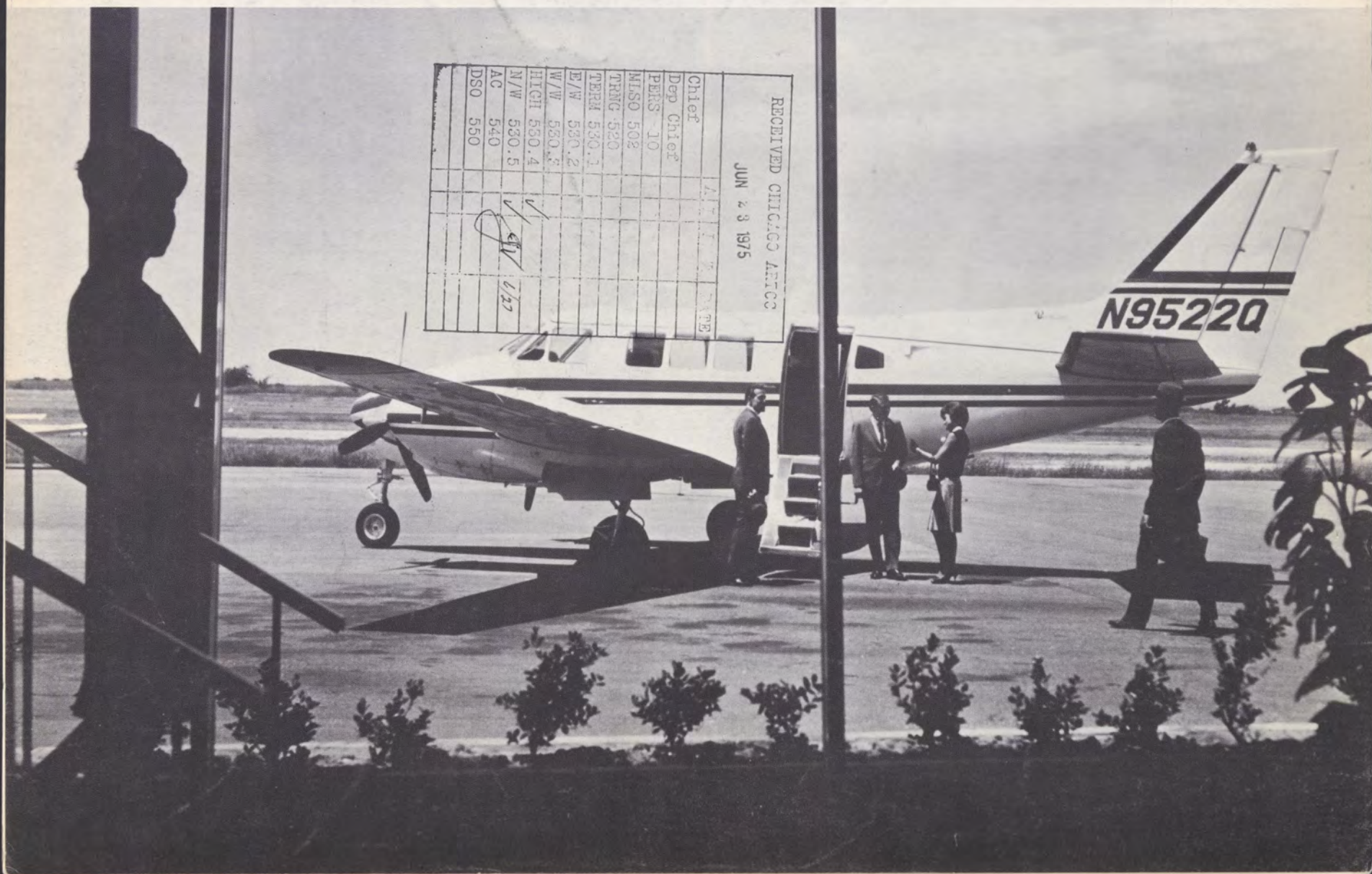


FAA AVIATION NEWS

MAY 1975





COVER:
Keeping an eye on the people
who fly. See page 3.

FAA AVIATION NEWS

DEPARTMENT OF TRANSPORTATION/FEDERAL AVIATION ADMINISTRATION VOL. 14, NO. 2

CONTENTS/May 1975

- 3 Skyjacking in General Aviation
- 6 Status of FARs
- 7 The Accident That Never Happened
- 10 Open Door Incidents
- 12 Famous Flyers: The Roughneck From Oklahoma
- 13 Pilot Briefs
- 14 News Log: Altitude Encoder Requirement Dropped . . . Mechanic Award Winners Announced . . . Fire Fighting Training Guide . . . Flight Instructor Refresher Courses . . . Air Safety Reports Encouraged
- 15 Flight Forum



A policy that paid off. P. 7



The little plane that could. P. 12

William T. Coleman, Jr., *Secretary of Transportation*
James E. Dow, *Acting Administrator, FAA*
James F. Rudolph, *Assoc. Administrator for Aviation Safety*
R. P. Skully, *Director, Flight Standards Service*

David Gelfan, *Editor*
Gernot Rasmussen, *Art Director* Ruth Taksel Benedict, *Assistant Editor*
Louise Oertly, *Editorial Assistant*

FAA AVIATION NEWS is published by the Office of Flight Standards Service, Federal Aviation Administration, Washington, D. C. 20591, in the interest of aviation safety and to acquaint readers with the policies and programs of the agency. The use of funds for printing FAA AVIATION NEWS was approved by the Director of the Office of Management and Budget, July 30, 1974. Single copies of FAA AVIATION NEWS may be purchased from the Superintendent of Documents for 35 cents each. All printed materials contained herein are advisory or informational in nature and should not be construed as having any regulatory effect. The FAA does not officially endorse any goods, services, materials, or products of manufacturers.

TO SUBSCRIBE:
Mail Coupon to Superintendent of Documents,
Government Printing Office,
Washington, D.C. 20402

Please enter my subscription to FAA AVIATION NEWS for one year at \$6.20 , \$1.55 a year additional for foreign mailing. Enclosed find \$_____ (Check or money order)

Name _____
Address _____
City, State and ZIP code _____

CHANGE OF SUBSCRIBER'S ADDRESS—Send notice to MAIL LIST SECTION, P.O. Box 1533, Washington, D.C. 20013. Include old address label from magazine and new address. Allow 2-3 weeks.



Skyjacking in General Aviation

With the success of airline anti-piracy measures, general aviation is becoming more of a target

Out of Tampa the pilot of the *Seneca* headed south in the darkening Florida sky and gave the man in the right seat some unorthodox instructions.

"You're going to have to help me fly this thing," he said. "Since I don't have a copilot, you will have to assume his duties. First let's get the pressurization going. See that knob on the far side of the panel? To keep the pressure up so we can breathe you will have to keep pushing that knob in and out. If the pressure drops, we die."

Since the *Seneca* is not a pressurized airplane, and the knob the passenger was working so diligently was actually the cabin heater control, the orders given by the pilot were unusual to say the least. But then, this was an unusual flight; the reasons behind the instruction were sound. The pilot was trying to keep the other man's mind occupied—and away from the gun he held in his hand. Frank Haigney, a young charter pilot and amateur psychologist, was being

hijacked to Cuba and, he sensed that his life depended on how well he could handle the hijacker, keep him cool and keep his itchy finger off the trigger.

During the flight from Tampa to Cuba, which took just under three hours, Haigney invented a variety of make-believe chores to keep his ersatz copilot busy. He also made up touching stories about his personal life, designed to appeal to the hijacker's sympathy. His imaginative mind may have saved his life.

What was certainly the most memorable flight in the career of the 30-year-old pilot had begun in a routine manner. A man identifying himself as Robin Harrison of the Harrison Construction Company called the Tampa Flying Service at Peter O. Knight Airport at 4 p.m. on Saturday, December 14, to request a charter flight to Naples, Fla., in a twin. He wanted to leave about 7:30 that evening, remain overnight at Naples, then go on to Miami. The *Seneca*

was marked off for the trip, and Frank Haigney was assigned as pilot.

At the appointed time the passenger appeared on the flight ramp—a clean-cut man in his mid-fifties—and the plane and pilot were ready. Only one detail remained. Since the customer was unknown at the flying service he would be expected to pay a cash deposit before the flight began. Haigney explained this to Harrison, who reached understandingly into his pocket. But instead of pulling out his wallet "Harrison" pulled out a gun and pointed it at Haigney.

