



Progress Report On “Development and Service of WDC for Seismology, Beijing”

Cai Jinan Huang Wei Song Shenhe

China Earthquake Administration



中国地震局

CONTENT

➔ 中国地震局 General Situation

- 中国地震局
Progress of Data Criteria Construction

- 中国地震局
Progress of Database Construction

- 中国地震局
Progress of Data Platform Construction

Source of The project :

The construction content of this project is part of the “Development and Service of Earth Sciences Data Center , China”, funded by the Ministry of Science and Technology , China and China Earthquake Administration

The Project Purpose:

- Reorganization and Integration of Seismic Data;
- Construction of Main Database;
- Improving Distributed Network Service and Sharing;
- Navigation of Global Seismic Data Resources.

The Project Tasks:

➤ **Improvement of Classification Criteria of Seismic Data Sharing;**

➤ **Survey of Global Seismic Data Resources;**

➤ **Internet Sharing of the Main Seismic Database;**

➤ **Improving Metadata and Index Database;**

➤ **Improvement of Seismic Data Navigation System.**

Construction of this project has been lasting for 6 years, in two stages:

- First Stage: 1999 - 2001, Construction of Seismological Database and Website, and the Framework of WDC for Seismology, Beijing;**
- Second Stage: 2002 - 2004, Improvement and Service of WDC for Seismology ,Beijing.**

**More than 50 scientists and
technicians participated in this project.**



Progress Summary and Technical Reports of WDC for Seismology, Beijing.



中国地震局

CONTENT

☞ **General Situation**

☞ **Progress of Data Criteria Construction**

☞ **Progress of Database Construction**

☞ **Progress of Data Platform Construction**

1、 Report on the Classification of Seismic Data

We investigate current seismic data at home and abroad, analyze the characteristics of the seismic data in China, and classifies seismic data from different angles.

II、 Setting up “the compilation Guideline for Seismic Metadata (primary draft)”

In accordance with ISO/19115 and reference to relevant national criteria, combined with real characteristics of seismic data, we set up “the compilation Guideline for Seismological Metadata (primary draft)”.

III 、 Setting up “Technical Standard of Seismic Database System” and “Management and Service Standard of Seismic Data”

On the basis of broad survey of seismic data, we analyze the structural features of various types of data, set up the table structure of database and the management and service standard of seismic data.



中国地震局

CONTENT

☞ **General Situation**

☞ **Progress of Data Criteria Construction**

➔ ☞ **Progress of Database Construction**

☞ **Progress of Data Platform Construction**

1、 Basic Seismic Database(11)

1、 China Historical Earthquake Catalogue

The China Historical Earthquake Catalogue Database collects the destructive earthquake occurred in period of 1831 B.C. –A.D. 1979 . ($M \geq 4.7$), totaling about 6059 items.

Data volume: 0.5MB

Search for hisml - Microsoft Internet Explorer

文件(F) 编辑(E) 查看(V) 收藏(A) 工具(T) 帮助(H)

后退 搜索 收藏夹 媒体

地址(Q) http://210.72.96.21:8080/cezhen/hisml_query.jsp

收藏夹

IBM 推荐的站点

链接

MSN.com

Radio Station Guide

图片收藏

Google

Search for hisml

中国历史地震目录库

填写历史地震目录查询条件

该目录是由顾功敏主编的。搜集了公元前1831年至公元1969年间发生在我国的破坏性地震(M_w≥4.0),共5163条目录。请输入查询条件(日期格式为YYYYMMDD,如:19700101,公元前为负。纬度格式为度度度分,经度格式为度度度分,不足的位补0,如:若经度为90度,则应输入09000。

1. 日期
2. 纬度
3. 经度
4. 震级

Chinese Version

Microsoft Internet Explorer

媒体

ry.jsp

Technology, Beijing

WDC

Micro-EQ Catalog Historical EQ Catalogue Earthquake Report SEED Waveform Data (WILBER)

Magnetic Storms Nine Major EQ in China Station Map Earthquake Poster EQ Case in China

Please input searching condition of historical catalogue

The data is from China Historical Catalogue Database. This catalogue collects the destructive earthquakes occurred in period of 1831 B.C.-1979 A.D. (M_w≥4.0). The total is 6059 pieces.

Please input search condition. Date format is YYYYMMDD, for example 19700101. BC year need add minus sign. Latitude format is DDMM. Longitude format is DDDMM. Please Input lacking number as zero, for example, Longitude 90 degrees should be inputted as 09000.

1. Date
2. Latitude
3. Longitude
4. Magnitude

English Version

I、 Basic Seismic Database

2、 Earthquake Catalogue of China Seismic Network

The Earthquake Catalogue Database contains the catalogue of national basic survey station since 1978 . It can be searched by earthquake time, epicentral longitude and latitude, depth, magnitude and reference name.

Search Results from the Earthquake Catalogue Database of China Seismic Network

WDC for Seismology, Beijing - CSM catalog - Microsoft Internet Explorer

文件(F) 编辑(E) 网址(B) 查看(V) 收藏(A) 工具(T) 帮助(H)

后退 搜索 收藏夹 媒体

地址 http://210.72.96.165/wdc/csn_catalog_p002.jsp 转到 链接

World Data Center for Seismology, Beijing

[Lastest Quake](#)
[Earthquake Catalogue](#)
[Microseismic Events](#)
[Historical EQ Catalogue](#)
[Earthquake Report](#)
[SEED Waveform Data \(WILBER\)](#)
[National network quick CMT](#)
[Strong Motion Data](#)
[Basic Database of Magnetic Storms](#)
[Station Map](#)
[Earthquake Poster](#)
[Earthquake Case in China](#)
[Isoseisms of Destructive Earthquakes in China](#)
[About Us](#)

