



WORKING PAPER

ASSEMBLY — 36TH SESSION

TECHNICAL COMMISSION

Agenda Item 25: Follow-up of the DGCA/06 Conference on a Global Strategy for Aviation Safety

RATIONALIZATION OF THE ICAO SARPS SYSTEM

(Presented by the Civil Air Navigation Services Organisation (CANSO²))

EXECUTIVE SUMMARY

There is a significant level of non-compliance with Standards and Recommended Practices (SARPs) among Contracting States. With over 10,000 SARPs in existence, most of which being of a detailed prescriptive nature, there is a clear need for rationalization and a more prudent management of the SARPs system. CANSO supports Resolution A35-14 that ICAO should limit SARPs to a stable set of Standards that can stand the test of time. These Standards should specify system-level, functional and performance requirements that provide for the required levels of safety and interoperability. Prescriptive-based SARPs should be kept to a minimum, and may need to be downgraded to appropriate guidance material. In view of the trend in many States to separate ANS provision from the regulatory oversight function, there is a greater need for collaboration between the regulatory community and regulated industry in the development and implementation of SARPs. Industry should be allowed to formulate and maintain Standards and best practices that are of an operational/technical nature and will allow for interoperability. ICAO SARPs should provide a basis for industry to elaborate and collaborate on how the application of those SARPs will be expressed in technical Standards.

Action: The Assembly is invited to:

- a) note that the rationalization of the ICAO SARPs system deserves a high priority in the ICAO work programme for the next triennium; and
- b) recognise the role of industry in the formulation and implementation of Standards and best practices.

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| <i>Strategic Objectives:</i> | This working paper relates to Strategic Objective A – <i>Safety</i> and D – <i>Efficiency</i> and the Supporting Implementation Strategies. |
| <i>Financial implications:</i> | Not determinable. |
| <i>References:</i> | Doc 7300, <i>Convention on International Civil Aviation</i> Doc 9848, <i>Assembly Resolutions in Force (as of 8 October 2004)</i> Doc 9866, <i>Report of the Directors General of Civil Aviation Conference on a Global Strategy for Aviation Safety</i> |

¹ Arabic, Chinese, English, French, Russian and Spanish versions provided by CANSO.

² CANSO is the global voice of ATM. In 2006, CANSO Member ANSPs serve 61% of world airspace, controlled 84% of world traffic and handled 44 million flights. Full members include: Aena - Spain | AEROTHAI - Thailand | Airports Authority of India | Airservices Australia | Airways New Zealand | ANS of the Czech Republic | ATNS - South Africa | ATSA - Bulgaria | Austro Control - Austria | Avinor - Norway | AZANS - Azerbaijan | Belgocontrol - Belgium | CAA Uganda | DFS - Germany | DHMI - Turkey | DSNR - France | EANS - Estonia | ENAV SpA - Italy | Federal Aviation Administration - USA | HungaroControl | Irish Aviation Authority | Kazaeronavigatsia - Kazakhstan | LFV - Sweden | LGS - Latvia | LPS Slovak Republic | LVNL - the Netherlands | MATS - Malta | MoldATSA - Moldova | NAMA | NANSC - Egypt | NATS - UK | NAV CANADA | NAV Portugal | Naviair - Denmark | OACA - Tunisia | Oro Navigacija - Lithuania | PANSA - Poland | ROMATSA - Romania | Sakaeronavigatsia Ltd - Georgia | Serco | skyguide - Switzerland | Slovenia Control | SMATSA - Serbia | UksATSE - Ukraine

1. INTRODUCTION

1.1 As the permanent body charged with the administration of the principles laid out in the Chicago Convention, ICAO provides for a forum where Contracting States can agree to the requirements and procedures in need of Standardization. Such requirements and procedures are known as Standards and Recommended Practices (SARPs).

1.2 ICAO SARPs and other supporting guidance material exist in the following forms:

1.2.1 Standards – defined as any specification for physical characteristics, configuration, material, performance, personnel or procedure, the uniform application of which is *recognized as necessary* for the safety or regularity of international air navigation and to which Contracting States will conform in accordance with the Convention. In the event of impossibility of compliance, notification to the Council is compulsory under Article 38 of the Convention.

1.2.2 Recommended Practices – any specification for physical characteristics, configuration, material, performance, personnel or procedure, the uniform application of which is *recognized as desirable* in the interest of safety, regularity or efficiency of international air navigation, and to which Contracting States will endeavour to conform in accordance with the Convention. States are invited to inform the Council of non-compliance.

1.2.3 Procedures for Air Navigation Services (PANS) – comprise operating practices and guidance material too detailed for SARPs, but which are suitable for application on a worldwide basis. Contracting States are to publish any differences in their Aeronautical Information Publications (AIP) when knowledge of the differences is important to the safety of air navigation.

1.2.4 Manuals, circulars and other guidance material – produced to supplement SARPs and PANS, these are specifically designed to facilitate implementation and are amended periodically to ensure their contents reflect current practices and procedures.

1.3 The effectiveness of the SARPs framework requires cooperation in their formulation, consensus in their approval, and compliance in their application, and a commitment to a process of constant review and validation. However, with over 10,000 SARPs in existence, most of which are of a detailed prescriptive nature, there is a significant level of non-compliance among Contracting States, as confirmed by the Universal Safety Oversight Audit Programme (USOAP) audits. There is a clear need for rationalization of the SARPs system.

