



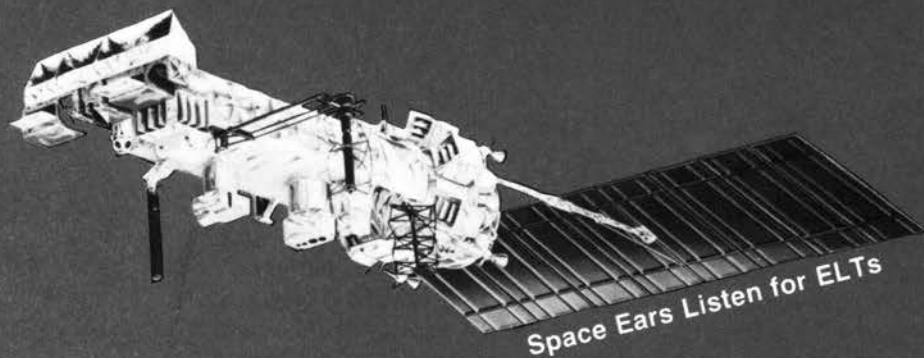
U.S. Department
of Transportation

**Federal Aviation
Administration**

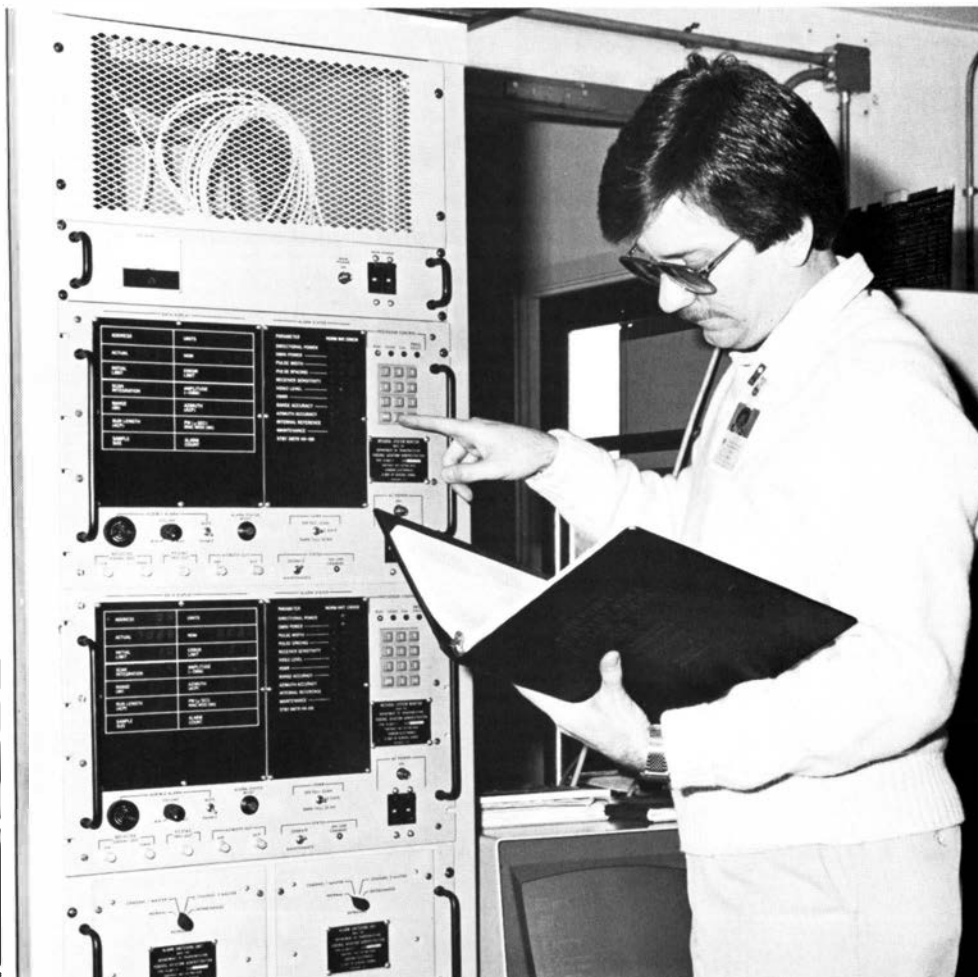
World

May 1983

Volume 13 Number 5



Space Ears Listen for ELTs



Research Highlights

The first of 278 new radar beacon performance monitors was tested recently at the FAA Technical Center prior to field delivery.

Interconnected with a beacon ground station and with its own microcomputer (here being checked by Glenn J. Horton of the Flight Information System Branch), the equipment monitors more than 26 performance parameters and signals an alarm if any of them go out of tolerance. It

will operate automatically at a remote site, transmitting any alarm to a central computer site staffed with maintenance technicians.

This piece of equipment is part of the program for maintenance monitoring and control of remotely located instrument landing systems, radar, radio communications and airport lighting which can result in consolidating work forces, improving work efficiency, reducing operations costs and ultimately reducing staffing requirements.

“FAA’S mission is to promote the safe and efficient use of the nation’s airspace, facilities and the vehicles that travel the airways. To achieve this objective, we should control but not constrain aviation; we should regulate but not interfere with free enterprise of competitive purpose; and we should recognize that most air travelers do so by means of scheduled air carriers.

We have a responsibility to consider their priority but not to the extent that it excludes the single individual from enjoying man’s greatest achievement—solo flight. Above all, we must remember that the airspace belongs to the users and not the FAA.”

—J. Lynn Helms



US Department
of Transportation

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Hinckley's Miracle

Private aviation needed a shot in the arm and our fledgling air force needed pilots. Robert Hinckley's idea for the CPTP came at the right time to spur that industry and help win a war that was yet to come.

10

Technical Standouts—Part I

FAA's equipment goes from one new sophistication to another, but our technical force always measures up. Here is one of the two winners of the Airway Facility of the Year Award.

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Space Ears Listen for ELTs

The prospects for rescues from downed aircraft by monitoring ELT signals is making a quantum jump with an international satellite program already under way.

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The Sgts. Who Came to Dinner

A quartet of Air Force controllers on TDY to FAA stayed on so long they couldn't bear to leave. So they signed on with the FAA.

2 Research Highlights

12 People

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FAA Experts Prove Themselves

The National Resource Specialists are getting the recognition they deserve for providing the agency and industry with state-of-the-art expertise in esoteric technical areas.

Secretary of Transportation

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FAA Administrator

J. Lynn Helms

Assistant Administrator—

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By Theodore
Maher

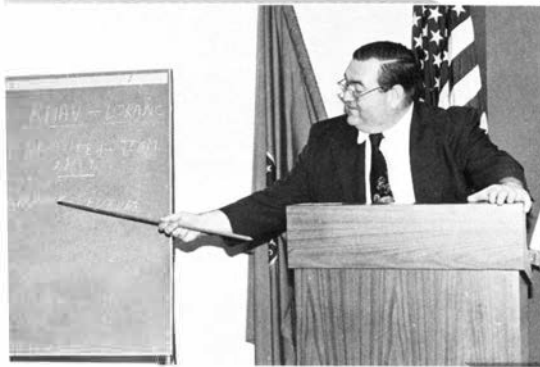
The editor of *Intercom*
and a frequent contrib-
utor to *FAA WORLD*,
he is a former editor of
Our Navy and associate
editor of the *Navy Times*.



FAA Experts Prove Themselves

National Resource Specialists Show Agency's Know-How

The National Resource Specialist Program (NRSP) is only partly under way, but it is already getting national recognition. Although many FAAers may not have heard of the program, the work of the specialists has made them highly visible to others concerned with their disciplines.

