



We are
Airports

WILDLIFE HAZARD ASSESSMENTS and MANAGEMENT PLANS

John Weller and Amy Anderson
FAA National Wildlife Biologists



FAA
Office of Airports

139.337 (c) The wildlife hazard assessment must contain at least the following:

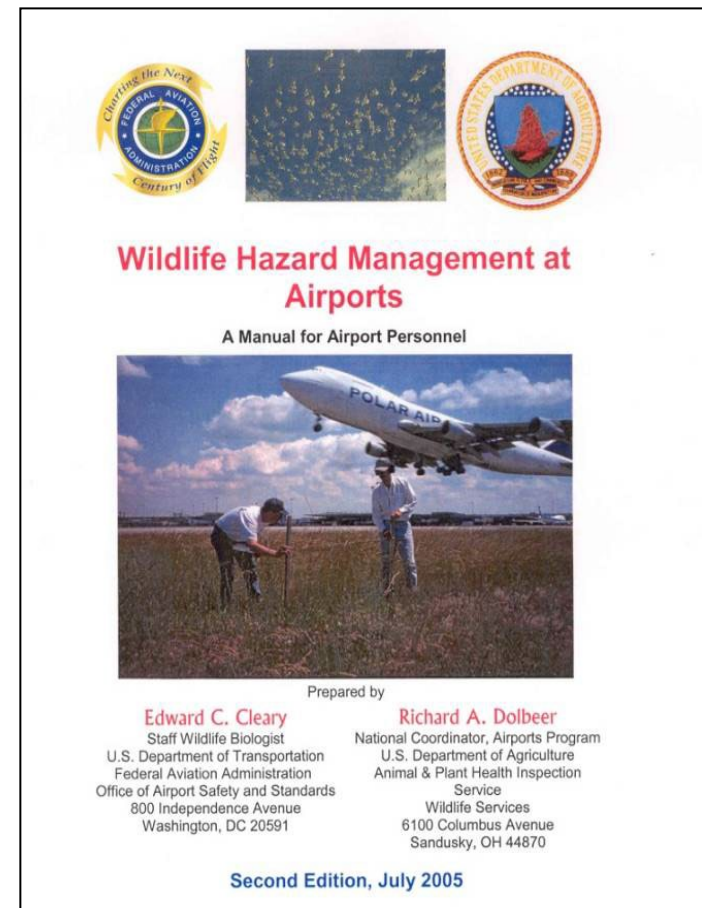
- (1) An analysis of the events or circumstances that prompted the assessment.
- (2) Identification of the wildlife species observed and their numbers, locations, local movements, and daily and seasonal occurrences.
- (3) Identification and location of features on and near the airport that attract wildlife.
- (4) A description of wildlife hazards to air carrier operations.
- (5) Recommended actions for reducing identified wildlife hazards to air carrier operations.

Wildlife Hazard Management at Airports

(Second Edition Manual – 2005)

Standardized counts of birds should be made at least twice monthly.

Specialized surveys might be needed to document mammals on the airport. These specialized mammal surveys should be conducted at least twice during a 12-month WHA.



Advisory Circular No: 150/5200-38

REQUIREMENTS FOR WILDLIFE HAZARD ASSESSMENTS, WILDLIFE HAZARD MANAGEMENT PLANS AND SITE VISITS

- ❖ Define Wildlife Hazard Assessment vs. Site Visit
- ❖ Minimum number of wildlife surveys/day and surveys/month
- ❖ Provide checklists/templates for review of WHAs/WHMPs.
- ❖ Provide guidelines for continual monitoring.



