

# The Monitoring of and Response to Pollution from Ships in China



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# Overview

- Risk of ship-source Pollution in China
- Monitoring of Pollution from Ships in China
- Response to Pollution from Ships in China
- International Exchange and Co-operation Programs



# Ship-source Pollution Risk in China

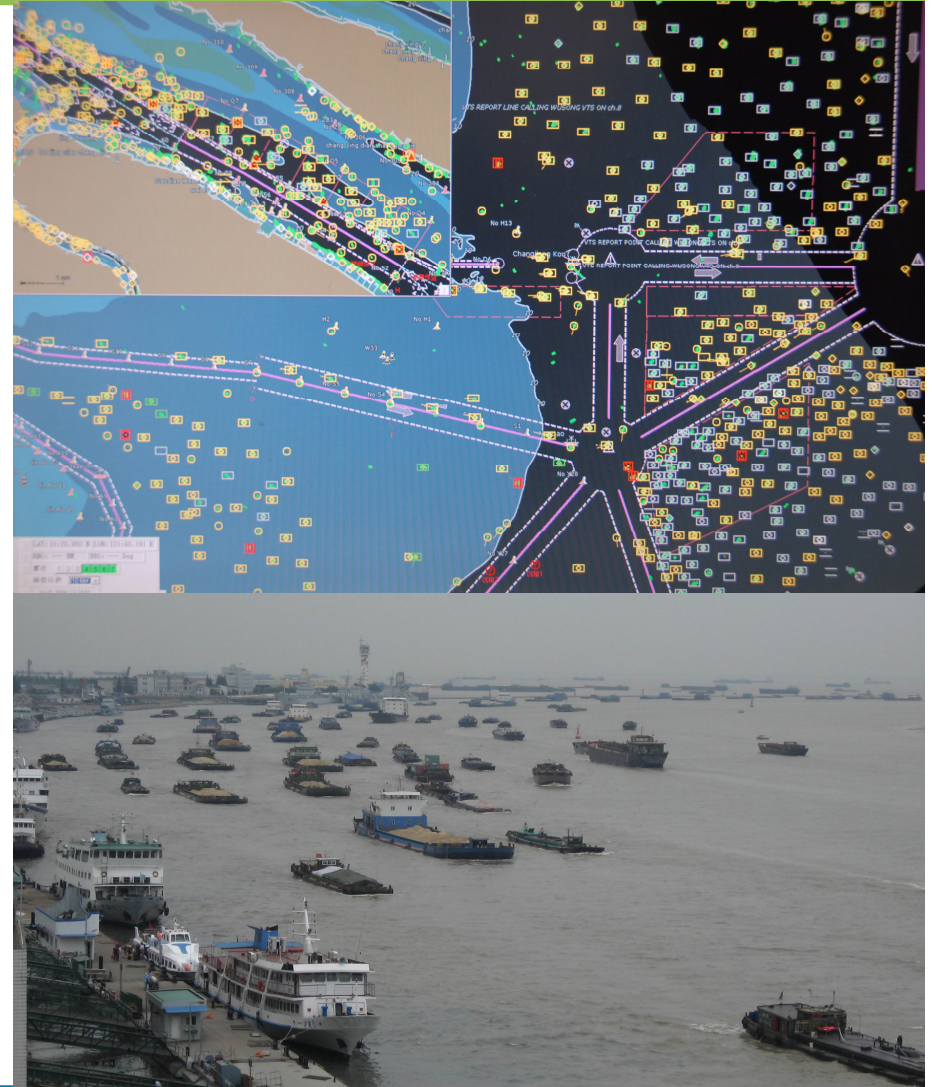
- 5,600 coastal berths
- 304,000 China-registered vessels
- 2.285 billion tons of cargo transported by sea every year.
- 300,000 containers, 1 million tons of imported minerals and 760,000 tons of imported crude oil transported by sea everyday





