FAA Aviation news

JANUARY/FEBRUARY 1998

AVIATION SAFETY FROM COVER TO COVER

Cabin Safety

U.S. Department of Transportation
Federal Aviation Administration

The FAA's Flight Standards Service, General Aviation and Commercial Division, Publications Staff, AFS-805, Washington, DC 20591; telephone (202) 267-8017, FAX (202) 267-9463; publishes FAA AVIATION NEWS in the interest of flight safety. The magazine promotes aviation safety by calling the attention of airmen to current technical, regulatory, and procedural matters affecting the safe operation of aircraft. Although based on current FAA policy and rule interpretations, all printed material herein is advisory or informational in nature and should not be construed to have regulatory effect. The FAA does not officially endorse any goods, services, materials, or products of manufacturers that may be mentioned. **Certain details of accidents described herein may have been altered to protect the privacy of those involved.**

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VOLUME 37 · NUMBER 1

FEATURES

DEPARTMENTS

FRONT COVER: Unruly passengers in the close quarters of this Navajo can be just as, or maybe more, dangerous than on an airliner. See pages 1 and 5 for cabin safety information.
BACK COVER: Winter is not over yet. The pilot of this Cherokee is watching out for icy runways, and so should you.

Winner of the National Flight Standards Service Excellence in Public Awareness Award

A DOT/FAA FLIGHT STANDARDS SAFETY PUBLICATION

ZERO TOLERANCE

by Phyllis-Anne Duncan

"No person may assault, threaten, intimidate, or interfere with a crewmember in the performance of the crewmember's duties aboard an aircraft being operated."

FAR § 91.11

This section of the FAR is one of the most straightforward rules for us to follow. In the FAA we call it the "non-interference" rule, the one that prohibits anyone from interfering with any crewmember—pilot or flight attendant.

Depending upon the source used, recent reports of incidents involving "unruly passengers" have increased anywhere from 40% to 400%. The actual number of such incidents is unknown because some are resolved fairly quickly by a crewmember and go unreported. Others make the headlines or the nightly news broadcasts. A number of the latter have ranged from a celebrity allowing a pet to run about the first class cabin to a CEO who did something unmentionable to a food cart when a flight attendant refused to serve him more liquor. (This "gentleman's" actions cost his company $50,000 in damages and restitution, since he was on the flight for official business.)

The truth is flight attendants have been pushed, shoved, and even struck. Flight crewmembers have been physically assaulted and/or distracted from their flying duties. Other passengers have been inconvenienced, intimidated, or injured by obnoxious and immature behavior, often aggravated by the consumption of too much alcohol. The perpetrators of this outrageous behavior have been tied to their seats with seat belts, led away in handcuffs, fined, and even imprisoned. Criminal penalties can range up to $20,000 per incident, whereas civil penalties can be up to $1,100 per violation. If charged with assault, a person can be jailed if found guilty. Just late last year a disruptive passenger whose behavior caused an immediate return to the departure airport after takeoff was convicted and sentenced to 51 months in prison and 200 hours of community service. He also had to pay the fuel fees for the unscheduled return.

Government and industry groups are concerned about the rising trend in incidents of unruly passengers. In 1993 the FAA received 96 reports from the airlines of passenger interference. In 1994 that doubled to 194. There was a slight drop in 1995 to 174 and then to 170 in 1996. But these were only the incidents reported to the FAA. One major airline says its internal count indicates that its flight attendants reported 33 assaults in 1994, but 140 in 1995—more than a 300% increase. Another airline reported 296 disruptive passenger events in 1994 and 882 in 1995. Yet, another major U.S. carrier broke its reports of unruly passengers down this way: 25% were because of excess alcohol consumption, 16% arose because of seat assignments, 25% involved hostility arising from a variety of reasons or "miscellaneous," 10% involved smoking in prohibited areas, nine percent involved carry-on baggage, eight percent employee behavior, and five percent involved food service.

The underlying causes differ for each person who elects to assault a flight attendant or pilot verbally or physically. The observed trend is that as the number of passengers have increased, as cabins become more and more crowded, the incidents of passengers assaulting, threatening, intimidating, or interfering with crewmembers have increased proportionally if not geometrically. And the "guilty" come from first class, business class, or coach. They are royalty, actors, business executives, clergy, even U.S. Senators as well as everyday folk.

When you examine some of the incidents, they seem ludicrous—not being served a drink quickly enough, not being happy with the food (who is?), not being allowed to have an animal roam the aisles, not being allowed to smoke. Alcohol serves to escalate the intensity of an incident, and inebriated people often do things they regret later. Like drunk drivers, soused passengers can also endanger lives.

The safety message in this is that the cabin of an aircraft, 35,000 feet up in the atmosphere, is not the place to have to deal with an irate and threatening passenger. Some of these rowdy passengers have interfered with the safety of flight, and this makes the FAA, the pilots' unions, and flight attendant organizations take notice and, rightfully, express outrage.

What FAA and Industry Are Doing

The Air Line Pilots Association (ALPA) last year held a one-day international symposium in Washington, DC on the subject of unruly passengers and safety. They cited incidents where pilots had been struck by passengers and injured. When you have a two-person crew and one of them has to nurse a broken nose or black eye, your crew resources have been substantially diminished. If an emergency occurs, a disaster could result. This has not yet happened, but with the trend, as we've said, increasing, the possibility certainly looms.

ALPA President Randy Babbitt said at the symposium, "We want to create an awareness among airline travelers

that disruptive behavior is unsafe. 'We have to let people know that violent, disruptive behavior on board aircraft isn't going to be dismissed or taken lightly."

Association of Professional Flight Attendants Safety Coordinator Kathy Lord-Jones indicated at the conference that "Whether it be by way of the media or a trip to the local police station in handcuffs, our message, industry-wide, needs to be conveyed: poor behavior will not be tolerated on any aircraft." This zero tolerance policy is echoed by Mary Kay Hanke, International Vice President of the Association of Flight Attendants.

According to ALPA, addressing the problem requires efforts from many different groups, both within and outside the air transportation industry. For example, the "breakdown" seems to occur with law enforcement and prosecutors, because, unless deputized by the FBI, local law enforcement does not have jurisdiction for an accident that ocurred at 35,000 feet. Disrupting the efficient and safe operation of an aircraft is a federal offense, and it is necessary that local and state law enforcement be made aware of this by FAA, the airlines, the unions, and passengers who have been affected by others' bad behavior.

Because there also was no consistency among airlines about how to deal with people who interfere with crewmembers, the FAA last year developed and published Advisory Circular (AC) 120-65, "Interference with Crewmembers in the Performance of Their Duties." The AC provides information to air carriers, crewmembers, law enforcement, and the public on how to manage and reduce the incidents of passengers' interfering with crewmembers. Some air carriers have developed internal programs to deal with this issue, and the AC provides guidance to standardize such programs within the industry.

Even though much of the material in AC 120-65 does not apply to the average general aviation pilot who may take friends up on a regular basis, the AC contains general information for any pilot to heed when transporting passengers for hire or for pleasure. In fact, non-interference with the pilot of a general aviation aircraft is perhaps more significant since most light, general aviation aircraft don't have even the slight protection of a closed cockpit door. FAR § 91.11 applies to airline and general aviation flights, and pilots can refuse to allow an intoxicated person on board their aircraft (FAR § 91.19(b)).

A Safe Environment

We are accustomed to operating in the safest "external aviation environment" (i.e., national airspace system) in the world, and there is no reason why our "internal aviation environment" (cockpit or cabin) can't be just as safe. In addition to FAR § 91.11 cited earlier, there are other FAR airlines can use to help prevent crew interference: An intoxicated passenger can be prohibited from boarding an aircraft; passengers must also obey instructions from the crew regarding no smoking and seat belt signs, etc. Not only have flight and cabin crews reported troubling incidents with passengers to the FAA, but other passengers who may have also experienced the outcome of disruptive behavior have also complained, and rightly so. News reports on how our public transportation systems, even our highways, have become unsafe to bystanders are numerous, but this cannot become the case within the cabin of an aircraft at altitude.

Categories of Misconduct

George Washington University professor, Dr. Jerrold Post, a specialist in psychiatry and political psychology who spoke at ALPA's conference, has identified three common traits among disruptive passengers:

1. *Entitlement*; e.g., "I've never been told by anyone to do anything," so said a princess when given an instruction by a flight attendant on a recent international flight.

2. *Authority*. Business travelers who are CEO's or "The Boss" at the office sometimes resent others having authority over them, particularly a flight attendant who "pulls the plug" on a business call for the aircraft's descent and approach to land.

3. *Loss of control*, or fear of flying; some people may use a little alcohol to ease their fears of flying, but too much can bring on unreasonable behavior.

In accordance with Dr. Post's three traits, the FAA has defined some of the typical disruptive behaviors and devised a progressive series of actions to deal with each. Passenger misconduct is divided into three categories depending upon how the passenger reacts to a request to comply from a flight attendant or crewmember.

In *Category 1*, a passenger troubles a flight attendant with minor verbal abuse. The verbal abuse does not interfere with cabin or flight safety. The passenger is requested to stop and comply with appropriate requirements, and the passenger does so without continuing the verbal abuse. In this case, no further action is required, i.e., no report to the cockpit, the carrier, or the FAA is needed.

In *Category 2*, after being asked by the flight attendant to cease verbal abuse and/or comply with a regulation, the passenger escalates the disturbance; i.e., the passenger continues the verbal abuse or continues to refuse to comply with regulations. (Some examples might be refusing to fasten a seat belt when the sign is on, refusing to turn off electronic equipment when it is so required, etc.) At this point, the flight attendant should notify the cockpit as per company procedures. If intervention by a flight crewmember does not remedy the situation, the flight attendant and the captain will issue an Airline Passenger In-Flight Disturbance Report or other appropriate action, which is turned over to the company upon arrival. This report is then referred to the FAA for action.

In a *Category 3* situation, the passenger has refused to comply and the captain is unable to defuse the situation because the passenger has escalated the event even further; e.g., 1) crewmember duties are disrupted because of the continuing situation; 2) physical injury of a crewmember or another passenger or the "credible threat" of injury has occurred; 3) an unscheduled landing must be made and/or restraints have to be used on the passenger; and/or 4) if the passenger continues the behavior after receiving written notification to cease. (Some carriers have a policy of issuing a written notice to disruptive passengers while in-flight.) The action for this highest category of problem is notification of law enforcement to meet the flight upon its arrival.

This is only one definition of the types of behavior that can be disruptive. Airlines and operators are encouraged to develop their own and include them in manuals and official procedures.

Zero Tolerance Policy

There was a time when you could ignore boorish behavior, and peer pressure alone might get the jerk to shut up and behave. Now it seems that, for whatever reason, the people who act up on aircraft are fueled by being ignored. Consequently, carriers must have "zero tolerance" for any disruptive incident at the gate before boarding and in flight. They will be backed by the FAA on the basis of FAR § 91.11.

AC 120-65 provides carriers with a sample policy statement that could be issued to employees outlining the actions they should take when a disruptive incident occurs. Obviously, the best place to deal with an unruly passenger is in the boarding area before he or she gets on the aircraft. Chances are if the person is disruptive at the gate, that behavior will continue on board the aircraft; so if it can be nipped early on, there is less likelihood of a disrupted flight.

It is important, as well, that the carrier inform the public of regulations regarding crew interference and its policy toward disruptive behavior. An example that could be included in the ticket wallet or the in-flight magazine or posted prominently near each boarding gate is on page 4.

Carriers have been encouraged to establish public awareness campaigns on this issue, display such warnings in the boarding area, make appropriate announcements over the public address system, etc.

Put It in Writing

FAA also encourages operators to include its policy on disruptive passengers and the appropriate actions to take in any crewmember employee manual or procedures document. AC 120-65 also includes a sample In-flight Airline Passenger Disturbance Report that could be included in the manual or which could be copied and provided to crewmembers for each flight. When establishing its written policy, FAA recommends that the carrier consult with its internal security experts or local law enforcement officers.

Prompt reporting of disruptive incidents is vital to quick and sure justice for the occurrence, and the sample FAA (report provides the minimum information the crewmember needs to collect to document the incident adequately:

- Crewmembers' names
- Date
- Flight number
- Passenger seat number
- Origin/destination of flight
- Name, address, and description of the offending passenger
- Names and addresses of any witnesses

The company's written guidance should also outline just which crewmember is responsible for contacting law enforcement, the FAA, and the company itself.

The air carrier should then train its employees not only on how to deal with such incidents but also on the policy contained in crew manuals. Crew resource management training perhaps should be amended to include procedures for dealing with emergencies in the event a crewmember is dealing with a disruptive passenger or has been injured by one. Captains understand that the decision to leave the cockpit and deal with a situation at the request of a cabin attendant is a pilot in command decision.

(A friend of mine began her airline career as a flight engineer on 747's. She explained that according to company procedures, the second officer was the one dispatched to deal with unruly passengers. It was a role she was amply prepared for, having formerly been a Los Angeles County Deputy Sheriff. She had a way about her that made passengers think twice about mixing it up with a 5'10" former cop.)

