



International Civil Aviation Organization

**The Sixth Meeting of the APANPIRG ATM Sub-Group
(ATM SG/6)**

Hong Kong, China, 30 July – 03 August 2018

Agenda Item 2: Review of Related High Level Meetings

APANPIRG/28 OUTCOMES

(Presented by the Secretariat)

SUMMARY

This paper presents a brief overview of outcomes relevant to Air Traffic Management (ATM) from the Twenty Eighth Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/28, 11-14 September 2018).

1. INTRODUCTION

1.1 The Twenty-Eighth Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/28) was held at Bangkok, Thailand from 11 to 14 September 2017. The meeting was attended by 163 participants from 27 States, two Special Administrative Regions of China, six International Organizations (CANSO, IATA, IBAC, ICCAIA, IFAIMA and IFALPA).

2. DISCUSSION

Conclusions and Decisions

2.1 APANPIRG/28 agreed to the following Decisions and Conclusions related to the ATM/SG, which included political/global, inter-regional, economic or environmental aspects that needed to be discussed by APANPIRG:

Decision APANPIRG/28/4: ATFM/SG Terms of Reference

*That, the ATFM/SG Terms of Reference at **Appendix A to the Report on Agenda Item 3.2** be adopted.*

Conclusion APANPIRG/28/5: FIR/SRR Air Navigation Plan Review

That, Asia/Pacific States and Administrations having responsibility for the provision of services within a Flight Information Region (FIR) or Aeronautical Search and Rescue Region (SRR), should conduct a review of the ICAO data related to the FIR or SRR and provide a verification to the ICAO Regional Office as early as possible, but in any event not later than 31 December 2017.

Decision APANPIRG/28/6: APUAS/TF Terms of Reference

*That, the amended Terms of Reference for the Asia/Pacific UAS Task Force at **Appendix B to the Report on Agenda Item 3.2** be adopted.*

Conclusion APANPIRG/28/7: State Actions to Ensure the Quality Management of Aeronautical Information

That, States are urged to:

- 1. Examine and update where necessary the relevant primary legislation and aviation regulations to ensure that all originators and publishers of aeronautical information are required to comply with the Annex 15 standards and recommended practices relating to quality management and promulgation of aeronautical information;*
- 2. Examine all available guidance for quality management of aeronautical information, including the Guidance Manual for Aeronautical Information Services in the Asia/Pacific Region; and*
- 3. Ensure that robust quality management procedures are developed, implemented and used by all originators and publishers of aeronautical information, supported by formal agreements to ensure timeliness and quality.*

Conclusion APANPIRG/28/8: Proposal for Amendment to the Asia and Pacific Regions Air Navigation Plan

*That, ICAO prepares and circulates for Regional Air Navigation Agreement a proposal for amendment (PfA) to the Asia and Pacific Regions Air Navigation Plan Volume II, as provided in **Appendix C to the Report on Agenda Item 3.2.***

Conclusion APANPIRG/28/9: AIM-specific Working Group to Finalize ICAO Guidance Material

That, ICAO be urged to form an AIM-specific working group to focus on the finalization of overdue AIS-related guidance material, with Doc 9839 Manual of the QMS for AIM, Doc 9991 AIM Training Development Manual and Doc 8126 Aeronautical Information Service Manual having the highest priority.

Conclusion APANPIRG/28/10: Search and Rescue Capability Focus Areas

That, given the continuing overall poor levels of implementation of Search and Rescue (SAR) coordination with adjacent States, effective SAR regulatory oversight and the training of both SAR inspectors and personnel that provide the SAR services, Asia/Pacific States should provide greater resources and high level support to enable a focus on these areas.

Plenary Discussion

2.2 APANPIRG/28 noted that, given the increasing air traffic, Asian States should recognise the problem and establish policies, rules and procedures for ANSPs to improve the benefits from CNS/ATM systems, including training for senior managers to minimise the gap between current and best practices in terms of using ATC separations commensurate with the Communications, Navigation and Surveillance (CNS)/ATM equipment capability.

