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FAA WORLD



Charles A. Lindbergh

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Front cover: Fifty years ago this month Charles A. Lindbergh made his historic flight, but the measure of the man and his feat was his unerring pilotage with primitive equipment, as related on page 3.

Back cover: This is possibly the last photo of Lindbergh, taken in 1973 by Capt. R.R. Lippincott of Royal Hawaiian Airlines at Hana, Maui, Hawaii.

DIRECT LINE

Q I have been told by our Western Region retirement coordinator that, in crediting accumulated sick leave to the length-of-service when retiring, only round months (176-hour amounts) will be credited. Is this really true? If so, it seems grossly unfair to me. On my projected retirement date, I should have 530 hours of sick leave due. This, then, presumably would give me two months of credit with 168 hours simply thrown away.

A To determine the length of service for annuity computation purposes, all periods of an employee's creditable service and the period represented by unused sick leave are added together. Any fractional part of a month that remains at this point is then dropped. For example, an employee who has 31 years, 4 months and 7 days of creditable service and 530 hours of sick leave (according to FPM Sup. 831-1: 530 hours = 66 days or 3 months and two days, fractions dropped) would be credited with 31 years and 7 months total service for annuity computation purposes. Only the 9 days are dropped. The use of only full years and full months in computing annuities is required by law, Section 8332(a) of Title 5, U.S. Code. Any rationale for this law that we might provide would merely be a conjecture on our part.

Q Why isn't it mandatory for management people to sign the reverse side of Form 7230-4 to indicate their time on and time off. Our chief works in excess of sixty hours a week, and it is not uncommon to hear of him working seven days in a row. I know for a fact that he will adjust his T&As to avoid calling in overtime and never claims more than 40 hours a week. To put it bluntly, we are tired of seeing him, as he spends most of the day in the tower. Asked why he does this, he says, "The FAA has been good to me." He is a little off his rocker. Can something be done?

A A tower chief has a regularly scheduled 40-hour workweek. These hours of work are recorded on the official time and attendance report. He can receive overtime pay for additional hours of work only if he is officially ordered to work by his supervisor. It is within his discretion to work beyond 40 hours in a week even though he does not receive overtime for the extra hours of work. Any time worked in excess of 40 hours in a week that has not been officially ordered by the chief's supervisor cannot be recorded on the time and attendance report.

Q I believe the merit promotion system is a sham and often times unfair. The reason for most discrimination complaints can well be attributed to the way varying sectors select their candidates.

(Continued on page 14)

When the Lone Eagle Soared



Charles Lindbergh stands before his Ryan monoplane at Roosevelt Field, Long Island, in May 1927, before the two of them made aviation history.

Charles A. Lindbergh walks into a merchant-marine store on the waterfront in San Diego and asks for a set of charts covering the North Atlantic Ocean. "The Atlantic?" repeats the store clerk in surprise. "Sorry, we supply only Pacific shipping." Up north, in San Pedro, they might have Atlantic charts, the clerk suggests.

The young aviator—just turned 25—borrows an airplane from Ryan Airlines and flies to San Pedro, where a store salesclerk pulls out two maps. They're Mercator's projections, Lindbergh sees, and—yes, he's in luck—they extend inland far enough to include New York and Paris. He buys them, as well as several other charts showing time zones, magnetic variations and prevailing winds over the Atlantic.

The lanky pilot—known to some of his friends as "Slim"—will soon fly from San Diego to New York, with a stop in St. Louis, and he needs more maps to help him cross the continent. For this, he knows of nothing better than Rand McNally railroad maps, which he can buy "at any first-rate drugstore, for fifty cents per state."

Back in San Diego, where he arrived by train from St. Louis in late February of 1927, Lindbergh is supervising the construction of a small, single-engine airplane. Ryan Airlines, the manufacturer, has given him a desk in the fac-

LINDBERGH DOES IT! TO PARIS IN 33½ HOURS; FLIES 1,000 MILES THROUGH SNOW AND SLEET; CHEERING FRENCH CARRY HIM OFF FIELD

COULD HAVE GONE 500 MILES FARTHER

Gasoline for at Least That Much More
Flew at Times From 10 Feet to
10,000 Feet Above Water.

ATE ONLY ONE AND A HALF OF HIS FIVE SANDWICHES

Fell Asleep at Times but Quickly Awoke—Glimpses
of His Adventure in Brief Interview



MAP OF LINDBERGH'S TRANSATLANTIC ROUTE, SHOWING THE SPEED OF HIS TRIP.

CROWD - ROARS THUNDEROUS WELCOME

Breaks Through Lines of Soldiers and
Police and Surging to Plane Lifts
Weary Flier from His Cockpit

AVIATORS RESCUE HIM FROM FRENZIED MOB OF 25,000

Paris Boulevards Ring With Celebration After Day
and Night Watch—American Flag Is Called
Wildly Acclaimed.

tory, which is housed in a converted cannery that still reeks of fish. He sits down with his maps, charts and a pencil and begins plotting a direct, nonstop air route from New York to Paris.

A few days earlier, he didn't even know how many miles separated the two cities. Thirty-five hundred, he thinks. Also unsure is Ryan's chief engineer, Donald Hall, who is designing the plane and must know how big to make the fuel tanks. Together, they drive to the San Diego public library which has a globe. They take a piece of white string and hold one end down on New York and the other on Paris. Thirty-six hundred statute miles. Lindbergh has never flown a plane that is capable of even 500 miles nonstop.

Plotting the Atlantic route is tricky business, and Lindbergh must figure it out for himself, based on his recollections from Army air navigation training and the instructions printed on the charts themselves.

The "great circle" route outlined by the taut string on the globe must be translated into a curved line on the Mercator map. The line on this map bulges to the north, with the ends dropping southward toward New York and Paris. This means that Lindbergh, as he flies over the curving earth, can-

The "Spirit of St. Louis" is rolled out for tests at Curtiss Field, Long Island, the week before its departure from Roosevelt Field for the oceanic flight. The tail skid rests on a dolly for maneuverability.



not simply point his plane in the same direction for the whole flight. He will have to turn periodically to the right in order to follow his route. How much to turn and when?

Slowly the solution becomes clear to the young pilot. He draws his route in straight-line segments, each 100 miles long. Each segment is drawn at a slightly different angle on the map, but strung out together, they form a gentle curve, like the rounded surface of a factory smokestack built out of small, straight bricks. On each segment, Lindbergh will fly a slightly different compass course. He will change course every hour, because he figures his plane will cover about 100 miles every hour.

While his maps outline the route, his compasses will point the way. He will use an ordinary magnetic compass and a newly-developed device

in which he does not place a great deal of trust. It is an earth-inductor compass. On this electromagnetic instrument, Lindbergh can set his desired compass course on each segment of the flight, and an indicator needle will show whether he is flying left or right of the course.

In 1927, Lindbergh has been flying for five years. He has been a barnstormer, Army pilot and chief airmail pilot on the St. Louis-Chicago route. Flying the mail in rickety biplanes, he often churned through clouds and storms, teaching himself to fly on instruments when he could see nothing outside his plane but white mists wafting through the struts and bracing wires that hold his aircraft together. On a clear, moonlit night as he droned with sacks of mail toward Chicago, he began thinking about a nonstop New York-to-Paris flight that would dramatically demonstrate the potential of

aviation—with costs of the venture to be offset by a \$25,000 prize if he is first to make such a flight.

Now he is in San Diego with a check for \$15,000—\$2,000 of it his own money and the rest provided by a group of 10 St. Louis businessmen—to buy a plane in which he hopes to make the flight. The airplane, which he calls "The Spirit of St. Louis," costs \$10,580 including a reliable, "super-inspected" 223 h.p. Wright Whirlwind engine. The rest of the money is for expenses.

In the Ryan factory, Lindbergh outlines his ideas for the plane to chief engineer Hall. Only one seat is necessary, Lindbergh says. Put a big gas tank in place of the second seat, he says. Hall is startled at the idea of a solo, nonstop Atlantic flight, but he sees the advantage of leaving out a second pilot: a smaller, lighter plane with tremendous range, maybe 4,000 miles.

Lindbergh wants the huge fuel tank in front of him, rather than in back, so it can't jerk loose and crush him if he crashes on takeoff. Then you can't see forward, Hall points out. That's

all right, Lindbergh answers. He can look out the side windows. He doesn't expect to encounter too much traffic over the Atlantic anyway. Lindbergh takes a lot of good-natured kidding about his blind airplane. Factory workers decide to install a little periscope in the cockpit; Lindbergh can push it out the left side of the plane for a view forward.

