



中国水文

China Hydrology

Hydrological Monitoring and Information Services in China

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Nov.2-4, 2005 Tokyo

<http://www.hydroinfo.gov.cn>

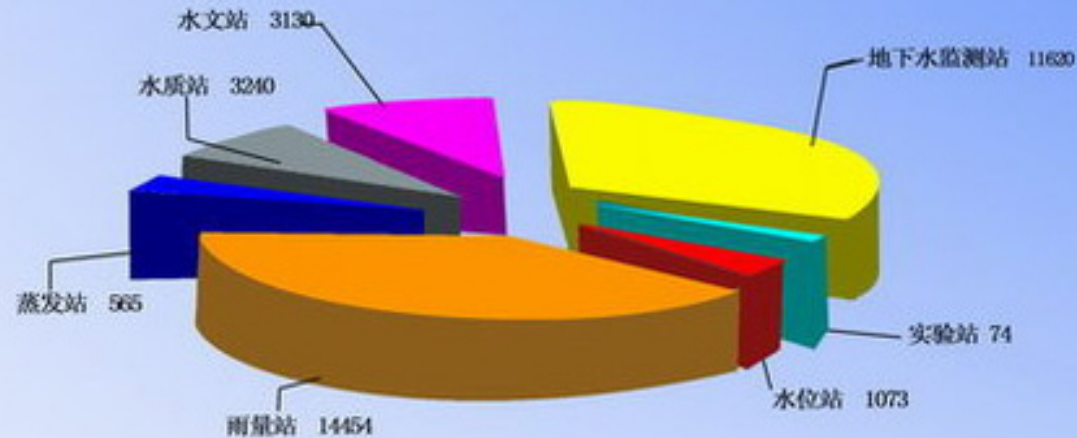


Hydrological monitoring and information services for national economic and social development.

- Every year, more than **600 million** digitals of hydrological data are collected, providing reliable basis for **flood and drought control, water resources management**, water environment protection, designing of water-related works, local and national economic planning.



Hydrological network



By 2004, the hydrologic monitoring network included:

- 3 200** hydrological base stations,
- 1 100** water stage stations,
- 14 000** rain gages,
- 3 900** water quality stations,
- 11 757** groundwater stations,
- 358** evaporation stations and **70** experimental stations.

There are **7595** flood reporting stations and **1052** hydrologic forecast stations in the whole country.



Hydrometric monitoring

Hydrometric auto-monitoring



Rain gauges



Ultrasonic stage recorder

For rain gauges and stage stations, only 40% have auto-recording system.



