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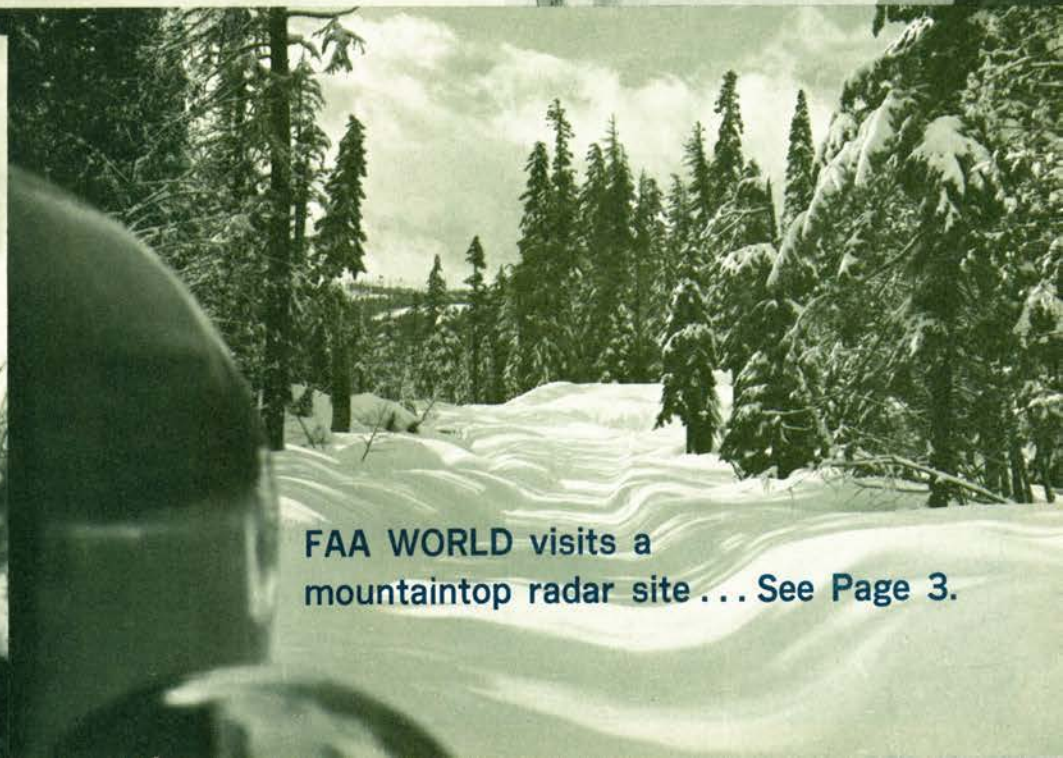
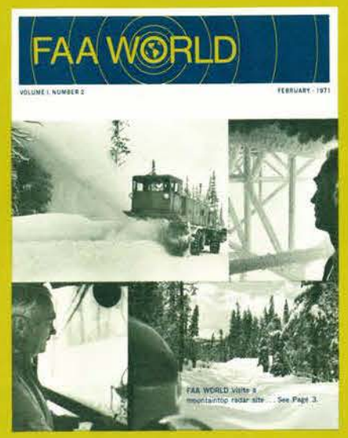
FEBRUARY - 1971



FAA WORLD visits a mountaintop radar site . . . See Page 3.



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FEBRUARY - 1971

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What's inside . . .

THE COVER: Top left, FAA snow blast plows way up to mountaintop radar site near Cascade, Ida. Right, Electronics Technician Elmer Mendenhall. Lower left, Equipment Operator Jim Hull.

A Tribute To More Than A Few

THE Federal Aviation Administration takes pride in the tribute being paid in this issue of FAA WORLD to the agency's many thousands of dedicated systems maintenance technicians.

The story in this issue depicts the difficult, often treacherous, struggle of one small group of employees to reach a remote radar site in the teeth of an Idaho blizzard. We hope, however, that you will look on this portrayal in a broader sense—as the story, really, of the literally thousands of technicians throughout the FAA system who must face similar obstacles and similar weather day in and day out.

In other sections of the West, in Alaska—and, in fact, in virtually every FAA region—technicians often have a tough time getting to where their job needs to be done. And they make a point of getting there, despite howling storms, road washouts or a thousand and one other obstacles.

The article, then, should be considered as a tribute to *all* these employees who are entitled to take particular pride in the vital job they are doing. And they are doing that job not only for the FAA and aviation but for the entire American public.

We are particularly pleased, therefore, that this issue of the FAA WORLD will go directly to the homes of these employees so that their wives and families will gain more insight into the extremely important role they are playing.

We hope this issue of FAA WORLD gives all readers a better understanding of the job the agency's maintenance technicians perform as members of a team that includes air traffic control personnel and those with other FAA segments.

And we especially hope that the article in this issue will be construed as a tribute to the job being done not only by the understandably small group of employees who are highlighted this month, but to all employees throughout the system who perform similar work.

John H. Shaffer
Administrator

Terho A. Jarvi, Electronics Technician, Kalispell, Mont., uses a Snow Cat for transportation while on top of Big Mountain.

