



FAA TRAINING REQUIREMENTS

**ICAO, World Birdstrike Association &
CARSAMPAF Bird/Wildlife Strike
Prevention Conference**

**Santa Fe, Mexico City, Mexico,
October 20th – 24th, 2014**

John R Weller





Federal Aviation
Administration



T R A I N I N G



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14 CFR PART 139—CERTIFICATION OF AIRPORTS

PART 139—CERTIFICATION OF AIRPORTS

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- 139.339 Airport condition reporting.
- 139.341 Identifying, marking, and lighting construction and other unserviceable areas.
- 139.343 Noncomplying conditions.

§ 139.303 Personnel.

(c) This training must be completed at least once every 12 consecutive calendar months.



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14 CFR PART 139—CERTIFICATION OF AIRPORTS

§ 139.337 Wildlife hazard management.

(c) “The wildlife hazard assessment required in paragraph (b) of this section must be conducted by a wildlife damage management biologist who has professional training...”

§ 139.337 Wildlife hazard management.

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- (a) In accordance with its Airport Certification Manual and the requirements of this section, each certificate holder must take immediate action to alleviate wildlife hazards whenever they are detected.
- (b) In a manner authorized by the Administrator, each certificate holder must ensure that a wildlife hazard assessment is conducted when any of the following events occurs on or near the airport:
- (1) An air carrier aircraft experiences multiple wildlife strikes.
 - (2) An air carrier aircraft experiences substantial damage from striking wildlife. As used in this paragraph, substantial damage means damage or structural failure incurred by an aircraft that adversely affects the structural strength, performance, or flight characteristics of the aircraft and that would normally require major repair or replacement of the affected component.
 - (3) An air carrier aircraft experiences an engine ingestion of wildlife; or
 - (4) Wildlife of a size, or in numbers, capable of causing an event described in paragraphs (b)(1), (b)(2), or (b)(3) of this section is observed to have access to any airport flight pattern or aircraft movement area.
- (c) The wildlife hazard assessment required in paragraph (b) of this section must be conducted by a wildlife damage management biologist who has professional training and/or experience in wildlife hazard management at airports or an individual working under direct supervision of such an individual. The wildlife hazard assessment must contain at least the following:
- (1) An analysis of the events or circumstances that prompted the assessment.
 - (2) Identification of the wildlife species observed and their numbers, locations, local movements, and daily and seasonal occurrences.
 - (3) Identification and location of features on and near the airport that attract wildlife.
 - (4) A description of wildlife hazards to air carrier operations.
 - (5) Recommended actions for reducing identified wildlife hazards to air carrier operations.
- (d) The wildlife hazard assessment required under paragraph (b) of this section must be submitted to the Administrator for approval and determination of the need for a wildlife hazard management plan. In reaching this determination, the Administrator will consider—
- (1) The wildlife hazard assessment;
 - (2) Actions recommended in the wildlife hazard assessment to reduce wildlife hazards;
 - (3) The aeronautical activity at the airport, including the frequency and size of air carrier aircraft;
 - (4) The views of the certificate holder;
 - (5) The views of the airport users; and
 - (6) Any other known factors relating to the wildlife hazard of which the Administrator is aware.



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Qualifications for Wildlife Biologist Conducting Wildlife Hazard Assessments and...

Training Curricula for Airport Personnel Involved in Controlling Wildlife Hazards on Airports



U.S. Department
of Transportation
Federal Aviation
Administration

Advisory Circular

Subject: Qualifications for Wildlife Biologist Conducting Wildlife Hazard Assessments and Training Curricula for Airport Personnel Involved in Controlling Wildlife Hazards on Airports
Date: June 28, 2006 AC No: 150/5200-36
Initiated by: AAS-300

1. Purpose.

This Advisory Circular (AC) describes the qualifications for wildlife biologists who conduct Wildlife Hazard Assessments for airports certificated under Title 14, Code of Federal Regulations, Part 139 (14 CFR, Part 139). In addition, it addresses the minimum wildlife hazard management curriculum for the initial and recurrent training of airport personnel involved in implementing a Federal Aviation Administration (FAA) approved Wildlife Hazard Management Plan.