"This should take care of it. Let's go." Haigney did not argue; he headed for the airplane, acutely aware of the gun at his back. As soon as the pilot and passenger were out of sight the line man who had observed the incident called the police.

Inside the airplane Haigney ran deliberately through his preflight check. He tried a stalling maneuver, ostensibly waiting for a second pilot whom, he insisted, he had to

have before taking off. The hijacker was unconvincing and demanded that the pilot "get going, or I am going to shoot you in the leg." Haigney started the engines and taxied out to the runway at the uncontrolled airport. He dialed a number into the transponder and plugged his headphones into the radio jack.

"Where are we going?" he asked. "I have to file a flight plan."

"Head south," said 'Harrison,' "and move it."

The pilot concluded that it was unsafe to delay on the ground any longer, and when a last look around the field failed to disclose a police car racing to his rescue he took off. Now that he knew what he was up against his mind was racing almost as fast as the propellers. He sensed that if his gun-toting passenger had any suspicion he was making their situation known to Air Traffic Control, he might well pump a bullet into him. The only thing he could think of was to keep the man busy, so he put his imagination to work.

Once he had his passenger busy "pressurizing" (the airplane (with the heater knob) Haigney tuned in to Miami Center, and requested a clearance to "Miami . . . possibly farther south." About halfway to Miami, 'Harrison' confirmed that he did indeed intend to go to Cuba, and Haigney asked the Center if they could give him radar vectors since he had no charts for the route. The Center complied, and also notified the Havana airport authorities of the hijacking in progress. Later, when Haigney advised that he was running short of fuel the Center requested, and received, permission for the landing to be expedited.

Meanwhile Haigney continued to assign the other man "copilot" jobs to perform. Citing the importance of careful record-keeping, he fed 'Harrison' a constant stream of checkpoints and times to enter on a flight log. He would point out a light on the ground ahead, and ask the other man to tell him exactly when it passed under the wing. And through it all, he kept the hijacker pumping the heater knob.

He also kept him talking, making certain not to antagonize him. Haigney asked the man why he wanted to go to Cuba. Because he was "tired of living in the states," was the simple answer. Haigney, who was actually a bachelor, fabricated stories of a wife at home and a cluster of adoring children who, he said, would be destitute if anything happened to him.

The landing in Cuba at 10:20 p.m. was uneventful. Two uniformed immigration officers took the hijacker in tow, and the pilot was isolated in a hotel room.

Frank Haigney was lucky. On Monday, after less than two days in Havana, he was allowed to fly his airplane back to Tampa. (Swiss intermediaries had arranged to pay the approximately \$500 in charges that the



For private airplanes, security requires fences, gates and signs designed to keep unauthorized persons off the ramp—and continual watchfulness to back the system up.

Cubans asked for release of the plane.)

Other general aviation pilots and aircraft owners have been less fortunate. They have been shot, sequestered in foreign jails, had their aircraft impounded or damaged, etc. An airplane ride with an armed passenger is always a frightening experience at best, and at worst may end in tragedy. Persons seeking refuge in Cuba are not the only hijackers. Persons engaged in illegal smuggling across the Canadian and Mexican borders are also turning to aircraft as a means of transportation with increasing frequency.

In a recent example a Cessna 310, chartered for a flight from Phoenix to Tucson, was forcibly taken and has not been seen by its owners since. En route the two passengers produced guns, ordered the pilot to fly to an abandoned Mexican airport near Nogales and locked him up in a shack while they deliberated over what to do with him. He eventually managed to escape and found his way to a Mexican Customs office, but his story was not accepted at face value and he was imprisoned incommunicado as an illegal immigrant. His employers finally tracked him down and obtained his release, but the airplane is still gone.

Aircraft hijacking—or *skyjacking*—was once considered almost exclusively a hazard to air carriers. In the past few years, however, the skyjacking of airliners has been virtually halted, as the result of passenger screening and other security measures required by FAA. In the years between 1968 (when aerial hijacking became commonplace) and 1972 there were 134 attempted air carrier hijackings, 82 of which were "successful" (on the part of the hijacker). During that period there were 13 attempted general aviation hijacking attempts—nine of them successful.



Skyjacking records since the beginning of 1973 offer a stark contrast; there have been eight air carrier attempts, none successful. At the same time there have been six general aviation attempts, all but one of which were successful at the time (although in several cases the skyjackers were captured later).

In the field of general aviation skyjacking could pose more of a threat to air taxi and charter operators than to the private pilot, but as long as there is free access to airport grounds the possibility is present that any private aircraft can be commandeered by an armed bandit. In the absence of Federal regulations, air taxi and commercial operators are encouraged to set up security pro-



As the result of careful passenger screening there have been no successful air carrier hijackings in the United States since 1973.



cedures. To assist them, FAA has published an advisory circular with information on establishing a security program. Commercial operators are reminded, however, that although setting up a security program is voluntary on their part, once they amend their operations specifications and have them approved by an FAA district office, such procedures then become regulatory requirements and may be amended or rescinded only in accordance with FAR 135.19. Copies of Advisory Circular 135-4, "Security Measures and Passenger Screening for Scheduled Air Taxi Commercial Operators

(ATCO)" may be obtained free by writing to FAA/DOT Distribution Unit, TAD-484.3, Washington, D.C. 20590.

The fact that all air carrier passengers are screened in an approved manner before boarding aircraft occasionally poses certain problems for air taxi or charter passengers at airport terminals. The latter are not allowed to deplane, for example, into "secure" concourses or enplanement/deplanement areas, unless one of the following methods are used:

- Arrangements are made with a certificated air carrier to screen air taxi or commercial operators' passengers prior to enplanement.

- Such passengers are enplaned through an established secure concourse (and screened in the process).

- Such passengers are escorted through the concourse on arrival by a law enforcement officer, or by a designated representative of the airport authority or air carrier responsible for the security of the concourse.

- Such passengers are screened in accordance with approved security procedures upon deplanement.

The first line of defense against a general aviation skyjacking is insistence upon proper, positive identification of passengers who have not been otherwise screened. Too many skyjackings have occurred when unknown persons or bogus organizations were able to charter an aircraft on short notice. Some air charter operators are now running checks through telephone call-back, references, commercial directories, etc. This type of investigation can often be carried out in the time it takes to fuel and ready an airplane for flight, and it is the best insurance available against criminally inclined passengers.

Incidentally, the security course given at Oklahoma City at the FAA Academy will be extended on July 1 from one week to eight days to include special material on general aviation. The course, formerly open only to law enforcement officials, federal government and foreign representatives, now may accept general aviation personnel on a limited basis. General aviation security briefings are also offered on request: contact the Chief, Air Transportation Security Division at the nearest FAA regional office, or at one of the 33 FAA Air Transportation Security field offices (located at large airports).

Besides assuring passenger identification some of the other measures that can be taken to safeguard general aviation aircraft against the dangers of skyjacking are:

- Familiarizing yourself with the recommended procedures for such "special" emergencies (Part 4, Airmen's Information Manual).

- Urging airport management to maintain an adequate guard in the general aviation area and to restrict unauthorized persons from access to the airport.

- Preparing yourself mentally to deal coolly with a pistol-packing paranoiac, if that situation should arise. Offer no active resistance! If, in your judgment, you can delay a skyjack departure by real, imaginary or exaggerated requirements, such as fueling, crew assistance, air traffic clearance, etc., you may do so, in hopes that police authorities may be alerted and arrive on the scene in time to foil the skyjacker. If you are forced to take off with him in the airplane, do what you can to avoid arousing his anger or suspicions, perhaps in the manner of the charter pilot described earlier. What non-pilot could ever resist the chance to play airplane driver?

The FAA "Security Command Post" in Washington Headquarters goes into immediate action whenever there is a skyjacking in progress anywhere in the country, regardless of whether it is a 400 passenger air carrier jet or a two-place single engine trainer. The Post remains open until the incident is over.

The Federal Aviation Regulations, formerly published only in volumes, have been re-issued as individual Parts. Infrequently amended Parts are sold as single-sale items, while frequently amended Parts are sold on subscription. Subscribers to volumes were notified of prices and ordering procedure for the new Parts by the Superintendent of Documents as their volume subscriptions expired.

