



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 4: ATM Systems (Modernization, Seamless ATM, CNS, ATFM)

RECENT CNS-RELATED DEVELOPMENTS

(Prepared by Secretariat)

SUMMARY

This paper briefly introduces the recent developments in the CNS fields since CNS SG/21 meeting that may be of interest to the ATM Subgroup, noting that the APANPIRG CNS SG/22 meeting was held at ICAO Regional Office from 16 to 20 July 2018. Actions for the meeting are in section 3.

1. INTRODUCTION

1.1 The Twenty Second Meeting of the Communications, Navigation and Surveillance Sub-group (CNS SG/22) of Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG), was held at Bangkok, Thailand, from 16 – 20 July 2018.

1.2 Mr. Amit Kumar Banerjee, Executive Director, CNS Airports Authority India was unanimously elected as Vice Chairman of the CNS Sub-group.

1.3 105 participants from 28 States/Administrations, two international organizations participated in the meeting. The meeting considered 20 working papers, 33 information papers and 2 flimsies under its 12 agenda items. The meeting endorsed 9 draft Conclusions for further consideration APANPIRG/29 meeting, some of which need further discussions and endorsement by the ATM SG. The meeting also adopted 7 Conclusions on the technical matters and 1 Decision regarding change of reporting path of SWIM/TF directly to CNS SG rather than through ACSICG. The meeting document and report are available at the following APAC webpage:

<https://www.icao.int/APAC/Meetings/Pages/2018-CNS-SG22.aspx>

2. DISCUSSION

2.1 The CNS SG/22 meeting reviewed the outcome of a number of meetings of APANPIRG contributory bodies including ACSICG/5 meeting; CRV OG/3 and OG/4 meetings; AIDC TF/4 meeting; SWIM TF/2 meeting; PBNICG/5 meeting; SURICG/3 meeting; SEA/BOB ADS-B WG/13 meeting; DAPs WG/1 meeting and the APAC Cybersecurity Symposium. The meeting also noted that the CRV Workshop for Pacific States and three PBN Workshops were held in 2018.

2.2 Conclusion/Decision and Draft Conclusions adopted/endorsed by CNS SG/22 are

Listed in below:

A) Conclusions/Decision adopted by CNS SG on behalf of APANPIRG for ATM/SG's information:

- **Conclusion CNS SG/22/1** - Urging States/Administrations to use IPS Router between BBIS Administrations and encourage them to phase out X.25 and IP SNDCEF (ATN) router when CRV or other inter-regional IP networks being utilized
- **Conclusion CNS SG/22/2 (ACSICG/5/2 WP/5) - Arrangement for conducting IP connectivity test** – urging States/Administrations to conduct IP connectivity tests when joining the CRV or through other IP network. (These additional tests may be agreed bilaterally through additional agreement for IP connectivity test as supplements to the TMC between Administrations)
- **Conclusion CNS SG/22/3 (CRV OG/4/1) - CRV Implementation Plan and VoIP ICD** – adopted the CRV Implementation Plan (Version 1.0) and CRV Voice over Internet Protocol (VoIP) and Analog Voice ICD (Version 1.0).
- **Conclusion CNS SG/22/4 (CRV OG/4/2) - ATN/BBIS States/Administration use CRV for AFTN/AMHS Traffic** - urging States/Administrations to implement CRV network as early as possible to provide AFTN/AMHS routing function for BIS Administrations;
- **Decision CNS SG/22/5 (SWIM TF/2/1) - Revised Terms of Reference for the SWIM TF** – adopted the revised Terms of Reference of SWIM Task Force placed to amend the reporting path of SWIMTF from through ACSICG to directly to CNS SG.
- **Conclusion CNS SG/22/6 (SWIM TF/2/2) - Asia/Pacific SWIM Survey** – urged States to respond to a survey on System-Wide Information Management (SWIM) to be circulated through an ICAO State Letter.
- **Conclusion CNS SG/22/7 (ACSICG/5/7 WP/5) - Revised AFTN/ATSMHS Routing Directory** – adopted the AFTN/ATSMHS Routing Directory for the APAC Region (28th Edition);
- **Conclusion CNS SG/22/11 (PBNICG/5/2) – THE CATALOGUE OF ASIA AND PACIFIC FLIGHT INSPECTION AND FLIGHT VALIDATION SERVICE PROVIDERS** – adopted *the Catalogue of Asia and Pacific Flight Inspection and Flight Validation Service Providers* (Tenth Edition);
- **Conclusion CNS SG/22/15 (SURICG/3/2) - Revised ADS-B Implementation and Operations Guidance Document (AIGD)** – adopted the updated the revised ADS-B Implementation and Operations Guidance Document (AIGD Version 11) consolidating all changes proposed during SURICG/3 meeting.