# Ship-source Pollution Risk in China

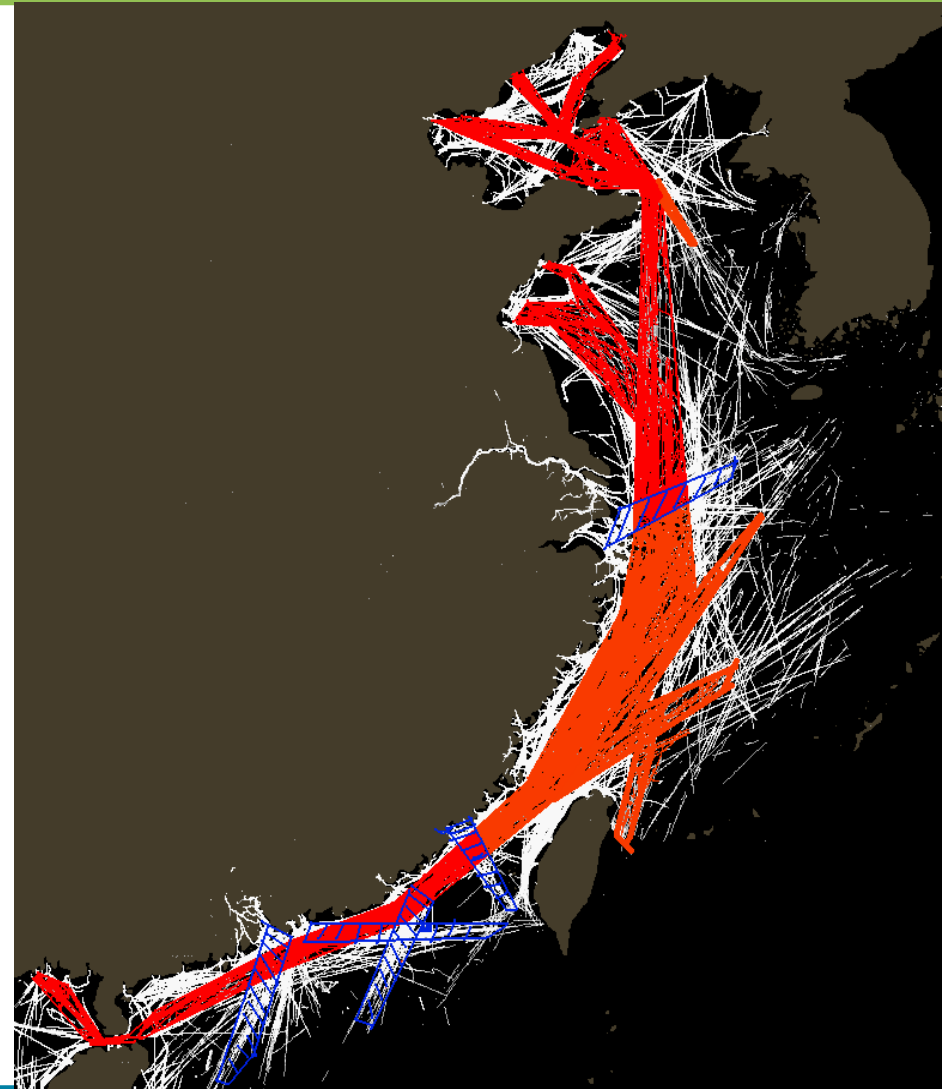
- Over 12,000 ships navigates in coastal waters everyday on average
- Over 500 oil tankers on average thereof





# Ship-source Pollution Risk in China

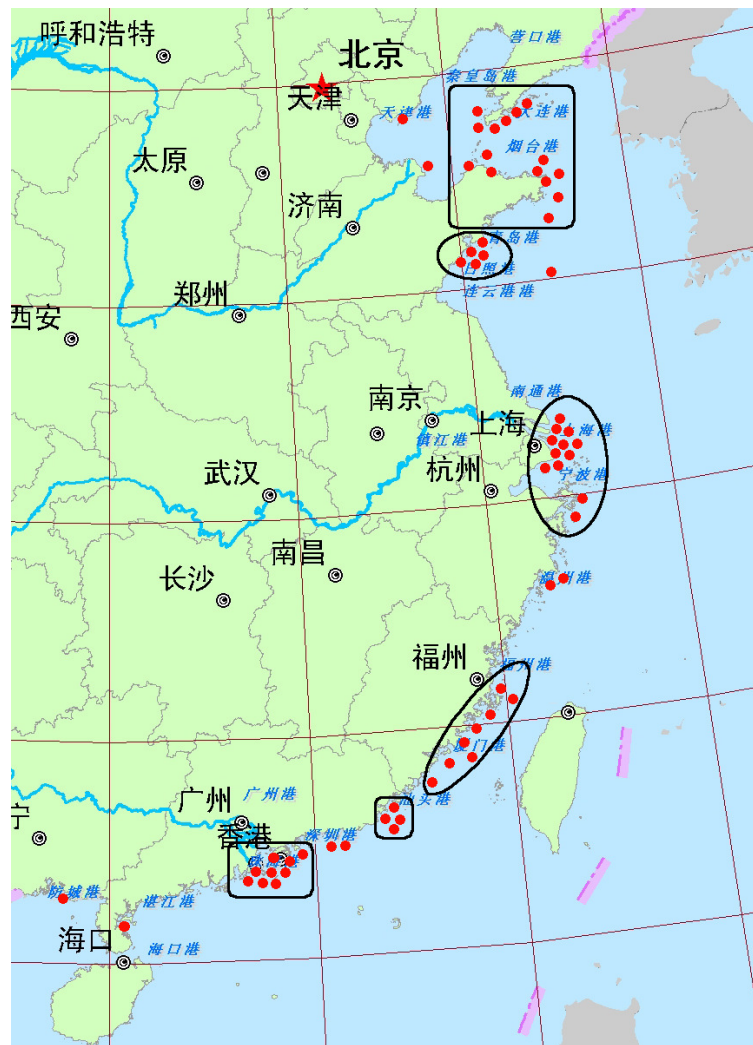
■ The busiest coastal waters:  
Bohai Bay, Chengshanjiao  
Corner, Mouth of Yangtze  
River, coastal water of  
Zhejiang Province, Taiwan  
Strait, Mouth of Pearl River







