



ICAO

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The Eighth Meeting of the Asia/Pacific Wildlife Hazard
Management Working Group (AP-WHM/WG/8)

Bangkok, Thailand, 25 to 28 May 2026

**Agenda Item 5: State's Action Plan for Establishment and Implementation of Wildlife
Hazard Management Programme – State's Update**

**STATE ACTION PLAN FOR DEVELOPMENT AND IMPLEMENTATION OF MALAYSIA
WILDLIFE HAZARD MANAGEMENT PROGRAMME (WHMP)**

(Presented by MALAYSIA)

SUMMARY

This paper presents Malaysia's progress in the development and implementation of the Wildlife Hazard Management Programme (WHMP). It outlines key initiatives undertaken by the Civil Aviation Authority of Malaysia (CAAM) in establishing a structured and coordinated approach to wildlife hazard management at both national and aerodrome levels.

1. INTRODUCTION

1.1 Wildlife strikes continue to pose a significant safety risk to civil aviation operations particularly during critical phases of flight such as take-off and landing.

1.2 In response to this risk, Malaysia through the Civil Aviation Authority of Malaysia (CAAM) has undertaken initiatives to develop and implement a structured Wildlife Hazard Management Programme (WHMP) at aerodromes in accordance with ICAO guidance and regional best practices.

1.3 This paper presents Malaysia's progress in establishing and implementing the WHMP in aerodromes based on the State Action Plan highlighting key initiatives, stakeholder coordination and regulatory developments.

1.4 Malaysia's Action Plan for Development and Implementation of the Wildlife Hazard Management Programme is provided in the **Attachment A**.

2. DISCUSSION

Key Developments

2.1 Malaysia has established a national framework for wildlife hazard management in aerodromes where CAAM designated as the national coordinator. The National Wildlife Hazard Management Committee (NWHMC) comprising of aerodrome operators, Air Navigation Service Providers (ANSPs), airlines and relevant government agencies has been formed to facilitate coordination, information sharing and continuous improvement through bi-annual meetings.

2.2 Wildlife hazard management requirements are embedded within the national regulatory framework under the Civil Aviation Regulations 2016 and Civil Aviation Directive (CAD) 14 Volume 1, which mandate the implementation of Wildlife Hazard Management Programmes (WHMP) at aerodromes. Supporting guidance materials including CAGM 1400 – Wildlife Hazard Management Programme and SMS-related documents to ensure alignment with ICAO Annex 14, Volume 1 and Annex 19 provisions.

2.3 At the aerodrome level, all aerodromes have established Wildlife Hazard Management Committees and implemented WHM Plans addressing both on-airport and off-airport risks. These plans incorporate hazard identification, risk assessment, mitigation measures and stakeholder coordination with CAAM overseeing effectiveness through certification, audits, and surveillance activities.

2.4 In terms of data collection and reporting, Malaysia utilizes the Civil Aviation Authority of Malaysia Reporting System (CARES) as a central platform for wildlife strike reporting through Mandatory Occurrence Reports (MOR) and Voluntary Occurrence Reports (VOR). The data is standardized and submitted to the ICAO Bird Strike Information System (IBIS) to support global data sharing and benchmarking.

Challenges

2.5 While significant progress has been made in the implementation of the Wildlife Hazard Management Programme (WHMP), several challenges remain in ensuring consistent and effective application across all stakeholders such as:

- Data consistency and standardization are affected by variations in reporting practices which impact the reliability and comparability of wildlife strike data.
- Off-aerodrome risk management remains challenging due to the involvement of multiple external agencies in managing wildlife attractants.
- Resource constraints including limitations in manpower, expertise and tools, continue to impact effective wildlife hazard management.

Future Works

2.6 Malaysia will continue to strengthen wildlife hazard management through enhanced training programmes, engagement sessions and awareness initiatives aimed at improving stakeholder understanding and competency. Efforts to promote a positive safety and reporting culture will be further reinforced in line with CAAM's oversight activities and the State Safety Programme (SSP).

2.7 Coordination among aerodrome operators, airlines and relevant stakeholders will be further enhanced through existing platforms such as WHM at aerodromes and the NWHMC. Continuous improvement will be driven through data analysis, regular review of Safety Performance Indicators (SPIs) and the refinement of mitigation strategies.

