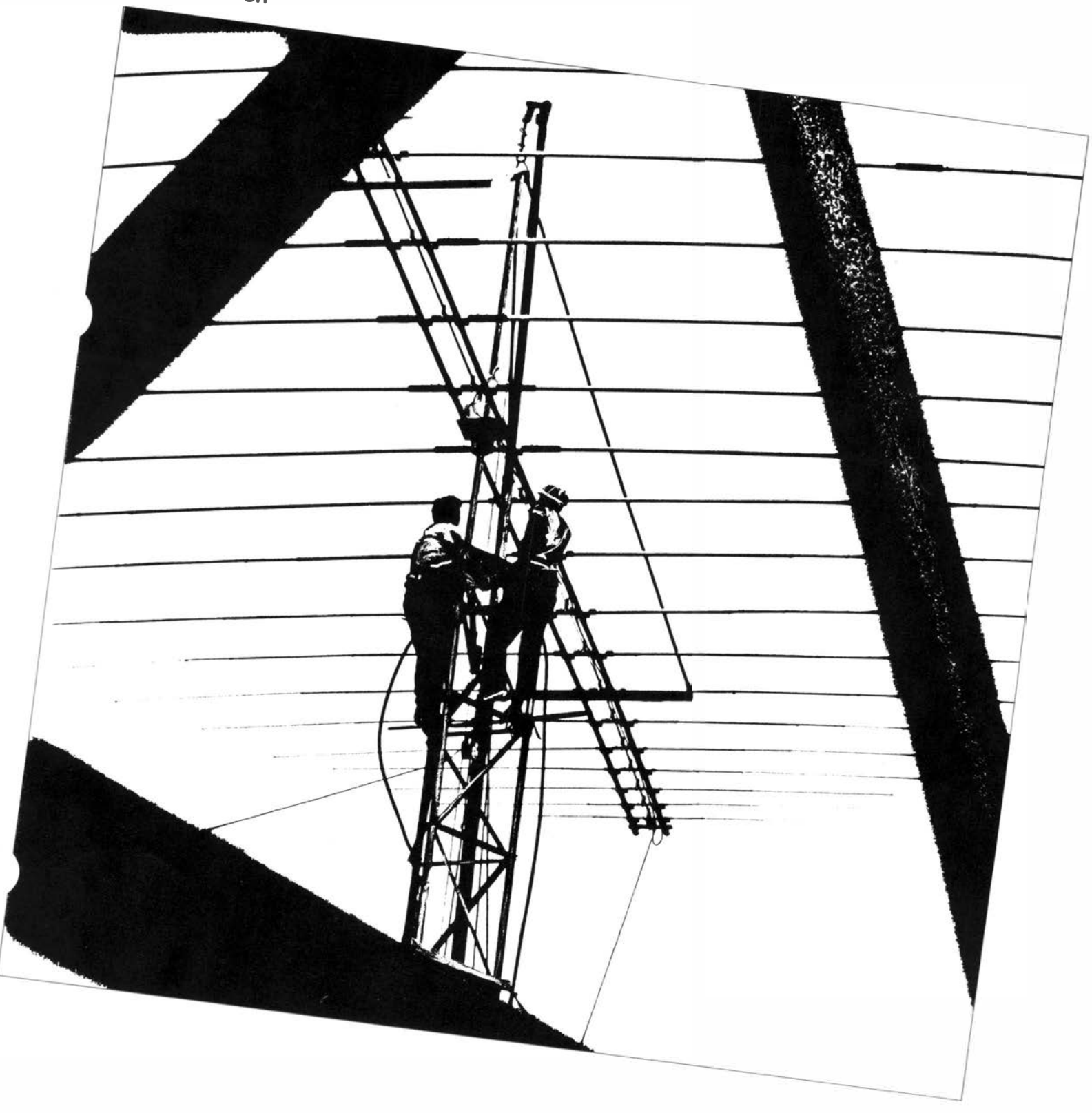
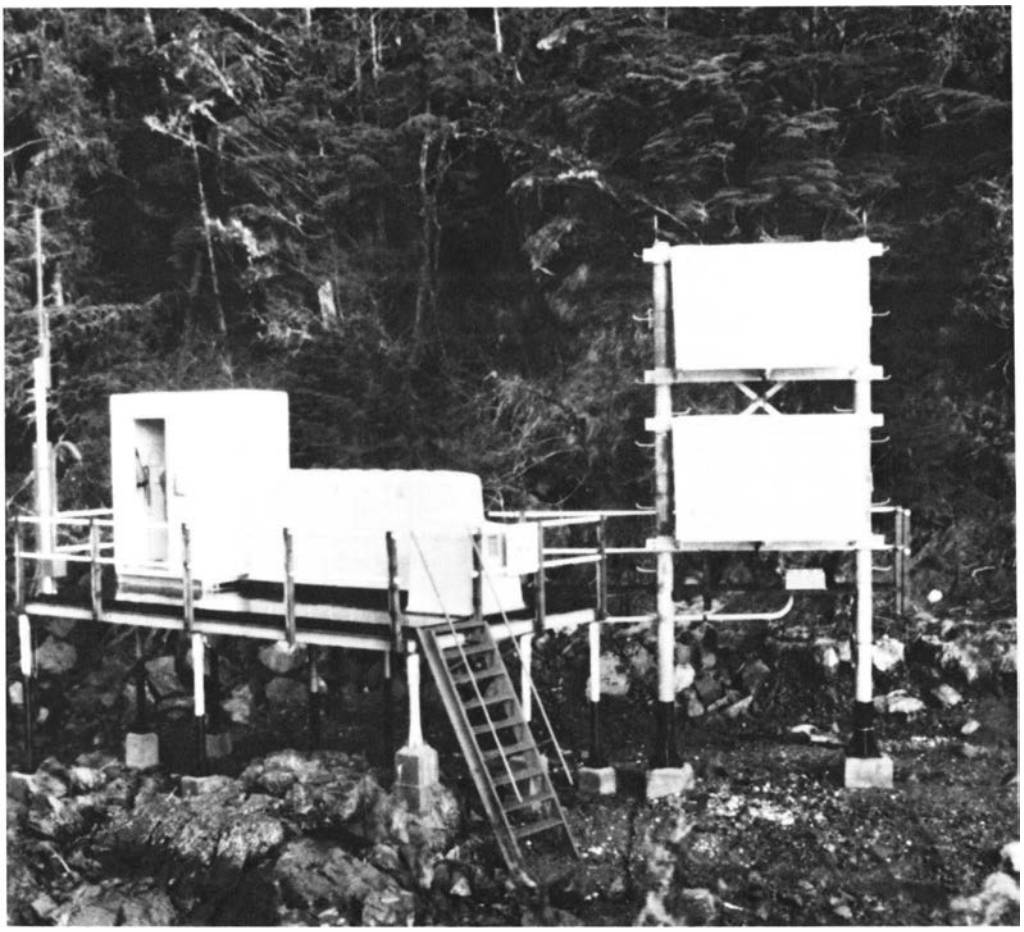
World

July 1981
Volume 11 Number 7

U.S. Department
of Transportation

**Federal Aviation
Administration**





Research Highlights

If you think that solar energy is only for warmer latitudes, take note of the outer marker for the approach to the Sitka, Alaska, airport.

