

INTERNATIONAL CIVIL AVIATION ORGANIZATION



FINAL REPORT

THE FOURTH MEETING OF THE AERODROME OPERATIONS AND PLANNING SUB GROUP (AOP/SG/4)

VIDEO TELECONFERENCE, 10 TO 13 NOVEMBER 2020

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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INTRODUCTION

1. Meeting

1.1 The Fourth Meeting of the Aerodrome Operations and Planning Sub Group (AOP/SG/4) was held as a video teleconference from 10 to 13 November 2020.

2. Attendance

2.1 123 participants from 20 Member States, 1 Special Administrative Region and 6 International Organizations attended the meeting.

2.2 The List of Participants is placed at **Attachment 1** to the Report.

3. Opening of the meeting

3.1 Mr Arun Mishra, the Regional Director of ICAO APAC Office welcomed the delegates to AOP/SG/4. He shared with AOP/SG/4 some estimates on the impact of COVID-19, ICAO's initiatives to facilitate States to cope with the challenges of restarting aerodrome operations, and aerodrome-related challenges faced by the APAC Region. Full Text of his speech is placed at **Attachment 2** to the Report.

3.2 Ms Lyu Qing, Chairperson of AOP/SG welcomed the members and delivered her opening remarks.

4. Officers and Secretariat

4.1 Ms Lyu Qing, Chairperson of AOP/SG presided over the meeting. Dr Punya Raj Shakya, Regional Officer/AGA, ICAO Asia and Pacific Office, was the Secretary of the Meeting.

4.2 The meeting was supported by Mr Leonard C. Wicks (RO/ATM), Mr Davaasuren Erdenebaatar (Associate RO/AIM), Mr Han Chee Chew (ATM Officer) and Mr Steven Ka Ho Pang (RO/AGA).

5. Language and Documentation

5.1 The working language of the meeting and all documentation was in English. There were 25 Working Papers, 15 Information Papers and 1 Presentation considered by the Meeting. A List of Papers is included at **Attachment 3** to this Report.

6. Draft Conclusions, Draft Decisions, Conclusions and Decisions of AOP/SG – Definition

6.1 The AOP/SG 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) **Conclusions** of the AOP/SG deal with matters of a purely technical or operational nature, which APANPIRG had delegated authority to AOP/SG to act upon; and
- d) **Decisions** of the AOP/SG relate solely to matters dealing with the internal working arrangements of the AOP/SG.

7. List of Draft Conclusions, Conclusions, Draft Decisions and Decisions

Draft Decision AOP/SG/4-1 (APA-CDM/TF/5-1): Proposal for Amendment of APA-CDM/TF TOR	
What: That, the Terms of Reference (TOR) of Asia/Pacific Airport Collaborative Decision Making Task Force (APA-CDM/TF) be amended as in Appendix A to the Report of AOP/SG/4.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: To align the TOR with the APAC Seamless ANS Plan Version 3.0.	Follow-up: <input type="checkbox"/> Required from States
When: 16-Dec-20	Status: Draft to be adopted by PIRG
Who: <input checked="" type="checkbox"/> Sub groups <input type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:	

Conclusion AOP/SG/4-2 (AOPC SWG/4-1): Asia/Pacific Regional Guidance on Aerodrome Operations Personnel Competency Requirement Framework	
What: That, the Asia/Pacific Regional Guidance on Aerodrome Operations Personnel Competency Requirement Framework provided in Appendix B to the AOP/SG/4 Report be adopted and published on the ICAO APAC website.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: To provide regional guidance on aerodrome operations personnel competency requirement framework.	Follow-up: <input type="checkbox"/> Required from States
When: 13 Nov 2020	Status: Adopted by Subgroup
Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:	

Decision AOP/SG/4-3 (AOPC SWG/4-2): Dissolution of Aerodrome Operations Personnel Competency Small Working Group	
What: That, the Aerodrome Operations Personnel Competency Small Working Group (AOPC/SWG), having completed all tasks as per its TOR, be dissolved.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: All tasks as per TOR completed	Follow-up: <input type="checkbox"/> Required from States
When: 13 Nov 2020	Status: Adopted by Subgroup
Who: <input checked="" type="checkbox"/> Sub groups <input type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:	

Draft Conclusion AOP/SG/4-4 (AP–WHM WG/2–1): Submission of Wildlife Strike Reports	
What: That, States are requested to submit wildlife strike reports to ICAO in the format of either ECCAIRS.e5f files or the standard ICAO ECCAIRS Excel-based form available at http://www.icao.int/ibis .	Expected impact: <input checked="" type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: To facilitate wildlife strike occurrence reporting and data analysis	Follow-up: <input checked="" type="checkbox"/> Required from States
When: 16-Dec-20	Status: Draft to be adopted by PIRG
Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: Nil	

Draft Conclusion AOP/SG/4-5 (AP–WHM WG/2–2): Wildlife Hazard Management Training	
What: That, States recognise the prioritised need for competent and trained personnel in aerodrome wildlife hazard management at regulatory and aerodrome operation levels.	Expected impact: <input checked="" type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: To reduce the risk associated to wildlife activities by the provision of competent wildlife hazard management personnel at aerodromes.	Follow-up: <input checked="" type="checkbox"/> Required from States
When: 16-Dec-20	Status: Draft to be adopted by PIRG
Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: Nil	

Draft Conclusion AOP/SG/4-6 (AP–WHM WG/2–3): Promotion of a Positive Safety Culture	
What: That, <ul style="list-style-type: none"> • States are encouraged to promote a positive safety culture in wildlife hazard management at regulatory and aerodrome operation levels; and • Reporting culture be considered in implementing aerodrome wildlife hazard management programmes. 	Expected impact: <input checked="" type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: To enhance reporting on wildlife	Follow-up: <input checked="" type="checkbox"/> Required from States
When: 16-Dec-20	Status: Draft to be adopted by PIRG
Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: Nil	

Decision AOP/SG/4-7 (AP-AA/WG/2-1): Generic Documents related to Aerodrome Certification	
<p>What: That,</p> <p>a) the generic documents in Appendix C (Generic Aerodrome Certification Procedure) and Appendix E (Generic Procedures for Accepting Non-Compliances in Aerodromes) to the AOP/SG/4 Report be made available on the ICAO APAC Office Website for the reference by States in the APAC Regions; and</p> <p>b) the draft generic documents in Appendix D (Draft Generic Aerodrome Inspector Handbook) and Appendix F (Draft Generic Aerodrome Manual) to AOP/SG/4 Report be made available on the ICAO APAC Office Website for the advance information by States in the APAC Regions.</p>	<p>Expected impact:</p> <p><input type="checkbox"/> Political / Global</p> <p><input type="checkbox"/> Inter-regional</p> <p><input type="checkbox"/> Economic</p> <p><input type="checkbox"/> Environmental</p> <p><input checked="" type="checkbox"/> Ops/Technical</p>
<p>Why: To provide guidance to States which have yet to complete the aerodrome certification process.</p>	<p>Follow-up: <input type="checkbox"/> Required from States</p>
<p>When: 13-Nov-20</p>	<p>Status: Adopted by Subgroup</p>
<p>Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:</p>	
Conclusion AOP/SG/4-8 (AP-AA/WG/2-2): Survey Questionnaire for Aerodrome Assistance in APAC States	
<p>What: That, the survey questionnaire in Appendix G to AOP/SG/4 Report be circulated to States to identify the need of aerodrome assistance among States in the APAC Regions.</p>	<p>Expected impact:</p> <p><input type="checkbox"/> Political / Global</p> <p><input type="checkbox"/> Inter-regional</p> <p><input type="checkbox"/> Economic</p> <p><input type="checkbox"/> Environmental</p> <p><input checked="" type="checkbox"/> Ops/Technical</p>
<p>Why: To identify the need of aerodrome assistance among States in the APAC Regions</p>	<p>Follow-up: <input checked="" type="checkbox"/> Required from States</p>
<p>When: 13-Nov-20</p>	<p>Status: Adopted by Subgroup</p>
<p>Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input checked="" type="checkbox"/> Other: AP-AA/WG</p>	
Decision AOP/SG/4-9 (AP-AA/WG/2-3): Proposal for Amendment to TOR of Asia/Pacific Aerodrome Assistance Working Group	
<p>What: That, the AP-AA/WG/2 Meeting agreed to propose an amendment to the TOR of AP-AA/WG as placed in Appendix H to AOP/SG/4 Report.</p>	<p>Expected impact:</p> <p><input type="checkbox"/> Political / Global</p> <p><input type="checkbox"/> Inter-regional</p> <p><input type="checkbox"/> Economic</p> <p><input type="checkbox"/> Environmental</p> <p><input checked="" type="checkbox"/> Ops/Technical</p>
<p>Why: To align the TOR with the GASP 2020-2022 target on USOAP EI</p>	<p>Follow-up: <input type="checkbox"/> Required from States</p>
<p>When: 13-Nov-20</p>	<p>Status: Adopted by Subgroup</p>
<p>Who: <input checked="" type="checkbox"/> Sub groups <input type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input checked="" type="checkbox"/> Other: AP-AA/WG</p>	

Draft Conclusion AOP/SG/4–10: GRF Implementation Action Plan Template	
<p>What: That, a) The GRF Implementation Action Plan Template contained in Appendix L to AOP/SG/4 Report be uploaded to ICAO APAC Website for reference by States / Administrations; and b) States / Administrations are requested to make reference to the GRF Implementation Action Plan Template and submit their own action plans to ICAO APAC Office by 28 February 2021.</p>	<p>Expected impact:</p> <p><input type="checkbox"/> Political / Global</p> <p><input type="checkbox"/> Inter-regional</p> <p><input checked="" type="checkbox"/> Economic</p> <p><input type="checkbox"/> Environmental</p> <p><input checked="" type="checkbox"/> Ops/Technical</p>
<p>Why: To assist States in the implementation of GRF-related SARPs and PANS.</p>	<p>Follow-up: <input checked="" type="checkbox"/> Required from States</p>
<p>When: 16-Dec-20</p>	<p>Status: Draft to be adopted by PIRG</p>
<p>Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:</p>	

Draft Conclusion AOP/SG/4–11: Runway Safety Team	
<p>What: That, States/Administrations to urge operators of aerodromes used for international operations to:</p> <p>a) establish runway safety teams (RSTs) in accordance with PANS-Aerodromes (Doc 9981) and ICAO RST Handbook; and b) participate in the ICAO RST Survey to register their RSTs.</p>	<p>Expected impact:</p> <p><input type="checkbox"/> Political / Global</p> <p><input type="checkbox"/> Inter-regional</p> <p><input checked="" type="checkbox"/> Economic</p> <p><input type="checkbox"/> Environmental</p> <p><input checked="" type="checkbox"/> Ops/Technical</p>
<p>Why: To promote and keep track of the establishment of RSTs among aerodromes used for international operations to enhance runway safety.</p>	<p>Follow-up: <input checked="" type="checkbox"/> Required from States</p>
<p>When: 16-Dec-20</p>	<p>Status: Draft to be adopted by PIRG</p>
<p>Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:</p>	

Conclusion AOP/SG/4–12: Regional Guidance on Aeronautical Information Publication – AD 1.5 Status of Certification of Aerodromes	
<p>What: That, the <i>Regional Guidance on Aeronautical Information Publication – AD 1.5 Status of Certification of Aerodromes</i> provided in Appendix M to AOP/SG/4 Report be adopted and published on the ICAO APAC website.</p>	<p>Expected impact:</p> <p><input type="checkbox"/> Political / Global</p> <p><input type="checkbox"/> Inter-regional</p> <p><input type="checkbox"/> Economic</p> <p><input type="checkbox"/> Environmental</p> <p><input checked="" type="checkbox"/> Ops/Technical</p>
<p>Why: To provide regional guidance on AIP AD 1.5.</p>	<p>Follow-up: <input checked="" type="checkbox"/> Required from States</p>
<p>When: 16-Dec-20</p>	<p>Status: Adopted by Subgroup</p>
<p>Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:</p>	

Draft Conclusion AOP/SG/4-13: Holding Bays and Multiple Entrance Taxiways	
<p>What: That, the ICAO HQ be invited to consider to:</p> <p>a) Review Figure 2-2 of ICAO Aerodrome Design Manual (Doc 9157), Part 2 <i>Taxiways, Aprons and Holding Bays</i> to tally with SARPs of runway-holding position marking and actual aircraft operations; and</p> <p>b) Review the current SARPs in Annex 14, <i>Aerodromes – Volume I, Aerodrome Design and Operations</i> to cater for the design of multiple entrance taxiways.</p>	<p>Expected impact:</p> <p><input checked="" type="checkbox"/> Political / Global</p> <p><input type="checkbox"/> Inter-regional</p> <p><input type="checkbox"/> Economic</p> <p><input type="checkbox"/> Environmental</p> <p><input checked="" type="checkbox"/> Ops/Technical</p>
<p>Why: To tally a figure in ICAO guidance material with the applicable SARPs and to enhance aircraft safety</p>	<p>Follow-up: <input type="checkbox"/> Required from States</p>
<p>When: 16-Dec-20</p>	<p>Status: Draft to be adopted by PIRG</p>
<p>Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input checked="" type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:</p>	