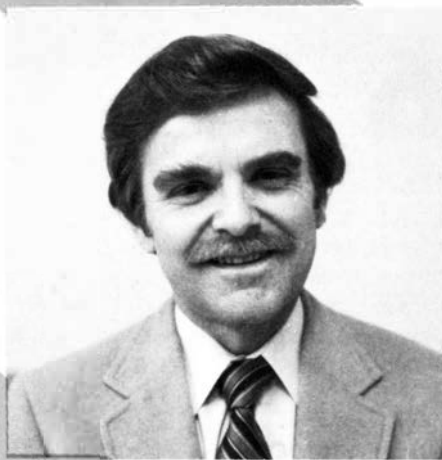


James Treacy

As a result, James Treacy, based in Seattle, Wash., was cited early this year by *Aviation Week and Space Technology* magazine for the work he did on the certification of the digital avionics in Boeing's new 757 and 767 airliners.

At the other end of the country, Joe Soderquist, FAA's expert in the field of advanced materials, resident in Washington headquarters, was recognized by the Air Force and asked to serve as an advisor on research and development for composite materials.

A third specialist receiving kudos



Joseph Soderquist

was Tom Swift, based in Long Beach, Calif. The National Aeronautics and Space Administration has honored him for his work in fracture mechanics and metallurgy by electing him to its prestigious Aeronautics Advisory Committee.

The esoteric nature of their specialties may have given you some glimmer of what NRSP is all about. These specialists are the leading experts in their fields, and they stay that way by concentrating their efforts on it. As the source of information in their areas for both agency engineers and industry, they enable the FAA to retain its position of authority in the U.S. and international community by serving as technical advisors and certification experts.

One of the more important aspects of their job has been to set up training programs as well as to conduct training for other engineers about the cutting edge of technology. They also have lectured to the aviation community and at top universities.

Of 22 planned specialist positions in the program, seven have been filled, all already compiling enviable records of accomplishment.

Tom McSweeney, acting manager of the Aircraft Engineering Division in the Office of Airworthiness, is the manager of the National Resource Specialist Program. He explains that the program was set up to establish a cadre of experts in the regions to guide the agency in various technical areas and to raise the level of technical expertise within FAA. It is a program in which technical competence is encouraged and rewarded.

Currently, McSweeney and Washington staff members are working with field certification directorates—which are directly responsible for aircraft, engine and propeller



Thomas Swift

certification—to select the next specialties for which positions will have to be filled.



George Lyddane

When three or four more specialties are decided upon, FAA will advertise both in the agency and outside for qualified applicants.

McSweeney said they will try to fill the slots as soon as possible, but getting the right people might take some time. He said that under no circumstances will the qualifications be compromised.

Besides Treacy, Soderquist and Swift, specialists now working in the program are:

Richard Adams of Atlantic City, N.J., who is involved in the flight environment—in particular, icing. He recently completed a final report on aircraft ground deicing research



Richard Adams

and development efforts and has worked with the Southwest Region in certificating helicopters for flight into known icing conditions.

George Lyddane, who is at home in Hawthorne, Calif., is into flight man-



Daniel Salvano

agement. He has conducted a number of flight tests and an evaluation of the McDonnell Douglas F-18 Head-Up Display to determine the adequacy of this system for civil aviation purposes.

Dan Salvano, Burlington, Mass., works in engine dynamics. He's participated in drafting new Federal Aviation Regulation parts, has taken part in a recent foreign accident investigation and has provided his expertise in solutions to recent engine-bearing problems.

Steve Soltis from Long Beach, Calif., has as his specialty crash dynamics. He has participated in three transport-category accident investigations and returned with data that will be useful in future regulatory assessments.

Just during last year, the seven specialists produced eight technical papers, gave eight lectures and held two seminars, both here and abroad, issued two advisory circulars and developed a course for the Academy.

"It's been a busy time," says Lyddane, who has been traveling extensively on the job. "But what I like about it is the freedom and flexibility it gives to handle jobs that can only be done by a specialist with a wide range of expertise."



Stephen Soltis

Besides the work he has done with the Air Force, Soderquist initiated the development of an FAA text on "Fibrous Composite Analyses and Design." He sees the program as one that will upgrade the overall technical capabilities of FAA certification engineers by means of the resource specialists keeping them abreast of technology advances.

Treacy pointed out a "spin off" benefit. He noted that the program allows technical people to benefit from career progression and rise to a higher grade without having to become supervisors. The biggest benefit to him, however, is "the rewarding challenge of working on new and exciting projects."

Echoing Soderquist, Swift believes that the program is essential to FAA's maintaining a position of excellence in the overall certification of aircraft. He has been assisting with certification in the realm of metal fatigue and fracture mechanics on a number of new domestic and foreign aircraft.

McSweeney sums it up by saying that FAA wants the national resource specialists "not only marching at the forefront of technology along with industry but also bringing their collective expertise to all the certification engineers in FAA. We want that advanced technology to become a part of everyday certification." ■

The father of CPTP, Robert H. Hinckley.



Now the manager of the Casper, Wyo., Flight Standards District Office, Norman V. Hendy, Jr., posed before a Waco UPF-7 at Felts Field, Spokane, Wash., on his first day as a War Training Service secondary flight instructor on Oct. 16, 1941. He later was a civilian flight instructor for Army Air Corps primary students in Tulare, Calif. (above right)



Before Maj. Richard Bong mounted a P-38 Lightning in which he shot down 21 Japanese aircraft, he learned to fly in simpler planes in the CPTP program. (right)

By Samuel Milner

A member of FAA's historical staff, he is the originator of the *FAA Publications Guide*. As a U.S. Army historian, he authored *Victory in Papua*.



Hinckley's Miracle

His Idea Multiplied the Nation's Pilots Twenty-fold

Some believe that events summon the man; others, that men rise to the great events of their time. In either case, Bob Hinckley was the right man at the right time. He put wings on America, which gave a boost to an ailing industry and helped prepare the nation for war.

The year was 1938, and the U.S. was still shrouded in a depression. Aviation was in the doldrums. In their desire for airmail routes upon which depended the passenger routes they might use, the existing airlines had made bids so low that they virtually were providing the airmail service free. Now, they were locked into those rates. However, with the advent of the larger and faster DC-3, passenger traffic had become lucrative in its own right.

The problem was that the Air Mail Act of 1935 did not prohibit a Johnny-come-lately without an airmail contract from intruding on the others' passenger routes. Lest the competition become a bloodbath, the airline industry now plumped for economic regulation. This led to the passage of the Civil Aeronautics Act of 1938, which designated them as common carriers and required any would-be airline to obtain such a government charter. None additional was granted.

The act made no comparable gift to private aviation, whose needs were not even considered, even though the country's fixed-base operators, flying schools and small plane manufacturers were in deep financial trouble. The private pilot population, the key to its prosperity, was so small that unless something was done to increase that population, it seemed that segment of the industry might not recover.

Into the new Civil Aeronautics Authority in August 1938 came Robert H. Hinckley, one of five members of a board charged with establishing safety regulations, fixing rates and issuing route certificates, among other responsibilities. CAA also had an independent Air Safety Division to investigate accidents and an independent executive—the Administrator.

Hinckley came from Ogden, Utah, where he had been a school teacher, a car dealer and a state legislator. He was fascinated by aviation and convinced the city fathers to designate an airport site. He and a partner leveled a field on the outskirts of the city and opened Utah Pacific Airways, a small fixed-base operation.

When his dealership and FBO businesses sank in the depression mire, his connections paid off, bringing him the post of administrator of the Federal Emergency Relief Administration for the state of Utah under the national administrator, Harry L. Hopkins.