2. Background.

Wildlife biologists conducting Wildlife Hazard Assessment or providing training for airport personnel actively involved in implementing FAA approved Wildlife Hazard Management Plans at certificated airports must have professional training and/or experience in wildlife hazard management at airports [§139.33(c) and (c)(7)]. Airport personnel actively involved in implementing FAA approved Wildlife Hazard Management Plans must receive initial training and, every 12 consecutive months after that, recurrent training [§139.303(c) and (e) (Personnel)].

3. Applicability.

The Federal Aviation Administration (FAA) recommends that public-use airport operators fulfill the standards and practices contained in this AC. The holder of Airport Operating certificates issued under Part 139, Subpart D, may use the standards, practices, and recommendations contained in this AC to comply with the wildlife hazard management requirements of Part 139. The FAA also recommends the guidance in this AC for persons wishing to conduct Wildlife Hazard Assessments and for those who help prepare Wildlife Hazard Management Plans or conduct the requisite training.

... provide the knowledge, skills and abilities needed by airport personnel to safely and accurately implement relevant portions of an FAA approved Wildlife Hazard Management Plan.



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FAA Advisory Circular AC 150/5200-36A January 31, 2013



General review of wildlife hazards to aviation



Documentation of strikes; wildlife management



Wildlife strike review for airport



Basic bird / mammal identification



Wildlife Hazard Assessment review



Pyrotechnic use/ safety/ storage/ transportation



Wildlife Hazard Management Plan review



Firearm use/ safety/ storage/ transportation



Wildlife hazards and their attractants



Local, state and federal rules, regulations and policies



Wildlife management techniques (i.e., modify, exclude, harass, remove)

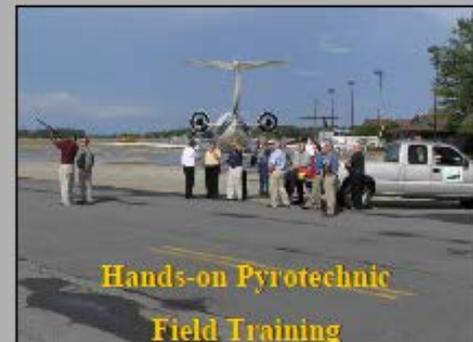
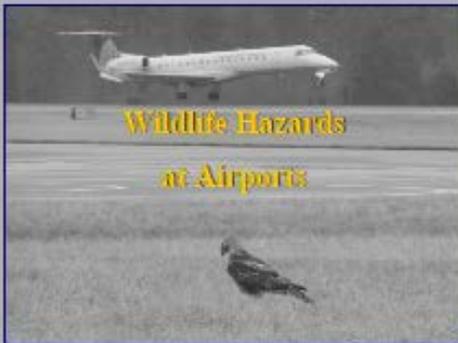


Airport personnel responsibilities



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Training Presentations



Training Course Challenges:



Training airport employees – not Biologists



Wildlife hazard management is a secondary job for airport employees (maintenance, fire department, law enforcement, operations division)



Training needs to be relevant to airport



Training time constraints (initial/ recurrent training about 8 hrs in length)



Wildlife Use of Airports



Aviation Threat



Management of Wildlife Hazards



PROACTIVE

Modify / Remove Attractants
Exclude Wildlife

REACTIVE

Harass / Disperse Wildlife
Remove Wildlife
(lethal or nonlethal)

Basic Bird / Mammal Identification Training



Basic Bird / Mammal Identification Training



Basic Bird / Mammal Identification Training

Variant



Plumage

Factors to Consider

Male / Female

Seasonal

Age

Similar



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Basic Bird / Mammal Identification Training

Who's who? Turkey vulture, Black vulture, Bald eagle...