# Ship-source Pollution Risk in China



■ Most of the ship-source pollution happened in the coastal areas with heavy shipping traffic:

- Dalian-Bohai Bay - North Yellow Sea
- Shanghai - Mouth of Yangtze River - Zhoushan
- Taiwan Strait
- Guangzhou - Mouth of Pearl River



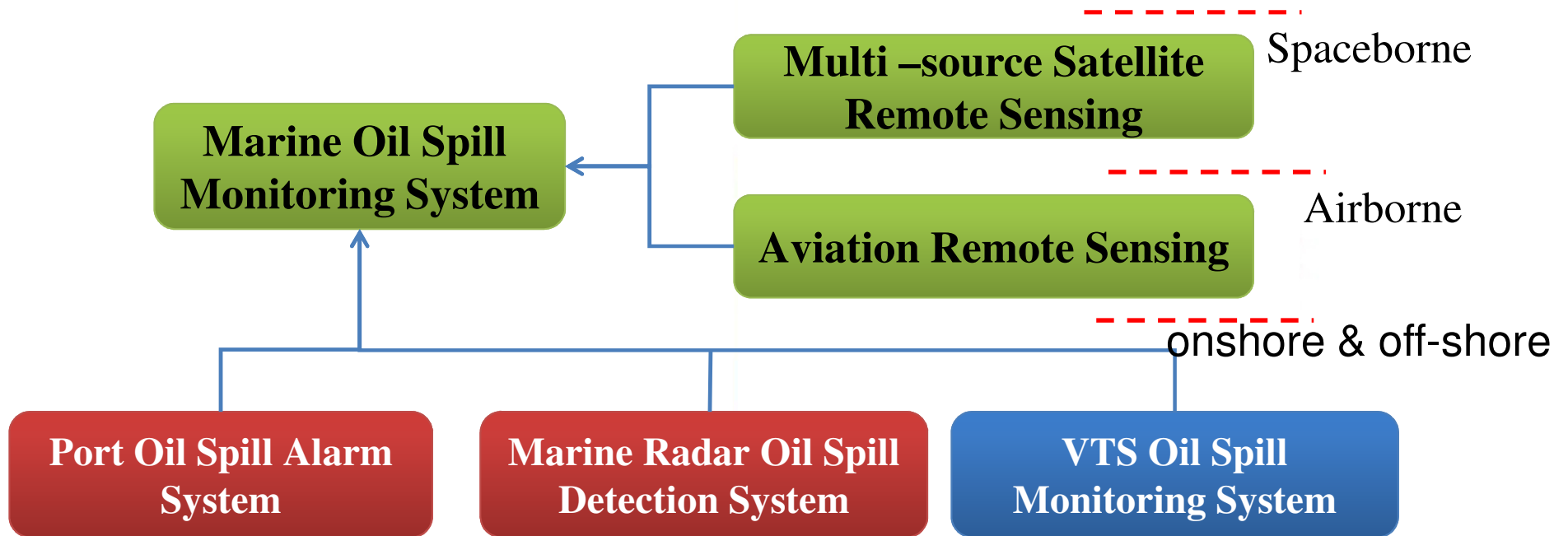
# Monitoring of Pollution from Ships in China

■ Target set by the 13<sup>th</sup> 5-Year-Plan in China: By 2020—to establish a comprehensive monitoring system of pollution from ships.





