



International Civil Aviation Organization

**Middle East Air Navigation Planning and
Implementation Regional Group (MIDANPIRG)**

**Seventh Meeting
(Cairo, 21-25 January 2002)**

MIDANPIRG/7-WP/18
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Agenda Item 3: Latest developments in air navigation field

**REVIEW OF THE UNIFORM METHODOLOGY FOR THE IDENTIFICATION, ASSESSMENT AND
REPORTING OF AIR NAVIGATION SHORTCOMINGS AND DEFICIENCIES**

(Presented by the Secretariat)

SUMMARY

The Air Navigation Commission of ICAO has the responsibility, to review and update periodically the uniform methodology for the identification, assessment and reporting of air navigation shortcomings and deficiencies in light of the experience gained in its utilization. During its recent review, and in light of the views expressed by ALLPIRG/Advisory Group, the Commission developed a single definition of a *deficiency* to replace the current *shortcomings and deficiencies*. This new definition along with consequential editorial changes necessary to the uniform methodology are presented in the appendix of this working paper for adoption by MIDANPIRG.

Action by the MIDANPIRG is proposed at paragraph 4.

1. INTRODUCTION

1.1 The uniform methodology for the identification, assessment and reporting of air navigation shortcomings and deficiencies was prepared with the assistance of ICAO's planning and implementation regional groups (PIRGs) and approved by the ICAO Council (C-DEC 154/19) on 23 June 1998 for the efficient identification, assessment and clear reporting of air navigation deficiencies.

1.2 In order to enable the ICAO PIRGs to make detailed assessments of shortcomings and deficiencies, States and relevant international organizations provide information to the ICAO regional office for action as appropriate. The PIRGs, in reviewing lists of shortcomings and deficiencies, make an assessment of the safety impact for subsequent review by the Air Navigation Commission. The purposes of these lists of shortcomings and deficiencies have been to assist States in defining their implementation priorities and to indicate that remedial action is required.

1.3 During a recent review of uniform methodology by the ANC, it became evident that some parts of the methodology was being interpreted in different ways. The Commission consequently suggested that a detailed review of the definitions of *shortcomings* and *deficiencies* was necessary and that a study should be conducted as soon as possible to develop a single definition. The Commission also felt that this matter should be brought to the attention of the fourth meeting of the ALLPIRG/Advisory Group (ALLPIRG/4) before making a final decision on the issue.

2. DISCUSSION

2.1 The uniform methodology, as initially drafted, defined a *shortcoming* as a situation where a facility was not installed or a service was not provided in accordance with an air navigation plan (ANP) and a *deficiency* as a situation where an existing facility or service was partially unserviceable, incomplete or not operated in accordance with applicable ICAO specifications and procedures

2.2 ALLPIRG/4 (6-8 February 2001) also recognized that difficulties arose as to the use of two definitions . It was considered that the net effect of either a shortcoming or a deficiency is a negative impact on the safety, regularity and/or efficiency of international civil aviation. As the net effect for both conditions is the same, it was very difficult for PIRGs to distinguish between situations to be classified as a shortcoming or a deficiency subject to the status of implementation. Consequently, ALLPIRG/4 concurred with the Commission that a single definition should be developed for incorporation into the uniform methodology and felt that the word *deficiency* should be retained in the new single definition, as the negative connotation associated with the word had political and financial leverage to assist with the corrective action required.

3. PROPOSED DEFINITION

3.1 In light of the above, the Commission developed a new single definition for Council consideration and proposed that the definition for a shortcoming or a deficiency as contained in the uniform methodology for the identification, assessment and reporting of air navigation shortcomings and deficiencies be replaced with a single definition for both situation.

3.2 The introduction of this new single definition of '**deficiency**' as detailed below , which in effect replaces "*shortcoming and deficiency*" and consequential editorial changes to the uniform methodology as presented in the appendix hereto were approved on 30 November 2001 by the Council of ICAO.

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.