THE WILDLIFE HAZARD ASSESSMENT REPORT

- 1. Description of triggering event/why they are conducting WHA.**
- 2. Description of airport**
 - a. On-site habitat**
 - b. Surrounding land-use**
- 3. On-site and off-site wildlife attractants (description)**
- 4. Survey methodology/dates**
- 5. Results/survey data/trends**



THE WILDLIFE HAZARD ASSESSMENT REPORT

6. Prioritized recommendations

7. Maps/exhibits

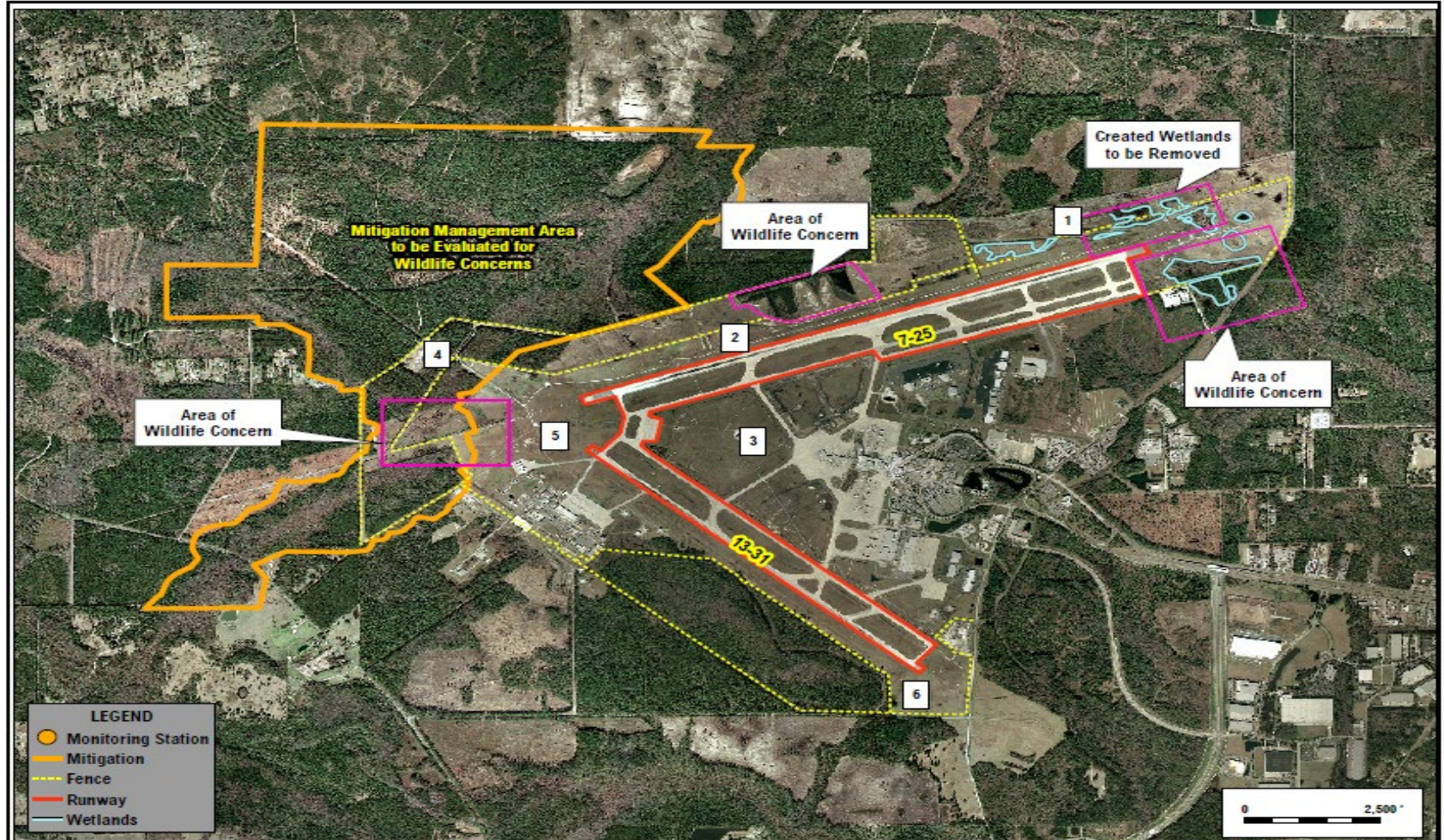
a. Map of airport and on-site survey points

