

Wildlife & FOD Workshop

Policies & Standards

Session #3 Presentation #2



Tackle the Challenges of Wildlife Strikes

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La Chaudière

PREVOST

HARVARD

Bird Strikes – an increasing safety and economic concern

Bird strikes are an increasing safety and economic concern, annually costing commercial air carriers over **\$1.2 billion USD**

Learjet 45 strike with pigeons at Linate Airport, Italy, June 2003. Aircraft and building destroyed, two pilots killed.



Why?:

1. Increasing populations of large- and flocking- bird species.
2. Faster quieter turbofan-powered aircraft.
3. Non Bird Strike resistant airframes and engines, relative to large- and flocking-bird species.

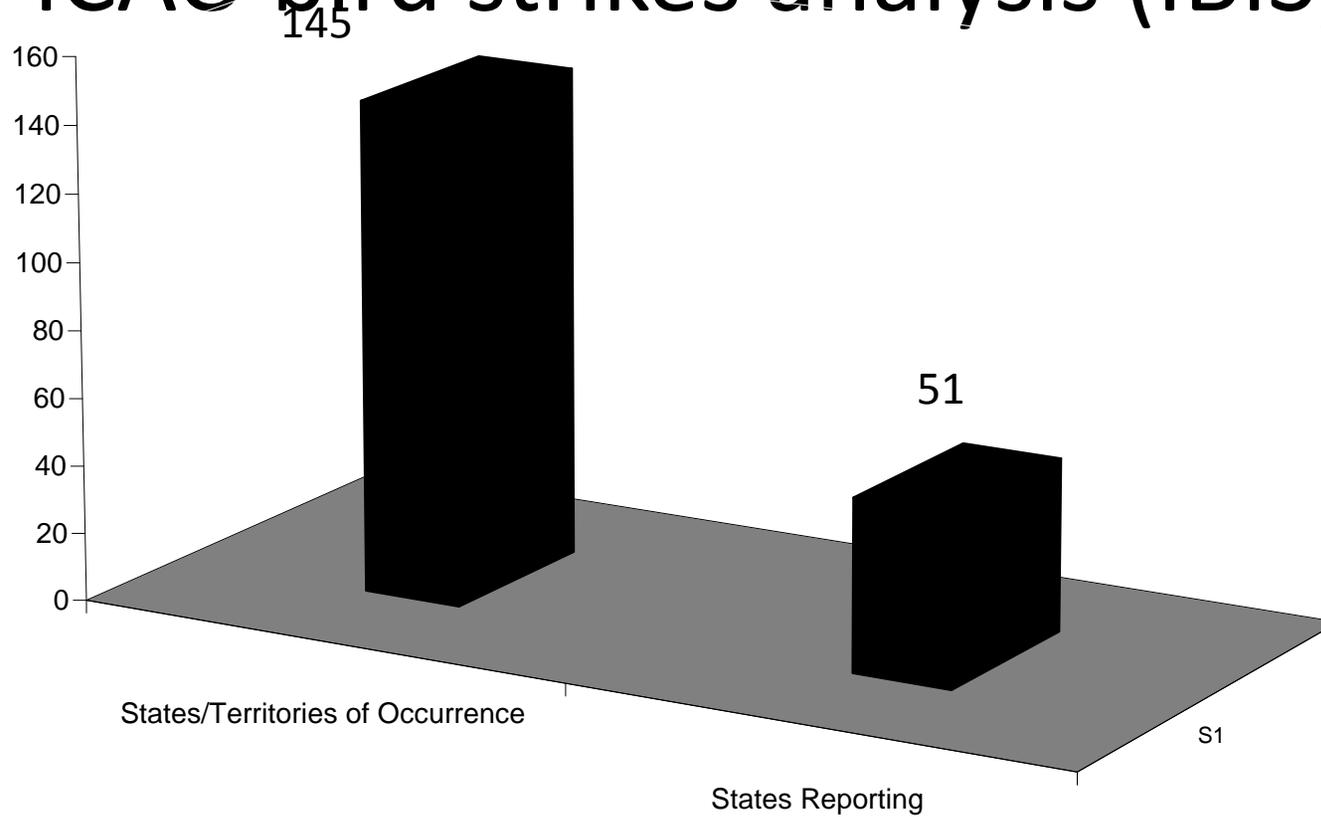
Power of Birds



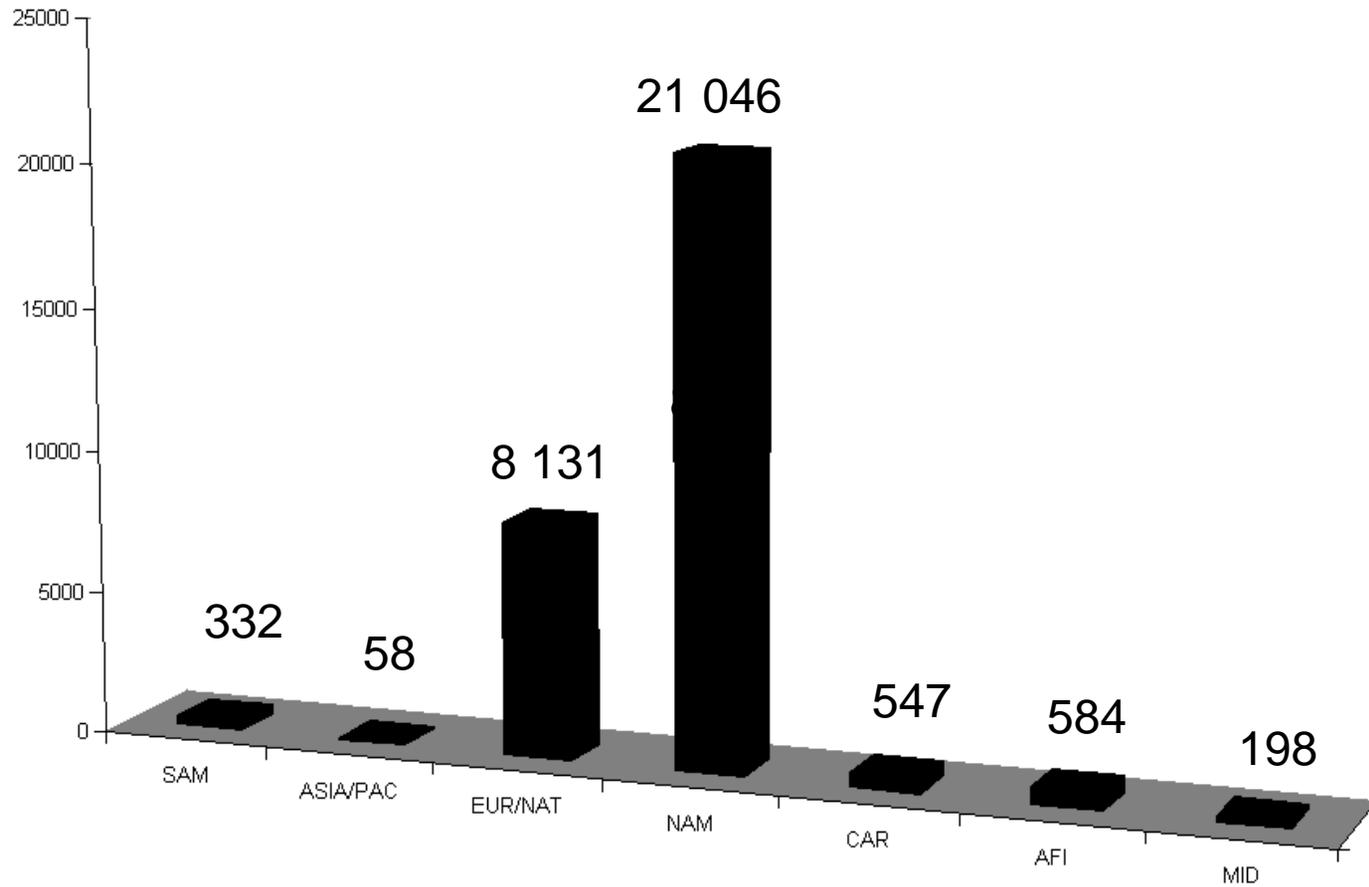
Overview

- ICAO bird strikes analysis (IBIS)
- Amendment 10-A to Annex 14, Volume I
- Airport Services Manual, Part 3 – Wildlife Control and Reduction (4th edition)

ICAO bird strikes analysis (IBIS)



