Data-sharing Work and Database of World Data Center for Geophysics, Beijing

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1. HISTORY

1988 : Established
1988-1993: Rescued the historical magnetogram of Sheshan past, and make microfilms
1994-1999: digitalized some data during 1940’s
2000-2002: Setup database on Internat,
    BMT geomagnetic observatory
2003 MT data
2004 Heat Flow
2005 Gravity, and hardware upgrad
2. Data holding

- **Geomagnetism**: 20GB, Magnetograms: 40,000 sheets
- **Ionospherical physics**: Ionograms: 78,500 pages,
  - film: 50,000m,
  - Digital CD: 2.5GB,
  - pen chats: 13,000m;
- **Magnetospherical physics**: VLF/ELF sfrics, Tape: 3000,
- **Upper atmosphere phys.**: wind field: 500MB
- **Gravity**: Chat: 50 pages; Digitalized: 300MB
- **Magneto-telluric data in Tibetan plateau & Inner Mongolia**: 约300MB
- **Deep Seismic sounding data in China**: 4000MB
Delivering of Geomagnetic Chart

- **User:** more than 380
- **Sets:** 806:
  - 1980.0  678 Set.
  - 1990.0  48 set.
  - 2000.0  80 set.
Distribution of Geomag. Chart Users

- Industry
- Research
- Education
- Government
- Aerospace
- Other

<table>
<thead>
<tr>
<th>Industry</th>
<th>Research</th>
<th>Education</th>
<th>Government</th>
<th>Aerospace</th>
<th>Other</th>
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</tbody>
</table>

2007-3-5
## 1.2 Historical Magnetogram for D, H, Z

<table>
<thead>
<tr>
<th>Observatory</th>
<th>Periods</th>
<th>sheet</th>
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</thead>
<tbody>
<tr>
<td>Urumuiqi, Xinjiang</td>
<td>Sept., 1960—Feb., 1961</td>
<td></td>
</tr>
<tr>
<td>Sheshan, Shanghai</td>
<td>1874—1962</td>
<td></td>
</tr>
<tr>
<td>Kunming, Yunnan</td>
<td>May 27, 1961—Apr. 5, 1962</td>
<td></td>
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</tbody>
</table>

急需扫描抢救的佘山地磁台磁照图
Magnetogram in Jan. 1, 1877, Sheshan, Oldest one in China saved by WDC for Geophysics, Beijing
Magnetogram in 1962, Shashan
Magnetogram, Sheshan

1877-Zi-ka-Wei-1907, 1908-Lu-Ka-Pin-1933
ULF/ELF/VLF Waves

- 源：1. 地磁 ULF;
- 2. 天电 Whistler and ELF/VLF wave data

(1) Mohe Observatory
   Measurements: magnetic mode, 500Hz to 15KHz

(2) Beijing Observatory 北京 怀柔
   Measurements: magnetic mode, 500Hz to 15KHz

(3) Zhongshan Station, Antarctica 南极中山
   Geographic latitude 69.37°, longitude 76.36°.
   Geomagnetic latitude −77.1°, longitude 121.3°
   Measurements: magnetic mode, 500Hz to 15KHz
Ionospheric Physics data

1. (1) Ionogram
   1956~1957, 8500 pages
   1957~1990, 50000 meters

2. (2) Digital ionogram: Wuhan, Hubei,
   1991~1998, 70000 pages (DGS256)
   1999~now, CD, 2500MB

3. (3) TEC data according to Faraday rotation of beacon from ETS-Ⅱ satellites, Wuhan, Hubei,

4. (4) TEC data according to GPS observation,
   Wuhan, Hubei, 1990~now, CD
   Beijing; Sanya, Hainan; Mohe, Heilongjian: 2004~now, CD

5. (5) TEC data according to HF Doppler observation of NTC of China in Shaanxi
<table>
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<tr>
<th>Data Name</th>
<th>Start-End Time</th>
<th>Storage Type</th>
<th>Amount</th>
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<td>1957-1990</td>
<td>film</td>
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<tr>
<td></td>
<td>1999-2003</td>
<td>CD</td>
<td>MB</td>
</tr>
<tr>
<td>Three-station high-frequency Doppler</td>
<td>1984-1990</td>
<td>magnetic tape</td>
<td>110000米</td>
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<tr>
<td>Three-station high-frequency Doppler</td>
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<td>digital tape</td>
<td>17500兆</td>
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<td>Multi-Doppler + Arrival Angle</td>
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<td>pen recording</td>
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<td>700兆</td>
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<td>TEC data according to GPS observation, Wuhan, Hubei, Beijing, Sanya, Hainan, Mohe, Heilongjian</td>
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<td>CD</td>
<td>1500兆</td>
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<td>Global GPS TEC</td>
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<td>digital recording</td>
<td>1400000兆</td>
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<td>9000米</td>
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<td>digital record</td>
<td>100兆</td>
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<td>Meteor Radar Data</td>
<td>2002-2003</td>
<td>digital recording</td>
<td>3250兆</td>
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</table>
Checking the historical data of Ionospherical physics in Wuhan before transporting them to Beijing

- Left is Prof. WAN, the Director of Lab. Of Space Electromagnetic Environment, PI of the Observatory Network for Solar-Geophysics, CAS
Seismic Deep Sounding data
------Wide Band Seismic Array,

