



Assessing Risk in the Palm of Your Hand

One of the most effective ways for a pilot to proactively assess risk for a given flight is with a Flight Risk Assessment Tool, or FRAT. They're simple to use and many are available as apps on your smartphone or tablet.

How It Works

Although designs can vary, FRATs generally ask a series of questions that help identify and quantify risk for a flight. The FAA Safety Team's current FRAT tool (an automated spreadsheet available at go.usa.gov/xkhJK) follows the PAVE checklist, covering questions on the Pilot, Aircraft, enVironment, and External Pressures. For example, you may be asked how much rest you've had, how much time you've had in the aircraft, and what the weather conditions are for your destination. Based on the answers you supply, a total risk score is calculated. The score will fall within one of three risk categories: Green (low), yellow (medium), and red (high).

With a clear in-the-green score, you might be tempted to blast off with unabated zeal. Not so fast. A FRAT is not meant to make your go/no-go decision for you. It is merely a tool to help you plan your flight and think through a more complete range of hazards and risks. When using a FRAT, it's a good idea to create numerical thresholds that trigger additional levels of scrutiny prior to a go/no-go decision for the flight. For example, a score that's on the high end of the green scale may still warrant further analysis. The pilot should discuss what the highest scoring risks are and attempt to mitigate those risks.

If your score falls in the yellow, try to mitigate some of the higher scoring items. That might entail waiting for the weather to improve or switching to an aircraft you have more experience with. If the score is still in the yellow, bring in the opinion of a designated "contact" person such as a flight instructor or an FAA Safety Team (FAASTeam) Representative. They may be able to help think of ways to further mitigate some of the risks for your flight.

If your score falls in the red zone, you should seriously consider cancelling the flight unless the risks involved can be safely mitigated. It's important to not allow the external pressures involved with carrying on with the flight (e.g., attending your son's graduation ceremony) interfere with your go/no-go decision. You (and your passengers) may be disappointed, but it's always better to be wishing you were in the air than wishing you were on the ground!

Introducing the FAAST FRAT

No FRAT can anticipate all the hazards that may impact a particular flight, but there are some common hazards that GA pilots encounter regularly. "Unfortunately, most FRATs are operationally specific to commercial flying," says J.B. Williams, a FAASTeam Operations subject matter expert in the FAA's General Aviation and Commercial Division. "They can be

used by a GA pilot, but since they're not targeted to that type of operation, they offer a more generic risk assessment." That's precisely why Williams worked alongside with National FAASTeam Product Manager John Steuernagle to produce an easy-to-use FRAT specifically targeted at single pilot GA operations. "Our goal was to make the FRAT time investment for pilots short, but still provide all the tools they need to effectively identify and manage risk," said Williams.

Among the FAAST FRAT's standout features is the ability to capture and send an email of the risk assessment. This may prove valuable for student pilots who want to send their instructor a copy before a flight. Williams is also working on adding a 180 degree zoom feature that would present an overhead view of the pilot's location. This would help a pilot become more aware of the terrain and obstacles at an unfamiliar airport. Another unique element of the FAAST FRAT is a safety resource feature that automatically pulls safety discussions and notices from FAASafety.gov.

The FAAST FRAT is now in the final stages of development and testing. We hope to make it available on a smartphone or tablet near you later this year!

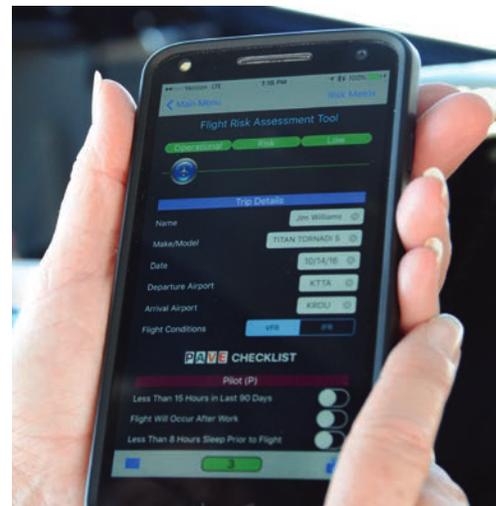


Photo by Paul Cianciolo

Tom Hoffmann is the managing editor of FAA Safety Briefing. He is a commercial pilot and holds an A&P certificate.