The number in parenthesis after each Part indicates the latest change, if any, to that Part. FAR's and changes to single sale Parts, may be purchased only from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

FARs

STATUS of the FEDERAL AVIATION REGULATIONS

(Last Edition, 1975)

FAA SEPARATE PARTS	TITLE	PRICE	FAA SEPARATE PARTS	TITLE	PRICE
Parts sold by subscription		+ foreign mailing	Part 35	Airworthiness Standards: Propellers	\$0.35
Part 1	Definitions and Abbreviations (2)	\$3.00 + 75c	**Part 39	Airworthiness Directives	\$0.35
Part 21	Certification Procedures for Products and Parts (3)	\$3.75 + 95c	Part 45	Identification and Registration Marking	\$0.65
Part 23	Airworthiness Standards: Normal, Utility and Acrobatic Category Airplanes (2)	\$3.55 + 90c	Part 49	Recording of Aircraft Titles and Security Documents	\$0.45
Part 25	Airworthiness Standards: Transport Category Airplanes (2)	\$6.60 + \$1.65	Part 67	Medical Standards and Certification	\$0.50
Part 33	Airworthiness Standards: Aircraft Engines (1)	\$3.00 + 75c	*Part 71	Designation of Federal Airways, Area Low Routes, Controlled Airspace and Reporting Points	\$0.85
Part 36	Noise Standards Aircraft Type and Airworthiness Certification (3)	\$3.00 + 75c	*Part 73	Special Use Airspace	\$0.40
Part 37	Technical Standard Order Authorizations	\$5.65 + \$1.45	*Part 75	Establishment of Jet Routes and Area High Routes	\$0.40
Part 43	Maintenance, Prevention Maintenance, Rebuilding and Alteration	\$2.50 + 65c	Part 77	Objects Affecting Navigable Airspace	\$1.10
Part 47	Aircraft Registration	\$2.50 + 65c	**Part 95	IFR Altitudes	\$0.50
Part 61	Certification: Pilots and Flight Instructors	\$5.05 + \$1.30	**Part 97	Standard Instrument Approach Procedures	\$0.45
Part 63	Certification: Flight Crewmembers Other Than Pilots	\$3.00 + 75c	Part 99	Security Control of Air Traffic	\$0.70
Part 65	Certification: Airmen Other Than Flight Crewmembers	\$3.00 + 75c	Part 101	Moored Balloons, Kites, Unmanned Rockets and Unmanned Free Balloons	\$0.65
Part 91	General Operating and Flight Rules (3)	\$11.30 + \$2.85	Part 107	Alphabetical List of Airports	\$0.30
Part 93	Special Air Traffic Rules and Airport Traffic Patterns (1)	\$2.45 + 65c	Part 109	Operations of Foreign Air Carriers	\$0.40
Part 103	Transportation of Dangerous Articles and Magnetized Materials (3)	\$2.20 + 55c	Part 137	Agricultural Aircraft Operations	\$0.50
Part 105	Parachute Jumping	\$2.00 + 50c	Part 143	Ground Instructors	\$0.35
Part 121	Certification and Operation: Domestic, Flag, and Supplemental Air Carriers and Commercial Operators of Large Aircraft (6)	\$9.20 + \$2.30	Part 145	Repair Stations	\$0.75
Part 123	Certification and Operations: Air Travel Clubs Using Large Airplanes (1)	\$2.00 + 50c	Part 147	Aviation Maintenance Technician Schools	\$0.55
Part 127	Certification and Operations of Scheduled Air Carriers with Helicopters (1)	\$4.25 + \$1.10	Part 149	Parachute Lofts	\$0.35
Part 133	Rotorcraft External Load Operations	\$3.00 + 75c	Part 151	Federal Aid to Airports	\$1.55
Part 135	Air Taxi Operators and Commercial Operators of Small Aircraft (1)	\$6.20 + \$1.55	Part 153	Acquisition of U.S. Land for Public Airports	\$0.50
Part 139	Certification and Operations: Land Airports Serving CAB Certified Scheduled Air Carriers Operating Large Aircraft (Other Than Helicopters) (2)	\$3.00 + 75c	Part 154	Acquisition of U.S. Land for Public Airports Under the Airport and Airway Development Act of 1970	\$0.40
Part 141	Pilot Schools	\$3.00 + 75c	Part 155	Release of Airport Property from Surplus Property Restrictions	\$0.40
Part 152	Airport Aid Program	\$3.00 + 75c	Part 157	Notice of Construction, Alteration, Activation and Deactivation of Airports	\$0.40
Parts sold as single copies (foreign mailing is 25% of total price)			Part 159	National Capital Airports	\$1.00
Part 11	General Rule-making Procedures	\$0.55	Part 169	Expenditure of Federal Funds for Non-Military Airports or Air Navigation Facilities Thereon	\$0.35
Part 13	Enforcement Procedures	\$0.70	Part 171	Non-Federal Navigation Facilities	\$1.10
Part 27	Airworthiness Standards: Normal Category Rotorcraft	\$1.40	Part 183	Representatives of the Administrator	\$0.45
Part 29	Airworthiness Standards: Transport Category Rotorcraft	\$0.75	Part 185	Testimony by Employees and Production of Records in Legal Proceedings and Service of Legal Process and Pleadings	\$0.30
Part 31	Airworthiness Standards: Manned Free Balloons	\$0.70	Part 187	Fees	\$0.35
		\$0.40	Part 189	Use of Federal Aviation Administration Communications System	\$0.35

NOTICE

Prices shown are those in effect as of May 1, 1975. Prices are subject to change without notice and the prices that will be charged on your order will be those in effect as of the date your order is processed.

* Changes to individual airspace designations and airway descriptions, individual restricted areas and individual jet route descriptions are not included in the basic Parts 71, 73 and 75, respectively, because of their length and complexity. Such changes are published in the Federal Register and are included on appropriate aeronautical charts.

** Due to the complexity, length, and frequency of issuance, airworthiness directives, enroute IFR altitudes and standard instrument approach procedures are published in the Federal Register and are not included in basic Parts 39, 95, and 97. In addition, enroute IFR altitudes and instrument approach procedures are depicted on aeronautical charts.

Standard instrument approach procedures are published in the Federal Register by reference to FAA documents which are available for examination at the Rules Docket (AGC-24) and the National Flight Data Center, in FAA Headquarters, Washington, D.C. and at FAA regional offices and Flight Inspection District Offices.



Teterboro GADO Chief Aubrey Johnson

The Accident that Never Happened



Historic Teterboro Airport with its heavily populated environs

When an FAA general aviation district office shows a 40 percent drop on accidents over the previous year, and a 41 percent reduction in fatal accidents, you get the impression that somebody, somewhere, is doing something right. And if you ask the GADO chief, Aubrey K. Johnson, what it is they are doing at Teterboro that accounts for the outstanding safety improvements he will tell you simply that everyone is doing his job, and that the accident prevention program is starting to pay off.

He has plenty of statistics to back up his statement. If statistics do not convince you, and you want a personal endorsement from the citizenry, you have only to step across the airfield to the Teterboro Flight Academy, operated by John and Anthony Habermann. John Habermann, who is an accident prevention counselor as well as chief pilot for the Academy, will cite you the recent example of a student pilot who was trapped in an unpredicted snowstorm, and who managed to land safely after a nightmarish experience—essentially because one of the safety messages that the accident prevention program emphasizes, and Habermann espouses, was driven home.

Habermann is a man who believes that safety messages should be seen as well as heard. On the chain link fence that leads

to his aircraft parking ramp a large sign reminds all departing student pilots of his Academy that they are to top off tanks at every stop on a cross country flight, regardless of the distance of the leg. Habermann installed the sign after his well-known policy on this subject had been ignored or forgotten by a student who did not quite make it back to the airport.

In this case the flight was from Teterboro to Albany and return, a total distance of about 260 miles, in a Cessna 150 trainer. The flight to Albany, straight up along the Hudson River, took only about an hour. Finding that no 80 octane avgas was available at Albany, the pilot concluded that he could easily make it back to Teterboro on his remaining fuel. He had checked the tanks manually (that is, by reaching up over the wing and wetting his fingers in the fuel) before setting out, which led him to assume that the tanks were full.

In point of fact, the tanks had been used for .7 of an hour since topping, for touch and go practice landings, which would have burned off at least three or four gallons. Another fact that had missed the student pilot's attention was the weather information that listed winds aloft along his flight path to Albany at 30 knots, directly at his tail.

