



ICAO

UNITING AVIATION

Outcome of ICAO/ACI Wildlife Strike Hazard Reduction Symposium ADOP activities related to WHMC Wildlife Hazard Management Plan

ICAO Provisions related to WHMC

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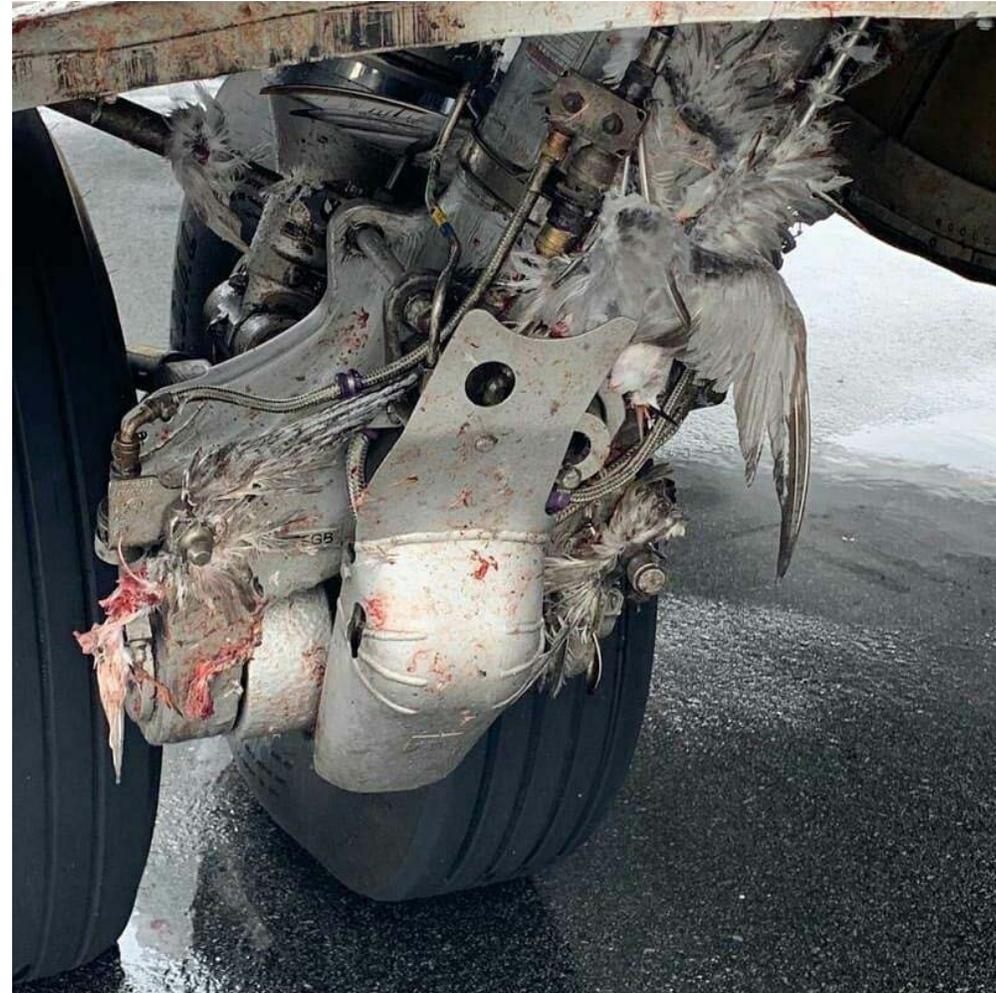
Precisionair ATR72 encountered a bird strike minutes before landing at Mwanza Int'l Airport (MWZ) in Tanzania. The aircraft landed safely, thanks to the flight crew of Precisionair Tanzania.