Lindbergh believes his greatest margin of safety lies in a huge fuel supply rather than in fancy communication and navigation equipment or a second pilot. With a large store of fuel on board and the least additional weight possible, he will have ample reserves

to stay in the air if he wanders off course and needs more time—hours perhaps—to reach land.

He thinks long and hard about carrying a radio—no... a sextant—no... a parachute—no. He discards unnecessary pages from his chart folder. He considers emergency survival equipment: "Could anything I carry save my life?" he wonders. He decides to include a rubber raft and goes to a sporting goods store in downtown San Diego where he buys one and the hand-pump he would need to inflate it.

In the spring of 1927, competition builds to a fever pitch among fa-

The "Spirit of St. Louis" takes off from San Diego before Lindbergh's transcontinental and transoceanic flights. According to the Ryan library, this was a test flight on April 28. According to the Smithsonian Institution, it was the beginning of his transcontinental flight on May 10.



Crowds swarm around the Ryan monoplane the day after Lindbergh's landing at Le Bourget Field, Paris. For security and as an aid to onlookers, the aircraft is perched on a raised platform.

mous aviators vying to make the first nonstop flight—in either direction—between the two great cities of America and France. Newspapers trumpet the latest successes and fatal failures in test flights back East. Closeted in an obscure factory in California, Lindbergh is virtually ignored. The 35 men and women at the Ryan plant work many hours overtime, abandon all production on other airplanes and are caught up in the adventure that Lindbergh has brought them and the desire to win the Atlantic race.

The plane nears completion. The 46-foot-long wing—ten feet longer than Ryan's standard model—has been built on the second floor of the old cannery, and at first it appears the wing will not fit through the loft's doors. After careful measurements, workmen tilt the wing and ease it out onto the roof of a railroad boxcar by the side of the building. A crane lowers it from there.

The plane has been finished just 60 days after Lindbergh and Hall put the first pencil lines to paper. Even in 1927, when regulations and test procedures for new airplanes are still rudimentary, this is a speed record of sorts. A young mechanic named Douglas Corrigan, later to earn fame as "Wrong-Way Corrigan," pulls the wheel chocks away from the plane for the first takeoff on April 28.

Lindbergh makes all test flights himself. One day, a gust of wind through the cockpit's side windows snatches the data sheet from his lap, and the disheartened pilot watches it sail away toward the ground. Doggedly, Lindbergh borrows another Ryan plane, lands in a field near the sheet, picks it up and continues the flight tests, which he completes in a few days.

Ahead lies the flight to New York. He will stop in St. Louis and show his new airplane to his friends and financial backers. On this trip, he will take off from San Diego in mid-afternoon and fly all night to St. Louis, arriving early in the morning. The night flight

Since the Ryan had a gas tank in place of a windshield, the instrument panel could be at face level. The magnetic compass is overhead at left; the earth-inductor compass indicator is the second dial above the T-shaped inclinometer.



Lindbergh's seat in the "Spirit" was a wicker chair, probably selected for its lightness, another tradeoff for additional fuel. However, for the long flight, Lindbergh made a concession and took along an air cushion.



The shaft of the earth-inductor compass passed through the top of the fuselage to catch the wind; the tub holds a rotating armature; the dial at left is for setting a heading; the other dial is a left-right indicator.

will be good practice for his trip to Paris when he will be airborne over the ocean for an entire night.

Lindbergh lands at Lambert Field, St. Louis, at 8:20 a.m., filled with pride over his new airplane, gleaming in its silver paint finish. His 14-hour, 25-minute flight sets a new record for an air trip from the West Coast. One of his backers hands him something he has never had before: a government-issued pilot's license, number 69, just arrived from the newly-established Aeronautics Branch in Washington.

The next day, he flies on to Long Island in seven hours and 20 minutes. By now, the newspaper people take him seriously, but he finds their ag-

gressiveness disturbing. He is surprised to find representatives from fuel, engine and propeller companies ready and eager to assist him.

Now his major concern is the weather, which is dreary on Long Island and stormy over the western Atlantic. The Weather Bureau must rely on ship reports and coastal observations, but Lindbergh intends to fly north of the shipping lanes on his great circle route. No one knows what the weather is like over the vast reaches of the central North Atlantic.

Finally a report is received that indicates clearing weather over the ocean. Lindbergh prepares to take off.

FROM BLACK PATCHES TO BLACK BOXES

No longer do pilots shake their heads in disbelief at their good fortune when arriving over Europe on flights from America. While Lindbergh did a great job of dead reckoning, an array of electronic navigation instruments in the cockpit of a modern jetliner guides the crew every mile of their flight. Each instrument is approved for use by FAA.

The most modern—and expensive—navigation aid on transoceanic jets is the inertial navigation system (INS), a completely self-contained device, which does not depend on any outside radio signals. Before leaving the ground, the pilot feeds the exact latitude and longitude of the airport into this computerized "black box." From that moment, the INS knows exactly how far, in what directions and at what speed the airplane flies. A gyroscopic platform and accelerometers continually sense every motion of the airplane. By pushing a few buttons, the pilot can command the INS to display the aircraft's latitude and longitude, heading, ground speed, wind and miles to go to predetermined checkpoints. The days of the commercial airline navigator with his charts, slide rules and sextant all but ended in the late 1960s when INS first came into use on civilian airlines.

Of course, air traffic controllers on both sides of the ocean help the big jets safely navigate the busy skies surrounding the departure and destination airports. The airline dispatch office selects one of the standard oceanic routes, based on a wealth of weather information from other flights, ground stations and satellites, and gives it to the pilot.

INS is not carried by all transoceanic airliners. Another system is Doppler navigation. This equipment sends

out high-frequency radio signals from the underside of the airplane and receives signals reflected from the surface. By measuring the change in frequency of the reflected radio signals caused by the Doppler effect, the system computes the airplane's ground speed and drift angle. (Caused by the wind blowing an airplane off course, drift is a problem all aviators face; Lindbergh you'll recall, measured it roughly by looking at wind-blown waves.) Using its knowledge of speed and the plane's position at takeoff, as well as compass inputs, the system can display position data.

Doppler navigation must be double-checked by LORAN (Long Range Navigation). LORAN "A", developed during WW II, consists of dozens of transmitting stations along coastlines and on islands. By tuning a cockpit receiver to one group of LORAN stations and then to another group, the flight crew can get readouts of two different lines of position. By looking on a LORAN navigation chart, the crew can see where the two lines of position intersect, and thus, where the airplane is at that time. Therefore, it is necessary for the crew to take periodic readings during the flight.

LORAN A will be phased out of North Atlantic service this December (and out of world service by 1980), but the newer systems, such as INS and Omega, will make up for the loss.

An important new system is Omega navigation, which is currently under evaluation by several major airlines and FAA. Eight Omega transmitting stations established by the U.S. Navy around the world cover every inch of the earth with their very-low-frequency signals. Upon departure, the pilot feeds his position and the exact time into

the computerized Omega receiver, and the receiver does the rest. By comparing differences in time of receipt of signals from several stations, the airborne system computes the precise position of the airplane and can display it to the flight crew.

Sophisticated gyrocompasses and "flux valve" compasses (a modern-day version of Lindbergh's earth-inductor compass) also are on board today's jetliners to provide accurate directional information. And, just as Lindbergh did—and for that matter, Christopher Columbus—airliners still carry the good old unembellished magnetic compass in the cockpit. But now it would be used only in the unlikely event that all other navigation instruments fail.

In addition, the automatic flight control system (a fancy phrase for "autopilot"), certified by FAA, can be tied to the flight and navigation instruments and the engines, permitting virtually an entire oceanic flight to be made automatically.

Then, too, landing is another matter today. Lindbergh had to pick out a black patch as Le Bourget Field to set down in. Seeing no airport beacon or runway lighting, he tried to make contact with the people at the airport by blinking Morse Code with his flashlight.

Today, of course, there are myriad aids to coming in. He would have made voice contact with a tower; an instrument landing system and its light markers would have pointed his way to the runway, whose edges were fully lit; or, more likely, he would have used a Visual Approach Slope Indicator (VASI) to bring his light plane down at the proper slope.

For want of all this, Lindbergh's careful planning and seat-of-the-pants feat are all the more remarkable.

An instrument specialist installs a new magnetic compass on the ceiling of the airplane cockpit, almost directly above where Lindbergh's head will be. The compass will be steadier there, and less likely to deviate because of iron objects in the cockpit. A woman's borrowed compact mirror is stuck with

chewing gum to the instrument panel so Lindbergh can read the overhead compass, although now the numbers appear backward. The Aeronautics Branch grants the aviator permission not to install navigation lights, thus lightening his load by a few more pounds.

