

## Critical Flight Safety Considerations

Studies done by AOPA's Air Safety Foundation have identified a finite set of causing factors that lead to the majority of GA accidents with injuries and fatalities. The ASF's 2007 Nall Report statistics state that pilots were the cause of 73.8% of all GA accidents and 79.1% of all fatal accidents.

**A safety minded conscientious pilot can minimize the likelihood of an accident by avoiding the following traps.**

- **Fuel Management.** Fuel mismanagement constituted nearly 9% of all GA accidents. Whether it is running out of fuel or fuel starvation even though there is fuel onboard, this type of accident happens nearly twice a week and is almost always avoidable.
- **Overloaded and/or out of CG.** General Aviation aircraft are reasonably limited in terms of payload and CG. Each aircraft's documents contain the aircraft's official "weight and balance" paperwork so the pilot can ensure the aircraft as loaded is safe to fly. An overloaded aircraft doesn't perform at POH performance values. The stall speed is higher than normal, and an aircraft that is out of CG can be uncontrollable.
- **High Density Altitude Operations.** Pilots should always be aware of the performance robbing effect of density altitude. Density altitude is an insidious danger, especially when it is particularly hot. It can have a major impact on an aircraft's takeoff and climb performance, especially at higher terrain and heavy weights.
- **Takeoff and Landing Accidents.** Although typically not deadly, landings and takeoffs are responsible for an inordinate number of accidents each year. According to the Nall Report, almost 57% of all accidents happen during takeoff and landing. Not surprisingly, a full 40% happen during landing. Wind and turbulence, unextended landing gear, loss of control, and midair collisions on final, are some of the hazards of airport operations.
- **Maneuvering Accidents.** Maneuvering flight has been the number one cause of fatalities in general aviation. During the last ten years, more than one quarter of all fatal accidents happened during maneuvering flight. Low altitude maneuvering accidents are usually fatal and often, but not exclusively, the result of a pilot operating an aircraft in marginal weather conditions.
- **Continued VFR Flight into IMC Conditions.** Almost always deadly, and not restricted to VFR pilots, continued VFR flight into IMC conditions is usually 100% fatal to non-instrument rated pilots, and surprisingly enough claims instrument rated pilots as well.
- **Controlled Flight into Terrain (CFIT).** CFIT accidents are usually attributed to IFR operations, but CFIT accidents also happen during VFR operations, especially at night.
- **Must Complete the Flight Mindset.**

As an AFNE pilot we want to help our passengers as much as possible. The more we know about the person and their needs, the more we want to deliver them to their destination. It is sometimes more difficult to disappoint a stranger than someone you know. Pilots have a strong personal motivation to finish what they start. After signing up for a mission, it is their nature to want to finish it. If a pilot has a personal obligation after the mission, there will be pressure to finish it. The closer to the destination, the greater the desire to complete the flight.