. . . High above the western storm, airline passengers and crews travel warm and safe, totally unaware that there's a blizzard below and that, braving it for their benefit are . . .

FAA'S 'MOUNTAIN MEN'

By Theodore Maher

There in the valley, it was snowing lightly and it was bitterly cold.

Our destination was the Cascade radar site, perched on a 10,000-foot peak not far from Boise. To get there, we had to go up a twisting, narrow mountain road through drifting, blowing snow.

Something told me this was going to be a somewhat different trip from my daily drive to the agency's comfortable, air-conditioned Headquarters building.

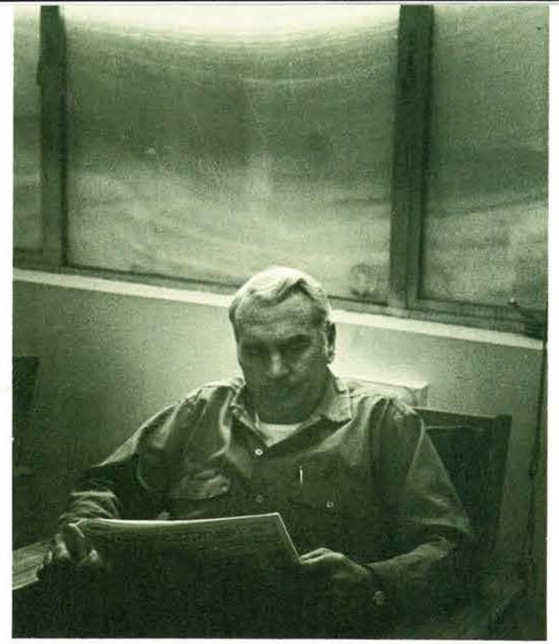
At the bottom of the peak, we transferred to a four-wheel-drive van. I was joining Harold Williams, Chief of the Cascade Airway Facilities Sector Field Office and Alan Carswell, Safety Officer for the Boise Sector.

Snow Piled High

At first, the going was easy. Cautiously, but smoothly, we moved along between six-foot-high snowbanks. Ahead was a "snow blast," a mechanical monster that gobbles tons of snow and spews it off the road in a steady stream. Also up forward was a large snow plow.

In the cab of the snow blast, lurching along at about two miles an hour, was ruddy-faced Glen Thurston, one of the engineering equipment operators stationed at Cascade. As he drove, he leaned forward, straining to see poles stuck in the snow at regular intervals to mark the edge of the road. The cab's windshield was coated with a layer of ice and snow except for a small, clear circular portion consisting of glass revolving 3,200 times a minute—too fast to allow anything to settle.

Fixing sandwiches in the well-stocked kitchen at the Cascade peak radar facility are (from left): Maintenance Chief Harold Williams, snow blast driver Glen Thurston and Boise AFS Safety Officer Alan Carswell.



Relaxing in the ready room of the mountain top radar site is "patrol" driver Jim Hull. Even in early December the view through the picture window was cut in half by the deep snow.

"This road has to be plowed out almost every day for about eight months of the year," Thurston told me later. "You got to keep at it, or it piles up. There's been times when it took us 10 hours to plow out 100 yards. Let it pile up on you and it'll take you six weeks to get it back open!"

Through the clouds of blowing snow ahead, we could barely see the outlines of the big plow being driven by Jim Hull.

Dreaded 'Whiteout'

Then, suddenly, snow-filled sky and snow-covered terrain blended into formless whiteness, creating the dreaded phenomena known to mountain men as a "whiteout." Hull's snowplow vanished into this whiteness. Bucking deep drifts in the whited-out mountain "saddle," the plow slipped off the road and into the ditch.

As quickly as it began, the "whiteout" ended. The outlines of the snow-trapped plow re-emerged suddenly from sheets of blowing snow.

Drivers Thurston and Hull conferred briefly on the problem, shielding their faces from the cutting, sub-zero wind. Then, Thurston found a place to turn around up ahead. Skillfully jockeying the trailer, big as a trailer truck, he yanked the plow back on the road.