2.3 China presented information on the outcomes of the Regional ATM Performance Measurement Framework Small Working Group (RAPMF/SWG). WP08 proposed that an ATM Performance Analysis Review Work Group was necessary in the Asia/Pacific Region in order to deal with the large volume of data generated in daily operations. APANPIRG did not endorse this proposal, preferring to wait until the *Global Air Navigation Plan* (GANP) was revised, otherwise the global and regional Key Performance Indicators (KPIs) could be divergent.

2.4 APANPIRG/28 was informed of ATFM/SG/7 discussions noting that there were parallel ATFM projects in the Asia/Pacific Region, some using different means of achieving demand-capacity balancing including the extensive use of tactical ATC interventions rather than the use of ground delay programs (GDPs) emphasized in the *Regional Framework for Collaborative ATFM*. ICAO had reminded ATFM/SG/7 that the distributed multi-nodal ATFM network and focus on use of GDP/Calculated Take-Off Times (CTOT) formed the core concepts and expectations of the *Regional Framework for Collaborative ATFM*, as adopted by APANPIRG.

2.5 Singapore suggested that the North Asia Region ATFM Harmonisation Group (NARAHG) States would be invited to attend the next meeting of the Distributed Multi-Nodal ATFM Network Operational Trial in order to work on a harmonized Interconnection Document (ICD).

2.6 Singapore had presented a proposal to address operational issues arising from flow restrictions from downstream ACCs on ATS Route M771, to enhance predictability for all stakeholders in the upstream FIRs and better manage traffic on the route. Flow restrictions ranging from 25 to 240 minutes, regardless of flight level had been imposed for flights bound for airports such as Fuzhou, Pudong, Quanzhou and Xiamen, and were typically imposed with little or no notice for other stakeholders to make necessary adjustments to traffic flow. This would require the full cooperation from all involved ANSPs, departure aerodromes and airlines.

2.7 China presented information on a centralized flight plan processing project, intended to address problems in flight plan management that had impacted on the safety of ATC operations and the implementation of traffic flow predictions. ICAO stated that FPL addressing requirements and other ATS messages were determined by the standards and procedures detailed in Annex 10 – *Aeronautical Telecommunications Vol. II* and ICAO Doc 4444 – *Procedures for Air Navigation Services – ATM* (PANS-ATM).

2.8 IATA expressed concern about the number of FPL messages that were not available to ATC in China, and welcomed the expansion of the ATFM/SG analysis to include missing FPL. IATA supported the following of ICAO policies and procedures for the addressing of FPL and ATS messages as they formed the foundation of ATM, ensuring consistency and standardization.

2.9 A survey on State readiness to accept and process alphanumeric aircraft identification had been conducted.

2.10 Kiribati discussed the proposal for the re-organisation of upper airspace as recommended in several reports dating back to 1999 as a new ‘Pacific FIR’, noting that this had been discussed at the diplomatic level by the Pacific Islands Forum (PIF), with ANS being provided by a third party following a tender process.

2.11 ICAO stated that civil/military cooperation remained one of the highest priorities in the Asia/Pacific Region, as referenced in the *Asia/Pacific Seamless ATM Plan*. Recalling that civil/military cooperation issues had been reported in parts of the Asia/Pacific to ATM/SG/3 (Bangkok, 03 – 07 August 2015) and also in 2016, ICAO noted that the Regional Office continued to receive reports from States and IATA of major delays and arrangements/procedures that may be considered for improvement by States concerned, as part of a region-wide effort to improve traffic capacity:

- the need for centralised ATFM systems within States and participation in regional cross-border ATFM initiatives;
- a need for more ATS routes to be available for international airlines;
- the need for more FIR boundary waypoints; and

- the need for minimisation of short-notice closures of airspace (especially from ballistic launch activity).

2.12 ICAO presented a proposal for a Regional ATM Contingency Plan status reporting strategy to enable the tracking of State implementation of the performance expectations of the Plan.

2.13 Afghanistan, India, Iran and Pakistan were urged to provide capacity enhancements for daily improvement, not just for contingency – this included the urgent implementation of at least 20NM longitudinal spacing all along the axis formed by Iran-Pakistan-India and Afghanistan-Pakistan-India routes.

Decision/Conclusion Review

2.14 A Small Working Group had been convened under APANPIRG to review the effectiveness of empowering the APANPIRG Sub Groups. On 20 April 2018 a Skype discussion took place. The results of the Decisions/Conclusions Review are summarised in **Attachment A**.