Basic Bird / Mammal Identification Training





STRIKES SHOULD BE DOCUMENTED IF:

- **Strike is observed**
- **Strike evidence is discovered on aircraft**
- **Animal remains found within 250 feet of the runway centerline or within 1,000 feet of a runway end (unless another reason for the animals death is suspected)**

Airport Wildlife Hazard Log and Bird Strike Collection



Airport Wildlife Hazard Log and Bird Strike Collection

DIRECT CONTROL LOG DATA SHEET

WS CODE: 542

DATE: 8/28/01

WEATHER: cloudy

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SHIFT: D

TIME	LOCATION	COUNT	SPECIES	ACTION	#K	BEHAVIOR	COVER TYPE	AMMUNITION	# OF ROUNDS	COMMENTS
07:16	L 17	1	Moose	vehicle haze	0	FORAGING	Woodland	—	—	Adult male walked into woods EAST of Runway 13
07:38	I 18	2	American Widgeon	harrassment shoot	0	Loafing	Runway	shot shell	2	Flew EAST
07:38	I 18	3	Mallard	harrassment shoot	0	Loafing	SHORT GRASS	shot shell	3	Flew EAST
08:21	F 17	1	Mallard	vehicle haze	2	Loafing	LONG GRASS	—	—	Adult Female
08:21	F 17	1	Green-wing Teal	shoot	0	Loafing	LONG GRASS	shot shell	1	Male - Flew South
08:38	D 15	1	Red Tailed Hawk	pyrotechnics	0	Flying	SHORT GRASS	CRACKER shell	1	Flew NorthWest
08:21	F 17	1	Mallard	harrassment shoot	0	Loafing	Woodland	shot shell	2	Adult Female - DID NOT LEAVE AREA
10:00	K 16	6	BARROW'S Goldeneye	pyrotechnics	0	Loafing	Runway	15 mm whistler	2	Flew North
10:40	H 20	4	Mallard	harrassment shoot	0	Loafing	SHORT GRASS	shot shell	3	DID NOT LEAVE AREA Landed in middle of Lake Spenard
10:40	H 20	1	Northern Shoveler	harrassment shoot	0	Loafing	Woodland	shot shell	1	DID NOT LEAVE AREA Landed in middle of Lake Spenard
10:42	H 20	7	Lesser Scaup	pyrotechnics	0	Loafing	Runway	15 mm banger	2	DID NOT LEAVE AREA Swam to middle of Lake Spenard
11:30	J 18	1	Moose	pyrotechnics	0	Loafing	Runway	CRACKER shell	1	Walked down Finger. CALLED Rick Sinott
13:30	J 17	1	Moose	TRAPS	0	FORAGING	LONG GRASS	—	—	Sinott darted yellow #30 in right EAR

**Training should instill
accountability...**



**...and problem-
solving skills**



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FAA Advisory Circular AC 150/5200-36A January 31, 2013

Qualified Biologist Training Curriculum

01/31/2012

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Appendix C.

Training Curriculum Outline for Any Individual Wishing to Provide an Airport Wildlife Hazard Management Course Acceptable to the FAA Administrator, for Personnel Conducting Wildlife Hazard Assessments.

I. Training Curriculum Outline.

The goal of the training must be to provide the knowledge, skills, and abilities needed by a GS-0486 wildlife biologist to conduct Wildlife Hazard Assessments [§139.337(c)] and to conduct wildlife hazard training [§139.337(d)(7)]. To be acceptable to the FAA, the course must be at least 24 hours in length and include the curriculum items listed below.

- a. Training goals and process
- b. Airport familiarization
 - (1) Introduction to the National Plan of Integrated Airport Systems
 - (2) Airport design and layout (AC 150/5300-13 Airport Design)
 - (3) Navigation aids and Air Traffic Control (Aeronautical Information Manual [AIM])
 - (4) Airport operations and safety (AIM)
 - (5) Signs, marking, and lighting (AC 150/5340-1K Standards for Airport Markings and AC 150/5340-18F Standards for Airport Sign Systems)
 - (6) Ground vehicle operator communication (AC 150/5210-20 Ground Vehicle Operations on Airports)
- c. Aircraft familiarization
 - (1) Physics of a strike
 - (2) Aircraft nomenclature
 - (3) Civil aviation aircraft categories
 - (4) Aircraft engines
 - (a) Reciprocating
 - (b) Turbo
 - (5) Aircraft certification standards
- d. Preview of wildlife hazards to aviation
 - (1) History of major strikes
 - (2) Aviation losses
 - (a) Worldwide
 - (b) United States
- e. Controlling laws, regulations, and policies
 - (1) Migratory Bird Treaty Act of 1918, as amended

