

*For Comments Only*

**BUREAU OF INDIAN STANDARDS**

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भारतीय मानक मसौदा

अंतरिक्ष प्रणालियाँ — अंतरिक्ष वातावरण (प्राकृतिक और कृत्रिम) — जीईओ पर लंबी अवधि में देखे गए प्रोटॉन प्रवाह और सौर प्रोटॉन प्रवाह हेतु आत्मविश्वास के स्तर के चयन के लिए सांख्यिकीय मॉडल हेतु दिशानिर्देश

*Draft Indian Standard*

**SPACE SYSTEMS — SPACE ENVIRONMENT (NATURAL AND ARTIFICIAL) — OBSERVED PROTON FLUENCES OVER LONG DURATION AT GEO AND GUIDELINES FOR SELECTION OF CONFIDENCE LEVEL IN STATISTICAL MODEL OF SOLAR PROTON FLUENCES**

ICS: 49.140

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**Air and Space Vehicles Sectional Committee, TED 14**

**Last date for receipt of comments is  
23/09/2023**

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Air and Space Vehicles Sectional Committee, TED 14

## NATIONAL FOREWORD

*(Formal Clause to be added later)*

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.

## SCOPE

This International Standard describes a method to estimate energetic proton fluences in geosynchronous earth orbit (GEO) over a long duration (beyond the 11-year solar cycle), and presents guidelines for the selection of a confidence level in a model of solar proton fluences to estimate solar cell degradation.

Many of the proton data observed in GEO are archived, for example from GMS (Japan), METEOSAT (ESA) and GOES (USA). This method is a direct integration of these fluence data (or the observed data over 11 years is used periodically).

As a result, the confidence level can be selected from a model of solar proton fluences.

This International Standard is an engineering-oriented method used for specific purposes such as estimating solar panel degradation.

**FOR COMPLETE TEXT OF THE DOCUMENT KINDLY REFER ISO 12208 : 2015 or CONTACT:**

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