U.S. Department
of Transportation
Federal Aviation
Administration

Advisory Circular

Subject: Reporting Wildlife Aircraft Strikes | **Date:** 5/31/2013 | **AC No:** 150/5200-32B
Initiated by: AAS-300 | **Change:**

1. Purpose.

This Advisory Circular (AC) explains the importance of reporting collisions between aircraft and wildlife, more commonly referred to as wildlife strikes. It also explains recent improvements in the Federal Aviation Administration's (FAA's) Bird/Other Wildlife Strike Reporting system, how to report a wildlife strike, what happens to the wildlife strike report data, how to access the FAA National Wildlife Strike Database (NWSD), and the FAA's Feather Identification program.

2. Applicability.

The FAA provides the standards and practices in this AC as guidance for all public-use airports, aviation industry personnel (e.g., Air Traffic Control, pilots and airline personnel, and engine manufacturers), and others who possess strike information. The FAA strongly recommends that the above aviation representatives and others possessing strike information participate in reporting.

3. Cancellation.

This AC cancels AC 150/5200-32A, Reporting Wildlife Aircraft Strikes, dated December 22, 2004.

4. Background.

The FAA has long recognized the threat to aviation safety posed by wildlife strikes. Each year in the United States, wildlife strikes to U.S. civil aircraft cause about $718 million in damage to aircraft and about 567,000 hours of civil aircraft down time. For the period 1990 to 2011, over 115,000 wildlife strikes were reported to the FAA. About 97 percent of all wildlife strikes reported to the FAA involved birds, about 2 percent involved terrestrial mammals, and less than 1 percent involved flying mammals (bats) and reptiles. Waterfowl (ducks and geese), gulls, and raptors (mainly hawks and vultures) are the bird species that cause the most damage to civil aircraft in the United States, while European starlings are responsible for the greatest loss of human life. Vultures and waterfowl cause the most losses to U.S. military aircraft.

Studies have shown that strike reporting has steadily increased over the past two decades; however, strike reporting is not consistent across all stakeholders (pilots, air carriers, airport operators, air traffic control personnel, etc.) in the National Airspace System. Although larger 14 CFR Part 139 airports and those with well-established wildlife programs have improved strike reporting, there is a wide disparity in overall reporting rates between Part 139 airports and general aviation (GA) airports in the National Plan of Integrated Airport Systems (NPIAS). Less than 6 percent of total strike reports come from NPIAS GA airports, whose reporting rates average less than 1/20th the rates at Part 139 airports. Most Part 139 airports (97 percent) have

reported at least one strike into the database through 2011, while only 43 percent of NPIAS GA airports have documented a strike into the database.

While overall reporting rates are much higher for strikes at Part 139 airports than at NPIAS GA airports, there is also a major disparity in reporting rates among Part 139 airports. Larger Part 139 airports, especially those with well-established wildlife hazard management programs, have reporting rates about four times higher on average compared to other Part 139 airports. The pattern of disparity in strike reporting among Part 139 airports is also found in reporting rates for commercial air carriers. However, the FAA believes the current voluntary reporting rate is adequate to track national trends in wildlife strikes, to determine the hazard level of wildlife species that are being struck, and to provide a scientific foundation for FAA policies and guidance about the mitigation of risk from wildlife strikes.

Ultimately, improvements can be made in the quantity and quality of strike reporting. In addition to the above-mentioned gaps in reporting to the NWSD, there is an overall bias toward the reporting of damaging strikes compared to non-damaging strikes, especially for NPIAS GA airports and certain Part 139 airports. The quality of data within a strike report can also be improved by providing as much information as possible, including species struck and cost of strike.

The FAA has initiated several programs to address this important safety issue, including the collection, analysis, and dissemination of wildlife strike data. The effectiveness of a Wildlife Hazard Management Plan (WHMP) to reduce wildlife hazards both on and near an airport and the reevaluation of all facets of damaging/non-damaging strikes from year to year requires accurate and consistent reporting. Therefore, every WHMP should include a commitment to document and report to the NWSD all wildlife strikes that occur within the separation distances described in sections 1-2 and 1-3 of Advisory Circular 150/5200-33, Hazardous Attractants On or Near Airports (current version), to better identify, understand, and reduce threats to safe aviation.

