

INTERNATIONAL CIVIL AVIATION ORGANIZATION

DRAFT REPORT

FIRST MEETING OF THE ASIA/PACIFIC WILDLIFE HAZARD MANAGEMENT WORKING GROUP (AP–WHM WG/1)

BANGKOK, THAILAND, 8 TO 10 MAY 2019

The views expressed in this Report should be taken as those of the Meeting and not the Organization

Approved by the Meeting and published by the ICAO Asia and Pacific Office, Bangkok

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Attachment A - List of Participants

Attachment B – List of Papers

1. Introduction

1.1 The First Meeting of the Asia/Pacific Wildlife Hazard Management Working Group (AP–WHM WG/1) was held in ICAO APAC Office, Bangkok, Thailand from 8 to 10 May 2019.

2. Attendance

2.1 The Meeting was attended by 43 participants from 11 Member States, Association of Asia Pacific Airlines (AAPA), International Federation of Air Line Pilots' Associations (IFALPA), World Birdstrike Association (WBA), ICAO, Embry Riddle Aeronautical University (Observer) and Mastermark (Observer)

2.2 The List of Participants is placed at <u>Attachment A</u> to the Report.

3. Opening of the meeting

3.1 Dr. Punya Raj Shakya, Regional Officer/AGA, ICAO Asia/Pacific Office and Secretary of the Meeting welcomed the participants of the Meeting.

4. Election of Chairperson

4.1 Mr. Deo Chandra Lal Karn, Director, Civil Aviation Authority of Nepal was unanimously elected as Chairperson for AP-WHM/WG. Mr. Karna thanked the delegates for electing him as Chairperson of the Working Group and presided over the meeting.

5. Working Arrangements, Language and Documentation

5.1 The working language of the meeting was English inclusive of all documentation and this report. There were 9 Working Papers, 4 Information Papers and 3 Presentations considered by the Meeting. A List of Papers and Presentations is included at **Attachment B** to this Report.

6. Conclusions and Decisions

Draft Conclusions, Draft Decisions and Decisions of AP-WHM/WG - Definition

6.1 The AP-WHM WG recorded its actions in the form of Draft Conclusions, Draft Decisions and Decisions within the following definitions:

- a) **Draft Conclusions** deal with matters that, according to APANPIRG Terms of Reference, require the attention of States, or action by the ICAO in accordance with established procedures;
- b) **Draft Decisions** deal with the matters of concern only to APANPIRG and its contributory bodies; and
- c) **Decisions** of AP-WHM/WG relate solely to matters dealing with the internal working arrangements of the AP-WHM WG.

7. Terms of Reference of AP-WHM/WG

7.1 The Terms of Reference of AP-WHM/WG, approved by the Second Meeting of the Aerodrome Operations and Planning Sub Group (AOP/SG/2) (Bangkok 27 to 29 June 2018) includes inter alia the following:

TERMS OF REFERENCE WILDLIFE HAZARD MANAGEMENT WORKING GROUP (WHM SWG)

Objective:

To assist States to establish a National Wildlife Strike Hazard Management Committee and a National Wildlife strike hazard reduction programme.

Scope of works:

To meet the above objectives the Working Group shall carry out the following tasks:

- 1) Develop a model TOR for National Wildlife Strike Control Committee;
- 2) Monitor the establishment of a Wildlife Strike Control Committee by the States.
- 3) Assist in conducting workshop/seminar on Global and Regional Guidance on WHM;
- 4) Develop Asia Pacific Regional Guidance on implementation of wildlife strike hazard reduction programme;
- 5) Share the best practices on the measures adopted by member States/Administrations to prevent wildlife strike hazards at or in the vicinity of aerodromes;
- 6) Develop a performance measurement metrics to evaluate the effectiveness of the implementation of a wildlife strike hazard reduction programme by the aerodrome operator; and
- Be consistent with ICAO Annex 14, Volume I Aerodrome Design and Operations, Doc 9137 Airport Services Manual, Part 3 – Wildlife Control and Reduction, and other requirements where applicable.

Composition:

The Working Group would be composed of subject matter experts nominated by APAC States / Administrations and International Organization satisfying the criteria:

- Minimum 3 years of work experience in CAA Aerodrome Regulatory Department or in International Organizations or Aerodrome Operations at international airports in wildlife hazard management field;
- (2) Familiar with Annex 14 and related guidance materials; and
- (3) The nominated expert will continue to be a member for a minimum of three consecutive years.

States in other ICAO regions and industry partners with experience in wildlife hazard management may also be invited to participate in the Working Group.

Conduct of the work and timeframe:

As far as practicable, the work would be carried out through electronic correspondences and webconferences. Minimum face-to-face meetings would be planned.

Time frame:

The Working Group would complete its work by September 2021.