The decision to involve other passengers in restraining a passenger is a dicey one as well, and the company should provide guidance in this area. Many flights have "deadheading" company employees, and they may be the ideal people to call on for help first before pulling the captain or first officer out of the cockpit. In any case, the flight crew needs to be kept informed so that if an unscheduled landing is required, they can plan ahead accordingly.

Law Enforcement and FAA Response

Obviously, Category 3 incidents, as described earlier, warrant the intervention of law enforcement once the plane lands at its destination. If the incident fits Category 3, the captain can ask dispatch or flight following to contact the appropriate law enforcement office to interview the crew and any witnesses, as well as the offending passenger, once they meet the aircraft.

Not every unruly passenger needs to be hauled off to the local lock-up, and that determination may be made by the law officer on the scene. If a serious threat or actual battery has occurred, however, it is likely that the police will detain the passenger for formal charges. But what actually constitutes assault?

In many law enforcement jurisdictions *assault* is an action that creates a threat of bodily harm or the apprehension of physical injury in another individual. Abusive or even prurient language in and of itself, while possibly offensive, is not considered assault in most jurisdictions. A person could, however, be placed in the position of fearing physical assault if a passenger

takes an intimidating posture; i.e., cornering a flight attendant in a galley. In some cases mere physical size can create a threat of bodily harm. Intimidation in the form of verbal threats—i.e., verbally threatening physical harm or death—is most often construed as assault. A recent incident involved a wealthy woman who was upset with the flight attendants for not giving her a drink as quickly as she wanted it; for the duration of the seven-hour flight the woman kept telling the flight attendant she would be killed. The passenger was arrested upon arrival and fined for her conduct.

When physical contact occurs—ranging from shoving to striking—or accompanies verbal threats, it is considered *battery*, and in many areas the charge is usually one of *assault and battery*, which carries a greater penalty.

When a report of a disruptive passenger is forwarded to the FAA, there may actually be a joint investigation by FAA and the Federal Bureau of Investigation (FBI). The FBI 's involvement is usually based on information received, timeliness of reporting (is the flight inbound or have all the victims and witnesses departed the airport), and whether a federal offense occurred (was it a serious incident or was it minor?) If the FBI declines to investigate, the FAA will continue its investigation, and the passenger involved could be subject to a civil penalty. Furthermore, many airlines are now backing their employees when they chose to file criminal charges or civil suits against passengers who have threatened or assaulted them.

Conclusion

We have all enjoyed the benefits of more and cheaper air travel. Low-cost fares have opened travel up to more people than ever before, and perhaps the crowded cabin of an airliner is merely a microcosm of society as a whole; i.e., the arrogant, self-centered morons we encounter on the streets or the highways, the same ones who harass food servers and store clerks for no good reason, are just as likely to be on board our airplane.

The disruptive passenger can pose a serious safety threat especially if a crewmember is injured or distracted sufficiently from his or her duties. And this is an area where the line between the demanding passenger—the one who wants milk then tea then a blanket then a pillow then it's too hot or it's too cold, etc.—and the abusive passenger is fairly well delineated. The former is annoying; the latter is a serious safety problem.

Flight attendants and gate agents take the brunt of the abuse because they are on the front line, as it were. They are the people the passengers encounter first and most often. They are trained to handle aggressive behavior, but self-defense is not part of the required curriculum. But as passengers who have had a bad day—and haven't we all—we need to stop and consider this: If the flight is delayed, it's not the flight attendants' fault; if the food is bad, it's not their fault; if they refuse to serve a passenger a drink or catch one smoking where it's prohibited, they are acting within the regulations—doing their job and assuring your safety. And, they are not personal servants.

Perhaps we—FAA and industry—have not done a good job in emphasizing to the traveling public that flight attendants are not there simply to serve drinks and pilots are not there merely to "drive the bus." They are aviation professionals, essential to the safety of flight, and when they are interfered with, passengers' lives may be in jeopardy.

It's time to practice zero tolerance for unruly passengers.

In addition to AC 120-65, this article was based on interviews and items from various news services including Reuters, McGraw-Hill, and Knight-Ridder, among others.

TITLE 14 OF THE CODE OF FEDERAL REGULATIONS, SECTION 91.11

Please be advised that interference with crewmembers' (including flight attendants duties is a violation of Federal law.

An incident report may be filed with the Federal Aviation Administration regarding a passenger's behavior.

Under Federal law, no person may assault, threaten, intimidate, or interfere with crewmembers (including flight attendants) in the performance of their duties aboard an aircraft under operation.

Federal law permits penalties for crew interference to include substantial fines, imprisonment, or both.

by Betty Hicks and Rowena Morrison

PASSENGER-RELATED SAFETY HAZARDS

Reports in the media and popular films frequently leave the impression that the main safety threats to commercial air carrier operations involve bombs, terrorist hijackings, and hazardous cargo. However, reports received by the Aviation Safety Reporting System (ASRS) belie some of these notions. Pilot and flight attendant reports to the ASRS indicate that passengers themselves are an unexpected source of many inflight safety problems, ranging from the merely annoying to those that pose serious interference with crew duties and a potential risk to aircraft structural integrity.

ASRS data is not the only indicator of a serious and growing problem with passenger inflight incidents. A recent issue of a major air carrier's employee publication noted an almost 200% increase between 1994 and 1995 in reports filed with the company by flight attendants describing interference from passengers. The interference included assaulting, threatening, or intimidating crewmembers performing their inflight duties. During this same period, the number of physical assaults experienced by flight attendants at the carrier increased threefold.

Passenger-related incidents form only a tiny fraction of ASRS database holdings. A recent review of 73 database reports referencing inflight security problems revealed that passengers—drunken, obstreperous, or dangerously uninformed—constituted 23% of the reports submitted, equaling the number of incident involving hazardous materials carried in the cargo hold. Passengers carrying guns, with and without the necessity to be armed, accounted for another 12% of these 73 reports. In general, the ASRS passenger-induced safety hazards fell into the following categories:

- Alcohol or drug-related violence
- Uncooperative or unstable behavior
- Carriage of hazardous materials and devices on board

The following discussion presents some thought-provoking—and typical—examples drawn from ASRS data of adverse passenger effects on flight safety. It describes how these incidents were handled and summarizes reporters' conclusions about how future occurrences might be prevented or their impact lessened.

The Case of the Swinging Golfer

A golfer en route to an overseas tournament could be expected to swing—but at passengers and flight crew? As so frequently occurs in cases of obstreperous passengers, this golfer had been too well-served, as the British phrase it:

"The passenger had been served several drinks prior to this, [and] was obnoxious, walking around the cabin with a wine bottle and annoying his seat partner..."

It was later determined that the passenger had apparently taken a doctor-prescribed sleeping or relaxant along with the alcohol. At the initial disturbance, the Captain dispatched the relief pilot to check on the situation. The passenger temporarily calmed down, but the cease-fire was not long-lived. In response to the next distur-

SOME UNRULY PASSENGER ANECDOTES–FROM THE SERIOUS TO THE SUBLIME

- Shortly after departure, a passenger struck other passengers and flight attendants, tried to break into the cockpit, and attempted to open an exit door. The crew had to make an immediate return to the airport of departure.
- A flight crew made an unscheduled landing after a drunken passenger with a knife threatened flight attendants and other passengers.
- The son of a famous actor was arrested after he ran up and down the aircraft aisles, angry that flight attendants had asked him to keep his dog in the approved carrier and not on his lap. When met at the terminal by police, he was carried kicking and screaming from the plane. Passengers had been scared that he was going to open a door in flight.
- A late-night talk show host was distressed by some in-flight turbulence and began screaming at flight attendants and passengers that everyone was going to die. Intervention of a flight crewmember was required to restore calm.
- A European tourist with a poor command of English became distraught and screamed that he had something in his pants about to explode when a flight attendant wouldn't let him use the lavatory during descent. At his preliminary hearing he explained to the judge through an interpreter that he had desperately had to use the rest room. Charges were dismissed.

A NEW CAUSE FOR CONCERN?

Recent changes to Immigration and Naturalization Service (INS) laws will likely increase the number of deportees leaving the U.S. by air. In 1994, 45,000 people were deported for various reasons, and that increased to 68,000 in 1996. By the end of 1997, INS could deport nearly 100,000 people, many of whom will return to their native countries on commercial airlines. Some will have security escorts for the entire flight; others will be boarded and left to the crew to deal with.

Airlines, seeing the potential for increased incidents of disruption or crew interference, are calling for guidelines from the INS and the U.S. Justice Department concerning the transport of unwilling passengers. Some of the suggestions for the guidelines include how security escorts for some deportees fit in with the duties of the cabin crew, how many deportees can travel together, and whether deportees can sit together.

Health and sanitation issues as well as the reaction of deportees returning to a country they were trying to leave, perhaps because of political persecution, are matters of concern to all crewmembers and passengers. Some have called for deportees not to be included on commercial flights open to the public to reduce exposure to possibly disruptive passengers.

From the Aviation Daily, a McGraw-Hill publication

bance, the Captain sent the Second Officer (a retired Captain) to speak to the golfer. While the Second Officer momentarily had his attention diverted, the golfer hit him in the chin with an uppercut. The pugilist "was subdued and restrained with airline-issue handcuffs, from which he released himself (or broke) in about 30 minutes." The relief pilot was recalled to oversee the behavior of the out-of-bounds golfer, "who was on good behavior for the remainder of the flight." At the intermediate destination, the golfer was removed from the airplane and sent back to the origination point with two escorts. He was arrested there and permitted one phone call—which he used to call the airline to make reservations to his original overseas destination!

The unlucky Captain of this flight had two recommendations to ASRS and to his airline, based upon this passenger's antics: (1) have a designated "bouncer" assigned to flights and in no case send the PIC back to cope with the problem; and (2) provide training the use of the airline's new-design handcuffs.

A Commotion at Cruise

The pilot reported to ASRS that this female passenger "was okay for the first two hours of the flight." But she became violent at cruise, grabbing a flight attendant by the hair and shaking her and bruising and scratching other passengers. A doctor on board managed to calm the passenger. "The person who boarded her put us all at risk!" protested the reporting pilot, expressing what may be excessive optimism that a passenger service representative could diagnose the future misbehavior of a passenger who appeared calm during boarding.

In similar ASRS reports, crewmembers suggested better screening of passengers: "I suggest airport police be given the authority to test suspect passengers for intoxication to determine if they are fit for boarding." "We feel that passengers should be closely observed during the ticketing and boarding process and not boarded if their behavior is questionable."

"Oh, Were We Cleared to Two Five Zero?"

"While we began our pushback, a deranged passenger tried to force open the main cabin door." The relationship between this incident and the late initiation of a descent would appear to fall in the non-sequitur category. Not according to this ASRS report:

"The Flight Service Manager and I were discussing some events concerning the passenger who earlier tried to force open the main cabin door. That event [had] resulted in a one-hour delay, police action, reports, etc., which we were discussing as the Flight Service Manager reviewed the comments in her report with me at the time I failed to begin my descent.

"A few minutes later, while we were still at FL290, the Controller asked, 'Have you started your descent to flight level two five zero? You were cleared to two five zero several minutes ago. I now need a good descent rate through flight level two seven zero for traffic.' As I leveled, I asked the Controller if our late descent had caused any problem. 'Not now,' was ATC's curt reply."

Since the flight was still at cruise, well above the altitude at which sterile cockpit procedures would have been initiated, this may have seemed a reasonable time to review the pushback incident. However, assignment of cockpit duties to the co-pilot would have been appropriate before the Captain took himself "out of the loop" for the discussion with the Flight Service Manager.

The Pax with the Aft Attitude

The commuter passenger who figures in the next incident was not hauled off for incarceration nor was he charged with physically interfering with a crewmember in performance of his or her duties. But for sheer abstinence, he was a "winner."

"The forward cargo door motor was inoperative, so substantial baggage was placed in the aft cargo compartment. For weight and balance purposes, this required the four rearmost rows of seats to be vacant throughout the flight. All passengers in those rows were moved forward prior to taxi. Fifteen minutes after takeoff, while the seat belt sign was still illuminated, our flight attendant called on the intercom and said that one passenger got up and moved to one of the blocked rows."

The flight attendant asked the man to move for weight and balance purposes. He refused. She explained again that his moving was necessary for weight and balance compliance. He responded that he was a pilot and, punctuating his statement with four-letter words, announced that he knew better than to accept the necessity to move. Moreover, he challenged, "If the pilots want me to move, they can come back here and make me." The flight attendant then asked for help from the flight deck, but both pilots were too busy with flight duties to leave the cockpit. The Captain later reported to ASRS:

"The Flight Attendant assured us the man was now seated in the blocked rows where there was no one to disturb. I decided to continue to our destination but wanted to ensure that nothing whatsoever would be done to agitate this individual...Since he indicated he was a pilot, he was aware of the laws and intentionally violated them. He certainly knew the significance of keeping an aircraft loaded within weight and balance parameters. He willfully jeopardized the lives of everyone aboard the aircraft."

