



| ICAO

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Module 1

Overview of Air Navigation Deficiencies

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**AFI Air Navigation Deficiencies Data Base
Virtual Workshop, 23-24 November 2021**



Agenda

1. Module Objective

2. Reference & Documentation

- 2.1 ICAO Convention & Annexes
- 2.2 AFI RAN & APIRG
- 2.3 GANP
- 2.4 AFI ANP

3. Methodology for the Identification, Assessment and Reporting of AND

- 3.1 Collection of information
 - 3.1.1 Regional Office
 - 3.1.2 States Source
 - 3.1.2 Users Sources
- 3.2 Assessment and Prioritization
- 3.3 Reporting

4. Way Forward



Module objective

- Review ICAO provision as reference for AN Deficiencies processing;
- Review the AFI regional mechanisms set forth for AN Deficiencies collection assessment and reporting;
- Introduction to the Minimum Reporting Areas for AN Deficiencies and the need for automation



PREAMBLE

WHEREAS the future development of international civil aviation can greatly help to create and preserve friendship and understanding among the nations and peoples of the world, yet its abuse can become a threat to the general security; and

WHEREAS it is desirable to avoid friction and to promote that cooperation between nations and peoples upon which the peace of the world depends;

THEREFORE, the undersigned governments having agreed on certain principles and arrangements in order that international civil aviation may be developed in a safe and orderly manner and that international air transport services may be established on the basis of equality of opportunity and operated soundly and economically;

Have accordingly concluded this Convention to that end.

Article 28

Air navigation facilities and standard systems

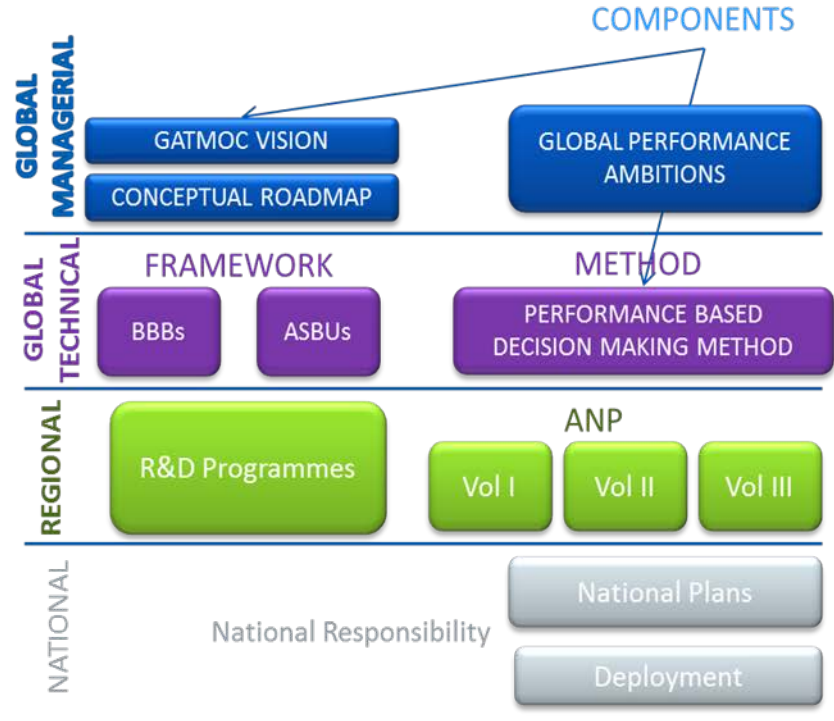
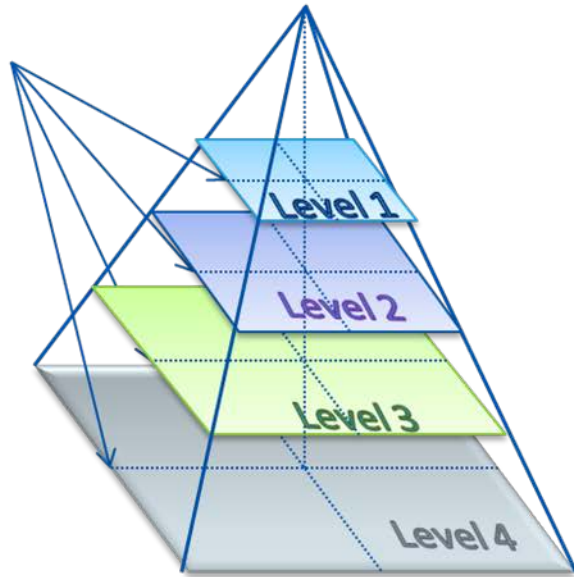
Each contracting State undertakes, so far as it may find practicable, to:

