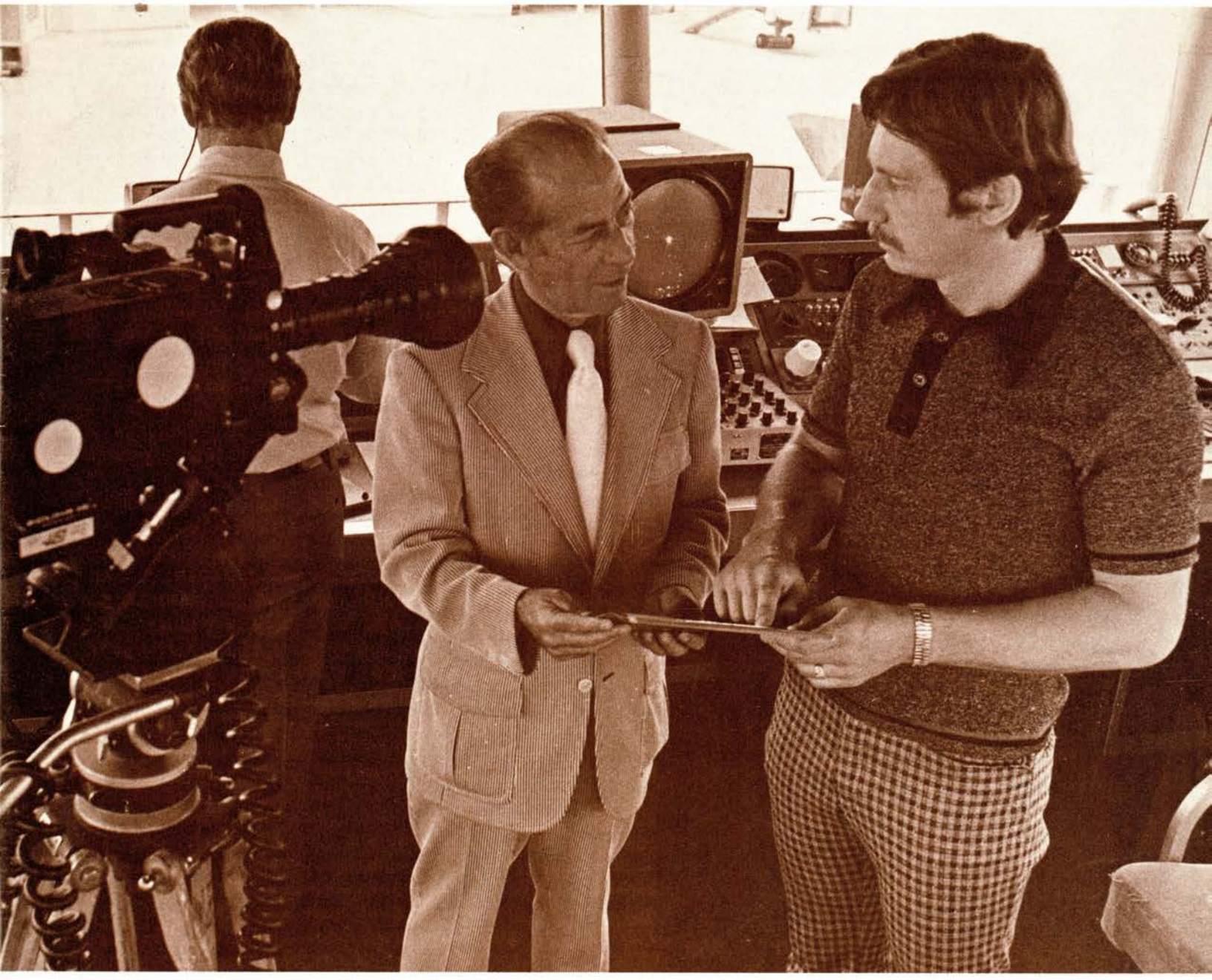
DECEMBER 1974

FAA WORLD

Service to Man in Flight



MR. FAA

FAA WORLD

DECEMBER 1974 VOL. 4, NO. 12

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The cover: *Des Moines local coordinator Don Murphy (left) discusses the script with Ed Wooten, producer-director for the Iowa Educational Broadcasting Network, during the filming of a TV program for several stations throughout the state.*
Photo by John Leiendecker

New Age For Oceanic Control

Radar has provided civil aviation with aircraft surveillance over land for more than a quarter-century. Now, the space age may give us eyes and better ears over the seas, as well.

After three years of international negotiations, the aeronautical satellite program (Aerosat) has left the launching pad. This summer, a Memorandum of Understanding was signed by Canada and the 10-nation European Space Research Organization (ESRO). I had signed it earlier on behalf of the United States. Now that Comsat-General has been selected as the U.S. co-owner, the first flight testing of an experimental model should come late in 1977 or early in 1978. The three participants will share development costs and lease communications to various users, including the FAA.

Aerosat is a program to put a pair of stationary (synchronous) satellites in orbit over the North Atlantic for testing, evaluating and demonstrating their use in improving radio communications and aircraft tracking for oceanic flights. A decision on putting up a fully operational system a decade from now under ICAO auspices has to await these results. We've got to find out how well the hardware works and how well our controllers can work with it.

Our present communications, which are limited to the lower frequencies, are quite unsatisfactory over the ocean, both in quality and in the number of channels available. By using these satellites as relays, we would be able to use the clearer higher frequencies while increasing the number of aircraft handled.

Because this system could provide precise information on the location of aircraft through radio-ranging techniques, we may see a reduction in separation standards on these routes without sacrificing safety. By the mid-1980s, when we hope to have an operational system, this improvement will become all the more important as air traffic on the Great Circle routes starts to congest the present system. Without the satellites, the alternative would be long delays or the use of longer, more fuel-consuming routes.

I'm convinced that Aerosat will be a great boon for aviation; it certainly will be for controllers.

Alexander P. Butterfield
ALEXANDER P. BUTTERFIELD
Administrator

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Miami local coordinator J. M. Frazier discusses an aviation accident in the Bahamas with 7th Coast Guard District commander Rear Adm. Austin Wagner.
Official U.S. Coast Guard photo

MR. FAA

"Mr. FAA" is what they've been calling the agency's local coordinators. Now that women are moving into these positions, the public will be listening to more "Ms. FAA."

But what are local coordinators? Who are these people that carry such exalted titles and what do they do?

They are some 200 employees who wear two hats on their jobs—all have regularly assigned duties; most are facility chiefs. Local coordinators are usually appointed by the Regional Director in communities in the field with three or more FAA facilities. In their local coordinator roles, they are expected to be the voice of FAA to the outside world and a pipeline of information from the public sector to the region director.

Another oft-repeated caption of the local coordinator's job is that his objective is to establish a one-FAA concept in the local community.

The typical local coordinator has a big job, and he's expected to accomplish it in a minimum of time. He must establish and maintain relations with the press, aviation groups, business groups, local officials and non-aviation community groups and sell FAA and the benefits of aviation to his community.

"The public asks a lot, and when they don't receive what they need, the program has failed," says Norman Polk, chief of the Sacramento AF Sector Field Office and a former local coordinator. "One man cannot do it alone; I found it necessary to get every member of my team-action group to take an active part in the program to make it work."