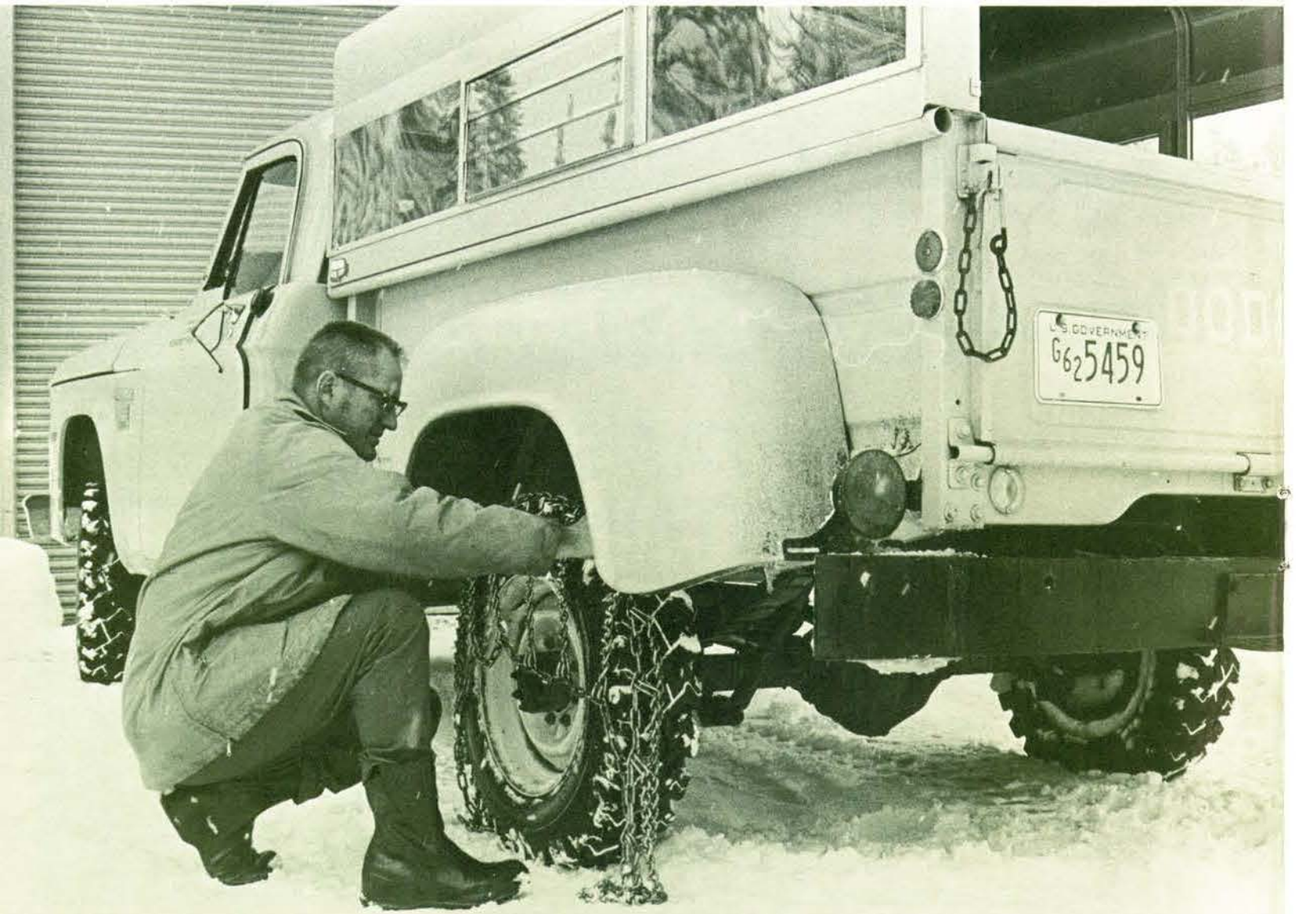
I joined Hull in the cab of the plow and he led the way once again. Hull, who had been with the contractor's crew that built the radar site, kept encountering deeper drifts. Time and again, he backed the plow up to attack the drifts from different angles. Finally, he could go no further.

Once again, Thurston's snow blast came to the rescue. It took the lead for the last several hundred yards to the site, neatly slicing a single lane through heavy drifts.

Snowswept Peak

On the mountaintop, moaning 40-mile-an-hour winds swept thick veils of snow across the peak's bare crest. Visibility was down to less than 10 yards. Sometimes we couldn't see ahead of us.

Sometimes snow tires on all four wheels of the four-wheel-drive vehicles are not quite enough. Here Maintenance Chief Harold Williams puts chains on one of the vans used to carry technicians to the mountaintop.



Maintenance man Glen Thurston replaces a shear pin. The pin is designed to break when the spinning wheel hits a rock or branch. Sometimes two of these big machines are used to clear the road to the Cascade radar site.

During the middle of the day, two technicians are usually on hand. At left is Elmer Mendenhall, with Bob Marion. In the passageway connecting the living quarters with the equipment room, snow shoes are kept on hand for emergencies.

Shielding our faces against the blasts, we trooped into the radar site quarters, entering another world.

Sounds of the fierce storm outside were muffled by snow piled high around the buildings. This warm haven near the big radar "bubble" possessed a well-stocked kitchen, a sitting room and bedrooms.

Munching on sandwiches and sipping hot coffee from thick mugs, I chatted with Elmer Mendenhall and Bob Marion—members of the technical crew manning the site. Mendenhall had arrived the day before. Marion had joined our convoy in a second four-wheel-drive van.

(Other technicians who help keep Cascade radar functioning at all times are Leonard Cornwell, Lavin Farrar, Harold Lundy, Richard Zeine and Richard Wheeler.)

I was given a tour of the immaculate equipment room with its neat racks filled with sensitive electronic arrays. This is the radar's nerve center and here most of the technician's work is done. From this skyscraping mountain perch, the Cascade radar scans the Western skies for about 200 miles in all directions. Everything the radar pulses "see" appears instantaneously on radar screens at the Salt Lake City Center.

Technicians at the Cascade site stand an average of four watches a week, Marion explained.

