

**ESARR ADVISORY MATERIAL/ICAO
(EAM/ICAO)**

EAM 2 / ICAO

**CONSISTENCY BETWEEN ESARR 2
and ICAO STANDARDS AND
RECOMMENDED PRACTICES**

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Abstract :		
<p>This document identifies consistencies and differences between the requirements published in the EUROCONTROL safety regulatory requirements developed in ESARR 2 and those published in ICAO SARPs.</p> <p>Its main objective is to demonstrate that the requirements and recommended practices published in Annex 13 Edition 9 may be affected by some specific implementations of ESARR 2. A sub-purpose was to develop the rationale why, it is necessary to expand on the ICAO SARPs.</p>		
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F.3 DOCUMENT APPROVAL

The following table identifies all management authorities who have approved this document.

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Note: For security reasons and to reduce the size of files placed on our website, this document does not contain signatures. However, all management authorities have signed the master copy of this document which is held by the SRU. Requests for copies of this document should be e-mailed to: sru@eurocontrol.int.

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F.4 DOCUMENT CHANGE RECORD

The following table records the complete history of this document.

EDITION NUMBER	EDITION DATE	REASON FOR CHANGE	PAGES AFFECTED
0.01	15-Oct-04	Creation.	All
0.02	17-Dec-04	Additional SRU comments incorporated.	2, 7, 8, 10, 12
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1.0	23-Jun-05	Document released following formal SRC consultation and approval (RFC No. 0510).	-

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F.6 EXECUTIVE SUMMARY

The Safety Regulation Commission's (SRC) initial work on the harmonisation of safety regulatory requirements identified and focussed on those safety areas which, in its view, needed most urgent attention. The resulting SRC Work Programme recognised the need to establish a number of EUROCONTROL Safety Regulatory Requirements, one of which was ESARR 2 "Reporting and Assessment of Safety Occurrences in ATM".

This document identifies consistencies and differences between the provisions contained in ICAO Annex 13, Edition 9 and the currently approved ESARR 2.

It should be noted that this document does not provide a mapping of ICAO provisions below the level of the SARP material.

Extensive consistency with ICAO SARPs is shown to exist. However, if a State implements ESARR 2 whilst ignoring the provisions of Annex 13, Chapter 8, it is recommended that such a State needs to notify a difference to ICAO.

This Advisory Material is only valid if a State has enacted ESARR 2 within its own legislation without detriment to the provisions of ESARR 2 or its meaning.

Where it has been necessary for ESARR 2 to expand further upon them or to address areas not currently covered in ICAO ANNEX 13, the document presents the rationale in a form which may assist States in addressing these documents at the national level.

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1. INTRODUCTION

The SRC's initial work on the harmonisation of safety regulatory requirements identified and focussed on those safety areas which, in its view, needed most urgent attention. Thus, the SRC Work Programme involved the preparation of a number of policies and EUROCONTROL Safety Regulatory Requirements (ESARRs), including ESARR 2 "Reporting and Assessment of Safety Occurrences in ATM".

This EAM2 / ICAO document identifies consistencies and differences between the respective safety management provisions of ICAO Annex 13 and the currently approved ESARR 2. Annex 13 is presently the only ICAO SARP that includes material related to ESARR 2; therefore, this document relates to all relevant provisions in ICAO SARPs.

This document is part of a series. There is a document for each ESARR showing the corresponding provisions of ICAO SARPs (EAM X / ICAO, where X is the number of the appropriate ESARR). There is similarly one document that shows the correspondence between each ICAO Annex and the corresponding ESARR provisions.

2. PURPOSE OF DOCUMENT

The main purpose of this document is to demonstrate that the requirements and recommended practices for safety management published in Annex 13, Edition 9, are adequately covered within ESARR 2.

A secondary objective of this document is to explain why it was necessary for ESARR 2 to expand further upon ICAO SARPs or to address areas not currently covered in ICAO Annex 13.

This document can also be used to assist ECAC States in justifying why they do or do not need to file differences between their national regulations dealing with reporting and assessment of safety occurrences in ATM (and associated practices) and the Standards laid down in the ICAO Annex 13. It is however recognised that the notification of differences is a State's responsibility and that this document only provides harmonised guidance to States.

This document can also be used when States are being audited by ICAO in the framework of the expanded ICAO Universal Safety Oversight Audit Programme (USOAP).

This Advisory Material is only valid if a State has enacted ESARR 2 within its own legislation without detriment to the provisions of ESARR 2 or its meaning.

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3. SUMMARY OF COMPARISON – ANNEX 13 WITH ESARR 2

The provisions of ESARR 2 must be compared with the related ICAO requirements, which are the minimum standard to be applied, to ensure that they are consistent.

