

FAA WORLD

August 1979



Hijacking In Progress

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The cover:

The refurbished Emergency Operations Center was in full swing during the June hijacking to Ireland of a LaGuardia-to-O'Hare flight. Clockwise around the consoles are Walter Korsgaard, Explosives Security Program; Joseph K. Blank, deputy director of the Civil Aviation Security Service; Fred Farrar, Office of Public Affairs; A. J. Casucci, Threat Analysis Program; John Leyden, Public Affairs; Fred Rapp, Operational Liaison Staff; Vince Puglisi, Operational Evaluation Program; John Hunter, acting chief of the Air Operations Security Division; and John J. Given, chief, Technical Security Division. The story begins on page 12.

HOW TO BID ON A JOB

If you can walk on water or leap tall buildings with a single bound, you don't need to read this article on how to bid on a job. You've probably got managers and supervisors beating a path to your doorstep. If, on the other hand, you have less striking abilities and you have to bid on

As along with hundreds of other applicants, you may be interested in tips on how to catch the eye of a prospective employer.

There are no special gimmicks, and there's no substitute for sound skills and a good track record. But, even people with superior abilities and a career studded with outstanding performance ratings are routinely passed over in job competitions. In many cases, even they don't make the "highly qualified" list.

So, it's more than just having good qualifications. It's knowing how to highlight them that's important, says Ben Alexander, assistant chief of the Employment Branch in the Washington headquarters Office of Personnel and Training. "A lot of people just don't know how to present themselves well on paper."

In bidding on a job, the Personal Qualifications Statement—or Standard Form 171—is critical; it's a picture of the applicant's work history, performance, education, training, and outside activities. In fact, it's the only thing a reviewer has to go on in the early stages of the game. Yet, so often, 171s are sloppily prepared, says Alexander; whole sections are not filled in, questions are left unanswered and, worst of all, some are not even signed, which may make them invalid. It's no wonder, then, that an estimated 99 percent of applicants are weeded out solely on the basis of their 171s, long before they get to the interview stage.

Besides being sloppily put together, many 171s aren't tailored for the specific jobs. They're so vague, says Alexander, they're virtually useless. A serious bid takes a lot of work, says Alexander. First of all, it's essential to review the job announcement to find out what general and specific types of experience are sought.

In FAA, there are two types of vacancy announcements: the most common are those which announce promotional and

career opportunities. The other, the National Seniority Opportunities Notice, printed on salmon colored paper, announces vacancies that can be filled strictly on the basis of seniority only by full-performance controllers who are members of the Professional Air Traffic Controllers Organization (PATCO) and only by those who have served three years in their facilities. Only ingrade/downgrade candidates may apply for the latter positions.

171 is to "match and highlight" your abilities and experience with the qualifications listed in the vacancy announcement. Pay particular attention to the selective factors, or the criteria which will be used to judge candidates. An announcement may indicate, for example, that experience will count for 50 percent, training 20 percent, and the like.

Both Alexander and Bracy warn against "loading"—i.e., distorting the

"it's more than just having good qualifications. It's knowing how to highlight them . . ."

After reviewing the job announcement, it's also a good idea to get a copy of the position description from the agency posting the announcement to see in more detail what the job involves. Next, take a look at Civil Service Handbook X-118, which describes the kind and amount of experience or education (or both) required for the occupational series of the job you're bidding on. The CSC Handbook X-118 is probably available at your personnel office. If not, one can be found at the local Civil Service Job Information Center or in many large libraries.

Finally, a review of the CSC Classification Standards will provide a list of specific duties you would be expected to perform in the job.

Now, all this may seem like so much bureaucratic overkill, but it's not, says Cathy Bracy, training technician in the Office of Personnel and Training. Bracy has conducted workshops at headquarters and NAFEC on the proper way to fill out an SF-171. She also counsels individuals by appointment. She insists that careful preparation using the tools outlined above can make the difference between being rated eligible or ineligible or being ranked merely qualified as opposed to highly qualified.

Bracy says one of the keys to a good

facts, which is illegal—but say that emphasizing or highlighting is perfectly legitimate. In fact, it's up to the applicant to show that he or she has exactly what it takes to do the job.

In describing your work experience under item 20 of the 171, write accurate, concise but *complete* descriptions of what you've done in each of your past jobs. Make sure you put down dates showing the length of time in each grade. Be specific and use simple, straightforward language. A secretary should indicate for example, that she "keeps time and attendance records for 21 employees" rather than write: "Was responsible for attendance criteria for entire office."

People tend to use generic and flowery language in describing their work experience, says Alexander. One of the reasons, he says, is that they copy language from their position descriptions or, in some cases, simply

attach a copy to their 171s without bothering to fill in the blocks at all. It's a mistake to use PDs for that purpose because they are general rather than specific in nature. Then, there are those who describe what their organization does, but not what they do. They write, for instance, that "I work for an office that is responsible for planning and organizing the agency's . . ." Remember, says Alexander, you, not your office, is bidding on the job.

A convenient way of organizing your work experience is by dividing it into responsibilities, duties and accomplishments. Some treat them as if they were synonymous. They're not.

Secretaries, for instance, may be responsible for providing a full range of stenographic and clerical help to their supervisors. Their duties, on the other hand, are specific items: they type, edit, receive phone calls, etc.

An accomplishment is something they do above and beyond a duty. One of their duties, for instance, may be "filing." However, he or she may have devised a new filing system that reduces filing time by 30 percent. That's an accomplishment.

Bracy warns against the overuse of the word "responsible." To be responsible for a certain activity does not necessarily mean you do it, she says, and if a reviewer sees the word "responsible" in every sentence, he or she may get the idea that the applicant is responsible for a lot but doesn't do very much.

If your experience warrants it, rather than add supplemental sheets, additional information can be incorporated into the 171 by "cutting and pasting," says Bracy. In item 20, for instance, rarely is there enough space in the box provided to adequately describe duties, responsibilities and accomplishments. So, applicants usually attach continuing sheets. Bracy says it's better to cut the 171 with a scissors along the base of the box and paste on the continuing sheet. That way, she says, there is no interruption in the flow of the narrative and it makes the form easier to review.

Don't leave out volunteer work and unpaid employment in a family business when combing your memory in search of legitimate past work experience, says Bracy. This is particularly important for women whose careers may be short on experience, but whose volunteer work during the time they were at home "unemployed" raising their children is indeed impressive. A chairperson of a finance committee for a large church, for instance, or the head of a community

Cathy Bracy (right), training technician in the Training & Career Development Branch, Office of Personnel, and Peggy Morales, staffing specialist in the Employment Branch, discuss how a SF 171 preparer wrote his experience to conform to the ranking criteria for the particular position applied for.



Ben Alexander, deputy chief of the Employment Branch, reviews the techniques for conducting successful SF 171 workshops with Peggy Morales (left) and Cathy Bracy.

fund-raising drive, or the President of a PTA has obviously developed skills in organization, coordination, meeting deadlines and working with people that will be valuable assets in Federal service.

If the volunteer work matches the experience listed in the job announcement, it should be included in a separate box under item 20 of the 171 just as if it were a regular job. Here again, be specific. Indicate the number of hours spent each week, number of persons supervised, and the like. A person who has been President of Toastmasters International, for example, should show that he or she was in charge of a 40-member club, that 8-10 hours were spent each week in planning and organizing the club's activities, and that he or she helped organize the regional speech contest and banquet for 400 persons and acted as its host.

