



INTERNATIONAL CIVIL AVIATION ORGANIZATION
WESTERN AND CENTRAL AFRICAN OFFICE

First Meeting of the APIRG Airspace and Aerodrome Operations Sub-Group
(AAO SG/1)

(Dakar, Senegal, 29 to 31 May 2017)

Agenda Item 2: Review and update of the AFI Deficiencies and Use of minimum reporting areas adopted by the APIRG/18

AFI DEFICIENCIES AND USE OF MINIMUM REPORTING AREAS

(Presented by the Secretariat)

SUMMARY
This working paper discusses the issue of identification, recording and update of the AFI Deficiency databased and the effective application of the APIRG Minimum reporting guidance. Action by the meeting is at paragraph 3 .
REFERENCES: – APIRG/18 Report – APIRG Procedural Handbook
This Working Paper is related to Strategic Objectives: A & B

1. INTRODUCTION

1.1 In accordance with the *Uniform Methodology for the Identification, Assessment and Reporting of Air Navigation Deficiencies*, **approved** by the Council in 2001, an air navigation **deficiency** is described as follows, detailed reflection of the methodology is provided at **Appendix A** to this working paper.

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.

1.2 At its Seventeenth Meeting in *Ouagadougou, Burkina Faso, 2-6 August 2010*, APIRG noted that based on currently available information at the Secretariat as of March 2010, 44 States have no deficiencies in the field of ATM, 51 in the fields of AIS/MAP, while in the field of SAR most States (40-45) had three similar deficiencies identified between 1991 and 1995. The meeting agreed that the existing list of deficiencies relating to ATM,

AIS/MAP and SAR, was not useful, given the picture reflected by, inter alia, reports from the USOAP audit of AFI States, and unsatisfactory condition reports (UCRs) considered by the AFI Tactical Action Group (TAG). In this regard, APIRG adopted Conclusion 17/99 as follows:

Conclusion 17/99: Elimination of Air Navigation Deficiencies in the ATM/AIS/MAP and SAR Fields

That, in order to facilitate the updating of the deficiency database by the Regional offices, and to foster the elimination of deficiencies in the AFI Region:

- a) APIRG subsidiary bodies and secretariat establish a comprehensive list comprising all air navigation deficiencies consistent with the ICAO definition of deficiency as approved by Council, for necessary attention;*
- b) States and International Organizations (including IATA, IFALPA, IFATCA) are urged to actively contribute towards updating the deficiency database, by providing to the Regional Offices, information on the implementation status of SARPs and Air Navigation Plan (ANP) requirements and;*
- c) States provide copies of action plans developed in pursuant to SP AFI/08 RAN Recommendation 6/25 to the concerned APIRG subsidiary bodies and the Regional Offices.*

1.3 The APIRG/18 Meeting in Kampala, Uganda, 27-30 March 2012, under Conclusion 18/62 agreed on a list of minimum reporting areas as reflected in **Appendix B** to this working paper. In adopting the list, the Group agreed that in order to address effectively deficiencies in the AFI Region, issues of reporting should be significantly improved. In this regard, it acknowledged the crucial role of States (and their ANSPs), users and other stakeholders including professional organizations. It was agreed that, among others, reporting could be encouraged by adopting a list of minimum reporting areas. Accordingly, the Group instructed the Sub-Groups to ensure the areas include all fields of air navigation and aerodromes and ground aids.

1.4 The Group further highlighted that the intent of the list was not to replace reporting based on ICAO Council policy, but to encourage reporting, noting on the one hand the current critically low level of reporting, and on the other hand the expanse of SARPs and requirements on which reporting may be effected. Without prejudice to the definition of deficiency as approved by the Council, States, (Regulators and ANSPs), users (IATA, AFRAA, etc.), and professional organizations (IFALPA, IFATCA, IFATSEA, etc.) were encouraged to report on deficiencies in the areas listed, in addition to reporting any other deficiencies as defined by the Council.

1.5 In addition to the above, the APIRG/17 meeting requested the Secretariat to expedite development of a web-based AFI Air Navigation Deficiencies Data Base (AANDD), as a tool to States and organizations' contribution to the deficiency database. Issues relating to the AANDD are discussed in a separate working paper.

2. DISCUSSION

2.1 The list of deficiencies in the field of aerodrome operations field is provided in **Appendix C** to this working paper. The meeting may wish to review list, update it and agree on further means to address deficiencies. In addition, the meeting may wish to agree on ways to encourage reporting and other means of contributing to a detailed list of deficiencies in the airspace related area, including effective application of the minimum reporting areas agreed to by the APIRG/18 Meeting.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information provided in this working paper;
- b) review and update the list of deficiencies in the aerodrome operations area;
and
- c) agree on ways and means to encourage reporting and other means of contributing to a detailed list of deficiencies, particularly in the airspace related area, including the effective application of the minimum reporting areas agreed to by APIRG.