8. List of Draft Conclusions, Draft Decisions and Decisions

| Draft Decision AP–WHM WG/1–1: Proposal for Amendment to TOR of Asia/Pacific Wildlife | | | | | | | |
|--|--|----------------|---------------------------------|--|--|--|--|
| Hazard Management Working Group | | | | | | | |
| What: | What:That, the AP-WHM/WG/1 Meeting agreed toExpected impact: | | | | | | |
| 1 1 | endment to the TOR of AP-WHM/W | G as placed in | Political / Global | | | | |
| Appendix 1 to the Report. | | | | | | | |
| | | | | | | | |
| | | | □ Environmental | | | | |
| ⊠ Ops/Technical | | | | | | | |
| Why: | To align with the proposed | | | | | | |
| | PANS-Aerodromes (new Chapter | Follow-up: | □Required from States | | | | |
| | NS-Aerodromes on Wildlife | ronow up. | | | | | |
| Hazard Manage | ement). | | | | | | |
| When: | 26-Jun-19 | Status: | Draft to be adopted by Subgroup | | | | |
| Who: | Who: ⊠Sub groups □APAC States ⊠ICAO APAC RO □ICAO HQ ⊠Other: Working | | | | | | |
| Group | | | | | | | |

| Draft Conclusion AP–WHM WG/1–1: National Wildlife Hazards Management Committee | | | | | | |
|--|--|-------------------------|--|--|--|--|
| of a proposed C Appendix 2 to | That, States are encouraged to esta ds Management Committee taking in Composition of the Committee as place the Report and a proposed TOR for opendix 3 to the Report. | to consideration ced in | Expected impact: Political / Global Inter-regional Economic Environmental Ops/Technical | | | |
| Why: To establish a high level national forum including all relevant Government Organisations to discuss issues related to wildlife hazards on or in the vicinity of an aerodrome(s) and establish national procedures for evaluation of effectiveness of the Airport Wildlife Hazards Management Programme. | | Follow-up: | ⊠Required from States | | | |
| When: | 26-Jun-19 | Status: | Draft to be adopted by Subgroup | | | |
| Who: Sub groups APAC States APAC RO DICAO HQ Other: XXXX | | | | | | |

| Draft Decision AP–WHM WG/1–2: Composition and TOR for the National Wildlife Hazards | | | | | | | | |
|---|--|-------------------|-----------------------|--|--|--|--|--|
| Management C | Management Committee | | | | | | | |
| What: | What: That, the Composition and TOR of the National Expected impact: | | | | | | | |
| | ds Management Committee as placed | | Political / Global | | | | | |
| | Report be published on APAC Web | site for guidance | □ Inter-regional | | | | | |
| to the States. | | | | | | | | |
| □ Environmental | | | | | | | | |
| ⊠ Ops/Technical | | | | | | | | |
| Why: For guidance to States for the | | | | | | | | |
| | f the National Wildlife Hazards | Follow-up: | □Required from States | | | | | |
| Management C | ommittee. | | | | | | | |
| When:26-Jun-19Status:Draft to be adopted by Subgroup | | | | | | | | |
| Who: | ⊠Sub groups □APAC States ⊠ICAO APAC RO □ICAO HQ ⊠Other: Working | | | | | | | |
| Group | | | | | | | | |

Agenda Item 1: Adoption of Provisional Agenda (WP/01)

| 1.1 | The Provisional Ag | genda presented in WP/01 was adopted as Agenda for the Meeting. |
|-----|--------------------|--|
| | Agenda Item 1: | Election of Chair/Adoption of agenda |
| | Agenda Item 2: | Review outcomes of related Meetings/Seminars |
| | Agenda Item 3: | Review TOR of the AP-WHM WG |
| | Agenda Item 4: | Global and regional guidance on wildlife strike hazard management |
| | Agenda Item 5: | Sharing of States' best practices on: |
| | | Establishment of National Wildlife Strike Control Committee; |
| | | Programme for the reduction of wildlife strike hazards at or in the vicinity of aerodromes |
| | Agenda Item 6: | Develop Asia Pacific Regional Guidance on implementation of wildlife strike hazards reduction programme and performance measurement metrics to evaluate the effectiveness of its implementation |
| | Agenda Item 7: | Any Other Business |
| | Agenda Item 8: | AP-WHM WG Task List |
| | Agenda Item 9: | Date and Venue of Next Meeting |

Agenda Item 2: Review Outcomes of related Meetings/Seminars

APANPIRG Composition, Framework and Procedural Handbook (IP/03)

2.1 The AP-WHM/WG was informed about APANPIRG's TOR, Composition, Framework and Procedural Handbook for familiarization of the meeting's proceedings and reporting procedures.