# Monitoring of Pollution from Ships in China



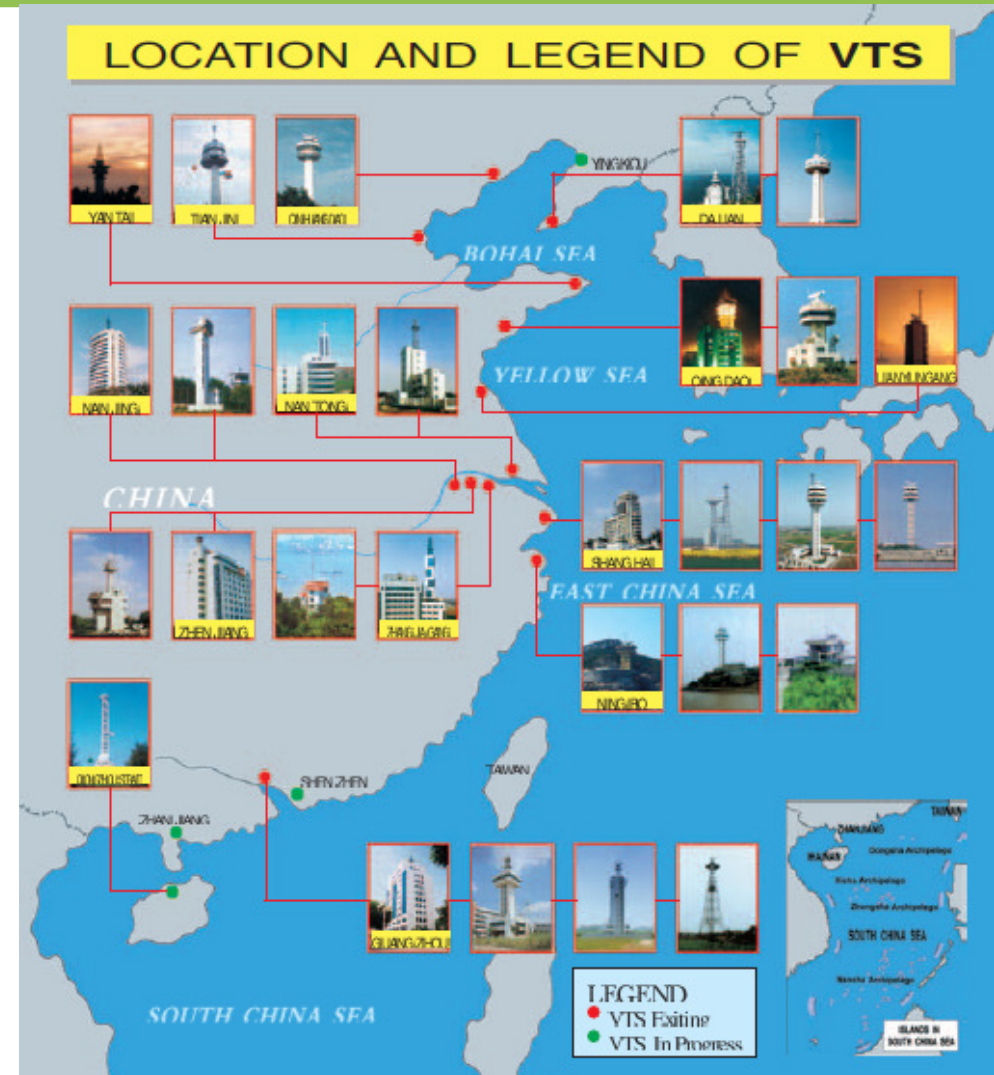




# Monitoring of Pollution from Ships in China

So far, we

- have established Vessel Traffic Service (VTS) systems in waters with heavy traffic, organizing passing vessels in pollution-monitoring;
- have 26 VTS centers operating in both coastal waters and inland waters;
- have built CCTV monitoring systems along fairways and terminals.





# Monitoring of Pollution from Ships in China

Since 2009, China Maritime Safety Administration (MSA) has:

- implemented routine active monitoring in Bohai and Yellow Seas;
- developed monitoring technologies, e.g. MOSMS.





