



国家海洋局第一海洋研究所

THE FIRST INSTITUTE OF OCEANOGRAPHY, SOA.

1st International Science and
Planning Workshop on Years of
the Maritime Continent

R/V XiangYangHong 01/18

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First Institute of Oceanography, SOA, China

2015.1.29 Singapore



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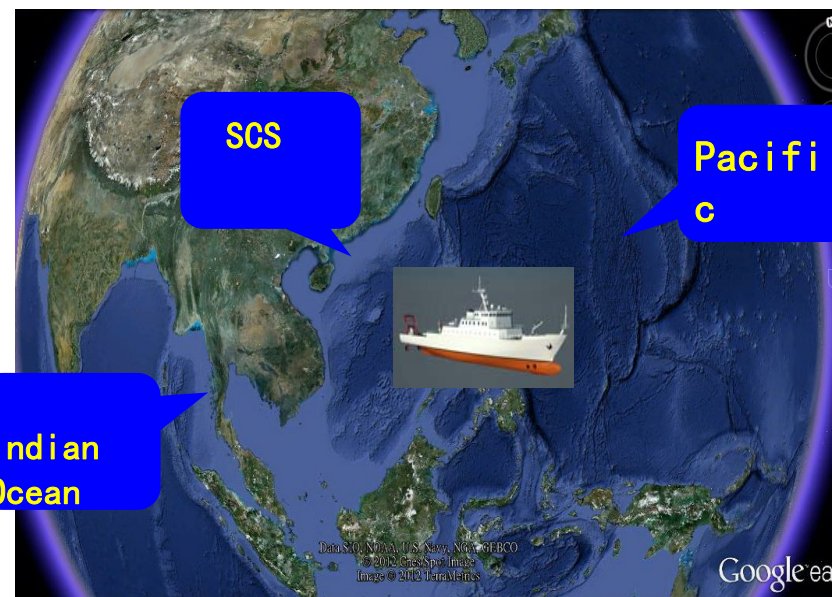
XiangYangHong18

XiangYangHong01



XiangYangHong18

LOA:	86.4 m
LPP:	77.8 m
Breadth:	12.5 m
Moulded depth:	6.4 m
Draught:	3.75 m
Displacement (TD):	2082 T
Displacement (Fully loaded):	2272 T
Service Speed:	12 kts
Max Speed:	15 kts
Range:	8000 N.M
Endurance:	50 days
Scientists/Crew:	26/24 pers
Dynamic positioning:	DP1

