International Civil Aviation Organization
CAR/SAM Regional Planning and Implementation Group (GREPECAS)
Ninth Meeting of the Aviation Safety Board (ASB/9)
Rio de Janeiro, Brazil, 12 October 2008

Agenda Item 3: Analysis of the standard classification to air navigation deficiencies "A" and "B"

(Presented by the Secretariat)

SUMMARY

This working paper proposes a procedure for the classification of type "A" and "B" air navigation deficiencies, as follow-up to Draft Decision ASB/8/1.

References:

- Report of ASB/8 meeting (Lima, Peru, 5 to 6 March 2008); and
- GREPECAS Procedural Handbook.

1. Background

1.1 The eighth meeting of the GREPECAS Air Safety Board (ASB/8), held in Lima from 5 to 6 March 2008, observed that, as follow-up to Decision 14/60 - *Procedures for Classifying and Addressing GREPECAS "U" Deficiencies*, formulated during GREPECAS/14 meeting (San Jose, Costa Rica, 16 to 20 April 2007), the GREPECAS Secretariat had developed a criterion for classifying "U" deficiencies.

1.2 This criterion for the classification of "U" deficiencies was developed taking as a basis the risk analysis approach table used by ICAO in the courses on "Safety Management Systems (SMS)".

1.3 The criterion is based on analyzing the deficiency by associating it to an index risk in the SMS risk index table, which presents risk severity levels (catastrophic, hazardous, major, minor, negligible) versus risk occurrence probability levels (frequent, occasional, remote, improbable and extremely improbable). As **Appendix** to this working paper is the mentioned table.

1.4 If, upon analyzing a deficiency through the table, it is found that the deficiency is related to either a catastrophic risk severity level with a frequent, occasional or remote occurrence probability; a hazardous risk severity with a frequent or occasional occurrence probability; or a major risk severity with a frequent probability risk, the deficiency is classified as type "U". The table in the Appendix shows, respectively, risk indexes type 5A, 4A, 3A, 5B, 4B and 5C.

1.5 ASB/8 meeting considered that, since a procedure to classify type "U" deficiencies had been defined, it was necessary to also establish a procedure for type "A" and "B" deficiencies. In this regard, the meeting formulated Draft Decision ASB/8/1 - *Standard classification to air navigation deficiencies*, which requested the Secretariat to analyze the feasibility of applying the new classification procedure for "U" type deficiencies to classification of "A" and "B" air navigation deficiencies.

2. **Analysis**

Type “A” deficiency

2.1 The *Uniform methodology for the identification, assessment and reporting of air navigation deficiencies* approved by the ICAO Council on 30 November 2001 and contained in the GREPECAS Procedural Handbook, Appendix A to part 2, considers that a type “A” deficiency is a deficiency with high priority requirements necessary for air navigation safety.

2.2 The high priority requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is considered necessary for air navigation safety.

2.3 From the definition of a type “A” deficiency, it can be noted that same, as in a type “U” deficiency, affects air navigation safety, therefore having an associated risk.

2.4 Using the SMS index risk table used for the classification of type “U” deficiencies, it can be concluded that all index risks not classifying within a type “U” deficiency can be associated to a type “A” deficiency.

2.5 Therefore, when applying the procedure for the classification of type “A” deficiencies using the SMS risk index table, one has a type “A” deficiency when the association of the deficiency versus the risk indexes presents the following results:

a) Catastrophic risk severity index with improbable or extremely improbable risk occurrence (2A, 1A);

b) Hazardous risk severity index with remote, improbable or extremely improbable risk occurrence (3B, 2B and 1B);

c) Major risk severity index with occasional, remote, improbable or extremely improbable risk occurrence (4C, 3C, 2C and 1C);

d) Minor risk severity index with frequent, occasional, remote, improbable or extremely improbable risk occurrence (5D, 4D, 3D, 2D and 1D); and

e) Negligible risk severity index with frequent, occasional, remote, improbable or extremely improbable risk occurrence (5E, 4E, 3E, 2E and 1E).

Type “B” deficiency

2.6 The type “B” deficiencies, in accordance with the *Uniform methodology for the identification, assessment and reporting of air navigation deficiencies* approved by the ICAO Council on 30 November 2001 and contained in the GREPECAS Procedural Handbook, Appendix A to part 2, considers that it is a deficiency with intermediate requirements necessary for air navigation regularity and efficiency.

2.7 It is an 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.

2.8 In the definition of a type “B” deficiency, it can be noted that same would not be affecting air navigation safety. Therefore, the SMS risk index table used for the classification of type “U” deficiencies and also proposed to classify type “A” deficiencies cannot be applied for the classification procedure of type “B” deficiencies, since the risk index table is oriented towards air navigation safety.

2.9 In this respect, it can be concluded that, if upon analyzing a deficiency using the procedure associated with the SMS risk index table, one obtains that this deficiency is not related with the risk indexes associated for the type “U” deficiencies described in paragraph 1.4, or with the risk indexes associated with type “A” deficiencies indicated in paragraph 2.4, the deficiency would be classified as a type “B”.

3. Action suggested

3.1 The Meeting is invited to:

a) Take note of the information provide;

b) Analyze, for approval, the procedure for the classification of type “A” and “B” deficiencies indicated in section 2 of this working paper; and

c) Analyze any other consideration in this respect that the Meeting might consider necessary.

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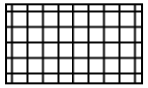
APPENDIX

Risk probability		Risk severity				
		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



"U" type deficiencies correspond to the shadowed area of this matrix (Risk Indexes: 5A, 5B, 5C, 4A, 4B and 3A)