# Monitoring of Pollution from Ships in China

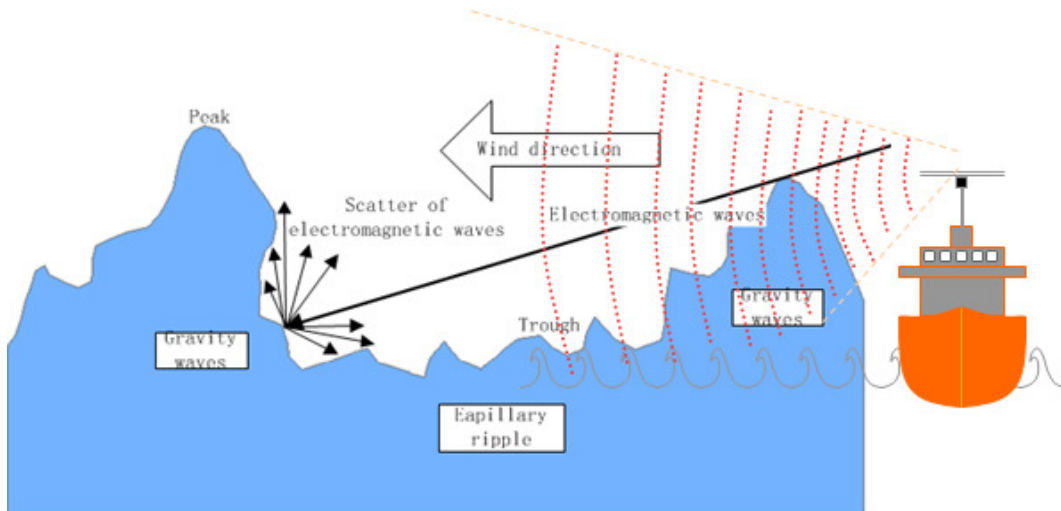
- The System is small, light and modularized task load, which can be installed on aircraft or ship.
- Real-time information processing





# Monitoring of Pollution from Ships in China

- Coverage:  $\geq 600\text{km}$
- Operating height : 300-5000m
- Cruising speed: 140-324km/h
- Time of non-stop flight:  $\geq 6\text{h}$





# Response to Pollution from Ships in China

- The National Water Area Emergency Plan for Pollution from Ships in China has been issued.
- Under the national plan, most coastal provinces, cities, and every port have established their own contingency plans.

