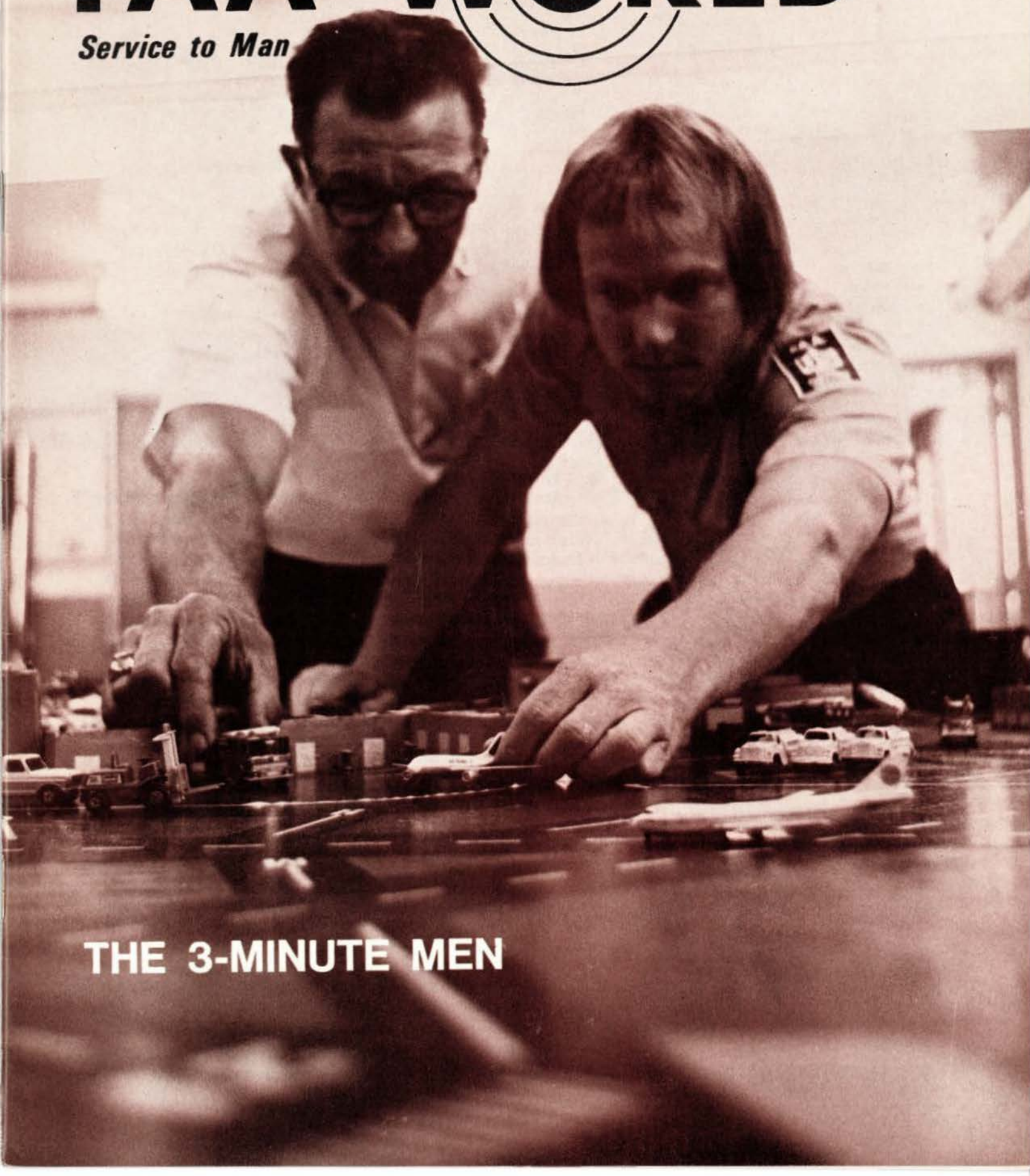


SEPTEMBER 1974

FAA WORLD

Service to Man



THE 3-MINUTE MEN

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The cover: DCA Fire Chief Clinton Scott (left) and fire-fighter Robert Stacey practice their skills in a Washington National Airport microcosm—on a tactics board.

Photo by Dennis Hughes



Making Airports Good Neighbors

Often the FAA is seen only as a regulator of the airspace, because this is the prominent provision of the Federal Aviation Act of 1958. But the act also stipulates another activity as "being in the public interest"; that is, "the promotion, encouragement and development of civil aviation." Nowhere is this more important than in encouraging local understanding, appreciation and support for airports.

Unfortunately, airports still receive an undeserved "bad press," despite progress by the FAA and the aviation industry in solving such airport environmental problems as noise and engine emissions and in cooperating with communities on compatible land use. For a variety of reasons, many people are not familiar with industry's engine clean-up campaign or FAA's noise regulations.

So, in response to this obvious need to inform communities of the social and economic value of airports, I asked the regional directors to undertake a prototype project to stimulate the formation of local citizens' committees for airports. The ideal model for this project is the Committee for Washington National Airport, an alert, effective and enthusiastic group of community leaders representing a broad cross-section of interests.

The goals of the airport-supporting committees are (1) to increase community awareness of the efforts of the FAA and industry to make airports compatible to neighbors; (2) to promote community understanding of the economic value of airports; (3) to anticipate, prevent and, when necessary, effectively counter criticism of airports; and (4) to promote the development of airport capacity to handle the expected increase in traffic over the next 10 years.

While encouraging community members to take the lead, we must remain heavily involved. In this way, we can make believers out of skeptical opponents and enthusiastic supporters out of the people who live near airports.

I strongly urge all of you to step forward with your talents and your energies to take part in this vital task of building public confidence in our airport system.

Alexander P. Butterfield
ALEXANDER P. BUTTERFIELD
Administrator



THE 3-MINUTE MEN

The alarm sounds at the Washington National Airport firehouse. A bomb has been reported aboard a jetliner ready for takeoff. Crash truck 113 races out to Taxistrip Alpha, as the jet is moved out to Taxistrip Bravo away from the terminal. Pumpers, tankers and other equipment follow 113, yet all the firemen are still in the firehouse ready room.

It's not a new version of automation; the firemen are gathered around a tactics board only simulating an emergency. It's a miniature layout of DCA, furnished with rolling stock, buildings, fire hydrants and real microphones to permit communication similar to that in the field.

