



Advisory Circular

Subject: Wildlife Strike Reporting

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1.0 INTRODUCTION

- (1) This Advisory Circular (AC) is provided for information and guidance purposes. It describes an example of an acceptable means, but not the only means, of demonstrating compliance with regulations and standards. This AC on its own does not change, create, amend or permit deviations from regulatory requirements, nor does it establish minimum standards.

1.1 Purpose

- (1) The purpose of this document is to ensure that all relevant persons understand the definition of a wildlife strike, as per the Canadian Aviation Regulations (CARs) and understand the requirements of reporting wildlife strikes. It also explains how to use the Transport Canada Bird/Wildlife Strike Reporting System (BSIS), the methods of reporting a wildlife strike, and how to proceed with identification of wildlife remains (feather or DNA).

1.2 Applicability

- (1) This document is guidance for all airports who have a regulatory responsibility to report all wildlife strikes. In addition, we encourage those who do not have a regulatory responsibility, including non-certified aerodromes, aviation industry personnel (eg. Air Traffic Control, pilots and airline personnel and engine manufacturers), and any others who possess strike information to report wildlife strikes when they observe them.

1.3 Description of Changes

- (1) Not applicable.

2.0 REFERENCES AND REQUIREMENTS

2.1 Reference Documents

- (1) It is intended that the following reference materials be used in conjunction with this document:
 - (a) *Aeronautics Act* (R.S., 1985, c. A-2);
 - (b) Part III, Subpart 1 of the Canadian Aviation Regulations (CARs) — *Aerodromes, Airports and Heliports*;
 - (c) Standard 322 of the CARs — *Airports*;
 - (d) Transport Canada Publication, TP 11500, 2015 — *Wildlife Control Procedures Manual 4th edition*;
 - (e) Transport Canada Publication, TP 13549, 2004-03 — *Sharing the Skies*;
 - (f) Federal Aviation Administration Advisory Circular (FAA AC) 150/5200-32B, 2013-05-31 — *Reporting Wildlife Aircraft Strikes*.

2.2 Cancelled Documents

- (1) Not applicable

2.3 Definitions and Abbreviations

- (1) The following **definitions** are used in this document:

- (a) **Aerodrome:** means any area of land, water (including the frozen surface thereof) or other supporting surface used, designed, prepared, equipped or set apart for use either in whole or in part for the arrival, departure, movement or servicing of aircraft and includes any buildings, installations and equipment situated thereon or associated therewith;
 - (b) **Airport:** means an aerodrome in respect of which a Canadian aviation document is in force
 - (c) **National Airports Policy:** Transport Canada previously owned and operated Canadian Airports. With the implementation of the National Airports Policy in 1994, almost all airports were divested from the department. While relinquishing its role as owner, operator and financier of these airports, Transport Canada continues to ensure that certified airports, regardless of ownership, operate in a safe, secure and effective manner.
- (2) The following **abbreviations** are used in this document:
- (a) **BSIS:** Bird/Wildlife Strike Information System
 - (b) **CADORS:** Civil Aviation Daily Occurrence Reporting System
 - (c) **CARs:** Canadian Aviation Regulations
 - (d) **DNA:** Deoxyribonucleic acid

3.0 BACKGROUND

- (1) Since the 1950's, Transport Canada has been involved in the collection of data on wildlife aircraft strikes. When Transport Canada owned and operated airports, they were required to report all wildlife strikes. Additionally, there were voluntary reports submitted by the Department of National Defense, airlines and pilots. In the mid 1980's, a database was created to better track these reports, and these data were used to produce annual wildlife strike reports showing trends across the country. This report is still produced annually.
- (2) When the National Airports Policy was implemented in 1994, no system was put in place requiring airports to report wildlife strikes. In order to fulfill Transport Canada's mandate of promoting aviation safety, new regulations were implemented in 2006 which covered Wildlife Planning and Management (*Part III, Subpart 2, Division III of the Canadian Aviation Regulations*). In particular, these regulations require all certified airports to report all wildlife strikes to Transport Canada (Section 302.303). The regulations state that strikes must be reported within 30 days of their occurrence, or by March 1 of the following calendar year.
- (3) When this regulation was implemented, the number of reported wildlife strikes across Canada surged by an average of 45% from the previous decade. Since then, Transport Canada has noted that the number of strikes submitted annually has steadily increased.
- (4) In order for airports to properly manage wildlife at their site, they must be aware of what species are found in their vicinity, and how each species may pose a risk to aviation safety. Information from any wildlife strikes that occur should be considered when conducting a wildlife risk assessment in order to better assess the probability and severity of specific species.
- (5) Through consultation with a variety of internal and external stakeholders, it has been noted that the definition of what is a reportable strike is unclear. In addition, a large number of records are obtained only from occurrences in the Civil Aviation Daily Occurrence Reporting System (CADORS) database, which indicates that some airports may not be aware of their regulatory responsibility to report directly to Transport Canada.

4.0 MANDATORY WILDLIFE STRIKE REPORTING

- (1) All Canadian certified airports must report all wildlife strikes;
- (2) A wildlife strike is deemed to have occurred and must be reported when there is evidence provided in the form of:
 - (a) Witness (pilot, ground personnel, etc.) even if there is no certainty (ex. may have struck, might have hit)
 - (b) Remains found (200ft from the edge of a runway or airside pavement area in any direction)
 - (c) Damage found on the aircraft

Note: For (2)(a) a strike must be reported even if no remains are found.

