

COMPASS — A New Method on Marine Fishery Security and Disaster Relief and Rescue

Gang Hu, VP of BDStar

北京北斗星通导航技术股份有限公司

Beijing BDStar Navigation Co.,Ltd

ICG-3,PASADENA, USA. 8DEC2008

116° 18.2' E



40° 02.1' N

Contents

Summary

Application
Promotion

LBS based on
Compass

What is Compass
and What is BDStar?

**Marine Fishery Ship Security
and Disaster relief**
Application requirements

116° 18.2' E



40° 02.1' N

Application Requirements-Fishery (1)

- China has a large number of marine fishery ship ,It's about 280 thousand.
- “secure and orderly production and sustainable development of the fishery industry” is very Important.



116° 18.2' E



40° 02.1' N

Application Requirements-Fishery (2)

- Administration of marine fishery ship is currently facing the following issues:
 - How to get accurate information about the situation and distribution of fishing vessels?



116° 18.2' E



40° 02.1' N

Application Requirements-Fishery (3)

- How to get the positions of vessel in distress and know the type of the distress timely?
- How to organize effective search and rescue or mutual rescue among the vessels timely ?



116° 18.2' E



40° 02.1' N

Application Requirements-Fishery (4)

- How to implement effective administration and lower costs of law enforcement
- How to release the weather forecast and sea conditions forecast to the vessels?

(For example: the typhoon's path etc.)



116° 18.2' E



40° 02.1' N

Application Requirements-Fishery (5)

- How to help the fishermen's families know about the situations and positions of them on the sea in case of bad sea conditions? (typhoon etc.)



116° 18.2' E



40° 02.1' N

Application Requirements-Disaster Relief (6)

- China is one of the most seriously natural disaster-hit countries in the world
- and the characteristics are as follows:
 - numerous types of natural disasters;
 - high frequency, strong destructive power and serious losses.
 - Just like: Earthquake, Snowstorm, Floods, etc.



116° 18.2' E



40° 02.1' N

Application Requirements-Disaster Relief (7)

- How to provide disaster warning in normal state?
- How to report disaster information timely when a natural disaster is encountered?
- How to maintain uninterrupted data communication at disaster area, when land communication system and power grid are destroyed?
 - How to command the rescue teams timely?
 - How to monitor disaster relief processes in real-time?
 - How to optimize allocation of disaster relief resources?
 - How to coordinate multi-level command center when all kinds of rescue forces are mobilized?



116° 18.2' E



40° 02.1' N

Contents

Summary

Application
Promotion

LBS based on
Compass

What is **Compass**
and What is BDStar?

Marine Fishery Ship Security
and Disaster relief
Application Requirements

116° 18.2' E



40° 02.1' N

Compass System/BDStar

- COMPASS Navigation Demonstration System
 - set up and became operational in 2003.
 - With the implementation of COMPASS system, It's coverage of service will be extend globally
- The system Specialty
 - integrate PNT service and **Short Message** service into one system.
 - suitable for the LBS applications based on Satellite



116° 18.2' E



Compass System/BDStar

40° 02.1' N

- **BDStar is:**
 - the major professional company which is engaged in satellite navigation and positioning industry in China
 - one of the earliest COMPASS Service Providers and cultivate the largest COMPASS user group in fishery application.
 - On 13th, August, 2007, BDStar IPO in Shenzhen Stock Exchange Market (Shares code: 002151)

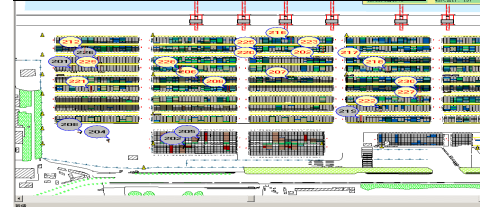
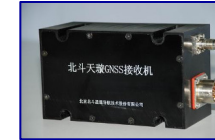
116° 18.2' E



Compass System/BDStar

40° 02.1' N

- The main business of BDStar :
 - **Satellite navigation and positioning products**
 - **Location-based information system**
 - **Location-based information service**



116° 18.2' E



40° 02.1' N

Contents

Summary

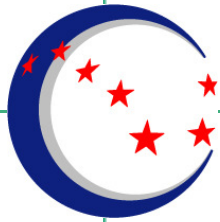
Application
Promotion

LBS based on
Compass

What is Compass
and What is BDStar?