B) Draft Conclusions endorsed by CNS Sub Group for consideration by APANPIRG and notice by ATMSG:

- Draft Conclusion CNS SG/22/8 - Revised Strategy for Implementation of Communication systems to support Air Navigation Service

That, the revised Strategy for implementation of Communication systems to support Air Navigation Service provided in **Appendix G** to the Report be adopted.

- Draft Conclusion CNS SG/22/9 – Support allocation of radio spectrum for space based VHF communications – That,

- a) States and ICAO be invited to initiate and support the ITU application process of allocating an appropriate aeronautical VHF frequency band for space-based aeronautical mobile communication service for WRC-2023;
- b) States and ICAO be invited to take note of the potential benefits of space-based VHF aeronautical mobile communication service to enhance safety, capacity and efficiency of air navigation services by supporting the Proof-of-Concept tests; and
- c) ICAO is invited to assign three aeronautical VHF channels for the duration of the Proof-of-Concept tests.

- Draft Conclusion CNS SG/22/10 - PBN-IN-A-PAGE (Version 2.0) – That

- a) The PBN-in-page (Version 2.0) in **Appendix I** to the report be adopted as a regional supporting material and be published on the ICAO Regional Office website.

Note – The contents of the PBN-in-a-page was extracted from ICAO documents including Doc 9613, Doc 8168 Vol. II, Doc 4444, and Annex 15. The PBN-in-a-page should be used as a quick reference during PBN airspace designing and PBN implementation planning.

- b) ICAO Regional Office forward the PBN-in-a-page (Version 2) to the relevant Panels and Study Groups for their information and consideration.

C) Draft Conclusions endorsed by CNS SG and also need further endorsement by ATM SG before consideration by APANPIRG/29 meeting, detailed of which are further discussed in Section 3:

- Draft Conclusion ~~CNS SG/22/12~~ ATM/SG/6-X – GROUND BASED GNSS STATUS MONITORING

Recognizing that the availability of GNSS is crucial for GNSS based PBN procedures, that the performance of GNSS on the ground may be different from that in the aircraft, and that the States should determine whether GNSS is an essential radio navigation services for GNSS-based approach, landing or take-off, which requires timely warnings on the GNSS its status to be provided to ATC services,

That, States be urged to:

- a) define whether GNSS is an the essential radio navigation services for GNSS-based operations approach, landing and take-off;
- b) be aware that requirement for air traffic controllers to provide real time GNSS status monitoring to aircraft for GNSS ABAS procedures may not be required;

- c) ensure that GNSS/RAIM unavailability prediction be provided to users;
 - d) ensure that pilot reports as far as practical on GNSS status should be provided to ATC for dissemination to other aircraft as real time GNSS information; and
 - e) reflect their operational procedures in within AIC and/or AIP.
- **Draft Conclusion CNS-SG/22/43 ATM/SG/6-X – Transition Planning for RNP APCH CHART Identification from RNAV to RNP**

Recognizing ICAO Circular 353, *Transition Planning for Change to Instrument Flight Procedure Approach Chart Identification from RNAV to RNP* ~~was published~~ will be finalized to provide guidance on the development of global, regional and State transition plans, and ICAO Regional Office ~~has~~ is requested to develop a draft transition plan within twelve months of the final publication of the Circular 353, That,

