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Webinar on the management of Air Navigation Deficiencies

The Air Navigation Deficiencies Management process

April 2024

Outline

- Definitions
- Collection/notification and posting of information in the Database
- Reporting of information on deficiencies
- Monitoring & removal of APIRG' endorsed deficiencies from the Database
- Assessment and prioritization of deficiencies

Definitions

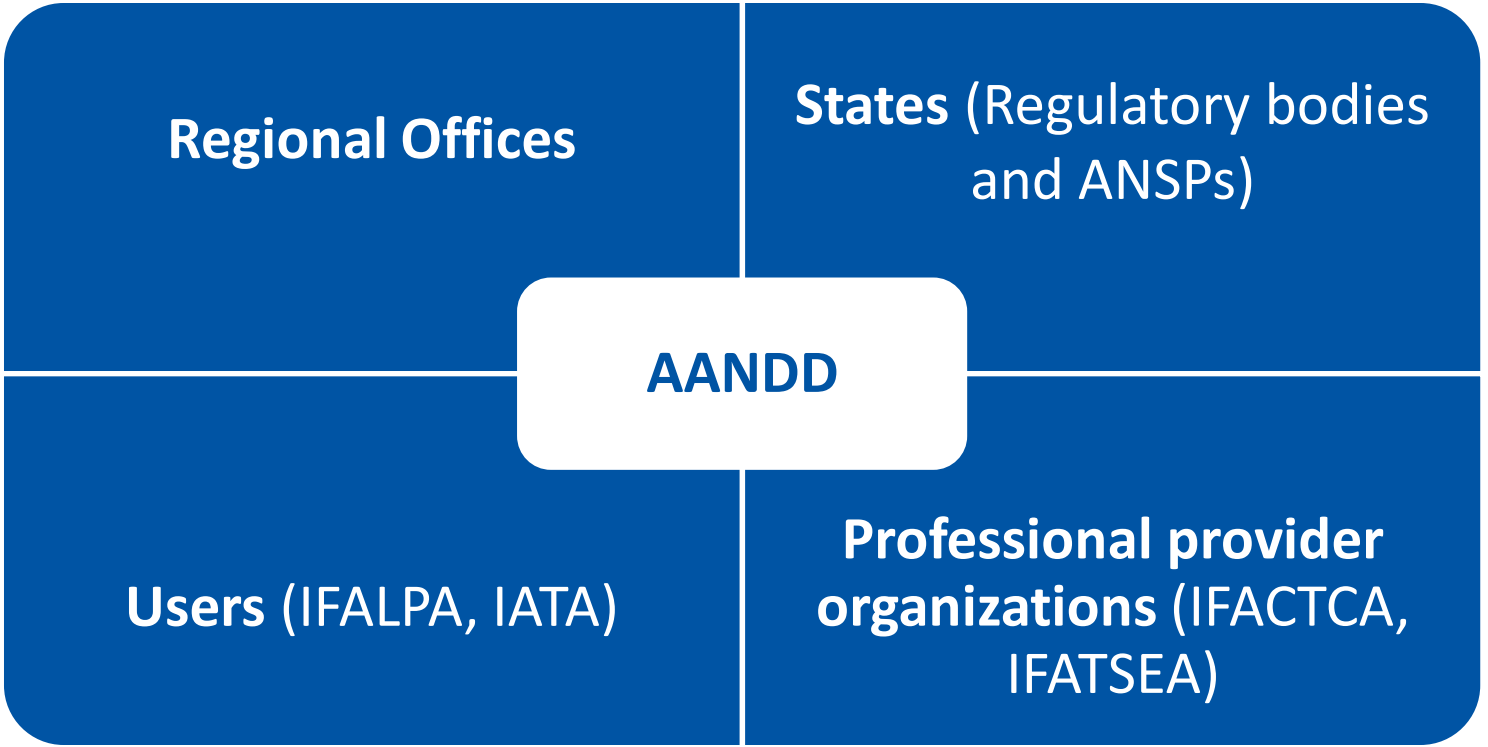
- A deficiency is a situation where a facility, service or procedure does not comply with a Regional Air Navigation Plan approved by the Council, or with related ICAO Standards and Recommended Practices, and which situation has a negative impact on the safety, regularity and/or efficiency of international civil aviation

- Finding: Generated in a USOAP CMA activity as a result of a lack of compliance with Articles of the Convention, ICAO Assembly Resolutions, safety-related provisions in the Annexes to the Convention, Procedures for Air Navigation Services (PANS) or a lack of application of ICAO guidance material or good aviation safety practices.