Precisionair ATR72 encountered a bird strike minutes before landing



Precisionair ATR72 encountered a bird strike minutes before landing



Precisionair ATR72 encountered a bird strike minutes before landing



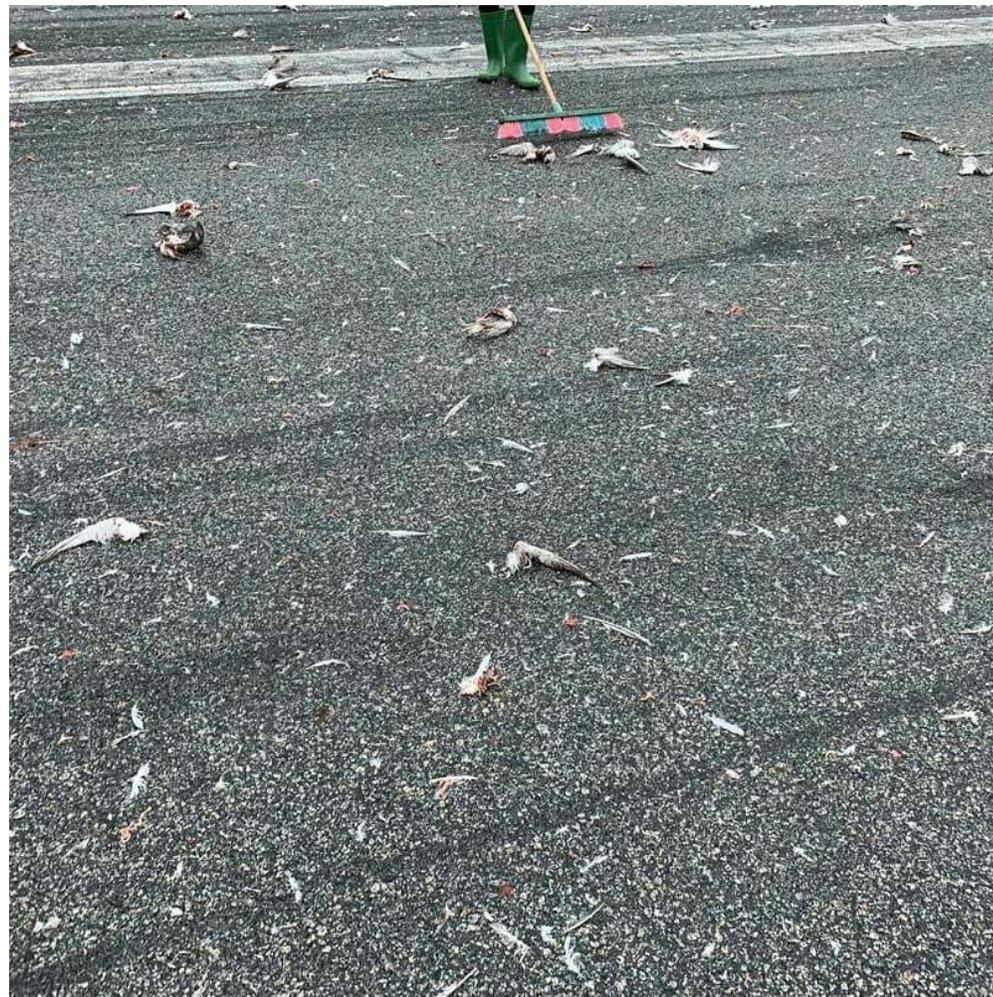
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Outcome of ICAO/ACI Wildlife Strike Hazard Reduction Symposium (Montréal, Canada, 16-18 May 2017)

ADOP activities related to WHMC Wildlife Hazard Management Plan (Montréal, 26 to 29 March 2018)





Aerodrome and Design Operations Panel (ADOP)/3

- ICAO/ACI Wildlife Strike Hazard Reduction Symposium (May 2017)
 - Panel and the Wildlife Hazard Management Expert Group.
 - ADOP Wildlife Hazard Management Expert Group (WHMEG).

ADOP/3

WHMEG Proposals for amendment!

- Proposals include, among others:
 - a proposed replacement of the current title Airport Services Manual, Part 3 — Wildlife Control and Reduction (Doc 9137), which is seen limitative, by “Wildlife Hazard Management”;
 - a reorganization of the table of contents and of some of the contents themselves in order to reflect the evolution and current practices pertaining to wildlife hazards management;
 - a new chapter on training, which will complement the training-related provisions in the next edition of the PANS-Aerodromes (Doc 9981).

ADOP/3

- Bird/wildlife strike is an increasing safety and economic concern, which has resulted in hundreds of fatalities and an annual loss of over **one billion USD** to the aviation industry.
- **96%** of bird/wildlife strikes occurred **on or near airports**, among which **39%** occurred during the **take-off run** or **climb** phases and **57%** occurred during the **descent, approach or landing roll** phases.

ADOP/3

- The new provisions are expected to reduce bird/wildlife strike accidents/incidents; and reduce economic loss due to bird/wildlife strikes.
 - ✓ A new proposal for the evaluation of the risk assessment in relation with Wildlife Hazard Management.
 - ✓ The future trend in bird/wildlife strike hazard control is expected to combine the traditional methods of habitat management and wildlife control with new surveillance technologies (e.g. avian radar) providing real or near-real time information on birds and helping with habitat management, etc.
- The ADOP meeting acknowledged and supported the work of the WHMEG, including its work plan, and thanked the WHMEG for the thorough review of the guidance material.