- a) Provide, in its territory, airports, radio services, meteorological services and other air navigation facilities to facilitate international air navigation, in accordance with the standards and practices recommended or established from time to time, pursuant to this Convention;
- b) Adopt and put into operation the appropriate standard systems of communications procedure, codes, markings, signals, lighting and other operational practices and rules which may be recommended or established from time to time, pursuant to this Convention;
- c) Collaborate in international measures to secure the publication of aeronautical maps and charts in accordance with standards which may be recommended or established from time to time, pursuant to this Convention.



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LAYERS





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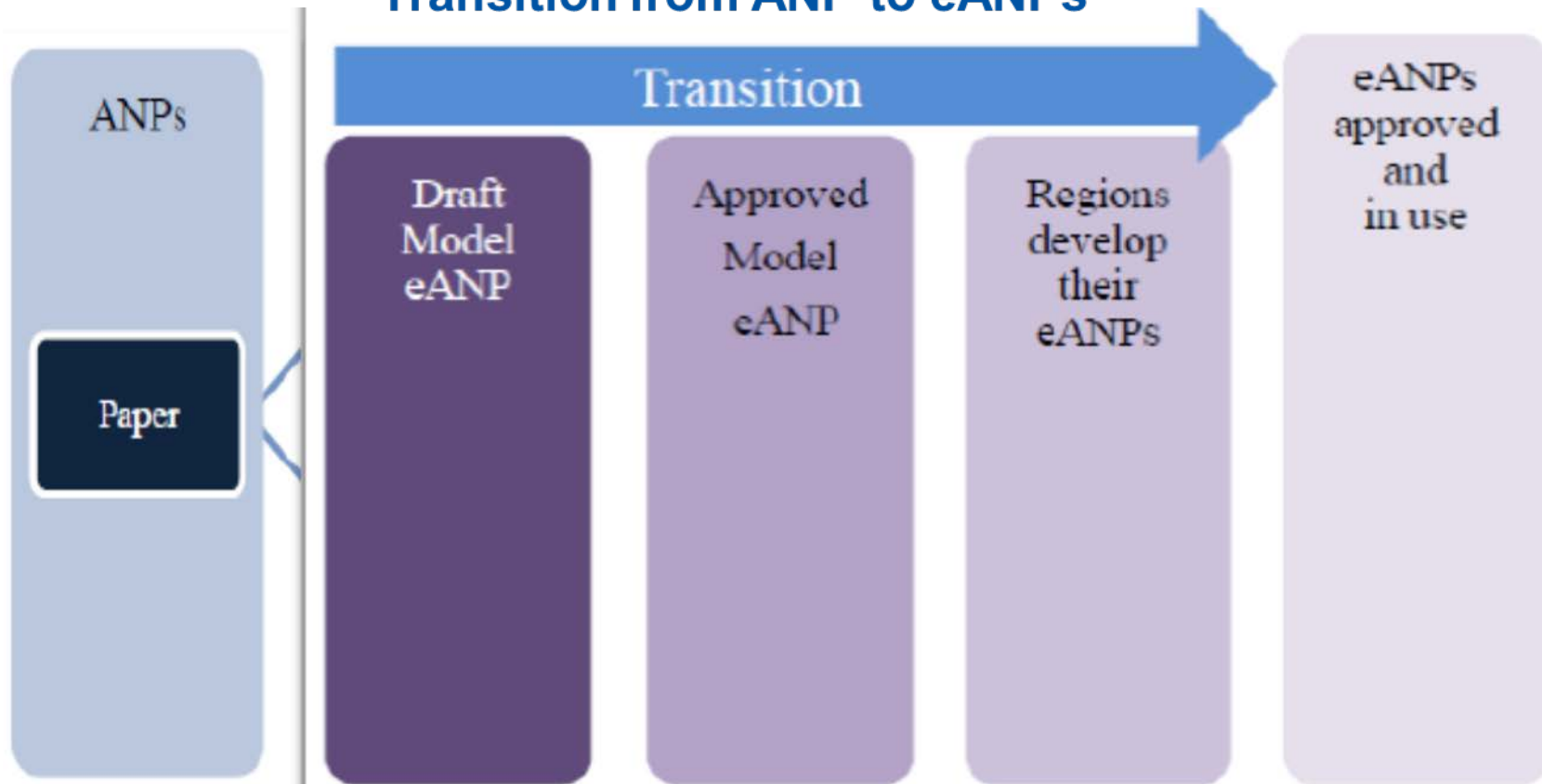
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PIRG	ANP Document
• APANPIRG	Asia/Pacific Region (Doc 9673)
• APIRG	Africa-Indian Ocean Region (Doc 7474)
• EANPG	European Region (Doc 7754)
• GREPECAS	Caribbean and South American Regions (Doc 8733)
• MIDANPIRG	Middle East Region (Doc 9708)
• NAT SPG	North Atlantic Region (Doc 9634/9635)



