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Terms for global navigation satellite system reference stations

卫星导航定位基准站术语

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Table of Contents

1 Scope	1
2 General basis	1
3 Construction Management	4
4 Operation and maintenance	7
12 Index	13

Foreword

This standard was drafted in accordance with the rules given in GB/T 1:1-2009: This standard was proposed by the Ministry of Natural Resources of the People's Republic of China: This standard is under the jurisdiction of the National Geographic Information Standardization Technical Committee (SAC/TC230): Drafting organizations of this standard: Institute of Standardization of Surveying and Mapping, Ministry of Natural Resources, National Basic Geographic Information Center, Chinese Academy of Surveying and Mapping, Mountain The third geodetic survey team of the Eastern Provincial Institute of Land Surveying and Mapping, Wuhan University and the Ministry of Natural Resources: The main drafters of this standard: Duan Yihong, Zhang Kun, Zhang Peng, Zhang Haiping, Zhao Xin, Gao Shimin, Yin Xiaoqing, Wang Huanping, Wang Xiaohua, Xu Yantian, Wen Hanjiang, Li Lin, Wang Yongshang, Zhang Xi: Terminology of Satellite Navigation and Positioning Base Station

1 Scope

China's national terminology for GNSS reference stations. It covers the general basis, the construction management, the operation and maintenance, and the product services, closing with an index. A reference station is a deceptively simple installation - an antenna on a stable mount, a receiver, a communications link - whose value rests entirely on things that are hard to describe casually: how precisely its position is known, in what reference frame and at what epoch, how stable its monument is against ground movement, how its antenna phase centre is calibrated, and what it does when it loses power or connection. Those are the terms this vocabulary fixes. The structure of the document is telling: it covers not only the technical objects but the management of building, running and serving from a station, because a reference network is an operational service rather than a set of instruments, and most of what goes wrong with one is operational.

This standard specifies the commonly used terms and definitions of satellite navigation and positioning reference stations: This standard applies to the construction, management and

application of satellite navigation and positioning reference stations, and can be used for the formulation of related standards and technical documents:

2 General basis

1 Satellite navigation positioning reference station

globalnavigationsatellitesystemreferencestation; GNSSreferencestation Satellite navigation and positioning continuous operation reference station

GNSScontinuouslyoperatingreferencestation;GNSSCORS Long-term continuous observation of satellite navigation signals, obtain observation data, and transmit the observation data in real time or regularly through communication facilities Ground fixed observation station to the data center: 2:

2 Satellite navigation and positioning reference station network

GNSSreferencestationnetwork It is composed of several satellite navigation and positioning reference stations, data centers and data communication networks to provide data, positioning, navigation, timing, and location: Systems for services such as home appliances, weather, and earthquakes: 2:

3 Navigation Satellite System 2:3:

1 Global Navigation Satellite System globalnavigationsatellitesystem; GNSS A general term for satellite systems that provide positioning, navigation and timing services on a global scale: Such as global positioning system (GPS), GLONASS navigation Satellite system (GLONASS), Galileo navigation satellite system (Galileo) and Beidou satellite navigation system (BDS), etc: 2:3:

2 Global Positioning System GlobalPositioningSystem; GPS A global navigation satellite system developed, constructed and managed by the United States: Provide real-time three-dimensional position, speed and time information for global users, Including services such as Precision Positioning Service (PPS) and Standard Positioning Service (SPS): 2:3:3
GLONASS Navigation Satellite System GlobalNavigationSateliteSystem; GLONASS A global navigation satellite system developed, constructed and managed by Russia: Provide global users with real-time three-dimensional position, speed and time information Information, including standard precision channel (CSA) and high precision channel (CHA) services: 2:3:

4 Galileo Navigation Satellite System GalileoNavigationSateliteSystem; Galileo A global navigation satellite system developed and managed by the European Union: Provide real-time three-dimensional position, speed and time information for global users, Including open, commercial, life safety, public authorization and search and rescue support services: 2:3:

5 BeiDou Navigation Satellite System BeiDouNavigationSateliteSystem; BDS A global navigation satellite system developed, constructed and managed by China: Provide users

with real-time three-dimensional position, speed and time information, including

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