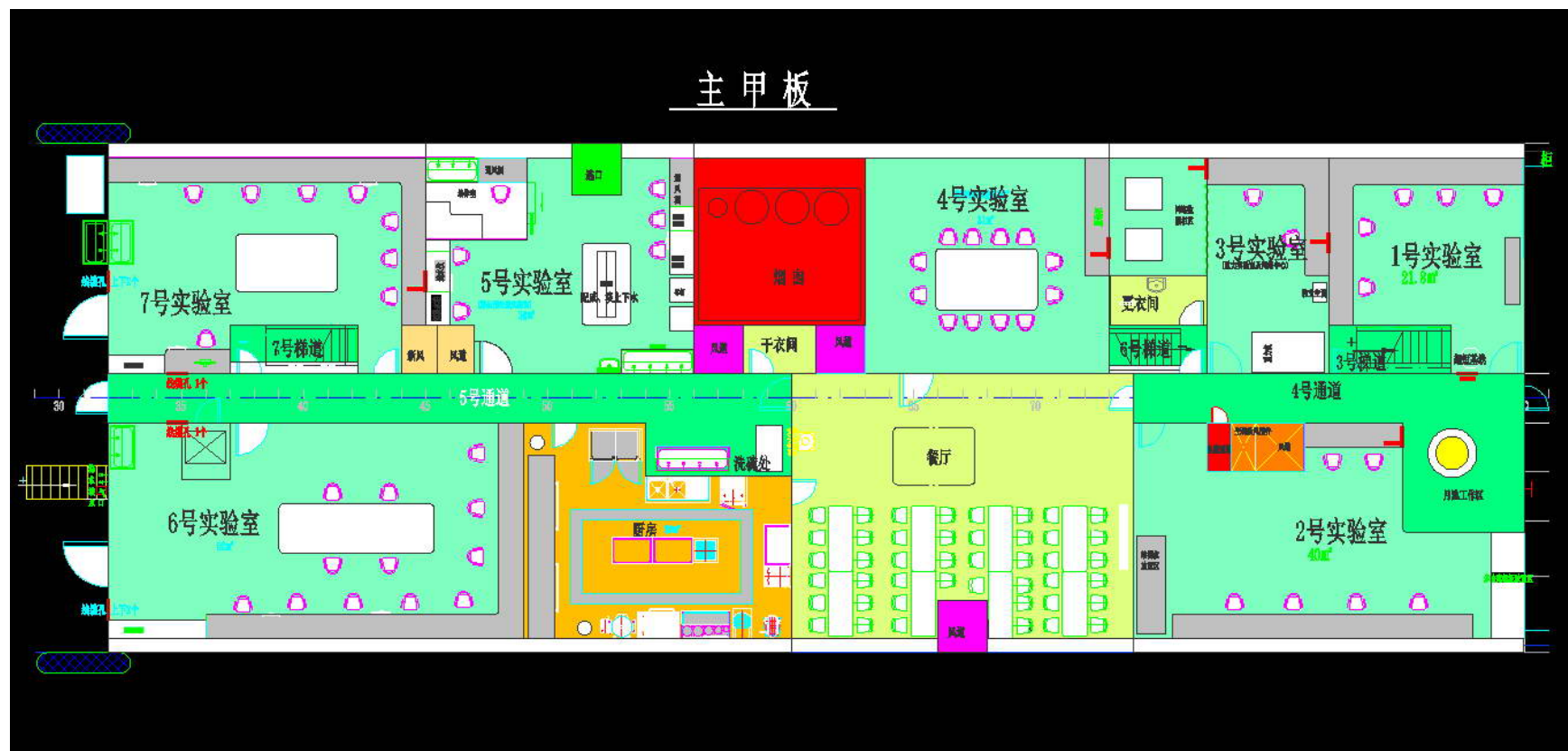




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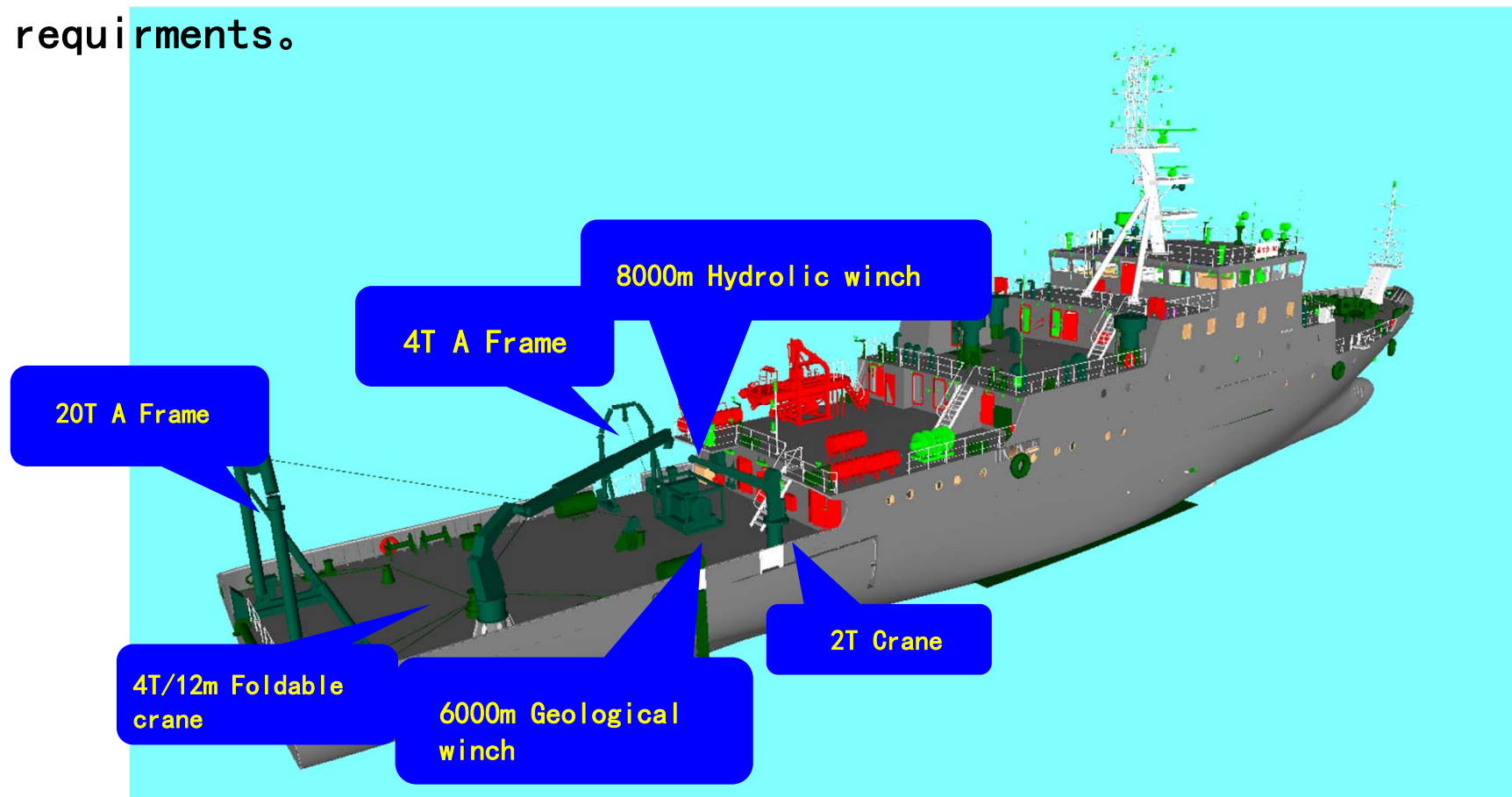
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Totally 9 labs onboard, including 1# -- 7# general laboratories, data center and bridge lab. With area of 309.3m² laboratorie. The vessel is cabable of multipurpose oceanic researches.





