

Athens International Airport

“Wildlife Hazard Management Plans and ICAO Safety Management System”



Anastasios Anagnostopoulos
Head Wildlife and Landscaping
Environmental Services Department

Purpose of the presentation

To demonstrate how
the Wildlife Hazard Control and Reduction provisions
are integrated in the
Safety Management System

References

1. **ICAO Annex 14 to the Convention on International Civil Aviation: AERODROMES Volume I – Aerodrome Design and Operation** (Fifth Edition - 2009)
2. **ICAO Annex 19 to the Convention on International Civil Aviation: Safety Management** (First Edition - July 2013)
3. **ICAO Doc 9137-AN/898 part 3: Airport Services Manual - Part 3 “Wildlife Control and Reduction”** (Fourth Edition - 2012)
4. **ICAO Doc 9859 AN/474: Safety Management Manual (SMM)**
(Third Edition - 2013)

The concept of safety

Within the context of aviation, safety is “the state in which the possibility of harm to persons or of property damage is reduced to, and maintained at or below, an acceptable level through a continuing process of hazard identification and safety risk management”

The concept of wildlife strike risks management

The presence of wildlife (birds and animals) on and in the aerodrome vicinity poses a serious threat to aircraft operational safety

The SMS structure

- ✓ **1. Safety policy and objectives**
 - 1.1 Management commitment and responsibility
 - 1.2 Safety accountabilities
 - 1.3 Appointment of key safety personnel
 - 1.4 Coordination of emergency response planning
 - 1.5 SMS documentation
- ✓ **2. Safety risk management**
 - 2.1 Hazard identification
 - 2.2 Safety risk assessment and mitigation
- ✓ **3. Safety assurance**
 - 3.1 Safety performance monitoring and measurement
 - 3.2 The management of change
 - 3.3 Continuous improvement of the SMS
- ✓ **4. Safety promotion**
 - 4.1 Training and education
 - 4.2 Safety communication

Chapter 9, 9.4 Wildlife strike hazard reduction:

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; *{Component 1 SSP}*
- 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; *{Component 2 SMS}* and
- c) **an ongoing evaluation of the wildlife hazard by competent personnel.** *{Components 2 & 4 SMS}*

9.4.2 Wildlife strike reports shall be collected and forwarded to ICAO for inclusion in the ICAO Bird Strike Information System (IBIS) database.
{Components 2 & 4 SMS}

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. *{Component 2 SMS}*

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. {Component 2}

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. {Components 2 & 4}*

Doc 9317 Part 3 (i)

- ✓ **Establishment of a national committee** *{Component 1 SSP}*
- ✓ **Roles and responsibilities within a bird/wildlife strike control programme** *{Components 1, 2 & 4 SMS}*
 - ➔ *Key notice: Define the levels of management with authority to make decisions regarding wildlife risk tolerability*
- ✓ **Organization of an airport bird/wildlife strike control programme** *{All Components SMS}*
 - ➔ *Key notice: Assure that all personnel involved in the flow of wildlife strike risk mitigation actions share the same understanding regarding potential hazards, risks posed by the hazards and risk mitigation/management.*
- ✓ **Aircraft Operators** *{Components 1 & 4 SMS}*

Doc 9317 Part 3 (ii)

- ✓ Assessment of the risk of bird/wildlife strikes *{Component 2 SMS}*
- ✓ Habitat Management and Site Modification *{Component 2 SMS}*
- ✓ Repellent Techniques *{Component 2 SMS}*
- ✓ Best practices for bird/wildlife management programmes on aerodromes *{Component 2 SMS}*
- ✓ Incompatible land use around airports *{Component 2 SMS}*
- ✓ Evaluating the wildlife control programme *{Component 3 SMS}*
 - *Key notice: A performance based WHMP shall be verified in reference to the safety performance indicators and safety performance targets.*
- ✓ Emerging technology *{Component 3 SMS}* communications procedures *{Component 4 SMS}*

Concluding

- ✓ The presentation provided an outline of the relations between the components of the Wildlife Hazard Management and those of the Safety Management System
- ✓ Those working on the preparation or review of an aerodrome WHMP can follow the Doc 9317 Part 3 chapter structure or the Doc 9859 (chapter 5) structure to integrate their plan
- ✓ For those following the former approach an Appendix with a Table of Compliance of the provisions of the WHMP to the ICAO SMS components and elements will be helpful for safety assurance and auditing purposes



Thank you for your attention

