

# Risk Management Decision Path



## PERCEIVE

HAZARDS associated with:

- Pilot
- Aircraft
- enVironment
- External Factors

## PROCESS

RISK LEVEL by assessing:

- Consequences
- Alternatives
- Reality
- External Factors

## PERFORM

RISK MANAGEMENT by deciding whether to:

- Transfer
- Eliminate
- Accept
- Mitigate



Federal Aviation Administration

# Tips for Teaching Practical Risk Management

For additional information go to:  
[faasafety.gov](http://faasafety.gov)



For questions about aviation safety, contact:

Your Local  
Federal Aviation Administration  
Flight Standards District Office

Prepared by the Department of Transportation  
Federal Aviation Administration

## PURPOSE



Flying involves risk. To stay safe, you need to know how to judge the level of risk, how to minimize it, and

when to accept it. This guide introduces risk management tools that you can use and teach to your flight training clients.

## PROFILE

A hazard is a condition, event, object, or circumstance that could lead to an undesired event -- like an accident. For example:

- Pilot is unfamiliar with local area, procedures, or terrain features.
- Weather encountered in flight is worse than forecast.
- Airport has unusual features, such as high terrain or ongoing construction.
- Flight dispatcher asks you to be sure to return the aircraft on time, because it is needed for someone's practical test later in the day.

Risk is the potential impact of a hazard that you do not control or eliminate. The level of risk is measured by the number of people or resources affected (exposure); the extent of possible loss (severity); and likelihood of loss (probability).

## PRACTICES

A "teachable moment" occurs when a student can clearly see how specific information or skills can be used in the real world. You can find, or create, teachable moments on risk management in every flight training activity: pattern work, airwork in the local practice area, cross-country, flight review, or instrument proficiency check. For example:

### Sample Scenarios:

1. The pilot appears harried, fatigued, or stressed before a flight. Call attention to the consequences (risk) that can arise when the pilot is distracted, and ask what can be done to lower the risk.



2. Ask "what-if" questions on the risk of a mechanical issue that is not clearly a "no-go" item:

- What do you do if you find fuel stains under a wing?
- What risk arises in a day VFR flight if the vacuum pump is inoperative? (Remember to discuss 14 CFR 91.213!)

3. Take the pilot out of his or her comfort zone by going to a place with unfamiliar airports, procedures, or terrain. Use conditions that you find (e.g., out-of-service equipment) to teach the difference between what is legal and what is safe for this particular pilot and aircraft.

The Perceive-Process-Perform model offers a structured way to manage risk:

**P**erceive hazards by looking at:

- P**ilot experience, currency, condition
- A**ircraft performance, fuel
- e**nvironment (weather, terrain)
- E**xternal pressures (appointments)

**P**rocess risk level by considering:

- C**onsequences posed by each hazard
- A**lternatives that eliminate hazards
- R**eality (avoid wishful thinking!)
- E**xternal pressures (get-home-itus)

**P**erform risk management:

- T**ransfer - can you consult someone?
- E**liminate - can you remove hazards?
- A**ccept -- do benefits outweigh risk?
- M**itigate -- can you reduce the risk?

## POSTFLIGHT

To reinforce the risk management lessons of the flight, ask questions that let the pilot learn by reflecting on his or her actions and decisions at key moments:

- What went well?
- What could have been better?
- What would I do differently?
- What additional knowledge and skills do I need to safely handle (or avoid) this kind of situation?