1. (normative)  
   Communication system analysis document (CSAD) - DRD
   1. DRD identification
      1. Requirement identification and source document

This DRD is called from ECSS-E-ST-50, requirements 5.2.2.3a, 5.2.2.3b and 5.2.3.3c.

* + 1. Purpose and objective

The communication system analysis document (CSAD) is produced by the communication system supplier to capture the results of analysis and testing of the communication system. The first issue of the CSAD is produced for the PDR, but it is updated throughout the project as further communication system analysis and testing is carried out and, as specified in ECSS-E-ST-50, is reviewed at each major project milestone following the PDR.

The results of all analysis and testing carried out on the communication system are reported in the CSAD. This document is therefore critical for tracking the development of the communication system throughout the project, ensuring that the communication system continues to meet the functional and performance requirements as the design and implementation are elaborated. The CSAD is used as a reference for the identification and resolution of any design issues throughout the development of the communication system.

* 1. Expected response
     1. Scope and content

Introduction

The CSAD shall contain a description of the purpose, objective, content and the reason prompting its preparation.

Applicable and reference documents

The CSAD shall list the applicable and reference documents in support to the generation of the document.

Mission description and communication system overview

The CSAD shall describe the main objectives and characteristics of the space mission.

The CSAD shall describe the intended communication system implementation.

Overview of analysis approach

The CSAD shall provide an overview of the analysis approach applied to the communication system.

The CSAD shall describe the goals and objectives of the analyses.

The CSAD shall describe the different analysis techniques used on the communication system.

The CSAD should contain a list of the communication system issues to be resolved by analysis.

Description and results of analysis

The CSAD shall describe each of the analysis techniques applied to the communication system together with the results of that analysis.

For each technique referred to in C.2.1<5>a, the CSAD shall include at least the following:

the objective of the analysis,

a detailed description of the analysis technique,

a description of any tools used to carry out the analysis,

a list of any assumptions made concerning the communication system or its environment during the analysis,

a list of starting conditions for the analysis,

copies of all inputs to the analysis,

the results of the analysis,

an appraisal of the analysis drawing conclusions and inferences with respect to the communication system, and

recommendations for the communication system based on the analysis.

1. The objective is that the analysis results can be reviewed offline, and the analyses can be repeated.

The conclusions referred to in C.2.1<5>b.8 should indicate whether the communication system meets its functional and performance requirements.

The recommendations referred to in C.2.1<5>b.9 should include recommendations on design changes.

* + 1. Special remarks

None.