ESARR 2 does not affect the reporting of accidents. However, the range of incidents to be reported and their classification under ESARR 2 is wider than Annex 13 and it is specifically targeted at ATM related incidents.

A careful review of the relevant provisions of ICAO Annex 13, notably Chapter 8 Accident Prevention Measures, has identified that:

- A mandatory reporting system is a Standard in Annex 13 while ESARR 2 only specifies that a State shall have a system but can decide whether it is mandatory or voluntary;
- In the case a State establishes a voluntary incident reporting system that system is non-punitive and affords protection to the information sources. This is Standard in Annex 13. However, ESARR 2¹ does not include provisions to afford protection to the information sources;
- Annex 13 recommends that if safety recommendations are addressed to an organisation in another State, that State's investigation authority should also receive the information. The ESARR 2 interpretation for that recommended practice arises from paragraph 5.1.8 which requires a State to monitor the implementation of the safety recommendation regardless of the addressee.

Otherwise, ESARR 2 expands upon and provides more detailed provisions than Annex 13.

4. ASSESSMENT OF RATIONALE FOR ESARR 2

The implementation of consistent high levels of aviation safety and the management of safety in ATM within the ECAC area require, as a priority, the successful implementation of harmonised occurrence reporting and assessment schemes. Such schemes will lead to more systematic visibility of safety occurrences and their causes, and will allow identification of appropriate corrective actions as well as areas where flight safety could be improved by changes to the ATM system.

Analysis of safety performance at the European level has yielded the conclusion (referenced in the EUROCONTROL ATM Performance Report for 1998) that “Across the ECAC area, significant variations exist in the scope, depth, consistency and availability of ATM safety data”.

¹ Paragraph 2.3 of the Rationale does indicate that reporting and assessment should be non-punitive but this is in a non-mandatory section.

Safety regulatory action is, therefore, considered necessary to promote more consistent and systematic reporting and assessment of safety occurrences within the ATM system. Such reporting and assessment, which must be in a non-punitive environment, has the potential to act as an effective contribution to accident and serious incident prevention.

5. CONCLUSIONS

This document demonstrates that the implementation of ESARR 2, whilst enhancing some of the provisions of Annex 13, is less demanding in that it allows a State to decide whether to have a mandatory or voluntary incident reporting system. Nor does it mandate that a voluntary system is non-punitive.

Therefore, it is recommended that States implementing ESARR 2 need to notify ICAO of a difference to Annex 13, but only if they solely implement a voluntary incident reporting system or make such a system punitive.

Note: The implementation of ESARR 2 through a non-punitive, mandatory reporting system more than complies with ICAO Annex 13 and EC Directives 56/1994 and 42/2003.

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APPENDIX A – DETAILED COMPARISON BETWEEN ESARR 2 AND ICAO ANNEX 13

ESARR 2, Edition 1.0	ICAO ANNEX 13
<p>Each State shall ensure that:</p> <p>5.1.1 A formal means of safety occurrence reporting and assessment is implemented for all ATM-related occurrences</p> <p>6.1 It is left to each State to decide the to produce reliable safety data. In particular, each State will decide upon the implementation, or not, of a national mandatory and/or voluntary scheme.</p>	<p>ESARR 2 goes beyond this provision <u>if a mandatory system is implemented</u></p> <p><i>Incident reporting systems</i></p> <p>8.1 A State shall establish a mandatory incident reporting system to facilitate collection of information on actual or potential safety deficiencies.</p>
<p>5.1.1 A formal means of safety occurrence reporting and assessment is implemented for all ATM-related occurrences</p> <p>5.1.2 Provisions exist for any person or organisation in the aviation industry to report any such occurrence or situation in which he or she was involved, of aircraft accidents or serious incidents, since other types of occurrences could reveal the same types of hazards as accidents or serious incidents ;</p> <p>6.1 It is left to each State to decide the to produce reliable safety data. In particular, each State will decide upon the implementation, or not, of a national mandatory and/or voluntary scheme.</p>	<p>ESARR 2 goes beyond this provision</p> <p>8.2 Recommendation — A State should establish a voluntary incident reporting system to facilitate the collection of information that may not be captured by a mandatory incident reporting system.</p>
<p>No correspondent</p>	<p>ESARR 2 is deficient in this area although the non-punitive nature of any scheme is noted in the rationale.</p> <p>8.3 A voluntary incident reporting system shall be non-punitive and afford protection to the sources of the information.</p>

