

**STATUS OF IMPLEMENTATION  
 TASKS LIST – PBN Task Force**

No.	Tasks/Strategy	Category	Status
C4/1	The APAC PBN TF encourages States to consider the GO Team visit.	Implementation	<p><b>On-going.</b> States are encouraged to consider the GO Team visit as required.</p> <p><u>Status</u>  <b>From 25-27 August 2010, the first ICAO/IATA PBN Go-Team was successfully conducted in Thailand.</b></p> <p><b>PBN/TF/7–IP/6 provides the details of the visit.</b></p>
C4/2	The APAC PBN TF requests the Global PBN Task Force to consider providing assistance to States which currently are at the early stage of PBN implementation.	-	<b>Closed.</b>
C4/3	The APAC PBN TF agrees to provide progress report of PBN implementation in the Asia-Pacific to the Global PBN Task Force	-	<b>Closed.</b> The PBN TF has provided progress report to the Global PBN Task Force.
C4/4	The APAC PBN Task Force requested that the Interim Edition (V '0.2') of the Regional PBN Implementation Plan be presented at the ATM/AIS/SAR/SG/19 Meeting (June 22-26, 2009) for review as required by APANPIRG/19.	-	<b>Closed.</b>

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No.	Tasks/Strategy	Category	Status
C4/5	The APAC PBN TF agrees to continue an annual review of the Asia-Pacific Regional PBN Implementation Plan	Reporting	<p><b>Routine</b></p> <p><b>Status</b>  <b>PBN/TF/6 reviewed APAC Regional Implementation Plan.</b></p> <p><b>CNS/MET/SAR SG/14 recommended adoption of V. 2 by APANPIRG/21</b></p>
A4/6	Develop an up-to-date archive of all relevant guidance materials for each PBN implementation step as outlined in the PBN manual	-	<p><b>Closed.</b> Information on relevant guidance materials is currently available and can be downloaded from ICAO PBN web site. (<a href="http://www.icao.int/pbn">http://www.icao.int/pbn</a>) The Secretariat also provided a CD containing important PBN guidance and resource materials.</p>
A4/7	Arrange future annual PBN implementation seminars to serve as a forum for exchanging expertise and implementation experiences and invite interested States who would like to host future seminar to make a formal proposal at the next PBN TF meeting and to invite industry representatives to attend the seminar	Education	<p><b>On-going.</b> The PBN TF/5 accepted Hong Kong's offer to host the second PBN Seminar, planned for Feb 2010, subjected to APANPIRG approval.</p> <p><b>Status:</b>  <b>Vietnam and Thailand have offered to host future PBN seminars.</b></p>
C4/8	In respect to the request by COSCAPs regarding the development of guidance material for APV, the APAC PBN TF recognized the work currently being conducted by the Global PBN TF to develop and review materials on the issues of APV and Non-Precision Approach as related to PBN	-	<p><b>Closed.</b></p>

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No.	Tasks/Strategy	Category	Status
C4/9	The ICAO APAC PBN TF recommends that the PBNSG continue to review and revise the PBN Manual to achieve a more hierarchical and easily used structure to minimize the number and complexity of the airworthiness approvals required for PBN operations. The GPBNTF is considered to be an organization well placed to advise ICAO Regions on harmonization and the development of common standards	-	<b>Closed.</b> PBNSG noted the request from the APAC PBN TF. Materials and suggestions on structure of the PBN manual have been forwarded to PBN SG. Updated version of the PBN manual would be available in the second quarter of 2010.
C4/10	The APAC PBN TF agrees to continue coordination with other regional PBN task forces and the Global PBN Task Force to ensure harmonization of PBN implementation	Planning	<b>On-going.</b> Report on Global PBN Task Force activities are presented and noted by PBN TF/5.
A4/11	States are requested to provide progress report regarding PBN implementation at each Task Force meeting	-	<b>Closed.</b> Transferred to Action Item 5/08
A4/12	Mandate States to present their PBN Implementation Plan and to provide progress reports on the development of the State Plan at the <b>each</b> PBN TF meeting	Planning	<p><b>Routine.</b> States are requested to provide report on the developments of State PBN Implementation Plans.</p> <p><b>Status:</b> <b>As of 31 August 2010</b> <b>21 State Plans received.</b></p> <p><b>Plans reviewed and comments being provided.</b></p> <p><b>After PBN/TF/6 Progress Reports provided by 9 States</b></p>
A4/13	Request the Task Force Chairperson and Rapporteurs to develop a common template for State PBN Implementation Progress Report to be reviewed by the next PBN TF meeting	-	<b>Closed.</b> The TF/5 agreed on the report template.