Tidal level station



Measuring by boat



ADCP 多普勒剖面流速仪

Flow measurement is made with Doppler current-meter



Flow measurement is made with electric wave current-meter



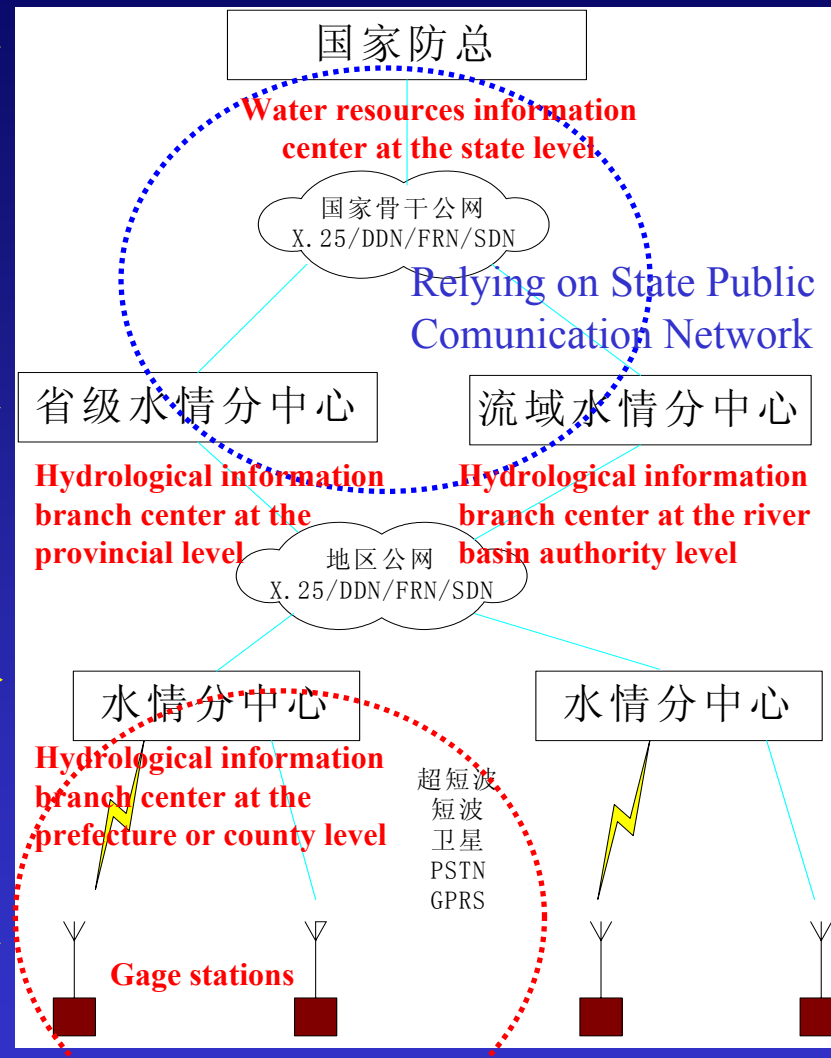
Data transmission

National Level →

Province Level →

County Level →

Gauge Level →



From the gauge to the national center, it takes about 30 minutes in real-time hydrological information transfer for 70% of hydrological gauges.



Operational Systems for Information Services

SES — **Sky-Eyes System** (天眼气象综合业务系统)
(Meteorological Integrated Operation System)

HICSFD — **Hydrological Information Consulting
System for Flood Control** (防汛会商系统)

HIIS — **Hydrological Information Inquiry System**
(水情查询系统)

NFFS — **National Flood Forecasting System** (中国洪水预报系统)

ISS — **Information Service System** (信息发布系统)
(The Web Information Release System)

Decision Making for Flood Control

Consultation meeting
Weather will be...
Rainfall & Flood Forecasting
Suggestion
If ... Then ... analysis
Discussion
Decision





Hydrological services for water resources management

... a lot of projects concerning water resources allocation like water transfer in the river basins of Heihe and Tarim, transferring water from South China to North China, transferring water from the Yellow River to Tianjin City, diverting water from river to the Taihu Lake as well as water reinforcing for the Nansihu Lake, water supplement to the Zhalong Marsh and water reinforcing for the Baiyangdian Lake



甘肃莺落峡水文站为黑河成功调水实施水文监测

黑龙江水文职工开展扎龙湿地生态监测



Hydrological services for water quality control

...play important role in **water resources protection.**

In the recent years, the monitoring, analysis and evaluation of water quality have been further reinforced; the emergency-handling monitoring capacity has been continuously strengthened.



Beijing mobile lab of water quality monitoring



providing water quality information on water source zones of water supply



Public Information Service

... have offered a wealth of information for the development of society and economy with **Year Book of Hydrology**, **Water Resources Evaluation of China**, **Water Resources Gazette**, **Ground Water Bulletin**, **Annual Report on Ground Water Resources Quality of China**, **Sediment Gazette of China**, **Hydrological Information Annual Report** and etc.



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11/15/2005



Public Information Service

➤ Meteorological Information

(<http://sqqx.hydroinfo.gov.cn/ryl/ryl.asp>)

➤ Hydrological Information

(<http://sqqx.hydroinfo.gov.cn/websq/>)

➤ Water Quality Information

(<http://sqqx.hydroinfo.gov.cn/shuizhi/>)

➤ Groundwater Information

(<http://sqqx.hydroinfo.gov.cn/shuiziyuan/>)





Contribution to GEOSS

We are working on the following points which will contribute to GEOSS :

- Upgrading hydrological network for collecting more information with high accuracy
- Establishing the national database for opening to the public
- Making the data policy for sharing with national and international agencies, and with the public.
- Participating international research program and project on water cycle and water resources.
- Promoting the technique exchange with the developed countries
- Paying high attention to information service for flood control and disaster mitigation on the international river.

Thanks

谢谢