The solar cells that charge this battery-powered, 1½-watt, 75-MHz transmitter are entirely adequate at 57°03" north latitude. Each pair of solar panels has a separate regulator to charge the batteries during daylight hours with the excess energy not needed to run the transmitter. After dark, the transmitter draws from the batteries.

The reserve built up during the summer and fall is drawn upon during the short days of winter. During the low light of a hail and rain storm just before this March photo was taken, the charging rate for the 28-volt bank of batteries was only half an ampere. When the sun reappeared, the rate rose to six amperes from each regulator, compared to seven during the summer.

It beats more frequent servicing by helicopter on this rugged shore.

Front Cover: Either this high-contrast photo is of a deep-fringe TV antenna or the technicians are working on a log-periodic communications antenna. The photo was taken at the Balboa, Panama, CERAP, and the antenna serves the IFSS. The photographer is Kenneth Hirsch of the Tri-City Airport (Tenn.) Airway Facilities Sector Field Office, the grand prize winner in the "FAA Employees on the Job" category of the Employee Photo Contest.

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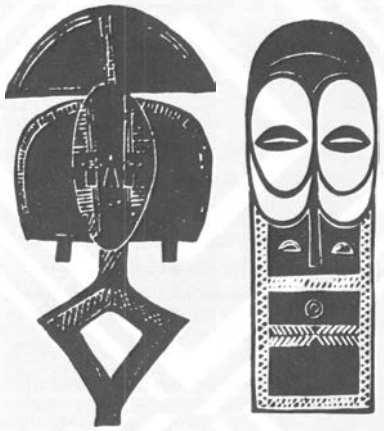
By Theron Gray

The Special Counsel to the Deputy Administrator, he formerly served as a trial attorney in the Office of the Chief Counsel since joining FAA in 1974.

Safety Knows No Borders

FAA Team Surveys African Aviation Needs



FAA has a vested interest in a safe air transportation system throughout the world, for U.S. airlines, aircraft and equipment can be found all over the globe, and other nations' planes fly in our airspace.

The assistance that FAA can provide in the development and maintenance of a safe and efficient airspace and air transport system to each country of the third world is an essential part of FAA's mission. It is just "good business" to anticipate that as advanced aeronautical and technological products become available to these nations, their use of them will continue to shrink the globe until the phrase "crowded skies" becomes an international as well as a domestic description.

So, it was particularly gratifying when I had the totally unexpected opportunity to visit Africa last summer.

Out of the blue, then Deputy Administrator Quentin Taylor called me in one day and asked me to accompany him as legal advisor on a two-week tour of seven African states to assess their air transportation needs.

As a Black, I was excited by the thought of returning to the "motherland" and actually setting foot in countries that had merely been place names to me—Ivory Coast, Kenya, Mali, Nigeria, Senegal, Tanzania and Zaire.

Our workdays were long and did not leave much time to pursue the pleasures of tourists, but just to be in Africa made every minute an adventure.

We left Washington on Wednesday, July 23, for Bamako, Mali, via Newfoundland, the Azores and Dakar, Senegal, for refueling.

Mali is an arid, land-locked nation about the size of Texas and California combined. The northern half of the country is Sahara Desert, while to the south, it is a semi-desert area of hard-packed earth. Its western portion, over which we flew some 650 miles to Bamako, is called "savanna land"—low-lying country covered with tall, coarse grass, clumps of trees here and ther and spotted with swamps.

Mali is a poor country with no real export economy to earn the hard currency essential for importing foreign goods and services to help develop the country. Its one tourist attraction—Timbuktu—needs further development, including an improved runway and navigation aids, to reach its full potential.

Our first meeting in Bamako was held at the U.S. Embassy with Oumar Bore, the director-general of the state-operated airline, Air Mali.

Like most of Africa's airlines, Air Mali is a quasi-governmental operation, which has an international route structure but also serves seven cities within Mali's borders—service that is occasionally a problem, given the poor intra-company communications. Air Mali has about 700 employees and a fleet of five planes: a Boeing 727 acquired from World Airways; a Super Caravelle, a gift from Syria; a Twin Otter from Canada; and two Soviet turboprops. Mr. Bore admitted that this unusual array of equipment presented many maintenance problems. For one thing, he said, Air Mali's maintenance staff is not equipped to handle major overhauls, and, what's worse, the difficulty c

The Mali Minister of Transport, Robert Tieble N'Daw, greets Quentin Taylor (right) at the Bamako Airport terminal.

A Senegalese controller talks to an aircraft in the clearance delivery position at the Yoff Airport tower in Dakar.

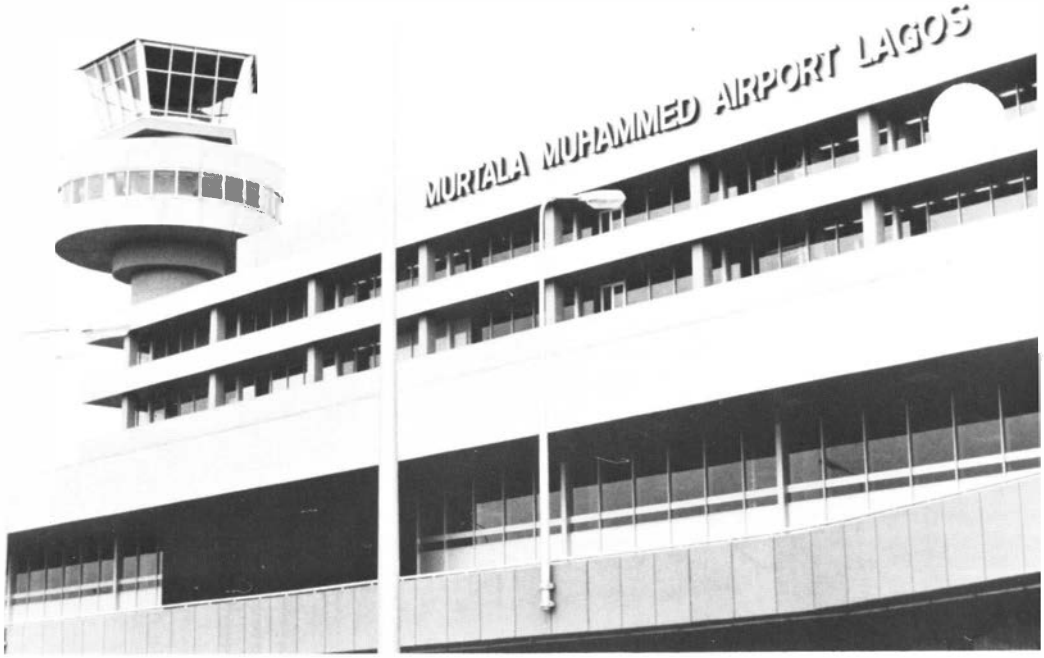
Discussing Mali's aviation needs with the FAA visitors and Philip Swatek (left), director of the Europe, Africa and Middle East Region, are (from the left) Mme. Konare, director of Bamako airport, Isaac Sy, Mali airports director, Moussa Toure, director general of civil aviation for Mali, and Saidou Pona, director of Mali's office of ASECNA.

obtaining spare parts often compounds even minor repairs.

