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**Airports**

# An Update on the Manual for Strike Reporting and the IBIS

**WBA Conference**  
**Changing World, Wildlife and Aviation**

**29th November – 1st December 2022**  
**Bangkok, Thailand**

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**FAA**  
Office of Airports

# **EXPECTATIONS OF STRIKE DATA**

## **REGULATOR NEEDS ENOUGH QUALITY / QUANTITY DATA TO:**

- determine high risk species
- track national trends
- provide scientific foundation for regulatory guidance

## **AIRPORTS NEED ENOUGH QUALITY / QUANTITY DATA TO:**

- identify & mitigate hazardous species, strike dynamics and attractants and evaluate effectiveness of wildlife management program

## **INDUSTRY NEEDS ENOUGH QUALITY / QUANTITY DATA TO:**

- evaluate effectiveness of aircraft components

# **INACCURATE / INCOMPLETE STRIKE DATA**

## **INEFFECTIVE RISK MANAGEMENT**

- Targeting wrong species
- Inadequate or incorrect habitat attractant management

## **FINANCIAL INEFFICIENCY / MISAPPROPRIATION**

- Human resources or management resources inadequate / misused
- Funding prioritized incorrectly

## **PROGRAM EVALUATION IMPACTED**

- Evaluation requires data quality / data quantity
- Inadequate / flawed evaluation equals guesswork and increased risk

## **OUT OF COMPLIANCE**



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# ICAO Wildlife Guidance Recently Updated

## 2016



ICAO

International Standards  
and Recommended Practices

Annex 14 to the Convention on International Civil Aviation

Aerodromes

**Volume I**  
Aerodrome Design and Operations  
Seventh Edition, July 2016



This edition supersedes, on 10 November 2016, all previous editions of Annex 14, Volume I.  
For information regarding the applicability of the Standards and Recommended Practices, see Chapter 1, 1.2 and the Foreword.

INTERNATIONAL CIVIL AVIATION ORGANIZATION

## 2020



ICAO

Doc 9981

PROCEDURES FOR AIR NAVIGATION SERVICES

Aerodromes

Third Edition, 2020



This edition supersedes, on 5 November 2020, all previous editions of Doc 9981.

INTERNATIONAL CIVIL AVIATION ORGANIZATION

## 2020



ICAO

Doc 9137

Airport Services Manual

Part 3 — Wildlife Hazard Management  
Fifth Edition, 2020



Approved by and published under the authority of the Secretary General

INTERNATIONAL CIVIL AVIATION ORGANIZATION

# ICAO IBIS Manual - 1989

Doc 9332-AN/909

## MANUAL ON THE ICAO BIRD STRIKE INFORMATION SYSTEM (IBIS)

THIRD EDITION — 1989



*Approved by the Secretary General and published under his authority*

INTERNATIONAL CIVIL AVIATION ORGANIZATION

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# 1989 – changes since then...

- 🌐 Stigma of reporting strikes greatly reduced
- 🌐 CAA's effectively use mandates and outreach to improve quality / quantity of data
- 🌐 Field data more easily collected / analyzed with handheld electronic systems
- 🌐 Detection / monitoring systems (avian radar, FOD radar) improve data collection on strikes and near miss events
- 🌐 Feather ID institutions (Smithsonian) now provide incomparable assistance towards identifying species involved in strikes.



Photo: Thomas Yin – BWI CAGO strike

# Proposed Initiatives to ICAO

- 1) Update the ICAO Birdstrike Information System (IBIS) Manual
- 2) Permit International Data Access and Data Sharing

***Enhance global aviation safety by improving international reporting of wildlife/aircraft strike incidents as well as international data access and data sharing.***

# Update the IBIS Manual – Why?

- ✓ No standardized definition of WHAT should be reported as a strike
- ✓ No minimum standards for strike report forms
- ✓ New software systems (Excel) available for recording / submitting strike data to ICAO
- ✓ ECCAIRS - aka: the European Coordination Centre for Accident and Incident Reporting system is being updated again
- ✓ ALL existing sections must be fully updated / rewritten; new sections added

# Update the IBIS Manual – Why?

- ✓ No guidance re: strike data collection or documentation for Member States
- ✓ No guidance on strike data validation (QC/QA)
- ✓ No guidance on basic data analysis (why? how? Metrics, KPI's)
- ✓ No guidance standardizing key word usage (e.g., strike=bird strike=birdstrike=wildlife strike?, report vs document, snarge vs remains, etc.)
- ✓ Language issues when querying int'l data
- ✓ Data access extremely difficult