Lindbergh gets no sleep the night before his planned departure. At dawn, May 20, on Roosevelt Field, Lindbergh instructs his crew to fill the airplane tanks all the way to the top—450 gallons—which puts his plane 25 gallons and 150 pounds over the design limit. In flight tests at San

Diego, 300 gallons was the heaviest load he dared take off with, for fear of collapsing the landing gear. He puts his trust in the engineering data—and luck—that the gear will stand up and the plane will fly with its much greater burden at Roosevelt Field.

Lindbergh climbs into the cockpit, signals away the crowd of mechanics, photographers and friends and starts the engine. In front of him lies 5,000 feet of narrow, rain-dampened, semi-paved runway.

He opens the throttle wide, but the plane hardly moves. Men push on the wing struts to help him get started. He is bumping down the runway, craning his head out the side window to stay lined up on the runway. He passes the halfway point, uncertain he will ever leave the ground.

Directly in his path, at the end of the runway, sits a tractor. He pulls back on the stick and realizes excitedly that his wheels lift off the ground. He allows the plane to settle back, gaining more speed. He leaves the ground again, settles, rises once more, touches down once more. For the fourth time, he pulls his plane into the air, but now remains airborne and clears the tractor by five or ten feet.

It is 7:52 a.m. Above and ahead loom telephone wires. He clears them by 40 feet and sinks below some hills beyond, trading altitude for airspeed.

After crossing Long Island Sound, he is flying over the first large expanse of water on his route—between Cape Cod and Nova Scotia—but just barely. He holds his plane 10 feet above the water so he can see which way and how strongly the wind is blowing the waves—and his airplane. This enables him to make a rough course correction and head his plane slightly into the wind, thus maintaining the proper flight path.

As he flies over Nova Scotia, his trans-Atlantic chart—so carefully prepared, checked and rechecked for so many hours at his drafting table in the Ryan factory—slides on his lap toward the open window and is riffled by the

airstream. He seizes it in a brief panic, remembering how his data sheet was sucked out the window over San Diego. He imagines a logbook entry: "On course, plenty of fuel, all readings normal; but the chart blew out the window."

He swoops low over the city of St. John's, Newfoundland, the last point of land he will see before reaching Ireland, and skims out over the vast, gray Atlantic, as night falls on the Western Hemisphere.

Darkness begins to engulf his world as he climbs hundreds, then thousands

of feet, endeavoring to stay above the clouds, which rise ever higher, as if to smother his airplane. He is at 10,000 feet, and the air cushion he sits on has expanded, pushing his head against the top of the cockpit. He lets some air out.

He cannot escape the clouds, which tower above his plane. He must mentally prepare himself for blind flying, but he holds onto visual contact with the stars, which he can see through the overhead window that forms the roof of his cockpit.

The "Spirit of St. Louis," vintage 1977, takes shape in the museum shop of the Experimental Aircraft Association. Here, the control surfaces were installed temporarily for fitting and adjustment.



Spirits of the Spirit



Looking over the Continental engine (rear) that was installed in the EAA "Spirit of St. Louis" replica are (left to right) Keith Anderson, chief of Great Lakes' Engineering and Manufacturing Branch; Mike Heuer, EAA executive assistant; Henry Hartman, EMDO chief; Pat Johnson, administrative assistant; Ginger Yactor, secretary to Anderson; and Michele Facenda, EMDO secretary.

in 1928, were restored in the mid-Fifties and modified to more closely resemble the "Spirit." They were subsequently used in the movie "The Spirit of St. Louis."

Of this mini-fleet of replicas, one was recently sold to the Nassau County Museum, Long Island, N.Y., and is scheduled to go on display in the near future; one was purchased by Jimmy Stewart, who played "The Lone Eagle" in the movie, and was given to the Ford Museum in Dearborn, Mich.; and another is on display in the International Transportation Building at Lambert/St. Louis Airport—Lindbergh's home base.

Another "Spirit" was built from the ground up for the U.S. pavilion at the 1967 Paris Air Show. This replica is now on display in the San Diego Aerospace Museum.

Yet another "Spirit"—built by the Experimental Aircraft Association in

Hales Corners, Wis.—is currently being test flown. This summer, this aircraft will follow the route flown by Lindbergh on a nationwide tour that followed his over-the-ocean flight. Except for transponder and radios, this "Spirit" will be equipped the same as in 1927. In fact, Reid Ferguson of the National Air and Space Museum has duplicated the earth-inductor-compass equipment as in the original.

But after its first test flight March 22, leather-jacketed, white-scarved and be-goggled Paul Poberezny, president of the EAA, mumbled, "I don't know how Lindy did it! And no forward visibility and open windows on the sides. I wouldn't call it the most aeronautical bird I've ever flown."

And, finally, still another is being built according to the 1927 Ryan plans in Delaware County, Pa. This plane is expected to be ready for a projected Philadelphia-to-Paris flight next spring.

There are any number of Spirits of St. Louis and especially this year, as aviation enthusiasts mark the golden jubilee of Lindbergh's epoch-making flight.

The first, of course, is the original, built by Ryan in 1927 under Lindbergh's supervision. This historic aircraft is prominently displayed in the National Air and Space Museum's Milestones of Flight gallery.

Three Ryan B-1s, originally built

The Raymond Orteig \$25,000 Prize

PARIS-NEW YORK — NEW YORK-PARIS

Trans-Atlantic Flight

(Under the rules of the Federation Aéronautique Internationale of Paris, France, and National Aeronautic Association of the United States of America of Washington, D. C.)

ENTRY FORM

Name of Aviator Entrant (in full) Charles A. Lindbergh,
Address 5 Mr. H. H. Knight, 401 Olive St., St. Louis, Missouri.
Aviator's F. A. I. Certificate No. 6286 Issued by National Aeronautic Ass'n.,
Aviator's Annual License No. 295 (1927) Issued by National Aeronautic Ass'n.,
PARTICULARS RELATING TO THE AIRCRAFT INTENDED TO BE USED.

Type (Monoplane, Biplane, Hydroaeroplane, Flying Boat, etc.) NYP Ryan Monoplane

Wing area in sq. ft. 275 Load per sq. ft. 15 1/2 lb.
Make and type of engine Wright J5 Whirlwind
Approximate capacity of Fuel Tanks 425 gallons

I, the undersigned, Charles A. Lindbergh,
of 5 Mr. H. H. Knight, 401 Olive St., St. Louis, Mo., hereby enter
for the Raymond Orteig "New York-Paris" \$25,000 Prize upon the following conditions:—

1. I agree to observe and abide by the Rules and Regulations for the time being in force and governing the contest, and to comply in all respects and at all times with the requests or instructions regarding the contest, which may be given to me by any of the Officials of the National Aeronautic Association of the United States of America.

2. In addition to, and not by the way of, limitation of the liabilities assumed by me by this entry under the said Rules and Regulations, I agree also to indemnify the National Aeronautic Association of the United States of America and the Trustees of the Raymond Orteig \$25,000 Prize, and Mr. Raymond Orteig, the donor of the New York-Paris Flight Prize, or their representatives or servants, or any fellow competitor, against all claims and damages arising out of, or caused by, any ascent, flight or descent made by me whether or not such claims and demands shall arise directly out of my own actions or out of the acts, actions or proceedings of any persons assembling to witness or be present at such ascent or descent.

3. I enclose my certified check for \$250.00 to the order of the Trustees of the Raymond Orteig \$25,000 Prize, being Entrance Fee, and request to be entered on the Competitors' Register of the National Aeronautic Association of the United States of America.

Signature Charles A. Lindbergh
Address 5 Mr. H. H. Knight
401 Olive St.
St. Louis Mo.

(Notary Seal)

Subscribed and sworn to before me
this 15th day of Feb. 1927.
Date Feb. 15, 1927 commission expires May 9 1927

This blank is to be executed and forwarded with certified check to The Contest Committee of the National Aeronautic Association at No. 1623 H Street, Washington, D. C., and notice thereof immediately communicated to

The Secretary of the Trustees of the
Raymond Orteig Twenty-Five Thousand Dollar Prize
c/o Army and Navy Club of America
301 West 40th Street New York City

The stars blink out as he is enveloped in clouds. Now he concentrates ever more vigilantly on the turn-and-bank indicator, a delicate instrument that allows him to maintain straight and level flight. He constantly checks his compasses, hoping to fly each segment just as he planned. He also scans his other instruments, as he has throughout the flight: airspeed indicator, altimeter, tachometer, oil pressure and temperature, fuel pressure and mixture.

His airplane is unstable and he cannot ease off pressure on the control stick and rudder pedals. Only a few seconds of inattention, and the plane veers off course. In the haste of the plane's design, the tail surfaces, which control direction, have been made too small. The constant demands of his airplane help keep the tired aviator awake.