b. Map showing on-site attractants

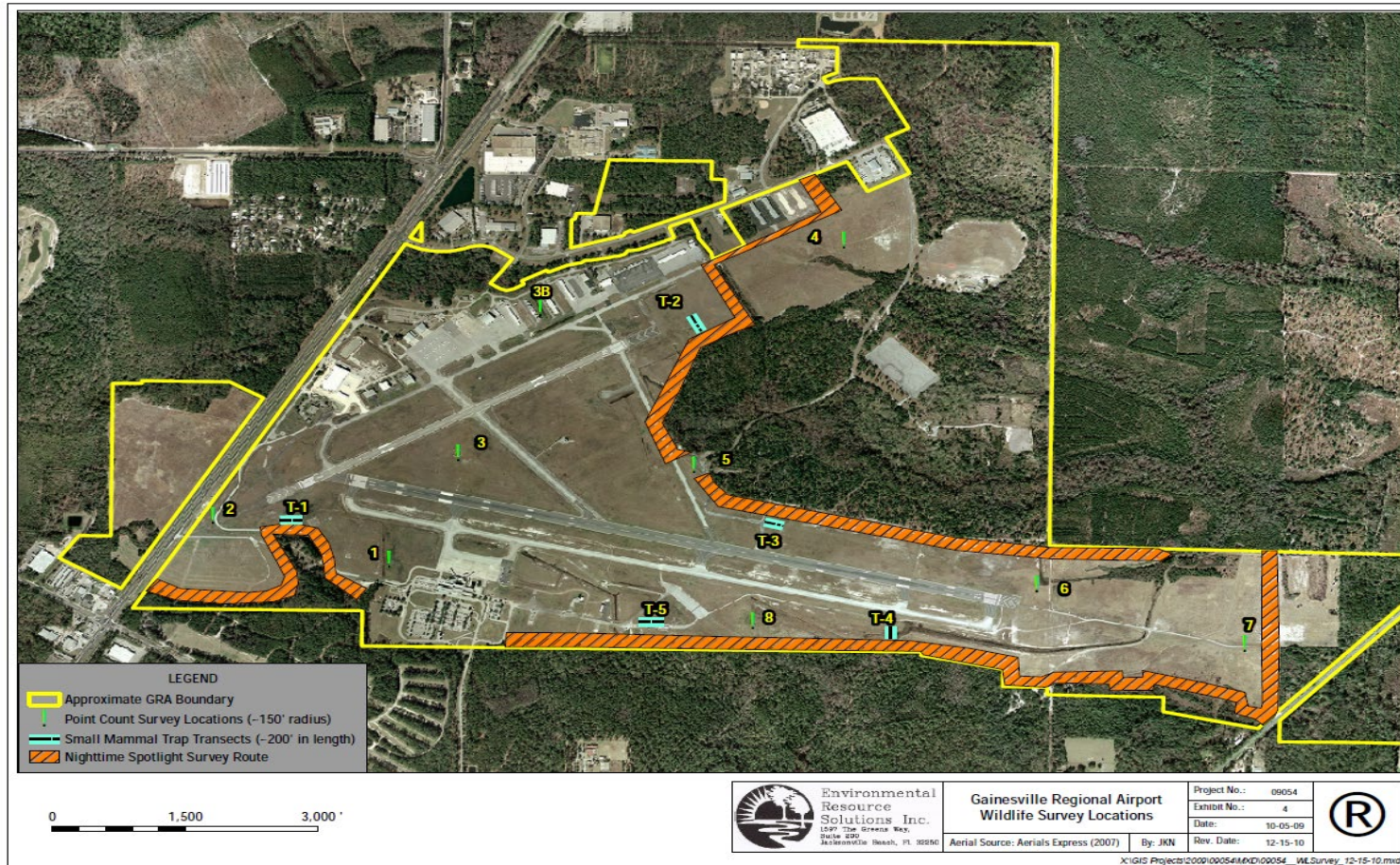
c. Map of 5,000ft, 10,000ft, 5 mile separation distances with off-site wildlife attractants (no exact requirement for how separation distances are measured)

