

Review of summer/autumn 2012 ship-based research in Pacific Arctic Region

+ mooring based

c. Japan

Report on R/V Mirai 2012 cruise in the Pacific side of the Arctic Ocean
Takashi Kikuchi (JAMSTEC)
with inputs from other Japanese Scientists

2012 Sea ice condition

AMSR2 Sea Ice Concentration

20120915

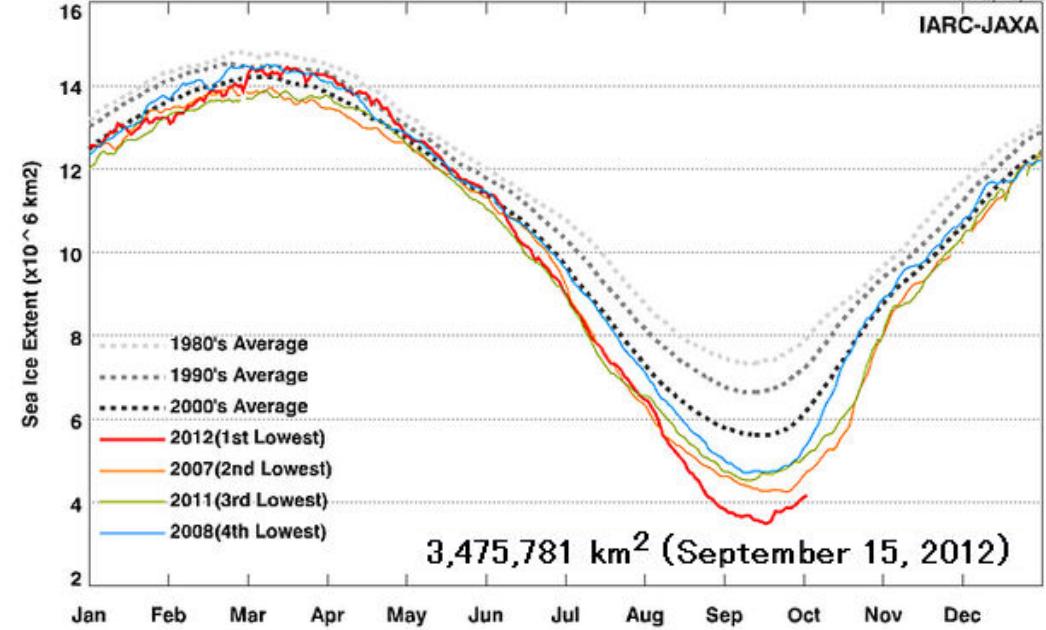


第一期水循環変動観測衛星「しづく」(GCOM-W1)



