

The Importance of passenger Briefings

by Seth B. Golbey

In September's AOPA Pilot, "Safety Corner" outlined a number of preflight precautions a pilot can take to ensure the successful outcome of a flight. The discussion centered on the fitness of the aircraft for flight. Another preflight activity of significant importance concerns the passengers' fitness for flight. The vast majority of general aviation flights are routine in that - while unexpected things may occur - emergencies seldom arise. When an emergency does happen, the pilot's attention must be focused on coping, the most important aspect of which is controlling the airplane. While keeping the passengers informed of what's going on is desirable, a pilot contending with an emergency has little time to devote to briefing passenger on the location and use of emergency equipment, egress procedures, and the like. This task is best accomplished before takeoff. Recently, as I was settling into the back seat of a Beech Baron, I found myself wondering if a passenger could operate the emergency window release mechanism without any prior instruction or knowledge of its workings. Could the passenger do it in a worst - case scenario - at night, following a takeoff or landing mishap, dazed or injured? With fire in progress? Upside down? Maybe. Did the pilot of this Baron brief his passengers? Nope. He assumed the two of us in the back seats knew how to work the windows. He might have been right. But it's a dangerous assumption. Not only is a preflight briefing a sensible precaution, it's mandated by Federal Aviation Regulation 91.199 for large (more than 12,500 pounds, maximum certificated takeoff weight) and turbine powered multiengine airplanes. The airlines, of course, assume nothing; they do it for every flight.

FAR 91.199 can be used by pilots of small, single - engine airplanes to develop their own preflight briefings. The first item in the regulation is smoking. We are directed to orally notify passengers when smoking is prohibited. For many pilots, that means all the time. Aside from health considerations, a dropped cigarette invariably rolls to the most inaccessible and flammable spot. (In addition, smoke ruins aircraft interiors and avionics.) At the least, smoking should be prohibited during takeoffs and landings and during operations. Smoking in or around an airplane is simply stated, a lousy idea. Suggest to your passengers that the designated area in the terminal of FBO is the appropriate place for smoking, not on the ramp or in the airplane.

The second item on the briefing list is safety belts. FAR 91.14 (which cover all aircraft except free balloons and airships) require that the pilot in command *ensures* that each passenger is briefed on how to fasten and unfasten the safety belt and shoulder harness (if one is installed). The pilot must also ensure that passengers are notified to fasten the safety belt and shoulder harness (if one is installed). The pilot must also ensure that passengers are notified to fasten safety belts and shoulder harnesses during landing and takeoff. We can take a hint from airline procedures here and strongly suggest (or even require) the passengers keep their belts fastened at all times when the aircraft is in motion (or better, at all times when the engine is operating). Required flight crewmembers, of course, have to keep their belts and harnesses fastened at all times anyways (FAR 91.7), with only very specific exceptions. Pilots will also want to brief passengers on how to adjust their seats, but don't forget the part about placing seat backs upright for takeoff and landing.

The third item on the FAR 91.199 list is "location and means for opening the passenger entry door and emergency exits". Just about every model of aircraft has a different door latching mechanism. Think of the differences among the Cessna 150's flush mounted tab and separate lock, the Cessna 172's swinging armrest, the Bonanza's push button/handle combination, the Cherokee's twin latches, and the Trinidad's lever. Often, if there is a separate cabin entrance, as in many six-place airplanes, its locking mechanism works differently than the one on the front door. Similar variety exists among emergency exits. Some call for dexterity (Baron / Bonanza's windows or Mooney's baggage compartment door), others for brute force (the Trinidad / Tobago's kick-out windows). Ideally, a briefing would be accompanied by a demonstration of how to operate doors and emergency exits (presumably with the exception of kick-out windows). For example, the procedure for the Mooney PFM's baggage compartment door is "Fold rear seat backs forward. Climb over. Pull off plastic cover. Pull latch pin. Lift red handle up. Open door and exit aircraft."

I wonder how many Mooney pilots could do this themselves in the accident scenario outlined above. How many have even tried in the relative calm of the ramp? One demonstration may be worth a thousand words. Or it may be worth a life. Passengers should be prepared to operate doors and emergency exits by feel. On one recent Mooney flight I heard the pilot simply tell the back-seat passenger, who had never flown in a Mooney before, "In an emergency, you can get out through the baggage door." Not very helpful.

The next on the list concerns "Location of survival equipment." Some airplanes have none, though most these days at least have a fire extinguisher. Passengers should know not only where it is, but also how to release it from its bracket and discharge it. A first aid kit is a useful addition to your onboard equipment list. Passengers should know where it is and be able to reach it in flight. Passengers should know where it is and be able to reach it in flight.

You don't need survival gear for over-water operations unless you're operating for hire, but it is good operating practice to at least carry an approved flotation device for each person on the airplane and a pyrotechnic signaling device. Small-airplane flying can be made even safer by heeding the more stringent provisions of FAR 91.189 (Which also apply only to large and turbine-powered multiengine airplanes) regarding survival equipment for over-water operations. Whatever equipment you decide to carry must be readily accessible, and passengers must know how to use each item. As FAR 91.189 points out, the equipment must be "easily accessible in the event of a ditching without appreciable time for preparatory procedures." The moments before ditching are no time to be reading the instructions on the plastic bag the life vest came in or, worse, rooting about in the baggage compartment looking for the vests. If you're planning to operate over water, review ditching procedures with your passengers ahead of time. Demonstrate, insofar as you are able, the deployment and use of location equipment, emergency radios, and other survival gear. Similar preflight briefings should be made for the use of survival equipment provided for desert, mountain, or winter flying. (Suggested items for a compact, two-pound survival kit are available in AOPA's *Handbook for Pilots*.)

For high flyers, the normal and emergency use of oxygen equipment installed on the airplane should be covered in the preflight briefing. Many passengers are unaware of standard precautions such as removing lipstick before using oxygen. Passengers should, at the very least, know where and how to plug in their masks and how to adjust their masks for proper fit. Many of today's turbocharged airplanes can cruise higher than 20,000 feet msl, where the time of useful consciousness should oxygen equipment fail, is 10 minutes or less (at 24,000 feet, it's only 3 minutes).

Hypoxia is insidious; it may not be recognized immediately. Passengers should be aware of the warning signs of hypoxia, one of which is an increased feeling of well-being (insidious, indeed). Again, if the pilot has to cope with the failure of oxygen equipment or the loss of pressurization in a pressurized airplane, his first job is to get the airplane down to an altitude where more oxygen is available. There will be little time left over to troubleshoot the difficulty of apprise the passengers of what's going on.

A preflight briefing can be supplemented by printed cards that provide a diagram and description of the operation of the airplane's emergency exits and other instructions necessary for use of emergency equipment. Note we said *supplemented*, not replaced. Even Part 91.199 allows the crew to skip de briefing only if "the pilot in command determines that the passengers are familiar with the contents of the briefing." In the case of the Baron pilot mentioned above, that was apparently the assumption, although an assumption is certainly not a determination. The Mooney pilot mentioned didn't even have that excuse. If you must make an assumption, assume total ignorance on the part of your passengers.

Everything discussed above is part of the standard airline preflight briefing. The airlines know what these procedures save lives. They can do the same for general aviation flying. Pilots should develop a preflight briefing customized for their aircraft and their operations and treat the briefing as being as important as any other item on the preflight check list. When time is of the essence, a few sensible precautions pay off.