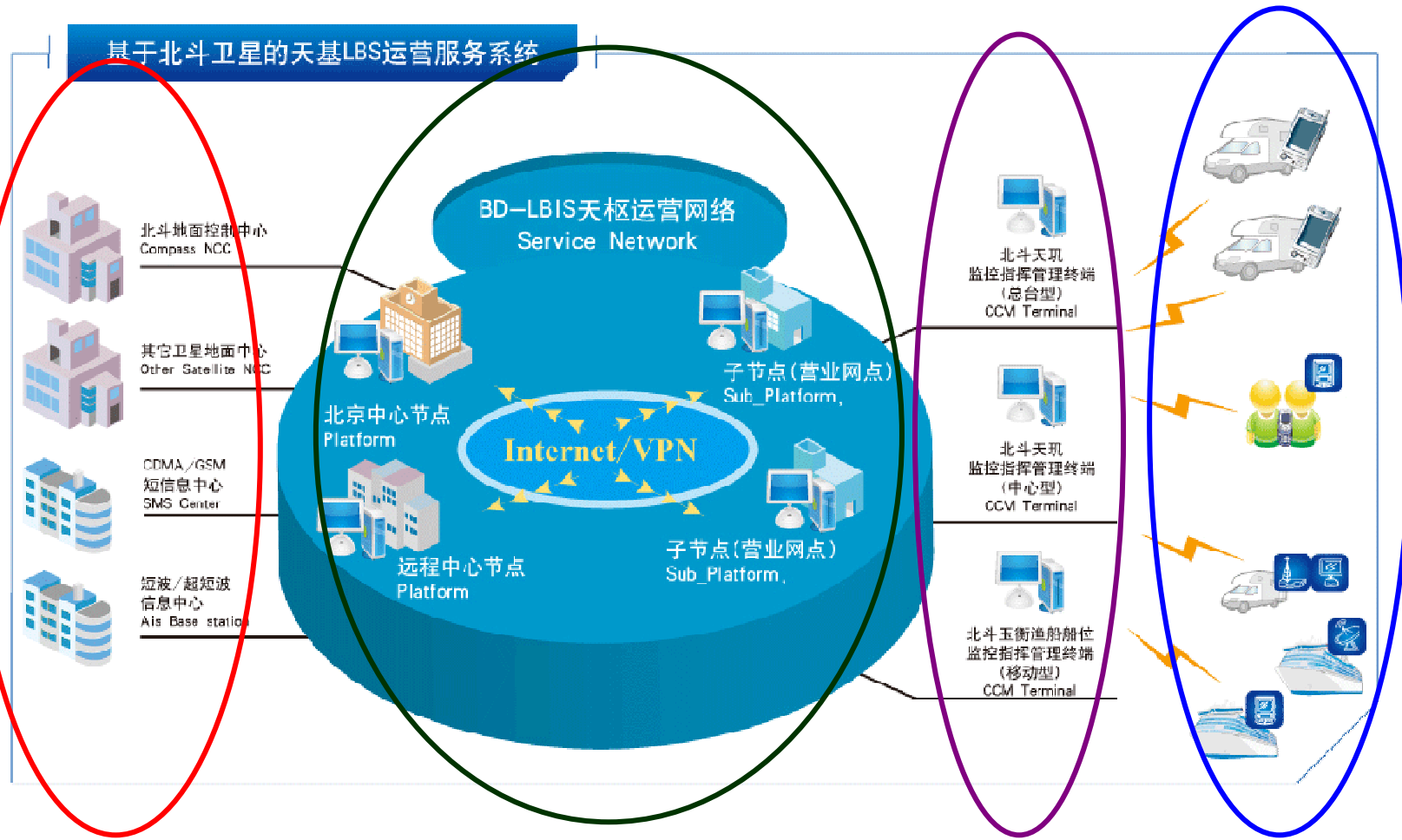
Fishing Vessel Security
and Disaster relief
Application Requirements