Thus, the first step is for the coordinator to effectively mobilize his resources, beginning with regular meetings with the chiefs of local facilities and operating divisions. It's generally recognized that cooperation from chief supervisors in helping shoulder the coordinator workload is essential to the success of the program.

One reason for meetings with other chiefs is educational. As Bob Armour of Cape Girardeau, Mo., says, "The work of the local coordinator requires a broader knowledge of the FAA's overall programs. Before, I had to know my AF Division's function. Now, I'm getting more involved in the operation of Air Traffic, Flight Standards and Public Affairs."

More importantly, the local coordinator needs willing hands. Mike Sarli in Baltimore uses a team concept for speakers, drawing on representatives from AT, AF, Air Security and the GADO, so that the whole FAA story is always presented. During Herman Reyenga's stint as coordinator in Shreveport, La., he, too, sought representatives of all FAA offices at public and user meetings. As a result, many

Joe Shirley, Greenville-Greer-Spartanburg, S. C., local coordinator, explains the importance of technicians to aviation safety in maintaining radio communications and navaids, as he displays an Airway Facility of the Year plaque to the Spartanburg Mayor and City Council.

questions that formerly would have gone unanswered were adequately covered, netting a lot of satisfied customers for FAA. The Greenville-Spartanburg, S.C., coordinator, Joe Shirley, generally solicits help for his forums and meetings with flying clubs and other aviation groups. As an illustration: "The GADO is over 90 miles away, but accident prevention specialist Frank Kelly will come on a moment's notice to participate." He also gets assistance from the state aeronautics commission, Atlanta Center controllers, experienced pilots and physicians.

Shirley points out that, other than the sector field office, none of his facilities are large. Operational commitments come first, of course, and public relations are mostly conducted on off-duty time. So, to get maximum mileage, he maintains top-notch press, TV and radio relations to let the public know what FAA is doing. Also, if he can't get anyone to visit a school or other group, he lets them come to him, arranging tours and meetings. He also believes that trips to the facilities could spark many a youth's desire for aviation as a career.

"Promoting the FAA image to the public is our first external priority," Shirley opines. "It goes far beyond fund drives, blood-donor programs or even talking to pilot groups, who already know about the FAA. Other segments must be reached—civic and church groups, schools and the public not associated with groups. All are taxpayers who pay our way and must be educated about us."

Getting to know public officials is an important part of the LC's job. Ed King (right) has no problem conferring with Farmington, Minn., Mayor Larry Daily, since his honor is also assistant chief of the Minneapolis Center.

As coordinator and Fresno, Calif., GADO chief, Bob Lewis says, "Our agency's main reason for being is to provide service, and the future of our agency will be determined by the acceptance of the people we serve."

Shreveport's Reyenga, now chief of New Orleans' Moisant Tower, believes that those employed in aviation occupations are the best salesmen for the industry and, early in his nine-year stint, began selling the salesmen. He showed the film "Airports in Perspective" and, later, "Airports Mean Business" to Shreveport's airline employees, avgas truck drivers and even to the airport coffee shop waitresses, in addition to all FAA employees. Very often, he reported, his reward was finding a willing and enthusiastic audience that had never realized its own importance to the community's well being.

Selling the public can be done in many ways. Bob Dulaney, Palmdale coordinator, north of Los Angeles, frequently points up the benefits of FAA's presence in the community. For example, he cites the FAA payroll and the expenditures by FAA facilities, much of which is spent locally. "The point I want to make is the many extra benefits the FAA brings into this community and that we are part of the Antelope Valley community. We are people committed to being a productive part of the community in which we live."

Belonging is another way. Many FAAers are involved in their communities; local coordinators are, too. Many are members of local Federal Executive Associations. Miami ACDO chief and coordinator J. M. Frazier has been a member of the Federal Executive Board's Information and Referral Committee, of FEB's Hurricane Shelters Committee, of the Miami Airport Operations Committee, chairman of the FEB and chairman of the Combined Federal Campaign for Dade County. Gillespie Field Tower chief Ed Ray, the San Diego local coordinator, serves on the Grossmont College Advisory Board for its Aerospace/Aeronautics Program.

Administrator Butterfield voiced his support for the local coordinator program in a letter to Regional Directors:

"Local coordinators provide a direct, immediate means for informing and motivating important elements of the public—both aviation and non-aviation—concerning agency programs. They can interpret and clarify our actions in terms of their distinct local situations. Simultaneously, they can feed back first-hand knowledge of reactions and opinions at the local level and thereby provide us valuable advance insight into the effectiveness and pertinence of various FAA programs. . . . I urge you to re-examine the local coordinator's role in your region to determine if he is receiving the attention, support and recognition warranted."

An effective press liaison program is a must for every coordinator. Columbus, Ga., coordinator Mel Spinks makes it a point to know all the news media people well, usually on a first-name basis, and Shreveport's Reyenga brings in his press contacts in the early stages of a planned event. "It makes them a part of the team and gets us better coverage, and it gives us a chance to fit in with their deadlines," he says. Reyenga's approach has made it easier to get FAA films shown during TV stations' public-service programming time.

Local coordinator Mel Spinks (right) with Mayor Bob Hydrick of Columbus, Ga., show mayor's proclamation of Aviation Safety Week in support of the agency's general-aviation accident-prevention program.

San Francisco's local coordinating group believes that good, close personal relationships with media people make them rely on the FAA representative for accurate, authoritative information before writing articles, providing balance with our viewpoint, and making them more willing to accept and use FAA material more generously.

Typical of the kind of creative newsmaking that a coordinator can achieve are the arrangements made by Fresno's Bob Lewis with a local TV station for a reporter and a cameraman to go along on a pilot proficiency check ride with an aviation safety specialist. The broadcast publicized the regional "Safety Pin Award" and generated many favorable comments and additional requests for proficiency checks.

Since the coordinators are Mr. or Ms. FAA, they are the local spokesmen to the press and the public, and their phones are available for day or night contact. Miami's Frazier gets the cooperation of the chiefs of the IFSS/FSS, towers and the Miami Center in keeping him advised of all accidents, incidents and other newsworthy items so he can effectively respond to the news media.

Often the phones ring from the general public. "We encourage any office taking a call from a citizen to get the answer as quickly as possible, whether or not the question belongs to it," says Herman Reyenga, "then call back or have the proper office call back if a complex question is involved. This avoids frustrating the caller with a bureaucratic buck from office to office."

Frequently, this is the medium for complaints, too. One of the smallest airports and communities in the San Diego area had the most noise complaints,

Hillsboro, Ore., Tower chief Delphine Aldecoa serves as the local coordinator for the Portland, Ore., area.

At an airport ground-breaking ceremony, local coordinator Bob Dulaney (left) confers with Dan Sabovich, chairman of the Aviation Committee of the Antelope Valley Board of Trade. The area is near Los Angeles.

For his second ground-breaking of the day, Fresno, Calif., Mayor Ted Wills asked for and got a tractor to do the honors for a new GADO and ASR installation. Local coordinator Bob Lewis supervises from a ground-based position.

Ed Ray recalls. In response to the calls, Ray and the FSDO chief visited the area, held discussions and made a change in the air traffic pattern to solve the problem.

Complaints about noise are probably the most prevalent. Miami's J. M. Frazier has had his share. On some of the more vituperative, all he's been able to do is listen, and perhaps that's all that's needed. On others, he's been able to explain the situation to the caller's satisfaction. Sometimes the problem isn't solved, but reasonableness creates friendship, he's found, resulting in a better image for FAA and providing a worthwhile future contact.

