



SAE
Safety Management Documentation

**Subject of Safety Assessment
Methodical Guideline**

ISQMS/SAF/2002-06

DOCUMENT HISTORY

<i>Version</i>	<i>Date</i>	<i>Compiled by</i>	<i>Notes</i>
0.1	18 Sep 2002	F. Prah	Draft.
0.2	23 Sep 2002	F. Prah	Second draft.
1.0	30 Sep 2002	F. Prah	Published version.

ANNOTATION

This document stipulates which changes of systems and procedures are to be subjected to safety assessment. It amends the Safety Management Manual guideline, Version 2.0, No. 01/02/DPLR/008.

DISTRIBUTION LIST

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1 INTRODUCTION

The document reacts to the existing requirement to better describe the issues of safety cases and to prevent impractical assessments of changes that only have a minor or negligible significance in terms of the safety of the provided ATM services. At the same time, a more detailed description should allow a better awareness of cases where it is necessary to assess the changes performed in terms of safety, thus preventing in some cases a frequently useless performance of retrospective safety analyses.

1.1 Purpose

The purpose of the document is to define clearly which changes of systems and procedures must always be assessed in terms of their safety. The document amends the Safety Management Manual guideline, Version 2.0, No. 01/02/DPLR/008 (hereinafter referred to as the "Manual"). The content of this methodical guideline will be incorporated in the next version of the Manual.

2 SUBJECT OF SAFETY EVALUATION

This part defines cases where it is necessary to assess changes in terms of safety.

2.1 Basic Approach

The basic approach is defined by the Manual. In general, safety assessment applies to:

- ▶ every new ATM system (a system in the broadest sense of the word) or its change, and
- ▶ every new procedure or changes to existing procedures (a "procedure" in this case includes the airspace management, ATC procedures and procedures for operating, controlling and maintaining ATM systems),

provided that the changes may influence the safety of the provided ATM services. A more detailed description is given in the following sections.

2.2 ATM Systems

2.2.1 New system

Every new ATM system, the operation of which influences the safety of the ATM services provided, must be assessed in terms of safety.

Thus, the safety assessment must always be performed where the system relates directly to the ATM services provided. In other cases, the decision to assess safety rests with the person who is, according to the Manual, responsible in the given case for assessing safety (see the Safety Management Manual, Chapter V, Section 3).

2.2.2 System changes

Firstly, it must be emphasised that by the very fact that ANS CR has implemented a quality management system the obligation arises to document every ATM system change (i.e. at least the date, change description, person responsible, and potentially a test report – a test scenario focusing on the identified risks, test results, date and person responsible).

Safety assessment must always be performed where:

- ▶ the system change alters the system functionality from the user's point of view;
- ▶ the level of difficulty and method of technical operation and handling of the system are changed;
- ▶ the technology used by the system changes;
- ▶ the change generates a change in the related procedures (ATC procedures, procedures for operating, controlling and maintaining ATM systems, or a change of the airspace management). If the procedures also need to be assessed in terms of safety (see the rules in Section 2.3 of this document), the procedure safety assessment is, if possible, incorporated in the ATM system change safety assessment.

Safety assessment is not to be performed in the following cases:

- ▶ The hardware is replaced by the same or similar hardware. The level of difficulty and method of technical operation are not affected.
- ▶ The system is physically relocated without the need to significantly change its interconnection with cooperating systems. Therefore, the new cabling routes must always be assessed in terms of potential electromagnetic interference and in terms of requirements for the independence of the individual systems, i.e. selecting different cabling routes for systems that are to be independent.
- ▶ System parameters are changed that do not directly affect the safety of the ATM services provided. Changes in safety-net settings must be evaluated.

2.3 Procedures

The term “procedure”, for the purposes of the document, includes airspace management, ATC procedures and procedures for operating, controlling and maintaining ATM systems.

The following rule applies: the procedure safety evaluation must be performed when a change to the procedure or the introduction of a new procedure requires the staff to be trained.

This criterion is based on the assumption that all procedural changes that may have a considerable impact on the safety of the ATM services provided are always accompanied with the relevant training.

3 RESPONSIBILITY

The following persons are responsible for safety assessment of a system before it has been put into operation and used:

- a) project manager, if the system is developed within a project, or
- b) a person responsible for the given system or the change of the system if it is not a project. If no such person has been designated, he/she is to be assigned or appointed by the competent basic organisational unit manager.

The responsibility for assessing the procedure safety rests with the person who has created the methodology for the given procedure.

All the responsibilities and competencies are defined in the Manual, Chapter V, Section 3.

4 SAFETY ASSESSMENT DOCUMENTATION

The obligation to assess safety does not always mean that a special document of the safety case type needs to be created. The evaluation may also be recorded, if technically possible, using the Safety Assessment Form only, which forms Annex F to the Manual. However, in such cases the Form must include sufficient details on which the conclusion stated in the Form is based (Item 3 of the Form, see the Manual, Annex F).

The Form number (reference number) follows the rules set out by the Safety and Quality Department and has the following format:

ISQMS/FORM/YEAR-XX,

where YEAR stands for the current four-digit year,
and XX represents the ISQMS document order number (may be obtained from the Safety and Quality Department).