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Recent development of ICAO on wildlife strike hazard reduction

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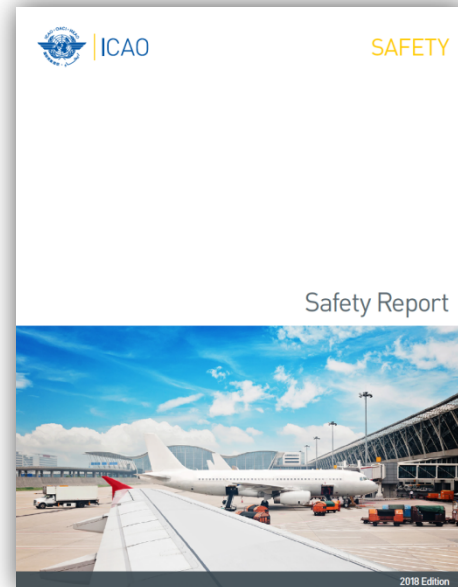


Overview

- ICAO Safety Initiative
- Outputs of the ICAO/ACI Wildlife Strike Hazard Reduction Symposium
- Overview of ICAO Documentation
- Ongoing Work at ICAO

ICAO Safety Initiative

- Presence of wildlife on and in the vicinity of aerodromes poses a serious threat to aircraft operational safety.
- Wildlife strikes can cause accidents and serious incidents, costing the aviation industry billions in losses due to aircraft damage, flight delays and other operational impacts.
- ICAO has been undertaking various initiatives to help States reduce wildlife strike hazard to aviation.
- Wildlife Strike Hazard Reduction is an ICAO Safety initiative





ICAO/ACI Wildlife Strike Hazard Reduction Symposium (May 2017)

- Increase the international awareness of the wildlife strike hazard to aircraft operational safety;
- Build an international community to exchange ideas, experiences and cooperative efforts;
- Advance new technologies; and
- Formulate effective strategies in preventing and mitigating the risk of wildlife strikes to aircraft.



International awareness

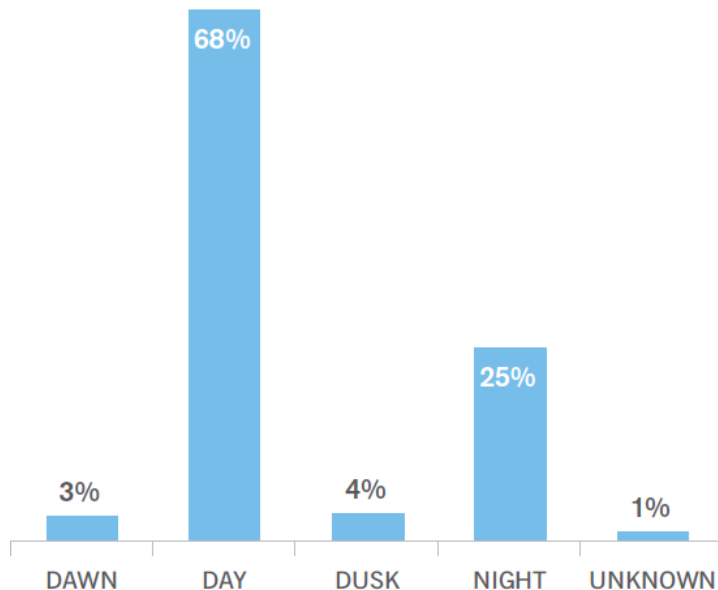
- Comprehensive analysis of wildlife strike reports (2008-2015)
- Use of the ICAO Bird Strike Information System (IBIS)
- 97 751 reports were received from 91 States on strikes occurring in 105 States and territories
- 2 501 reports had an indication of an effect on the flight:
 - precautionary landings (49%); and
 - aborted take offs (21%).