However, if volunteer work is only an occasional activity, list whatever benefits were derived from it under "Special Qualifications and Skills," item 21 in the 171. Under this category, include everything that's pertinent, such as:

- Membership in professional societies or other organizations. Be sure to include any offices held or particular responsibilities, such as workshop leader, committee chairperson, treasurer.
- Articles or reports you have written, even those that haven't been published.
- Public speaking skills. You don't need extensive experience—if you've done any at all, mention it.
- Skills with machines. Again, be specific and include everything—key punch, typewriter, movie projectors, overhead projectors, calculators, cameras.

—You also ought to add any general skills, such as leadership and counseling, that you may have acquired in avocational activities.

When filling out item 22 on the 171, be sure to indicate all the training you have had, not just the academic institutions you've attended and degrees received. Be sure to mention courses that were taken at your own expense. They show you have a strong interest in learning and improving yourself.

Don't be too modest when filling out the section on awards (Item 23). Include scholarships, letters of commendations, suggestion awards, honorary election to a society and, by all means, outstanding ratings and quality step increases.

Modesty doesn't appear to be a problem when applicants judge their own foreign language abilities. Any familiarity with a foreign language should be mentioned, of course, in item 24. But, be honest in evaluating your abilities. As the Occupational Outlook Quarterly once put it: "Just because you know what a *faux pas* is, don't make one by claiming to be fluent in French if you aren't."

Don't attach copies of documents unless they're specifically requested. Flipping back and forth through a packet of material the size of a phone book is annoying and can put a reviewer in a nasty frame of mind.

Under item 25, list only those references who know you well enough to judge your work. Don't put down the name of your pastor or rabbi unless he knows something about your professional abilities. Above all, ask people beforehand if you can put them down as references, says Ben Alexander, and if they agree, send them a copy of your 171.

He remembers a phone call he once got from another agency that was reviewing the 171 of a woman who had worked as a summer aide in a program he administered several years before. It was embarrassing says Alexander, and probably not helpful to the applicant that he couldn't even recall who she was.

Also, make sure your references are accessible, says Alexander, and include phone numbers where they can be reached. Don't include overseas

references unless absolutely necessary.

If you indicate under item 20 that you don't want the personnel staff to contact your present supervisor, that will not affect your chances for further consideration. But, then, make sure you include with your 171 a copy of your latest performance evaluation rating or equivalent. In many cases, a performance evaluation rating is required. If it's been more than a year since your last rating, get an updated one. In fact, some agencies will not accept one that is more than a year old, and an increasing number of agencies will not even accept another agency's evaluation form.

After your 171 has been submitted, you may receive an acknowledgment that your 171 has been received. Some agencies routinely extend this courtesy, others don't. In FAA, you will receive an acknowledgment if you include a covering "bid sheet"—or Position Vacancy Application, as it's called in Washington headquarters—when you submit your application. There's an acknowledgment receipt at the bottom of the form, which is filled out by the personnel staff, torn off and returned to the sender. If you don't include a bid sheet, you won't hear from FAA. You'll just have to call to find out what happened to your bid.

The personal interview, of course, is the next critical step in the selection process, although offering a personal interview is not a requirement. Your success in one largely depends on how well you can convince the selecting official that you're the best person for the job. Trying to sell yourself can be a touchy business. If you're too modest, the interviewer may judge you too timid and not aggressive enough for the job. On the other hand, if you put on too hard a sell, you may be considered too pushy. So, it's probably best to be yourself and let the chips fall where they may.

A Civil Service Commission handbook on career counseling provides a basic list of do's and don'ts of personal interviews:

- Be on time or even a few minutes early. This will allow you to compose yourself and show the interviewer that you value punctuality.
- Prepare beforehand by learning as much as you can about the agency or

office and its programs. Try to articulate in your mind why your abilities and experience are uniquely suited for the job.

- Listen to the interviewer and make sure you understand the questions. Answer them clearly and to the point. Don't ramble. If you don't know an answer, don't fake it.

- Ask questions about the job. It shows that you're actively interested, and their answers may give you a clue as to what they're looking for in a candidate.

- Be sensitive to signals that the interview is over and leave promptly. Be cordial and express appreciation for the interviewer's time.

But, before you start worrying about the interview, be sure you don't forget to put your best foot forward from the very beginning. Otherwise, you may trip over the first hurdle—your 171. After all, as one agency's pamphlet puts it: "Selecting officials see you 171 long before they ever see you. It's your judge and jury. Give it all the evidence it needs."

By Gerald E. Lavey

<p>21. Experience. Begin with current or most recent work or volunteer experience and residence address at that time on the last line of the experience blocks in order.</p>	
<p>W A O F 8 W</p>	<p>Exact title Edi Kind of i account gov Descript</p>
<p>As As editi cers, with I icant and i the r I creat caree were profe publi My hold: tech and I tion symp photo othe as I in t publ addi Join I've they I the fiel of i</p>	<p>Standard Form 17- Personal Qualification Statement</p> <p>IMPORTANT READ THE FOLLOWING INSTRUCTIONS CAREFULLY BEFORE FILLING OUT YOUR STATEMENT</p> <ul style="list-style-type: none"> • You must furnish all requested information. The information you provide will be used to determine your qualifications for employment. DO NOT SUBMIT A RESUME IN LIEU OF COMPLETING THIS STATEMENT. • If you fail to answer all questions on your Statement and accurately, you may delay consideration of your employment and lose employment opportunities. See the Print Notice on the reverse of this sheet. • So that it is understood that you did not omit an item, please write the letters "N/A" (Not Applicable) beside those that do not apply to you unless instructions indicate otherwise. <p>GENERAL INSTRUCTIONS</p> <ul style="list-style-type: none"> • If you are applying for a specific Civil Service Commission position. <ul style="list-style-type: none"> —Read the examination announcement or the Qualification Statement for the position to be certain that experience and education is qualifying. —If a written test is required, follow the filing instruction admission card —If no written test is required, mail this Statement to Service Commission Area Office specified in the announcement on the Qualifications Information Statement. —Be sure to include all other forms required. —If you have a change of name or address, notify the Civil Service Commission Area Office with which you filed this State

NAFEC Computers Can HEAR

Reprinted from The Atlantic City Press



To Dr. Donald Connolly, it's "the next generation of traffic control simulator."

But any layman can hear what's happening. Computers are listening, and they're listening better than ever before.

Connolly is an expert on voice-activated computers at the National Aviation Facilities Experimental Center (NAFEC), which recently received "the world's first commercially available data-entry system that recognizes fluid connected speech."

That's the description the Nippon Electric Company gives to its computer, which recognizes up to five continuously spoken words. Previous computers that responded to voice could comprehend messages only if given one word at a time.

What does it mean?

It means that the future is knocking on today's door, said Dr. Connolly. The future of air traffic control, that is.

"It's conceivable someday that I'll say 'Eastern 42 climb and maintain flight level 37,' and out of that conversation between two people, that computer will get what it needs to know," said Connolly.

The immediate application for the voice-activated computer is the replacement of keyboards in air traffic simulation.

Many NAFEC employees give orders to computers which simulate airplane traffic. The simulations are used for experiments and also to teach people how to deal with various problems of air traffic, without actually involving airplanes, pilots and passengers.

The problems are both caused and solved through the use of keyboards.

"When you go into business with a computer, you end up with a pocketful of keyboards," Connolly said.

"What people do with keys, I can do with voice, which has been a dream as well as science fiction for a number of years."

The dream is close at hand as Connolly demonstrated, though its flaws are apparent. The computer has to be programmed with the voice of the person who wants to use it, and the words must be spoken clearly and carefully. If a

person speaks quickly or slurs a word, the computer either won't respond or will misunderstand. For example, it confused a "five" with "nine" during a quick demonstration.

