

International Civil Aviation Organization

Performance Based Navigation/Global Navigation Satellite System Task Force (PBN/GNSS TF)

Fourth Meeting (Cairo, Egypt, 02 – 04 October 2011)

Agenda Item 5: Review State PBN Implementation Plan and Go Team

UPDATE ON GO TEAM

(Presented by the Secretariat)

SUMMARY

This paper presents an update on the PBN Go Team activities.

Action by the meeting is at paragraph 3.

REFERENCE

- PBN Go Team Report

1. Introduction

- 1.1 The Global Performance-based Navigation (PBN) Task Force was created on 16 December 2008, with the objective to build upon the global and regional structures, which have already been put in place for PBN implementation, and to produce tools and enablers to facilitate and expedite the work.
- 1.2 It was identified that direct technical assistance to States would be required. In this regard, the Global PBN TF agreed to the formation of "Go Teams" as a key means of providing expertise from a pool of service provider, regulator, and industry subject matter experts to assist States with PBN implementation.

2. DISCUSSION

- 2.1 The meeting may wish to note that a PBN GO Team visit was carried out to the United Arab Emirates General Civil Aviation Authority (UAE, GCAA) from 16 20 January 2011, which was conducted by the International Civil Aviation Organization (ICAO)/International Air Transport (IATA) Global Performance Based Navigation Task Force (GPBNTF). Where the GoTeam performed an assessment on specific working areas and, in agreement with the representatives of the United Arab Emirates aviation community (General Civil Aviation Authority, air navigation service providers, airport authorities, airlines, military and general aviation representatives) and developed a set of recommendations to enhance the UAE national PBN implementation.
- 2.2 It was agreed that the UAE National PBN Implementation Plan would be updated in accordance with the recommendations of the Task Force. It was also agreed that the UAE would develop a detailed plan outlining the implementation steps for completion within a three year period.

- 2.3 The meeting may wish to note that the objective of the Go-Team, in close cooperation with States aviation stakeholders, is to assess the areas identified by the State in the PBN gap analysis and to provide a list of recommendations to further support PBN implementation activities.
- 2.4 In order to accomplish these tasks and better manage the available expertise within the Go-Team, a phased approach process would be followed as at **Appendix A** to this working paper.
- 2.5 The meeting may wish to note that for preparatory phases of the PBN Go-Team process that several conference calls would be conducted in order that States National PBN implementation Plans will be revised and a high level Gap Analysis are to be completed by States PBN POC (Point of Contact). Based on the analyses of the collected data a Statement of Work will developed and agreed by the State as at **Appendix B** to this working paper.
- 2.6 The meeting may wish to note that there are four main working areas that the PBN Go-Team looks into as follows:
 - a) assessment of the existing PBN operational approval process;
 - b) assessment of existing airspace concept aiming to accommodate projected traffic increase and further improve safety, capacity and efficiency;
 - c) assessment of current approach procedures Implementation and design; and
 - d) assessment of existing PBN training.
- 2.7 Based on the above, and under the scope of work for the assessment of existing PBN operational approval process the PBN Go-Team and States Participants will go through the following:
 - a) analyze operational approval processes currently in place;
 - b) assess existing approval processes against Best Practices; and
 - c) Identify potential gaps and develop a list of recommended actions.
- 2.8 Based on the above the meeting may wish to note that the Go Team Recommended that each ICAO Region develops the GO Team capabilities within the Region. Furthermore it was recommended that General Civil Aviation Authority (GCAA) be in a position of the PBN Champion in the MID Region in order to able to assist MID States in the Implementation of PBN.

Why	To have GO team capabilities in the MID Region
What	GO Team members
Who	ICAO and MID States
When	MIDANPIRG/13

DRAFT CONCLUSION 4/XX: MID PBN GO TEAM

That, MID States be urged to:

- a) assign PBN implementation experts to be member on the MID PBN GO Team; and
- b) allocate resources for the assigned member to provide support to the Region;

2.9 The meeting may wish to note that Egypt has requested a GO team visit. However it was not possible due to the limitation of resources.

3. ACTION BY THE MEETING

- 3.1 The meeting is invited to:
 - a) note the information in this working paper and its Appendices;
 - b) recommend further improvement on Appendix A and Appendix B; and
 - c) agree on conclusion in para 2.8.

APPENDIX A

GLOBAL PBN TASK FORCE – GO TEAM HIGH LEVEL PROCESS

PHASE I – SELECTION OF CANDIDATE STATE.

Key actions and considerations:

- a) Coordinate with dates and locations of Airspace Design and Operational Approval workshops;
- b) Go Team visit should be arranged only after it has been agreed that representatives from the State will participate in at least one of the FAA / Eurocontrol workshops;
- c) Authorities to formally request a Go Team visit and list priority work areas; and
- d) Details of Go Team visit to be communicated with the State.

PHASE II - DATA COLLECTION.