# MANUAL FOR STRIKE REPORTING AND THE ICAO BIRD / WILDLIFE STRIKE REPORTING SYSTEM (IBIS)

- ✓ CHAPTER 1 - INTRODUCTION / BACKGROUND
- ✓ CHAPTER 2 - INTERNAL STRIKE REPORT COLLECTION
- ✓ CHAPTER 3 - MANAGEMENT OF STRIKE DATA / QUALITY CONTROL / VALIDATION
- ✓ CHAPTER 4 - REPORTING TO ICAO (ECCAIRS, Excel, pdf)
- ✓ CHAPTER 5 - ANALYSING THE DATA



# MANUAL FOR STRIKE REPORTING AND ICAO BIRD / WILDLIFE STRIKE REPORTING SYSTEM (IBIS)

- ✓ Appendix 1 - The Strike Form
- ✓ Appendix 2 – The Strike Form Data Structure (Glossary of the Data & Fields)
- ✓ Appendix 3 - Remains Collection Procedures
- ✓ Appendix 4 - Codes for States, Territories and Oceans
- ✓ Appendix 5 - Codes for Aircraft by Manufacturer and Model - ICAO Aircraft Codes (DOC8643 Aircraft Type Designators)
- ✓ Appendix 6 - Codes for Engines by Manufacturer and Model
- ✓ Appendix 7 - Codes for Airports - ICAO Airport Codes (DOC7910 Location Indicators)
- ✓ Appendix 8 - Codes for Airlines - ICAO Airline Codes (DOC8585 Operator 3-letter Designators)
- ✓ Appendix 9- Codes for Birds of the World
  - a. International Ornithological Congress (IOC) Master Bird List
  - b. CRC Handbook Avian Body Masses

# IBIS Manual (Doc 9332) WHMEG

DATE	ACTION / GOALS
5/10-11/2021	1 <sup>st</sup> Meeting (virtual)
9/21/2021	2 <sup>nd</sup> Meeting (virtual)
3/29/2022	3 <sup>rd</sup> meeting (virtual)
11-8-10/2022	4 <sup>th</sup> meeting (in-person) USDA HQ Washington, DC, USA (Chapter Teams Assigned - All Chapters ready for edits 2 weeks prior to meeting)
April 4-6, 2023	5 <sup>th</sup> meeting (in-person) ICAO HQ, Montreal, Quebec, Canada (All Chapters (1-5) and Appendices ready for edits February 28, 2023)
September 26-28, 2023	6 <sup>th</sup> meeting (in-person) proposed at Vancouver International Airport, Vancouver, British Columbia, Canada (All Chapters (1-5) and Appendices ready for edits September 8, 2023)
<b>Q4 2023 (11/1/2023)</b>	<b>ADOP.015.03-ICAO-IBIS Manual (Doc 9332) must be completed Q4 2023 (November 1, 2023)</b>

# 2<sup>ND</sup> ICAO Initiative

## International Data Access / Sharing

- **Strike data access from most ICAO Member States is unavailable or inaccessible.**
  - IBIS DATA UNAVAILABLE TO EVERYONE
  - MUST USE ECCAIR SYSTEM TO ACCESS INDIVIDUAL NATION'S DATA IF THEY USED ECCAIRS
- **Strike data for all Member States is incomplete and/or inaccurate**
  - RISK MANAGEMENT NEGATIVELY IMPACTED
  - FINANCIAL MISMANAGEMENT
  - PROGRAM EVALUATION NEGATIVELY IMPACTED
  - MAY RESULT IN AERODROMES BEING OUT OF COMPLIANCE

## 2ND ICAO Initiative

### International Data Access / Sharing

#### - US-UK Air Carrier Strike Databases Incomplete -

- ☐ UK carriers report far more birdstrike events occurring in the US than the FAA's National Wildlife Strike Database suggests >70% missing
- ☐ FAA's NWSD contained very few strike reports by UK carriers in the US – but of those noted, 50% were missing from UKCAA's DB
- ☐ The FAA's NWSD details few US carriers reporting strikes in UK – 20% of those events were missing from UKCAA's DB
- ☐ UK carriers report 'all' strike events in EU reporting regulation – yet reconciliation with US & UK revealed many anomalies & lack of quality

# 2ND ICAO Initiative

## International Data Access / Sharing

### ACCOMPLISHED HOW?

#### SUCCESS MAY INVOLVE:

- ✓ Nations Submitting Strike Data to IBIS Agree to Allow Data Access to Participating Countries OR to the Public.
- ✓ ICAO Council Votes to Allow Data Access

#### UNSUCCESSFUL RESULTS MAY INCLUDE:

- ✓ Access is Limited to Nations Using ECCAIRS

# Questions?