ICAO Provisions related to WHMC



ICAO Provisions related to WHMC

- Annex 14 Vol I: Aerodromes
- Doc 9774 - *Manual on Certification of Aerodromes*
- Doc 9137 - *Airport Services Manual*
 - Part 3 - *Wildlife Control and Reduction*

Annex 14 Vol I : Aerodromes

- CHAPTER 9. Aerodrome operational services, equipment and installations
 - 9.4 Wildlife strike hazard reduction:
 - *Note.—The presence of wildlife (birds and animals) on and in the aerodrome vicinity poses a serious threat to aircraft operational safety.*
 - 9.4.1 The wildlife strike hazard on, or in the vicinity of, an aerodrome shall be assessed through:
 - a) the **establishment of a national procedure for recording and reporting wildlife strikes to aircraft**;
 - b) the **collection** of information from aircraft operators, aerodrome personnel and other sources on the **presence of wildlife on or around** the aerodrome constituting a **potential hazard** to aircraft operations; and
 - c) an **ongoing evaluation** of the wildlife hazard by **competent personnel**.

Annex 14 Vol I : Aerodromes

- 9.4.2 Wildlife strike reports shall be collected and forwarded to ICAO for inclusion in the **ICAO Bird Strike Information System (IBIS)** database.
- *Note.— The **IBIS** is designed to collect and disseminate information on wildlife strikes to aircraft. Information on the system is included in the Manual on the ICAO Bird Strike Information System (IBIS) (Doc 9332).*

Annex 14 Vol I : Aerodromes

- 9.4.3 Action shall be taken to decrease the risk to aircraft operations by adopting **measures to minimize the likelihood of collisions between wildlife and aircraft.**
- *Note.— Guidance on effective measures for establishing whether or not wildlife, on or near an aerodrome, constitute a potential hazard to aircraft operations, and on methods for discouraging their presence, is given in the Airport Services Manual (Doc 9137), Part 3.*

Annex 14 Vol I : Aerodromes

- 9.4.4 The appropriate authority shall take action to eliminate or to prevent the establishment of **garbage disposal dumps** or any other source which may attract wildlife to the aerodrome, or its vicinity, unless an appropriate wildlife assessment indicates that they are unlikely to create conditions conducive to a wildlife hazard problem. Where the elimination of existing sites is not possible, the **appropriate authority** shall ensure that any risk to aircraft posed by these sites is **assessed and reduced to as low as reasonably practicable**.
- 9.4.5 *Recommendation.— States should give due consideration to aviation safety concerns related to land developments in the vicinity of the aerodrome that may attract wildlife.*

Doc 9774 - Manual on Certification of Aerodromes

AERODROME CERTIFICATION PROCEDURES

ASSESSMENT OF A FORMAL APPLICATION FOR AN AERODROME CERTIFICATE

- 4.4.4 A site visit should be undertaken for the purpose of assessing the aerodrome facilities, services and equipment to verify and ensure that they comply with the specified standards and practices. This should include:
 - a) on-site verification of aerodrome data; and
 - b) the checking of aerodrome facilities and equipment, which should include:
 - ...
 - 15) **wildlife management procedures and equipment;**
 - Etc..

Doc 9774 - Manual on Certification of Aerodromes

FUNCTIONS AND RESPONSIBILITIES OF THE DIRECTORATE OF AERODROMES AND STANDARDS (DASS)

- Periodic inspections
 - *Movement area inspection* including
 - checking for wildlife hazards and wildlife attractants;

Doc 9774 - Manual on Certification of Aerodromes

QUALIFICATIONS, DUTIES AND RESPONSIBILITIES OF AERODROME INSPECTORS

- Duties of an aerodrome **inspector** should include but limited to :
 - on-site verification and audits of aerodrome **operating procedures** including:
 - **wildlife hazard management**;
 - on-site checking and testing of aerodrome **facilities and equipment** including:
 - **wildlife control equipment**;

Doc 9774 - Manual on Certification of Aerodromes

AERODROME MANUAL: PARTICULARS OF THE AERODROME OPERATING PROCEDURES AND SAFETY MEASURES

- **WILDLIFE HAZARD MANAGEMENT**

- Particulars of the procedures to deal with the danger posed to aircraft operations by the presence of birds or mammals in the aerodrome flight pattern or movement area, including the following:
 - a) arrangements for assessing wildlife hazards;
 - b) arrangements for implementing wildlife control programmes; and
 - c) the names and roles of the persons responsible for dealing with wildlife hazards, and their telephone numbers during and after working hours.

Doc 9137 - Airport Services Manual: Part 3 - Wildlife Control and Reduction

- Chapter 1. General
- Chapter 2. Establishment of a national committee
- Chapter 3. Roles and responsibilities within a bird/wildlife strike control programme
- Chapter 4. Organization of an airport bird/wildlife strike control programme
- Chapter 5. Aircraft operators
- Chapter 6. Assessment of the risk of bird/wildlife strikes

Doc 9137 - Airport Services Manual: Part 3 - Wildlife Control and Reduction

- Chapter 7. Habitat management and site modification
- Chapter 8. Repellent techniques
- Chapter 9. Best practices for bird/wildlife management programmes on aerodromes
- Chapter 10. Incompatible land use around airports
- Chapter 11. Evaluating the wildlife control programme
- Chapter 12. Emerging technology and communications procedures