Fortunately for all concerned, fires at airports and in the planes plying their runways and taxiways don't occur often; but when they do, finely honed fire/crash/rescue crews are at the ready to save lives and property. It isn't easy to maintain that fine edge in the intervals between emergencies (perhaps 15 a month), so, in addition to scheduling drills at the fire pit and practice runs, training officer William F. Entwisle, Jr., developed the tactics board to improve timing, coordination and communication.

Timing is mandated for certificated airports by the Federal Aviation Regulations. According to Part 139, at least one fire vehicle must be able to reach the midpoint of the farthest runway within three minutes of the first alarm. The other equipment

must be on the scene in another minute and a half.

Because of the need for speed and coordinating their maneuvers, every man must know his job and every one else's for the crew to function as a well-oiled machine. In the drill, an officer may function as a driver-operator, while a private may be placed in charge of the overall operation.

Twelve microphones are provided around the tactics board, representing those actually in the vehicles and in operations. "One purpose of this exercise," says DCA Fire Chief Clinton E. Scott, "is to get communications going. We want the men to talk and ask questions, not assume what the others are doing."

Captain Entwisle finds the tactics board extremely useful in training new men, and just its presence encourages rapid familiarization with the layout of the airport. Some of the exercises are conducted with representatives of a mutual aid company from the Arlington County Fire Department, making them more effective when their assistance is needed.

Three fire-fighters are assigned on a rotating-duty basis to devise all the details of the drill. They have two weeks to work up the problem and select how the equipment is to be used.

At the start of a drill, the participants draw numbers to determine their roles in each of the four teams, each consisting of an officer and two firemen.

Training officer Capt. William Entwisle makes a suggestion to fire-fighter Jon Harris (left) as driver James Pete communicates with other groups. Others around the tactics board are (left to right) fire-fighter Gary Brown, driver-operator Edwin Meyer, fire-fighter Vernon Weathers and Lt. Albert Coe (foreground).



As the "plays" are called, each man confirms his orders and moves his equipment on the board.

In the situation we began with, the crash trucks have positioned themselves 300 feet upwind from the aircraft and the tankers have parked to their rear. The pumpers are close enough to the nearest terminal hydrant to run supply hoses. Then a police cruiser escorts a bus to the aircraft to unload the passengers. At Dulles International Airport, this operation is performed with a mobile lounge.

Suddenly, the bomb explodes, and Capt. Entwisle sticks a large puff of red cotton on top of the airplane. The crash trucks move up, squirting 150-foot streams of water and foam, which can be adjusted to a horizontal fan pattern. Each of the vehicles carries 500 gallons of chemical foam to be mixed with water. One crash truck has a capacity of 2,500 gallons of water, which it will spend in three minutes, getting another three-minute supply from one of the two tankers. The other crash truck has a 3,000-gallon capacity. Smaller and smaller puffs are

placed atop the plane as the fire diminishes. The two 1,500-gallon pumpers move in with their supply umbilicuses after the fire is apparently out. These are structural pumpers, like those frequently found in city fire departments, but because DCA is located on the Potomac River, they can be operated on the other end of the field by means of a draughting ramp into the river.

All during the exercise, on-the-spot critiques are provided to sharpen the fire-fighters' perception of the operations.

DCA's newest crash truck is diesel powered, while the other vehicles have gasoline engines. Captain Entwisle finds that diesel power is preferable for fire-fighting equipment because the engine starts easier and has full power available immediately.

The DCA fire crew numbers 45, including 13 officers, split into two shifts around the clock of 14 to 21 men each. A fireman's lot is not an easy one, at least not at a busy airport. Forget that routine about sitting around a pot-bellied stove all day, or

Lt. Albert Coe and driver James Pete roll a crash truck into action. It carries 3,000 gallons of water and 500 gallons of chemical foam and can be serviced by a tanker truck.



Looking like a fire victim getting a dousing, a bizjet starts its takeoff roll as a crash truck shoots a stream of 1,000 gallons per minute near an adjacent taxiway.



—for contemporariness—around a television set.

He works a straight 24-hour shift, followed by 24 hours off. After five, he's on standby and gets in his TV viewing in the day room. During the day, however, he gets two hours of drilling daily, gets first aid and driver training, has to check out the trucks and equipment and perform house duties. These include cleaning up around the station, including after meals, meal preparation, checking out fire lanes, hydrants and the two fire boats in the river. He also checks the Headquarters building heliport, making certain the tanks are charged, with no leaks, that the valves are intact, the weather indicator is working and the landing area is clear of debris.

Over and above these duties, the fire fighters are required to man a fire department ambulance. Six DCA firemen have volunteered for emergency technician's school, classes for which are held at the Fairfax (Va.) Fire Training School and the D.C. Fire Training School. The DCA ambulance responds to about 35 medical emergencies each month.

On Thursdays, it's spit and polish time—scrubbing and stripping floors and polishing everything in sight. Fridays are scheduled for cleaning the fire trucks, engines and tools.

Pit work—that is, fighting deliberately set fires in a pit—has been cut down, primarily because of the air pollution it causes.

And, if all this isn't enough, there are still the tactics board simulations.

Coordinated action on the DCA Fire Department's tactics board provides a ballet of arms, as Edwin Meyer and Robert Stacey move their vehicles into position.



HEADS UP

ALASKAN

Formerly at the FAA Academy, Samuel A. Lewis is the new chief of the General Aviation Branch of the region's Flight Standards Division.

EASTERN

The former head of New York's IFSS, Harold Purowitz, now presides over New York's recently consolidated IFSS and FSS.

CENTRAL

Reporting for his new assignment as chief of the region's Procurement Branch is Harry R. Colfax, Jr.

GREAT LAKES

Delmar Heiter has been selected as a supervisory general aviation operations inspector in South Bend, Ind. . . . Chosen as an assistant chief at the Fort Wayne, Ind., Tower was James Nercutt . . . George Mazey was selected as chief of the Galesburg, Ohio, Tower . . . the former chief of the Cleveland/Burke Lakefront Tower, Don Lavin, will take over the chief's position at the Traverse City, Mich., Tower.

NEW ENGLAND

Thomas L. Preziosi has moved from assistant chief to chief of the region's Management Systems Division.

NORTHWEST

Marion L. Glasgo, a systems engineer at the Seattle Center AF Sector, was selected to fill the assistant sector manager's position in Auburn, Wash.

SOUTHERN

Appointed to be chief of the region's Management Systems Division was Harold K. Robertson, former head of the region's General Accounting Branch.