On Sunday, at Bamako Airport, we met with Mali's Director of Civil Aviation, Moussa Alassani Toure, and his staff. The director explained that Mali's needs fell into three categories: airport improvement, physical and managerial; better training across the board, particularly in air traffic control; and, finally, acquisition of all types of aviation system hardware, from weather radar to an assortment of air/ground communications gear.

En route to Dakar, Senegal, we had our first real opportunity to assess what we had learned on our first leg of the trip and what could be done to help meet the aviation needs of Mali. Quent Taylor made a comment that stuck with me for the remainder of the tour: "Even our smallest investment in Africa will be deeply appreciated, for the needs here are really basic," he said. "If we can do no more than provide some form of training assistance, the African aviation industry would be influenced favorably toward America. Mali gains, Africa gains, America gains."

In late afternoon, we arrived in Dakar in a drought-breaking rain—a good omen in Africa. Senegal is Africa's western-most state, and Dakar, its western-most city. It's a city well known to Americans for a number of reasons. Early in World War II, Dakar



Nigeria's capital city tower and terminal are among those that meet ICAO standards.

literally was a sight for the sore eyes of weary U.S. military pilots. It was their first stop in ferrying planes from Natal, Brazil, across the Atlantic.

It was also at Dakar, little more than a century ago, that African Blacks were corralled like cattle, bartered and sold and herded on slave ships, most of them destined for America.

Today, Dakar is a thriving, thoroughly modern commercial center of about 750,000 people, large office buildings, broad avenues, bustling market places, lush parks and beautiful beaches. It also is the hub for the entire continent's aviation industry.

Our meetings in Dakar consisted mostly of conferences with various elements of ASECNA, which—loosely translated from the French—stands for Agency for the Security of Air Navigation in Africa and Madagascar." It's a French-sponsored organization of 15 French-speaking African states and is comparable in function to our Air Traffic and Airway Facilities Services combined.

According to Desiré Taty, director of Administration for ASECNA, none of the member states has all of the elements needed for the basic framework on which to build a cohesive and efficient domestic air transportation system. One may not have flight inspection aircraft, another may lack navaids. Moreover, he explained, aviation officials within each member state zealously guard their national prerogatives, often to the detriment of that state's and the continent's overall air transportation system.

These and other problems severely limit the effectiveness of ASECNA. For one thing, they sap the financial strength of the organization, keeping it from making needed capital investments and improvements. ASECNA's one flight inspection aircraft, a French Corvette, for example, is at least 10 years old, as is the testing equipment onboard. Weather radar and weather reporting and forecasting equipment for terminal areas were cited as other critical needs.

On Thursday, we flew to Lagos, Nigeria, the world's richest and most heavily populated Black nation.

On our trip to downtown Lagos from Murtala Muhammed Airport, we were greeted by the traditional mid-morning rush-hour traffic jam. Inching along, we were at the mercy of youthful and aggressive vendors, who hawked their goods—watches, travel irons, cooking utensils, etc.—from the highway's median strip. The road from the airport is bordered with access roads that are crammed with a welter of commercial and industrial buildings and assorted residential structures of varying durability, all competing for the limited roadside space.

All of the sights and sounds suggest the bustle that must have been prevalent in New York at the turn of the century, with its waves of immigrants grabbing for their piece of the American dream. Lagos' "immigrants" are from Nigeria's rural areas, drawn by the wealth that oil has brought to the city. About one-and-a-half times the size of Texas, Nigeria is one of the world's 10 leading producers of petroleum, coal, tin and iron.

Nigeria has 14 of its planned 19 airports either completed or nearing completion, we were told by Nigeria's Minister of Aviation, Samuel G. Mafuyai, who added that six are designed to ICAO standards and four of these six will be able to accommodate 747-type aircraft. Nonetheless, he said, the country's aim is to improve domestic air transportation service instead of gearing up for the more prestigious international routes.

At the time of our visit, Nigeria's airway system had only six VORs, but plans were underway to provide full VOR coverage during the next few years. Although there were just three airport runways in the country equipped with instrument landing systems, there were plans to install another three in the near future.

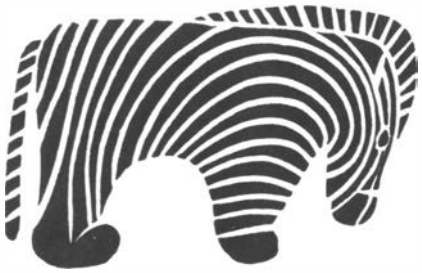
Nigeria Airways has 28 aircraft of six different types and had just placed orders for four Boeing-737 jet transports. Moreover, KLM, the Royal Dutch Airline, had just signed a two-year contract to reorganize and manage Nigeria Airways, while training Nigerian officials to eventually take over the operations and management themselves.

During the discussions, it became obvious that the major stumbling block to air transportation in Africa, even in a wealthy African state like Nigeria, is the lack of adequate training facilities and experienced instructors. These deficiencies are reflected in

the critical shortage of skilled personnel at all levels of Nigeria's aviation industry.

As in other African states, much of Nigeria's aircraft and aircraft equipment is manufactured in the U.S., but it is purchased through traditional commercial channels in Europe at additional cost. Mr. Mafuyai said that his country is anxious to purchase U.S. products directly.

Mid-morning, Friday, August 1, we departed for Kinshasa, Zaire, a 2,400-mile flight, which took the better part of a day. Zaire is a land-locked nation in south central Africa. It was a last-minute addition



to our itinerary and our stay there was brief.

We met briefly with Mawete Kinko, Zaire's Director of Air Traffic Routes, on Saturday morning at the residence of U.S. Ambassador Robert B. Oakley.

Zaire has two military airports and 40 civilian airports, Mr. Kinko explained, of which four—Kinshasa Lubumbashi, Kisagani and Goma—are considered major facilities. Unfortunately, he said, most civilian airport equipment, produced in the U.S., is not being used, he said, because of neglect, lack of training and pilferage. Zaire's aviation needs were many and varied, but here again technical training was considered its most pressing. Mr. Kinko suggested that the U.S. could best help Zaire by establishing a Civil Aviation Assistance Group. (CAAG).

Our next destination was Nairobi, Kenya, some 1,500 miles to the east and slightly north. En route we encountered Mt. Kilimanjaro, a truly stunning sight. Kenya is located on the east coast of Africa and although it straddles the Equator, most of the country is on a high plateau (about 10,000 feet) and the weather is quite pleasant. Its capital, Nairobi, is located in the southwestern part of Kenya in the "high country." It's a beautiful city, with much charm, and unquestionably the tourist mecca of Africa.

