

**INTERNATIONAL CIVIL AVIATION ORGANIZATION****TWENTY SEVENTH MEETING OF THE ASIA/PACIFIC
AIR NAVIGATION PLANNING AND IMPLEMENTATION
REGIONAL GROUP (APANPIRG/27)***Bangkok, Thailand, 5 to 8 September 2016***Agenda Item 3: Performance Framework for Regional Air Navigation Planning and
Implementation****3.1: AOP****REPORT ON THE FOURTH MEETING OF AOP WORKING GROUP***(Presented by Chairman AOPWG)***SUMMARY**

This paper presents the report of the Fourth Meeting of the AOP Working Group (AOPWG/4) held in Bangkok, Thailand from 23 to 25 May 2016 which was reviewed by ATMSG/4 (4 to 8 July 2016, Bangkok, Thailand). APANPIRG/27 is invited to review and adopt the draft conclusions and draft decisions proposed by AOPWG/4 and endorsed by ATMSG/4.

This paper relates to –

Strategic Objectives:

A: **Safety** – *Enhance global civil aviation safety*

B: **Air Navigation Capacity and Efficiency** — *Increase the capacity and improve the efficiency of the global aviation system*

E: **Environmental Protection** — *Minimize the adverse environment effects of civil aviation activities*

1. INTRODUCTION

1.1 The Fourth Meeting of the AOP Working Group was held from 23 to 25 May 2016 in Bangkok, Thailand. The meeting was attended by 44 participants from 12 Administrations, 2 Special Administrative Regions of China and 2 International Organizations. Full Report of the Working Group has been posted on the ICAO APAC Office website and can be accessed on the following webpage: http://icao.int/APAC/Meetings/2016%20AOPWG4/Final%20Report_AOPWG-4.pdf

1.2 A total of 26 Working Papers, 8 Information Papers and 8 presentations covering its 10 Agenda Items was considered by the AOPWG Meeting. Based on the outcome of discussions on various Agenda Items, the meeting formulated 1 Draft Decision and 4 Draft Conclusions which were endorsed by ATM/SG/4 for further consideration by APANPIRG/27.

2. SUMMARY OF DISCUSSIONS

2.1 Review Outcomes of Relevant Meetings

APANPIRG/26 Outcomes

2.1.1 The AOPWG/4 Meeting reviewed the actions taken by APANPIRG/26 on the Decisions and Conclusions formulated by the Third Meeting of AOPWG held in June 2015. The meeting noted with satisfaction that actions on the 5 Conclusions of APANPIRG/26 in the AOP field were completed. The meeting also noted that the Air Navigation Commission reviewed the Report of the APANPIRG/26 Meeting in February 2016.

52nd Conference of Directors General of Civil Aviation Outcomes

2.1.2 The AOPWG/4 meeting noted that the DG Conference had formulated 33 Action Items.

2.1.3 The meeting also noted that the 53rd Conference of DGCA will be held in Colombo, Sri Lanka from 1st to 5th August 2016 and the Theme Topic was “**Fostering Safe, Secure and Efficient Aviation System in an Eco-friendly Environment with No Country Left Behind**”.

Outcomes from RASG APAC/5 Meeting

2.1.4 The AOPWG/4 meeting noted the outcomes of the Fifth Meeting of the RASG APAC and noted the action to be taken which were relevant to AOPWG.

2.2 Regional Reporting

2.2.1 Progress on the Alignment of Air Navigation Plans with the *Global Air Navigation Plan* (IP/1)

2.2.1.1 AOPWG/4 noted that the ICAO Regional Office had circulated the approved version of e ANP volume I and Volume II to APAC member States. The meeting also noted that Volume III was being reviewed by ICAO HQ and following this the updated version will be circulated to APAC States.

2.2.2 Draft APANPIRG Procedural Handbook

2.2.2.1 AOPWG/4 noted the amendments that would be introduced to the APANPIRG Procedural Handbook consequent to the approval of the new structure of APANPIRG, revised Terms of Reference of Sub Groups, Project Management Principles, Procedures to be followed for the processing of Sub Group endorsed Conclusions/Decisions and RASG-APANPIRG Coordination Mechanism Principles. AOPWG/4 had no further comments on the proposed draft amendments.