The crew probably took the best action—no action—during this incident. Any further prodding of the passenger by the crew might have resulted in an altercation and a more serious disruption of the flight. Since the aircraft was apparently still flyable with the passenger in the off-limits seat, continuing to the destination was the least provocative course of action.

"What's That Smell?"

Not all the inflight passenger problems reported to ASRS were the result of actions by intoxicated or belligerent individuals. There were several instances in which well-behaved but uninformed passengers introduced hazardous carry-on baggage into the cabin. One such incident, reported by a first officer, involved the discovery by the cabin crew of a malodorous surprise in an overhead bin.

"...A passenger was carrying a compact chain saw (blade and chain removed) in a cardboard box in the overhead bin. The box would not fit upright, so the passenger had set it on its side. This apparently allowed fuel/oil mixture in the engine (tank was empty) to seep out into the box and finally the overhead bin as well. We removed the other articles from the bin (2 coats) and covered the box with a damp blanket to keep down the fumes. Other passengers now started to complain about the fumes, so I went back to investigate. By now a mixture of fuel and water was dripping out of the overhead bin onto a passenger seat."

The cabin crew carried the offending box to a rear lavatory and covered it with a damp blanket to stifle the fumes, while air vents and the lavatory drain were opened to increase the airflow. The crew then locked the lavatory and increased the airflow through the cabin to dissipate the odor. The passenger who owned the chain saw was described as "very cooperative, maybe even embarrassed." The final surprise was the passenger's account of how the chain saw had been brought on board: Before this passenger's initial boarding, "Security told him he could carry it on. Since then he had not had to clear security screening, so nothing more was said to him."

In a similar incident, cabin crew investigating an unusual odor discovered a small leaking camp stove concealed in a nap sack enclosed in an overhead bin. Confusion reigned while the crew tried to sort out the appropriate procedure to follow. The airplane flight manual was ambiguous, so they contacted dispatch, which in turn contacted the chief pilot and fleet manager for clarification. The chief pilot and flight manager disagreed on interpretation of the flight manual, so the hapless crew fi-

nally complied with the most conservative procedure—they diverted for landing to remove the leaking camp stove from the aircraft.

"An emergency was declared so as to have assistance readily available should it become needed. Upon arrival at the gate, the Station Manager removed the camp stove and knapsack from the aircraft. The passenger to whom the knapsack belonged was cooperative. He had proceeded through security screening with the nap sack without the stove being detected, despite the fact that the stove was constructed of metal and was stored in a metal box measuring approximately 4 inches by 6 inches by 6 inches. The passenger was unaware that carrying the fuel camp stove on board an aircraft was prohibited."

Of Arms and a "Leg"

Flight crews become upset when they are the last to know that they have authorized armed security on board. "Before boarding," recalled one PIC, "I was told that a [government] VIP was traveling. After the flight was completed I discovered that the VIP was accompanied by two security personnel. It was then that we realized that we had two armed individuals on the flight, and we had no notification to the flight attendants or to the PIC."

This violation of the airline's operations manual caused the captain to invite the operations department to investigate. They found a trail of deteriorating communications.

"The proper forms were filled out. The agents were briefed to inform the flight attendants that they were armed; they did not do so. The ramp supervisor knew that the VIP's escorts were armed, and he told our FA that we had 'two leg passengers in Row 4' ('leg' being the curious code word for 'armed individual'). Needless to say, no one told us that was the code, so the FA thought he meant, 'Two passengers with hurt legs.' The agents did not display their special boarding passes to the FA. Not only that, they did not sit in their assigned Row 4 seats."

The flight attendant solicitously asked the two passengers in Row 4 if their legs were okay. They were.

It is a policy at some air carriers that when an armed passenger is admitted to the aircraft, the passenger service representative comes to the cockpit to inform the flight crew of the location of the passenger and that person's need for carrying the weapon during the flight. When there is more than one armed passenger on board, the captain also makes sure that the armed individuals are introduced to each other, so that neither will be surprised by the sight of another weapon-carrying passenger. The use of direct, clear communication—privately delivered to the appropriate parties—generally gets the information across.

Other Passenger Problems

The balance of reports regarding other passenger problems were mostly unique incidents. They included gate agents who permitted passenger boarding before flight attendants were on the airplane, an apparently alcohol-impaired passenger blocking an emergency exit, and a brazen passenger retrieving his own bags from a commuter aircraft's baggage compartment.

Intoxicated passengers, disorderly behavior, undeclared hazardous materials in carry-on baggage—these and other problems identified in ASRS data pose potential threats to the safe operation of aircraft flights. To safely manage the outcome of these incidents, pilots need to use lots of diplomacy, apply crew resource management skills, and operate strictly according to company procedures. One captain summed it up nicely:

"In order to guarantee compliance with the numerous, complex aviation regulations, pilots need to be well informed, cautiously skeptical, and they need to document their actions."

This article was reprinted from the March 1997 issue of ASRS Directline. *To subscribed to the ASRS publication contact ASRS at (415) 969-3969 or write to NASA Aviation Safety Reporting System, P.O. Box 189, Moffett Field, CA 94035-9800. The ASRS web page URL is http://olias.arc.nasa.gov/asrs.*

In the Hangar

EMERGENCY

by Patricia Mattison

If there is any worse time to have an in-flight emergency, it could be winter. Not that there's any good time to have an emergency where you might have to make an off-airport landing, but winter presents challenges to survival that aren't present when the temperatures and weather are milder. The old adage goes, "An ounce of prevention...," but maybe for aviation we could alter it somewhat to "An ounce of preparation is worth a pound of cure."—Editor

What would you do if you had a bonafide emergency? How would you handle the initial confusion that is associated with an airplane ceasing to fly? Would you be able to bring the airplane to a safe landing? Could you, with composure, take an airplane with eight inches of prop missing and passengers on board back to the departure airport? Then, after landing, could you calmly deplane the passengers, put out a resultant fire, and coolly get into another airplane to complete the flight? A local pilot recently did just that, which begs the questions, would most pilots be prepared to do the same?

The answer is those pilots trained to deal with emergency situations have a better chance of maintaining control of the aircraft and living to tell a hangar tale.

When you were a student, it seemed that every flight you took with your instructor you were constantly asked, "If the engine failed right now where would you put the plane?" I know my instructor harped and harped on that subject. But somehow, as rated, seasoned pilots, we seldom think of that old engine failure scenario. Sometimes, it' s a good idea to become a "student" again and find an instructor who'll ask the right questions.

If an aircraft is going to experience engine failure and other assorted problems, it is most likely to happen during either takeoff and departure or landing. It is during takeoff that the engine is at maximum power. Stresses are placed on the engine and propeller that are not present during normal steady-state flight. If the engine or propeller has any defects, it is that portion of flight when failure is most likely to occur. During the landing portion of the flight the engine, hot from cruise flight, can sustain sudden cooling because of reduced power.

Rapid power changes can cause a pre-existing problem to reach the point of failure. Another possibility is that rapid engine cooling, especially during the winter, can cause a cracked cylinder, leading to engine roughness and possible failure. A low power setting during moisture-laden conditions in conducive to carburetor ice.

Are you ready, then, for the unexpected? Do you review the possibility of having to land off-airport in an emergency? Air carriers have training programs that stress emergency procedures. Those procedures consist of engine failure during takeoff, enroute, and landing; emergency descent; and system malfunctions. Simulated emergencies are practiced by the operators on a regular basis. Pilots working for an air carrier have currency check rides with a check airman or the FAA periodically. You can do the same for yourself by flying regularly with a certificated flight instructor, another pilot as a safety pilot, or during a courtesy evaluation from the FAA. The latter is the PACE program—Pilot and Aircraft Courtesy Evaluation—which is an FAA program now a couple of years old where pilots can bring their aircraft to the FAA, have it checked by FAA airworthiness inspectors, and fly with FAA operations inspectors. The inspectors brief you on any problems noted, and no enforcement action is taken. It's become really popular, so check with your local safety program manager to see when he or she has one scheduled.

And if you're going to commit to regular, recurrent training, you might as well participate in the WINGS program.

A conscientious pilot is always improving his or her flying skills. Practice emergency procedures at every opportunity until they become second nature. The pilot who landed that crippled aircraft did, and as a result everyone on the plane was able to enjoy their holidays.

Ms. Mattison is the FAA Safety Program Manager at the Juneau (AL) Flight Standards District Office.

ACCIDENT PLAN AND CHECKLIST-DO YOU HAVE ONE?

By H. Dean Chamberlain

Although safety is the FAA's number one job, sometimes accidents do happen. Then the job becomes one of rescue and what to do after the accident. Like many aspects of life, arguably the most important part of handling an accident is the planning done before the accident. Once an aircraft crashes, a fuel tank catches fire, a person gets hurt working on an aircraft, something catches fire, or someone has a heart attack at your local airport the fastest way to respond to the emergency is by being prepared.

Questions arise, such as, who to call for help, who or what organization is going to rescue any survivors or recover any bodies; who is going to put out any fires; who is responsible for securing the area; who is going to handle any dangerous materials; who will keep the crowds back; who will respond to the media; who will make all of the required notifications; and who will answer all of the many questions and handle all of the problems that any accident can generate. The answers to these questions should to be planned for and rehearsed long before they are needed.

At a recent aviation conference a local government official told the story about his additional duty appointment as the acting manager of a small airport. Just about as soon as he was appointed, there was an incident. His story about having to respond and talk to the media pointed out the importance of being prepared in case such an incident occurs. He found, updated, and now has available an airport emergency action plan.

If you are responsible for an aviation activity, such as a local airport, fixed-based operation, repair shop, flying club, or small air service, are you prepared to respond to an accident or incident?

Who is going to notify fire and rescue forces? What and where are the emergency telephone numbers? Who is going to work with the police department to ensure public safety? Who is going to notify the victims' families? Who is going to work with the media?

As a former military public affairs officer, I can tell you that in today's era of remote live TV broadcasting and electronic news gathering helicopters, the news media can and will probably beat the rescue teams to the scene of any major accident in or near any city with a television station. Gone are the days when you had time to catch your breath and think about what you are going to say about an accident. Today, you had better be prepared when you arrive on scene. Often, by the time you arrive on scene the media is already there, and it may know more about what is going on than you do. You may be accused of avoiding the media while you try and find out what is happening, but being accused of avoiding the media while you verify what is happening is better than saying something that is inaccurate. It seems speed and accuracy are often contradictory terms in news reporting these days.

Or to rephrase the issue, what will happen if you, the manager or owner, are not available. Who will handle the situation?

Although large airports and airlines have well-documented emergency plans, how many smaller airports and operators have such plans?

If you are responsible for having a plan, and you have one, when was the last time you reviewed it? When was the last time you activated or tested the plan?

If you are the new person on the block, do you even know where the plan is? Do your co-workers know the plan and how to implement it? What if you or one of your key employees is involved in the accident or away on vacation? Who then will activate and follow the plan?

These are only some of the types of questions that need to be addressed by any organization as part of its emergency planning. If you don't have a plan, now is a good time to make one.

SIOUX CITY CRASH OF UNITED FLIGHT 232

The importance of a good emergency plan was highlighted by the Sioux City crash of United Flight 232 on July 18, 1989. The pilot in command of the flight, Capt. Al Haynes, said in one of his appearances at the National Air and Space Museum that many lives were saved by the emergency planning done by the city. Sioux City firefighters, paramedics, rescue forces, hospitals, and other emergency organizations had a good plan that was frequently practiced and revised as necessary. Sioux City was prepared to handle an emergency.

Capt. Haynes also said luck and timing played a big part in the responsiveness of the emergency plan. The crash occurred just before the day shift at the area hospitals was about to leave for the day. As a result of the emergency notification to the hospital of the emergency landing of Flight 232 in Sioux City, the day shift remained on duty with the oncoming night shift. The result was the hospitals had a double staff on hand to treat any victims. Another important factor in the rescue operation was the local military reserve unit was on duty that day of the month at the airport and was able to help. Of course, Capt. Haynes minimized the magnificent job the United flight crew did in getting the jumbo jet on the ground. Although 112 people died in the crash, 184 survived through the work of the flight crew and the emergency planning done by Sioux City.

HOW TO DEVELOP A PLAN

If you are a part-time manager of a small airport, you may not need to copy Sioux City's emergency plan, but you should have a plan designed for your operating environment. Your plan could be as simple as a list of telephone numbers and people to call in the event of an accident to the next step up of having a telephone list and once or twice a year meeting with your local fire, rescue, police, and emergency services representatives to discuss what everyone would do in the event of an emergency.

IMPORTANCE OF DRILLS AND PLANNING

Better yet, plan an emergency response drill with everyone to see how they would all work together. Obviously any problem areas would be corrected. In Sioux City, they did both paper drills and live drills. It worked for them. It will work for you. Your notification list should also include the local or regional National Transportation Safety Board representative, the FAA, and, if required, your designated state aviation organization.

Each emergency plan will be unique because every airport has different needs. The important thing is to have a plan. Equally, important is making sure others know where the plan is. Whenever you review your plan, put a new date on it so that others will know that the data is current and usable.