During our discussions with Kenyan aviation officials, we heard the familiar refrain that we had often heard throughout Africa: how badly an internal training capability was needed. John Kahuki, Director of Civil Aviation, told us there is a small school at Wilson Airport in Nairobi, but it does not offer specialized courses like radar and navaid maintenance.

He also expressed the desire to deal directly with U.S. industry representatives who sell equipment or services to African nations. Now, he said, most U.S. companies use either local or European representatives to deal with Africans, and it would be far better for U.S. companies to have their own representatives stationed in Africa.

Neat, tile-roofed buildings grace Goree Island in the harbor outside Dakar, Senegal.

Tanzania was our next stop on the tour. On the east coast of Africa, 600 air miles south and east of Nairobi, it is about the size of Colorado, Wyoming, Utah and Nebraska combined. Most of the country is located on an arid plateau some 4,000 feet high, and its few arable lands are located on the shores of Lake Victoria and Lake Tanganyika. This factor, combined with the necessity of spending most of its foreign exchange on oil imports, has made Tanzania one of the poorest African nations, despite the fact that it is one of the world's leading diamond-mining countries. It also is the only socialist country we visited during our tour.

Most of our discussions with aviation officials in Dar-es-Salaam, the capital, concerned problems with the lease of two U.S. registered aircraft—a Boeing-707 and 727—by Air Tanzania. The airline officials

understood that the two aircraft must be maintained according to FAA regulations and standards, but they seemed to have difficulty understanding exactly what was required. One of the reasons for that, explained Lot Mollel, Director General of Civil Aviation, is a problem in getting FAA publications, including airworthiness directives and other safety documents. Often, they simply never receive them.

Although courteous and friendly, Mollel was not impressed by our visit. He said that many U.S. groups visit his country, but rarely is there more than a perfunctory follow-up to their visits. He cited the example of a recent U.S. Department of Commerce trade mission which had been presented a shopping list of Tanzania's needs. To date, he said, shaking his head, he hadn't heard a word from them.

To our embarrassment, he said that communications with the FAA had fared no better. Direct correspondence through U.S. officials in Montreal and even through the U.S. embassy had gone unanswered. (FAA has since sent the regulatory materials requested by Mr. Mollel.)

On that sobering note, we left Dar-es-Salaam, again bound for Africa's west coast.

Outside Dakar's Yoff Airport are gathered (from the left) Regional Director Swatek, then Deputy Administrator Taylor, Dakar ASECNA representative Abbase Diouf, George Dalley, Civil Aeronautics Board member, and William M. Newell, FAA Africa representative.

Our final destination, Abidjan, Ivory Coast, lay some 2,800 miles to the west and slightly north. Ivory Coast, about the size of New Mexico, is one of the most prosperous and self-sufficient countries in Africa, and the recent discovery of oil there will ensure its continued prosperity.

We arrived in Abidjan, a beautiful city on the shores of the Gulf of Guinea, in the late afternoon. During the next two days, we met with a number of government and aviation industry officials.

There are two airlines based in Abidjan. Air Afrique is more an international carrier while Air Ivoire concentrates on domestic service. Sadibous Kamara, Technical Director of Air Afrique, said that the major goal of his company was to handle its own maintenance, but for the time being, he said, they were paying UTA, a French airline, some $15 million annually for maintenance of Air Afrique's DC-8s and DC-10s.

Air Ivoire was one of the few success stories we had heard during our entire tour. A struggling airline, its management had been taken over by the military and had become an overnight success. One reason for its new-found success, of course, is that the airline had access to the military's many resources, like pilots and technicians, and to the logistical support provided by military depots along the airline's routes.

Obviously, the example of Air Ivoire has drawn the attention of other African nations as a possible interim solution to their airline problems.

Our meeting with Air Ivoire officials was an uplifting way to conclude our African tour. The next day, August 10, we began our flight home. During the trip back, as I thought about the many places we had been and the interesting people we had met, I recalled the words of Oumar Bore of Air Mali when we arrived in Bamako:

"We are delighted that you, as representatives of United States aviation, have come to visit us. We are honored. We had thought that the United States had turned its back on African aviation. Your presence tells us very strongly, that this is not true. Thank you." ■

A Safe and Efficient System

The Administrator States His Philosophy

The following statement by Administrator J. Lynn Helms is an excerpt and amplification of a speech given by him to the American Association of Airport executives in Reno, Nev., on May 13. It offers an interesting insight into Mr. Helm's management philosophy.

Every person is a prisoner of his own experience. I have found that I'm invariably better off in trying to absorb new undertakings or work out difficult situations if I return to fundamentals. This caused me to seek a simple but clear definition of what the FAA is all about. Simply put, it is the safe and efficient use of the nation's airspace and facilities.

I purposely elected to put the word "safe" first, but equally, I included the word "efficient" because we cannot ignore the economic consequences of our decisions. I intend that FAA will become directly responsive to that simple definition during my

tenure, and I have given our managers three guidelines to further that goal.

First, we should control, but not constrain.

Second, we should regulate, but not interfere with free enterprise or competitive purposes.

Third, we should recognize that the major portion of air travelers do so by means of scheduled air carriers, and we have responsibility to consider their priority, but not to the point it excludes the single individual from enjoying man's greatest achievement—solo flights.

Why these three guidelines? Because on November 4th, the American people gave us a message. It was clear; it was distinct, and it was declaratory: WE WANT A CHANGE!!

Moreover, in passing the President's Fiscal Year 1982 budget request, Congress gave complete affirmation to the President's program to (a) reduce the cost impact and influences of the Federal Government, (b) stop needless regulation and further expand the effort of deregulation and (c) insist on productivity increases and make the people aware that they are the losers when given something for nothing. In short, there is no such thing as a free lunch.

I have found when I use the terms deregulate or defederalize in conversation that it produces at least two different reactions:

The first reaction is we should have complete deregulation—and there is usually more emphasis on the word "complete." This sounds good. But frankly, I would have considerable worry in purchasing a prescription at a pharmacy where there was absolutely no control or regulation of the ingredients. I would worry about stocks that might be purchased by widows and old people with their life-savings if there were no Securities and Exchange Commission to insure certain minimum criteria. And I would be concerned at getting in my airplane and flying through the weather to Connecticut or Florida, or wherever, if there were no flight plans, no control, no regulation. In fact, we don't mean nor do we want *complete* deregulation. We mean selective deregulation.

The second reaction to deregulation often is expressed by people who say; "absolutely, no holds barred; I'm all for it, The government is too intrusive—but don't impact me! Those other people are outrageous, but don't touch me." I have a message for them: There is no such thing as a free lunch.

When considering what FAA does, keep one thing in mind. Most of the companies, most of the trade associations and most of the other organizations that come into contact with the FAA are primarily oriented to *external* events. Yet the major activities of the FAA are primarily oriented by *internal* events.