5. Types of Animals to Report if Involved in a Strike with Aircraft.

a. All birds.

b. All bats.

c. All terrestrial mammals larger than 1 kg (2.2 lbs) (e.g., report rabbits, muskrats, armadillos, foxes, coyotes, domestic dogs, deer, feral livestock, etc., but not rats, mice, voles, chipmunks, shrews, etc.). If in doubt, report the incident with a note in the comment section, and the Database Manager will determine whether to include the report into the NWSD based on body mass.

d. Reptiles larger than 1 kg (2.2 lbs).

6. When to Report a Wildlife Aircraft Strike.

A wildlife strike has occurred when:

a. A strike between wildlife and aircraft has been witnessed.

b. Evidence or damage from a strike has been identified on an aircraft.

c. Bird or other wildlife remains, whether in whole or in part, are found:

(1) Within 250 feet of a runway centerline or within 1,000 feet of a runway end unless another reason for the animal's death is identified or suspected.

(2) On a taxiway or anywhere else on or off the airport that you have reason to believe was the result of a strike with an aircraft. Examples might be:

(i) A bird found in pieces from a prop strike on a taxiway.

(ii) A carcass retrieved within 1 mile of an airport on the final approach or departure path after someone reported the bird falling out of the sky and a report of a probable wildlife strike.

d. The presence of birds or other wildlife on or off the airport had a significant negative effect on a flight (i.e., aborted takeoff, aborted landing, high-speed emergency stop, or the aircraft left pavement area to avoid collision with wildlife).

7. How to Report a Bird/Wildlife Strike.

The FAA strongly encourages pilots, airport operations, aircraft maintenance personnel, Air Traffic Control personnel, engine manufacturers, or anyone else who has knowledge of a strike to report it to the NWSD. The FAA makes available an online reporting system at the Airport Wildlife Hazard Mitigation web site (http://www.faa.gov/go/wildlife) or via mobile devices at http://www.faa.gov/mobile. Anyone reporting a strike can also print the FAA's Bird/Other Wildlife Strike Report Form (Form 5200-7) at the end of this AC or download it from the web site to report strikes. Paper copies of Form 5200-7 may also be obtained from the appropriate Airports District Offices (ADO), Flight Standards District Offices (FSDO), and Flight Service Stations (FSS) or from the Airman's Information Manual (AIM). Paper forms are pre-addressed to the FAA. No postage is needed if the form is mailed in the United States. It is important to include as much information as possible on the strike report.

Note: These forms are to be used to report strikes that do not have bird remains associated with them (instructions with addresses for sending remains to the Smithsonian Institute Feather Identification Lab are discussed in Paragraph 11, Instructions for Collecting and Submitting Bird/Wildlife Remains for Identification, of this AC). Please do not send bird remains to the FAA.

8. FAA National Wildlife Strike Database Management and Data Analysis.

The FAA NWSD Manager edits all strike reports to ensure consistent, error-free data before entering a single, consolidated report into the database. This information is supplemented with non-duplicated strike reports from other sources. About every six weeks, the FAA posts an updated version of the database on the web site. Annually, the FAA sends a current version of the database to the International Civil Aviation Organization (ICAO) for incorporation into ICAO's Bird Strike Information System (IBIS) Database. Also, the FAA prepares and makes available a report summarizing wildlife strike results from 1990 through the most current year online at http://www.faa.gov/airports/airport_safety/wildlife/.

Analyses of data from the FAA NWSD have proved invaluable in determining the nature and severity of the aviation wildlife strike hazard. The database provides a scientific basis for identifying risk factors, justifying and implementing corrective actions at airports, and judging the effectiveness of those corrective actions. Table 1 below depicts the ranking of 50 bird and mammal species or groups by their relative hazard to aircraft in airport environments. The data for the analysis are from the NWSD. The database is invaluable to engine manufacturers, aeronautical engineers, and wildlife biologists as they develop new technologies for the aviation industry. Each wildlife strike report contributes to the accuracy and effectiveness of the database. Moreover, each report contributes to the common goal of increasing aviation safety and reducing the cost of wildlife strikes.

9. Access to the FAA National Wildlife Strike Database.

On April 24, 2009, the FAA made the NWSD available to the public. The FAA began systematically analyzing wildlife strike data in the 1990s for use by the FAA's Office of Airports, academia, and researchers as a means of improving airport safety and reducing wildlife hazards. The NWSD web site (http://www.faa.gov/go/wildlife) was retooled to make it more user-friendly and to allow more advanced data mining. The site has search fields that enable users to find data on specific airports, airlines, aircraft, and engine types, as well as damage incurred, date of strike, species struck, and state without having to download the entire database.