- a) States begin internal coordination on the State transition plan and provide the number of RNP APCH procedures published and planned, ~~required duration and desired time slot and the time required to transition from RNAV (GNSS)/RNAV (RNP) to RNP chart identification;~~
 - b) ICAO Regional Office drafts a regional transition plan on RNP APCH chart identification in coordination with relevant regional contributory bodies of APANPIRG, sub-regional ATM coordination groups and regional stakeholders; and
 - c) ICAO Regional Office ~~to~~ conducts a meeting or workshop to discuss the regional transition plan, ~~once after a regional transition plan template is~~ has been provided by the ICAO PBN Programme Office.
- **Draft Conclusion CNS-SG/22/44 (SUPICG/3/4) ATM/SG/6-X- Revised ADS-B Version 2 ADS-B Out Forward Fit Equipage**

~~What: Review APANPIRG Conclusion 26/44 regarding fitment of Version 2 ES ADS-B, to revise the applicable date as per the below:~~

That, States/Administrations in APAC Region be strongly encouraged to mandate that registered aircraft with a maximum certified take-off mass exceeding 5 700 kg or having a maximum cruising true airspeed capability greater than 250 knots, with a date of manufacture on or after 1 January 2020 be equipped with ADS-B avionics compliant with Version 2 ES (equivalent to RTCA DO-260B) or later version.

This Draft Conclusion supersedes Conclusion APANPIRG 26/44

- **Draft Conclusion ~~CNS SG/22/16~~ – ATM/SG/6-X: Proposal for amendment to PANS-ATM (Doc4444) on ADS-B related Phraseologies (WP/14)**

Recognizing that:

1. where system functionality is derived from the same source for both MODE S SSR and ADS-B the phraseology used between ATC and pilots should be the same;
2. in almost all cases, pilot interfaces with the ADS-B system through the SSR transponder interface; and
3. the use of ADS-B-specific phrases may cause confusion between pilots and ATC;

ICAO be invited to amend the PANS-ATM to remove the following phraseologies from Doc 4444, Chapter 12, paragraph 12.4.3: PANS-ATM to remove the following phrases:

12.4.3.5 “RE-ENTER ADS-B AIRCRAFT IDENTIFICATION”

12.4.3.7 “TRANSMIT ADS-B IDENT”

12.4.3.10 “STOP SQUAWK TRANSMIT ADS-B ONLY” or “STOP ADS- B TRANSMISSION, SQUAWK (CODE) ONLY”

12.4.3.11 “TRANSMIT ADS-B ALTITUDE”

12.4.3.13 “STOP ADS-B ALTITUDE TRANSMISSION [(WRONG INDICATION, or reason)]”

- **Draft Conclusion CNS SG/22/17 – Amendment of Asia/Pacific Seamless ATM Plan Version 2 (WP/17)**

Recognizing the expected difficulties in implementing RNP2 navigation specification in the Preferred Aerodrome/Airspace and Route Specification (PARS) Phase II, which begins on 7 November 2019,

That, Asia/Pacific Seamless ATM Plan Version 2 be amended as proposed in paragraph 7.2 of the report to include RNAV2 in Category S airspace.

2.3 The meeting is invited to note that the improvement of air/ground communication facilities and services in Yangon FIR with the continuous efforts made by the DCA Myanmar. The result of a survey conducted by IATA from 5 – 19 February 2018 is shown below.

YEAR	NUMBER OF REPORTS(FLIGHTS)	“YES”	“NO”	% NO
2018	619	606	13	2%
2016	681	645	36	5%
2012	349	299	50	14%
2011	441	408	33	7.5%

2.4 The IATA Ops Notice was formally cancelled effective 24th May 2018 (AIRAC cycle 7) and all relevant stakeholders were notified including Chart providers. ICAO Regional Office had received a letter of notification from DCA. Myanmar regarding a request to remove this deficiency. Considering the continuous improvement in the past few years, CNS SG/22 meeting endorsed the recommendation from IATA to remove this air/ground communications deficiency in Yangon FIR for further consideration by APANPIRG.