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Wildlife Strike Occurrences by Light Conditions (2008–2015)

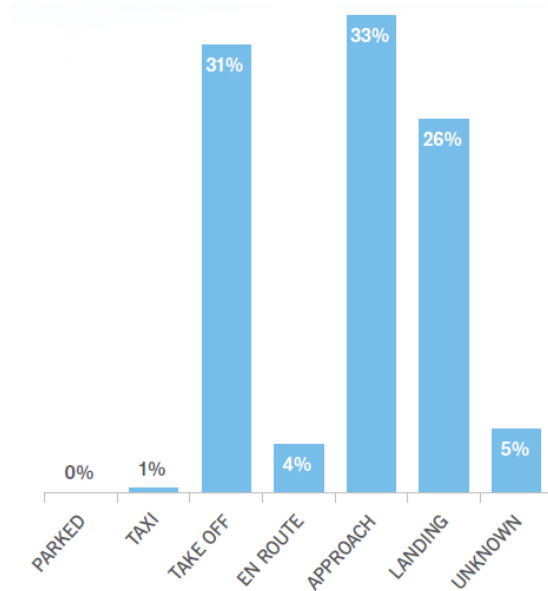




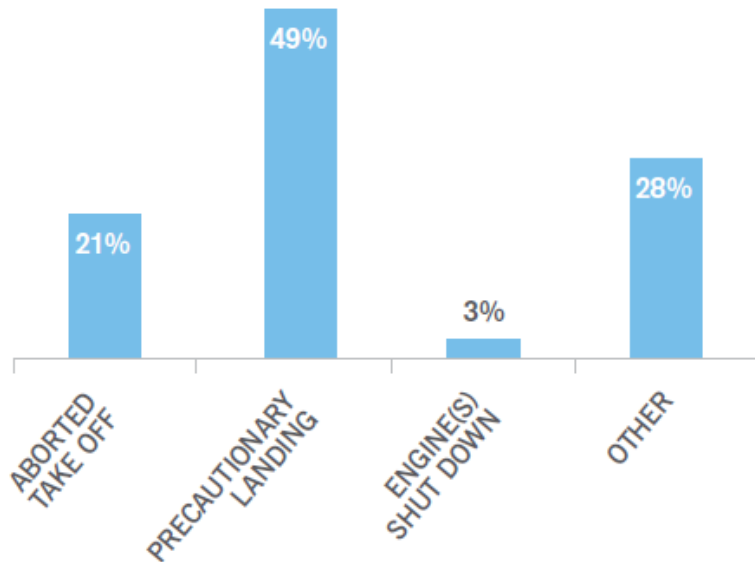
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Wildlife Strike Occurrences by Flight Phase (2008-2015)



Wildlife Strike Effects on Flight (2008-2015)





Outputs of the Wildlife Symposium - Importance of cooperation

- Involvement of multiple stakeholders;
- Local Runway Safety Team should be consulted;
- Focus on Airport Wildlife Committee;
- Importance to work with local communities.



Outputs of the Wildlife Symposium - Strengthening regulatory requirements

- Need of appropriate legislation and regulation;
- Importance of a national procedure for recording and reporting wildlife strikes;
- An ongoing evaluation of the hazard by competent personnel.



Outputs of the Wildlife Symposium - Use of new technology

- More effective habitat management;
- Possibility to inform go/ no-go advice from the tower and decisions by pilots;
- Newer and better technologies to disperse birds away from aerodromes.

Outputs of the Wildlife Symposium - Effective wildlife hazard management

- No one-size-fits-all solution for all states
 - Wildlife control programme based on a wildlife survey of the airport and local area;
 - Risk assessment based on the probability and severity of strikes by the types of birds and wildlife found at the airport;
 - Control measures to be weighed and evaluated against the requirements;
- Production of a Wildlife Hazard Management Programme
- Training of personnel to manage an effective programme

Overview of ICAO Documentation

- Annexes 8, 11, 13, 14 Vol I, 15, 19
- PANS-ATM (Doc 4444), PANS-Aerodromes (Doc 9981), PANS-AIM (Doc 10066)
- Guidance material in ICAO manuals
 - Airport Planning Manual (Doc 9184) - Part 2 Land Use and Environmental Control
 - Airport Services Manual (Doc 9137) - Part 3 Wildlife Control and reduction
 - Airport Services Manual (Doc 9137) - Part 8 Airport operational services
 - Airport Services Manual (Doc 9137) - Part 9 Airport maintenance practices
 - Manual on the ICAO Bird Strike information system (IBIS) (Doc 9332)

Annex 14, Volume I – Aerodromes

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.

Note.— See Annex 15, Chapter 8.

Annex 14, Volume 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.