Conclusion

2.8 Malaysia has made significant progress in establishing a structured and coordinated Wildlife Hazard Management Programme aligned with ICAO standards.

2.9 The integration of regulatory frameworks, stakeholder collaboration, data-driven decision-making and continuous oversight ensures that wildlife hazards are effectively managed at both national and aerodrome levels.

2.10 CAAM remains committed to strengthening the WHMP through continuous improvement, enhanced coordination and adoption of best practices to further improve aviation safety.

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.



**WILDLIFE HAZARD MANAGEMENT PROGRAMME (WHMP)
STATE ACTION PLAN FOR DEVELOPMENT AND IMPLEMENTATION OF WHMP**

MALAYSIA

This generic template provides a recommended action plan for States to implement WHMP. Certain action(s) and/or order of actions recommended here may be not applicable in all States. States may adapt this action plan to suit their national and local conditions as appropriate.

ID	ACTION	ENTITY RESPONSIBLE	TARGETED IMPLEMENTATION DATE	ACTUAL IMPLEMENTATION DATE	REMARKS
WHMP 1	Designate a WHM National Coordinator to coordinate activities for the development and implementation of WHMP at the national level	CAAM	August 2025	20 August 2025	<p>1. CAAM has been designated as the Wildlife Hazard Management (WHM) National Coordinator at the national level to oversee and coordinate activities related to the development and implementation of the Wildlife Hazard Management Programme (WHMP) in aerodromes.</p> <p>2. In support of this role, a National Wildlife Hazard Management Committee has been established, with the inaugural meeting held on 20 August 2025. The committee comprises representatives from CAAM, aerodrome operators, Air Navigation Service Providers (ANSPs), airline operators and relevant government agencies.</p> <p>3. The National Wildlife Hazard Management Committee convenes on a bi-annual basis to ensure continuous coordination, information sharing and improvement of wildlife hazard management across Malaysia aerodromes.</p>

ID	ACTION	ENTITY RESPONSIBLE	TARGETED IMPLEMENTATION DATE	ACTUAL IMPLEMENTATION DATE	REMARKS
WHMP 2	<p>Identify/designate WHM Focal Points in all stakeholders, e.g. aerodrome operators, ANSPs, aircraft operators, and pilots.</p> <p><i>Note.– Stakeholders may be represented by their national, regional or international associations, e.g. ACI, CANSO and IFALPA.</i></p>	CAAM, Aerodrome Operators, ANSPs, Aircraft Operators.	August 2025	20 August 2025	<p>1. Wildlife Hazard Management (WHM) Focal Points have been identified and designated among key stakeholders including CAAM, aerodrome operators, Air Navigation Service Providers (ANSPs) and airlines operators.</p> <p>2. These focal points are represented within the National Wildlife Hazard Management Committee (NWHMC) which serves as a platform to facilitate coordination, communication and information sharing on wildlife hazard management matters among stakeholders.</p>
WHMP 3	Review ICAO provisions and guidance issued by other relevant aviation organisations.	CAAM, Aerodrome Operators, ANSPs, Aircraft Operators	October 2023	On-Going	<p>1. ICAO provisions and guidance are reviewed by CAAM</p> <p>2. Guidance material issued by other relevant aviation organisations is reviewed in collaboration with airport operators and other relevant stakeholders to ensure its applicability and effective implementation.</p>

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WHMP 4	Establish National WHM Committee (NWHMC) with defined terms of reference. <i>Note.– See list of publications in suggested references below.</i>	CAAM and industry representative appointed by CAAM	August 2025	20 August 2025	<ol style="list-style-type: none"> 1. The National Wildlife Hazard Management Committee (NWHMC) has been established with defined Terms of Reference to facilitate coordination and oversight of wildlife hazard management at the national level. 2. The first National Wildlife Hazard Committee meeting was held on 20 August 2025 followed by the second meeting on 11 March 2026. These meetings serve as a platform for stakeholders to discuss issues and challenges related to wildlife hazard management particularly those involving multi-agency coordination. 3. Key areas of discussion include wildlife hazard management challenges at aerodromes, inter-agency collaboration, standardization of wildlife strike data, sharing of best practices and the development of coordinated mitigation strategies.
WHMP 5	Facilitate WHM initial training in basic WHM concepts for NWHMC members.	CAAM	December 2027		<ol style="list-style-type: none"> 1. A short session on basic WHM concepts will be conducted during the NWHMC meeting to enhance understanding among members and support effective implementation of WHM initiatives. 2. Training on basic Wildlife Hazard Management for members of the National Wildlife Hazard Management Committee (NWHMC) are being planned in the near term