When Hopkins became the head of the Works Progress Administration (WPA) in 1935, he named Hinckley WPA administrator for 11 western states. The Utahan was also put in charge of the Civilian Conservation Corps (CCC) and the National Youth Administration (NYA) for the same area.

In 1938, after five years of government service, Hinckley was ready to return to private life. Although he had indicated he had no intention of ever moving to Washington, Hopkins managed to get him to change his mind. Not only had Hopkins already submitted his name to the President for a place on the CAA, he also told Hinckley there was a good chance that in this job he would probably be called on to build an airport in Washington. This being a project Hinckley wanted to see done, he decided to take the job.

The airport was, in fact, a top priority item for CAA, and Hinckley did participate in planning for it, but it



John Glenn soloed in 1940 while a CPTP student at Muskingum College in New Concord, Ohio. He went on to fly 59 missions in the Marshall Islands as a Marine Corps pilot in World War II, became the first American to orbit the earth as an astronaut and is now a U.S. Senator.

was not to be his project.

Nevertheless, the first few months of his tenure at CAA were to prove outstanding. Ever conscious of safety in his Utah Pacific Airways days, making it one of the safest operations in the country—"Flying is as safe as you make it," he used to say—he initiated a CAA air-safety program encompassing every element of the airline industry. So much did air safety become the watchword, as a result, that for the next 17 months there was not a single fatal air crash in the country.

Hinckley's solution to the woes of private aviation was a proposal for a nationwide, civilian flight training program, supervised and regulated by the five-man Authority and funded by the government. Under his plan, the government would contract with the

nation's colleges and universities and with nearby private flying schools and fixed-base operators with a flight training capability. Some college training was believed essential to learning the mathematics and science needed for competence as a pilot. However, some after-hours, non-collegiate training was offered.

Overall, the cost of the program was not high, and its merits from both civil and military points of view were quickly grasped by Hopkins and Authority chairman Edward J. Noble. Army and Navy brass, on the other hand, were non-committal, even though the military was graduating no more than 1,000 new pilots each year. A clearer view of the plan's significance was held by Assistant Secretary of War Louis Johnson, who not only gave it his enthusiastic support but also suggested that the plan adopt the same educational requirements, physical standards and age limits required of military flying cadets, a suggestion that Hinckley adopted.

Although the end of 1938 was a time when President Roosevelt had national defense uppermost in his mind, he embraced the plan with more attention to how it would help America's small aircraft manufacturers than to Hopkins' and Noble's pitch

on the military reserve it would provide. In late December, the Civilian Pilot Training Program (CPTP) was formally announced.

With a goal of teaching 20,000 college students a year to fly, CPTP was to begin experimentally with the training of 330 students at 13 colleges that already offered courses in aeronautics. Because CAA judged that this program fell under its mandate to foster civil aviation and thus required no further legislation and since the effort could be considered vocational, funding was to come from available National Youth Administration appropriations.

Congress didn't see it that way. While the public and the press took the program to its heart—a Gallup poll showed 87 percent in its



Another product of the CPTP program, Marine Capt. Joe Foss received a Congressional Medal of Honor for downing 26 enemy aircraft over Guadalcanal in the Solomon Islands.

One of the top aces in the European Theater in World War II, Capt. Robert S. Johnson shot down 27 enemy aircraft. He learned to fly in the CPTP program at Cameron College in Lawton, Okla. Though his usual vehicle was a P-47 Thunderbolt, here he prepares to fly a P-39 Airacobra.



favor—Congress demanded that it be backed by legislation.

Hinckley, who had now succeeded to the chairmanship of the Authority, drafted a CPTP bill, defended it at the hearings and saw it through to Roosevelt's signing it into law on June 27, 1939.

If there had been any doubts about the program, the results of the 330-man experiment that had begun in January ended them. Roughly 95 percent of the group had graduated or were about to, and, except for one student who had spun in, there were no casualties. And the cost had been lower than anticipated—about \$300 per student.

By fall, Hinckley was ready to begin the training of 10,000 students at more than 400 flight centers, which now included several women's colleges and six black colleges. By the end of the year, some 2,000 instructors were receiving refresher training.

With the war having begun in Europe, 1940 brought the announcement that CAA expected to have 40,000 pilots trained under the CPTP Act by the end of the year. However, the German invasion of France and the Lowlands in May brought the President before Congress to ask for 50,000 military airplanes and a billion dollars for defense.

The aircraft manufacturers were sure they could deliver, and Hinckley announced that CPTP would do its share. Congress voted CPTP \$37 million (compared to \$4 million the year before) for the primary training of 45,000 students and the secondary, more-advanced training of 9,000 at more than 900 flight centers.

Training manuals were prepared

and instrument and cross-country flying were put in the curriculum for the first time. At the military's request, there was a large increase in flight instructor training.

By the end of 1940, more than 40,000 private pilots had been graduated, and 2,600 of them had already joined the military services—two and a half times the military's 1938 output.

It was at this time that the roof fell in on the Civil Aeronautics Authority organizationally. Its three components had frequently failed to cooperate with each other and often seemed to operate at cross purposes. As a result, under powers granted him by the Reorganization Act of 1939, the President ordered the CAA split into two Department of Commerce agencies: a Civil Aeronautics Board (CAB) responsible for economic regulation and accident investigation and a Civil Aeronautics Administration responsible for the rest of CAA's functions.

Hinckley was designated the new administrator of CAA but never served in that capacity. Hopkins, who had become the Secretary of Commerce, asked Hinckley to take the now vacant post of Assistant Secretary of Commerce for Air. With friends installed at the top of CAA, Hinckley continued to run CPTP.

In early 1941, the flight centers began receiving their first military contracts to train military personnel.

As the year wore on and the threat of war became more obvious, women

were barred from further participation in the program. Male students, who had been given the training on the tacit assumption that they would volunteer for the armed forces, were now required to sign a pledge to that effect. By mid-November, 4,813 of the 55,000 pilots graduated had signed up for the services. With the Pearl Harbor attack, that figure doubled in December and doubled again in January, at the end of which there were 21,000 volunteers.

As the war progressed, the CPTP-trained pilots, who had the status of enlisted reservists before they were called for the further training that would qualify them as military pilots, began looking better and better to the services all the time. The military noted that they were well-trained, had a lower wash-out rate than other trainees and usually qualified as among the better pilots in their units.

With the entry of the U.S. into the war, the President ordered all CAA pilot training facilities to be "exclusively devoted to the procurement and training of men for ultimate service as military pilots or for correlated non-military duties" (such as ferry pilots or flight instructors).

CPTP, renamed the War Training Service (WTS), remained under CAA control, but not without a struggle between Hinckley and Gen. Henry "Hap" Arnold, the commander of the Army Air Forces, who would have liked to take over the program. In a compromise worked out, instead of direct military control, Col. Donald H. Connolly, the CAA administrator and an associate of Hinckley, was promoted to brigadier general and moved

Technical

Pa

General NAS Airway Facilities

Success on most jobs usually is a result of team effort, even if only one person gets the credit. However, when it comes to Facility of the Year Awards, FAA recognizes everyone in the facility. Managers, too, know that the award was earned jointly and individually.

"Involvement might very well be the key to our success," said Cy Schulze, manager of the Des Moines, Iowa, Airway Facilities Sector, on its being named the General NAS Sector of the Year for 1982. "We try to solicit input from and involve all of our people. Everyone has ideas for improvement and it's our jobs to see that these ideas are surfaced and get the consideration they deserve."

In sum, he said, "People working together . . . has to be the reason for [our] success."