Outcomes of APANPIRG/29 Meeting (IP/04)

Outcome of the First Asia/Pacific Ministerial Conference on Civil Aviation

2.2 The AP-WHM/WG noted that the First Asia/Pacific Ministerial Conference on Civil Aviation (APACMC), which was held in Beijing, China from 31 January to 1 February 2018, endorsed the *Declaration on Asia/Pacific Ministerial Conference on Civil Aviation (Beijing Declaration)*. In accordance with Declaration, the commitment on certification of aerodromes used for international operations by 2020 was relevant to the AP-WHM/WG. In order to achieve the targets of the Beijing Declaration, APANPIRG/29 through its Conclusion 29/1 urged:

a) States/Administrations were urged to allocate necessary resources to meet the *Beijing Declaration Targets* and *Commitments* on Aviation Safety, Air Navigation Services, Accident Investigation and Human Resources Development;

1

- b) APANPIRG Contributory Bodies to assist and monitor the implementation of related aspects of Beijing Declaration and report progress to the annual APAC DGCA Conference; and
- c) Secretariat to review the Beijing Declaration objectives in 2020 in order to reflect, as required, any resolutions agreed to by the ICAO Assembly in 2019, including those on the endorsement of the new versions of the Global Aviation Safety Plan (GASP) and Global Air Navigation Plan (GANP), and initiate the organization of the Second Asia/Pacific Ministerial Conference on Civil Aviation in 2020 or thereafter.

Empowerment to adopt Conclusions and Decisions on purely technical/operational matters by APANPIRG's Sub Groups

2.3 The Secretariat provided a brief summary of APANPIRG/29 Meeting, held in Bangkok, Thailand from 3 to 5 September 2018, with particular highlights on Empowerment to adopt Conclusions and Decisions on purely technical/operational matters by APANPIRG's Sub Groups. The Report of APANPIRG/29 Meeting can be accessed at:

https://www.icao.int/APAC/Meetings/Pages/2018-APANPIRG29.aspx.

Agenda Item 3: Review TOR of the AP-WHM WG

TOR of the AP-WHM Working Group (WP/02)

3.1 The Secretariat presented the Terms of Reference of the Asia/Pacific Wildlife Hazard Management Working Group adopted by AOP/SG/2 Meeting (27 to 29 June 2018) and endorsed by APANPIRG/29 Meeting (3 to 5 September 2018).

3.2 The meeting reviewed the TOR in detail and agreed to propose an amendment to the TOR as placed in **Appendix 1** to align with the proposed amendments to PANS-Aerodromes (new Chapter in Part II of PANS-Aerodromes on Wildlife Hazard Management). The AP-WHM/WG/1 formulated the following Draft Decision for adoption by the AOP/SG:

Draft Decision AP-WHM WG/1-1: Proposal for Amendment to TOR of Asia/Pacific Wildlife Hazard Management Working Group What: That, the AP-WHM/WG/1 Meeting agreed to Expected impact: propose an amendment to the TOR of AP-WHM/WG as placed in Political / Global Appendix 1 to the Report. □ Inter-regional □ Economic □ Environmental Ops/Technical Why: To align with the proposed amendments to PANS-Aerodromes (new Chapter Follow-up: **Required from States** in Part II of PANS-Aerodromes on Wildlife Hazard Management). 26-Jun-19 When: Status: Draft to be adopted by Subgroup Who: ⊠Sub groups □APAC States ⊠ICAO APAC RO □ICAO HQ ⊠Other: Working Group

Agenda Item 4: Global and regional guidance on wildlife strike hazard management

Wildlife Hazard Management Programme (WP/03)

4.1 The Secretariat presented the proposals arising from the PANS-Aerodromes Study Group (PASG) to amend the *Procedures for Air Navigation Services* (PANS) — *Aerodromes* (Doc 9981), which included 8 new Chapters including a chapter on wildlife hazard management, and consequential amendment proposals to Annex 14 — *Aerodromes*, Volume I — *Aerodrome Design and Operations*.

4.2 The proposed amendment to the Part II of the PANS-Aerodromes and consequential amendment to Annex 14, Volume I would be consolidated with other amendment proposals for inclusion in Amendment 3 to the PANS-Aerodromes and Amendment 15 to Annex 14, Volume I, for applicability on 5 November, which was agreed by the Air Navigation Commission in its 210th Session and in the process of approval by the President of the Council on behalf of the Council in accordance with established procedure for the issuance of the associated State Letter.

4.3 The paper also presented the review of the *Airport Services Manual (ASM)*, Part 3 — *Wildlife Hazard Control and Reduction (Doc 9137)* conducted by the Wildlife Hazard Management Expert Group (WHMEG). The review of this document was initiated with the development of the PANS-Aerodrome Part II, which included a chapter on Wildlife Hazard Management including new developments in the wildlife control field. The expert group planned to deliver updated and new provisions in Q2 2019 for inclusion in the next update of the Doc 9137 renamed "*Wildlife Hazard Management*". The document should then be reviewed by ICAO secretariat, including consultation of Regional Offices and other ICAO sections and edited before publication in the ICAO-NET.