As he flies in and out of clouds, the moon creeps above the horizon and offers him another solid point of reference, as the stars have. This is no coincidence. He has counted on the moon in his planning. He has flown only two hours in total darkness.

He shines his flashlight on the wings and is shocked to see a sparkling and deadly coating of ice. He flies com-

pletely off course, searching for warmer, drier air.

He cups his hand and plunges it outside the cockpit window to deflect cold air into his face in an effort to fight off sleep.

He longs for the dawn and finally it comes.

Thousands of feet below, at the bottom of a deep crevasse in the clouds, he can see the ocean. He flies down to it, eager for a chance to estimate the wind speed and direction after his long night of anxious uncertainty. The sea is rolling, the waves towering, the wind a gale from the west, blowing him toward Europe, not holding him away from it.

Fog envelops his airplane, and he flies blind for hours at a time on this second morning of his journey, still struggling to stay awake. . . .

The skies clear and he sees several fishing boats. Thrilled at his first sight of human activity after hours of utter solitude, he throttles his engine back to idle, circles 50 feet over the boats and yells, "Which way is Ireland?" But no one comes on deck or answers.

And then, in late afternoon, land appears ahead. Or is it? He had been fooled earlier in the day by shadows of clouds on the water. But this is the real thing. He climbs to 2,000 feet to

get a better view of the coastline and lays a map of Ireland on his knees. "Yes," he thinks, "there's a place on the chart where it all fits . . . Valentia and Dingle Bay, on the southwestern coast of Ireland!" Incredibly, he is only three miles off course after crossing 2,000 miles of open ocean.

Now the lush green land underneath him and the boats plying coastal waters offer him a deep feeling of safety if his engine should fail.

He levels off, but now sees only open ocean again. What has happened? Has it all been a mirage? In his excitement, he realizes, he has turned completely around and is now flying back across the Atlantic. He turns back east.

As he crosses the English Channel, the dark of his second night begins spreading over the sky from the east.

He crosses the French coastline over Deauville, aiming for the Seine River, which will lead him to Paris. Flashing beacon lights of the London-Paris Airway pierce the dusk and beckon him to the French capital.

The horizon glows with the lights of Paris. He circles above the Eiffel Tower and takes up a course to

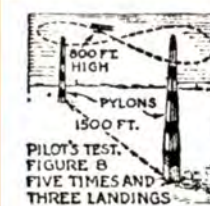
(Continued on page 23)



INSPECTION BEFORE EACH FLIGHT



REGISTRATION NUMBER LETTER DESIGNATES CLASS OF PLANE



PILOT'S TEST FIGURE 8 FIVE TIMES AND THREE LANDINGS

It Was a Simpler Age

Like the rules for auto drivers are the traffic rules for aircraft just issued for the first time by the Aeronautics Branch of the U.S. Department of Commerce, reports H. C. Davis in the Popular Science Monthly (New York). Reading them, he says, it is easy to imagine the day when the air will be thick with airplanes, and traffic officers may direct the streams of flyers from captive balloons. Now right of way and license numbers belong as much to the air as to the motor road, as set forth in the Government's new rules. He goes on:

"First rule of all, you must have a pilot's license—without this you can not take the air, unless you would risk a \$500 fine. There may be as yet no 'motor cops' of the air to blow a whistle and shout, 'Pull over to that hill—let's see your license!' but it is well to carry on your person the certificate that proves you have passed an official pilot's examination.

"A simple test is all that is required for a 'private pilot's' license—one who flies for pleasure, not for pay. In figure 8's, you circle two pylons and make several landings. Then a written examination proves you know how an airplane engine works; that a plane in distress at night fires a succession of Very lights; that a seaplane alighted in a fog must use a fog-horn. Your test is less severe than that for 'industrial pilots,' who carry commodities, or for 'transport pilots,' who carry paid passengers.

"Now you may fly, but take care that you observe the 'rules of the road.' See that plane about to cross your



PLANE ON RIGHT HAS RIGHT-OF-WAY



PLANE OVERTAKING—ANOTHER MUST PASS ON RIGHT AND KEEP 300 FT. AWAY



BALLOONS HAVE RIGHT-OF-WAY OVER PLANES. PLANES MUST TURN OUT

path, just emerged from the white cloud bank on your right? You must wait to let him by; he has the right of way. A moment, and he is past; the 'road' is clear. There is no speed limit. Without warning, a plane thunders straight toward you out of the mist ahead. Coolly you swerve to the right, and pass him.

"Now you are overtaking another craft—the letters on his tail are easily visible. Pull over your rudder, sharply!—for you must give him plenty of room as you pass on his right—at least 300 feet, the regulation is. He might strike a treacherous air current and be hurled against you if you were near him. Throttle wide open, you go by.

"You decide to alter your course. You turn to the left, dive through a cloud, and swoop down to a lower level. There, almost beneath you, is a field black with people and lined with parked cars. Don't go below a thousand feet; that's the safety limit for an open-air crowd. A balloon ascension is in progress; the balloonist has just left the ground, and is wobbling sky-

ward in his spherical ship. Turn out as you approach him; the right of way is his.

"A graceful landing ends your day's flight. Home again, there is one thing more you must do. In a log that you keep for the purpose, make a brief record of your flight. Every three months you will send a duplicate of this log to the Secretary of Commerce at Washington. It must contain, also, notes of any repairs you have made on your plane, of the engine's running time, and of the result of the inspection you are required to make before each flight. Thus the Secretary has at hand the condition of every licensed plane in the country.

"Like an automobile, every plane must now be registered and carry a license number. Huge figures painted on the wings and rudder serve as license plates, and are visible from above or below and from either side. A letter prefix signifies the airplane's class. 'P' indicates a private craft, flown for pleasure; 'C' designates a commercial plane, while aircraft owned by States or cities are marked with an 'S.' U.S. Government planes carry special letters according to their department.

"So an air pilot nowadays may lose his license because someone 'took his number.' If he violates any of the air traffic rules, his certificate may be suspended or taken away."

The above appeared in the April 2, 1927, "The Literary Digest" and was submitted by Richard Marko of the West Branch, Iowa, Airway Facilities Sector.

The crew that built the "Spirit of St. Louis" at the Ryan plant pose before their handiwork with Lindbergh (wearing hat, seventh from left). Fourth from right is one who was to earn fame in his own right—Douglas "Wrong-Way" Corrigan.





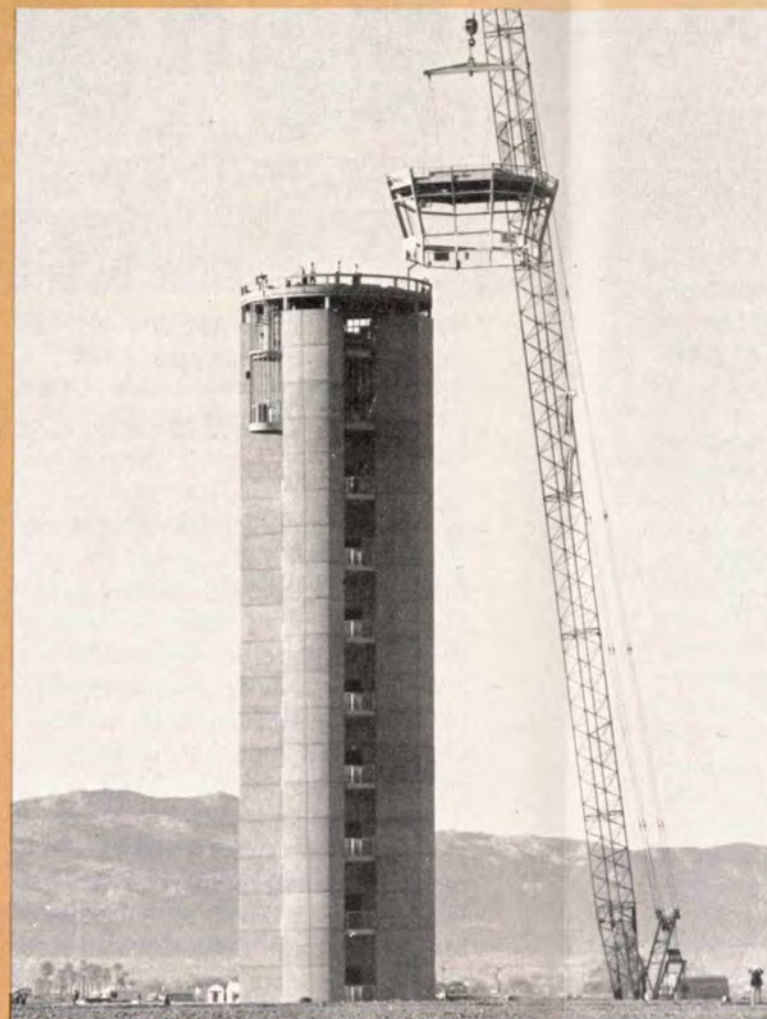
TV BIRTHDAY—Southwest Region Director Henry Newman (second from right) helps cut a cake celebrating the third anniversary of "Plane Talk"—a weekly TV program co-sponsored by FAA. Other hands from the left are John Henson, Texas Tech station KTXT-TV; Dr. Glenn Barnett, Exec-VP of Texas Tech; and Ray Raney, program host and accident-prevention specialist.



