

# Preface

COMPASS (Beidou) satellite navigation system is China's own satellite navigation system, independently developed and compatible with the rest of the global satellite navigation systems. It provides highly reliable positioning, navigation, and timing services, as well as short-message communication for all users with all-weather, all-time, and worldwide. Currently, COMPASS (Beidou) satellite navigation system has launched 10 satellites, and a basic system has been set up. On Dec 27, 2011, a press conference on COMPASS (Beidou) navigation system was held in Beijing to announce its main performance during the test period, such as the service area, positioning accuracy, velocity accuracy, and timing accuracy. The public release of a "beta" or test version of the COMPASS (Beidou) Interface Control Document (ICD) was also announced. Retaining the active positioning service and short message communication service, COMPASS (Beidou) from that day officially started providing positioning, navigation, and timing services to China and surrounding areas.

COMPASS (Beidou) system encourages domestic and foreign enterprises to participate in its R & D and application. In addition to COMPASS (Beidou) 10 satellites launched so far, China plans to launch six more into orbit in 2012 to bolster its accuracy and expand its service to cover most of the Asia-Pacific area.

China Satellite Navigation Conference (CSNC) is an open platform for academic exchanges in the field of satellite navigation. Its aim is to encourage technological innovation, accelerate GNSS engineering, and boost the development of the satellite navigation industry in China.

The third China Satellite Navigation Conference (CSNC 2012) will be held on May 15–19, 2012, in Guangzhou city, China, sponsored by China Satellite Navigation Office, Department of High and New Technology Development and Industrialization, Ministry of Science and Technology, P.R.C, China National Space Administration, State Administration of Science, Technology and Industry for National Defense, Department of Comprehensive Planning, Ministry of Transport, P.R.C, Department of Science and Technology, Ministry of Education, P.R.C and others. The CSNC 2012 will cover a wide range of activities, including

technical seminars, academic exchange, forum, exhibition, as well as CSNC-ION joint panel.

The conference topics are:

1. COMPASS (Beidou)/GNSS Navigation Application;
2. Satellite Navigation Model and Method;
3. Integrated Navigation and New Methods;
4. Satellite Navigation Signal System, Compatibility & Interoperability;
5. Precise Orbit Determination and Positioning;
6. Satellite Navigation Augmentation and Integrity Monitoring;
7. Atomic Clock Technique and Time-Frequency System;
8. COMPASS (Beidou)/GNSS Test and Evaluation Technology; and
9. COMPASS (Beidou)/GNSS User Terminal Technology.

The proceedings include 189 papers selected from 597 technical papers through a strict peer-review process, to be presented at the CSNC 2012. All the 189 papers are divided into nine chapters following the nine topics of the conference. In addition, 24 papers were recommended for publication in national and international journals such as SCIENCE CHINA Physics, Mechanics & Astronomy, and Advances in Space Research. More than 300 papers are included in the CSNC 2012 Electronic Proceedings and posted on the conference.

All the 33 session chairs (see the name list of Editorial Board) and over 100 reviewers are gratefully acknowledged for their time and effort in the review process.

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Chair of CSNC 2012

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