4.4 Since ICAO had replaced in 2012 the ICAO bird strike information system (IBIS) computer-application with a new reporting system based on the European Co-ordination Centre for Accident and Incident Reporting Systems (ECCAIRS) platform and considering planned update of the PANS-Aerodromes, which would contain the minimum information to be included within wildlife strike report, the review of the ASM – Part 3, the guidance related to the use of the ICAO Bird Strike Reporting Form (Doc 9332) was under review by the ICAO Secretariat and would be updated to reflect the above reporting methods, including a dedicated wildlife strike report email address wildlife@icao.int which could already be used for the reporting.

Challenges in Wildlife Hazard Reporting in Asia Pacific (WP/04)

4.5 Asia Pacific Airlines (AAPA) presented the report on bird strike incidents collected through its Flight Operations and Safety Working Group (FOSWG), a working group where airlines share information and best practices on significant flight operations and safety incidents in the Asia Pacific region. Based on data reported via IBIS (ICAO Bird Strike Information System), which included information provided by 91 States over eight years (2008 – 2015) and contained data covering nearly 100,000 incidents, AAPA had noted that bird strike incidents in the Asia Pacific region were under reported.

4.6 As most of the strikes occur around or in the vicinity of an airport, the issue impacts not only on aircraft operators but also on the operational safety of airports. The reported bird strike data was mainly aimed at facilitating the detection of locations where there was a high probability of a significant bird strike hazard and an analysis could define the nature of the hazard. Therefore, quality bird strike reports were of great value at regional and global level

4.7 One of the most common challenge was the inadvertent communication break down between aircraft operator, airport operator, air traffic service and regulator that impeded passing of

information as required. As observed by AAPA, data submitted by its member airlines differed significantly from data obtained from aerodrome operators. Possible mitigation measures were also not implemented, leading to even higher potential bird strikes rates, and possible safety concerns for all stakeholders.

4.8 The meeting agreed to request papers from ACI, CANSO, IFALPA, IFATCA and IATA to present their views on wildlife strike hazards at the Second Meeting of AP-WHM/WG.

Agenda Item 5: Sharing of States' best practices on:

- Establishment of National Wildlife Strike Control Committee;
- Programme for the reduction of wildlife strike hazards at or in the vicinity of aerodromes

Establishment of National Wildlife Strike Control Committee (WP/05)

5.1 Bangladesh presented its experience on the establishment of a National Civil Aviation Wildlife Control Committee (NCAWCC) to comply with ICAO Annex-14 requirements, CAR 84 Rule 317 and the Airport Service Manual (Doc 9137), Part 3.

5.2 Bird strikes on and around airports in Bangladesh were a common phenomenon and its continued increase had put the airport operators to look for effective mitigation measures. As the establishment of a National Civil Aviation Wildlife Control Committee was considered to be an effective forum, Bangladesh had created a National Civil Aviation Wildlife/Bird Hazard Control Committee and provided with effective management authorities and proved successful in bringing in service providers under the regulatory umbrella of the State.

5.3 As the National Civil Aviation Wildlife/Bird Hazard Control Committee was decided at the State level, it could issue directive to government organization, non-government organizations and individuals if required on solving the bird hazards. It would be the obligations of all concerned parties to obey such directives and as such this would be an effective measure to counter the menace of bird/wildlife problem at airports.

Establishment of National Wildlife Hazards Management Committee (WP/06)

5.4 Nepal presented Annex 14, Volume I requirements for the establishment of a national procedure for recording and reporting wildlife strikes to aircraft and an ongoing evaluation of wildlife hazards on or in the vicinity of an aerodrome. The paper provided the composition of the National Wildlife Hazards Management Committee (NWHMC) and its Terms of Reference to help States to establish a NWHMC.

5.5 Recognizing that a National Wildlife Hazards Management Committee had been an effective platform to connect different stakeholders with same objectives and worries concerning wildlife strike hazards to aircraft operations and forum for exchanging information on research and development in aerodrome wildlife control, the AP-WHM/WG/1 Meeting formulated the following Draft Conclusion and Draft Decision for adoption by the AOP/SG:

| Draft Conclusion AP–WHM WG/1–1: National Wildlife Hazards Management Committee | | | | | | |
|--|---------------------------------|--|--|--|--|--|
| What: That, States are encouraged to esta Wildlife Hazards Management Committee taking in of a proposed Composition of the Committee as pla Appendix 2 to the Report and a proposed TOR for as placed in Appendix 3 to the Report. | to consideration ced in | Expected impact: Political / Global Inter-regional Economic Environmental Ops/Technical | | | | |
| Why: To establish a high level national forum including all relevant Government Organisations to discuss issues related to wildlife hazards on or in the vicinity of an aerodrome(s) and establish national procedures for evaluation of effectiveness of the Airport Wildlife Hazards Management Programme. | Follow-up: | ⊠Required from States | | | | |
| When: 26-Jun-19 | Draft to be adopted by Subgroup | | | | | |
| Who: ⊠Sub groups ⊠APAC States ⊠ICAO APAC RO □ICAO HQ □Other: XXXX | | | | | | |