Planning Difficult

"Sometimes when we leave home, we're not sure when we'll be back," he said. "Today, I started up the mountain at noon and I'll be on watch until 10 tonight. I'll sleep here, then I'll be on my second watch, from six a.m. to four p.m."

Mendenhall added: "Of course, all that's when the weather's good. Other times, we stay up here for as long as eight days in a row. If there's nobody going down on a particular day, we never risk the trip alone."

Every possible precaution is taken to insure the safety of the men who must travel regularly to and from the mountaintop site.

Aware of Danger

"We all know a man could freeze to death out there and we do everything possible to keep that from happening," said Williams, whose office is at the site. "All our vehicles are equipped with two-way radios. We check in by radio with the Boise AFS before heading for the site or leaving it. And, along the way, we keep checking with the facility and with other vehicles to make sure someone always knows where we are."

It was already dark when we left the warm quarters and started our descent. The road, though it had just been plowed out, was badly drifted in again. And once again, the big snow blast took the lead to break trail for us.

Even in that convoy, even with three of us in the vehicle, I felt a sense of isolation. There was very little conversation as we moved downward, our headlights gleaming ineffectually against the swirling snow. Williams drove carefully, his shoulders hunched forward over the wheel, his face almost touching the windshield so he could spot each snow post.

At last we were back on the clear, dry highway. It was hard to believe we had just been in that "other world" lashed by biting winds and blinded by "whiteouts."

Two days later, in an airliner heading east, I was enjoying a fine meal, glancing out occasionally at a placid, cloud-covered panorama. I knew the other passengers enjoying this ease, comfort and safety were completely oblivious of that "other world" below—the world of howling winds, blowing snow and treacherous winding roads. My trip, however, had given me a better understanding of the extent to which FAA personnel in that "other world" are helping make all this comfort possible. ■

What's New at HQ

A LONG LOOK AT 1971 . . . We don't claim to have a crystal ball but the outline of FAA's 1971 is beginning to take clearer shape. We see 1971 as a year of unusual opportunity and tremendous challenge. Despite its throes, reorganization will help build a better agency. Interesting technological developments are in store. The flow of new equipment to facilities will grow in momentum. Major strides can be expected in aviation safety. And you can expect better communications--on all levels. Now, let's look at these items one by one.

OPPORTUNITY AND CHALLENGE . . . While it's going to take hard work and training, many of you will be stepping into more challenging jobs this year. Retirements, transfers, new areas of activity and the game of musical chairs that follows virtually every promotion will create vacancies. It will be up to you to qualify, compete--and move in.

REORGANIZATION . . . You can't, of course, disregard the disruption, uncertainty and dislocation that accompanies major reorganizations of the kind we are now experiencing. But there's a positive side. Carving out four new regions in the continental U. S. will bring many of you the opportunities you've been waiting for. Although initially most new jobs will go to personnel from area offices being phased out, other opportunities should develop in your particular specialty. Read carefully the reorganization bulletins and job announcements that will be coming out as the reorganization progresses.

WE'RE AUTOMATING . . . Automation's marvels are taking shape very rapidly at agency facilities. Computer Update Equipment (CUE)--it keeps controllers up-to-the-minute on flight plans and progress--already has gone to nine major centers and will go to the rest before year's end. Debugging and testing of Computer Display Channel (CDC) equipment is getting underway at NAFEC, and field deliveries will start with Los Angeles in March of 1972 and continue on about a one-a-month basis through 1974. Bigger, faster computers are going in this year at the five busiest centers. And agency planners are studying "blueprints" for automating FSSs. Automation won't mean a cut in personnel. It will merely help keep pace with aviation growth.

AVIATION SAFETY . . . Look for intensified efforts in the aviation safety crusade. Test operations in the Southwest and Central regions showed FAA can cut air accidents. The Southwest Region found a significantly high proportion of general aviation accidents involved student pilots with a large number of flying hours--in other words, those who for some reason didn't go on to get their pilot's ticket. When accident prevention specialists "zero in" on this group--whose names will be furnished by Oklahoma City computer runs--further inroads on accidents and safer skies can be expected.

LAST--NOT LEAST--COMMUNICATIONS . . . The complaint, "Nobody tells me anything," may be on the way out. A broad new communications program--this magazine is part of it--already is in full swing. The agency is introducing new, innovative ways of "getting the word" to you. Audio-visuals, bulletin boards, telegraphic messages and improvements in INTERCOM are part of the picture. Supervisors will be trained to spruce up their day-to-day communications with employees and to feed back problems and suggestions for improvement. The end result should benefit you in many ways.

FAA FACES & PLACES

1. OUTSTANDING YOUNG MAN—Selected as one of America's "Outstanding Young Men of 1970" by leading men's civic and service organizations was Jahn A. Hart, a Flight Service Specialist at the Anchorage Station. Hart was selected from several thousand young men between the ages of 21 and 35.

2. PRETTIEST RECRUIT—Julie Statham, formerly employed by FAA as a clerk-typist at the Columbus, Ga., Tower, is one of the prettiest EEO recruits in the Southern Region, according to fellow controllers at the Macon RAPCON/Tower, where she is now employed as a GS–9 Developmental Controller, and well on her way as an FAA professional Air Traffic Control Specialist.