CSN catalog

Origin time	Longitude (°)	Latitude (°)	Depth (km)	Ms	Ms7	mL	mb	mB	Region
2006/06/30 23:28:10.2	142.12 E	38.42 N	35	4.8	4.7		5.5	5.2	Near east coast of Honshu
2006/06/30 19:32:50.7	71.00 E	36.94 N	246				4.4	4.5	Hindu Kush region
2006/06/30 17:40:03.1	124.83 E	13.20 N	32				4.4	4.6	Samar
2006/06/30 17:05:03.9	71.72 E	33.48 N	26	4.4	4.0	4.3	4.6	4.9	Pakistan
2006/06/30 16:55:02.3	111.78 W	42.97 N	9	4.7	4.4		5.0	5.3	Eastern Idaho
2006/06/30 15:25:01.9	93.14 E	9.18 N	43	4.0	4.0		4.5	4.6	Nicobar Islands region
2006/06/30 15:06:09.8	55.54 E	26.66 N	35	4.6	4.2		4.6	5.0	Southern Iran
2006/06/30 13:17:13.1	122.38 E	46.40 N	14			3.3			North-Eastern China
2006/06/30 09:21:22.0	103.90 E	27.97 N	13			3.1			Yunnan Province
2006/06/30 09:16:02.0	103.83 E	27.99 N	18	4.1	3.5	4.1	4.3	4.5	Yunnan Province
2006/06/30 08:07:38.0	155.20 E	6.14 S	67	4.9	4.7		5.3	5.4	Solomon Islands
2006/06/30 06:39:28.5	139.87 E	3.69 S	30	4.4	4.2		4.9	5.2	West Irian
2006/06/30 06:32:51.5	178.1 W	29.8 S	60	5.0	4.7		4.9	5.8	Kermadec Islands
2006/06/30 05:38:51.1	55.15 E	27.03 N	32	4.2	3.8		4.8	4.9	Southern Iran
2006/06/30 05:24:34.5	153.2 W	59.10 N	67	4.5	4.2		5.0	4.8	Kodiak Island region
2006/06/30 02:49:02.2	123.30 E	0.4 S	49	4.6	4.2		4.9	5.0	Minahassa Peninsula (Celebes)
2006/06/30 02:43:32.9	8.80 E	74.00 N	10	4.8	4.5		4.8	5.0	Greenland Sea
2006/06/30 01:25:26.8	119.72 E	19.08 N	7	4.2	4.0	4.1	4.5	4.5	Philippine Islands region

开始 WDC世界数据中心... Microsoft Power... World Data Cent... 地震学科数据库... WDC for Seismol... 16:06

I、 Basic Seismic Database

3、 China Micro-earthquake Catalogue

The China Micro-earthquake Catalogue Database collects the earthquake occurred since 1978 ($M \geq 1.0$), totaling about 300,000 items. It can be searched by origin time, longitude and latitude, depth, magnitude and reference name.

World Data Center for Seismology, Beijing

- Lastest Quake
- Earthquake Catalogue
- China Micro-EQ Catalog
- Historical EQ Catalogue
- Earthquake Report
- SEED Waveform Data (WILBER)
- Home
- National network quick CMT
- Basic Database of Magnetic Storms
- Nine Major EQ in China
- Station Map
- Earthquake Poster
- EQ Case in China
- Seismic Monitoring Systems
- About Us

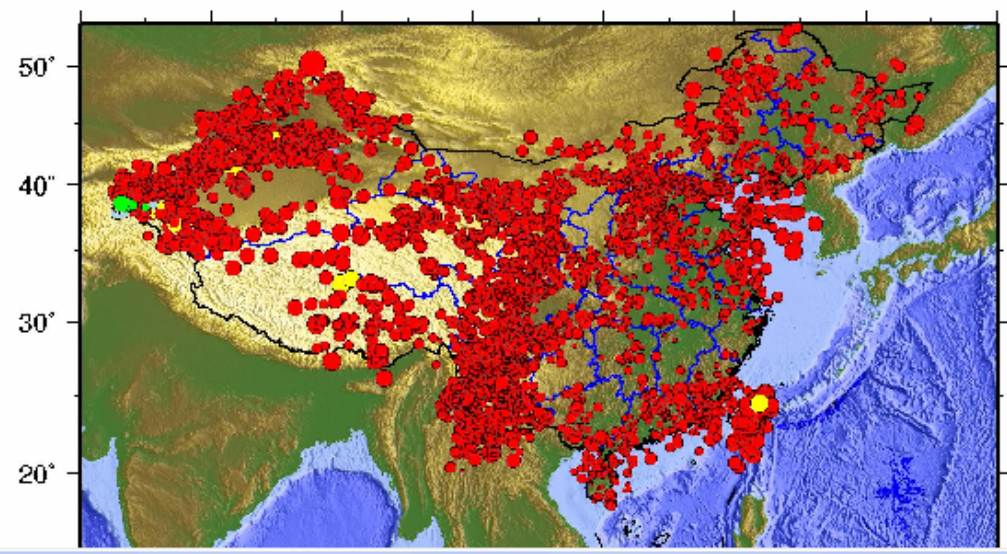
Catalogue of Microseismic Event in China

Date 2003-01-01 - 2003-12-31

Latitude -

Longitude -

Magnitude -



I、 Basic Seismic Database

4、 Large Earthquake Sequences Catalogue

It is a catalogue containing 16 earthquakes larger than M7.0 from mainland China, numbered more than 80,000 items, including origin time, epicenter longitude and latitude, depth, magnitude, location quality, region code, reference name ,data source and notes.

Data volume:10MB.



世界数据中心地震学科中心, 北京

文件名	序列名	主震日期	纬度	经度	震级	序列类型	序列起止时间
G1	邢台	19660322	3732	11503	7.2	多震型	4 1966.3.8-1966.6.8
G2	渤海	19690718	3812	11924	7.4	主余型	2 1969.7.18-1969.10.17
G3	通海	19700105	2400	10242	7.8	主余型	3 1970.1.5-1970.4.5
G4	炉霍	19730206	3129	10032	7.6	主余型	2 1973.2.6-1973.5.6
G5	玛尼西北	19730714	3512	08630	7.3	主余型	2 1973.7.14-1973.7.22
G6	昭通	19740511	2812	10354	7.1	主余型	2 1974.5.11-1974.8.11
G7	巴里坤	19740705	4504	09347	7.1	主余型	2 1974.7.5-1974.10.5
G8	乌恰西	19740811	3924	07348	7.3	主余型	4 1974.8.11-1974.11.10
G9	海城	19750204	4042	12242	7.3	主余型	2 1975.2.1-1975.5.4
G10	龙陵	19760529	2437	09850	7.3	多震型	3 1976.5.29-1976.8.29
G11	唐山	19760728	3936	11812	7.8	多震型	4 1976.7.28-1986.6.30
G12	松潘	19760816	3237	10408	7.2	双震型	2 1976.8.16-1976.11.16
G13	乌恰	19850823	3924	07522	7.4	双震型	2 1985.8.23-1985.11.23
G14	澜沧-耿马	19881106	2250	09943	7.6	双震型	3 1988.11.6-1989.1.5
G15	共和	19900426	3607	10008	7.0	主余型	2 1990.4.26-1990.7.26
G16	斋桑	19900614	4806	08543	7.3	主余型	2 1990.6.14-1990.9.10
G17	台湾海峡	19940916	2240	11845	7.3	主余型	2 1994.9.16-1994.12.16
G18	孟连	19950712	2159	09904	7.3	双震型	3 1995.7.10-1995.10.9
G19	丽江	19960203	2718	10013	7.0	主余型	2 1996.2.3-1996.5.3
G20	喀拉昆仑山	19961119	3526	07821	7.1	主余型	2 1996.11.19-1996.11.21
G21	玛尼	19971108	3504	08702	7.5	主余型	3 1997.11.8-1998.1.15
G22	昆仑山口西	20011114	3612	09054	8.1	主余型	2 2001.11.14-2002.5.30

1、 Basic Seismic Database

5、 China Seismic Network Bulletins

The China Seismic Network Bulletins are from 24 stations for international exchange since 1996, it include: *The station data*: the code number, the name and location of station. *Earthquake catalogue*: origin time, longitude and latitude, magnitude, etc. *Phase data*: code number, seismic moment, the arrival time , residual error, period, etc. Data volume: 250MB.

