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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 34518-2017

**Requirements for the data transmission and exchange interface
of land observation satellite ground systems**

陆地观测卫星地面系统数据传输与交换接口要求

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard proposed by China Aerospace Science and Technology Corporation. This standard by the National Aerospace Technology and Standardization Technical Committee (SAC/TC425) centralized. This standard was drafted by China Resources Satellite Application Center. The main drafters of this standard Yu Wenyong, Liu Guodong, Kang Qian, Song Shuhua, Wu Jun, Liu Mingliang, Qin Jingfang. Terrestrial Observing Satellite Ground System Data Transmission and exchange interface requirements

1 Scope

China's national standard for the data transmission and exchange interfaces within a land observation satellite ground system. It specifies the interface requirements between the processing system and the receiving systems, the tracking and control systems, and the users. A satellite ground system is several large systems built by different organisations at different sites: antennas that receive the downlink, a control centre that commands the spacecraft, processing chains that turn raw telemetry into products, archives that hold them and portals that serve them. Each is a substantial system in its own right, and the programme works only if data crosses between them without loss or ambiguity. Interfaces are also where such programmes usually fail, because each side is built to its own schedule against an assumption about the other. Writing the interfaces down as a national standard rather than as a project document means the next satellite can reuse the ground segment instead of rebuilding it.

This standard specifies the land observation satellite ground system processing system and receiving systems, measurement and control systems, data transmission between users, pay Change the interface requirements. This standard applies to land observation satellite ground system (hereinafter referred to as satellite ground system) data transmission and exchange, other remote sensing satellite ground Surface system can also refer to use.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 19710 Geographic Information Metadata

3.1 Terms and definitions

GB/T 19710 and defined by the following terms and definitions apply to this document, for ease of use, the following list is repeated

GB/T 19170 Some terms and definitions.

3.1.1 Land observation satellite landobservationsatelite Remote sensing satellites with land as the main observation object.

3.1.2 Ground handling system grounddataprocessingsystem Responsible for satellite operations management, data processing, archiving and distribution of the system.

3.1.3 Ground receiving system grounddatareceivingsystem Responsible for satellite remote sensing data reception system.

3.1.4 Ground measurement and control system groundTT System responsible for satellite tracking, measurement, monitoring and control tasks.

3.1.5 Metadata metadata Data about the data. Ie, identification of data, coverage, quality, spatial and temporal patterns, spatial reference and distribution information. [

GB/T 19710-2005, Definition 4.5]

3.1.6 User user Units or individuals using satellite data resources.