3 Further Discussions on the draft Conclusions that need further endorsement by ATMSG

3.1 The following draft Conclusions CNS SG/22/12, 13, 14, 16 and 17 are further introduced and discussed for consideration and endorsement by ATMSG/6 meeting.

CNS SG/22/12 – (Ground Based GNSS Status Monitoring)

3.2 The PBNICG/5 discussed issue on real-time GNSS status monitoring on the ground. Considering no direct relationship between the failure or the removal of a core satellite of GNSS or an SBAS reference Station and aircraft performance, different algorithms used for avionics designs, and various available ranging sources and sensors, provision of real-time GNSS status monitoring is impractical for GNSS ABAS operations and RAIM prediction for RNP APCH will be sufficient to users and ATC services. However, regarding the use of GBAS and SBAS, ground based real time monitoring information may be provided based on a valid operational requirement.

3.3 At CNS SG/22 meeting, Australia stated that States should be aware when implementing PBN using GNSS as the enabling technology that GNSS/RAIM unavailability is dependent on the application. For example, an aircraft conducting operations based on RNP APCH (0.3NM) may experience an outage, whereas an aircraft in the same geographic area conducting operations using RNP2 will not. In this reason, PBN training for pilot and air traffic controllers should include these differences in the training material so that pilots and air traffic controllers could be aware of the different applications of PBN and disseminate GNSS status information selectively.

3.4 In view of the foregoing, the meeting endorsed following Draft Conclusion formulated by PBNICG/5 meeting for further consideration by ATMSG:

Draft Conclusion ATM/SG/6-X: GROUND BASED GNSS STATUS MONITORING	
What: Recognizing that the availability of GNSS is crucial for GNSS based PBN procedures, that the performance of GNSS on the ground may be different from that in the aircraft, and that the States should determine whether GNSS is an essential radio navigation service for approach, landing or take-off, which requires timely warnings on its status to be provided to ATC services, That, States be urged to: a) define whether GNSS is an essential radio navigation service for approach, landing and take-off; b) be aware that requirement for air traffic controllers to provide real time GNSS status monitoring to aircraft for GNSS ABAS procedures may not be required; c) ensure that GNSS/RAIM unavailability prediction be provided to users; d) ensure that pilot reports as far as practical on GNSS status should be provided to ATC for dissemination to other aircraft as real time GNSS information; and e) reflect their operational procedures in AIP.	Expected impact: ☒ Political / Global ☒ Inter-regional ☐ Economic ☐ Environmental ☒ Ops/Technical
Why: As GNSS on board performance might be different from GNSS performance observed on the ground, pilot might be confused if there is any difference between the two environments. Therefore, ground based GNSS status monitoring information used for ABAS should be used as advice to ATS.	Follow-up: ☒ Required from States
When: 5-Sep.ar-2018	Status: Draft to be adopted by PIRG
Who: ☒ Sub groups ☒ APAC States ☒ ICAO APAC RO ☐ ICAO HQ ☒ Other: ICAO APAC RSO	

CNS SG/22/13 – (Transition Planning for RNP APCH CHART Identification)

3.5 The meeting reviewed ICAO's new plan on the transition of RNP APCH chart identification from RNAV to RNP that was issued in Electronic Bulletin (EB2018/11) and Circular 353. The Secretariat explained the roles of ICAO PBN Programme Office in ICAO Headquarters, Regional Office and States, global, coordination process between ICAO Headquarters, Regional Office and States, related stakeholders to be included in the regional transition plan development, and the timeline for the transition plan (see **Figure X1**)