The main working deck is on the stern side with total area of 286 m². Deck machinery meets the offshore operational requirements.



XiangYangHong01

LOA:	99.6 m
LPP:	88.8 m
Breadth:	17.8 m
Moulded depth:	8.9 m
Draught:	5.6 m
Draught (Summer) :	5.883 m
Draught (Scanting) :	6.0 m
Displacement (TD) :	4661T
Displacement (Fully loaded) :	4981T
Service Speed:	12 kts
Max Speed:	15.8 kts
Range:	15000 N.M
Endurance:	60 days
Scientists/Crew:	48/32
Dynamic positioning:	DP1





- 1) Atmospheric sounding system
- 2) Water detection system
- 3) Subsurface detection system
- 4) Deep sea detection system
- 5) Remote sensing information system
- 6) Winch and handling system
- 7) Research network system



Lab Area: 670m²

Working Deck: 640m²



Laboratories:

- 1 Fidelity sample working lab
- 1 Temperature control lab
- 1 Data process room
- 1 Gravimeter room
- 1 Clean lab
- 1 Chemistry lab
- 1 Geological sample working room and General lab(wet)
- 1 Geophysics lab
- 1 General lab(dry)
- 1 7 Laboratory Containers

Specific scientific equipment:

- 1 Airgun array
- 1 Seismic compressors (2*20m³/min)
- 1 Coring device for cores of maximum 30m length
- 1 Thermosalinograph

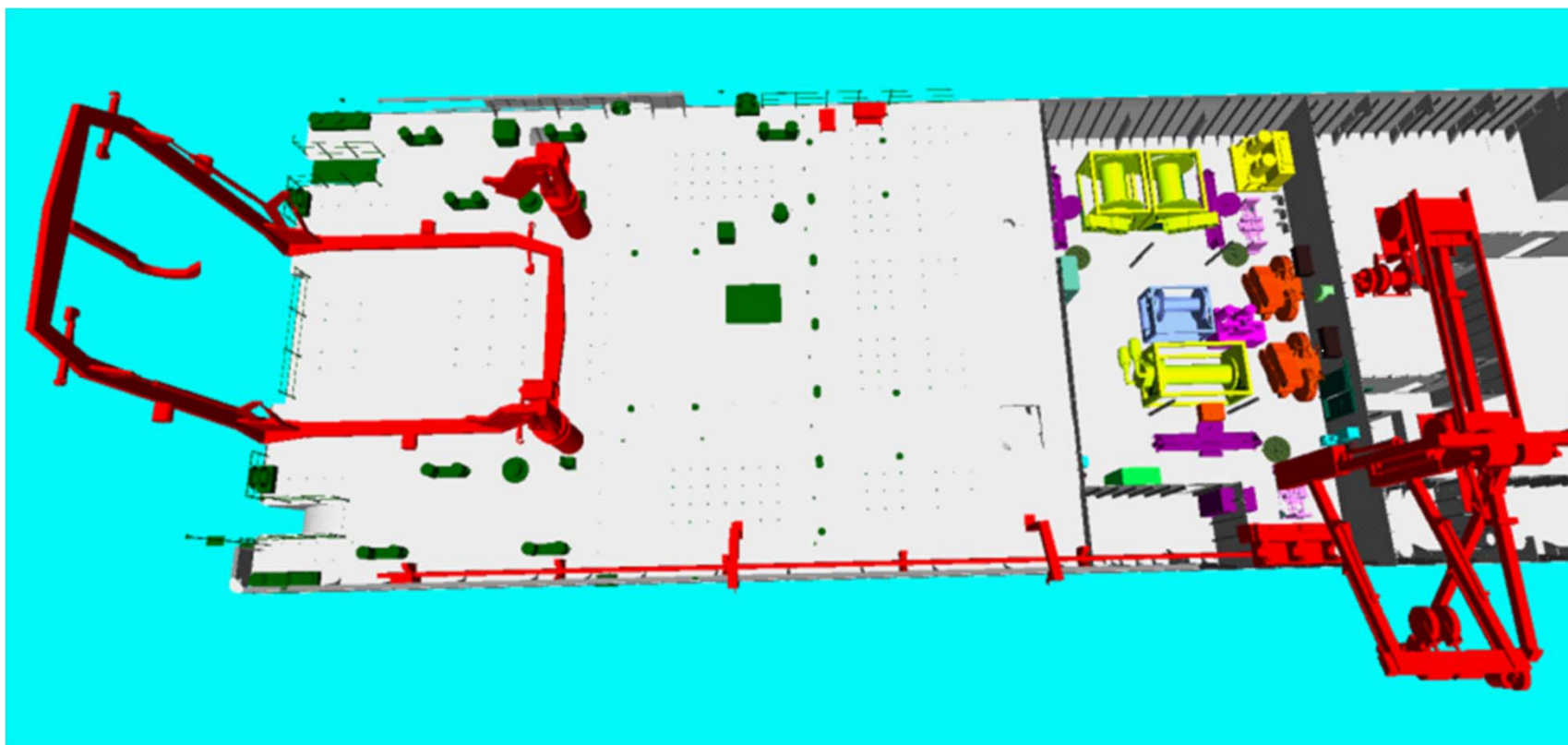
Hydro-acoustic systems:

- 1 2 Multi-beam and single system
- 1 1 USBL system
- 1 1 Fishery sounder
- 1 Deep water sub-bottom profiler



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Oceanographic Winch and Overboard Handling System



Oceanography

- **Physical and chemical oceanography**
- **Separate CTD hangar**
- **CTD/watersampler deployment through main hangar**
- **Mooring deployment design over the deck**



Equipment - Ocean

- **Seabird 911**
- **ADCP on board, 38K, 75k, 150k, 300k**
- **MSS60**
- **VPR**
- **XBT、 XCTD**
- **X-band/S-band Radar**
- **Glider**
- **...**

Equipment - Atmosphere

- **AWS**
- **Vaisala GPS sounding**
- **Ceilometer**
- **Automatic Total Sky Imager**
- **Air temperature profiler (Radiometer)**
- **Solar Radiation Meter**
- **CO₂/H₂O Open-Path Gas Analyzer**
- **...**

Project plan

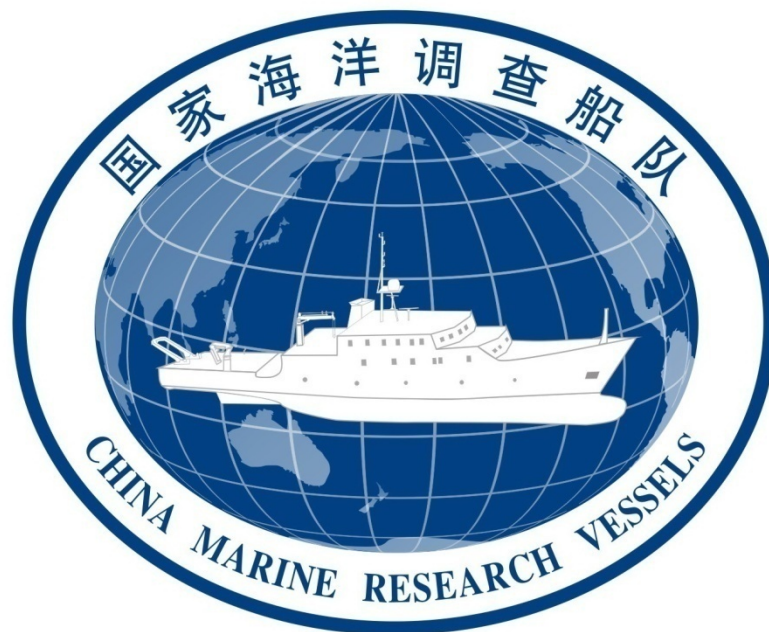
- **2015:** Delivery of XiangYangHong 18 (XYH 18)
- **Later 2015:** Trials/Setting to work of XYH 18
- **Early 2016:** First regular science cruise of XYH 18
Delivery of XiangYangHong 01 (XYH 01)
- **Late 2016:** Trials/Setting to work of XYH 01
- **2017:** First regular science cruise of XYH 01
- **2018:** IIOE-2, YMC,





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Thank You!