office, Buffalo, N.Y., AF Sector.

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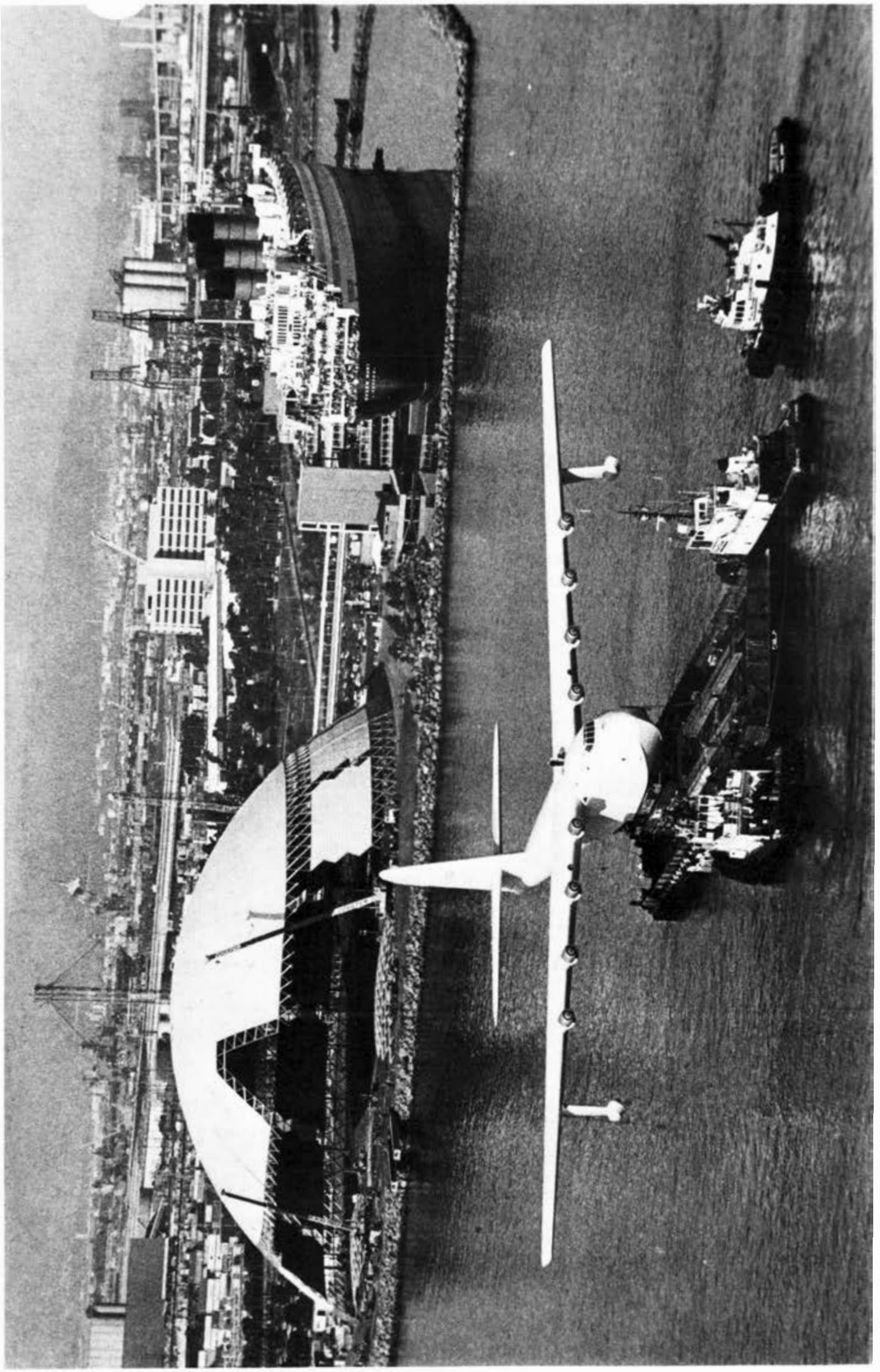
■ **James D. Varney,** team supervisor at the Ontario, Calif., TRACON.

■ **Larry E. Wright,** team supervisor at the Hayward, Calif., Tower.



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