3. A NEW PLANE—The agency's first special airworthiness certificate for Lockheed's Model L–1011 (background) was presented recently by Principal Manufacturing Inspector Clyde Harrison to Hank Dees (center), Lockheed Test Pilot, and Lockheed official Gordon Ater, at Palmdale.

4. FIRST SOLO—"Getting her shirt tail cut" after her first solo is Mrs. Betty Strah, a secretary in the Aircraft Management Branch, Alaskan Region. James N. Bell of Aero Tech Flight Service does the honors.

5. THREE MOJAVE MUSKETEERS—Manning the temporary tower put up to accommodate the 1,000 aircraft that flew into a racing event on the Mojave desert recently were (from left): Raymond Mena and Peter Hansen, Bakersfield Tower and Clyde Etter, Van Nuys Tower.

6. LIKE NEW AGAIN—Viewing part of the radar presentation in the recently refurbished, giant ATC exhibit at the Museum of Science and Industry in Los Angeles are two pretty Continental Airline Stewardesses, Paula Peterson and Elaine Crosby. With them are Western Region Director Arvin Basnight (left) and Museum Director William J. McCann.

7. UNUSUAL HOBBY—Enjoying his unusual hobby is Denver Center Area Specialists Robert Cotey, who puts the finishing touches to his latest stained glass masterpiece. At one time Cotey made stained glass windows for a living and flew to deliver his goods. Now he makes his living in aviation and creates windows and other articles as a hobby.

8. THE WAY IT AIN'T—Getting a flu shot is often imagined this way by the guy getting "shot," though it's actually nothing of the kind. Paul R. Stewart, General Facilities Equipment Technician at the St. Louis Airway Facilities Sector and Dr. Muriel Gardner demonstrate giving a flu shot like it really isn't.

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At 4:20 p.m.: Specialist A. J. 'Gus' Kosik of the Tallahassee Flight Service Station answered the "Mayday" distress call that shattered the relative calm of a routine afternoon. The FSS crew helped to save the life of a Navy jet student pilot.

MAYDAY MAYDAY MAYDAY

"I'm sick . . .
I don't know where I am!
Help me! " . . .
On-the-ball FAAers
gave this pilot
and 3,436 others
helping hands
in one year alone.

4:21 p.m.: Specialists John Parramore (left) and William Kraft fixed the crippled plane's position. Parramore adjusted the Direction Finder equipment while Kraft coordinated with the Albany, Ga., FSS to get a "cross bearing."

"Mayday! Mayday!"

The internationally-recognized distress call crackled over the radio in the Tallahassee Flight Service Station.

It spelled trouble in the sky—a human life at stake.

Losing no time in responding, Air Traffic Control Specialist A. J. (Gus) Kosik got the harrowing details.

The young Navy student pilot said the jet he was learning to fly struck a bird that shattered the plane's windshield. The student's instructor, blinded by the impact, ejected and parachuted to safety. But the mechanism in his own ejection seat failed to operate. He was trapped. And he was totally disoriented. To make matters worse, his flight compass and all his navigation charts had been sucked out of the plane by the strong blast of the slipstream.

While Kosik spoke calmly to the pilot, other FSS personnel notified Tallahassee Tower, the Albany, Ga., FSS, the Jacksonville Center and the Florida Highway Patrol. Using special direction-finding devices, FSS personnel at Tallahassee and Albany promptly pinpointed the plane's position—22 miles northeast of Tallahassee Airport.

Kosik determined the plane had plenty of fuel aboard and could be landed. He "talked" the pilot into the airport and a safe landing.

Tallahassee's save was only one of the 3,436 flight assists that skilled FAA air traffic control personnel provided to airmen in trouble during the last fiscal year alone. Although most of these incidents were less dramatic than the one recounted above, they just as surely saved human lives.

At the Honolulu Center, for example, the alertness and initiative of Radar Controller Richard Torres averted what almost certainly would have been a tragic ditching at sea.

When a C–124 landed at Honolulu with minimum fuel aboard after a flight from Travis Air Force Base in

4:22 p.m.: Station Chief James Reeder joined the crew, already working together like a well-trained team.

4:25 p.m.: Tallahassee Tower Controller John Landers, notified of the emergency by the FSS crew, alterted the airport fire department.

California, Torres called the pilot to find out why. The pilot explained that the fuel shortage was due to strong headwinds encountered during much of the flight.

The military pilot's report caused Torres to consider with deep concern the flight of a twin-engine light aircraft that, according to routine messages, had just left Oakland on a flight to Hawaii. Although it would be many hours before the flight reached Torres' sector, he realized the importance of warning the pilot about the headwinds.

Considering conditions aloft, Torres calculated the plane would almost certainly run out of fuel over the Pacific before reaching Honolulu.

Fire equipment was rolled out in case the damaged plane crashed on landing. Here FSS Chief James Reeder discusses emergency procedures with Municipal Fire Chief Sidney Stoutamire.

