1. (normative)  
   Communication system verification plan (CSVP) - DRD
   1. DRD identification
      1. Requirement identification and source document

This DRD is called from ECSS-E-ST-50, requirements 5.2.2.3c, 5.2.2.3d, 5.2.4.3b, 5.2.4.3c, 5.2.4.3d, 5.2.4.3e and 5.2.4.3f.

* + 1. Purpose and objective

The communication system verification plan (CSVP) is produced by the communication system supplier to describe the verification strategy and specific verification tests used to ensure that the communication system complies with the requirements established in the CSRD and CSBD. The first issue of the CSVP is produced for the PDR but, as specified in ECSS-E-ST-50, is updated throughout the project as more detailed tests are defined and critical issues are identified, and is reviewed at each major project milestone following the PDR.

The CSVP defines the tests to be conducted on the communication system to verify conformity to CSRD (see ECSS-E-ST-50 Annex A) and CSBD (see ECSS-E-ST-50 Annex B) requirements and therefore derives from these two documents. The results of the verification tests and any analysis to be conducted as a part of the verification process are reported in the CSAD (see ECSS-E-ST-50 Annex C).

* 1. Expected response
     1. Scope and content

Introduction

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

Applicable and reference documents

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

Mission description and communication system overview

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

The CSVP shall describe the intended communication system implementation.

Verification approach

The CSVP shall describe the approach to the communication system verification.

The CSVP shall describe the techniques to be used for the verification.

The CSVP shall list any special tools or facilities to be used.

Verification schedule

The CSVP shall describe the communication system verification schedule explaining how the communication system verification schedule matches the development schedules for both the ground segment and flight segment of the space mission.

The CSVP shall include a list of all tools and equipment to be used for the communication system verification activities, identifying for each tool

who is responsible for supplying it,

where it is provided,

the equipment configuration to use, and

the duration for which it is used.

Support to other verification activities

The CSVP shall describe the tools, equipment, and facilities associated with the communication system that can be made available to support other verification activities, such as the ground system or flight system verification.

The CSVP shall describe the nature of the tool, equipment, or facility.

The CSVP shall describe the capability of each tool.

The CSVP shall describe when and where each tool can be made available.

Verification tests

The CSVP shall describe each verification test to be performed, including the following information for each one:

a statement of the purpose of the verification test;

a detailed description of the test;

a list of the tools, equipment, or facilities to perform the test;

a definition of the configuration of the test environment and the unit under test at the start of the test (i.e. pre­conditions);

a description of the expected result (i.e. post­conditions);

pass and fail criteria for the test.

1. The purpose of these test description is to ensure that the verification tests can be repeated.
   * 1. Special remarks

None.