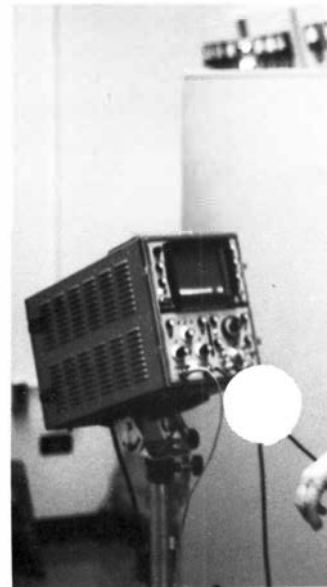
The winning sector is picked on the basis of facility performance, personnel development, staffing limitations and general program areas.

The presentation of a plaque to the sector and individual certificates of achievement will be made in Des Moines this month with Administrator Helms in attendance.

Technical support for radar, automation and test equipment comes from technician-in-depth Bob Reyhons at the sector.



Electronics technician Sam G...
City, Iowa, Sector Field Office



Des Moines navaid technician Einer Jensen maintains one of the 12 VORTACs scattered throughout the sector.



Environmental and mechanical system support for facilities at the Fort Dodge, Iowa, Sector Field Unit is provided by maintenance mechanic Gary Grimsly.



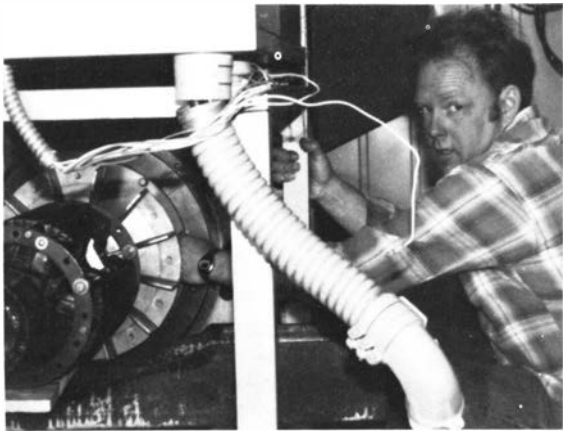
Standouts

Best of the Year—Des Moines

...hour assures radar service reliability at the Sioux
...the Des Moines AF Sector.



Electronics technician Jeff Gehring helps maintain facilities in Burlington, Iowa.



Maintenance mechanic Perry Wolfensperger is responsible for the proper operation of emergency generators at the Waterloo, Iowa, SFO.

Stevan Robinson is one of the electronics technicians who maintain navigational facilities for the industrial airport in "Radar O'Reilly's" hometown of Ottumwa, Iowa. (*above left*)

Nav aids relief technician Abe Abeyta works out of the Cedar Rapids, Iowa, Sector Field Office to provide assistance to eastern portions of the sector.

Proper operation of the Mason City, Iowa, VORTAC is the responsibility of electronics technician Thomas Homan. (*left*)



The information in this feature is extracted from the Personnel Management Information System (PMIS) computer. Space permitting, *all* actions of a change of position and/or facility at the first supervisory level and branch managers in offices are published. All changes cannot be accommodated because there are thousands each month.

Aeronautical Center

- **Lloyd L. Aiken**, supervisor of the Personnel Systems Section, Financial and Personnel Systems Branch, Data Services Division.
- **Paul H. Dykes**, supervisor of the Logistics & Inventory Systems Section, Logistics and Training Systems Branch, Data Services Division.
- **Robert C. Hanlin**, supervisor of the Aircraft Systems Section, Aviation Systems Branch, Data Systems Division.
- **James D. Hetherington**, supervisor of the Instructor Resources Section, Training Methods and Operations Branch, FAA Academy.
- **Larry Morphis**, supervisor of the Inventory and Cost Accounting Section, General Accounting Branch, Accounting Division.
- **Philip J. Sulish**, supervisor of the Technical Operations Section, Airway Facilities Branch, FAA Academy, from the Newark, N.J., Airway Facilities Sector.
- **Johnnie B. Wright**, supervisor of the Support Systems Section, Logistics and Training Systems Branch, Data Services Division.

Alaskan Region

- **Verne B. Braman**, assistant manager for training in the Program Support Staff of the Juneau Airway Facilities Sector.
- **E. Clark Fontaine**, area supervisor at the Anchorage ARTCC.
- **Leroy J. Stratman**, area manager at the Anchorage ARTCC.

Central Region

- **Norman B. Martenson**, supervisor of the Project & Evaluation Section, Standardization and Evaluation Group, Aircraft Certification Division in Kansas City, Mo., from the Chicago Aircraft Certification Office.

Eastern Region

- **Robert A. Berselli**, supervisor of the Nav aids/Weather Section, Electronics Engineering Branch at the Washington ARTCC AF Sector.
- **Barry M. Boshnack**, supervisor of the ATC Facilities Section Communications Unit, Electronics Engineering Branch, Airway Facilities Division.
- **John W. Cuthel**, supervisor of the Nav aids/Visual Aids Section Construction Unit, Construction Engineering Branch, Airway Facilities Division.
- **William T. Dixon**, supervisor of the Nav aids/Weather Section of the Electronics Engineering Branch, Airway Facilities Division, in Norfolk, Va.
- **Donald Gold**, supervisor of the Construction/Modernization Section, Environmental Engineering Branch, Airway Facilities Division.
- **Janet M. Groden**, area supervisor at the Charleston, W. Va., Flight Service Station, from the Erie, Pa., FSS.
- **Roger A. Hutchinson**, supervisor of the Nav aids/Weather Section, Electronics Engineering Branch, Airway Facilities Division.
- **Roland H. Jenkins**, assistant manager of the Airway Facilities Division.
- **Nicholas Luca**, supervisor of the ATC Facilities Section, Electronics Engineering Branch, Airway Facilities Division.

- **Gary W. Marchesini**, assistant supervisor of the Construction Modernization Section, Terminal Modernization Unit, Construction Engineering Branch, Airway Facilities Division.
- **Paul Massanopoli**, area manager at the Washington ARTCC.
- **John A. McEvoy**, manager of the National Airspace Staff, Airway Facilities Division.
- **Eugene Metz**, supervisor of the Evaluation Section, Maintenance Operations Branch, Airway Facilities Division.
- **Edward R. Montgomery**, assistant supervisor of the Electrical Mechanical Section, Construction Engineering Branch, Airway Facilities Division.
- **Herbert Ross**, manager of the Electronics Engineering Branch, Airway Facilities Division.
- **Harry Semerjian**, supervisor of the Interfacility Frequency Management Section, Electronics Engineering Branch, Airway Facilities Division.
- **Jacob L. Swisher**, area supervisor at the Clarksburg, W. Va., Tower, from the Greater Pittsburgh, Pa., Tower.
- **James E. Wilkie**, manager of the Construction Engineering Branch, Airway Facilities Division.
- **Floyd S. Woodward**, assistant manager for automation at the Washington ARTCC.
- **Sidney Wunsch**, supervisor of the Construction Modernization Section, Enroute Modernization Unit, Construction Engineering Branch, Airway Facilities Div.

