

From the FAASTeam News <http://www.faasafety.gov/hottopics.aspx?id=63>

## **Risk Management**

### **Consider the Unique Risks Faced for Each Flight**

In industry, risk management is the practice of identifying risks that have a high probability of occurring and/or have a high consequence if they do occur. Strategies are then developed for minimizing those risks. In aviation, it's up to us to become risk management experts. Fully 80 percent of accidents are the result of pilot error, so it's clear that we can improve our own personal safety by managing risks and avoiding pilot errors.

One high-probability risk is night flight. Although less than 5 percent of personal flying is done at night, fully 21 percent of all fatal accidents occur at night. To avoid this high-probability risk, pilots can minimize night flights or become extremely well educated about the unique hazards they face at night. An example of a high-consequence activity is inadvertently flying into a cloud, because fully 90 percent of VFR into IMC accidents are fatal. When pilots make sure that they never fly into a cloud, except when on an IFR flight plan, they can avoid this high-consequence risk.

Rather than consider every possible risk before flight, I take time to consider the unique risks posed by that flight. Invariably, those risks vary depending on conditions. For example, on one recent flight, a student and I concluded that the greatest risk posed was from nearby rain that might reach the airport before we returned from a training flight. To mitigate that risk, we identified an alternate airport to which we could return and we monitored the precipitation during the flight using NEXRAD radar on our G1000-equipped aircraft.

On another training flight, the weather was perfect. In that case, the student pilot and I identified that the biggest risk was violating the Class B airspace or the noise abatement procedures at our destination, located next to the San Francisco International Airport. Thus, we carefully reviewed all airspace and noise abatement rules and selected a cruising altitude that minimized the chance of an incursion.

You may face a wide range of potential risks on any flight, and you should be creative about teasing them out and then mitigating them. A few possibilities of risk are changing weather, flying at night in a poorly lit area, flying over mountainous terrain, experiencing fuel exhaustion, flying an aircraft with which you lack familiarity, flying with little recent experience, and flying when fatigued. Dozens of other risks are possible, and you should develop a plan for mitigating each risk. Mitigation plans might include delaying or canceling a flight, getting additional dual instruction, or bringing along a more experienced pilot or CFI on the trip.

Become a risk management expert and, before each flight, take the time to clearly identify the greatest risks you face on the flight and then take steps to mitigate those risks. Remember, the life you save may be your own.

*The FAASTeam has asked Max Trescott, the 2008 National CFI of the Year, to write a series of safety tips. Max, a San Francisco area-based Master CFI, specializes in teaching in and publishing training materials for glass cockpit aircraft. You can read more of his work at [www.maxtrescott.com](http://www.maxtrescott.com) and [www.g1000book.com](http://www.g1000book.com) or e-mail him at [info@sjflight.com](mailto:info@sjflight.com).*