Draft Conclusion AOP/SG/4-14: Alternative Safety Oversight Framework for Military Aerodromes undertaking Limited Civil International Operations	
<p>What: That, recognizing:</p> <p>(1) certain military aerodromes in States are undertaking limited civil international operations;</p> <p>(2) certification of such aerodromes by civil aviation authorities may prove difficult; and</p> <p>(3) an alternative safety oversight framework may be appropriate in consideration of the low level of civil international operations at such aerodromes;</p> <p>ICAO HQ is invited to consider establishing an alternative safety oversight framework in lieu of certification for such military aerodromes.</p>	<p>Expected impact:</p> <p><input checked="" type="checkbox"/> Political / Global</p> <p><input type="checkbox"/> Inter-regional</p> <p><input type="checkbox"/> Economic</p> <p><input type="checkbox"/> Environmental</p> <p><input checked="" type="checkbox"/> Ops/Technical</p>
<p>Why: To provide an alternative safety oversight framework for military aerodromes undertaking limited civil international operations.</p>	<p>Follow-up: <input type="checkbox"/> Required from States</p>
<p>When: 16-Dec-20</p>	<p>Status: Draft to be adopted by PIRG</p>
<p>Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input checked="" type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:</p>	

Conclusion AOP/SG/4-15: AOP Focal Points	
<p>What: That, States / Administrations be urged to review and update contact details of AOP Focal Points, as contained in Appendix O to AOP/SG/4 Report, for the coordination of actions to resolve the APANPIRG Air Navigation Deficiencies in the AOP Field and for other AOP matters.</p>	<p>Expected impact:</p> <p><input type="checkbox"/> Political / Global</p> <p><input type="checkbox"/> Inter-regional</p> <p><input type="checkbox"/> Economic</p> <p><input type="checkbox"/> Environmental</p> <p><input checked="" type="checkbox"/> Ops/Technical</p>
<p>Why: To streamline the communications between States / Administrations and ICAO APAC Office on AOP matters</p>	<p>Follow-up: <input checked="" type="checkbox"/> Required from States</p>
<p>When: 13-Nov-20</p>	<p>Status: Adopted by Subgroup</p>
<p>Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:</p>	

8. Terms of Reference of APANPIRG AOP/SG

8.1 The Terms of Reference of AOP/SG approved by APANPIRG/26 (Bangkok 7 to 10 September 2015) includes inter alia the following:

The Objectives of the AOP/SG are to:

- 1) *ensure the continuous and coherent development of the AOP parts of the Asia/Pacific Regional Air Navigation Plan (APAC ANP) in a manner that is consistent with ICAO SARPs, the Global Air Navigation Plan and the Global Aviation Safety Plan;*
- 2) *facilitate the implementation of AOP services identified in the APAC ANP, Aviation System Block Upgrade (ASBU) priority modules and Asia/Pacific Seamless ATM Plan elements using the project management principles where appropriate;*
- 3) *review, identify and address deficiencies that impede the implementation or provision of efficient AOP services in the Asia and Pacific Regions.*

Deliverables to meet the Objectives:

- 1) *Progress report to be **submitted** to APANPIRG addressing the AOP/SG deliverables (listed in 2-6 below);*
 - 2) *AOP parts of the ASIA/PAC ANP to be **reviewed** and, as necessary, amendment proposals **prepared** to update the APAC ANP to reflect changes in the operational and global requirements;*
 - 3) *Level of implementation of AOP service to be **monitored** and, as necessary, **facilitated** to support the effective implementation of ASBU priority modules and Asia/Pacific Seamless ATM Plan elements;*
 - 4) *Air navigation deficiencies in the field of AOP to be **identified** and, where necessary, appropriate corrective action **proposed** and the development and implementation of action plans by States to resolve identified deficiencies **facilitated**;*
 - 5) *Air navigation deficiencies in the field of AOP (as listed in the APANPIRG database) to be **reviewed** and, as necessary, **updated** to reflect the current situation;*
 - 6) *AOP environmental initiatives are consistently identified and progressed; and report outcomes from AOP environmental initiatives;*
 - 7) *Draft Conclusions and Decisions to be **formulated** relating to matters in the field of AOP that come within the scope of the APANPIRG work plan.*
-

Agenda Item 1: Adoption of Provisional Agenda

1.1 The Provisional Agenda (WP/01) was adopted by the meeting without any amendment.

Agenda Item 2: Review Outcome of Relevant MeetingsAction Items of 56th Conference of Directors General of Civil Aviation Asia and Pacific Regions (WP/02)

2.1 AOP/SG/4 reviewed all Actions Items of the 56th Conference of Directors General of Civil Aviation Asia and Pacific Regions (DGCA/56, 19 to 23 August 2019, Kathmandu, Nepal), including Action Item 56/5 and 56/24 related to AOP/SG, which are reproduced below:

Discussion Paper No.	Action Item	Agenda Item 9a – Beijing Declaration Commitments
DP/1a/9 DP/12a/2	Action Item 56/5	The Conference urged States/Administrations to: a) accelerate progress under the Beijing Declaration, provide customized assistance to the Pacific Island States, and work with ICAO on its technical assistance programme and capacity building activities for the region; ... [other sub-items omitted]
DP/6/3	Action Item 56/24	The Conference encouraged States/Administrations to: a) ensure an airport master plan is developed for each airport, and reviewed periodically with participation from stakeholders in line with various guidance issued by ICAO from time to time; b) recognize the need to address the infrastructure capacity constraint issue urgently through operational efficiencies and new infrastructure when required; c) if privatization is pursued, consider the balanced concessions framework proposed by IATA and follow the guidance issued by ICAO in this regard; and d) collaborate with airlines and key stakeholders.

2.2 The Meeting urged States CAAs and aerodrome operators to take necessary actions in accordance with 56th DGCA Conference Action Item 56/5 a) and 56/24 a) and b).

Relevant Outcomes of APANPIRG/30 and APAC Action Plan (WP/03)

2.3 AOP/SG/4 reviewed and noted the follow up actions taken by ICAO APAC Office on the Decisions/Conclusions adopted by the Thirtieth Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/29, Bangkok, Thailand, 4 to 6 November 2019) related to AOP/SG.

Actions on AOP/SG/3 Conclusions and Decisions (WP/04)

2.4 AOP/SG/4 reviewed and noted the follow up actions taken by ICAO APAC Office on the Decisions/Conclusions adopted by the AOP/SG/3 Meeting (Bangkok, Thailand, 24 – 26 June 2019).

RASG-APAC/9 Meeting Outcomes (IP/02)

2.5 IP/02 provided information about the outcomes of the Ninth Meeting of the RASG-APAC (Bangkok, Thailand, 7-8 November 2019) and noted that there were no Decisions and Conclusions where RASG-APAC and APANPIRG needed coordination related to AOP fields.

Report of the Seventh Coordination between the Chairpersons of APANPIRG and RASG-APAC Meeting (IP/03)

2.6 IP/03 provided a summary of the outcomes of the seventh coordination meeting between APANPIRG & RASG-APAC held on 4 May 2020 as a video teleconference.

Report of the ICAO Asia Pacific COVID-19 Contingency and Recovery Planning Group (ACCRPG) – Initial Report to Asia Pacific Director Generals of Civil Aviation (APAC DGCAs) (IP/04)

2.7 IP/04 summarized the outcomes of the Report of the ICAO Asia Pacific COVID-19 Contingency and Recovery Planning Group (ACCRPG) – Initial Report to Asia Pacific Director Generals of Civil Aviation (APAC DGCAs).

2.8 This initial report provided 11 initial ACCRPG recommendations to all APAC States to help them prioritize the key actions they should implement to reduce the risk to passengers, aviation staff and the community of COVID-19. It also included some key factor that APAC States will need to consider in implementing the restart and recovery of international aviation in APAC Region.

Agenda Item 3: Regional ReportingAsia/Pacific Air Navigation Plans (WP/05)

3.1 AOP/SG/4 noted the structure of the Asia/Pacific Air Navigation Plans and procedures for their amendments. There were three Volumes of Asia/Pacific ANP.

3.2 ANP Volume I contained stable plan elements, the amendment of which necessitates approval by the Council. ANP Volume II contained dynamic plan elements, the amendment of which does not require approval by the Council. Approval of ANP Volume II was under the responsibility of the relevant PIRG.

3.3 ANP Volume III contained dynamic/flexible plan elements providing implementation planning guidance for air navigation systems and their modernization taking into consideration emerging programmes, such as, the ICAO Aviation System Block Upgrades (ASBUs) and associated technology roadmaps described in the *Global Air Navigation Plan (GANP)* (Doc 9750). The amendment of Volume III would not require approval by the Council.

APAC ANP Volume I, Part II – Aerodromes/Aerodrome Operations (AOP)

3.4 This part of the APAC ANP constituted the agreed regional requirements considered to be the minimum necessary for effective planning and implementation of Aerodromes Operations (AOP) facilities and services in the Asia and Pacific Regions and complements the provisions of ICAO SARPs and PANS related to AOP. It contained stable plan elements related to the assignment of responsibilities to States for the provision of aerodrome facilities and services within the Region(s) in accordance with Article 28 of the *Convention on International Civil Aviation* (Doc 7300) and mandatory requirements related to the AOP facilities and services to be implemented by States in accordance with regional air navigation agreements.

3.5 The list of regular and alternate aerodromes (including their designations) required in the Region(s) to serve international civil aviation operations (international scheduled air transport, non-scheduled air transport and general aviation operations) was given in Table AOP I-1 of ANP Volume I. Each Contracting State should ensure the provision of aerodrome facilities and services at the international aerodromes under its jurisdiction.

APAC ANP Volume II, Part II – Aerodromes/Aerodrome Operations (AOP)

3.6 This part of the APAC ANP, Volume II, complemented the provisions in ICAO SARPs and PANS related to Aerodrome Design and Operations (AOP). It contained dynamic plan elements related to the assignment of responsibilities to States for the provision of AOP facilities and services within a specified area in accordance with Article 28 of the *Convention on International Civil Aviation* (Doc 7300); and mandatory requirements related to AOP facilities and services to be implemented by States in accordance with regional air navigation agreements. Such agreement indicated a commitment on the part of the State(s) concerned to implement the requirement(s) specified.

3.7 Table AOP II-1 of ANP Volume II contained the list of facilities and services to be provided by the State concerned at each aerodrome that is listed in Table AOP I-1 in Volume I. Table AOP II-1 showed the operational requirements at each aerodrome to be considered in planning the facilities and services for safe and efficient aircraft operations.

Amendment of ANP Volume I, Table AOP I-1 and ANP Volume II, Table AOP II-1

3.8 AOP/SG/4 noted that there were 239 international aerodromes listed in Asia/Pacific Region ANP Volume I. However, the number of international aerodromes used for international operations in Asia/Pacific Region had increased and reached to approximately 342 based on information gather from Doc 7910 (Location Indicator), States Aeronautical Information Publication (AIP), CAA Websites and ICAO Missions.

3.9 Recognizing that many aerodromes used for international operations or aerodromes under construction or planned for international operations in Asia/Pacific Region were not included in APAC ANP Volume I, Table AOP I-1 and ANP Volume II, Table AOP II-1, and considering that information included in Tables AOP I-1 and Table AOP II-1 were accurate and current for regional planning of the other air navigation services, AOP/SG/4 recalled the following Conclusion adopted in AOP/SG/3 (Bangkok, Thailand, 24-26 June 2019):

Conclusion AOP/SG/3-1: Proposal for Amendment of Asia/Pacific ANP Volume I, Table AOP I-1 and ANP Volume II, Table AOP II-1

That,

Many aerodromes used for international operations or aerodromes under construction or planned for international operations in Asia/Pacific Region were not included in APAC ANP Volume I, Table AOP I-1 and ANP Volume II, Table AOP II-1. It is also important that information included in Tables AOP I-1 and Table AOP II-1 are accurate and current for regional planning of the other air navigation services.

States are urged to:

- a) review the aerodromes listed in **APAC ANP Volume I, Table AOP I-1**;
- b) review the **ANP Volume II, Table AOP II-1** for the list of facilities and services to be provided by the State concerned at each aerodrome that is listed in **Table AOP I-1**;
- c) initiate and send to ICAO APAC Office proposals for amendment of **APAC ANP Volume I, Table AOP I-1** and **ANP Volume II, Table AOP II-1** in accordance with the template provided in **Appendix A** to the AOP/SG/3 Report, if their international aerodromes are not listed in **Table AOP I-1** or require any amendments to update the information provided in **Tables AOP I-1 and AOP II-1**.