| Management CommitteeWhat:That, the Composition and TOR of the National Wildlife Hazards Management Committee as placed in AppendicesExpected impact: □ Political / Global □ Inter-regional □ Economic □ Environmental | Draft Decision AP–WHM WG/1–2: Composition and TOR for the National Wildlife Hazards | | | | | | |
|---|--|-----------------|---------------------------------|--|--|--|--|
| Wildlife Hazards Management Committee as placed in AppendicesDescription2 and 3 to the Report be published on APAC Website for guidance to the States.Description <t< td=""><td colspan="7">Management Committee</td></t<> | Management Committee | | | | | | |
| 2 and 3 to the Report be published on APAC Website for guidance to the States. □ Inter-regional | What: That, the Composition and TOR of the National Expected impact: | | | | | | |
| to the States. | e i | | Political / Global | | | | |
| | | | | | | | |
| □ Environmental | to the States. | □ Economic | | | | | |
| | | □ Environmental | | | | | |
| ⊠ Ops/Technical | | | | | | | |
| Why:For guidance to States for the establishment of the National Wildlife Hazards Management Committee.Follow-up:Image: Image: | establishment of the National Wildlife Hazards | Follow-up: | □Required from States | | | | |
| When:26-Jun-19Status:Draft to be adopted by Subgroup | When: 26-Jun-19 | Status: | Draft to be adopted by Subgroup | | | | |
| Who: Sub groups APAC States ICAO APAC RO ICAO HQ Other: Working Group ICAO HQ | | | | | | | |

Agenda Item 6: Develop Asia Pacific Regional Guidance on implementation of wildlife strike hazards reduction programme and performance measurement metrics to evaluate the effectiveness of its implementation

Development of Regional Guidance on Airport Wildlife Hazard Management Programme (WP/07)

6.1 Nepal presented Annex 14, Volume I requirements and recommendation of Airport Services Manual (Doc 9137) Part 3 – Wildlife Control and Reduction (Paragraph 3.3.1 of ASM, P – 3) for aerodrome operators to develop, implement and demonstrate an effective bird/wildlife strike and wildlife control programme at the airport, tailored to and commensurate with the size and level of complexity of the airport, taking account of the identification of the wildlife hazard and the risk assessment. The paper invited the meeting to consider for the development of the regional guidance on Airport Wildlife Hazard Management Programme.

6.2 The Secretariat informed that the provisions contained in *6.3.1 Wildlife hazard management programme* of the proposed amendment to Part II of the PANS-Aerodromes (State Letter Ref.: AN 4/27-18/25 dated 16 July 2018 refers) be considered while developing regional guidance on Airport Wildlife Hazard Management Programme.

Agenda Item 7: Any other Business

Asia Pacific Average USOAP CMA EIs in Wildlife Hazards Management Related PQs (WP/08)

7.1 The Secretariat presented the results of the analysis and position of the Asia Pacific States in relation to USOAP CMA AGA Protocol Questions in the area of Wildlife Hazards Management. Based on 6 PQs developed by ICAO in WHM area. Asia Pacific States average EI score for Wildlife Hazard and Risk Control as of 4 May 2019 is 59.92% (57.5% in June 2018). The lowest scores were against PQ 8.329, 8.331, 8.333 and 8.335 as shown in **Table 1** below:

| Table 1: Asia Pacific States Average EI for | Wildlife Hazard and Risk Control related PQs |
|---|--|
| | |

| PQ Number | Protocol Questions | CE | Area | EI (%) | S | US | Α |
|-----------|--|------|------|--------|----|----|-------|
| 8.327 | Has the State promulgated regulations to require a wildlife (birds and animals) | CE-2 | AGA | 70.59 | 24 | 10 | 97.14 |
| | strike hazard study or assessment for each of its aerodromes? | | | | | | |
| 8.328 | Has the State developed industry guidance material to assist aerodrome operators to develop a wildlife (birds and animals) strike hazard study or assessment for each of their aerodromes? | CE-5 | AGA | 70.59 | 24 | 10 | 97.14 |
| 8.329 | Does the State collect and forward wildlife strike reports to ICAO? | CE-8 | AGA | 41.18 | 14 | 20 | 97.14 |
| 8.331 | Does the State ensure that aerodrome operators take appropriate action to decrease the hazard of wildlife strikes? | CE-6 | AGA | 62.86 | 22 | 13 | 100 |
| 8.333 | Has the State promulgated a regulation to control the development of facilities likely to attract wildlife on or in the vicinity of an aerodrome? | CE-2 | AGA | 60 | 21 | 14 | 100 |
| 8.335 | Has the State established and implemented a process to mitigate against an increase or potential increase in the wildlife strike hazard due to land use development likely to attract wildlife around an aerodrome? | CE-8 | AGA | 54.29 | 19 | 16 | 100 |

7.2 The Working Group Meeting agreed to develop a set of survey questionnaires including ICAO USOAP CMA WHM PQs to analyze the State's problem/issues/deficiencies on wildlife hazards management which will be developed by experts from Sri Lanka, India and World Birdstrike Association and once finalized will be circulated to States along with State Letter by the Secretariat.