4. ACTION BY MIDANPIRG

4.1 MIDANPIRG is invited to

- a) note the introduction of this new single definition of '**deficiency**' replacing "*shortcoming and deficiency*"; and
- b) adopt the revised uniform methodology as presented in the appendix hereto in addressing the deficiencies of MID region .

APPENDIX

PROPOSED AMENDMENTS

UNIFORM METHODOLOGY FOR THE IDENTIFICATION, ASSESSMENT AND REPORTING OF AIR NAVIGATION ~~SHORTCOMINGS AND DEFICIENCIES~~

(Approved by the Council on 30 November 2001)

1. INTRODUCTION

1.1 Based on the information resulting from the assessment carried out by ICAO on the input received from various regions regarding ~~shortcomings and deficiencies~~ in the air navigation field, it became evident that improvements were necessary in the following areas:

- a) collection of information;
- b) safety assessment of reported problems;
- c) identification of suitable corrective actions (technical/operational/financial/organizational), both short-term and long-term; and
- d) method of reporting in the reports of ICAO planning and implementation regional groups (PIRGs).

1.2 This methodology is therefore prepared with the assistance of ICAO PIRGs and is approved by the ICAO Council for the efficient identification, assessment and clear reporting of air navigation ~~shortcomings and deficiencies~~. It may be further updated by the Air Navigation Commission in the light of the experience gained in its utilization.

1.3 For the purpose of this methodology, ~~a situation where a facility is not installed or a service is not provided in accordance with a regional air navigation plan is considered to be a shortcoming. A situation where an existing facility or service is partially unserviceable, incomplete or not operated in accordance with appropriate ICAO specifications and procedures is considered to be a deficiency. The net effect of either a shortcoming or a deficiency is a negative impact on safety, regularity and/or efficiency of international civil aviation.~~ the following is the definition of deficiency:

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.

2. COLLECTION OF INFORMATION

2.1 Regional office sources

2.1.1 As a routine function, the regional offices ~~are expected to~~ **should** maintain a list of specific ~~shortcomings and 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;

- b) review mission reports with a view to detecting ~~shortcomings and~~ deficiencies that affect safety, regularity and efficiency of international civil aviation;
- c) make a systematic analysis of the differences with ICAO Standards and Recommended Practices filed by States to determine the reason for their existence and their impact, if any, on safety, **regularity and efficiency of international civil aviation**;
- d) review aircraft accident and incident reports with a view to detect possible systems or procedures deficiencies;
- e) review inputs, provided to the regional office by the users of air navigation services on the basis of Assembly Resolution ~~A31-5~~ **A33-14**, Appendix M;
- f) assess and prioritize the result of a) to e) according to paragraph 4;
- g) report the outcome to the State(s) concerned for resolution; and
- h) report the result of g) above to the related PIRG for further examination, advice and report to the ICAO Council, as appropriate through PIRG reports.

2.2 States' sources

2.2.1 To collect information from all sources, States should, in addition to complying with the Assembly Resolution A31-10, establish reporting systems in accordance with the requirements in Annex 13, paragraph 7.3. These reporting systems should be non-punitive in order to capture the maximum number of deficiencies.

2.3 Users' sources

2.3.1 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 ~~shortcomings and~~ 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. In this context it should be noted that Assembly Resolution ~~A31-5~~ **A33-14**, Appendix M 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 air navigation facilities or services required by regional plans. It is emphasized that this procedure, together with the terms of reference of the PIRGs should form a solid basis for the identification, reporting and assisting in the resolution of non-implementation matters.

3. REPORTING OF INFORMATION ON ~~SHORTCOMINGS AND~~ DEFICIENCIES

3.1 In order to enable the ICAO PIRGs to make detailed assessments of ~~shortcomings and~~ 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.

3.2 The information should at least include: description of the ~~shortcoming and~~ deficiency, risk assessment, possible solution, time-lines, responsible party, agreed action to be taken and action already taken.