2.2.3 Asia Pacific Seamless ATM Plan Review 2016

2.2.3.1 AOPWG/4 noted the proposed changes to the Asia/Pacific Seamless ATM Plan Version 1 and Asia/Pacific Seamless ATM implementation guidance.

2.2.4 Update on the Seamless ATM Reporting Process and Regional Picture

2.2.4.1 AOPWG/4 noted the status of the Seamless ATM Reporting process since November 2014, and the regional picture as of 16 February 2016 reflecting the implementation progress of Air

Navigation Improvements in APAC Region against the objectives set forth by the GANP ASBU Block 0 and APAC Seamless ATM Plan v1.

2.2.4.2 The AOPWG noted the items of interest were in the first group named Optimal capacity – Apron Management, Aerodrome Capacity, Safety and Efficiency of Aerodrome Operations, and ATM – Aerodrome Coordination and Aerodrome collaborative Decision Making. AOPWG/4 encouraged States to review the outcomes of the first cycle of reporting, nominate their point of contact if not yet done and to submit their first report online.

2.2.5 Proposal to Share Best Practice on ICAO Balanced Approach

2.2.5.1 AOPWG/4 noted the efforts of the Republic of Korea to mitigate aircraft noise problem in communities adjacent to the airport using the ICAO Guidance on the Balanced Approach to aircraft noise management. The meeting noted that RoK was currently implementing mitigation measures by reduction of noise at source, land-planning and management, noise abatement operational procedures and airport operating restrictions and invited member states to share their best practices. AOPWG also noted that ROK proposed to strengthen expert networks amongst contracting member States in order to challenge aircraft noise problem effectively and efficiently via exchange of information, ideas and more.

2.2.6 Proposal to Share Best Practice on ICAO Noise Related Charges

2.2.6.1 AOPWG noted that Republic of Korea was contemplating to amend noise related charges in accordance with changes to aviation environment and invited States to share their experience and ideas on noise related charges. The meeting noted that the subject of noise related charges was not within the mandate of AOPWG and requested RoK to present the paper at the 53rd DGCA Conference for further action.

2.3 Provision of AOP in the Asia/Pacific Region

2.3.1. Amendment 7 to Annex 14, Volume II — Heliports

2.3.1.1 AOPWG/4 noted that Amendment 7 to Annex 14, Volume II aimed at improving safety at heliports, will become applicable with effect from 10 November 2016. The Amendment included four components: restriction of the height of objects at heliport obstacle-free sectors to avoid obstacle strikes; modification of heliport markings for improved accuracy in landing manoeuvres; removal of redundant definitions from the Annex in order to enhance its readability and prevent possible confusion; and introduction of provisions on the development and the establishment of heliport emergency plans to address the special needs of heliports.

2.3.2 Amendment 13 to Annex 14, Volume I — Aerodrome Design and Operations

2.3.2.1 AOPWG/4 noted that Amendment 13 to Annex 14, Volume I will become effective from July 2016 and applicable with effect from 10 November 2016 for the elements concerning Autonomous Runway Incursion Warning System (ARIWS), visual aids for navigation, aerodrome design and operations including publication of RESA, and 5 November 2020 for the element concerning an enhanced global reporting format for assessing and reporting runway surface conditions.

2.3.2.2 The AOPWG/4 also noted that Amendment 13 to Annex 14, Volume I contained a package of proposals related to aerodrome design and operations as outlined in the Global Aviation Safety Plan and Global Air Navigation Plan and is intended to improve safety and efficiency performance at and in the vicinity of aerodromes.

2.3.3 Improved Airport Operations through A-CDM

2.3.3.1 AOPWG/4 considered the benefits that accrue by the implementation of A-CDM at high density aerodromes and the implementation challenges faced by the region endorsed the proposal to establish an A-CDM Task Force to support and assist in the implementation of A-CDM in the APAC Region.

