



**WORKING PAPER**

**ASSEMBLY — 37TH SESSION**

**TECHNICAL COMMISSION**

**Agenda Item 35: The Global Air Traffic Management system**

**Agenda Item 36: NextGen and SESAR as part of the Global ATM system**

**Agenda Item 39: Transition from Aeronautical Information Services (AIS) to Aeronautical Information Management (AIM)**

**Agenda Item 44: Development of an up-to-date consolidated statement of continuing ICAO policies and associated practices related specifically to air navigation**

**DIFFICULTIES WHICH RESTRICT THE IMPLEMENTATION OF ICAO STANDARDS AND RECOMMENDED PRACTICES RELATED TO AIR NAVIGATION SERVICES**

(Presented by the 22<sup>2</sup> member States of the Latin American Civil Aviation Commission)

**EXECUTIVE SUMMARY**

This working paper outlines considerations on the difficulties of implementing some ICAO Standards and Recommended Practices (SARPs) related to air navigation services.

The unequal development of the different regions of the ICAO should be taken into consideration when considering the principle that the SARPs will consist of broad, mature, and stable provisions.

If it is feasible, the permanent criteria which allow for the Annexes and PANS to be amended up to twice in the same calendar year with an interval between successive common applicability dates of at least six months, should be reviewed based on the elements which are documented in this paper, as a result of the analysis of the consequences of changes in circumstances since the 36th Session of the Assembly.

**Action:** The Assembly is invited to:

- a) reiterate that the SARPs should consist of broad, mature, and stable provisions, which specify the functional and performance requirements to achieve the required levels of safety, efficiency, and interoperability;
- b) consider that the dates of amendments to SARPs and PANS should be established so that the States have sufficient time to study and implement them, modifying (if it is feasible) the permanent criteria in the Consolidated statement of continuing ICAO policies and associated practices related specifically to air navigation (Resolution A36-13) so they may only be amended once a year;
- c) urge the States to proactively increase their participation in drawing up regulations and procedures; and
- d) approve the funds needed so that the Secretariat has sufficient resources for the translation of the reference documents and texts connected with operational safety, in order of their priority depending on the importance of these texts.
- e) adopt the amendment to Resolution 44/1 proposed in paragraph 3.3.

<sup>1</sup> Spanish version provided by Cuba.

<sup>2</sup> Argentina, Aruba, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay and Venezuela.

<i>Strategic Objectives</i>	This working paper relates to Strategic Objectives A, D and E.
<i>Financial implications:</i>	These are related to the relevant translation of the reference documents and texts connected with safety into all of the official languages of the Organization.
<i>References:</i>	Doc 7300, <i>Convention on International Civil Aviation</i> Doc 7231, <i>ICAO Publications Regulations</i> Doc 9902, <i>Assembly Resolutions in Force</i> (as of 28 September 2007) A37-WP/29, A35-WP/194, C/CAR/DCA/11-NE/16

## 1. INTRODUCTION

1.1 Article 37 of the Convention on International Civil Aviation outlines the adoption of international regulations and procedures by the Contracting States, as well as their commitment to collaborate in order to achieve the highest possible degree of uniformity in terms of regulations, rules, procedures, and organization involving aircraft, staff, airways, and auxiliary services in all areas where this uniformity would facilitate and improve air navigation and with this purpose in mind, the International Civil Aviation Organization shall adopt and amend, as applicable and as required, the regulations, recommended practices, and international procedures which deal with issues of air navigation safety, regulation, and efficiency which may be deemed appropriate at any given time.

1.2 **Clause 7 of Appendix A of Resolution A36-13, "Formulation of Standards and Recommended Practices (SARPs) and Procedures for Air Navigation Services (PANS)"** indicates that the dates of the amendments to SARPs and PANS will be established so that the Contracting States have enough time for their implementation and **Clause 8** states that apart from exceptional circumstances, the dates of the amendments of the Annexes and PANS will be established so that the Contracting States do not have to amend their national regulations more than twice in a calendar year.

1.3 The document mentioned in the above paragraph also indicates, among other things, that the SARPs will consist of broad, mature, and stable provisions which will specify the functional and performance requirements to reach the required levels of operational safety, efficiency, and interoperability. And **Clause 5** indicates that the regulations which specify the provision of installations and services will reflect an adequate balance between the operational requirements for these installations and services and the financial consequences of their provision, insofar as this is compatible with safety and regulatory requirements.

## 2. DISCUSSION

2.1 In spite of the fact that during the years following the 36th Assembly amendments have not been made more than once a year to a single Annex of the Convention related to air navigation services, the majority of these annexes have been amended on an annual basis and some of these amendments have had a considerable impact; during this period there have been considerable efforts to update National Regulations, to study and prepare conditions, and to implement the new requirements, which leads us to reflect on **Clause 8 of Appendix A of Resolution A36-13**, which states that apart from in exceptional circumstances, the dates of the amendments to the Annexes and PANS will be established so that the Contracting States do not have to amend their national regulations more than twice in a calendar year. If the annual frequency of amendments has led to difficulties during this period in terms of the timely and uniform implementation of the air navigation SARPs and PANS by the Member States,

can the States really handle biannual amendments efficiently and without incurring excessive expenditure?

2.2 Since the 35th Session of the ICAO Assembly, the LACAC has presented a working paper which outlined considerations regarding the need to carry out an accurate and balanced assessment of the operational requirements and the solutions which should be applied for the introduction of a global air traffic management (ATM) operational concept, taking the specific characteristics of each region and of the States into consideration. This concept was launched at the Eleventh Air Navigation Conference (Montreal, September 22 – October 3, 2003). Since then, the Member States of the LACAC have expressed their concerns that the relationship between technological advances and requirements should be duly balanced and rational, and have pointed out the need to change our focus so that operational needs are met by the technological advances, a focus which would guarantee the optimal use of human and financial resources to produce an operationally effective and productive air navigation system.