Great Lakes Region

- **Donald B. Beeson**, area officer at the Chicago ARTCC.
- **William P. Dove**, area supervisor at the Youngstown, Ohio, Tower.
- **Wilbur J. Edds**, manager of the Decatur, Ill., Tower, from the Flint, Mich., Tower.
- **Henry E. Engler**, area supervisor at the Cleveland, Ohio, ARTCC.
- **Clifford J. Essenmacher**, area supervisor at the Cleveland ARTCC.
- **Arthur V. Hagen**, assistant manager of the Port Columbus, Ohio, Tower.
- **Russell O. Hansen**, area supervisor at the Mitchell Field Tower, Milwaukee, Wis.
- **Lawrence W. Holben**, manager of the Grand Rapids, Mich., Tower, from the Port Columbus Tower.
- **David R. Hyder**, area supervisor at the Toledo, Ohio, Tower.
- **Norman D. Kaune**, area supervisor at the Port Columbus Tower, from the Evansville, Ind., Tower.
- **Gerald G. Ladwig**, area supervisor at the Jackson, Mich., Tower.
- **Lee W. Peterson**, area manager at the Chicago ARTCC.
- **David M. Phillips**, area supervisor at the West Chicago, Ill., Flight Service Station, from the Milwaukee FSS.
- **David P. Shepherd**, area manager at the Minneapolis, Minn., Wold-Chamberlain Airport Tower.
- **Jack P. Smith, Jr.**, manager of the Bismarck, N.D., Tower, from the Air Traffic Branch, FAA Academy.

■ **Byron F. Van Dake**, area manager at the Minneapolis Wold-Chamberlain Tower.

■ **George D. Woods**, systems engineer in the Cleveland ARTCC Airway Facilities Sector.

Metro Washington Airports

■ **Thomas W. Holderness**, supervisory detective in the Police Branch, Public Safety Division at Washington National Airport.

■ **William B. Morse**, supervisory police officer (lieutenant) in the Washington National Airport Police Branch.

New England Region

■ **Anthony M. Natoli**, unit supervisor at the Lebanon, N.H., Airway Facilities Sector Field Office of the Burlington, Vt., AF Sector.

■ **Adrian A. Ouellett**, assistant manager of the Boston ARTCC.

■ **Ronald L. Vavruska**, supervisor of the Systems & Propulsion Section, Boston Aircraft Certification Branch, Aircraft Certification Division.

Northwest Mountain Region

■ **Alfred I. Hilton**, assistant manager for program support in the Seattle, Wash., Airway Facilities Sector, from the Maintenance Operations Branch, Airway Facilities Div.

■ **Danny R. Horton**, manager of the Medford, Ore., Tower, from the Hillsboro, Ore., Tower.

■ **David B. Isenhour**, area supervisor at the

Seattle Flight Service Station, from the Lewistown, Mont., FSS.

■ **Raymond M. Long**, area supervisor at the Colorado Springs, Colo., Tower, from the Denver, Colo., Tower.

■ **Richard F. Martin**, assistant manager for automation at the Salt Lake City, Utah, ARTCC, from the National Automation Support Branch at the Technical Center.

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■ **Larry J. Ballard**, systems engineer at the Atlanta, Ga., ARTCC Airway Facilities Sector.

■ **Earl Batten**, computer display channel supervisor at the Jacksonville, Fla., ARTCC AF Sector.

■ **Salvatore A. Brocato**, systems engineer at the Jacksonville ARTCC AF Sector.

■ **Robert G. Brooks**, area supervisor at the St. Petersburg-Clearwater, Fla., Flight Service Station, from the London, Ky., FSS.

■ **Curtis E. Brown**, systems engineer at the Miami, Fla., ARTCC AF Sector.

■ **Angel F. Cordero**, area supervisor at the Charleston, S.C., FSS, from the San Juan, Puerto Rico, International FSS.

■ **Leonard A. Crouch**, manager of the Maintenance Program Branch, AF Division.

■ **Percell Duckett**, systems engineer in the Miami ARTCC AF Sector.

■ **Ray S. Massey**, systems engineer in the Memphis, Tenn., ARTCC AF Sector.

■ **Donald A. Meadows**, area supervisor at the Tallahassee, Fla., Tower.

■ **Alwyn O. Moody, Jr.**, systems engineer at the Atlanta ARTCC AF Sector.

■ **William T. Pendarvis, Jr.**, assistant manager for technical support in the Miami

Hub AF Sector, from the Airway Facilities Branch, FAA Academy.

■ **Randolph B. Phelps**, area supervisor at the Jacksonville ARTCC, from Seymour Johnson AFB, N.C.

■ **Vincent L. Preston**, staff engineer in the Program & Planning Branch, Airway Facilities Division.

■ **Carl E. Rowland**, systems engineer in the Jacksonville ARTCC AF Sector.

■ **Raymond E. Simmons**, systems engineer in the Memphis ARTCC AF Sector.

■ **David G. Smith**, assistant manager for technical support in the Jacksonville Hub AF Sector, from the Electronics Establishment Engineering Branch, AF Division.

■ **Billy C. Thompson**, area supervisor at the Montgomery, Ala., Tower.

■ **Douglas M. Whitson**, assistant manager of the Orlando, Fla., Tower, from the Operations Branch, Air Traffic Division.

Southwest Region

■ **Edward D. Chambers**, manager of the Fort Worth, Tex., Flight Service Station, from the Operations Branch, Air Traffic Division.

■ **Billie H. Ellis**, assistant manager of the Tulsa, Okla., Tower, from the Central Region Air Traffic Division.

■ **Arthur C. Guenard**, area supervisor at the Little Rock, Ark., Tower.

■ **Willie S. Harris**, area manager in the Albuquerque, N.M., Airway Facilities Sector, from the Albuquerque ARTCC AF Sector.

■ **Eldred D. Kelly**, area supervisor at the Fort Worth ARTCC.

■ **Heriberto Martinez**, area supervisor at the San Antonio, Tex., FSS, from the Austin, Tex., FSS.

■ **Guillermo Tafoya**, area supervisor at the Oklahoma City, Okla., FSS, from the El Paso, Tex., FSS.

■ **Loran H. Thomas**, maintenance mechanic foreman in the Reservation Maintenance Section, Services Branch, Logistics Division.

Technical Center

■ **Rudolph V. Aikens**, warehouse worker foreman, Materiel Section, Acquisition & Materiel Services Branch, Administrative Systems Division, promotion made permanent.

■ **Alexander R. Cioffi**, technical program manager, ATC Systems Branch, Engineering Division.

■ **Douglas A. Elliott, Jr.**, technical program manager, Airborne Simulation Section, ATC Facilities Operations Branch, Facilities Division, promotion made permanent.

■ **Howard L. McFann**, supervisor of the Hardware Engineering Section, Facility Engineering & Maintenance Branch, Facilities Division.

■ **Garry W. Morfitt**, supervisor of the Software Engineering Section, Facility Engineering & Maintenance Branch.

■ **Hugo B. Rossbach**, technical program manager, ATC Systems Branch, Engineering Division.

Washington Headquarters

■ **Rodman B. Gill**, manager of the Primary Radar Branch, Radar/Automation Engineering Division, Airway Facilities Service, from the Northwest Mountain AF Division.

■ **Richard A. Noble**, manager of the Investigations & Security Division, Office of Civil Aviation Security.

■ **Alan W. Read**, manager of the Aviation Security Division, Office of Civil Aviation Security.

Western-Pacific Region

■ **Clarence W. Bryant**, radar/communications specialist at the Mill Valley, Calif., ARSR Airway Facilities Sector Field Office, from the Half Moon Bay, Calif., ARSR AFSFO.

■ **Cornelia S. Gilliland**, area supervisor at the Marysville, Calif., Flight Service Station.

■ **George H. Gunter**, military liaison & security officer at the Oakland, Calif., ARTCC, from the Great Lakes Air Traffic Operations Branch.

■ **Marvin E. Holbert**, manager of the Santa Maria, Calif., Tower, from the regional communications control center.

■ **Sabra Holmes**, area supervisor at the Las Vegas, Nev., Tower, from the Denver, Colo., Tower.

