



WILDLIFE HAZARD MANAGEMENT



OVERVIEW FOR NEW FAA ADVISORY CIRCULARS, REPORTS, AND INITIATIVES

FAC WEBINAR – ENVIRONMENTAL COMMITTEE

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FAA
Office of Airports

Webinar Focus:

- o **AC 150/5200-38** *Protocol for the Conduct and Review of Wildlife Hazard Site Visits, Wildlife Hazard Assessments, and Wildlife Hazard Management Plans* (August 20, 2018)
- o **AC 150/5200-36B** *Qualifications for Wildlife Biologist Conducting Wildlife Hazard Assessments and Training Curriculums for Airport Personnel Involved in Controlling Wildlife Hazards on Airports* – (January 24, 2019)
- o **Draft AC 150/5200-33C** *Hazardous Wildlife Attractants On or Near Airports* – (public comments received by February 28, 2019)
- o **FAA National Wildlife Strike Database Serial Report Number 25**
FAA Initiatives - Summary of Strike Data Analysis - Report Conclusions

FAA OVERSIGHT of WILDLIFE HAZARDS

REGULATORY GUIDANCE



DATA COLLECTION



OUTREACH / EDUCATION



RESEARCH



PARTNERSHIPS



FUNDING



AC 150/5200-38

PROTOCOL FOR THE CONDUCT AND REVIEW OF WILDLIFE HAZARD SITE VISITS, WILDLIFE HAZARD ASSESSMENTS, AND WILDLIFE HAZARD MANAGEMENT PLANS

1. Provides guidance for WHSVs, WHAs, WHMPs, and Continual Monitoring
2. Provides protocol for the approval (or partial approval) of WHMPs with regard to NEPA and other environmental laws
3. Provides Airport Certification Safety Inspectors with guidelines/ templates regarding review of WHAs & WHMPs
4. Provides Airports & Biologists checklists for WHAs & WHMPs

WHA VS WHSV

WHSV

- ✓ Duration = 1-3 Days
- ✓ Data collection = Dawn / dusk observations made during full day site visit
- ✓ Deliverable = Report

WHA

- ✓ Duration = 12 Months
- ✓ Data collection = Monthly dawn / dusk point count surveys at pre-determined stations
- ✓ Deliverable = Report



- ✓ Wildlife strike history
- ✓ Current mitigation activities
- ✓ On-site and off-site attractants
- ✓ Recommendations



Wildlife Hazard Site Visit

1. Recommended that a QAWB conduct WHSV
2. Typically 1-3 days in length
3. Field observations (wildlife, habitats, operations, strike history, communications, current mitigation techniques, etc.)
4. Report prepared (with recommendations)
5. GA airports – may use WHSVs as basis for WHMP
6. Part 139 airports – may use WHSVs to investigate triggering events, land use changes, etc...



Wildlife Hazard Site Visit

VERY IMPORTANT!!!

1. The FAA has **no requirement** for GA* or Part 139 airports to conduct WHSVs.
2. FAA will review and **ACCEPT** WHSV reports and GA WHMPs –FAA does **NOT “APPROVE”** these documents.
3. The Regional and ADO offices should decide who reviews these documents.
4. NEPA does not apply to GA WHMPs because there is no Federal Action.

*GA is used in this presentation to refer to non-certificated airports.

Wildlife Hazard Assessment

1. MUST be conducted / prepared by a QAWB*
2. MUST be 12 consecutive months of surveys
3. MUST include Field observations (wildlife, habitats, operations, strike history, communications, current mitigation techniques, etc.)
4. MUST have Report prepared (with recommendations)
5. Part 139 airports – WHA is foundation of WHMP
6. The FAA reviews and **APPROVES** WHAs (Part 139)

NOTE: WHAs are not required every 5 or 10 years. It is at the discretion of the ACSI to determine when a new WHA should be conducted.



Wildlife Hazard Management Plan

1. WHMP requirements are listed in Part 139.337(f) and Ch. 3 of AC-38
2. Not required to be prepared by QAWB (but a QAWB should be involved)
3. Includes prioritized actions and target dates for passive and active mitigation of wildlife hazards at airports
4. Typically requires coordination and permitting with other local, state and federal agencies
5. AC-38 provides the pertinent federal laws



Why the Change?

