

The Institute of Geology and Geophysics, Chinese Academy of Sciences, Seismograph Network (IGGCAS-SN)

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Introduction

The Institute of Geology and Geophysics, Chinese Academy of Sciences (IGGCAS) was founded in June, 1999 by integrating the original Institute of Geology and the original Institute of Geophysics, each of which had a long and distinguished history of more than 50 years and significant academic accomplishments, enjoying a very high academic reputation both in China and abroad.

The institute is a comprehensive academic facility to engage in the study and education of geoscience. It chiefly devotes itself to probing into interactions between individual layers or spheres of the solid Earth and problems relevant to resources, environment and engineering geology. Since 1999, a scientific research framework of tripartite confrontation has been established that is composed of geodynamics, environments and disasters, and mineral resources.

As a part of the geodynamics program sponsored by CAS, the Chinese Continental Structure Studying Project has been carried out by IGGCAS since 2000. On the basis of regional-scale temporary seismic observations with sufficient data coverage and high spatial resolution, this project directs toward comprehensive understanding of the deep structure and tectonic processes of the Chinese continent.

Table 1 Seismographs in IGGCAS

	Type	Quantities	Bought Year	Parameters	Producer
Sensors	STS-2	2	2000	120S-50Hz	Switzerland
	CMG-3ESP	100	2000 and 2002	30S-50Hz	UK
	CMG-3T	10	2007	120S-50Hz	UK
	BKD-2	100	2000	20S-40Hz	China
	CDJ-S2A	20	2000	2Hz-80Hz	China
Digitizers	Refttek 72A	52	2000	24 bit	USA
	Refttek 130	62	2002	24 bit	USA
	Q330	2	2007	24 bit	USA
	DAS24-3A	45	2000	24 bit	China
	DAS24-3B	55	2003	24 bit	China

Seismographs

Since 2000, IGGCAS has imported more than 200 broadband three-component seismographs and established a seismic array laboratory (SAL) for maintaining these seismographs and managing seismic data. The seismographs in IGGCAS are only used for temporary seismic observations and are open to users who aim at seismic observation based research and, in principle, are able to afford instrument rental. For the past six years, more than 10 scientific research groups have used these seismographs and set up more than 470 portable stations in Chinese mainland. The detailed information about the seismographs in IGGCAS is listed in Table 1.

Table 2 Station information in IGGCAS

Network	number of stations	period	restricted	PI
□ (NCISP I)	65	2000.11-2001.11	N	Tianyu Zheng
□ (NCISP II)	58	2001.09-2003.03	N	Tianyu Zheng
▲ (Tibetan I)	15	2001.08-2002.10	N	Hongbing Liu
△ (Sanjiang)	58	2002.12-2004.08	Y	Jianhua Liu
□ (NCISP III)	57	2003.04-2004.10	Y	Tianyu Zheng
△ (Inner Mongolia)	20	2004.05-2005.05	Y	Peifen Xu
■ (Tibetan II)	7	2004.05-2005.11	Y	Dalai Zhong
△ (Bohaiwen)	20	2005.05-2006.05	Y	Yinshuang Ai
□ (NCISP IV)	50	2005.10-2006.09	Y	Liang Zhao
◇ (Tibetan III)	35	2005.10-2006.05	Y	Junmeng Zhao
△ (Longmenshan)	29	2006.08-2007.08	Y	Zhongjie Zhang
□ (NCISP V)	65	2006.12-2008.04	Y	Ling Chen

Data and data sharing policy

Up to now, IGGCAS has carried out a number of temporary seismic observation projects and is able to provide usage support for all the above 12 types of instruments. The temporary seismic station arrays established by IGGCAS are mainly distributed in North and Southwest China. The detailed information about the projects and station locations can be found in Figure 1 and Table 2. The data collected at these seismic stations are currently managed by the SAL of IGGCAS and some regulations have been set down for data usage. Users who implement seismic observations with the seismographs in IGGCAS have three years priority to use the corresponding seismic data after field operation. Then, those data should be released by the SAL of IGGCAS.

