



INTERNATIONAL CIVIL AVIATION ORGANIZATION

A United Nations Specialized Agency

ASBU/SIP/LIMA/2013-WP/4

ANConf/12- Outcome and Follow-up

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12th Air Navigation Conference



- **10** Days
- **232** Conference Recommendations
- **153** Working Papers (WP)
- **62** Information Papers (IP)
- **1,030** Participants
- **120** States
- **30** International Organizations
- **25+** Media Articles

12th Air Navigation Conference

Summary of Discussions



- Common understanding for future air navigation system
- Harmonization of ATM modernization
- Formalize future of infrastructure & equipage
- Endorsement of revised ICAO Global Air Navigation Plan (GANP)
- Agreement of Aviation System Block Upgrades (ASBU)



AN-Conf/12 : Theme



- **THEME OF THE CONFERENCE: ONE SKY**
- *Vision – To achieve an integrated global ATM system in a progressive, cost-effective and cooperative manner:* As the air navigation system gains maturity, ICAO continues to address the challenge of the integration, interoperability and harmonization of the systems leading to the concept of “One Sky” for international civil aviation
- The One Sky concept revolves around conceiving the notion globally, developing the implementation plans regionally, and implementing the infrastructure locally

AN-Conf/12 : Outcome (1)



- **Agenda Item 1:** Strategic issues that address the challenge of integration, interoperability and harmonization of systems in support of the concept of “One Sky” for international civil aviation
- **Approved:**
 - revised draft Fourth Edition of the Global Air Navigation Plan (Doc 9750, GANP).
 - Associated technology roadmaps

AN-Conf/12 : Outcome (2)



- **Agenda Item 2:** Aerodrome operations – improving airport performance
- **Approved:**
 - The Conference supported the module on remote towers in the ASBUs but requested that this be extended to cover the full spectrum of remote air traffic services (ATS).

AN-Conf/12 : Outcome (3)



- **Agenda Item 3:** Interoperability and data – through globally interoperable system-wide information management (SWIM)
- **Approved:**
 - ASBU Modules related to
 - Application of system-wide information management;
 - Flight and flow – information for a collaborative environment; and
 - Integration of aeronautical and ATM information

AN-Conf/12 : Outcome (4)



- **Agenda Item 4:** Optimum capacity and efficiency – through global collaborative ATM
- **Approved:**
 - ASBU Modules related to
 - Enhanced en-route trajectories;
 - Improved flow performance through network wide planning;
 - Ground-based surveillance;
 - Air traffic situational awareness and airborne separation applications;
 - Improved access to optimum flight levels;
 - Remotely piloted aircraft;
 - ACAS improvements;
 - Ground-based safety nets; and
 - Meteorology

AN-Conf/12 : Outcome (5)



- **Agenda Item 5:** Efficient flight paths – through trajectory-based operations
- **Approved:**
 - ASBU Modules related to
 - Improved flexibility and efficiency in descent profiles;
 - Improved flexibility and efficiency in climb profiles;
 - Data link surveillance and communications supporting TBO; and
 - Trajectory-based operations – 4D TRAD.

AN-Conf/12 : Outcome (6)



- **Agenda Item 6: Future direction**
- **Approved:**
 - Way forward in implementing the updated GANP by PIRGs and States;
 - In the human factors context, determined where there may be need for global standardization or future emphasis; and
 - Multi-party approaches to standards development

The Big Picture

12th Air Navigation Conference



Important Developments

- **4** ICAO Milestones
 - Global Air Navigation Plan (GANP)
 - 2012 Safety Report
 - ASBU Block 0 iKit
 - Air Operator Certificates (AOC) iKIT
- **8** Agreements Signed



ICAO-FSF MoC	Singapore- MITRE MoU	Singapore- Airbus Prosky MoC	ASECNA - France AFI FPP
Singapore-FAA Sol	Singapore- SESAR JU MoC	India - MITRE MoU	ASECNA, ICAO, Thales, INEO