Asia/Pacific Ministerial Conference on Civil/Aviation

2.15 Ministers from the Asia and Pacific States responsible for Civil Aviation met in Beijing, China from 31 January to 1 February 2018, during the Asia Pacific Ministerial Conference on Civil Aviation. The ‘Beijing Declaration’ (**Attachment B**) set out a number of Air Navigation Service (ANS) targets that APANPIRG’s ATM Subgroup needed to monitor:

2.1 *Commit to implementation by 2022 of the Asia/Pacific Seamless Air Traffic Management (ATM) Plan to enhance ATM capacity and harmonisation in the Region, including a focus on:*

- (a) Transitioning from Aeronautical Information Service (AIS) to Aeronautical Information Management (AIM) System;*
- (b) Performance Based Navigation (PBN) implementation;*
- (c) Common ground/ground telecommunication infrastructure to support Air Navigation Services (ANS) applications;*
- (d) An enhanced level of civil/military cooperation;*
- (e) Enhanced surveillance capability including Automatic Dependent Surveillance-Broadcast (ADS-B) technology;*
- (f) Air Traffic Flow Management/Collaborative Decision Making (CDM) implementation for high density airports; and*
- (g) Air navigation in national planning frameworks such as National Development Plans (NDPs) supported by National Air Navigation Plans.*

2.2 *Promote sharing of best practices in the provision of ANS including Aeronautical Search and Rescue (SAR), Meteorological Services for International Air Navigation (MET) and Air Traffic Flow Management (ATFM) through regional cooperation and enhanced coordination.*

3. ACTION BY THE MEETING

- 3.1 The meeting is invited to:
- a) note the information contained in this paper;
 - b) discuss the effectiveness review;
 - c) note the Ministerial Conference's Beijing Declaration; and
 - d) discuss any relevant matters as appropriate.

Table 2a - APANPIRG Air Traffic Management Sub Group and relevant Task Force/ Working Groups Meetings

S. No	Meetings	Decision/Conclusion (Ops/Technical)	Description of Decision/Conclusion	Remarks/Comments	
				Singapore	USA
1.	Seventh Meeting of the South Asia/Indian Ocean ATM Coordination Group (SAIOACG/7), Bangkok, Thailand, 01 – 03 March 2017	Decision SAIOACG/7-2: Bay of Bengal Traffic Flow Review Group	That, a Bay of Bengal Traffic Flow Review Group (BOBTFRG) be established in accordance with the Terms of Reference at Appendix C to the Report identify and implement Bay of Bengal airspace safety and efficiency initiatives (supporting the Seamless ATM Plan) in the Bangkok, Chennai, Colombo, Dhaka, Jakarta, Kuala Lumpur, Kolkata and Yangon Flight Information Region (FIR) interface, which would include Bangladesh, India, Indonesia, Malaysia, Myanmar, Sri Lanka, Singapore, Thailand and IATA.	Decision is relevant. The establishment of BOBTFRG will provide another means for relevant States to discuss the review of routes to enhance safety and efficiency in the Bay of Bengal region.	All the subgroups stayed within the guidelines and scope empowered by APANPIRG and no Conclusions or Decisions were improperly forwarded to APANPIRG that should have been decided in the Subgroup.
2.	Twenty-Fourth Meeting of the South-East Asia ATS Coordination Group (SEACG/24), Bangkok, Thailand, 06 – 08 March 2017	Nil	Nil	Nil	
3.	First Meeting of the Asia/Pacific Unmanned Aircraft Systems Task Force (APUAS/TF/1), Bangkok, Thailand, 03 – 05 April 2017	Decision APUAS/TF/1-2: APUAS/TF/SWG	That, APUAS/TF forms a small working group (APUAS/TF/SWG) of experts drawn from ANS regulatory, ATC and industry backgrounds which, communicating by electronic means and, where necessary, holding ad-hoc meetings, that will draft, develop and circulate with the assistance of the Secretariat the <i>Asia/Pacific Regional Guidance for the Regulation and Safe Operation of Small UAS</i> .	Decision is relevant. The development of the guidance material will provide in depth information to aid States for safe regulation of small UAS.	