3.10 AOP/SG/4 also noted that, subsequent to AOP/SG/3, the ICAO APAC Office had processed proposals for amendments of APAC ANP Volumes I and II from Bangladesh, Indonesia, Lao PDR, Malaysia, Maldives, Myanmar, Nepal, Philippines, Thailand, Timor-Leste and Viet Nam. The total aerodromes listed in APAC ANP Volume I as of October 2020 were 239.

3.11 AOP/SG/4 urged States to take note of **Conclusion AOP/SG/3-1**, and initiate and send proposals for amendment of APAC ANP Volume I, Table AOP I-1 and ANP Volume II, Table AOP II-1, as necessary.

APAC ANS Plan Update (WP/06)

3.12 The meeting noted that the Asia/Pacific Region's primary means of planning to support the ICAO Doc 9750 Global Air Navigation Plan (GANP) was the Asia/Pacific Seamless ANS Plan, which required the involvement and active participation of States and all stakeholders. At present, the Asia/Pacific Seamless ANS Plan had several important subsidiary plans, and it was expected that AOP-related subsidiary plans would need to be developed as well.

3.13 A total of 28 States/Administrations, i.e. 63.6% of the APAC States/Administrations, had submitted one or more report(s) on the ICAO Seamless ATM Reporting Portal (accessible through the ICAO Secure Portal). Among those 28 States/Administrations, only six States had submitted at least four reports from 2014 to 2018 (note: ‘regular reporting’ is measured over the past three years).

3.14 As 2019 had been a review year for the Asia/Pacific Seamless ATM Plan, the meeting noted that the Plan was renamed to be the Asia/Pacific Seamless ANS Plan and the need to develop a National Air National Plan (NANP). A template for the development of a NANP can be accessed from the ICAO website at

<https://www.icao.int/APAC/Documents/edocs/National%20Air%20Navigation%20Template%20V6.0.docx>

3.15 In general, the ten priority regional targets planned for Phase I (November 2015 - November 2019) Phase 1 was far from being implemented, even three years after the initial target date. In particular Air Traffic Flow Management/Collaborative Decision-Making (ATFM/CDM) was recognized as having only a ‘partial or slow’ implementation. States had been urged by APANPIRG/27 to give higher priority both at CAA and Air Navigation Service Provider (ANSP) levels, and to mobilize human and financial resources to complete the implementation of Phase 1 objectives.

3.16 The ten priorities had been updated by APANPIRG/30 to 16 priorities. However, the Seamless reporting portal had not been able to be updated thus far to match the 6th Edition of GANP and Version 3.0 of the Asia/Pacific Seamless ANS Plan, meaning that data was now unfortunately out-of-date.

3.17 Ultimately, the *Asia/Pacific Seamless ANS Plan* was expected to be incorporated into Volume III of the Regional Air Navigation Plan (RANP), to become fully web-based.

Agenda Item 4: Provision of AOP in the Asia/Pacific Region

Report on the Fifth Meeting of the Asia Pacific Airport Collaborative Decision Making Task Force (APA-CDM/TF/5) (WP/07)

4.1 AOP/SG/4 reviewed the Report of the Fifth Meetings of the Asia Pacific Airport Collaborative Decision Making Task Force (APA-CDM/TF/5) held as a video teleconference on 15 - 17 June 2020.

Air Traffic Flow Management Steering Group Outcomes (WP/03)

4.2 The APA-CDM/TF/5 Meeting was informed of outcomes from the 10th Meeting of the Asia/Pacific Air Traffic Flow Management Steering Group (ATFM/SG/10, Video Teleconference, 4 to 8 May 2020).

4.3 The Meeting noted that the ATFM/SG/10 had been informed of matters relevant to APA-CDM/TF including the APAC Flight Information Exchange Model (FIXM) 4.1 Extension (*Conclusion APANPIRG/30/12*) and AFTN/AMHS-Based Interface Control Document (Conclusion CNS SG/23/1), both of which were available on the ICAO APAC Regional Office eDocuments webpage (<https://www.icao.int/APAC/Pages/eDocs.aspx>) for use by Asia/Pacific Administrations in implementing cross-border ATFM communications. **Table 1** summarized the data attributes currently included in the FIXM extension.

Estimated	Calculated	Target	Actual
		Target Off Blocks Time (TOBT)	Actual Off Blocks Time (AOBT)
		Target Start Approval Time (TSAT)	
	Calculated Take-Off Time (CTOT)	Target Take-Off Time (TTOT)	
Estimated Time Over (ETO)	Calculated Time Over (CTO)		Actual Time Over (ATO)
Estimated Landing Time (ELDT)	Calculated Landing Time (CLDT)		
Other			
Trajectory		Aircraft Track	
<ul style="list-style-type: none"> • ETO • CTO • ATO • Flight level or Altitude • Waypoint 		<ul style="list-style-type: none"> • Ground speed • Bearing • Flight level or Altitude • Position (Designator or Latitude/Longitude or Relative Point) • Time over position 	

Table 1: APAC FIXM 4.1 Extension data attributes

4.4 The APA-CDM/TF/5 Meeting was informed that any proposal to include additional attributes in the FIXM Extension must be supported by a suitable operational scenario proposed formally through ATFM/SG and/or APA-CDM/TF. It was noted that a number of attributes relevant to A-CDM process, such as Actual Landing Time (ALDT) and Actual Take-off Time (ATOT), had already been included in FIXM 4.1 Core.

4.5 Regarding the CTOT compliance windows, it was clarified that multiple compliance windows did not apply at an individual airport. Only one CTOT compliance window should be established for all flights at an airport, taking into account factors which warranted deviation from the regionally agreed -5 to +10 minutes window, and as agreed by relevant stakeholders.

Report on ICAO APAC A-CDM Survey (WP/09)

4.6 AOP/SG/4 Meeting noted that the Report of the ICAO APA-CDM Survey had been reviewed by the APA-CDM/TF/5 Meeting.

4.7 AOP/SG/4 meeting also noted that, as per paragraph 7.3 of APAC Seamless ANS Plan Version 3.0, all international aerodromes should operate an A-CDM system for Airport CDM Information Sharing (ACIS) integrated with the ATM network function consistency with ASBU Elements ACDM-B0/1 & B0/2.

4.8 The Secretariat recapitulated *the Asia Pacific Airport Collaborative Decision Making (A-CDM) Implementation Plan*, which served as the regional guidance on the harmonisation of A-CDM systems in APAC region and adopted a milestone approach. The Plan could be downloaded from ICAO APAC Office website. AOP/SG/4 also noted that the extension of APA-CDM/TF for 2 years until APANIRG/32, as determined through **Decision APANPIRG/30/3**, would allow the Task Force to work on fostering the interoperability of A-CDM with ATFM and other relevant systems.

APA-CDM/TF Terms of Reference and Deliverables (WP/08)

4.9 AOP/SG/4 noted that the APA-CDM/TF/5 Meeting reviewed the APA-CDM/TF Terms of Reference (ToR), which was amended by APANPIRG/30 (Bangkok, Thailand, 4 to 6 November 2019) through **Decision APANPIRG/30/3**, subsequent to an amendment proposal formulated by APA-CDM/TF/4 (Bangkok, Thailand, 22 to 26 April 2019) and endorsed by AOP/SG/3 (Bangkok, Thailand, 24 to 26 June 2019) to align the ToR with the APAC Seamless ANS Plan Version 3.0, 2019 approved by APANPIRG/30 and agreed the following Draft Decision. AOP/SG/4 endorsed the Draft Decision for the consideration of APANPIRG/31.

Draft Decision AOP/SG/4-1 (APA-CDM/TF/5-1): Proposal for Amendment of APA-CDM/TF TOR	
What: That, the Terms of Reference (TOR) of Asia/Pacific Airport Collaborative Decision Making Task Force (APA-CDM/TF) be amended as in Appendix A to the Report of AOP/SG/4.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: To align the TOR with the APAC Seamless ANS Plan Version 3.0.	Follow-up: <input type="checkbox"/> Required from States
When: 16-Dec-20	Status: Draft to be adopted by PIRG
Who: <input checked="" type="checkbox"/> Sub groups <input type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:	

Report of the Fourth Meeting of the Aerodrome Operational Personnel Competency Small Working Group (AOPC/SWG/4) (WP/08)

4.10 The Group Leader of the Aerodrome Operational Personnel Competency Small Working Group (AOPC/SWG) presented the Report of the Fourth Meeting of the Aerodrome Operations Personnel Competency Small Working Group (AOPC/SWG/4) held in Yangon, Myanmar from 10 to 14 February 2020.

4.11 The AOPC/SWG/4 Meeting reviewed the latest draft Asia/Pacific Regional Guidance on Aerodrome Operations Personnel Competency Requirement Framework presented at the Meeting.

4.12 Consolidating the AOPC Matrices developed under WP/02, the AOPC/SWG/4 Meeting updated the Draft Asia/Pacific Regional Guidance on AOPC Requirement Framework.

4.13 Regarding the enhanced global reporting format for assessing and reporting runway surface conditions (GRF), the Group Leader advised AOP/SG/4 that relevant competence requirements had been incorporated into the Draft Guidance. In this connection, ACI also shared its new GRF course which would be available in 2021.

4.14 Singapore noted that the word “shall” was seen in the Draft Regional Guidance, and enquired if that signified the relevant parts would become standards or requirements. After clarifications from the Group Leader and the Secretariat, AOP/SG/4 noted that this document would remain as regional guidance, and States / Administrations would determine the best way to adopt the guidance.

4.15 With the finalized draft, the AOPC/SWG/4 Meeting formulated and AOP/SG/4 adopted the following Conclusion.

Conclusion AOP/SG/4-2 (AOPC SWG/4-1): Asia/Pacific Regional Guidance on Aerodrome Operations Personnel Competency Requirement Framework	
What: That, the Asia/Pacific Regional Guidance on Aerodrome Operations Personnel Competency Requirement Framework provided in Appendix B to the AOP/SG/4 Report be adopted and published on the ICAO APAC website.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: To provide regional guidance on aerodrome operations personnel competency requirement framework.	Follow-up: <input type="checkbox"/> Required from States
When: 13 Nov 2020	Status: Adopted by Subgroup
Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> CAO APAC RO <input type="checkbox"/> CAO HQ <input type="checkbox"/> Other:	

4.16 With the progress made during the AOPC/SWG/4 Meeting, it was determined that all tasks assigned to AOPC/SWG had been completed. AOP/SG/4 adopted the following Decision formulated by AOPC/SWG/4:

Decision AOP/SG/4-3 (AOPC SWG/4-2): Dissolution of Aerodrome Operations Personnel Competency Small Working Group	
What: That, the Aerodrome Operations Personnel Competency Small Working Group (AOPC/SWG), having completed all tasks as per its TOR, be dissolved.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical

Why: completed	All tasks as per TOR	Follow-up:	<input type="checkbox"/> Required from States
When:	13 Nov 2020	Status:	Adopted by Subgroup
Who:	<input checked="" type="checkbox"/> Sub groups <input type="checkbox"/> APAC States <input checked="" type="checkbox"/> CAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:		

4.17 The Chair congratulated the group leader and members of AOPC/SWG for their meritorious work in developing a regional guidance on aerodrome operations personnel competency requirement framework.

Report on the Second Meeting of the Asia/Pacific Wildlife Hazard Management Working Group (AP-WHM WG/2) (WP/09)

4.18 The Chairperson of the Asia/Pacific Wildlife Hazard Management Working Group (AP-WHM/WG) presented the Report of the Second Meeting of the Asia/Pacific Wildlife Hazard Management Working Group (AP-WHM WG/2), which was held as a video teleconference from 27 to 29 May 2020.

Submission of Wildlife Strike Reports to ICAO (AP/WHM/WG/2-WP/02)

4.19 AOP/SG/4 noted that the AP-WHM/WG/2 Meeting was presented with the new submission formats for wildlife strike reports to ICAO.

4.20 In order to better facilitate occurrence reporting and data analysis, as announced in ICAO EB 2017/25, ICAO had replaced the old IBIS computer application with a new reporting system based on the European Co-ordination Centre for Accident and Incident Reporting Systems (ECCAIRS) platform. A User Manual and Software Installation Manual of ECCAIRS is available at <http://www.icao.int/ibis> for States interested in the platform.