National Environmental Policy Act (NEPA) Compliance

- **Past Interpretation:**
 - The WHMP was covered by a Categorical Exclusion
 - That ALP approvals/funding required NEPA review
 - Silent on other elements that had no further FAA Action
- **Interpretation going forward:**
 - NEPA applies to all elements of a WHMP
 - Modifications to WHMPs require review
 - NEPA review does not apply to administrative changes



Why is NEPA required?



➤ Part 139.337

- (e) When the **Administrator determines** that a Wildlife Hazard Management Plan is needed, the certificate holder **must formulate** and **implement** a plan using the Wildlife Hazard Assessment as a basis. The plan must be submitted to, and **approved** by, the Administrator prior to implementation;
- Approval is considered a federal action (issuing a permit, providing funds, leasing land etc...) that requires NEPA review.

****Under NEPA, Federal agencies must identify, evaluate and document the **environmental** and **social impacts** when considering a major federal action****

Letters of Approval

➤ Full Approval

- Approval of the plan meets Part 139 (CATEX), and;
- Approval of all the elements (All within one or more CATEXs)

➤ Mixed Approval

- Approval of the plan meets Part 139 (CATEX), and;
- Approval of some elements within the plan (those that can be CATEXed)
- List of actions not approved



❖ Letters of Approval need to be added as an appendix to the WHMP in the Airport Certification Manual.

Policy and Strategies

- ✓ WHMPs are reviewed annually and only changed/modified when needed
- ✓ Modification of a WHMP does not mean complete review of the whole plan (only those elements affected)
- ✓ Non-substantial/administrative changes are not modifications (name changes) and are not subject to NEPA review
- ✓ Information on ongoing maintenance in existing WHMPs are “continuing activities” and not subject to NEPA review
- ✓ Endangered Species Act (ESA) requires consultation with USFWS if listed species affected by elements in WHMP

How to Facilitate WHMP Approval

- ✓ Regions/ADOs will develop protocol for how their ACSIs and EPS should work together on WHMP approval
- ✓ Coordinate early with other agencies
- ✓ Education on wildlife strikes and public safety may be warranted
- ✓ Explain airport history regarding wildlife presence (ongoing maintenance and mitigation activities, depredation permits)



What is FAA HQ doing to help?

- ✓ Considering developing new CATEX's (e.g., pyrotechnic use)
- ✓ Providing assistance to field offices in responding to new/modified WHMPs
- ✓ Developing and providing training
 - ✓ Updating internal training based on previous discussions
 - ✓ Offering internal/external webinars
 - ✓ Educating industry about changes



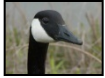
Continual Monitoring

1. AC 38 provides a protocol for continual monitoring once an airport has completed a WHA
2. It is a best management practice and not required
3. The recommended methodology is very similar to that of the WHA
4. Survey data and records should be maintained and an annual report prepared.



FAA Regulations, Advisories and CertAlerts

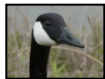
Advisory Circulars



AC 150/5200-32B REPORTING WILDLIFE AIRCRAFT STRIKES. May 31, 2013 (May 31, 2013)



AC 150/5200-34A CONSTRUCTION OR ESTABLISHMENT OF LANDFILLS NEAR PUBLIC AIRPORTS. January 26, 2006



AC 150/5200-33B HAZARDOUS WILDLIFE ATTRACTANTS ON OR NEAR AIRPORTS 8/28/2007



AC 150/5200-36A Qualifications for Wildlife Biologist Conducting Wildlife Hazard Assessments and Training Curriculums for Airport Personnel Involved in Controlling Wildlife Hazards on Airports January 2019

