

Athens International Airport

“Wildlife Hazard Management Plans and ICAO’s Safety Management System”



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Purpose of the presentation

**To demonstrate how
the ICAO Wildlife Hazard Control 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 risk 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 relationships between the components of Wildlife Hazard Management and those of the Safety Management System**
- ✓ **Those working on the preparation or review of an aerodrome WHMP can adopt the structure in Doc 9317 Part 3 or that of Doc 9859 (chapter 5) to integrate their plan**
- ✓ **For those following the former approach, an Appendix with a Table of Compliance of the provisions of the WHMP with the ICAO SMS components and elements will be helpful for safety assurance and auditing purposes**

The background features a stylized, light gray outline of an airplane in flight, positioned in the upper right quadrant. A large, thin, light gray outline of the number '9' is positioned on the left side, partially overlapping the airplane's tail. A horizontal blue bar with a segmented pattern runs across the top and bottom of the slide.

Thank you for your attention