S. No	Meetings	Decision/Conclusion (Ops/Technical)	Description of Decision/Conclusion	Remarks/Comments	
				Singapore	USA
4.	Meteorology/Air Traffic Management (MET/ATM) Seminar and Seventh Meeting of the Asia/Pacific Air Traffic Flow Management Steering Group (ATFM/SG/7), Fukuoka, Japan, 15 – 19 May 2017	Nil	Nil	Nil	
5.	Second Meeting of the Asia/Pacific Regional Search And Rescue Work Group (APSAR/WG/2), Bangkok, Thailand, 30 May – 01 June 2017	Nil	Nil	Nil	
6.	Sixth Meeting of the FANS Interoperability Team-Asia (FIT-ASIA/6), Bangkok, Thailand, 03 – 05 July 2017	Decision FIT-Asia/6-6: FIT-Asia PBCS Small Working Group	That, a FIT-Asia PBCS Small Working Group (FIT-Asia PBCS SWG), working in coordination with ICAO Headquarters, other ICAO Regions and other relevant groups as necessary: 1. Develops APAC regional requirements and supporting templates for PBCS monitoring and reporting; 2. Monitors global developments in PBCS in relation to PBCS operational approvals, PBCS implementation by ANSPs and PBCS safety monitoring, and makes recommendations to FIT-Asia; and 3. Undertakes tasks assigned by FIT-Asia.	Decision is relevant. The SWG would be able to provide assistance to States in the development and implementation of PBCS.	
7.	Twelfth Meeting of the ICAO Aeronautical Information Services – Aeronautical Information Management Implementation Task Force (AAITF/12), Bangkok, Thailand, 05 – 09 July 2017	Nil	Nil	Nil	
8.	Fifth Meeting of the ATM Sub-Group of APANPIRG	Conclusion ATM/SG/5-1: Transfer of CPDLC	That, States are urged to ensure that: 1. ATM automation systems are configured	Conclusion is relevant. A significant number of	

S. No	Meetings	Decision/Conclusion (Ops/Technical)	Description of Decision/Conclusion	Remarks/Comments	
				Singapore	USA
	(ATM/SG/5), Bangkok, Thailand, 31 July – 04 August 2017	Connections	for the automated transfer of CPDLC connections in accordance with the guidance provided in ICAO Doc 10037 – <i>Global Operational Data Link (GOLD) Manual</i> Section 1.2.3; and 2. ATC procedures and training are implemented to ensure that the CPDLC end-of-service message is sent manually by the releasing ATC centre, promptly in the event of the absence or failure of automated CPDLC transfer processes.	failed or poorly configured automation system processes for the transfer of CPDLC data authority has continued to occur for several years. The failure to transfer communications at FIR boundaries carried safety risks. Conclusion allows for mitigation against the safety risks associated with a previous ATC sector/centre maintaining continuous CPDLC communications with an aircraft that was already established in the airspace of another ATC sector/centre.	
		Conclusion ATM/SG/5-2: Asia/Pacific Regional Guidance for Meteorological Information Supporting ATM	That, on approval of the <i>Asia/Pacific Regional Guidance for Tailored Meteorological Information and Services to Support Air Traffic Management Operations</i> Version 1 by the appropriate body and its uploading to the ICAO Asia/Pacific Regional Office website, the Regional Guidance should be referenced for the provision of Meteorological Information to ATM: 1. at ATFM Program Airports as defined in the <i>Regional Framework for Collaborative ATFM</i> ; 2. in	Conclusion is relevant. Specific regional guidance is necessary to assist States in developing and implementing tailored MET information and services supporting effective ATM, including ATFM.	