A review of several FAA products listed the following ideas to consider when developing your plan. One noted that the first 15 minutes are the most critical in emergency response. How fast you or someone can respond may save lives.

THINGS TO THINK ABOUT

Emergency plans should consider or provide for an outline of the airport's:

- Operations
- Effective communications
- Local resources such as police, fire, medical, and rescue
- Map showing access or service, roads, gates, and for locked gates, opening instructions
- Grid maps, if needed
- Chain of command by name and with addresses and telephone/beeper numbers
- Letters of agreements among agencies
- Airport unique data
- Movement through and around the airport
- Most likely trouble spots
- Fuel spill plan or hazardous materials plan
- Hangar fire plan
- Common fire alarm system, if applicable
- Location of fire extinguishers
- 911 service
- Emergency response training for employees and tenants
- Night operations, i.e., is there a telephone or pay telephone with emergency fire/rescue telephone numbers available for use when no one is around
- Methods for employees to alert someone in case they witness an accident or emergency

AIRPORT PLANNING BOOKLET

The FAA's Office of Airport Safety and Standards published a booklet in 1991 titled, "Operating Your Airport Safely—Ideas and Practices" which contained some of the following suggestions. One item was FAA Advisory Circular 150/5200-31, "Airport Emer-

gency Plan," which referenced National Transportation Safety Board (NTSB) guidelines for responding to an accident on an airport.

- The guidelines included rescuing the occupants and guarding the wreckage to prevent anyone from entering the wreckage area except to rescue the victims, fight any fire, and the possible removal of mail or cargo to protect it from further damage.
- Any items removed must be stored and protected locally for examination by Federal Air Safety Investigators.
- Advise the local coroner or medical examiner that fatally injured occupants of the aircraft should be held for possible pathological or toxicological examination before embalming; and,
- Identify the position of fatalities. The NTSB guidelines suggest that before removing the dead, their remains be identified or tagged and their position in the wreckage or on the ground be noted. Photographing the bodies in position is recommended if possible.

The guide also suggested that once local emergency units are called that the NTSB or FAA be notified. You can call the nearest FAA air traffic control tower, flight service station, or Flight Standards district office. State that you are reporting an aircraft accident. Provide your name and location; time of accident if known; type of aircraft, civil or military; location of accident site; number of injured or dead; type of aircraft and "N" number if possible; any other available information; and leave a telephone number for any call back if possible.

If the accident occurs on an airport, the airport operator should be prepared to have a NOTAM filed for the time the accident aircraft is blocking any runway or taxi way. Aircraft should not be moved without permission of NTSB. Once safety investigators release the accident scene, the airport operator needs to check for any debris on any runway or taxiway if the accident occurred on either; and to document the airport conditions that may have been a factor in the accident such as runway surface conditions, pavement holes, objects on or near the runway, etc. Photographs are one means of documenting such things; and finally have a plan for moving or storing the aircraft in case the owner or survivors can't.

AIRPORT SAFETY CHECKLIST

All of the above suggestions and ideas are designed to help an airport operator or manager develop an airport emergency plan. One of the best uses of such plans is to use it as an accident prevention check list. For example, when coordinating an accident response visit with your local fire or rescue unit ask them to visit the airport and look for safety hazards and to make suggestions that might either reduce the chance of an accident or help them respond faster in case of an accident. The same is true of your local, state, or federal airport or aviation authorities.

Such topics as runway lighting, fuel handling procedures and safety equipment and devices, proper airport markings, good lighting, and a well-maintained facility are a few areas that might need to be reviewed.

WAYS TO FIND HELP

Another idea for smaller airports is to contact the nearest major airport and ask for help. Major airports have full-time professionals whose business is safety. Use their expertise to help your airport develop an emergency response plan. Also, many of the trade groups that deal with airports, fire and emergency response issues, fuel and hazardous materials, and general maintenance safety issues publish a lot of information on how to prepare emergency response plans. Also, don't forget to ask the FAA for help. Both the District Airports offices and Flight Standards District Offices have safety professionals that can help.

Since it is up to you—the airport operator, fixed-based operator, shop operator, or local manager—to respond to an emergency, are you ready?

This is an updated version of FAA Form 5200-3 (10/69), EMERGENCY PLACARD FOR CIVIL AIRPORTS.

AIRPORT
EMERGENCY NUMBERS

Airport Manager (Office) _____
(Home) _____
Ambulance/Emergency Medical _____
Fire Department _____
Emergency Operator _____
Primary Assist Team _____
Secondary Assist Team _____
Police (local) _____
(state) _____
NTSB _____
Hospital _____
Doctor _____
Air Traffic Control Tower _____
Flight Service Station _____
Flight Standards District Office _____

EMERGENCY INSTRUCTIONS
Storm and/or Fallout Shelter Location:

For additional instructions call: _____

PROTECTION OF GENERAL AVIATION AIRCRAFT

by Daniel J. Benny

Edited by Mickey Hostetler

General and corporate aviation aircraft, as well as fixed based operators (FBO's), are not exempt from criminal activities. The responsibility for the security of the aircraft rests with the owner and/or operator of the craft. Please consider the following guidelines for protecting your aircraft.

AIRCRAFT SECURITY PLAN

You should develop a written aircraft security plan, which details protective measures at the home base, in flight, and at other landing facilities. Limit access to the written aircraft security plan to those individuals who have an operational need-to-know to preserve the integrity of the plan. Security awareness training for flight and ground crew is vital to the success of the plan and should include a review of routine and emergency security procedures contained in the plan.

FUNDAMENTALS OF HOME BASE AIRCRAFT SECURITY

Hangar Security

If possible, maintain the aircraft in a locked hanger. The hanger should be designated as a restricted area with strict access control. Access control includes the use of identification cards, sign-in procedures, and passes and escorts for visitors. The use of card access or key entry also should be considered. The doors should be secured with high security locking devices and the use of a perimeter intrusion detection system for the hanger should be considered. Please note that the placement of an aircraft in a hanger does not eliminate the necessity for additional security measures for the aircraft itself.

Aircraft Security

You can protect an unattended aircraft located in or out of the hanger using devices, such as special anti-tampering tape on doors, windows, utility ports, and inspection plates. The tape cannot be removed under normal conditions and is weatherproof, heat resistant, and available with self-destroying slits, which will enhance the tamper-detection capability. Other devices, such as a throttle lock, control surface locks, prop lock, and wheel boots, can prevent theft of the aircraft.

Editor's Note: Pilots must ensure that all such devices are removed before flight. You may want to add such items to your checklist. All installed items may require appropriate maintenance checks and aircraft log entries. Check with your appropriately rated aviation maintenance technician to ensure that all airworthiness standards are met.

Permanently installed internal and external aircraft protection sensors may be used on all type of aircraft. Exterior protection includes the installation of sensor devices in the aircraft's exterior skin. This includes the use of omni-directional, range-gated, pulsed monostatic microwave devices. These sensors would be located in the aft sections of the aircraft, as well as on the wingtips. Depending on the size of the aircraft, two to six sensors may be required for complete protection coverage. This system establishes a protective 15-foot zone surrounding the aircraft. Movement inside the zone caused by wind blowing over the aircraft control surfaces would not activate the detection system.

Installing sensors at aircraft openings, such as cabin doors, passenger doors, baggage compartments, engine access panels, emergency window exits, ground power utility ports, wheel wells, radomes, and refueling ports, will provide additional protection. These sensors detect the opening of the access points and activate the protection system.

You can protect the aircraft's interior—cockpit, cabin, and baggage areas—by using photoelectric or passive infrared sensors. The alarm signal is transmitted through the alarm system control panel located in the cockpit. This unit is powered by several small solar panels, which are placed on top of the aircraft's instrument panel. Communication between the sensors, on-board control panel, and the annunciator is accomplished using RF radio frequency links. The annunciator can be a permanent table top model or a portable device that is the size of a pager. FBO staff, a security contractor, or the aircraft owner can monitor the annunciator. These individuals, in addition to the pilot, can monitor the portable model.

Key Control

Positive key control is vital to controlling access to the aircraft. Due to the widespread unauthorized possession of master keys to manufacturer-installed locks in the aviation industry, and the possibility of the loss of key control due to keys that may be unaccounted for, the security of existing manufacturer-installed locking systems cannot be assured. You should have the aircraft's locking device professionally rekeyed using a restricted keyway system. Once you are assured of the integrity of the key system, establish strict control measures, including the documentation of all keys issued or signed out and the return of these keys, along with the secure storage of keys not in use and the frequent inven-

tory of keys in storage and those issued.

Aircraft Documentation

Document the aircraft in the event that it is stolen, missing in flight, damaged, or destroyed. This documentation will aid law enforcement agencies and/or rescue teams in identification and recovery procedures, as well as aiding with insurance claims. Include color photographs of the exterior and interior and provide descriptions of the aircraft type, model, year, "N" number, serial number, markings, and color scheme.

Avionics Documentation

Document all avionics used and installed in the aircraft, including photographs of the equipment and the model, serial numbers, and other identifying markings or numbers engraved on the equipment. Positive identification of each item will aid in the investigation and recovery by law enforcement agencies of stolen items and will facilitate the processing of insurance claims.

Baggage Control

Ensure that all baggage loaded on board the aircraft is not left unattended and matches the passengers on board. Verify that any cargo to be transported is from a recognized source, contains contents that are known, and is authorized for transport.

Aircraft Maintenance

Schedule all routine work on the aircraft in advance, ensuring that only certified and authorized aircraft maintenance personnel work on the aircraft.

IN-FLIGHT SECURITY

Pre-Flight Review and Inspection

In-flight security begins with a review of emergency aircraft and security procedures by the flight crew before departure. This includes emergency landing and hijacking procedures. In addition to the routine pre-flight inspection, the flight crew should look for any evidence of tampering with the aircraft or the placement of foreign objects on or in the aircraft. The flight crew should file a flight plan and adhere to it. If changes are required, the crew should file an in-flight change, detailing the reason for the change.

Air Piracy

In the event of a hijacking, apply distress radio-telephone procedures relaying the aircraft's "N" and type, present position, circumstances of the incident, and the number of crew, passengers, and hijackers. If you are unable to transmit over the radio-telephone, utilize the correct transponder code 7500 for a hijacking incident and other predesignated code words to alert air traffic controllers of the emergency.

REMAIN-OVER-NIGHT AIRPORT SECURITY CONSIDERATIONS

Before departure from home base, contact the servicing FBO at any remain-over-night (RON) airport to arrange secure accommodations for the aircraft and any special security needs. If possible, arrange for the aircraft to be hangared. If this is not possible, park it on a well-lit ramp area away from perimeter gates and fences, parking areas, and buildings. On the basis of the threat, a member of the aircrew may be required to remain with the aircraft. If maintenance is required, a member of the aircrew should be present. If the aircraft must be left unattended, ensure that all protective systems have been activated. Do not give the aircraft's key to the FBO unless you—the pilot-in-command—can be assured of the FBO's proper security and control. If the aircraft will be remaining at the RON airport for several days, a member of the flight crew should check on and inspect the aircraft at least once each day. Before departing the RON airport, ensure that a complete pre-flight inspection is done.

LEGAL AND LAW ENFORCEMENT ISSUES

Criminal activity, including the theft, damage, or destruction of general aviation aircraft or its contents, is a criminal offense in the United States. The law enforcement agency in the jurisdiction where the offense occurred would be responsible for the investigation of the incident. Report all incidents to the appropriate law enforcement agency as soon as possible.

The theft and transportation of an aircraft across state lines is a violation of Federal law, specifically Title 18 of the U.S. Code, in addition to the violation of applicable state laws. Because this offense would come under the jurisdiction of the Federal Bureau of Investigation (FBI), report it immediately to that agency's nearest field office.

Criminal acts, such as arson, malicious damaging, destruction, disablement, or wrecking of any civil aircraft used, operated, or employed in interstate, overseas, or foreign air commerce; or any aircraft engine, propeller appliance, or spare part with intent to damage, destroy, disable, or wreck any such aircraft; or with like intent, placement of a destructive substance or willfully incapacitating any crew member are violations of Title 18 of the U.S. Code and fall under the jurisdiction of the FBI.

FAA's Civil Aviation Security Division has investigative authority over forgery of aircraft certificates, aircraft markings and "N" numbers, as well as interference with air navigation lighting and systems. These offenses are derived from Title 49 of the U.S. Code.

Interference with the flight crew while aboard an aircraft within special aircraft jurisdictions of the United States is a Federal offense under Title 49 of the U.S. Code and is investigated by the FBI.

Aircraft piracy is a U.S. Federal criminal offense punishable by death or by imprisonment for not less than 20 years.

Take the necessary steps to protect your aircraft!

+

The author is a private investigator and security consultant who holds a Private Pilot Certificate. He is an FAA volunteer aviation safety counselor.

