



International Civil Aviation Organization

THE FIFTH MEETING OF IONOSPHERIC STUDIES TASK FORCE (ISTF/5)

Okinawa, Japan, 16 – 18 February, 2015

Agenda Item 2: Review of outcome of relevant Meetings/Conferences

REVIEW OF OUTCOME OF RELEVANT MEETINGS/CONFERENCES

(Presented by the Secretariat)

SUMMARY

This paper presents the outcome of APANPIRG/25, CNS SG/18 meetings regarding ISTF activities.

1. Introduction

1.1 The Twenty Fifth Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/25) was held at Hotel Renaissance Kuala Lumpur, Malaysia from 08 to 11 September 2014.

1.2 The Eighteenth Meeting of the Communications, Navigation and Surveillance Sub-group (CNS SG/18) of Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG), was held at the ICAO Regional Sub-office (RSO), Beijing, China, from 21 – 25 July 2014.

1.3 This paper provides the ISTF 5th meeting with relevant outcomes of these two meetings.

2. Discussion

Outcomes from CNS SG/18

Current status of ISTF activities

2.1 The CNS SG/18 meeting noted Japan's presentation of the status and working plans of the Ionospheric Studies Task Force (ISTF) whose goals is to study any need for development of regional ionospheric threat models for GBAS and SBAS, to develop them if the need is identified, and to investigate the effects of space weather on CNS systems in the APAC Region.

2.2 To help ISTF achieve its goals, 6 tasks were identified as follows:

- a) identification of data source, GNSS data collection, sharing, distribution and archiving. Identification of data sharing format;

- b) Identification of analysis methodology and GNSS ionospheric data analysis;
- c) GNSS total electron content (TEC) gradient data generation;
- d) GNSS ionospheric scintillation data generation;
- e) Assessment of need for Regional GBAS and SBAS ionospheric models and development of these models if it is needed; and
- f) Analysis, based on data shared within ISTF and public information, of the effects of space weather and the concept of operations for the provision of space weather information in support of international air navigation.

2.3 The meeting noted that above Tasks (a) and (b) have been partly finished, with Tasks(c) and (d) to be launched soon. Task (e) has not been launched, and will only be initiated with outputs from Tasks (c) and (d). Task (f) has been launched and is in progress in parallel with Tasks (a) to (e).

2.4 The meeting noted that to facilitate Task (a), a data server had been installed at the Electronic Navigation Research Institute, Japan, to host the collected and analyzed data. Data from Thailand, Hong Kong China, as well as from the APEC GNSS Implementation Team (GIT) test bed had been transferred to this data server for analysis. Taking the opportunity of the CNS SG meeting, India and Philippines provided their data, which would now allow the data analysis to fully start.

2.5 Due to delay in data collection and in identifying the analysis methodology, the meeting noted that the progress of the ISTF activities was behind schedule. Potential risk in the ISTF's working plan is a lack of information on the ionospheric threat model definition used in different SBAS systems, which is usually confidential. As such, this would make it difficult to assess the need of regional model for SBAS. To mitigate this risk, information on the ionospheric threat definitions for different SBAS systems should be collected from publically available publications.

Navigation Strategy for the Asia/Pacific Region

2.6 New Zealand, working together with IATA, carried out a review of the Navigation Strategy for the Asia/Pacific Region outside the meeting and submitted update proposals for the meeting's review. Slight updates were proposed and after some discussion, the meeting agreed to adopt the updated Navigation Strategy for the Asia/Pacific Region as proposed by New Zealand and IATA and formulated following Draft Conclusion:

Draft Conclusion 18/15 - Navigation Strategy for the Asia/Pacific Region

That, the revised navigation strategy provided in Appendix Q to the Report be adopted for the Asia/Pacific Region.