Arctic Sea Ice Extent

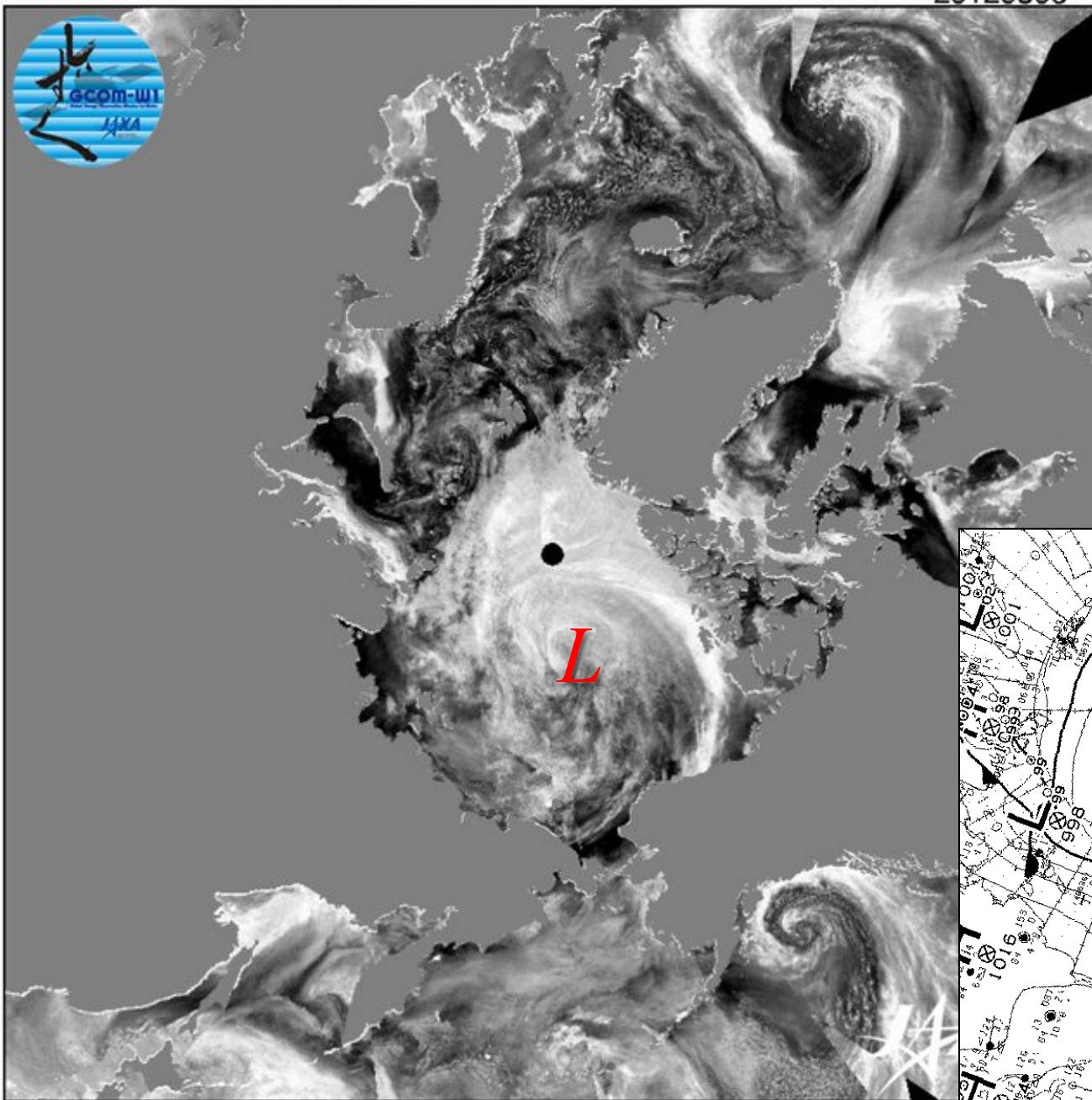
2012/10/02
IARC-JAXA



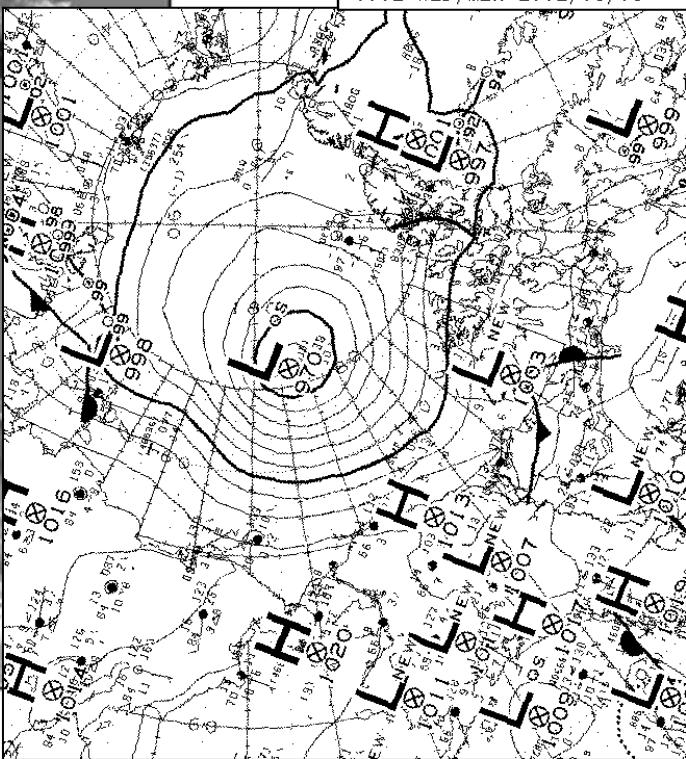
ay change after the validation process in future.

PR89(89GHz Polarization Ratio)