World Data Center for Seismology, Beijing

- [Lastest Quake](#)
- [Earthquake Catalogue](#)
- [Microseismic Events](#)
- [Historical EQ Catalogue](#)
- [Earthquake Report](#)
- [SEED Waveform Data \(WILBER\)](#)
- [National network quick CMT](#)
- [Strong Motion Data](#)
- [Basic Database of Magnetic Storms](#)
- [Station Map](#)
- [Earthquake Poster](#)
- [Earthquake Case in China](#)
- [Isoseisms of Destructive Earthquakes in China](#)
- [About Us](#)

CSN phase report

Origin time	Longitude (°)	Latitude (°)	Depth (km)	Ms	Ms7	mL	mb	mB	No of stat	Std dev	Region
2006/06/01 02:26:16.5	120.44 E	23.31 N	22.0	3.9	3.5	3.8		4.4	8	2.95	TAIWAN

Station	Distance (°)	Azimuth (°)	Phase	Arrival time	Std dev of arrival time	Magnitude	Period (s)	Amplitude (µm)	
QZH	2.3	314.0	Pn	02:26:56.3	2.0				
			Sg	02:27:37.1	7.0				
			SMN				ML 3.7	0.7	0.4200
			SME					1.0	0.4900
NJ2	8.8	351.0	eP	02:28:23.3	-2.7				
			PMZ				mb 4.5	0.6	0.0100
			S	02:30:09.2	3.7				
			sS	02:30:13.8	-1.9				
			SMN				ML 4.8	1.1	0.2300
			SME					1.1	0.1300
			LN					Ms 4.3	10.3
LE						10.8	1.2100		

I、 Basic Seismic Database

6 、 Rapid Reporting Catalogue of Large Earthquakes

It contains earthquakes larger than M5.0 from China and larger than M7.0 from the globe rapidly located and reported by China Seismic Network. It remains for one year and continuously revised.

Data volume: 0.01MB.

World Data Center for Seismology, Beijing

[Lastest Quake](#) [Earthquake Catalogue](#) [China Micro-EQ Catalog](#) [Historical EQ Catalogue](#) [Earthquake Report](#) [SEED Waveform Data \(WILBER\)](#)
[Home](#) [National network quick CMT](#) [Basic Database of Magnetic Storms](#) [Nine Major EQ in China](#) [Station Map](#) [Earthquake Poster](#) [EQ Case in China](#)
[Seismic Monitoring Systems](#) [About Us](#)

Current Worldwide Earthquake List

Update Time=2006-10-17 10:20:09.0

	MAG	DATE	BEIJING TIME	LATITUD	LONGTUDE	DEPTH	REGION
map	7.0	2006-10-17	09:25:17.2	-5.9	151.0	33	PAPUA NEW GUINEA
map	5.8	2006-10-12	22:46:29.0	24.1	122.6	33	
map	5.7	2006-10-11	14:43:54.4	20.8	119.9	15	SOUTH CHINA SEA
map	5.3	2006-10-11	09:26:13.2	20.7	119.7	15	SOUTH CHINA SEA
map	5.3	2006-10-11	09:24:18.0	20.7	119.8	15	SOUTH CHINA SEA
map	5.1	2006-10-09	19:43:32.3	20.7	119.9	15	SOUTH CHINA SEA
map	5.7	2006-10-09	19:08:25.0	20.7	119.9	15	SOUTH CHINA SEA
map	6.3	2006-10-09	18:01:46.6	20.7	120.0	33	SOUTH CHINA SEA
map	5.4	2006-09-12	02:12:20.6	35.5	78.5	25	HOTAN,XINJIANG,CHINA
map	5.1	2006-08-25	13:51:43.0	28.0	104.2	15	YANJIN,YUNNAN,CHINA
map	7.0	2006-08-20	11:41:48.7	-61.0	-34.6	15	SCOTIA SEA
map	4.1	2006-08-01	14:07:03.7	27.7	120.0	15	WENCHENG-TAISHUN BORDER REGION IN ZHEJIANG,CHINA
map	4.2	2006-08-01	11:04:41.3	28.3	105.0	15	XINGWEN-CHANGNING BORDER REGION IN SICHUAN,CHINA
map	6.0	2006-07-28	15:40:12.5	24.1	122.3	15	TAIWAN REGION,CHINA
map	4.2	2006-07-26	05:18:50.0	32.5	117.6	8	DINGYUAN,ANHUI,CHINA
map	5.1	2006-07-22	09:10:22.6	28.0	104.2	15	YANJIN,YUNNAN,CHINA
map	5.6	2006-07-19	17:53:07.7	33.0	96.3	15	YUSHU,QINGHAI,CHINA
map	5.0	2006-07-18	04:41:54.0	33.0	96.5	15	YUSHU,QINGHAI,CHINA
map	7.3	2006-07-17	16:19:30.5	-9.4	107.4	33	JAWA,INDONESIA
map	5.1	2006-07-04	11:56:24.1	38.9	116.3	15	WENAN,HEBEI,CHINA
map	5.0	2006-06-21	00:52:57.2	33.1	105.0	33	WUDU-WENXIAN BORDER REGION IN GANSU,CHINA
map	7.3	2006-05-22	19:12:01.0	60.6	165.8	33	POLUOSTROV KAMCHATSKIY,RUSSIA

I、 Basic Seismic Database

7、 China Geophysical and Geochemical Database

It contains 1425 items of results including geomagnetic, geoelectrical, gravity, geodesical, stress and strain, water level and hydrochemical observations from about 350 precursory stations nationwide.

Data volume: 400MB.

添加... 整理...
IBM 推荐的站点
连接
Google
MSN.com
Radio Station Guide
图片收藏
Search for hisml

中国地震前兆台网中心

Center for the Earthquake Precursory Observation Network of China

全国地震前兆观测数据

全国模拟前兆观测台网数据

按台站索引

- | | | | | |
|--------------------|--------------------|---------------------|--------------------|---------------------|
| 北京 | 天津 | 河北 | 山西 | 内蒙古 |
| 辽宁 | 吉林 | 黑龙江 | 上海 | 江苏 |
| 浙江 | 安徽 | 福建 | 江西 | 山东 |
| 河南 | 湖北 | 湖南 | 广东 | 广西 |
| 海南 | 四川 | 贵州 | 云南 | 西藏 |
| 陕西 | 甘肃 | 青海 | 宁夏 | 新疆 |

按方法索引

- | | | | | |
|----------------------|--------------------|--------------------|--------------------|--------------------|
| 地震窗 | 重力 | 地磁 | 地电 | |
| 应力应变 | 形变 | 水化 | 水位 | 水温 |