d. Photos of observations and areas of concern

THE WILDLIFE HAZARD ASSESSMENT REPORT



Mammal Survey Route and Transect Locations



Strike History

Date	Species	Incident Time	Incident Location	Aircraft	Phase of Flight
03/08/2004	Gulls	Dawn	Rwy 23	MD-88	Take-off
03/08/2004	Gull	Unknown	Twy Delta	Unknown	Taxi
03/14/2004	Unknown Bird	Night	App Rwy 23	EMB-145	Approach
04/12/2004	Gulls	Day	App Rwy 5	B-737-300	Approach
05/02/2005	Canada Goose	0737 hrs	TO Rwy 23	B-737-300	Take-off
05/02/2004	Unknown Turtle	Dawn	Twy Kilo 5	Unknown	Taxi
06/25/2004	Coyote	2348 hrs	Rwy 23	CL-RJ100-200	Landing
06/25/2004	Unknown Bird	2346 hrs	App Rwy 23	CL-RJ100-200	Approach
06/30/2004	Barn swallows	Morning	Rwy 5/23	Unknown	Unknown
07/01/2004	Mourning Dove	Unknown	Rwy 5/23	Unknown	Unknown
07/25/2004	Killdeer	Morning	Rwy 5/23	Unknown	Unknown
08/06/2004	American Kestrel	Unknown	Rwy 5/23	Unknown	Unknown
10/04/2004	Unknown Bird	Night	App Rwy 23	A-319	Approach
10/05/2004	Unknown Bird	Unknown	Unknown	DC-9-40	Descent
10/25/2004	Unknown Bird	Night	App Rwy 23	CL-RJ700	Descent
11/09/2004	Barn Owl	Unknown	Rwy 5/23	Unknown	Unknown
11/13/2004	Rock Dove	Day	Rwy 5	CL-RJ100-200	Approach

Avian Surveys

Survey Period	Morning	Mid-day	Evening	Total
Number of surveys	52	52	52	156
Total birds observed	12,016	9,391	11,956	33,363
Birds observed/survey ¹	231	181	230	214
Percentage of total	36%	28%	35%	100%

¹ approximate number observed

Number of Birds Observed

Bird Group (# species represented)	Morning	Mid-day	Evening	Total
Aerial Foragers (6)	606	215	677	1,498
Corvids (3)	397	278	329	1,004
Doves/Pigeons (2)	1,141	941	1,218	3,300
Gallinaceous Birds (3)	23	9	32	64
Gulls (1)	86	40	210	336
Perching Birds (36)	1,785	1,186	1,624	4,595
Raptors (14)	465	387	318	1,170
Shorebirds (5)	262	91	301	654
Starlings/Blackbirds (4)	6,662	6,021	6,521	19,204
Wading Birds (3)	17	6	17	40
Waterfowl (8)	568	210	690	1,478
Woodpeckers (5)	4	7	9	20
Total	12,016	9,391	11,956	33,363

Mammal Observations

Table 46. Summary of mammal surveys conducted at Dulles International Airport, January 2010 through December 2010.

Guild	Guild Count	Species	Species Count	Percent of Guild	Percent of Surveys Observed	Average Per Survey
Cervids	491	White-tailed deer	491	100%	100%	20.5
Rabbits	426	Eastern Cottontail	426	100%	96%	17.8
Canids	71	Red fox	52	73%	79%	2.2
		Coyote	14	20%	33%	<1
		Gray fox	5	7%	17%	<1
Mesocarnivores	70	Raccoon	29	41%	42%	1.2
		Skunk	27	39%	50%	1.1
		Opossum	13	19%	29%	<1
		Mink	1	1%	4%	<1
Felids	7	Feral Cat	7	100%	25%	<1