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WHMP 6	<p>Organize initial and recurrent technical WHM training and seminars for Focal Points and relevant staff members of all stakeholders.</p> <p><i>Note.— Regular seminars, e.g. annual, are important for maintaining recency and promoting sharing of knowledge and best practices in WHM.</i></p>	Other stakeholders, e.g. ANSP, aerodrome operators	On-going		<p>1. Training for aerodrome personnel is carried out in line with established training programmes, ensuring both initial competency and ongoing proficiency. In addition, seminars and workshops are organized periodically typically on an annual basis or as required, to reinforce knowledge, enhance awareness and promote continuous improvement in wildlife hazard management.</p> <p>2. Aerodromes operators conduct both initial and refresher training in Wildlife Hazard Management (WHM) through structured classroom sessions and practical workshops. These sessions often involve experts to provide technical insights as well as regulatory representatives to brief on applicable requirements.</p>

ID	ACTION	ENTITY RESPONSIBLE	TARGETED IMPLEMENTATION DATE	ACTUAL IMPLEMENTATION DATE	REMARKS
WHMP 7	<p>Identify, if non-existing, develop, and if need be, amend regulations, standards and guidance materials, e.g. SSP, reference to WHMP in aerodrome manual and SMS manual.</p> <p><i>Note.– States may reverse order of WHMP7 and WHMP9 as they see fit. See Note 2 below the Table.</i></p>	CAA, National WHM Coordinator and all relevant Focal Points for all stakeholders		On-going	<p>1. Malaysia has established regulatory requirements for wildlife hazard management under the Civil Aviation Regulations 2016, which require aerodrome operators to develop and implement a Wildlife Hazard Management Programme (WHMP)</p> <p>2. Malaysia has incorporated wildlife hazard management requirements into its regulatory framework through Civil Aviation Directive (CAD) 14 Volume 1, which adopts the relevant provisions from ICAO Annex 14 Vol.1.</p> <p>3. References to Wildlife Hazard Management Programmes (WHMP) are included within aerodrome manuals and Safety Management System (SMS) documentation, ensuring that wildlife hazard management is addressed as part of the overall safety framework.</p> <p>4. CAAM to review and enhance existing regulations, standards, and guidance materials to ensure alignment with ICAO requirements and to support the effective implementation of wildlife hazard management at aerodromes.</p>

ID	ACTION	ENTITY RESPONSIBLE	TARGETED IMPLEMENTATION DATE	ACTUAL IMPLEMENTATION DATE	REMARKS
WHMP 8	<p>Establish regulations and/or guidelines that consider WHM aviation safety impacts related to land and infrastructural developments outside the aerodrome boundary.</p> <p><i>Note.– Examples of land and infrastructural developments that may have safety impacts are theme parks, restaurants, solar panel installations.</i></p>	State, e.g. Ministry responsible for Civil Aviation in coordination with other concerned Ministries.	On-going		<p>1. Malaysia addresses wildlife hazard management related to land use and infrastructural developments outside the aerodrome boundary through Civil Aviation Directive (CAD) 14 Vol 1 which requires the implementation of a Wildlife Hazard Management Programme (WHMP)</p> <p>2. Malaysia has established guidance material through CAGM 1400 – Wildlife Hazard Management Programme which provides guidance on wildlife hazard management, including considerations related to land use and infrastructural developments in the vicinity of aerodromes.</p> <p>3. The guidance highlights the importance of assessing potential aviation safety impacts arising from developments outside the aerodrome boundary, particularly those that may attract wildlife and increase the risk of wildlife strikes.</p> <p>4. This supports aerodrome operators and relevant authorities in ensuring that land use planning and development activities considering aviation safety considerations.</p>

