



**Twenty-first Meeting of the CAR/SAM Regional Planning and Implementation Group
(GREPECAS/21)**

Santo Domingo, Dominican Republic, 15 to 17 November 2023

Agenda Item 4: GREPECAS Work Programme

**CONTRIBUTION TO SAFETY IN THE WILDLIFE HAZARD MANAGEMENT – WILDLIFE
HAZARD REGIONAL GUIDE**

(Presented by Belize, Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua)

EXECUTIVE SUMMARY

This working paper briefly presents the progress made to improve safety focused on the Wildlife Hazard Regional Guide (PAF), created to make awareness of the knowledge, good practices, technologies, and considerations that support the mitigation of wildlife hazard, which are integrated in the PAF. This document was prepared with the support of COCESNA’s Civil Aviation Authorities, Member States, and the Environment Management (GMA), with the objective of promoting the strengthening of the knowledge of the actors in the region to reduce strikes with birds. The Regional PAF integrates information on the different elements that must be considered to manage birds and other animals efficiently and respectfully.

Action:	<ul style="list-style-type: none"> • Adoption of practices that promote and help in the development of a sustainable safety system, to achieve better results in the implementation of harmonized wildlife hazard mitigation measures in the States. • Encourage States and interested parties to exchange knowledge and experience of procedures, good practices and effective techniques, as well as other types of matters in the wildlife hazard management. • Raise awareness among States on the protection of the environment and biological diversity with systems to prevent impacts with birds and other animals. Recognizing equivalent safety measures and attention to safety results so that they continue to be the basis of international cooperation. With the information generated, establish acceptable levels of safety that allow regulators to monitor the behavior of the wildlife hazard management system.
<i>Strategic Objectives:</i>	<ul style="list-style-type: none"> • Safety • Air Navigation Capacity and Efficiency
<i>References:</i>	<ul style="list-style-type: none"> • <i>Safety Oversight Manual (Doc 9734)</i> • <i>Universal Safety Oversight Audit Programme Continuous Monitoring Manual (Doc 9735) and</i> • <i>Aerodromes, Annex 14, Vol I</i> • <i>Wildlife Hazard Prevention Regional Guide</i>

1. Introduction

1.1 A safe air transportation service improves and strengthens connectivity in commercial, tourist, and economic links among States. However, strikes with birds are one of the risk sources that have the capacity to damage aircraft, causing a reduction in safety, losses and that can reduce groups of birds and fauna, which are sometimes endemic, migratory and reduced.

1.2 Central America, due to its condition as a biological corridor and home to endemic species that amaze and enrich the community, is crossed by the constant transit of migratory birds, added to the native species of each country, which is a great natural heritage, however; this entails various risks and challenges to aviation safety, which may impact confidence, commerce, and tourism.

1.3 Activities and projects have been carried out and developed to strengthen the implementation of wildlife hazard management plans in Central America. Making progress in reducing impacts with birds and other animals, one of the categories of occurrence in the Annual Safety Report. A topic of great importance for air operators in the region, who wish to maintain safety and mitigate the risks of accidents and incidents caused by wildlife. Which may have a lack of support, resources, training, or personnel.

1.4 COCESNA has identified the need for a technical reference guide on wildlife. Such a guide includes a series of simple, clear and orderly explanations that promote and facilitate the development of conceptual structures to increase safe, efficient and sustainable operations. Considering the similarities that the region shares, recommendations for standardizable processes and practices have been compiled.

2. Development/Discussion

2.1 For safety management, adds value and becomes necessary, the incorporation of an Airport Wildlife Management Plan (PM-PAF) that seeks to guarantee that wildlife problems are addressed in a systematic and coordinated manner, improving safety and the incidents rates. Element that is explained, promoted in the avian and fauna danger guide.

2.2 With the creation of the Wildlife Hazard Prevention Guide it has been possible to work in different Member States of the region, taking advantage of the knowledge and experience of the personnel in charge of the subject to generate a set of updated good practices, which are in accordance with the contexts of the region. The results of this exchange of knowledge enrich the management and the document presented. It has also allowed to identify the most priority needs so that higher level solutions can be implemented and management systems for this risk can be developed in the region, reaching the levels of implementation of the requirements of the Annexes related to safety and control of this risk.

2.3 COCESNA/GMA has carried out in this guide a review of the technologies available for the mitigation and dissipation of wildlife hazard, with a categorization of good practices according to different criteria, such as whether it is a passive, active or corrective measure, also, according to the type of attraction for wildlife whether for feeding, resting or socialization; this allows a comprehensive approach for the reduction of the impact risk.

2.4 The guide summarizes different technologies available, such as tools to achieve the objectives of maintaining a safe airspace, the operational effectiveness and efficiency, adequate wildlife species treatment, under a selection by their degree of being recommended, including technologies such as: pyrotechnics, falconry, call simulations, catch and release, gas cannons, scarecrows, mobile models of predators, repellents, dogs and other newer and less proven technologies.

2.5 These actions are part of the efforts of the Member States to guarantee the sustainability of an effective and efficient safety system that values and cares for the environment, in order to improve their compliance and supervision capabilities of the procedures, documents, and systems related to critical aerodrome elements and other auditable areas, prior to the assignment of an ICAO Universal Safety Oversight Audit Programme – Continuous Monitoring Approach (USOAP-CMA) audit. The aforementioned includes:

- Continue the work of transferring knowledge and training, generating guidance material and good practices related to security, analyzing and updating information on the subject, the level of application, the degree of compliance, the needs and challenges to be overcome to maintain the best possible degree of operability.
- Identify opportunities for improvement and learning with additional material on avian hazard mitigation and airport wildlife management plans for Member States and existing ambition towards positive changes.
- Make appropriate recommendations to assist Member States to amend the identified gaps.
- Share, evaluate and validate corrective measures adopted by Member States; and
- Evaluate future actions in order to continually improve capabilities to maintain and monitor safety.

2.6 The previously mentioned represents the contiguous efforts of the Civil Aviation Authorities (CAAs) and the aviation industry, to provide assistance to Member States and thus contribute to the achievement of efficiency in the safety systems in the Region to provide a common aviation safety.

3. Conclusion

3.1 The work to contribute with the wildlife hazards management is carried out with the objective of promoting the safe and efficient development of air operations in the region and in the world. This effort is enriched by the exchange of knowledge and experiences among States, as is condensing it into a guiding document, such as the wildlife hazard regional guide.

3.2 Safety is a fundamental basis for the growth and sustainability of the aviation industry; it requires the application of plans, programs, procedures, systems and other forms of management in each of its critical elements; including that inside the aerodromes exist an adequate wildlife management.

3.3 The exchange of knowledge, experiences and good practices in the wildlife hazards management among Member States allows the development and strengthening of a safer and more efficient global air interconnection, enabling a more harmonized environment, consolidating and providing continuity so that greater benefits are generated from aviation in the Region; as well as avoiding the sacrifice of valuable biological species and taking care of the diversity of local life.

4. Suggested Actions

4.1 The Meeting is invited to:

- a) Encourage States and interested parties to exchange knowledge and experience of procedures, good practices and effective techniques, as well as other types of matters in wildlife hazard management;
- b) Adoption of practices that promote and help in the development of a sustainable safety system, to achieve better results in the implementation of harmonized wildlife hazard mitigation measures in the States;
- c) Raise awareness among States on the protection of the environment and biological diversity with systems to prevent impacts with birds and other animals. Recognizing equivalent safety measures and attention to safety results so that they continue to be the basis of international cooperation; and
- d) With the generated information, establish acceptable levels of safety that allow regulators to monitor the behavior of the wildlife hazard management system.