



FAA UAS SYMPOSIUM

How To Be a Responsible Pilot

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Aeronautical Decision Making

Risk Management

Real-World Scenario



Being Responsible

That's just plain old common sense!



Being Responsible



Common sense is gained through our experiences.

We sometimes have those experiences because we didn't have any common sense.



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Being Responsible

Good judgement can be taught.



Being Responsible



Despite all the changes in technology to improve flight safety, one factor remains the same...



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Being Responsible

...the Human Factor.



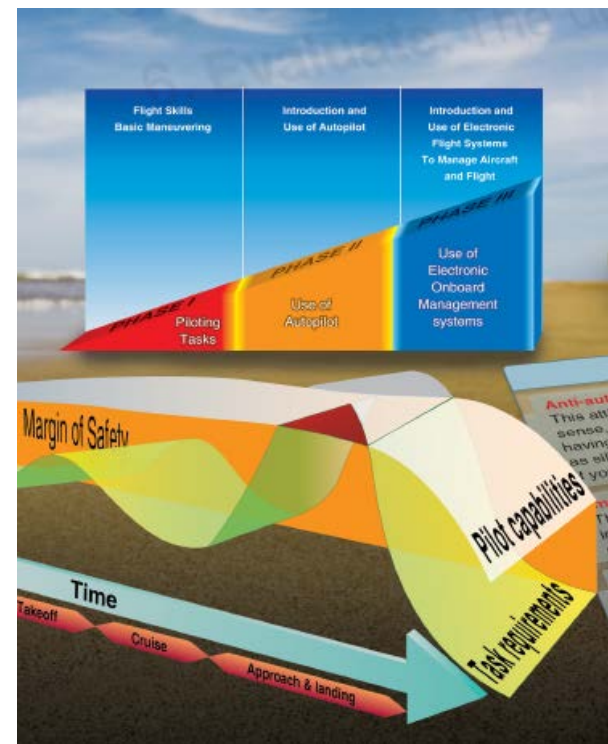
Aeronautical Decision Making



Aeronautical Decision Making



- Mental process used by pilots
- Consistently determine the best course of action
- Based on a given set of circumstances



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Aeronautical Decision Making



Two Defining Elements

- **Hazard**
 - Real or perceived condition, event, or circumstance that a pilot encounters
- **Risk**
 - Assessment of the single or cumulative hazard(s) facing a pilot



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Aeronautical Decision Making



- Identifying hazardous **attitudes**
- Modifying **behavior**
- Recognizing and coping with **stress**
- Assessing **risk**
- Use of all available **resources**
- Self-**evaluation**



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Risk Management



Risk Management

Proactively identify safety-related hazards and mitigate the associated risks



Risk Management

Risk Likelihood		Risk Severity				
		Catastrophic A	Hazardous B	Major C	Minor D	Negligible E
Frequent	5	5A	5B	5C	5D	5E
Occasional	4	4A	4B	4C	4D	4E
Remote	3	3A	3B	3C	3D	3E
Improbable	2	2A	2B	2C	2D	2E
Extremely Improbable	1	1A	1B	1C	1D	1E

Real-World Scenario



Real-World Scenario



It's your first commercial UAS contract!

It's a big project that needs to be done ASAP. There is a potential for future contracts based on your work.



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Real-World Scenario



You arrive on site (3 hours away).

Weather and location are all within Part 107 requirements.



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Real-World Scenario

During preflight, you notice a nick in your propeller blade.



Real-World Scenario

You realize you were so excited for your first mission, you left without bringing any spares.

You've flown before with a similar nick, but this one is just a little bit deeper.



Real-World Scenario



Real-World Scenario

- **Hazards**
 - Nick in propeller blade
 - Pressure to complete mission
 - Safety of flight
- **Risks**
 - Loss of control
 - Loss of revenue
 - Loss of equipment



Questions?