OLD-TIMER RECOGNIZED—Dr. Fred D. Fagg, Jr. (second from right) received FAA's Meritorious Service Award from Western Region Director Robert Stanton for his service as Director of the Bureau of Air Commerce in 1937-38, his writing and codifying Civil Air Regulations and founding the Journal of Air Law. Observing are former region director Joe Marriott (left) and Dr. Fagg's son-in-law, Bill Buchanan.



YOU'RE IN GOOD HANDS—For exceptional help to pilots in distress, Outstanding Flight Assistants of the Year Awards were presented to (from the left): James Parcell and James Foster of the Seattle ARTCC, Eugene Traynor of the Oklahoma City radar approach control and Loyal U. Miller of the Zanesville, Ohio, FSS.



TOP HAT, NO TAILS—The new 180-foot Phoenix Sky Harbor Airport Tower got its metal hat—an 11-ton cab—in preparation for its opening later this year. The tower's base is 17 feet below ground.

NAFEC MODEL—An ILS model built for display at New England Region airports where new ILSs are commissioned is checked over by NAFEC employees who designed and built it: Don Laurelli (left), visual information specialist; and Dave Clayton (right), carpenter.



FACES and PLACES

FLYING NUTS AND BOLTS—Glen Welsh, Pacific-Asia Flight Standards chief displays a model bi-plane he made using a spark plug, an outlet box cover, metal washers and ball bearings to simulate a radial engine.



A BEAMING TRIO—Grand Rapids, Mich., Airway Facilities Sector manager Chuck Terry (left) and assistant manager Herb Teckenbrock (right) are delighted with the regional Sector of the Year award presented to them by Great Lakes Deputy Director Leon Daugherty.



TUCSON TOWER CHIEF TOPS—The Arizona Aviation Safety Advisory Group's 1976 Air Traffic Specialist of the Year Award went to Carl Swanson, Jr. Nominations for the award are submitted by pilots.

(Continued from page 2)

If FAA really wanted to strengthen the merit promotion system, it should allow an impartial board at the regional office to make the selection. After the best qualified is selected, then the sector should be notified so that if for some good reason the individual is unacceptable, the sector may explain in writing. Such a system should reduce discrimination complaints. And it would surely end the shell game that is often played by some Airway Facilities sectors in making a selection.

A An agencywide study undertaken by the Office of Personnel and Training has indicated that employee confidence in the effectiveness of the Merit Promotion Program is being eroded by the application of voluminous regulations and procedures; the excessive time required to process personnel actions; the absence of standardized procedures, forms and evaluation techniques among appointing jurisdictions; concern over the quality of candidates identified as best qualified; and the lack of information regarding the purpose, mechanics and results of the Merit Promotion Program. The new Merit Promotion Program, developed as a result of the study, is presently nearing completion.

Q The consensus of opinion at our facility is that the agency promotion programs are ineffective. Your official opinion and explanation of the following procedures used in filling an EPDS position is requested. An EPDS was medically disqualified and his job vacancy not bid. A SATCS from a Level II VFR tower was internally placed in the EPDS position and the SATCS's job put out on bid. The SATCS had no prior academy or EPDS experience, only approximately three years in supervision. We feel the EPDS position should have been advertised under MPP. The promotion programs are there but obviously used only when management feels like it. Also please define staff positions and management positions.

A It is important to understand that there is more than one way to fill vacant positions. The most popular ways are through the Merit Promotion Program (MPP) or a combination of MPP and the Internal Placement Program (IPP). Management may, however, use only IPP to fill positions, as was done in the case cited in your query. The basic issue in this case appears to be management's use of the Internal Placement Program in placing a SATCS into an EPDS position. FAA Handbook PTP 3330.9 provides that the basic objective of FAA's Internal Placement Program is to insure the maximum utilization of employees by placing them in positions in which their services may be used most effectively. It was determined that the placement of a SATCS with three years' supervisory experience ingrade into a EPDS position met this criterion. The position vacated by moving the SATCS to the EPDS position was filled through MPP procedures. With respect to the second part of your question

asking for the definition of staff and management, management involves elements of both staff and line functions. Staff is concerned primarily with developing policy guidance; line, on the other hand, administers the policies developed.

Q As a GS-9, Step 2, my salary is \$14,567. I am being paid \$7.00 an hour for 2,080 hours, which comes out to \$14,560 for the year. When do I get the other \$7.00?

A As you noted, there is a difference between basic pay established by statute and actual pay received. This is a result of the methods set for converting an annual rate of basic pay to an hourly, daily, weekly or bi-weekly rate. These methods have been established by law—Section 5504, Title 5, U.S. Code. In converting to the hourly rate, divide the annual rate by 2,080. For the daily rate, multiply the hourly by eight. To derive a weekly or bi-weekly rate, multiply the hourly rate by 40 or 80. The rates are computed to the nearest cent, counting one-half and over as a whole cent, dropping amounts of less than one-half cent. In your case, the hourly rate is computed to be \$7.0033 or \$7.00. The annual pay, then is \$7.00 x 2080, or \$14,560—\$7.00 less per year than the established rate of pay. While this situation does occur at some grade and step levels, the opposite also occurs; for example, at the GS-9, Step 4, level, the basic rate of pay is set at \$15,507 per year. Applying the same procedure outlined above, we find that \$15,507 divided by 2,080 hours equals \$7.4552, or \$7.46, per hour. As a result, a GS-9, Step 4, employee actually receives \$15,516.80, or \$9.80 per year over the established basic pay.

Q What is the criteria for having silent releases between a non-radar approach control and a RAPCON? Our chief has entered into a letter of agreement to allow a RAPCON to clear aircraft into our airspace to our VORTAC at 4,000 feet. Then, when the aircraft is en route, they coordinate the inbound with us. Is this legal? If so, what are the references?

A It's hard to comment on the procedure without reviewing the letter of agreement. Based on the information furnished, it appears that the procedure as described is an acceptable practice that has been used at several locations for many years. It is a common practice for two terminal facilities providing tower-to-tower en route service to operate with a letter of agreement similar to the one described. Letters of agreement are reviewed by the regional Air Traffic Division, and if the procedure was unsafe, it would not be allowed to continue. Handbook 7110.65, Paragraph 12, authorizes the use of letters of agreement to supplement the handbook. Handbook 7210.3C, Section 3, outlines the procedures for preparing letters of agreement and lists appropriate subjects. Tower en route control service is one of the items listed as an appropriate subject.

After W.A. "Al" Yates' Cessna 172 settled firmly on the runway at Dallas-Fort Worth Airport one day last fall, two weary but proud air traffic controllers stepped into the gloaming with a new world record to their credit.

It all began when Yates, recovering from surgery, was presented a copy of the Guinness Book of World Records by his friend Bob Phoenix. In the section on aviation, the pair spotted a

as special insurance certification to land at a military airport and arrangements to pay any landing fees.

To meet certification requirements for the record attempt, the controllers called upon the Golden Triangle Chapter of the 99s to act as verifying officials. Three members of the 99s agreed to ride with Yates and Phoenix, each flying one leg and recording times at every airport.

Other support functions for the flight were taken care of by friends, a fixed-base operator at Mangham Field, where Yates bases his plane, and the pilots' wives, each of whom had as her flight instructor the other's husband. The women handled such duties as

and return the verifying officials, fly chase so that a local television camera crew could record some of the flight and insure that the wives were at the scheduled gas stops.

On the appointed day, Yates and Phoenix took off at 6:47 a.m., with 99er Donna Castor in the back seat. The flight began with a sweep northward toward Denton and Bridgeport and turned back south toward Meacham Field. They broke the record with their sixty-sixth landing at Lancaster Airport and finally set down at Dallas-Fort Worth at 5:26 p.m., with Penny Payton of the 99s logging the record.

The new record they put into the Guinness book was 98 take offs and landings at different airports during the daylight of a single day.

The Ups and Downs of a World Record

Dallas-Fort Worth controller Al Yates (left) and DFW TRACON controller Bob Phoenix discuss the certification procedure for their record-setting flight with Donna Castor of the 99s, prior to their dawn take-off from Mangham Field.

not-too-impressive record for take-offs and landings during daylight hours.