APANPIRG/25 outcomes

2.7 The meeting noted the progress and updated work plan of ISTF and status of data collection activities in APAC States. Data from Thailand, Hong Kong China, as well as from the APEC GNSS Implementation Team (GIT) test bed had been transferred to this data server for analysis. Taking the benefit of the CNS SG meeting, India and Philippines provided their data, which would now allow the data analysis to fully start.

PBN implementation progress and ICAO support

2.8 The working paper presented by RSO noted that the leaders of the civil aviation community as well the GANP considered the implementation PBN as one of the highest priorities and is positively supported by all stakeholders. Currently, only 38% of all global air routes were based on PBN and only 30% of ICAO Member States were on track to meet the 2014 targets of Resolution APANPIRG/25 3.4-11 Report on Agenda Item 3.4.

2.9 ICAO in cooperation with industry partners had organized PBN symposia, workshops, Go-Team visits, training courses and learning packages, established the APAC RSO and two Flight Procedure Programmes (FPPs) to actively support PBN implementation.

2.10 To further support the implementation of PBN, the meeting adopted the following decision:

Decision APANPIRG 25/44 – APANPIRG Performance-based Navigation Implementation Coordination Group (PBNICG)

That, the APANPIRG Performance-based Navigation Implementation Coordination Group (PBNICG) be established and its Terms of Reference provided in Appendix A be adopted.

Development and adoption of a new regional air navigation plan, eANP, in 2015

2.11 APANPIRG/25 supported the action plan and adopted the following Decision:

Decision APANPIRG 25/1 – Development of the new APAC eANP

That in support to the ICAO efforts to align the regional Air Navigation Plans (ANP) with the Fourth Edition of the Global Air Navigation Plan (GANP) (Doc 9750) APANPIRG and its sub groups be invited to:

a) include the development of the APAC eANP based on the Council approved ANP template and action plan, in the work programmes of the related APANPIRG contributory bodies; and

b) present the relevant Parts of the APAC eANP to APANPIRG/26 for endorsement.

2.12 The meeting further noted that the current ANP application under SPACE (iSTARS 2.0) would be used as the basis for the development of the new eANP web-based platform with some improvements.

2.13 Appendices A, B, and C to the APANPIRG/25 Working Paper 5 presented the templates for ANP Volumes I, II and III including the procedure for amendment.

Restructuring of the APANPIRG Contributory Bodies to align its working arrangements with revised GANP

2.14 The Secretariat presented WP/13 making reference to IP/04. APANPIRG noted that in light of the performance based approach to air navigation planning and implementation there is a need to align the work programme of States, regions and ICAO. The meeting also noted that in this

regard, within the ASBU framework, due consideration should be given to planning, implementation, and performance measurement, monitoring and reporting aspects and that a project based approach for ASBU's should be applied to APANPIRG Contributory Bodies (Sub Groups, Working Groups, Task Forces) as necessary. Singapore and Japan supported the draft Decision to establish a Task force.

2.15 The meeting adopted the following decision on the establishment of a task force:

APANPIRG Decision 25/50 – APANPIRG Contributory Bodies Structure Review Task Force (ABSRTF)

That,

a) The APANPIRG Contributory Bodies Structure Review Task Force with members consisting of Chairpersons/Vice Chairpersons of APANPIRG Contributory Bodies (Sub-groups, Working Groups and Task Forces) and voluntary members nominated by States be established with the Terms of Reference presented in Appendix B to this section of the report; and

b) In coordination with the ICAO Regional Office, the Task Force undertakes a review of the Terms of Reference and activities of the APANPIRG Contributory Bodies and proposes rationalization of the APANPIRG structure to meet the changing environment to APANPIRG/26.

3. Action required by the Meeting

3.1 The meeting is invited to note the information provided in this paper, and specifically

a) to consider developing draft specific requirements to the eANP if required, as a result of the assessment of the need for Regional GBAS and SBAS ionospheric models;

b) to note the creation of PBNICG; and

c) to consider that the APANPIRG Contributory Bodies Structure Review Task Force work may propose to APANPIRG/26 to change the PIRG structure and TOR of ISTF.