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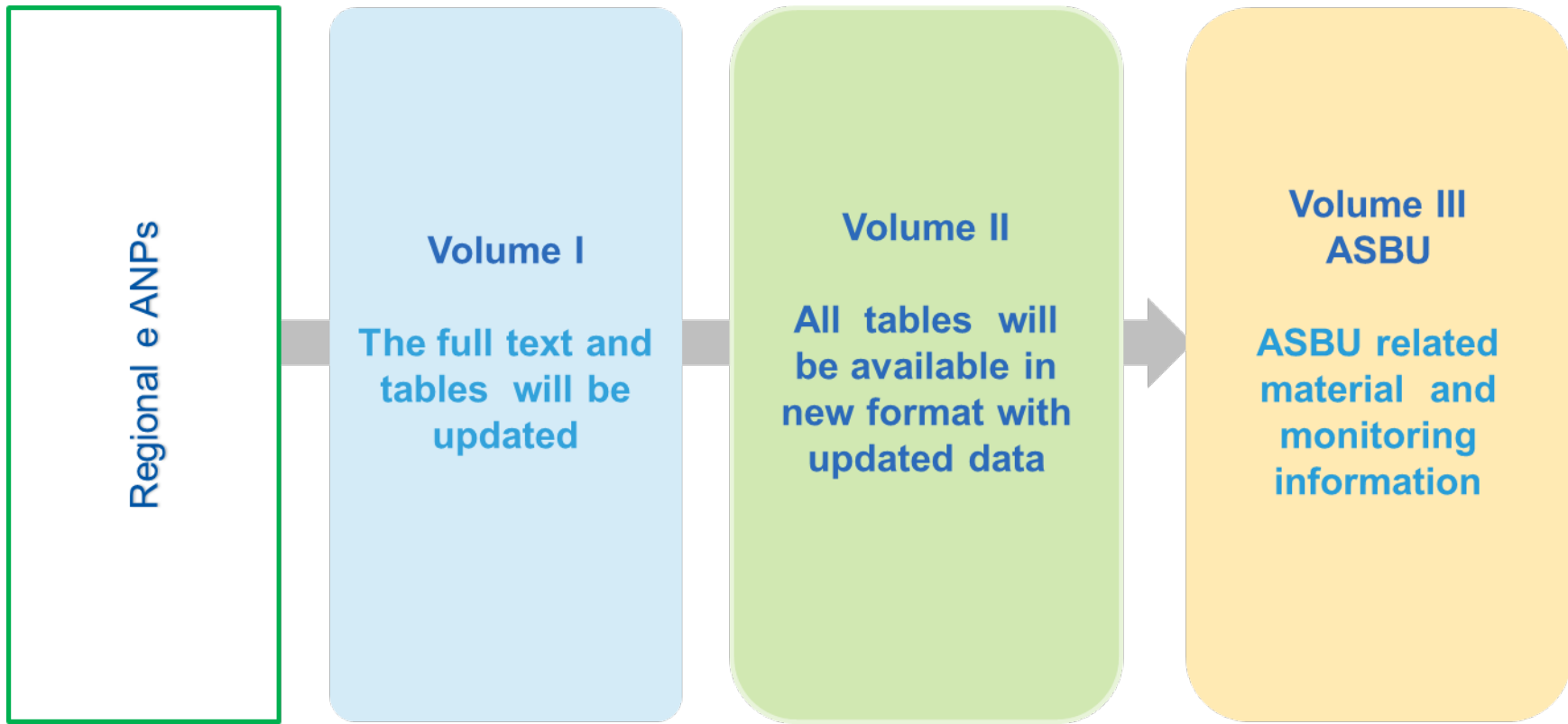
Transition from ANP to eANPs