Note: For (2)(b) a strike must be reported if remains are found outside 200ft if the strike was reported by a witness (pilot, ground personnel, etc) as per (2)(a)

5.0 VOLUNTARY WILDLIFE STRIKE REPORTING

- (1) Transport Canada encourages strike reporting on a voluntary basis by witnesses of a wildlife strike involving any aircraft operating in Canada or Canadian aircraft operating outside of Canada.
- (2) Transport Canada's online bird strike reporting system can be found at <http://wwwapps.tc.gc.ca/Saf-Sec-Sur/2/bsis/> and allows strikes to be submitted by pilots, airlines, or any member of the public.
- (3) Strike reports are important in the understanding of the current risks posed to aviation safety, and voluntary strike reporting provides valuable information that can be used to understand the national state of wildlife hazards.

6.0 HOW TO REPORT A WILDLIFE STRIKE

- (1) Airport Operators are required to submit wildlife strike reports to Transport Canada either within 30 days of the strike occurrence, or included in an annual report submitted no later than March 1 of the following calendar year.
- (2) Transport Canada has created, and monitors, an online Bird Strike Information System (BSIS) and an online, mobile friendly, fillable form can be found at <http://wwwapps.tc.gc.ca/Saf-Sec-Sur/2/bsis/>. Airport operators are encouraged to submit wildlife strikes as they occur using the online reporting form. If an airport operator prefers to use paper documentation, Wildlife Strike Report Forms (51-0272) that include a pre-paid return envelope for each completed form are available to order through Transport Canada's Publications Order Desk at publications@tc.gc.ca or 1-888-830-4911.
- (3) Should airport operators choose to gather and submit wildlife strikes without using the online reporting system, as much information as possible should be collected, including but not limited to:
 - (a) Day, local time and location (runway, taxiway, etc)
 - (b) Whether remains were found and if they were submitted for identification (photograph, DNA, feather)
 - (c) Aircraft operator, aircraft type, flight number
 - (d) Height and speed of aircraft at the time of strike
 - (e) Phase of operation (takeoff, climb, approach, descent, landing, enroute, taxi, parked)

- (f) Light condition (dawn, day, dusk, night)
- (g) Weather condition (cloud cover and precipitation)
- (h) Part of aircraft struck and any damage (including severity)
- (i) Effect of strike (missed approach, aborted takeoff, precautionary landing, etc.)
- (j) Bird species and number of birds struck (as accurately as possible)
- (k) Whether pilots were warned of bird activity
- (l) Any additional comments on the strike event

7.0 HOW TO IDENTIFY WILDLIFE REMAINS

- (1) It is important to know the species of wildlife being struck at airports in order to accurately assess the hazard and risk to aircraft and to ensure that proper wildlife management equipment and techniques are being used. Wildlife remains can be identified in the following manner:
- (a) Identifying intact wildlife remains
 - (i) Take photographs of the intact remains
 - (ii) Use local field guides and resources to identify remains
 - (iii) If you are unable to identify the species, photographs can be emailed to Transport Canada (WildlifeControl-ControledeLafaune@tc.gc.ca) for assistance in wildlife identification
 - (b) Collecting a DNA sample for analysis
 - (i) Collect and label as much of the remains as you can
 - (ii) Contact the Guelph University Canadian Centre for DNA Barcoding and inquire about the process for submitting DNA remains for identification. The cost for DNA sampling is \$250.00 (*in 2018*).
 - (A) Canadian Centre for DNA Barcoding
Centre for Biodiversity Genomics
50 Stone Road East, Guelph, ON, N1G2W1
519-824-4120 x 52226

Or, a possible alternative for bird remains:

- (c) Collecting a feather sample for analysis
 - (i) Collect and label the feather with the date, location, flight information
 - (ii) Contact the Cowan Tetrapod Avian Forensics Morphology Initiative at the University of British Columbia ildiko@zoology.ubc.ca and indicate the details of your collection
 - (iii) Mail the samples, along with a \$250.00 (*in 2018*) fee to the following address
 - (A) Ildiko Szabo, Assistant Curator
Cowan Tetrapod Collection UBC Beaty Biodiversity Museum
2210 Main Mall, Vancouver, BC V6T 1Z4
604-822-4665

Note: Airports that are members of the Bird Strike Association of Canada are offered a reduced rate for DNA and feather analysis included in their membership. You can find more information on the Bird Strike Association of Canada at their website: www.canadianbirdstrike.ca

8.0 HOW TO OBTAIN EXISTING WILDLIFE STRIKE INFORMATION

- (1) A request can be made to obtain wildlife strike information from our wildlife strike database. This request can be sent to BirdstrikeWildlifeIncidentReporting-Reportagesd'incidentd@tc.gc.ca. The search can be conducted by certain specific criteria, including the following:
 - (a) date range;
 - (b) aerodrome(s);
 - (c) airline;
 - (d) species or sub-species;
 - (e) aircraft;
 - (f) phase of operation; and
 - (g) height range;
- (2) Anyone looking for more specific search criteria, should indicate the search parameters clearly in the email request.

9.0 INFORMATION MANAGEMENT

- (1) Not applicable

10.0 DOCUMENT HISTORY

- (1) Not applicable

11.0 CONTACT OFFICE

For more information, please contact:

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Aerodrome Standards Inspector, Wildlife Management
Flight Standards, AARTA

Phone: 613-990-4869
E-mail: WildlifeControl-Controledelafaune@tc.gc.ca

Suggestions for amendment to this document are invited, and should be submitted via:
TC.FlightStandards-Normsvol.TC@tc.gc.ca.

Original signed by

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