"We figured we could beat the old record of 65 or at least come mighty close," Phoenix recalled. "Al and I were thoroughly familiar with the Dallas-Fort Worth area, since Al works as a supervisor at the ARTCC and I'm a controller in the DFW TRACON. We knew that there were more than 100 suitable airstrips within 100 miles of DFW."

As part of their planning, the duo wrote to the Guinness people for the necessary certification procedures and any other advice. The response recommended they make their attempt in the northern latitudes in late spring or early summer to take advantage of the longer days, but Yates and Phoenix decided against that. They were eager to go then, and Yates was planning to retire before summer.

They also wrote letters to the managers of the one-hundred-odd airports they were considering using, asking for permission to land and working out requirements they had to meet, such



paying for gas, seeing to the pilots' food and water needs and managing their ground time to afford them the least-possible delay. Harry Mease, a friend of the controllers, flew the support plane, which served to pick up

Asked by the press how it feels to be a world-record holder, Phoenix mustered a tired smile and said, "Well, in our particular case, you could say it really had its ups and downs."

—Story and photo by Stan McDonough

"London calling," said the operator to the FAA information specialist. The writer for a British technical publication was on the line wanting to know about the use of air-traffic-control equipment sold by an American company to Yugoslavia.

The specialist from the FAA Information Center, which is part of the headquarters Office of Public Affairs, Community and Consumer Liaison Division, explained it would take a minute or two to get the information.



While Thom Hook and division chief Fred Pelzman (right rear) discuss the upcoming "Guide to FAA Publications," specialist Norma Senkow collates an order.

He also expressed concern about the added cost on the trans-Atlantic call, to which the British writer responded, "That's perfectly all right. We still have a few shillings!" The caller had his information in short order.

This was but one of some 40 calls and 70 letters, ranging from the mundane to the bizarre, that come into the Information Center every day. All get answered—from a child's labori-

ously scrawled request for information on careers or the Bermuda Triangle to a foreign government's request for three dozen publications, all from different sources.

Then, too, points out Thom Hook, acting chief of the center, there are many "off-the-street" visitors—totaling more than 5,000 last year. "While we maintain a file of circulars, FARs and many other publications so we can respond promptly to Congressional inquiries and to calls from Federal, state, municipal and foreign governments," Hook explains, "we try to encourage these visitors to order by mail from the DOT warehouse. We really can't be a warehouse here, not with the agency having more than 500 Advisory Circulars, for example."

The headquarters Information Center is the source for orders, handbooks,

technical and non-technical directives, plans, forecasts, studies and reports originating at headquarters, plus where-to-find-it information.

FAA field personnel are usually accommodated through their regional or center supply officers. In addition, 68 General Aviation District Offices and 16 Flight Standards District Offices are sources for agency materials. The primary site for information about airmen and aircraft, however, is the computer at the Aeronautical Center in Oklahoma City.

With certain exceptions, publications for which there is a charge must be ordered by the public from the Superintendent of Documents of the Government Printing Office. The National Technical Information Service (NTIS) is a source for technical reports and studies, which NTIS repro-

FAA'S INFORMATION CENTER

The Source and the Catalyst for Answers



An FAR needed by a foreign airline is discussed by Thom Hook (left), acting chief of the center, and operations liaison officer William Hamm of the Office of International Aviation Affairs.



Information specialist Denise Parker seeks information to respond to one of the center's many written inquiries.

duces, and can be ordered by special NTIS numbers. Requests to be placed on FAA mailing lists are properly placed with the Distribution Requirements Section of the Office of the Secretary. In such cases, requesters are referred to the proper offices and procedures, as they are to the Civil Aeronautics Board on problems about airline baggage, for example; to the National Transportation Safety Board on fatal air crashes; and to the National Ocean Survey when they want aeronautical charts.

"The Information Center can't be all things to all people," says Hook. "There are times when we have to refer people elsewhere. Other than supplying publications, basically we're a catalyst for getting answers."

Working with Hook in the Information Center are Denise Parker and George Mathieu, who spends part of his time there since Norma Senkow left for the Public Affairs Office at NAFEC. Gladys Stewart handles the Document Inspection facility, made mandatory by the Freedom of Information Act. She fills requests for agency orders and handbooks, quotes the current prices for them and records the money received for them and for

copying services. The Information Center is under the overall supervision of division chief Fred Pelzman.

To aid in serving the public, the center has developed three forms that describe the publications available in the categories of flying careers, non-flying careers and ground-support careers. This helps eliminate supplying unneeded publications when an inquiry is vague. The requester receives the appropriate form and orders directly from the warehouse.

To further target responses and cut waste in publications, former staff member and historian Sam Milner is compiling a comprehensive "Guide to FAA Publications: First Half 1977" that will be ready for distribution early this summer.

Some of the center's inquiries have included a New Jersey manufacturer who needed FAA specifications on airport lighting equipment, a Phoenix building contractor who wanted specifications guidance for the construction of a heliport, a Kentucky resident who wanted to know how to stop military aircraft from buzzing her house and the Iowa State Aeronautics Commission, which urgently needed 50 copies of nearly 70 Advisory Circulars.

On the other hand, the center specialists apply the same courtesy, skill and dedication to service to the more peripheral requests.

"Hello, I'm calling from Naples, Fla.," a caller from a funeral home told George Mathieu. "We're trying to get in touch with the next of kin of a lady. Our problem is that we have only the last name and the fact that the person is supposed to be an aircraft dispatcher for a Canadian airline."

Fortunately, Mathieu remembered that a principal Canadian air carrier stopped at Tampa, only some 60 miles away from Naples, and promised to call back in half an hour. After several inquiries, including to the New York offices of Canadian airlines and the Canadian Embassy, Mathieu relayed the information to the funeral home within the promised time. "Why, you've given me enough leads and information to fill a page!" the caller commented.

Then, there was the one about a call from the State Department. Rather than a priority diplomatic request, the call was about an FAA employee who was stuck in a headquarters elevator. The employee had apparently dialed the emergency number incorrectly on the elevator telephone. The building manager was informed.

A final example is the call Denise Parker received. "Hey, lady! How do I get to Washington National Airport? I'm drivin'." The specialist got him there.



Gladys Stewart supplies an FAA handbook to the walk-in trade at the Information Center's headquarters Document Inspection facility.

WHERE TO GO

To save time, it pays to direct inquiries for publications to their sources. Write to the following:

For Advisory Circulars: the DOT warehouse, TAD-443.1.

For placing on mailing lists: the DOT Distribution Requirements Section, TAD-482.3.

For priced publications other than FAA orders and handbooks: the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

For technical reports: the National Technical Information Service, Springfield, Va. 22151.

For aeronautical charts: the National Ocean Survey, Riverdale, Md. 20840.

A Chattanooga businessman wants to bring his restaurant-on-wheels, actually a converted GM motor home, into Plains, Ga., to feed foot-long hot dogs to hungry tourists.

A. L. (Al) Blanton—full-time air traffic controller for FAA, part-time mayor of Plains and sometime barber—sits in a tiny wood-paneled office in the combination city hall/police headquarters/fire station and listens patiently to the man's proposal. He readily concedes that the town is woefully short of public eating facilities, and the man from Chattanooga smiles a hopeful smile.

Then Blanton, who wears steel-rimmed glasses and has a no-nonsense look about him, whether he's conducting the public business in Plains or controlling air traffic at the Albany (Ga.) Tower, hits him with the grim realities. The Plains city ordinances are very strict on the subject of street sales, he explains. Almost no one gets to peddle on the downtown streets, although exceptions are made for things like Girl Scout cookies.

"We had some boys in here just the other day who wanted to wash cars on the street, and we asked them if it was for a worthy cause," he says, speaking in the slow, deliberate idiom of the Deep South. "They said 'no,' they just wanted to make some money, and we told them 'sorry.'"

So the Chattanooga man, who is in shirt sleeves despite an unseasonable chill, wants to know about parking the converted motor home on a lot and doing business from there. He even has a piece of property lined up.

Again Blanton cites chapter and verse from the city codes with a facility that suggests he has been down this road before. He points out that any structure has to be at least 10 feet wide and without wheels and axles. That opens up the possibility of trucking in a mobile home, but Blanton says any such structure must be built so it doesn't look like a mobile home. Even then it can't be located in the Plains "Historic District," which takes in almost all the real estate in a town of any value to a commercial operator.

HIZZONER WEARS THREE HATS



A former Navy controller, Al Blanton has been at the Albany, Ga., Tower since March 1969, when it was still a non-Federal facility. Blanton and his fellow journeyman controllers at Albany received a one-grade boost recently when the tower was upgraded to a Level II facility. It became part of the FAA in 1971.