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C4/14	The APAC PBN TF agreed to develop a regional PBN progress report to be reported annually to CNS/MET and APANPIRG and to be posted on ICAO APAC and ICAO Global PBN web site	Reporting	<b>Routine.</b>
A4/15	Request ICAO Headquarter to provide a presentation on the requirement for safety assessment for PBN implementation and overview of how to conduct proper safety assessment at future PBN TF meetings	Education	<p><b>On-going.</b> The TF referred to the PBN SG for the development of safety assessment criteria.</p> <p><b>Status:</b> <b>Issue Form sent to HQs</b></p> <p><b>ANC Action:</b> <b>To address this PBN issue through appropriate ANC Panels and Study Groups</b></p>
C4/16	The APAC PBN Task Force considers itself a suitable forum to facilitate and harmonize terminal and en-route PBN implementation in the Asia Pacific Region. Therefore, the Task Force requests APANPIRG to consider adding the following task into the Task Force's TOR. <i>“Facilitate and coordinate the harmonized implementation of PBN for terminal and en-route applications in the Asia Pacific Region”</i>	-	<b>Closed.</b> APANPIRG/20 has a decision to establish a Route Review Task Force.
A4/17	Recognizing that the PBN planning activities for the Asia-Pacific are nearing completion and acknowledging the Task Force's willingness to support actual PBN implementation, the APAC PBN Task Force request working papers regarding revision of the Task Force's work structure to be submitted for consideration at PBN TF/5. Members of the PBN TF are encouraged to coordinate intersessionally to prepare the working papers.	Implementation	<b>On-going.</b>
A4/18	Request ICAO to provide status report of the work by PBNSG, SASP and IFPP	-	<b>Closed.</b>
C5/01	Confirmed the likely inability of many APAC states to meet the APV implementation goals of Assembly Resolution A 36-23 within the required timeframe. The PBN/TF/5 meeting requested that, APANPIRG while taking note of the limitation of many of the APAC States, consider conveying the same to ICAO with the recommendation that the Resolution be reviewed.	Planning	<b>On-going.</b>

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C5/02	As the authorized GNSS Service Areas, in which SBAS based APVs may be implemented are very limited in coverage, the PBN/TF/5 meeting requests that APANPIRG consider the feasibility of establishing a regional SBAS capability to support all aircraft types.	-	<b>Closed.</b> CNS/MET will consider the feasibility of establishing a regional SBAS capability.
C5/03	That, the concern raised by the US GAO report was noted; and this concern be forwarded to APANPIRG and ICAO HQs.	-	<b>Closed.</b> US Government has guaranteed availability of minimum GPS constellation in writing to ICAO HQ.
C5/04	The PBN/TF/5 meeting recommends that the PBN Study Group review the current PBN GNSS reporting and prediction requirements with a view to establishing common implementation rules and technical standards for such requirements.	Implementation	<p><b>On-going.</b> APANPIRG Conclusion 20/37 invites ICAO to develop the guidance materials.</p> <p><b>Status:</b> <b>Issue Form raised</b></p> <p><b>ANC Action:</b> <b>To address these PBN issues through appropriate ANC Panels and Study Groups.</b></p>
C5/05	That, APANPIRG consider tasking the PBN TF with examining the feasibility of establishing a regional RAIM prediction system.	-	<b>Closed.</b> APANPIRG Conclusion 20/38 tasks the PBN TF with examining the feasibility of establishing a regional RAIM prediction system.
C5/06	That, the PBNSG consider the proposal to develop Guidance Material that provides a means to assign PBN capability to GPS IFR aircraft in the first instance without the need for recertification.	Education	<p><b>On-going.</b> APANPIRG Conclusion 20/37 invites ICAO to develop the guidance materials.</p> <p><b>Status:</b> <b>Issue Form raised.</b> <b>Same as C5/04</b></p>

