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भारतीय मानक मसौदा

अंतरिक्ष पद्धतियां — प्रारंभिक प्रचालन
भाग 1 अंतरिक्ष यान प्रारंभन और कमीशनिंग

Draft Indian Standard

Space Systems — Early Operations
Part 1 Spacecraft Initialization and Commissioning

ICS: 49.140

Air and Space Vehicles Sectional Committee, TED 14 Last date for receipt of comments is
28/08/2024

NATIONAL FOREWORD

(Identical Clause to be added later)

This standard is one of a series of Standards on the Space systems — Early operations. Other standard in this series are:

Doc. No.	Title
Doc (22916)/ ISO 10784-2 : 2011	Space systems — Early operations — Part 2 Initialization plan (<i>under development</i>)
Doc (22917)/ ISO 10784-3 : 2011	Space systems — Early operations — Part 3 Commissioning report (<i>under development</i>)

The text of ISO standard has been proposed as suitable for publication as an Indian Standard without deviations. Certain terminologies and conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'.
- Comma (,) has been used as a decimal marker, while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standard for which Indian Standard also exist. The corresponding Indian Standard, which is to be substituted in its respective place, is listed below along with its degree of equivalence for the edition indicated:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
ISO 10784-3:2011 Space systems — Early operations — Part 3 Commissioning report	Doc (22916)/ISO 10784-3 : 2011 Space systems — Early operations — Part 3 Commissioning report (<i>under development</i>)	Identical under dual numbering

The technical committee has reviewed the provisions of following International Standards referred in this adopted standard and has decided that they are acceptable for use in conjunction with this standard:

<i>International Standard</i>	<i>Title</i>
ISO 17566 : 2011	Space systems — General test documentation
ISO 24113 : 2023	Space systems — Space debris mitigation requirements

Attention is drawn to the possibility that some of the elements of this standard may be the subject of patent rights. The Bureau of Indian Standards shall not be held responsible for identifying any or all such patent rights.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 'Rules for rounding off numerical values (*second revision*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

SCOPE

A general definition of initialization is that it begins at separation of the spacecraft (SC) from the launcher. In some cases, a more exact definition will be that initialization begins in flight, upon planned change in mode or state of the SC from the launch configuration. Commissioning is completed when the SC, including its payload, is certified for initial mission operations. Prior to certification for mission operations, the SC is described as a test article in the three parts of ISO 10784. ISO 10784 does not include a requirement for contingency plans, but does include a statement of the need for contingency planning.

This part of ISO 10784 outlines general descriptive information for SC initialization and commissioning as might be appropriate for programme management, project engineering or programme test documentation. Since the SC is considered a test article at this phase of its operational life, ISO 17566 is used as a normative reference in constructing the initialization plan and the commissioning report. It provides SC manufacturers, SC operators and other stakeholders with a common language and form to verify and document spacecraft initialization and commissioning prior to normal SC mission operations.

FOR COMPLETE TEXT OF THE DOCUMENT KINDLY REFER ISO 10784-1 or CONTACT:

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