"We're evaluating it, modifying it, contributing to the development of it," Connolly said. "We're taking a view of the possible uses of computerized systems of the future. We try ideas before we buy, and we're trying this in simulated traffic where nothing can get hurt, except maybe somebody's feelings," he said with a smile.

Despite its shortcomings, Connolly sees the new system as a significant step beyond the isolated word-recognition system that he has been working with for the past four years.

One advantage of the new system is its ease in programming, compared to the older system, which required several repetitions before the computer recognized a person's speech pattern.

NAFEC's Dr. Donald W. Connolly demonstrates the new connected-speech recognition system. It seems like "Hal" is just around the corner.



The basic question about voice-activated computers concerns their usefulness.

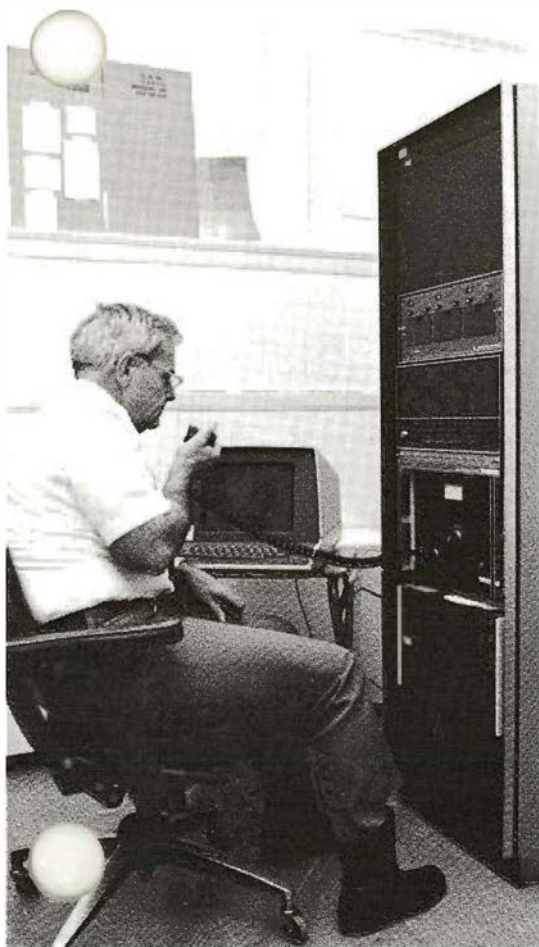
"Is this technology useful, and sufficiently trustworthy or reliable enough to be used in the real world of air traffic control? That's one of the basic questions we have set out to answer," said Connolly. I'd like to add a sentence, a flag waver of a sort. The policy of the FAA is that untried technology and technology of unknown potential is never installed in the real world.

"The evaluation process of a developing technology is a very careful and meticulous one."

One difference between the keyboard system and the voice system is time. An individual-word-recognition system, said Connolly, will save a controller at least three minutes per 100 messages, and a continuous system will save four or more minutes per 100 messages over keyboard entry.

The cost of a voice-activated system is not a factor, Connolly said. The cost of the new system mass produced is about the same as that of any mass-produced keyboard system, though prototypes are expensive.

Assuming the system is reliable, Connolly said it could be put to use in real air traffic situations in about two years.



This is the older, individual-word-recognition system that Dr. Connolly has worked with for four years, which was more difficult to program.

The new model requires only two repetitions for digits.

Both systems, he said, have a capacity of only 120 words, but the capacity of both can be increased to about 1,000 words by adding more storage tapes and discs.

Connolly called the unit the "third generation of traffic control simulator." The first generation followed World War II, and the second generation was the digital computer, which has been in widespread use for about 10 years, he explained.

"Ten years is a long time in the life of a computer," Connolly said.

FEDERAL NOTEBOOK

REFORM POSTSCRIPTS

Because the Federal Labor Relations Authority, the Merit Systems Protection Board and MSPB's Office of Special Counsel were created out of the Civil Service Reform Act but without adequate funding to do their jobs, Rep. Patricia Schroeder (Colo) has introduced legislation to give the House Post Office and Civil Service Committee authority over their funding and that of the Office of Personnel Management, along with "sunset" provisions that would permit the abolishing of any of them that fail to live up to the intent of the Act. MSPB, for example, had to cut its travel budget because of a shortage of funds such that hearings in adverse-action appeals would be restricted to MSPB field offices instead of closer to employees' homes. As a result, employees with pending appeals and witnesses for both sides likely will have to travel at their own expense and inconvenience. A suit is expected to be filed in the U.S. Court of Claims challenging the double standard of evidence required for firings under the Civil Service Reform Act. For removals for unacceptable performance, "substantial evidence" as proof is required. For misconduct and other reasons, a "preponderance of evidence" is required.

MINORITY JOB PLAN IFFY

The Office of Personnel Management plans to reopen closed junior executive and professional job registers exclusively for minorities who pass their exams and qualify. However, OPM's general counsel sees the action as possibly leading to law suits under the Civil Rights Act and the Civil Service Reform Act on the basis of reverse

discrimination and violation of merit principles. Another problem is that disabled veterans with 10 points preference would remain at the top of the registers, making many minority group members out of reach for jobs.

INJURY COMPENSATION HURTS

In line with the current desire to tighten up what many feel are too-liberal injury-compensation benefits, the Secretary of Labor has proposed to Congress that the present maximum 75 percent of salary as a benefit be increased to 80 percent at the same time that the Federal tax-exempt status of Federal employees drawing injury compensation be abolished, that at normal retirement age they be required to switch to the civil service disability system and that there be a waiting period of three days before they can draw up to 45 days of pay while the claims are being adjudicated.

BACK PAY FOR DEMOTION

If you were demoted through a RIF or reclassification between Jan. 1, 1977, and Jan. 11, 1979, you may be entitled to retroactive pay and benefits. You must have been a permanent employee not under a temporary promotion or reassignment with no break in service from the date of reduction in grade to Jan. 11, 1979. You won't qualify if you were demoted for personal cause or at your own request.

HOW THE FIGURES READ

While the October raise at 5.5 percent is virtually in concrete, Bureau of Labor Statistics figures show private sector white collar pay jumped 7.8 percent in the last year and the cost of living rose 10.2 percent.

WORD SEARCH

By Norma Dean

Administrative Assistant
King Salmon AF Sector, Alaska

The tough part of this month's puzzle is that most of you won't recognize the hidden names even when you're staring at them. If you fly or work in Alaska, then this is your meat; otherwise, you'll have to use the clues first.

The names read forward, backward, up, down and diagonally, are always in a straight line and never skip letters. The names may overlap, and letters may be used more than once. All 56 names can be found. Circle those you do find and cross them off the list. The town of "Kodiak" has been circled to get you started. When you give up, the answers may be found on page 19.