10. Bird/ Wildlife Identification.

Accurate species identification is critical for wildlife-aircraft strike reduction programs. The identification of the exact species of bird struck (e.g., ring-billed gull, Canada goose, mallard, mourning dove, or red-tailed hawk as opposed to gull, goose, duck, dove, or hawk) is particularly important. This species information is critical for airports and biologists developing and implementing wildlife hazard management programs at airports because a problem that cannot be measured or defined cannot be solved. Wildlife biologists must know what species of wildlife they are dealing with in order to identify local attractants and to make proper management decisions within the framework of the Migratory Bird Treaty Act and state and local regulations. The FAA, the U.S. Air Force, the U.S. Navy, and the U.S. Department of Agriculture – Wildlife Services work closely with the Feather Identification Lab at the Smithsonian Institution, Museum of Natural History, to improve the understanding and prevention of bird-aircraft strike hazards. Bird strike remains that cannot be identified by airport personnel or by a local biologist can be sent (with FAA Form 5200-7) to the Smithsonian Museum for identification. Remains may also be submitted to the Smithsonian for verification of the field identification and for long-term storage of the evidence.

Bird strike identification using feathers, DNA, or other body parts or materials from birds involved in bird-aircraft strikes will be provided free-of-charge to all U.S. airport operators, all U.S. aircraft owners/operators (regardless of where the strike happened), and to any foreign air carrier if the strike occurred at a U.S. airport.

11. Instructions for Collecting and Submitting Bird/Wildlife Remains for Identification.

Please observe the following guidelines for collecting and submitting feathers or other bird/wildlife remains for species identification. These guidelines help maintain species identification accuracy, reduce turn-around time, and ensure a comprehensive FAA National Wildlife Aircraft Strike Database. Many airports have found it beneficial to construct strike reporting kits for use by airport personnel and aircraft operators. Having pre-made kits available improves strike reporting and encourages the sampling of strike remains. A kit suitable for collecting remains from most strikes would include the following materials stored in a 1-quart, re-sealable plastic bag: (1) collection instructions, (2) a pre-packaged alcohol hand-wipe for softening/removing tissue/blood ("snarge"[1]) off of the aircraft, (3) a Whatman FTA® collection card for preserving blood/tissue for DNA identification, and (4) a pair of disposable gloves.

[1] Snarge is the term used for the residue and feathers left on an aircraft after an animal (typically a bird) collides with it.

a. Collect and submit remains from known/suspected bird strikes or strike remains that involved an unknown animal from each impact location as soon as possible and send to the Feather Lab (Smithsonian). If remains are known to be other than those of birds, please contact the Smithsonian before mailing them at (202) 633-0801. Collect remains using the criteria listed in item c below. If you cannot send the remains as soon as possible, refrigerate or freeze them in a sealed plastic bag until you can mail them.

b. Provide complete information about the incident.

(1) Fill out FAA Form 5200-7 – Bird/ Other Wildlife Strike Report.

(i) Print a copy of Form 5200-7 at the end of this AC or download a copy at http://www.faa.gov/go/wildlife.

(ii) File a report online and print a copy to send with the remains.

(2) Mail the report with feather material (see address below).

(3) Provide your contact information if you wish to be informed of the species identification.

c. Collect as much material as possible in a clean plastic/ Ziplock® bag. (Please, do not send whole birds.)

(1) Pluck/pick a variety of many feathers representing color or patterns from the wings, tail, and body.

(2) **Do not** cut off feathers. This removes the downy region needed to aid in identification.

(3) Include any feathers with distinct colors or patterns.

(4) Include any downy “fluff”.

(5) Include beaks, feet, and talons if possible.

(6) Where only a small amount of snarge material is available, such as scrapings from an engine or smears on wings or windshields, send all of it.

(i) **Dry material** – Scrape or wipe off into a clean re-sealable bag **or** wipe the area with pre-packaged alcohol wipe **or** spray with alcohol to loosen material then wipe with clean cloth/gauze. Include the alcohol wipe or piece of cloth in the bag. (Do not use water, bleach, or other cleansers – they destroy or degrade DNA.)

(ii) **Fresh material** – Wipe the area with alcohol wipe and/or clean cloth/gauze **or** apply fresh tissue/blood to an optional Whatman FTA® DNA collecting card.

(1) **Do not** use any sticky substance such as tape or post-it notes to attach feathers.

(2) Collect remains from each impact location and place them in separate, labeled bags. Indicate the location on aircraft from which each sample came (i.e., windshield, radome, etc.) on the bag.