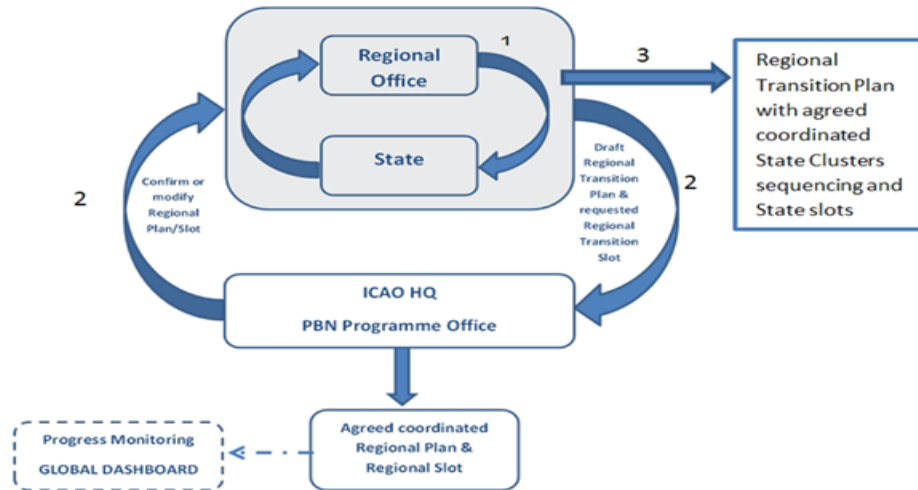


Figure X1 – Global, regional and State coordination process

3.6 The meeting also reviewed the result of a survey on the published RNP APCH procedures of both international and domestic airports collected from ICAO iSTAR application, JeppView software and States. The result showed 916 airports of 39 member States, Administrations and territories have 1,786 GNSS-based approach procedures (see **Figure X2**)

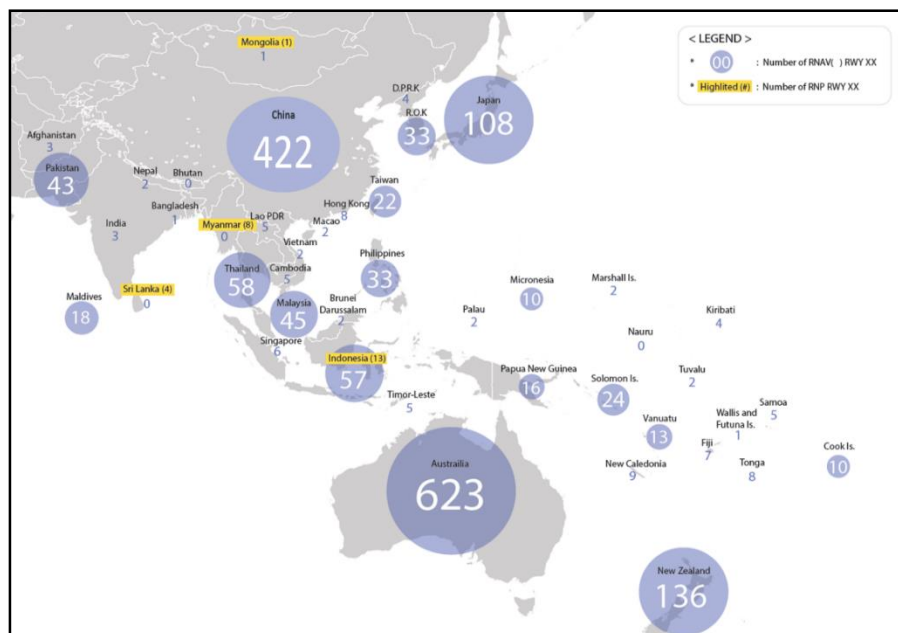


Figure X2 – Status of published RNP APCH procedures

3.7 The PBNICG/5 discussed various topics related to the chart identification transition including the development of regional transition plan, division of geographical area, grouping State cluster, coordination process, timeline of the regional plan development, and procedure publication planned. Among the topics discussed, the biggest concern of the PBNICG/5 was PBN approach procedure publication, which was already approved or would be approved in near future. As mentioned in the EB2018/11, if States waits until regional and State transition plan is published, the delays of publication will be significant.