116° 18.2' E



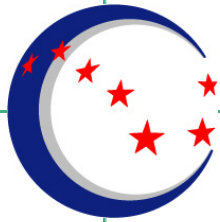
40° 02.1' N

LBS based on Compass (1)



The model can be copied

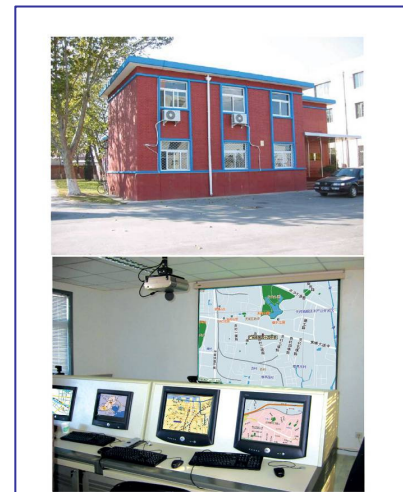
116° 18.2' E



40° 02.1' N

LBS based on Compass (2)

- COMPASS TIANSHU Integrated Information Service Network :
 - two central nodes and a number of sub nodes
 - It provides COMPASS users with:
 - Monitoring service to the compass group users
 - information interchange service –Compass and MCS
 - location-based value-added information service
 - Location based information broadcast (for example weather、 security caution etc.)
 - accurate advertising
 - The Guide for The fish collection vessels and Fishing ship finding each other
 - Illegal Warning
 - Emergency Short Message for Rescue
 - etc.



116° 18.2' E



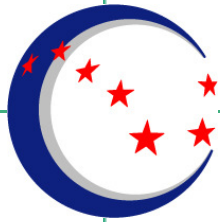
40° 02.1' N

LBS based on Compass (3)

- COMPASS TIANJI-series Group user center equipment :
 - real-time location information of mobile targets,
 - Regional Management
 - emergency alarm handling,
 - GIS-based integrated processing,
 - sharing, monitoring the status of targets and dispatching the command to targets.



116° 18.2' E



40° 02.1' N

LBS based on Compass (4)

- COMPASS TIANXUAN-series user terminals
 - for fishery vessels (BDG-MF-series),
 - rescue teams,
 - danger transport fleets,
 - disaster relief personnel and disaster relief aircraft
 - Connect with sensor to collect information remotely and report automatically
- to provide the services include PNT, short message communicated with cell phone system, Regional Management, command-on-the-move and disaster reporting.