Reported Strikes distributed by Region in which they occurred



When and Where the Bird Strikes Occurred

When and where the bird strikes occurred

time of the strikes

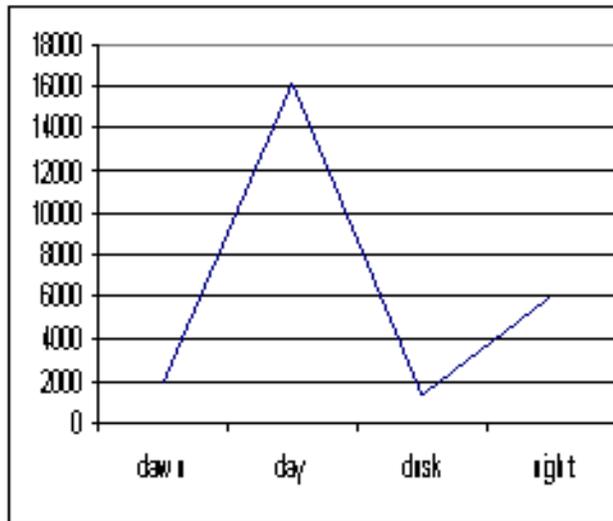


Chart 1: strikes reported according to time

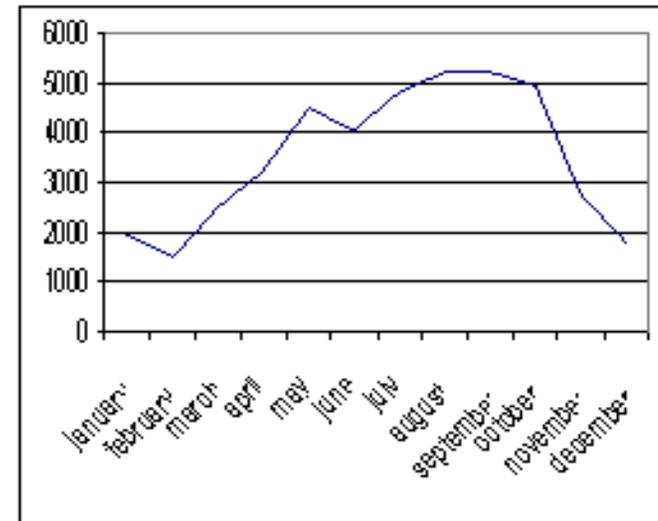


Chart 2: strikes reported according to season

Bird Strikes Reported According to Flight Phases

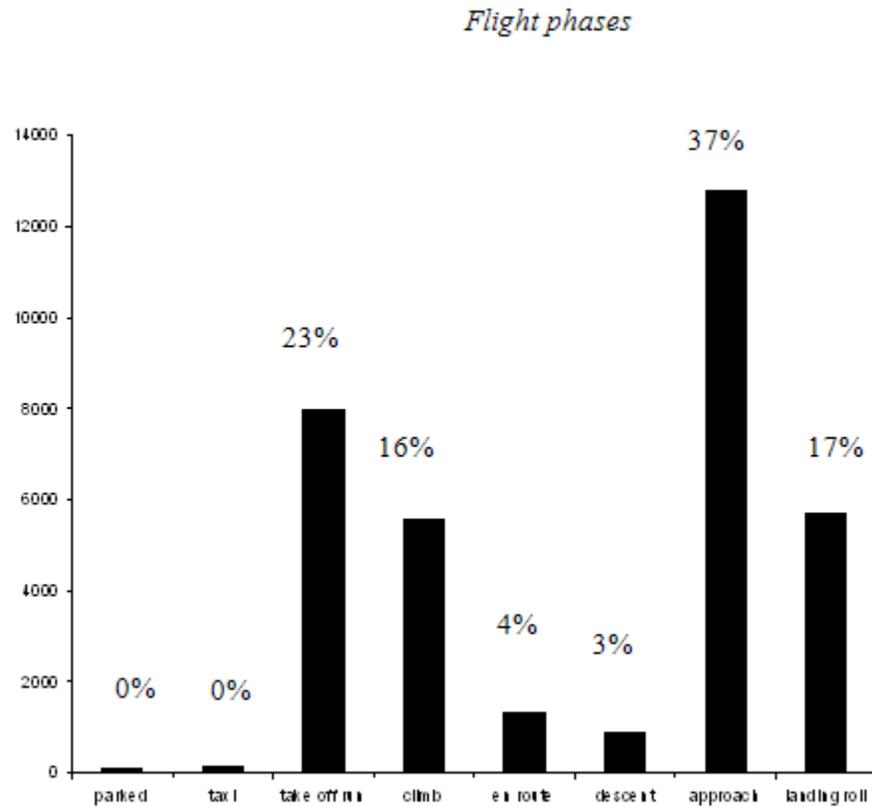
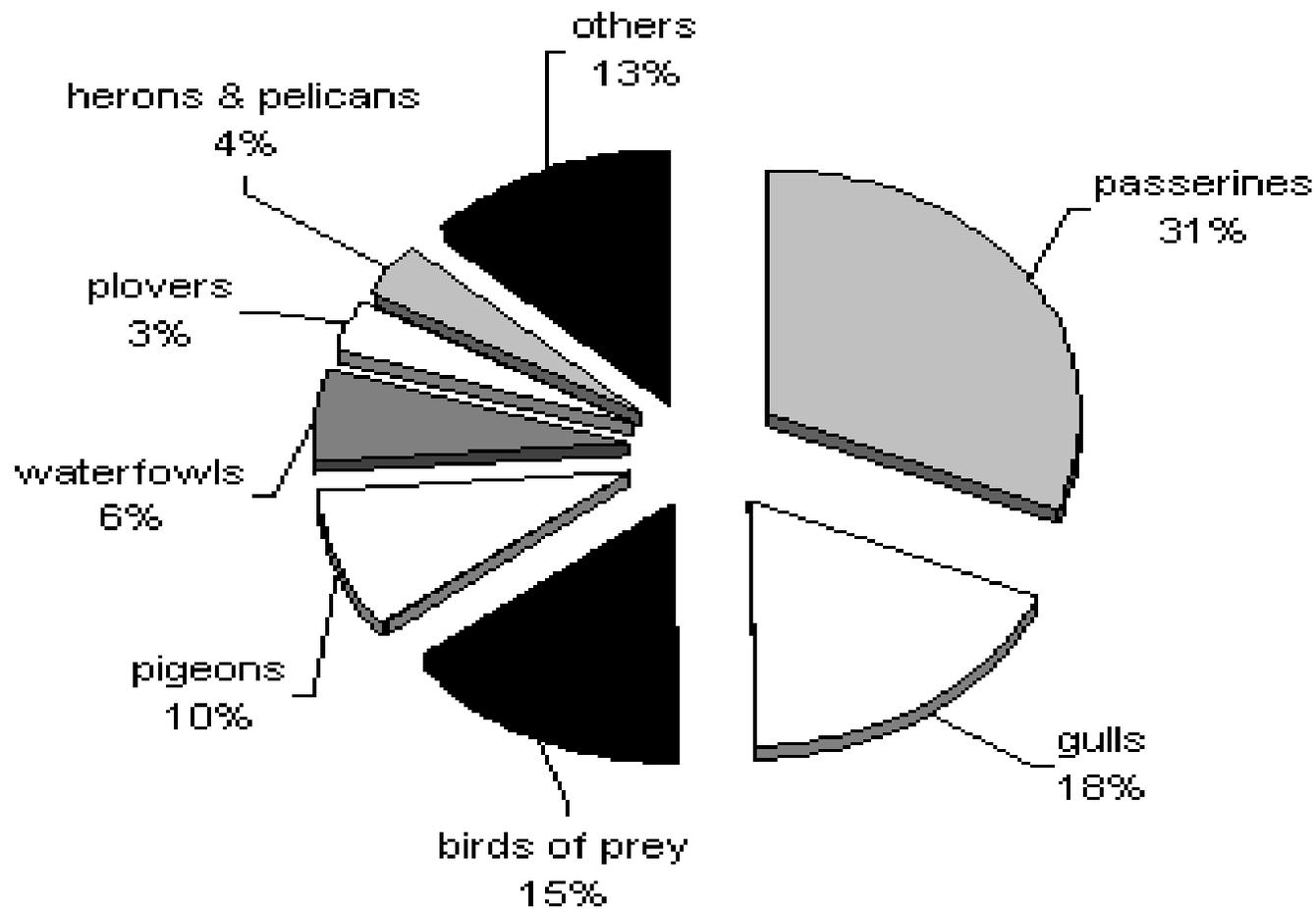