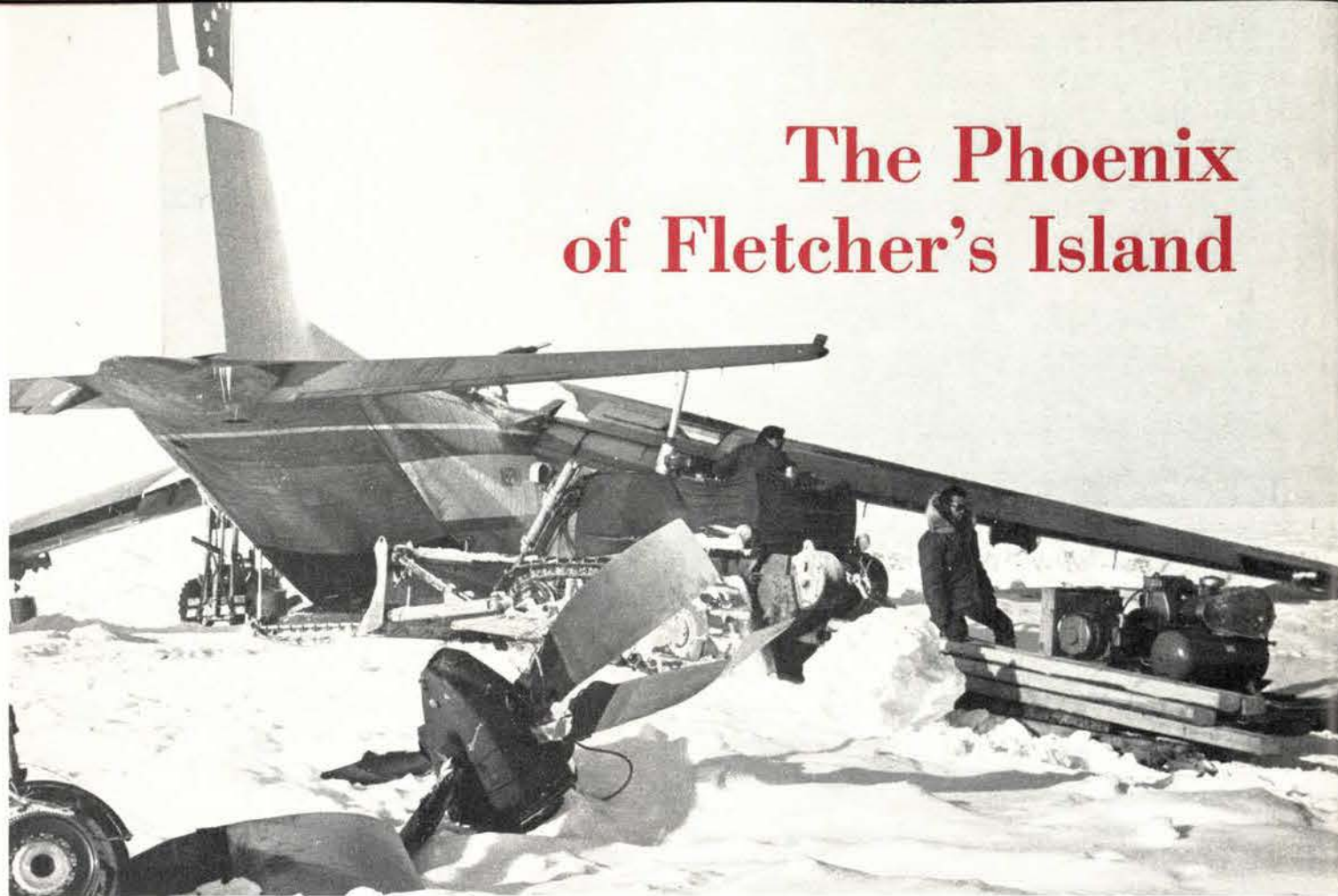
SOUTHWEST

Willard Reazin, formerly tower chief at Lambert Field, St. Louis, reported to his new position as chief of Air Traffic Division's Evaluation Branch.

WESTERN

John Medina of the Phoenix TRACON was selected as the deputy chief of the San Francisco Tower . . . Going to his new position as assistant chief at Gillespie Tower, San Diego, is Don Kirkland . . . Reporting aboard as chief of the Wells, Nev., Airways Facilities Sector Field Office is Raymond Hansen, former electronics technician in Elko, Nev.

The Phoenix of Fletcher's Island



A tractor-snow plow hauls a compressor up to the broken bird.

The extraordinary was commonplace on Fletcher's Island for seven months when a crew of mechanics restored a total loss into a flyable \$6.5 million aircraft under extremely adverse conditions.

This summer, FAA recognized the maintenance manager who accomplished this "herculean" task by presenting Art Walker with the 11th annual air-carrier Aviation Mechanic's Award.

The story began in February 1973 when a four-engine Hercules (C-130) under Alaska International Air colors was ferrying supplies to the sole inhabitants of a 26-square-mile bit of ice and rock floating in the Arctic Ocean about 350-400 miles from the North Pole. Fletcher's Island, or T-3 as the Navy calls it, was home to sailors of the U.S. Naval Arctic Research Laboratory.

After a 1,500-mile trip from Fairbanks, Alaska, pilot Jerry Chisum dropped down for a low pass to inspect the 5,000-foot ploughed runway. It looked good and he came in for a normal touchdown. Then the landing lights picked out a series of small ice ridges that had not been visible from the air. The resulting hard bounces broke both wings, which dragged on the ice, and a fire started in number four engine. Setting off fire bottles and finishing the job with hand extinguishers after exiting the plane, the crew found they also had a broken center section

main spar and the props were twisted and torn. Later, AIA was to find it necessary to repair or replace the center section, both wings, the engines, all the electrical wiring, plumbing and heating ducts and some fuselage skin.

In early March, W. A. "Mike" Korhonen, principal maintenance inspector of the Fairbanks Flight Standards District Office, flew in to see for himself. From the extensive damage he observed, he thought they'd never get the plane out of there.

As it stood now, they had a dead bird—unflyable, with no repair facilities and exposed in the bitter arctic cold. Air Force experts came in to look and told AIA to forget it; the insurer paid off the leasor of the plane as a total loss. The remains were auctioned off to AIA for \$68,000 so that parts could be salvaged.

A careful on-site inspection by Art Walker, AIA's maintenance manager, however, convinced him that with considerable effort and expense, the entire plane could be saved. With backing from maintenance vice president Dick Roberts, company president Neil Bergt was convinced to gamble on their judgment.

