If At First You Don't Succeed...

The evidence indicates that after two approaches you should try somewhere else.

By Harry Kraemer

THE CREW OF THE LEARJET 23 was on their second approach to Houston, Texas when they crashed short of the runway. In Spencer, Iowa, the pilot of a Cessna 402 crashed after his third missed approach there. Both of these accidents have one thing in common: the pilot decided to try again after one or more missed approaches.

When you arrive at the missed approach point, you have several options. You might decide to try the approach again and again. How safe is that after several attempts? Are you using fuel you might need to get to a suitable alternate? If you fly for a company, does your operations manual contain guidance about this? Even if you're a single-pilot operator, what are your personal limits on missed approaches?

Stress can affect your decision making after a missed approach. You might know the right thing to do, but find it difficult to carry out. This is especially true when you have passengers onboard and are trying to meet a schedule. You know it's safer to go to another airport, but you might feel pressured to keep trying and go a little lower or maybe just try one more. You might even know someone who gets away with it on a regular basis. This kind of behavior can lead to a "poor judgment" chain.

FAA Advisory Circular (AC) 60-22, "Aeronautical Decision Making" defines a poor judgment (PJ) chain as "a series of mistakes that may lead to an accident or incident. (1) One bad decision often leads to another and (2) as a string of bad decisions grows, it reduces the number of subsequent alternatives for continued safe flight."

As a pilot gains experience and gets successful in cases like these, he/she can get into an operation pitfall. AC 60-22 states: "Pilots, particularly those with considerable experience, as a rule always try to complete a flight as planned, please passengers, meet schedules and generally demonstrate that they have 'the right stuff.' These tendencies ultimately lead to practices that are dangerous and often illegal and may lead to a mishap."

We all have probably experienced these tendencies at one time or another. It's important to guard against get-there-it is or duck-under-syndrome. Get-there-itis definitely affects your decision-making skills. Duck-under-syndrome leads pilots to go below minimums based on the belief that there is a "fudge" factor built in to the minimums. Nothing could be further from the truth.

Too Many Tries

I reviewed the NTSB database for accidents that occurred during the missed approach. Over 90 percent of these accidents occurred after the second missed. Some occurred after the third and fourth missed. One accident occurred at night, after the pilot had been awake for 21 hours. The weather at his destination was ¼-mile visibility with fog.

Executing a missed when the weather is below minimums is a matter of discipline. During preflight planning, it's important to select one or more reasonable alternates. These airports could be close to your destination or even your departure airport (if fuel permitted). Review the weather systems you might encounter and realistically assess the possibility that your destination or alternates might go below minimums. If you plan for the possibility before departing, decision making in the cockpit becomes much easier.

Constant Updates

It's important while en route to contact Flight Watch to update conditions. If the flight is a long one, you'll probably need to do this several times, which gives you a trend of how things are going (the same, better, worse, etc.). When conditions are at or below minimums at destination, it's time to consider your alternate(s).

Check conditions at your destination and alternates as early as possible en route while workload is at a minimum. This gives you more time to consider options. Are your alternates good and forecast to remain that way? If so, you could try one approach at destination if fuel permits and the weather is still above minimums when you arrive.

Is the weather deteriorating at your alternate? You need to figure out whether you can still go there or whether another alternate is needed.

Suppose you arrive at your original

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Missed Approach Planning

Consider the following as you prepare for the possibility of a missed approach during preflight:

- Don't just select one alternate that fills the square on the flight plan to meet FAA requirements. Instead, select several alternates you know will work if needed.
- Plan several points during the flight in which you'll contact Flight Watch to get updated on conditions so you'll have time to weigh options.
- Make a commitment to yourself *before* departing that you won't begin the approach if the weather is reported below minimums.
- Tell yourself you won't attempt more than two approaches at destination if the weather is at minimums and isn't likely to improve.
- Make a commitment that you won't bust minimums or "duck under."

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destination and the weather is reported below minimums. A pilot operating under FAR 91 can do a "look-see" approach. A FAR 135 operator in this situation cannot begin the final approach segment of an instrument approach procedure unless the most recent weather is reported at or above the lowest authorized landing minimums. FAR 121 operators must follow the operations specifications for their company, which takes into account the experience of the crew and the equipment they're flying.

Both FAR 135 and 121 operators are in a much more structured environment. They usually operate with two pilots. Consider your experience, proficiency and the equipment you have onboard, e.g., autopilot, GPS, etc. that can reduce workload.

Will Conditions Improve?

Suppose a missed approach is necessary. Before starting the approach, you should have reviewed the weather and the likelihood that the conditions would either improve or remain the same. An accident resulted when the pilot of a Twin Comanche attempted a second approach into Hastings, Nebraska with a reported overcast at 100 feet and light winds. Given the conditions, it wasn't likely things would improve by the second approach.

Decide Beforehand

When you must make a decision after a missed, you must rely on whatever knowledge and information you have at the moment. Remember, you're not likely to make good decisions while under stress, emotionally upset or under pressure for quick action. The decisions we make while flying often deserve more consideration, sometimes more than we have time for at the moment. My personal rule is to try no more than two approaches to an airport, then I head elsewhere. My alternates are selected before flight.

Decisions are usually based on five elements: facts, knowledge, experience, analysis and judgment. Passengers and schedules aren't part of this equation.

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Sharpening Your Missed Approach Skills

Some of the accidents I reviewed resulted from a lack of mental discipline by the pilot or pilots that a missed approach might be required and they weren't prepared to handle it when the time came.

If you're still IMC when passing the final approach fix, your mindset should be that a missed approach is more likely than a landing.

Other accidents occurred because the pilot couldn't cope with getting the airplane properly configured during the transition from the approach to the missed approach.

It's important to practice missed approaches from both precision and non-precision approaches so you'll be able to make a smooth transition when configuring the airplane for a climb.

Review your approach charts and find some unusual missed approach procedures to practice, not just the usual climb straight ahead and turn variety.—*HK.*