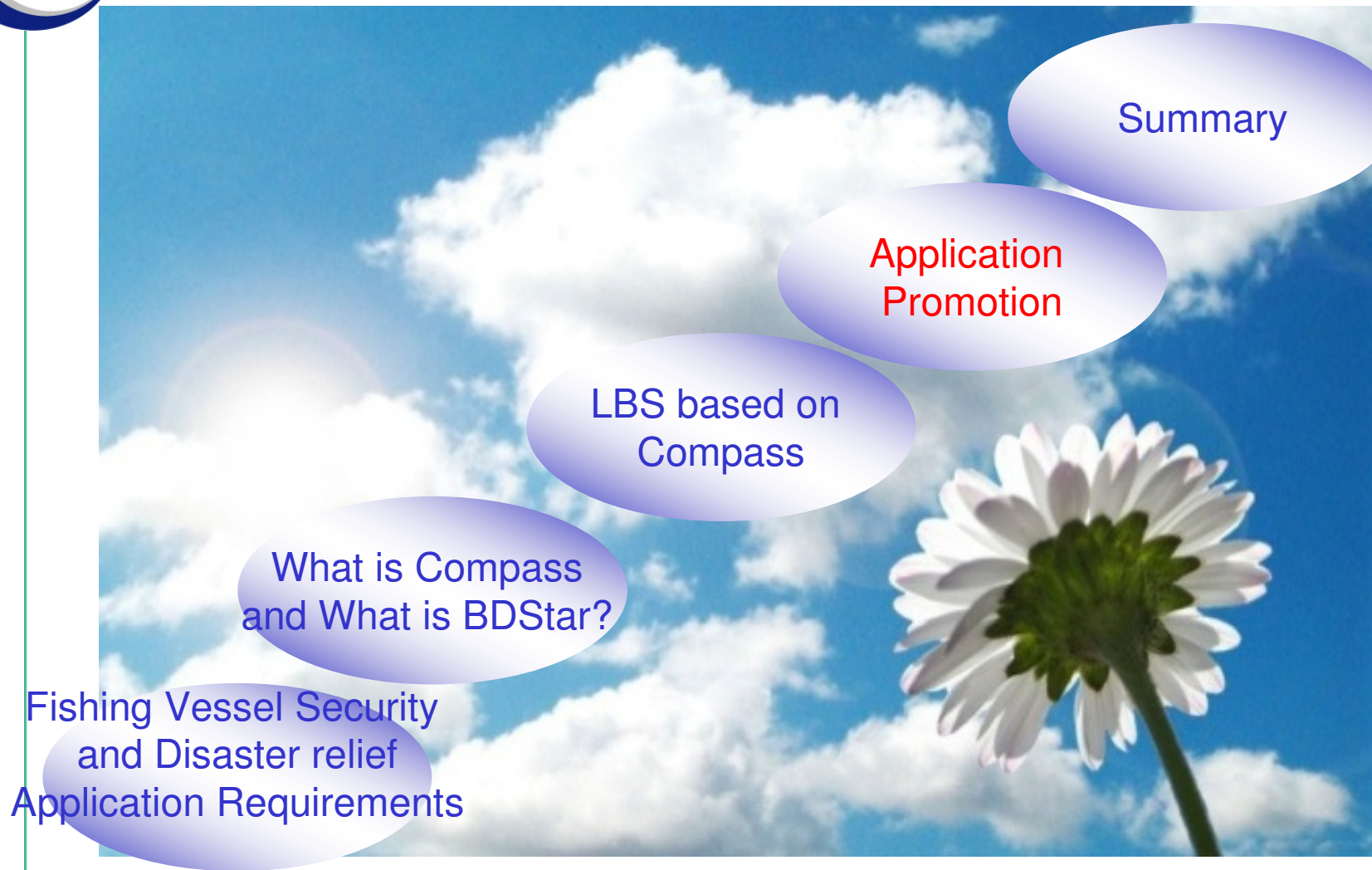


116° 18.2' E



40° 02.1' N

Contents



Summary

Application
Promotion

LBS based on
Compass

What is Compass
and What is BDStar?

Fishing Vessel Security
and Disaster relief
Application Requirements

116° 18.2' E



40° 02.1' N

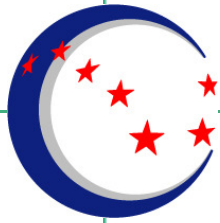
Application Promotion (1)

Marine Fishery Ship security and integrated information service system

- As a result of the efforts of BDStar over the years, COMPASS is providing security support and information service for a large number of fishing vessels in the Sea of China.
- Over the past two years, the system has saved above 300 fishermen's lives and 20 fishing vessels.



116° 18.2' E



40° 02.1' N

Application Promotion (2)

Disaster relief and integrated information service system

- COMPASS in the fighting against Wenchuan earthquake:
 - COMPASS TIANJI group user center equipment was used to command the rescue teams.
 - Many type of COMPASS terminals were widely used by professional disaster relief teams, civil relief organization and Journalists in the Disaster Areas.



116° 18.2' E



40° 02.1' N

Contents

Summary

Application
Promotion

LBS based on
Compass

What is Compass
and What is BDStar?