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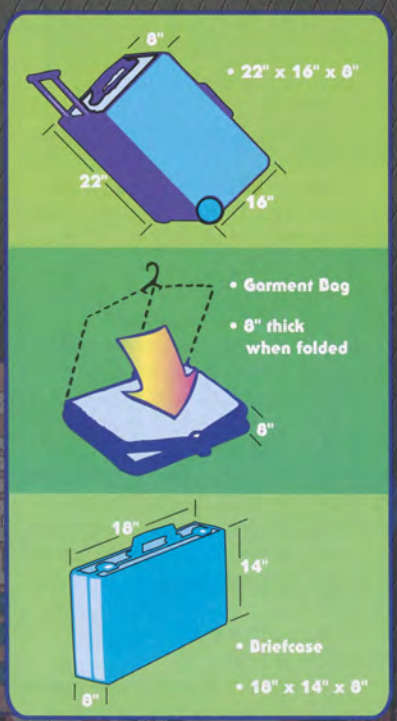

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What is GATE?

The General Aviation Telephonic Entry (GATE) program was developed by the U.S. Customs Service to provide a means for telephonic entry of qualifying general aviation aircraft entering the U.S. directly from Canada. The program combines the proven benefits of facilitation and selectivity. Our historical data on general aviation aircraft demonstrates a high degree of compliance with Customs and other agency laws for those pilots who report their arrival to U.S. Customs. GATE rewards compliance and at the same time frees up valuable Customs resources to be reinvested into more productive areas.

Approved GATE participants may call 1-800-98-CLEAR between three and 72 hours before their arrival in the U.S. to receive their telephonic entry number.

Who Can Apply?

Citizens and permanent resident aliens of the U.S., citizens of Canada, and landed immigrants in Canada from Commonwealth countries.

Qualifying Aircraft

Only U.S. and Canadian registered aircraft arriving in the U.S. directly from Canada qualify for this program. Aircraft transiting Canada do not qualify for this program.

Qualifying Airports

Most municipally owned airports qualify under this program. Some privately owned, public-use airports may qualify at the discretion of the local Customs office servicing those airports. Travel distance and time may disqualify some airports for use in this program.

How to Apply

Fill in an application—obtained from your nearest U.S. Customs office—in single copy only, by typewriter or printed in block letters using only dark ink. Do not use pencil or red ink. If you need extra space for passengers, you may provide the additional information on a blank sheet of paper attached to your application. Mail or hand deliver your application to the Customs office nearest your normal airport of arrival. You will receive a letter from U.S. Customs within a few weeks letting you know whether or not your application has been approved.

Program Conditions

1. All aircraft participating in this program are still subject to inspection upon arrival in the U.S. In order for the U.S. Customs Service to satisfy Congress that we are still meeting our enforcement mission, random inspections of aircraft participating in this program are mandatory. If your plane is selected for a random inspection, you may be met and inspected by a team of inspectors.
2. Landing Requirements. Because we must conduct random inspections of aircraft participating in this program, you must report to the airport designated in your Telephonic Request, at the time and date indicated. If no federal officers are present, the pilot and passengers are then free to deplane and/or depart the area. If you arrive ahead of schedule you must wait until your ETA before departing.
3. Pilot's Responsibilities. The pilot is ultimately responsible for the aircraft and all persons and cargo carried on board. The pilot must ensure that a full and proper declaration is given to Customs and that all merchandise is declared. The pilot must ensure that he or she has received a declaration from all passengers before calling the GATE 1-800-98-CLEAR number. Any changes to your telephonic Customs Declaration must be given to and approved by U.S. Customs before your departure for the U.S. These changes include adding or subtracting passengers, additional merchandise acquired by passengers, monetary instruments in excess of $10,000, etc. Changes not approved by Customs may result in the issuance of penalties, seizure of the aircraft, removal from this program, and even prosecution under Customs laws and the Immigration Act.
4. Face-to-Face Inspection Required. U.S. Immigration and Naturalization Laws require that all participants in this program have had, within the last year, a face-to-face inspection by either an Immigration or Customs officer that clearly demonstrates the person's right to legally enter the U.S. If a person has arrived in the U.S. by commercial or private aircraft during the past year, there is a good possibility that their names will be found in Customs' archived database. If Customs can substantiate a previous entry by querying our archived database, that person will normally be accepted as having already met the requirement of a face-

This special pull-out section is designed for you to help us address a growing safety concern–oversized carry-on baggage. FAA would like for passengers to check baggage which, though designed for the overhead bin, becomes impractical and a hazard when everyone brings one on board. Cut this out along the dotted line, copy it on a color copier (two-sided), and fold it into three panels. Pass them out to your airline passenger friends.

CAUTION:

"TERROR" MAY LURK IN THE OVERHEAD BIN

Your flight was delayed. It is completely booked, bumpy, and the movie is boring. Looks like Murphy is working late!

In the interest of time, you stowed your new "carry on" in the overhead compartment. The thought against stowing it with so much junk in that small compartment came to mind before departure. But now, it's too late to check it. Besides, airlines have carry-on restrictions based on airplane size, and available storage. Even though you had to jam it in, yours fit.

The bumpy flight has made you wonder what your priceless, new bag is going through. That thought is still in progress on the ground, after landing, when a fellow passenger opens the bin allowing your brown leather to fly over the middle row for an unsuspecting passenger's head. Ouchhh!!!!

The poor fellow, disoriented, negotiates his way between your apologies and your monster still resting on his lap. He must have been impressed with the quality of the bag because he studied it a lot. He even took copious notes and measured it several times. He seemed extremely polite until he handed you his card.

An attorney??!!!

PREVENT MAJOR HEADACHES WITH THIS SIMPLE SET OF RULES THE FEDERAL AVIATION ADMINISTRATION CREATED TO PROTECT YOU AND YOUR FELLOW PASSENGERS.

Every year hundreds of passengers are hurt by bags stored in aircraft over head bins. It can happen any time: before, during, and even after the flight.

So, always expect the unexpected! Be extremely alert when opening overhead bins, when removing your luggage, when moving inside a cabin while carrying large objects.

The Federal Aviation Administration (FAA) has established simple criteria to help you manage your voyage.

Each airline must have an approved program to deal with carry-on luggage. It is a formula based on size and number of bags and passenger load in relation to the amount of space available in the aircraft.

Aircraft passenger doors are not closed until each piece of carry-on luggage is properly stowed, and bins are securely closed.

Putting a limit on the size and weight of baggage in the cabin has two major safety benefits. Exits are less likely to be blocked in the event of an emergency, and there is less risk of injury if a bag should fall from an overhead locker.

Flight attendants are responsible for assuring all aisles and exit rows are free of obstructions. And, when they request that you stow your bag securely under the seat, or in the overhead bin, or if they suggest that you check it, they are following a procedure to help you deal with a possible evacuation.

As you may know from experience, it can be quite stressful when you are one of the last to board a fully booked flight only to find that there is insufficient room left over for your baggage. By restricting the amount and size of each passenger's baggage, and ensuring that second bags can be stored under the seat in front, there should now be enough space for all passenger's baggage in approved stowage areas.

Your best approach to air travel is to use all the services available to you. In addition to being there for your comfort, they are there to provide you with a safe trip.

Check all your bags. You'll be glad you did, and will not be disappointed!

to-face inspection. If Customs cannot substantiate a previous face-to-face inspection, the individual must apply in person at the location where the original application was filed. They must show proof of citizenship or legal residence in the U.S. or Canada.

5. Program Exceptions. There may be times when approved GATE participants will be met by a federal officer who will perform an inspection. Inspections are required if:
   - The aircraft has been selected for a random inspection
   - Cargo is aboard
   - It is carrying merchandise that requires payment of duties, monetary instruments in excess of $10,000, or passengers who do not qualify for the program.

Questions and Answers

1. Am I still subject to an inspection after I've called the 1-800-98-CLEAR number and received my GATE entry number?

Possibly. All flights arriving in the U.S. are still subject to random inspection upon arrival. For this reason, flights must arrive at the designated airport at the date and time indicated on their GATE request.

2. I own a float plane and have a house on a lake with a private pier. Can I report directly to my residence if I have received my GATE number?

No. Only designated piers can be used for entry inspections of float aircraft. You must report to the designated Customs inspection area at one of these piers at the date and time indicated in your flight plan. If no federal officer is there to inspect your plane, you are then cleared to proceed to your private pier. Failure to report as indicated in your GATE request may result in removal from the GATE program and penalties.

3. How do I add someone to my list of possible passengers?

Simply write or call the same local U.S. Customs office where you filed your original application. Provide your name; your aircraft's tail number; and the passenger's full name, date of birth, citizenship, and passport or alien-registration number. If the passenger qualifies for the program, he or she may be added immediately. In some instances, the passenger may be required to come to the local Customs office with proof of citizenship and/or legal residence in the U.S. or Canada.

4. What extra burden will this program place on pilots?

The only extra burden is to find out from each passenger on board exactly what they have acquired on this trip and to provide that information to the U.S. Customs officer at the 1-800-98-CLEAR number. We also need to know if any passenger is carrying more than $10,000 in monetary instruments.

5. Do I still have to request the "ADCUS" on my flight plan?

Yes.

For further information on the GATE program, contact the U.S. Customs office nearest you by looking in the U.S. Government section of your telephone directory under Department of the Treasury, U.S. Customs Service.

What Parents Should Know if Their Child is Traveling to Canada with a Friend or Relative

A child—anyone under 18 years of age—should always travel with:

1. Proof of citizenship; e.g., a birth certificate or passport, and
2. A notarized letter from his or her legal guardian containing:
   - Authorization for the child to travel with another person and to be outside the country
   - The name and telephone number of the child's legal guardian
   - The child's destination in Canada
   - The period of time the child will be in Canada.

Persons who are separated or divorced should keep legal documents handy regarding custody rights. When traveling in a group of several vehicles, parents and children should arrive at the border in the same vehicle.

An examining officer at the Canadian border or port of entry must be satisfied that the legal guardian has given permission for the child to be in the company of the caregiver and must always exercise caution to protect the welfare of the child.

Since 1989, Immigration officers and Customs Inspectors have helped recover more than 500 runaway or abducted children in Canada.

CANPASS

Extending Border Services for Private Aircraft

by the Government of Canada

In my travels to various industry meetings around the country, the one complaint I hear the most, believe or not, is not how bad the FAA is, but what a problem it is crossing borders in a private aircraft.

The use of private aircraft for illegal drug operations has fueled this problem and made immigration and customs officials on both sides of the border rightfully suspicious. This article and the one preceeding it on the U.S. version of CANPASS, called GATE, shows that the two governments are working together to assure that all law-abiding citizens of either country can fly to and from these sibling countries with the least amount of inconvenience.

— Editor

If you often fly to Canada directly from the United States and land at small airports, a new program called CANPASS-Private Aircraft may be for you.

The CANPASS program is one of the results of the Canada-U.S. Accord on Our Shared Border. The Accord sets out initiatives to promote trade, tourism, and travel between the two countries.

Revenue Canada and Citizenship and Immigration Canada are cooperating in this program to streamline customs and immigration clearance for low-risk travelers.

Travelers on a Canadian or U.S. registered private, company-owned, or small charter aircraft carrying no more than 15 passengers have to use a telephone reporting system to get permission from a customs or immigration officer to enter Canada. However, there are different benefits for CANPASS permit holders than for those without CANPASS.

As a CANPASS permit holder, you can:

- Call 1-888-CANPASS to report by telephone at least one hour, but no more than 72 hours, before flying into Canada and give your intended arrival time
- Arrive at any approved airport anytime it is open for landing.

NOTE: Most municipally owned airports and some privately owned airports open to the public may qualify for the program, if they are located within 100 km of a customs office.

If you DON'T have CANPASS, you must:

- Call 1-888-CANPASS to report by telephone at least one hour, but no more than 72 hours, before flying into Canada and give your intended arrival time
- Arrive during regular customs office hours at a designated port of entry
- Call the same 1-888 number a second time upon arrival to inform an officer of your arrival and get approval to leave the customs area and continue into Canada

Do You Qualify for a CANPASS Permit?

You, your spouse, and any dependent children you list on your CANPASS - Private Aircraft application form will qualify for a permit, if all of you are:

- Citizens or permanent residents of Canada or
- Citizens or permanent residents of the U.S. who meet the normal visitor requirements; i.e., good health, no criminal record, and the ability to financially support yourself and your dependents while in Canada
- Citizens or resident aliens of the U.S. entering Canada to work or study, who meet all Canadian immigration requirements, which may include possession of valid written authorization from an immigration officer

You, your spouse, and any dependent children you list on your CANPASS - Private Aircraft application will NOT qualify for a CANPASS permit if any of you:

- Do not meet the above qualifications.
- Provide false or incomplete information on your application.
- Have a criminal record for which a pardon has not been granted.
- Had a customs seizure within the past five years.
- Have been found in violation of customs or immigration legislation, or
- Are inadmissible to Canada under the Immigration Act.

How Do You Apply?