That is the reason I have spent so much time during my first months in office studying the FAA apparatus—for example, visiting the Technical Center, air traffic centers and regional offices, as well as reviewing major program efforts, such as our program for the future air traffic control system.

During this period, I have made numerous decisions that are already in process. They will start to unfold in coming weeks and months. These and others are in direct support of the President's program to reduce cost and increase productivity.

At the FAA, we have too many projects, too much paperwork, too many regulations and too many people. As sure as these observations are true, it is equally true—and I would be sadly remiss not to acknowledge it publicly—that the agency includes many, many outstanding and dedicated employees at all levels, and many of them agree with the observations I stated. To effect meaningful and productive change requires *internal* actions and decisions, not external expansion by the Administrator.

A responsible chief executive officer us his time where it is most needed—not where he might prefer or enjoy it. By far, the majority of my time will be spent inside the FAA on internal matters with the team of professional managers now assembled. This management team now is complete and is composed of 100 percent professional people. There are no purely political appointees in the FAA, because I wanted a management team that will work toward solving problems from a data base of experience and one that could hit the ground running.

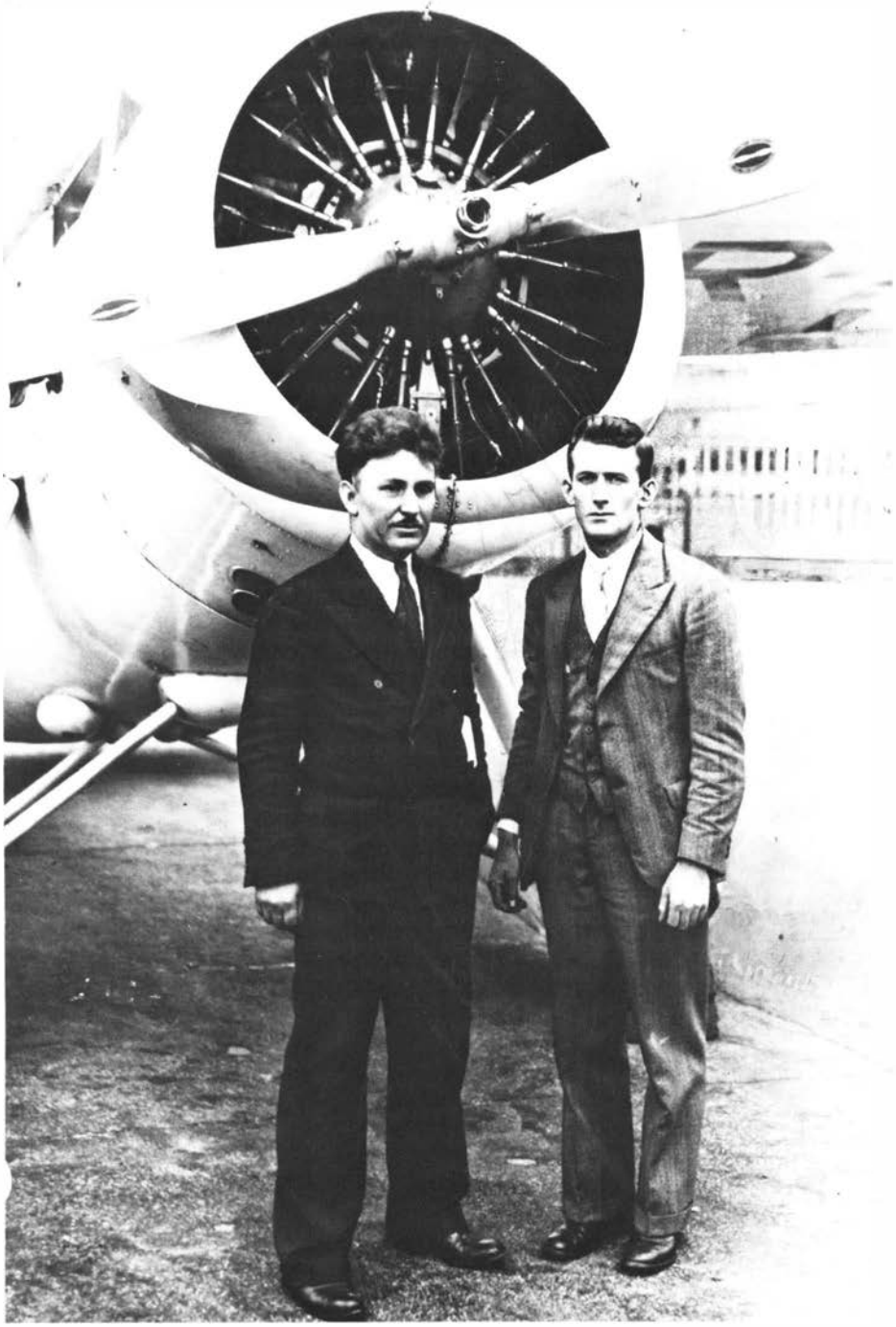
With this in mind, I will tell you that the FAA in the future will be moving more steadily toward technical and engineering emphasis, aimed at solving those problems that we must address in the short term if there are to be solutions in the long term. The FAA management team will be responsible for directing these efforts, but their ultimate success will depend on the continued cooperation and support of the agency's career people. ■

By Samuel Milner

Now on the FAA historical staff, as an Army historian, he wrote *Victory in Papua*, a volume in the Pacific series of *The U.S. Army in World War II*.

They Said It Couldn't Be Done

But Wiley Post Made Long-Distance Flight a Reality



Fifty years ago this month, Wiley Post, whom many call the best pilot in the history of aviation, ended a historic around-the-world flight. If all goes well, that flight will be repeated this month, although with considerably less derring-do.

Post, along with navigator Harold Gatty, circled the earth in a record eight days "that couldn't be done," and he did it without the benefit of navigational or landing aids.

The one-eyed Post, who had lost an eye in an accident while working as an oilfield roustabout, had worked as company pilot for F.C. Hall, an Oklahoma City oilman, prior to the stock market crash. He had bought and flown a Travel-Air and then Lockheed Vega for Hall. Post then went to work for Lockheed as a test pilot and sales representative. Hall and Post respected each other, and, when he could, Hall rehired Post and bought a new Vega 5B.

It was the summer of 1930, and both men knew they had a hot plane in their hands and wanted the publicity they could garner from its use. The Vega, named the *Winnie Mae* after Hall's daughter, was internally braced and of plywood construction. It could carry seven passengers behind its 420-h.p. Pratt and Whitney "Wasp" air-cooled, supercharged, nine-cylinder radial engine. It had a service ceiling of 26,000 feet and could cruise at 190 miles per hour.

Post's stint at Lockheed convinced him that in his hands the Vega could outrun any other aircraft in its class.

Wiley Post (left) and Harold Gatty pose with the *Winnie Mae* during the celebrations that followed their record-breaking round-the-world flight. Smithsonian Institution photo

With Hall's permission, Post entered the non-stop air derby between Los Angeles and Chicago—a special event of the 1930 National Air Races. At the factory, Post had learned aircraft design and, even more important for his future as a pilot, the latest in gyroscopic blind-flying techniques. Now, he set about tailoring the machine: He replaced the seats with additional fuel tanks and souped up the engine with a special 10-to-1, engine-geared supercharger capable of generating up to 500 h.p. on takeoff. He also tapped Australian-born navigator Harold Gatty to lay out a chart of the course for him.

