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PEOPLE'S REPUBLIC OF CHINA**

GB/T 38025-2019

**Interface specification for remote sensing satellite ground
systems**

遥感卫星地面系统接口规范

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard is proposed and managed by the National Aerospace Technology and its Application Standardization Technical Committee (SAC/TC425). This standard was drafted. Aerospace Star Technology Co., Ltd., China Resources Satellite Application Center, National Satellite Meteorological Center, National Satellite Sea Ocean Application Center. The main drafters of this standard. Liu Li, Chen Yu, Wang Hongqiang, Yu Wenyong, Wang Haibo, Wang Yulin, Jia Shuze, Han Qi, Peng Hailong, Lan Youguo, Liu Jinpu, Gao Fei, Wang Mingshi, Zou Tongyuan, Ding Huoping, Xi Jiayu. Remote sensing satellite ground system interface specification

1 Scope

China's national interface specification for remote sensing satellite ground systems. It specifies the terms and definitions, the abbreviations and the content of the external interfaces. Where the earlier standard in this family covers the interfaces inside a ground system - between the receiving stations, the control centre and the processing chains - this one covers the boundary with everything outside it: other ground systems, other agencies, and the users and applications that consume the data. That boundary is where an Earth observation programme either becomes a national asset or stays a departmental one. A ground system with well specified external interfaces can serve meteorology, agriculture, disaster response and mapping from the same infrastructure; one without them requires a bespoke arrangement for each, and in practice serves whoever built it. Standardising the interface is the cheapest thing a programme can do to widen its use.

This standard specifies the external and internal content, file naming and product format of the interface between the internal and external parts of the remote sensing satellite ground system. This standard is applicable to the construction of remote sensing satellite ground systems. The division of remote sensing satellite ground systems can be divided according to the actual needs of system construction. System composition.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article. Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 31011-2014 Remote sensing satellite raw data record and exchange format

GB/T 32453-2015 Satellite Earth observation data product classification and classification rules

GB/T 34518-2017 Land observation satellite ground system data transmission and exchange interface requirements

GB/T 35643-2017 Optical remote sensing mapping satellite imagery product metadata 3 terms and definitions, abbreviations

3.1 Terms and definitions The following terms and definitions defined in

GB/T 34518-2017 apply to this document. For ease of use, the following is repeated Certain terms and definitions in GB/T 34518-2017.

3.1.1 Remote sensing satellite ground system remotesensingsatelitegroundsystem

Arranged on the surface of the Earth, in-orbit business operation management with remote sensing satellite payload, observation plan formulation, downlink data reception, data The general term for the system of processing, product production, and facilities for archiving and distributing services.

3.1.2 Ground monitoring system groundtracking, telemetryandcommandsystem A system that is placed on the surface of the Earth and has functions such as satellite tracking, measurement, monitoring, and control tasks.

3.1.3 Ground receiving subsystem grounddatareceivingsubsystem Remote sensing satellite ground system subsystem with satellite digital transmission channel downlink data receiving, processing, landing recording and transmission functions.

3.1.4 Task planning and operation control subsystem

taskplanningandoperationcontrolsubsystem Remote sensing with satellite payload in orbit operation management, development of its observation plan and operation of remote sensing satellite ground system operations Star ground system subsystem.

3.1.5 Data archiving subsystem dataarchivingsubsystem Remote sensing satellite ground system subsystem with the functions of cataloging, archiving, querying and extracting data and products at all levels.