A Holistic approach to Wildlife Management (Presentation 1)

7.3 Mastermark, Singapore based company with over 35 years of Bird Control experience who provided consultancy services for Changi Airport Group and Angkasa Pura II, Indonesia made a presentation on a *Holistic approach to Wildlife Management*. Mastermark's presentation focused on:

- Wildlife management in Asia Pacific;
- 360 look at all aspects of Wildlife Hazard Management; and
- Growth of the WHM Programme with an institutionalized and compounding effect with each implementation.

Bangladesh Experience on Airport Wildlife Hazards and Mitigation Processes (Presentation 2)

7.4 Bangladesh made a presentation on its experience on Airport Wildlife Hazards and Mitigation Processes focusing on CAA Bangladesh's objective to acquaint aviation personnel dealing with the problems of wildlife at airports affecting the safety of aircraft operations and the measures used to control wildlife hazards. To achieve this objective CAA Bangladesh developed several Goals and Targets.

7.5 The Presentation also covered wildlife and their habitat in Bangladesh, major and minor wildlife attractants on or in the vicinity of aerodromes and mitigation process to minimize the wildlife strike hazards.

World Birdstrike Association (Presentation 3)

7.6 The World Birdstrike Association (WBA) made a presentation introducing its mission statement and emphasized on the need for a multi-disciplinary international/inter-regional collaboration with non-aviation stakeholders to deal with bird/wildlife strike risk.

Agenda Item 8: AP-WHM/WG Task List

Task List of AP-WHM/WG (WP/09)

8.1 The AP-WHM/WG/1 Meeting developed 13 tasks derived from Working Papers presented to the Meeting and from discussions held during the proceeding of the Meeting. The description of the tasks, responsible parties and timeframe to complete every task were clearly indicated in the Task List placed in **Appendix 4**.

Agenda Item 9: Date and Venue of Next Meeting

9.1 The next meeting of AP-WHM/WG will be held from to..... at.

9.2 Mr. Deo Chandra Lal Karna, Chairperson of AP-WHM/WG thanked the Members and participants for their contribution and cooperation to the First Meeting of the Working Group. He also expressed sincere thanks to Mastermarks who sponsored tea/coffee and lunches for the whole period of the meeting.

PROPOSED AMENDMNET TO TERMS OF REFERENCE OF WILDLIFE HAZARD MANAGEMENT WORKING GROUP (WHM SWG)

Objective:

To assist States to establish a National Wildlife Strike Hazard Management Committee and a National Wildlife strike hazard reduction programme an Airport Wildlife Hazard Management Programme.

Scope of works:

To meet the above objectives the Working Group shall carry out the following tasks:

- 1) Develop a model TOR for National Wildlife Strike Control Hazard Management Committee;
- 2) Monitor the establishment of a National Wildlife Strike Control Hazard Management Committee by the States.
- 3) Assist in conducting workshop/seminar on Global and Regional Guidance on WHM;
- 4) Develop Asia Pacific Regional Guidance on implementation of wildlife strike hazard reduction programme Airport Wildlife Hazard Management Programme, as needed;
- 5) Share the best practices on the measures adopted by member States/Administrations to prevent wildlife strike hazards at or in the vicinity of aerodromes;
- 6) Develop a performance measurement metrics to evaluate the effectiveness of the implementation of a wildlife strike hazard reduction programme the Airport Wildlife Hazard Management Programme by the aerodrome operator; and
- 7) Be consistent with ICAO Annex 14, Volume I Aerodrome Design and Operations, PANS-Aerodromes (Doc 9981), Doc 9137 Airport Services Manual, Part 3 Wildlife Control and Reduction, ICAO Bird Strike Information System (Doc 9332) and other requirements where applicable.
- 8) Analysis of the regional problems/issues in wildlife hazard management fields.

Composition:

The Working Group would be composed of subject matter experts nominated by APAC States / Administrations and International Organization satisfying the criteria:

- (1) Minimum 3 years of work experience in CAA Aerodrome Regulatory Department or in International Organizations or Aerodrome Operations at international airports in wildlife hazard management field;
- (2) Familiar with Annex 14 and related guidance materials; and
- (3) The nominated expert will continue to be a member for a minimum of three consecutive years.

States in other ICAO regions and industry partners with experience in wildlife hazard management may also be invited to participate in the Working Group.