20120806



CMC ENVIRONNEMENT CANADA
ENVIRONMENT CANADA
ANAL SURFACE
VOOZ WED/MER 2012/08/08

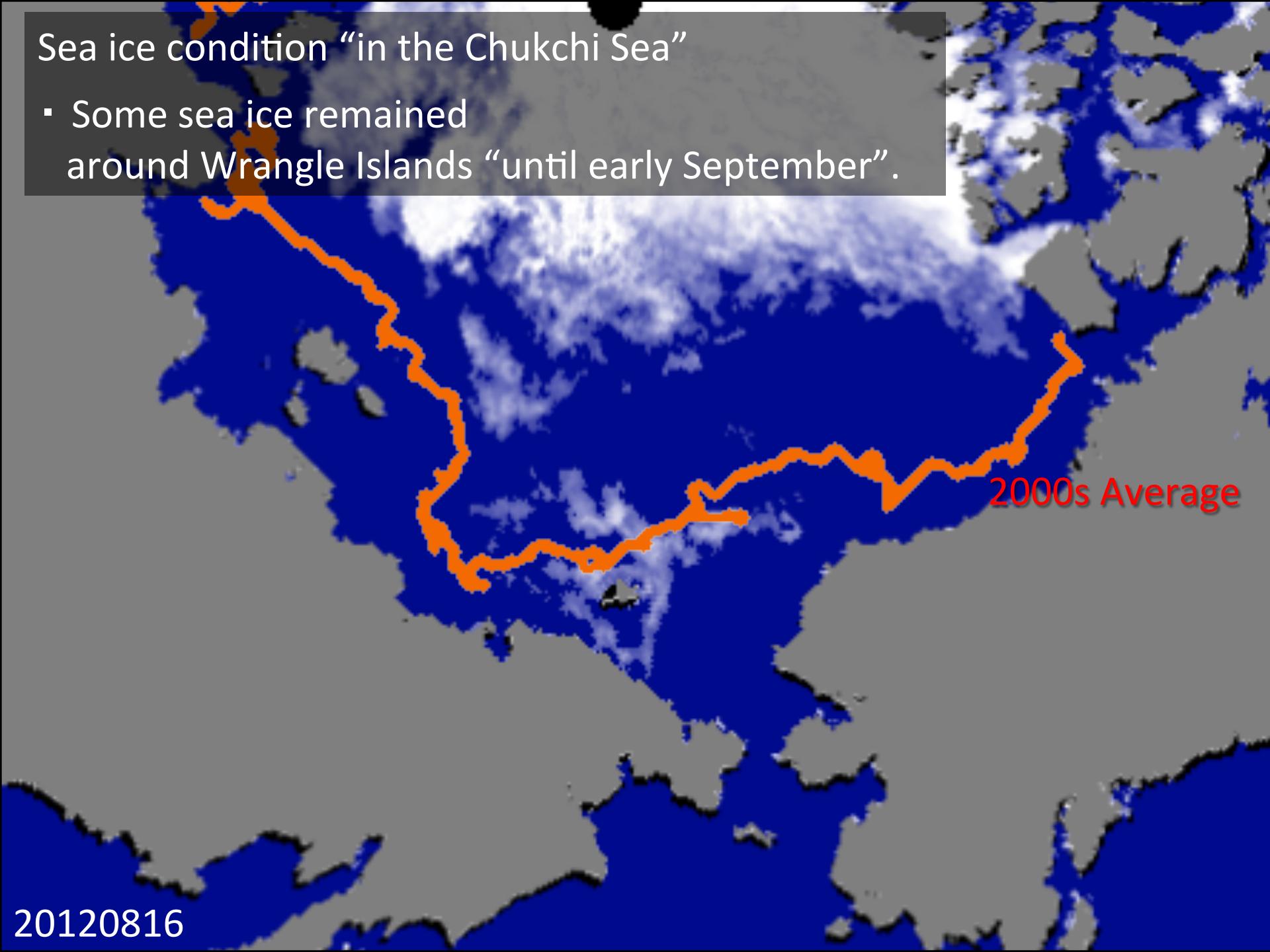


Sea ice data validation is in progress.

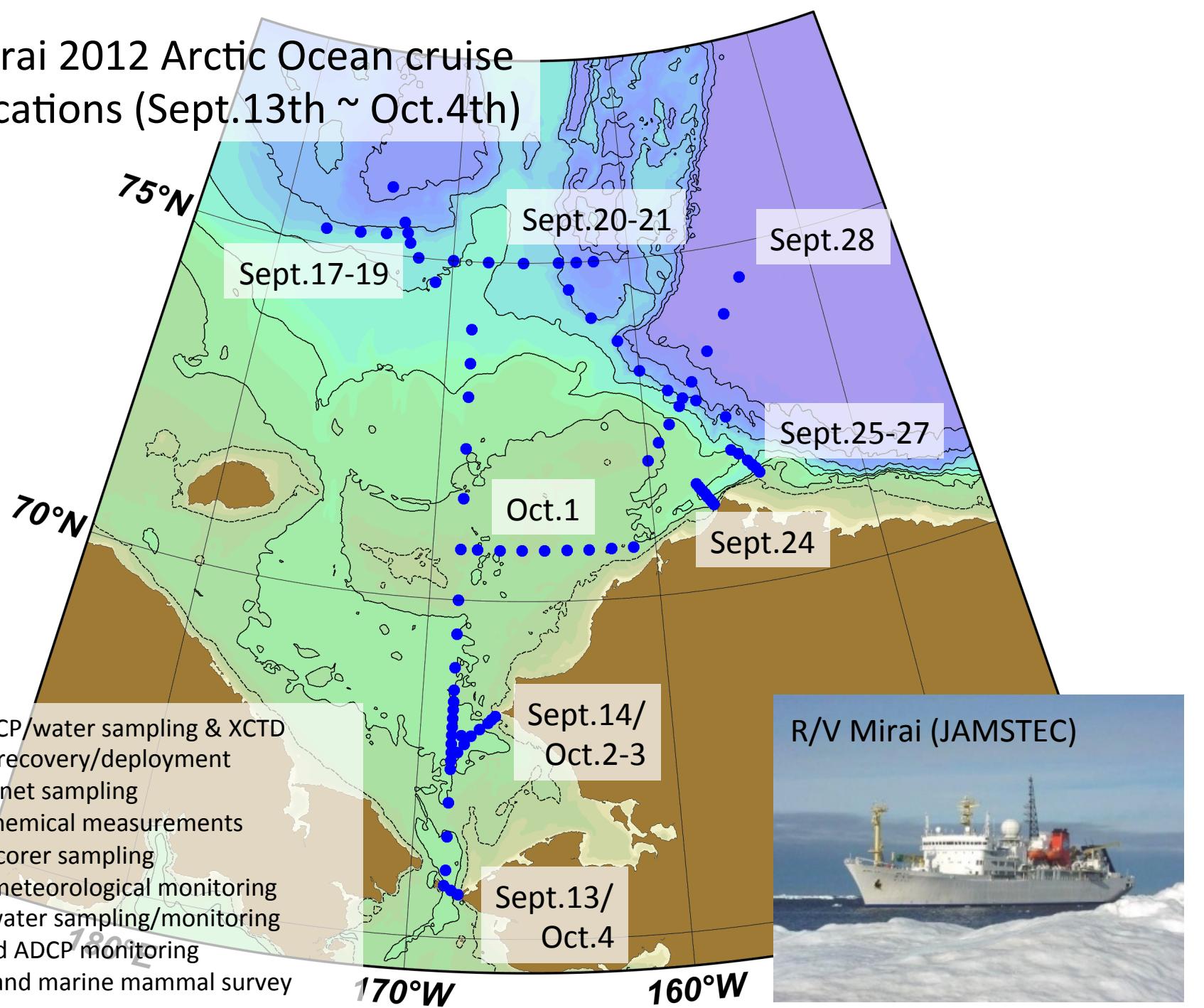
The value of sea ice concentration may change after the validation process in future.