Despite a compass failure, by pilotage and following Gatty's chart, Post won the race by half an hour over his nearest competitor. Post and Hall began thinking of new aeronautical worlds to conquer.

In early March 1931, they announced to the world that Post intended to circumnavigate the globe in 10 days in the *Winnie Mae*.

Although the announcement was greeted with skepticism—that he could halve the record of the *Graf Zeppelin* set two years before—Post had no doubts of his and the Vega's capabilities. He would follow a course mostly over land, from New York to Europe, Siberia, Alaska and western Canada back to New York.

Preparations for the flight had begun in January with the *Winnie Mae's* return to the factory for overhaul. Post also lowered the angle of incidence of the plane's wing to gain extra speed, shortened its tail skid to avert nosing over while landing, spent a lot of time balancing the plane, including making the navigator's seat slide to help restore trim, installed three new blind-flying navigation aids—a pressure-activated rate-of-climb indicator, a gyroscopic bank-and-turn indicator and a gyroscopic artificial horizon—and recalibrated all the standard-readout instruments.

Jimmy Doolittle, who had established himself as the first instrument pilot (see FAA WORLD, September 1979, p. 18), came to help and advised him on the grouping of his instruments.

Gatty was recruited to accompany Post as navigator. Post's seat was straddling the crankcase. Gatty's was behind him among the gas tanks and had a speaking tube for communication above the roar of the engine. He had a folding chart table at his sliding seat; over his head was a hatch for celestial observations; at his feet was a special wind-drift-and-ground-speed indicator of his own invention.

One of Post's earliest preparations was of himself. He recognized that his greatest hazard under the stress of his flight schedule and the time zones he would fly through was falling asleep at the controls. An extremely well-disciplined individual who taught himself to see better with one eye than others could with two, he had begun in the fall of 1930 to condition his mind and body to snatch food and rest whenever he could. He began eating and sleeping at different hours every day, eating less than he was accustomed to and training his mind to focus on the flight itself.

By late April, Post and the *Winnie Mae* were ready and Gatty had his charts. In early May, they took off from California for New York, stopping off at home-base Oklahoma and then Washington for passports and diplomatic clearances. On May 23, they arrived at Roosevelt Field on Long Island, New York, the jumping-off point for the flight, which it had been for Lindbergh four years earlier.

The *Winnie Mae* landed in a sea of mud at Edmonton, Canada. It had to take off from the town's paved main street the next day.

Smithsonian Institution photo

Post and Gatty could just as well have arrived a month later, for the weather refused to clear for the North Atlantic crossing. From New York to Harbor Grace, Newfoundland, to the Grand Banks and over the ocean, bad weather persisted—heavy fog, gale winds, raging storms and frigid cold.

Finally, the long-awaited clearing began on Monday, June 22, and they took off at dawn the next morning.

It was an uneventful 1,155-mile flight of six hours and 47 minutes to Harbor Grace, mostly below the clouds at low altitudes. They spent four hours on the ground, during which time they dined and took on 540 gallons of gasoline. Hall, who was bank-rolling the flight, had paid in advance for all their supplies at the flight's scheduled stops.

They left Harbor Grace under an overcast sky and with patches of fog still near the water. Toward evening, they hit fog and rain. Post climbed to 12,000 feet but couldn't get out of the clouds.

The fog began to dissipate the following

In one of the wildest receptions ever given returning heroes, Post and Gatty made their way through a shower of ticker tape to New York's city hall, where they were greeted by Mayor Jimmy Walker. Wide World Photos

morning, and through a break in the clouds, they spotted an airport, which proved to be Sealand Airdrome, an RAF training base at Chester, England, about 10 miles from Liverpool. Post had made a fast crossing, covering 2,195 miles in 16 hours and 17 minutes. Stopping only long enough for an early lunch, they took off for Tempelhof Airport on the outskirts of Berlin, thinking they had taken on enough fuel for this leg.

Very tired when they left Chester and with one question in their minds as to how well their compasses were functioning, Post and Gatty agreed to stop at Hannover in western Germany to get precise directions. Ten Minutes after leaving Hannover, they realized they were running practically empty and did a 180.

They arrived at Tempelhof that evening, June 24, to a boisterous welcome. Although the pair had been 35 hours without sleep, the welcome delayed their retiring, and then Post first had to brief a correspondent from the *New York Times*, which had bought the rights to the story. Post had five hours of sleep before taking off at 6:35 a.m. for Moscow, 991 miles away.

It was raining when the *Winnie Mae* left Berlin, although Moscow was reported clear. The plane began to encounter low ceilings, strong headwinds and heavy rain. As they moved through Poland, the ceiling got steadily lower until it was below 400 feet. As Post was to recall, the plane literally hedgehopped its way across Poland and western Russia. The weather improved as they neared Moscow, and they arrived after an eight-hour, 52-minute flight at 2:20 p.m.

The Russians received them enthusiastically and feted them at a nine-course dinner at the Grand Hotel. Numberless toasts were drunk to their success. As in Berlin, the guests of honor did their best to eat and drink as little as possible and had a hard time getting to bed.

The next morning—or rather, that morning—after only two hours of sleep, Post and Gatty were at the airport, armed with a brand new map of the U.S.S.R. given them at the banquet. At dawn, they took off for Novosibirsk in western Siberia—1,579 miles away.

Post followed the track of the Trans-Siberian Railroad over the Ural Mountains, arriving at the destination 11 hours later at 6:32, June 26. Another banquet and more gustatory restraint, but they got to bed around 10:00 p.m.