Chart 3: Bird strikes reported according to flight phases

Bird Types Frequently Struck



Effects on Flight

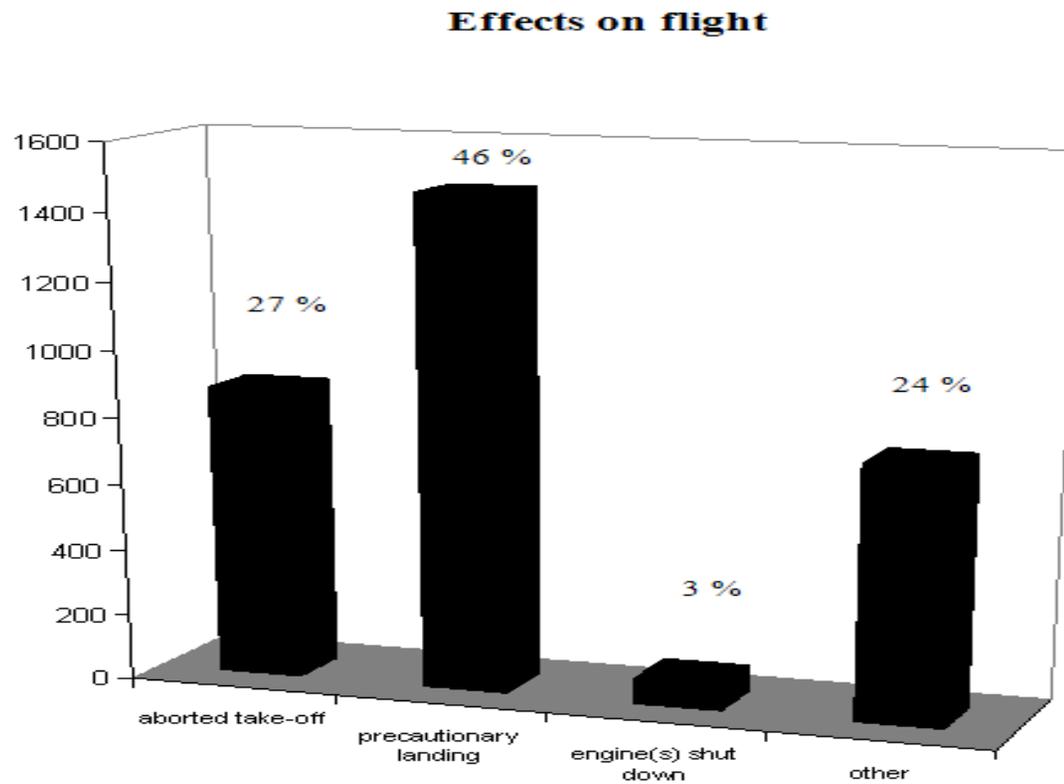


Chart 6: effects on flight, if any

Parts of Aircraft Struck and Damaged

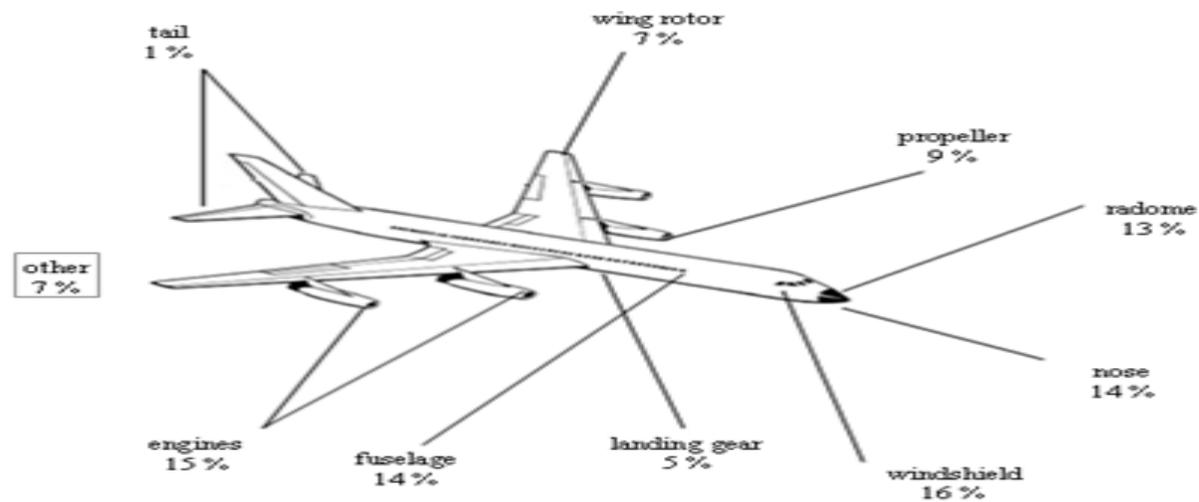


Chart 6 : parts of aircraft struck or damaged

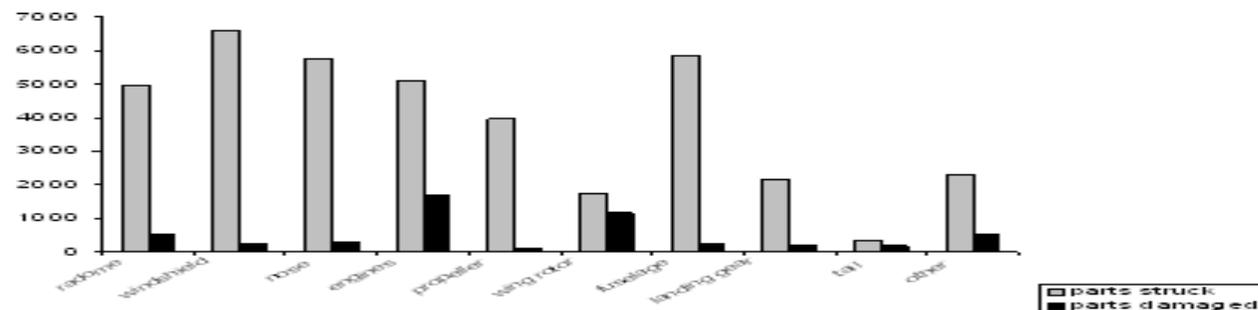


Chart 7 : parts of aircraft struck and damaged

Amendment 10-A to Annex 14, Volume I

- 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.***

Strike by Animals Other than Birds

December 2002
Dash 8 landing at
Airport in North
Carolina hit
White-tailed Deer

Nobody wins when wildlife are
tolerated at airports



Impact collapsed
nose gear



Professional programs
to manage wildlife
hazards at airports
benefit both aviation
and wildlife!

Alligator Alert!

**Alligator Alert at Orlando
International Airport,
USA 2001**



Amendment 10 to Annex 14, Volume I

- 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...
 - b) the collection of information from aircraft operators, aerodrome personnel....
 - c) an ongoing evaluation of the wildlife hazard by competent personnel.**

Amendment 10 to Annex 14, Volume I

- 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.**

Amendment 10 to Annex 14, Volume I

- 9.4.4 The appropriate authority shall take action to eliminate or to prevent the establishment of garbage disposal... unless an appropriate **wildlife assessment** indicates that they are unlikely..... **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.**

Amendment 10 to Annex 14, Volume I

- **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.*

(it was a Note before)

Doc 9137
AN/898
Part 3



Airport Services Manual

Part 3
Wildlife Control and Reduction

Approved by the Secretary General
and published under his authority

Fourth Edition — 2012

International Civil Aviation Organization

What's New in ASM, Part 3

- More comprehensive guidance on the fundamental elements of an airport bird/wildlife strike control programme, including:
 - Assignment of personnel
 - A process to collect and analyze data, using a risk assessment methodology
 - A process of habitat and land management and to expel or remove hazardous birds/wildlife
 - A process to liaise with non-airport agencies and local land owners...

- Guidance dealing with wildlife other than birds both on habit management and repellent techniques
- Examples of modified procedures for aircraft arriving at and departing airports with hazardous birds/wildlife, for aircraft operators
- Detailed guidance on risk assessment of bird/wildlife strikes, taking account of severity and probability

- Summary of best practices for bird/wildlife management programmes on airports
- Emerging technology and communications procedures

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Thank you