GUIDANCE BY THE AIR NAVIGATION COMMISSION REGARDING REPORTS OF THE PIRGS AND RASGS

(Developed by the ANC Ref: AN-WP/8993 (6/11/2015))

Guidance on Format and Content for PIRG/RASG Meeting Reports:

1. **Report Cover Sheet:** In order to support the analysis by the ANC of the report, the Secretariat is requested to prepare a brief summary of the main conclusions of the PIRG/RASG meeting report. This summary is normally informal and not a part of the report. The cover sheet should contain the following:
 - a. A summary of the main conclusions of the meeting, including current progress and specific concerns and challenges¹ of the regions in the context of the discussions of the meeting.
 - b. Why are these of specific concern and what actions are being taken?

Any other points that the Regional Office/ANB specifically wishes to draw to the attention of the ANC, such as inter-regional and intra-regional PIRG/RASG coordination issues, SARP implementation issues and the implementation of best practices or issues that could be of a global nature.

2. Drafting of Conclusions and Decisions

- a. **Conclusions should be clear and understood stand-alone. They should be developed applying the principles of specifying Who, What and When of the action in the Conclusion text. They should be preceded by a paragraph that includes a brief rationale for the conclusion – the Why.**
- b. **The text of Conclusions and Decisions should be summarised separately in a table which includes the Who, What and by When. Conclusions that were considered by the meeting to require action from ICAO HQ should thus be clearly identifiable. Examples of such conclusions are those considered to require action on SARPs or have relevance for other regions.**
- c. **Draft Conclusions and Decisions proposed by contributory bodies which are subsequently accepted by the PIRG/RASG plenary meeting should be included in the PIRG/RASG meeting report and the table summarising the Conclusions and Decisions.**

3. Publication of report

- a. The final report should be published within 45 days of the meeting in the languages used at the meeting and should be made available on the ICAO web site without password protection.
- b. In cases where the PIRG/RASG plenary does not meet on an annual basis, the ANC should receive from the Secretariat an annual update on the PIRG/RASG (e.g. GREPECAS PPRC meeting reports).

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AIR NAVIGATION MINIMUM REPORTING AREAS

Item No	Deficiencies				Corrective Action			
	ICAO Reference Document & GPIs	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] GPI-4	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] GPI-5, GPI-11, GPI-21	Implementation of RNAV and RNP operations						
4.	[A37 Resolution] GPI-5, GPI-14, GPI-21	Implementation of approach procedures with vertical guidance (APV)						

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5.	[A37 Resolution] GPI-5, GPI-14, GPI-21	Implementation of LNAV only procedures						
6.	[AFI/7, Rec 5/16] GPI-5	State database of approval status						
7.	[Annex 11, 2.27.1]	States Safety Plan (SSP)						
8.	[Annex 11, 2.27.3] [PANS-ATM, Chapter 2]	Safety management system (SMS)		Cannot achieve or guarantee acceptable level of safety in the provision of ATS				
LANGUAGE PROFICIENCY [Annex 11, 2.29]								
9.	[Annex 1 Annex 11] [A37-10 Resolution] [AFI/7 RAN]	Language proficiency						

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10.	[PANS-ATM Chapter 12]	Non use of appropriate language for ATS provision		Can result in confusion and misinterpretation of instructions which can impact on safety of air navigation				
AIRSPACE MANAGEMENT (ASM)								
11.	[AFI/7, Rec. 5/1] GPI-7	Cooperative approach to airspace management		Lack of safe, orderly and expeditious flow of air traffic Lack of efficiency in upper airspace management				
12.	[Annex 11 Para 2.12]	Non standard use of ATS Route designators		Confusion/misinterpretation of ATC requirements for position reports that can affect situation awareness and lead to provision of non standard separation minima by ATC Units.				
13.	[PANS-ATM Chapter 2]	Uncoordinated use of waypoints (5LNCs)		Conflicting waypoints (having same name but different coordinates) Similar pronunciation of waypoints located within close proximity				

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14.	[AFI/7, Rec. 5/3] [Annex 11 Para 2.17, 2.30] GPI-1	Civil/military coordination		Lack of effective civil/military coordination resulting in unsafe and inefficient use of airspace				
15.	[Annex 11 Para 2.12]	Non implementation of Table of ATS 1		Lack of route continuity across the region Inefficient use of airspace				
16.	[AFI/7, Rec. 5/2] [Annex 11]	Contingency planning		Uncoordinated and unsafe operation of aircraft during disruption of ATS within affected airspace(s).				
17.	[LIM AFI, Rec. 2/1] GPI-3, GPI-4	Plane of division between the lower and upper airspace		Non applicability of uniform division between lower and upper airspace across FIRs and ICAO Regions				
18.	[AFI/7, Rec. 5/5]	Publication of interception of civil aircraft information in aeronautical information publications		Lack of clear procedures applicable for interception of civil aircraft				