Conduct of the work and timeframe:

As far as practicable, the work would be carried out through electronic correspondences and webconferences. Minimum face-to-face meetings would be planned.

<u>Time frame:</u>

The Working Group would complete its work by September 2021.

—END—

Appendix 2

Composition of National Wildlife Hazards Management Committee

1.1 Although a composition of National Wildlife Hazards Management Committee (NWHMC) may vary from State to State, it should include all stakeholders associated with or interested in the problem of wildlife on or in the vicinity of an aerodrome.

- 1.2 Composition of an ideal NWHMC should be as follows:
 - a) Chairperson Minister or State Minister or Assistant Minister or Secretary of Ministry responsible for Civil Aviation
 - b) Representative of Ministry of Home affairs Member
 - c) Representative, Defense Authority Member
 - d) Representative, Population and or Environmental Protection Authority Member
 - e) Representative, Local Development and or Land Infrastructure Authority -Member
 - f) Representative, Forest Authority- Member
 - g) Representative, Agriculture and or Fisheries and Aquatic Resources Authority -Member
 - h) Representative, Science and Technology Authority Member
 - i) Representative, Wildlife Resource Conservation Member
 - j) Representative from Air force or Military Aviation Member
 - k) Representatives from Aviation Industries Member
 - 1) Reprehensive , Security forces Member
 - m) Representatives, Environmental Non-Government Organizations (NGOs) / Ecological Associations / Conservations Agencies - Member
 - n) Wildlife Experts / Scientific and Academic Community Member
 - o) Representative, Flight Safety Officials
 - p) Representative, Pilot Association
 - q) Director General of Civil Aviation Member Secretary

Terms of References of National Wildlife Hazards Management Committee

Terms of references (TOR) or roles and responsibilities of National Wildlife Hazards Management Committee should include followings, but not limited, to:

- a) Exchange information about wildlife hazard management experiences, new techniques and equipment, new technological advances, etc.;
- b) Disseminate national environmental and aeronautical legislation related to wildlife hazard management.
- c) Promote wildlife events reporting among all stakeholders.
- d) Promote wildlife knowledge: exchange and dissemination of information about hazardous wildlife biology, behavior, population trends, wildlife attraction points, etc.
- e) Encourage stakeholders for training in wildlife issues.
- f) Present new advances related to wildlife risk control measures by the aviation industry.
- g) Present new studies and researches about wildlife or associated mitigation measures by scientists or biologists.
- h) Play a role of Focal point to deal with the analysis of wildlife hazard problem in the airports of Country.
- i) Review of existing or make provision of Act, Rules, policies and implement them to make airport wildlife hazard control program more effective.
- j) Ensure effective implementation of ICAO SARPs.
- k) Take necessary steps to solve the wildlife hazard management problem.
- 1) Issue directives on the waste disposal management.
- m) Inspection and monitoring of wildlife hazard control program at airports.
- n) Appoint advisors and create sub-committee(s) as required.
- o) Review analyse data and measures taken to manage Wildlife Hazard at different airports.
- p) Coordinate or issue directive to government organizations, non-government organizations and individuals, if required.
- q) Ensure availability of competent human resources and adopt new technology.
- r) Review the land use plan and infrastructure development in the vicinity of airports.
- s) Encourage university or research Centre for further studies and development of new technology.
- t) If necessary issue directive to alter/manage forest, agricultures and water bodies in the vicinity of airports.

Appendix 4

AP-WHM/WG TASK LIST

| | ACTION ITEM/PLANNED ACTIVITIES | RESPONSIBLE PARTY | TIME FRAME | STATUS | REMARKS |
|-----|--|-----------------------|---|-----------|-------------------|
| 1/1 | Develop a Generic Composition of National Wildlife Hazard Management Committee | AP-WHM/WG/1 | AP-WHM/WG/1 | Completed | AP-WHM/WG/1-WP/06 |
| 1/2 | Develop a Generic Terms of Reference of National Wildlife Hazard Management Committee | AP-WHM/WG/1 | AP-WHM/WG/1 | Completed | AP-WHM/WG/1-WP/06 |
| 1/3 | Develop survey questionnaire to analyze the State's problem/issues/deficiencies on wildlife hazards management including ICAO USOAP CMA WHM PQs | Sri Lanka, India, WBA | By the end of June 2019 | | |
| 1/4 | Send survey questionnaire to States/Member Administrations | Secretariat | By the end of July 2019 (giving 4 months of time for the completion of the Survey Questionnaires by States) | | |
| 1/5 | Analyze the State's problem/issues on wildlife hazards management based on completed survey questionnaires and present the report to AP-WHM/WG/2 | Sri Lanka, India, WBA | AP-WHM/WG/2 | | |
| 1/6 | Present a case study on airport wildlife strike hazard assessment and implementation of mitigation | Thailand, India | AP-WHM/WG/2 | | |