Sometimes, an answer to a complaint can be found. Recently, Frazier received a complaint that piston aircraft were dropping oil on cars and house trailers in a trailer park. His investigation turned up that it wasn't oil but insect droppings.

Different problems require different solutions. Herman Reyenga became involved in helping local pilots oppose a taller-than needed TV tower, one that he agreed would be a hazard to Shreveport's increasing volume of air traffic. His deft solution was not to coerce but to invite the station owner to fly with him and see what a frightening spectre the proposed antenna would be to pilots.

"I deliberately chose a crisp, clear morning with excellent visibility," Reyenga recalled. "We leveled off at 3,000, and I headed toward an existing, well-known tower, similar in height to the one this fellow wanted to build. He had never flown and didn't realize I was actually several hundred feet above the tower and to one side of it. In that clear air, you could see the tower several miles off. As we got nearer, he kept glancing at the altimeter and asking if we weren't getting a little too close. By the time we got past that tower, he had decided his station didn't need such a high antenna after all. Not only that, he then went out and learned to fly!"

Being a local coordinator is a full-time, part-time job. This vital function has been emphasized by Administrator Butterfield as "needed for the challenges facing aviation that demand we speak clearly and listen carefully to our constituents. I'm convinced that they need only to be told of the virtues of aviation." Mr. and Ms. FAA are there to do it.

HEADS UP

GREAT LAKES

Joe Kucala has moved over to chief of the Cleveland Burke Lakefront Tower . . . Selected for chief of the Bloomington, Ind., Tower was *Jim Dickerson* . . . *Patrick O'Sullivan*, former chief of the Pittsburgh Tower has taken over as chief at the Chicago O'Hare Tower . . . *Ron Riley* is now assistant chief at the Cincinnati FSS.

NORTHWEST

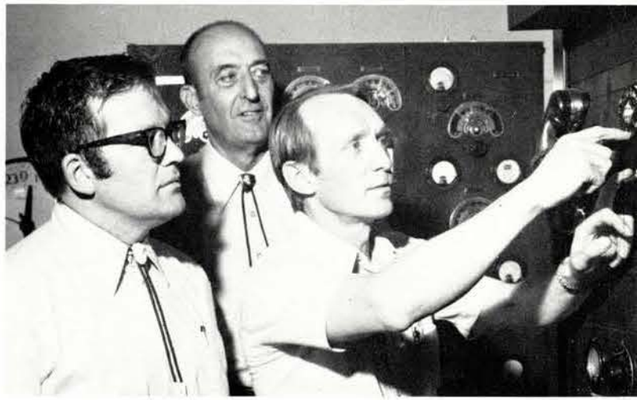
Boise, Ida., FSS chief *Leo Pierce* is the new chief of the Portland, Ore., FSS . . . *Hank Gabriel* departed the Portland FSS to become chief of the Seattle FSS . . . In turn, *Bob Jones* has moved from the Seattle FSS to the Toledo, Wash., FSS as chief.

SOUTHWEST

The Wichita Falls, Tex., FSS has a new chief in *Ellis Schneider, Jr.* . . . *George Collins* has been selected as chief of the Ponca City, Okla., Tower . . . The Lubbock, Tex., Tower will be getting *William Walraven* as an assistant chief . . . *James Baker* was named chief of the West Memphis, Ark., Tower . . . A pair of assistant chiefs have been selected for the El Paso, Tex., Tower with the naming of *Freddie DeWitt* and *Jimmy DeBaca* . . . *Boyce Tate* got the nod to go to the Hobby Tower in Houston as an assistant chief . . . The new deputy chief of the El Paso Tower is *Richard Burgess* . . . *David Burns* was selected as an assistant chief for the Amarillo, Tex., Tower.

WESTERN

Mert Suhr will be an assistant chief at the Phoenix, Ariz., TRACON . . . *Wayne Rodriques* became chief of the Ukiah, Calif., FSS . . . The new deputy chief at Long Beach, Calif., Tower is *Hal Federwisch* . . . *Daryl Mueller* has been promoted to assistant chief at the Paso Robles, Calif., FSS . . . *Mike Wise* transferred to supervisor of the Paso Robles Radar Sector Field Office . . . *Jack Perkins* now heads up the Paso Robles Sector Field Office.



Electronics technician Steve Ruks (right) dials out the Northway LFR for the last time. In at the finish were supervisory ET Albert Eggebroten (left) and FIDO pilot Clarence "Slim" Walters, who flew the last IFR approach.

. . . AND THEN THERE WERE NONE

On September 5, a chapter in American aviation came to a close. No longer would pilots respond to the familiar dit-dah/dah/dah-dit of the four-course beacon, for Alaska's Northway Low Frequency Range (LFR)—the last one in the nation—had been decommissioned as a navigation aid. Like hundreds of others, this radio beacon had served aviation throughout the United States for more than 40 years.

Late in August, Northway and five other LFRs were still operating in Alaska. "In early September, we began to phase them out," Region Director Lyle Brown explained. "Northway—the gateway to Alaska from Canada and the Midwest—turned out to be the last to throw the switch on LFR operations. It was the last of more than 300 LFRs." The other five were at Annette, Fairbanks, McGrath, Unalakleet and Yakutat.

The familiar five antenna towers, arranged with one at each corner of a rectangle and one in the center, may still be seen in Alaska, but the four corner antennas are now silent. Only the center antenna has been retained for the operation of non-directional beacons (NDB).

Prior to the Northway decommissioning, an Alaskan Region Flight Inspection DC-3 made a final instrument flight rule approach, although the weather was clear.

Retired technician Jack Jefford produced an 11-minute tape on his experiences with LFRs, which was broadcast over the LFR radio. Among his recollections were:

"My (first) exposure to it was at Oklahoma City in 1935, where I flew the high-altitude weather flights for the Weather Bureau, operating off the LFR at Oke City. These flights were at 17,500 feet, carrying what they called an aerometeorograph, which was later superseded by the radiosonde. This was one of the first tower-type LFRs with the Adcock radiators. During the weather broadcasts or communications with pilots, the range was off the air, and the voice transmissions were on a single corner tower.

". . . (Because of this) the five-tower simultaneous range, such as the one being closed here at Northway, was developed. . . . It was possible to carry on a communication as well as hear the range. . . .

"I went to work for the CAA in 1940 and commissioned the first LFR at Ruby, Alaska, in the fall of 1940. Chris Lamphold was the first patrol pilot and commissioned many of the ranges in the U.S. When I went to work, Don Stewart was the chief pilot and Chris was deputy of Federal Airways. . . .

"The nub of the whole system of flying the four-course was the build-up and fade of the volume, and most pilots making an approach could usually tell within a mile or two on the last 10 miles how far they were from the station."

After the tape was over, Northway FSS specialist Claude Welch announced a Notice to Airmen (NOTAM) on the closing, the weather and a repeat of the NOTAM. Then the dit-dah/dah/dah-dit was heard no more.