Definitions

- The AANDD: A web-based platform providing an online tool for States and relevant stakeholders to manage air navigation deficiencies in the region. The application is available on https://aandd.icao.int/

Collection/Notification of information - sources



States – Users - Professional provider organizations

- **States** should, establish reporting systems in accordance with the requirements in Annex 13, Chapter 8.
- **Users** of air navigation facilities and services to report any serious problems encountered due to the lack of implementation of air navigation facilities or services required by regional plans.
- **Professional provider organizations** should identify facilities, services and procedures that are not implemented or are unserviceable for prolonged periods or are not fully operational

Regional Offices

Regional Offices should maintain a list of specific deficiencies, if any, taking the following steps:

- 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;
- review mission reports with a view to detecting deficiencies that affect safety, regularity and efficiency of international civil aviation;
- 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;
- review aircraft accident and incident reports with a view to detect possible systems or procedures deficiencies;

Regional Offices

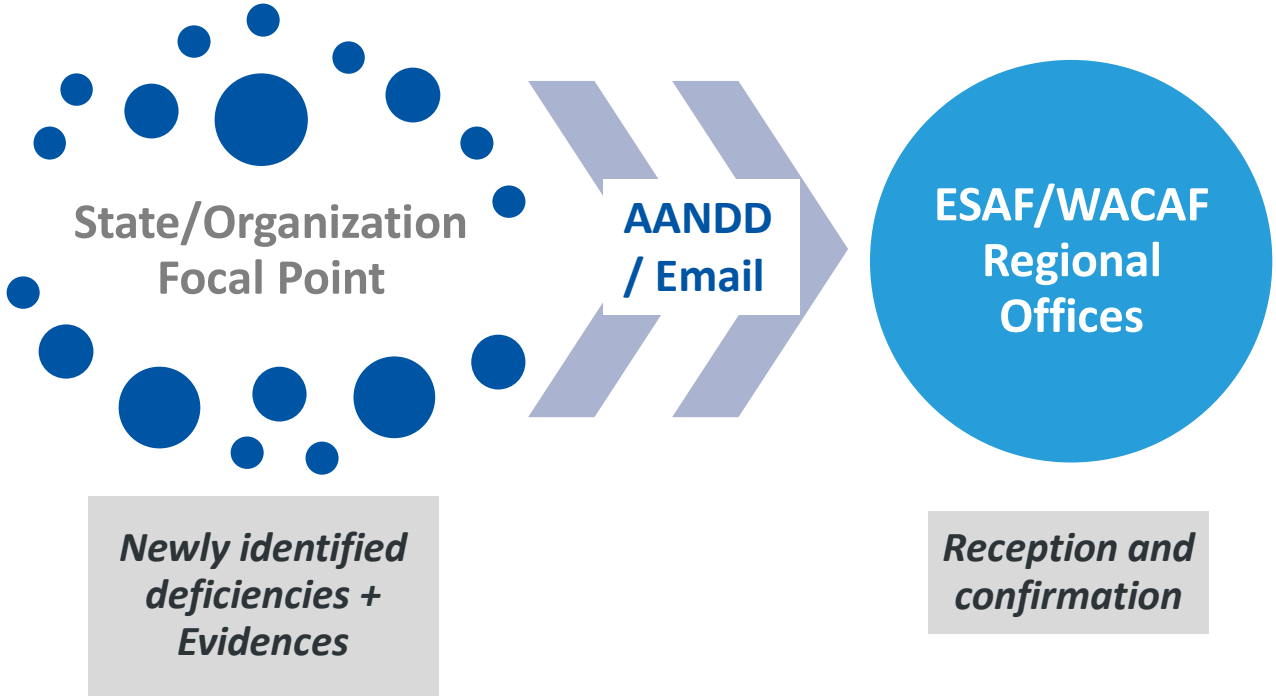
- review inputs, provided to the Regional Offices by the users of air navigation services on the basis of Assembly Resolution A37-15, Appendix L;
- assess and prioritize the result of the above according to the paragraph 4 of PART V of the APIRG Procedural Handbook Part;
- report the outcome to the State(s) concerned for resolution; and
- **report the result of above to APIRG for further examination, advice and report to the ICAO Council, as appropriate through PIRG reports.**

Collection of information – Minimum reporting areas

MINIMUM REPORTING AREAS

Item No	Deficiencies				Corrective Action			
	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
CLASSIFICATION OF AIRSPACES [Annex 11, 2.6]								
1.	[Annex 11 Para 2.3] [AFI/7 Rec. 5/21]	Lack of provision of area control service		Inefficient and unsafe provision of ATS				
PERFORMANCE-BASED NAVIGATION [Annex 11, 2.7] [A37 Resolution]								
2.	[Annex 11, Para 2.7] AFI/7 Rec. 6/9	Lack of implementation of PBN		Will not achieve targets set as part of Global PBN implementation goals				
3.	[A37 Resolution] [AFI/7 Conc. 5/7]	Implementation of RNAV and RNP operations						

