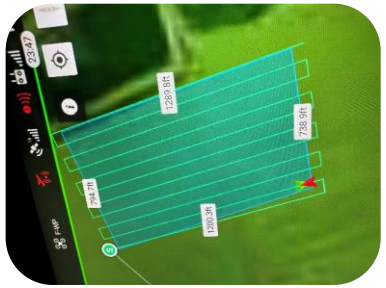
Applying UAS Technologies during a Wildlife Hazard Assessment



Applying UAS Technologies during a Wildlife Hazard Assessment

Introduction

Hazards, such as wildlife, are an inherent component of the aviation industry

From 1990 – 2022 ➡ 272,016 strikes U.S.

Approximately 7% (n=18,851) caused damage to aircraft

Annually ➡ 105,843 hours of aircraft downtime and $229 million in direct and indirect costs

Airports operating under Title 14 C.F.R. Part 139 ➡ conduct a Wildlife Hazard Assessment (WHA) when certain “strike incidents” occur on or near the airport

Provides the scientific basis for the development and implementation of a wildlife hazard management plan

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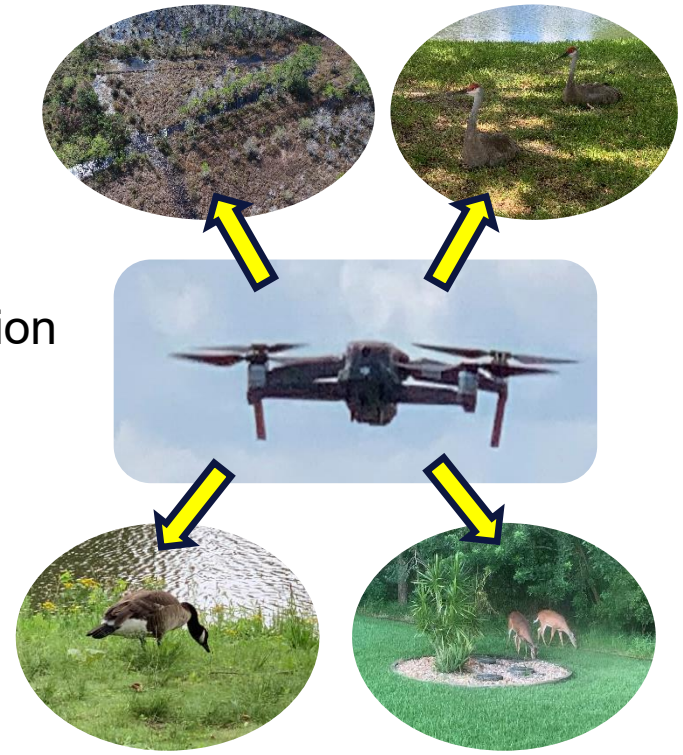
Purpose of this Ongoing Study

Investigate how UAS and related technologies could be used to support the airport operator's safety management efforts during a WHA

- Apply the SMS tenets to ensure safe operations of UAS at an airport environment
- Explore best practices and create workflows that facilitate the application of UAS during a WHA
- Identify the benefits of using UAS and related technologies during a WHA
- Identify the challenges associated with safe UAS operations at and around the airport environment



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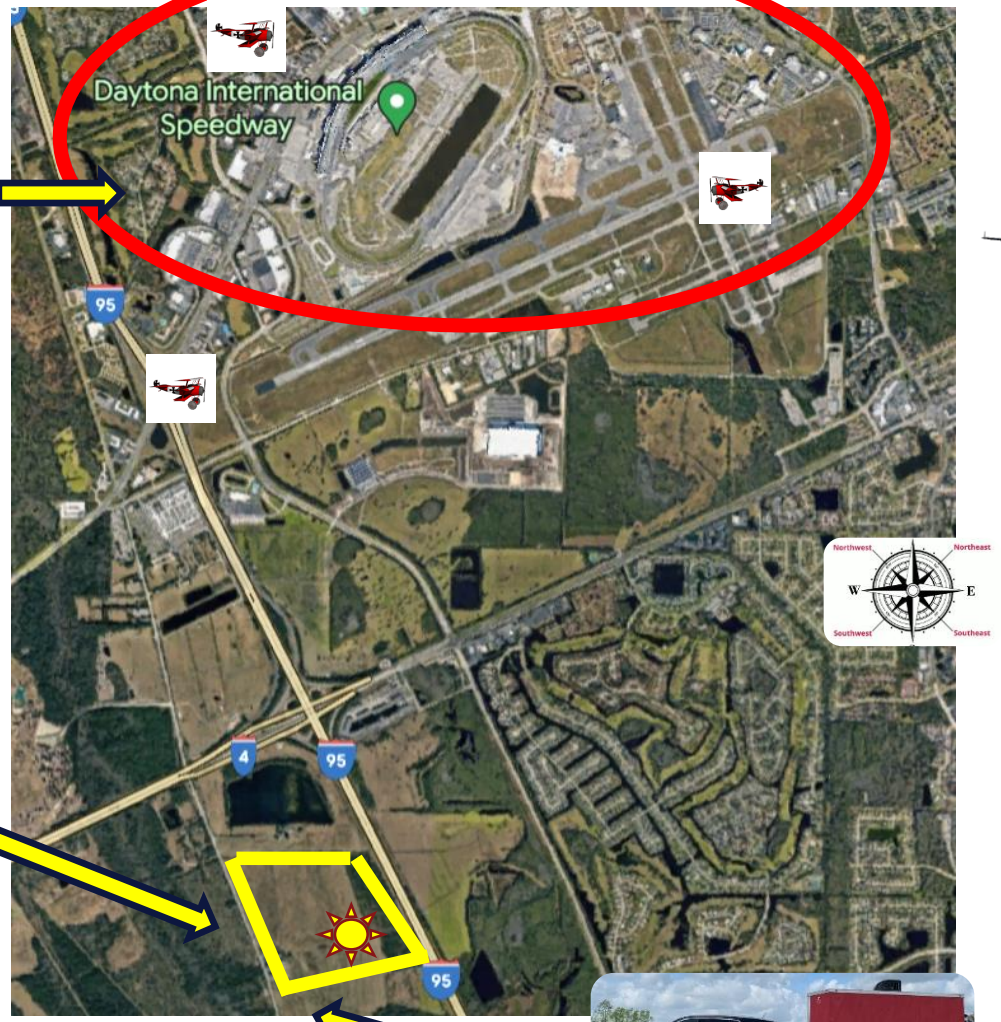
KDAB



Data Collection Area

Trailer Staging Area

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Preliminary Findings

Cows

Wood Storks

Cattle Egrets & Cows

White-tailed Deer

Coyotes

Man-made Activities

Natural Habitats

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Conclusions

The safe application of drones during a WHA can help

- Obtain data and information more thoroughly and faster over large areas including
  - Areas that are difficult to access by ground-based means
  - Areas that are distant from the data collection point(s)
- Identify habitats and land uses affecting the presence and behavior of wildlife
- Observe wildlife species that do not congregate in group(s)
- Obtain vital information that could be later analyzed by a QAWB







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Thank you!

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