I、 Basic Seismic Database

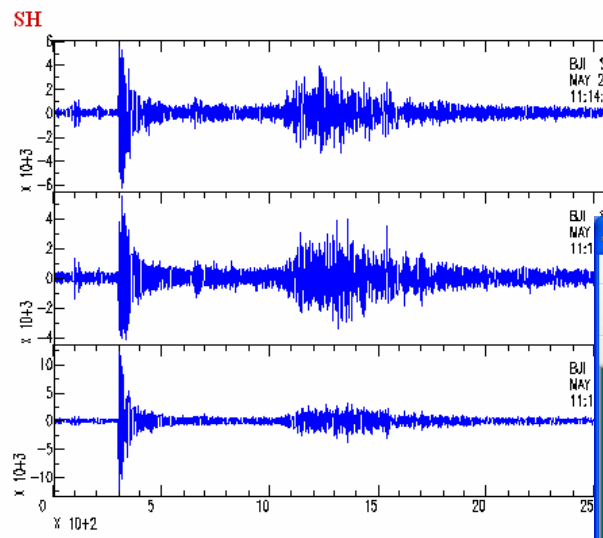
8 、 Waveform dataset of Globally Recorded Earthquakes from China

It contains waveform data of earthquakes greater than M5.7 occurred in China since 1988 , recorded globally by 137 stations, including other helping information.

Data volume: 3.7MB.

Station: **BJI - Baijiatuan, Beijing, China**
Network: **CB - China Seismic Network**
Lat: **40.018** Lon: **116.170** Elev: **197**
Available Channels: **SHE,SHN,SHZ**

Sample Waveforms



CSN WILBER -- Event Detail Page - Microsoft Internet Explorer

地址 http://210.72.99.14/cgi-bin/gl_dir/gl_page3.pl

back to list help

Event: **2006/05/22 11:12:00.1** Mag: **6.7** Lat: **60.84** Lon: **165.68** Depth: **17.00**
Description: **EASTERN SIBERIA, RUSSIA** Source: **China Seismic Network**

Responding Stations, sorted by Name

<input type="checkbox"/> ALL <small>(distance/azimuth)</small>	<input type="checkbox"/> DL2_CB <small>(34° /251°)</small>	<input type="checkbox"/> GZH_CB <small>(51° /247°)</small>	<input type="checkbox"/> LSA_CB <small>(57° /272°)</small>	<input type="checkbox"/> SNY_CB <small>(31° /252°)</small>	<input type="checkbox"/> WHN_CB <small>(45° /251°)</small>
<input type="checkbox"/> BJI_CB <small>(36° /258°)</small>	<input type="checkbox"/> ENS_CB <small>(47° /256°)</small>	<input type="checkbox"/> HHC_CB <small>(38° /263°)</small>	<input type="checkbox"/> LZH_CB <small>(45° /266°)</small>	<input type="checkbox"/> SSE_CB <small>(41° /244°)</small>	<input type="checkbox"/> WMQ_CB <small>(47° /286°)</small>
<input type="checkbox"/> CD2_CB <small>(49° /262°)</small>	<input type="checkbox"/> GTA_CB <small>(45° /272°)</small>	<input type="checkbox"/> KML_CB <small>(55° /259°)</small>	<input type="checkbox"/> NJ2_CB <small>(41° /248°)</small>	<input type="checkbox"/> TIA_CB <small>(39° /253°)</small>	<input type="checkbox"/> XAN_CB <small>(44° /259°)</small>
<input type="checkbox"/> CN2_CB <small>(29° /252°)</small>	<input type="checkbox"/> GYA_CB <small>(52° /256°)</small>	<input type="checkbox"/> KSH_CB <small>(56° /291°)</small>	<input type="checkbox"/> QZN_CB <small>(° /°)</small>	<input type="checkbox"/> TIY_CB <small>(39° /259°)</small>	

Station Map Unavailable

Click station name to view sample seismograms and station detail
Click checkboxes on stations to include in your data request

Available Channels

<input type="checkbox"/> ALL	<input type="checkbox"/> ??E	<input type="checkbox"/> ??N	<input type="checkbox"/> ???
<input type="checkbox"/> B??	<input type="checkbox"/> BHE	<input type="checkbox"/> BHN	<input type="checkbox"/> BHZ
<input type="checkbox"/> S??	<input type="checkbox"/> SHE	<input type="checkbox"/> SHN	<input type="checkbox"/> SHZ

Check off desired channels to include in your data request
Wildcards only select seismic channels

Available Data Formats Time Window Data Personal Information

I、 Basic Seismic Database

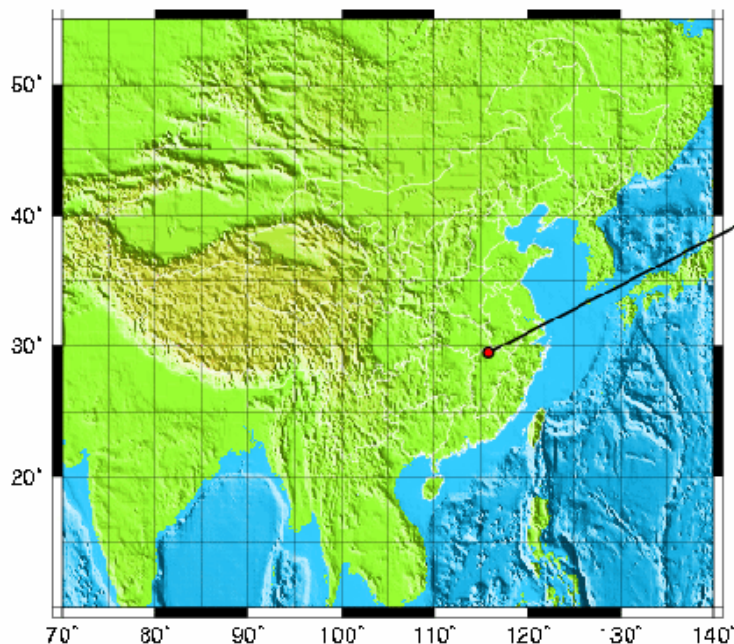
9、 Focal Parameter Dataset of Earthquakes from China

It contains 2576 records of focal mechanism solutions of 1838 earthquakes occurred in China from 1904 to 1989.

Data volume:336MB.

AUTO-CMT Solution

China Center for Digital Seismic Network



2005 - 11 - 26 8 : 49 : 44.5
Lat=29.55 Long= 115.79 Dep= 11.7 (km)
Body waves (10.0,12.0,20.0,22.0 ml z)
3.6e+13 -6.0e-15 -3.0e+16 (Nmi)
Mo=-3.27e+16 (Nm) Mw=4.9
84/89/-98 346/8/-8
eps= 0.17 /D=-0.0%

I、Basic Seismic Database

10、Isoseismic Map Dataset(Chinese Version)

It contain 800 isoseismic maps of historical earthquakes from China.

Data volume:3000MB.