G L L E B M A G I P O T N I M H Z C N
O R E D N H A I N E S Q L O A I H U S
E G A K U L R A K N O O G N A U N B M
G A G N E F K E D S T R O A G T K B S
E T L B C I C G E N U O E I L E A O O
L L E N H H U I T B H L A V N E L K V
L A X C I N O A S N A K D O A D N W I
O K T C O U T R E K N R Y O O E Z A A
C E K R T R E C A L F T R T V R B N N
K E I I E T E I M G N A N O A I N U E
N T N H E N D M U I E A I L W E A L K
I K G P L O C N O K R T T R N O P A I
K U S O K M E P R H A A A O B W D T A
P N A E A E D U U C K N K N B A J O N
A P L N L N B A B A G U A E A R N U A
L I M E A Y E C L E Y N T K B N T K C
M K O S N N P T L T Z H F L A T A G S
E U N R U O E L R I E T O U A N V I K
R F E J T M G O Y L E N O L E K A K N
T A K T I S F H T O G I A K K A I K A

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|-----------|---------|------------|-------------|------------|------------|------------|
| ADAK | BETHEL | FAIRBANKS | KAKE | KIPNUK | NOATAK | SITKA |
| AKIAK | CHICKEN | FORT YUKON | KALTAG | KNIK | NOME | SOLDOTNA |
| ANCHORAGE | CHUGIAK | GALENA | KANAKANAK | KODIAK | NULATO | TANANA |
| ANGOON | COLLEGE | GAMBELL | KARLUK | KOTZEBUE | OPHIR | TOGIAK |
| ANVIK | CRAIG | HAINES | KENAI | LONELY | PALMER | TOK |
| ATTU | EAGLE | HOMER | KETCHIKAN | LONG | PETERSBURG | TYONEK |
| BARROW | E EK | HOONAH | KIANA | METLAKATLA | RUBY | UNALAKLEET |
| BEAVER | ELIM | JUNEAU | KING SALMON | MINTO | SAND POINT | WRANGELL |



LOST & FOUND . . . We've all seen enough 1930s gangster movies on the Late Show to know that a stool pigeon is one of the lowest forms of animal life. Why there's no telling how high the likes of Jimmy Cagney, George Raft and Edward G. Robinson could have risen in the underworld if they hadn't been constantly betrayed by these sniveling creatures. But now the Coast Guard is out to refurbish the reputation of stool pigeons everywhere by giving them some useful work to do. Our fellow modal member of the big DOT team actually is training pigeons—the kind with feathers—to spot survivors of shipwrecks and air accidents and signal their findings to search and rescue teams. Of course, the idea still has to be proved in practice, but preliminary test results are encouraging. First the pigeons are trained to spot the international color orange and then peck at a switch that gives them a reward of food. Once the birds have mastered this task, three of them are placed in

a plexiglass pod underneath a helicopter and flown out to sea to look for an orange target. Each pigeon is facing in a different direction and when one spots the target, he or she hits the switch that produces food and lights a signal in the cockpit that tells the helicopter crew where to look. According to a Coast Guard spokesman, the pigeons detected the target about 90 percent of the time on the first pass, while the best the flight crew could do was 40 percent. Unfortunately, the program suffered a setback earlier this year when the three original pigeons in the experiment were killed in a helicopter accident. But the Coast Guard now has five replacements in training and hopes to resume test flights in early fall. Eventually, it's hoped that the

pigeons also can be trained to detect yellow and red, as well as orange. And maybe someday, they'll be able to pick out any man-made object in the water. Maybe and maybe not!

PANIC BUTTON . . . How-to-do-it books are still the rage in publishing circles, so it's not surprising that someone has written a book of practical advice for airline travelers that tries to answer some of the most frequently asked questions about flying. These include questions like where is the best place in the plane to sit, why do the plane's wings move up and down, what are the chances that we'll run out of gas, and (our favorite) what do I do if I lock myself in the lavatory and can't get out? The answer to that last question, incidentally, is push the emergency call button to get help. But travelers should remember that there are two buttons in the lavatory, and if they keep hitting the wrong one, they could spend the entire flight in there and waste an awful lot of water in the process.

Faces and Places



FRIENDSHIP EXCHANGE—While Korean couples visited American families in Great Falls, Mont., Harold Kirkemo, maintenance mechanic at the Lakeside Sector Field Office, Mont., and his wife, Phyllis, visited with Mr. and Mrs. Park Jun Sik in Seoul, South Korea, as exchange members of the Friendship Force exchange program.



WORKING BOTH ENDS—Controller Carol Farnsworth of the Anchorage, Alaska 99s, works with pilot Chuck Stovall in the Lincolnton, N.C. refresher course sponsored by the women pilots' group.



TOP IDEA MAN—Teddy E. England, chief of the Washington National Airport Utilities Branch, won the Suggester of the Year Award for 1978 for a pair of winning ideas: installing of temperature-indicating tapes to detect leaks on 3,000 airport steam traps, which saves energy and manhours; and installing chain drives on boiler valves so one person could quickly operate the valves remotely while monitoring boiler controls.



FAREWELL
James V. Farnsworth, chief of the Terminal Systems Division, presented a Distinguished Service Award to S. Fla.



THREE FOR THE SAKE—The award for outstanding fuel saving was presented to Flight Assistant James V. Farnsworth (left), McAllen, Texas (center), and Harry Hawkins (left), Tower. Presenting Administrator Quentin Richard Failor, Director of the Fuel Conservation Program.

THIS IS THE SPOT—The Eastern Region's Mobile ATC Tower Site Selection Committee conferred this spring at Saranac Lake, N.Y., to plan the tower to be used at the 1980 Olympic Games. Left to right are: Jack Finnegan, Adirondack Airport manager; Edward Eidman, AT Planning Branch; Gerald Abrams, AF Engineering Branch; Gene Marciano, Albany AF Sector manager; Herb Holmstrom, Engineering Branch assistant chief; and James White, AF Establishment Branch.

Photo by Edward Salvesson



AUTOGRAPH, PLEASE—Gary L. Killion (left), aeronautical engineer and chief of Great Lakes Flight Standards Propulsion Section, discusses his new book, *The Convair Twins 240 to 640*, with George W. MacArthur, acting Flight Standards Division chief. Killion is currently working on a history of Lockheed aircraft.



LAWTON SCHOLAR—Western Region Director Leon Daugherty (right) presents Yokio "Mo" Mochizuki, supervisory electronics technician at the Los Angeles AF Sector, a certificate for completing the Management Training School's Supervisory Initial Course as a distinguished graduate—with a 97 percent score. Sector manager Wallace Ward is at left.

WELL DONE—Houston ARTCC data systems specialist Billy E. Mauldin (left) and center chief Arnold Price (right) were presented Special Achievement Awards by Ramon A. Alvarez, Air Traffic Division chief, for their development of a computer program for measuring sector flight times and traffic profiles to aid in revising air traffic staffing standards. The program has been accepted for nationwide use.



...e ARTCC, who is also a ...ainer as a part of a pilot ... Anchorage Times photo

RECOGNITION—...gan (center), chief of ...Branch in the ATC ...ograms Div., was ...e Administrator's ...Career Service Award ...for... of the Air ...up... retirement, ...an...es.

...Lost on top and low ...s that brought Out- ...rds for 1978 to Joe ...x., FSS; Peggy A. ...nville, Fla., ARTCC; ...ght photo), Lafayette, ...awards were Deputy ...lor (at podium) and ...e Air Traffic Service.

NEW COMMAND CENTER



The Emergency Operations Center was baptized under fire before the last of its equipment was installed. Called upon to handle an abortive March hijacking to Cuba of a Phoenix-to-Tucson, Ariz., airliner were (clockwise) Richard F. Lally, director of the Civil Aviation Security Service; a representative of the Air Line Pilots Assn.; Fred Farrar, Public Affairs; Dr. John Dailey, Aviation Medicine; and John Hunter, Air Operations Security Division.

Ready for Any Emergency

The last piece of equipment was being installed and some visitors were taking a get-acquainted look.

At the same time, 1,800 miles away, a passenger on a Continental Airlines flight from Phoenix to Tucson told a flight attendant that he had a knife and was hijacking the aircraft.

Word flashed across the country and a loudspeaker in the ceiling told the visitors that a hijacking was in progress. Their immediate reaction was skeptical, to say the least, and the most printable of their responses was "quit the kidding."