3.8 Recognizing the importance of the RNP APCH chart identification matters, the meeting endorsed the following Draft Conclusion formulated by PBNICG/5 meeting:

Draft Conclusion ATM/SG/6-X – Transition Planning for RNP APCH CHART Identification from RNAV to RNP	
What: Recognizing ICAO Circular 353, <i>Transition Planning for Change to Instrument Flight Procedure Approach Chart Identification from RNAV to RNP</i> will be finalized to provide guidance on the development of global, regional and State transition plan, and ICAO Regional Office is requested to develop a draft transition plan within twelve months of the final publication of the Circular, That, a) States begin internal coordination on the State transition plan and provide the number of RNP APCH procedures published and planned, and the time required to transition from RNAV (GNSS)/RNAV (RNP) to RNP chart identification; b) ICAO Regional Office draft a regional transition plan on RNP APCH chart identification in coordination with relevant regional contributory bodies of APANPIRG, sub-regional ATM coordination groups and regional stakeholders; and c) ICAO Regional Office conducts a meeting or workshop to discuss the regional transition plan, after a regional transition plan template has been provided by the ICAO PBN Programme Office.	Expected impact: ☒ Political / Global ☒ Inter-regional ☐ Economic ☐ Environmental ☒ Ops/Technical
Why: Transition of RNP APCH chart identification is related to various stakeholders, which need effective management and global, regional and State level coordination.	Follow-up: ☒ Required from States
When: 5-Sep-2018	Status: Draft to be adopted by PIRG
Who: ☒ Sub groups ☒ APAC States ☒ ICAO APAC RO ☒ ICAO HQ ☒ Other: ICAO APAC RSO	

3.9 The CNS SG/22 meeting considered necessary to coordinate Draft Conclusion CNS SG/22/12 (Ground Based GNSS Status Monitoring) and Draft Conclusion CNS SG/22/13 (Transition Planning for RNP APCH Chart Identification from RNAV to RNP) with ATM Sub Group.

CNS SG/22/14 - (Revise ADS-B Version 2 ADS-B Out Forward Fit Equipage)

3.10 The meeting noted the necessity to amend the APANPIRG Conclusion 26/44 which was adopted in 2015 through APANPIRG/26/44 regarding forward fitment mandate for ADS-B avionics compliant with Version 2 ES (equivalent to RTCA DO260B) from 8 June 2018.

3.11 The above Conclusion encouraged States to adopt forward fitment mandate effective two years after the European forward fitment effective date was considered reasonable and achievable. On 6 March 2017, the European Commission issued Implementing Regulation 2017/386, which included an amendment to remove the ADS-B “forward fitment” requirement and rely solely on the 7 June 2020 mandate date for Version 2 ADS-B fitment. With such change, the forward fitment mandate date recommended in the APANPIRG conclusion will be two years earlier than the European ADS-B mandate. Hence, there is a need to review and amend APANPIRG conclusion.

3.12 The meeting agreed to propose shifting the forward-fit mandate date to be aligned with the U.S. fitment date. Hence, the meeting endorsed the following draft Conclusion:

Draft Conclusion CNS SG/22/14 (SURICG/3/1) ATM/SG/6-X Revised ADS-B Version 2 ADS-B Out Forward Fit Equipage	
That, States/Administrations in APAC Region be strongly encouraged to mandate that registered aircraft with a maximum certified take-off mass exceeding 5 700 kg or having a maximum cruising true airspeed capability greater than 250 knots, with a date of manufacture on or after 1 January 2020 be equipped with ADS-B avionics compliant with Version 2 ES (equivalent to RTCA DO-260B) or later version. This Draft Conclusion supersedes Conclusion APANPIRG 26/44	Expected impact: ☐ Political / Global ☒ Inter-regional ☒ Economic ☐ Environmental ☒ Ops/Technical
Why: Alignment with United States and (revised) European dates.	Follow-up: ☐ Required from States
When: 17-July-2018	Status: Draft to be adopted by PIRG
Who: ☒ CNS Sub group ☒ APAC States ☒ ICAO APAC RO ☐ ICAO HQ ☐ Other: XXXX	

