For Comments Only

### **BUREAU OF INDIAN STANDARDS**

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### भारतीय मानक **मसौदा**

## अंतरिक्ष प्रणाली — अंतरिक्ष परियोजनाओं में प्राप्त अनुभव (सीखा सबक) — सिद्धांत और दिशानिर्देश

Draft Indian Standard

# SPACE SYSTEMS — EXPERIENCE GAINED IN SPACE PROJECTS (LESSONS LEARNED) — PRINCIPLES AND GUIDELINES

ICS: 49.140

Air and Space Vehicles Sectional Committee,	Last date for receipt of comments is
TED 14	XX/XX/XXXX

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#### NATIONAL FOREWORD

(Formal clauses to be added later)

This draft Indian Standard which is identical with ISO 16192: 2017 'Space Systems — Experience Gained In Space Projects (Lessons Learned) — Principles And Guidelines' issued by International Organization for Standardization (ISO), will be adopted by the Bureau of Indian Standards on the recommendations of Air and Space Vehicles Sectional Committee and approval of the Transport Engineering Division Council.

ISO 16192 was prepared by Technical Committee ISO/TC 20, Aircraft and space vehicles, Subcommittee SC 14, Space systems and operations.

The text of ISO standard is proposed 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:

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

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**

This document outlines lessons learned principles and guidelines that are applicable in all space project activities (management, technical, quality, cost and schedule).

The application of this document is intended to be included in the supplier quality management system, but can be tailored in individual contracts as agreed by the customer and supplier, depending on:

— The content of each project (size, technological level and novelty, particular organization, participants, etc.);

— The interest and usefulness of the related information.

The lessons learned information can result from any situation which might be encountered in similar contexts for future projects, i.e.:

- Undesirable experiences that need to be avoided;
- Strategies, rules, principles of design, validation, tests and operations that proved to be successful or necessary.

This document neither endorses nor recommends the transmission of company proprietary information to external entities as part of a lessons learned process.

Implementing a formal lessons learned process as outlined in this document makes it possible to capture and benefit from this information.

The lessons learned activity is an important contribution to the processing of the preventive and corrective actions specified in ISO 9001 and ISO 17666.

This document also provides lessons learned processes and suggested lessons learned forms.

## FOR COMPLETE TEXT OF THE DOCUMENT KINDLY REFFR ISO 16192 : 2017 or CONTACT:

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