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**Amendment History**

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# INTRODUCTION

## Purpose

## Scope

## Acronyms and Abbreviations

## External Documents

Include references to standards, manuals, OEM documents etc.

## Internal Documents

Supply references to the following documentation regarding test item

a) Requirements specification

b) Design document

c) User/ Operation manual

# Test items

Identify the test items including their hardware and software version/revision level. Provide equipment configuration instructions for the unit under test. Items that are to be specifically excluded from testing should be identified.

# Test environment

## Testing tools required

## Hardware

The test setup including custom test rig, ATE, bought out equipments, measuring devices, cables, bus connector hubs, add-on cards, laptops, PCs, Power supplies etc should be identified.

## Software

The test software including software loaded in the test rig/ ATE, simulators, pre-recorded flight data, data files to be played as input to the software, etc should be identified.

## Test setup

Diagrammatic representation of one or more combinations of the above test hardware and software to be used for executing the test cases.

## Recording of Test results

Bring out the method of recording the test results and keeping the test log. Test sheets may be included. In case of failures, test Suspension criteria and resumption requirements to be given. Software load control method in case of software modifications.

## Features to be tested

## At Lab setup level

Identify all software requirements and combinations of software requirements to be tested at lab level with simulators/ ATEs etc. If some requirements cannot be tested at this level mention it.

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## At Rig level

Identify all software requirements and combinations of software requirements to be tested at rig level with actual external systems. If some requirements cannot be tested at this level mention it.

## At Aircraft integration level

Identify all software requirements and combinations of software requirements to be tested at aircraft integration level with actual pilot inputs/ displays. If some requirements cannot be tested at this level mention it.

## At Flight trials

Identify all software requirements and combinations of software requirements to be tested during flight trials.

## Features that cannot be tested

Identify all software requirements that cannot be tested but will have to be verified by other means like code analysis etc. These may include exception handling, interrupt priorities, POST and CBIT failures etc.

# Test matrix

Prepare a table listing the requirement ids (as per SRS) and the corresponding test cases which test these requirements. There may be one-to-one, one-to-many or many-to-one mapping between requirements and test cases.

# Test cases and procedures

Elaborate the test cases -The purpose of each test case, set of inputs, conditions and expected results, the step-by-step instructions for how each test case is to be set up and executed, how the test results are interpreted and the test environment to be used.