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No.	Tasks/Strategy	Category	Status
C5/07	That, States distribute the RNAV safety message and emphasize on all operators involved in RNAV to apply the lessons learnt on Human Factor issues, as discussed in the paper presented by New Zealand on RNAV Human Factors and System Safety.	-	<b>Closed.</b> APANPIRD Conclusion20/39 distributes the Report to the States for further distribution to all operators.
C5/08	That, States / Administrations be requested to use the PBN Implementation Progress Report Template for all future reporting on their status of PBN implementation. The Report should be submitted at each of the future PBN Task Force Meeting.	Reporting	<b>Routine.</b>
C5/09	That, States / Administrations be requested to submit their PBN Implementation Progress Report by 15 August 2009 for onward submission to APANPIRG/20 Meeting scheduled to be held from 7 – 11 September 2009.	-	<b>Closed.</b>
C5/10	That, the APAC Regional PBN Implementation Plan (Interim Edition Version 0.3) be presented at the APANPIRG/20 for approval.	-	<b>Closed.</b> APANPIRG Conclusion 20/41 adopted the APAC Regional PBN Implementation Plan (Interim Edition Version 0.3) as Version 1.0
C5/11	That, APANPIRG consider in conjunction with the proposal to establish a SEA RR/TF, acquiring the necessary resources to establish a Regional PBN Office or a dedicated Project to design PBN based regional air routes and facilitate their adoption by the States in the APAC region.	-	<b>Closed.</b>
C5/12	That, the PBNSG be requested to provide guidance on any PBN-specific aspects of en route safety assessment.	Education	<b>On-going.</b>  <b>Status:</b> <b>Issue Form raised.</b> <b>Same as C5/04</b>
C5/13	That, presentation(s) on Safety Assessment be included in the Agenda for the PBN Implementation Seminar to be held in Hong Kong in February 2010.	-	<b>Closed.</b>

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No.	Tasks/Strategy	Category	Status
C5/14	That, ICAO kindly assist with addressing the PBN safety assessment training needs in the region.	Education	<b>On-going</b>  <b>Issue Form raised.</b>  <b>ANC Action:</b> <b>To address this PBN issue through appropriate ANC Panels and Study Groups</b>
C5/15	Urged States to give detailed considerations to the operational need, safety and cost benefits prior to deciding on RNP AR Approach implementation.	-	<b>Closed.</b>
C5/16	That, APANPIRG agree to the PBN Task Force activities continuing for two additional meetings in the first half of 2010 using the Task Force's current TORs.	-	<b>Closed.</b>
C5/17	That, ICAO be requested to consider providing an annual summary of panel and working group activities to allow proper coordination amongst different groups (PBN/TF/4 Action Item 4/18)	Reporting	<b>Routine.</b>
A6/1	States are encouraged to consider implementing CDO in accordance with ICAO CDO Manual Doc 9331 on as many STARS as practicable to enhance fuel efficiency, ease pilot and ATC workloads, and reduce emission and noise.	Implementation	<b>States.</b>  <b>On-going</b>
A6/2	States are encouraged to attend to ICAO PBN Airspace Design Workshop in 19-22 April 2010 to enhance their expertise with airspace design relating to implementation of PBN	Education	<b>Workshop conducted at SAA, Singapore, 28 June - 1 July 2010</b>  <b>38 Participants from 15 States and 3 Int'l org.</b>  <b>CLOSED.</b>

