

ICS 91.120.25
CCS P 15

DB

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

DB/T 82-2020

**Active fault survey - Field geological investigation
(English Translation)**

Issued on: March 30, 2020

Implemented on: July 1, 2020

Issued by: China Earthquake Administration

Table of Contents

Preface
Introduction
1 Scope
2 Normative references
3 Terms and definitions
4 Basic regulations
5 Work process
6 Work content
7 Field observation requirements
Appendix A (informative appendix) Plan and section layout
Appendix B (informative appendix) Examples of plan and sectional views
Appendix C (Informative Appendix) Outline of Field Geological Survey Report
Reference

Foreword

This standard is one of the series of standards for "Active Fault Exploration". The standard structure and name of the series are expected to be as follows.

- Remote sensing survey of active fault detection (DB/T 69-2017);
- Active fault exploration and faulted geomorphological survey (DB/T 71-2018);
- Active fault exploration, ancient seismic trough exploration (DB/T 81-2020);
- Active fault exploration and drilling;
- Active fault exploration date test;
- Active fault exploration and seismic exploration;
- Active fault detection activity identification;
- The seismic hazard evaluation of active fault exploration;
- Graphic symbols for active fault exploration (DB/T 72-2018);
- Active fault exploration database;
- Active fault detection database detection (DB/T 83-2020);

---Active fault exploration 1:250,000 seismic structure map compilation (DB/T 73-2018);

---Active fault detection results report;

---1:50000 active fault mapping (DB/T 53-2013);

---1:50000 active fault mapping database specification (DB/T 65-2016);

This standard was drafted in accordance with GB/T 1.1-2009 "Guidelines for Standardization Part 1: Standard Structure and Compilation".

This standard was proposed by the China Earthquake Administration.

This standard is under the jurisdiction of the Earthquake Disaster Prevention Standardization Technical Committee.

This standard was drafted. Institute of Geology, China Earthquake Administration, Institute of Crustal Stress, China Earthquake Administration, Earthquake Administration of Shaanxi Province, Earthquake Administration of Anhui Province, Institute of Disaster Prevention Science and Technology.

Introduction

Numerous site surveys of major earthquakes at home and abroad and analysis of their disaster phenomena show that active faults are the root cause of earthquakes and also earthquake disasters the culprit. Finding out the exact location of seismically active faults and making scientific evaluations of their attributes and seismic risk is an earthquake disaster risk assessment and the important basic work of earthquake disaster prevention. Since the "Ninth Five-Year Plan" period, my country has gradually promoted the detection of active faults.

Great progress has been made in engineering technology, and certain practical experience has been accumulated. The results are in urban planning, land use, engineering construction, and Earthquake science research and other fields have played an important role.

In recent years, the seismic department has organized and carried out active fault detection technology to sort out the work process, work content and work results.

This framework. In order to standardize and guide my country's active fault detection and application of its results, GB/T 36072-2018 ``Active Fault Layer Detection. The standard provides technical advice on the work content, workflow, technical methods, data management, and outcome output of active fault detection.

The requirements are stipulated. On this basis, further evaluate and analyze various technical methods to achieve detection purposes, and clarify their technical indicators and data collection requirements, and build a standard framework for active fault detection.

Field geological survey is an important basic work of active fault exploration, and it is an indispensable part of obtaining first-hand information. survey the focus is on active faults and related active folds, Quaternary strata, Quaternary volcanoes, and Quaternary landforms. Field geological survey records the written records, floor plans and cross-sectional diagrams of notebooks or special recording software are precious original data and are also the basis for further comprehensive analysis and research.

foundation. In order to ensure the quality of field geological surveys, this standard is formulated for reference to relevant standards, survey content and methods for active fault exploration at home and abroad.

Active fault exploration field geological survey

1 Scope

This standard specifies the work flow, work content and field observation requirements for active fault exploration field geological survey.

This standard applies to field geological surveys such as active fault mapping, urban active fault detection, and fault activity identification. Ground Earthquake scientific investigation can also be used as a reference.

2 Normative references

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

GB/T 958 Regional Geological Map Legend GB 17741-2005 Earthquake safety evaluation of engineering site GB/T 18208.3-2011 Earthquake site work Part 3: Investigation specifications GB/T 36072-2018 Active fault detection DB/T 53-2013 1:50,000 active fault mapping DB/T 65-2016 1:50000 active fault mapping database specification DB/T 69-2017 Active Fault Exploration Remote Sensing Survey DB/T 71-2018 active fault exploration and faulted geomorphological survey DB/T 72-2018 Graphical Symbol for Active Fault Exploration

3 Terms and definitions

GB 17741-2005, GB/T 18208.3-2011, GB/T 36072-2018, DB/T 53-2013 and DB/T 71-2018 the defined and the following terms and definitions apply to this document.

Active fault

There have been active faults since 120,000 years ago, including Late Pleistocene faults and Holocene faults.

[GB/T 36072-2018, definition 3.1] 3.2 Active fold There have been active folds since the Late Quaternary.

[DB/T 53-2013, definition 3.5] 3.3 Earthquake surface rupture zone Fracture and deformation bands along the seismogenic structure on the surface during a strong earthquake.

Note: Rewrite GB/T 18208.3-2011, definition 3.11.

Faulty landform

The geomorphology formed by fault activity on the surface or affected by faults.

[DB/T 71-2018, definition 3.1.2]