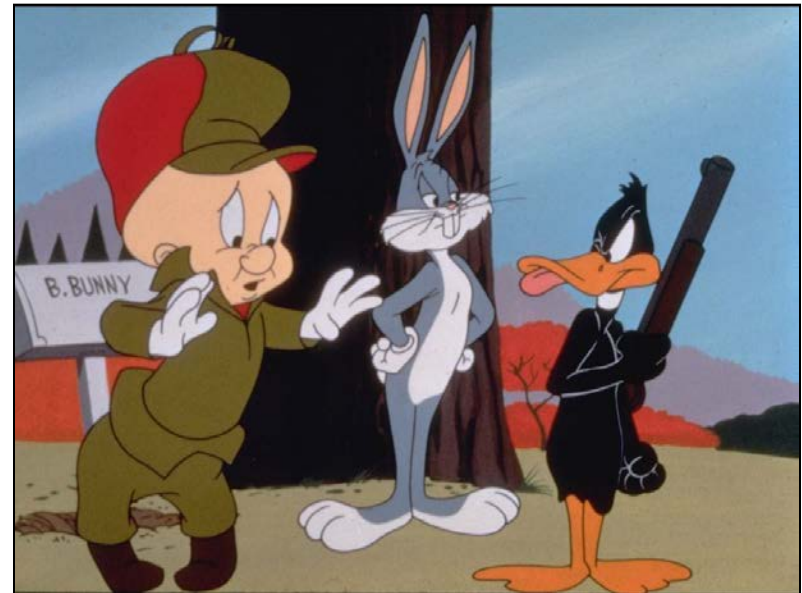


AC No: 150/5200-38 PROTOCOL FOR THE CONDUCT AND REVIEW OF WHSVs, WHAs, WHMPs and CONTINUAL MONITORING August 2018

AC 150/ 5200-36A *Qualifications for Wildlife Biologist Conducting Wildlife Hazard Assessments and Training Curriculum for Airport Personnel Involved in Controlling Wildlife Hazards on Airports* **January 2019**

Changes to AC 150/ 5200-36B include:

- **Removal of 8 hour restriction**
- **removal of “live fire” firearms training**
- **“Train-the-trainer” approach for recurrent training is limited to the trainer’s airport employees**
- **Increased recurrent qualification timeline from 3 to 5 years**
- **Alternative field experience option of Continual Monitoring added for QAWB candidates**



**AC 150/5200-33B HAZARDOUS WILDLIFE
ATTRACTANTS ON OR NEAR AIRPORTS 8/28/2007**

Section 1. SEPARATION CRITERIA FOR ATTRACTANTS

Section 2. LAND-USE PRACTICES

Section 3. PROCEDURES FOR WILDLIFE HAZARD MANAGEMENT

**Section 4. FAA NOTIFICATION AND REVIEW OF PROPOSED
LAND-USE PRACTICE CHANGES IN THE VICINITY OF PUBLIC-USE
AIRPORTS**

PROPOSED CHANGES

Updated language re: Aquacultures, Agriculture, Turf
Grasses, Habitat Mgt for Listed Species,
Communication Procedures