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19.	[AFI/7, Rec. 5/10] [Annex 11] [Doc 9426] GPI-11	Establishment of standard departure and arrival routes		Lack of safe, orderly and expeditious flow of air traffic				
20.	[AFI/7, Rec. 5/4]	Ratification of Article 3 bis of the Convention on International Civil Aviation						
AIR TRAFFIC SERVICES (ATS)								
21.	[Annex 11 Chapter 3,4&5]	Implementation of ATS provisions		Unsafe provisions of ATS				
22.	[Annex 11 Para 2.3] [AFI/RAN Rec 5/21]	Lack of provision of area control service		Inefficient and unsafe provision of ATS				
23.	[AFI/7 RAN Rec 14/7] [Annex 1]	Lack of trained and competent personnel in the provision of ATS		Unsafe provision of ATS				

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24.	[PANS ATM Chapter 10]	Operational Letters of Agreements between ATS units		Unsafe operation of traffic due to outdated LOAs Unsafe operation of traffic due to lack of LOAs				
25.	[AFI/7, Rec. 5/6]	Operational Letter of Agreement between ATS and military units		Lack of uniformity in application of ICAO standards relating to interception of civil aircraft				
26.	[PANS-ATM Chapter 4]	Poor ATC proficiency and lack of proper ATC procedures		Inconsistent and unsafe provision of ATS				
27.	[AFI/7, Rec. 5/22]	Repetitive flight plans						
28.	[AFI/7, Rec. 5/26]	Reporting and analysis of ATS incidents						
29.	GPI-2	RVSM approvals and monitoring		Lack of updated information on RVSM approved aircraft				
30.	[APIRG Conc.17/43]	Application of strategic lateral offset procedures (SLOP)		Lack of direct routings Lack of efficiency in aircraft operations				
31.	[PANS-ATM] [Doc 7030]	RVSM flight levels restriction		Non-efficient use of RVSM airspace				

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32.	[AFI/6, Rec. 7/11]	Compliance with standard radiotelephony phraseologies and procedures		Lack of applicability of standard radiotelephony phraseologies and procedures can create confusion and impact on safety of air navigation				
33.	[PANS-ATM Chapter 5]	Use of non- standard separation minima		Increased potential for air traffic incidents including accidents				
34.	[SP/RAN] [Annex 11 Para 3.3.5.1]	Non provision of RMA data		Insufficient data results in incomplete safety assessment by ARMA				
35.	[Annex 11 Chapter 7]	Non provision of Met information at ATS units		Lack of provision of timely and accurate met information to pilots can affect operational decisions and safety of operations				
REDUCED VERTICAL SEPARATION MINIMA (RVSM)								
36.	AFI/RAN 8 Rec. 5/21	No safety data		No contribution to CRA	CAAs/ACCs to periodically submit data to ARMA	Target date: 1/8/2011		
37.	Annex 6	No records of Approvals/ Withdrawals	2006	RVSM safety reduction in separation	RVSM Approvals/Withdrawals to be submitted to ARMA (F2, F3)	Target date: 1/8/2011		

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38.	Annex 6	No or limited Height Monitoring	2006	No monitoring of ASE	CAAs to comply with Height Monitoring Plan	Target date: 1/8/2011		
FLIGHT INFORMATION SERVICE (FIS)								
39.	[AFI/6, Rec. 6/12]	Provision of aerodrome flight information service		Lack of AFIS can impact on safety of air navigation				
40.	[AFI/7, Rec. 5/12] GPI-22	Implementation of VHF radio coverage		Non availability of two-way communication between ATS units and aircraft				
41.	[AFI/6, Rec. 6/15] GPI-4	Air traffic advisory service						
ATS REQUIREMENTS FOR AERONAUTICAL FIXED SERVICE COMMUNICATIONS								
42.	[LIM AFI, Rec. 10/36] GPI-22	Implementation of ATS direct speech circuits						

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43.	[AFI/7, Rec. 5/24] GPI-22	Improvement of communications						
ATS REQUIREMENT FOR OPERATIONAL FLIGHT INFORMATION								
44.	[AFI/7, Rec. 5/14] GPI-19, GPI-22	HF and VHF VOLMET broadcasts						
COMMUNICATIONS								
45.	[AFI/7, Rec. 9/7] GPI-22	Aeronautical fixed telecommunication network (AFTN)						
46.	[AFI/7, Rec. 9/5] GPI-22	AFTN COM centre management						