Torres promptly acquainted the Oakland Center with the situation. The pilot just as promptly "got the word." Long before reaching "the point of no return," he was able to head back to Oakland and safety.

Later, when the exact fuel load was know, it was determined that the plane would have run out of fuel an hour and a half before reaching Honolulu.

An air emergency of quite another sort was reflected in a young student pilot's desperate call to the Cleveland FSS last summer.

"I've lost my equilibrium," he said. "I'm sick! I don't know where I am! Help me!"

A two-facility FAA team swung into action to save

4:39 p.m.: With a deep sense of relief and pride in the knowledge that they helped save a life, the FSS crew, including secretary Ann Yung, turned to watch the Navy jet make a safe landing.

During ceremonies honoring them for "Outstanding Flight Assists," four FAA "life savers" are seen with Air Traffic Director William Flener (center). They are (from left): Donald C. Legge, Baltimore Tower; Richard Torres, Honolulu Center; A. J. Kosik, Tallahassee FSS; and James Hatley, Great Falls RAPCON.

the frantic young man. Cleveland FSS specialists Richard Fagan, Edgar Evans, Robert Hancrink and Donald Fisher worked hand-in-glove with tower controllers Emil Emery, Joseph O'Brien and Keith Alves at Cleveland's Hopkins Airport.

Quickly fixing the plane's position with radar, tower personnel began issuing instructions aimed at guiding the pilot to the airport. They were careful to channel their advice through the FSS—they didn't think it was a good idea to ask the confused man to switch frequencies.

At the FSS, Fagan, who was qualified in the same type of plane the student was flying, relayed all instructions. He spoke in a calm, reassuring voice, bringing the plane in toward the final approach. But at this point, the student was seized by another attack of dizziness and declared he was unable to land.

The tower then contacted a flight instructor in an inbound light plane and asked him to assist. But the frightened, disoriented student said he couldn't hear the instructor.

Fagan resumed instructions to the pilot—throttle setting, altitude and, finally, the order to flare out for touchdown.

While everybody held their breaths, the plane rolled safely to a stop. The pilot was found slumped unconscious over the controls. But what was important—he was alive and safe. He recovered quickly.

In another instance, an airliner flown by a professional pilot lost all instruments while making a night approach to the Helena Airport in bad weather. Critical decisions had to be made in a hurry and the man who made them was Controller James Hatley, working at the Great Falls radar approach control center (RAPCON).

Hatley realized that the only way to get the crippled airliner down safely through the cloud cover would be to provide an escort. He contacted the pilot of a second plane in the vicinity and vectored the two aircraft to a midair rendezvous in the darkness.

With radio contact established between the two planes and the RAPCON, the pilot of the instrumentless plane was able to follow the lights of the other aircraft while Hatley rapidly and skillfully brought both planes in to safe landings.

At Baltimore's Friendship Airport, Controller Donald C. Legge was not dealing with a professional pilot when a plea for help came in to the tower last winter. It turned out that neither the pilot nor the plane were equipped for "blind" flying.

For the next 20 minutes, Legge virtually "flew" the plane from the tower, using skill, precision and patience. Against great odds, he brought the bewildered, frightened pilot in to a safe landing.

FAAers who provided the flight assists recounted here received regional or national recognition for their work. But their "saves" are merely typical of many hundreds of others that take place year in and year out throughout the FAA system.

As was recently stated by the Director of FAA's Air Traffic Service, William M. Flener: "These professionals consider 'saves' part of their routine day-to-day jobs. And they pride themselves on knowing how to handle 'the tough ones.'" ■

DIRECT LINE

This is your direct line to the top! Your questions will get answers. Here are the ground rules: all questions must be signed, the column should not be used to take the place of formal grievance and appeals procedures and questions should not be operational or technical matters. Send your questions to DIRECT LINE, FAA, 800 Independence Ave., S. W., Washington, D.C. 20590.

Q. Please answer yes or no: is it permissible to assign employees to double-quick-turnaround watches on a scheduled, as opposed to an emergency, basis.

A. Yes. The law says that employees should be scheduled to work the same hours of the day each day of the basic workweek. However, an additional provision of the same law covers situations such as an operation that must be manned around the clock, seven days a week. Under this provision, the FAA and other agencies may authorize exceptions to the law on the grounds that otherwise they would be seriously handicapped in carrying out the functions or costs would be substantially increased. (References: 5 U.S.C. 6101. Agency rules and legal criteria can be found in 3600.3, Chapter 4.)

Q. Is military service considered creditable service for severance pay purposes? If so, does this include all military service or just part of it?

A. Military service would be so considered only if it interrupted otherwise creditable civilian service. Here's an example: an employee leaves Federal employment to enter the military and later returns to Government employment in accordance with mandatory job restoration rights. Military service performed under these circumstances is counted as creditable service. Examples of military service not considered creditable for severance pay purposes: military service performed before Federal employment or military service which occurred between separate periods of Federal employment.

Q. Does the agency have any program under which I can receive financial assistance for university level courses I take on my own time for purposes of self-development?