Federal Notebook

'TIS SEASON FOR PENSION NEWS

The President signed into law a bill that eliminates the pension reduction retirees must take to provide a survivor benefit if his or her marriage ends because of divorce or death of the spouse before the retiree's. Heretofore, a survivor could receive 55 percent of the pension if the retiree took a lifetime pension cut. There will be no automatic adjustment of pension amounts until the retiree officially informs the Civil Service Commission of his or her unmarried status, which should be done when CSC notifies the retiree to do so. The adjustment checks will be retroactive to the effective date of the Act. ■ A January annuity increase of at least 7.5 percent is in the cards for Federal retirees, triggered by the October Consumer Price Index. ■ Legislation to cut back sick-leave tax exclusion for disability retirees and employees with lengthy illnesses is dead for this year. Part of a tax reform bill, the provisions would end the $100 a week tax exclusion for employees off the job more than 30 days because of illness but would allow it only on the first $5,200 of income for those who are totally and permanently disabled. Above that income, the tax exclusion would be reduced dollar for dollar. While this House bill is expected to be taken up again in the next Congress, the delay may help opponents of these provisions.

HEALTH COST HIGHER AND LOWER

Next month, health insurance premiums will rise again, but most of us will pay less than we do now. This is because a law enacted last year boosted the government's share of health premiums from 40 to 50 percent this year and up to 60 percent beginning next month. As a result, family coverage under the Blue Cross-Blue Shield high-option plan will cost you $63 less next year. Similar coverage under Aetna will increase take-home pay by $71 for 1975. ■ Blue Cross-Blue Shield will impose a $50,000 lifetime limit per person on supplemental benefits offered for covered care of mental illness. The insurer also will no longer cover private-duty nursing for hospitalized patients. Aetna will impose a 20 per-person per-year limit on outpatient therapist visits for mental and nervous conditions; twice that number for treatment in a community health center. ■ Group Health Inc. and Health Insurance Plan of Greater New York will discontinue their low-option plans.

FRIEND AT COURT SAVED

The House voted to defeat a proposal to abolish the House Post Office and Civil Service Committee. At the same time, the Hatch Act was brought under its aegis from the Administration Committee.

INFLATION HITS LIFE INSURANCE

Because of rising costs, CSC expects regular life insurance premiums to rise sometime next year. No Congressional action is needed for the boost.

OVERSEAS ALLOWANCES REMAIN

Cost-of-living allowances for overseas employees will continue at 25 percent in Alaska, 15 in Hawaii and 7.5 in Puerto Rico, according to CSC. Guam will get a new 7.5 percent allowance and the Virgin Islands allowance will be boosted from 5 to 10 percent. Blue-collar workers do not receive these because their salaries are pinned to local prevailing rates.

Uninterruptible Power

With scarcely the blink of an eye to disturb them, enroute center controllers will be staying on the air when all the world about them is in darkness. The name of the genie doing this for them is the Power Conditioning System (PCS), the first of which went on line at the Los Angeles and Kansas City ARTCCs in September.

The centers have had standby generators for years, but with a commercial power failure, controllers were literally in the dark for a half-minute or so; more recently with computerized radar, it meant the loss of digitized radar and likely the loss of flight data information from the computer for as long as 15 minutes, resulting in the controllers having to use raw radar displays and manually writing out flight data strips.

With PCS, that is a thing of the past. Connected between the commercial power source and the center's equipment, the PCS power supply converts the electricity from alternating current to direct current. The PCS inverter changes it back to alternating, controlled as to voltage and frequency.

Should the power fail, a bank of batteries behind the inverter supplies direct current to the inverter for as long as 20 minutes. Kept continuously charged, the batteries can provide their full rated power for 10 minutes.

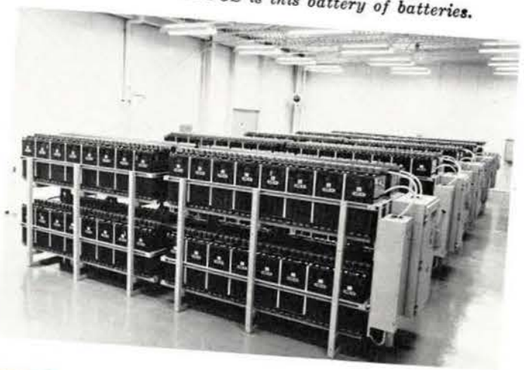
Whether the commercial power is lost or momentarily flickers, the PCS takes over until power is restored or the standby generators can be put into operation. Should a malfunction occur in one of the PCS modules, the system is programmed to disconnect the defective unit in 250 microseconds and permit the remaining modules to carry the load.

Miss Palmdale puts the last module of the new PCS in operation at the Los Angeles Center, with center chief Ed Harris and Airway Facilities Deputy Director Warren Sharp beaming satisfaction. This is the first of 20 such units.

Now, controllers will only know of a power failure by a fluctuation in room lighting, but the critical services of their radios, radar and computers will be uninterrupted to insure a continuous and orderly flow of air traffic.

Within the year, all 20 ARTCCs are expected to have Power Conditioning Systems in operation.

The power behind the PCS is this battery of batteries.



PCS spells confidence for center controllers that power outages belong in the history books.

GAS MISER—*Flying a 200-mile round trip on less than $6 worth of fuel is nothing to sneeze at during the energy crisis, and that's what Honolulu Center controller Orlin Lundberg did in his garage-built Volksplane. He made a run between Oahu and Maui.*

HERCULEAN OFFICER—*Mrs. Carol Jane Jeffus of College, Alaska, the first woman rated as a flight engineer in the state, is visited in the cockpit by Paul Donohue, principal inspector of the Fairbanks FSDO. Mrs. Jeffus works aboard a Hercules C–130 for Alaska International Air, flying the pipeline routes.*

FACES and PLACES

ALWAYS A SCRIBE—*DeLoris "Pete" Palmer is still in aviation though she's left the Central Region's Public Affairs Office. She's now public information officer for Gen. Alvin Moser and the 442nd Tactical Airlift Wing of the Air Force Reserve at Richards-Gebaur AFB, Mo.*

OFF-DUTY ASSIST—*While practicing for his commercial pilot's rating, controller-trainee David Darrow of Paine Tower, Everett, Wash., heard a student pilot's distress call and helped calm and direct him to a safe landing.*

WE POINT WITH PRIDE—*Atlantic City, N.J., Tower controllers (left to right) Robert Bachand, James Simmons and Thomas Van Swearingen and private pilot Robert Corson were cited by Eastern Region Director Robert Stanton (right) for their team effort in assisting a woman whose pilot-husband had died at the controls.*

PRAISEWORTHY—*For their courtesy and going out of their way to assist a pilot and his passenger who walked away from their crash at the airport, Worcester, Mass., CS/T controller Charles Kelly, assistant chief Stephen Annucci and chief Henry Szeflinski (from left) were commended by Administrator Butterfield, DOT Secretary Claude Brinegar and New England Region Director Ferris Howland.*

YOUNG AT HEART—*A pilot for a half-century, Rhoads Grimshaw (right) accepts an accident-prevention counselor certificate from accident-prevention specialist F.O. Smith of the Sacramento GADO. Grimshaw, 83, got his helicopter pilot's rating only four years ago.*

SNOW COUNTRY CHORE—*Snowmobiles may be for fun for most people, but at LaCrosse, Wis., Municipal Airport, they are a must. Airway Facilities Sector Field Office chief Herbert Rugen and electronics technician Harry Kebbe prepare to check out their unit for winter operation.*

VISITING THE CONSTITUENCY — *Don Saunders (left), northern New England Local Coordinator Committee member and chief of the Lebanon, N.H., FSS, gets out whenever possible to indulge in airport and community relations. Here, he visits with a glider student, the airport manager and his wife and two instructor pilots at Franconia, N.H.*

THE CONVINCER

Pilot Camilla Hutson of the 99s in San Diego appears pleased with the simplicity of punching a few keys for a printout of her briefing. Photo by Ed Hutchinson, San Diego AF Sector

PILOTS TEST EXPERIMENTAL SELF-BRIEFING COMPUTER TERMINAL

So, this is how we'll be flying in 1985," I thought to myself as I entered the Houston FSS to see a proposed piece of the future. I'd come with other Texas pilots to test the agency's experimental pilot self-briefing terminal, as well as to be tested on how well we could interpret what the machine had to offer.