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eANP features





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PART I - TOC, INTRO



PART II - GEN



PART III - AOP



PART IV - CNS



PART V - ATM





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Uniform Methodology For The Identification, Assessment and Reporting of Air Navigation Deficiencies

(Approved by the Council on 30 November 2001)

Need for improvements in the following areas:

- 1) Collection of information;**
- 2) Safety assessment of reported problems;**
- 3) Identification of suitable short-term and long-term corrective actions (technical/operational/financial/organizational); and**
- 4) Method of reporting in the reports of ICAO planning and implementation regional groups (PIRGs).**



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Uniform Methodology For The Identification, Assessment and Reporting of Air Navigation Deficiencies

(Approved by the Council on 30 November 2001)

- The uniform methodology was approved by the ICAO Council for the efficient identification, assessment and clear reporting of Air Navigation deficiencies.
- For the purpose of this methodology, the definition of deficiency is as follows:
A deficiency is a situation where a facility, service or procedure does not comply with a regional Air Navigation plan approved by the Council, or with related ICAO Standards and Recommended Practices, and which situation has a negative impact on the safety, regularity and/or efficiency of international civil aviation.



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Collection of information – Regional Offices

- As a **routine function**, the **Regional Offices should maintain a list of specific deficiencies**, if any, in their regions. To ensure that this list is as clear and as complete as possible, it is understood that the regional offices take the following steps:
 - a) **compare the status of implementation of the Air Navigation facilities and services with the regional Air Navigation plan documents and identify facilities, services and procedures not implemented;**



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Collection of information – Regional Offices

- a) review mission reports with a view to detecting deficiencies that affect safety, regularity and efficiency of international civil aviation;
- b) make a systematic analysis of the differences with ICAO SARPs filed by States to determine the reason for their existence and their impact, if any, on safety, regularity and efficiency of international civil aviation;
- c) review aircraft accident and incident reports with a view to detect possible systems or procedures deficiencies;
- d) review inputs, provided to the regional office by the users of Air Navigation services on the basis of Assembly Resolution A33-14, Appendix M;
- e) assess and prioritize the result of a) to e) according to paragraph 4;



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Collection of information – States’ sources

- To collect information from all sources, **States should establish reporting systems in accordance with the requirements in Annex 13.**
- These reporting systems should be non-punitive in order to capture the maximum number of deficiencies.