S. No	Meetings	Decision/Conclusion (Ops/Technical)	Description of Decision/Conclusion	Remarks/Comments	
				Singapore	USA
			Enroute sector airspace supporting the busiest Asia/Pacific city pairs as defined in the Asia/Pacific Seamless ATM Plan; and 3. at other airports or in airspace designated by the relevant authority.		
		Conclusion ATM/SG/5-3: Asia/Pacific Regional Framework for Collaborative ATFM Amendment	That, 1. the <i>Regional Framework for Collaborative ATFM</i> be amended to include the information and performance objectives in Appendix D to the Report ; 2. the ATFM Implementation Status Report form provided in Appendix E to the Report be included in the Regional Framework for Collaborative ATFM as an appendix and made available on the ICAO Asia/Pacific Regional Office website; and 3. Asia/Pacific Administrations are urged to report their ATFM implementation status at least once annually by no later than 30 April each year, using the ATFM Implementation Status Report Form.	1. To improve equity of delay distribution by stating that airports in APAC should have procedures in place to facilitate Calculated Take Off Time (CTOT) regardless if they have an ATFM function in place. 2. To include the monitoring regimes in the Regional Framework for Collaborative ATFM. 3. For the purpose of monitoring States' readiness for ATFM Implementation and identify priority areas of ATFM for inclusion in the Seamless ATM monitoring for the attention of APANPIRG.	
		Conclusion ATMSG/5-5: State Readiness for Alphanumeric Aircraft	That, States are urged to ensure that ATM and related system capability, regulations, approval processes, and published	Conclusion is relevant. To enable Asia/Pacific Regional capability to use	

S. No	Meetings	Decision/Conclusion (Ops/Technical)	Description of Decision/Conclusion	Remarks/Comments	
				Singapore	USA
		Identification	procedures are implemented to enable the use of alphanumeric aircraft identification in flight plans, in any combination of alpha and/or numeric characters, by not later than 31 December 2019.	alpha numeric call signs to reduce the risk of call sign confusion.	
		Conclusion ATMSG/5-6: Asia Pacific Alphanumeric Call-Sign Project	That, 1) Phase Two of the Alphanumeric Call Sign project be commenced, using the project plan at ATM/SG/5 WP/17 Attachment A and with the participation of Australia, India, Malaysia, Maldives, Pakistan, Singapore and Sri Lanka; and 2) the results of Phase Two of the project be reported to ATM/SG/7.	Conclusion is relevant. To continue the agreed alphanumeric call sign project for Asia/Pacific	
		Conclusion ATM/SG/5-8: Asia/Pacific Regional ATM Contingency Plan Amendment	That, 1. the Regional ATM Contingency Plan be amended to include the information and performance objectives in Appendix F to the Report ; 2. the Regional ATM Contingency Plan Monitoring and Reporting Form provided Appendix G to the Report be included in the Regional Framework for Collaborative ATFM as an Appendix and be made available on the ICAO Asia/Pacific website; and 3. Asia/Pacific Administrations are urged to report their ATM Contingency Plan implementation status at least once annually, by no later than 31 May each year.	Conclusion is relevant. To include a regional ATM Contingency Plan monitoring and reporting regime in the Regional ATM Contingency Plan and the identification of priority areas of ATFM for inclusion in Seamless ATM monitoring.	
		Conclusion ATM/SG/5-9: Indonesian ATM Contingency Plan Template	That, given the Regional ATM Contingency Plan included template examples of contingency plans, the	Conclusion is relevant. The Regional ATM Contingency Plan has	

S. No	Meetings	Decision/Conclusion (Ops/Technical)	Description of Decision/Conclusion	Remarks/Comments	
				Singapore	USA
			Indonesian ATM Contingency Plan template be removed from the Asia/Pacific website.	been updated with relevant template examples of contingency plans. The Indonesian template should be removed to ensure referencing of up-to-date template material.	
		Conclusion ATM/SG/5-10: State UAS Regulations	That, considering that some Asia/Pacific States are developing or have developed regulations for the safe operation of small UAS in their national airspace, and recognizing that sharing regulation and procedure information between States and APUAS/TF will lead to compatible development of State regulations and regional guidance, States are urged to: a) provide their State regulations and procedures relating to UAS to APUAS/TF; and b) keep informed of the draft <i>Asia/Pacific Regional Guidance for the Regulation and Safe Operation of Small UAS</i> as it develops in order to facilitate the alignment of their regulations with the regional guidance	Conclusion is relevant. To ensure consideration of all relevant APAC State regulations by the APUAS/TF, and to facilitate alignment of State regulations with regional guidance.	
		Conclusion ATM/SG/5-13: Provision of AIP to other Contracting States	That, States are urged to ensure that, in accordance with the provisions of Annex 15 Section 2.3, a copy of each of the elements of the Integrated Aeronautical Information Package is made available in the mutually agreed form(s), without charge, when requested by a Contracting State.	Conclusion is relevant. State should have access to all current elements of the Integrated Aeronautical Information Package (IAIP) of other States involved to meet the operational needs of	