Currently only some event data in SAC format are open to public, due to the lack of high-level technicians dealing with data pre-processing and quality control. Hopefully, users can get the first and second sets of released event data and continuous data from the website www.seislab.cn in August 2007 and July 2008, respectively.

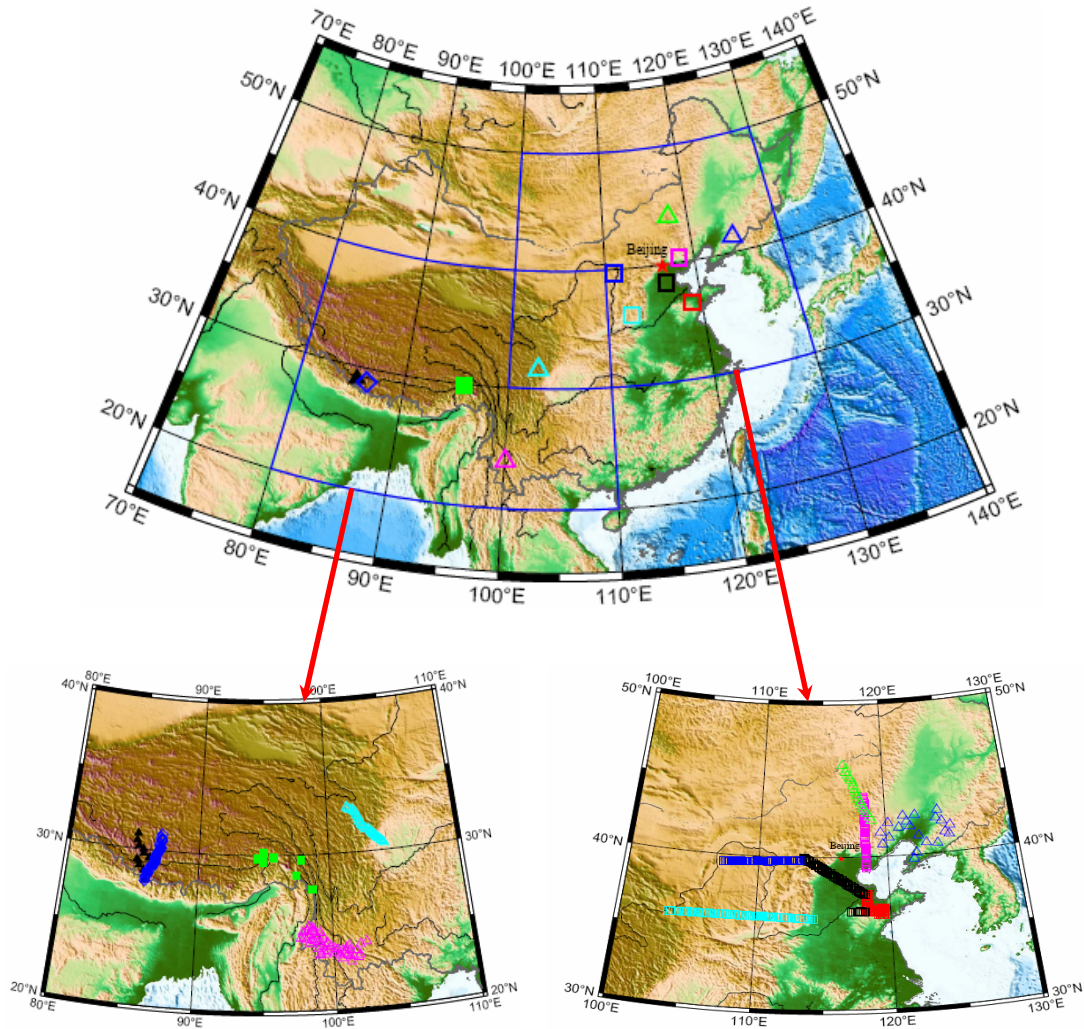


Figure 1 Station locations in IGGCAS