



*International Civil Aviation Organization*

**ICAO PBN Seminar 2015**

Bangkok, Thailand, 08-10 June 2015

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**KEYNOTES OF ICAO REGIONAL PBN SEMINAR**

The ICAO PBN seminar 2015 gathered 103 participants from 22 APAC States/Administrations, IATA, including 8 airlines, IBAC, ICAO, IFALPA, industry (Airbus, Boeing, EGIS, Honeywell, NEC), aviation academies (Singapore Aviation Academy , ENAC) and consultants.

Key points of the ICAO PBN seminar 2015 are as follows:

1. Recognizing a need for PBN Operational Approval training for new PBN navigation specifications, such as RNP 2 and Advanced RNP, ICAO is invited to consider providing such training.
2. With regard to flight operational approval, APAC States and operators are recommended to consider establishing readiness timeline for RNP 2 operation.
3. The Seminar notes the current progress of PBN implementation within the APAC Regions and urges all States to continue moving forward with the implementation effort and reporting their implementation progress and challenges to ICAO, especially for the targets detailed in A37-11 and APAC Regional Priorities and Targets. Additionally, States without PBN plan are also urged to address this issue as a matter of urgency.
4. Noting the criticality of data quality for PBN operations, all APAC States are invited to review their WGS-84 implementation and survey status. APAC States are also invited to include metadata to each WGS-84 surveyed data to record the history and method of the survey.
5. ICAO is invited to develop a guidance material for surveying and data requirement for procedure design.
6. In line with A37-11, all APAC States are urged to expedite the update and publication of their State PBN plan and to consider including airlines and business aviation users into the consultation process while developing/updating the State PBN plans.
7. ICAO is invited to consider arranging an educational conference on advanced applications of PBN, including deployment and approval of RNP AR, implementation of closely-spaced PBN routes, Advanced RNP applications and other advanced ATM operations enabled by PBN.
8. APAC States are invited to consider adopting the Airspace design processes as detailed in Doc 9992 and ensuring that all required stakeholders are included in the process so that operation benefits can be derived from every PBN implementation. This airspace design process shall include a proper safety assessment and should be conducted with a good project management practice.
9. During the Seminar, APAC States indicated the need for training decision makers and executives who make decisions about the funding of PBN implementation projects
10. APAC States are invited to conduct business case for PBN implementation in coordination with airlines, ANSPs and airspace users and ICAO to develop an example business case

11. The Seminar recognizes the need to expedite the development of SARPS for ELSO and parallel approach operations for GLS and RNP.
12. The Seminar recognizes the needs to improve the FPL format for PBN to enhance the retrieval of information by ATC and accommodate new PBN navigation specifications, such as RNP AR departure and Advanced RNP.
13. ICAO and APAC States are invited to improve the process for PBN ops approval and APAC States are invited to expedite the approval as much as applicable. APAC States should also consider giving a high priority and sufficient resource for training and re-training Ops inspector on PBN Operational Approval.
14. The Seminar notes PBN implementation assistances which have been made available to APAC States by ICAO and invites APAC States to consider requesting implementation assistance as appropriate.
15. The Seminar notes the need for more PBN trainings, including Procedure Design and Ops Approval trainings for RNP AR and Procedure Design trainings for SBAS and GLS.
16. Regulators are invited to assure that the inclusion of proficiency requirements for pilots for appropriate PBN operations is ensured prior to granting PBN Operation approval. In some case, such as RNP APCH and RNP AR APCH, pilot simulation trainings should be considered as a training requirement. In this respect, ICAO is invited to include this aspect, along with other PBN-related regulatory issues, into future USOAP protocol questions.
17. ICAO RSO is invited to coordinate with Airbus and Boeing to summarize fleet readiness status for PBN and GLS into one table.
18. ICAO Panels are invited to expedite the standardization of necessary PBN-related phraseology to support PBN operations in all phases of flight.
19. APAC States are recommended ensure the proficiency of procedure designers is meeting the competency requirements as outlined in the Quality Assurance Manual (Doc 9906) and ICAO is invited to potentially consider related licensing standards.
20. Noting the progress of certification process of SBAS systems in APAC Regions, APAC States and operators are invited to evaluate the costs and operational benefits through business cases as appropriate
21. Industry is invited to consider implementing ionospheric threat models once available in APAC Regions
22. APAC States are invited to consider using the Safety Assessment Check lists, once available, as part of the Safety assessment activities for new PBN procedures.
23. APAC States and the participants of the Seminar are invited to take home the lessons learnt and success stories from other States and PBN partners and share this information with their PBN teams to support future PBN implementations.

**Key notes will be reviewed by the Asia Pacific PBN Implementation Coordination Group second meeting (PBNICG/2) on 12 June 2015 for appropriate follow-up.**