

China's activities in Arctic

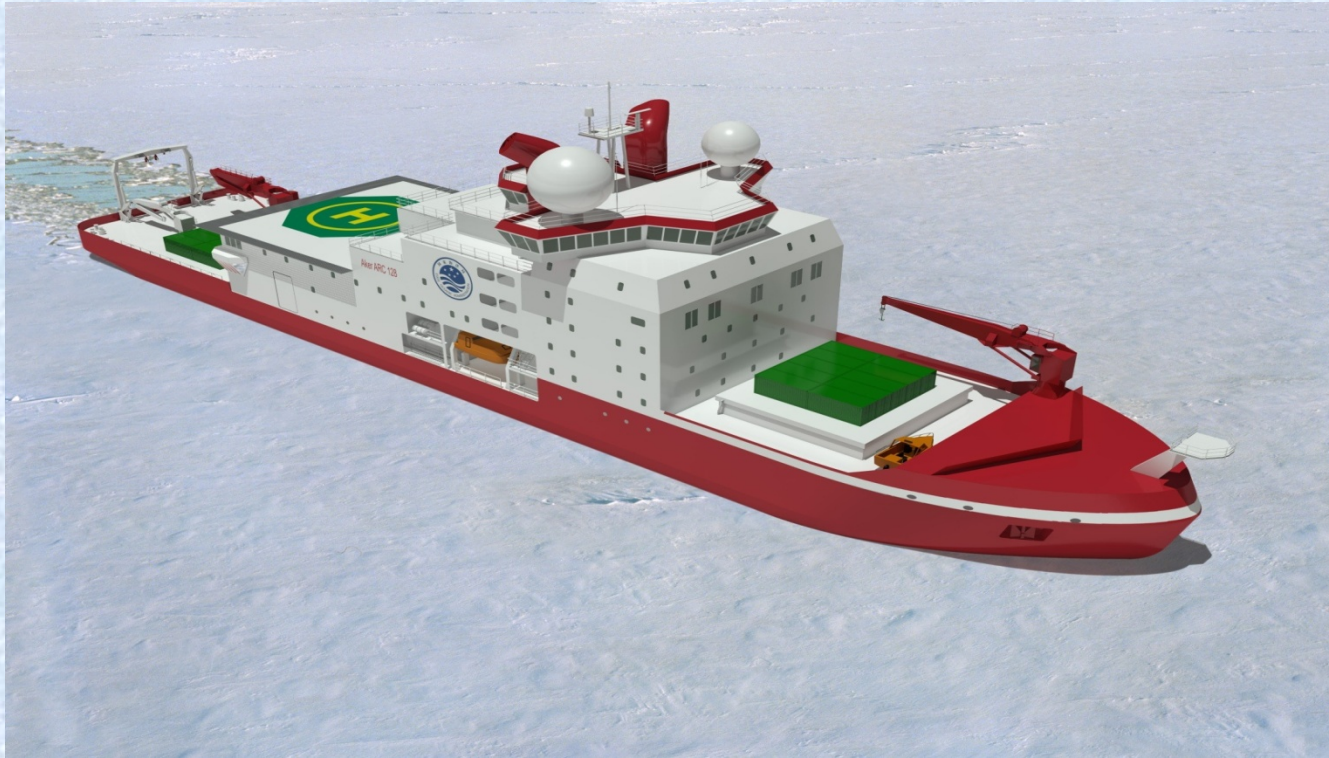
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Progress of new Chinese icebreaker



- Waiting for the preliminary design approval from the government;
- Billing of key equipments will begin next month;
- The possible time of trial cruise of new icebreaker is 2018.

2016 Chinese Arctic Cruises



- Xuelong Arctic Cruise (July- Sept., central Arctic Ocean?)
- Sino-Russia joint cruise?