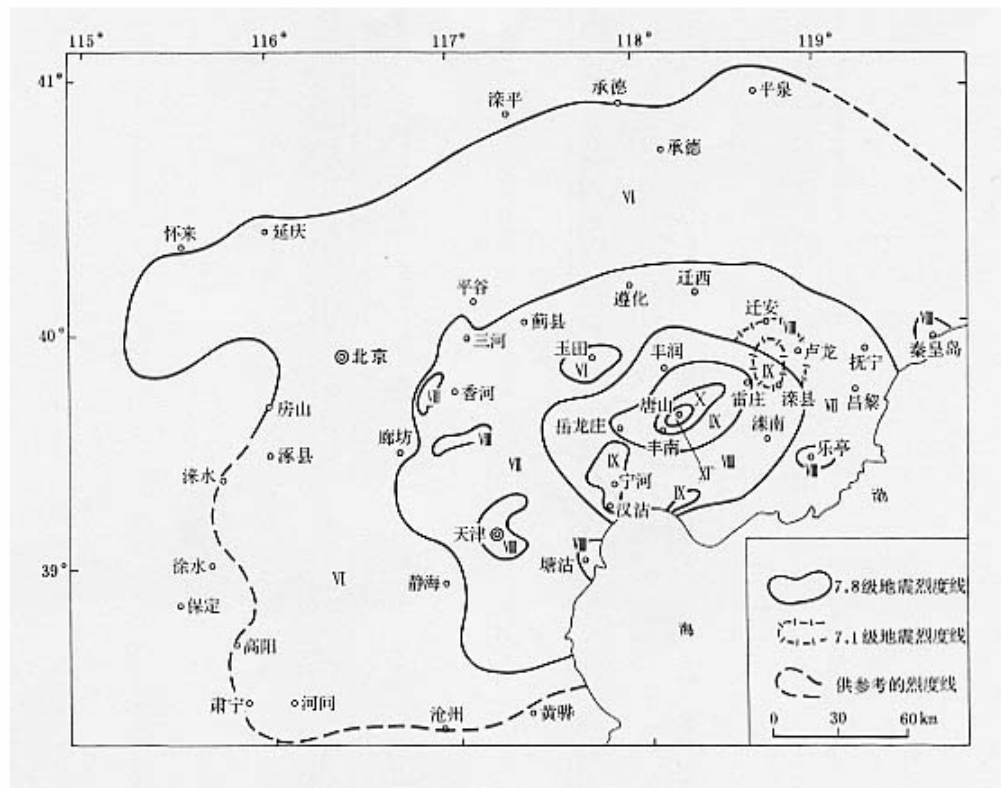


图6 唐山7.8级地震等震线图

Fig.6 Isoseismal map of the $M=7.8$ Tangshan earthquake

I、Basic Seismic Database

11、Globally Recorded Digital Waveform Dataset of Large Earthquakes from China

It contains digital waveform data of 137 earthquakes greater than M6 occurred in China recorded by GDSN, stored in 7 discs.

Data volume:3700MB.



Seismic Datasets Stored in Discs

II、 Metadata Database(2)

1、 Seismic Metadata Database from China

It contains 7 types of earthquake data, including seismic data, precursory data (geomagnetic, geoelectrical, geodesic and ground fluids) , field survey data、 seismic experiment data, seismic disaster data, earthquake prediction and mitigation data, totaling about 49 tables, 5 00 data items.

II、 Metadata Database

2、 Global Seismic Metadata Database

It contains information about 27 international seismic data collection and service units from 22 countries.

III、 Seismic Station Database (2)

1、 China Seismic Station Database

It contains about 400 observation stations from China, (seismic, geomagnetic, geoelectrical, gravity, geodesic and fluids observation stations) and 20 teleseismic networks, totaling about 19 database tables, about 6MB.

Seismic Monitoring Systems

- 1300 seismic observatories
- 128 regional telemetry seismic networks with 345 substations
- over 140 crust-deformation observatories
- 154 strain and stress observation stations
- linear 90 hydro-chemical observation stations
- 1240 underground hydro-level observation stations
- 140 geomagnetic observatories
- 80 geoelectric observatories
- 15 gravity base stations



Distribution of Seismic Station in China



Observational Stations of Crustal Deformation in China



Observational Stations of Stress-Strain in China



III、 Seismic Station database

2、 Global Seismic Station Database

It contains information about 10,000 global seismic stations, including station code and coordinates etc.

summary

I、 Basic Seismic Database(11)

- 1、 China Historical Earthquake Catalogue
- 2、 China Network Earthquake Catalogue
- 3、 China Micro-earthquake Catalogue
- 4、 Large Earthquake Sequences Catalogue
- 5、 China Seismic Network Bulletins
- 6、 Rapid Reporting Catalogue
- 7、 China Geophysical and Geochemical Database
- 8、 Waveform dataset of China Recorded
- 9、 Focal Parameter Dataset of Earthquakes
- 10、 Iseismic Map Dataset
- 11、 Globally Recorded Digital Waveform Dataset

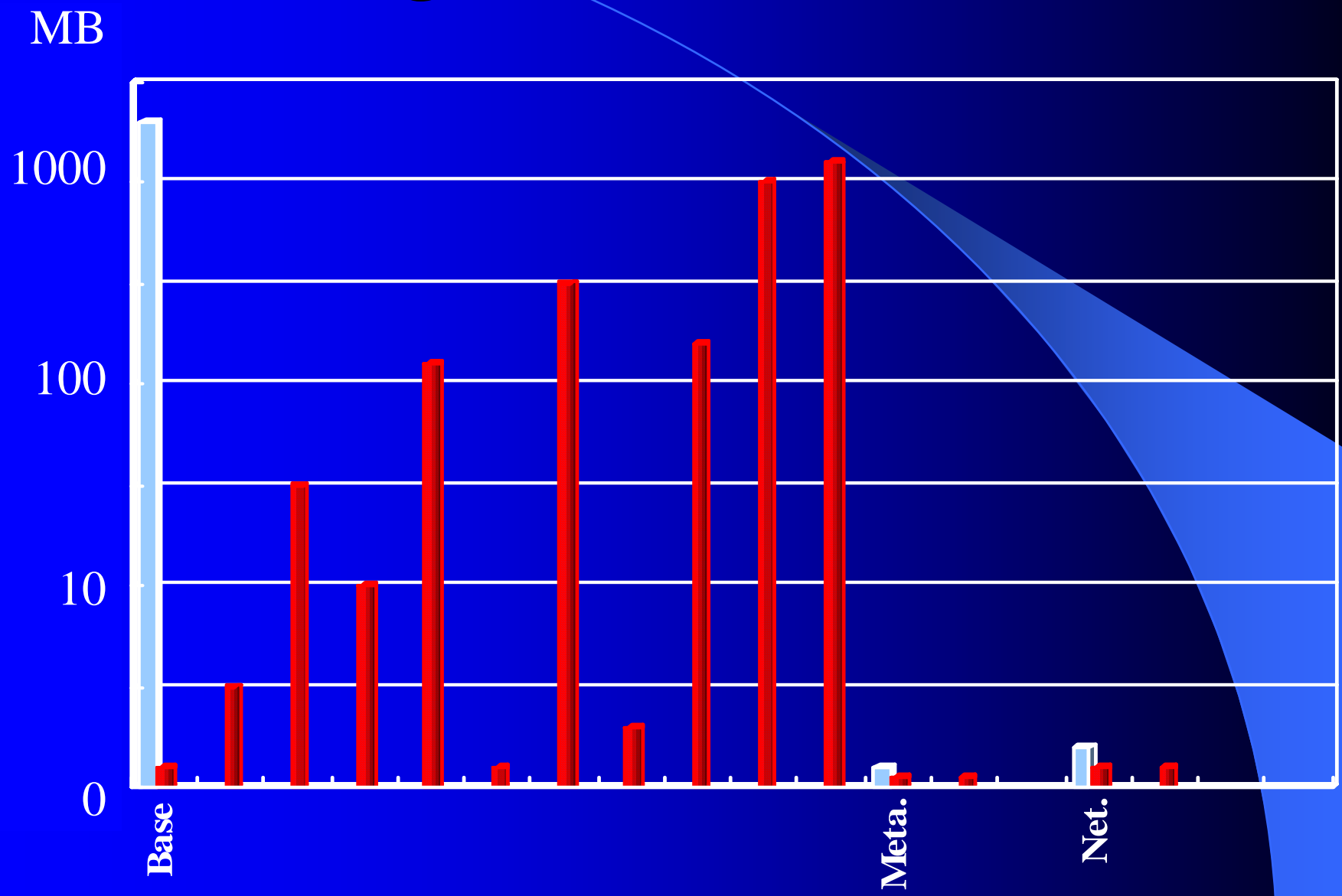
II、 Metadata Database(2)

