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

GB/T 43154-2023

**Geographic information - Storage rules of content model for
imagery and gridded data**

地理信息 影像与格网数据内容模型存储规则

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Table of Contents

1 Scope	1
2 Normative reference documents	1
3 Terms and Definitions	1
4 Abbreviations	1
5 Storage methods and requirements	1
5.1 Storage method	1
5.2 Storage requirements	2
6 Content encoding rules	2
6.1 General requirements	2
6.2 Default encoding	2
6.3 Global feature encoding	3
32 Reference	45

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents" Drafting. This document is consistent with GB/T 35653.1-2017 "Content Model and Coding Rules for Geographic Information Imagery and Grid Data - Part 1. Content Model" jointly supports the production, storage and management of image and grid data. Please note that some content in this document may be subject to patents. The publisher of this document assumes no responsibility for identifying patents. This document is proposed by the Ministry of Natural Resources of the People's Republic of China. This document is under the jurisdiction of the National Geographic Information Standardization Technical Committee (SAC/TC230). This document was drafted by: Wuhan University, Shenzhen University, Beijing Jiwei Times Software Co., Ltd., National Basic Geographic Information Center, Wuhan University Geo Information Technology Co., Ltd., Beijing SuperMap Software Co., Ltd., Tianjin Institute of Surveying and Mapping. The main drafters of this document. Gong Jianya, Wang Yandong, Gao Wenxiu, He You, Huang Juntao, Zhang Yuanjie, He Kaikai, Li Wenlong, and Ge Liang.

This document adopts the encoding defined in ISO / T S19139-1.2019 "Geographical Information XML Schema Implementation Part

1. Coding Rules" Code rules map the content model UML defined in GB/T 35653.1-2017 to XML schema, based on a common data storage format Define the storage rules of the

content model to facilitate the production, storage and management of image and grid data.
geographical information Image and grid data content model storage rules

1 Scope

GB/T 43154-2023 sets the storage rules for the content model of geographic imagery and gridded data. Satellite imagery and raster surfaces are the largest data any mapping organisation holds, and the difficulty is not the pixels but everything wrapped around them: the coverage geometry, the band definitions, the null values, the radiometric interpretation and the metadata that says what the numbers mean. A content model defines all of that abstractly; this standard says how it is written down so that one agency's archive can be read by another's software. It sets the storage methods and requirements, then the content encoding rules, covering the general requirements, the default encoding, the global feature encoding and the attribute type encoding. It works alongside GB/T 35653.1 and took effect on 7 September 2023.

This document specifies the storage methods and requirements for image and grid data content models, content encoding rules, and XML schema implementation. This document applies to the production, storage and management of image and grid data.

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, the dated quotations For undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to this document.

GB/T 35653.1-2017 Content model and coding rules for geographical information images and grid data Part

3 Terms and definitions

The terms and definitions defined in GB/T 35653.1-2017 apply to this document.

4 Abbreviations

The following abbreviations apply to this document. XS. XML Schema (XMLSchema)

5 Storage methods and requirements

5.1 Storage method The storage method of image and grid data is to convert the UML content model into XML schema, and then instantiate it according to the XML schema. XML file, a standard image data file should be composed of a data body file and an XML file, as

shown in Figure 1. Figure

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