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Collection of information – Users' sources

- Air navigation Service Providers, Aerodrome Operators and Airlines can be relevant source of data
- Appropriate **international organizations**, including the International Air Transport Association (IATA) and the International Federation of Air Line Pilots' Associations (IFALPA), are valuable sources of information on deficiencies, especially those that are safety related.
- In their capacity as **users of Air Navigation facilities they should identify facilities, services and procedures that are not implemented or are unserviceable for prolonged periods or are not fully operational.**



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Assessment and Prioritization

“U” priority = Urgent requirements having a direct impact on safety and requiring immediate corrective actions.

- *Urgent requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is urgently required for Air Navigation safety.*

“A” priority = Top priority requirements necessary for Air Navigation safety.

- *Top priority requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is considered necessary for Air Navigation safety.*

“B” priority = Intermediate requirements necessary for Air Navigation regularity and efficiency.

- *Intermediate priority requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is considered necessary for Air Navigation regularity and efficiency.*



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Reporting of Information on Deficiencies

- In order to enable the ICAO PIRGs to make detailed assessments of deficiencies, **States and appropriate international organizations including IATA and IFALPA, are expected to provide the information they have to the ICAO Regional Office for action as appropriate, including action at PIRG meetings.**
- The information should at least include: **description of the deficiency, risk assessment, possible solution, timelines, responsible party, agreed action to be taken and action already taken.**
- Assembly Resolution A33-14, and several decisions of the Council **obligate users of Air Navigation facilities and services to report any serious problems encountered due to the lack of implementation of ANPs.**



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Reporting of Information on Deficiencies

- **The agenda of each PIRG meeting should include an item on Air Navigation deficiencies**, including information reported by States, IATA and IFALPA in addition to those identified by the regional office
- **Review of the deficiencies should be a top priority for each meeting. The PIRGs, in reviewing lists of deficiencies, should make an assessment of the safety impact for subsequent review by the ICAO Air Navigation Commission.**



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Action by the Regional Offices

- **Before each PIRG meeting, the Regional Office concerned will provide advance documentation concerning the latest status of deficiencies.**
- **The Regional Offices should document serious cases of deficiencies to the Air Navigation Commission (through ICAO Headquarters) as a matter of priority, rather than waiting to report the matter to the next PIRG meeting, and that the Air Navigation Commission will report to the Council.**



Model Reporting Table For Use in the Reports of PIRGs

Minimum reporting areas

AERODROMES OPERATIONS (AOP) AERODROMES OPERATIONS (AOP)								
ICAO Reference Document	Description	Date first reported	Remarks/ Impact of non-implementation	Action by States	Action taken/planned by State (including timelines/target dates)	Identified implementation impediment and action thereon	Status	
AERODROME DESIGN								
Annex 14 - Vol 1, Chapter 1PANS-Aerodromes, Part 1, 2	Aerodrome Master Plan		The lack of airports master plans affect their short to medium term capacity enhancement projects; restricting their ability to fulfil capacity needs.					



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AFI Air Navigation Deficiency Database (AANDD)

- Huge amount of information;
- Information related to Safety Capacity & Efficiency;
- Information useful to investment Decision Making;
- Sensitivity of type of information





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AFI Air Navigation Deficiency Database (AANDD)

- **Need for accurate and reliable information;**
- **Need for statistics to follow up/monitor performance of ANS;**
- **Need for automation;**
- **AANDDDB an integrated e-solution**



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Way Forward

- a) **Regional Air Navigation Plan**
 - Volumes I, II & III
- b) **Air Navigation Deficiencies**
 - AANDD - Operationalization
 - Update
- c) **Communication**
 - States
 - Regional Office





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Demonstration
See the AANDD Tool



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Headquarters
Montréal

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Central African
(WACAF) Office
Dakar

European and
North Atlantic
(EUR/NAT) Office
Paris

Middle East
(MID) Office
Cairo

Eastern and
Southern African
(ESAF) Office
Nairobi

Asia and Pacific
(APAC) Sub-office
Beijing

Asia and Pacific
(APAC) Office
Bangkok



THANK YOU