

UAS Risk Awareness

Key Elements Surrounding the Safety Challenge Posed by Small UAS or Drones. What can be Done to Help Mitigate Risk?

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• [Y]ou don't have to be a manned pilot to understand and embrace a safety culture. We all share the same sky, and we must all consider the impact of what we do on everyone.

Dallas Brooks, Chairman, AUVSI

Director, Raspet Flight Research Lab, MSU

It Could Happen

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https://www.youtube.com/watch?v=RKIKP4gLl2c&t=15s

Questions We Probably Need to Ask **EMBRY-RIDDLE** Aeronautical University

- What do we take away from this video?
- What was missing in this scenario?
- Angles for prevention?
- How widespread is this issue or can it be?

Metrics

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 Government Manufacturers COMMERCIAL Industry Organizations JA / FX Advocates **AUVSI** American National Standards Institute **AVIATORS CODE** INITIATIVE EMBRY-RIDDLE Helicopter Association Aeronautical University nternational

Advocacy Pathway

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Aviators Code Initiative



AVIATORS CODE INITIATIVE

Innovative tools advancing aviation safety and offering a vision of excellence for aviators.

The ACI materials are for use by aviation practitioners – pilots, mechanics, organizations, and the entire aviation community. Designed to be adaptable by the implementer, they are provided without charge and periodically updated.

The Codes of Conduct
UAS Materials
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AVIATION MAINTENANCE TECHNICIANS CODE	AVIATORS CODE	FLIGHT INSTRUCTORS CODE	FLIGHT SAFETY IN THE DRONE AGE CODE	GLIDER AVIATORS CODE
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General Responsibilities of UAS Pilots

UAS pilots should:

- a. make safety a top priority,
- **b.** seek excellence in airmanship,



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- c. adopt sound principles of aeronautical decision-making, and develop and exercise good judgment,
- d. use sound principles of risk management,
- e. maintain situational awareness, and adhere to prudent operating practices,
- f. aspire to professionalism,
- g. act with responsibility, integrity, and courtesy, and
- h. adhere to applicable laws, regulations, and industry guidance.

Manned Aircraft and People on the Surface **EMBRY-RIDDLE** Aeronautical University

UAS pilots should:

a. manage and avoid unnecessary risk to manned aircraft, and to people and property on the surface, and

b. avoid operations that may alarm or disturb people on the surface or in manned aircraft.





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Training and Proficiency



UA<mark>S pilots</mark> should:

a. participate in regular training to maintain and improve proficiency beyond minimum requirements,

- b. pursue a rigorous, lifelong course of aviation study,
- c. remain vigilant and avoid complacency,
- d. train to recognize and effectively respond to emergencies, and

e. maintain an accurate log to document your experience and improve future aeronautical decision-making and risk management.

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Security and Privacy

UAS pilots should:

a. take measures to maintain the security of persons and property affected by UAS activities,

b. remain vigilant and immediately report suspicious, reckless, or illegal UAS activities,

c. become familiar with current security and privacy rules and best practices,

d. avoid controlled and special activity/special use airspace except when approved or necessary in an emergency, and

e. recognize and respect the public's reasonable expectation of privacy.





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Environmental Issues

UAS p<mark>ilots should:</mark>

a. recognize and seek to mitigate the environmental impact of UAS operations,

b. minimize the discharge of fuel, oil, and other chemicals into the environment during refueling, preflight preparations, servicing, and flight operations,

c. recognize that some UAS components, including batteries, other fuels, and lubricants, may be hazardous and require special handling procedures,

d. respect and protect environmentally sensitive areas, and

e. avoid flight over noise-sensitive areas, and comply with applicable noise-abatement procedures.





Use of Technology

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UAS pilots should:

a. become familiar with UAS equipment and related technologies,



b. make effective use of technology by integrating technical guidance and solutions into your standard operating procedures,

c. practice effective system monitoring and ensure you are prepared to revert to manual operations if available,

d. Identify failure modes, and where practicable, test and deploy fault-tolerant or redundant equipment, and

e. use, and understand the limitations of, positionindicating technologies including detect-and-avoid (DAA), if available and authorized.

Advancement Of UAS Aviation

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UAS pilots should:

a. advance and promote aviation safety as well as adherence to the UASPC,

b. collaborate with or assist organizations that advance UAS aviation and contribute to society at large; encourage other UAS pilots to do so as well,

c. demonstrate appreciation for aviation professionals and service providers,

d. advance an aviation culture that values openness, humility, positive attitudes, and the pursuit of personal improvement,

e. promote ethical behavior within the UAS community, and

f. mentor new and future UAS pilots.

Make it right

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Choose the correct path