2.3.3.2 The ATM/SG/4 meeting endorsed the following Draft Decision from the AOP/WG regarding the establishment of an A-CDM Task Force, for consideration by APANPIRG/27:

Draft Decision APANPIRG/27/xx - Establishment of A-CDM Task Force	
That, an Asia/Pacific Airport Collaborative Decision Making Task Force (APA-CDM/TF) be established in accordance with the Terms of Reference at Appendix X to the 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: AOPWG/4 recognized that benefits accrue by the implementation of A-CDM at high density aerodromes. States are facing implementation challenges which included lack of guidance materials and awareness, lack of coordination procedures, financial constraints and unavailability of IT supporting systems at the airports, training needs and lack of qualified human resources. The ACDM Task Force would assist States to overcome the challenges.	
When: 8-Sep-16	Status: Draft to be adopted by APANPIRG
Who: <input 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:	

2.3.3.3 The ATM/SG/4 discussed the planning of an A-CDM Seminar in 2017. Noting the rapid progress by several States in developing A-CDM capability, Hong Kong China, India and IATA requested the seminar be held earlier than the planned October 2017. It was considered appropriate, given the possibility of a draft version of the ICAO A-CDM Manual being available in late 2016, that an A-CDM Seminar be held in conjunction with the First Meeting of the AOP/SG in June 2017. The meeting agreed to the following Draft Conclusion, for consideration by APANPIRG/27:

Draft Conclusion APANPIRG/27/xx: Seminar on Implementation of A-CDM to Enhance Airport Efficiency and Capacity	
That, ICAO be invited to organize an A-CDM seminar/workshop during the first quarter of 2017.	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: AOPWG/4 noted that States are facing implementation challenges which included lack of guidance materials and awareness, lack of coordination procedures, financial constraints and unavailability of IT supporting systems at the airports, training needs and lack of qualified human resources. The seminar would enhance knowledge to overcome the challenges.	
When: 30-Jun-17	Status: Draft to be adopted by APANPIRG
Who: <input 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:	

2.3.4 Status of Implementation of Certification of Aerodromes Requirements in the APAC Region

2.3.4.1 The AOP/WG/4 meeting had noted from the results of USOAP audits and air navigation deficiencies identified in the Asia/Pacific Region that some States had certified airports with deficiencies related to non-compliance with ICAO Standards and Recommended Practices (SARPs). The ATM/SG/4 agreed to the following Draft Conclusions, for consideration by APANPIRG/27:

Draft Conclusion APANPIRG/27/xx: Capacity Building in Aerodrome Certification	
That, States with adequate resources are encouraged to assist States with low Effective Implementation scores in USOAP audits in the area of aerodrome certification and extend support in drafting legislations, aerodrome regulations, aerodrome manual, training of aerodrome inspectors, guidance material/manuals.	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: AOPWG noted from the results of USOAP audits and air navigation deficiencies identified in the APAC region that some States have certified airports with deficiencies related to non-compliance with ICAO SARPs. The USOAP results show that many states in APAC Region have scored below 60% in the areas of aerodrome certification, Aerodrome Manual, SMS, aeronautical studies/risk assessment and aerodrome surveillance.	
When: 31-Oct-16	Status: Draft to be adopted by PIRG
Who: <input 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:	

Draft Conclusion APANPIRG/27/xx: Certification of Aerodromes	
That, States/Administrations be urged to implement the certification of aerodromes in compliance with the ICAO Annex 14, Volume I requirements and Doc 9981 – PANS Aerodromes.	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: Results of USOAP audits and Air Navigation Deficiencies identified in the APAC Region suggest that some States have certified airports with deficiencies related to non-compliance with ICAO SARPs.	
When: 30-Jun-17	Status: Draft to be adopted by PIRG
Who: <input type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:	

2.3.5 Aerodrome Operations Personnel Competency Requirement

2.3.5.1 Noting the aerodrome operations personnel competency requirement for certification of aerodromes, and the recognition of roles and responsibilities of aerodrome operations personnel, the AOP/WG agreed to the following Decision:

Decision AOPWG/4/5: Guidelines for aerodrome operations personnel competency	
That, a Small Working Group comprising of China, Macao China, Japan, Malaysia, Maldives, Singapore and ACI be established in accordance with the Terms of Reference at Appendix X to the 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: AOPWG/4 recognized the roles and responsibilities of aerodrome operations personnel in terms of safety, efficiency and facilitation for flights, passengers and cargo and all set of activities and tasks required to maintain a valid aerodrome certificate. The meeting agreed to establish a Small Working Group to develop guidance on the competency of aerodrome personnel in specific areas (to be determined by the working group).	
When: 8-Sep-16	Status: Decision adopted by AOPWG
Who: <input type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:	

2.4 AOP Air Navigation Deficiencies

2.4.1 AOPWG/4 reviewed the list of Air Navigation Deficiencies noted by APANPIRG/26 in the AOP field and urged concerned States to provide the necessary resources for the elimination of deficiencies. The meeting urged States to update the status of AOP Deficiencies prior to the first AOPSG Meeting which has been scheduled for May/June 2017.