S. No	Meetings	Decision/Conclusion (Ops/Technical)	Description of Decision/Conclusion	Remarks/Comments	
				Singapore	USA
				flights emanating from the State.	
		Conclusion ATM/SG/5-17: SID/STAR Phraseology	That, States are urged to take action to implement the SID/STAR-related phraseology included in Amendment 7 to Doc 4444 – PANS-ATM, ensuring that: 1. Any phraseologies published in AIP are amended to comply with the new Doc 4444 standards relating to SID and STAR phraseologies; and 2. ATC and aircraft operator procedure manuals and training are updated to incorporate the new SID and STAR phraseologies	Conclusion is relevant. To urge States to implement provisions of PANS-ATM and ensure common phraseology is used in all APAC States. The use of SIDs and STARs by pilots who may be uncertain of the ATC's intentions or where there is inconsistent application of this standard by nations is a potentially hazardous situation, which must be avoided.	
9.	Second Meeting of the Asia/Pacific Unmanned Aircraft Systems Task (APUAS/TF/2) Bangkok, Thailand, 05 – 08 March 2018	Nil	Nil	Nil	
10.	The Combined Eighth Meeting of the South Asia/Indian Ocean ATM Coordination Group and the Twenty-Fifth Meeting of the South East Asia ATS Coordination Group (SAIOACG/8 and SEACG25), Siem Reap, Cambodia, 26 – 30 March 2018	Nil	Nil	Nil	

Declaration of Asia Pacific Ministerial Conference on Civil Aviation

- 1) We, the Ministers from the Asia and Pacific States, responsible for Civil Aviation, met in Beijing, China from 31 January to 1 February 2018, on the occasion of the Asia Pacific Ministerial Conference on Civil Aviation, organized by the International Civil Aviation Organization (ICAO);
- 2) Mindful of the obligations as Contracting States to the Convention on International Civil Aviation signed on 7th December 1944 (also known as the Chicago Convention);
- 3) Considering the importance of air transportation world-wide for social and economic development (the Global Air Transport Industry supports almost 62.7 million jobs worldwide and contributes US\$ 2.7 trillion to Global Gross Domestic Product (GDP), equivalent to 3.5% of global GDP and US\$ 664.4 billion aviation direct economic impact);
- 4) Recognising that the Asia and Pacific Region has become the world's largest aviation market in terms of available seat-kilometres and generates the world's second largest share of international revenue passenger-kilometres, and will continue to grow with corresponding air traffic capacity, efficiency and safety challenges;
- 5) Recognising that there are various programmes, objectives and targets currently being pursued under the ICAO "No Country Left Behind (NCLB)" initiative to assist States in capacity development in order for States to derive maximum social economic benefits from aviation, let aviation contribute ultimately to the realisation of the international development priorities, particularly the United Nations 2030 Agenda for Sustainable Development, and play its important role in the building of a community of shared future for mankind;
- 6) Recognising that the ICAO Global Air Navigation Plan (GANP) and the Global Aviation Safety Plan (GASP) set out regional expectations, priorities and targets for States, agreed at regional fora such as the Asia Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG) and the Regional Aviation Safety Group (RASG-APAC) and reflected in national planning frameworks;
- 7) Recognising that there are existing bilateral and multi-lateral working relationships and platforms, such as the Asia and Pacific Directors General of Civil Aviation (APAC DGCA) Conference, APANPIRG, RASG-APAC; and ICAO-led initiatives (e.g. Aviation Safety Implementation Assistance Partnership (ASIAP), the Combined Action Teams (CAT));
- 8) Recognising the importance of active participation of States through their experts attending ICAO fora and other international meetings, training, seminar and workshop events to advance civil aviation development in the Region;
- 9) Acknowledging that the existing regional relationships and partnerships are evolving with meaningful technical cooperation and assistance programmes (e.g. Cooperative Development of Operational Safety and Continuing Airworthiness Programmes (COSCAPs), Flight Procedure Programme (FPP));