2. DISCUSSION

2.1 In regards to the formulation of SARPs and PANS, the 35th Session of the Assembly resolved in Resolution A35-14, Appendix A, that:

1. “SARPs and PANS shall be amended as necessary to reflect changing requirements and techniques...”;
2. “..., a high degree of stability in SARPs shall be maintained to enable Contracting States to maintain stability in their national regulations.”; and

3. "SARPs and PANS shall be drafted in clear, simple and concise language. For complex aeronautical systems, SARPs shall consist of broad, mature and stable provisions specifying system-level, functional and performance requirements that provide for the requisite safety levels and interoperability. For such systems, any technical specifications necessary to achieve these requirements shall be appendices to Annexes."

2.2 Clearly, the sense of the previous session of the assembly was to limit SARPs to a stable set of Standards that can stand the test of time. These Standards should specify functional and performance requirements when it comes to aeronautical systems. Prescriptive or detailed technical specifications should be left to guidance material.

2.3 This notion of limiting Standards to performance requirements or objectives was further confirmed by the sixth meeting of the Director General of Civil Aviation (DGCA/06) Conference, which agreed among its conclusions that "the content, nature and structure of the annexes to the Chicago Convention should be reviewed to ensure that ICAO Standards focus on safety objectives, while giving more flexibility to Contracting States in deciding the means of implementation."

2.4 To address the compliance problem, the DGCA/06 Conference also recommended that a certain hierarchy be introduced to the SARPs structure, stating in Recommendation 3/1 (para. 2.1.d.3) that "ICAO should consider improvements in the process of developing and adopting Standards and Recommended Practices by developing criteria for determining which Standards are of critical importance for ensuring global safety and for which notifying differences would be acceptable only exceptionally and which Standards are of a detailed technical nature should be changed into Recommended Practices or removed from ICAO annexes and turned into guidance material."

2.5 The full implications of this recommendation have been considered by the Air Navigation Commission and Council, and in view of the potential impact on the Standards formulation and implementation process, a course of action is now being proposed to this 36th Session of the Assembly to help facilitate the implementation of ICAO SARPs by Contracting State.

3. **CANSO'S VIEWS**

3.1 It is recognized that the global adoption of SARPs is essential for the safety, regularity and efficiency of air navigation and is central to the realization of the Global ATM Concept, a vision that CANSO supports. SARPs provide the foundation for global interoperability. Difference filing by States as provided for under Article 38 of the Convention undermines global harmonization, integration and interoperability in ATM. It is therefore important that appropriate measures are taken to rationalize the SARPs system in order to improve SARPs development and implementation. This matter deserves a high priority in the ICAO work programme for the next triennium.

3.2 CANSO supports the view of the previous assembly that ICAO should limit SARPs to a stable set of Standards that can stand the test of time and, when it comes to aeronautical systems, these standards should specify system-level, functional and performance requirements that provide for the requisite safety levels and interoperability.

3.3 CANSO is also of the view that there is a place for both performance and prescriptive-based SARPs. However, prescriptive-based SARPs should and must be kept to a minimum. This can be assured if there exists a clear requirement to justify a prescriptive SARP in terms of the need to standardize in the interest of safety and global interoperability. Given such a requirement, certain prescriptive Standards, especially those that are of a detailed technical nature, should be downgraded to guidance material.

The role of industry

3.4 When it comes to formulation of SARPs, it is important to recognize that in many States, ANS provision is now separate from the regulatory oversight function and this trend will likely continue. The implications for SARPs development and implementation are that clarity needs to exist regarding the roles and responsibilities of the regulatory community that ICAO represents and those of the regulated community, i.e. industry engaged in the operations that is subject to regulation.

3.5 Appropriate industry bodies should be responsible for formulating and maintaining Standards and best practices that are of an operational/technical nature and will allow for interoperability. When appropriately expressed as functional objectives, ICAO SARPs should provide a basis for industry to elaborate and collaborate on how the application of those SARPs will be expressed in industry technical Standards. This would provide the additional benefit that the speed of development and implementation would be commensurate to the needs perceived by industry stakeholders and the resources they would be willing to devote to the task.

3.6 It should be noted that Standards play a key role in enhancing safety, reducing costs, increasing productivity, and advancing new technologies, and therefore the average amount of time it takes to develop and adopt Standards becomes vitally important. Currently, the average length of time to set a Standard within ICAO - from determining the need to publishing the Standard - is three years and can be as long as seven years. This is much longer than the average turn-around time of one year in the private sector.

4. CONCLUSION

4.1 There is a significant level of non-compliance with SARPs among Contracting States. With over 10,000 SARPs in existence, most of which being of a detailed prescriptive nature, there is a clear need for rationalization and a more prudent management of the SARPs system. This matter deserves a high priority in the ICAO work programme for the next triennium.

4.2 In view of the possible course of action proposed by Council in follow-up to DGCA/06 Recommendation 3/1, a rationalization of the SARPs system should involve a collaborative approach between the regulatory community, that ICAO represents, and industry. Specifically, industry should be responsible for formulating and maintaining Standards and best practices that are of an operational/technical nature and will allow for interoperability. ICAO SARPs should provide a basis for industry to elaborate and collaborate on how the application of those SARPs will be expressed in industry technical Standards.