After a preliminary series of tests at Westchester County, N.Y., Kansas City and Scott AFB in Illinois, Hugh Milligan, program area leader, and a team of 10 from NAFEC took the show on tour to 12 locations across the country to try out on pilots and FSS specialists. The tests are expected to be completed in February.

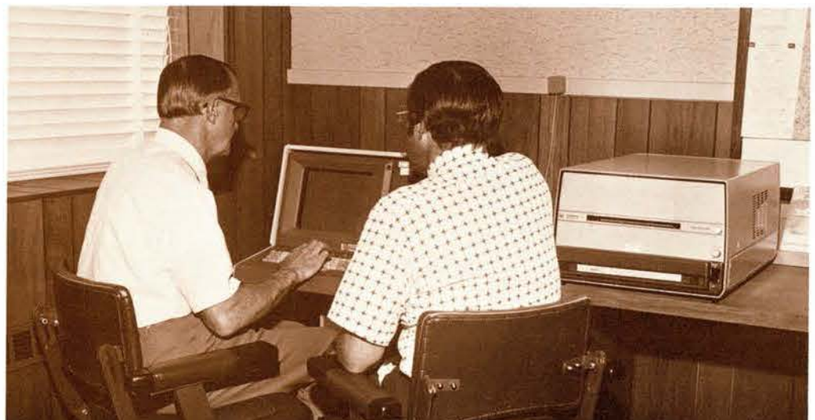
The idea behind this equipment is that the demand for flight services is expected to triple by the early 1980s, yet FSSs are not fully able to meet the current demand. Instead of tripling the number of specialists, the proposed system is planned to provide faster, more efficient and higher quality services to pilots with about the same number of specialists the agency has now.

So, now the terminal was here, sitting in a corner, its CRT glowing green above a typewriter keyboard. This robot and its computer cranium was out to change the way I and almost every other general aviation pilot prepare for a flight. It's supposed to replace the friendly human behind my neighborhood FSS counter and do it at half the long-term cost.

Frankly, I didn't trust it. Oh, I'm in favor of progress, etc., but I felt that you just can't build into a computer all the things that go into a good, accurate weather briefing by a qualified FSS specialist. Intangibles like the local terrain knowledge of Charlie, my faithful FSS briefer for the past 12 years, or the security of a face-to-face briefing from a person you know and trust. And God knows, this fancy computer can't lead a low-time pilot around by the hand the way Charlie can!

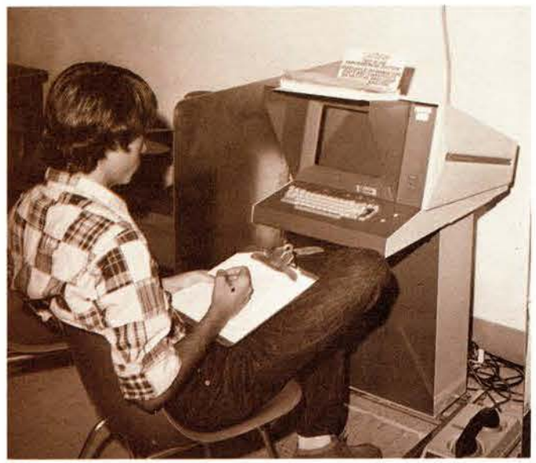
I've been given a five-minute briefing and seated before the machine. A specialist from NAFEC—Jim Talotta—is sitting at my side, but not to help me. He's there to record how much time it takes me to absorb a briefing from the console, using only the instructions that come galloping across the screen—about 10 minutes—and correlate it with my experience (a little over 300 hours).

My group of "test pilots" should present a good comparison. On my left is a corporate four-striper who pushes a JetStar around the sky for a living;



At NAFEC, project team members William Lewis, Systems Test Branch, and Joseph Romei, Air Traffic Control Services Branch, check over the self-briefing terminal. At right is one configuration of a hard-copy printer being evaluated.

Taking notes on his self-briefing at the San Diego FSS test of the computer terminal is pilot Jim Christensen.



and on the next console is a three-hour veteran of a Cessna 150, who only minutes ago finished her private pilot written exam in an adjoining office.

With a faint, business-like hum, my new computerized acquaintance goes to work setting the ground rules and giving me some choices. "All times are GMT," it says, even supplying me with the formula for computing Zulu time. So much for leading inexperienced or forgetful pilots around by the hand. Under the "options" item, I find that, depending on my response, the machine will give me a briefing on local weather only, a low- or high-altitude briefing, weather at any specific location or a chance to file a flight plan or pilot report without any briefing. I can even turn off the machine and go home if I find the weather more conducive to reading than flying.

When I reply that I'd fancy a low-altitude route briefing from Houston to Fort Worth, thence to Oklahoma City and Albuquerque, a truly mind-boggling series of events begins unfolding. National weather maps showing present and forecast weather appear on the screen, along with freezing levels and radar returns. They're almost identical to the ones downstairs in the real FSS. I get as much time to study each one as I want and can have a hard copy to take along. When symbols are used, legends are provided right on the display. Since all this information indicates beautiful VFR weather to Albuquerque, I begin filling out the flight plan questions that appear next.

Looking less a gimmick and more a real help all the time, the machine then spews out all the appropriate NOTAMS, along with current aviation weather advisories. It urges that I "consider the above data carefully before flying." That's got to be as close as a computer can come to holding your hand. My departure point's density altitude comes up next (How many times do you get that at a super-busy FSS?), together with sequence reports and forecasts for points along my route. Winds aloft pop up for eight points along my 828 nautical-mile route, with distances from the departure point included for reference.

By this time, I'm nearly sold, as this electronic marvel asks if I would like information for any other point, on my route or not. Since a cold front is forecast to hang threateningly to the north of my flight, I check Kansas City for forecasts and sequence reports.

Deciding that my flight is feasible even if the front tries an ambush along the way, I file the remainder of my flight plan when it's my turn to talk again. After receiving a perfunctory last-minute chance to change anything on the flight plan (You see on the screen what you're about to enter), I punch the "X" button, and my proposed trip is entered in the computer, ready for an FSS to log me on my way when I call in.

That's the process, fast and simple. It's not foolproof; no machine or process is. If a low-time VFR pilot, or a high-time one, decides to go when the weather is thick enough to dish up with a spoon, no machine is going to keep him from flying.

Our flight immediately following the briefing (and an identical official briefing at the FSS) was exactly as advertised. I doubted the system until I saw it work.