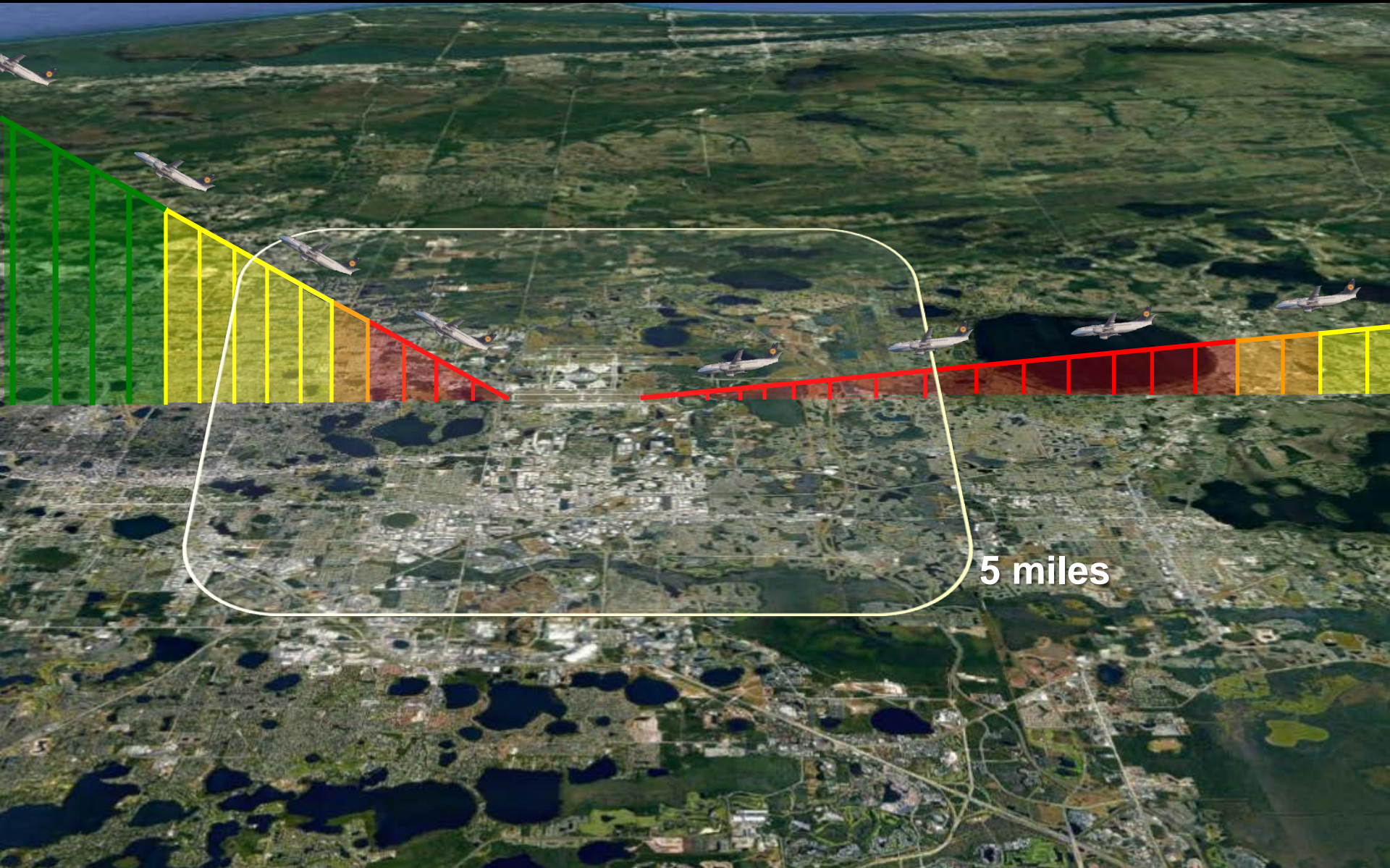
New Section 4: Recommended Procedures for
Off-site Attractants

AC 150/5200-33B *HAZARDOUS WILDLIFE ATTRACTANTS* ON OR NEAR AIRPORTS (2007; update 2018)

REVIEW PROTOCOL FOR OFF-SITE LAND USE MODIFICATIONS NEAR AIRPORTS (Proposed **RECOMMENDATIONS)**

1. Attractant Type, Size, Location / Distance from Airport
2. Design (e.g., construction, material, mitigation techniques employed into design)
3. Operation (e.g., cleanliness, constancy/ volume of use, seasonality, time of day)
4. Monitoring Protocols (e.g., frequency, documentation, evaluation, species identification and number thresholds that trigger actions of communication or mitigation)
5. Mitigation Protocols (e.g., responsibilities, methods, intensity, pre-determined objectives, documentation, evaluation)
6. Communication Protocols to Airport and/ or Air Traffic Control Tower