Sea ice condition “in the Chukchi Sea”

- Some sea ice remained around Wrangle Islands “until early September”.

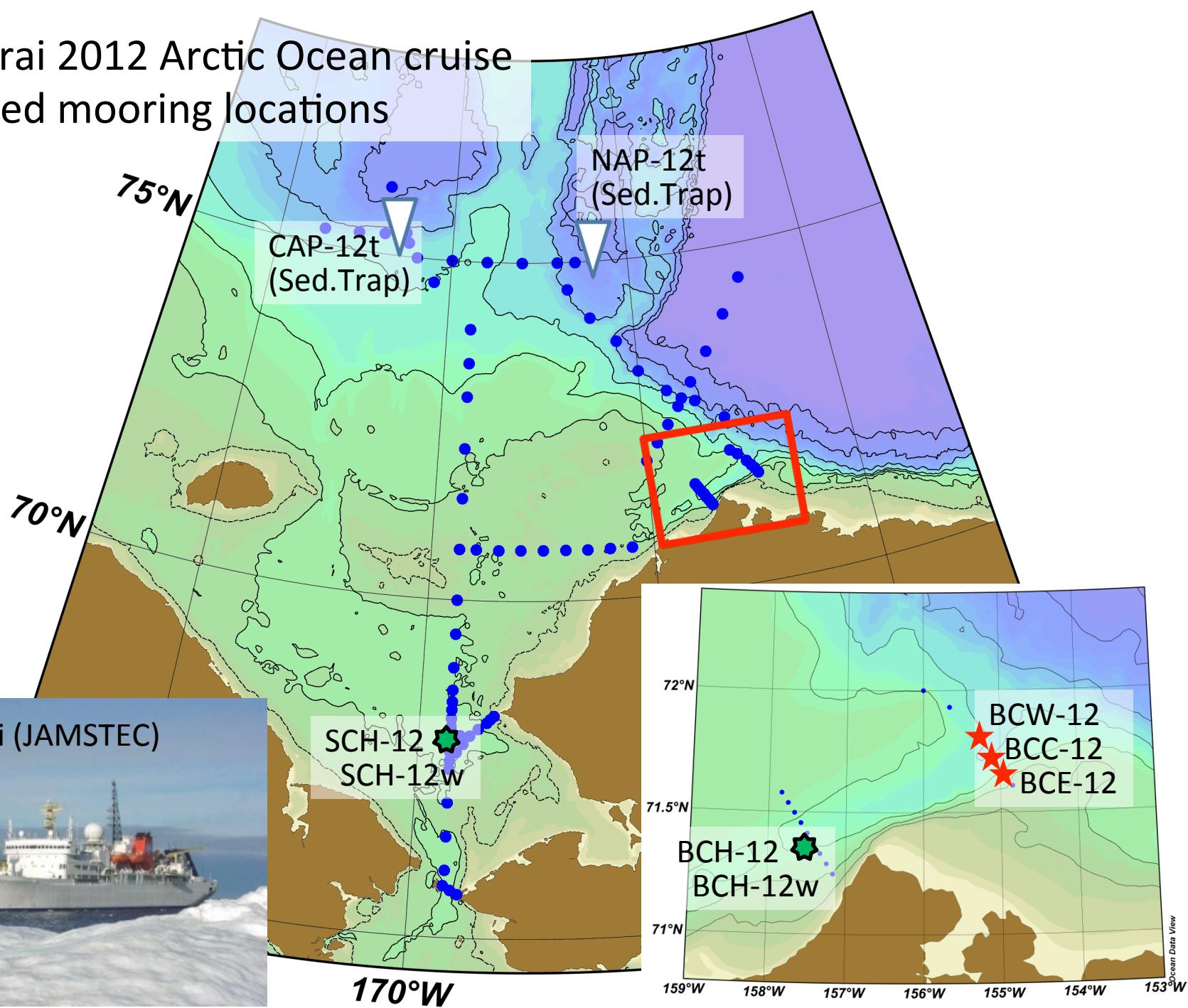


R/V Mirai 2012 Arctic Ocean cruise CTD locations (Sept.13th ~ Oct.4th)