| | ACTION ITEM/PLANNED ACTIVITIES | RESPONSIBLE PARTY | TIME FRAME | STATUS | REMARKS |
|------|---|---|--|--------|---------|
| | measures | | | | |
| 1/7 | Request papers from ACI, CANSO, IFALPA, IFATCA and IATA to present their views on wildlife strike hazards at the Second Meeting of AP-WHM/WG | Secretariat | AP-WHM/WG/2 | | |
| 1/8 | Develop a Generic Composition of Airport Wildlife Hazard Management Committee and its TOR | Nepal, Bhutan, Lao PDR | By the end of July 2019 | | |
| 1/9 | Develop a Regional Guidance on Development and Implementation of Airport Wildlife Hazard Management Programme | Fiji, India, WBA, APPA | AP-WHM/WG/2 (Initial Draft) | | |
| 1/10 | Encourage States to use IBIS electronic format or ECCAIRS to submit wildlife strike reports to ICAO | Bangladesh, Bhutan, Cambodia, Fiji, India, Lao PDR, Maldives, Nepal, Fiji, Philippines, Sri Lanka, Thailand | From 1 st June 2019 | | |
| 1/11 | Develop guidance for establishment of national procedure for recording and reporting wildlife strikes to aircraft | Philippines, Sri Lanka, Nepal, WBA, IFALPA | Initial Draft by the end of December 2019 Final Draft by AP-WHM/WG/2 | | |
| 1/12 | Develop procedures for the collection of information from aircraft operators, aerodrome personnel and other sources on the presence of wildlife on or around the aerodrome constituting a potential hazard to aircraft operations | Philippines, Sri Lanka, Nepal, WBA, IFALPA | Initial Draft by the end of December 2019 Final Draft by AP-WHM/WG/2 | | |
| 1/13 | Develop performance measurement | Bangladesh, India, Thailand, WBA | Initial draft by the | | |

| ACTION ITEM/PLANNED ACTIVITIES | RESPONSIBLE PARTY | TIME FRAME | STATUS | REMARKS |
|---|-------------------|--|--------|---------|
| indicators/metrics to evaluate the effectiveness of the implementation of Airport Wildlife Hazard Management Programme | | end of December 2019 and final draft by AP-WHM/WG/2 | | |
| | | | | |



FIRST MEETING OF THE ASIA/PACIFIC WILDLIFE HAZARD MANAGEMENT WORKING GROUP (AP-WHM WG/1)

Bangkok, Thailand, 8 to 10 May 2019

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First Meeting of the Asia/Pacific Wildlife Hazard Management Working Group (AP–WHM WG/1) Bangkok, Thailand, 8 to 10 May 2019

LIST OF INFORMATION AND WORKING PAPERS

| Paper No. | Agenda Item | Title | Presented by | | | | |
|-----------|--------------------|--|--------------|--|--|--|--|
| | INFORMATION PAPERS | | | | | | |
| IP/01 | | List of Papers | Secretariat | | | | |
| IP/02 | | List of Experts - Asia/Pacific Wildlife Hazard Management Working Group (AP-WHM WG) | Secretariat | | | | |
| IP/03 | 2 | APANPIRG Composition, Framework and Procedural Handbook | Secretariat | | | | |
| IP/04 | 2 | Outcomes of APANPIRG/29 Meeting | Secretariat | | | | |

| | WORKING PAPERS | | | | |
|----------------------------|----------------|---|-------------|--|--|
| WP/01 | 1 | Adoption of Agenda AP-WHM WG/1 | | | |
| WP/02 | 3 | TOR of the AP-WHM Working Group | Secretariat | | |
| WP/03 | 4 | Wildlife Hazard Management Programme | Secretariat | | |
| WP/04 | 4 | Challenges in Wildlife Hazard Reporting in Asia Pacific | AAPA | | |
| WP/05 Revision 1 | 5 | Establishment of National Wildlife Strike Control Committee | Bangladesh | | |
| WP/06 | 5 | Establishment of National Wildlife Hazards Management Committee | Nepal | | |
| WP/07 | 6 | Development of Regional Guidance on Airport Wildlife Hazard Management Programme | Nepal | | |
| WP/08 | 7 | Asia Pacific average USOAP CMA EIs in Wildlife Hazards Management related PQs | Secretariat | | |
| WP/09 | 8 | AP-WHM/WG Task List | Secretariat | | |

| Paper No. | Agenda Item | Title | Presented by | | |
|---|---|--|--------------|--|--|
| PRESENTATIONS | | | | | |
| Presentation 1 | Presentation 1 7 A Holistic Approach to Wildlife Management | | Mastermark | | |
| Presentation 27Bangladesh Experience on Airport Mitigation Processes | | Bangladesh Experience on Airport Wildlife Hazards and Mitigation Processes | Bangladesh | | |
| | 7 World Birdstrike Association (WBA) | | WBA | | |

—END—