Separation Distances



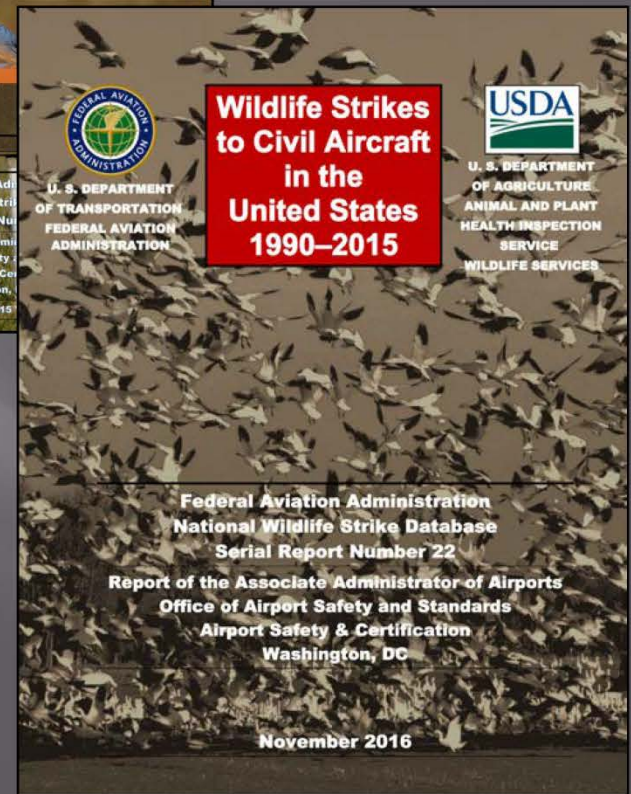
Certalerts – NonRegulatory Support

- **Certalert 97-09** Wildlife Hazard Management Plan Outline (11/17/1997)
- **Certalert 98-05** Grasses Attractive To Hazardous Wildlife (9/21/1998)
- **Certalert 02-06** Access to the FAA National Wildlife Aircraft Strike Database (10/1/2002)
- **Certalert 04-09** Relationship Between FAA and Wildlife Services (8/30/2004)
- **Certalert 03-03** Guidelines For Submitting Bird Strike Feather Remains For Identification (8/29/2003)
- **Certalert 06-07** Requests by State Wildlife Agencies to Facilitate and Encourage Habitat for State Listed Threatened and Endangered Species and Species of Special Concern on Airports (11/21/2006) guidance inserted in AC-33C
- **Certalert 09-10** Wildlife Hazard Assessments in Accordance with Part 139 Requirements (June 11, 2009)
- **Certalert 13-01** Federal and State Depredation Permit Assistance (January 30, 2013)
- **CertAlert 14-01** Seasonal Mitigation of Hazardous Species at Airports: Attention to Snowy Owls (February 26, 2014)
- **CertAlert 16-03** Recommended Wildlife Exclusion Fencing (August 2016)

DATA

National Wildlife Strike Database Report

Data current 1990 – Sep, 2018 (24 reports over 28 years)
209,000+ strike incidents entered



EXPECTATIONS OF STRIKE DATA

FAA NEEDS ENOUGH QUALITY / QUANTITY DATA TO:

- determine high risk species
- track national trends
- provide scientific foundation for regulatory guidance

AIRPORTS NEED ENOUGH QUALITY / QUANTITY DATA TO:

- identify & mitigate hazardous species, strike dynamics and attractants and evaluate effectiveness of wildlife management program

INDUSTRY NEEDS ENOUGH QUALITY / QUANTITY DATA TO:

- evaluate effectiveness of aircraft components



USA strikes – birds (550 species; 97% of all strikes); terrestrial mammals (44 species); bats (26 species); reptiles (20 species).



About 43 strikes reported / day (<5% = damaging and decreasing).



Strike reporting increased 8.6-fold from 1,850 in 1990 to 15,987 in 2018.



82% of strikes occur <1,500 ft AGL - these strikes are within the 5 mile separation distance for attractants and can be successfully mitigated.



698 airports reported strikes in 2017 (420 Part 139 airports and 278 GA airports). Overall, 2,009 airports have reported strikes.