Photos by Jack Barker

"Of course," Blanton adds with just a touch of irony in his voice, "you can go ahead and make an application and we'll vote on it and turn it down."

The man from Chattanooga smiles the confused smile of the city slicker who has just been taken by his country cousin, accepts copies of the applicable regulations, mumbles a "thank you," and wanders out to the parking lot where a woman is waiting for him in a yellow Monte Carlo. One has the feeling he won't be back.

Preserving the traditional small-town flavor of Plains for the 700 people who live there is Al Blanton's number-one priority as mayor, but the

job is getting tougher all the time. "Everyone in the world wants to come in here and make a fast buck off of us," he complains.

Still it's not the "fast-buck artists" who pose the real threat to Plains. Al Blanton and the other "Good Ol' Boys" can deal with them. Rather, it's the continuing hordes of well-meaning, but often thoughtless, tourists who prowl the streets of Plains from sunup to sundown, like sailors-on-leave, searching for excitement.

Blanton recalls that the influx of tourists began shortly after the Carter victory in the New Hampshire primary. But it proved to be only a harbinger of things to come.



His duties as a controller for FAA and Mayor of Plains leaves Blanton little time for his third profession—barbering—but he still puts in a few hours on Saturday night trimming the hair of faithful old customers at \$1.75 a head. Here he demonstrates his technique to FAA WORLD writer John Leyden before throwing in the scissors and calling the job hopeless.

"Then after Jimmy won the Florida primary, we started getting more people in," he says. "And as he kept winning and building momentum, the number of tourists kept growing. But it was after the win in the Ohio primary, when Governor Wallace and a few others like Mayor Daley of Chicago endorsed Jimmy, that we really started getting visitors."

At present, Blanton estimates that as many as 2,000 tourists a day move through Plains and noted that the projection for this summer runs as high as 10,000 a day. Blanton, himself, expresses skepticism about the town's ability to handle this many people but, like a man clutching at straws, notes that the State of Georgia is building a visitors center outside of town, which will have parking facilities for 200 cars and shuttle bus service into town.

Still there is not a great deal to see in Plains; even less to do. "If you want to see what the town looked like a year or so ago, just drive around after sundown when all the tourists are gone," Blanton says. But despite the lack of monuments and impressive structures ("There are no mansions in Plains."), Blanton thinks that the tourists go away satisfied and happy.

"The way they sound, they're not disappointed," he says. "I think that's because of the atmosphere of the town. The people here are friendly and have a lot of pride in the town. And it's really a clean little town, considering all the litter we've had because of the influx of tourists. And most of the people take pride in their homes. They have them painted real good. Our downtown was redone even before Jimmy became Governor," Blanton noted.

To keep tabs on the tourists and the problems they engender, Plains already has had to increase its police force from one regular and one part-time officer ("Actually, they were more like night watchmen.") to a total complement of 10. And much of the small City Hall has been turned over to police use.

Still crime is mostly of a petty nature, according to Blanton, who also serves as judge of the municipal court, which he convenes every other week on his day off from the Albany Tower. "Generally, we get a few parking and traffic cases and maybe a D.U.I. (Driving Under the Influence)," he says.

Blanton's judicial mandate empowers him to sentence offenders up to 30 days in jail and impose fines of up to \$200. But Blanton notes that he's hesitant about handing out jail terms, because Plains doesn't have its own lock-up and has to board out prisoners to Sumter County at a cost of \$6 per day. Blanton thinks that that money normally can be put to better use.

Blanton moved "up north" to Plains from his native Cuthbert, Ga.,

a distance of about 40 miles, in 1942. His father, a railroad man, was the Plains depot agent in the same building that later served as President-elect Carter's headquarters during the transition period.

After receiving his diploma from Plains High School in 1944, in the same class as Rosalynn Carter, he entered the Navy and spent the next 20 years as a military air traffic controller—a job he just "sort of fell into," he recalls. Following his retirement from the Navy in 1964, he worked for a time as a controller at Freeport in the Bahamas, attended barber's school and then managed the barber shop at the Albany Naval Air Station.

He picked up the controller's headset again at the privately owned Albany Tower in March 1969 and then slid effortlessly into FAA when that facility was absorbed by the agency in June 1971. Albany, a non-radar approach control tower, was just upgraded to a Level II facility in February 1977, giving Blanton and his fellow journeymen a one-grade raise.

Blanton's political career had something of a chance beginning, he recalls. He happened to be in the right place at the right time . . . but just barely.

"I was in the Post Office and the City Clerk was over there, and I asked him who had qualified for mayor," Blanton recalls. "He said that Billy (Carter) was the only one who qualified and that we needed another candidate to make the race interesting. So he asked me, 'Why don't you run?'"

(Continued on page 21)

As Mayor of Plains, Blanton oversees the operation of the town's 10-member police department. Before President Carter became a national figure, Plains had only one regular police officer and one part-time relief man. Blanton also serves as judge of the municipal court and can sentence offenders up to 30 days.





Three men in a tub . . . get a life raft set up after clambering in. The pilots are spared embarrassment in ditching training, for, under the Privacy Act, they can't be asked if they can swim. Pilots in this class included W. J. Mattingly of Atlantic City; W. C. Sauble of Atlanta; L. W. Blakely of Battle Creek, Mich.; G. N. Sermos of Los Angeles; T. L. Burdick of Minneapolis; T. W. Mosely of Seattle; and L. F. Abernathy of the Oklahoma City Flight Inspection facility.



He won't really walk on water with his inflated life vest, but his trip into the water at the CAMI pool will help this FAA pilot survive if the real thing occurs. An aircraft fuselage is being modified for use in ditching training. For now, the pool edge is the sinking fuselage.

NOW FAA DUNKS 'EM

An FAA pilot pulled himself slowly out of the water into the life raft and surveyed the watery scene around him.

The scene was not the turbulent North Atlantic . . . nor any other ocean, lake or river for that matter. It was in an indoor swimming pool at the Aeronautical Center's Civil Aeromedical Institute at Oklahoma City. And it was all part of a 16-hour survival course offered for FAA pilots.

Until recently, FAA pilots took survival training with military pilots. But, military survival training became more "militarized" every year, says Josh Mann, chief of the Physical Training

and Operations Section at CAMI—so much so, that now, for example, it includes teaching pilots how to escape or passively resist their captors if they cannot escape.

So, FAA decided to set up its own course, which shows pilots how to survive in water, desert, jungle and the arctic. Besides the pool, CAMI will soon begin using a chamber—which is part of a wind tunnel in the basement of CAMI—where FAA pilots can be subjected to extreme temperatures, such as 50° below zero to approximate arctic conditions.

Mann said: "It's just a different kind of training we need. FAA pilots need

a chance to see their life jackets, inflatable rafts, flares, cold weather gear and all other survival tools in operation." The whole point is that some first-hand experience, combined with classroom work, will suffice for FAA pilots, who will not likely find themselves in the hands of enemy captors.

Before the end of 1978, every one of the agency's 352 flight inspection pilots will travel to Oklahoma City to learn survival techniques. These are the pilots who fly the Jet Commanders, Sabreliners and the other aircraft used to inspect the electronic aids along the runways. Refresher courses will be required every three years.

The classes, which consist of six to eight students, are scheduled upon request by the Flight Inspection Field Offices. The more requested, the more are scheduled. At present, two or three are held each month.

Training includes studying ways to escape from a downed plane, self aid and even ways for a lost airman to "psych" himself into the proper frame of mind for survival. One of the most important parts of this training is how to fight boredom, which can be deadly, Mann says. The experiences of pilots, including captive airmen in Viet Nam, are used in the instruction manual.

Pilots also are taught how to cooperate in their rescue, both in communications and in the actual pickup. The big thing is to do exactly as instructed. No one is allowed to improvise when he gets specific instructions.

"When you come right down to it," Mann says, "survival is a matter of knowing what to do and using your head."

HIZZONER (Continued from page 19)

"Well, this was about five minutes to six and the filing closed at six. So I went over to City Hall, and, since I had my checkbook with me, I paid the qualifying fee of \$15. That was in November 1974, and I was elected the following month by a big majority of six votes. It was 82 to 76, I believe."

During the early part of his first term, Blanton says the responsibilities of his office were light and he spent only about eight hours a month doing the things that mayors of small towns need to do. But things changed as Jimmy Carter became, in turn, the Democratic frontrunner, the Democratic nominee, the President-elect and, finally, the President. Now Blanton estimates he spends 20 hours a week as mayor. He's even had to restrict his barbering business to Saturday nights, when he still caters to his old, faithful customers at \$1.75 a head.