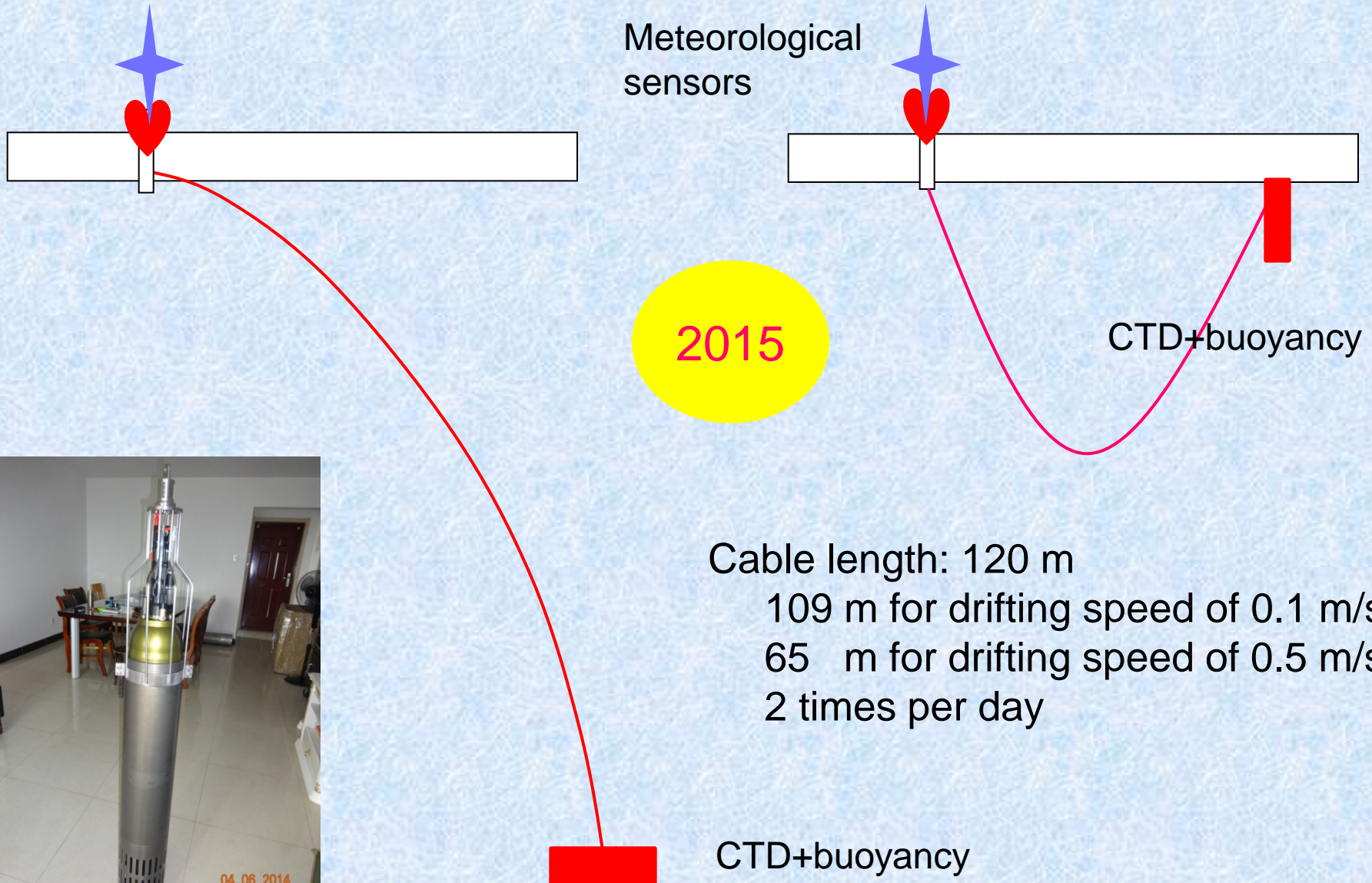
Chinese Arctic research in the coming 5-years

- Polar special project:

- “Arctic and Antarctic environmental expedition and evaluation”

- Arctic cruises (~3-4: 2 from Xuelong and 1~2 from new icebreaker)

