



ASSEMBLY — 36TH SESSION

TECHNICAL COMMISSION

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

ICAO STANDARDS, RECOMMENDED PRACTICES AND PROCEDURES – A WAY FORWARD

(Presented by Portugal, on behalf of the European Community and its Member States¹, by the other States Members of the European Civil Aviation Conference², and by EUROCONTROL

EXECUTIVE SUMMARY

The ICAO Universal Safety Oversight Audit Programme (USOAP) has raised awareness of the problems faced by many States in attempting to comply with their obligations under the Chicago Convention. This paper discusses some of the issues facing Contracting States as a consequence of the complexity of the Annex and Standards and Recommended Practices (SARPs) system, reviews the actions taken by ICAO in following up on the conclusions of the 2006 DGCA Conference on a Global Strategy for Aviation Safety in this respect, and offers suggestions for future work, based on a draft Resolution for adoption by the Assembly.

Action: The Assembly is invited to:

- a) take note of the contents of this paper; and
- b) consider the suggestions in the appendix to this working paper for input into an Assembly Resolution.

<i>Strategic Objectives:</i>	This working paper relates to Strategic Objective A (<i>Safety – Enhance global civil aviation safety</i>).
<i>Financial implications:</i>	Not applicable.
<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>

¹ Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the United Kingdom. All these 27 States are also Members of ECAC.

² Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Croatia, Georgia, Iceland, Moldova, Monaco, Norway, Serbia, Switzerland, The former Yugoslav Republic of Macedonia, Turkey and Ukraine.

1. INTRODUCTION

1.1 Article 37 of the Chicago Convention requires ICAO to adopt international Standards, Recommended Practices and Procedures (SARPs) dealing with a range of functions covering the safety, regularity and efficiency of air navigation.

1.2 ICAO's SARPs have made an important contribution to enhancing global aviation safety, interoperability, harmonization and efficiency. However, there are now a very large number of SARPs and Procedures for Air Navigation Services, together with some very detailed technical specifications, e.g. for ATM equipment, with which most State regulators would have no ability to assess compliance. In short, the system that States are expected to implement has grown without significant review of its internal structure or its applicability to States with differing circumstances.

1.3 The mandatory Universal Safety Oversight Audit Programme (USOAP) has identified areas of concern in many States, including failure to implement ICAO provisions systematically in national regulations and a lack of suitable systems for overseeing the safety standards of national operators. Article 37 of the Convention seeks to secure the highest practicable degree of uniformity among Contracting States in regulations, Standards, procedures and organization. From the results of the USOAP audits to date, however, it is clear that many States are struggling to cope with the sheer number of ICAO provisions. The wide diversity of size, scope and sophistication of the aviation systems in different countries has created uncertainty in many States as to which provisions should apply to them. Some States attach low priority to compliance with Recommendations as opposed to Standards.

1.4 In addition, a degree of confusion among States may be caused by the existing Annex structure itself. There is no indication within this structure of the purpose of the different SARPs - safety, regularity, interoperability or efficiency - and some provisions have become unnecessarily complex because the structure does not provide a suitable hierarchy that would cater for detailed technical specifications.

1.5 The results of the USOAP to date prompted the European States to present to the DGCA conference in March 2006 a series of proposals for a review of the ICAO Annex system. This paper explores some of these issues further, comments on ICAO's efforts to date in addressing the conclusions and recommendations of the safety conference, suggests a possible way forward and presents for consideration a draft Assembly Resolution.

2. COMMENTARY ON ACTIONS BY ICAO SINCE DGCA/06

2.1 Recommendation 3/1 d) 3) of DGCA/06 called for ICAO to "develop 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".

2.2 After studying the issue, an ad hoc working group of the Air Navigation Commission accepted that the current system of permitting States to depart in cases of impracticability or necessity from ICAO Standards has the potential to undermine global safety, especially in view of the limited

resources available to some States. It also agreed that many Standards could be turned into Recommended Practices or guidance material.

2.3 However, the working group expressed concern that any attempt to categorize Standards in the manner recommended by DGCA/06 could lead to some States attaching low priority to those not identified as being of critical importance for ensuring safety, thereby aggravating problems of non-compliance and undermining harmonization and mutual recognition. The group's preferred solution was to replace existing prescriptive Standards with performance-related ones.

2.4 Important questions remain, however, over the mechanisms and feasibility of moving to a system of performance-related Standards. In particular, it is not clear how replacement of prescriptive Standards by performance-related ones can be achieved within a reasonable timescale, and it also seems that many States, especially those with constrained resources, are still more comfortable with a prescriptive approach. It is clearly important that the unity of the ICAO system should be maintained and that the emergence of a two-tier system of Standards, whereby some are held to be important and others optional, should be avoided. However, DGCA/06 itself envisaged maintaining safety-critical Standards, for which differences could be permitted in only the most exceptional circumstances, whilst converting more detailed and technical provisions into Recommended Practices or guidance material.

