

Aerodrome Wildlife Hazard Management Programme

**Workshop on National Wildlife Hazard
Management Programme**

Bangkok, Thailand, 2 May 2023

SL Wong

Director - Technical & Administrative Affairs





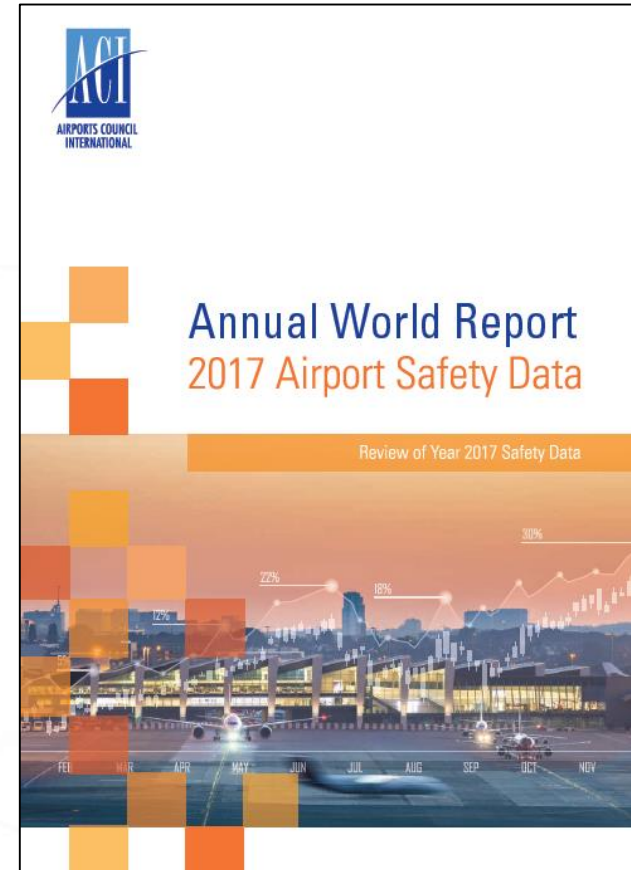
Presentation Outline

- Challenges for aerodromes in WHM
- ACI's WHM programme



Wildlife Strike Rate May Seem Small...

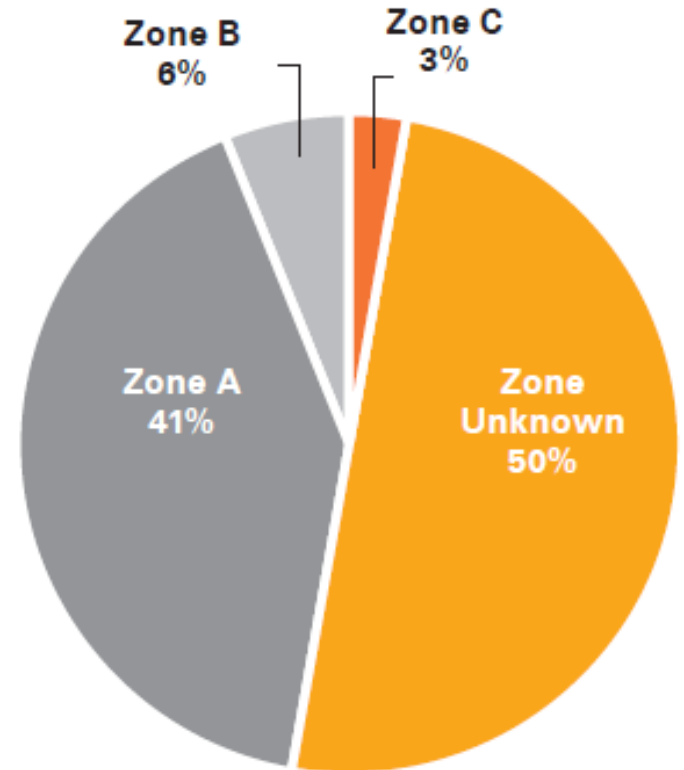
- 6 strikes for every 100,000 aircraft movements in 2017





But Many Occur During Takeoffs/Landings

- **Zone A:** <200 ft on landing or under 500 ft on take-off
- **Zone B:** < 1500 ft - but not within Zone A
- **Zone C:** > 1500 ft





Challenges Aerodrome Operators Face

- Wildlife Hazard Mgt Plan
- Resources and Training
- Safety/Reporting Culture and Communication