4.21 States were requested to submit the wildlife strike reports either through ECCAIRS.e5f files, or through an ECCAIRS Excel-based form that could be downloaded at <http://www.icao.int/ibis>. The files should be sent to the following email addresses:

wildlife@icao.int, icaohq@icao.int, aoi@icao.int, and iaa@icao.int

4.22 The Chairperson of AP-WHM/WG highlighted the importance for States to submit wildlife strike reports in one of the specified formats, so as to facilitate the data processing and analysis by ICAO HQ. To further enhance wildlife strike reporting by States, AOP/SG/4 endorsed the following Draft Conclusion formulated by AP-WHM/WG/2 for adoption by APANPIRG/31:

Draft Conclusion AOP/SG/4-4 (AP-WHM WG/2-1): Submission of Wildlife Strike Reports			
What:	That, States are requested to submit wildlife strike reports to ICAO in the format of either ECCAIRS.e5f files or the standard ICAO ECCAIRS Excel-based form available at http://www.icao.int/ibis .	Expected impact:	<input checked="" type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why:	To facilitate wildlife strike occurrence reporting and data analysis	Follow-up:	<input checked="" type="checkbox"/> Required from States
When:	16-Dec-20	Status:	Draft to be adopted by PIRG
Who:	<input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: Nil		

Challenges in Wildlife Hazard Management for Aerodrome Operators in Asia-Pacific (AP/WHM/WG/2-WP/03)

4.23 Presented by ACI, WP/03 delivered the major challenges in wildlife hazard management that aerodrome operators in Asia-Pacific are facing and suggests a way forward to continue to meet these challenges.

4.24 The challenges covered in the WP included the lack of wildlife hazard management plan, the lack of resources and training and the lack of a positive safety culture and communication. Way forward suggested in the WP included the continuation of joint ICAO/ACI seminars and symposiums, continuation of promotion of a positive safety culture, promotion of online training and continuation of cooperation in APEX in Safety.

4.25 The AP-WHM/WG/2 Meeting noted that there were a number of wildlife hazard management courses available but some aerodromes still faced the problem of staff competency in their wildlife hazard management unit. It was agreed that the issue could be caused by insufficient awareness among aerodrome senior management, thus resulting in the lack of resources in the area.

4.26 With reference to AP-WHM/WG/2 WP/03 and the discussion by the Meeting, AOP/SG/4 endorsed the following Draft Conclusions formulated by AP-WHM/WG/2 for adoption by APANPIRG/31:

Draft Conclusion AOP/SG/4-5 (AP-WHM WG/2-2): Wildlife Hazard Management Training		
What:	That, States recognise the prioritised need for competent and trained personnel in aerodrome wildlife hazard management at regulatory and aerodrome operation levels.	Expected impact: <input checked="" type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why:	To reduce the risk associated to wildlife activities by the provision of competent wildlife hazard management personnel at aerodromes.	Follow-up: <input checked="" type="checkbox"/> Required from States
When:	16-Dec-20	Status: Draft to be adopted by PIRG
Who:	<input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: Nil	

Draft Conclusion AOP/SG/4-6 (AP-WHM WG/2-3): Promotion of a Positive Safety Culture		
What:	That, <ul style="list-style-type: none"> • States are encouraged to promote a positive safety culture in wildlife hazard management at regulatory and aerodrome operation levels; and • Reporting culture be considered in implementing aerodrome wildlife hazard management programmes. 	Expected impact: <input checked="" type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why:	To enhance reporting on wildlife	Follow-up: <input checked="" type="checkbox"/> Required from States
When:	16-Dec-20	Status: Draft to be adopted by PIRG
Who:	<input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: Nil	

Wildlife Hazard Management Survey Questionnaire (AP/WHM/WG/2-WP/11)

4.27 Subsequent to the First Meeting of ICAO Asia/Pacific Wildlife Hazard Management Working Group (AP-WHM/WG/1), a questionnaire was forwarded to the States and Administrations in the region to assess the status of the wildlife management measures being adopted by the respective States. Responses were received from the following 10 States / Administrations: Bangladesh, Brunei Darussalam, Cambodia, Hong Kong China, India, Indonesia, Pakistan, Philippines, Singapore and Thailand. Their responses were tabulated and analyzed.

4.28 In response to AP-WHM WG Task 1/5, this paper highlights the analysis and recommendations to the Working Group for further discussion and evolution of the processes. In the meantime, the full responses and analysis of the survey questionnaire were contained in the Attachments to AP-WHM WG/2 WP/11.

4.29 The objective of the survey questionnaire was to analyse States' challenges in wildlife hazard management and to formulate prioritised actions to provide assistance to the States as required. Noting that only a few States responded to the survey and some sub-regions were poorly or not represented, COSCAP-SEA recommended that the survey be re-issued to States in the APAC region that have not responded earlier. The AP-WHM WG/2 Meeting agreed to the recommendation and new tasks were included in the AP-WHM WG Task List.

Evaluation of Airport Wildlife Hazard Management Programme (AP/WHM/WG/2-WP/06)

4.30 Delivered by India and World Birdstrike Association, WP/06 presented the process for evaluation of established wildlife hazard management programme (WHMP) at airport to provide safety assurance that the programme is fully effective and correctly implemented. The paper was prepared in response to AP-WHM/WG Task 1/13, i.e. "Develop performance measurement indicators/metrics to evaluate the effectiveness of the implementation of Airport Wildlife Hazard Management Programme".

4.31 The paper was attached with a number of examples of safety performance indicators and targets related to airport WHMP, which may be useful for aerodrome operators in the evaluation.

4.32 India supplemented that a combination of various dispersal methods is needed for effectiveness. USA expressed that the environment faced by wildlife hazard management personnel would be dynamic and ever-changing. USA suggested a 3-tier evaluation for completeness, which include airport's self-evaluation of WHMP, regulator's review of the airport WHMP, as well as regulator's review of WHMP-related regulations.

4.33 The AP-WHM/WG/2 Meeting agreed that the performance measurement metrics would be reviewed by States involved in the relevant task prior to being finalized.

Guidance on Wildlife Hazard Management Programme in Fiji (AP/WHM/WG/2-WP/07)

4.34 Delivered by Fiji, WP/07 presented the Guidance Material implemented by Fiji to assist aerodrome operators to comply with the ICAO Annex 14, Volume I requirements on the development, implementation and demonstration of an effective bird/wildlife strike and wildlife control programme at airports. The paper was prepared in response to AP-WHM WG Task 1/9.

4.35 The analysis of wildlife data in respect of wildlife strikes as well as the observations and monitoring of wildlife activities could reveal trends that would assist airport authorities in identifying areas of concern which should be addressed through a well-managed wildlife control programme.

4.36 This paper also invites the AP-WHM/WG/2 Meeting to consider the development of a Regional Guidance document on Airport Wildlife Hazard Management Programmes (WHMP) with reference to the best practices from Fiji and other States in the APAC Region.

4.37 Australia suggested and the AP-WHM/WG/2 Meeting agreed that the future Regional Guidance on WHMP should be so organized to link to the SMS components.

Past and Upcoming WHM Events

4.38 Upon enquiry from India regarding possible online WHM knowledge sharing, the Chairperson of AP-WHM/WG advised AOP/SG/4 that there would be an online conference organised by the World Birdstrike Association on 13 – 14 January 2021. The Secretariat supplemented that there was a WHM webinar co-organised by ICAO and Australian Aviation Wildlife Hazard Group on 23 September 2020, and a second webinar was being planned for the second quarter of 2021.

Report of the First Joint Meeting of the Asia/Pacific Aerodrome Design and Operations Task Force (AP-ADO/TF/1) and Asia/Pacific Aerodrome Assistance Working Group (AP-AA/WG/1) and the Second Meeting of Asia/Pacific Aerodrome Assistance Working Group (AP-AA/WG/2) (WP/10)

4.39 The Chairperson of the Asia/Pacific Aerodrome Assistance Working Group (AP-AA/WG) presented the Report of the First Joint Meeting of the Asia/Pacific Aerodrome Design and Operations Task Force (AP-ADO/TF/1) and Asia/Pacific Aerodrome Assistance Working Group (AP-AA/WG/1) and the Second Meeting of Asia/Pacific Aerodrome Assistance Working Group (AP-AA/WG/2). The Joint Meeting was held in Bangkok, Thailand from 25 to 27 September 2019, whereas AP-AA/WG/2 was held in Bangkok, Thailand from 27 to 30 January 2020.

Joint Meeting of AP-ADO/TF/1 and AP-AA/WG/1

Need of Guidance Materials for Design, Construction and Safe Operations of Altiports (Joint Meeting WP/09)

4.40 Presented by Nepal, WP/09 introduced the importance of air transportation in topographically constrained States like Nepal where the most of the interior are not easily accessible by surface transport, as well as the challenges faced during the construction and operation of altiports and other small aerodromes.

4.41 With the operations of small aircraft becoming a safety focus, WP/09 recommended Guidance Materials be developed for the planning, design and construction of altiports and other small aerodromes facing challenges similar to altiports, as well as the safe operations of small aircraft using these aerodromes.

Development of Separate Requirements for Certification of Aerodromes in Challenged Landscape (Joint Meeting WP/10)

4.42 Presented by India, WP/10 introduced challenges faced by many countries in Asia Pacific Region where their airports are situated in mountainous terrain, islands or were built before the certification became obligatory. These airports did not meet ICAO Annex 14 requirements completely and pose certification challenges to the country concerned. There would be a need to develop separate requirements for such aerodromes.

4.43 The following difficulties were presented: runway orientation, provision of runway strip, slope of runway and runway strip, runway end safety area, taxiway and apron, aerodrome obstacles, visual aids and rescue and fire fighting services.

4.44 Subsequent to WP/09 and WP/10, Dr. Somchanok, the Chairperson of AP-ADO/TF, commented that there might be a need for separate guidance materials for aerodromes in challenging environment (e.g. altiport, aerodromes in difficult and limited environment, etc.) as the presence of these aerodromes were essential to the local communities but it might be infeasible to fully comply with the existing SARPs and guidance materials on aerodromes. Dr. Somchanok invited States to discuss in details.

4.45 AOP/SG/4 noted that the Joint Meeting had agreed that a regional guidance for altiports and other similar aerodromes would be required. India agreed to lead the drafting of the regional guidance, whereas Nepal, Thailand and United States agreed to assist in the drafting. This task had been included in the AP-ADO/TF task list.

Implementation of Requirements for Certification of Aerodromes in the Asia/Pacific Region (WP/05)

4.46 AOP/SG/4 noted that the Joint Meeting reviewed the status of aerodrome certification in APAC region and received the following updates:

States	Updates
India	The number of civil/military co-used aerodromes for international operations was 4 instead of 5. Certification would complete in December 2020.
Lao PDR	Certification of Vientiane Wattay International Airport (VLVT) was in progress.
Nepal	The name of Kathmandu International Airport (VNKT) would be amended.
Thailand	Khon Kaen (VTUK), Phitsanulok (VTPP) and Ubon Ratchathani (VTUU) would be removed from the list as there would not be any international operations. The remaining aerodromes would be certified by 2020.

4.47 The Secretariat reminded the States to formally write to the APAC Regional Office and/or submit a proposal for amendment to APAC ANP, as appropriate, to initiate the changes.

4.48 Mr Srivastava, the Chairperson of AP-AA/WG, urged States to expedite the aerodrome certification process so as to meet the *Beijing Declaration* commitment regarding aerodrome certification by 2020. States were encouraged to seek assistance from ICAO (including APAC Regional Office, COSCAPs, TCB and GAT) for the implementation of aerodrome certification plan of the States including training and technical assistance in aerodrome certification.

AP-AA/WG/2

Generic Documents for Aerodrome Certification

4.49 AOP/SG/4 noted that AP-AA/WG/2 developed a generic aerodrome certification procedure manual, a draft generic aerodrome inspector handbook, generic procedures for accepting non-compliance and a draft generic aerodrome manual.

4.50 The AP-AA/WG/2 Meeting agreed that it would be beneficial to publish the generic documents, either finalized or in a draft state, on the ICAO APAC Office website for reference or advance information by APAC States which have been working on the certification of aerodromes for international operations. Efforts would be endeavoured to finalize the generic documents at the earliest opportunity. AOP/SG/4 adopted the following Decision formulated by AP-AA/WG/2:

Decision AOP/SG/4-7 (AP-AA/WG/2-1): Generic Documents related to Aerodrome Certification	
What: That, c) the generic documents in Appendix C (Generic Aerodrome Certification Procedure) and Appendix E (Generic Procedures for Accepting Non-Compliances in Aerodromes) to the AOP/SG/4 Report be made available on the ICAO APAC Office Website for the reference by States in the APAC Regions; and d) the draft generic documents in Appendix D (Draft Generic Aerodrome Inspector Handbook) and Appendix F (Draft Generic Aerodrome Manual) to AOP/SG/4 Report be made available on the ICAO APAC Office Website for the advance information by States in the APAC Regions.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: To provide guidance to States which have yet to complete the aerodrome certification process.	Follow-up: <input type="checkbox"/> Required from States
When: 13-Nov-20	Status: Adopted by Subgroup
Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:	

Survey Questionnaire for APAC States with Low AGA EI (AP-AA/WG/2 WP/08)

4.51 Presented by India, WP/08 introduced a survey questionnaire for States in APAC Region with low AGA EI score (i.e. below 61%) and/or air navigation deficiencies and to establish the requirements for assistance in enhancing the EI scores of these States.

4.52 The AP-AA/WG/2 Meeting noted that the revised safety target set in the ICAO Global Aviation Safety Plan 2020-2022 stated that all States should improve their score for the effective implementation (EI) of the critical elements (CEs) of the State's safety oversight system to reach at least 75% by 2022.