Wildlife Attractants

SMF WHA
4. Wildlife Hazards on or Near the Airport



SMF WHA, 210192
Figure 4.1-2

Example of dugout area under perimeter fence



SMF WHA, 210192
Figure 4.1-3

Example perimeter fence gate area

Sacramento County Airport System
Sacramento International Airport Wildlife Hazard Assessment
Final Draft for FAA Review - Subject to Revision

4-3

ESA Airports / 0210192.0
December 2011

SMF WHA
4. Wildlife Hazards on or Near the Airport



SMF WHA, 210192
Figure 4.1-5

Auditory distress device on AOA

Airfield Structures that Provide Bird Perching Sites

Throughout the site inspection, numerous bird perching sites were observed within and adjacent to the airfield. These included airfield taxiway signs, posts, light fixtures and poles, FAA equipment, and fencing posts. Figure 4.1-6 depicts an airfield sign observed during the inspection with a perched bird. Modification of these areas with exclusionary devices would help to reduce loafing areas and perch areas for birds of prey to view the airfield. (Since the site inspection, bird spikes have been installed on all ILS Critical Area posts).

Sacramento County Airport System
Sacramento International Airport Wildlife Hazard Assessment
Final Draft for FAA Review - Subject to Revision

4-5

ESA Airports / 0210192.0
December 2011

Recommendations

1. Maintain the proactive wildlife management program at the airport.
2. Initiate a wildlife hazard working group to improve wildlife management at airport.
3. Maintain clear, complete and easily accessible records of wildlife observations and wildlife management at the airport.
4. Adopt a Zero Tolerance Policy for hazardous species on the airfield.
5. Develop a Wildlife Hazard Management Plan.
6. Maintain / obtain depredation permits (not required).

Recommendations

1. Airfield Turf Management

- Alternate pattern of airfield mowing operations to avoid rutting and compaction of soil

2. Perimeter Fence

- Install subsurface barriers to preclude burrowing under fence
- Keep fence clear of vegetation

3. Habitat Management

- Remove stands of trees from AOA
- Clear vegetation from drainage ditches and ponds

4. Wildlife Control

- Increase harassment when gulls are present
- Continue permitted lethal control activities for rabbits

FAA APPROVAL



U.S. Department
of Transportation
**Federal Aviation
Administration**

Eastern Region, Airports Division

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Jamaica, NY 11434-4809

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May 3, 2012

Mr. Tom L. Bosco
General Manager
LaGuardia Airport
Hangar #7
Flushing, NY 11371-0677

Re: LaGuardia Airport (LGA) Wildlife Hazard Assessment Review

Dear Mr. Bosco:

The Federal Aviation Administration (FAA) issued a letter dated April 15, 2009 to conduct a 1-day site visit to determine if a Wildlife Hazard Assessment (WHA) was needed. USDA/APHIS WS conducted the site visit and issued a letter dated June 1, 2009 recommending a WHA be conducted. Based on this recommendation FAA issued a letter dated July 14, 2009 requiring LGA conduct a new WHA. USDA/APHIS WS conducted the WHA between 10/1/2009 to 9/30/2010. The final WHA report dated March 3, 2011, was reviewed by our National Wildlife Biologist, John Weller. FAA's review of the WHA submitted, has determined that it meets the requirements of 14 CFR Part 139.337(c) as noted below. At this time, the Wildlife Hazard Management Plan (WHMP) has been updated to reflect the final report findings. Please continue to maintain the WHMP up to date.

14 CFR Part 139.337 (c):

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; and
5. Recommended actions for reducing identified wildlife hazards to air carrier options

Should you have any questions please contact me at 718-553-3348 or via email at evelyn.martinez@faa.gov.

Sincerely,

Evelyn Martinez
Lead Airport Certification Safety Inspector
Safety and Standards Branch
Airports Division

- FAA Airport Inspectors review and approve WHAs
- Use 14 CFR 139.337
- Send approval letter

139.337 (d)

(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—

139.337 (d) cont'd...

- (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.

WHA VS. WHSV

WHA

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



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WHSV

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

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



FAA
Office of Airports

Questions?



"Mr. Osborne, may I be excused? My brain is full."

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