3. A WAY FORWARD

3.1 It may be helpful to recall Assembly Resolution A35-14, Appendix A, resolving clause 3, which states that, "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. Any related detailed technical specifications shall be placed in separate documents and be referenced in Annexes by means of notes." Were ICAO to adopt a rigorous and consistent approach to implementing this part of Resolution A35-14, though with its scope preferably broadened to cover all those Annexes which currently contain detailed technical specification material in the form of SARPs, States might soon find themselves facing a more manageable corpus of key high-level Standards, without this leading to confusion and a reduction in harmonization or efficiency.

3.2 ICAO might usefully address this task by focusing on the risks that a given Annex is supposed to address. There are several ways to do this, for example by drawing on accident investigations inquiries and other appropriate sources and processes (including safety cases, risk assessment and mitigation results). When the risks are identified, then mitigating measures can be defined: these mitigating measures would become the "system-level, functional and performance requirements" referred to in Resolution A35-14. Obviously, filing of differences to these critical requirements should be permissible only in exceptional circumstances. More detailed, technical provisions could be placed in Annexes or related guidance material. Such an approach would rationalize the current system while avoiding any danger of the emergence of a "two-tier" system of Standards which could lead to the neglect of those Standards not perceived as belonging to the essential safety-critical corpus. The process of rationalizing SARPs could itself assist the move towards performance-based Standards.

3.3 ICAO should also undertake a thoroughgoing review of the existing Annex structure in order to reduce its complexity and make clearer the purpose of the different SARPs covering safety,

regularity, interoperability and efficiency. As part of this process, account should be taken of the fact that in many States service delivery and regulatory function have been separated.

3.4 ICAO might wish to consider the experience of regional practice in rulemaking, for example, systems in which there is a hierarchy flowing from essential requirements, through implementing rules and certification specifications, to non-binding guidance. In ICAO terms, Recommended Practices would be non-binding guidance, whilst most technical specifications could either be placed in a new category of “ICAO specifications” or, in the case of more detailed provisions, left to industry bodies to manage. There would then be different ICAO decision-making processes for documents at different levels of the hierarchy.

3.5 ICAO should also adopt a more discriminating and critical approach to its rule making activities with a view to limiting the number of amendments to Annexes to what is strictly necessary to enhance safety. A more aggressive shift of focus from the production of new Standards to the implementation of existing ones would be welcome, as would improvements to the consultation process for new Standards. ICAO should subject each new proposal to systematic pre-impact analysis, to ensure it is fully justified in terms of safety benefits and economic consequences and does not impose unreasonable burdens on States. The work programmes of panels should be scrutinized in detail by the Air Navigation Commission with this in mind. Cutting back on the development of new SARPs would also release resources for the production of higher-quality guidance material, which can be very effective in helping States implement the Standards.

3.6 In addition, ICAO should consider the publication of a new Annex on safety oversight. The criteria used in the USOAP might then usefully be reviewed with the aim of making the new safety oversight Annex the core of each audit. New SARPs should include systematic verification methods. Therefore, the application of these new SARPs would facilitate the conduct of the USOAP audits and improve the significance of their results.

APPENDIX

A36 – DRAFT RESOLUTION

The Assembly directs the Council and the Secretary General, respectively, to address as a matter of urgency the restructuring of the Annexes to the Convention as called for by Resolution A35-14, Appendix A, resolving clause 3, and to consider how the process of developing new Standards might be improved.

In addressing this task, the Council and Secretary General are required to:

- a) identify key risks in a systematic manner, then define mitigating measures for these risks which would become the “system-level, functional and performance requirements” referred to in Resolution A35-14. These requirements should form a basis of the USOAP audit process and filing of differences to them should be permissible only in exceptional circumstances;
- b) place more detailed, technical provisions in attachments or related guidance material, thereby rationalizing the current system while avoiding any danger of the emergence of a “two-tier” system of Standards which could lead to the neglect of those Standards not perceived as belonging to the essential safety-critical corpus;
- c) revise the existing Annex structure in order to reduce its complexity and make clearer the purpose of the different SARPs, taking account of recent developments such as the separation in many States of service delivery and regulatory oversight;
- d) consider the merits of moving towards a hierarchy of requirements on the pattern of existing regional systems of rule making, with different ICAO decision making processes for documents at different levels of the hierarchy and of decreasing complexity;
- e) implement more aggressively ICAO’s existing policy of shifting priorities away from the production of new Standards towards the implementation of existing ones;
- f) consider how those new Standards for which a prima facie case exists can be made subject to systematic pre-impact analysis, to ensure they are fully justified in terms of their safety benefits and economic consequences and do not impose unreasonable burdens on States;
- g) strive to improve the quality and clarity of ICAO's guidance material, with a view to helping States implement ICAO SARPs; and
- h) consider the publication of a new Annex on safety oversight.

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