I still feel it harbors the dehumanizing effects of automation, but the machine will have humans to back it up; every operational terminal will have a phone nearby to the "hub" FSS. At that time, FAA will require fewer FSS specialists to man the hubs, but they'll be able to give better briefings in less time. The positions to be eliminated will be done through retirement and reassignment.

If flying is to remain within pocketbook range of the average general aviation pilot, computerization's got to come. It's going to benefit both pilots and FSS specialists, some of whom are already being overrun by demand for their services. It's got to be good news to both groups—and to FAA. —**By Jon Ellis**

DIRECT LINE

Q. The FAA Travel Handbook provides for $16 per diem for attending the Academy for over 10 class days and for only $12 for the enroute and return days for 10 class days or less, if no lodging is involved. The cost of motels and food are the same in Oklahoma City as anywhere else. And even though the employee may have to attend class up to 5:00 p.m. on the last day, arriving home very late, the per diem is $12. The $16 per diem needs to be increased, and authorization for POV should be given, with no bus transportation in Oklahoma City. A drastic cut in per diem for a particular location is discriminatory.

A. The per diem rate is in two distinct parts—one for lodging and the other for meals and miscellaneous expenses. The currently authorized per diem for students attending the Academy provides for the payment of lodging plus a $10 allowance for meals and miscellaneous expenses, up to a maximum of $25 for enrollment in courses of two weeks or less. For longer courses, the allowable per diem is $16 ($6 for lodging and the same as above for meals and miscellaneous expenses). The $6 lodging rate was established after a study indicated that the local daily rental rates were in most cases based on the per diem received by the students and that the building owners were willing to reduce their rates for longer stays. The $12 rate applicable to enroute days, where there is no lodging expense is, therefore, somewhat higher, not lower, than that allowed for days in attendance at the Academy. This $12 rate is the same as that provided for regular TDY travel. The decision as to whether the use of POV is advantageous to the Government is based on the criteria in the Travel Handbook (Order 1500.14 FA SUP 2, para. 451–S1). We should point out that the FAA bus service at the Academy has been expanded to provide greater coverage to available student housing.

Q. Our chief has a theory that all supervisors "shall stick together" in all situations, regardless of who is right—controller or supervisor. In other words, a supervisor is right even if he is wrong. Do you think this is fair to controllers?

A. This is somewhat of a "loaded" question. The right answer, of course, would be "no!" if one accepts the statement you make about your chief. There would certainly be an understandable inclination on the part of a chief to want to support a decision by a subordinate supervisor. We are confident, however, that this would not happen when a chief considered the subordinate supervisor to be clearly wrong. A chief who would practice this kind of blind support would not be properly fulfilling his responsibilities to his employees or to management.

Q. I receive a pension of $32 a month for a service-connected disability. If I am medically retired from the FAA at age 52 with 21 years of civilian service, will my four years of military time be credited in computing my retirement pay? I am not covered under the controller career program bill. Approximately what percent of my "high three" would I receive?

A. You do not state if the pension you receive is from the Navy or from the Veterans Administration. If the pension is VA administered, your military service will be credited for civil service annuity computation. If this is the case and you retire on medical disability, your approximate high three percentage would be 46 percent. If the pension is from the Navy and you do not meet certain criteria established by the Civil Service Commission, this time would not be creditable, and your percentage of high three would be the minimum disability annuity, or 40 percent. It is important to emphasize the difference between VA and military pensions for creditability of service. Your local CSC office can advise you in advance of retirement of the restrictions on crediting of military service if retired pay is received.

Q. I was awarded a QWIG January 22nd this year from step 3 to step 4. I was scheduled to get the step 4 in May this year. It seems to me that I should have received step 5 in May if my QWIG was to help me at all. What good is a QWIG when you receive the increase for only three months?

A. Based on the information you provided, your within-grade increase to step 5 is due in May 1975. Quality within-grade increases are awarded in addition to regularly scheduled within-grade increases. An employee who receives a QWIG does not begin a new waiting period to meet the time requirements for a regular within-grade increase. However, if a quality increase places an employee in the fourth or seventh step of his grade, his waiting period for a regular within-grade increase is extended by 52 weeks. This is provided for under the graduated waiting-period schedule set forth in sections 5355(a) and 5336(b) of title 5, U.S. Code. In your case, the quality within-grade increase served to shorten your waiting period for step 5 from May 1976 to May 1975.

Q. My application for annual leave in November was denied not because of lack of watch coverage but for a reason I fail to comprehend. During two of the five days for which I requested leave, the opposite shift supervisor (his day watch, my evening) is on annual leave. My facility chief states that the region has advised him it is policy that no more than one supervisor may be on annual leave the same day. Whose policy is that?

A. There is no policy in your region (New England) that no more than one supervisor in a facility may be on leave at one time. Provisions concerning the employee's use of leave and the supervisor's granting of leave are contained in FAA Absence and Leave Handbook 3600.4. It is the supervisor's responsibility to apply the provisions of the handbook to each leave case. His interpretation will be based on the specific circumstances surrounding each leave situation.

Q. Why is it that all raises are always on a percentage basis? Why not an across-the-board equal raise for everyone? For instance, a five percent raise means around $400 a year for a GS–4 making around $8,000 a year and around $1,250 for a GS–14 making $25,000 a year. Isn't this discrimination?

A. The law (Section 5301 of Title 5, U.S. Code) establishes two broad principles that form the foundation for sound pay administration. One is the comparability principle, which means that Federal pay is to be reasonably comparable to private enterprise for the same level of work. For you, as a Federal employee, this means that you are assured of pay equity with your counterparts in the private sector of the economy. The General Schedule is based directly on private enterprise's national average pay rates, as reported annually by the Bureau of Labor Statistics. The other principle is that of internal alignment. Under this, pay schedules should provide adequate and regularized differences in pay between successive grade levels, thus giving appropriate recognition to differences in responsibilities. Thus, this principle provides distinctions in pay consistent with distinctions in work and performance.

Q. I am 32 years old, work in a flight service station and have about four years' experience working in a military control tower. I know that I am not eligible for a control tower position in FAA, yet I know people who have washed out of a center and are getting jobs in towers and centers. Why isn't a man who is experienced in tower work more valuable than a man who has already washed out and doesn't have any control experience?

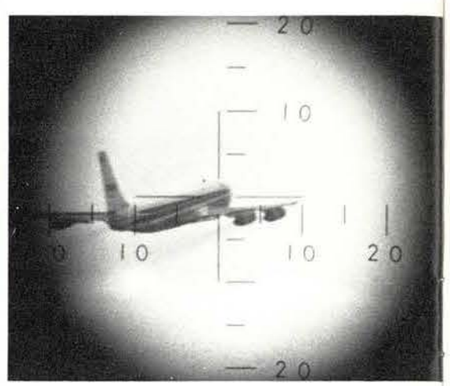
A. Many years of experience and intensive studies preceded the enactment of PL–297—the controller career program bill—showed the ability of controllers to effectively control air traffic begins to decline at a relatively early age. It was also shown that these mental skills and aptitudes are more related to job success than previous experience. Under this law, the Secretary of Transportation proposed, and the Civil Service Commission concurred with, a maximum entry age of 30 for covered positions, without exception and, of course, without regard to previous experience. An employee who fails to progress to full-performance level in an enroute facility may be considered for reassignment to a non-radar tower as a developmental controller, provided the employee has satisfactorily completed Phase I and the manual control portion of Phase II of the enroute training program. This proviso would prohibit the reassignment of a person who "doesn't have any control experience." Paragraph 2 of Handbook 3330.30A provides for exceptions to dismissal in cases when an employee fails to progress to full-performance level, but it makes no provision for reassignment from one center to another.

