
separately documented. These changes include preliminary requirements from interdependent investments, new/modified air traffic control procedures, compliance with updates to the Code of Federal Regulations, and lifecycle-integrated logistics support (e.g., maintenance, training). At this stage, the initial Program Requirements Document (iPRD) defines the program's needs and requirements at a high level.

3.3.2 Establishing the Development Assurance Level

The Development Assurance Level (DAL) for each alternative (if applicable) is validated in the CSA. (Note: The DAL may differ among the investment alternatives assessed.)⁵

3.3.3 Preparing Safety Risk Management Documents

The output of the CSA should be used as an input to other Safety Risk Management (SRM) documents, particularly a Preliminary Hazard Analysis (PHA),⁶ as the capability/solution alternative pros and cons are debated after the IID.

3.3.4 Preparing/Revising the Safety Requirements Verification Table

The Safety Requirements Verification Table (SRVT) contains all of the safety requirements identified, starting with the origin of the requirement, and should include the requirements identified in the CSA. The final SRVT is not required until the System Safety Assessment Report is prepared.

4 Procedures

This section describes the CSA development process.

4.1 Initial Inputs

The following are examples of inputs to the CSA.

4.1.1 Identified Alternatives

Investment analyses should bring at least three diverse, yet technically viable alternatives forward for selection of a preferred solution alternative. Ideally, the reference case is not one of these alternatives. Instead, it is a baseline against which the alternatives are compared. Consider the fact that the reference case is not always a “do-nothing” scenario, since many legacy program activities may already be in place and may go through some default evolution during the required implementation time of the alternative solutions. Therefore, potential safety consequences stemming from letting an existing system continue without further investment and without the targeted new capability must be fleshed out. This should address whether the targeted new capability is an improvement or a deterioration to the existing system.

4.1.2 OSAs

OSAs previously conducted for the [Investment Analysis Readiness Decision](#) may provide relevant information concerning safety hazards, causes, solution states, effects, and severity assessments to the CSA. Using these as inputs to the CSA, the likelihood of each hazard/cause/effect must be determined and matched with severity ratings. Differences among alternatives should begin to emerge, which could impact the combinations of cause/effect severity and likelihood ratings associated with each hazard. Ratings that are identical across all

5. The DAL for the eventually selected alternative is included in the iPRD and the initial [Implementation Strategy and Planning Document](#) prior to the [Final Investment Decision \(FID\)](#).

6. A PHA is best compiled after the alternatives are evaluated and a single alternative is selected as the best option. The PHA is conducted after the CSA and before the FID.