CNS SG/22/16 - (Review of ADS-B Specific Phraseologies (WP/14))

3.13 New Zealand proposed a review of DOC 4444, Chap 12, 12.4.3 ADS-B Phraseologies. The current ADS-B Phraseologies in the PANS-ATM can, and do generate confusion to both pilots and ATC and unnecessary RTF. It was therefore proposed, where the functionality for MODE S and ADS-B is derived from the same source the phraseologies used must be the same for both i.e. using SSR phraseologies to avoid confusion.

3.14 In 2014, IATA presented WP7 to ADS-B SITF/13 on issues identified with ATC ADS-B phraseologies, for which flight crew had no method to comply. As the result of discussion by ADS-B SITF/13 meeting, a review and amendment was made to the ICAO APAC ADS-B Implementation and Operations Guidance Document (AIGD), Section 9.9 Phraseology. Accordingly, DOC4444, Ed 16, Chapter 12 Phraseologies, para 12.4.3, to identify “IF” and “WHAT” ADS-B phraseologies should be removed.

3.15 Where ICAO elects to retain specific ADS-B phraseologies, there should be clear guidance to Controllers and/or Pilots on the use of the phraseology, given that the ability to determine aircraft ADS-B transmitter functionality is not available to either Controllers or Pilots through current flight planning, aircraft or ATM systems.

3.16 IATA and Kiribati strongly support the proposal to remove confused phraseologies or adding explanatory notes to PANS-ATM. Accordingly, the meeting endorsed the following draft Conclusion for further consideration by ATMSG/6 meeting:

Draft Conclusion ATM/SG/6-X- Proposal for amendment to PANS-ATM (Doc4444) on ADS-B related Phraseologies (WP/14)	
What: Recognizing that: 1. where system functionality is derived from the same source for both MODE S SSR and ADS-B the phraseology used between ATC and pilots should be the same; 2. in almost all cases, pilot interfaces with the ADS-B system through the SSR transponder interface; and 3. the use of ADS-B-specific phrases may cause confusion between pilots and ATC ICAO be invited to amend PANS-ATM to remove the following phrases from PANS-ATM: 12.4.3.5 “RE-ENTER ADS-B AIRCRAFT IDENTIFICATION” 12.4.3.7 “TRANSMIT ADS-B IDENT” 12.4.3.10 “STOP SQUAWK TRANSMIT ADS-B ONLY” or “STOP ADS- B TRANSMISSION, SQUAWK (CODE) ONLY” 12.4.3.11 “TRANSMIT ADS-B ALTITUDE” 12.4.3.13 “STOP ADS-B ALTITUDE TRANSMISSION [(WRONG INDICATION, or reason)]”	Expected impact: Expected impact: ☐ Political / Global ☒ Inter-regional ☐ Economic ☐ Environmental ☒ Ops/Technical
WHY: Where functionality is derived from the same source for both MODE S and ADS-B, a common phraseology SHALL be used. Using different phraseologies for the same function generates confusion for both ATC and Pilot, resulting in unnecessary RTF congestion.	Follow-up: ☒ Required from States/Administrations
When: 7-Sep-18	Status: Adopted by PIRG
Who: ☒ Sub groups ☒ APAC States ☒ ICAO APAC RO ☒ ICAO HQ ☐ Other:	

CNS SG/22/17 - (Application of RNAV 2 to the surveillance airspace in PARS Phase II (WP/17))

3.17 The Secretariat presented the survey result on RNAV 2 and RNP 2 navigation specification implementation. The result showed that 7 out of 9 States/Administrations agreed to allow the use of both RNP 2 and RNAV 2 navigation specification during in the Preferred Aerodrome/Airspace and Route Specification (PARS) Phase II, which ends 02 November 2022. In addition, 5 responses answered more than 90% of their aircraft were capable for RNP2 operations while 3 responses were less than 20%. Regarding RNP2 operational approval status, one responded more than 90% of approvals while others were less than 50% including 4 with no RNP2 approvals. For the intention of RNAV 2 implementation in Category S airspace, 2 States preferred RNP2 implementation while the others answered they would implement or consider RNAV2 implementation.