But they were quickly convinced that a

hijacking was indeed taking place and, after summoning some of their colleagues, turned to the job of handling it.

They were from FAA's Civil Aviation Security Service, which is charged with directing law-enforcement efforts during hijackings, and the scene was the agency's command and control complex at Washington headquarters. The time was shortly before noon on March 16, and it was the first time the complex was used for a hijacking since workmen finished completely remodeling and modernizing it.

It since has been used for several other hijackings, to direct the FAA's involvement in the Three Mile Island nuclear power plant incident and in the DC-10 investigation. It was there, for instance, that headquarters officials got word of the pylon problems that lead to the first grounding of the DC-10.

When a hijacking is under way, the complex is the focal point for all law-enforcement activities. It is in constant communication with the FBI, local law-enforcement agencies, airline officials, the air traffic control facility involved and, if necessary, the State Department, the White House, the Pentagon and foreign governments. And it can set up networks through which any or all of them can talk to each other at will.

During the March 16 hijacking, the security experts—who had not had the luxury of a dry run in the new facility—on into some bewildering moments as they had to learn how to use the sophisticated new telephone consoles that had replaced the simple, basic black telephones that they had been used to.

They had less of a problem adjusting to the comfort and spaciousness of the new facility, called the Emergency

Operations Center, which replaced the smaller and more spartan one they had been using since the start of the hijacking era in 1968.

That was a narrow, L-shaped room that had been part hallway and part clothes closet before it was converted into a hijack center at a total cost of \$800. While the remodeling was underway, they handled hijackings amid the dust and disarray of construction. On one occasion, they had to move stacks of blueprints off a table to make room for their phones and working papers. On another, an old loudspeaker had to be hastily hooked up because the new ones hadn't been installed.

The Emergency Operations Center, which makes up one-third of the command and control complex, was designed and built in mockup at NAFEC and evaluated at FBI headquarters. It has eight positions that during hijackings are manned by security experts, a psychologist from the Office of Aviation Medicine and a representative of the Office of Public Affairs. Depending on the nature of other emergency situations, other people might occupy the positions.

But in any emergency the two most useful tools are communications and information.

The new telephone consoles can provide communications with any part of the world, either directly or through the adjoining Communications and Control Center. And they can be used to listen to or participate in any of several command networks that can be set up to handle the emergency.

Each position also has a microfiche projector that can display any of hundreds of pages of information at a couple of taps of the finger tips.

The Communications and Control Center, which is another third of the complex, can be in almost instant contact with any FAA facility anywhere in the world. And it sets up the command networks through which authorities throughout the country, or the world, can talk to each other and work together to resolve the emergency.

The final third of the command and

The Crisis Management Center is the policymakers' third of the command and control complex. Here, consultations with top U.S. and foreign officials can be held by telephone.



control complex is the Crisis Management Center, which is adjacent to both the Communications and Control Center and the Emergency Operations Center.

This is reserved for the use of top FAA officials in those emergencies where basic policy decisions have to be made, often in consultation with other top U.S. and foreign government officials. These consultations are often conducted by telephone through the Communication and Control Center and the decisions are implemented by the Emergency Operations Center.

But no basic policy decision was required on March 16. The plane landed safely at Tucson and the hijacker allowed the passengers to leave the aircraft after demanding \$200,000 and transportation to Cuba. He got neither, and approximately three hours later, he was arrested without a struggle. The knife turned out to be a fingernail file.

The hijacking was over and the people in the refurbished Emergency Operations Center relaxed, thankful for the fact that another hijacking had been brought to a safe conclusion and that this time they wouldn't have to brush construction dust from their clothes.

Fred S. Springer (background) and Carl W. Stanley of the Communications and Control Center have a line on every FAA facility and can set up communications networks.



DIRECT LINE



Q I completed one year as a GS-7, Step 1, in a Level II tower in March. The pay period in which that date fell ended April 7. My facility tells me that I must then serve one pay period as a GS-7, Step 2, before being promoted to GS-9. I haven't had a satisfactory explanation of this. Also, how can I get a copy of my SF-171, which was used to hire me last year? I would like to copy information from it for complete accuracy when bidding on promotions.

A The reason for the one-pay-period difference between the dates of your within-grade and your promotion is a difference in waiting-period requirements. There is a 52-week (364-day) waiting period between steps, but there is a one-year waiting period for promotion. Whenever appropriate or practicable, FAA employing offices try to effect new hires at the beginning of a pay period (Sunday). This was true in your case, which gave you a chance to collect a step increase for one pay period. Otherwise, both increases would have come on April 8. Your original SF-171 is filed in your official personnel folder, which is the property of the Office of Personnel Management. FAA has the responsibility for maintaining and safeguarding all documents in that folder. Your SF-171 must be retained permanently as basic documentation upon which your initial appointment was based. Such documents cannot be loaned or returned, but you may review the contents of your folder at your servicing personnel office.

Q What is the policy on the use of government franked envelopes for mailing job applications for government vacancies? One chief said it's okay if the return address shows the facility address and not a personal address. Another chief says no—that it's for personal gain and does not constitute official business. I find this hard to swallow. Is it possible that each region has its own policy on the use of franked envelopes?

A It is against U.S. Postal Service regulations to use postage and fees paid envelopes to transmit applications for employment or for other personal uses, including Christmas cards, retirement announcements or unofficial newsletters. The FAA policy is also based on national Order 1770.11A, Para. 5, which states: Postage and Fees Paid, Federal Aviation Administration—official FAA mail is dispatched through the U.S. Postal System without prepayment of postage. Envelopes bearing this clause may not be used for personal mail.

Q Please advise on what authority and whose funding supports the bronze plaques of past directors of the Aeronautical Center installed in

the lobby of the Center's headquarters building. It is certainly not the consensus of the employees, past and present, in supporting this ego display. Two persons richly deserve this honor, Mr. Fred M. Lanter and Senator Mike Moroney (sic). Both of these gentlemen were instrumental in locating and building the Aeronautical Center and stand head and shoulders above all others. We believe the coming gallery of directors dilutes deserving recognition to the two true founders of the Aeronautical Center.

A The summer of 1978 marked the 20th anniversary of the Aeronautical Center, and the facility was renamed the Mike Monroney Aeronautical Center in honor of the Oklahoma senator. Since the center is one of the showplaces of the FAA, it is believed that the plaques of past directors would be a decorative plus for the lobby. The project was handled quite economically through the funds of the center. You will note that the likeness of former director Fred Lanter is prominent among the plaques. A much-larger plaque of Senator Monroney highlights the wall across the lobby near a lighted case containing some of the awards given the senator during his career. Aeronautical Center management adopted the suggestion for the plaques from a former deputy administrator of the agency and, contrary to your consent, there have been favorable comments from many employees, as well as many distinguished visitors.

Q Reference Air Traffic Training Handbook 3120.4E, Para. 240a, "Only current and proficient first-line supervisors/specialists shall be assigned responsibilities of an operating position." Does this exclude an EPDS in flight service stations? Can the chief of an FSS legally assign the EPDS to work an operating position even if this is not in the EPDS' performance standards? Where is this found in the regulations?

A The basic requirements are set forth in the cited handbook in Chapter 10, Section 1, Para. 241. A temporarily assigned EPDS shall maintain the same currency and proficiency requirements normally performed by the full-performance-level specialists. Permanent EPDSs shall operate or observe at least one operating position at their facility for at least one hour each week. The exact number and types of positions shall be determined by the facility chief. In addition to the above, facility chiefs may assign permanent EPDSs to work an operating position and in so doing would require them to maintain the same currency and proficiency in all operating positions as full-performance-level specialists. Should this involve a considerable amount of the employees' time, consideration may be given to including this as a major job assignment in their performance standard. Further guidance may be found in Evaluating and Improving Employee Performance, Order 3430.3A.