3.3 The agenda of each PIRG meeting should include an item on air navigation ~~shortcomings~~ and deficiencies, including information reported by States, IATA and IFALPA in addition to those identified by the regional office according to paragraph 2.1 above. Review of the ~~shortcomings~~ and deficiencies should be a top priority for each meeting. The PIRGs, in reviewing lists of ~~shortcomings~~ and deficiencies, should make an assessment of the safety impact for subsequent review by the ICAO Air Navigation Commission.

3.4 In line with the above, and keeping in mind the need to eventually make use of this information in the planning and implementation process, it is necessary that once a ~~shortcoming~~ or deficiency has been identified and validated, the following fields of information should be provided in the reports on ~~shortcomings~~ and deficiencies in the air navigation systems. These fields are as follows and are set out in the reporting form attached hereto.

a) Identification of the requirements

As per ICAO procedures, Regional Air Navigation Plans detail *inter alia* air navigation requirements including facilities, services and procedures required to support international civil aviation operations in a given region. Therefore, ~~shortcomings~~ or deficiencies would relate to a requirement identified in the regional air navigation plan documents. As a first item in the ~~shortcoming~~/deficiency list, the requirements along with the name of the meeting and the related recommendation number should be included. In addition, the name of the State or States involved and/or the name of the facilities such as name of airport, FIR, ACC, TWR, etc. should be included.

b) Identification of the ~~shortcoming~~ or deficiency

This item identifies the ~~shortcoming~~ or deficiency and would be composed of the following elements:

- i) a brief description of the ~~shortcoming~~ or deficiency;
- ii) date ~~shortcoming~~ or deficiency was first reported;
- iii) Status of implementation; ie, S = ~~shortcoming~~
D = deficiency
- iv) appropriate important references (meetings, reports, missions, etc)

c) Identification of the corrective actions

In the identification of the corrective actions, this item would be composed of:

- i) a brief description of the corrective actions to be undertaken;
- ii) identification of the executing body;
- iii) expected completion date of the corrective action^{*}; and
- iv) when appropriate or available, an indication of the cost involved.

^{*} It should be noted that a longer implementation period could be assigned in those cases in which the expansion or development of a facility was aimed at serving less frequent operations or entailed excessive expenditures.

4. **ASSESSMENT AND PRIORITIZATION**

4.1 A general guideline would be to have three levels of priority organized on the basis of safety, regularity and efficiency assessment as follows:

“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.

5. **MODEL REPORTING TABLE FOR USE IN THE REPORTS OF PIRGS**

5.1 Taking the foregoing into account, the model table at the Appendix is for use by PIRGs for the identification, assessment, prioritization etc. of ~~shortcomings and~~ deficiencies. It might be preferred that a different table would be produced for each of the different topics i.e. AGA, ATM, SAR, CNS, AIS/MAP, MET. However, all tables should be uniform.

6. **ACTION BY THE REGIONAL OFFICES**

6.1 Before each PIRG meeting, the regional office concerned will provide advance documentation concerning the latest status of ~~shortcomings and~~ deficiencies.

6.2 It is noted that the regional offices should document serious cases of ~~shortcomings and~~ 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.

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REPORTING FORM ON AIR NAVIGATION ~~SHORTCOMINGS~~ AND DEFICIENCIES IN THE ... FIELD IN THE ... REGION

Identification		Shortcomings and deficiencies				Corrective action			
Requirements	States/facilities	Description	Date first reported	Implementation status (S, D)*	Remarks	Description	Executing body	Date of complete	Priority for action*
Requirement of Part .., paragraph (table) .. of the air navigation plan	Terra X Terra Y	Speech circuits not implemented Villa X - Villa Y	12/02/2..X	S REMOVE THIS COLUMN IN FULL	Co-ordination meeting between Terra X and Terra Y on 16/07/2..X to finalize arrangements to implementation circuit via satellite	Implementation of direct speech circuit via satellite	Terra X	August 20..X	A

*S = shortcoming D = deficiency

* Priority for action to remedy a ~~shortcoming~~ or deficiency is based on the following safety assessments:

“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.

