

# Facilitator Notes

## After the first segment recap the following:

### Risk

What is risk?

- Recap the types of risk:
  - **Identified Risk** is the risk that has been determined through various analysis techniques.
    - In other words, the risk was spotted before we went flying.
      - we noticed the landing runway was pretty short or during the weather briefing we determined the destination crosswind was going to be pretty brisk.
  - **Unidentified Risk** is the risk that has not yet been identified. This type of risk was never spotted by us before we went flying.
    - Maybe the weather was not as it was forecast to be, or the destination runway closed, or the outdated GPS database took us to a closed airport.
    - Some unidentified risks are subsequently identified after a mishap occurs. Some risk may have existed but was never revealed to the pilot.
  - **Unacceptable Risk** is the risk that cannot be tolerated by the managing activity. It is a subset of the identified risk that must be controlled or eliminated.
    - These are easy ones,
      - Don't take off on a 4 hour flight with 3 hours or fuel on board.
      - If you need 2500' to take off don't try a 2000' runway.
    - Many times if you take an unacceptable risk you will get the type of attention from the FAA that you really don't want!
  - **Acceptable risk** is the part of identified risk that is allowed to persist without further action.
    - As pilots we do this everyday we fly. If I could only fly on calm CAVU day I sure would, but you simply cannot fly without some risk involved. The trick is learning to identify when a risk is there and becoming too much.
  - **Residual risk** is the sum of acceptable risk and unidentified risks. This is the total risk passed on to the user (You and me!!!!)
    - This is the risk you cannot avoid if you decided to go flying. You made the decision that everything you could evaluate was within yours and your aircraft's ability. And what can you do about unidentified risks?
  - **Total Risk** is the combination of risk we have identified beforehand and the risk we never saw coming.

## **Margins.**

- What will increase the safety margins?
  - Anything that will help keep your pilot capabilities up and your task demands down.
- What will cause a change in the pilot's capabilities line to increase?
  - Rest
  - Quality training
  - Currency
  - Experience
  - I'M SAFE – (the I'M SAFE checklist will be covered in the next part)
    - Illness
    - Medication
    - Education
    - Stress
    - Alcohol
    - Fatigue
    - Emotions
- What will cause the demands of the task line to increase?
  - Changes in the required workload.
  - Approaches, landings, and maneuvering flight.
  - An unexpected change in weather in flight condition.
  - Passenger distractions.
  - An unexpected mechanical problem
  - Approaches during poor weather

## **The Elements of an individual that come into play when evaluating risk**

- No two people evaluate risk in the same way.
- Some people might find a risk to be acceptable when another may not. , an ATP may not even notice a condition that would intimidate a new Private Pilot.
- The elements that help define these differences in evaluating risk are :
  - Education
  - Predisposition
  - Attitude
  - Training
  - Background
  - Experience

## **Risk Assessment Matrix**

- It is a tool to use to quantify risks
- A downloadable risk assessment is at [www.faa.gov](http://www.faa.gov)
- Discuss the difference between the top of the matrix, the Severity, and the left side of the matrix, the likelihood of the event occurring
  - The Severity is the worst “credible” outcome
    - Catastrophic – results in fatalities, total loss
    - Critical – severe injury, major damage

- Marginal – minor injury, major damage
- Negligible – less than minor injury, less than minor system damage
- The Likelihood is the probability that an event will occur
  - Probable – an event will occur several time
  - Occasional – an event will probably occur sometime
  - Remote – an event is unlikely to occur, but it is possible
  - Improbable – an event is highly unlikely to occur

## **Returning from the break, recap the following:**

The purpose of this presentation is not to make you an expert on the use of the models presented here, but to help you in recognizing the risks that are associated with your flight. The FAAS Team wants to help you identify areas of in your flight that may hold the greatest amount of risk so that you can avoid making a mistake. If we can help you categorize and mitigate your risks then we will lower the number of aviation accidents and incidents in the United States. That is a goal we can all want to achieve!

If we were to talk about risk in financial terms, then it would be safe to say that the greater the risk the greater the return or reward. However, in general aviation taking greater risks is not typically rewarded. In fact, aviation is generally unforgiving of mistakes. When we take a financial risk that does not pan out we will lose some of our money. When we take risks in aviation that do not pan out, the result can be that we will lose our life or may be some one close to us. Do not get me wrong, there are inherent risks that we assume when we fly, just as there are risks that we assume when we drive a car.

So what have we covered some strategies for how to identify risks and some strategies for mitigating those risks.

We talked about the 5 P model as a way to help you identify the variables in your flight how to break down the risks in the different phases of flight.

We showed you the 3 p model to help you identify and mitigate the risks you identify. All of us use this model to one degree or another when we identify a problem.

The 3 P model is a continuous process of

- Perceiving
- Processing
- And Performing

Do not forget the fourth item for the 3 P process is to EVALUATE. This step is what will tie the whole model together in a continuous loop.

We showed you the risk assessment matrix to help you quantify risk and to use as a tool to prioritize the risk that you identify

We have talked about identifying/ establishing and working within your own safety margins. In other words, you should establish your own set of “personal minimums”. We

have covered how those margins can decrease based on the environment and your and that we can maintain those margins by identifying and mitigating risks.

The most important thing for you to take away from the presentation is that there are risks associated with every flight and every activity in our lives. The models presented are intended to give you some tools to help you make the right decisions and to help you avoid an accident