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Second Meeting of the Asia/Pacific Wildlife Hazard Management Working Group (AP-WHM WG/2)*Virtual Meeting, 27 to 29 May 2020***Agenda Item 5: Asia Pacific Regional Guidance on Implementation of Wildlife Hazard Management Programme****EVALUATION OF AIRPORT WILDLIFE HAZARD MANAGEMENT PROGRAMME**

(Presented by India and World Birdstrike Association)

SUMMARY

Annex 14, Volume I, Section 9.4 requires certain actions for the reduction of wildlife strike hazard. Doc 9137, Part 3 provides guidance on wildlife hazard management programme, contributing to the reduction of wildlife strike hazard. This paper presents the process for evaluation of established wildlife hazard management programme at airport to provide safety assurance that the programme is fully effective and correctly implemented.

This working paper is prepared in response to Task 1/13, i.e. “Develop performance measurement indicators/metrics to evaluate the effectiveness of the implementation of Airport Wildlife Hazard Management Programme”.

1. INTRODUCTION

1.1 Wildlife populations on and in the vicinity of airports are constantly changing in response to changes in land use, state and management policies, and environmental factors. In addition, wildlife might adapt or habituate to control strategies that were once effective, or they might develop new behavioral or feeding patterns on or near the airport. New wildlife control technologies might become available, or established products or techniques might be withdrawn or banned. Finally, there might be changes in wildlife control and management personnel at an airport.

1.2 Once a Wildlife Hazard Management programme is in place, airport should develop a process to review wildlife management program to provide safety assurance that the programme is fully effective and correctly implemented. The evaluation should be completed on an annual basis but also must include an on-going review process to ensure that the programme is always current and fully functional at all times. Evaluation should consider the general workings of the programme with a view to efficiency and effectiveness.

2. DISCUSSION**Evaluation Process**

2.1 Periodic evaluations of an airport wildlife hazard management programme and the activities undertaken to implement the wildlife hazard management programme are critical because of the dynamic nature of wildlife hazards and control technologies. The foundation for these evaluations

is the maintenance of consistent records of wildlife control activities and wildlife strikes. Following should be considered to evaluate airport wildlife hazard management programme.

2.2 Comprehensive annual report should be prepared and compiled by an appropriately qualified person who has full knowledge of the programme and the standards required for effective delivery. The completed report along with all recommendations must be forwarded to the aerodrome wildlife committee and the senior management responsible for delivery of programme.

2.3 The wildlife manager (or appropriate professional) tasked with performing the annual evaluation should undertake feedback from staff on general effectiveness and observations on all aspects of the programme. The evaluation seeks weaknesses of the programme or areas for improvement. Staffs are often best positioned to provide valuable feedback on the plans. Feedback should be sought from Wildlife team management & staff, Runway Safety Team of the Airport, Airline personnel (in particular aircraft engineers and pilots), Pilot Association(s), Air traffic control, Ground handlers and other parties as required.

2.4 A wildlife survey is a valuable tool for airport to ensure that wildlife management programme is effective, meets all regulations and standards requirement. The survey will be completed formally on an annual basis by a qualified professional. Evaluation of all operational, practical, procedural and technical aspects of wildlife management will form part of this survey.

2.5 It is extremely important that accurate statistics are gathered and interpreted by a competent person to ensure that aerodromes can have effective control measures in a timely fashion. Reference should be made to previous statistical data over the last five years and recommendations and action points raised accordingly. Particular attention should be placed on the quality and accuracy of aerodrome wildlife statistics and how these statistics are interpreted so that trends are measured and mitigation measures immediately put into place.

2.6 A full comprehensive review of all control procedures and practices are to ensure that effective control measures are in place and are correctly followed and documented. A review of seasonal migration patterns is essential.

2.7 A full equipment audit should be undertaken annually to establish serviceability and effectiveness of all equipment used to support wildlife management and also consider for new equipment and their effectiveness.

2.8 A systematic review of rotational control procedures and the perceived effectiveness of the process are to be done. Particular attention to identification of new species and control measures are required to deal with the species.

2.9 Where possible, aerodromes should have a dedicated resource that will ensure that advances in the field of wildlife management and habitat management - whether that is scientific, procedural or proven improved control techniques - are reflected in the aerodromes wildlife and habitat management plan. In addition, grass policy of aerodrome should be reviewed.

2.10 The importance of gathering intelligence and meeting locally at the aerodrome and also surrounding areas can contribute greatly to ensuring that control measures are effective. Awareness programmes are to be held to educate people. A plan for sharing information with local aerodromes or aerodromes with similar wildlife and habitat issues brings mutual benefits where control measures are compared and evaluated.

2.11 On an annual basis, records of training received by wildlife control personnel through designed training programme, conferences, work-shops, self-study courses and on-job training etc. are to be maintained.

2.12 Examples of safety performance indicators and targets to evaluate the effectiveness of the implementation of Airport Wildlife Hazard Management Programme is provided in **Attachment A**. The list is not in any particular order and is not exhaustive.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) discuss any relevant matters as appropriate.

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Attachment A

**EXAMPLES OF SAFETY PERFORMANCE INDICATORS AND TARGETS
FOR AWHMP**

S. No	Safety Measurement	Safety Performance Indicators	Safety Performance Target
1.	WHM Programme	Regular review and revision based on the learning from wildlife management	<ul style="list-style-type: none"> • Review and revision at least annually • Status and reporting of Wildlife Strikes and activities • Update on bird movement and bird strike data half yearly
2.	Habitat Management	Regular review based on the birds visited the airside	<ul style="list-style-type: none"> • Review at least annually • Status and reporting of habitat measures • Minimum 2 habitat modification measures to be initiated annually for controlling the fauna
3.	Airfield Environment Management Committee	Regular meeting of AEMC and its subcommittee	<ul style="list-style-type: none"> • AEMC meeting held bi-annually • AEMC subcommittee meeting held quarterly • Monthly follow up to be recorded
4.	Airport wildlife assessment	Aerodrome wildlife assessment to be conducted every three year	Survey reports to be shared with stakeholders
5.	Public Awareness Program	1. Inside Airport 2. Outside Airport	<ul style="list-style-type: none"> • Programme conducted annually (or at an appropriate frequency) • Target on attendance and/or participation from all trades (e.g. ground handlers, maintenance, airport security, etc.)
6.	Equipment for control of wildlife activities	Check lists of equipment	Serviceability records of individual equipment's shall be maintained for a period of time (e.g. 5 years)
7.	Competency of manpower	Requirement of minimum qualification pertaining to WHM	All WHM personnel meet the minimum qualification requirement

8.	Training	Specialized and Refresher courses	<ul style="list-style-type: none"> • Minimum 2 training/workshops to WHM team (local) in a year • Records to be maintained
9.	Wildlife Strikes (ground)	Number of reported wildlife strikes at airports per 10,000 movements	Target to be determined based on historical figures (e.g. for 3 years) and the need for gradual improvement
10.	Bird strikes	Number of reported bird strikes at airport per 10,000 movements	ditto
11.	Wildlife runway incursion	Number of runway incursions by animal at airport per 10,000 movements	ditto
12.	Wildlife Documentation Audit	Annual audit to be conducted	No Level 1 findings and not more than 3 Level 2 findings
13.	Annual report	Annual report to contain all WHM related data and analysis	Sharing of report with airport stakeholders

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