Please send whole feathers (tip and base) whenever possible as diagnostic characteristics are often found in the downy barbules at the feather base. Wings, as well as breast and tail feathers, should be sent whenever possible. Beaks, feet, bones, and talons are also useful diagnostic materials. Even blood smears can provide material for DNA analysis. Do not send entire bird carcasses through the mail. However, photographs of the carcasses can be very useful supplemental documentation.

If you send fresh blood/ tissue samples frequently for DNA identification, you may want to consider getting Whatman FTA® DNA cards. The material is sampled with a sterile applicator and placed onto the surface of the card that "fixes" the DNA in the sample. For more information about ordering these items, contact the Feather Lab. Otherwise, if you only occasionally send blood/ tissue samples, consider using a paper towel soaked with alcohol or an alcohol wipe to collect this type of material. Ethanol is the preferred type of alcohol.

Additional information on sending bird remains to the Smithsonian is available at http://www.faa.gov/go/wildlife.

d. Mail the Bird/Other Wildlife Strike Report and collected material to the Smithsonian's Feather Identification Lab. The lab will forward the report to the National Wildlife Strike Database Manager.

For Material Sent via Express Mail Service:	**For Material Sent via US Postal Service:**
Feather Identification Lab Smithsonian Institution NHB, E600, MRC 116 10th & Constitution Ave NW Washington DC 20560-0116 (This can be identified as "safety investigation material".)	Feather Identification Lab Smithsonian Institution PO Box 37012 NHB, E600, MRC 116 Washington DC 20013-7012 (Not recommended for priority cases.)

The species identification turn-around time is usually 24 hours from receipt if sufficient material is submitted and unless the sample is submitted for DNA analysis. DNA results usually take 6 to 10 days. Once processed, the lab sends the reports and species identification information to the Database Manager for entry into the FAA National Wildlife Strike Database. Persons wishing to be notified of the species identification must include contact information (e-mail, phone, etc.) on the report.

For more information contact the FAA National Wildlife Biologist at (202) 267-8731 or the Smithsonian's Feather Identification Lab at (202) 633-0801.

Michael J. O'Donnell
Director, Office of Airport Safety and Standard

FORM APPROVED OMB No. 2120-0045
Exp. 7/31/2013

BIRD / OTHER WILDLIFE STRIKE REPORT

U S. Department of Transportation
Federal Aviation Administration

Paperwork Reduction Act Statement: The information collected on this form is necessary to allow the Federal Aviation Administration to assess the magnitude and severity of the wildlife-aircraft strike problem in the U.S. The information is used in determining the best management practices for reducing the hazard to aviation safety caused by wildlife-aircraft strikes. A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a currently valid OMB Control Number. The OMB Control Number for this information collection is 2120-0045. Public reporting for this collection of information is estimated to be approximately 6 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, completing and reviewing the collection of information. The information collected is voluntary. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to the FAA at: 800 Independence Ave. SW, Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

1. Name of Operator

2. Aircraft Make/Model

3. Engine Make/Model

4. Aircraft Registration

5. Date of Incident
/ /
Month Day Year

6. Local Time of Incident
☐ Dawn ☐ Dusk __HR __MIN
☐ Day ☐ Night ☐ AM ☐ PM

6A. Flight Number

6B. Wildlife/Bird Remains:
☐ Collected ☐ Sent to Smithsonian

7. Airport Name/ID

8. Runway Used

9. Location if En Route (Nearest Town/Reference & State/Airport)

10. Height (AGL)

11. Speed (IAS)

12. Phase of Flight
- ☐ A. Parked
- ☐ B. Taxi
- ☐ C. Take-off Run
- ☐ D. Climb
- ☐ E. En Route
- ☐ F. Descent
- ☐ G. Approach
- ☐ H. Landing Roll

13. Part(s) of Aircraft Struck or Damaged

	Struck	Damaged		Struck	Damaged
A. Radome	☐	☐	H. Propeller	☐	☐
B. Windshield	☐	☐	I. Wing/Rotor	☐	☐
C. Nose	☐	☐	J. Fuselage	☐	☐
D. Engine No. 1	☐	☐	K. Landing Gear	☐	☐
E. Engine No. 2	☐	☐	L. Tail	☐	☐
F. Engine No. 3	☐	☐	M. Lights	☐	☐
G. Engine No. 4	☐	☐	N. Other: (Specify)	☐	☐

Bird(s) Ingested? ☐ Yes

Specify if "N. Other" is checked:

14. Effect on Flight
- ☐ None
- ☐ Aborted Take-Off
- ☐ Precautionary Landing
- ☐ Engines Shut Down
- ☐ Other: (Specify)

15. Sky Condition
- ☐ No Cloud
- ☐ Some Cloud
- ☐ Overcast

16. Precipitation
- ☐ Fog
- ☐ Rain
- ☐ Snow
- ☐ None

17. Bird/Other Wildlife Species

18. Number of birds seen and/or struck

Number of Birds	Seen	Struck
1	☐	☐
2-10	☐	☐
11-100	☐	☐
more than 100	☐	☐

19. Size of Bird(s)
- ☐ Small
- ☐ Medium
- ☐ Large

20. Pilot Warned of Birds ☐ Yes ☐ No

21. Remarks *(Describe damage, injuries and other pertinent information)*

DAMAGE / COST INFORMATION

22. Aircraft time out of service
_____ hours

23. Estimated cost of repairs or replacement (US $)
$

24. Estimated other Cost *(U.S. $) (e.g. loss of revenue, fuel, hotels)*
$

Reported by *(Optional)*

Title

Date

Email

Phone

FAA Form 5200-7 (5/13) SUPERSEDES PREVIOUS EDITION

U.S. Department of Transportation

Federal Aviation Administration

800 Independence Ave SW
Washington DC 20591

Official Business
Penalty for Private Use, $300

NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

BUSINESS REPLY MAIL

FIRST CLASS PERMIT NO. 12438 WASHINGTON D.C.

POSTAGE WILL BE PAID BY FEDERAL AVIATION ADMINISTRATION

Federal Aviation Administration
Office of Airport Safety and Standards, AAS-300
Attn: Wildlife Strike Report
800 Independence Avenue SW
WASHINGTON DC 20591

FOLD AND TAPE HERE

Directions for FAA Form 5200-7
Bird/Other Wildlife Strike Report

1. Name of Operator - This can be an airline (abbreviations okay - UAL, AAL, etc.), business (Coca Cola), government agency (Police Dept., FAA), or if a private pilot, his/her name.
2. Aircraft Make/Model - Abbreviations are okay, but include the model (e.g., B737-200).
3. Engine Make/Model - Abbreviations are allowed (e.g., PW 4060, GECT7, LYC 580).
4. Aircraft Registration - This means the N# (for USA registered aircraft).
5. Date of Incident - Give the local date, not the ZULU or GMT date.
6. Local Time of Incident - Check the appropriate light conditions and fill in the hour and minute local time and check AM or PM or use the 24-hour clock and skip AM/PM.

6A. Flight Number - Self-explanatory.

6B. Wildlife/Bird Remains - If remains were found at the airport or on the aircraft, check “Collected”. If the remains were also sent to the Smithsonian for identification, also check “Sent to Smithsonian”.

7. Airport Name - Use the airport name or 3 letter code if a US airport. If a foreign airport, use the full name or 3 letter code and location (city/country).
8. Runway used - Self-explanatory.
9. Location if En Route - Put the name of the nearest city and state.
10. Height AGL - Put the feet above ground level at the time of the strike (if you don't know, use MSL and indicate this). For take-off run and landing roll, it must be 0.
11. Speed (IAS) - Speed at which the aircraft was traveling when the strike occurred.
12. Phase of Flight - Phase of flight during which the strike occurred. Take-off run and landing roll should both be 0 AGL.
13. Part(s) of Aircraft Struck or Damaged - Check which parts were struck and damaged. If a part was damaged but not struck, indicate this with a check on the damaged column only and indicate in comments (#21) why this happened (e.g., the landing gear might be damaged by deer strike, causing the aircraft to flip over and damage parts not struck by deer).
14. Effect on Flight - You can check more than one. If you check “Other”, please explain in Comments (#21).
15. Sky condition - Check the one that applies.
16. Precipitation - You may check more than one.
17. Bird/Other Wildlife Species - Try to be accurate. If you don't know, put unknown and some description. Collect feathers or remains for identification for damaging strikes.
18. Number of birds seen and/or struck - check the box in the Seen column with the correct number if you saw the birds/other wildlife before the strike and check the box in the Struck column to show how many were hit. The exact number can be written next to the box.
19. Size of Bird(s) - Check what you think is the correct size (e.g. sparrow = small, gull = medium, and geese = large).
20. Pilot Warned of Birds - Check the correct box (even if it was an ATIS warning or NOTAM).
21. Remarks - Be as specific as you can. Include information about the extent of the damage, injuries, anything you think would be helpful to know (e.g., number of birds ingested).
22. Aircraft time out of service - Record how many hours the aircraft was out of service.
23. Estimated cost of repairs or replacement - This may not be known immediately, but the data can be sent at a later date or put down a contact name and number for this data.
24. Estimated other cost - Include loss of revenue, fuel, hotels, etc. (see directions for #23).
25. Reported by - Although this is optional, it is helpful if questions arise about the information on the form (a phone number could also be included).
26. Title - This can be Pilot, Tower, Airport Operations, Airline Operations, Flight Safety, etc.
27. Date - Date the form was filled out.