On his return flight that 30 knot headwind burned off his fuel at a much faster rate (per mile) than he realized. He overflowed several airports where 80 octane fuel might have been available, but he decided it was not necessary to land prior to reaching his destination. Several miles short of Teterboro, over a heavily populated area, his engine coughed ominously, choked on the last ounce of fuel and died. The only open space that caught the pilot's eye was a school yard, but as he glided down for the forced landing he was obliged to swerve sharply to stay clear of a group of children at play. The trainer crashed into a chain link fence and was demolished. The pilot was fortunate to escape with a concussion.

It was a lesson in fuel management this particular student was not likely to forget, but John Habermann felt it was too costly a form of learning. He had his flight instructors press home more forcibly to students that, inexperienced as they were in flying, they could easily stray off course on a cross-country solo, or wander into unmanageable weather, or miscalculate the mileage, or commit any number of unforeseen blunders from which they could safely extricate themselves—if they had enough gas. And he posted a large sign to remind them each time they took the field, directing

all student pilots to refuel at every single training stop.

Habermann's campaign paid off handsomely a few months later. On March 2, 1974, Earl Shaw, a 35-year-old construction worker and student pilot, took off in a 150 trainer to make a 310-mile round trip cross-country flight: Teterboro to Bridgeport, Conn., to Newburgh, N.Y., and return. The weather, on the morning of that late winter day, was clear and fine, with no precipitation predicted along his flight course.

The 110-mile flight to Bridgeport was accomplished uneventfully and took less than an hour. The pilot's first problem confronted him on the ground at Bridgeport, when the fixed base operator who signed his logbook was disinclined to top his tanks, arguing that it was not worth the bother to get a man out to the pumps for three or four gallons of gas—and unnecessary. The well-schooled student managed to track down another fuel supplier who obliged him by squeezing four gallons into his tanks.

Then he set off on his westward leg to Newburgh. After nearly an hour of flight, patches of clouds suddenly appeared without warning, and before the pilot realized what was happening his visual contact with the ground disappeared. The freakish storm, which had developed out of the north Hudson River valley, brought freezing temperatures and snow showers which reduced visibility to near zero—and brought the student to the verge of panic. Before he could think about turning on his pitot heat, the tube froze over and he lost his airspeed indicator. He found himself being pitched about in turbulent air, and was unable to maintain a directional heading. He soon had no idea where he was.

His *Mayday*, at 10:33 a.m., was picked up by Approach Control at Westchester Airport. The controller, who was simultaneously assisting two other small aircraft caught in the unexpected snow shower, established radar contact with Shaw and tried to vector him back toward Bridgeport.

But the student in the 150 was unable to maintain any heading consistently. His windshield frosted over, and he was unable to locate the defrosting equipment. He stalled out repeatedly, lost altitude, recovered and climbed back up to about 3,500 feet, attempted to level off and establish a heading, lost it, stalled—over and over again. For nearly two hours the controller maintained radio contact with the student pilot, reassuring him, going over the various instruments available to him and attempting to re-indoctrinate him in their use. Because of the distraught state of mind the student was in, it was necessary to refresh his memory by giving him step by step procedures in the use of the cockpit heater to apply heat to the windshield; in the use of the needle and ball as an indication of



John Karp (right), looks with satisfaction on his experience in the Accident Prevention Program at Teterboro. Volunteers like John Habermann (left) make it work.



directional stability; reading the altimeter, magnetic compass, etc.

Radar returns showed that the Cessna 150 was drifting north-northeasterly, unable to maintain the easterly vectors provided, and it was feared that the aircraft might soon be out of radar range. Approach Control decided to vector another aircraft to intercept the trainer and lead it to the nearest airport with VFR conditions. An air taxi Beech 99, Command Airways Flight 8, which was departing Westchester, volunteered to assist and was vectored to the vicinity of the 150.

The trainer was above the clouds at this point, at 3,500 feet, and visual contact was made with the Beech. However, the student pilot was unable to follow the larger, faster aircraft, repeatedly lost his heading and altitude, and finally contact was broken off.

Meanwhile, back at Teterboro Airport, John Habermann was pacing the ramp anxiously. He had been informed of the emergency by Air Traffic Control, and he had his Cessna 310 twin fueled up and ready to go to the aid of his lost student. But he was advised that it did not seem feasible to assist the 150 with a fixed wing aircraft, under present conditions, and that a helicopter was being contacted.

Responsibility for the flight assist was now handed over from Westchester Approach Control to Bradley Approach Control at Hartford, as the aircraft was now well up into Connecticut, in the vicinity of Waterbury. A National Guard helicopter was vectored to a rendezvous with the 150, and the 'copter and the trainer were vectored out of the clouds toward Hartford. At 12:28 p.m. the weary student pilot advised that he could once more see the

ground clearly. He was directed toward Rentschler Airport in East Hartford, and landed without difficulty.

A relieved John Habermann flew up to Rentschler in his Cessna 310 with an instructor, who flew the student home in the twin. When John had the trainer refueled in preparation for his flight back to Teterboro, he noted that the tanks took 19.6 gallons; the total usable in that aircraft is 22.6 gallons. If the student had not topped his tanks, on landing at Bridgeport, his fuel would have been exhausted long before he got out of the weather. It was a clear case where an accident prevention

program safety message hammered home by a volunteer counselor, had prevented an accident, and perhaps saved a life. (Much of the credit for preventing a crash in this case, of course, is due to the exceptionally fine assistance of Westchester and Bradley Approach Control.)

One of the reasons that the FAA Accident Prevention Program is taken so seriously in the area served by the Teterboro GADO is that there are very few places within a hundred miles of the airport where you can expect to complete an emergency landing in a land plane and walk away from it. The district comprises one of the heaviest

One of the Teterboro's big accident prevention events was an eight-hour non-stop safety session in 1973 where some 100 pilots had a chance to work out air traffic control problems at simulators.



Let's they forget, students at the Teterboro Flight Academy are reminded in print of the rules for fueling on cross-country flights.

populated sections of the world, including eight counties in New Jersey and five in New York.

Teterboro Airport, which has been named by the FAA as a reliever airport for La Guardia, John F. Kennedy, and Newark, has an average of about 600 operations a day and a total of about 230,000 operations a year, and normally bases about 400 to 500 general aviation aircraft on the field. The airport is a historic one, dating back to the early twenties, when it was used by such aviation notables as Clarence Chamberlain, Charles Lindbergh, Amelia Earhart and others.

FAA's general aviation district office at Teterboro, established 20 years ago, now has a staff of 14 inspectors including Chief Aubrey Johnson. The accident prevention program was activated here in 1971, with the arrival of accident prevention specialist John Karp. In a busy four years, the GADO has designated about 50 accident prevention counselors, held over 300 safety clinics, talked to over 127,000 pilots.

While general aviation activity in the area has increased steadily, the number of accidents has decreased. The record shows a drop from 76 accidents in 1972 to 46 in 1973. Chief Johnson is also proud of the fact that there were no fatal air taxi accidents in his district in 1972 or 1973, and that there were no student or other training accidents in 1973. He feels that the accident prevention program is getting through.

John Karp, who with the aid of the other GADO inspectors, spearheads the program, is a man who knows from personal experience what it is like to survive aircraft accidents. A bomber pilot in World War II, he was shot down over Germany

and held prisoner for 20 months. At the war's end, he decided to stay on the ground for a while and went into the printing business in New York, prospered, married and raised a family. But the itch to fly returned, and in 1965 he bought an S-52 helicopter plus a couple of fixed wing aircraft and ran a small fixed base operation, doing everything from instruction to aerial photography. (He is certificated up through ATR, with ratings for instrument, single and multi-engine, land and sea and rotorcraft operations, as well as for flight, instrument, and ground instruction.)

On a photography mission with his helicopter he lost the tail rotor and crash-landed in the Hackensack River, which failed to dampen his spirits, but wiped out the 'copter. Shortly afterwards he was called to Fort Rucker as a civilian instructor and spent four years training 'copter pilots for the Army. He joined FAA in 1970, trained at Oklahoma City and was sent to Jackson, Miss., first as a flight inspector and later as an accident prevention specialist, as the program got under way in 1971. He was fortunate in being able to return to his home base in New Jersey in March of 1971, when he was reassigned to Teterboro.