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47.	[AFI/7, Rec. 9/4] GPI-22	AFTN circuits/performance						
48.	[AFI/7, Rec. 9/3] GPI-22	AFTN efficiency						
49.	[AFI/6, Rec. 12/26] GPI-22	AFS personnel training						
50.	[LIM AFI, Rec. 7/13] GPI-22	Liaison visits by communication centre personnel						
51.	[AFI/7, Rec. 9/10] GPI-19, GPI-22	Satellite broadcast						
52.	[AFI/6, Rec. 13/4] GPI-22, GPI-23	Provision of SELCAL						

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53.	[LIM AFI, Rec. 8/5] GPI-22, GPI-23	Elimination of interference on AMS frequencies						
54.	[LIM AFI, Rec. 8/6] GPI-22, GPI-23	Measures to reduce harmful interference from carrier systems						
55.	GPI-22, GPI-23	VHF frequency utilization list						
56.	[AFI/6, Rec. 13/13] GPI-22, GPI-23	Notification of frequency assignments						
57.	[AFI/6, Rec. 13/14] GPI-22, GPI-23	VHF channels for aerodrome and approach control						
58.	[Annex 11, Chapter 6]	Lack of essential communication facilities to support the provisions of ATS (internal and external)		Lack of coordination of flights Unsafe operation of flights with increased risks of incidents				

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59.	[APIRG Conc. 13/18] GPI-22, GPI-23	Frequency stability and effective adjacent channel rejection characteristic in the VHF mobile						
60.	[AFI/6, Rec. 13/3]	Improved use of the aeronautical mobile service (HF)						
61.	[APIRG Conc.17/25] GPI-17, GPI-22	Implementation of controller-pilot data link communications (CPDLC)		Congestion in communication No assurance of two-way communications between ATS and aircraft where VHF/HF communication is not available or unreliable				
62.	[AFI/6, Rec. 13/12, FASID Table ATS 2] GPI-19, GPI-22	HF VOLMET broadcasts						
NAVIGATION (FASID Table CNS 3)								
63.	GPI-21, GPI-23	Planning principles for radio navigation aids						

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64.	[AFI/6, Rec. 14/1] GPI-21	Testing of radio navigation aids						
65.	[AFI/6, Rec. 14/3] GPI-21	Reliability of operation of radio navigation aids						
66.	[AFI/6, Rec. 14/4] GPI-21, GPI-23	Notification of frequency assignments to radio navigation aids						
67.	[AFI/7, Conc. 10/1] GPI-21	Flight checking of radio navigation aids						
68.	[AFI/7, Rec. 10/2] GPI-21, GPI-23	Geographical separation criteria for VOR and/or VOR/DME installations in the AFI region						
69.	[AFI/7, Rec. 10/3] GPI-21, GPI-23	Geographical separation criteria for ILS installations in the AFI region						

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70.	[LIM AFI, Rec. 9/3] GPI-23	Frequency utilization lists LF/MF, 108 MHz to 117.975 MHz and 960 MHz to 1 215 MHz bands						
71.	GPI-23	Geographical separation criteria for VHF air-ground communications						
SURVEILLANCE (FASID Tables CNS 4A and 4B)								
72.	[APIRG Conc.17/31] GPI-9, GPI-17	Implementation of automatic dependent surveillance (ADS-C)						
73.	[AFI/7, Conc. 11/2] GPI-9, GPI-17	Application of procedures for 24-bit aircraft address assignment						
74.	[PANS-ATM Chapter 8]	Lack of essential surveillance facilities to support the provisions of ATS		Ineffective and inefficient surveillance facilities can impact on outcome of emergencies				

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SEARCH & RESCUE (SAR)								
75.	[Annex 12, Chapter 3] AFI/7 Rec. 6/3	Lack of Search and Rescue Agreements between neighboring States		Lack of SAR agreements can be detrimental to safety of persons in distress where searches overlap national boundaries.				
76.	[Annex 12, Section 4.3]	Search and rescue units		Lack of adequately equipped and trained search and rescue units and adequate survival and medical supplies can seriously affect the conduct and outcome of SAR operation				
77.	AFI/7 Rec. 6/5	Search and Rescue Training		Lack of formal training for SAR personnel can hinder the effectiveness of SAR operation				
78.	[Annex 12, Section 4.4]	Search and rescue exercises		Lack of regular training of search and rescue personnel and conduct of regular search and rescue exercises can prevent achievement of maximum efficiency in search and rescue operation.				

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79.	AFI/7 Rec. 6/1 AFI/7 Rec. 6/2	Satellite aided search and rescue		Lack of implementation will result in difficulty in detection, identification and location of activated 406 Mhz ELTs and loss of valuable time for SAR				

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AOP LIST OF DEFICIENCIES