Table 1. Composite ranking (1 = most hazardous, 50 = least hazardous) and relative hazard score of 50 wildlife species with at least 100 reported strikes with civil aircraft based on three criteria (damage, major damage, and effect-on-flight). Data were derived from the FAA National Wildlife Strike Database.

Wildlife species	% of strikes with:			Mean hazard level[4]	Composite ranking	Relative hazard score[5]
	Damage[1]	Major damage[2]	Effect on flight[3]			
White-tailed deer	84	36	46	55	1	100
Snow goose	77	41	39	53	2	95
Turkey vulture	51	19	35	35	3	63
Canada goose	50	17	28	31	4	57
Sandhill crane	41	13	27	27	5	48
Bald eagle	41	12	28	27	6	48
D.-crested cormorant	34	15	24	24	7	44
Mallard	23	9	13	15	8	27
Osprey	22	7	15	15	9	26
Great blue heron	21	6	16	15	10	26
American coot	24	7	11	14	11	25
Coyote	9	2	21	11	12	19
Red-tailed hawk	15	5	11	10	13	19
Cattle egret	10	3	15	9	14	17
Great horned owl	15	3	6	8	15	14
Herring gull	10	5	9	8	16	14
Rock pigeon	10	4	10	8	17	14
Ring-billed gull	8	3	8	6	18	11
American crow	8	3	8	6	18	11
Peregrine falcon	8	2	5	5	20	9
Laughing gull	5	2	7	5	21	8
American robin	7	1	4	4	22	7
Snow bunting	1	1	9	4	23	7
Red fox	3	0	8	4	23	7
European starling	4	1	5	3	25	6
Amer. golden-plover	4	2	4	3	26	6
Barn owl	4	2	3	3	27	5
Upland sandpiper	4	1	4	3	27	5
Purple martin	5	1	2	3	29	5

Wildlife species	% of strikes with: Damage[1]	Major damage[2]	Effect on flight[3]	Mean hazard level[4]	Composite ranking	Relative hazard score[5]
Mourning dove	3	1	4	3	30	5
Red-winged blackbird	3	0	5	3	31	5
Woodchuck	2	0	4	2	32	4
Northern harrier	2	1	2	2	33	3
Chimney swift	2	0	2	1	34	2
Killdeer	1	0	2	1	35	2
House sparrow	2	0	1	1	35	2
Blk-tailed jackrabbit	1	1	1	1	37	2
American kestrel	1	<1	2	1	38	2
Eastern meadowlark	1	<1	2	1	38	2
S.-tailed flycatcher	0	0	2	1	40	1
Horned lark	1	<1	1	1	41	1
Pacific golden-plover	1	0	1	1	41	1
Barn swallow	1	0	1	1	43	1
Savannah sparrow	1	0	<1	1	43	1
Common nighthawk	1	0	1	1	45	1
Tree swallow	0	0	1	<1	46	1
Burrowing owl	1	0	0	<1	46	1
Western kingbird	0	0	1	<1	48	0
Virginia opossum	1	0	0	<1	48	0
Striped skunk	0	0	0	0	50	0

[1] Aircraft incurred at least some damage (destroyed, substantial, minor, or unknown) from strike.

[2] Aircraft incurred damage or structural failure, which adversely affected the structure strength, performance, or flight characteristics, and which would normally require major repair or replacement of the affected component, or the damage sustained made it inadvisable to restore aircraft to airworthy condition.

[3] Aborted takeoff, engine shutdown, precautionary landing, or other negative effect on flight.

[4] Based on the mean value for percent of strikes with damage, major damage (substantial damage or destroyed), and negative effect-on-flight.

[5] Mean hazard level (see footnote 4) was scaled down from 100, with 100 as the score for the species with the maximum mean hazard level and thus the greatest potential hazard to aircraft.