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

GB/T 44175.1-2024

**Real-time service of international GNSS monitoring and
assessment system (iGMAS) - Part 1: Data stream format**

全球连续监测评估系统（iGMAS）实时服务 第1部分：数据流格式

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part

1. Structure and drafting rules for standardization documents" Drafting is required. This document is part 1 of GB/T 44175 "Global Continuous Monitoring and Assessment System (iGMAS) Real-time Services". The following parts were published. Part

1 Scope

GB/T 44175.1-2024 specifies the data stream format for the real-time service of the international GNSS monitoring and assessment system, iGMAS, the Chinese-led global tracking network that monitors the performance of BeiDou, GPS, GLONASS and Galileo together. A monitoring network is only useful if what its stations produce can be read by everything downstream, so this part fixes the message types, the message structure, the data fields and the message formats in detail: the system parameters, the antenna reference point, the receiver and antenna description, the GNSS observation data, the navigation data for each of the four constellations, the ionospheric parameters, the BDS-2 integrity and differential messages, the meteorological data, the time difference measurement data and the GNSS health status messages, with a normative annex reproducing the RTCM STANDARD 10403.3-2022 formats the document builds on. It applies to the collection, storage, processing and exchange of iGMAS tracking station observation data streams, and equally to the development, production and testing of GNSS measurement receivers and to the use of real-time GNSS observation streams. It took effect on 24 July 2024.

This document specifies the message types, message structures, data fields and information for the global continuous monitoring and assessment system real-time service data flow Format. This document applies to the collection, storage, processing and exchange of observation data streams from global continuous monitoring and assessment system tracking stations. It is suitable for the development, production, testing of GNSS measurement receivers and the use of GNSS observation real-time data streams.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies. in this document.

GB/T 27606-2020 GNSS receiver data autonomous exchange format

GB/T 39267 Beidou Satellite Navigation Terminology

GB/T 39414.1-2020 BeiDou Navigation Satellite System Space Signal Interface

Specification Part

3.1 Terms and Definitions The terms and definitions defined in

GB/T 39267 and the following apply to this document.

3.1.1 real-time service After receiving observation data or completing processing, the global continuous monitoring and evaluation system provides data flow and product information to GNSS users in the form of information flow. The process of product.

3.1.2 data stream An ordered set of observation data sequences with a start synchronization byte and an end check byte.

3.2 Abbreviations The following abbreviations apply to this document. AIF. Accuracy Integrity Flag AODC. Age Of Data, Clock AODE. Age Of Data, Ephemeris