2.5 State Presentations on Airport Carbon Emission Reduction

2.5.1 CO₂ Emissions Reduction by Airports – Case Study

2.5.1.1 AOPWG/4 noted the case study presented by Airports of Thailand Public Company Limited (AOT) on reduction of CO₂ emission at their airports. The meeting also noted that AOT was committed to the sustainable growth of their Airports with the ultimate goal for the airports to become 'Green Airports'. The meeting further noted the measures implemented at Suvarnabhumi (BKK) Airport to reduce carbon foot print in pursuing their Airport Carbon Accreditation programme.

2.5.2 Airport Carbon Emissions Management – Updates

2.5.2.1 AOPWG/4 noted the updates presented by ACI on their Airport Carbon Accreditation Programme, a voluntary third-party carbon emission reduction and management accreditation programme for airports. The Meeting noted the importance of the Programme to assist airports in managing and reducing carbon emissions and also encouraged Administrations to share their experience in aerodrome CO₂ emission reduction.

2.5.3 Airport Carbon Accreditation Programme at Macau International Airport

2.5.3.1 Macao China highlighted the measures implemented at Macau Airport to reduce the carbon foot print and noted that use of Light Emitting Diode (LED) lights at airports effectively saved on electric consumption and environmentally friendly vehicles. The AOP/WG/4 agreed that States/Administrations should encourage their airport operators to support and implement environmentally friendly measures at their airports.

Draft Conclusion APANPIRG/27/xx: Implementation of Environmental Friendly Measures at Airports	
That, States/ Administrations encourage their airport operators to support and implement environmental friendly measures at their airports.	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: The AOPWG/4 meeting recognized the benefits of using LED lights and environmentally friendly vehicles at airports. Implementation of environmental friendly measures could drastically save in energy consumption and helped to reduce the carbon foot print.	

When: 31-Oct-16	Status: Draft to be adopted by PIRG
Who: <input type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:	

2.6 Any other Business

2.6.1 Aerodrome Workshops/Seminars

2.6.1.1 AOPWG/4 noted that ICAO Regional Office had conducted a Workshop on Annex 14, Volume II – Heliports in April 2016 with the support of Airports of Thailand and the ICAO Workshop on the Roll out of the PANS Aerodromes (Doc 9981) was held from 12 to 14 July 2016 at ICAO APAC Office in Bangkok.

2.6.2 ICAO Universal Safety Oversight Audit Programme – CMA

2.6.2.1 AOPWG/4 noted that the Effective Implementation in APAC AGA area taken from the USOAP CMA online framework as of April 2016 is 58.33% against the Global average of 57.45%.

2.6.2.2 The meeting also noted the most current findings are related to:

- outdated primary legislation not reflecting the current civil aviation situation or not establishing a civil aviation authority with the necessary manpower and vested with necessary powers, including for issuing, suspending or cancelling aerodrome certificates;
- the absence of specific operation regulations translating into national standards the Annex 14 provisions and prescribing the conditions and criteria for the certification of aerodromes;
- the lack of a dedicated entity within the CAA tasked with aerodrome regulation and certification, or when this entity exists, inadequate staffing due to difficulties in attracting and retaining qualified personnel and/or of inadequate technical staff job descriptions not covering all the fields of expertise required for aerodrome certification and continuing surveillance;
- the lack of a training programme taking account of technical staff training requirements and defining the various training activities required to access the various levels of aerodrome inspector functions;
- the lack of guidance material intended for aerodrome operators as well as for regulatory technical staff, including the lack of an approved process describing the various steps for the certification of an aerodrome and up-to-date ICAO documentation;
- the lack of an aerodrome inspector's handbook with an inspection methodology and procedures, including checklists in the various disciplines to assist in the conduct of office review of aerodrome manuals and on-site aerodrome inspections;
- non implementation of aerodrome certification and safety management requirements at certified aerodromes and status of certification of aerodromes not published in the National AIP;
- the lack of an inspection programme for aerodromes continuing surveillance and a methodology to address safety concerns identified during inspections, including exceptions and enforcement procedures.