4.53 In view of the above, the target audience of this survey questionnaire would be amended to include APAC States which (1) have not completed the certification of aerodromes used for international operations, (2) have AGA EI below 75%, and/or (3) are identified with AOP air navigation deficiencies, through the proposed amendment to the Terms of Reference of AP-AA/WG, as detailed in paragraph 5.

4.54 Noting that the AP-AA/WG/2 Meeting amended the survey questionnaire, AOP/SG/4 adopted the following Conclusion formulated by AP-AA/WG/2:

Conclusion AOP/SG/4-8 (AP-AA/WG/2-2): Survey Questionnaire for Aerodrome Assistance in APAC States	
What: That, the survey questionnaire in Appendix G to AOP/SG/4 Report be circulated to States to identify the need of aerodrome assistance among States in the APAC Regions.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical

Why: To identify the need of aerodrome assistance among States in the APAC Regions	Follow-up: <input checked="" type="checkbox"/> Required from States
When: 13-Nov-20	Status: Adopted by Subgroup
Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input checked="" type="checkbox"/> Other: AP-AA/WG	

Amendment of Terms of Reference of AP-AA/WG

4.55 AOP/SG/4 noted that the Terms of Reference (TOR) of AP-AA/WG was reviewed during the AP-AA/WG/2 Meeting.

4.56 The safety target set in the ICAO Global Aviation Safety Plan 2020-2022 stated that all States should improve their score for the effective implementation (EI) of the critical elements (CEs) of the State's safety oversight system to reach at least 75% by 2022.

4.57 It was also recommended that, besides the ICAO APAC Office, COSCAPs could also support the implementation of the AP-AA/WG tasks.

4.58 In view of the above, AOP/SG/4 adopted the following Decision drafted by AP-AA/WG/2:

Decision AOP/SG/4-9 (AP-AA/WG/2-3): Proposal for Amendment to TOR of Asia/Pacific Aerodrome Assistance Working Group	
What: That, the AP-AA/WG/2 Meeting agreed to propose an amendment to the TOR of AP-AA/WG as placed in Appendix H to AOP/SG/4 Report.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: To align the TOR with the GASP 2020-2022 target on USOAP EI	Follow-up: <input type="checkbox"/> Required from States
When: 13-Nov-20	Status: Adopted by Subgroup
Who: <input checked="" type="checkbox"/> Sub groups <input type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input checked="" type="checkbox"/> Other: AP-AA/WG	

4.59 The Chairperson of AOP/SG expressed her appreciation for the good work performed by AP-ADO/TF and AP-AA/WG.

Implementation of Requirements for Certification of Aerodromes in the Asia/Pacific Region (WP/11)

Certification of Aerodromes

4.60 AOP/SG/4 noted that there were **239** international aerodromes listed in Asia/Pacific Region ANP Volume I as of October 2020. However, the number of international aerodromes used for international operations in Asia/Pacific Region has increased and reached to approximately **342** based on information gathered from Doc 7910 (Location Indicator), States' Aeronautical Information Publications (AIPs), CAA / Airport Websites, flight tracking data and ICAO Missions.

4.61 AOP/SG/4 reviewed the list of aerodromes used for international operations in APAC region that have yet to be certified, which was prepared based on information collected from APAC States through survey questionnaire, ICAO/COSCAPs missions including ICAO USOAP audit and ICVM, and flight tracking data, and placed in **Appendix I** to the AOP/SG/4 Report.

4.62 AOP/SG/4 noted that approximately **42** aerodromes (i.e. 12 %) out of **342** aerodromes used for international operations in Asia and Pacific Regions were yet to be certified.

4.63 The status of certified aerodromes in different Sub Regions of Asia/Pacific Region is illustrated in the Table 1 below:

Aerodromes	North Asia (5 States & 2 SARs)	South East Asia (11 States)	South Asia (8 States)	Pacific (15 States & 8 OTs)
Total Number of Int'l Aerodromes	134	98	52	58
Number of Certified Int'l Aerodromes	127	79	42	50
Number of Int'l Aerodromes yet to be certified	7	17	10	8
States with Int'l Aerodromes yet to be certified (number and percentage of aerodromes yet to be certified)	1) China (3, 3%) 2) Japan (4, 12%)	1) Brunei Darussalam (1, 100%), 2) Lao PDR (4, 100%) 3) Malaysia (2, 11%) 4) Philippines (3, 33%) 5) Thailand (5, 45%), 6) Timor-Leste (2, 100%)	1) Afghanistan (4, 100%) 2) Bangladesh (1, 33%) 3) India (5, 19%)	1) Kiribati (2, 100%) 2) Micronesia (Federal States of) (4, 100%), 3) Nauru (1, 100%), 4) Tuvalu (1, 100%)

Table 1 - Status of certified aerodromes used for international operations in Sub Regions of Asia/Pacific Region

[Post-meeting notes: Philippines provided written evidence subsequent to AOP/SG/4 that Manila/RPLL had been certified. The evidence was considered adequate. This brought down the number of int'l aerodromes yet to be certified in Philippines from 4 to 3, and the same number for APAC Regions from 43 to 42.]

4.64 AOP/SG/4 also noted that some States had certified their aerodromes without full compliance with ICAO requirements on aerodrome certification process and recommended to recertify their aerodromes in full compliance with those ICAO requirements.

4.65 AOP/SG/4 noted that the 2020 target for the commitment related to aerodrome certification made in *Beijing Declaration* was determined by the *Asia Pacific Ministerial Conference on Civil Aviation* (Beijing, China, 31 January to 1 February 2018). Therefore, ICAO APAC Office would not be in a position to alter this target.

Status of Certification of Aerodromes in AIP

4.66 AOP/SG/4 further noted a number of States / Administrations that have yet to publish the status of certification of aerodromes in AIP AD 1.5. A summary is available in Table 2 below:

States	North Asia (5 States & 2 SARs)	South East Asia (11 States)	South Asia (8 States)	Pacific (15 States & 8 OTs)
No aerodromes listed in AD 1.5/ AD 1.5 missing in AIP	--	1) Brunei Darussalam 2) Lao PDR 3) Philippines 4) Timor Leste	1) Afghanistan	1) American Samoa (US) 2) Cook Is. 3) Guam (US) 4) Kiribati 5) Nauru 6) Niue (NZ) 7) N. Mariana Is. (US) 8) Samoa 9) Tonga 10) Tuvalu 11) Vanuatu
Some but not all aerodromes listed in AD 1.5	1) China 2) Japan	1) Malaysia 2) Thailand 3) Viet Nam	1) India 2) Pakistan	--
Status listed but not under AD 1.5	--	--	--	1) Australia 2) Fiji 3) New Zealand
AIP cannot be located	--	--	--	1) Marshall Is. 2) Micronesia (Federated States of) 3) Palau 4) Solomon Is.
Total	2 States	7 States	3 States	17 States / OTs

Table 2 – Status of AIP AD 1.5 in Sub Regions of Asia/Pacific Region

4.67 AOP/SG/4 urged States and their aerodrome operators that have yet to certify aerodromes used for international operations to take an effective action on the 55th DGCA Action Item 55/42. In addition, AOP/SG/4 urged States to provide periodic updates on the progress of the certification of aerodromes and AIP AD 1.5 to the ICAO APAC Office.

4.68 Australia informed the AOP/SG/4 that AIP Australia had incorporated AD 1.5 since 5 November 2020, pointing readers to *En Route Supplement Australia* (ERSA) for the status of certification of aerodromes. The evidence provided by Australia to the Secretariat during the course of AOP/SG/4 was considered adequate in order to delist Australia from the Table 2 above.

ICAO Universal Safety Oversight Audit Programme (USOAP) and AGA Findings (WP/12)

4.69 AOP/SG/4 noted ICAO USOAP CMA activities conducted in APAC States in 2019 and until October 2020. The Meeting also noted the USOAP CMA activities planned for 2021.

4.70 AOP/SG/4 also noted Effective Implementation (EI) results taken from the USOAP CMA online framework and the common AGA findings identified by the USOAP in the APAC Region. APAC average EI in AGA area was **61.41%** compared to the global average of **61.59%** as at 21 October 2020.

4.71 The Table 3 below illustrated the APAC Average AGA EI scores in all 8 Critical Elements derived from iSTARS 2.0 SPACE (using PQ Tester) for 2017 – 2010:

Table 3: APAC Average AGA EI scores in all 8 Critical Elements

	APAC average EI in AGA (in %)	Critical Elements (CE)							
		CE-1	CE-2	CE-3	CE-4	CE-5	CE-6	CE-7	CE-8
Oct. 2020	61.41 <i>[Global Average 62.65]</i>	75.00	68.64	64.44	42.73	58.61	63.26	58.11	38.42
June 2019	60.52 <i>[Global Average 61.59]</i>	75.68	66.80	62.13	42.30	58.14	63.87	58.87	39.77
June 2018	57.87 <i>[Global Average 59.5%]</i>	68.57	65.78	55.71	38.18	49.60	60.45	53.01	51.13
May 2017	56.29 <i>[Global Average 57.99]</i>	68.57	63.3	53.65	33.17	51.9	59.78	55.2	39.44

4.72 AOP/SG/4 urged APAC States to:

- a) arrange necessary resources to recruit, train and retain qualified and experienced technical staff to effectively perform safety oversight of aerodromes;
- b) complete/continuously update the compliance checklist/EFOD and SAAQ;
- c) submit/update the Corrective Action Plans (CAPs) on the On-line Framework (OLF), informing the ICAO Regional Office when complete and ready for review; and
- d) implement the CAPs and complete the self-assessment of the PQs on the OLF, including uploading the evidence documents, to report the progress on the OLF, informing the ICAO Regional Office when complete and ready for validation.

ICAO Initiatives to Assist States in AGA Area (WP/13)

4.73 AOP/SG/4 noted that ICAO had taken various activities in AGA area in Asia Pacific States under No Country Left Behind initiative.

4.74 The AGA technical assistance missions conducted to APAC States from 2016 to 2020 under ICAO APAC Combined Action Team (CAT), COSCAPs, ICAO Programme for Aviation Volunteers (IPAV) and International Financial Facility for Aviation Safety (IFFAS) initiatives are provided in **Appendix J** to the AOP/SG/4 Report.

4.75 AOP/SG/4 noted an ACI-ICAO aerodrome certification seminar and an ACI-ICAO aerodrome certification compliance and audit course held in 2017 and 2018 respectively for Pacific Island States under the ACI Developing Nations Airport Assistance Programme (ACI-DNA). In addition, financed by ICAO Voluntary Funds SAFE contributed by the United States, it was noted that Aerodrome Assistance Go-Team Missions had been planned for Brunei Darussalam, Lao PDR and Timor-Leste in 2021.

4.76 AOP/SG/4 also noted that ICAO/COSCAPs had organized various training courses, workshops, seminars and webinars together with ICAO partners, and the details were provided in **Appendix K** to this Report.

4.77 The Meeting further noted that as a result of continuous efforts in improving USOAP CMA EI by the States and technical assistance extended to Asia Pacific States through various ICAO led initiatives there was an improvement in overall APAC States' average AGA EI, which was 61.41% as of October 2020 compare to 60.52% as of June 2019. Furthermore, the following improvements in EI have been noted pre and post ICVM/Audit of the audited States, as shown in Table 4:

Table 4: USOAP CMA EI in AGA before and after ICVM

S. No		EI as of March 2016	EI as of 2018 [Post ICVM/ Audit]	EI as of 2019 [Post ICVM/ Audit]	EI as of 2020 [Post ICVM/ Audit/]
1	Bangladesh	54.68	65.44 [ICVM]	-	-
2	Indonesia	44.90	72.73 [ICVM]	-	-
3	Papua New Guinea	61.59	68.15 [ICVM]	-	-
4	Philippines	38.13	48.89 [ICVM]	-	-
5	Cambodia	39.04	59.03 [Audit]	-	-
6	Thailand	32.69	-	53.74 [ICVM]	-
7	Fiji	47.79	-	78.03 [ICVM]	-
8	Tonga	19.08	-	32.82 [ICVM]	-
9	Afghanistan	NA	-	NA [Desktop Audit]	-
10	Myanmar	56.64	-	-	61.48 [IVA]

4.78 United States commented that the increased usage of online training and seminars, providing focused assistance, could be beneficial for States to enhance their AGA safety oversight, which would eventually be reflected in USOAP CMA EI in AGA area. The Chairperson commented that it would be ideal to have further collaborations between States and ICAO APAC Office to provide more technical assistance.

4.79 Noting initiatives taken by ICAO in assisting Asia Pacific States to overcome USOAP findings in AGA and to improve USOAP CMA EI, the meeting urged:

- a) States AGA experts who have completed Computer Based Training on USOAP CMA to volunteer their services to the ICAO APAC CAT initiatives;

- b) International Organization(s) to collaborate with ICAO in capacity building programmes; and
- c) States with low USOAP EI in AGA to request ICAO for the APAC CAT and IPAV assistance.