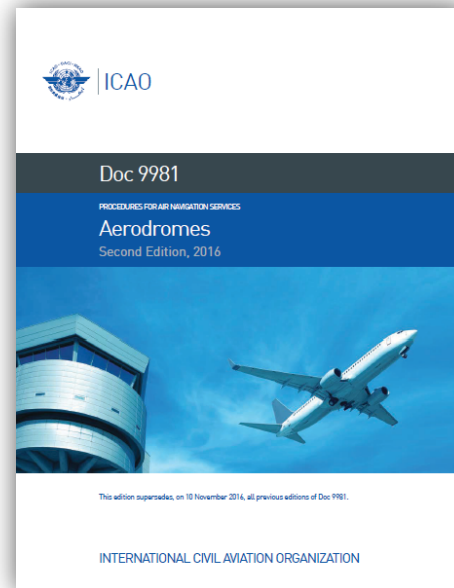
Note.— Guidance on effective measures for establishing whether or not wildlife, on or near an aerodrome, constitute a potential hazard to aircraft operations, and on methods for discouraging their presence, is given in the Airport Services Manual (Doc 9137), Part 3.

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.*

Ongoing work at ICAO

- PANS-Aerodromes (Doc 9981)
- Eight new chapters including a dedicated chapter on Wildlife hazard management
- Consultation period for States completed (State letter AN 4/27-18/25)
- Applicability date for PANS-Aerodromes with consequential amendments to Annex 14, Vol I and Annex 11: 5 November 2020



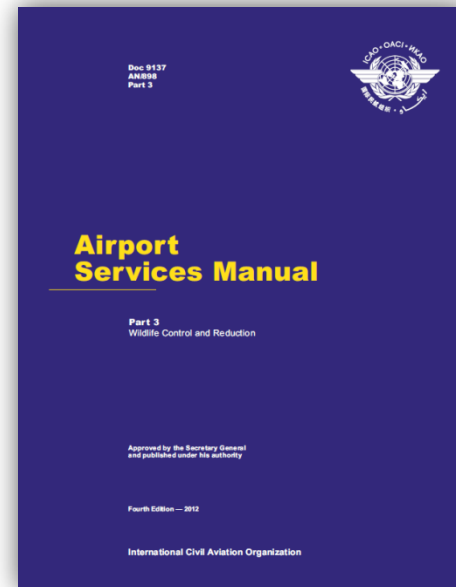


PANS-Aerodromes (Doc 9981) objectives

- To have a wildlife safety risk assessment being conducted, covering the aerodrome and its vicinity;
- To establish a Wildlife Hazard Management Programme (WHMP) tailored to the local environment and be commensurate with the wildlife safety risk assessment;
- To include within the WHMP, procedures and measures for reducing the wildlife risk at the aerodrome to an acceptable level.
- To integrate wildlife hazard reduction measures and procedures into the aerodrome operator's safety management system (SMS).

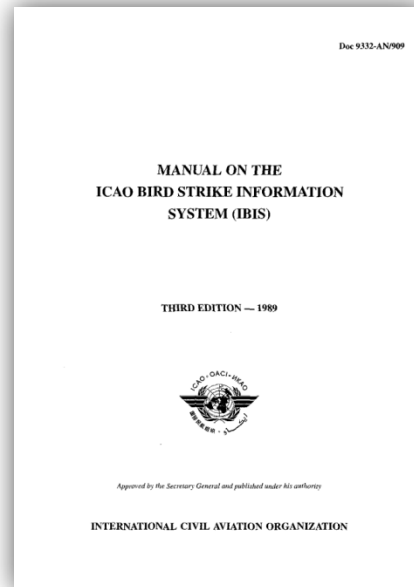
Ongoing work at ICAO (Cont'd)

- Review of the Airport Services manual - Part 3 “Wildlife Hazard Management” (new title)
- Objectives:
 - to be consistent with the new PANS-Aerodromes;
 - to reflect the evolution and current practices pertaining to wildlife hazards management;
 - To include guidance on training.



Ongoing work at ICAO (Cont'd)

- Review of the Manual on the ICAO Bird/wildlife Strike information system (Doc 9332)
- To be consistent with the new ECCAIRS platform
- An ICAO reporting portal is under development
- A dedicated email address to send report: **wildlife@icao.int**





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More information will be provided:

<https://www.icao.int/ibis>



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