Multiple strike reports for a single strike event = improved Outreach



Decrease in average bird size involved in strikes = improved safety & Outreach



Bird identification high of 60% (2014 – 2018)



70,000 flights per day, 25 million+ per year = 1 strike / 1,628 flights or 1 damaging strike / 35,000 flights



“Strikes are rare events, that happen every day”

Wildlife / Aircraft Strikes

- from the ground up -

0-3,500 ft AGL = 92% of strikes



*

0-1,500 ft AGL = 82% of strikes



0-500 ft AGL = 71% of strikes



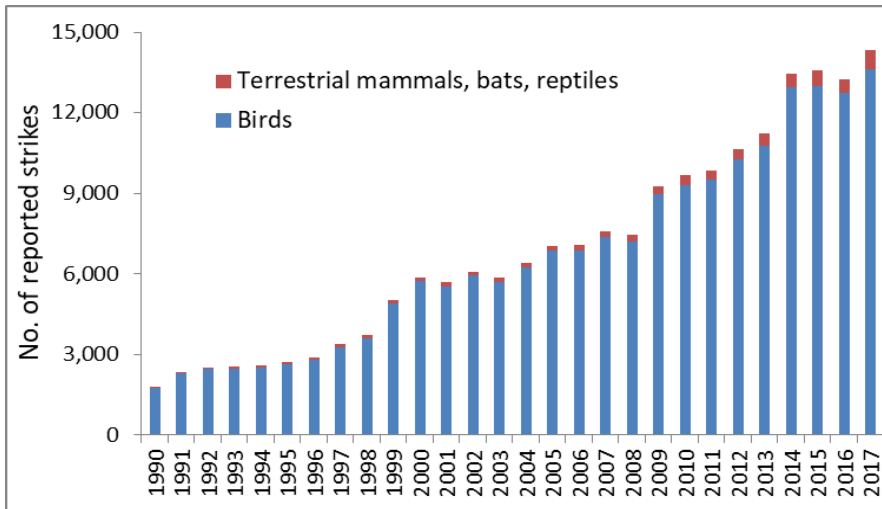
0 ft AGL = 41% of strikes



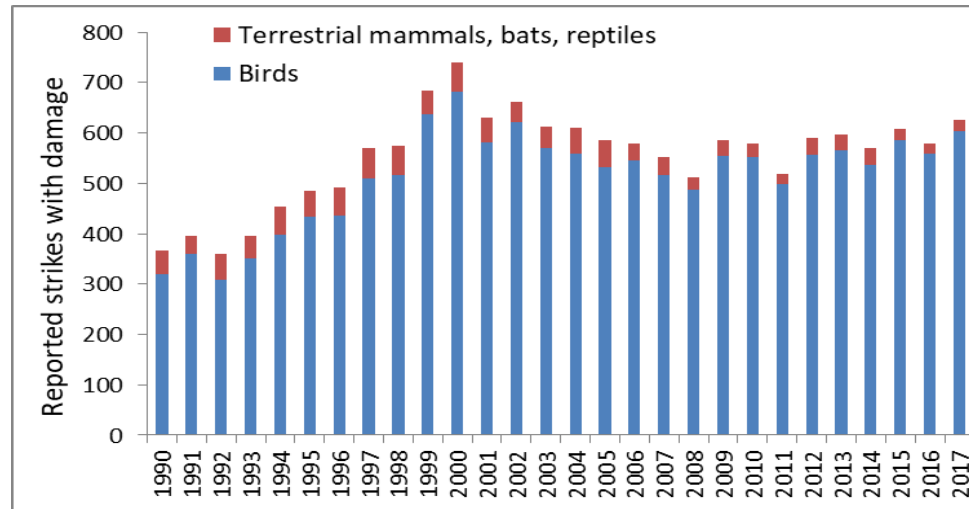
*(these strikes are within the 5 mile separation distance)

STRIKE REPORT CHALLENGE – USE THE DATA

- **Strike reporting continues to increase at all airports.**
- **Damaging strike within the airport environment (1,500 feet AGL) continue to decrease indicating safer airports.**