2.3 As a result of the increase in air traffic and the technological and scientific development made in the fields of industry and science, some of the latest amendments to the Annexes to the Convention have highlighted the need for greater and better preparation for the adequate interpretation and implementation of these amendments. An important example of this is the introduction of regulations related with electronic terrain and obstacle data (eTOD). The eTOD SARPs were first adopted on 23 February 2004, through Amendment 33 to Annex 15, creating a new Chapter 10 and its applicability dates were 20 November 2008 and 18 November 2010, depending on the areas to be covered. As this amendment, in our opinion, did not comply with the requirement for the SARP to consist of broad, mature, and stable provisions, it was necessary to adopt a new amendment to Annex 15 in 2010, Amendment No. 36, which restructured Chapter 10 and provided new dates for Areas 1 and 2. Areas 3 and 4 have no specifications regarding application dates and their characteristics were revised again through an addendum to Amendment 36. In our opinion, this Chapter is not clear enough to be fully understood. In this respect we should also point out that:

2.4 At the Eleventh Meeting of the Directors of Civil Aviation of the Central Caribbean (C/CAR/DCA/11) held in Mexico City, Mexico, on 21 to 23 July 2010, Cuba presented a working paper on its considerations on the difficulties in planning and implementing this ICAO regulation on electronic terrain and obstacle data (eTOD).

2.5 In recent years amendments have been made to the Annexes to the Convention which could not be implemented within the envisaged periods due to the complexity of the regulations adopted, for example, the regulations on safety management system (SMS) and those related to performance-based navigation (PBN), among others. Although not all ICAO regions have the same level of development, nor the same problems, ICAO regulations are global in nature.

2.6 As the Secretariat of the ICAO mentions, NextGen and SESAR are two important programs as part of the global ATM which will have a significant impact on world aviation, and work is currently under way to harmonize the systems and ensure that the relevant SARPs are in place. All of this is on account of air traffic congestion and conflicts in certain scenarios, on account of the accelerated development of science and technology which is being transferred to the rest of the world in order to achieve a uniform airspace. Will these new SARPs follow the same path as those mentioned before?

2.7 The current resolutions also state that the Member States should give full and detailed comments on the amendment proposals for the SARPs and PANS or, at least, express their agreement or disagreement with the content of these proposals. These same resolutions recognize that a relatively small number of States respond to these consultations, which means that they are then adopted on the

understanding that the lack of response implies the approval of these proposals. Do we know the real reasons for the low number of responses from the States?

2.8 On the other hand, although most of the basic ICAO documents related to safety SARPs and PANS are available in all of the official languages of the Organization and serve as the basis for national regulations, there are many very valuable documents and technical circulars, the result of the work of groups of experts, study groups, accident and incident investigation, and scientific research which are basically only published in English, which could serve as guidance for improving the rules and regulations of the Member States in order to increase aviation safety.

### 3. CONCLUSIONS

3.1 Modern-day aviation is not the same as a few years ago. Technology and communications change and are modernized at an accelerated rate. These major developments often cannot be monitored and much less implemented in a similar way in all of the States. The unequal development of the different ICAO regions does not allow for all of the SARPs to be implemented in a timely fashion with the strictness required by operational safety. The principle should be observed that these should consist of broad, mature, and stable provisions and there should be a review, where feasible, of the permanent criteria which allows for the Annexes and PANS to be amended up to twice in the same calendar year, with a gap between the successive common applicability dates of at least six months, based on the elements which are documented in this paper, as a result of the analysis of the consequences of changes in circumstances since the 36th Session of the Assembly.

3.2 We can observe that the main deficiency detected during the ICAO Universal Safety Oversight Audit Programme (USOAP) was related to critical element No. 4 on the qualification and training of technical personnel, which also leads to difficulties for the States in fully comprehending and applying the SARPs, as well as in adjusting their national regulations in line with the amendments to the regulations and procedures, even when there is only one amendment a year to each Annex to the Convention on air navigation.

3.3 The following amendment to Resolution 44/1 is proposed:

**Resolution 44/1: Development of an up-to-date consolidated statement of continuing ICAO policies and associated practices related specifically to air navigation**

#### APPENDIX A

##### **Formulation of Standards and Recommended Practices (SARPs) and Procedures for Air Navigation Services (PANS)**

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*The Assembly resolves that:*

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~~8. Apart from in exceptional circumstances, the dates of the amendments to the Annexes and PANS will be established so that the Member States do not have to amend their national regulations more than twice in a calendar year. In the application of this provision, wherever feasible, a single Annex or document relating to the PANS will not be amended more than once in a calendar year.~~

### **Associated practices**

1. The Council should guarantee that the provisions of the SARPs and PANS are compatible with each other. Furthermore, the Council should try to improve the processing, presentation, and use of ICAO documents which contain SARPs, PANS, and other related provisions, especially in the case of complex systems and their corresponding applications. With this purpose in mind, the Council should promote the preparation and continual updating of the wide-reaching functional and performance requirements of the systems. The Council should continue trying to find the most appropriate means to prepare, **translate**, process, and disseminate the technical specifications.

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~~4. When applying the regulation of Clause 8 of the provisions, as long as it is feasible, the interval between successive common applicability dates of applying the amendments to the Annexes and PANS should be at least six months.~~

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