

Status Report on the International Conference for the Decade Memory of the Wenchuan Earthquake and the 4th International Conference on Continental Earthquake¹

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The International Conference for the Decade Memory of the Wenchuan Earthquake and the 4th International Conference on Continental Earthquake will be held by China Earthquake Administration in Chengdu, Sichuan, China, on May 12 – 14, 2018.

On May 12, 2008 (Monday), at 14:08:04 (Beijing time), an magnitude 8.0 earthquake occurred in Wenchuan, Sichuan Province, China. According to the data from China Earthquake Administration, the magnitude of the earthquake reached $M_s 8.0$ and the seismic intensity reached XI. The earthquake affected more than half of China and many Asian countries and regions and felt in Liaoning to the north, Shanghai to the east, Hong Kong, Macao, Thailand, Vietnam to the south, and Pakistan to the west. The severely hit area of the May 12, 2008 Wenchuan earthquake exceeded 100,000km², including 10 counties (cities) in the most severely hit area, 41 counties (cities) in the fairly severely hit area and 186 counties (cities) in the general quake-hit area. As of 12 o'clock of September 18, 2008, a total of 69,227 people were killed, 374,643 were injured and 17,923 were missed in the May 12, 2008 Wenchuan earthquake, being the most devastating earthquake ever since founding of the People's Republic of China and an earthquake causing the worst casualty after the Tangshan earthquake. Approved by the State Council, May 12 has been set as the national "Disaster Prevention and Reduction Day" since 2009.

The Wenchuan earthquake was caused by the Indian Ocean plate moving northward at an annual rate of about 15cm, which imposes pressure on the Eurasia plate and causes the rapid uplift of the Qinghai-Tibetan Plateau. On the other hand, due to the influence of gravity, the east of the Qinghai-Tibetan Plateau subsides gradually along the Longmenshan Mountains and is faced with tenacious resistance of the Sichuan Basin, resulting in the long-term accumulation of tectonic

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stress energy. Finally, the stress was released suddenly in the Longmenshan Beichuan to the Yingxiu area, resulting in the thrust, dextral, compressive faulting earthquake. This mega earthquake in Sichuan occurred in the crustal brittle-ductile transition zone with a focal depth of 10km – 20km. The earthquake was close to the surface and lasted for a long time (about 2 minutes), so it is devastating and the impact was widespread.

Prof. Zheng Guoguang, Party Secretary and Director of China Earthquake Administration published a signed article entitled “Improving the Legalization, Standardization and Modernization of Earthquake Prevention and Disaster Reduction” on the People’s Daily on August 31, 2017, the article states that China Earthquake Administration shall thoroughly study and implement the spirit of the important speech delivered by Chairman Xi Jinping on disaster prevention, reduction and relief during his inspection to Tangshan, Hebei Province, insist on deepening the reform unswervingly, persevere in talent industry strategy unswervingly, adhere to the innovation and development unswervingly, tackle hardships and temper forward, and continue to improve the legalization, standardization and modernization of earthquake prevention and disaster reduction, strive to write a new chapter in earthquake prevention and disaster reduction.

In recent years, the Chinese earthquake departments have been keeping forging ahead in promoting the modernization of earthquake prevention and disaster reduction. Since the 18th CPC National Congress, China Earthquake Administration has constructed with all efforts the new pattern of “Government Leadership, Departmental Interaction, Social Participation and Legal Support” in the earthquake prevention and disaster reduction work, published “Earthquake Preparedness and Disaster Mitigation Plan (2016–2020)”, and released 6 special projects plans and 26 provincial plans. The Administration has given full play to the functions and roles of the Office of the State Council’s Earthquake Disaster Relief Headquarters, strengthening cooperation and resource sharing among departments, improving the mobilization mechanism, and encouraging enterprises, society, organizations and individuals to participate in various forms in an orderly manner to form a new model of multi-governance for earthquake prevention and disaster reduction. China Earthquake Administration (CEA) has signed more than 10 strategic cooperation agreements to strengthen the cooperation with nearly 40 departments, local governments and universities. The CEA will step up the precautionary supervising and inspecting on emergency response to earthquake disaster and give play to the role of local governments, grass-roots organizations and social forces in earthquake disaster prevention and mitigation.

We will accelerate the deployment of the four innovative plans of transparent crust, anatomical earthquakes, urban and rural resilience, and smart services. The fifth-generation national seismic zoning map has been implemented smoothly, and the national earthquake intensity quick reporting and early warning project has been fully launched. The Administration will actively serve the national strategy and step up the cooperation in the earthquake monitoring and early warning system with the participating countries of the “Belt and Road Initiative”, so as to fully carry out the earthquake safety guarantee work such as major for national events and in the special periods.

We will carry out the exploration of probabilistic earthquake forecasting, using modern science and technology, such as big data and cloud computing, to establish an optimum interaction mechanism between earthquake monitoring, forecasting, scientific research and service, giving full play to the role of experts in various fields and continuously raising the level of earthquake prediction. In cooperation with the Ministry of Science and Technology of the People’s Republic of China, the Administration will formulate and implement the National Seismic Science and Technology Innovation Plan (2017–2030), vigorously implement the National Seismic Science and Technology Innovation Project, and promote the implementation of key national R&D plans such as “Major Natural Disaster Monitoring, Early Warning and Prevention” and “Earth

Deep Exploration”, strive to make significant progress in recognizing the Earth and mitigating disasters, and strive to step into the ranks of the world’s powerhouse of earthquake science and technology by 2030.

In the past ten years, the earthquake sector has been forging ahead and continuously improving its capability of earthquake monitoring and prediction. The automatic quick reporting of basic earthquake parameters has been achieved. Since April, 2013, information of automatic quick report of earthquake basic parameters has been officially offered to the public, thus China has officially entered the “era of automatic earthquake quick reporting”. The earthquake quick report information service audiences rose from one million to one hundred million, and emergency support service products are more abundant. In the past five years, fairly good results were achieved in the study and judgment of the general seismic situation and the short-term and mid-term earthquake trends.

May 12, 2018 is the tenth National Memorial Day of the Wenchuan earthquake. On the occasion of the tenth anniversary of the Wenchuan earthquake, China Earthquake Administration decided to hold the International Conference for the Decade Memory of the Wenchuan Earthquake and the 4th International Conference on Continental Earthquake to not only commemorate the 10th anniversary of the Wenchuan earthquake, but also exchange and discuss the research findings achieved in the past decade since the Wenchuan earthquake. The conference was jointly initiated by China Earthquake Administration in collaboration with 26 agencies and organizations such as Sichuan Provincial People’s Government, Ministry of Water Resources, Chinese Academy of Sciences, Chinese Academy of Engineering, National Natural Science Foundation of China, China Association for Science and Technology, Chinese Geophysical Society, UN International Strategy for Disaster Reduction, UN Office for the Coordination of Humanitarian Affairs, International Union of Geodesy and Geophysics, International Earthquake Engineering Association, Asian Seismological Commission, International Association of Soil Mechanics and Geotechnical Engineering, Asian Geotechnical Committee on Natural Disasters, etc. The conference focuses on the issues of exchanges and cooperation in earthquake science and technology, earthquake preparedness and disaster reduction measures, earthquake emergency response, post-earthquake rescue, disaster relief and recovery. The conference is currently under active preparation. The conference is inviting papers on the five themes of transparent crust, anatomical earthquake, urban and rural resilience, smart service and international cooperation.

The conference will further enhance the influence of China Earthquake Administration in international organizations and manifest the image of China as a responsible big country in the international community.

About the Author

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