The Flyingest Town In The Flyingest State

Imagine a town in which more than one of every four residents is a pilot!

Actually, no imagination is necessary. There really is such a town—McGrath, Alaska. Located 200 miles northwest of Anchorage, it's accessible only by air.

Of the 380 persons who call McGrath home—men, women and children—100 of them hold a pilot's license. Moreover, 60 airplanes are based at the McGrath airport.

These statistics qualify McGrath for the title of the "flyingest town in the flyingest state," according to Dick Forsgren, chief of the McGrath Flight Service Station.

And more pilots are in the pipeline thanks to Forsgren and the rest of the McGrath FSS crew—Sandy Winkleman, Ed Onsbock and Mark Tytonik. All devote large chunks of their off-duty time to teaching aviation-education courses at the local high school.

The results of this program are impressive. Most of the juniors and seniors enrolled in the aviation courses at McGrath High School are actively working toward their private ticket.

"The 29 students at McGrath High School spend more time in airplanes than they do in cars," Forsgren notes. "Airplanes are a way of life here—it's the only way you can get anywhere. And a plane is a must if you're interested in fishing and hunting."

McGrath High School principal Harry Depp notes with pride that his aviation-education program now is in its fourth year. The courses are open to any student who has reached his 16th birthday or will by the end of the course.

"Currently, we only have ground-school courses," Depp says. "But we hope to secure the services of a flight instructor and obtain an aircraft so we can provide a program that will lead students to a private ticket."



Dick Forsgren, chief of the McGrath, Alaska, FSS and sometime teacher of aviation education, counsels a high school student piloting a flight simulator during his off-duty time.

The main attraction of the school's aviation-education program now is a Piper simulator purchased with state vocational-education funds. And Marion Symington, who runs the aviation-education program, says the simulator is not just for students.

"We plan to make the simulator available to anyone in the community with a need for it," she says. "That way we'll save them the cost of a trip to Anchorage where the nearest simulator outside McGrath is located."

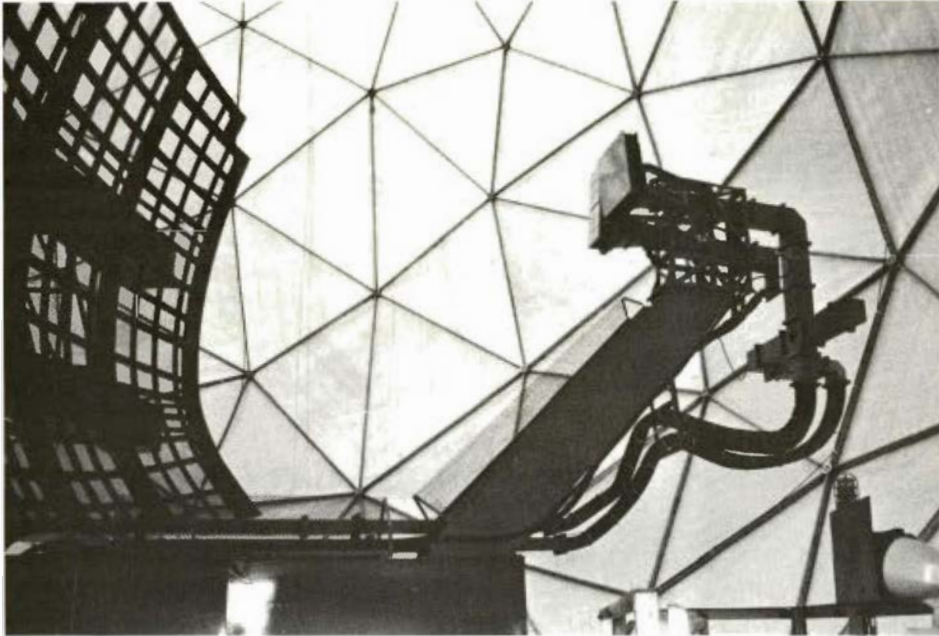
Working with the youngsters at McGrath High School is Forsgren's favorite activity. "Here at the FSS, we're almost as excited about the school's flying courses as the kids are, and we're just happy to be able to make a contribution."

By Gary Grove



Navigation is a most important skill in Alaska. Marion Symington (far left), aviation instructor, and FSS specialist Sandy Winkleman help the high school students plot a cross-country flight from McGrath to Nome on the coast.

Centers Get Better Ears



At sites with adverse weather conditions, the dual-beam antenna is enclosed in a rigid-frame geodesic radome for protection.

Shortly after midnight on June 26, a new super-reliable long-range radar at Arlington, Iowa, began feeding operational data to the Chicago and Minneapolis Air Route Traffic Control Centers.

The advent of the dual-beam air route surveillance radar (ARSR-3) represented a milestone in the history of air traffic control with its improved weather and aircraft-target detection and reduced maintenance requirements.

Nevertheless, Dwain Rosenberger, chief of the Airway Facilities Unit at Arlington, said that the cutover was accomplished without fanfare.

"Actually, we didn't have to do anything at this end to effect the switch," he added. "It was simply a case of reprogramming the computers at the centers."

FAA has purchased 23 of the new solid-state ARSR-3s from the Westinghouse Electric Company and expects to commission about one a month through mid-1981. More than half a dozen systems already have been delivered, including one to the

Aeronautical Center in Oklahoma City for use in training Airway Facilities technicians.

In addition to the 23 "fixed station" ARSR-3s, the \$44 million contract with Westinghouse provides for four truck-mounted mobile ARSR-3s that can be moved into place quickly to replace fixed radars that have been knocked off the air by storms, accidents or other events. All four of these units will be based at Oklahoma City.

The new ARSR-3 offers many operational advantages over the older long-range radars. For example, the ARSR-3 actually transmits two radar beams instead of the one previously. The use of the two beams, each transmitted on a different frequency with a different polarization, improves the detection of both near and distant aircraft targets.

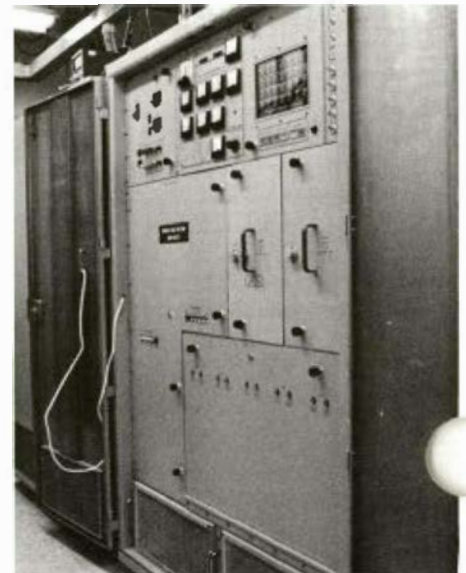
Another operational plus for ARSR-3 is the use of digital signal-processing techniques that reduce false returns caused by storms, terrain and electronic interference. The equipment also has an improved circular polarization feature for cutting through weather. When operating with circular polarization, a separate weather channel develops well-defined storm outlines for display to the air traffic controller.

Perhaps the greatest advantage of the



Four mobile ARSR-3s are being supplied for emergency backup under the Westinghouse contract. The antenna is assembled from three sections and operates from a flat-bed truck with bracing legs on the ground. It's supported by a power-plant trailer and an electronics trailer.

This is one of the two ARSR-3 transmitters.