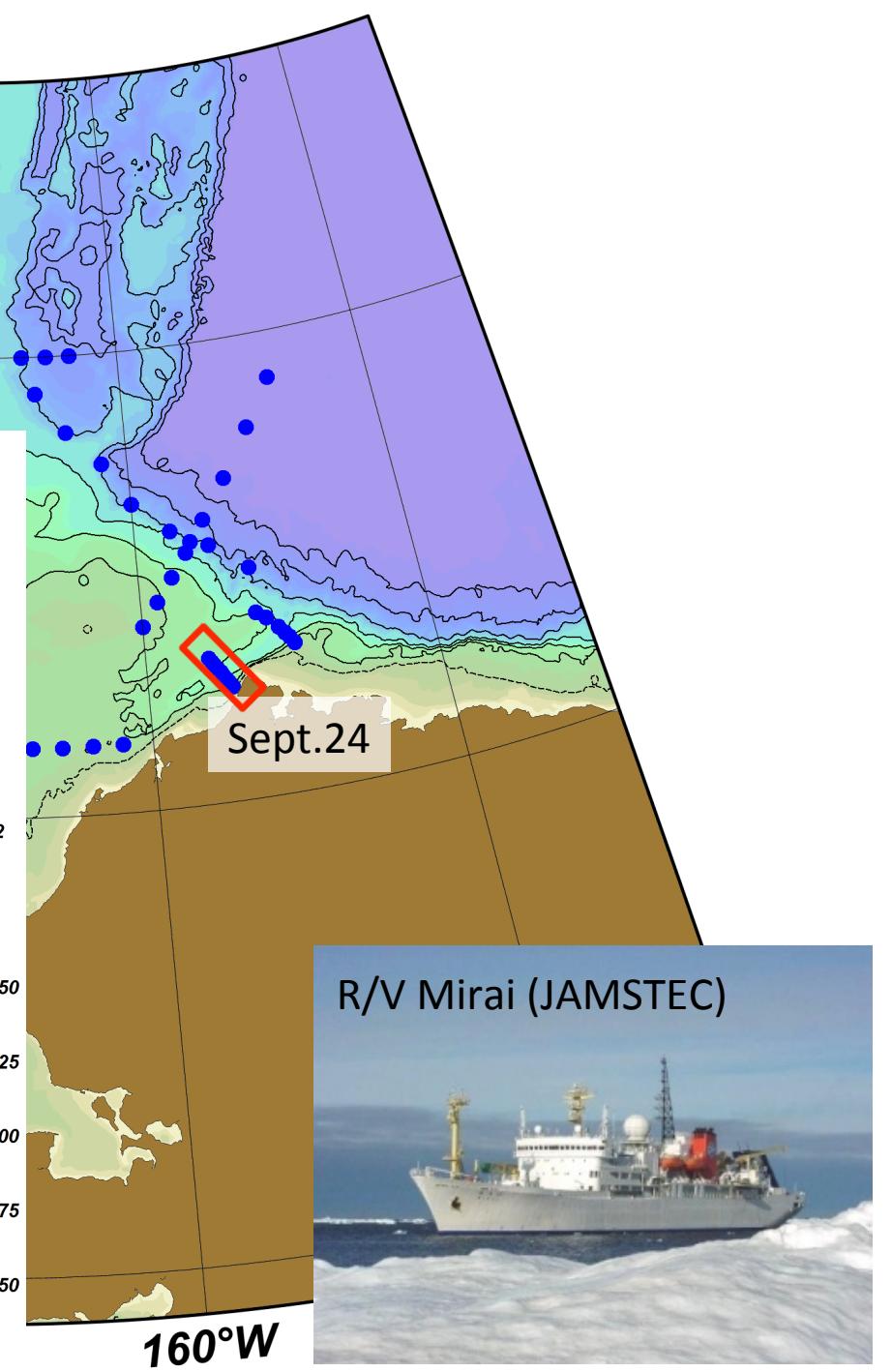
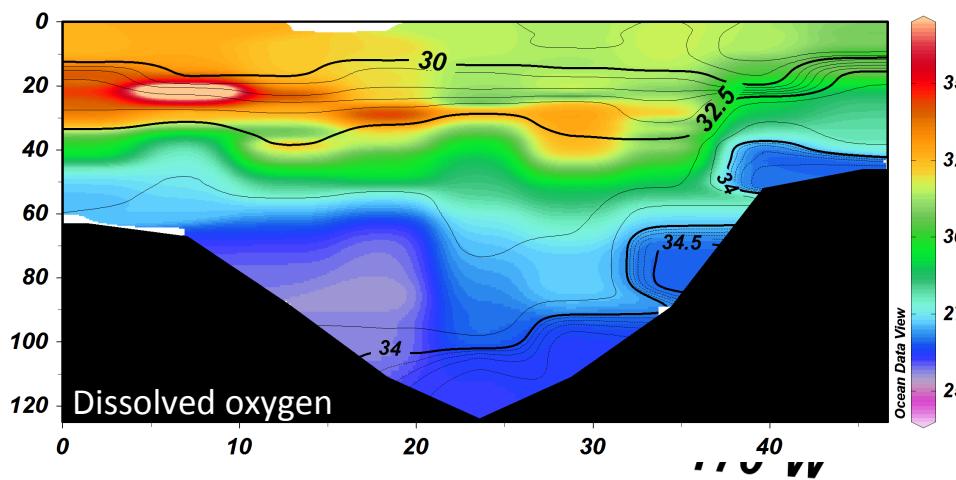
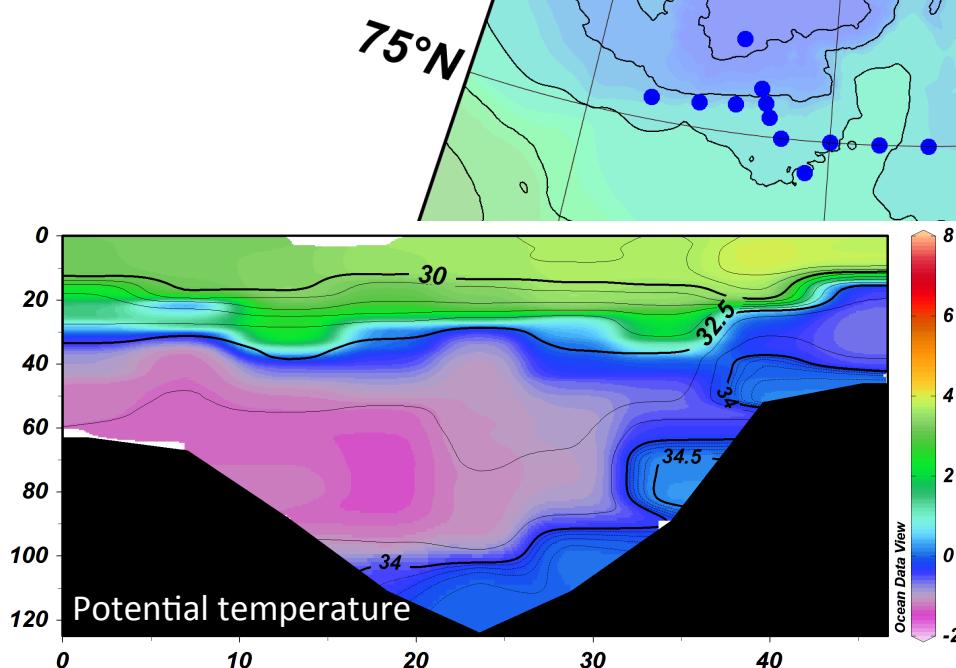
R/V Mirai 2012 Arctic Ocean cruise