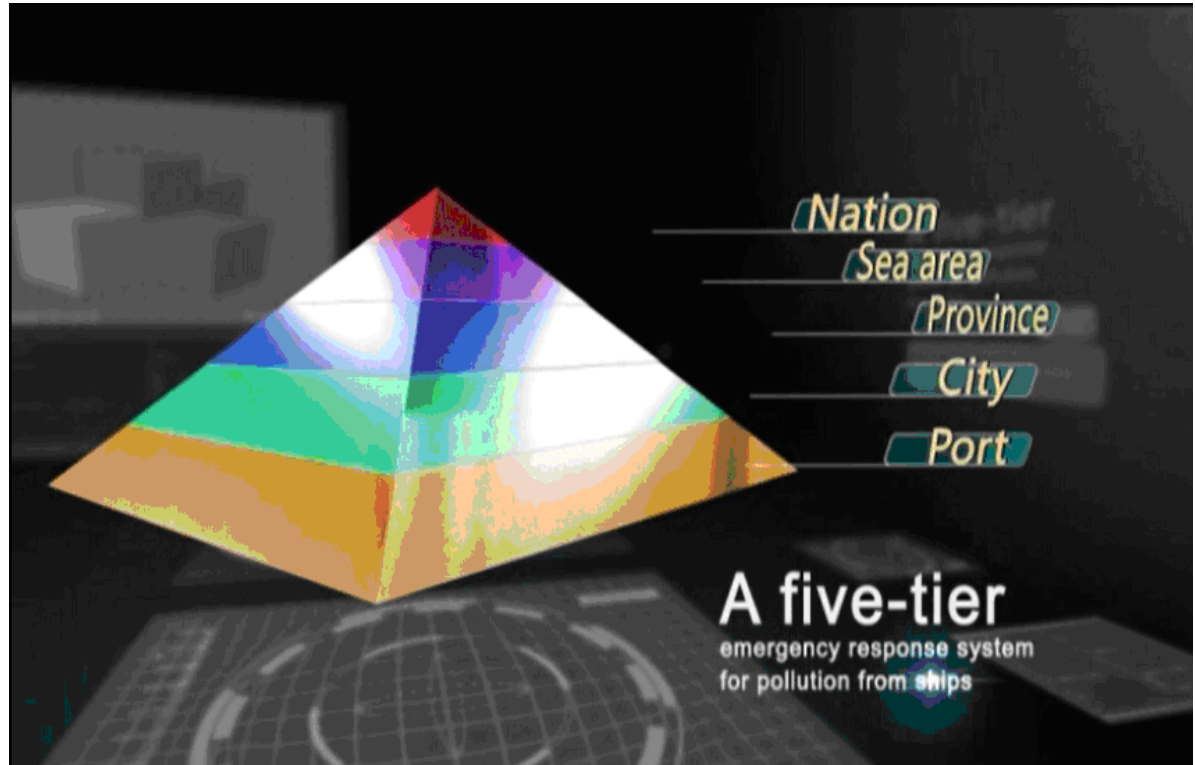






# Response to Pollution from Ships in China

- A five-tier emergency response system for pollution from ships has been established.
- Regional cooperation schemes on oil spill response have been launched in high-risk areas.





# Response to Pollution from Ships in China

- Dozens of state-owned stockpiles of oil spill response equipments have been constructed along the coast and Yangtze River .





# Response to Pollution from Ships in China

- China MSA has organized national and regional