Q. The mobility bug has bitten our center chief where most of his supervisors are concerned. The rotation of assistant chiefs and team supervisors results in team supervisors being with their crews for a two-year maximum period. This policy does not allow for any long-range program between the individuals concerned. Also, the assistant chief only works with his team supervisors for a one-year period. This results in an almost non-existent awards program. This seems to many of us to be the real intent of the program. Is this type of program grievable because of the lack of continuity in ratings? Would a grievance stop the next scheduled musical chairs session?

A. Facility chiefs have the authority to reassign employees within their facilities to meet operational needs and enhance employees' opportunities for professional growth. The filing of a grievance would not prevent your chief from exercising this authority. However, as a member of the management team, you should advise your facility chief of your concerns regarding the awards program. Since performance awards need only be based on a six-month period, the rotation of assignments you cite should not preclude consideration of team supervisors for awards.

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

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



Aircraft are lined up in the sights and the radar locked on by (left to right) Russ Fleming, Dominick Cozza and Charles Knapcik. Above, a gunsight-eye view.

Photos by Bill Pitchford

RECALLED TO DUTY

Inside a van parked on the grass at O'Hare International Airport, men peered through periscope antiaircraft gun sights aimed at passenger jets flying in and out of the world's busiest airport. At just the right moment, a switch was thrown, and . . . radar locked onto the target.

There was no sound of cannon fire, no puffs of black smoke in the sky. The guns had disappeared, replaced by cassette tape recorders and other nonhostile gear. FAA technicians were using equipment of World War II vintage to follow and record the flight paths of commercial airliners as an aid to noise-abatement flight procedures.

Pressed into service for peaceful purposes, the equipment, called APTAR—aircraft position tracker and recorder radar system, hit the road in August and September via flatbed truck for TDY at two locations.

The APTAR was borrowed from the Aeronautical Center, where it had been performing similar tracking duty. It was modified for tests in the field by E. E. Callaway, chief of the Standards Development Branch there, while Russ Fleming of the Center's Flight Standards Division served as project manager at O'Hare Airport.

Given up as hopeless scrap by the Army, APTAR was rescued from a military "boneyard" in Fort Huachuca, Ariz., about three years ago and put together by the Center's John Baird, who used components from two units to make one good system for active duty.

Before it was set up at O'Hare, APTAR was at Minneapolis-St. Paul International, Wold Chamberlain Airport to check noise-abatement flight paths and to track FAA aircraft flying multiple approach paths proposed by the Metropolitan Airports Commission.

Then, on to O'Hare where two shifts of four men each recorded nearly 1,000 flights day and night for two weeks. One man sighted the airplane, lined it up in the viewfinder's crosshairs and locked it onto the radar, while the others operated the radar antenna and listened to tower communications to keep abreast of the flights.

Once the radar locked onto a plane, the equipment laid down a tape recording that was processed to show the plane's altitude and position along its route up to 13 miles from the airport (and in other locations, up to 40 miles).

Detailed from the Aeronautical Center for the O'Hare job were Bob Chadwick, Dick Richards and Dewitt Vernelson. On a second crew were Charles Knapcik and Dominick Cozza from the O'Hare Airway Facilities Sector; Norm Haase, Chicago ARTCC Airway Facilities Sector; and Al Woodson, Midway Airport Sector.

The mobile unit also has been used by the International Civil Aviation Organization in an obstacle-clearance project and by others to track missiles, research aircraft flying in severe storms and commercial airliners on landing-approach training flights.

Maybe old soldiers don't fade away. This one certainly hasn't and may not for some time to come.

—By Warren Holtsberg

Dick Richards (center) maps out strategy in front of the APTAR van at O'Hare with Al Woodson (left), Midway AF Sector, and Norm Haase, Chicago Center.

WORD SEARCH

By Leo F. Bowersox, Albany, Ga., SFO

Here's another chance to have a go at puzzling out hidden words. This time, it's the stock in trade of the electronics technician. The words or acronyms read forward, backward, up, down and diagonally, but are always in a straight line and never skip letters. The words overlap and letters are used more than once.

Use the word list if you must, but try covering it first. All 54 words can be found. Circle those you do find and cross them off the list. The word "AUDIO" has been circled to get you started. When you give up, the answers may be found on page 19.

Now, we have had Word Searches from the Flight Service Station and Airway Facilities contingents. Does anyone care to submit a puzzle for Air Traffic controllers, Flight Standards inspectors or . . .?

AGC
ALTERNATING
AM
AMP
AMPLIFIER
ANTENNA
AUDIO
AVC
BANDPASS
BANDWIDTH
BASE
CATHODE
CLIPPING
COLLECTOR
CRYSTAL
CURRENT
CW
DETECTION
DIODE
DIRECT
EMITTER
FARAD
FILTER
FIXED
FM
FREQUENCY
GRID
INTERPOLATION
METER
MIXER
NOISE
OHM
OSCILLATOR
PLATE
RADIO
RECTIFIER
RESONANCE
SELECTIVITY
SENSITIVITY
SERIES
SHF
SHUNT
SIGNAL
SPECTRUM
SSB
THETA
TONE
TRANSFORMER
TUBE
TUNABLE
UHF
VHF
VOLTAGE
WIRE

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

The Los Angeles ARTCC Airway Facilities systems engineer, George Manthey, monitors the center's equipment from the "Christmas Tree Console." Photo by Bill Bair, LA Center

THE EYES BEHIND THE EYES

Automated enroute radar is the watchdog of the nation's airways. Ensuring that these electronic eyes of the air traffic controllers are ever alert is the Systems Maintenance Monitor Console (SMMC), the last of which went on line this year at the Miami ARTCC.

Like any complex and sophisticated system of men and machines, the NAS Stage A is vulnerable, and any component failure might lead to grief if it remains undetected.

Under the watchful eyes of a systems engineer and an assistant systems engineer, the SMMC is on 24-hour duty to prevent such an occurrence. It is composed of modules that monitor each major subsystem of the front-line equipment: the main computer complex, the computer display channel equipment that generates the alphanumeric displays, each remote radar and common digitizer, the navaids and communications equipment, the standby power system and even the center's service facilities, like air conditioning, essential to the sensitive computers.

On the watch for system errors at the SMMC in the Miami ARTCC are assistant systems engineers C. A. Owen (left) and William Limer. In the foreground is the facility coordination officer George Albritton.
Photo by Eugene Mickel, Miami Center

The status of each of these subsystems is monitored by miniature projectors that display colors, symbols and printed legends to indicate normal or failure information. In the event of a failure or status change, the lights flash and an audio alarm sounds. Each console also contains two cathode-ray tubes. One is a Random Access Plan Position Indicator to display selected radar inputs; the other is a "See-All" on which the systems engineer can view the data going to any control position. An input/output typewriter and two printers are also provided.

Planned for the embryonic NAS Stage A design in 1964, the SMMC was first installed in prototype form at NAFEC and the Jacksonville Center. Just two years ago, deliveries of operational units began for the Aero Center, NAFEC and the 20 centers.