On May 10, Walker and a team of four mechanics were flown out to the floating ice island for more than a six-months lonely stint, the outcome of which

was almost constantly in doubt. Nothing like this job had ever been attempted in the annals of aviation maintenance. They had to replace an integral part of the aircraft's structure, without the benefit of a hangar, with a shortage of the right tools and maintenance supplies and with problems of achieving satisfactory workmanship and productivity under the worst of climatic conditions.

With all this, they were in a constant race against time. If they failed to get the Hercules off the island in autumn, work would become even more impossible in the long arctic winter, and the plane would be exposed to damage from snow buildup, dampness and heaving of the terrain.

To combat loneliness, Walker arranged for his crew to share the Navy quarters, even though they were a mile away from the airplane. During the first few weeks, the crew worked 12 hours a day, seven days a week, digging out the plane from snowdrifts and beginning the repair. At the end of the month, Walker flew in four more mechanics and cut the workweek to six days. But now, no one could enter or leave as the summer sun began to turn the runway into a series of potholes and melt ponds. All supplies would have to be air-dropped.

As the sun attacked the snow drifts, the melt ponds and an actual river across the front of the plane made it impossible to work without wearing hip boots and using a Navy rubber life raft. The sun had melted the exposed snow but had left the plane pedestaled atop a three-foot ridge of ice. When a tractor was used to haul the aircraft off to where it could be worked on, the Hercules at first refused to budge, then broke loose and began chasing the tractor, which barely managed to get out of the way.

As summer wore on, the jigs that had been built to support the fuselage began to sink into the ice. A fix was made by flying in tons of sawdust, which was spread on the surface and covered with planks on which the jigs were rebuilt.

Improvisation was the order of the day, every



Two months after Alaska International Air returned the damaged plane to service, its maintenance manager, Art Walker (left), was in Washington being presented the FAA's Aviation Mechanic's Award by James E. Dougherty, acting chief of the Flight Standards Maintenance Division.

day. When it was time to install and level the wings, a transit and level were not at hand. Walker fabricated a level using some translucent tubing with coffee poured into it. The crane they had shipped earlier had to be fitted with an iron-wheeled dolly for the flight since its large rubber tires wouldn't fit into the plane. Then its boom got stuck and had to be extended by hand. Rated at a 4,800-pound capacity, the crane was given the job of lifting the 5,000-pound center section of the aircraft wing. It did so, but with its rear wheels off the ground. The jacks being used weren't large enough to raise the fuselage adequately for this operation, so Walker had to improvise again, modifying the landing-gear hydraulic system to raise the aircraft.

Soon, September and the snows were upon them again. Once again, they had to dig away the drifts



Art Walker operates a crane unloading an airlifted wing section. At left in the background is the damaged plane.



Drifting snow half buries a tractor forklift in service as a jack holding up a stub of the Hercules' wing.

and work in numbing cold. Santa's workshop gave them a high temperature of 37 degrees, but much of the time they were working in temperatures as low as 45 degrees below zero. Simple riveting jobs that would normally take a few minutes in a heated hangar might require half a day.

By late October, both outer wings had been installed and the engines repaired. Next came repairs to the fuselage skin and installation of controls and propellers.

In early November, as the long arctic night settled in, Walker radioed Fairbanks for an FAA inspector to fly in and certify the aircraft as airworthy for the one ferry flight. Out came Korhonen for his second trip to inspect the temporary repairs. "I was amazed at the work that had been accomplished under such severe weather conditions," the FSDO inspector said. "I had to compliment Walker and his crew for a tremendous effort and the excellent airline-Air Force supply job." He issued the ferry permit.

The day before Thanksgiving, the engines were ground run and all aircraft systems checked out. That these mechanics had done their job well was proved on the five-hour flight the next day that few thought would ever come about. The Hercules flew "hands off" with the trim tabs zeroed.

In Fairbanks, the aircraft was stripped down and rebuilt where needed. Engineer Larry Kirkwood of the regional Engineering and Manufacturing Branch inspected the work periodically to make sure that the Hercules would live up to its specifications.

Less than five months later, the "totaled" Hercules was airborne again. At its controls for the first test flight was the man who should know how miraculously the plane had risen from its ashes—the pilot who had first set her down on Fletcher's Island. Said Jerry Chisum, "It flew better than before."



GAMES PEOPLE PLAY . . . From Neal Callahan, FAA's Public Affairs Officer in Chicago, comes word that a midwest toy firm plans to bring out a Monopoly-type game called "Air Traffic Controller" in the fall. Details are still sketchy but we have been able to track down and dispel rumors that (1) the game will not be sold to anyone over 31 and (2) purchasers can trade in the game after 20 years and get a different one free.

WHAT'S UP, DOC . . . If you have trouble reading your doctor's handwriting, you'll be interested to know the computers at the FAA Aeronautical Center have an equally difficult time processing reports from the agency's designated Aviation Medical Examiners (AMEs). Last year, FAA received 521,700 applications for airman medical certificates from AMEs, and the computer threw out 219,835 as incomplete or for errors both big and small. As a result, the Federal Air Surgeon has sent out a four-page memo on the subject which he hopes will cut down on the number of rejects. The memo is entitled "Applications Can Be a Problem," which sounds like an understatement.

THE BLUE KNIGHT . . . Being a policeman is a tough job. Among other things, you have to be able to write a parking ticket while someone is screaming insults in your ear and not misspell a word. FAA Police Officer Garfield Royston had such an experience at Dulles Airport recently, and, because he kept his cool, he later received an apology and commendation from the woman he was ticketing. "He handled the whole situation in a very polite and professional manner that made me feel like a brat," the woman wrote Dulles Police Chief Philip Hourihan. "I think if I had been him, I would have poked me right in the nose."

HEADLINE HUNTING . . . The headline in the *Flint* (Mich.) *Journal* was intriguing: "FAA And School Board Okay One-Year Contract With Pay and Benefit Hikes." So our clipping service sent it along, charging us the standard price of 18 cents for their efforts. Now we feel we've been had. The *Journal* wasn't talking about "our" FAA at all but somebody else's—the Flushing, Mich., Administrator's Association, to be exact. We're trying to get our 18 cents back.

TRAINING WITH 'LIVE' SIMULATION

It's the "noon balloon" rush hour at Houston Intercontinental Airport. Aircraft ranging from training planes to helicopters to 747s are clogging the radar-controlled air traffic system to near its capacity.

In the radar room at the base of the tower, a student controller on the scope is also nearing his breaking point. This is more traffic than he has ever handled before, and more airplanes are holding for a chance to get into the already overcrowded situation. His face is tense and his hands are perspiring. Finally, he makes an error and a conflict occurs, sending two aircraft on collision courses that can have only one outcome a few seconds later.