Raw data
4000TB

Preliminary data
40TB

Standard data 4TB
3. Data available through the website

- 1. Hourly values: Sheshan Geomagnetic Observatory Measurements: D, H, and Z. Data period: 1930’


- 3. Magnetotelluric data in Tibetan plateau and Inner Mongolia,

- 4. Heat flow data in the China continental area

- 5. Deep telluric detection Data:
Web-databases of WDC for Geophysics, Beijing

- Main website
  - Sub-site on Aroenomy:
    - Database of upper atmosphere phys.
    - Database of ionospherical physics
      - Mirror of website on ISR,
  - Sub-site on Geomagnetism
  - Sub-site on Solid Geophys.
    - Magnetotellutic Database
    - Deep Seismic Sounding Database,
      - Mobil Wideband Seismic Array
  - Mirror of website on solid geophysics of NGDC of USA
  - Database of geothermal
1. Geomagnetic min. values

(1) Beijing Mingtomb Observatory
Measurements: D, H, and Z minute values and hourly values.

(2) Zhongshan Station, Antarctica
Measurements: D, H, and Z minute values and hourly values.
Data period: 2002

(3)
Deep telluric sounding Data:
Magnetotelluric data in Tibetan plateau and Inner Mongolia,
Heat flow data in the China continental area,

Geographic distribution of Heat flow in the China continental area,

800 points

2007-3-5
Air gravity anomaly of China and its adjacent regions (1991)
Satellite gravity anomaly of China and its adjacent regions 1991
4. Webpage and Web database:

<table>
<thead>
<tr>
<th>Year</th>
<th>Page</th>
<th>Database</th>
<th>Server</th>
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<tbody>
<tr>
<td>1998</td>
<td>html</td>
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<tr>
<td>2002</td>
<td>ASP</td>
<td>SyBase</td>
<td>IBM @220</td>
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<td>2003</td>
<td>PHP</td>
<td>MySQL</td>
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<td>2004</td>
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<td>SQLServer</td>
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<tr>
<td>2005</td>
<td></td>
<td></td>
<td>+ Xon 3.0G X2</td>
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<tr>
<td>2006</td>
<td></td>
<td>+ Oracle</td>
<td>+ Dell</td>
</tr>
</tbody>
</table>
Web Site: hardware

- RaidTec SNAZ NAS  SCSI Disk: 73GBX4

- CPU       RAM      HardDisk

- 2002: 1G PIII 1X1  128MB  80GB   IBM X220
- 2005: 3G Xeon 2X2  1GB    80GB
- 2006:    +Dell
Internet address of our website:
WDC for Geophysics, Beijing:

- **Domain Name:**
  - 1996–2002 [http://www.wdcgp.ac.cn](http://www.wdcgp.ac.cn) (CN only)
  - [http://data.geophys.cn](http://data.geophys.cn) (CN now)
Technique routes:

- Operating system: windows 2003 server
- JSP running environment: JDK + Tomcat
- Web server: Tomcat + Apache

Dynamics pages static pages
- **Database:**
  - SQLServer
  - Oracle

- **JSP**
  - DATABASE:
  - JDBC---Java database connectivity
Datasets of geomagnetism K Index, Beijing

Welcome to World Data Center for Geophysics, Beijing! - Microsoft Internet Explorer

User Login
Username:
Password:
login  reset

HomePage
Geophysical Data
World Data Center System
Research Organization in China
Geophysics Observatories in China
Related Links
About Us

Geomagnetic K index of BMT Observatory

Geomagnetic K index of BMT Observatory: 1992
Geomagnetic K index of BMT Observatory: 1993
Geomagnetic K index of BMT Observatory: 1994
Geomagnetic K index of BMT Observatory: 1995
Geomagnetic K index of BMT Observatory: 1996
Geomagnetic K index of BMT Observatory: 1997
Geomagnetic K index of BMT Observatory: 1998
Geomagnetic K index of BMT Observatory: 1999
Geomagnetic K index of BMT Observatory: 2000
Geomagnetic K index of BMT Observatory: 2001
Geomagnetic K index of BMT Observatory: 2002

Visited times: 1996
An introduction of China geophysics observatory

World Data Center for Geophysics, Beijing

2005-12-26  Monday  9:33:29

Chinese Geophysics Observatories

<table>
<thead>
<tr>
<th>Beijing Ming Tombs Geomagnetic Observatory</th>
<th>Geomagnetic Observatory</th>
<th>Geomagnetic Observatory</th>
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<tbody>
<tr>
<td>Introduction of Shoshan Observatory</td>
<td>at Zhongshan Station,</td>
<td>at Great Wall Station,</td>
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<td>Antarctica</td>
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Beijing Ming Tombs Geomagnetic Observatory (BMT)

Beijing Ming Tombs Geomagnetic Observatory (BMT), run by the Institute of Geology and Geophysics of Chinese Academy of Sciences, is the center observatory of the meridian chain of geo-space physics observatories in China. It is also the earliest digitized observatory as well as to access to the International Realtime Geomagnetic Observatory Net (INTERNMAGNET) in mainland China.

1. General description of the Observatory
Datacenter of geophysics
http://data.geophys.cn
Visiting numbers recently

<table>
<thead>
<tr>
<th>Time</th>
<th>USA</th>
<th>Japan</th>
<th>Europe</th>
<th>France</th>
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谢谢
Thanks

http://data.geophys.cn
http://wdc.geophys.cn = http://gp.wdc.cn