



International Civil Aviation Organization

**FOURTEENTH MEETING OF THE
COMMUNICATIONS/NAVIGATION/SURVEILLANCE
AND METEOROLOGY SUB-GROUP OF
APANPIRG (CNS/MET SG/14)**



Jakarta, Indonesia, 19 – 22 July 2010

Agenda Item 5: Navigation

REPORT OF THE PERFORMANCE BASED NAVIGATION (PBN) TASK FORCE

(Presented by PBN Task Force Chair)

SUMMARY

This report covers the activities of the PBN Task Force and PBN related work over the previous twelve months, summarizes outcomes and make recommendations as the status of the Task Force.

This paper relates to

Strategic Objectives:

- A. Safety – Enhance global civil aviation safety
- D. Efficiency – Enhance the efficiency of aviation operations
- E. Continuity – Maintain the continuity of aviation operations

Global Plan Initiative:

- GPI-5 RNAV and RNP (Performance-based navigation)
- GPI-11 RNP and RNAV SIDs and STARs
- GPI-21 Navigation systems

1. Introduction

1.1 The PBN Task Force was planned to hold two meetings in the previous 12 months. However only the PBN Seminar and Task Force meeting conducted was that held in Hong Kong in February 2010. The second meeting has been postponed until September, 2010 in Bangkok. The full PBN TF/6 minutes and those of previous meetings can be found on the ICAO Regional web site. http://www.icao.or.th/meetings/2010/pbn_tf6/pbn_tf6rpt.pdf

2. Discussion

2.1 There has been considerable world-wide progress on the implementation of PBN since the ICAO Assembly resolution A36-23 of September, 2007. The initial PBN Manual has been published and the ICAO HQ PBN Study Group is in the process of finalising the latest update to that manual. The various ICAO regional groups have all established PBN Task Forces and these have led the local work to progress the PBN initiative.

2.2 Within APANPIRG the Regional PBN Implementation Plan has been completed and endorsed and a number of States have completed their PBN Plans. In addition the Task Force and other agencies, such as COSCAP and IATA have completed a range of seminars and training courses and have also plus produced other PBN guidance and educational material. Work has also progressed on APV implementation as required by the Resolution. Through the APAC recognition of shortfall in procedure design capability, the Flight Procedures Program is established and operational in Beijing.

2.3 While there have been some commendable efforts made by many ICAO staff, States, organisations and individuals, the task to meet the PBN Resolution requirements is in no way completed. Many States in the region have yet to produce a creditable PBN Implementation Plan and very few, if any, have the underlying regulatory material in place that is necessary to put those plans into practice and few city-pair based air-routes are in place. A paper, to be presented at this meeting, will provide an analysis of the currently presented plans and make recommendations for further progression. There is a recognised need for further PBN training and practical support in developing and implementing State guidance across the world.

2.4 APAC, at its various fora, has also recognised practical issues with Resolution A36-23 and some papers are expected on this at the forth-coming ICAO Assembly meeting in Montreal in October, 2010.

2.5 At the recent ICAO Navigation Systems Panel (NSP), a project was initiated to update the GNSS Manual. As part of this work, States have been asked to identify hurdles that have limited the transition to GNSS based navigation. These and similar hurdles are directly applicable to PBN progression.

2.6 In summary, given the short timeframe and complexity of PBN and the associated APV initiatives, PBN is still very much a work-in-progress both at a State level and in a regional implementation context. Developments at an ICAO HQ level and within other Panels such as the NSP also will require co-ordination with PBN activities.

3. Future of the PBN Task Force

3.1 APANPIRG at present has endorsed the PBN Task Force up to and including the meeting proposed for 1-3 September, 2010 in Bangkok. Its extension beyond needs to be discussed at this meeting and recommendations made to APANPIRG planned for September, 2010.

3.2 Without wishing to pre-empt discussions at this meeting the following points are made:

- a) As noted PBN activities are still at an early stage around the world. There is still developmental work being done on the Manual and its associated standards, such as RNP 2.
- b) There will be discussion on the PBN resolution at the Assembly Meeting in October and this could result in modifications that have impact on regional implementation plans with the possible addition of RNAV (GNSS) as a transition to APV.
- c) There is an identified need for significant further work on support to individual States, regional implementation and education in PBN.
- d) APV implementation is very much at an embryo stage and the full implications of the capacity of the region to meet the APV implementation timeframes in any form have yet to be recognised.

3.3 Given these points and no doubt others that will be raised at this meeting, a suggested

future for the PBN Task Force is that the Task Force be ongoing with two meetings per year but with an emphasis on education, training and support to States and projects to assist with PBN based air-routes and APV development. If this focus is accepted, then at least one of the yearly meetings should include a two day PBN seminar followed by planning workshops to cover the areas identified in the State PBN Plans review paper. Additionally, the PBN Task Force participants would be encouraged actively support other agency initiatives across the region.

4. Action required by the Meeting

4.1 The meeting is requested to recognise the work accomplished by the PBN Task Force and the need for ongoing ICAO regional support to continue the PBN and APV tasks. Following discussion on the role and potential tasks of the PBN Task Force, the meeting develop a recommendation that the Task Force be continued in the manner suggested above.