WHM Won't Start without a Plan

- 26 APEX in Safety Reviews in APAC/MID 2012 - 2019
- 55% airports reviewed did not have WHM Plan
- 60% had no risk assessment



Resources and Training an Issue

- Lack of expertise
- Training
- Resources
 - Manpower
 - Equipment
 - Dispersal devices



There won't be a Real Picture without a Positive Safety Culture

- Under-reporting conceals the truth
- Need to cultivate
 - positive safety culture
 - Reporting culture
 - Just culture
- Employees should NOT be afraid of reporting strikes
- Positive safety culture an Annex 19 requirement
- Changing mentality the biggest challenge



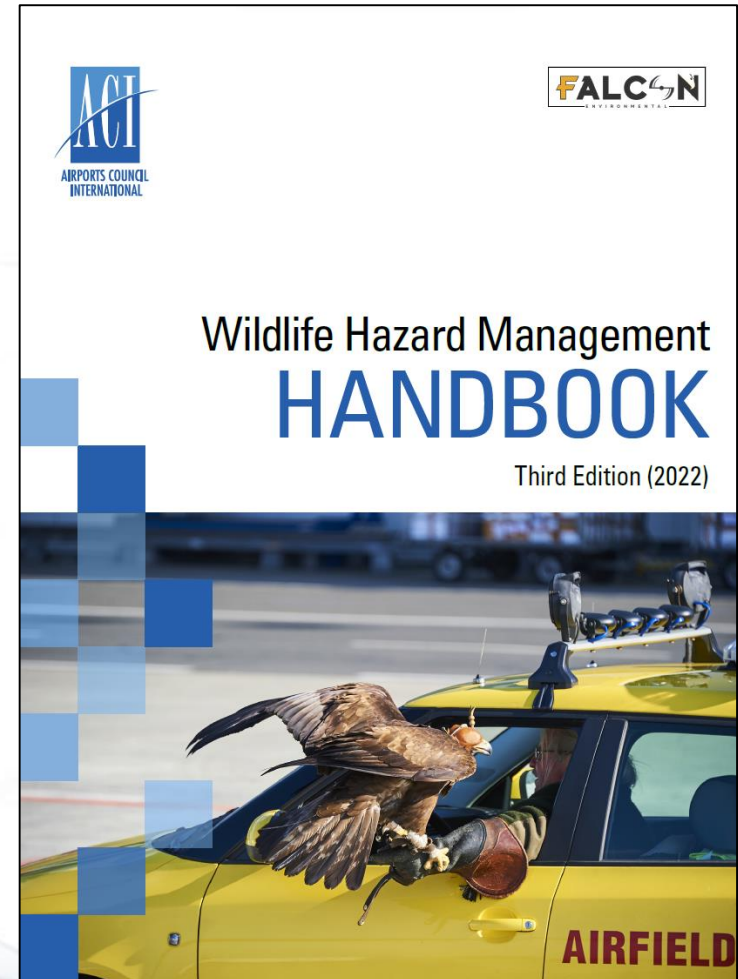
ACI's WHM Programme

- Guidance materials
- Training Courses
- Onsite assessments



ACI Guidance on WHM

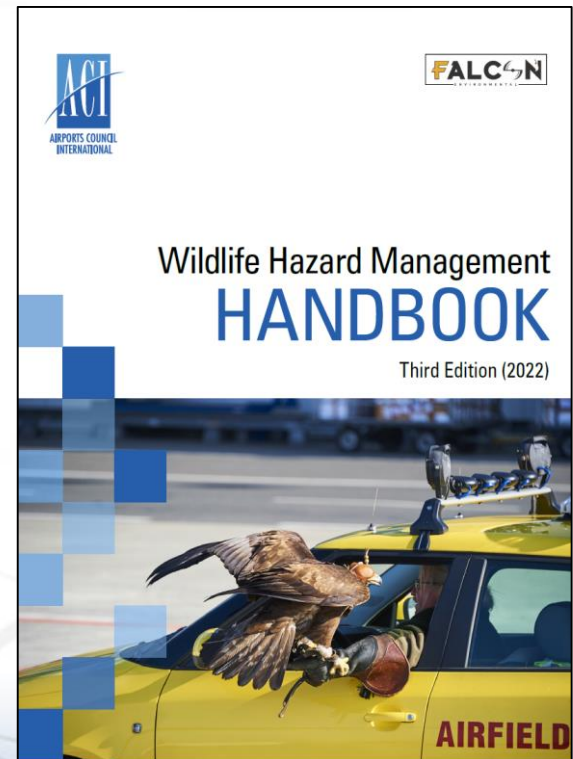
- 3rd edition, 2022
- Largely expanded
- Especially on habitat management
- Case studies