(1) ITP for upper ocean---- a tailed profiler



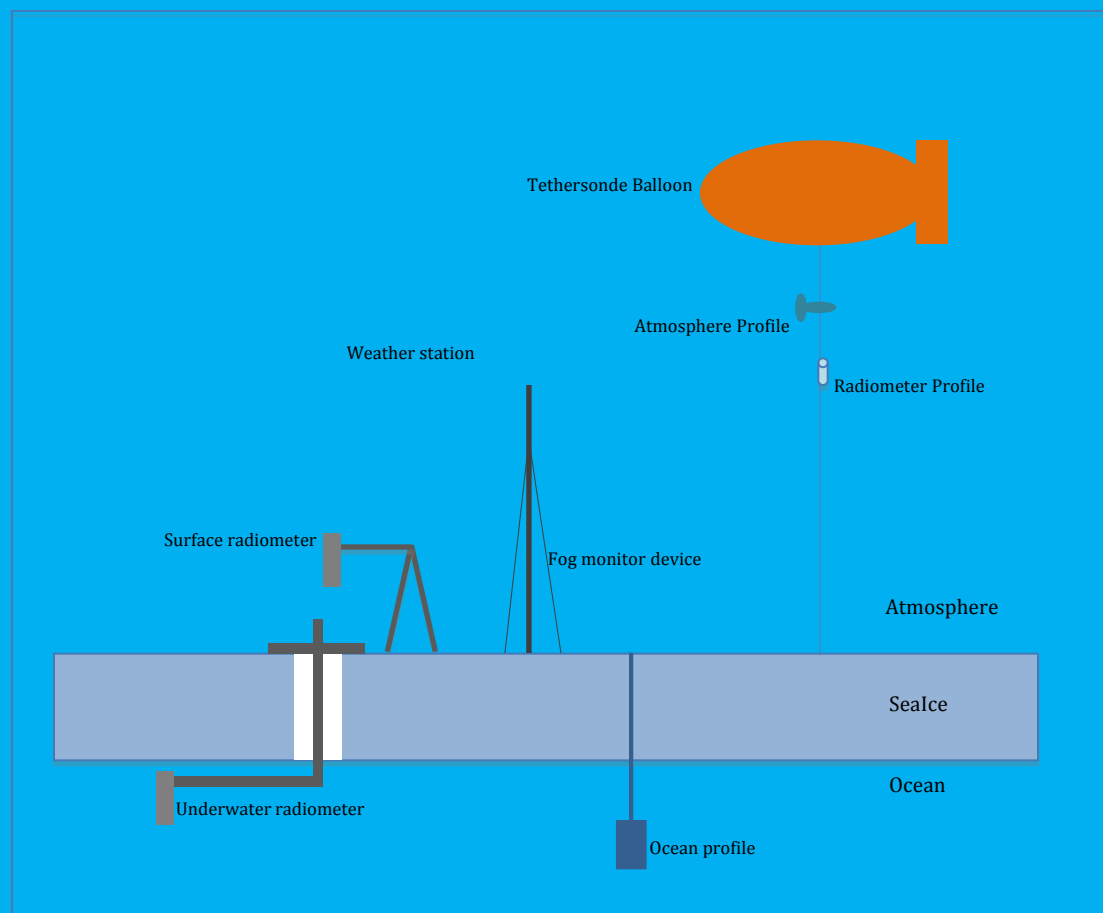
(2) Belmont Forum project

Arctic Fog Variability in a Warming Arctic and
Its Impact on Maritime Human Activities

- China
- US
- Canada
- Italy



2014



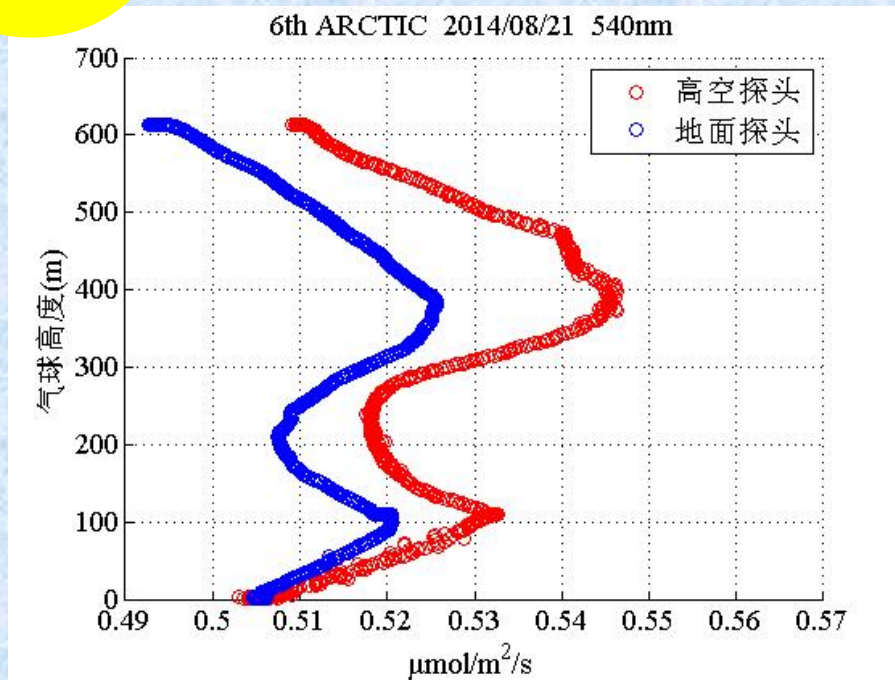
Field vertical observation for fog

2014



Profiling for Arctic fog

2014



2016

Pressure
Irradiance
Temperature
Humidity
GPS

Arctic expeditions of Ocean University of China

1995	China – North pole
1999	Chinare-1
2003	Chinare-2
2006	Canada-JOIS
2007	US-Bering Sea
	Canada-CFL
2008	Chiare-3
	US-Bering Sea
	Canada-CFL
2009	US-Bering Sea
2010	Chinare-4
	China-OUC

2011	Korea-Medelev ridgr
2012	Chinare-5
	Korea-Mendelev Ridge
2013	China-Svalbard
2014	Chinare-6
	China-OUC-Barrow fog
	China-OUC-Nordic Sea
	Korea-Mendelev Ridge
2015	China-OUC-Nordic Seas
	Korea-Mendelee
2016	Chinare-7
	China-OUC-Nordic Sea

Main funding of Ocean University of China

	Projects	by
	Exploration and assessment for Arctic and Antarctic environment	CAAA
	Mechanism of Arctic Amplification and its global climate effects caused by Arctic sea ice retreat	MOST
	Coupling variation of Arctic sea ice with upper ocean circulation and its effect on climate	C-NSF
	Arctic Fog Variability in a Warming Arctic and Its Impact on Maritime Human Activities	Belmont