The Ears Before

The ARSR-3, as the numerical designator indicates, is the third generation of long-range radars designed specifically for air traffic control purposes. The ARSR-1 was introduced into the system in 1958 and the ARSR-2 in 1961.

FAA (CAA) initiated en route radar service in 1956 using former military radars (AN/FPS-8). Three radars were commissioned that year—at New York, Chicago and Norfolk, Va.

However, these early military radars lacked certain capabilities essential for the control of air traffic. So, in November 1956, the agency contracted with the Raytheon Company for 23 radars, which were designated the ARSR-1. This contract subsequently was amended to include an additional 10 systems.

The first ARSR-1 was delivered to Indianapolis in December 1957 and commissioned nine months later after extensive testing. Deliveries of follow-on units were concentrated in the New York, Washington, Chicago and West Coast areas, linking such vital air corridors as Norfolk-Boston, Chicago-Kansas City and San Francisco-San Diego. Most of the 33 systems were operational by the end of 1960.

The ARSR-1 was a dual-channel radar, one main and one standby, with a peak power of 0.5 megawatts and a range of 200 nautical miles. Other features included a moving-target indicator to reduce clutter from stationary objects and circular polarization to cut through adverse weather.

But even before the first radar was delivered, FAA initiated a program to increase the peak-power capability eightfold—from 0.5 megawatts to 4

megawatts. The extra power expanded the effective range of the equipment and provided stronger target returns because of the increased amount of energy.

But still more radars were needed, particularly in the mountainous areas of the western portion of the country, to fulfill the agency's goal of providing contiguous coverage above 24,000 feet nationwide. Thus, in March 1960, FAA awarded another contract to Raytheon for 19 improved en route radars. This equipment was designated ARSR-2 and included an improved antenna for better coverage, as well as features for increasing detection capability and eliminating small undesirable targets such as birds. Many of these improvements were later incorporated in the ARSR-1s.

The 19 ARSR-2s were delivered over a three-year period beginning in September 1961. The first was installed atop a 10,700-foot mountain near Cedar City, Utah, and the last went to Garden City, Kan.

In addition to the ARSR-1s and -2s in the system, FAA also operates some 50 military long-range radars under a joint-use program. Some of these will be phased out over the next several years, leaving the agency with a total of 114 en route radars when the ARSR-3 program is completed.

The 23 areas receiving the ARSR-3 are the FAA Academy; Arlington, Iowa; Kenai, Alas.; Binns Hall, Va.; Nashwauk, Minn.; Finley, N.D.; Empire, Mich.; Kirksville, Mo.; Condon, Ore.; Lakeside, Mich.; Newport, Miss.; Lincolnton, Ga.; Dubois, Pa.; Suffolk, N.Y.; Bedford, Va.; The Plains, Va.; Cross City, Fla.; Ft. Lonesome, Fla.; Sonora, Tex.; Mt. Laguna, Calif.; Mt. Kaala, Haw.; McCook, Ill.; and Lake Havasu, Ariz.

ARSR-3 over older radars is the increased reliability and reduced maintenance resulting from the all-solid-state construction, the use of long-life klystron transmitting tubes and its built-in test and monitoring features. As Dwain Rosenberger observed, "We've got a whole new ballgame here. I believe it will be easier to maintain, although the system itself is more complex."

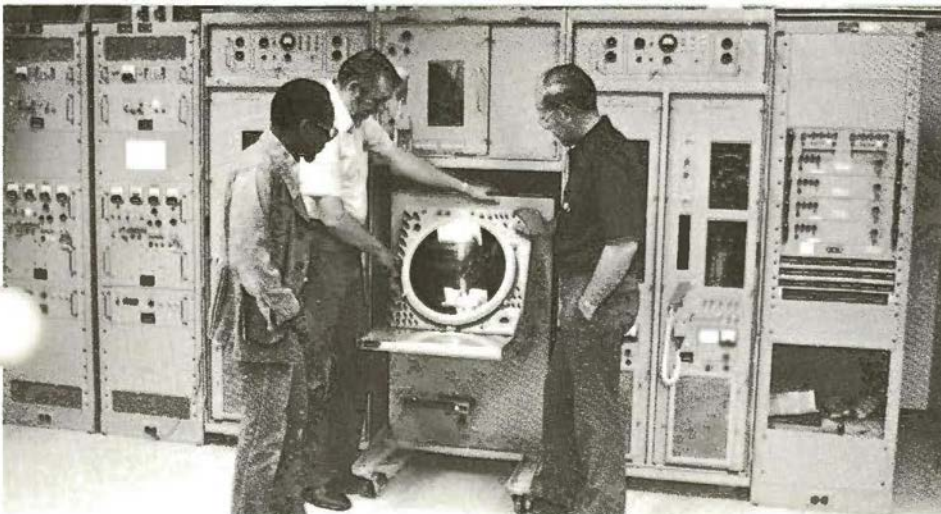
And Robert Klose, chief of the En Route Radar Branch in the Airways Facilities Service in Washington, notes that the reduced maintenance required for the ARSR-3 will translate into dollar-and-cents savings for the agency. He pointed out that each ARSR-3 installation will require a crew of only five technicians instead of the present complement of 11-12.

Klose added that the introduction of the ARSR-3 will permit FAA to phase out some of the older long-range radars in the en route system. The ARSR-3 at Arlington, for example, will permit the agency to shut down an ARSR-1 at West Branch, Iowa, when this equipment no longer is required to provide back-up broadband (non digitized) radar data to the Chicago Center.

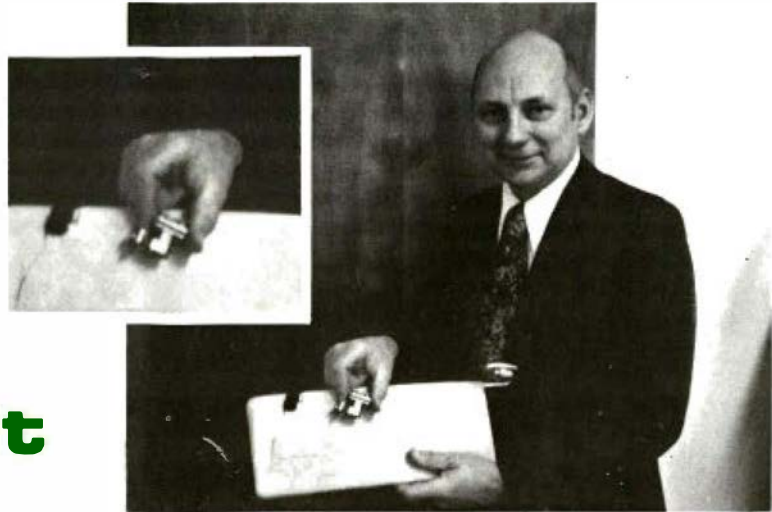
"The problem with this older equipment isn't so much a maintenance one as it is a logistics one," he said. Companies just aren't manufacturing tubes for these radars anymore. And tubes aren't the only problem. Other parts, such as pumps and motors, are also hard to get."

Klose noted that FAA's long-range plan is to replace all of the older en route radars in the system with new equipment that will be even more advanced than the ARSR-3. He said these new radars could be in the system by the mid-1980s, with a minimum of another five years required to complete the program.

Arlington, Iowa, Airway Facilities technicians (left to right) Mozell Williams, Buster Terry, and Harold Wohlford check over a maintenance console for the ARSR-3 antenna. The beacon equipment is at the left; at the right is the Modem, which converts the radar signals for telephone line transmission.



The Case of the Wayward Bolt



Bob Heckman of the Farmingdale, N.Y., GADO and the runaway thrust-reverser stop from a Spanish DC-8.

This is the story of a bolt that fell out of a jetliner.