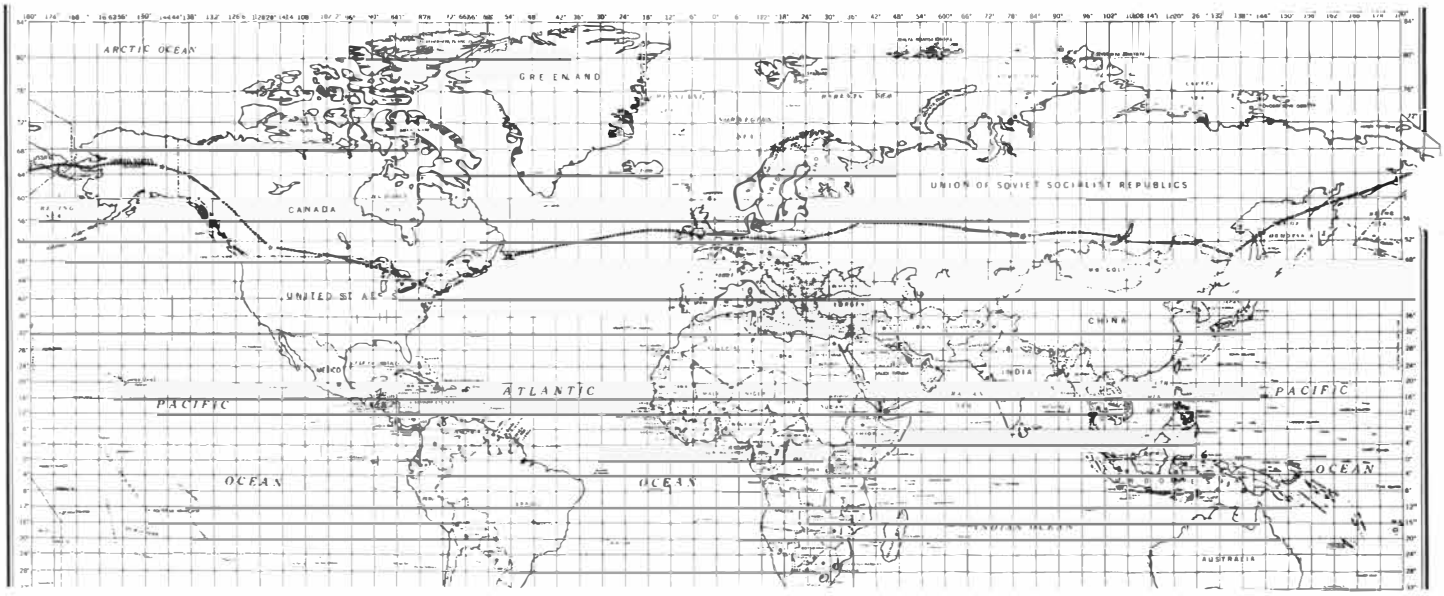
They were awakened at 1:00 a.m., and three hours later took off for Irkutsk, 1,055 miles away, again following the railroad track. During the six hours of this leg, Gatty made up some sleep, dozing at his chart table. They refueled at Irkutsk and left in the early afternoon for Blagoveschensk, a town on the Amur River about 1,000 miles away.

Flying under an overcast most of the way, they reached Blagoveschensk just as it was turning dark. A string of oil flares had been lighted to help them land. It had rained heavily all day, and the field had become a quagmire. The plane promptly got stuck on landing. When all efforts to pull it out with an old Ford and a team of horses failed, Post decided to sleep in the plane, while Gatty went into town to eat, sleep and check on the next leg of the trip. The *Winnie Mae* was finally pulled out of the mud, and it left Blagoveschensk just before noon on the 28th for the 363-mile flight to Khabarovsk in eastern Siberia.

The next scheduled stop was to have been Petropavlovsk on the southeast tip of the Kamchatka peninsula—the halfway point to Solomon, Alaska, a small village near Nome. However, heavy storms were predicted for that area, and Post decided to fly to Solomon non-stop. The flight lay over Sakhalin Island, the Sea of Okhotsk, the Kamchatka peninsula, several mountain ranges, the Bering Sea and the Bering Strait—clearly the most-dangerous leg of the journey.

Under no illusions of what lay ahead, Post spent the remaining daylight hours at Khabarovsk changing sparkplugs, checking engine compression and going over the entire airplane to be sure everything was in order. The tanks were filled and plans made for taking off in the dark. When Post and Gatty arrived at the field after a few hours of sleep, however, they found a strong crosswind that barred departure. They slept again at the field until the next afternoon and departed for Solomon on the evening of the 29th.

To avoid headwinds, Post spent the first couple of hours skimming at low altitude over the Amur River. As they passed Sakhalin Island and the Sea of Okhotsk, the weather grew worse, with heavy fog, leaving



Post no choice but to pull up and fly blind. Nor was the weather the only danger: The map the Russians had provided was another. Had Post been less vigilant, the plane might have crashed into a mountain on Khamchatka that did not appear on the map.

The next morning, the fog lifted enough for Gatty to take a sighting for a course over the Bering Sea. Then, after hours of flying blind, mostly at 6,000 feet, the fog lifted, and St. Lawrence Island—just off the Bering Strait—came into view. Half an hour later, at 2:45 p.m.—still June 29 after crossing the International Date Line—the *Winnie Mae* landed on the sandy beach at Solomon, its tanks nearly empty. It had been the longest non-stop flight of the journey—17 hours covering 2,441 miles.

There was still enough daylight to make Fairbanks. After filling the tanks and starting to taxi, the plane began to sink in the sand. Opening the throttle only made matters worse; the tail flipped up and the propeller dug into the sand, bending both tips.

Post had no trouble straightening the tips with a wrench, a hammer and a round stone, but as Gatty swung the prop to restart the engine, it backfired, and the flat of the prop hit him, knocking him out. Not seriously hurt, he came to quickly, bearing only minor bruises.

They immediately took off on the 520-mile flight. At Fairbanks, while Post and Gatty slept, a new prop was installed.

At 3:25 a.m. on June 30, they took off for Edmonton, Alberta, 1,400 miles away. Again, bad weather beset them. After crossing the Yukon, the Klondike and the Canadian Rockies and flying over Peace River, Post spotted the Canadian National Railroad tracks and followed them the rest of the way.

Heavy rains had soaked the Edmonton field, making a takeoff the next morning in doubt. A local bush pilot suggested using the paved surface of Portage Avenue, Edmonton's main street and one of the widest thoroughfares in the world. The city fathers agreed, and while Post and Gatty slept, work crews took down telephone wires and power lines along the avenue.

As they took off, success was within their grasp. They reached Saskatoon, crossed Manitoba, crossed the Great Lakes and landed in Cleveland at 5:15 p.m. They were airborne again in 30 minutes after refueling.

At 8:47 p.m., July 1, 1931, the *Winnie Mae* touched down at Roosevelt Field, eight days, 15 hours and 51 minutes after it had left that spot. It had covered 15,477 miles and had done it in four days, 10 hours and eight minutes of actual flying time. Post and Gatty had bettered their 10-day target.

Not since the arrival of the *Spirit of St. Louis* in Paris had the American public been so stirred by a flight. Ten thousand New Yorkers were waiting for the fliers at Roosevelt Field. The intensity of interest had been sustained by the nation's newspapers as the *New York Times* carried the story on the front page during the entire eight days.

In the next few days, Post and Gatty were interviewed on nationwide radio, given a Broadway ticker-tape parade, received by President Hoover at the White House and presented bronze plaques by the Aeronautical Chamber of Commerce at a dinner. They were similarly honored back in Oklahoma.

The significance of the flight was not only that they set a record but also that they showed the technology was at hand for swift, safe and sustained long-distance flight.

Two years later, with the aid of more advanced navigation aids, including an automatic direction finder and an automatic pilot, Post drove the lesson home by flying alone around the world over essential' the same route, and he did it in 21 hours les.