Deployed mooring locations



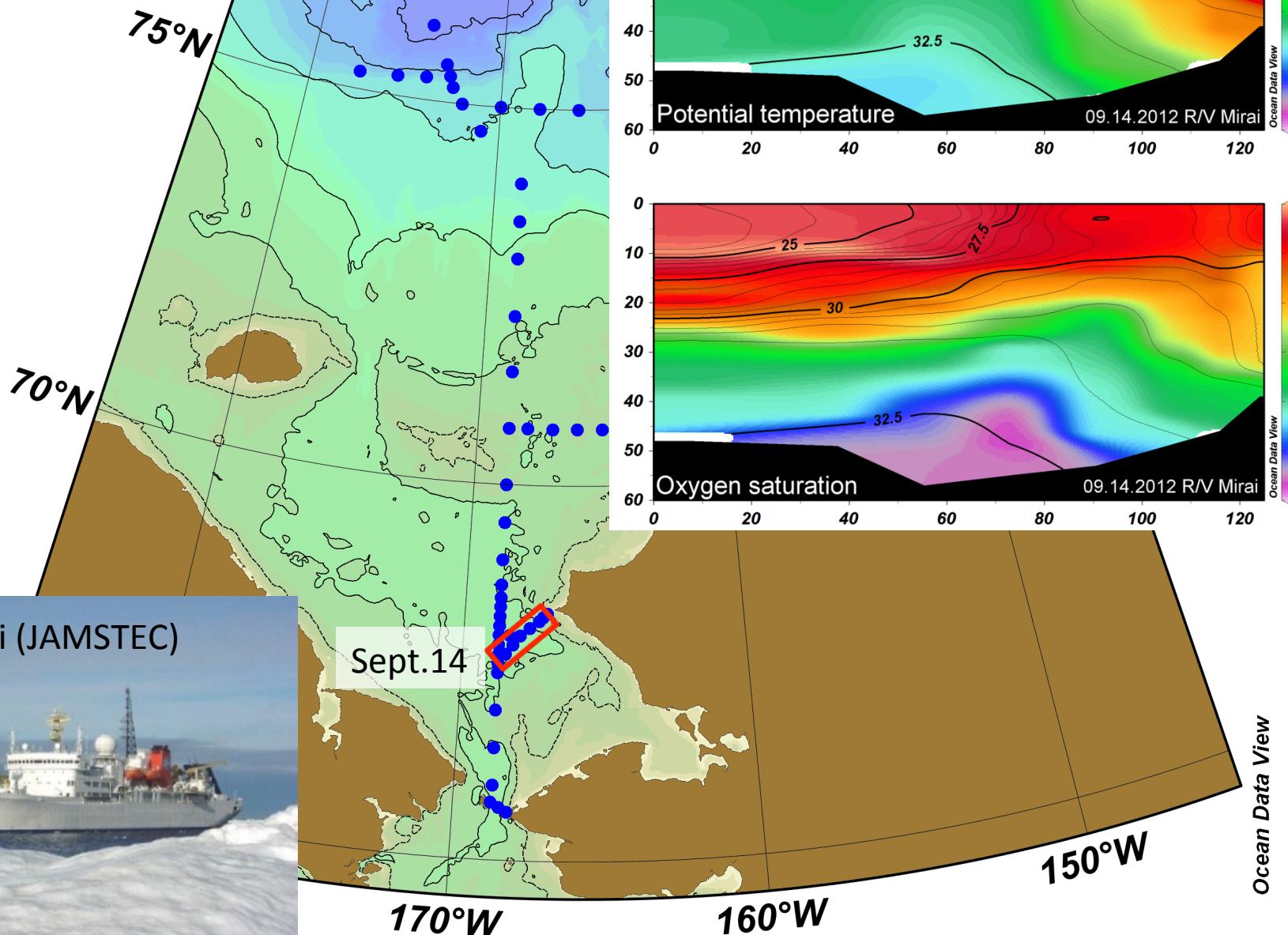
R/V Mirai 2012 Arctic Ocean cruise

CTD location (Sept.13th ~ Oct.4th)