"All right, let's hold it right there," a savior's voice breaks in. "Let's look at this for a minute," It's the trainee's supervisor with a reprieve.

Miraculously, on the supervisor's command, the entire airspace surrounding Houston freezes. Airplanes halt in mid-flight. Nothing moves on the trainee's scope. He is suddenly free to analyze his traffic, how it got into its present predicament, and how he can avoid the problem the next time.

What is going on is the use of an extremely effective teaching tool; the freezing of traffic on the scope is just one of the advanced features of an Enhanced Target Generator computer program developed for the ARTS III system by the Data Systems Staff in the Houston TRACON.

Previously, radar qualification was usually based on the trainee working live traffic during slack periods. Good training opportunities were dependent on traffic being of a suitable volume, a radar scope being available for the student and another controller having time to monitor his actions.

Several types of radar simulators were developed, but all were expensive, and few contained the features needed to provide effective training. They also lacked the sophisticated abilities of their live counterparts to display altitude, speed and related information via computerization.

Recognizing the possibilities for training improvements that the agency's automated equipment might offer, the Air Traffic Service last year asked the Southwest Region if Houston's computer staff could undertake the development of an advanced training program using the new equipment. The automation crew—specialists James G. Goertz, William H. Hudson, James A. "Doc" Holloway and Darrell L. Kelley—came up with a resounding "yes" just two months later. Led by supervisor Van Houston, they developed the computer software that would allow an ARTS III display, completely without interference to adjacent scopes being used for live traffic, to simultaneously generate several dozen aircraft targets on the student scope.

Each target can be moved in any direction at any speed; complete alphanumeric information assigned to each aircraft is displayed; and all action can be stopped at any time. All ARTS III capabilities, such as emergency code and hand-off identification, were kept intact in the simulator.

After testing from both automation and training standpoints, the program has been approved for use in other locations, and a similar setup is being developed for use with the NAS Stage A enroute systems in the ARTCCs.

For their work in developing the program, all members of Houston's Data Systems Staff have been awarded a Certificate of Achievement. —by Jon Ellis

"Student" Al Thurnburn, Southwest Region Deputy Director, gets a briefing on the ARTS display used in the Enhanced Target Generator program from Darrell Kelley (left), while "Doc" Holloway sets up a problem for Thurnburn.



FACES and PLACES

GETTING THE FEEL OF IT—More than 1,000 ninth grade students from Nova High School scattered around Redding, Calif., for career info. A large number were interested in aviation, with 40 of them visiting the FAA control tower. Chief Alfred Bauder (right rear) fills them in.

Photo by Charles Miller, Redding Record-Searchlight



A SMILE IS HER UMBRELLA—Joe Sloat, programs analyst in the Great Lakes AT Division's Plans and Programs Branch, shelters his sodden daughter, Mary Jo, who is a Little League umpire, as is a younger brother. Is she a first?

A FIRST—Al Hunting (at the podium), New England's accident prevention coordinator, spearheaded the region's first annual symposium and awards banquet for flight instructors and mechanics. At the function this past summer, the 1973 regional awards were made.



DOT HONORS—Civil Rights officials from all modal agencies of DOT honored Clarence Mitchell, director of the Washington Bureau of NAACP, at the organization's convention in New Orleans. Howard King (left), Deputy Director of FAA's Office of Civil Rights, paid tribute to him, and James Frazier (right), Director of DOT's Office of Civil Rights, presented him with a plaque.



GO-GETTER—Olivet Smith is the only woman to become facility-rated at Chicago-Midway Airport. Mrs. Smith transferred from the Post Office to FAA for the money, but now really likes the work, particularly local control. She is currently working on a college psychology major.



GOOD WORK—Bob Krass (left), chief of the Sacramento, Calif., GADO, and former accident prevention coordinator, was honored with a Special Award from the Division of Aeronautics, California Dept. of Transportation, presented by the unit's chief, William Shea. Krass was cited for his contributions and leadership in working with state aviation groups, pilots and the Division of Aeronautics.



ALLES FÜR SWAP—West Germany's FAA counterpart—Luftfahrt-Bundesamt (LBA)—signed a memorandum of agreement and joined in a SWAP conference-workshop in Braunschweig, Germany. Heading up the participants were (left to right, front row) R.T. Peters, European Region's SWAP office; W. Huebner, senior FAA representative from Frankfurt; K. Koessler, director of the LBA; and W. Newell, program manager in the New York International Field Office.



Women's Work, Too

The time: the indefinite future. The occasion of note: a bid selection sheet announcing the appointment of a woman as an Airway Facilities sector manager.

Why the indefinite future? Because far too few women have opted for the technical workforce. As of June, of about 8,500 technical types in Airway Facilities, there are only seven electronics technicians, three engineers and one general facilities and equipment technician who are women.

Despite efforts over the past several years to find and recruit women, there is still a very low representation of them. For some, the reason may be that the technical job environment may lack the amenities of the office job and require uncomfortable assignments; too, there is the need to overcome outdated attitudes and teasing jibes and to perform the duties without special consideration for sex. Yet, for many, some of these same considerations are pluses, together with the opportunity to employ their technical interest, to advance and to travel.

In a renewed effort to change this imbalance, Airway Facilities Service Director Jeff Cochran has begun a special program under regional EEO Affirmative Action Plans to recruit women as electronics technicians, engineers and GFETs. Young women who are interested in AF technical positions, who have good mathematics backgrounds and are free from personal responsibilities that would prevent their completion of extensive training, are encouraged to contact their Manpower divisions for an evaluation of their experience and education.

By June, 11 women had broken the misty barriers and are working in traditional male jobs in Airway Facilities. Their backgrounds are as diverse as might be expected in any career field, but their common denominator is a strong motivation to succeed.

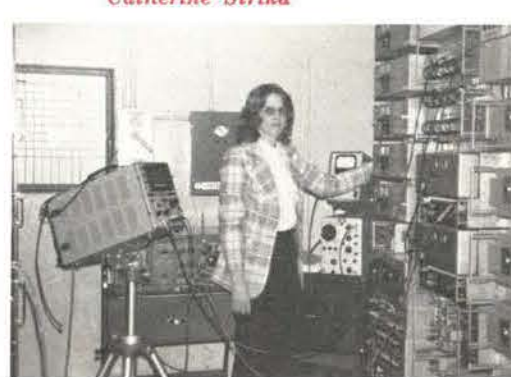
Shirley MacFarlane



Mary Bragg



Catherine Strika



Betty Jones



Barbara Anderson



Rosalind Halpern

Shirley MacFarlane has worked in FAA for seven years. Until last year, she was a computer operator with a growing interest in electronics. When she learned that she could enter the 150 Program to become an electronics technician, she took a four-grade downgrade. After completing the qualifications course at the Academy, she returned to the Los Angeles ARTCC as an electronics technician trainee. "I've had a lot of encouragement," says Ms. MacFarlane, "along with a fair amount of discouragement, like 'you'll never make it,' but I wouldn't hesitate to do it all over again."