A. Although you certainly are to be commended for pursuing your education during off-duty hours, the agency is restricted from sponsoring training not directly related to performance of your official duties, or duties you are preparing to undertake. In the latter instance—training for duties an employee is preparing to undertake—a low priority applies. The FAA's requirements for training directly related to an employee's duties are usually greater than can be funded. (Reference: FAA Training Handbook, 3000.6A.)

Q. I accepted a downgrade from a GS–12 position as a radar unit chief to accept an electronics technician position in the Canal Zone. The radar unit chief position has now been upgraded to a GS–13. My question is: assuming the conditions of my contract have been met and there are no unusual circumstances, do I have return rights to the higher grade position?

A. No. Your return rights are at the grade you held immediately before going overseas (GS–12). It is true that certain FAA employees occupying positions financed by U. S. foreign assistance programs would be in a different category. These employees would have statutory return rights. In your case, administrative return rights apply. (Reference: Handbook 3330.6—Restoration and Return Rights Policy.)

Q. FAA's Merit Promotion Program Handbook refers to "grade" in discussing special consideration for repromotion, but the DOT order on the subject refers to "grade or position." Please explain.

A. Before FAA regulations on special consideration for repromotion were issued, a discussion was held with the Office of the Secretary to determine the intent of the references you cite. It was agreed at that time that the intent of both regulations is the same; that is, to return an employee to his former grade and not his former position. (References: FAA Merit Promotion Handbook 3330.1A and DOT Order 3300.1A, Para. 7.k.(2).)

WANTED . . . Your Letters

What do you think of the new FAA WORLD? What are your suggestions for improving it? Is there some story or some facet of the agency's activity you would like to see covered in future issues? The only way we can improve your magazine is to find out what YOU want in it. We plan to run your letters in a monthly "Letters to the Editor" page, beginning next month. Letters should be signed; however, your name will not be used if you so request. Send your letter to: Editor, FAA WORLD, 800 Independence Ave., S.W., Washington, D. C. 20590.

The Pilot's Best Friend

Text and Photos by Thom Hook

Flying into the scenic Grand Canyon by helicopter to check small emergency platforms for emergency use by park rangers, Myles Ruggenberg points to majestic escarpments and mile-and-a-half-high elevations that call for special pilot skills.

"The sheriff of Pima County, a friend of mine, insisted on giving me a .38 special. He advised me never to go into Nogales without it—there was a bounty on my head . . ."

Coordinated, team activity between Captain Bob Jaress and Co-pilot Stan Overton is observed by FAA Inspector Ruggenberg at start of six-months competency check. Jaress will go "under the hood" shortly after takeoff and get an "engine" out problem for a starter to his hour-long instrument flight.

Let's pay a visit to one of the agency's 438 inspectors who work out of 88 General Aviation District Offices. Each of these employees can be considered "the pilot's best friend." The job of each is to assure that the pilot is qualified, that he's flying safely—in short, that he stays alive.

I joined six-footer Myles P. Ruggenberg in the cramped pilots' ready room of Apache Airlines in Phoenix. He was giving a "comp check"—comp stands for competency—one of about a hundred he conducts each year as part of the agency's effort to improve air taxi safety.

Ruggenberg was questioning young Bob Jaress about various chart symbols and their significance. Getting the right answers, he said: "You've been studying the book I gave you on instrument approach procedure charts."

"You bet your boots," said Jaress, smiling.

Later, in the cockpit of a twin-turboprop Dehavilland Dove, Ruggenberg quizzed Jaress on such things as takeoff weights and center of gravity and had him run over check lists. Once off the ground, Ruggenberg had Jaress don a hood used to check pilots' skill in the use of instrument procedures. Without warning, Ruggenberg reduced power on the left engine to simulate an "engine-out" condition. In each phase of the test, Jaress responded correctly—and he passed.

Back at the GADO at Sky Harbor Airport, a thick sheaf of yellow telephone call-back slips was waiting for Ruggenberg. Typical was one from a doctor who wanted to tell him about an accident.

At an adjacent desk, Gary Koch, another of the seven operations inspectors at Phoenix, was orally quizzing a candidate for a flight instructor's certificate.

Don Tucker, a recent college graduate, dropped in to ask Ruggenberg how he should go about getting an airline transport pilot certificate. Ruggenberg told him —simply and directly.

"Here, we have to be jacks of all trades," Ruggenberg remarked. And, judging from the variety of people who kept dropping in and the kinds of questions they asked, inspectors also should be father confessors and walking encyclopedias of aeronautical lore.

The Phoenix GADO services aeronautical activity at Yuma, Flagstaff, Prescott and other smaller communities as well as remote airports serving Indian trading posts, scenic flight operations and mineral charters.

Running the show is Supervising Operations Inspector George South. On his staff besides the operations inspectors are five general aviation maintenance inspectors, three air carrier maintenance inspectors and five employees in clerical categories.

Pointing to a wall chart on GADO activities, South commented that even with additional help anticipated, every effort must be directed to find enough man-hours to cover the program.

Back at Ruggenberg's office, I found him giving advice to a man who is putting together a "Gyrocopter" at home.