ID	ACTION	ENTITY RESPONSIBLE	TARGETED IMPLEMENTATION DATE	ACTUAL IMPLEMENTATION DATE	REMARKS
WHMP 9	<p>Establish airport WHM committees with defined terms of reference and representation from all relevant stakeholders.</p> <p><i>Note.1 – States may reverse order of WHMP7 and WHMP9 as they see fit. See Note 2 below the Table.</i></p> <p><i>Note 2.– Examples of relevant stakeholders to be represented on the WHM committees are airport runway safety team, urban planning and land administration authorities.</i></p>	Aerodrome operators	August 2021	August 2021	<p>1. Wildlife Hazard Management (WHM) Committees have been established at all aerodromes in Malaysia, with clearly defined Terms of Reference to support effective communication, coordination and cooperation in managing wildlife hazards within and around the aerodrome environment. These committees include representatives from relevant stakeholders to ensure a collaborative and structured approach.</p> <p>2. In some aerodromes, WHM-related functions may be incorporated into existing committees such as the Safety Committee or Runway Safety Team. This integration allows for efficient utilisation of resources while ensuring that coordination, oversight and regulatory compliance are maintained.</p>

ID	ACTION	ENTITY RESPONSIBLE	TARGETED IMPLEMENTATION DATE	ACTUAL IMPLEMENTATION DATE	REMARKS
WHMP 10	<p>Develop airport WHM Plan covering on and off airport activities, facilities and infrastructure and any changes thereof, contingencies and crises so that any impact of such elements shall be included in the WHM plan. Consistency with other plans shall also be duly considered.</p> <p><i>Note.1 – Refer to Part 3 of Doc 9137 for guidance on the establishment of airport WHM plan.</i></p> <p><i>Note 2.– An example of “other plans” is waste management plan.</i></p> <p><i>Note 3.– WHMP should be drafted with achievable actions, define clear list of roles & responsibilities.</i></p>	Aerodrome operators	On-going		<p>1. Civil Aviation Directive (CAD) 14 Volume 1 requires all aerodromes in Malaysia to develop and implement an Airport Wildlife Hazard Management Plan (WHMP). The WHMP addresses both on-airport and off-airport activities, including facilities, infrastructure and any changes that may influence wildlife hazards, as well as contingency and emergency considerations.</p> <p>2. The WHMP is also required to be consistent with other relevant aerodrome plans and safety management processes to ensure a comprehensive and coordinated approach.</p> <p>3. CAAM monitors the implementation and effectiveness of the WHMP through regular audits and surveillance activities to ensure continued compliance and improvement.</p>
WHMP 11	<p>Include the review of effectiveness of airport-level WHM Plan(s) in State safety oversight program.</p> <p><i>Note. – The review of the effectiveness of airport WHM Plan could be included in the aerodrome SMS.</i></p>	CAAM	On-going		<p>1. CAAM evaluates the effectiveness of Wildlife Hazard Management (WHM) Plans as part of its safety oversight activities, including aerodrome certification processes, routine surveillance and focused inspections to verify ongoing compliance and ensure the plans remain effective in operation.</p>

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WHMP 12	<p>Establish methodology and procedures to review regularly, e.g., annually, the effectiveness of national WHM program.</p> <p><i>Note. – This could be part of SSP.</i></p>	CAAM	On-going		<p>1. Wildlife hazard management is integrated into Malaysia's State Safety Programme (SSP), where wildlife strikes are recognised as a significant operational safety concern. To monitor performance and support mitigation efforts, appropriate Safety Performance Indicators (SPIs) and Safety Performance Targets (SPTs) are established at the national level</p>

ID	ACTION	ENTITY RESPONSIBLE	TARGETED IMPLEMENTATION DATE	ACTUAL IMPLEMENTATION DATE	REMARKS
WHMP 13	<p>Coordinate airport WHM Plan with air operators and other airport users in the identification of wildlife hazards, e.g. locations and probabilities of wildlife presence, to improve effectiveness of mitigation measures, e.g. by providing a mechanism to share in a timely manner wildlife hazard intelligence with other stakeholders, in particular, pilots, such as alert bulletins, NOTAMs and wildlife detection technologies.</p> <p><i>Note. – “timely manner” in this context means “as close to real time as possible”.</i></p>	CAA and all relevant Focal Points for all stakeholders			<p>1. Coordination of the aerodrome Wildlife Hazard Management (WHM) Plan with airport operators is facilitated through established platforms and reporting mechanisms. Each aerodrome has established a local WHM Committee to ensure effective communication and coordination with airlines operators and relevant stakeholders in identifying wildlife hazards.</p> <p>2. Aerodrome operators regularly share wildlife hazard data and action plans during wildlife meetings. In Malaysia, wildlife strike and occurrence reporting are conducted through the Civil Aviation Authority of Malaysia Reporting System (CARES), where Mandatory Occurrence Reports (MOR) and Voluntary Occurrence Reports (VOR) are submitted.</p> <p>3. Timely dissemination of wildlife hazard information is also achieved through the issuance of NOTAMs and AIP publications particularly when significant bird activity poses a potential threat to flight operations.</p> <p>4. Where operational challenges or limitations are identified, these may be escalated to the National Wildlife Hazard Management for further coordination at the national level. Discussions includes the use of wildlife detection technologies.</p>