Enhanced Global Reporting Format for Assessing and Reporting Runway Surface Conditions (GRF), Runway Safety Team (RST) and Runway Safety Go-Team (RSGT) (WP/14)

GRF

4.80 AOP/SG/4 noted that the SARPs and PANS related to GRF was originally set to become applicable on 5 November 2020. However, to alleviate the burden on Member States during, and in the aftermath of, the COVID-19 pandemic, as promulgated in State Letter Ref. AN 10/1.1, AN 11/1.3.33, AN 11/6.3.32, AN 3/5.13, AN 4/1.2.29, AN 2/2.7, AN 13/2.1, AN 4/27 and AN 2/33-20/73 dated 30 July 2020, the Council, at the eighth meeting of its 220th Session held on 19 June 2020, adopted amendments on the postponement of the applicability date, from 5 November 2020 to 4 November 2021, for provisions related to GRF. The concerned Annexes and Procedures for Air Navigation Services (PANS) were:

- a) *Annex 3 – Meteorological Service for International Air Navigation;*
- b) *Annex 6 – Operation of Aircraft, Part I – International Commercial Air Transport – Aeroplanes and Part II – International General Aviation – Aeroplanes;*
- c) *Annex 8 – Airworthiness of Aircraft;*
- d) *Annex 14 – Aerodromes, Volume I – Aerodrome Design and Operations;*
- e) *Annex 15 – Aeronautical Information Services;*
- f) *Procedures for Air Navigation Services – Air Traffic Management (PANS-ATM, Doc 4444);*
- g) *Procedures for Air Navigation Services – Aerodromes (PANS-Aerodromes, Doc 9881); and*
- h) *Procedures for Air Navigation Services – Aeronautical Information Management (PANS-AIM, Doc 10066).*

GRF Implementation Action Plan Template

4.81 In order to assist States in tracking the implementation progress of GRF-related provisions, based on a template developed by COSCAP-SEA earlier, AOP/SG/4 noted that ICAO APAC Office prepared a GRF Implementation Action Plan Template. The template is available in **Appendix L to AOP/SG/4 Report**.

4.82 The template identified 15 action items and a number of action parties to facilitate States in their preparation for GRF implementation. Target dates for each action items have also been set, which States may take reference when determining their own implementation dates.

4.83 To maximize the benefits brought by the template, AOP/SG/4 endorsed the following Draft Conclusion for consideration by APANPIRG/31:

Draft Conclusion AOP/SG/4-10: GRF Implementation Action Plan Template
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What: That, a) The GRF Implementation Action Plan Template contained in Appendix L to AOP/SG/4 Report be uploaded to ICAO APAC Website for reference by States / Administrations; and b) States / Administrations are requested to make reference to the GRF Implementation Action Plan Template and submit their own action plans to ICAO APAC Office by 28 February 2021 .		Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input checked="" type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: To assist States in the implementation of GRF-related SARPs and PANS.	Follow-up: <input checked="" type="checkbox"/> Required from States	
When: 16-Dec-20	Status: Draft to be adopted by PIRG	
Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:		

RST

4.84 AOP/SG/4 noted that an aerodrome operator shall establish a Runway Safety Team (RST) comprised of relevant organizations operating or providing services on the aerodrome. The terms of reference and composition of the RST should be established and included in the aerodrome manual. Activities to be included in the terms of reference as well as the proposed composition of an RST were included in the Appendix to the Chapter 8 of Part II of PANS-Aerodromes (Doc 9981).

4.85 As indicated in the GRF Implementation Action Plan Template (**Appendix L to AOP/SG/4 Report**), RST had been a major player in the implementation of GRF, providing feedback to the CAA in such matters as development of national procedures and guidance material, provision of on-the-job training, arrangement of trials prior to implementation, as well as the implementation plan. As such, the establishment and effective running of RSTs would be crucial for States to fine-tune and carry out their GRF implementation action plan.

4.86 During COVID-19 pandemic, aerodromes faced substantially different operational environment due to the sharp drop in the amount of air traffic movement. Runway safety might be impacted by a different operational environment, e.g. aircraft parked on runways and taxiways, increased wildlife presence, increase in towing activities associated with parked aircraft, and reduced headcount of operational personnel. AOP/SG/4 noted that an active and effective RST would be able to perform hazard identifications and safety risk assessments, so that runway safety risks might be mitigated in a timely manner.

4.87 AOP/SG/4 also noted that ICAO has been maintaining a RST Survey to keep track of the establishment of RSTs at aerodromes used for international operations. The survey results and questionnaire were available at the following URL:

<https://www.icao.int/safety/RunwaySafety/Pages/Runway%20Safety%20Team%20Register.aspx>

4.88 Considering the importance of RST, AOP/SG/4 endorsed the following Draft Conclusion for consideration by APANPIRG/31:

Draft Conclusion AOP/SG/4–11: Runway Safety Team	
What: That, States/Administrations to urge operators of aerodromes used for international operations to:	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional

a) establish runway safety teams (RSTs) in accordance with PANS-Aerodromes (Doc 9981) and ICAO RST Handbook; and b) participate in the ICAO RST Survey to register their RSTs.		<input checked="" type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: To promote and keep track of the establishment of RSTs among aerodromes used for international operations to enhance runway safety.	Follow-up:	<input checked="" type="checkbox"/> Required from States
When: 16-Dec-20	Status:	Draft to be adopted by PIRG
Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:		

RSGT

4.89 AOP/SG/4 noted that ICAO Runway Safety Go-Team (RSGT) assisted States in developing a national runway safety programme. It also assisted airports in establishing / improving the effectiveness of runway safety teams, as well as provided on-site technical assistance to all runway safety stakeholders. RSGT had been a voluntary multi-disciplinary assistance visit to an airport performed by an ad-hoc group of experts from ICAO and RSP partner organisations; it was not an ICAO audit, validation, inspection nor certification.

4.90 AOP/SG/4 noted that COSCAP-SEA arranged the first two RSGT missions in the APAC Region in March 2020 – to Manila, Philippines and Makassar, Indonesia. Recommendations were provided to the States and airports for enhancing runway safety. The two missions utilized the funding available under COSCAP-SEA and was therefore available free-of-charge to the two States.

4.91 With the upcoming applicability of GRF-related SARPs and PANS, the scope of RSGT might be extended to assist States and airports in the implementation of GRF. In such cases, the duration of RSGT on-site activities might be slightly extended to incorporate additional activities.

4.92 AOP/SG/4 urged States in need of assistance in the area of runway safety and GRF to request for RSGT Assistance Missions through ICAO APAC Office and/or their corresponding COSCAP.

Regional Guidance on Aeronautical Information Publication – AD 1.5 Status of Certification of Aerodromes (WP/15)

4.93 AOP/SG/4 recalled **Conclusion APANPIRG/30/4** which, inter alia, urged States that have not published the status of certification of aerodromes in State's AIP to publish the status as soon as possible in accordance with Annex 14 Vol I (para. 2.13.1), PANS-Aerodromes (para. 2.3.7) and Appendix 2 to PANS-AIM (Doc 10066); and agreed that if any States fails to publish the status of certification of aerodromes in State's AIP by December 2019 will be subject to being included on the APANPIRG AOP Air Navigation Deficiency list against ICAO Annex 14 para. 2.13.1 a), PANS-Aerodromes, para. 2.3.7 and Appendix 2 to PANS-AIM.

4.94 Since the adoption of the **Conclusion APANPIRG/30/4**, ICAO APAC Office received queries from a number of States requesting for clarification on the content to be published in AIP AD 1.5. As a result, a regional guidance on AIP AD 1.5 had been drafted to supplement the aforementioned ICAO provisions and provide detailed guidance to States / Administrations.

4.95 AOP/SG/4 noted that paragraph 3.4 of the draft regional guidance would only be incorporated after APANPIRG's adoption of **Draft Conclusion AOP/SG/4-14: Alternative Safety Oversight Framework for Military Aerodromes undertaking Limited Civil International Operations** (see discussion under WP/25) and ICAO HQ follow-up actions on the issue.

4.96 AOP/SG/4 adopted the following Conclusion:

Conclusion AOP/SG/4-12: Regional Guidance on Aeronautical Information Publication – AD 1.5 Status of Certification of Aerodromes	
What: That, the <i>Regional Guidance on Aeronautical Information Publication – AD 1.5 Status of Certification of Aerodromes</i> provided in Appendix M to AOP/SG/4 Report be adopted and published on the ICAO APAC website.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: To provide regional guidance on AIP AD 1.5.	Follow-up: <input checked="" type="checkbox"/> Required from States
When: 16-Dec-20	Status: Adopted by Subgroup
Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:	

Challenges Arising from COVID-19 in Aerodrome Operations (WP/19)

4.97 AOP/SG/4 noted ACI's paper on the challenges in aerodrome operations caused by the COVID 19 pandemic, how aerodrome operators had been coping with them, and seeks comments and guidance from AOP/SG with a view to improving resilience of the industry in the face of similar public health crises in the future.

4.98 AOP/SG/4 noted with interest ACI's advisory bulletin on the issues arising from parking of idle aircraft, guidelines on the recovery and restart of airport operations, and guidelines on establishing procedures to ensure preparedness for handling public health emergencies.

COVID-19 Challenges: Contingency Parking Arrangement & Typhoon Measures (WP/20)

4.99 Presented by Hong Kong, China, WP/20 presented the challenges brought by COVID-19 to Hong Kong International Airport due to a surge in demand for parking space in response to reduction in air transport services. This paper also shared the contingency measures in dealing with the passage of typhoon with a view to ensuring aircraft and airfield safety.

4.100 Upon enquiry, Hong Kong, China expressed that fuel ballasting had long been one of the methods to minimise the chance of inadvertent aircraft movement amid tropical cyclone. The ballasting would need to observe the limitation set by aircraft manufacturer so that the aircraft weight and balance would remain safe.

4.101 The Secretariat informed AOP/SG/4 that the ICAO Facilitation Panel had established a Task Force to discuss public health issues in aviation. Annex 9 and relevant guidance materials would be analysed and enhanced with the lesson learnt from COVID-19.

Alphanumeric Call Sign Initiative (WP/21)

4.102 AOP/SG/4 noted that the root cause for a significant number of airspace incidents, including Large Height Deviations (LHDs) and runway conflicts had been identified for many decades as radiotelephony call sign confusion, when a pilot incorrectly responds to an Air Traffic Control (ATC) instruction to another aircraft, or in some cases, when an air traffic controller provided an incorrect instruction to an aircraft with a similar call sign to that intended.

4.103 With the support of IATA, the Asia Pacific Alphanumeric Call Sign project had been agreed at ATMSG/4 and endorsed at APANPIRG/27 through the following Conclusion:

Conclusion APANPIRG/27-15: Use of Alphanumeric Call Signs for Scheduled Airline Operations

That, ICAO conducts a Survey of Asia Pacific States to ascertain the status of capability to accept / process alphanumeric ATC call-signs for scheduled airline operations.

4.104 With regard to ATC ‘loop error’ LHD events, Japan had provided a detailed analysis to the Twenty-Fifth Meeting of the Regional Airspace Safety Monitoring Advisory Group (RASMAG/25, video teleconference, 27-30 October 2020) meeting regarding of these incidents were due to similar call signs.

4.105 In response to a query from ICAO, IATA clarified that its successful similar call sign initiative that had been implemented in the Middle East (MID) Region had not been able to progress in the Asia/Pacific (APAC) Region. AOP/SG/4 noted that one of the reasons for this had been the reluctance of aerodrome operators to implement change until an automated tool was available to accommodate alphanumeric call signs.

4.106 Noting the grave safety risks from such occurrences, AOP/SG/4 reviewed and endorsed the following Draft Conclusion formulated by RASMAG/25. ACI expressed its willingness to assist with the trial of alphanumeric call signs. The Draft Conclusion would then be reviewed by ATM/SG/8.

Draft Conclusion RASMAG/25-3: Alphanumeric Call Sign Initiative	
<p>What: Noting: 1) the extreme safety risks associated with pilot-ATC miscommunication and the number of Category D (ATC Loop Error) Large Height Deviations (LHDs); 2) APANPIRG Conclusion 27/15. ATMSG Conclusions 5-5 and 5-6 regarding the Asia Pacific Alpha Numeric Call-Sign (ANCS) call sign project; and 3) alphanumeric call signs were a well-established call sign confusion mitigation, that: leading Air Navigation Service Providers (ANSPs) and aerodrome operators, in coordination with CANSO and ACI, were urged to consider a trial to identify and overcome any barriers for the implementation of alphanumeric call signs, with a view to developing a project for the Asia/Pacific (APAC) Region.</p>	<p>Expected impact: <input checked="" type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input checked="" type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical</p>
<p>Why: The Asia Pacific ANCS call-sign project had not been universally supported by aerodrome operators and ANSPs thus far.</p>	<p>Follow-up: <input type="checkbox"/> Required from States</p>
<p>When: 30-Oct-20</p>	<p>Status: Adopted by Subgroup</p>
<p>Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: RASG</p>	

4.107 AOP/SG/4 also noted that, for aerodrome operators, from the MID Region’s experience, the suggested course of action would be to target the interface point at which the airport systems ingest the flight information. At this interface a process would be required that translates an alphanumeric call sign into commercial flight numbers. The interface process could be an information

technology ‘translator application’ or simply a person with a spreadsheet manually translating (most commonly at seasonal schedule submission). Once translated, all airport downstream systems would only deal with the commercial flight number. Hence no further adaptation would be required.