- 1、 Seismic Metadata Database from China
- 2、 Global Seismic Metadata Database

III、 Seismic Station Database(2)

- 1、 China Seismic Station Database
- 2、 Global Seismic Station Database

Histogram of Seismic Database





中国地震局

CONTENT

▣ **General Situation**

▣ **Progress of Data Criteria Construction**

▣ **Progress of Database Construction**

➔ ▣ **Progress of Data Platform Construction**

I、 Construction of Information Service System

1、 Seismic Data Resource Service System

It consists of two parts: information release and management systems. Information release system is a website open to public; Information management system revises and maintains the database contents .



地震数据资源信息服务系统

[主页](#)[分类信息](#)[数字化台网](#)[数字台网分布](#)[帮助](#)[管理界面](#)

地震学科分类信息

- [主页](#)
- [浏览数据库](#)
- 田 [地震观测数据信息](#)
- 田 [地震前兆观测数据信息](#)
- 田 [地震现场勘察数据信息](#)
- 田 [地震实验数据信息](#)
- 田 [地震灾害数据信息](#)
- 田 [地震预测与预报数据信息](#)
- 田 [地震减灾数据信息](#)
- [国际地震数据信息](#)
- [国际地震数据资源信息中文导引](#)
- [地震数据资源信息系统使用手册](#)
- [地震数据资源信息系统参考手册](#)
- [联系我们](#)

欢迎您，来到地震数据资源信息服务系统！

查询说明

中国地震数据资源信息是由WDC中国地震学科中心建立的元数据库提供的中国地震数据的元数据,通过网络向用户提供关于地震数据的信息,从而方便用户了解地震数据分布状况、获取渠道及使用方法。

步骤:

- 先选择模拟数字台网，还是数字化台网
- 然后再按学科选

如果用户不熟悉数字化台网分布图，请点击上方按钮，查看图形

1、 Construction of Information Service System

2、 Comprehensive Guide System For User

Using Linux operation system, Oracle database management system and XML language, we constructed a comprehensive seismic data management and user guide system, including a management subsystem and a guide subsystem.

综合地震信息库及用户服务引导系统

Welcome to SeismInfo System!



欢迎使用《综合地震信息库及用户服务引导系统》，本系统可以提供以单个地震为核心的综合服务，为对该地震的综合性研究提供便利。

系统管理功能包括：

1. 用户的管理，使用分级或分权限的方式对用户进行管理，增强系统的安全性；
2. 数据库的维护，包括数据库的备份、复制、和与其他系统之间的数据交换等等；
3. 数据本身的管理，各种数据的增加、删除、修改等功能，大部分均可在浏览器中完成。

网络服务功能包括：

1. 信息的查询、浏览和下载，数据库所提供的各种数据几乎都能在浏览器中通过不同的形式显示，用户可以使用多种方式进行得到关于某个地震的综合信息；
2. GIS的应用……

信息定制功能包括：

1. 数据定制，专家用户可以从数据库中导出需要的数据，得到不同形式的产出，如文本、图片、二进制数据等。系统可以成为请求定制光盘数据产品的基础平台；
2. 专题定制

系统可以是生成专题分析报告的基础平台。专题内容应包括：地震描述；灾害图片及其描述；灾害数据；地震分布图；等震线参数；构造背景图；地（金）震序列列表（地震目录）；地震波形图；必要的台站仪器数据；文献资料；

- 主菜单
- 安全性
- 台网
- 地震
- 附加数据
- 使用帮助
- 系统信息
- 退出

SeisMIS (科学版)

- 主菜单
 - 安全性
 - 台网
 - 地震
 - 目录
 - 地震序列特征
 - 地震序列
 - 震群
 - 地震波形
 - 查看
 - 地震区域
 - 附加数据
 - 使用帮助
 - 系统信息
 - 退出