ESARR 2, Edition 1.0	ICAO ANNEX 13
5.2.1 Each State shall ensure that all appropriate safety data are collated and reported to EUROCONTROL in terms of high level safety indicators, which as a minimum comply with Appendix B.	<p>ESARR 2 implies, but does not explicitly mandate, the use of a database system.</p> <p>Database systems</p> <p>8.4 Recommendation — <i>A State should establish an accident and incident database to facilitate the effective analysis of information obtained, including that from its incident reporting systems.</i></p>
5.2.1 Each State shall ensure that all appropriate safety data are collated and reported to EUROCONTROL in terms of high level safety indicators, which as a minimum comply with Appendix B.	<p>ESARR 2 is equivalent</p> <p>8.5 Recommendation — <i>The database systems should use standardized formats to facilitate data exchange.</i></p>
<p>5.1.5 Investigation or assessment, by a team with the necessary expertise, of those occurrences, takes place immediately, and any necessary remedial action taken;</p> <p>5.1.6 The severity of each such occurrence² is determined, the risk posed by each such occurrence classified, and the results recorded;</p> <p>5.1.7 The causes of such occurrences are analysed, to the utmost the risk incurred, with the results recorded;</p> <p>5.1.8 Safety recommendations, interventions and corrective actions are developed, recorded where necessary, and their implementation monitored;</p>	<p>ESARR 2 goes beyond this provision</p> <p>8.6 A State having established an accident and incident database and an incident reporting system shall analyse the information contained in its accident/incident reports and the database to determine any preventive actions required.</p>

² Refer to EAM 2 / GUI 1 “Severity Classification Scheme for Safety Occurrences in ATM”, Released Issue 1.0.

ESARR 2, Edition 1.0	ICAO ANNEX 13
5.1.9 To the extent possible, safety experience, based upon collected safety occurrence data and assessment, is exchanged between States in order to develop a more representative and common awareness of typical hazards and related causes, as well as safety trends and areas where changes to the ATM system could improve safety.	<p>ESARR 5 equates to this provision</p> <p>8.7 Recommendation — <i>If a State, in the analysis of the information contained in its database, identifies safety matters considered to be of interest to other States, that State should forward such safety information to them as soon as possible.</i></p>
5.1.8 Safety recommendations, interventions and corrective actions are developed, recorded where necessary, and their implementation monitored;	<p>ESARR 2, in conjunction with ESARR 3, goes beyond this provision</p> <p>8.8 Recommendation — <i>In addition to safety recommendations arising from accident and incident investigations, safety recommendations may result from diverse sources, including safety studies. If safety recommendations are addressed to an organization in another State, they should also be transmitted to that State's investigation authority.</i></p>
<p>5.1.9 To the extent possible, safety experience, based upon collected safety occurrence data and assessment, is exchanged between States in order to develop a more representative and common awareness of typical hazards and related causes, as well as safety trends and areas where changes to the ATM system could improve safety.</p> <p>5.2.1 Each State shall ensure that all appropriate safety data are collated and reported to EUROCONTROL in terms of high level safety indicators, which as a minimum comply with Appendix B.</p>	<p>ESARR 2 goes beyond this provision</p> <p>8.9 Recommendation — <i>States should promote the establishment of safety information sharing networks among all users of the aviation system and should facilitate the free exchange of information on actual and potential safety deficiencies.</i></p>
<p>Appendix A</p> <p>ATM-related safety occurrences to be reported and analysed</p> <p>(The severity classification contained in the Guidance Material also refers.</p>	<p>ESARR 2 goes beyond ICAO provisions</p> <p>Appendix C</p> <p>List of Examples of Serious Incidents</p>

APPENDIX B

NOTIFICATION OF COMPLIANCE WITH, OR DIFFERENCES FROM, ICAO ANNEX 13 (including all amendments up to and including Amendment 10)

This template for the notification to ICAO of differences to Annex 13 relates only to:

1. The provisions of ESARR 2 which do not precisely align with those of Annex 13; and
2. Those States which have:
 - a. solely established a voluntary incident reporting system rather than a mandatory system;
 - b. a voluntary incident reporting system which is not non-punitive.

The template also assumes that a State has enacted ESARR 2 within its own legislation without detriment to the provisions of ESARR 2 or their meaning.

Annex Provision (exact paragraph reference)	Details of Difference (describe the difference precisely)	Remarks (reasons for the difference)
8.1 Incident reporting Systems	A voluntary incident reporting system has been established rather than one which is mandatory.	ESARR 2, paragraphs 5.1 and 6.1.1, provides the option of mandatory or voluntary systems but national legislation [quote law] precludes the establishment of a mandatory system.
8.3	The voluntary incident reporting system established does not prevent punitive action being taken against the person making a report of an incident.	ESARR 2 does not have a specific provision that the system be non-punitive and national legislation [quote law] precludes the voluntary system being non-punitive.

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