■ **Russell M. Johnson**, manager of the Burbank, Calif., AF Sector Field Office, from the Riverside, Calif., AF Sector.

■ **Thomas A. Lemmons**, area supervisor at the Los Angeles, Calif., Tower.

■ **Otho E. Lusk**, area supervisor at the Douglas, Ariz., FSS, from the Imperial, Calif., FSS.

■ **Ronald E. Morgan**, manager of the Santa Monica, Calif., Tower, from the Burbank Tower.

■ **Jean P. Roger**, area supervisor at the Lindbergh Field Tower in San Diego, Calif., from the Gillespie Tower, San Diego.

■ **Charles E. Stewart**, area supervisor at the Daggett, Calif., FSS, from the Ontario, Calif., FSS.



By Jo Ann Sloane
A public information specialist in the Office of Public Affairs, she is a former European correspondent and Washington reporter for United Press Intl.

Space Ears Listen for ELTs

International Cooperation Helps Locate Downed Aircraft

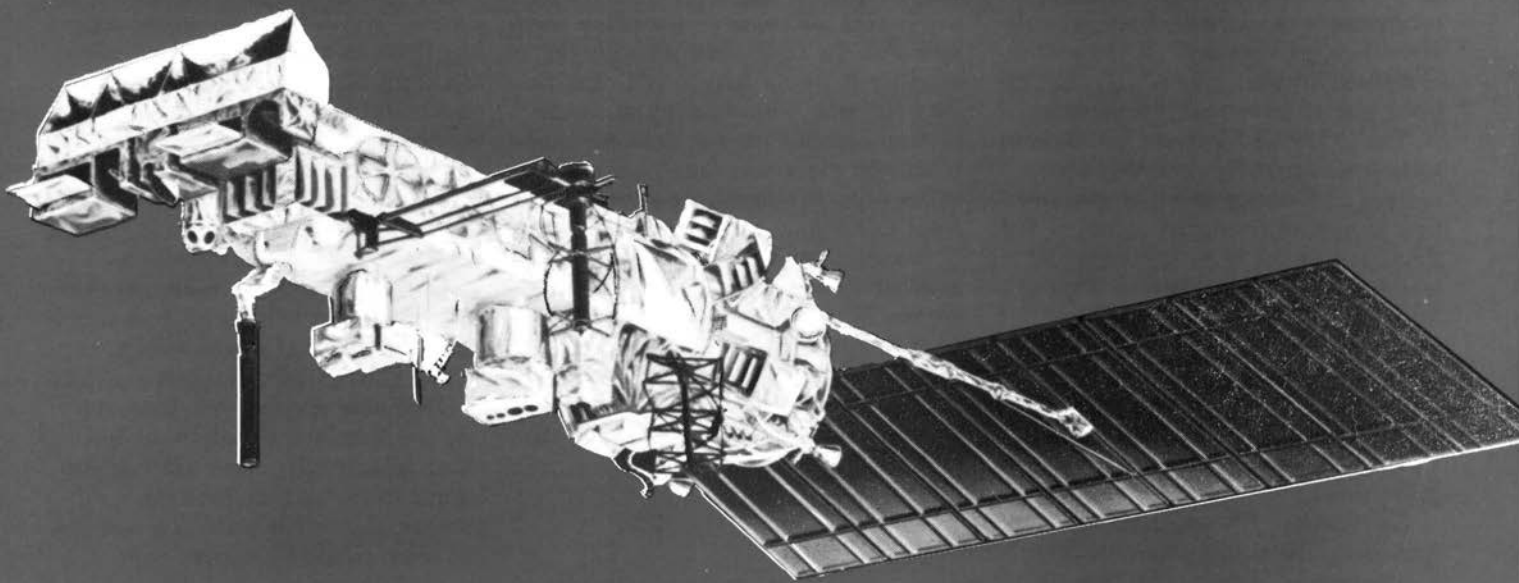
Late on Sept. 9, 1982, a Cessna 172 carrying three men went down on a rugged mountainside in a remote part of British Columbia, Canada. Early the next morning, a signal from the plane's emergency locator transmitter (ELT) was picked up by an experimental Russian satellite traveling some 600 miles above the earth.

The information was relayed to a ground station, and a search aircraft was dispatched to the predicted location, where, almost immediately, it picked up the ELT signal on its radio direction finder. All three passengers had suffered

serious injuries but had survived the crash and now would survive the entire incident.

That was the first rescue of survivors of a plane crash in which a satellite was the primary source for pinpointing their location. The satellite, COSPAS I, is part of a joint international program involving the U.S., Canada, France and the Soviet Union to aid in search and rescue efforts for downed aircraft and sinking ships. The Russians now have two such vehicles in orbit. COSPAS I was launched on June 30, 1982, and the second satellite on March 14, 1983.

The first American counterpart was put into earth orbit on March 28, 1983, from Vandenberg Air Force Base in California. Called SARSAT—for Search and Rescue Satellite-Aided Tracking—the \$53 million satellite is in a north-south orbit about 500 miles high and will circle the earth every 12 hours. It is attached to a weather-monitoring satellite, NOAA-E, that is operated by the National Oceanographic and Atmospheric Administration. The satellite malfunctioned initially, but National Aeronautics and Space Administration officials were later



able to correct the problem.

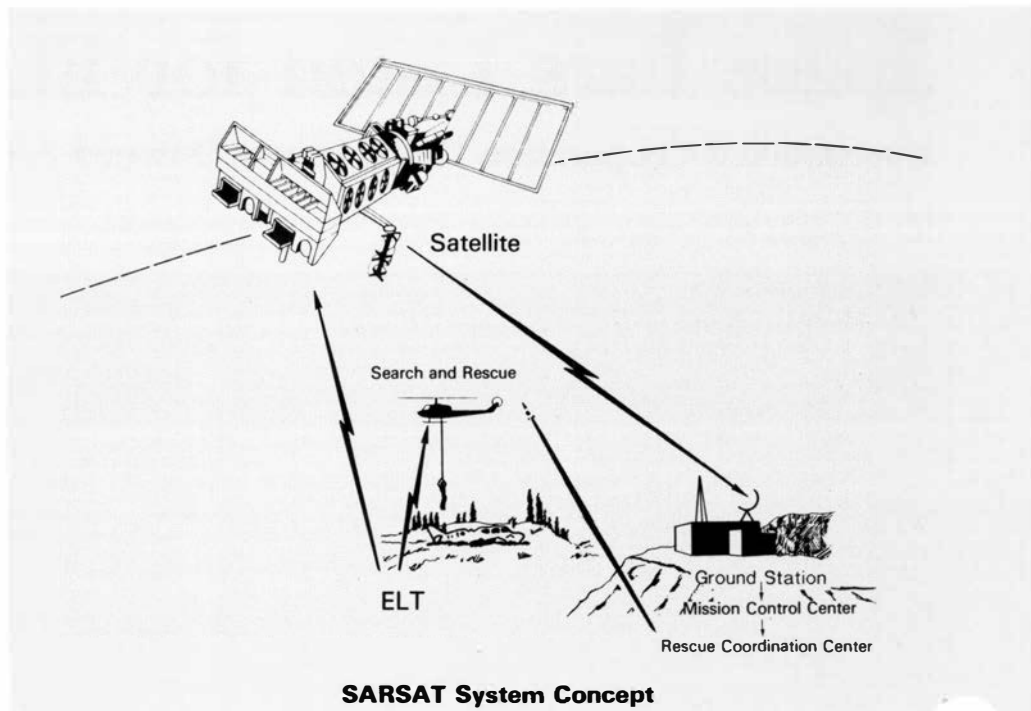
Search and rescue efforts have been hampered in the past by the physical limitations of the system that is employed to find downed aircraft. Although a 1970 law requiring that general aviation aircraft carry an ELT has helped to reduce rescue time, the signals can be received only when another plane passes within about 100 miles of the transmitter and has a receiver on. And there are no requirements for pilots to use the receivers.