FAAers involved in its development included Bill Covell of Systems Research and Development Service, the project manager; Dan Rogers of Airway Facilities, who developed the systems engineer position requirements and helped with prototype development; Jack Farrance, also of AF, who worked on production; Gerry Reid, systems engineer at Jacksonville, who worked on prototype testing; and John Riley of NAFEC, who handled design review and testing there.

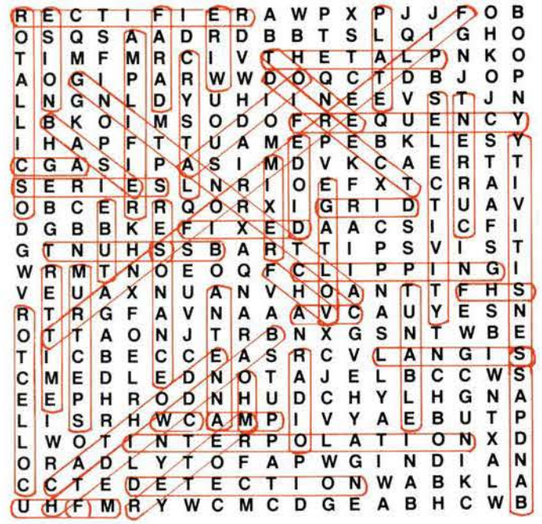
SMALL WORLD

DON'T GO NEAR THE WATER . . . It was a bit of intermodal coordination that would have warmed the hearts of the men and women who framed the Department of Transportation Act. First, controllers at the Honolulu International Airport Tower sighted red smoke flares off-shore and notified the Coast Guard Rescue Center. Then the Coast Guard dispatched a rescue vessel which sped to the area where the flares had been seen with the aid of "vectors" from the tower. Finally, a disabled 20-foot cabin cruiser was taken in tow and brought safely back to shore. The FAA heroes were controllers Don Kramer, Ed Groth, John Kaniaupio, Brad Kumabe and John Olson. The Coast Guard people will have to get their own publicity. No sense in carrying this intermodal thing too far.

YOU'VE COME A LONG WAY, BABY . . . One day it was coffee, tea or milk. The next it was landing gear, brake pressure and flaps. That's the story of Judy Congreve who went from chief stewardess of the Pegasus Air Travel Club to co-pilot of the organization's DC-8. In the process, she became the first woman certificated by FAA for pilot duties on four-engine turbojets. And for those who are wondering about her qualifications, she has more than 3,000 hours in her log book, holds an airline transport pilot's ticket and is a certificated flight instructor. No wonder Pegasus couldn't afford to keep her in the galley, even if she did mix a mean martini.

BIRDS OF A FEATHER . . . Another success story a little closer to home is that of FSS specialist Adrian Seals at Lafayette, La. Seals began his working career as a gooseherder in his native New Mexico, which means he really had no place to go in life but up. Not that the job didn't have responsibilities. At the height of his career, he held sway over 500 geese, herding them from weed patch to weed patch and periodically to water. But one day, Seals saw a Stearman biplane dispensing herbicides and knew the days of the goose herd as a primary means of weed control were numbered. So he decided to side with progress and seek a career in aviation. Down in the Lafayette, FSS, they're glad he did.

Word Search Answer



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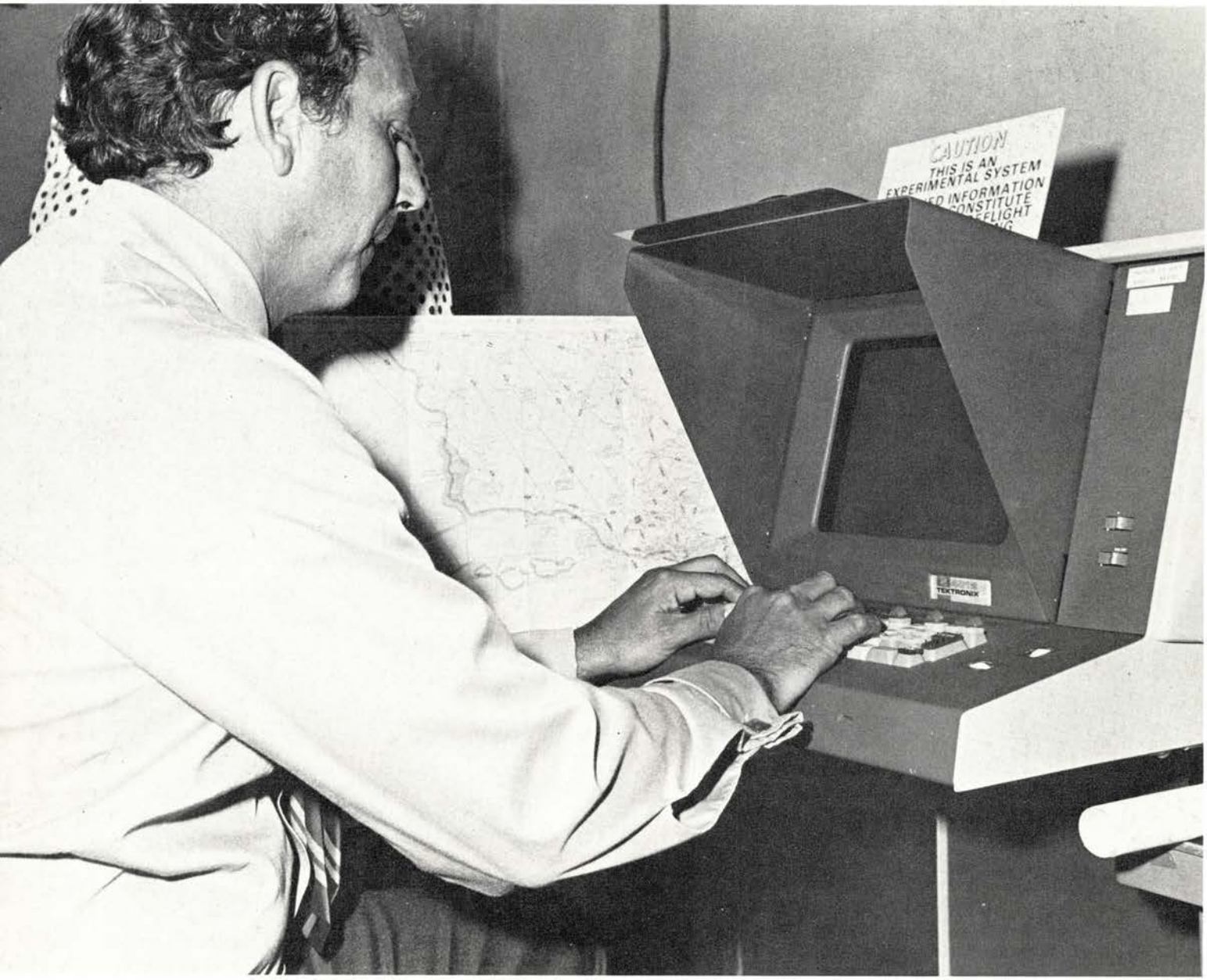

FSS specialists as well as pilots are getting a chance to try out self-briefing computer terminals and be heard by NAFEC program managers. Here, San Diego specialist Ben LaTorre enters a flight plan. *See story on page 12.*

Photo by Ed Hutchinson, San Diego AF Sector