Today, four years later, he has earned the title of "Mr. Safety" in the minds of local pilots, and the walls of his office are liberally ornated with evidence of his success in accident prevention. He has half a dozen letters of commendation from aviation officials in and out of the agency, and he was designated "Flight Educator of the Year" for 1973 and 1974 by the Aviation Advisory Council of New Jersey. He received (jointly with Aubrey Johnson) the Regional Award for the most effective Accident Prevention Program in 1973, etc.

John Karp feels that the Teterboro accident prevention program has been especially successful in getting outside-FAA organizations and individuals to contribute generously to the dissemination of safety information. The many aviation-minded friends he has made in the community frequently provide him with meeting halls without cost, arrange for the execution of safety plaques which he designs, help advertise meetings, distribute literature and cooperate in every possible way to spread the good word that accidents can be prevented.

"I get plenty of help," he says. "Most of the time all I have to do is ask."

The spirit of helpfulness evident at Teterboro is due in part, no doubt, to the persuasiveness and enthusiasm of men like John Karp. But it also stems in large measure from the realization that the future of general aviation in an urban community depends on the reduction of accidents to the point where flying is accepted as a safe activity. This makes safety the business of everyone who flies. ■

What happens if your door pops open during flight?

Whoosh! There will be the unnerving sound of wind rushing out of your cabin. Objects may begin to fly around the cockpit: charts, maps, papers, and maybe even heavier items such as the lunch you had prepared to eat in flight. Some of those objects might even get sucked out of that open door, irretrievably lost as they float off in the sky behind you. And, of course, your face may become flushed with embarrassment, because open door episodes are frequently caused by the failure of the pilot to lock the door properly before takeoff.

More serious problems could develop as a result of an open door. There could be some degradation in the airplane's performance resulting from the disturbance of the airflow over a primary surface, some increase of drag or decrease of lift. And with certain airplanes, particularly at higher speeds, there could even be some controllability problems—the airplane might try to roll or yaw or even oscillate somewhat.

However, the controllability factor is not usually the primary cause of "open door accidents." The principal problem is usually pilot reaction to that sudden door opening—a disturbance that leads him to become occupied with the open door, so that he fails to fly the airplane properly. In most cases the airplane is, despite some decrease in capability still very much airworthy. But if the pilot becomes distracted by the sudden unexpected activity, he may lose control of the airplane. The noise and the flying objects in the cockpit might so distract him that he fails to keep visual reference to the ground or monitor his instruments. Or he might think that all that noise, caused by the open door, indicates some serious failure in the airplane; and so take unnecessary risks in setting the airplane down hastily on unsuitable terrain. Or he might become so preoccupied with leaning over and trying to latch the open door that he exerts unintentional pressure on the controls and perhaps flies it into the ground.

Consider what happened in these two in-flight open door episodes, and note what happened in the cabin after the door flew open.

The first episode, which culminated in a tragic accident, occurred in New Mexico in 1972. The airplane involved was an air taxi, a twin engine *Queen Air*, scheduled to leave early that afternoon for a flight to Santa Fe. The pilot was an ex military flyer with an airline transport certificate, over 5,000 hours and 400 in this type of aircraft. On board that day would be eight passengers and some cargo.

During the hour before the flight the pilot himself assisted in the loading of the cargo. There were to be a total of 121 pounds of cargo on board stowed in eight different boxes. The pilot put two of the

Open Door Incidents

It is not the hole in the airplane, but the state of the pilot's mind that imperils the flight

parcels in the rear cargo compartment, locked the door, and then he and one of the ground crew men loaded the other six boxes in the front cargo compartment near the nose of the airplane. The boxes weighed 86 pounds and contained metal control data electronic boards.

Then the pilot pulled down the cargo door which was hinged at the top, closed it, and twisted the D-shaped handle on the door. It seemed difficult to operate, and he had to exert a lot of pressure on it until he twisted the handle into place, locking the door.

Or, at least, he thought he had locked the door.

Because the subsequent NTSB investigation revealed that the cargo door was never completely locked that day. There were three sliding bayonet latches inside the cam locking mechanism, but the mechanism had not been fully rotated to locking position and the latches had not been engaged securely. The investigation also disclosed that the door had been difficult to operate for some time, although it was still in working condition. The NTSB report conjectured that the "excessive force" the pilot had to use in closing the door might have misled him into believing he had locked it and thus he failed to look at the handle scribe mark alignment.

A Disconnected Switch

The pilot then climbed into the cockpit and started the two engines. If the safety switch had been functioning properly, he would have discovered the unlocked door at that point. The *Queen Air* had originally been equipped with a safety interrupter switch system, wired to the left engine starter switch, that prevents it from being energized whenever that forward cargo door is not closed and locked. The investigation revealed that some time prior to the last flight of the *Queen Air* the wiring to the switch had been removed. The left engine started smoothly, and so did the right engine.

At 1:23 that afternoon the airplane, with

eight passengers now on board, was cleared by the tower to taxi to Runway 17 in preparation for takeoff. It was a warm May afternoon with temperatures in the lower 80's, but there was a strong wind of 23 knots, with gusts of up to 31 knots, and blowing dust, all quadrants. Three minutes later the airplane was given takeoff clearance and when it began its roll from an intersection it had 7,500 feet of runway ahead of it.

Somewhere in the first 1,400 feet of the roll the forward cargo door apparently worked loose, and for the next thousand feet or so cargo spewed in a stream along the runway. At this point the pilot was probably unaware of the situation (the open door was out of his sight). About the time he rotated he became aware of his problem because a carton hit the left propeller and broke the tip off a blade.

At this moment of decision—for reasons that will never be fully known—the pilot chose to continue the flight rather than land on the almost 5,000 feet of remaining runway, although performance data on file for that aircraft indicate that, up to the point where the landing gear was retracted, the plane could have been set down and stopped safely on the runway. (Investigators speculated later that rugged terrain beyond the end of the runway might have influenced the pilot's decision.)

The pilot got the airplane into the air, feathered the left propeller, retracted his landing gear and struggled up a couple of hundred feet as he flew along the runway center line and beyond the runway for another half mile. Then he started a shallow, intermittent left turn (losing some altitude in the process) and called the tower, requesting clearance to return and land. The tower quickly complied, offering him the choice of runways 17 or 26. The pilot began an immediate left turn onto final for 26. However, apparently in his haste to get down, he banked rather steeply (toward the feathered prop). The nose was seen to pitch up and from an altitude of about 100 feet the plane rolled rapidly to the left in a stall, striking the ground inverted, with the right



wing down and the tail high in the air. All nine people on board died on impact and the airplane was destroyed by flames.

The subsequent NTSB report stated that the pilot should have had ample time to maintain control after the door opened either to abort his takeoff or to execute a safe emergency landing. With the right propeller undamaged and the left one feathered the airplane should have been flyable. NTSB was not able to calculate the exact amount of drag produced by the protruding cargo door and the opening in the nose compartment, but it used a calculation which is employed to determine the effect of open landing gear doors. By this standard it said the rate of climb, with one engine feathered, could have been reduced to 94 feet per minute at full power. Even if the pilot reduced the engine's power to "initial climb speed" he should have been



Every door in the airplane should be checked by the pilot just before takeoff.

able to maintain altitude or even climb a little.

NTSB acknowledged that although there was no way the pilot could have made a reasonable judgment as to the extent of his loss of airplane performance capability, it was "reasonable" that he would try to land the airplane at the first opportunity. However NTSB indicated that it would have been possible to avert the loss of life if the pilot had retained control of the airplane.

More fortunate were the occupants of another light twin, a *Navajo* making an approach to Pensacola Municipal Airport in northwest Florida when the cabin door suddenly popped open. The airplane was a new one, with a total time of only 192 hours, flown by a 29-year-old pilot with an airline transport ticket and about 3,000 total hours.

The *Navajo* had departed Panama City, Fla., earlier that morning on an executive cross country flight, with three passengers, including the owner, an executive in a construction firm. About 11:15 that morning they were about 13 miles northeast of Pensacola, on radar vectors for visual approach. The pilot was cleared to leave 4,000 feet, and he descended to 3,500 feet, flying at 200 knots.

At that point there was a loud popping noise in the cabin; the owner looked over at the cabin door and saw that it had blown open. It was a split door, and the upper half was hanging by one hinge, while the bottom half was hanging down and banging noisily against the fuselage. Wind began to rush in, and papers started to fly around the cabin. The passengers were confused and alarmed, but the pilot quickly informed them there was no danger. Just remain calm and seated, he told them, and we will be on the ground in a few minutes.