地震波形

选择 设置 波形

重绘

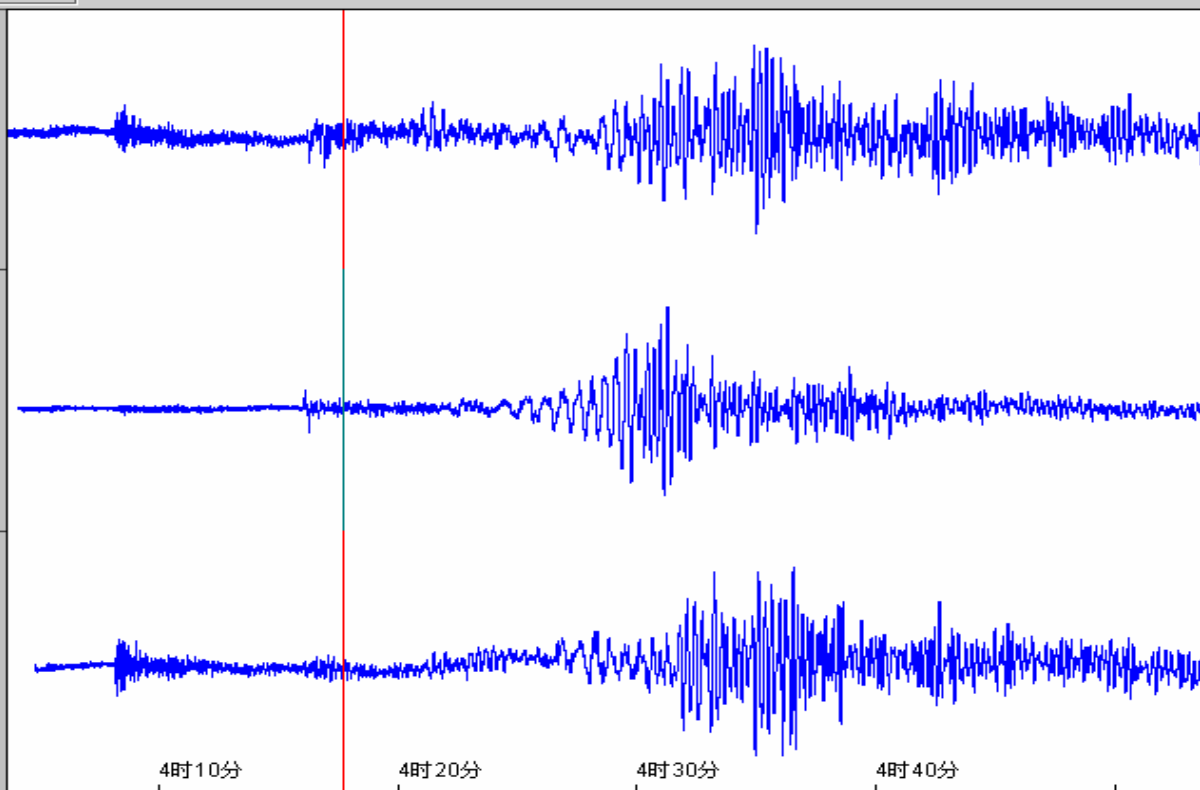
打印

1991-3-26 4:17:41

ARU BHE
87

ARU BHN
-187

ARU BHZ
-486



II、Website Construction

The website “WDC for Seismology Beijing” include Chinese and English version.



II、 Website Construction

1、 Construction of Seismic Website(Chinese)

The website “WDC for Seismology Beijing” contains 10 sections, including introduction, earthquake sequences, global seismic information, seismic data resource, seismic data, seismic data navigation, project, seismic web navigation, earthquake case in China, seismic observation stations, etc.

Revised home page in 2002, and important contents added.



世界数据中心地震学科中心, 北京

WDC

WDC-China

中国地震信息网

English Version

中心介绍

地震序列

全球地震信息

地震数据资源

地震数据

数据分类

项目跟踪

地震网站导航

中国震例

地震台站信息

最新地震(中国台网测定)

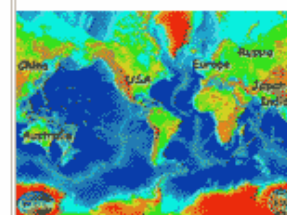
- 2006年10月17日09时25分, 在巴布亚新几内亚发生7.0级地震
 - 2006年10月12日22时46分, 在台湾以东海中发生5.8级地震
 - 2006年10月11日14时43分, 在南海发生5.7级地震
 - 2006年10月11日09时26分, 在南海发生5.3级地震
 - 2006年10月11日09时24分, 在南海发生5.3级地震
 - 2006年10月09日19时43分, 在南海发生5.1级地震
 - 2006年10月09日19时08分, 在南海发生5.7级地震
 - 2006年10月09日18时01分, 在南海发生6.3级地震
 - 2006年09月12日02时12分, 在新疆和田发生5.4级地震
 - 2006年08月25日13时51分, 在云南盐津发生5.1级地震
- 更多地震...

[世界数据中心专家组来中国地震台网中心考察]根据世界数据中心的统一安排, 世界数据中心(World Data Center, 简称WDC)专家组一行4人于2005年7月6日下午2点至6点, 对WDC中国地震学科数据... [详情](#) [图片集](#)

[全球地震信息] 可查询全球当日(北京时间8时)以前的全球地震目录、快速矩心矩张量、历史矩心矩张量、大地震速报, 并可通过GIS在全球地图上进行查询来源于美国NEIC从1995年以来全球4级以上地震震中分布图。网站提供的全球地震数据信息来源于中国地震信息网、中国地震网、美国地震信息中心、瑞士地震服务中心、哈佛大学和其他国际地震数据信息网站和机构。还链接了WDC-中国各学科中心及WDC-全球各中心的站点。同时在全球发生重大地震和灾害事件

2006年10月18日星期三

WDC Map



WDC-Seismology


WDC for Seismology, Denver

WDC for Seismology, Beijing


II, Website Construction

2、Construction Of a Seismic Website (English)


This English website contains 14 sections .



- [Lastest Quake](#)
- [Earthquake Catalogue](#)
- [China Micro-earthquake Catalog](#)
- [Historical EQ Catalogue](#)
- [Earthquake Report](#)
- [SEED Waveform Data \(WILBER\)](#)
- [National network quick CMT](#)
- [Basic Database of Magnetic Storms](#)
- [Nine Major Earthquake in China](#)
- [Station Map](#)
- [Earthquake Poster](#)
- [Earthquake Case in China](#)
- [Seismic Monitoring System](#)
- [About Us](#)



World Data Center for Seismology, Beijing

[Newsletter](#) 

[[EQ Catalogue](#)] The data is from China EQ Catalogue Database. It contains the catalogue of national basic survey station from 1978 to 2005. The DB can be searched by earthquake time, epicentral longitude and latitude, depth, magnitude and epicentral area.

[[EQ Report](#)] The data is from China EQ report Database. The data of 24 stations for international exchange from 1996 to 2005, it include: The station data: the code number, the name and location of station. Earthquake catalogue: It includes earthquake time, epicentral longitude, latitude, magnitude, etc. Phase data: code number, epicentral moment, the arrived time of phase, residual error, period, etc.

[[Historical Catalogue](#)] The data is from China Historical Catalogue Database. This catalogue collects the destructive earthquake occurred in period of 1831 B.C.-1979 A.D. ($M \geq 4.0$), is totally 6059 pieces.



世界数据中心地震学科中心, 北京

World Data Center for Seismology, Beijing



Brief introduction of WDC for Seismology, Beijing

World Data Center for Seismology, Beijing, is a member of World Data Center(WDC). It was established in 1988 as a member of WDC-D for China. Although WDC system decided not to use the - A, - B, - C, - D in 1999. World Data Center for Seismology, Beijing is still a part of China WDC system. It has been supported and managed by China Seismological Bureau (CSB) and guided by WDC National Committee and Scientific Committee of China.