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WHMP 14	Identify the necessary means and resources for the implementation of national WHMP (human, financial and material resources)	National Coordinator and NWHMC			<p>1. CAAM supports these efforts by facilitating coordination among stakeholders</p> <p>2. Other resources primarily provided by the stakeholders</p>
WHMP 15	Promote safety and reporting culture as per safety management principles	CAAM and all relevant stakeholders			<p>1. Malaysia promotes a positive safety and reporting culture in accordance with safety management principles through the implementation of Civil Aviation Directive (CAD) 19 and supporting guidance material such as CAGM 1902. These documents provide the framework for consistent and standardized reporting of civil aviation occurrences including wildlife strike events.</p> <p>2. Wildlife strike reporting is integrated within the State Safety Programme (SSP) with continuous efforts undertaken to enhance awareness among aerodrome operators, aircraft operators and Air Navigation Service Providers (ANSPs) through workshops and engagement platforms.</p> <p>3. The promotion of safety and reporting culture is embedded within CAAM's aerodrome safety oversight activities, including audits and surveillance to ensure that reporting practices are effectively implemented and continuously improved across the aviation sector.</p>

ID	ACTION	ENTITY RESPONSIBLE	TARGETED IMPLEMENTATION DATE	ACTUAL IMPLEMENTATION DATE	REMARKS
WHMP 16	<p>Establish wildlife hazard database as part of SDCPS³ under SMS and SSP and report electronically wildlife strikes in the standard ICAO format.</p> <p><i>Note. – Information technologies should be adopted to facilitate the recording, sharing and reporting of wildlife activities and strikes.</i></p>	CAAM and aerodrome operators			<p>1. Malaysia utilizes the Civil Aviation Authority of Malaysia Safety Reporting System (CARES) as the central platform to collect, manage and analyse wildlife strike data in support of the State Safety Programme (SSP) and Safety Management System (SMS)</p> <p>2. Wildlife strike occurrences are reported electronically through CARES via Mandatory Occurrence Reports (MOR) and Voluntary Occurrence Reports (VOR), in accordance with established reporting requirements. The data collected is standardized and aligned with ICAO reporting formats to facilitate consistency and effective analysis.</p> <p>3. Wildlife strike data extracted from CARES is subsequently submitted to the ICAO Bird Strike Information System (IBIS)</p>

Notes:

1. Examples of State Aviation Authority are CAA, DGCA and DCA.
2. State may change order of action items as they see fit.
3. SDCPS stands for Safety Data Collection and Processing Systems

References

Publications / Websites

1. PANS Aerodromes (Doc 9981)
2. Airport Services Manual (Doc 9137), Part 3 - Wildlife Hazard Management
3. ICAO [Asia Pacific Guidance for Evaluation of Aerodrome Wildlife Hazard Management Programm](#)
4. ICAO Asia Pacific [Guidance for Establishment of National Procedure for Recording and Reporting Wildlife Strikes to Aircraft](#)

5. ICAO Asia Pacific Guidelines on the drafting of [Terms of References of National Wildlife Hazard Management Committee](#)
6. IBIS Manual (under revision as at 2021). See <https://www.icao.int/safety/Pages/IBIS.aspx>.
7. ACI Wildlife Hazard Management [Handbook](#)

Training

1. ACI Wildlife Hazard Management Professional Certificate Course ([classroom](#) interactive)
2. ACI Wildlife Hazard Management Training Course ([online](#) self-learning)

Activities

1. ICAO AP-WHM/WG