Complete an application form and send it and the annual fee of $25.00 (Canadian) to one of the following offices:

For Western Canada

CANPASS Processing Centre
28 - 176th Street
Surrey, BC V4P 1M7
CANADA
Phone: (604) 535-9346

For Ontario:

CANPASS Processing Centre
P. O. Box 126
Niagara Falls, ON L2E 6T1
CANADA
Phone: (905) 371-1477

For Quebec and Atlantic Canada:

CANPASS Processing Centre
400 d'Youville Square
Montreal, QC H2Y 2C2
CANADA
Phone: (514) 283-9900

You can pay the $25.00 (Canadian) processing fee using VISA or MasterCard; you can attach a check from a Canadian bank; or you can include a money order in Canadian funds payable to the Receiver General for Canada. All fees are non-refundable, and, as a reminder, do not send cash in the mail.

Canadian and U.S. citizens have to provide proof of citizenship; i.e., a photocopy of a birth certificate, a citizenship certificate, or a passport. Canadian permanent residents or U.S. resident aliens have to provide proof of legal residence in either country; i.e., a photocopy of a landing card, a valid permanent resident card, or a valid resident alien card.

NOTE: Send photocopies ONLY. Canada does not require original documents and cannot return any originals you send.

Are There Any Additional Costs?

If you or any of the people listed on your application need additional documentation, such as a student or employment authorization, send $125.00 (Canadian) for each document along with the application. That fee is also non-refundable, and Canada will not process your CANPASS - Private Aircraft application until it has all the necessary documentation.

Revenue Canada and Citizenship and Immigration Canada will interview selected applicants to verify information on the application form. If we cannot confirm an applicant's identity, further security processing, such as fingerprinting, may be necessary. If accepted, you will receive a letter of authority and your CANPASS - Private Aircraft permit.

NOTE: If you want to participate in any similar programs for entering the U.S., you have to apply separately to U.S. Customs and Immigration. (See the preceeding article on page 17.—Editor)

What Are Your Responsibilities?

All travelers must declare any goods, firearms, and weapons, including pepper spray and Mace, to customs.

All travelers must show their CANPASS permit, personal identification, and any required immigration documentation to a customs or immigration officer when requested.

CANPASS permit holders cannot transfer their CANPASS privileges, identification, and documents to anyone or any aircraft not listed on their letter of authority.

How Do CANPASS Permit Holders Report?

The process is simple:

1. At least one hour, but no more than 72 hours, before flying into Canada, the pilot or a crewmember must contact Revenue Canada at 1-888-CANPASS.

NOTE: CANPASS permit holders have access to this central reporting system 24 hours a day, seven days a week, and may land at an approved airport anytime it is open.

2. Inform a customs officer of your intended arrival time and destination in Canada. For all persons on board, provide his or her CANPASS - Private Aircraft permit number, full name, birthday, citizenship, and purpose and length of stay in Canada for travelers who are not returning residents.

NOTE: Should your estimated time of arrival change, you must contact Revenue Canada at the 1-888 number.

3. Make sure that all travelers on board declare all personal goods they are importing, including firearms and weapons. If duties and taxes are payable, the customs officer will require VISA or MasterCard numbers and expiration dates.
4. As proof of reporting, the customs officer will give you a report number for your records. You may proceed to your destination when you arrive in Canada unless a customs or immigration officer is there to conduct an examination.

We will carry out checks to ensure compliance with the law.

How Do You Report If You Don't Have CANPASS?

1. At least one hour, but no more than 72 hours, before flying into Canada, contact Revenue Canada by calling 1-888-CANPASS and give your intended arrival time.
2. You must arrive during usual customs office hours at an airport which is a designated port of entry.
3. Provide the following information: full name, birthdate, and citizenship for each person on board; purpose and length of stay in Canada, if travelers are not returning residents; and passport and visa details, if applicable.
4. Declare all personal goods being imported, including firearms and weapons. If duties and taxes are payable, provide customs with your VISA or MasterCard number and expiration date.
5. When you arrive, call 1-888-CANPASS a second time to inform an officer of your arrival. The customs officer will advise you whether you are free to leave the customs area and continue into Canada or whether you must wait for customs or immigrations officers to complete documents for an inspection.
6. At the conclusion of the customs process, you will receive a report number for your records, as proof of your reporting.

We will carry out on-site verifications and examinations to ensure compliance with the law.

compliance with the law.

Whenever there is a mix of CANPASS permit holders and travelers without CANPASS permits on an aircraft, you MUST follow the procedures for travelers without CANPASS permits, as outlined above.

Are There Import Limits?

All travelers can import goods for their own personal use. U.S. residents have to return all goods to the U.S. unless they consume them in Canada. However:

- You cannot import any promotional materials including samples, commercial goods, or equipment.
- You cannot import controlled, restricted, or prohibited animals, plants, or goods as described in the Revenue Canada pamphlet, "I Declare," for Canadian residents, and in the Canadian Tourism booklet, "Travel Information," for U.S. residents.
- There are restricts on importing alcohol and tobacco products into Canada. For more information, see "I Declare" or "Travel Information."
- If you are planning on importing a firearm or weapon, i.e., for hunting or a competition, you should read the Revenue Canada brochure, "Importing a Firearm or Weapon into Canada."
- You are not allowed to bring prohibited firearms and weapons such as Mace, pepper spray, and stun guns into Canada.
- Revenue Canada will seize undeclared firearms and weapons and may initiate criminal charges.

Are There Penalties for Not Complying with the Program?

All travelers must comply with all customs and immigration legislation and any other laws Revenue Canada and Citizenship and Immigration Canada administer. All travelers must also comply with the appropriate telephone reporting procedures.

CANPASS permit holders can have their membership privileges revoked for failing to comply with requirements and procedures of the CANPASS - Private Aircraft program. Depending on the severity of the violation, Revenue Canada can impose penalties, seize any goods and the aircraft involved, and initiate criminal charges. Citizenship and Immigration Canada may arrest and remove non-residents of Canada for violations of the Immigration Act.

Where is More Information Available?

If you want more information, including applications, on the CANPASS - Private Aircraft program, you can call, 1-800-461-9999.

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La version française de cette publication est intitulée CANPASS - Aéronefs privés.

What Citizens of the U.S. Should Know When Traveling to Canada

The aim of officials at Canadian borders and ports of entry is to facilitate the entry of visitors into Canada whenever possible. However, they must also ensure that persons who are inadmissible to Canada, those that seek to contravene our laws, are prevented from entering.

With this in mind, all persons seeking to come into Canada must undergo an "examination," a procedure by which an immigrations officer determines whether a person seeking to come into Canada may be allowed to do so. The procedure may include both a primary and a secondary examination. Examinations are conducted in a courteous and efficient manner, and information provided by the traveler remains confidential. The traveler has the obligation of establishing his or her admissibility to Canada.

Generally speaking, the Immigrations Regulations require that every visitor be in possession of a passport or identity or travel document. However, normal passport requirements for visitors do not apply to:

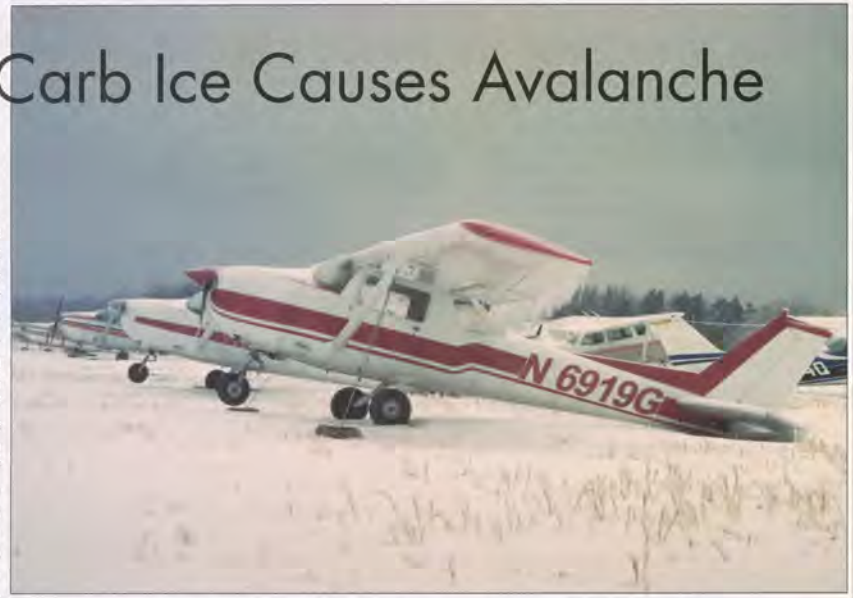
- A visitor who is a citizen of the U.S.
- A visitor seeking entry from the U.S. who has been lawfully admitted to the U.S. for permanent residence

However, a traveler must have proof that he or she is a U.S. citizen and/or U.S. resident alien in order to be exempt from the general passport requirement for all visitors.

The following information may be useful to the American traveler:

- A U.S. passport is the ideal identification for U.S. citizens traveling to Canada.
- U.S. citizens may travel to Canada without passports if they have other means of establishing their citizenship, such as a U.S. birth certificate or naturalization papers.
- The U.S. military identification card, although a good supporting document, is not evidence of U.S. citizenship, as you do not have to be an American citizen to be in the military.
- U.S. citizens traveling directly to Canada from the U.S. may be able to satisfy claims to U.S. citizenship by presenting identification documents such as a U.S. voter's registration card, medical card, credit card, or educational records, and one other identification card containing the holder's photograph, such as a driver's license.

Auto Carb Ice Causes Avalanche



Catchy headline. But it is a snow job. (Pun intended.) The truth is two readers sent *FAA Aviation News* stories of their experiences with carburetor ice in automobiles after reading about the subject in the September 1997 issue. Both incidents occurred while driving in the high altitudes of the Rocky Mountain area. In both cases the problem reportedly began at or near the 8,000 foot MSL. In one case, the reader said a thermal switch failed in the carburetor air intake system that regulated the temperature of the air going into the carburetor. In the other case, the problem developed in blowing snow and sleet.

In the case of the broken thermal switch, the driver said he removed the car's air cleaner and saw the "frosty fuzz ball formed around the venturis." Removing the ice build up, the driver was able to start the car. By alternating between driving and stopping to let the engine heat melt the carb ice, the driver was able to "limp" the car back to Denver. In the second case, which happened in the 1970's near Laramie, WY, the driver thought he had a points problem and changed them along the road in freezing conditions. The car then started, and the driver thought he had "fixed" the problem only to become stranded on the other side of Laramie at a small convenience stop miles from anywhere when the snow storm closed the highway. Eventually, the driver was able to continue his trip to lower terrain and better conditions. Carb ice was never a consideration, he said. Especially since this snow storm occurred in June.

The reason we are discussing these letters is because they both point out an important safety issue. Whether you are flying, driving to the airport, or driving across the country, you need to be prepared to survive any equipment malfunction. Whether its your aircraft, car, truck, boat, or snowmobile, you must be prepared for the most extreme conditions that can reasonably be expected during your outing. To paraphrase an old saying, it is always better to have something and not need it than to need it and not have it. Whether we are talking about food, water, warm clothes, and a sleeping bag in the winter or water and shade in the summer, it pays to be prepared. In the case of the reader driving through Wyoming, he said he regretted not stopping in Laramie where help was available instead of continuing past the town for 30 miles where his car once again began running roughly, and where he was eventually snowed in for hours.

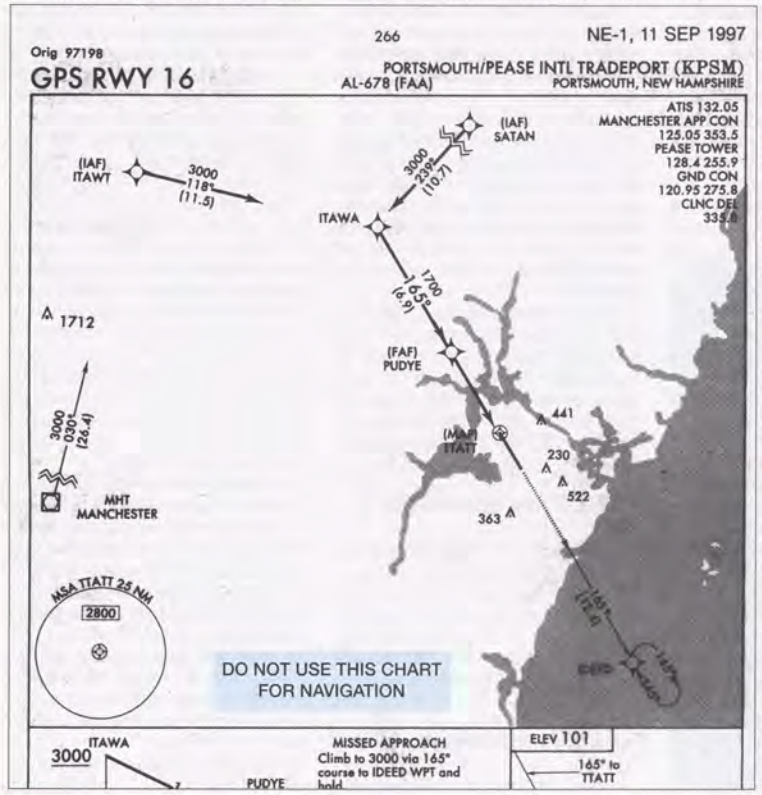
To avoid a similar problem, do your local search and rescue (SAR) teams a favor in 1998; surprise them by staying found and safe. Anyone can get lost, it takes an expert to stay found. But being always found is only half of the problem, whether you are stranded in a blizzard along a road or trapped by rising flood waters, knowing when to stay in a safe place and knowing when to leave a threatened place will also help SAR forces avoid personal risk as they try to respond to your problem. You can do them all a favor in 1998 by staying safe. Safe and found, two good ways to start the new year.