Strikes Reported to Civil Aircraft, USA: 1990 - 2017



Damaging Strikes to Civil Aircraft, USA: 1990 - 2017

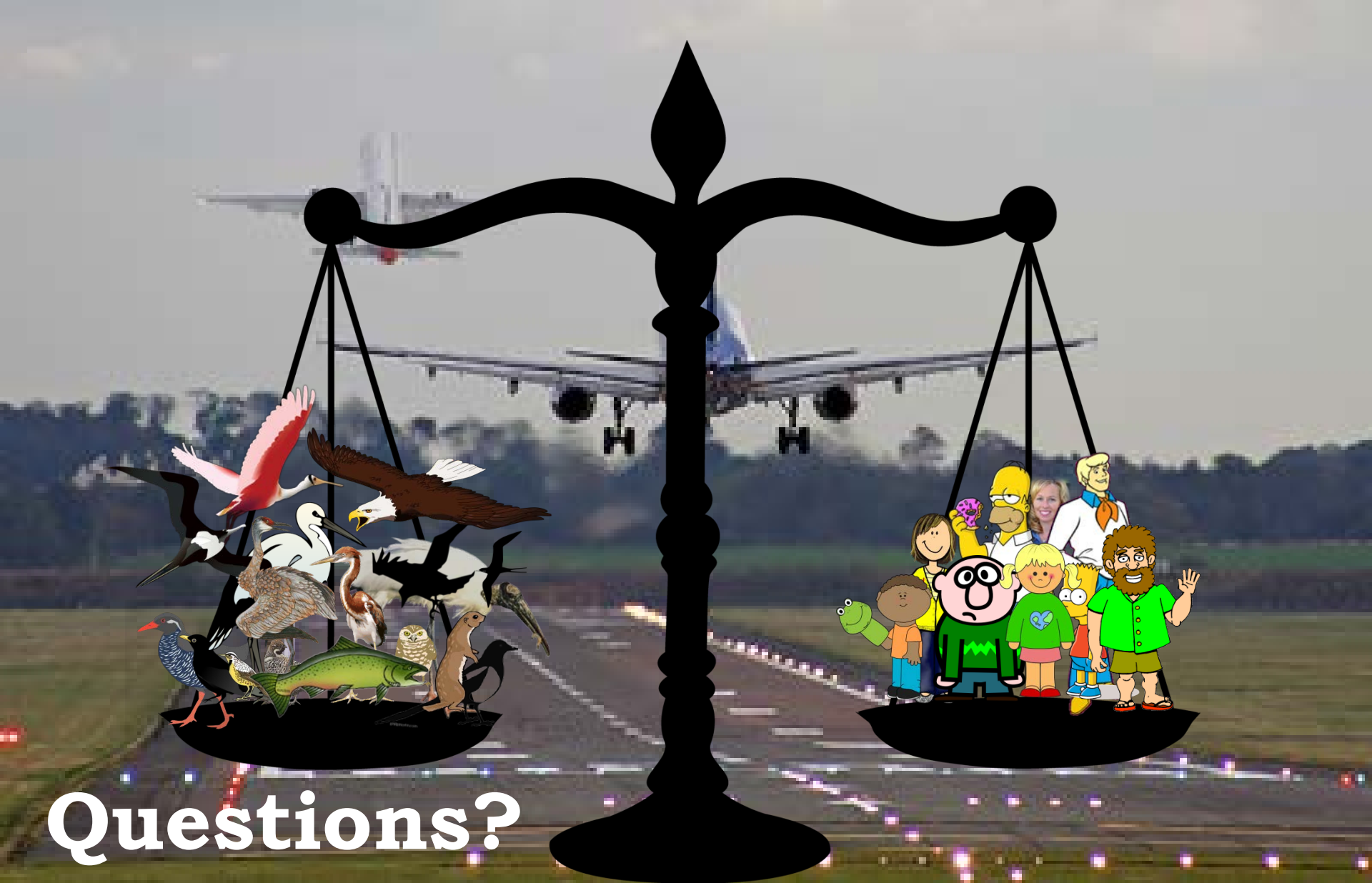
FAA WILDLIFE RESEARCH PROJECTS

**\$25 million invested
between 2009 and 2018**



AIP WILDLIFE-RELATED FUNDING

**\$350 million invested
between 2009 and 2018**



Questions?