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- (2) Animal Damage Control Act of 1931, as amended
 - (3) Bald Eagle Protection Act of 1940, as amended
 - (4) Federal Insecticide, Fungicide, and Rodenticide Act of 1948, as amended
 - (5) National Environmental Policy Act of 1969, as amended
 - (6) Endangered Species Act of 1973, as amended
 - (7) Title 14, Code of Federal Regulation, Part 139, Certification of Airports
 - (8) Title 40, Code of Federal Regulations, Part 258, Criteria for Municipal Solid Waste Landfills
 - (9) Title 50, Code of Federal Regulations, Parts 1–199, Wildlife Management
 - (10) Wendell H. Ford Aviation Investment and Reform Act for the 21st Century, Pub. L. No. 106-181 (April 5, 2000), "Structures Interfering with Air Commerce," section 503
 - (11) Applicable FAA ACs in the 150/5200 series about Airport Wildlife Hazard Management
 - (12) Applicable FAA Airport Certalerts
 - (13) Applicable state and local laws, regulations, and ordinances
- f. Department of Defense requirements and perspective on military/civilian joint-use airports
 - g. Other Federal and State agency roles and responsibilities
 - (1) U.S. Department of Interior, Fish and Wildlife Service
 - (a) Role and responsibilities related to managing problem wildlife
 - (b) Migratory Bird Depredation Permits
 - (c) Salvage Permits
 - (2) U.S. Department of Agriculture, Wildlife Services
 - (a) Role and responsibilities related to managing problem wildlife
 - (3) Other agencies
 - (a) U.S. Environmental Protection Agency
 - (i) Siting landfills
 - (ii) Pesticide registration and use
 - (b) U.S. Army Corps of Engineers
 - (i) Wetlands mitigation
 - (4) Multi-Federal Agency Memorandum of Agreement
 - (5) Applicable State wildlife regulations
 - h. FAA National Wildlife Aircraft Strike Database
 - (1) Strike reporting

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- (2) Species identification and feather identification
 - (3) Database access
 - i. Environmental issues—working with Federal and State agencies
 - (1) National Environmental Policy Act
 - (2) U.S. Army Corps of Engineers (wetland loss and mitigation issues)
 - j. Initial consultations and Wildlife Hazard Assessments (WHAs)
 - (1) Triggering events for WHAs
 - (2) Duration and contents of WHAs
 - (3) Wildlife surveys at airports to assess wildlife hazards
 - (4) Data analysis and presentation of results
 - (5) Writing a WHA
 - k. FAA review of a WHA and determination of need for a Wildlife Hazard Management Plan (WHMP)
 - l. Drafting and carrying out integrated WHMPs
 - (1) Contents of WHMPs
 - (2) FAA review of WHMPs
 - (3) Endangered Species Act compliance
 - (4) National Environmental Policy Act review
 - m. Integrated wildlife hazard management for airports: survey of basic control strategies and tactics
 - (1) Flight schedule modification
 - (2) Habitat modification and exclusion
 - (3) Wildlife dispersal techniques
 - (4) Wildlife population management
 - n. Addressing off-airport attractants and community planning and involvement
 - o. Outline of field trip (to conduct a "mini" WHA)
 - p. Field trip/site visit
 - q. Final exam
 - r. Post exam review
 - s. Course evaluation
 - t. Presentation of certificates
- 2. Recommendations.**
- a. Exams or tests may be oral, written, practical demonstrations, or a combination of each.

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- b. Passing grade/evaluation should be recorded and retained as instructor's records.
- c. Instructors should retain course attendance records for a period of three years.



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Qualified?





QUESTIONS?



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