Coming from the commercial field, where she was a solderer and electrical tester, Vera Hamilton joined FAA at the beginning of last year as a GFET at the Minneapolis ARTCC. Since then, she has completed one Directed Study course and a resident course at the Academy and is completing two more courses. Says Mrs. Hamilton, "Since coming with FAA, I've found there are many goals to reach for. With the assistance of the courses offered, these goals can be attained."

Last September, Gayle Shropshire was hired as the Southwest Region's first woman electronics technician trainee, entering through the 150 Program. Long a bug on electronics, Ms. Shropshire majored in electronics technology in college and had worked as an electronics inspector and aircraft auto-pilot technician. Following her Academy training, she reported to the Fort Worth ARTCC where her on-the-job training is as a peripheral computer-device technician. She's there because she hadn't found traditional women's jobs well suited to her aptitudes in higher math and science. Not that she's a women's libber: "I don't look at it that way. I just think it's a good thing to encourage women who want to go into technical occupations."



Vera Hamilton



Iris Lupu



Gayle Shropshire



Above right: Mary Pfau



Right: Mary Cooper

Catherine Strika is a GS-7 electronics technician at the Indianapolis Center. She transferred from the Postal Service in 1972, entering the 150 Program as a GS-4 on the basis of having had some college electronics courses and a part-time job in TV repair. In the 21 months following, her assignment in the radar technician specialty, she completed six Directed Study courses and five resident courses at the Academy. Next month, she is expected to have earned her GS-9.

Betty Jones majored in mathematics in college and worked for 9½ years in engineering in and out of government. She was hired at FAA as a GS-11 electronics engineer. When her training was completed a year later, she was promoted to GS-12 electronics engineer, systems performance specialist, in the Fremont, Calif., AF Sector.

Another engineer is Iris Lupu. After receiving her college degree she was hired as a GS-7 civil engineer in the Environmental Section of the Facilities Establishment Branch, Eastern Region. She enjoys the extensive travel in her job.

Six years ago, Barbara Anderson joined FAA in Alaska as an engineering draftsman and worked up to GS-9. Three years ago she passed the test and bid on a GS-5 electronics technician position in the regional recruitment pool. She has completed several Directed Study courses and has moved up to GS-7. She's currently working the mid-shift at the Merrill FSS and recently received her ET certification card.

One of the newer AF women is Mary Pfau, an engineering draftsman in the Alaskan Region who worked up to GS-3. She's now opted for better promotion opportunities and a more challenging career as an electronics technician via the 150 Program. She had recently completed college work in elec-

tronics, chemistry and mathematics courses.

The Southern Region also has two ETs. The first to be hired was Mary Helen Bragg in February. She was recruited under the 150 Program at a vocational/technical school in Columbus, Ga., where she had been studying for two years. This month, she is scheduled to return to Columbus from the Academy for on-the-job training in communications. In March, Mary Cooper was selected as a GS-7 electronics technician at the Atlanta ARTCC and is receiving on-the-job training in the data-processing field. She has been with FAA since 1970 as a communications relay operator, a teletype operator and as a computer operator. Her credits for her current selection came from a stint in the Air Force where she was an electronics technician and electronics instructor.

Rosalind Halpern is a GS-13 civil engineer in the Radar/Automation Section of the Eastern Region AF Division's Engineering Branch. She feels that she got into engineering by standing in the wrong line at college registration, but with a degree in mechanical engineering and an interest in aviation, she was drawn to FAA.

Her career in FAA has taken her from checking out engine generators at mountain-top facilities to planning and construction of sophisticated automation facilities. "I've had grease under my nails, climbed towers, walked in mud and walked on the softest carpets," she recalls. "I've met all kinds of people in all kinds of jobs. The greatest experience has been meeting the old-timers, I've gotten to travel to the larger cities and—somehow, more enjoyable—to the smaller towns and villages. FAA can offer you as much as you wish, as long as you're open to learning technical things, as well as to growth as a total human being."

DIRECT LINE



Q. Even though my suggestion was turned down, everyone I've talked to approves of it. After attending the Academy in Oklahoma City from Miami, I had to submit a comparative-costs example since I drove my car, but POV was not authorized. Why should it be necessary to show mileage since this is a fixed distance for everyone making that trip? POV was not authorized as being advantageous to the government—at the mileage rates and cost of motels, this trip could never be advantageous to the government by POV. Air travel will always be cheaper. As a result, you have the ridiculous situation of no two employees from the same facility for the same trip paid the same amount for travel. Since the distance from each facility to the Academy is a fixed distance, each employee should be paid the same amount for travel by air or auto. Rates could be set up to pay the employee a set amount, depending on the length of school. This could be charted for all FAA facilities or, better yet, the old travel voucher forms could be replaced by IBM cards, letting the computer figure out what to pay the employee. Why can't this idea be implemented?

A. It's the law that prevents opting for your suggestion. The amount of reimbursement an employee receives for travel and per diem must be computed based on the actual performance statement filed by the employee. A standard per diem and travel payment would be in violation of the intent and provisions of 5 U.S. Code 5704.

Q. I have taken several of the job-related directed-study courses through the Academy, and I have found them to be both informative and helpful in my job. I was wondering if there are any plans in the future to initiate a directed-study course devoted entirely to travel to be developed along the lines of the Basic Clerical/Secretarial and Advanced Secretarial Techniques courses. I think this type of course would be very helpful to the secretary who frequently processes travel orders and vouchers. For those of us

who have had little experience in this aspect of our jobs, it would be an opportunity to gain some concrete information and knowledge.

A. There have been several attempts in past years to provide a viable course on travel regulations. The rapidity of change to the regulations, however, made it difficult and uneconomical to repeatedly revise, update and replace training materials to maintain an effective course. Keeping graduates current with changes was another problem. Explorations are being undertaken to devise a training format that could be used by local travel personnel and possibly supervisors to provide current and meaningful training to persons who are involved with making or reviewing travel orders and vouchers. The need for training in this important area is recognized by the Office of Audit and Accounting and the Office of Training. Hopefully, the collective efforts of these two organizations will produce an effective program.