As we start the second half of the winter of 1997, we want to remind all pilots that spring is just around the corner. If you haven't been flying this winter, now is the time to "break the ice" by starting to review your flight manuals, books, performance charts, GPS manuals, and the most famous chart of all, your local aeronautical navigation chart. Make it your goal to stay found throughout 1998. Your local SAR folks will thank you.

And watch out for carb ice: Both in the air and on the ground. ✢

• Humorous Approach

Who says the FAA doesn't have a sense of humor? Just check out the GPS Runway 16 approach [below] into Portsmouth/Pease International Tradeport, in Portsmouth, NH, from the ITAWT initial approach fix through the published approach to the missed approach fix IDEED. With tongue in cheek, for those who love a certain yellow cartoon character, the fixes quote that famous bird's classic line, "I tawt I taw a puddee tat. I did." (The fixes say it better than I.) Check it out.



• Best Rate Versus Best Angle

I am a controller at Denver Center, with fifteen years experience. I read with interest the letter about "Best Rate or Best Angle of Climb." I am not a pilot, and honestly didn't know there was a difference. I was surprised you went to the AIM to answer the flight engineer's questions. I haven't read the AIM in quite some time. I can tell you, however, what the FAA Order 7110.65 says. Paragraph 2-1-5 (Expeditious Compliance) states:

"Use the word 'immediately' only when expeditious compliance is required to avoid an imminent situation. Use the word 'expedite' only when prompt compliance is required to avoid the development of an imminent situation."

These are the only two terms which are "authorized." "Best rate" and "No delay" and the like don't actually hold any weight, except to let the pilot know that the controller is expecting the pilot to operate the aircraft on the "upper end" of its performance characteristics, due to a traffic scenario.

Although "expedite" and "immediately" are correct phraseology many controllers shy from using these terms. Especially the word "immediately", for it is generally thought that a pilot will initiate actions which may cause injury to crew or passengers. The last time I used "immediately" it was a traffic alert situation with a military spill-out of a restricted area about five years ago. I use expedite when I want maximum performance without causing flight attendants to hit the roof. I use "no delay" when a normal rate of climb/descent at the upper end of the characteristics is necessary for traffic situations that are pending but not imminent.

With all that said, I want to emphasize one important point.

Most controllers know what normal performance characteristics are on almost all airplanes. We work out traffic situations based partly on that information. If your airplane is NOT operating at normal characteristics, it is imperative that you let ATC know. If a controller tells

you to expedite the descent for traffic, and there's a passenger that is hearing impaired and requires a slow descent so as not to hurt their ears, etc., please tell us right away. We always have "Plan B" on the horizon! I love it when an air carrier pilot tells me they will be a slow climber. Or a B737 brings to my attention that they will be operating at a reduced Mach number. We are all in this together!

Donna Galbraith
Longmont, CO

Your comments point out the need for everyone in aviation to know, understand, and use correct terminology.

The Aeronautical Information Manual *(AIM) Pilot/Controller Glossary provides a list of terms used in the Air Traffic Control System. Pilots and Controllers should review it periodically to ensure both are using common terminology. As stated in the introduction to the Glossary, the Glossary is updated as necessary to reflect changes in terminology.*

FAA AVIATION NEWS welcomes comments. We may edit letters for style and/or length. If we have more than one letter on the same topic, we will select one representative letter to publish. Because of our publishing schedules, responses may not appear for several issues. We do not print anonymous letters, but we do withhold names or send personal replies upon request. Readers are reminded that questions dealing with immediate FAA operational issues should be referred to their local Flight Standards District Office or Air Traffic facility. Send letters to FORUM Editor, FAA AVIATION NEWS, AFS-805, 800 Independence Ave., SW, Washington, DC 20591, or FAX them to (202) 267-9463;. e-mail address: Dean.Chamberlain@faa.dot.gov

As we often read in the NASA's Aviation Safety Reporting System CALLBACK newsletter, misunderstood communications between pilots and controllers can have disastrous effects. This situation is especially true of pilots operating in foreign countries. Although English is the official language of aviation, there are differing degrees of understanding and pronunciation between foreign crews flying in the U.S. and U.S. crews flying in countries were English is not the national language. In such cases, knowing and following correct terminology can be critical to a successful flight.

As you pointed out, when there is any doubt as to what is meant or expected, flight crews and controllers need to discuss the situation in enough detail so that both know what action is expected and, if time permits, why. Add in all of the human factors problems of hearing, understanding, and complying, and you have the dynamic world of aviation where thousands of dedicated controllers and flight crews work together to ensure that thousands of flights are safely completed every day.

In a moment of editorializing, we want to applaud the professionalism of the controllers, flight crews, instructors, maintenance technicians, and everyone else involved in aviation who have made aviation the successful mode of transportation it is. Thanks for a job well done.

• Electronic Information

Is the *Airport Facility Directory* available in electronic form?

Steve Jones
via Internet

No, the Directory is not available in electronic form at this time.

• Non-Towered Airport Operations

Regarding the April 1997 article, "Staying the Course" concerning operations at nontowered airports. This subject has recently received extensive and well-deserved attention. As with most articles on the subject, however; it is indicated, usually by omission, that aircraft not arriving in the vicinity of the downwind side of the active runway should give the airport area a wide berth to position for a 45 degree downwind entry. As a practical matter, in the absence of UNICOM/ASOS or other aircraft reporting information, the active runway will likely be uncertain. Under these circumstances, and particularly with knowledge of other pattern aircraft locations, it is no less safe to enter the pattern at any point corresponding to the arrival heading.

It is disappointing that Mr. Martens, in the article on Pilot and Aircraft Courtesy Evaluations, would "zing" a pilot for making a "crosswind entry versus the 45 degree entry."

A review of AOPA Air Safety Foundation information, and CFI input on this subject (Fall 96) indicates that many not only view the crosswind entry as acceptable, but advocate it as appropriate for arrival on other than the downwwind side of the active runway.

It is interesting to note that the FAA, by an NPRM published over 25 years ago, proposed pattern "entry paths tangential to any corner of the pattern except for the corners of the base of final legs, or straight in on any leg except the base or final legs."

The NPRM also stated "The FAA believes the generally accepted practice of entering 45 degrees to the downwind leg is unacceptable as a standard procedure because it requires an additional unnecessary maneuver by the pilot without providing an appreciable increase in safety.

In fact, this type of an entry may actually create a hazard with low-wing aircraft by requiring the pilot to bank away from the pattern and thereby, block his vision at the very time he most needs to be able to observe and avoid other traffic." I believe the NPRM logic is as valid today as it was 25 years ago.

Richard J. Lewis CFI
Madeira Beach, FL

Because of the variations in small airport locations and operations, the Aeronautical Information Manual *(AIM) lists the FAA's recommended non-towered airport procedures in Paragraph 4-3-3, Visual Indicators At Airports Without An Operating Control Tower. The* FAA Flight Training Handbook, *AC 61-21A, Chapter 7, also outlines the FAA recommended airport operating procedures. In addition to the recommended information in the AIM and AC 61-21A, all pilots must comply with appropriate requirements in the Federal Aviation Regulations (FAR).*

Because of the potential risk of a midair collision, it is important that all pilots be especially alert when flying near or operating from or to any nontowered airport.

• IFR Flight Test

I have a question about the new IFR Flight Test. According to the new regulations, an ADF approach is not required if the airplane is not so equipped.

But three approaches, one precision and two non-precision must be flown. Does an ILS (precision), VOR, and LOC (or LDA) fulfill the requirement?

If not, since most airplanes do not have a GPS, is it acceptable to fly an ILS and a VOR or LOC, and then an ADF in a simulator?

Thank you for your help and if there is any written rule, where can I find it (most FAR are now outdated or will soon be). I have the new FAR Part 61 (not yet implemented) but there is no clear answer.

Guy Rosenschein
via Internet

The short answer is yes to your first two questions.

The New FAR Parts 1, 61, 141, and 143 are now in effect. The new FAR Part 61 rule only requires one precision approach and two non-precision approaches.

The new FAR §61.65, Instrument rating requirements and the Instrument Practical Test Standard detail the requirements.

The new Instrument Practical Test Standard also contains a section that lists the training and testing maneuvers that can be done in a qualified flight training device or flight simulator approved for a particular training course.

The best way to understand the new FAR Part 61 rule is to review the final rule as published in the Federal Register on Friday, April 4, 1997. That day's Federal Register contained FAR Parts 1, 61, 141, and 143 with detailed explanations and comments about each part. Included in the explanations were some of the comments made by individuals and organizations about the various rules as well as FAA's responses and actions after reviewing the comments.

The following explanation may help everyone understand the new FAR Part 61 instrument training requirements.

The January 1997 issue of the FAA Flight Standards Service's "Designee Update," ran an article regarding the choice of approaches used during an instrument practical test. It has been brought to FAA's attention that there may be a misconception of what was meant and what was perceived.

If the aircraft has an IFR certified and permanently installed (not portable) GPS system, the examiner could choose to allow the applicant to use the GPS instead of some other non-precision approach, i.e. nondirectional beacon (NDB), localizer-type directional aid (LDA), simplified directional facility (SDF), localizer (LOC) or VOR. Some readers were under the impression that the GPS could only be used in lieu of the NDB. The example used in the article may have confused the issue.

The old Instrument Practical Test Standard (PTS) required an ILS, VOR, and a NDB approach, in other words, one precision, and two non-precision. The new regulation requires training in three different KINDS of approaches meaning one precision and two non-precision approaches.

The intent of the "Designee Update" article was to inform readers that a certified GPS could be used as a non-precision approach during the instrument test. This was good news for some, because this provided a means for NOT having to perform the dreaded NDB (ADF) approach.

All would have been fine had the article not stated the words "using two different approach systems." So, if we have the following kinds of approaches i.e., NDB, LDA, SDF, LOC, VOR, GPS, LORAN, some would say that the NDB is low frequency so that's one system, and the LOC, LDA, VOR is VHF, so that's another system, and GPS is data, so that's another system. Very confusing to say the least.

Here it is clear and simple. Using the same terms used in FAR Part 61 for training, you must do three different KINDS of approaches. The ILS is a given. So, you would choose two non-precision approaches from the following: NDB, LDA, SDF, LOC, VOR, GPS, and LORAN.

The most common preference for many would be to substitute the GPS for the NDB, however; applicants should remember that the inspector/examiner is in charge of conducting the test, and if you have both GPS and NDB capabilities, it is their choice. You could end up being asked to do both, or you might get a VOR.

That is what testing is all about. The biggest benefit is for aircraft that is not equipped with an NDB. The applicant could still take the test if they had a certified GPS, ILS, and VOR capability. Incidentally, radar approaches are not acceptable for the test.

NUMBER, PLEASE

In our September 1997 issue, we reported on the U.S. Aerobatic Foundation's raffle of a J-3 *Cub*, with the money collected going toward the support of the U.S. Aerobatic Team in world competition. The news release upon which we based that story provided an incorrect phone number to call for the purchase of chances on the *Cub*.

The correct phone number is 1-888-678-8723. We—and U.S.A.F.—regret any inconvenience this may have caused.

ICAS MOVES TO MARYLAND

The International Council Of Air Shows (ICAS) has moved from Jackson, MI, to 481 North Frederick Ave. Suite 405, Gaithersburg, MD 20877. Its new telephone and FAX numbers are (301) 519-6800 and (301) 519-6869 respectively. Its E-mail address is icas@airshows.org. Its Website is http:/www.airshows.org.

THE FUTURE DESIGN OF THE NATIONAL AIRSPACE SYSTEM

Ever wonder where the National Airspace System (NAS) is headed? To find out about its future , you can read Version 2.0 of the NAS Architecture.

This well thought out document proposes an architecture for the NAS through the year 2015. It recommends, for example, the communications, navigation and landing, surveillance, decision support, flight service, oceanic, and weather systems and their phase-in and phase-out schedules for the next 20 years.

To reach the proposed architecture, the architecture team developed and analyzed various alternatives. Within a 20-year outlook, NAS Version 2.0 includes an architecture that looks at decision-making model concepts to project the future and cost of the next generation NAS. One alternative maintains the current status quo regarding the replacement of the aging air control equipment as needed while moving into the future at a more delayed pace. Another alternative moves more rapidly into the future by modeling an optimum Free Flight concept having the potential to improve the system and save dollars. It is apparent that new technology is rapidly overtaking an aging NAS. At the same time current systems must be maintained in order to maintain a safe, secure, and efficient global aviation system that contributes to the national economy and promotes U.S. aviation interests.

The proposed architecture was selected because it balanced user needs with the realities of available funding and technology.