Reporting/Notification of information on deficiencies



Reporting of information on deficiencies

- Review and analyze
- Coordinate with the State / Organization for clarifications

Regional Office SME

- Review and confirmation of the deficiency

Regional Office review Committee

- Inform the State if the deficiency confirmed
- Give a time period to take appropriate actions

Regional Office

Monitoring & Removal of APIRG' endorsed deficiencies

Actions taken on time by the State

- The case is closed and captured in the AANDD as proposed for deletion
- The information is provided to the APIRG meeting

Actions not taken on time by the State

- The case is submitted to the APIRG Meeting for consideration and endorsement;
- The APIRG' endorsed deficiencies are uploaded in the AANDD by the Regional Offices; and
- The State is requested to submit an action plan within a given timeframe

Monitoring & Removal of APIRG' endorsed deficiencies

- The States implement the proposed actions, as contained in the Plan of action and submit to the ICAO Regional Office by email/ through the AANDD, relevant evidences for consideration
- In case of challenges in the implementation, the State Focal point should inform and coordinate with the Regional Office SME
- The State's Focal Points and the Regional Office SMEs to ensure that the information provided in the AANDD is always accurate
- States to implement their action plans and submit relevant evidences for consideration to ICAO Regional Offices

Monitoring & Removal of APIRG' endorsed deficiencies

- ICAO Regional Offices to monitor the implementation by the States of their actions plans and report to APIRG
- Once the implementation completed, a documented report, comprising evidences is submitted by the SME to the Regional Office review Committee for consideration
- The Regional Office Committee report is submitted to APIRG for consideration.
- If deemed satisfactory by APIRG, the deficiency is deleted from the AANDD by the Regional Office.

Assessment and prioritization of deficiencies

Table 1. Safety risk probability table

Likelihood	*Meaning*	*Value*
Frequent	Likely to occur many times (has occurred frequently)	5
Occasional	Likely to occur sometimes (has occurred infrequently)	4
Remote	Unlikely to occur, but possible (has occurred rarely)	3
Improbable	Very unlikely to occur (not known to have occurred)	2
Extremely improbable	Almost inconceivable that the event will occur	1

Assessment and prioritization of deficiencies

Table 2. Example safety risk severity table

Severity	*Meaning*	*Value*
Catastrophic	• Aircraft / equipment destroyed • Multiple deaths	A
Hazardous	• A large reduction in safety margins, physical distress or a workload such that operational personnel cannot be relied upon to perform their tasks accurately or completely • Serious injury • Major equipment damage	B
Major	• A significant reduction in safety margins, a reduction in the ability of operational personnel to cope with adverse operating conditions as a result of an increase in workload or as a result of conditions impairing their efficiency • Serious incident • Injury to persons	C
Minor	• Nuisance • Operating limitations • Use of emergency procedures • Minor incident	D
Negligible	• Few consequences	E

Assessment and prioritization of deficiencies

Table 3. Example safety risk matrix

Safety Risk		*Severity*				
Probability		*Catastrophic A*	*Hazardous B*	*Major C*	*Minor D*	*Negligible E*
Frequent	5	5A	5B	5C	5D	5E
Occasional	4	4A	4B	4C	4D	4E
Remote	3	3A	3B	3C	3D	3E
Improbable	2	2A	2B	2C	2D	2E
Extremely improbable	1	1A	1B	1C	1D	1E

Assessment and prioritization of deficiencies

Table 4. Example of safety risk tolerability

Safety Risk Index Range	*Safety Risk Description*	*Recommended Action*
5A, 5B, 5C, 4A, 4B, 3A	INTOLERABLE	Take immediate action to mitigate the risk or stop the activity. Perform priority safety risk mitigation to ensure additional or enhanced preventative controls are in place to bring down the safety risk index to tolerable.
5D, 5E, 4C, 4D, 4E, 3B, 3C, 3D, 2A, 2B, 2C, 1A	TOLERABLE	Can be tolerated based on the safety risk mitigation. It may require management decision to accept the risk.
3E, 2D, 2E, 1B, 1C, 1D, 1E	ACCEPTABLE	Acceptable as is. No further safety risk mitigation required.

Assessment and prioritization of deficiencies

"U" priority (Red)

- Urgent requirements having a direct impact on safety and requiring immediate corrective actions.

"A" priority (Orange)

- Top priority requirements necessary for air navigation safety.

"B" priority (Green)

- Intermediate requirements necessary for air navigation regularity and efficiency.

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THANK YOU