Q. FAA makes much ado about being a "lean and clean" outfit; this would indicate an honest attempt to staff according to workload. I'm in a sparsely populated western state. We have the same number of Airway Facilities and Air Traffic facilities—possibly slightly fewer Air Traffic. All the AT facilities deal directly with the regional office. AF offices and personnel must deal with the regional office through an intervening State Sector Office, staffed with a large group of pretty high GS people. Other than empire-building, is there any valid reason for the State Sector Office? Why must field AF people invariably deal through an intervening level of supervision while AT does not?

A. You've made a wrong assumption. While in a few cases, sector boundaries are coincident with state boundaries, this is merely coincidence, and boundaries so established are subject to change to some other configuration. The geographical area covered is only one of many considerations that affect sector boundaries. As a result, the title "State Sector Office" which you refer to is incorrect and should not be used. You will find, for example, that ARTCC Airway Facilities sector boundaries only extend a few hundred feet beyond the building perimeter. Other sectors encompass geographical areas consisting of only a few acres to large land masses that may encompass parts of several states. We don't believe it's possible to make valid comparisons between AT and AF field organizations. The functions and mission of each are different, and consequently each is organized in a manner best suited to its responsibilities and work demands. It's not unusual for AF sector offices to have several subordinate elements varying from one to 30 employees scattered over various size geographical areas. Each of these small entities must be supported

with specialists who are familiar with the facilities and area. Support personnel include engineers, logistics specialists, equipment specialists, relief technicians, proficiency development and evaluation officers and clerical and secretarial assistance. Good management and economics require that these support functions be decentralized from the regional office, but centralized within the sector's boundary to afford the greatest assistance to the sector field office and/or sector field units.

Q. I understand that the Department of Defense publishes job listings for overseas slots that are related to and open to FAA people. I have seen such information for the Eastern Region, but I have not found any available to the Southern Region. I would like to know how to get on the mailing list to receive such data.

A. We have contacted a Southern Region representative of the Department of the Army, who tells us that his agency publishes a monthly list of overseas "Job Opportunities." However, he is not aware of any listing published by the entire Department of Defense. Further, the Army listings are distributed only to Army installations for posting on bulletin boards and are not mailed to individuals. Apparently, it will be necessary for you to visit nearby military installations or Civil Service Commission area offices to review these listings.

Q. I am presently a GS-12 at an air traffic facility in step 6. Step 7 is due March of next year. I recently received a Quality Within Grade, which will give me a Step 7. When do I get my Step 8—Is it three years from the QWIG or is it in March of 1976? Please clarify the regulation, as there seems to be a difference of opinion here.

A. Based on the information you provided, your within-grade increase to the Step 8 of GS-12 is due in March 1976. Quality within-grade increases are awarded in addition to regularly scheduled within-grade increases. An employee who receives a quality increase does not begin a new waiting period to meet the time requirements for a regular within-grade increase. If a quality increase places an employee in the fourth or seventh step of his grade, his waiting period for a regular within-grade increase is extended by 52 weeks. This is provided for under the graduated waiting period schedule set forth in sections 5335(a) and 5336(b) of Title 5, U.S. Code.

Q. I am a GS-13 assistant chief at a Level II radar approach control facility. My position constitutes first-line supervision for controller personnel since we do not have team supervisor positions authorized. On the other hand, I am responsible for all the normal assistant chief duties as well (second-level

supervision). My position description includes specific non-control items for which I am directly responsible and which constitute a considerable workload that routinely occupies my duty hours and, on occasion, some of my off-duty hours as well. FAA has convinced me that I am 100% management team and should behave accordingly if I am to do a convincing job of supporting and enforcing programs that are generally unpopular with controllers. Now, DOT Notice 3120.34 dictates that in addition to these duties that occupy me fully, I must now maintain proficiency on control positions. The only way operating proficiency can be maintained is to work such positions on a routine basis. What portions of my job will I be permitted to neglect for this? What happened to the management team pitch? Am I supposed to be half controller, half management? I consider this new requirement to be a major change to the established job description. I am perfectly willing to play whatever role FAA believes will best benefit air traffic control, but my relationship to management and controllers must be clearly defined. I cannot be "one of the troops" this month and 100% management team the next.

A. Your duties are not atypical. The Air Traffic Service policy that was in existence prior to the issuance of Notice N3120.34 (First Level Supervisor Proficiency Requirements in ARTCCs and Terminals) focused attention strictly on the team supervisor, whereas it more appropriately should have made reference to the first-line supervisor. At those terminal facilities where the team-supervisor position is not authorized, the assistant chief performs the control duties that would be expected of a team supervisor. Notice N3120.34 merely restated and clarified the original philosophy on this subject. The first-line assistant chiefs to whom this policy applies, in addition to being a full-time member of the management team, must now maintain operational proficiency. This is no more than had been expected of a team supervisor. By now, your official position description has been changed to reflect this requirement.

Is there something bugging you? Something you don't understand? Tell it to "Direct Line." We don't want your name unless you want to give it, but we do need to know your region. We want your query, your comment, your idea—with specifics, so that a specific answer can be provided. All will be answered in this column, in the bulletin-board supplement and/or by mail if you provide a mailing address.

Better two-way communication in FAA WORLD's "Direct Line" is what it's all about.

ANTENNA DETECTIVE ON WHEELS



What may appear at first to be a good site for a radar station sometimes proves to be unsuitable after it's in operation. Features of the terrain may cause false beacon targets, vertical lobing and other radar display problems for controllers.

NAFEC is ready with the solution, however—not to the technical problems themselves but where best to establish the antenna. A new mobile beacon-siting system has been developed to evaluate proposed beacon sites for both enroute and terminal locations. Housed in two trailers, it also can be used to investigate field problems at existing sites and provide an emergency substitute when a beacon antenna is in need of repair.

The heart of the system is a data processor designed by project engineer John R. Kenton that gives information immediately on the reflection characteristics of a site and vertical lobing. A video tape recorder is included to play back into an ARTS III processor or a production common digitizer, which converts images to digital form for transmission to and processing by computers. Also housed in the same trailer van are a two-channel beacon decoder, two transceivers and two PPI scopes, which provide map-like presentations of the terrain.

The second trailer is a flat-bed, equipped with a beacon antenna, an erectable tower and a power generator.