After Version 2.0 was published, the architecture team conducted an extensive outreach campaign, both inside the FAA and within the aviation community, to obtain feedback on the proposed architecture. These comments are being considered in the next iteration—Version 3.0, the baseline NAS Architecture—which will be issued at the end of the year.

To learn more about the NAS Architecture, please visit the NAS Architecture Home Page at http://www.faa.gov/asd/, where you can find a complete copy of Version 2.0 and information about comments to the proposed architecture. For a printed copy of Version 2.0, readers can write to Federal Aviation Administration, Office of System Architecture and Investment Analysis, ASD-1, 800 Independence Ave., SW, Washington, DC 20591.

CALENDAR OF EVENTS

February 21-22 - EAA Chapter One Annual Open House and Fly-In, Flabob Airport, Riverside, CA; Static displays, antiques, contemporary, Warbirds, and experimentals; Young Eagles and guest speakers and food by a gourmet chef. Contact Jan Johnson at (909) 686-1318.

February 27-28, March 6-7, March 13-14, March 27-28 - Free FAA/Industry Maintenance Education Symposia, respectively in Southern California, Northern California, Arizona, and Nevada; contact either Kevin Clover at (562) 420-1755 or Linda Goodrich at (310) 215-2150, ext. 125.

Seaplane Events

February 20 - Grounded Hogs Day Dinner, Boeing Museum of Flight. Contact John Sessions at (206) 587-4040 or Seaplane Pilots Association (SPA) at (301) 695-2083.

February 21-22 - Northwest Aviation Conference and Trade Show, Puyallup, WA. Contact Gerry Gross at (206) 588-6098 or SPA at the above number.

March 8 - South Florida Seaplane Fly-In, Lake Jackson, FL. Contact Bill or Carol Schmalz at (954) 421-8917 or (407) 393-8509.

April 19-25 - Sun 'n Fun, Lakeland, FL. Call SPA at the above number.

CIVIL AIR PATROL HISTORICAL FOUNDATION

During World War II civilian pilots volunteered to fly their own airplanes along the U.S. coast seeking out enemy submarines. The story of the Civil Air Patrol (CAP) and the World War II Coastal Patrol will not be forgotten thanks to the efforts of Drew Steketee, AOPA's Senior Vice President for Communications, who has formed the Civil Air Patrol Historical Foundation (CAPHF).

Dedicated to the preservation and communication of the history of the World War II Coastal Patrol and other CAP WWII operations, the CAPHF will also preserve the history of the CAP's post-war role in domestic search and rescue. The Foundation's initial projects will include the recovery and display of historic CAP aircraft; preservation of documents, artifacts, and veteran accounts; assistance to aviation museums displaying CAP history; and a national CAP museum.

The CAPHF will be an independent, non-profit, educational organization but will coordinate with CAP headquartered at Maxwell AFB, AL. Top officers of the CAP will serve ex-officio on the CAPHF board of directors, and Drew Steketee will serve as the Foundation's first executive director. For more information about the CAPHF, contact Drew Steketee, Executive Director, 421 Aviation Way, Frederick, MD 21701; (301) 695-2156.

This Stinson 10A in original CAP World War II paint scheme is the first historic aircraft acquired by a CAP Historical participant for airshow displays.

FAA EMPLOYEE RECOGNIZED BY BALLOON FEDERATION

Bob Kopecky, an Aviation Safety Inspector with FAA's Flight Standards Service Airman Testing Standards Branch (AFS-630) was presented the Director's Award from the Balloon Federation of America (BFA) during its annual meeting in Albuquerque, NM last year. The award was presented by Beth Wright Smith, director of BFA's Southwest Region, in recognition of Bob's efforts and assistance to the ballooning community during the past year. Bob is responsible for flight instructor certification, writing knowledge tests for flight and ground instructors, developing test standards for flight instructors, and writing several handbooks. He recently completed a balloon flying handbook and the revision of the Commercial Pilot Lighter-Than-Air practical test standards for balloons. During these projects, Bob worked closely with representatives of the ballooning community.

The Airman Testing Standards Branch is the FAA focal point for airman certification knowledge and skill testing standards. The Branch conducts the worldwide computer-based airman knowledge testing system that administers approximately 150,000 airman tests annually. During the past 12 months, 467 LTA knowledge tests have been administered.

Bob Kopecky (left) receives the BFA Director's Award by BFA Southwest Region Director Beth Wright Smith.

Editor's Runway

from the pen of
FAA Administrator Jane F. Garvey

The Will to Enhance Safety

Administrator Garvey presented these remarks at the October 28, 1997 meeting of the Aero Club of Washington, and we are pleased to reprint her as our "guest" columnist for this issue.

Today I want to talk about safety and about what we can do to enhance aviation safety for our nation and for U.S. air travelers. Earlier this month, I shared a podium with two other safety advocates—Congressman James Oberstar and National Transportation Safety Board (NTSB) Chairman Jim Hall. Both, as you know, are highly respected and dedicated advocates of transportation safety. On that day, Congressman Oberstar gave one of the most moving speeches I have heard on the subject of safety. He opened his remarks by recalling Thornton Wilder's Pulitzer Prize-winning novel, *The Bridge at San Luis Rey.* The Congressman talked about the questions posed by the novel's protagonist, Father Juniper, after the collapse of a bridge and the death of five people.

Father Juniper asked: Why this bridge? Why this time? Why these people?

Oberstar called the novel, "an elegant, moving quest for cosmic answers."

Those who are concerned with aviation safety, whether it's within the public or private arena, must also be on a quest for cosmic answers, must ask the difficult questions, and must also seek solutions. Our role in the FAA is to move from the cosmic to the often painstaking, yet vital, search for the answers, for solutions. In a sense we are, we must be, seekers.

In my first public speeches as Administrator, I outlined the four priorities for the start of my term. I spoke about our commitment to safety, security, and system efficiency, and I spoke of the absolute need to ensure an adequate and stable source of funding for the FAA. Security and modernization clearly contribute to enhancing safety, and, without funding, we cannot achieve any real progress on any of the priorities.

Managing a public agency presents some extraordinary challenges that are different from the private sector. The private sector is competitive; it has a bottom line. The CEO's duty is to protect the interests of the firm's stockholders and employees. But a public agency is supposed to serve society—public interest should be paramount. Putting it differently, a private firm is organized for the well being of its members, while a public agency is supposed to serve the interests of the greater community. For the public agency, this often means competing agendas, different priorities—often a sense of everyone feeling they own a piece of the agency. The result can be an unfocused agenda, goals that constantly change. In the area of safety, which I want to talk about today, that can create real difficulties, real challenges.

Let me tell you why focusing on aviation safety is so important. We've heard all the numbers, in one version or another, that with the projected increase in aviation activity, tomorrow's number of accidents will be devastatingly high—unless we lower today's already low accident rates. That is an unmistakable clarion call, and we must respond and respond decisively. We are doing this through a two-pronged approach—one, by developing a focused safety agenda and, two, by new alliances with all segments of aviation.

Let me emphasize the need for a focused safety agenda. Developing this agenda has been one of my first priorities. We absolutely need a plan to reduce the accident rate that is focused, based on hard data, and doable. As part of the FAA strategic plan, we are developing a safety agenda for 1998 and for the next five years. We met outside the Beltway; I have a senior team tasked with the assignment; we are working in concert with the National Civil Aviation Review Commission; but more to the point, we have made the commitment to refine a safety agenda based on a ranking of safety initiatives supported by quantifiable data. In short, what we plan to do first is what will do the most good. We will take the safety actions most justified, most supported by the data.

Right now we have on hand more than one thousand—one thousand—safety-related proposals. Over the past few years we've heard from the General Accounting Office, from Congress, and the White House Commission on Aviation Safety and Security. We heard from the Inspector General, from the NTSB, from industry, and, of course, we have had our own internal reviews and recommendations. Even when you eliminate the duplicates, that leaves 450 proposals. That is not a focused agenda. Which is why we are putting together a safety agenda that ranks the recommendations based on hard data using established and tested methodologies. Most importantly, it will lead to the safety improvements that have the potential to bring the greatest benefits. We already know the key areas of emphasis, and they won't surprise you—controlled flight into terrain, loss of control accidents, human factors issues, and landing and approach accidents.

By early 1998, we will have an aviation safety action plan, our marching orders for enhancing safety. We will have moved from 450 recommendations to a plan based on safety data, and it will have been created in constructive collaboration with all the segments of aviation. We will be doing things in a different way. We plan to improve upon the relationship between the regulator and the regulated. Times have changed. Both aviation and the industry have matured. Technology has advanced and will continue to advance at a dramatic rate. The issues have become much more complex. At the same time, we have a structure in place developed in an era of intense government regulation. We need a new safety model—one where government can be both a partner and, when necessary, an enforcer. Yes, we need compliance, but to make further breakthroughs in safety, to lower the accident rate, we must collaborate on the safety agenda and the means to fulfill it. We must work together.

We will not abrogate our regulatory responsibility. Not at all. It's just that there is so much to gain from collaboration. As you well know, there already have been a number of important efforts where government and industry and labor have been partners. We must build on this foundation.

I want the FAA to be a leader in aviation at the same time we develop a new leadership style—one that's more appropriate for aviation at the turn of the century, one that will enable us to take the necessary steps, the hard steps, to enhance safety. Today, more than ever, we need an approach that will enable us to use every tool available to us to enhance safety. And we intend to. We couldn't think of a better place to start this new model, this collaboration, than with FOQA.

I am pleased to announce today that the FAA will soon send to the Secretary's office a notice of proposed rulemaking on Flight Operations Quality Assurance (FOQA) Programs. This rule is intended to encourage the voluntary implementation of FOQA by providing assurance that information obtained from such programs cannot be used by the FAA for punitive enforcement purposes. In a companion notice of proposed rulemaking also about to be released, the FAA would extend protection of certain voluntarily submitted safety information, such as FOQA, from public disclosure.

Why FOQA? How did this program move to such a prominent spot on our safety agenda? First, let me explain what FOQA does. It collects, analyzes, and shares data on routine flight operations. And with our rulemaking it will allow for open sharing of information without fear of punitive enforcement action. From the experience of European carriers and through our own two-year demonstration study, we learned that the analysis of routine flight data, collected by flight data recorders, provides significant benefits by identifying trends. These trends can point out potential problems and enable us to take corrective steps before accidents happen.

As we all know, information is the linchpin to decreasing accidents. In the demonstration study, FOQA data gathered from flight data recorders already has provided valuable information to improve flight crew performance, adapt airline training programs, adjust operating procedures, and do much more to enhance safety. Let me give you an example. In the demonstration study, one airline learned that its aircraft were routinely approaching a particular runway at an unacceptable rate of descent. Approaches were too steep and too fast. Thanks to data gathered from flight data recorders, the airline knew to ask, "Why?" It turned out the approach had been designed years ago, and it had been designed for Convair 240's—piston-engine aircraft, not the turbine-powered aircraft in operation today. Needless to say, we quickly corrected that approach. Safety was enhanced. FOQA data has also been used to pinpoint runway surface anomalies at U.S. airports. Thanks to FOQA, we are learning about trends, the everyday trends, the ones that don't necessarily cause accidents. They may not cause accidents because they are corrected, because of redundancies, or because of human skills and judgement, or because of all of these. But once detected, we now have the knowledge, the capability, the power, to make mid-course corrections, to enhance safety. Correcting that rate of descent, that instrument approach, that runway, before the fact—before the flight data recorder is analyzed after a crash—is very important, very critical.

Programs like FOQA are the key to enhancing safety, in lowering the accident rate. I am hopeful that by encouraging FOQA, this rulemaking will provide industry and the FAA with the tools to achieve significant safety improvements. But FOQA itself defines a new relationship with industry. More data is given voluntarily to the FAA, but the agency agrees not to take punitive enforcement action.

We are also working in constructive collaboration in many other areas that will serve as a new model to enhance aviation safety: Public and private sectors working together, working collaboratively, to enhance safety. And, during my term as Administrator, I commit to you today that there will be many more of these examples.

Fate is not the hunter. In fact, fate has nothing to do with it. Aviation safety at the turn of the century is not about fate. Aviation safety at the turn of the century is about that quest that Congressman Oberstar spoke of—finding the answers. We haven't found all the answers yet. Thanks in large part to technology, we have made great strides in making the safest even safer still. Today's safety record is clear. We have a solid record. But that's not good enough. We need to lower the accident rate. We need to be prepared for the predicted growth in traffic. To do that, we must continue to work at reducing the risk–in collaboration with everyone sitting in this room today. The only way—the only way—that we will be successful in pushing accident rates down, in saving lives, is in strong partnership. We must work together in a renewed spirit of cooperation on a comprehensive safety agenda, and we must begin now. This is what I want in my term as FAA Administrator. This is what you want. It is what the American public wants. And, it is precisely what they deserve.

Our nation has an extraordinary, an extraordinary, amount of aviation safety talent, expertise, and experience. We also have the will to enhance safety, and, together, we will find the way.

U.S. Department
of Transportation

Federal Aviation
Administration

800 Independence Ave., S.W.
Washington, D.C. 20591

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