Next Steps



- **Environmental & Operational Assessments**
 - ***Committee on Aviation Environmental Protection (CAEP)*** modeling environmental benefits of ASBU Block 0 modules. More information by the end of 2013
 - ***IATA*** assessing the operational benefits
- **Technical Work**
 - Air Navigation Information Management (IM) Divisional Meeting (2015)
 - Aviation Data Link Symposium: Now and Tomorrow (2015)



Next Steps



- **Operational Policies**

- Incentives to allow early benefits of new technologies and procedures (including economic incentives)

- **Financing Policies**

- Reviewed by the ***Air Transport Conference (AT Conf/6) held in March 2013***
- Task assigned to service providers, operators and economists



Next Steps



- An end-to-end system demonstration of new air traffic management concepts
- States and Industry are invited to play a part in this event by showing their latest developments and best practices in the field of air traffic management
- Planned in 2014

Next Steps



- Intended Outcomes
 - International exposure to potential systems and technologies to support Block 0 implementation
 - Identification of: Business case benefits of implementing Block 0 and Economic opportunity cost of not implementing Block 0
 - Reinforcement of Block 0 implementation strategies (ASBU iKITS)
 - Agreed concept of Operations (CONOPS) for Block 1 to enable the appropriate standards and procedures to be developed
 - Demonstration of intended performance scenarios for Blocks 1, 2 and 3

Next Steps



- Standardization Roadmap

B0-CDO, B1-CDO

B0-CDO: Improved Flexibility and Efficiency in Descend Profiles (CDOs)

Deployment of performance-based airspace and arrival procedures that allow the aircraft to fly their optimum aircraft profile taking account of airspace and traffic complexity with continuous descent operations (CDOs)

B1-CDO: Improved Flexibility and Efficiency in Descend Profiles (OPDs)

Deployment of performance-based airspace and arrival procedures that allow aircraft to fly their optimum aircraft profile taking account of airspace and traffic complexity with Optimized Profile Descents (OPDs)

Module #	Standard Title	Date of Availability	Organization	Action	Status
B0-05	DOC 4444 PANS ATM	Already available (2012)	ICAO	N/A	N/A
B1-05	Document xxxx	2018	Org#1	Update	Started
B1-05	Document xxxx	2018	Org#2	TBD	N/A
B1-05	DOC9931 – Continuous Descent Manual	2018	ICAO	TBD	N/A

AN-CONF/12 Recommendation: 6.12

- **Development of SARPs, procedures and guidance material**
 - a) Improve its project management and coordination of contributing ICAO panels, study groups and other groups tasked with the development of ICAO provisions

Next Steps by PIRGs and States



Recommendation 6/1 – Regional performance framework – planning methodologies and tools

That States and PIRGs:

- a) finalize the alignment of regional air navigation plans with the Fourth Edition of the *Global Air Navigation Plan* (Doc 9750, GANP) by May 2014;
- b) focus on implementing aviation system block upgrade Block 0 Modules according to their operational needs, recognizing that these modules are ready for deployment;

Next Steps by PIRGs and States



Recommendation 6/1 – Regional performance framework – planning methodologies and tools

That States and PIRGs:

- c) use the eANPs as the primary tool to assist in the implementation of the agreed regional planning framework for air navigation services and facilities;
- d) involve regulatory and industry personnel during all stages of planning and implementation of aviation system block upgrade modules;
- e) develop action plans to address the identified impediments to air traffic management modernization as part of aviation system block upgrade planning and implementation activities;

AN-Conf/12 : Follow-up action



- **Follow-up by PIRGs**
 - Every PIRG meeting in 2013 will be presented with an action plan to implement relevant Recommendations
- **Follow-up by States**
 - A State letter by the SG will be issued in May 2013 with an action plan to implement relevant Recommendations
- **Follow-up by Secretariat**
 - The ANC will be reviewing and allocating in May 2013 the relevant Recommendations to Expert Groups or the Secretariat for developing SARPs and guidance material



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Thank You