The prototype was originally tested in Chicago in 1972 in conjunction with a specially equipped aircraft as a joint regional, Airway Facilities Service and NAFEC venture. Following that, the unit was sent to Atlantic City for development of the operational unit. Max Greenberg was the activity leader with George Mahnken the program area leader.

Ultimately, the mobile vans will be sent to the depot in Oklahoma City, where they will be available to regional offices.

—By Frank McHugh

Inside the radar beacon siting van being visited by Airway Facilities Sector chiefs at NAFEC, electronics technician Joseph Crowe checks an equipment drawer.



A NEW MEMBER OF THE FAMILY

P.M. Kehoe (left), chief of Flight Standards' Flight Inspection Branch, and H.R. McCullough, chief of Southwest Region's Flight Inspection and Procedures Branch, check out FAA's first Jet Commander at Fort Worth's Meacham Field. It was the first of five purchased by the agency to help in phasing out its DC-3 inspection fleet. Accepted for delivery at the Aeronautical Center, the twin-engine aircraft is loaded with avionics gear for inspection of nav aids.



AVIATION BUG BITES BUNNY

Lake Geneva, Wis., has its Playboy Airport with a bunny as a symbol on Milwaukee's radar. The Great Lakes Region also has the real thing, though. Marilyn Sidwell was a Playboy Bunny who got bitten by aviation and is now a controller at the Detroit City Airport. She began working for an advertising agency that obtained the Detroit Playboy account, and she switched jobs to the account. Then, the

agency sent several of the girls for free flying lessons in a promotional campaign, and Mrs. Sidwell had a new love. She earned her instructor's certificate, has amassed 3,500 hours of flight time, is active in the 99s and has almost two years to go until journeyman controller status. She has few problems working with the male controllers, but these male chauvinists still prefer to see her in short dresses.



Federal Notebook

HATCH ACTIONS HATCHED

The House Administration Subcommittee on Elections is undertaking revision of the Hatch Act this month. Hearings will be held on nine bills, the last of which debuted last month with 23 co-sponsors. They will consider Federal employee participation in partisan campaigns but not their involvement as candidates. ■ Rep. Thaddeus Dulski (NY), chairman of the House Post Office and Civil Service Committee, has introduced a bill to overturn Hatch Act prohibitions on political activity. It would allow Federal employees to run for partisan political office as well as serve in political clubs and distribute literature.

CITY TAXES AS YOU GO

The President signed into law a bill authorizing government agencies in cities having 500 or more Federal workers to withhold city income tax from their pay. While simplifying tax collection for those municipalities, it also was designed to make it easier for employees to meet these tax bills.

A BOOST FOR JOB SECURITY

Sen. Charles Mathias, Jr. (Md) introduced a bill to prevent unfair and arbitrary downgrading of Federal jobs. His bill would give an agency three years in which to downgrade a job classification, following which the incumbent in a job would be protected against its being downgraded. Mathias suspects that downgrading has been used not just to correct classification errors but as a budget-trimming device.

ADDED HEALTH BENEFITS IN OFFING

At this writing, a bill was awaiting the President's signature

that would permit Federal employees the freedom to choose optometrists and clinical psychologists without a required recommendation and supervision by a physician. Aetna already permits it.

A CHANGE IN THE WIND?

Although it applies only to the General Services Administration Region 3 and its AFGE local, it's worthy of note that the Federal Service Impasses Panel has ruled that if an employee gets a temporary duty assignment for more than 30 days to a higher graded position above the journeyman level, he must get a temporary promotion. GSA wanted a 60-day period and AFGE sees it as inadequate, permitting repeated details of just under 30 days.

CONGRESS DOORSTOPS FSSs

Fifty-two Senators have written to the chairman of the Transportation Subcommittee asking him to prevent the closing of 30 flight service stations, which FAA is seeking to do in conjunction with an FSS automation plan. Congress blocked the closings last year.

TRAVEL INFLATION

The Government Employees Council has testified before the House Committee on Government Operations in favor of three bills to raise per diem and mileage rates. GEC wants a \$40 per diem maximum and 20 cents a mile plus a provision to increase the statutory per diem \$1.00 each time the CPI causes an increase in annuities.

TIME MARCHES BACK

Several bills have been introduced in the House to change Veterans Day back to Nov. 11, which would eliminate it as a 3-day holiday.



The Nashville, Tenn., ASR and SECRA antennas lie beyond the broken pedestal, looking more like plastic than steel.

THE 30-HOUR COUNTDOWN

Sector Field Office chief Tom Gaines surveyed a sorry sight on the morning of April 2. The night before, a windstorm—no one was sure, it could have been a tornado—had blown the Nashville, Tenn., terminal radar from its pedestal. It was apparent now that it was totally beyond repair.

A phone call to the FAA Depot worsened the problem—a complete antenna system was not immediately available there. Thinking about the possibilities for restoring the facility to service in the shortest possible time soon produced the answer. By 10:00 a.m. a decision was made to dismantle, transport and install the recently decommissioned antenna at Greenville, S.C.

The Greer, S.C., sector manager, Gerald Cutts, agreed to arrange the operation at his end, while Gaines called the Tennessee Air National Guard for an aircraft to transport the antenna system.

Cutts first contacted a crane service to have a crane and low-boy trailer at the ASR site by 3:00 in the afternoon, and radar unit chief Ken Wilson with electronics technicians Jim Marlowe, Ed Cash, Larry



Personnel of the Greer, S.C., Sector Field Office help unload the radar reflector for a waiting C-124.

Malcom and John Hess and GFET Randolph Richter began the disassembly.

Everything moved along right on schedule. At 3:05, the antenna, reflector and pedestal were being lowered onto the flat-bed trailer. At 2:00, arrangements had been made for an aircraft from the Memphis, Tenn., Air Guard unit to be dispatched. At 6:30 a C-124 arrived at Greer, as did the loaded low-boy trailer. An hour later, the antenna was winging its way to Nashville, where it arrived at 7:30, CDT.

Working through the night and the morning, SET Herbert Mann, electronics technicians Billy Joes Childers, Ken Hunsicker and Bob Gibson and GFET Bob Houser completed the installation. All was in place by 2:00 p.m. April 3. The flight check of the rebuilt facility had to be delayed because of poor weather until April 5, when the antenna was restored to service.

The total time—30 hours. A record for this type of operation that brought all these Airway Facilities men a well-deserved group Special Achievement Award.

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The rain-spattered window of the old tower cab shows the new, higher tower at the Chicago-Midway Airport looming over its new terminal buildings. It's expected to be outfitted with equipment this fall.

