



International Civil Aviation Organization

The Second Meeting of the Asia/Pacific Air Traffic Flow Management Steering Group (ATFM/SG/2)

Hong Kong, China, 1 - 4 October 2013

Agenda Item 6: Any Other Business

AIR NAVIGATION REPORTING – ASBU MODULE B0-NOPS

(Presented by the Secretariat)

SUMMARY

This paper discusses global air navigation reporting requirements for Aviation System Block Upgrade (ASBU) Module B0-NOPS, and the role of ATFM/SG/2 in developing reporting criteria

This paper relates to –

Strategic Objectives:

A: *Safety – Enhance global civil aviation safety*

C: *Environmental Protection and Sustainable Development of Air Transport – Foster harmonized and economically viable development of international civil aviation that does not unduly harm the environment*

Global Plan Initiatives:

GPI-6 Air traffic flow management

1. INTRODUCTION

1.1 The 24th Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/24, Bangkok, Thailand, 24 to 26 June 2013) discussed Regional and Global Air Navigation Reporting. The Meeting supported the plan for an online Regional Performance Dashboard in March 2014 and annual Global Air Navigation Report in April 2014

2. DISCUSSION

2.1 APANPIRG/24 was informed that the ICAO is planning to introduce regional 'Performance Dashboard' homepages for every public website of the ICAO Regional Offices. These dashboards will illustrate the regional implementation status of air navigation systems. This new interactive online system will be in place for Africa in August 2013 and for the remaining regions in March 2014, and will be updated semi-annually.

2.2 The objective of the annual Global Air Navigation Report is to assist PIRGs and States in understanding which areas require special attention to effectively improve air navigation performance worldwide as well as to help propagate information on success stories. The first edition of this Report, slated for April 2014, will also provide an opportunity for the civil aviation community to evaluate progress across different ICAO regions. The outcomes reflected in the proposed Report could also help identify annual tactical adjustment priorities for regional work programs, as well as informing longer-term policy adjustment.

2.3 The *Global Air Navigation Report* will consist of qualitative and quantitative information and cover key performance areas of air navigation systems. The report will cover among other things global air navigation challenges and implementation progress of selected ASBU Block 0 Modules. The metrics or initial dataset proposed Air Traffic Flow Management (ATFM). The initial dataset for both *Regional Performance Dashboard* and the *Global Air Navigation Report* was recently agreed by the PIRG Chairs which will be proposed for regional adoption. In terms of carrying out the task of performance measurement within the APANPIRG mechanism, the Meeting agreed to assign it to the existing subgroups.

2.4 The Meeting supported the plan for an online Regional Performance Dashboard in March 2014 and annual Global Air Navigation Report in April 2014 and adopted the following Conclusion;

Conclusion 24/3 - Regional and Global Air Navigation Reporting

That States:

- a. *support the the plan for an online Regional Performance Dashboard in March 2014 and annual Global Air Navigation Report in April 2014*
- b. *provide requisite information to the ICAO Regional Office, Bangkok to demonstrate operational improvements; and*
- c. *establish, if not yet done so, a performance measurement strategy that comprises of data compilation, processing, storage and reporting for the identified regional performance metrics for the air navigation systems.*

2.5 In line with APANPIRG's agreement that performance measurement be assigned to its Sub-Groups, the Chairs of the Sub-Groups are currently working on regional priorities and targets for inclusion in Regional and Global Air Navigation Reporting. The target date for completion of this work is March 2014

2.6 It is proposed that the ATFM/SG is the appropriate body to develop ATFM planning targets and implementation priorities, and performance monitoring metrics, for the consideration of the Sub-Group Chairs. Accordingly, the Specialist Team (if formed) should conduct this task.

2.7 **Attachment A** provides an early draft tool for air navigation reporting, including broad examples of performance metrics. These may provide a starting point for development of more appropriate, measurable metrics.

2.8 The meeting should note that the attachment is an initial, under-construction draft tool only, and should not be used by States as the basis for air navigation reporting.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) Agree to include development of ASBU B0-NOPS planning targets and performance measurement metrics in the ATFM/SG Task List.