Ruggenberg spends fully half his time certifying airmen—working with students, private and commercial pilots and checking air taxi operations and personnel. The other half of his "work pie" could be cut in these ten per cent slices: accident investigation, answering public inquiries, safety seminars, travel and proficiency flying and investigating violations.

Because his territory is near the U.S.-Mexican border, Ruggenberg gets involved in anti-crime activity, too. Narcotics smuggling by pilots using large single-engine planes remains a continuing problem requiring constant surveillance. Ruggenberg works closely with officials of Customs and other Federal agencies in efforts to stem the movement of contraband across the border.

So diligent has he been in such activities that he once was cautioned by the sheriff of Pima County.

"The sheriff insisted on giving me a .38 special and advised me never to go into Nogales without carrying it. 'There's a bounty on your head,' the sheriff told me," Ruggenberg recalled with a smile.

Another part of Ruggenberg's job is calling regularly on aviation training schools and talking to their students.

He brings to his job fully 28 years of flying since starting to work with FAA in Spokane in 1942. Before that he was in the civilian pilot training program. He also had a stint as the pilot in charge of security at the atomic "reservation" at Richland, Wash., which he patrolled three times daily by air.

Later, Ruggenberg was a principal inspector in Portland and for a time was the only rotary-qualified inspector in the Northwest.

He has a walletful of FAA "tickets"—virtually all of the major ratings the agency issues—and has logged more than 11,250 hours of flying time.

On the last day of my visit, I accompanied Ruggenberg on a trip to Grand Canyon Airport to check facilities and give a rotorcraft instructor's test to Fred Maurer, a 24-year-old Army veteran who had seen service in Vietnam. Ruggenberg also spent time with the airport manager, since FAA holds certificates on a number of air taxis operating into the airport.

After giving Maurer an oral and flight test, Ruggenberg found him to be a skillful pilot and good instructor material and certificated him on the spot.

Our return trip to Phoenix took us over rugged country dotted with Indian hogans. The beautiful sunshine we were enjoying was what keeps nearly 11,000 other pilots in 2,400 aircraft buzzing between Arizona's 200 active fields—and what keeps people like Ruggenberg so busy.

Upon satisfactorily completing oral and flight tests to become a rotorcraft flight instructor, 24-year-old Vietnam veteran pilot Fred Maurer, now working for Grand Canyon Helicopter, gets the word he has passed from Inspector Myles Ruggenberg (center). FAA WORLD's Tom Hook (right) later accompanied them on a checkout of emergency heliports at the bottom of the canyon.

Ruggenberg got back to his office about an hour after everybody else had left for the day.

I needed no convincing that he—and the hundreds of his colleagues across the country—were really the pilots' best friends. ■

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Let's Visit NAFEC

What, where and why is NAFEC?

NAFEC stands for National Aviation Facilities Experimental Center.

It is located on a 5,054-acre site at Atlantic City Airport, ten miles northwest of the city.

Its job? Applied research, testing and evaluation in these five main areas: air traffic control, communications, navigation, airports and aviation safety.

This highly-specialized mission is being carried out by some 1,800 FAA employees in 150 occupational specialties. At any given time, these employees will be working on more than 200 active projects. Twenty FAA test pilots flight test experimental airborne equipment and flight check experimental ground-based navigational aids and aircraft guidance systems. They fly planes ranging from small private aircraft to large transports and helicopters.

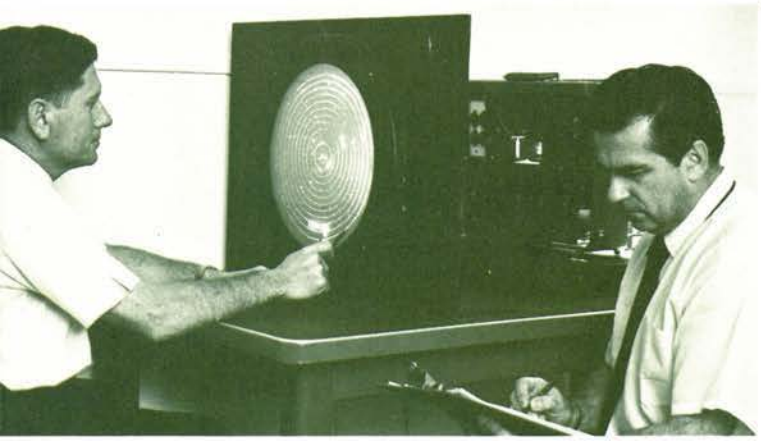
NAFEC's eyes are on the future—the near and long-range. NAFEC is the testing ground for aviation's tomorrow. As such, it is a vital segment of FAA's overall mission.

1. Tests to determine how accurately controllers can determine distances between targets on a radar display are carried out at NAFEC by Anthony Spignola (left) and Robert McCosker, both of whom are controllers.

2. Aircraft safety test area at NAFEC is shown in this aerial view. At right is the catapult and track used in various tests aimed at making flying safer.

3. In NAFEC's air traffic control laboratory, air traffic situations and problems are recreated. Then various alternative solutions are worked out.

4. Computers play a key role in NAFEC research and testing activity. Here computer operators work at the IBM 9020 computer used in studies of the automation program.



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