Roosevelt Field, Post and Gatty are no more, but Oklahoma remembers. As part of the state's diamond jubilee celebration, pilots Calvin Pitts and Joe Cunningham are expecting to take a turbocharged Beechcraft Bonanza A-36 from Wiley Post Field in Oklahoma to Teterboro Airport in Hasbrouck Heights, N.J., where they will launch a similar trip covering the same eight days. Of course, Pitts and Cunningham will have a more-advanced aircraft and more-advanced navigational aids in the plane and below them.

The commemorative flight should be easy. If a half-century after the *Winnie Mae*, swift and safe long-distance flight has become commonplace, it's because a great aviator—Wiley Post—know that had to happen and, perhaps more than any other flier of his generation helped to make it happen. ■

The Roots of FAA

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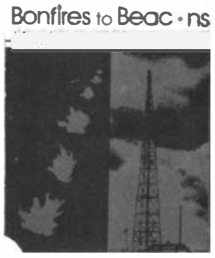

BONFIRES TO BEACONS. 454 pages. $8.00. Examines the background to the passage of the first Federal civil-aviation regulatory statute in 1926 and covers the evolution of Federal ·il-aviation policy during the next 12 years, ,nding with the enactment of the Civil Aeronautics Act of 1938.

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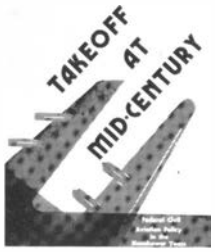

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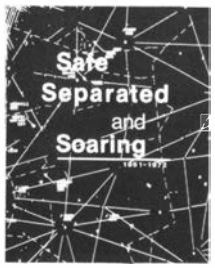

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Q&A

Last year, you ran a "Q&A" on the subject of geographical separation in which the writer's statement, "Because they are in the same airport control zone, the ceiling reported by NWS personnel governs both fields," went unchallenged. I don't think the FARs stand behind this idea. In our control zone, we have four airports. What do you think?

The Federal Aviation Regulations do not specifically state that when two (or more) airfields are in the same control zones, the ceiling reported by National Weather Service personnel governs both airfields. (To be accurate, the sentence should have read, . . . "NWS certified personnel . . .") An adequate basis for this determination does exist, however. Handbook 7400.2B, Procedures for Handling Airspace Matters, Chapter 5, Control Zones, Para. 147, Weather Observation and Reporting, states: "A federally certificated weather observer shall take hourly and special observations at the primary airport (the airport upon which the control zone is designated) in the control zone during the times and dates a control zone is designated."

On May 21, 1979, the Office of the Chief Counsel (ACC-23) provided the following guidance: "The continuing legal opinion of this office is that the reported ceiling at the primary airport in a control zone governs as to whether VFR operations can be conducted within that particular control zone. Even though there may be more than one weather station within a control zone, there will not be more than one at a given airport. If one of the stations is located at the primary airport, which will generally be the case, the report of that station governs. If neither of the stations is located at the primary airport (an unlikely possibility), the station used by the primary airport to determine its weather governs. This provides an enforceably precise basis for determining whether FAR 91.105(c) has been violated. This opinion, linking 'reported' ceiling to the 'primary airport' in FAR 91.105(c), has been the position of the Office of the Chief Counsel for over 28 years."

You may note that the Chief Counsel's letter deals only with ceiling requirements and not the related visibility criteria. Visibility requirements are tied to the airport of intended operation (or to flight visibility).

FAR 91.105(d) states: "Except as provided in 91.107, no person may take off or land an aircraft, or enter the traffic pattern of an airport, under VFR, within a control zone—(1) Unless ground visibility at that airport is at least three statute miles; or (2) If ground visibility is not reported at that airport, unless flight visibility . . . is at least three statute miles." Similar requirements are depicted in the table in FAR 91.105(a). Compliance is essentially the pilot's responsibility.

I retired from the U.S. Navy with 26 years of service. I recently joined the FAA as an air traffic control specialist, station option. It appears that my military retirement will be greater than an FAA retirement. Is there any way I can waive FAA requirement now and not have retirement contributions deducted from my pay? If I must continue to participate in FAA retirement, when I resign, will my retirement money be returned with any interest? If I choose to retire but still opt for the Navy retirement, will my FAA retirement money be returned to me?

Civil Service retirement deductions are mandatory under Title 5, U.S. Code, and cannot be waived. If an employee resigns from the Civil Service and does not meet the eligibility requirements for immediate retirement, he or she may withdraw only his or her contributions to the fund; no interest is paid on the money. Once an employee becomes eligible for optional retirement, he or she may not withdraw the monies paid into the retirement system. However, an employee who meets the eligibility requirements may waive military retirement pay and combine the military service with civilian service to be used in computing the Civil Service retirement annuity. Instead, a retiree also may choose to continue to receive military retired pay and, at the same time, receive Civil Service retired pay based on the civilian service alone.

The eligibility requirements for optional retirement under the Civil Service Retirement System are: age 62 with five years of service, age 60 with 20 years of service or age 55 with 30 years of service.

The confusion apparent in this query could readily have been answered in the booklet "Your Retirement System," which you should have received, or by your personnel management specialist.

People

Alaskan Region

■ **Allen F. George,** assistant manager of the Anchorage ARTCC Airway Facilities Sector, from the Program Support Branch of the AF Division.
■ **Herbert L. Heck,** unit supervisor in the Technical Operations Section, Maintenance Operations Branch, AF Division.
■ **Robert W. Labelle,** chief of the Aircraft Management Branch, Flight Standards Branch, promotion made permanent.
■ **Sevard E. Wagenius, Jr.,** assistant manager of the Juneau AF Sector.

Central Region

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■ **David L. Tyson,** team supervisor at the Des Moines, Iowa, Tower, from the Los Angeles TRACON.

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Photo by Dick Stouffer, EAA

A Trimotor for Posterity

Much as a Model T Ford is revered as the archetype of the American automobile, many think of the Ford Trimotor as the prototype of the airliner. Unlike the Model T, there aren't very many Trimotors around anymore.

The Experimental Aircraft Association is in the process of ensuring that at least one of the venerable birds is preserved for posterity. N8407 is being restored by the EAA Air Museum Foundation.

A frequent visitor to EAA's annual convention-fly-in in the '60s, the plane, owned by barnstormer Dale Glenn, was wrecked on the ground in a windstorm in 1973, at which time EAA successfully bid for the remains from the insurance company. As restoration proceeds, the Foundation is trying to raise the funds needed to complete the project.

This Trimotor was originally purchased by Pitcairn Aviation of Philadelphia in 1929. When the company merged with the precursor of Eastern Airlines, N8407 spent a year ferrying passengers around the East Coast under the colors of Eastern Air Transport.

It then was sold to the Curtiss Aviation Company in Panama as a business aircraft. There was a rumor that it served for a time as the "air force one" of the president of the Dominican Republic before it turned up in Miami in 1949 and went through another series of owners. It was used as an air tanker to bombard forest fires with chemicals, and it appeared in a Jerry Lewis movie in 1964. Within a year of that celebrity role, N8407 was being used to promote a museum called "Movieland of the Air," when Glenn purchased it.

Now, this golden-aged "Tin Goose" has its future assured. ■

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