- 10) Mindful of the importance and impact of aviation safety and efficient air navigation services on the sustainable development of air transport;
- 11) Recognising that the ICAO Universal Safety Oversight Audit Programme (USOAP) has been effective in helping States focus on safety oversight capabilities and to address gaps in the implementation of ICAO Standards and Recommended Practices (SARPs) and regulatory safety oversight;
- 12) Considering the Asia and Pacific Region is diverse (e.g. in terms of capacity and civil aviation development with USOAP Effective Implementation (EI) scores ranging from 5% to over 90%), there is a compelling need for stronger regional cooperation, partnerships and engagement to continuously improve aviation safety;
- 13) Recognising the ICAO “Next Generation of Aviation Professionals (NGAP)” initiative aimed at addressing the need for aviation professionals in various fields and the importance of having adequate qualified and competent aviation professionals to meet the challenges of the significant aviation growth experienced by the Region;
- 14) Considering the need to support the timely implementation of the Asia/Pacific Seamless Air Traffic Management (ATM) Plan and its elements to enhance safety and efficiency of air navigation services to cater for the projected air traffic growth in the Region;
- 15) Mindful of the need to take into account resolutions agreed at future ICAO Assembly Meetings including those on GASP and GANP;
- 16) The Ministerial Conference agrees to the Beijing Declaration and the Ministers commit to the following:

1.0 Aviation Safety

1.1 Commit to:

- (a) Progressively enhance safety oversight capability to achieve a USOAP EI score higher or equal to the global average by 2022;
- (b) Implement an effective State Safety Programme (SSP) by 2025;
- (c) Endeavour not to have any Significant Safety Concerns (SSCs) under the USOAP Continuous Monitoring Approach (CMA), and to resolve any future SSCs within the time frame agreed with ICAO;
- (d) Certify all aerodromes used for international operations by 2020;
- (e) Use data driven methodologies to identify high risk categories of occurrences (e.g. runway safety, loss of control in flight and controlled flight into terrain), and implement collaborative solutions to reduce accident rates and fatalities in the Region; and

- (f) Include aviation safety in national planning frameworks such as National Development Plans (NDPs) supported by robust Civil Aviation Master Plans.

1.2 Promote regional government and industry collaboration for sharing of best practices in safety management through the Regional Aviation Safety Group (RASG).

2.0 Air Navigation Services

2.1 Commit to implementation by 2022 of the Asia/Pacific Seamless Air Traffic Management (ATM) Plan to enhance ATM capacity and harmonisation in the Region, including a focus on:

- (a) Transitioning from Aeronautical Information Service (AIS) to Aeronautical Information Management (AIM) System;
- (b) Performance Based Navigation (PBN) implementation;
- (c) Common ground/ground telecommunication infrastructure to support Air Navigation Services (ANS) applications;
- (d) An enhanced level of civil/military cooperation;
- (e) Enhanced surveillance capability including Automatic Dependent Surveillance-Broadcast (ADS-B) technology;
- (f) Air Traffic Flow Management/Collaborative Decision Making (CDM) implementation for high density airports; and
- (g) Air navigation in national planning frameworks such as National Development Plans (NDPs) supported by National Air Navigation Plans.

2.2 Promote sharing of best practices in the provision of ANS including Aeronautical Search and Rescue (SAR), Meteorological Services for International Air Navigation (MET) and Air Traffic Flow Management (ATFM) through regional cooperation and enhanced coordination.

3.0 Accident Investigation

3.1 In accordance with the Chicago Convention, commit to either establish an accident investigation authority that is independent from State aviation authorities and other entities that could interfere with the conduct or objectivity of an investigation or where appropriate develop a bilateral, sub-regional or regional partnership to support the establishment of accident investigation capabilities to serve the Region, sub-region or State.

4.0 Human Resource Development

4.1 In line with the ICAO initiative on “Next Generation of Aviation Professionals (NGAP)”, accord priority to human capital development to provide sufficient qualified and competent aviation professionals to support the Region’s growing needs, including where appropriate:

- (a) Establish access to quality training; and

- (b) Encourage sharing of resources bilaterally and/or multi-laterally as well as with industry partners.

4.2 Promote the attraction of new talent and the retention of trained, qualified and experienced personnel among State Aviation Organisations (e.g. regulators, air navigation service providers).
