

ICS 07.040; 35.240.70
CCS A 75



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

GB/Z 34429-2017

Geographic information -- Imagery and gridded data

Issued on: September 29, 2017

Implemented on: April 1, 2018

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China, Standardization
Administration of the People's Republic of China**

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2.1 Terms and definitions

Foreword

This instructional document has been drafted in accordance with the rules given in GB/T 1.1-2009.

This guidance document is based on the redrafted law reference ISO /T R19121.2000 "Geographic Information Images and Grid Data" (English

Edition), and ISO /T R19121.2000 consistency is not equivalent.

This Guidance Document is submitted by the National Geographic Information Bureau.

This guidance document is governed by the National Geographic Information Standardization Technical Committee (SAC/TC230).

The drafting of the guidance of technical documents. China Academy of Surveying and mapping, the National Basic Geographic Information Center.

Introduction

With the development of remote sensing technology, China independently developed and launched more than 50 Earth observation satellites, military satellite remote sensing series have been completed,

CMB resources, Beijing No. 1, small satellite constellations for environmental mitigation, high-resolution satellite systems, surveying and mapping remote sensing satellites, will produce a terabyte every day

Mass remote sensing images are widely used in such fields as land, meteorology, ocean, environment, transportation and agriculture. In addition, the basic geographic information products, soil

The use of data is increasing day by day. In order to facilitate the preservation, use, sharing, service, and interoperability of these data, it is important to understand the basics of these data

Features, main content.

At present, the development of standards for imaging and grid data in the field of geographic information in China lags behind the development of technologies and applications and can not be full

It is imperative to formulate relevant standards in order to understand in depth the features of image and grid data and promote their extensive application.

International Organization for Standardization Geographic Information Standardization Committee (ISO /TC211) in.2000 promulgated a technical report

The current approach to processing image and grid data in the field of geographic information, the international standard for image and grid data, is ISO 19100

The development of relevant standards provides a more comprehensive technical information.

In the same year, promulgated ISO /PT19124.2000 "Geographic information and grid data composition" (Geographicinformation-

Imageryandgriddeddatacomponents (English version), the document on the basis of ISO /T R19121 further

ISO 19100 series of standards and video and grid data related to the concept description and expression of norms, cited ISO /T R19121 related

And related standards contained in the image and grid data components, analyzed the various components of the existing and in the development of the 19100 series

Standard relations between the different standards on the video and grid data requirements, a clear ISO 19100 series of standards in order to further

Explain the image and grid data and need to expand the content.

In view of ISO /T R19121.2000, ISO /PT19124.2000 are ISO /TC211 development and imaging and grid data related

Standard basis and basis, the two documents complement each other, therefore, non-equivalent use of ISO /T R19121.2000, while reference

ISO /PT19124.2000, Compilation of "Geographic Information Images and Grid Data".

This guidance document incorporates the core elements of the two international documents, but there are technical differences. The main changes are as follows.

--- Absorb the ISO /T R19121 image and grid data content part, refer to GB/T 25530-2010, ISO 19115-2.

2009, ISO 19118.2011, etc. have been supplemented;

--- Adopt the five components of ISO /PT19124 image and grid data and functional information as the guidance of technical documents

Appendix B

--- Absorb the grid data characteristics and classification of ISO /PT19124;

--- Adopted ISO /T R19121 appendix A (informative) grid unit organization as the guidance of technical documents

Record A

--- According to China's national conditions, not included in the two international documents with other international standards, the international standard format and so on;

--- To understand the guidance of technical documents, an increase of terms and definitions, abbreviations.

This Guidance Document is provided to producers and users of image and grid data for their effective use of image and grid data

Test, but also for the realization of the standardization of image and grid data to provide a reference, a more detailed image and grid data standards by the geographic information

Series of other national standards and other standards and extensions.

This Guidance Document is for reference only. The suggestions and opinions on this Guidance Document shall be submitted to the competent department of standardization administration under the State Council

Door reflection.

Geographic Information Images and Grid Data

1 Scope

This guidance document describes the spatial and attribute characteristics of image and grid data, defines the space, attributes,

The main contents of image and grid data and their functional information are given.

This guidance document is applicable to image and grid data applications and standardization.

2.1 Terms and definitions

The following terms and definitions apply to this document.

2.1.1

Grid grid

A network of two or more sets of curves that intersect according to some algorithm.

Note. Curves divide the space into grid cells.

[GB/T 17694-2009]

2.1.2

Grid gridpoint

A point in the grid where two or more curves intersect.

[GB/T 17694-2009]

2.1.3

Grid data griddata

Regularized data for the space corresponding to a particular frame of reference.

[GB/T 17798-2007]

2.1.4

Corrected grid rectifiedgrid

There is a grid of affine transformations between grid coordinates and coordinates of the external coordinate system.

Note. If a frame of reference is related to the Earth by reference, the grid is the grid of geo-correction.

[GB/T 17694-2009]

2.1.5

Reference grid referenceablegrid

A grid associated with a transform that is often used to convert the grid coordinates into coordinates that reference the external coordinate reference system.

Note. If the frame of reference is earth-based, the grid is the georeferenced grid.

[GB/T 17694-2009]

2.1.6

Pixel pixel

The smallest element of a digital image that you can assign to it.

Note 1. This term comes from the abbreviation of "picture element".

Note 2. Related to the concept of grid cells.