



# SSA INITIATION

## 1 OBJECTIVES

The objectives of the **SSA Initiation** step are:

- To develop a level of understanding of the system development, implementation, operation, maintenance and decommissioning and its rationale;
- To update the description of the operational environment;
- To identify, when appropriate, regulatory requirements and/or standards applicable to the system implementation, integration, transfer into operation, operation, maintenance and decommissioning.

## 2 INPUT

### 2.1 System Definition and Design

- Description of system architectures and their rationale (justification material, supporting analyses);
- List of assumptions (FHA and PSSA output);
- Safety Objectives and Safety Requirements (FHA and PSSA output);
- Design constraints (including risk mitigation strategies);
- System elements requirements and/or specification;

- Physical interfaces.

## 2.2 Operational Environment Description (OED)

The OED is a common part used for the FHA, PSSA and SSA processes. The OED needs to be refined before starting the SSA.

The AIP (Aeronautical Information Publication) and AIC (Aeronautical Information Circular) should be referenced.

See Guidance Material A of Chapter 1.

## 2.3 Regulatory Requirements

International and national safety regulatory objectives and requirements related to the system: (ICAO, EUROCONTROL, ...).

## 2.4 Applicable Standards

Standards applicable to the system (e.g., EUROCONTROL Standards, standards internal to the organisations involved with the system).

As system means people, procedure and equipment, these standards can provide guidance on how to develop, integrate, transfer into operation, operate, maintain and decommission Software, Hardware, Procedures, Human factors, Human Machine Interface (HMI).

## 2.5 Others

- Organisation Risk Classification Scheme;
- FHA Report (not restricted to the list of Safety Objectives and assumptions);
- PSSA Report (not restricted to the list of Safety Requirements and the updated list of assumptions);
- Data coming from hazard databases, incident investigation reports, lessons learned, ... providing feedback on the SSA process (the process itself as well as the assurance level allocation process, quantification issues, ...) and previous applications of it (system element failures, contribution to hazard).

## 3 MAJOR TASKS

- Gather all necessary information describing the system implementation, transfer into operation, operation, maintenance and decommissioning, as outlined in Section 2 above;
- Review this information to establish that it is sufficient to carry out the SSA;

- Update the operational environment description of the system to add any system implementation, integration, transfer into operation, operation, maintenance and decommissioning related data;
- Identify and record assumptions made. Areas in which assumptions are commonly necessary relate to the operational scenarios, the system functions, architecture, implementation, transfer into operation, operation, maintenance, decommissioning and the system environment;
- Formally place all information under a documentation control scheme.

#### **4            OUTPUT**

- Input information describing the system implementation, as outlined in Section 2 above;
- Updated information (e.g., updated description of the operational environment, updated list of assumptions).

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