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No.	Tasks/Strategy	Category	Status
A6/3	States are encouraged to attend CDO workshop to be hold in Bangkok on the week of March 15 in conjunction with IFPP meeting.	Education	<b>ICAO Continuous Descent Operations Briefing at Bangkok, 22 Mar 2010</b>  <b>59 participants</b> <b>11 States</b>  <b>CLOSED</b>
A6/4	IATA is requested to provide the progress on the development of global database for PBN approval at the PBN TF/7 Meeting.	Implementation	<b>IATA to provide details</b> <b>On-going</b>
A6/5	States are requested to list the challenges and impediments for PBN implementations to be reported at the PBN TF/7 Meeting.	Implementation	<b>Routine</b>  <b>States.</b> <b>ROK Paper</b> <b>HK Paper</b> <b>Safety Assessment</b>
A6/6	A harmonization analysis report on State PBN Implementation Plans to be developed by IATA and volunteering States (Australia, Hong Kong, New Zealand and Thailand) and reported to the PBN TF/7 Meeting.	Planning	<b>21 State Plans reviewed</b>  <b>7 Robust</b> <b>5 Marginal</b> <b>9 Incomplete</b>  <b>CLOSED</b>
A6/7	States are requested to review the draft PBN Operational Approval Handbook and provide feedback at future PBN TF meetings. States are also invited to contribute relevant material to be integrated into the Handbook.	Implementation	<b>Nil comments received</b>  <b>Handbook finalized.</b> <b>Presented by COSCAP at PBN/TF/7</b>  <b>CLOSED</b>

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No.	Tasks/Strategy	Category	Status
A6/8	States are encouraged to participate in the PBN Operational Approval Training to be conducted under the auspices of COSCAPs in Singapore on during 26-30 April 2010. Invitation will be issued to select States by COSCAPs.	Education	<p><b>Singapore 26 - 30 April</b>  <b>29 Participants</b>  <b>11 States</b></p> <p><b>Brisbane 7 – 11 June</b>  <b>16 Participants</b>      <b>5 States</b></p> <p><b>PBN Operational Approval Familiarization Workshop Bangkok, 30-31 August</b></p> <p><b>23 Participants</b>  <b>8 States</b></p> <p><b>CLOSED</b></p>
A6/9	ICAO Regional Office to inform IFPP, PBNSG and APANPIRG limitation of older FMS in inputting procedure identification within 6-digit alphanumeric. This limitation occurs when pilots attempt to select specific approach for an airport that has multiple runways and each of runways has multiple approach procedures of the same type of navigation system. ICAO is requested to provide guidance and standardized solution to the issue.	Implementation	<p><b>ICAO: The limitation of older FMS only capable of putting 6 digits alpha numeric should be addressed by education and training of pilots.</b></p> <p><b>It is therefore recommended that PBN ops approval documentation in ICAO is amended to emphasize this issue.</b></p> <p><b>CNS/MET Draft Conclusion <u>14/15</u></b></p> <p><b>CLOSED</b></p>

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No.	Tasks/Strategy	Category	Status
DC6/10	The proposed revision to the APAC Regional PBN Implementation Plan as shown in Appendix 'F' of the PBN TF/6 Meeting report be adopted.	Planning	<p><b>CNS/MET SG/14 recommended V. 2 be adopted by APANPIRG/21</b></p> <p><b>CNS/MET Draft Conclusion <u>14/14</u></b></p> <p><b>CLOSED</b></p>
DC6/11	ICAO provides guidance on aircraft that do not have a lateral and vertical readout on the navigation display, but do display the lateral and vertical profile on the navigation equipment, could be considered as alternate means of compliance if supplemented by appropriate flight crew training for RNP value of 0.3 RNP or greater.	Implementation	<p><b>ICAO: It is agreed that for older aircraft that do not have lateral and vertical readout for RNP 0.3 or greater on the navigation display (ND), alternative means of compliance should be available.</b></p> <p><b>This will need to be addressed in the PBN manual, and more in detail for the upcoming ICAO guidance material on OPS approval.</b></p> <p><b>For the Asia-Pacific Region, the PBN Ops Approval Handbook needs to emphasize this aspect as well</b></p> <p><b>CLOSED</b></p> <p><b>CNS/Met Draft Conclusion <u>14/18</u></b></p>