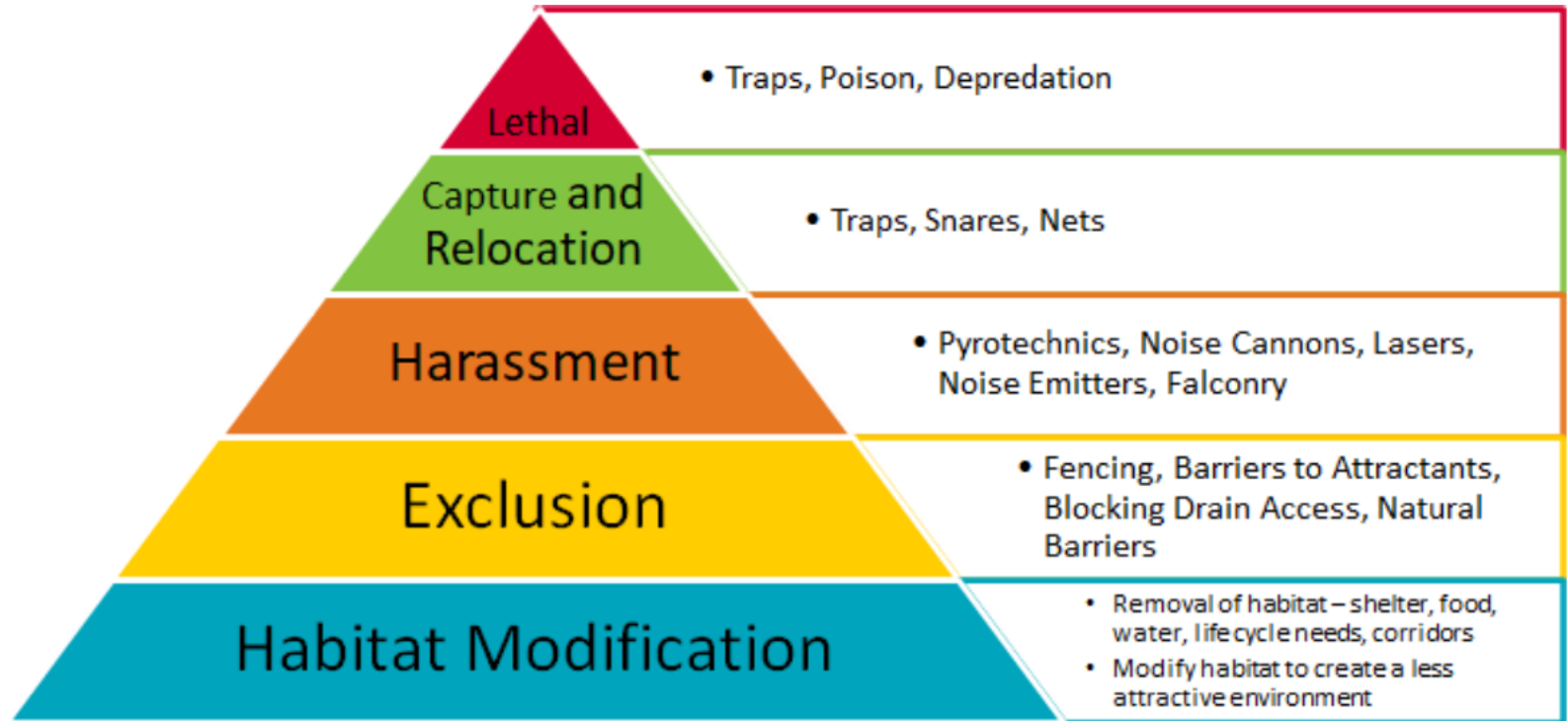
ACI Handbook on WHM

- Roles and responsibilities (who does what in WHM)
- Components of WHM Program
- Risk Assessment
- Habitat Management
 - On airport
 - Off airport
- Control tools
- Reporting
- Training
- Evaluation of WHMP





