

2015/TPTWG41/IIEG-GIT/008

Update on Progress of BeiDou System

Purpose: Information Submitted by: China



Global Navigation Satellite Systems Implementation Team Meeting Jeju, Korea 27-28 May 2015

APEC TPT-WG41





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26-29 MAY 2015

Updated The Progress of BeiDou System

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Content

- 1. Development Plan
- 2. Latest progress
- 3. Recent plans







26-29 MAY 2015

Development Objectives

- To provide continuous, stable and reliable positioning, navigation and timing services to global users;
- To meet the requirements derived from national security, economic and social development sectors, to accelerate IT applications and the transformation of economic development methods, and to improve both economic and social benefits;
- To serve the world and benefit the mankind through joint efforts with other navigation satellite systems across the globe.





Basic Principles

- Openness,
- Independency,
- Compatibility,



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Development Steps





• The BeiDou System has been developing in line with the "three-step" roadmap and the thinking of "from regional to global, and from active to passive", and forms a development path as region-highlighted, world-oriented, with its own features.



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System Components





• Three major components: space segment, ground control segment and user segment. Provide four types of services, namely, open, authorized, wide area differential and short message services. The positioning accuracy is better than 10 meters, the timing accuracy is better than 20 nanoseconds, and the velocity accuracy is better than 0.2 meters per second.



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Fundamental Policies





- Provide open services free of charge for users.
- Maintain and perfect the system constantly, improve service performance continuously, and offer services with higher quality.
- Release open service performance specifications on schedule, bring the function of government and market to full play, promote innovation, popularization and internationalization of BeiDou/GNSS applications, and lay foundation for the national strategic emerging industries.
- Adhere to the concept of development and win-win cooperation, realize compatibility and interoperability between BeiDou and other GNSS, give the system efficiency into full play and increase users' benefits.



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Latest Progress

- System Construction
- Applications Promotion
- International Cooperation







System Construction

- Maintain Stable Operation of the BeiDou System
- Carry forward the construction of augmentation system (BDSBAS, BDGBAS)
- Steadily carry forward the deployment of global constellation (first launch 30, March, 2015)







Application Promotion

- Industrialization of fundamental Products
- Industrial/Regional Demonstrative Applications
- Mass Market Applications

Industrial Environment (Policies, National standard)



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International Cooperation

- 1, Bilateral Cooperation
- 2. Multilateral Cooperation
- 3. Applications Cooperation
- 4 International Standardization
 - 5. Technical Exchanges APEC TPT-WG41

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International Standardization





• The Ship-borne BeiDou-based Receivers

Performance Standard has been approved
by IMO, making the BeiDou System the
third navigation satellite system worldwide
recognized by IMO.



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Recent Plans

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System Construction





- Launch another 3-4 next-generation BeiDou satellites in 2015,
- Complete the construction of 150 reference stations for the frame network of BeiDou ground based augmentation system, and 300 reference stations for regional density
 network before the end of 2015

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Conclusions

- The BeiDou System has been providing stable services to the Asia-Pacific area, successfully launched the first next-generation BeiDou satellite to verify new technologies, deploy the BeiDou augmentation system from all-round scale, and steadily push forward the construction of BeiDou System.
- The BeiDou applications market has been preliminarily fostered, expanding from the typical industries to mass market, and the application industry is under fast development.
- The BeiDou system deeply promotes cooperation among GNSS, and keeps strengthening international exchanges. "BeiDou" becomes one of the Chinese brands which go globally.



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