The following data will be collated and assessed before any visit is agreed:

- a) State PBN implementation plan (must have been developed);
- b) Assessment of current expertise (high level Gap Analyses). This includes a list of existing capabilities;
- c) Review of current PBN implementation;
- d) Identification of Airline user requirements; and
- e) Teleconference to be conducted with a representative from the State. Interview conducted jointly by IATA and ICAO.

PHASE III – GO-TEAM COORDINATION

The following information will be provided to the Go Team:

- a) High level summary of the States PBN capabilities;
- b) Priority work areas to be identified to the Go Team members:
- c) o Team members to agree on which States to visit;
- d) Work proposal to be presented to each Go-Team organization for their agreement;
- e) Hosting State to provide data as required;
- f) Hosting State to appoint a Point of Contact; and
- g) IATA and ICAO to co-ordinate Go-Team visit.

PHASE IV - GO-TEAM VISIT.

Tasks will be made accordingly the identified priority work areas:

- a) Develop a Statement of Work;
- b) Establish teams based on specific knowledge areas;
- c) IATA and ICAO to conduct a pre-meeting with POC;
- d) Hosting State to ensure broad stakeholder participation;
- e) Hosting State to provide facilities to support the visit; and
- f) Hosting State to invite as deemed appropriate, state representatives from the ICAO Regional PBN Task Force.

STATEMENT OF WORK (SOW)

ICAO/IATA GLOBAL PBN TASK FORCE

1. Overview

1.1. Introduction

This Statement of Work (SOW) outlines the tasks envisaged for ICAO/IATA Global Task Force (GPBNTF) Go-Team on support of Performance Based Navigation (PBN) implementation to XYZ State for PBN Implementation.

1.2. Scope/Objective

The overall objective of this SOW is for GPBNTF to provide high-level guidance and recommendations to enhance the PBN implementation efforts.

Utilizing best practices and available ICAO provisions, the GBPNTF will assist with the following process:

- 1) Assessment of the existing PBN operational approval process:
 - Analyze operational approval processes currently in place;
 - Process to recognize PBN operational approval from foreign operators;
 - · Assess existing approval processes against Best Practices; and
 - Indentify potential gaps and develop a list of recommended actions.
- 2) Assessment of existing airspace concept aiming to accommodate projected traffic increase and further improve safety, capacity and efficiency.
 - Assess current fleet;
 - identify existing aircraft area navigation capability; and
 - Identify Airworthiness an Operational Approvals status
 - Assess current traffic characteristics;
 - Assess available movement statistics:
 - o Arrivals:
 - o Departures;
 - o Over flights; and
 - o Sectors.
 - Identify bottlenecks and constraints.
 - Review Navigation Aid, Communication and Surveillance infrastructure;
 - Existing Navigation Aid, Communication and Surveillance infrastructure; and
 - Identify potential gaps and develop a list of recommended actions.
 - Air Traffic Management:
 - Assess current ATC SOPs (Data to be provided in advance by State);
 - Analyze existing sectorization (Data to be provided in advance by State);
 - Assess current Airspace development processes;
 - Assess the interfaces procedures between CTAs (Mainly Airports and ACC);

- Assess SIDs & STARs; and
- Identify potential gaps and develop a list of recommended actions.
- Establishment of optimized climb and descent profiles (CDOs):
 - Analyze current arrival and departure procedures (Data to be provided in advance by State);
 - Identify potential constraints;
 - Identify CDO design options; and
 - Develop a list of recommended actions.
- 3) Depending on the available time, Assessment of current approach procedures Implementation and design:
 - Assess current procedure development process;
 - Assess airports for traffic conflicts, terrain and obstacles to determine the requirement for RNP implementation and associated benefits; and
 - Identify potential gaps and develop a list of recommended actions.
- 4) Assessment of existing PBN training:
 - Assess current training;
 - Familiarization training for pilots and air traffic controllers;
 - Airspace planning; and
 - Procedure Design
 - Identify potential gaps and develop a list of recommended actions.

2. ICAO/IATA GPBNTF Responsibilities.

The GPBNTF Go-Team will be composed by a combination of ICAO and IATA representatives with selected subject matter experts from States and Industry partners.

After completion of the visit, the GPBNTF will provide a report containing all the identified process and a list of best practices and provisions to support implementation.

3 <u>States Civil Aviation Authority Responsibilities.</u>

- Provide facilities to support the visit;
- Ensure that all stakeholders involved on the PBN implementation team are represented during the visit;
- Provide access to current processes and available documentation;
- Invite as deemed appropriate, state representatives from the ICAO Regional PBN Task Force; and
- Invite National Airlines representatives.

4. Follow-up activities.

The GPBNTF Go-Team will provide 30 days after the completion of the visit a report with a list of recommendations to enhance States PBN Implementation Plan.

After States PBN Implementation Plan has been updated accordingly, it is expected that a PBN Implementation project plan for the next three years be developed, within six months, including but not limited to the following elements:

- Timeframe;
- Resources;
- Stakeholder Management Plan; and
- Risk Management Plan.

The Global PBN TF Go-Team will be available to analyze States PBN implementation project plan and advise accordingly.