The first thing he did was to lower his air speed from 200 knots to 100 knots. He knew that there would be some disruption of the airflow over the tail because of the protruding lower cabin door and the aperture in the airplane. By reducing the speed he could lessen the effect of any controllability problems.



Then he called ahead to Pensacola Approach Control, notifying them of the situation, but he did not declare an emergency. He continued his normal approach, only at slower speeds. The bottom half of the door continued to bang away against the side of the airplane, and the wind still rushed through the cabin, but the pilot refused to allow himself to become distracted. He made a normal approach, and true to his word, they were on the ground a few minutes later with no more serious consequences than some hair which needed brushing after being blown about by the wind.

A Mechanical Failure

Why had the door on this practically new airplane popped open during flight? Had they failed to lock it properly? No. The pilot stated that the owner himself had closed the door securely before takeoff and the pilot had carefully watched him do it—he saw him put the latch down and pound on the door to check for security. Finally an FAA investigation uncovered the problem: the locking pins in the door plate latch assemblies had not engaged completely, and during the tension placed on the door during

flight they had pulled loose. It was a simple mechanical failure, one which could possibly have caused some serious problems for an inexperienced pilot, but not for a flyer who kept his cool.

An FAA Advisory Circular (91-28) discusses the problem of improperly secured doors on aircraft. The circular suggests that all pilots make the checking of cargo as well as cabin doors a part of their pre-flight inspection. The pilot may not have stowed any cargo himself recently, but any number of untrained persons may have handled that door between flights.

Cabin doors are usually less of a problem than baggage doors. Practically every cabin door is hinged on the forward edge, so that if it does pop open in flight the rushing wind will press it back toward the door frame, much as it will in a speeding car. If your door tears off completely there may be even less disruption of the airflow; there are many airplanes which can receive a waiver to fly with no door at all for such flights as aerial photography or parachute jumping. There are also a few airplanes in which controllability becomes critical if a door is ripped off—so know your aircraft.

Trying to close an open door in flight can be a tricky affair, particularly if you are flying solo. Instructions are usually found in owners' handbook. It is a good idea to review them ahead of time. If you start reaching around a seat or leaning across to fumble with that open door, you might inadvertently move the controls beyond the point of recovery, if you are at low altitudes, as in taking off. If there are passengers on board they might be able to close that door for you, but the air load designs of some airplanes are so great that it could be virtually impossible to close a cabin door in flight. The task may be too difficult for a single crew member. Usually the best advice is to let the door alone and fly the airplane at lower speed until you can make a landing and deal with it on the ground.

Incidents involving doors springing open in flight which do not lead to accidents need not be reported. It is suspected that the annual number of such incidents is quite a bit larger than the known statistics.

In a recent Safety Bulletin the National Transportation Safety Board listed 63 instances of passenger or cargo doors opening during flight, in the seven-year period from 1968 through 1974. Thirty-eight of these resulted in forced or precautionary landings with little or no damage to the aircraft and no injuries. However, seven of these mishaps led to a fatal crash, resulting in 19 fatalities. In the opinion of the Board, at least some of these fatalities could have been prevented if the pilot had not allowed his attention to become diverted from the task of flying the airplane in the best possible manner under the circumstances.

Moral: don't give up the ship.

Famous FLYERS

The record time for a flight around the world in 1931, was 15 days, established by the German dirigible *Graf Zeppelin*, which had swept aside the earlier American mark set by the Douglas *World Cruisers* in 1924 (just over six months elapsed time). Depression-ridden America was not doing much long-distance flying in 1931, and it was beginning to appear as if the world might have to look to Europe for the continued development of aviation, notwithstanding the achievements of the Wright brothers and their heirs.

Then out of the blue flashed a stubby little plywood monoplane flown by a stubby, one-eyed Oklahoman, and when his aircraft landed at New York's Roosevelt Field on July 2, 1931, the world record was once again in American hands. Wiley Post had flown a single-engine airplane around the world in eight days plus 15 hours and 51 minutes, a feat that no other man—or woman—has duplicated to this day, and probably no one ever will. Wiley Post was one of a kind.

Wiley Hardeeman Post was born on a farm 65 miles east of Dallas, Texas, on November 22, 1898, one of five sons in the family of six children. When he was seven years old his parents moved to another farm near Rush Springs in southwestern Oklahoma. At 15 he attended a county fair and saw his first airplane, an old Curtiss *Pusher* which looped and spun, made steep vertical dives, and did tight spirals. On the spot, Wiley decided he would become a pilot, but many years of adversity and hardship were to pass before he could realize that boyhood dream.

Wiley had little patience with book learning and left school after the eighth grade. At 18 he left home, wandered about the midwest and finally stopped in Kansas City, where he enrolled in an auto school to learn something about reciprocating engines. When America entered World War I he tried to get into a military flight training program, but because he only had an eighth grade education he had to settle for technical training in radio. He was not getting any closer to his ambition to fly, but his training in reciprocating engines and electrical communications were to prove invaluable in the years ahead.

After the war the penniless young man of 20 obtained a job as a "roughneck" in the oil fields, and for the next eight years he drifted from one oil field to another. His desire to fly remained undiminished as he frequented flying circuses and fairs featuring aerial barnstormers. In 1919, he paid \$25 to a barnstorming pilot for his first ride in an airplane, an open cockpit biplane. He loved it, though it cost him nearly a week's pay, and there was no way he could save



The Roughneck from Oklahoma

An uncommon hero of the common man



The "Winnie Mae," challenging sea and storm.

enough money for flying lessons, or for the airplane he dreamed of owning.

Then in 1924 he discovered one way to get closer to aviation. While attending a flying circus at Wewoka, Oklahoma, he learned that the regular parachute jumper had been injured, and he volunteered to take his place. He made his initial jump from a Curtiss *Jenny* flying at 2,000 feet, "half-scaring himself to death." During the next two years he made 90 more jumps, picking up all the flying pointers he could in the process.

In October of 1926 his flying career received a seemingly mortal setback. He was working on a drilling rig near Seminole when he was struck by an iron chip from a bolt being driven home by another roughneck's sledgehammer. The chip lodged in Wiley's left eye, and the eye had to be removed. It was a moment of supreme dejection for the air-minded young man of 28. But a few months later, when he was awarded \$1,800 in workman's compensation for the accident, he decided to use the money to change tragedy into dream fulfillment. He invested part of his funds in the purchase of a used airplane, a Curtiss *Canuck* (the Canadian version of the Curtiss *Jenny*), and poured the rest of his cash into flying lessons.

Despite having only one eye he proved, surprisingly enough, to be a natural pilot.

To compensate for his lack of binocular vision he learned to judge distances with his one good eye, using familiar terrain objects as yardsticks—a process of depth estimation which is known today as the "adjacency principle" in visual perception. And his one good eye, by some process of compensation, seemed to get stronger and more developed as he went on with his flying. One day, years later, he demonstrated the strength of that eye for Jimmy Doolittle and

Roscoe Turner by reading signs at a distance from which neither of these noted pilots could make out a single word.

For the first few years of his flying career Wiley Post barnstormed with his airplane around the southwest and even into Mexico, and he used his *Canuck* for his honeymoon when he was married in 1927. The aged *Canuck* finally broke down in 1928 and he was forced to sell it and take a job with F. C. Hall, an Oklahoma oilman, as his private pilot. Post flew first a three-place open cockpit *Travel Air* biplane, but in the summer of 1928 Hall purchased a cabin airplane, a single engine Lockheed *Vega*.

During the stock market crash of 1929 Hall ran into financial difficulties, and he was forced to sell the *Vega*. Post personally returned the airplane to the Lockheed factory at Burbank, Cal., and he remained there for a year as a test pilot. It was another invaluable experience for him, because he haunted the factory day and night, learning everything he could about aircraft construction and capability.

By mid-1930 Hall had recovered somewhat financially, and he was able to buy a new airplane, another *Vega*, named the "Winnie Mae" after his daughter. The purchase price was \$22,000.

The new "Winnie Mae" was a high speed airplane, and Post persuaded Hall to allow him to demonstrate its capabilities by entering it in the nonstop Los Angeles-to-Chicago Air Derby of the 1930 National Air Races.

