SESAR Solution Regulatory Overview

PRNAV in a Complex TMA

Abstract
This document contains an overview of the SESAR Solutions documented recommendations from regulatory, standardisation, oversight and certification perspectives resulting from the cooperation with EASA and National Authorities.
Authoring & Approval

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1 Introduction

The purpose of this document is to provide an overview of the SESAR Solutions documented recommendations from regulatory, standardisation, oversight and certification perspectives resulting from the cooperation with EASA and National.

The document presents the recommendations issued by the National Authorities and EASA, for an acceptable deployment of the concepts contained in the SESAR Solution. These recommendations must be taken into consideration by the entities in charge of deployment of the correspondent SESAR Solution.
2 General recommendations

In general terms, it must be underlined that:

1) When deploying a SESAR Solution, the compliance with all applicable regulatory requirements must be ensured by the different concerned entities;

2) In particular, it must be ensured that the appropriate safety argument for the concerned change to the ATM functional system is performed in accordance with EC regulation 1035/2011 considering local specific risks and mitigation to those risks.

3) The present SESAR Solution does not constitute in itself an acceptable Means of Compliance with the previously mentioned regulatory requirements. Means of Compliance are subject to their acceptance by the Authorities involved in each concrete local implementation.

4) A verification of the existing standardisation and regulatory frameworks has to be done at the date of local deployment to identify possible major changes to the one in use at the moment of publication of this SESAR Solution.
3 Specific recommendations

3.1 On the Regulatory Framework

There is no specific topic on the regulatory framework field to be specially considered in deployment, beyond the currently existing applicable regulations. Nevertheless, the following should be considered:

- On PBN IR and RNP Means of Compliance, with potential impact in the implementation of this solution, are currently under elaboration by the EC and EASA. Within this work, harmonization and simplification of the RNP certification procedures in EASA should be promoted.

- The term ‘visual contact approach’ is used to define a procedure in which an aircraft is cleared to execute an approach keeping visual contact with preceding traffic and maintaining own separation. This procedure as such defers from a "visual approach" or a "contact approach" as they are defined in the present regulations. It would be desirable to promote a global definition and requirements for the approval of such procedures.

- Specific rules and procedures concerning execution of visual and contact approach may be laid down in the national regulations. It would be desirable to promote a global definition and requirements for the approval of such procedures.

- Confirmation that airspace and procedures design providers is another type of certified ANSP should be obtained.

3.2 On the Standardisation Framework

- P-RNAV applications in complex TMA are compatible with current standardisation framework.

- Point Merge and Trombone route extensions are procedural airspace constructs. Any implementation of these concepts needs to be a part of a wider airspace design change, which means they should follow the standard process for implementation of airspace design (dependent on the regulatory terms covering the applicable FIR).

- ICAO standards on RNAV (ICAO Doc 9573) , PBN (ICAO Doc 9613) and Flight procedures design (ICAO Doc 9906) are applicable. There has not been identified any need for new standards.
3.3 On the Regulatory Oversight and Certification Activities

When proceeding with the local implementation of this solution, the following topics must be taken into consideration:

- Following Regulation EC 1305/2011, changes in the ATM functional system derived from the deployment of this solution are subject to the elaboration of a safety argument considering local specific risks and mitigation measures to those risks.

- ANSPs have to design new procedures or amended ones tailored by the local conditions, publish the correspondent new charts.

- At present there are no regulatory provisions in force to impose an obligation to obtain formal approval prior to executing a visual approach and/or a contact approach (distinct from the ATC clearances following the provisions 6.5.3 of the ICAO Doc 4444). Specific requirements in that respect may derive from the national rules of individual Member States.

- Flight crews and train ATC staff have to be appropriately trained and qualified taken into consideration the new procedures designed.