New Technologies at Hong Kong International Airport (WP/22)

4.108 In view of the coronavirus disease (COVID-19) outbreak in 2020, this paper introduced various innovative technologies adopted by the Hong Kong International Airport in protecting airport users from COVID-19 infection. On the other hand, as the airport was taking forward the Three-Runway System project, new technology was also being developed jointly by Hong Kong Civil Aviation Department and Airport Authority Hong Kong in further enhancing the airport operational safety and efficiency.

4.109 The new technologies covered in this paper included disinfection channel, intelligent sterilization robots, antimicrobial coating, and digital apron and tower management systems.

Rapid Exit Taxiway Design (WP/23)

4.110 Presented by China, this paper examined a design issue with the rapid exit taxiway (RET) as specified in Annex 14, Volume I.

4.111 While it was a common design to provide turning curves to both directions at the junction with parallel taxiways, the current aerodrome design for Code 4E operations as specified in Annex 14, Volume I, including the minimum distance between runway and taxiway centre lines (172.5 m), the preferred intersection angle of RET (30 degrees), and the radius of turn-off curve from runway to RET (550 m), would result in an insufficient RET straight portion, which was specified in ICAO Aerodrome Design Manual (Doc 9157), Part 2.

4.112 In order to cope with the situation, China adopted a smaller intersection angle of RET at 25 degrees. China recommended States (a) to adopt an angle smaller than 30 degrees as the intersection angle of RET for Code 4E operations, and (b) to use simulation software, consult with pilots and draw experience from actual operations to determine the RET design.

4.113 Upon enquiries, China shared with AOP/SG/4 that the 25-degree intersection angle might require review as different aerodromes might have different situations, and that aerodrome operators would need to perform simulations during planning stage.

4.114 AOP/SG/4 noted that while there was no plan to review ICAO *Aerodrome Design Manual* (Doc 9157) at this stage and States were expected to select RET designs in compliance with ICAO SARPs, the matter would be raised in the upcoming Aerodrome Design Working Group (ADWG) meeting scheduled for 16-18 November 2020 for review.

Runway with Holding Bays or Multiple Entrance Taxiways (WP/24)

4.115 Presented by China, this paper brought up two issues: (a) a figure in ICAO Aerodrome Design Manual, Part 2 did not tally with Annex 14, Volume I SARPs and the actual aircraft operation; and (b) the possibility of aircraft ground collision when a runway was equipped with holding bay or multiple entrance taxiways and when an aircraft was passing behind another aircraft holding short of runway.

4.116 India expressed that, in addition to the consideration raised in WP/24, jet blast effect should also be taken into account especially for scenarios where small aircraft were involved.

4.117 To further address the matters, AOP/SG/4 endorsed the following Draft Conclusion for the adoption of APANPIRG/31:

Draft Conclusion AOP/SG/4-13: Holding Bays and Multiple Entrance Taxiways	
<p>What: That, the ICAO HQ be invited to consider to:</p> <p>c) Review Figure 2-2 of ICAO Aerodrome Design Manual (Doc 9157), Part 2 <i>Taxiways, Aprons and Holding Bays</i> to tally with SARPs of runway-holding position marking and actual aircraft operations; and</p> <p>d) Review the current SARPs in Annex 14, <i>Aerodromes – Volume I, Aerodrome Design and Operations</i> to cater for the design of multiple entrance taxiways.</p>	<p>Expected impact:</p> <p><input checked="" type="checkbox"/> Political / Global</p> <p><input type="checkbox"/> Inter-regional</p> <p><input type="checkbox"/> Economic</p> <p><input type="checkbox"/> Environmental</p> <p><input checked="" type="checkbox"/> Ops/Technical</p>
<p>Why: To tally a figure in ICAO guidance material with the applicable SARPs and to enhance aircraft safety</p>	<p>Follow-up: <input type="checkbox"/> Required from States</p>
<p>When: 16-Dec-20</p>	<p>Status: Draft to be adopted by PIRG</p>
<p>Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input checked="" type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:</p>	

4.118 Similar to the RET design issue, AOP/SG/4 noted that the matters would be reviewed during the upcoming ADWG meeting.

Alternative Safety Oversight Framework for Military Aerodromes Undertaking Limited Civil International Operations (WP/25)

4.119 In APAC Region, there were a number of military aerodromes designated as alternates for international flights or receiving international flights on a limited scale and / or ad hoc basis. Presented by Australia, this paper proposed a way forward for the safety oversight of those military aerodromes in Australia undertaking the aforementioned operations.

4.120 Instead of going through an aerodrome certification exercise, it was proposed Australian Civil Aviation Safety Authority (CASA) and the Defence Aviation Safety Authority (DASA) agree on an appropriate written framework to ensure there is effective safety oversight of those military aerodromes undertaking limited civil international operations. This was to be commensurate with the current and future expected level of international civil operations at said aerodromes.

4.121 Military aerodromes undertaking limited civil international operations would include those (1) designated as alternates for international flights; and (2) used for international operations on a limited scale and on an ad hoc basis. “Limited scale” would refer to a tiny and insignificant amount of flights when compared to the overall traffic volume of that State, the military aerodrome and a civil aerodrome used for international operations in that State. “Ad hoc” would refer to that the international flights are sporadic and irregular in nature.

4.122 The aerodromes in question would be required to comply with the ICAO SARPs, procedures, and other relevant guidance material as much as practicable. In addition, aerodrome users would be informed of this alternate safety framework at AIP AD 1.5.

4.123 AOP/SG/4 considered that the proposed alternative safety oversight framework for military aerodromes undertaking limited civil international operations in Australia might be a practical solution for other States, where the certification of such aerodromes by civil aviation authorities might

prove difficult and, considering the limited presence of civil international flights, an alternative safety oversight framework could be adopted. As such, AOP/SG/4 endorsed the following Draft Conclusion for adoption by APANPIRG/31:

Draft Conclusion AOP/SG/4–14: Alternative Safety Oversight Framework for Military Aerodromes undertaking Limited Civil International Operations	
<p>What: That, recognizing:</p> <p>(1) certain military aerodromes in States are undertaking limited civil international operations;</p> <p>(2) certification of such aerodromes by civil aviation authorities may prove difficult; and</p> <p>(3) an alternative safety oversight framework may be appropriate in consideration of the low level of civil international operations at such aerodromes;</p> <p>ICAO HQ is invited to consider establishing an alternative safety oversight framework in lieu of certification for such military aerodromes.</p>	<p>Expected impact:</p> <p><input checked="" type="checkbox"/> Political / Global</p> <p><input type="checkbox"/> Inter-regional</p> <p><input type="checkbox"/> Economic</p> <p><input type="checkbox"/> Environmental</p> <p><input checked="" type="checkbox"/> Ops/Technical</p>
<p>Why: To provide an alternative safety oversight framework for military aerodromes undertaking limited civil international operations.</p>	<p>Follow-up: <input type="checkbox"/> Required from States</p>
<p>When: 16-Dec-20</p>	<p>Status: Draft to be adopted by PIRG</p>
<p>Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> CAO APAC RO <input checked="" type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:</p>	

4.124 The Secretariat explained to AOP/SG/4 that this Draft Conclusion would first be considered for adoption in APANPIRG/31 (virtual meeting, scheduled for 14 – 16 December 2020). Then, the APANPIRG/31 Report containing the Conclusion, if adopted, would be reviewed by ICAO Air Navigation Commission (ANC). A Working Group under ANC would review the PIRG reports and determined the way forward. In parallel, the Secretariat had also communicated with the Aerodromes Operations and Infrastructure (AOI) Section of ICAO HQ, and understood that the matter could be considered together with the ongoing review of ICAO *Manual on Certification of Aerodromes* (Doc 9774).

Adoption of Amendment 15 to Annex 14, Volume I (IP/05)

4.125 IP/05 presented information on the adoption of Amendment 15 to Annex 14 — Aerodromes, Volume I — Aerodrome Design and Operations.

4.126 The main features of the proposed amendments were as follows:

- a) provisions related to airport master planning for the expansion of existing and construction of new airports to cater for the rapid growth of air transport;
- b) accommodation of aeroplanes with folding wing tips;
- c) a new methodology for reporting pavement strength;
- d) improvements to selected physical characteristics and visual aids used at aerodrome with the objectives of enhancing safety; and
- e) capacity and efficiency.

4.127 The amendment to the aerodrome operational management consists essentially the inclusion of notes to the specifications stemming from the amendment to the *Procedures for Air Navigation Services (PANS) – Aerodromes* (Doc 9981) as a result of the introduction of new chapters on aerodrome operational management.

4.128 AOP/SG/4 noted the following important dates related to Amendment 15:

	Provisions	Notify any disapproval by	Notify any difference and compliance by	Applicable on
a)	All provisions except item b) and c)	20 July 2020	5 October 2020	5 November 2020
b)	Provisions related to airport master plan	20 July 2020	3 October 2022	3 November 2022
c)	Provisions related to pavement rating	20 July 2020	28 October 2024	28 November 2024

Approval of Amendment 3 to PANS-Aerodromes (IP/06)

4.129 IP/06 presented information on the approval of Amendment 3 to *Procedures for Air Navigation Services–Aerodromes* (PANS–Aerodromes, Doc 9981), which became applicable on 5 November 2020, except for amendments related to pavement rating which would become applicable on 28 November 2024.

4.130 Amendment 3 to the PANS-Aerodromes (Doc 9981) contained provisions related to the development of eight new chapters for inclusion in Doc 9981 regarding day-to-day aerodrome operational management arising from the PANS-Aerodromes Study Group (PASG) in coordination with the Secretariat and the Aerodrome Design and Operations Panel (ADOP) and consequential amendments related to aerodrome specifications arising from ADOP/3. The eight new chapters were:

- a) training;
- b) inspections of the movement area;
- c) work in progress;
- d) foreign object debris control;
- e) wildlife hazard management;
- f) apron safety;
- g) runway safety; and
- h) airside vehicle driver permit scheme and vehicle/equipment safety requirements.

4.131 AOP/SG/4 noted that the content of this amendment might require an amendment of the Universal Safety Oversight Audit Programme (USOAP) continuous monitoring approach (CMA) protocol questions (PQs) in the area of aerodrome operations. The existing PQs might need to be amended or new PQs may be required. This would be assessed during the next amendment cycle of the PQs.

Proposed Amendments to Annex 6 Parts I, II, III, Annex 14 Volume I and PANS-OPS, Volume III (IP/07)

4.132 IP/07 presented information on a proposal to amend Annex 6 Parts I, II, III, Annex 14, Volume I and PANS-OPS, Volume III, relating to offshore alternates, rescue and fire fighting for general aviation and guidance arising from the Fifth and Sixth Meetings of the Flight Operations Panel (FLTOSP/5 and 6).

4.133 The proposal would exclude GA from the fire fighting provisions in Annex 14 — *Aerodromes*, Volume I — *Aerodrome Design and Operations*. Some States interpreted the current text to mean that all aerodromes, regardless of size and type of operations, must have dedicated RFF facilities. For small, exclusively GA aerodromes, this created a major burden and had resulted in the restriction of operating hours or even closure of the aerodrome.

4.134 AOP/SG/4 noted that States and Administrations were requested to provide comments on the proposals to ICAO HQ no later than 19 March 2021, and that the proposed amendment was envisaged for applicability on 3 November 2022.

Adoption of Amendment 9 to Annex 14, Volume II (IP/08)

4.135 IP/08 presented the adoption of Amendment 9 to Annex 14 – *Aerodromes*, Volume II – *Heliports*, which became applicable on 5 November 2020. The main features of the proposed amendments were as follows:

- a) Heliport physical characteristics;
- b) Visual aids;
- c) Rescue and firefighting; and
- d) Modification to several associated definitions.

4.136 As part of Amendment 9, paragraph 6.2.1.1 contains an embedded date of 1 January 2023 which relates to rescue and firefighting provisions.

Infrared Specifications for Aviation Obstruction Light Compatibility with Night Vision Goggles (IP/09)

4.137 The Federal Aviation Administration (FAA) had found that with the gradual replacement of incandescent obstruction light fixtures with LED light fixtures, some pilots using Night Vision Goggles (NVGs) were unable to acquire red-colored LED obstruction lights due to the light generated being outside of the combined visible and near-infrared spectrum of NVGs with objective lens filters. The FAA conducted research on the interaction of Light Emitting Diodes (LEDs) used in obstruction lighting fixtures with NVGs and had determined performance specifications for infrared (IR) emitters to be added to or used in conjunction with LED L-810, L-864 and L-885 obstruction light fixtures to ensure compatibility with NVGs with a Class B filter.