oil spill response trainings and conducted several national oil spill response exercises.

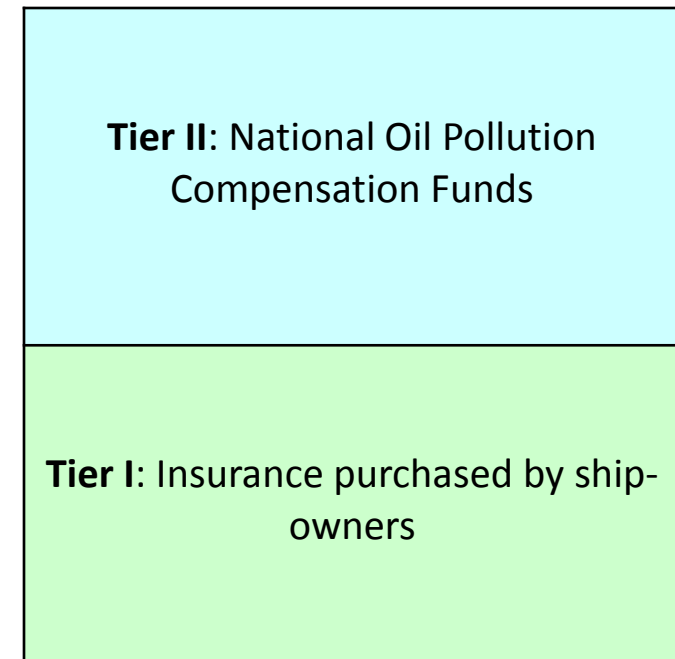




# Response to Pollution from Ships in China

■ A two-tier compensation scheme for damage caused by ship-source oil pollution has been established.

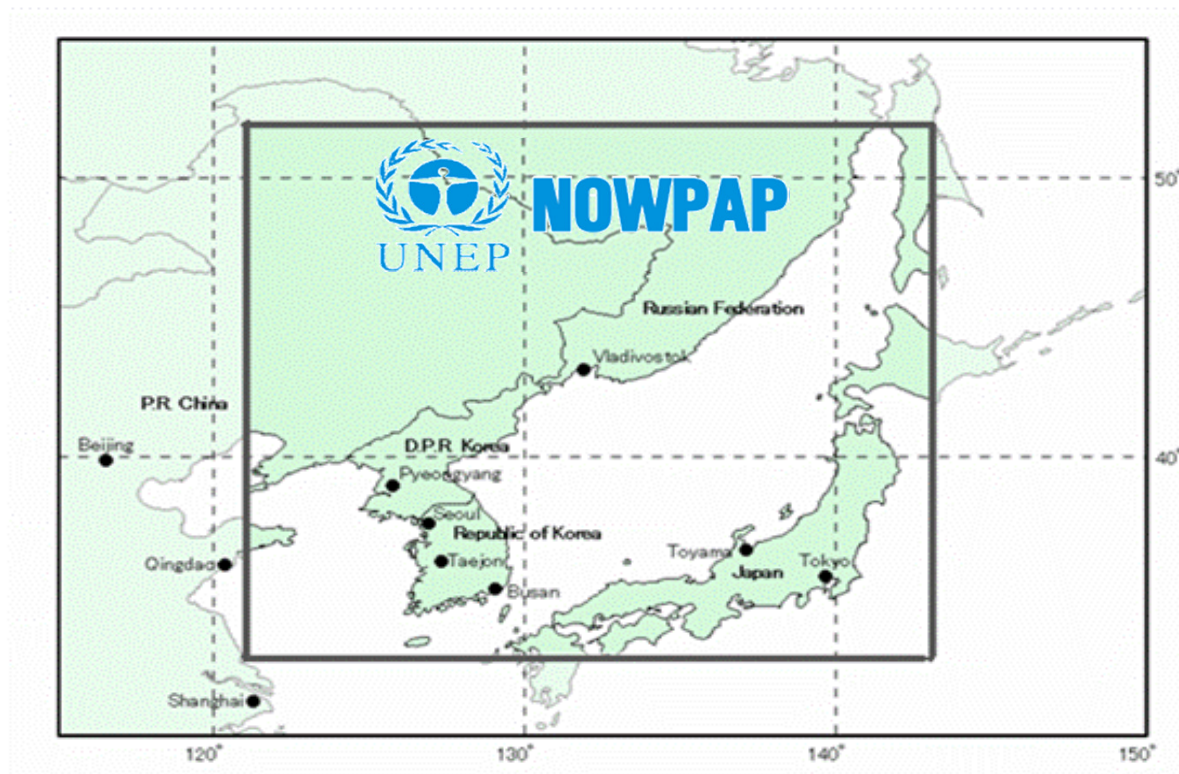
- 1<sup>st</sup> tier: the mandatory insurance purchased by ship-owners.
- 2<sup>nd</sup> tier: the National Oil Pollution Compensation Funds contributed by the receivers of persistent oils imported by sea.