3.18 Considering the expected difficulty in implementing RNP 2 navigation specification in PARS Phase II that begins on 07 November 2019, the Secretariat proposed to amend the paragraph 7.24 of Asia/Pacific Seamless ATM Plan, which contains RNP2 implementation in PARS Phase II as follows:

7.24 All en-route controlled airspace should be designated as being exclusive PBN airspace ~~with mandatory carriage of GNSS~~ utilizing RNAV and RNP navigation specifications, except for State aircraft. Such implementation mandates should be harmonized with adjacent airspace. PBN ATS routes should be established in

accordance with the following specification:

- Category S airspace – RNAV 2 or RNP 2
- Category R ~~and S~~ airspace – RNP 2.

Note: the Asia/Pacific recognizes an equivalency for RNP 2 as being an aircraft approved for RNAV 2, RNP 1 and with GNSS. Prior to the ICAO standard flight plan being updated to recognize RNP 2, States should ensure that aircraft operators with RNP 2 approval file designator 'Z' in field 10 and 'NAV/RNP2' in field 18.

3.19 The meeting considered the proposal and endorsed the following Draft Conclusion. The meeting also asked the Secretariat further to coordinate with the ATM Sub Group.

Draft Conclusion CNS SG/22/17 – Amendment of Asia/Pacific Seamless ATM Plan Version 2 (WP/17)	
What: Recognizing the expected difficulties in implementing RNP2 navigation specification in the Preferred Aerodrome/Airspace and Route Specification (PARS) Phase II, which begins on 7 November 2019, That, Asia/Pacific Seamless ATM Plan Version 2 be amended as proposed in paragraph 7.2 of the report to include RNAV2 in Category S airspace.	Expected impact: ☐ Political / Global ☐ Inter-regional ☐ Economic ☐ Environmental ☒ Ops/Technical
Why: It was recognized that some States are not ready to implement RNP2 navigation specifications mainly because of RNP 2 fleet readiness and the lack of regulation and competency on RNP 2 operational approval.	Follow-up: ☐ Required from States
When: 30-Sep-19	Status: Draft to be adopted by ATM Sub Group
Who: ☒ ATM Sub groups ☐ APAC States ☒ ICAO APAC RO ☐ ICAO HQ ☐ Other:	

Actions and information for ATM/SG

3.20 In addition, the CNS SG/22 meeting also discussed and indorsed **IP/02** prepared by SURICG/Australia regarding Mode S conspicuity Code. It is a working paper for ATM SG/6 meeting to be presented by the Co-chair of SURICG.

3.21 The ATM/SG 6th meeting being held again after CNS SG, therefore the meeting is invited to discuss what for the subgroup would be the most efficient option regarding ATM requirement for CNS facility/services as well as the coordination with CNS SG.

3.22 The next meeting of the CNS Sub-group (CNS SG/23) is scheduled for 8 to 12 July 2019 in ICAO APAC Regional Office, Bangkok, Thailand. The scheduled dates will be confirmed at APANPIRG/29.

4. ACTION BY THE MEETING

a) The meeting is also invited to note the updated ATN/AMHS/AIDC implementation status provided in **Appendix A** and ADS-B Implementation Status in **Appendix B** to this paper;

b) The meeting is also invited to consider to endorse the draft Conclusions in section

3 of this paper for further consideration by APANPIRG;

- c) Note information in paragraph 3.20 and other information; and
- d) Discuss any relevant matters as appropriate.