Public Health Protection and Precautionary Measures at Hong Kong International Airport (IP/10)

4.138 Presented by Hong Kong, China, this paper introduced the public health protection and precautionary measures being implemented by the Airport Authority Hong Kong at the Hong Kong International Airport (“HKIA”). In recognition of the success of HKIA in maintaining the airport safe to be travelled with and the high standard in upholding health and safety in operations, ACI had granted accreditation to HKIA under the Airport Health Accreditation (“AHA”) programme.

Operation Summary of Beijing Daxing Airport in 2020 (IP/11)

4.139 Presented by China, this paper summarized the operation of Beijing Daxing International Airport on the first anniversary of its departure, including the operation summary, the on-time performance of flight, the operations under special weather conditions, the epidemic prevention and control, business recovery and forecast.

Theory and Practice of Four-Characteristic Airport (IP/12)

4.140 Presented by China, this paper introduced the theory and practice of Four-Characteristic Airport, which took safety, green, smart, and humanistic as its core, relying on technological advancement, reform and innovation, as well as collaborative sharing. Through the optimization covering whole process and all elements, the airport could achieve strong safety guarantee, intelligent production management, efficient travel-experience, and ecological environment.

Prediction and Control Measures of Regional Noise and Air Pollution in Airport Planning Stage (IP/13)

4.141 Presented by China, this paper introduced the efforts made by Chinese airports in reducing the harmful effect to environment during airport planning and design stage, and achieved better results.

Airport Capacity Assessment (Presentation)

4.142 Based on actual operational data, an airport capacity assessment would focus in particular on runway throughput, as this had been one of the key parameters used to determine overall airport capacity. To perform a capacity study with PIATA Neo, EUROCONTROL configured the airport in the software and collect live operational data for a set period. Following that, the output reflected the actual operations, on the basis of which scenarios could be modelled by changing configurations and procedures to assess alternatives and potential improvements.

4.143 EUROCONTROL elaborated that the assessment had taken crew reaction time into account, by calculating the time difference between event commencement and end times instead of collecting direct data.

4.144 While considering runway capacity and throughput studies, consideration should be given for evaluating how much additional airspace capacity could be generated by implementing PBN/RNP procedures.

Agenda Item 5: AOP Air Navigation Service DeficienciesStatus of Air Navigation Deficiencies in AOP Field (WP/16)

5.1 AOP/SG/4 reviewed the list of Air Navigation Deficiencies noted by APANPIRG/30 in the AOP field. Brunei Darussalam, India, Mongolia, Myanmar, Nepal, Thailand and Viet Nam provided updates on the status of their Deficiencies.

5.2 AOP/SG/4 recalled that APANPIRG/30 (4 to 6 November 2019, Bangkok, Thailand) adopted the following Conclusion formulated by AOP/SG/3:

Conclusion APANPIRG/30/4: Certification of aerodromes used for international operations in Asia Pacific States

That, the Ministers of Asia and Pacific States committed to certify all aerodromes used for international operations by 2020 through the Beijing Declaration. The AOP/SG monitors the aerodrome certification implementation commitment of the Beijing Declaration and reports progress to the annual APAC DGCA Conference through the APANPIRG. States and Aerodrome Operators should take effective actions on Action Item 55/42 agreed at the 55th Conference of the APAC DGCA.

In view of above, the Meeting:

- a) Urged States and their Aerodrome Operators that have yet to certify aerodromes used for international operations to take an effective action on the 55th DGCA Action Item 55/42;
- b) Urged States to provide periodic updates on the progress of the certification of aerodromes to the ICAO APAC Office;
- c) Urged States that have not published the status of certification of aerodromes in State's AIP to publish the status as soon as possible in accordance with Annex 14 Volume I (para. 2.13.1), PANS-Aerodromes (para. 2.3.7) and Appendix 2 to PANS-AIM (Doc 10066);
- d) Agreed that, if any aerodrome used for international operations fails to obtain an aerodrome certificate from the Regulatory Authority by fulfilling ICAO Annex 14 requirements under the aerodrome certification process by 2020, or fails to maintain the aerodrome certificate already obtained, will be subject to being included on the APANPIRG AOP Air Navigation Deficiency list against para. 1.4 (certification of aerodromes) of the Annex 14, Volume I;
- e) Agreed that, if any States fail to achieve the target of the Beijing Declaration on certification of aerodromes by 2020 will be subject to being included on the APANPIRG AOP Air Navigation Deficiency list against para. 1.4 of the Annex 14, Volume I;
- f) Agreed that, if any States fails to publish the status of certification of aerodromes in State's AIP by December 2019 will be subject to being included on the APANPIRG AOP Air Navigation Deficiency list against ICAO Annex 14 para. 2.13.1 a), PANS-Aerodromes, para. 2.3.7 and Appendix 2 to PANS-AIM.

5.3 In connection with **Conclusion APANPIRG/30/4**, the States / Administrations / aerodromes identified in **Appendix I** would be included in the APANPIRG AOP Deficiency List after review and endorsement by APANPIRG/31, with effect from 1 January 2021.

5.4 AOP/SG/4 received the following verbal updates from States:

States	Updates
Australia	AIP Australia had incorporated AD 1.5 since 5 November 2020, pointing readers to <i>En Route Supplement Australia</i> (ERSA) for the status of certification of aerodromes.
India	There had been difficulties in certifying military / joint-use aerodromes. India was looking forward to guidance from ICAO on the matter. (See Draft Conclusion AOP/SG/4-14 for details.)
Japan	On the military / joint-use aerodromes, Japan had been facing difficulties similar to India, and would like to have further guidance from ICAO.
Lao PDR	Updates would be provided to ICAO APAC Office after the meeting.
Nepal	Nepal reported the progress of the corrective action plans stated in the Air Navigation Deficiency List.
United States	The AIP issue for the US Territories would be examined by FAA.

5.5 The Secretariat reminded States / Administrations to provide written correspondences to ICAO APAC Office once updates became available. The updates would be incorporated to the Air Navigation Deficiency List to be presented to APANPIRG/31 (virtual meeting, scheduled for 14 – 16 December 2020) if provided on time.

5.6 Australia provided written evidence to the Secretariat during the course of AOP/SG/4. The evidence was considered adequate and the proposed Air Navigation Deficiency entry under Australia was removed.

[Post-meeting notes: Philippines provided written evidence subsequent to AOP/SG/4 that Manila/RPLL had been certified. The evidence was considered adequate. As such, Manila/RPLL had been removed from the list of Deficiencies.]

5.7 The updated list of Deficiencies was placed in **Appendix N to AOP/SG/4 Report**.

5.8 AOP/SG/4 noted the note provided under Conclusion APANPIRG/29/27 and reproduced below:

Note: In case States provide satisfactory evidence to the APAC Office for the resolution of the deficiencies, the APAC Office in consultation with the Chair of respective Sub Group and subsequent approval from Chairman of APANPIRG may take action to remove the deficiency from APANPIRG open deficiency list.

5.9 Based on the previous communications with and participation in AOP/SG meetings from States / Administrations, ICAO APAC Office prepared a list of AOP Focal Points in **Appendix O to AOP/SG/4 Report**. The list would allow effective and efficient communications between States / Administrations and ICAO APAC Office on AOP matters, including but not limited to the resolution of Air Navigation Deficiencies in the AOP field.

5.10 During the course of AOP/SG/4, Hong Kong China, Japan, Lao PDR and United States provided updates to the AOP Focal Points to the Secretariat. Their inputs had been incorporated in **Appendix O to AOP/SG/4 Report**.

[Post-meeting notes: Australia, Brunei Darussalam, India, Macao China and Nepal provided updates to the AOP Focal Points subsequent to AOP/SG/4 and their inputs had also been incorporated in the same Appendix.]

5.11 AOP/SG/4 adopted the following Conclusion:

Conclusion AOP/SG/4-15: AOP Focal Points	
What: That, States / Administrations be urged to review and update contact details of AOP Focal Points, as contained in Appendix O to AOP/SG/4 Report , for the coordination of actions to resolve the APANPIRG Air Navigation Deficiencies in the AOP Field and for other AOP matters.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: To streamline the communications between States / Administrations and ICAO APAC Office on AOP matters	Follow-up: <input checked="" type="checkbox"/> Required from States
When: 13-Nov-20	Status: Adopted by Subgroup
Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:	

Agenda Item 6: Update of the AOP/SG Task ListAPANPIRG AOP Sub Group Task List (WP/17)

6.1 The meeting reviewed the updated AOP/SG task list presented by the Secretariat and further updated by the meeting, and placed in **Appendix P**.

6.2 On Task AOP/SG/1/2 (renumbered) amended from “implementation of A-CDM at high density aerodromes” to “implementation of A-CDM at aerodromes used for international operations”, AOP/SG/4 noted that the scale of A-CDM system should be commensurate with the aerodrome operations. In smaller aerodromes, a simple A-CDM tool might be sufficient for the timely and efficient exchange of information among airport stakeholders.

Agenda Item 7: Airport Environmental Initiatives

Water Management at Airports (IP/14)

7.1 This paper presented the global water stress issues and what ACI had been doing to promote best practices in water management through policy, airports recognition and publication.

7.2 AOP/SG/4 noted the ACI Policy Handbook, which provided directions on how airports should protect scarce water resources by minimizing usage and reducing the negative impacts from wastewater, as well as the ACI Asia-Pacific Green Airports Recognition 2020 with water management as the theme.

Agenda Item 8: Any other BusinessICAO Initiatives for Aerodromes Restart (IP/15)

8.1 This paper presented the ICAO initiatives to facilitate States to cope with the various challenges of restarting aerodrome operations after a partial or full closure of aerodromes, due to the COVID-19 pandemic.

8.2 ICAO had been providing support to Member States to cope with the challenges caused by the COVID-19 pandemic, through Implementation Packages (iPack). An iPack is a bundle of standardized guidance material, training, tools and expert support, which aim to facilitate and guide the implementation of ICAO provisions for State entities, aviation service providers, supply chain stakeholders and their personnel.

8.3 An iPack on Aerodromes Restart had been developed to facilitate and guide Civil Aviation Authorities and/or aerodrome operators in applying Annex 14, Volume I and other relevant ICAO provisions, to ensure safety, regularity and efficiency of aerodrome operations after a partial or full aerodrome closure due to the COVID-19 pandemic.

8.4 To further support States in their restart activities, an *Aerodrome Restart* online course has been developed, through ICAO's Global Aviation Training Section. This course, of a 5-hour duration, aims to provide Civil Aviation Authorities and aerodrome operators with the knowledge and skills required in applying Annex 14, Volume I and other relevant ICAO provisions, to ensure safety, regularity and efficiency during gradual resumption of aerodrome operations after a full or partial aerodrome closure due to the COVID-19 pandemic.

Agenda Item 9: Date and Venue of Next MeetingProvisional Agenda, Date and Venue of Next Meeting (WP/18)

9.1 AOP/SG/4 reviewed the draft agenda proposed by the Secretariat and agreed on the following Provisional Agenda for AOP/SG/5:

DRAFT PROVISIONAL AGENDA

- | | |
|----------------|--|
| Agenda Item 1: | Adoption of Provisional Agenda |
| Agenda Item 2: | Review Outcome of Relevant Meetings |
| Agenda Item 3: | Regional Reporting |
| | – Asia Pacific Air Navigation Plan |
| | – Asia Pacific Seamless ANS Plan |
| Agenda Item 4: | Provision of AOP in the Asia/Pacific Region |
| | – Reports of Working Group/Task Force Meetings |
| | – Planning & Design of Aerodromes |
| | – Certification and Operations of Aerodromes |
| | – Capacity Development and Trainings |
| Agenda Item 5: | Air Navigation Deficiencies in AOP |
| Agenda Item 6: | Airport Environmental Initiatives |
| Agenda Item 7: | AOP/SG Task List |
| Agenda Item 8: | Any other business |
| Agenda Item 9: | Date and Venue for the Next Meeting |

9.2 The next AOP/SG Meeting will be held in last week of June 2021 for 4 days. States/Administrations interested to host the Fifth Meeting of the AOP/SG were requested to contact the Secretariat. The venue of AOP/SG/5 will be communicated to States/Administrations through ICAO APAC Invitation Letter for AOP/SG/5.

9.3 Ms. Lyu Qing, Chairperson of AOP/SG, thanked the members for their contribution and cooperation to AOP/SG/4. She also expressed her appreciation to the Chairpersons of APA-CDM/TF, AP-ADO/TF, AP-AA/WG and AP-WHM/WG, as well as the Group Leader of AOPC/SWG, for their excellent work delivered to AOP/SG/4.