2.7 Date and Venue of Next Meeting and Provisional Agenda

2.7.1 AOPWG/4 agreed that the next meeting of the Sub Group will be held in May/June 2017 time frame. The meeting also reviewed the draft agenda proposed by the Secretariat and agreed on the following Provisional Agenda for the First Meeting of AOPSG:

DRAFT PROVISIONAL AGENDA

- Agenda Item 1: Adoption of Provisional Agenda
- Agenda Item 2: Review Outcome of Relevant Meetings
- Agenda Item 3: Regional Reporting
- Agenda Item 4: Provision of AOP in the Asia/Pacific Region
- Agenda Item 5: AOP Air Navigation Service Deficiencies
- Agenda Item 6: Update the AOP/WG Task List
- Agenda Item 7: Presentations on environment protection measures
- Agenda Item 8: Any other business
- Agenda Item 9: Date and Venue for Next Meeting

2.8 New Administration

2.8.1 Dr. Zhao was unanimously elected as Chairperson of AOPSG and Mr. Rohdizad Ariffin of Malaysia was re-elected as Vice Chair of AOPSG.

3. ACTION BY THE MEETING

- 3.1 The Meeting is invited to:
- a) Note the information in this paper; and
 - b) Review and adopt the Draft Conclusions formulated by AOPWG/4 and endorsed by ATMSG/4

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Appendix A

Proposed Aerodrome Collaborative Decision Making Task Force (A-CDMTF) Terms of Reference

The scope and objective of the A-CDMTF is to identify, plan and assist in implementation of A-CDM at high density international aerodromes (100,000 scheduled movements per annum or more).

To achieve the above objectives, the Task Force shall consider to:

- ✓ review the current status of A-CDM implementation in APAC Region;
- ✓ review the effectiveness of existing and planned A-CDM programmes in the APAC Region;
- ✓ Conduct workshop on the ICAO guidance manual for A-CDM in the APAC Region;
- ✓ Assist States in capacity assessments;
- ✓ Assist States to implement A-CDM at high density aerodromes and monitor the progress of implementation;
- ✓ Ensure the requirement for interoperability of A-CDM systems with tactical ATM (AMAN and DMAN) ATM automation and ATFM systems; and
- ✓ Establish close working arrangements with Air Traffic Flow Management Steering Group (ATFMSG) and other groups working on similar issues.

Composition: The A-CDM Task Force will be a multidisciplinary group composed of subject matter experts in aircraft operations, air traffic management and aerodrome operations supplemented with other members as and when required.

Working Methods: The Task force will hold at least one three day face to face meeting in a year.

Time Lines: Tasks are expected to be delivered by November 2019.

APPENDIX B

TERMS OF REFERENCE (TOR) OF THE SMALL WORKING GROUP TO DEVELOP GUIDANCE ON AERODROME OPERATIONS PERSONNEL COMPETENCY

Deliverable(s)

- a) Draft Guidance Manual for Aerodrome Operations Personnel Competency.

Scope of work

The following are the broad principles describing the scope of work:

- a) Study/review the best practices available in the APAC Region and other Regions related to aerodrome Operations Personnel competency requirements;
- b) develop description of the functions and competency requirements of the various key aerodrome operations personnel, including responsibilities ;
- c) formulate aerodrome operations personnel competency assessment areas, and training curriculum; and
- d) be consistent with ICAO Annex 1, Doc 9774 and other requirements where applicable.

Composition

The Small Working Group would be composed of experts nominated by China, Macao China, Japan, Maldives, Malaysia, Singapore and ACI. Other APAC States and industry partners with/without experience in airport operational personnel competency requirements may also volunteer to join the Working Group. Additional membership could be invited from other regions if required.

Conduct of the work and schedule

The Working Group would complete its work in **two years'** time frame. The work would be carried out by means of electronic correspondence as far as practicable. Minimum amount of face to face meetings would be planned

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