But it's not the story you're thinking about.

This bolt came from a DC-8, not a DC-10. And our story has a happy ending, thanks to the initiative and perseverance of an FAA accident-prevention specialist who takes his job title seriously.

The story begins on a Sunday morning early this year with a Cessna 172 carrying a flight instructor and student on an instrument training flight. Suddenly, with the aircraft at 7,500 feet in the Bohemia holding pattern over Long Island, New York, a small metal object crashed through the windshield, tore a chunk out of the sunvisor and just missed the flight instructor's head.

It wasn't until the following evening that officials at the flight school decided that the incident should be reported. They called the Farmingdale General Aviation District Office (GADO) and told

accident-prevention specialist Robert C. Heckman what had happened. He immediately suggested that they search the aircraft. In the rear seat of the Cessna, they found a heavy two-inch bolt with some torn pieces of metal jutting from it.

Bob Heckman drove over and picked up the bolt. He knew it hadn't come from the 172. It had to have come from some other plane. At 11:30 p.m., he was at the New York Air Route Traffic Control Center at Islip, checking the records of incoming flights. He came up with a list of 20 air carrier aircraft on their way to JFK Airport at the time of the incident.

The next day, he made the rounds of maintenance personnel, trying to identify the part and to narrow down the field of aircraft from which it had come. By a process of elimination and deduction, he finally settled on the most likely prospect: a Madrid-chartered Avianca DC-8. It had been in the area at the time the 172 was struck and was descending to JFK from 10,000 feet.

He called the carrier to find out where the DC-8 was. It was at JFK, about to take off for Madrid with a full load of passengers. No maintenance had been done on the plane, he was told, nor had it flown since its arrival at JFK the afternoon of the incident.

The aircraft was scheduled for a 6:00 departure. Bob Heckman reached the plane at 5:30 p.m. The passengers had not yet embarked. Heckman boarded the plane, produced the bolt, and told the captain the story.

The captain was not impressed. "Are you telling me that a piece of my airplane landed in another airplane . . . in the air? He repeated the story to this co-pilot and engineer in rapid Spanish. They laughed uproariously.

"I'm telling you," Heckman said doggedly, "that it *is* possible. All I want you to do is wait until I can check out this part in your maintenance manual."

The captain shrugged. "All right, I'll wait," he agreed.

The inspector sprinted over to the hangar and there, with the help of a maintenance mechanic, went over the DC-8 manual. Positive identification was made. The part was a jet thrust reverser stop from a DC-8. He and the mechanic

...raced back to the plane. By this time, the passengers had boarded, and the crew was getting ready to close up and roll.

"This is definitely a part from a DC-8," Heckman told the captain. "And it's most likely that it comes from your plane."

"Are you grounding my airplane?" the captain demanded to know.

Bob considered all the international complications that might ensue from such a course of action. "No," he said finally. "I'm telling you that this part that I have in my hand is probably from your aircraft. If you want to take off without an inspection of your engines to see if this part is missing from one of them, then that's your responsibility."

The captain conferred in Spanish with his crew, and then turned to the mechanic. "Will it take long?"

"No, sir!" said the mechanic and he

bounded off the plane. Soon, he returned. "Come outside," he said. "I want to show you something."

He led them to the number one engine. By this time, it had grown dark. He pointed a flashlight inside the engine. "See? This is the rear jet thrust reverser stop. See inside, there's another one."

He led them to the number two engine. "See this?" he asked, pointing his flashlight. "This is the rear one. Now look here. The front one is missing!"

The captain muttered darkly in Spanish, shaking his head in disbelief.

While the repair was being made, the Captain and the crew kept pumping Bob Heckman's hand in profuse gratitude. The part was replaced in short order, and the aircraft departed for Madrid.

As an interesting sidelight, it should be noted that because of JFK's long

runways, reverse thrust had not been necessary when the DC-8 landed there. The Madrid runway, however, is much shorter, and reverse thrust is necessary. What might have happened to the aircraft and its passengers without reverse thrust capability in its number two engine is, of course, speculative; but the super-detective work of Bob Heckman has given literal meaning to the title "accident prevention specialist."

By Irv Moss

Word Search Answer Puzzle on page 9

G	L	L	E	B	M	A	G	I	P	O	T	N	I	M	H	Z	C	N
O	R	E	D	N	H	A	I	N	E	S	Q	L	O	A	I	H	U	S
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E	U	N	R	U	O	E	L	R	I	E	T	O	U	A	N	V	I	K
R	F	E	J	T	M	G	O	Y	L	E	N	O	L	E	K	A	K	N
T	A	K	T	I	S	F	H	T	O	G	I	A	K	K	A	I	K	A

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Heads Up

AERONAUTICAL CENTER

Lawrence P. Musser, chief of the Examinations Standards Branch in the Flight Standards National Field Office, from the Grand Rapids, Mich., GADO . . . **Gary J. Groman**, Transportation Safety Manager for Hazardous Materials in the Transportation Safety Institute.

ALASKAN REGION

Paul W. Gallagher, chief of the Engineering Branch, Airway Facilities Division, from manager of the Fairbanks Central AF Sector.

CENTRAL REGION

Orin D. Cooter, chief of the Omaha, Neb. FSS, from the Wichita, Kan., FSS.

EASTERN REGION

Samuel R. Stitman, chief of the Harrisburg, Pa., FSS, from the Wilkes-Barre, Pa., FSS . . . **Elhanan C. Cook**, an assistant chief at the Washington National Airport Tower . . . **Anthony D. Spina**, an assistant chief at the Washington National Airport Tower.

NEW ENGLAND REGION

Richard V. Pierce, an assistant chief at the Windsor Locks, Conn., FSS.

NORTHWEST REGION

Richard P. Madri, an assistant chief at the Seattle, Wash., FSS . . . **Robert G. Schultheis**, chief of the Hillsboro, Ore., Tower, from the Spokane, Wash., Tower.

PACIFIC-ASIA REGION

Gordon R. Yen, chief of the Bucholz Tower on Kwajalein Island, Marshall Islands, from assistant chief at the Hilo, Hawaii, Combined Station/Tower.

ROCKY MOUNTAIN REGION

Harry E. Lamar, chief of the Worland, Wyo., FSS, from the Minot, N.D., flight service station.

SOUTHERN REGION

Barry E. Keeffe, chief of the Isla Grande Tower in San Juan, Puerto Rico, from the Ponce, P.R., Tower . . . **Niles H. Higgins**, an assistant chief at the Balboa, Canal

Zone, ARTCC . . . **Richard F. Allen**, deputy chief of the Tampa, Fla., Tower, from the Operations Branch of the regional Air Traffic Division.

SOUTHWEST REGION

John F. Hicks, Jr., an assistant chief at the Fort Worth ARTCC, from the Honolulu ARTCC . . . **Wilson B. Stewart**, chief of the Corpus Christi, Tex., Tower, from the El Paso, Tex., Tower . . . **Edmundo Mireles**, maintenance mechanic foreman at the Corpus Christi AF Sector.

WESTERN REGION

Clarence W. Bryant, chief of the Half Moon Bay, Calif., ARSR Sector Field Office, from the San Francisco AF Sector . . . **Robert E. Evanston**, chief of the Phoenix, Ariz., Sector Field Office . . . **James R. Lane**, chief of the Sacramento-Metro Sector Field Office in California . . . **Jon K. Miller**, an assistant chief at the Salinas, Calif., FSS, from the Air Traffic Branch of the FAA Academy . . . **James I. Panter**, an assistant chief at the Burbank, Calif. Tower, from the Bakersfield, Calif., Tower.