# International Exchange and Co-operation Programs

- China, Japan, Korea and Russia adopted NOWPAP and signed the Memorandum of Understanding on Regional Cooperation in Marine Pollution Preparedness, Response.

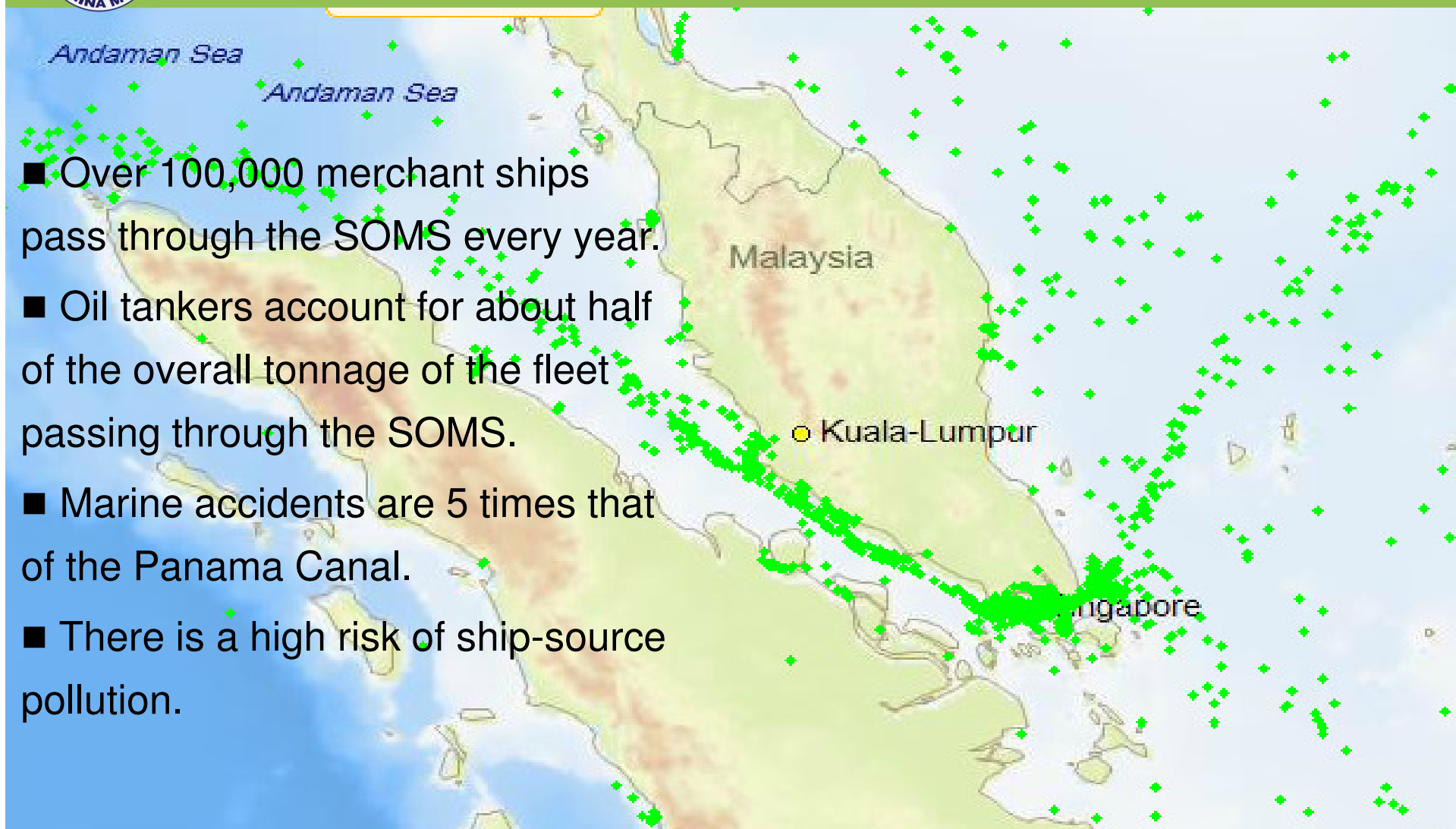






## International Exchange and Co-operation Programs

- Over 100,000 merchant ships pass through the SOMS every year.
- Oil tankers account for about half of the overall tonnage of the fleet passing through the SOMS.
- Marine accidents are 5 times that of the Panama Canal.
- There is a high risk of ship-source pollution.





# International Exchange and Co-operation Programs

- The need of co-operation on navigational safety and environmental protection in the SOMS
- As an important user State, China will make continued contributions to bring the co-operation mechanism forward
- Recognizing the high risk of oil spill in the SOMS, we propose to launch an oil spill monitoring project





# International Exchange and Co-operation Programs

## **Content of the Project:**

- Offering airborne oil detection radars, aircrafts, facilities, trainings and relative technology aids;
- Offering ship-borne oil detection radars, facilities, trainings and relative technology aids;
- Conducting further exchange and co-operation on the monitoring of and response to ship-source pollution



# International Exchange and Co-operation Programs

At the 7<sup>th</sup> Co-operation Forum held in September, 2014, China

- Promised to support the littoral States, as always, with capacity-building in emergency preparedness and response to pollution in the SOMS.
- Explored the possibility of co-operating on oil spill monitoring in the SOMS with several littoral States.





# International Exchange and Co-operation Programs

- At the 10<sup>th</sup> meeting of the China-ASEAN Maritime Consultation Mechanism, CETC gave a presentation on the MOSMS, which drew great attention from littoral States, and suggested that the project could be gradually expanded if required, utilizing the China-ASEAN Maritime Co-operation Fund.
- In December 2014, China MSA and CETC were invited by the Malaysian Marine Department to give presentations on the MOSMS at the Malaysian Maritime Training Institute.







# International Exchange and Co-operation Programs

■ China's Ministry of Foreign Affairs has confirmed that the MOSMS project will be sponsored by the China-ASEAN Maritime Co-operation Fund.

Updated on 25 October 2014

## PROCEDURES FOR ASEAN'S PROJECT APPLICATION FOR THE CHINA-ASEAN MARITIME COOPERATION FUND (CAMCF) (Provisional)



1. Project applications from ASEAN Member States for the use of the China-ASEAN Maritime Cooperation Fund (CAMCF) shall be submitted to the Ministry of Foreign Affairs (MFA) of the People's Republic of China (PRC) through the diplomatic channel. If more than one ASEAN Member State is involved in a project, the application shall be submitted by a Coordinating Country upon consensus with other participating countries.

2. Proposed projects shall be in line with the areas designated in the China-ASEAN Maritime Cooperation Partnership Initiative, including maritime connectivity, marine economy, scientific research and environmental protection, disaster management, navigation safety and security, and marine-related cultural activities, ect.



# International Exchange and Co-operation Programs

The way forward:

- Agree to establish the MOSMS project under the Cooperative Framework.
- Sign an agreement with pilot littoral States to launch the project;
- Apply for the China-ASEAN Maritime Co-operation Fund; and formally launch the project.







# International Exchange and Co-operation Programs

- Visit the System, aircrafts, radars on site in China;
- Implement the project in pilot littoral States;
- Expand the project to other littoral/ASEAN Member States if needed.





Thank you!