



# 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 13549, 2015 — *Wildlife Control Procedures Manual 4<sup>th</sup> 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 by 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/basis/> and allows strikes to be submitted by pilots, airlines, or any other 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/basis/>. 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) (Appendix A) 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](mailto: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](mailto: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**.
      - (A) Canadian Centre for DNA Barcoding  
Centre for Biodiversity Genomics  
50 Stone Road East, Guelph, ON, N1G2W1  
519-824-4120 x 52226

Or, alternatively 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](mailto:ildiko@zoology.ubc.ca) and indicate the details of your collection
  - (iii) Mail the samples, along with a \$250.00 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](http://www.canadianbirdstrike.ca)

## **8.0 HOW TO OBTAIN EXISTING AIRPORT 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@tc.gc.ca](mailto:BirdstrikeWildlifeIncidentReporting-Reportagesd@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:

Devon Harris  
Aerodrome Standards Inspector, Wildlife Management  
Flight Standards, AARTA

Phone: 613-990-4869  
E-mail: [WildlifeControl-Controledelafaune@tc.gc.ca](mailto: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](mailto:TC.FlightStandards-Normsvol.TC@tc.gc.ca)

*Original signed by*

Robert Sincennes  
Director, Standards  
Civil Aviation

## APPENDIX A — BIRD/WILDLIFE STRIKE REPORT



Transport Canada  
Safety and Security

Transports Canada  
Sécurité et sûreté

Canada

## Bird/Wildlife Strike Report

## Rapport d'impact d'oiseau/de mammifère

TYPE	<input type="checkbox"/> Bird Strike/Impact d'oiseau <input type="checkbox"/> Bird Near Miss/Quasi-impact d'oiseau	<input type="checkbox"/> Mammal Strike/Impact de mammifère <input type="checkbox"/> Mammal Near Miss/Quasi-impact de mammifère	DATE	LOCAL TIME HEURE LOCALE
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REPORTING SOURCE SOURCE DU RAPPORT	<input type="checkbox"/> Pilot/Pilote <input type="checkbox"/> Site <input type="checkbox"/> Other/Autre	<input type="checkbox"/> Airline/Compagnie aérienne <input type="checkbox"/> Museum/Musée	OPERATOR EXPLOITANT	HEIGHT (AGL, feet) ALTITUDE (AGL, pieds)	SPEED (IAS knots) VITESSE (vi-noeuds)
---------------------------------------	--	--	------------------------	---	--

## AIRCRAFT INFORMATION - INFORMATION SUR L'AÉRONEF

Model/Modèle	Registration/Immatriculation	Engine Type/Type de moteur
Make/Marque	Flight No./N° de vol	Engine Make/Marque du moteur

AIRPORT AÉROPORT	Name/Nom	Code	Province	Region/Région	Runway/Piste
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PHASE OF OPERATION PHASE DE L'OPÉRATION	<input type="checkbox"/> Takeoff Run/Roulement au décollage <input type="checkbox"/> Climb/Montée <input type="checkbox"/> En route/Croisière (Distance from Airport/Distance de l'aéroport _____)	<input type="checkbox"/> Approach/Approche <input type="checkbox"/> Descent/Descente	<input type="checkbox"/> Landing Roll/Roulement à l'atterrissage <input type="checkbox"/> Taxi/Circulation au sol <input type="checkbox"/> Parked/Stationnement
--	--	---	---

PART(S) STRUCK/DAMAGED PARTIE(S) TOUCHÉE(S)/ ENDOMMAGÉE(S)	Struck Touchée		Damage d' Endommagée
	Struck Touchée	Damage d' Endommagée	
Radome/Radôme			
Windshield/Pare-brise			
Nose/Partie avant de l'appareil			
Engine/Moteur 1			
Engine/Moteur 2			
Engine/Moteur 3			
Engine/Moteur 4			
Propeller/Hélice			
Wings/Ailes			
Rotor/Rotor			
Fuselage			
Landing Gear/Train d'atterrissage			
Tail/Queue			
Lights/Feux			
Pitot Static/Antenne Pitot			
Tail Rotor/Rotor anticouple			
Other/Autre _____			