If the COSPAS/SARSAT system proves successful, accident victims no longer will have to rely on good will and chance. And that could result in substantial savings of life. Studies have shown, for example, that accident survivors have less than a 10 percent chance of survival if rescue is delayed beyond two days. If the victim is rescued within eight hours, the survival rate is more than 50 percent.

The COSPAS I already has demonstrated its worth by detecting four accidents and saving seven people in its first month of operation alone. It was first used in the U.S. last Sept. 30 when a plane went down in New Mexico.

The ELT signal from the plane was picked up initially by a private airport in Las Vegas, Nev., and by several airplanes in the area. However, foul weather prevented effective air search operations.

Fortunately, the satellite also had picked up the signal and provided coordinates of the accident site to Scott AFB. Armed with this information, ground teams set out from Albuquerque, Los Alamos and



Socorro, clawing through rain-drenched mountainous terrain into the night. The plane was spotted the following morning.

Neither occupant of the plane had survived the crash, but without the satellite it would have taken days to find the site. The accuracy of its detection capabilities was demonstrated when the plane was found only six miles from the coordinates retrieved from COSPAS.

Another much-publicized use of the satellite involved the crash of a twin-engine Piper Navajo after takeoff from Blue Ridge Airport in Martinsville, Va., last November 15. Here again, the occupants were killed on impact, but if it hadn't been for COSPAS, the

accident would have gone undetected for a much longer period of time.

According to the Danville, Va., Flight Service Station manager, Don Jones, "We didn't even know there had been an accident until we got a call from Scott Air Force Base"—the search and rescue center in Illinois that picked up the distress signal from the satellite. "We were never even informed that the plane had taken off, so it might have been days before a search was undertaken." Jones feels that the satellite network will be of great help to FAA in speeding up search and rescue efforts.

The U.S. plans to launch a second satellite next spring, matching the two the Russians already have in space. Essentially, these are meteorological satellites that have the dual purpose of weather watching and saving lives. SARSAT carries two

“guest” instruments—one provided by Canada to relay distress messages to earth from current aircraft and marine emergency transmitters; the other a signal data processor provided by France that works with advanced versions of these signaling devices.

As part of the SARSAT system, the U.S. Air Force will maintain a mission control center at Scott AFB. There also will be three U.S. ground stations—one at Scott and the others operated by the Coast Guard at Point Reyes, Calif., and Kodiak, Alaska. The ground stations receive the signal directly from the satellite and determine the location of the distress signal using the Doppler-shift principle.

The three U.S. ground stations will provide regional coverage of the 48

contiguous states, Alaska, part of Canada, Mexico and coastal maritime areas. A Canadian ground station in Ottawa will extend this coverage to the eastern North American continent. A French ground station in Toulouse will cover France and much of Europe and its coastal areas.

Supporting the Russian satellites will be ground stations at Moscow, Archangelsk and Vladivostok. However, the compatibility between these two projects allows the COSPAS ground stations to use the SARSAT satellite when it is in view and vice versa. The Soviets will maintain communications with SARSAT nations through the U.S. mission control center at Scott AFB.

A full-scale, 15-month evaluation

of the satellite program will get under way when the second U.S. vehicle goes into orbit. Its objective is “to demonstrate that detection and location of distress signals can be greatly facilitated by the use of a global monitoring system based on low-altitude, near-polar-orbiting spacecraft.” If successful, a truly worldwide search and rescue system is possible by about 1990.

NASA’s Bernard Trudell, who is managing the program, is optimistic about the results. If the satellites perform as expected, he says, “You could fly anywhere in the world, crash into the Brazilian jungle and know that a satellite pretty soon is going to pick up [your signal] and notify someone.” ■

Hinckley continued from page 9

to General Arnold’s staff as Military Director of Civil Aviation. There, he could work directly with his former deputy, Charles I. Stanton, now CAA administrator, thereby ensuring that the WTS flight centers, while remaining under CAA control, would provide the military with the best-possible pilot-training services.

Hinckley was satisfied, but he was left without a role to play in the program as long as the war lasted. With the offer of a salary five times that of his pay as an Assistant Secretary of Commerce and a position important in terms of the war effort, Hinckley left the government for the Sperry Corp.

When Hinckley left in July 1942, the program had graduated 100,000 pilots. By June 1944, when the services no longer needed additional pilots

and ended the program, the WTS had turned out 335,000 more!

The fact is that the CPTP/WTS program had been successful almost beyond belief. It had made a real contribution to the winning of the war, especially in the early days when the military training effort was just getting under way. In fact, most of the Eagle Squadron, which fought before Pearl Harbor as part of the Royal Air Force, came from CPTP, as did 19 of the 32 pilots and co-pilots who took part in the Doolittle raid on Tokyo in April 1942.

CPTP/WTS had opened doors to flight training for blacks and produced the pilots of the 332nd Fighter Group, which saw action over Italy and Germany. It taught more than 2,000 women to fly before the needs of war barred them from the program.

It turned out an incredible profusion of flight instructors, ferry pilots, glider pilots, field artillery spotter pilots and other specialties needed by the military but not trained by them. And it brought greatly improved pilot selection and training.

Equally important, the program assured the financial status of hundreds of flying schools and fixed-base operators and helped strengthen the country’s small aircraft manufacturers. Overall, it had assured the future of general aviation.

The program was a miracle because it came when the need was greatest to help a faltering industry and a nation unprepared for the war that was to come. But it surely was Bob Hinckley’s miracle, since it was he who created and nurtured the program. ■

By Morton
Edelstein

The Great Lakes public affairs officer, he has been a reporter, foreign correspondent, editor, producer on Chicago newspapers, network TV.



The Sergeants Who Came to Dinner

They Stayed and Stayed, Then Signed On With FAA

Whoever said a dream is nothing but a puff of smoke?

"It is probably the best lucky break we ever had," said Stephen Jubb, 27, who had just been sworn in as an air traffic controller at Chicago-O'Hare Airport.

Jubb, sporting a manicured mustache and a New Orleans drawl, began to reflect on his fate and that of the other three controllers who sat beside him: Mark Ray, 28; Vincent Vander Laan, 24, and Dave Shuler, 26.

"It was a dream come true," Jubb said. "One of those right-place-at-the-right-time situations."

The time was Aug. 3, 1981—the day of the controllers' strike. As for the place, well, the four were in different parts of the country when each got word the Air Force was lending him to the FAA to help man the sparsely filled towers. Jubb was in Alexandria, Va.; Ray in Little Rock, Ark.; Vander Laan in San Antonio, Tex., and Shuler in Clovis, N.M. But they were all heading for the same place—O'Hare Tower.

It was the kind of military assignment you had no choice but to accept. No one bothered to ask for volunteers. But that satisfied the four just fine. They were excited. A little nervous, yet anxious. After all, they were sharing the dream of a lifetime—a controller's dream—to work the

busiest and most challenging of airports.

Explains Vander Laan: "A controller dreams about coming to a tower like O'Hare. It's like being an auto racer and wanting to race in the Indianapolis 500. It's a big boost to the ego."

And besides, it was a temporary duty station. So, the four, along with 23 other Air Force controllers, packed their suitcases for a three-day stay and headed for Chicago.