The *Vega* had a fuselage of finished plywood, with fabric-covered wings and tailgroup internally braced, thus dispensing with struts and wires which were used on most airplanes in the 20's. It had a 41 foot wing span, but it was only 27 feet, 8 inches long. It was powered by a 420 horsepower Pratt and Whitney "Wasp" engine designed to cruise at 140 mph, with a 190 mph top

speed. It could carry seven people in the cabin and it had a fuel capacity of 96 gallons. But for the 1930 air derby Post removed the seats and added more fuel tanks, until he was able to carry 500 gallons on board.

When Post showed up in Los Angeles in his "Winnie Mae" for the start of the race he was totally unknown. In fact, he had never before raced in competition. But there was one thing which made people take note of him. He was now wearing an eye patch over his missing left eye. During practice flights with the "Winnie Mae" Post discovered that the glass eye he wore became cold and chilled at higher altitudes, giving him severe headaches, so he replaced it with an eye patch. He continued to wear his glass eye on the ground, but the eye patch became his trademark.

There was something else that made people take note of Wiley Post: he won the race. Taking off from Los Angeles on the morning of August 23, he flew the 1,760 miles to Chicago in nine hours and nine minutes, beating such aviation racing champions as Roscoe Turner and Art Goebel. What made his victory even more remarkable was that his magnetic compass stuck shortly after takeoff, so that the one-eyed pilot flew the entire trip by visual reference to the terrain. He attributed his success in part to the accuracy of the courses plotted for him by Harold Gatty, a young Australian navigation expert.

On the strength of this success, Post was able to convince Hall that the "Winnie Mae" was capable of even bigger things—namely a flight around the world. Hall agreed, and in early 1931 preparations began with the signing of Harold Gatty to serve as the navigator on the flight, which was to last at least 15,000 miles.

(To be concluded in a succeeding issue.)

Wiley Post (right) with navigator Harold Gatty, in 1931, set out to prove, as Will Rogers observed, that the world was still round, even if it seems a little cockeyed at times.



Pilot BRIEFS

■ **UPDATING THE AIRCRAFT MECHANIC.** Aviation maintenance personnel will have an opportunity to trade questions and answers with manufacturers' representatives November 5, 6 and 7, when the State of Illinois hosts a regional aviation maintenance seminar at Springfield, Ill. For details of attendance contact Charles Wells, Division of Aeronautics, Capital Airport, Springfield, Ill. 62705. The recent ninth annual General Aviation Maintenance Seminar at Nashville (pictured) saw over 500 persons attend an illuminating three-day session that covered powerplant, airframe and avionics technical problems. The sessions offer mechanics a unique opportunity to make personal contacts with manufacturers and to become familiar with the approved servicing of the latest aircraft equipment.



■ **THEY COLORED IT BLUE.** If the fuel sample you drained from your tank looks blue, do not be alarmed. At least one refiner has begun to use blue coloring in low-lead 100/130 octane aviation gasoline, with green being retained for the high-lead grade 100/130. These two different grades of 100/130 fuel are currently under study by the American Society for Testing and Materials for color code standardization. A new standard is expected by the end of 1975. Meanwhile, pilots and owners should be aware that green gasoline may mean either low-lead or high-lead 100 octane; blue means low-lead 100. (80/87 octane fuel continues to be red.)

■ **AIRPORT DEVELOPMENT** sometimes necessitates the acquisition of privately owned property. How and why such land is acquired is the subject of a new FAA booklet that also tells what happens to the persons who are displaced by Federally assisted airport projects and what compensation they can expect under Public Law 91-646. The booklet, "Sites for Public Airports" is distributed by FAA Airport District Offices to airport project sponsors, who are expected to furnish copies to occupants of property to be acquired.

■ **CHECK THE DATE.** Pilots and owners are cautioned to check the expiration date on the battery of their emergency locator transmitter (ELT) to be sure it is not out of date. Regulations require that ELT batteries be replaced when (1) the transmitter has been in use for more than one cumulative hour or (2) half the useful life of the battery has expired. In many cases these batteries are not being replaced, which means that the device does not meet FAR requirements and that in case of accident or forced landing it might not function to summon help. Battery replacement may be made by certificated pilots; be sure you use the proper battery for your ELT. These are available from ELT manufacturers, aircraft dealers and aviation supply houses. Remember that the new expiration date for the replacement battery must be marked on the outside of the transmitter. (Over-the-counter batteries that are generally sold for flashlights, radios, etc. are not recommended for use as replacements in ELTs because they have not been tested for this purpose and might not meet the power supply requirements.)



A WOLF AT THE DOOR added a startling note of realism to an aviation safety display in Anchorage recently. The animal (stuffed, of course) was part of a tableau used in FAA's Accident Prevention Program to illustrate the hazards of an airplane mishap in the wilderness and the need for survival equipment and training on such an occasion.

Photo by Al Garvis

Altitude Encoder Requirement Dropped for Group II TCAs

FAA has dropped a rule that aircraft had altitude reporting equipment when operating in Group II terminal control areas (TCA's) after July 1, 1975. The requirement was withdrawn because it appeared that it would place undue hardship on general aviation aircraft owners. At the same time a requirement for air traffic authorization before entering the TCA was reinstated.

As the rule now stands, aircraft operating in all Group II TCAs will need to have 4096-code transponders after July 1, 1975, and will be required to obtain air traffic control clearance before entering the Group II TCA and to maintain two-way radio com-

munication with air traffic control. Current Group II TCA locations are Cleveland, Denver, Detroit, Houston, Las Vegas, Minneapolis, Philadelphia, Pittsburgh, Seattle and St. Louis. Group II TCA's go into effect at New Orleans July 17, 1975 and at Kansas City August 1, 1975.

The rule change does not affect operations in the nine Group I TCA's where 4096-code transponder and altitude encoding equipment are required. Group I TCA locations are Atlanta, Boston, Chicago, Dallas-Ft. Worth, Los Angeles, Miami, New York, San Francisco and Washington, D.C.

Air Safety Reports Encouraged

To encourage reports from pilots, controllers and others on conditions in aviation they consider potentially unsafe, FAA will waive certain disciplinary actions against persons who make such reports. According to Acting FAA Administrator James E. Dow the program, which began on April 30, 1975, will apply to the "National Air Transportation System" which includes pilots and controllers carrying out en route, approach and landing procedures, and operations on the airport.

The first phase of the reporting program will seek out potentially unsafe conditions for aircraft operations, including instrument approach procedures, air traffic control deficiencies such as pilot/controller communications, unsafe airport conditions, and near mid-air collisions. Waivers will not be granted to persons involved in accidents, gross negligence, willful misconduct, reckless operation or criminal offense.

Upon request FAA will preserve the anonymity of persons filing reports. Details were published in the Federal Register April 1975; an Advisory Circular will be issued presently.

Mechanic Prize Winners Announced

John R. Zebora, a helicopter mechanic for the Los Angeles Police Department, will be given the 1974 Aviation Mechanic Safety Award in the general aviation category. Zebora, who has 47 years of experience in aviation maintenance, was nominated for his many accomplishments in improving flight crew safety. Recently he developed an improved restraint for use in hazardous rescue operations where the regular safety belt did not offer adequate security.

Air carrier winner is Andrew E. Morgan, a crew chief for American Airlines, Inc. at Tulsa. Morgan's many aviation safety innovations include the design of a safety lock to prevent inadvertent gear door activation while the mechanic is working on it.

The two men and their families will be brought to Washington, D.C., on June 24, 1975 to receive cash awards and other prizes. Earlier awards went to some 50 state and regional winners.

Fire Fighters Training Guide

Guidelines for training airport fire fighting and rescue personnel are given in a new FAA Advisory Circular. The booklet is intended for use by airport operators as a means of complying with the Airport Certification Program, under FAR Part 139, and also as guidance to other airports maintaining fire fighting and rescue services.

Copies of the Advisory Circular 139.49-1, "Programs for Training of Fire Fighting and Rescue Personnel" are available free from DOT/FAA Publications Section, TAD 443.1, Washington, D.C. 20590.



Not the First in Iceland

I have a correction to make on one point in the September 1974 article, "First Around the World." Speaking of a 1924 flight you say, "The trip was to be made from Orkney Islands to Labrador via Iceland and Greenland—two areas yet to see their first airplane." This was not true of Iceland. The first aircraft operations here were on September 3, 1919. The aircraft was a Avro 504K, owned by Flugfélag Islands hf. It operated until August 1920. The plane was later sold to Denmark. (Other later airlines bore the same name.)