R/V Mirai 2012 Arctic Ocean cruise

CTD location (Sept.13th ~ Oct.4th)

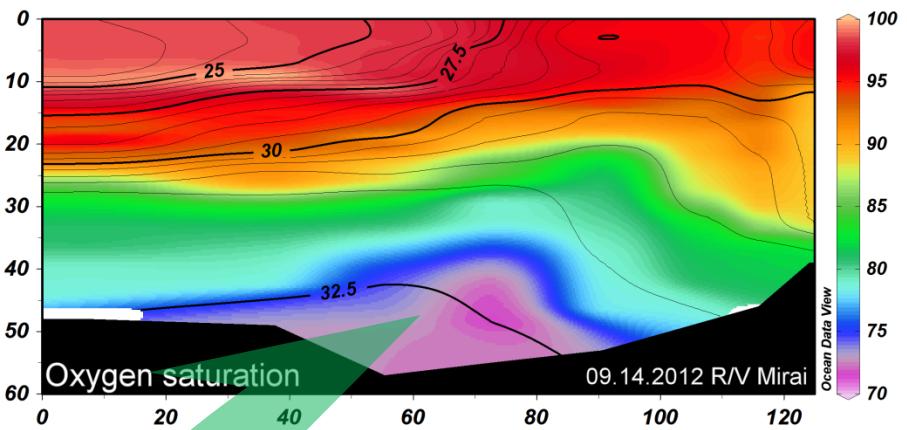
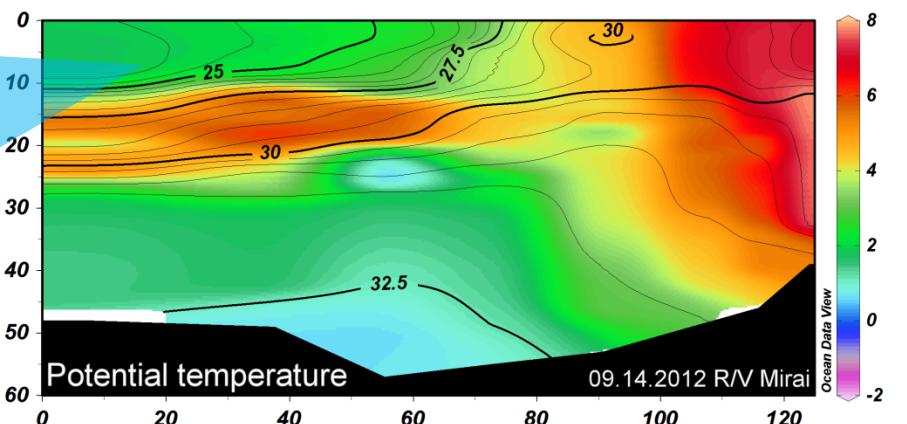
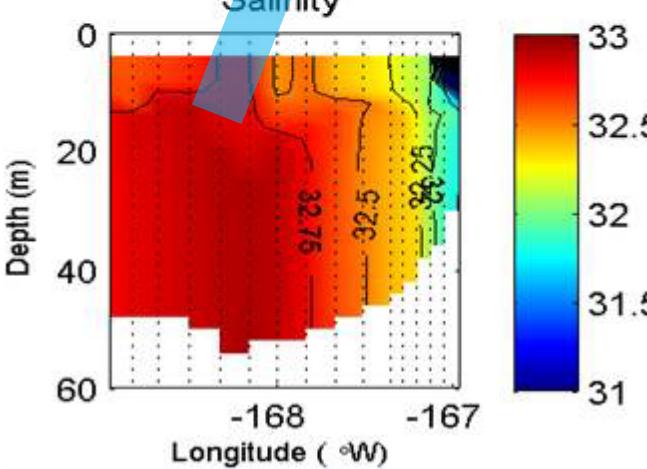
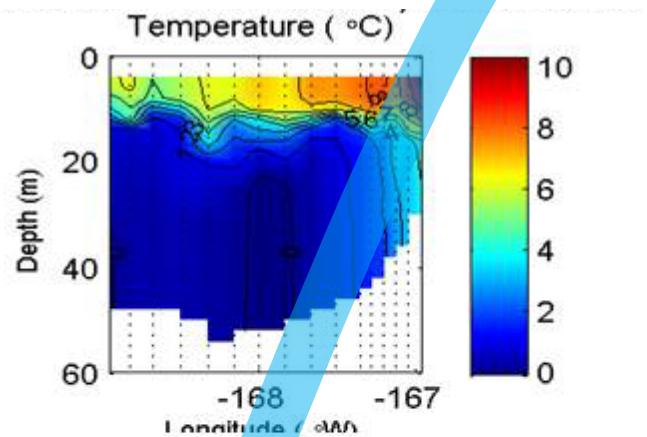