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DC6/12	Request CNS/MET SG, ATM/AIS/SAR SG, and APANPIRG to review and consider amending the APAC Performance Monitoring and Measurement Metrics 2 and 3 for PBN to include specific measurements that capture operational benefits in terms of PBN's ability to help fulfill strategic objectives (safety, efficiency, capacity, access, and the environment).	Planning	<b>CNS/MET Draft Conclusion <u>14/19</u></b>  <b>CLOSED</b>
A6/13	ICAO Secretariat to identify the appropriate office or forum that would be best suited to develop a standardized calculation and reporting method for States. This would include a mathematical model to ensure environmental benefit calculations are standardized.	Reporting	<b>ICAO: ICAO HQ is currently in the process of developing standardized metrics for Environmental benefits obtained from ATM operational improvements including PBN.</b>  <b>See CNS/MET SG/14 <u>Report</u>. Paras 3.4.83 to 3.4.87</b>  <b>CLOSED</b>
D6/14	The PBN TF agrees to integrate its Implementation Task List into the PBN Task Force Task List and updates the PBN Task Force Task List as shown in an Appendix of the Meeting Report.	-	<b>Closed.</b>  <b>TASK LIST recommended for adoption by CNS/Met SG/ 14.</b>  <b>Draft Conclusion <u>14/14</u></b>  <b>CLOSED</b>
A6/15	ICAO Secretariat to provide an update report on PBN TF activities to ICAO Route Review TF. The PBN TF also requested that activities of the RR TF to be reported to the PBN TF.	Coordination	<b>On-going</b>
A6/16	States / Administrations to submit their PBN Implementation Progress Report by 20 February 2010 for onward submission to APANPIRG/21 Meeting.	Reporting	<b>CLOSED</b>

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D6/17	The PBNTF agrees in principle to the establishment of a regional RAIM prediction system and cooperation between the ICAO PBN TF and the APEC GIT. Australia, India, Japan and USA also agreed to be part of the project team.	Implementation	<p><b>ICAO: The establishment of a regional RAIM prediction system is encouraged, however such a system would only provide conservative predictions based on GNSS stand-alone systems.</b></p> <p><b>RAIM is namely one of the several methods of integrity monitoring, and aircraft on commercial operations generally are fitted with more advanced predictions systems.</b></p> <p><b>Although these type of operations could benefit from this relative conservative prediction system, Operators are encouraged to have a service that will address the more advanced GNSS installations so as to improve the dispatch rate.</b></p> <p><b>Ref. CNS/MET SG/14 Report Para 3.4.69</b></p> <p><b>CLOSED.</b></p>
A6/18	The PBN TF requests AEROTHAI in conjunction with the project team to develop more detailed technical architecture, operational concepts, and administrative arrangements to be reviewed by the Task Force at the PBN TF/7.	Implementation	<p><b>On-going</b></p> <p><b>Working Paper 11</b></p> <p><b>Report PBN/TF/7</b></p>
A6/19	States are requested to develop Working Papers on back up requirements for PBN to be discussed at the PBN TF/7 Meeting.	Planning	<p><b>States.</b></p> <p><b>On-going</b></p>

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A6/20	Working Paper PBN/TF/6 – W/7 be forwarded to the Flight Plan and ATS Messages Implementation Task Force (meeting now to be held in July 2010).	Coordination	<b>Forwarded</b> <b>CLOSED</b>
A6/21	States be requested to review the requirements of the State Letter on the implementation of the interim 2012 flight plan format in the context of PBN implementation and report to the PBN TF 7 meeting issues noted.	Implementation	<b>States</b> <b>CLOSED</b>

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