As it turned out, Jubb, Ray, Shuler and Vander Laan became like "The Man Who Came to Dinner." They refused to leave. So much so that the four eventually decided to give up the military life for civilian life in the FAA.

When they arrived at O'Hare back in 1981, they were newcomers. But they certainly weren't novices. They had years of experience, although of a tad different kind than civilian controllers. As Air Force controllers, they were sort of the MASH (Mobile Army Surgical Hospital) of the military airways. They, of course, weren't doctors. But they moved like MASH units. Their jobs were to set up and operate portable control towers throughout the country and Alaska.

"We were on worldwide deployment," Shuler noted, "in case we went to war." It was the kind of work that had them traveling nine to 10 months a year. Actually, as Shuler and the others saw it, the TDY O'Hare assignment was a relief, a welcome pause from the rigors of being on the move.

Once they began to work the tower, they surprised a few people. Con-

cedes O'Hare tower manager Chester Anderson: "PATCO and the rest of us underestimated how good the Air Force people were. It took us just two weeks to find out." But Anderson really wasn't surprised. He continues: "These controllers were the cream of the crop. You don't get into a mobile unit unless you're very good. It was that way when I was in the Air Force."

The Air Force replacements had two weeks of classroom training before they went into the tower. They also had an additional two weeks of ground-control-position training.

Initially, they were like a bunch of wide-eyed kids locked up in a candy store. "The equipment was different from the kind we used in the military," Ray said. "It was far more sophisticated and there were more aids." Shuler laughingly summed up the impressive array of technology that lay before them: "The stuff they threw away at O'Hare was more advanced than what the military uses."

"It was impressive all right," Vander Laan recalled, "and extremely overwhelming. I had to learn to sink or swim." Obviously, they learned to "swim" so well that the weeks turned into months. And the longer they stayed, the more they liked it. They had moved out of the hotel they first stayed in and were renting apartments. Their wives and children had



moved to Chicago, too. They were settling in.

Was there much difference working in a civilian atmosphere? "Yes,"

Shuler quickly replied, "it was a lot slower an environment. You got the feeling that your supervisors were asking you to do things, rather than telling you to do them."

Each of the four had his own particular reason for joining the Air Force. For Shuler, it was a way to get a G.I. bill for college so he wouldn't have the financial burdens of education his other four brothers did. For Vander Laan, it was a way of getting out of the gas station where he worked. For Jubb it was a chance to trade in his mechanic's tools and grease-stained overalls for Air Force blues. For Ray it was a way to learn a unique occupation. Ray reached the rank of Tech Sgt. E-6, and the other three, Staff Sgt. E-5.

But when it came time to reenlist, they thought twice about it. How much did they really like air traffic controlling as civilians? Well, even a sizeable chunk of money couldn't lure them to stay in the military. Each

turned down a lump-sum bonus of \$26,000 to reenlist for a six-year hitch.

Besides, from a controller's standpoint, there was unfinished business, as Shuler explained: "There is no other place where you can go to work with this much traffic. We're only running 85 percent now. We're waiting for the 100 percent; it's going to be great."

Spoken like a true controller—who believes in dreams and loves a challenge. ■

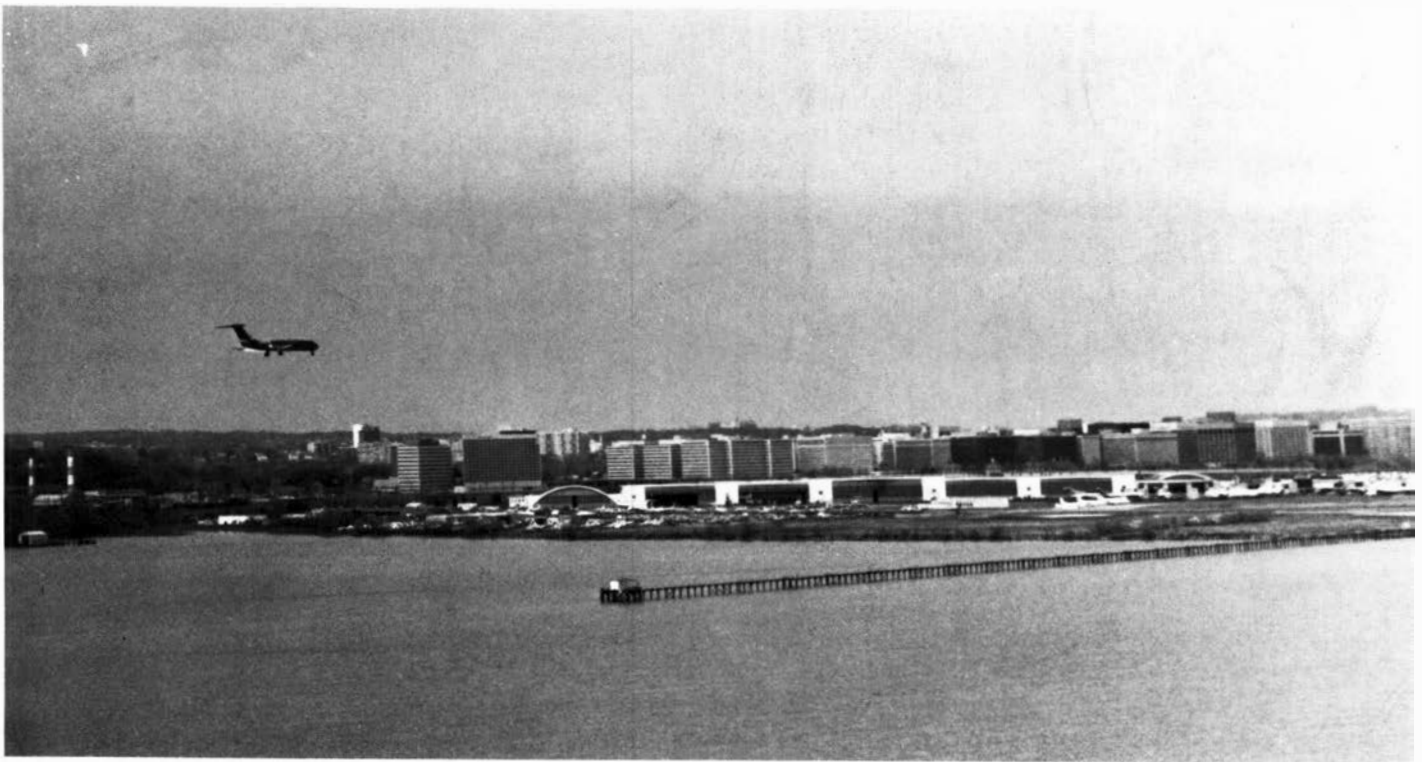
Stephen Jubb, the last of four former Air Force controllers, signs his oath at O'Hare Tower. Looking on are O'Hare tower manager Chester Anderson (standing) and (left to right) David Shuler, Vincent Vander Laan and Mark Ray.

Update Your Mailing Address

A facility reassignment often means that you have to move your home. Have you made sure that FAA WORLD moves with you?

The home address used by the agency to mail FAA WORLD is the same one used for mailing W-2 income tax forms every December. The list normally is canvassed each November, but if you want your address corrected sooner to ensure that FAA WORLD keeps coming, you will have to initiate the change yourself.

Ask your time-and-attendance clerk for FAA Form 2730-18, "Payroll Address Information," and complete items 1 and 2 only. (Items 3 and 4 are for changing the mailing address of paychecks.) The T&A clerk will forward the form to payroll for processing.



An airliner comes into Washington National Airport from the south. The Crys-

tal City office and hotel complex in Arlington, Va., forms a backdrop.

Photo by Lance Strozier

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