The primary mission of World Data Center for Seismology, Beijing, is to carry out international exchange of seismic and geomagnetic data. As a matter of fact, this kind of data exchange has been carried out for many years in the Institute of Geophysics, CSB. After the establishment of World Data Center for Seismology, Beijing (the old name is WDC-D for Seismology), the Institute of Geophysics of CSB still is responsible for this task in the name of WDC for seismology, Beijing. This is still an important part of international data exchange in seismology and geomagnetism carried out by WDC for Seismology, Beijing.

Along with the establishment of the Center for Seismic Data and Information (CSDI), CSDI became the host of WDC for Seismology, Beijing. WDC for Seismology, Beijing, committed itself to the establishment of national seismic information network, acquiring of international earthquake data, and offering service to internal customers between 1993 and 2000. By the effort of these years, the China Seismic Information Network opened on Dec 1998. It offers seismic data and information service through network. In 1999, National Science and Technology Department gave support to a project named *Database Systems for Geosciences, Part A: Seismology* making the aim of WDC for Seismology, Beijing clearer and definite. That is, based on all kinds of earthquake monitoring systems and information network infrastructure in CSB, WDC for Seismology, Beijing, will make itself both a national-level center for seismology and a qualified member of WDC family.

On July 2000, the host institution of WDC for Seismology, Beijing, was moved from CSDI to Center for Analysis and Prediction of CSB according to arrangement of CSB. The new stage of WDC for Seismology, Beijing, began from there. We believe that WDC for Seismology, Beijing, will have great development with the support of CSB and the cooperation of all



**The Network Flat of WDC for Seismology, Beijing
The Main Servers of CSInet**



The Work Scene of WDC for Seismology, Beijing

On July 6, 2005 World Data Centers sets up a team to visit and review the WDC for seismology of Beijing to determine how well they meet the challenges of using the internet to help users find and obtain data, and of dealing with rapidly growing demands for environmental data.

Review Team members come from

Tohru Araki, Kyoto University, Japan

Jean Bonnin, Université Louis Pasteur, France (leader)

David Clark, NOAA, National Geophysical Data Center, USA (rapporteur)

Li Wenhua, Institute of Geographical Sciences and National Resources Research, China



Evaluation Criteria:

The data directory is being developed using the international metadata standard ISO 19115. Chinese seismological and related data held by the WDC are of major significance to the geophysical community.

The WDC adheres to the policy of non-discriminatory data access for all data held in the WDC.

Recommendation:

The WDC for Seismology, Beijing, should be certified as a World Data Center.

THANKS !

WDC for Seismology, Beijing

1. Overall Observations: The WDC for seismology has four full-time employees and is supported by the CENC infrastructure. Website: www-wdc.ds.seis.ac.cn.
2. Evaluation Criteria: The data directory is being developed using the international metadata standard ISO 19115. Chinese seismological and related data held by the WDC are of major significance to the geophysical community. The WDC adheres to the policy of non-discriminatory data access for all data held in the WDC.
3. Comments: The Review Panel notes the very strong support from CENC. Better access to WDC data will be accomplished with an English version of the data directories and data sets. Stronger interaction is needed with the WDC for Seismology, Golden (USA). The State Seismological Bureau holds data from the extensive Chinese geomagnetic network. Enhanced availability of the geomagnetic 1-minute data would benefit the global scientific community.
4. Recommendation: The WDC for Seismology, Beijing, should be certified as a World Data Center. Data sets or links to other data sets or data centers on observed macroseismic effects of past events and on strong motion data should be considered for addition to the center's holdings.

Review Team members, Panel A

Tohru Araki, Kyoto University, Japan

Jean Bonnin, Université Louis Pasteur, France (leader)

David Clark, NOAA, National Geophysical Data Center, USA (rapporteur)

Li Wenhua, Institute of Geographical Sciences and National Resources Research, China

As World Data Center for Seismology, Beijing , the WDCD compiles and maintains an extensive, national database on earthquake parameters, geophysical and geochemical observation data , and their effects that serves as a solid foundation for basic and applied earth science research, and not only for seismology research



World Data Center for Seismology, Beijing



- [Lastest Quake](#)
- [Earthquake Catalogue](#)
- [China Micro-EQ Catalog](#)
- [Historical EQ Catalogue](#)
- [Earthquake Report](#)
- [SEED Waveform Data \(WILBER\)](#)
- [Home](#)
- [National network quick CMT](#)
- [Basic Database of Magnetic Storms](#)
- [Nine Major EQ in China](#)
- [Station Map](#)
- [Earthquake Poster](#)
- [EQ Case in China](#)
- [Seismic Monitoring Systems](#)
- [About Us](#)

Current Worldwide Earthquake List

Update Time=2006-10-17 10:20:09.0

	MAG	DATE	BEJING TIME	LATITUD	LONGTUDE	DEPTH	REGION
map	7.0	2006-10-17	09:25:17.2	-5.9	151.0	33	
map	5.8	2006-10-12	22:46:29.0	24.1	122.6	33	
map	5.7	2006-10-11	14:43:54.4	20.8	119.9	15	SOUTH CHINA SEA
map	5.3	2006-10-11	09:26:13.2	20.7	119.7	15	SOUTH CHINA SEA
map	5.3	2006-10-11	09:24:18.0	20.7	119.8	15	SOUTH CHINA SEA
map	5.1	2006-10-09	19:43:32.3	20.7	119.9	15	SOUTH CHINA SEA
map	5.7	2006-10-09	19:08:25.0	20.7	119.9	15	SOUTH CHINA SEA
map	6.3	2006-10-09	18:01:46.6	20.7	120.0	33	SOUTH CHINA SEA
map	5.4	2006-09-12	02:12:20.6	35.5	78.5	25	HOTAN,XINJIANG,CHINA
map	5.1	2006-08-25	13:51:43.0	28.0	104.2	15	YANJIN,YUNNAN,CHINA
map	7.0	2006-08-20	11:41:48.7	-61.0	-34.6	15	SCOTIA SEA
map	4.1	2006-08-01	14:07:03.7	27.7	120.0	15	WENCHENG-TAISHUN BORDER REGION IN ZHEJIANG,CHINA
map	4.2	2006-08-01	11:04:41.3	28.3	105.0	15	XINGWEN-CHANGNING BORDER REGION IN SICHUAN,CHINA
map	6.0	2006-07-28	15:40:12.5	24.1	122.3	15	TAIWAN REGION,CHINA
map	4.2	2006-07-26	05:18:50.0	32.5	117.6	8	DINGYUAN,ANHUI,CHINA
map	5.1	2006-07-22	09:10:22.6	28.0	104.2	15	YANJIN,YUNNAN,CHINA
map	5.6	2006-07-19	17:53:07.7	33.0	96.3	15	YUSHU,QINGHAI,CHINA
map	5.0	2006-07-18	04:41:54.0	33.0	96.5	15	YUSHU,QINGHAI,CHINA
map	7.3	2006-07-17	16:19:30.5	-9.4	107.4	33	JAWA,INDONESIA
map	5.1	2006-07-04	11:56:24.1	38.9	116.3	15	WENAN,HEBEI,CHINA