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1. AIR NAVIGATION REPORT FORM (ANRF)

APAC Regional Planning for ASBU Modules

2. REGIONAL/NATIONAL PERFORMANCE OBJECTIVE – Module N° B0-NOPS: Improved Flow Performance through Planning based on a Network-Wide view					
Performance Improvement Area 3:					
Optimum Capacity and Flexible Flights – Through Global Collaborative ATM					
3. ASBU B0-NOPS: Impact on Main Key Performance Areas (KPA)					
	Access & Equity	Capacity	Efficiency	Environment	Safety
Applicable	Y	Y	Y	Y	Y

4. ASBU B0-NOPS: Planning Targets and Implementation Progress	
5. Elements	6. Targets and implementation progress (Ground and Air)
1. Regional ATFM Proof of concept (airspace and airport), proposed policies, principles and metrics	End 2013
2. Sub-regional ATFM platform incorporating CDM operational (includes 3 ATFM networked nodes) and airport/airspace capacity assessments conducted	End 2014 3 ATFM networked nodes operational, and capacity assessments conducted for all high density FIRs/aerodromes (reference scenario ¹)
3. Regional ATFM platform incorporating CDM operational for all high density FIRs	End 2015 (Phase I): all high density FIRs supporting the busiest Asia/Pacific traffic flows and high density aerodromes
4. Regional ATFM network incorporating CDM for all FIRs supporting Major Traffic Flows	End 2018 (Phase II): all FIRs supporting Major Traffic Flows in the Region

7. ASBU B0-NOPS: Implementation Challenges				
Elements	Implementation Area			
	Ground System Implementation	Avionics Implementation	Procedures Availability	Operational Approvals
1. Regional ATFM Proof of concept, proposed policies and principles	First platform available (3 virtual ATFM nodes networked)	NIL	NIL	NIL

¹ The reference scenario should establish a reference baseline for all metrics given in 8A and 8B (see below). The assessment scope should concern all high density FIRs and high density aerodromes as per Seamless ATM plan Version 1

7. ASBU B0-NOPS: Implementation Challenges				
Elements	Implementation Area			
	Ground System Implementation	Avionics Implementation	Procedures Availability	Operational Approvals
2. Sub-regional ATFM platform incorporating CDM operational (includes 3 ATFM networked nodes) and airport/airspace capacity assessments conducted	NIL	NIL	Criteria for capacity assessment harmonized through ICAO	NIL
3. Regional ATFM platform incorporating CDM operational for all high density FIRs	Interoperability of ground systems	NIL	NIL	NIL
4. Regional ATFM network incorporating CDM for all FIRs supporting Major Traffic Flows	Expansion of the initial concept and platform to new States might present difficulties	NIL	NIL	NIL

8. ASBU B0-NOPS: Performance Monitoring and Measurement	
8A. ASBU B0-NOPS: Implementation Monitoring	
Elements	Performance Indicators/Supporting Metrics
1. Regional ATFM Proof of concept	Validation through the proof of concept that the expected reduction of delays is achievable. Reference situation is described:..Average en-route delay generated by the concerned airspace volumes (3 ANSPs) on the concerned major flows
2. Sub-regional ATFM platform incorporating CDM operational (includes 3 ATFM networked nodes) and airport/airspace capacity assessments conducted	Percentage of FIRs among within which all ACCs utilise ATFM systems Seamless ATM plan – item 80, Air Traffic Flow Management/Collaborative Decision-Making (ATFM/CDM)
3. Regional ATFM network incorporating CDM operational for all high density FIRs	Percentage of high density FIRs within which all ACCs utilise ATFM systems Seamless ATM plan – item 80, Air Traffic Flow Management/Collaborative Decision-Making (ATFM/CDM) Only States having FIRs supporting Major Traffic Flows and ATS units needing coordination with Military units are counted for the target
4. Regional ATFM network incorporating CDM for all FIRs supporting Major Traffic Flows	Percentage of FIRs within which all ACCs utilise ATFM systems

ASBU B0-NOPS: Performance Monitoring and Measurement	
8 B. ASBU B0-NOPS: Performance Monitoring	
Key Performance Areas	Metrics (if not indicate qualitative Benefits)
Access & Equity	TBD
Capacity	Reduction of the average en-route ATFM delay generated by the concerned airspace volumes on the concerned major flows of the Region, compared to the reference scenario (as defined in step 1.)
Efficiency	Reduced fuel burn due to better anticipation of flow issues; Reduced block times and times with engines on
Environment	Reduced fuel burn as delays are absorbed on the ground, with shut engines; or at optimum flight levels through speed or route management
Safety	Frequency of occurrences of sector capacity overcomes of compared to the reference scenario