Blanton's rematch with Billy Carter for the Mayor's office in December 1976 drew nation-wide attention, with such network heavyweights as Walter Cronkite and Barbara Walters speculating on the outcome. But the end result never was in doubt in Plains, according to Blanton. He remembers that he and Billy had a joint interview with ABC-TV, and "Billy said that 90 percent were for me, two percent were for him and the rest were undecided. Billy said he thought the undecided vote was going to swing it." The actual vote was Blanton 90 and Carter 71.

Looking to the future with a mixture of hope and trepidation, Blanton concedes that the election of Jimmy Carter has been a mixed blessing for Plains. Not everyone is happy with the impact the event has had on the town.

"I think, on the whole, the people would like to see the town back to the way it was. We're all proud to have the President from here. And we ex-



Blanton receives a quick check out in a Pitts Special from Tom Peterson, who owns the only airport in Plains and served as the personal pilot for President Carter on many of his campaign trips.

pected what's happened. We know that in order to have the President, we're going to have the tourists. And we are adjusting to it pretty good."

As for Al Blanton, he doesn't hesitate for a minute when asked if he's sorry he ran for re-election. "No," he says with a quick and convincing smile. "I'm enjoying every minute of it."

—By John G. Leyden

FOWL-WEATHER STORY. . . . Anybody who watches pro football knows it gets cold in Green Bay, Wis., in the winter-time. Yet even the grizzled winter veterans in the Green Bay Airport Control Tower were surprised this past February when a football-sized object fluttered from the sky, like an on-side kick, and plopped on the ramp next to a North Central Convair. Instead of rushing to cover the object, like the Green Bay Packer "Front Four" pouncing on a Fran Tarkenton fumble, the tower crew sat back and observed what they soon discovered was a duck whose wings had iced up in freezing rain. "Obviously," said one controller, "he had left his decider boots at home." But if the duck was down, he wasn't out. He picked himself up, shook the ice from his wings, as best he could, and then waddled down the ramp (like Joe Namath on a rollout), picking up speed as he went. Finally, the tower gave him a takeoff clearance, and he threw himself into the air and wobbled off into the mists like a Billy Kilmer forward pass. "This may not seem like a big deal in the larger metropolitan



areas," a tower spokesman conceded, "but it was certainly a highlight of the day for GRB FAAers!" Things are kind of quiet in Packerland during the off-season.

THE PEN IS MIGHTIER THAN THE SWORD. . . . "Small World" has received its share of nasty notes (usually written in crayon on ruled paper) since it began occupying this space a few years back. But, fortunately, we've never trod on the toes of Dr. Clyde C. Snow, a physical anthropologist at FAA's Civil Aeromedical Institute in Oklahoma City. Dr. Snow recently took exception to an item in *The Wiretap*, a publication of the Aeronautical Center Employees Association, and fired off a letter to the

editor that was a model of creative invective. It stated in part: ". . . I suspect that 'The Wiretap,' while a little too vapid in content to hold the interest of anyone with taste and reading abilities exceeding those of juvenile baboons, would make excellent mulch. Come to think of it, could you arrange to deliver it pre-shredded." To his credit, the editor of *The Wiretap* printed the letter in full, showing more guts than "Small World" would have in similar circumstances.

IT'S NOT NICE TO FOOL MOTHER NATURE. . . . The FAA regional office in Brussels had some good news and some bad news to report recently. On the positive side, the region (which covers Europe, Africa and the Middle East) said that the bird problem at the Capetown airport in South Africa had been solved. On the other side, the regional office noted that now that the birds are gone, the Capetown runways are overrun with snails. This is not a good news/bad news joke, incidentally, and nobody at the Capetown airport is laughing.

FEDERAL NOTEBOOK

ADVERSITY CHECKED

Ongoing downgradings and talk of reclassification efforts to halt grade creep may not have the impact once feared. Both the Administration and Congress favor protection for incumbent employees. However, the Administration has leaned toward a permanent saved pay, while Congress favors retention of pay and grade so long as the employee continues to fill that slot in the same agency or in an agency to which his/her functions were transferred without a break in service, is not reassigned or promoted and is not demoted for personal cause, at own request or during a RIF. Rep. Herbert Harris (Va) has gotten such a bill added to the House Post Office and Civil Service Committee's report to the House Budget Committee. The CS Committee itself is in the process of drafting a similar bill, which is also expected to include the provision that employees accepting the saved grade not be allowed to file adverse-action appeals.

■ Meanwhile, the House PO & CS Committee is conducting investigations into the increase in downgradings expected this year.

■ The U.S. Court of Claims has overruled the Civil Service Commission on the appeal of a case, declaring that Federal agencies may not transfer employees to other locations to coerce them to resign or retire, that such actions constitute "calculated pressure amounting to duress" and make such employee action involuntary.

WHERE THE COMMITTEES ARE

There is some talk that the House Administration Committee will slice off \$200,000 from the Post Office and Civil Service Committee's operating-costs requests, which would

hurt on employee legislation that is handled through the Compensation and Employee Benefits Subcommittee. ■ The Civilian Federal Spending Practices and Personnel Management Subcommittee is what the Senate is calling its repository for Federal employee matters. Sen. Lawton Chiles (Fla) is chairman of this part of the Senate Governmental Affairs Committee.

WHAT'S IN THE PAY CARDS?

The new Administration retained the Ford budget's projection for a 6.5 percent white-collar pay raise this October, but it doesn't represent a commitment, and Congress could prove leary of voting themselves a second hefty increase in the same year. ■ Union leaders, on the other hand, think the increase should be still larger, charging that the President's pay agents repeatedly disregard private-industry bonuses in computing pay comparability because it would boost the Federal increase further.

■ The House Civil Service Committee is balking at the Administration's proposal to change the blue-collar pay system to a single rate for each grade this year but has authorized a study for possible future changes.

CLASS ACTION

CSC has adopted regulations for processing class complaints of discrimination similar to those used by the courts. They provide for fact-finding, a hearing by a trained complaints examiner and opportunities for appeal from an agency decision to CSC and then to the courts. When a class complaint is filed, the agency must notify all members of the class, permitting individuals to withdraw from the class if they wish.



The FSS/firemen trio get in some practice at a fire test site with equipment purchased with ADAP funds. Training alone takes 10-12 hours each week.

Pierre, S.D., Airport firemen (left to right) Court Bailey, Jack Mitchell and Phil Rhode, in mufti for their avocation, are also FSS specialists there.

Double-Duty Devotion

Aviation safety is what FAA is all about. And for some FAA employees, it's more than a 9 to 5 job. For three flight service station specialists at the Pierre, S.D., FSS, in fact, it amounts to more than 10-12 additional hours each week.

Jack Mitchell, chief of the Pierre FSS, Court Bailey and Phil Rhode are members of the Pierre Airport Fire Department. And their responsibility—when they're not providing weather and flight information—is to cover the eight scheduled air carrier flights that serve the state's capital city daily.

But, their firefighting duties require

more than being ready 15 minutes before each scheduled landing and takeoff. Every Wednesday evening, there is mandatory training for the 12 crash-rescue volunteers, and many of them participate in weekend drills.

The FAA trio is all charter members of the volunteer group that was organized in the spring of 1975. Bailey and Rhode are captains of their respective companies, which puts them in the satisfying position of giving orders to their FSS boss Mitchell rather than taking them!

So far, the airport fire department has responded to eight fire alerts and,

fortunately, none was serious.

The brick, four-stall firehouse, completed in the fall of 1975 and the two crash-rescue trucks were purchased with the help of ADAP funds. There also is a 5,000-gallon tanker that was acquired from the Air Force, which is used as a back-up supply to the crash-rescue trucks.

So, if you fly into or out of Pierre Municipal Airport, it should be comforting to remember that there are professionally trained firefighters as well as expert FAA controllers and flight service specialists on hand to help.

LINDBERGH (Continued from page 10)

the northeast where Le Bourget Aerodrome lies.

A large black patch of land, with lights around it . . . is this Le Bourget? Where is the flashing airport beacon? He flies on for five minutes and sees only the dim lights of villages and then turns back. Yes, this is the airport. He circles the dark patch at ever lower altitude, trying to peer through the

blackness. Surely the airport caretakers hear his engine and will turn on the lights . . . but no lights appear.

Around the airfield, he can see the headlights of thousands of motorcars locked in a terrific traffic jam. But what are they all doing here? He approaches the field high and fast, careful not to stall his airplane. His wheels touch the turf, the plane bounces up,

comes down again; he is rolling fast into the blackness at the center of the field. It is 10:22 p.m., May 21.

He turns the plane around, intending to taxi back to the hangars. But in the next instant, his plane is surrounded by thousands of screaming people. As he opens the cockpit door, dozens of hands reach in, clutch him, lift him from the plane and carry him off before he can even step on French soil.

—By Don Braun

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