Habitat Mgt as Proactive Measure





Example of Risk Assessment Matrix

Hazard Level Ranking					
Likelihood of Strike (Average annual number of strikes over five years OR strikes per 10,000 movements)	Level 5	Level 4	Level 3	Level 2	Level 1
>10 or 5/10,000 movements	Very High	Very High	High	Moderate	Low
3–10 or 4/10,000 movements	Very High	Very High	High	Moderate	Low
1–2.9 or 3/10,000 movements	Very High	High	Moderate	Low	Low
0.3–0.9 or 2/10,000 movements	Very High	High	Moderate	Low	Very Low
0–0.2 or 1/10,000 movements	High	Moderate	Low	Very Low	Very Low



Risk factors

- Abundance of species
- Mass of species
- Air traffic volumes
- Aircraft engine types



Habitat Management

- Water
- Food waste and sources
- Nesting places
- Fences
- Grass





Off-Airport Habitat Management

- Farming
- Landfill
- Garbage disposal
- Sewage treatment
- Reservoirs, lakes
- Nature reserves



Innovative Use of farm animals to eat up leftovers of harvests





Monitor and control

- Pyrotechnics
- Falcons and dogs
- Lasers





KPI's for Evaluation of WHMP

- Strikes
- Number of interventions
- Number of patrols
- Number of birds encountered



ACI Training on WHM

- Classroom (3 days)
- Online (self learning)

The screenshot shows the ACI Online Learning Centre website. The header includes the ACI logo, navigation links for Courses, For Business, and Personal Learning, a search bar, and a Learning Login button. The main content area is titled "Wildlife Hazard Management" and includes an overview, course information, and learning objectives.

Wildlife Hazard Management

Overview

Wildlife Hazard Management is an operational activity that is vital to maintaining an acceptable level of safety for aircraft operations at an airport.

The Wildlife Hazard Management course will provide you with a comprehensive overview of the key elements involved in wildlife hazard management and how these elements are integrated successfully into the airport's wildlife hazard management plan.

This course has been developed using guidance material from various civil aviation authorities, industry best practices, ICAO guidance material and other publications from international organizations relating to wildlife management.

Please note – this course is also available in [French](#) and [Spanish](#).

Learning Objectives

On completion of this course participants will be able to:

- Understand the importance of wildlife hazard management for airport safety.
- Describe the major measures and techniques used to manage and negate wildlife hazards.
- Understand the steps involved in establishing an effective Wildlife Hazard Management Program.

Course info

Language: English
Duration: 2 Hours
Level: Short Course

1 Total **\$95.00 USD**

Add To Cart

By enrolling you agree to our [Terms of use](#) and [Privacy Policy](#).

The screenshot shows the ACI website with a blue header and a search bar. The main content area features a large image of a person in a yellow safety vest and the title "Wildlife Hazard Management". Below the image, the course details are listed.

Wildlife Hazard Management

Home > Private Programs and Services > Global Training > Airport Safety Training > Wildlife Hazard Management

Professional Certificate Course
Delivery: Classroom
Duration: 3 days



On Site Assessments

- APEX in Safety Assessment
- Voluntary assessment launched in 2012



APEX in Safety

- Peer review in aerodrome safety
- One week
- Free of charge for ACI Members
- Already 100 reviews worldwide



What is APEX for Safety ?

- Airport Excellence for Safety
- Peer safety review for airports
- It is NOT an audit
- ACI initiative launched in May 2011
- Technical assistance/advice to improve aerodrome safety



How Does APEX Work?

- Airport (Host) requests for assistance
- ACI assembles team
 - Safety Partner (safety expert from other airports)
 - ICAO staff
 - ACI staff
 - Others experts
- Team conducts on-site review (1 to 2 weeks)

How Does APEX Work?

- Checklist based on ICAO SARPs and ACI and best practices
- Report on gaps and recommendations



APEX Team in Action



Abu Dhabi March 2014



Team Conducting Review with Client



Abu Dhabi March 2014

Typical Areas Covered

- Airfield signs, lightings and markings
- SMS
- Rescue and Firefighting
- Runway safety
- **Wildlife management**





Conclusion

- WHM a challenge for some aerodrome operators
- ACI's WHM toolkit and programme
 - Handbooks
 - Training and seminars
 - Onsite assessment (APEX)