EFFECT(S) ON AIRCRAFT/FLIGHT EFFET(S) SUR L'AÉRONEF/LE VOL	
None Aucun	
Aborted Takeoff Décollage interrompu	
Precautionary Landing Atterrissage de précaution	
Engine(s) Shut Down Arrêt de(s) moteur(s)	
Forced Landing Atterrissage forcé	
Fire Feu	
Penetration of Airframe Pénétration de la cellule	
Vision Obscured Visibilité réduite	
Engine Ingestion Ingestion dans le moteur	
Engine Uncontained Failure Panne de moteur avec perforation	
Other Autre _____	

LIGHT CONDITION CONDITION D'ÉCLAIRAGE	
Dawn Aube	
Day Jour	
Dusk Crépuscule	
Night Nuit	

SKY CONDITION ÉTAT DU CIEL	
No Cloud Pas de nuage	
Some Cloud Quelques nuages	
Overcast Couvert	

PRECIPITATION PRÉCIPITATION	
Rain Pluie	
Fog Brouillard	
Snow Neige	
Other Autre _____	

BIRD / MAMMAL INFORMATION INFORMATION CONCERNANT L'OISEAU / LE MAMMIFÈRE				
SPECIES - COMMON NAME ESPÈCE - NOM COMMUN	SIZE OF BIRD TAILLE DE L'OISEAU <input type="checkbox"/> Small/Petit <input type="checkbox"/> Medium/Moyen <input type="checkbox"/> Large/Grand	NUMBER OF BIRDS NOMBRE D'OISEAUX	Seen Aperçus	Struck Touchés
			0	
SCIENTIFIC NAME NOM SCIENTIFIQUE		1		
		2-10		
		11-100		
BIRD REMAINS SUBMITTED FOR IDENTIFICATION? LES RESTES DE L'OISEAU ONT-ILS ÉTÉ EXPÉDIÉS POUR IDENTIFICATION?		<input type="checkbox"/> Yes/Oui <input type="checkbox"/> No/Non	PILOT WARNED OF BIRDS? PILOTE AVERTI DE LA PRÉSENCE DES OISEAUX? <input type="checkbox"/> Yes/Oui <input type="checkbox"/> No/Non	

51-0272 (06-97)

<b>Bird/Wildlife Strike Report</b>	<b>Rapport d'impact d'oiseau/de mammifère</b>
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INFORMATION ON ENGINE DAMAGE STRIKES INFORMATION CONCERNANT LE MOTEUR ENDOMMAGÉ PAR L'IMPACT D'OISEAUX					
Reason for Failure/Shutdown Raison de la panne/de l'arrêt du moteur	Engine Motor No. – N° du moteur				Comments – Commentaires
	1	2	3	4	
Engine Uncontained Failure Panne de moteur avec perforation des parois					
Fire Feu					
Shutdown - Vibration Arrêt-moteur - Vibrations					
Shutdown - Temperature Arrêt-moteur - Température					
Shutdown - Fire Warning Arrêt-moteur - Alarme incendie					
Shutdown - Arrêt-moteur Other (specify)/Autre (précisez)					
Shutdown Unknown Arrêt-moteur inconnu					
Estimated % of Thrust Lost Estimation en % de la perte de puissance					
Estimated Number of Birds Ingested Estimation du nombre d'oiseaux impliqués					

**ADDITIONAL INFORMATION  
INFORMATION SUPPLÉMENTAIRE**

COST INFORMATION INFORMATION SUR LES COÛTS		DAMAGE CATEGORY (DND) CATÉGORIE ENDOMMAGÉE (MDN)
Aircraft Time Out of Service/ Durée de la mise hors service de l'aéronef  <div style="text-align: right;">Hours Heures</div> _____	Estimated Cost of Repairs or Replacement/ Estimation des coûts de réparation ou de remplacement  \$CDN _____ (In Thousands/En milliers)	Estimated Other Costs (e.g., Loss of Revenue, Hotels) Estimation des autres coûts(ex. perte de revenus, hôtels)  \$CDN _____ (In Thousands/En milliers)

**REMARKS – REMARQUES**

REPORT BY / DÉPOSÉ PAR: \_\_\_\_\_ DATE: \_\_\_\_\_

ORGANIZATION / ORGANISATION: \_\_\_\_\_ TELEPHONE #/N° DE TÉLÉPHONE #: (\_\_\_\_) \_\_\_\_\_