Marine Fishery Ship Security
and Disaster relief
Application Requirements

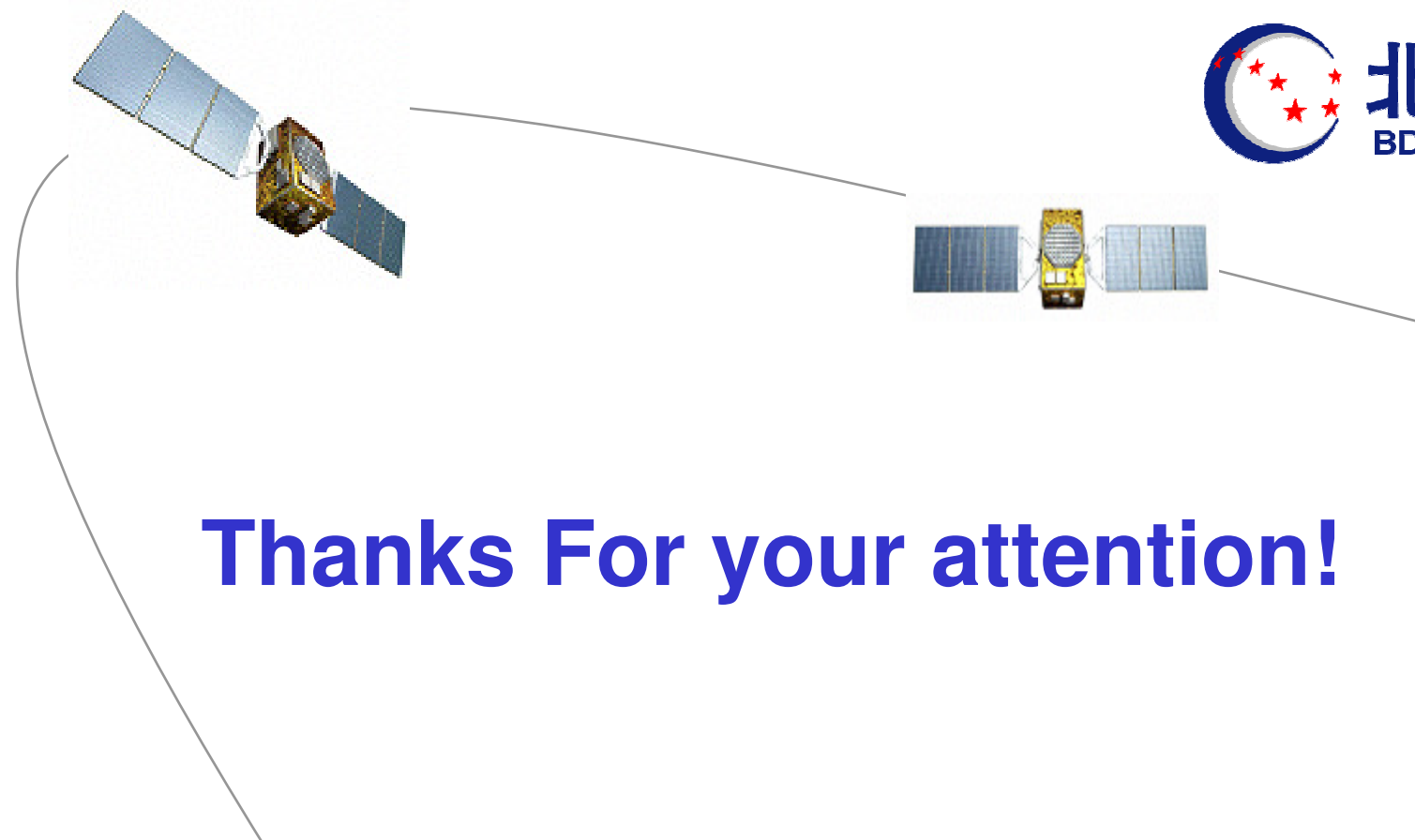
116° 18.2' E



40° 02.1' N

Summary

- COMPASS Navigation System integrates PNT and SMS service.
- It is suitable to provide LBS information service on the sea and Remote areas, where the mobile communication system is not available.
- In applications, COMPASS satellites have made outstanding contributions to the fields of fishery security and disaster relief. It has attained enormous social and economic benefits as a new technical approach.
- With further development of the COMPASS System, COMPASS will provide high-quality fundamental and value-added service to more and more fields of civil applications.



Thanks For your attention!

北京北斗星通导航技术股份有限公司
Beijing BDStar Navigation Co.,Ltd