



**Agenda Item 1: Introduction to the global air navigation plan (GANP) and global air safety plan (GASP) and regional actions for the implementation of priorities in the SAM Region**

**AIR NAVIGATION REGIONAL OBJECTIVES AND PRIORITIES**

<b>SUMMARY</b>	
This working paper presents the air navigation objectives and priorities for the SAM Region, as well as the manner to inform on the progress achieved in the regional implementation of these objectives regional objectives, through an on-line system called Regional Performance Dashboard, which will also serve as the basis for the drafting of an Annual Air Navigation Report.	
<b>References</b>	
<ul style="list-style-type: none"><li>• Global Air Navigation Plan (GANP) (Fourth Edition);</li><li>• Air Navigation System Performance-Based Air Navigation System Implementation Plan for the SAM Region (PBIP); and</li><li>• ALLPIRG meeting (Montreal, 19 March 2012).</li></ul>	
<b>ICAO Strategic Objectives:</b>	<i>A - Safety C - Environmental Protection and Sustainable Development of Air Transport</i>

**1. Background**

1.1 Since 2009, the SAM Region has adopted a performance-based approach for the planning and implementation of air navigation systems. In 2011, the Twelfth Meeting of Civil Aviation Authorities of the SAM Region (RAAC/12) adopted the *Air Navigation System Performance-Based Air Navigation System Implementation Plan for the SAM Region (PBIP)*, through Conclusion 12/1.

1.2 Through the PBIP, the SAM Region has defined a short-term (2012-2018) implementation strategy destined to achieve benefits for the ATM community, taking as a basis the requirements of the users, the CNS/ATM infrastructure and available and future aircraft capabilities.

1.3 The new GANP introduces a systemic methodology for the harmonized implementation of the air navigation systems; this methodology has been named Aviation Systems Block Upgrades (ASBU).

1.4 The ASBU assigns a set of improvements that can be globally implemented to improve the ATM system's efficiency. The improvements have been oriented towards four Performance Improvement Areas (PIA) that include airport operations, Globally Interoperable Systems and Data, Optimum Capacity and Flexible Flights and Efficient Flight Path.

1.5 The PIAs have been considered to be implemented in five-year intervals, called blocks. The plan considers four blocks; the first one, Block 0, started in 2013. The improvements to be made through the PIAs in the respective lapse of time (block) is identified in the module. Each block contains a set of modules that are scalable in time.

1.6 Each Region will adopt the modules that adjust to its reality; nevertheless, there are modules that all the Regions have to implement, since they are considered of priority to achieve global air navigation systems interoperability. Further information regarding ASBU is found in AN&FS-IP/03.

1.7 The SAM Region, taking into account the new edition of GANP which contains the ASBU, proceeded to amend the PBIP. The amendments to the PBIP were completed in May 2012, with the participation of all SAM States. The amended regional plan took under consideration the Block 0 modules that most adjusted to the Region, including the priority modules. Further information on the PBIP is found in AN&FS-IP/05.

## 2. Analysis

2.1 The new GANP, to be approved during the 38th Session of the ICAO Assembly (Montreal, Canada, 24 September - 4 October 2013) identifies the following global main objectives and priorities within ASBU: performance based navigation (PBN), continuous descent operations (CDO), continuous climb operations (CCO), aeronautical information management (AIM), air traffic flow management (ATFM) and the estimated environmental benefits resulting from the operational based improvements of the ICAO Fuel Savings Estimation Tool (IFSET) or, if desired, any other rigorous tool recognized by the ICAO Committee on Aviation Environmental Protection (CAEP).

2.2 With the aim that ICAO can measure the progress made in the implementation of global objectives and priorities at each of its Regions, regional performance dashboards will be uploaded in the ICAO Regional Offices' websites. These dashboards will illustrate the regional status of implementation of the 2014-2016 strategic objectives. The dashboards will show the performance of the regional objectives and will initially contain graphics and charts, and will later expand to additional regional implementation priorities. This new on-line interactive system will be ready by March 2014. A preliminary version can be perused at: <http://www.icao.int/safety/Pages/Regional-Targets.aspx>.

2.3 In addition, ICAO has considered convenient to draft an annual Global Air Navigation Report, similar to the annual safety report. The first edition of this Report, scheduled for April 2014, will contain an overview of the global challenges faced by air navigation in terms of capacity, sustainability and interoperability, and will analyse the current methodologies for the measurement of these challenges. On the basis of the data collected in the performance dashboards, the Report will focus on the status of implementation of the priority operational improvements, identify the obstacles, and recommend the necessary follow-up. The information contained in the annual air navigation reports will contribute towards the updating of the GANP.

2.4 It has been considered convenient that in the SAM Region, in addition to the global objectives indicated in paragraph 2.1, AMHS interconnection, automated systems interconnection through surveillance data exchange and AIDC, as well as national IPS (Internet Protocol Suite) networks implementation, be included.

2.5 With the aim of measuring the progress made in the implementation of SAM priority objectives, metrics have been identified for each.

2.6 The performance dashboard will present the current situation of each of these objectives (base line), as well as their implementation projection on the basis of metrics associated for the 2014-2016 period. The performance dashboard also reflects the date of implementation of 100% of the objective, which for some cases, is further than 2016. **Appendix A** shows the afore-indicated performance dashboard indicators.

3. **Action suggested**

3.1 The Meeting is invited to:

- a) Take note of the information presented;
- b) Analyse the comment on the priority implementation objectives and associated metrics, indicated in section 2; and
- c) Note the importance of supporting the ICAO Regional Office, by providing the necessary information to measure the progress made in the implementation of operational improvements.

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## APPENDIX A

## REGIONAL IMPLEMENTATION OBJECTIVES

Objective	Metric	Hypothesis, formulation / origin
<b>1. PBN TERMINAL</b>	% of international aerodromes with APV	For: (N° int aerodromes APV/N° total int aerodromes)*100
<b>2. PBN ENROUTE</b>	% of PBN routes/airspace	Hyp: Only Int. Routes For: (N° total pbn int routes/N° total int routes)*100
<b>3. CDO</b>	% of international aerodromes/TMAs with CDO	For: (N° int aerodromes CDO/N° total int aerodromes)*100
<b>4. CCO</b>	% of international aerodromes/TMAs with CCO	For: (N° int aerodromes CCO/N° total int aerodromes)*100
<b>5. Estimated Fuel Savings/ CO2</b>	Emissions Reduction Based on IFSET	
<b>6. ATFM</b>	% of ATS Units/international aerodromes providing ATFM service	For: (N° ATC Units - ATFM/N° total int aerodromes)*100
<b>7. AIM</b>	% of needed elements (from AIS to AIM Roadmap) facilitating the transition from AIS to AIM that have been implemented – PHASE I	For: (N° needed elements implemented/N° total needed elements transition AIS to AIM)*100
<b>8. AMHS interconnection</b>	% of States where Air Traffic Services Message Handling Services (AMHS) is interconnected with other AMHS	For: (N° States interconnected with AMHS/N° total States)*100
<b>9. AIDC</b>	% of area control centres (ACC) where ATS interfacility data communications (AIDC) or on-line data interchange (OLDI) systems have been interconnected	For: (N° ACC AIDC or OLDI/N° total ACC)*100
<b>10. Surveillance data exchange</b>	% of ACC having implemented surveillance data interconnection (radar, automatic dependent surveillance (ADS), multilateration)	For: (N° ACC with surveillance data interconnection/N° total ACC)*100
<b>12. Implementation of national IP networks</b>	% of States with IP communications networks implemented	For: (N° States IP networks/N° total States)*100

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