So when the *World Cruisers* arrived at Hornafjörður on August 2 and in Reykjavik on the 5th, Icelanders already knew what a real airplane looked like—but this fact did in no way lessen the enthusiasm with which the American aviators were received and welcomed in 1924.

Thank you for your many very interesting articles.

Arngrímur Sigurðsson
Reykjavik, Iceland

Below Minimum Visibility

This refers to your reply to Jules Arel in the March Flight Forum regarding the shooting of instrument approaches when the reported visibility is below published minimums for the approach. The controller does not tell a pilot making an instrument approach that the visibility is below minimums. The weather is transmitted to the pilot, and he is responsible for deciding whether to make an approach or not. He advises Air Traffic Control of his intentions: to hold for improvement of weather (visibility), to leave the area and land at his alternate, or to shoot an approach. If the pilot elects to make an approach, when he reports over the final approach fix he will be cleared to land by the controller at that facility even though the visibility is below landing minimums for that runway.

Also, a landing made when the prevailing visibility (or RVV) is less than 1/2 mile would be reported to the FAA District Office.

Adrian H. Chagnon
Fall River, Mass.

Correct. Air Traffic Control has discontinued asking a pilot (who is inbound for an instrument approach) what his intentions are, after giving him the current visibility. They have also discontinued advising pilots that visibility is below minimums, because minimum may vary with different operations, pilots, or equipment.

It is still true, however, that Air Traffic Control is required to report to an FAA District Office as an incident any landing that is made when prevailing visibility (or RVV) is less than

1/2 mile, or RVR is less than specified minimums and the pilot may be asked to confirm to FAA the circumstances of the landing.

A Conflict of Hazards?

I enjoy your excellent publication very much, but was amused to find in the February issue two articles back to back, one stressing the importance of being prepared to combat exposure in case of a forced landing and recommending that the pilot build a fire, the other pointing out that it is illegal to carry matches or cigarette lighters on an airplane. Also banned were signal flares (which are part of many aviation emergency kits) and alcohol. But I see whole carts of alcohol pushed up the aisles of airliners. Can you explain these apparent contradictions?

H. E. Bennett
China Lake, Calif.

Carrying the above-mentioned items in an aircraft is regulated, not forbidden, by FAR Part 103. Most things can be carried in small quantities and/or with proper packaging. Signal flares, if part of the airplane emergency kit, are specifically excluded from the rule; however, if you were shipping cases of them for merchandising, you would have to meet packaging requirements of the Code of Federal Regulations. Book matches can be carried in unlimited quantities but "strike-anywhere" matches must meet quantity and packaging requirements. Liquids with alcohol content are covered by the rule only if they have a flash point of 80 degrees or less (most liquors do not). See the second half of the article on hazardous materials in the March issue.

Grandfather CFI

In the February Flight Forum, in answer to Mr. Johnston's letter you define the term "instrument instruction" as used in FAR 61.129 to mean "instruction from the holder of an instrument instructor rating." If I understand FAR 61.201 (f) correctly an instructor who has an instrument rating and who has given over 20 hours of instrument instruction in an airplane may, if he renews his certificate on or before November 1, 1975, replace his old CFI certificate with a CFI (Certified Flight Instructor, Instrument) certificate. This would be similar to the "grandfather clause" which governs the multi-engine rating on an instructor's certificate.

The FAR usage of the term instrument instruction seems to differ from what you gave Mr. Johnston. Please comment.

Barry Borell
Nashua, N.H.

The provisions for converting "old" flight instructor ratings to the new system of ratings (which in some cases, differ from the old ones) is not intended as a means of gaining privileges the certificate holder did not already possess. For a flight instructor certificate to be converted to the present Certified Flight Instructor, Instrument (CFII) for airplanes, under FAR 61.201 (f) the holder must have given 20 hours of "instrument instruction." This means that the instructor would already have been an instrument instructor under the old rules. The need for conversion arises because under the revised Part 61 there are different types of CFII's (airplane, rotorcraft). The privileges of an individual instructor remains the same as they did before his "conversion." (Note: The instruction in "control and maneuvering an airplane solely by reference to instruments" which is required for the private pilot's certificate is not considered "instrument instruction.")

FAA Aviation News welcomes comments from the aviation community. We will reserve this page for an exchange of views. No anonymous letters will be used, but names will be withheld on request.

SCUBA Diving and Flying

In the March issue the picture accompanying the article on hazardous materials depicts what I consider to be an unsafe practice. The photo shows SCUBA diving operations being conducted from an anchored amphibious aircraft. I believe that the pressure differentials associated with SCUBA diving and with flying may cause injury to a person participating in both these activities within a short time period. Our own Coast Guard regulations prohibit flying within the 24-hour period following SCUBA diving. Does your medical personnel have any comment on this subject?

Gerald Mohlenbrock
Commander, U.S. Coast Guard

FAA agrees that it is not a good idea to fly soon after SCUBA diving, advising at least an overnight wait after diving, before flying. *Airman's Information Manual Part 1* says that using your plane to fly to a resort or lake for a day's SCUBA diving, then flying home within a few hours' time can be dangerous, particularly if you have been diving to depths for any length of time. Under the increased pressure of the water, excess nitrogen is absorbed into your system. If sufficient time has not elapsed prior to takeoff for your system to rid itself of this excess gas, you may experience the bends at the altitudes under 10,000 feet where most light planes fly.

Getting the IFR Word

I have some observations concerning "general aviation" and FAA. There appears to be a breakdown in the line of communications between FAA and the pilot. During an ATP course that I took in 1975 from a local aircraft dealer I asked several of the flight instructors about the January and February FAA NOTAMS concerning a change in FAA procedures regarding the words "cleared for the approach." None of the instrument instructors were aware of any FAA changes. I therefore concluded that the "word" is not getting down to the working level when FAA makes a change.

I suggest that you adopt a method which the USAF has used successfully for many years. Each month in our *Aerospace Safety Magazine* one page is devoted entirely to instrument procedures. This page is probably the most widely read page in the magazine.

James M. Chapman, Capt. USAF
Sacramento, Calif.

Certified instructors (flight and ground) are expected to keep abreast of changes in procedures, rule changes, etc. In the January 30, 1975, issue of AIM, Part 3A, a Special Notice advised airmen that while being radar vectored or operating IFR on an unpublished route they may not, upon receiving a clearance for an instrument approach, descend below the applicable minimum altitude.

The majority of our readers are not, like military pilots, instrument-rated. Nevertheless, we would like the opinion of other readers on the usefulness of such a column as you suggest on instrument procedures.

FLIGHT INSTRUCTOR REFRESHER COURSES

Date:	Location:	Sponsor:
6/3-4-5	Minneapolis, Minn.	AOPA & NAFL
6/10-11-12	Oakland, Calif.	AOPA & College of Alameda
6/14-15-16	Van Nuys, Calif.	Civil Air Patrol
6/17-18-19	Lexington, Mass.	Mass. Aero. Comm.
6/24-25-26	Columbus, Ohio	AOPA & Ohio State U.
6/28-29-30	State College, Pa.	Penn State U.
7/8-9-10	El Paso, Texas	Texas Aero Comm.
7/8-9-10	Seattle, Wash.	AOPA
7/12-13-14	Memphis, Tenn.	Tenn. DOT
7/12-13-14	Spokane, Wash.	Wash. Aero. Comm.
7/15-16-17	Jacksonville, Fla.	AOPA & State of Fla. DOT
7/19-20-21	Auburn, Ala.	Auburn U.
7/22-23-24	San Juan, Puerto Rico	Puerto Rico Ports Authority
8/5-6-7	New Hampshire	State of N. H.
8/5-6-7	Salt Lake City	State of Utah
8/9-10-11	Teterboro, N.J.	AOPA & N.J. Div. of Aero.
8/12-13-14	Santa Clara, Calif.	Santa Clara 99's
8/19-20-21	Champaign, Ill.	U. of Illinois
8/23-24-25	Kent, Ohio	Kent State U.
8/26-27-28	Costa Mesa, Calif.	AOPA & Orange Coast College

Please contact sponsor or local GADO to confirm exact dates and locations. Note that some courses are scheduled for weekends.

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
WASHINGTON, D. C. 20591

OFFICIAL BUSINESS

Postage and Fees Paid
Federal Aviation Administration



NOTAM scanning



Osborn

Helps flight planning.

Idea suggested by Andrew Rupnick,
ATCS, Pittsburgh, Pa.