R/V Mirai 2012 Arctic Ocean cruise CTD location (Sept.13th ~ Oct.4th)

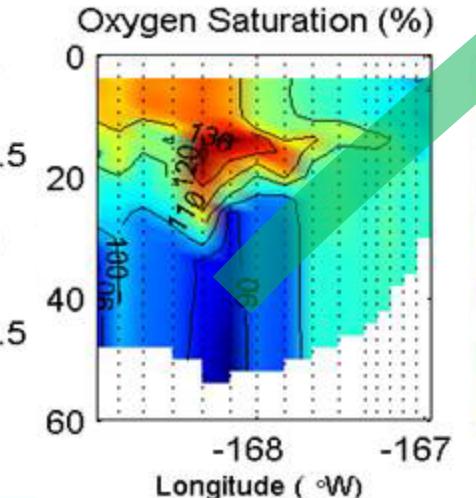
RUSALCA - BERING STRAIT AON 2012 MOORING CRUISE REPORT
 Russian Research Vessel Professor Khromov (also called Spirit of Enderby)
 Nuit 10th July 2012 – Nome, 20th July 2012
 Rebecca Woodgate, University of Washington (UW), woodgate@apl.washington.edu
 and the RUSALCA 2012 Science Team
 Funding from NOAA RUSALCA Program and NSF Arctic Observing Network Program ARC-0855748
 and NSF ARC - 1023264 (OSU)



Freshening

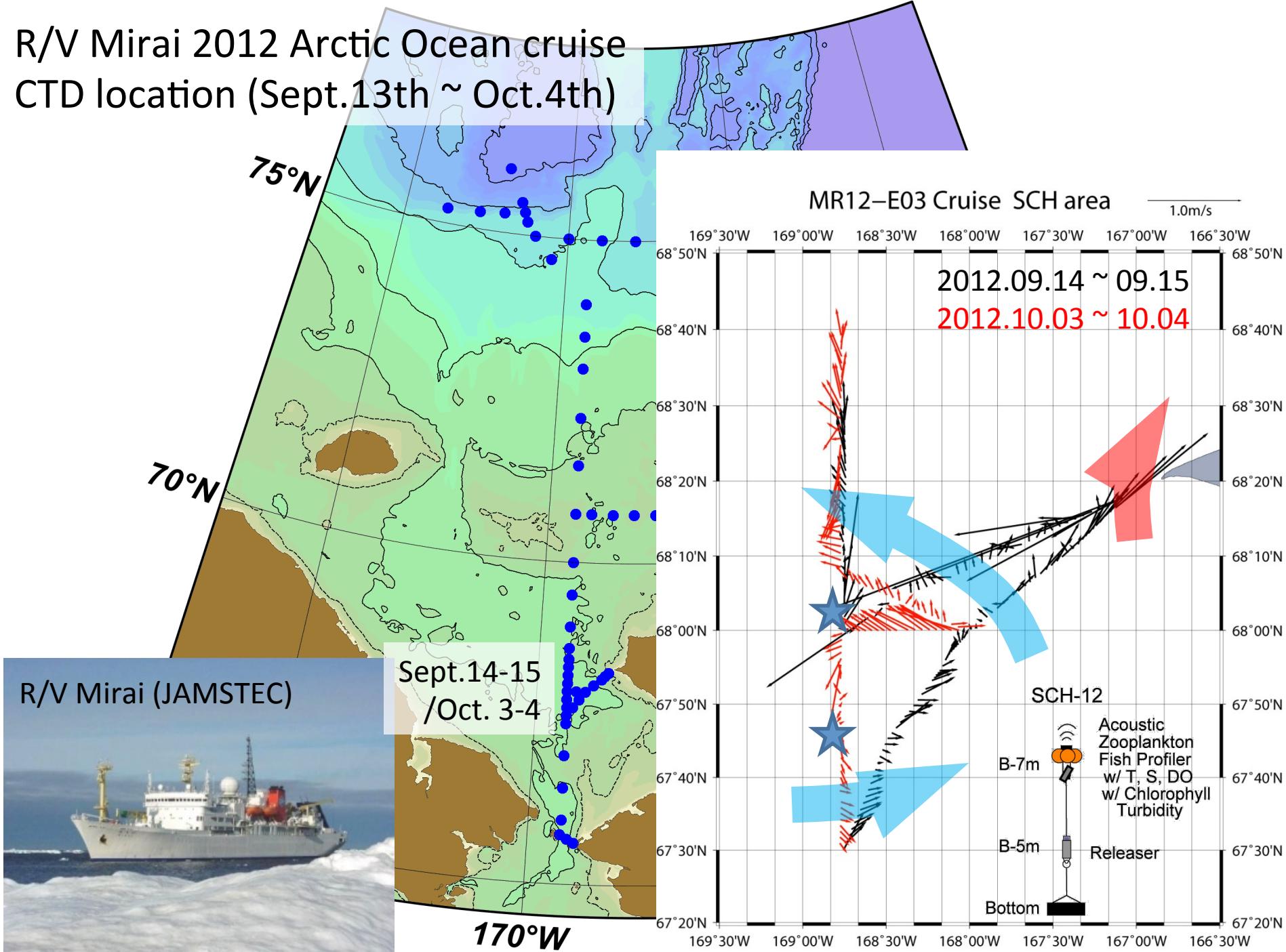


Decreasing

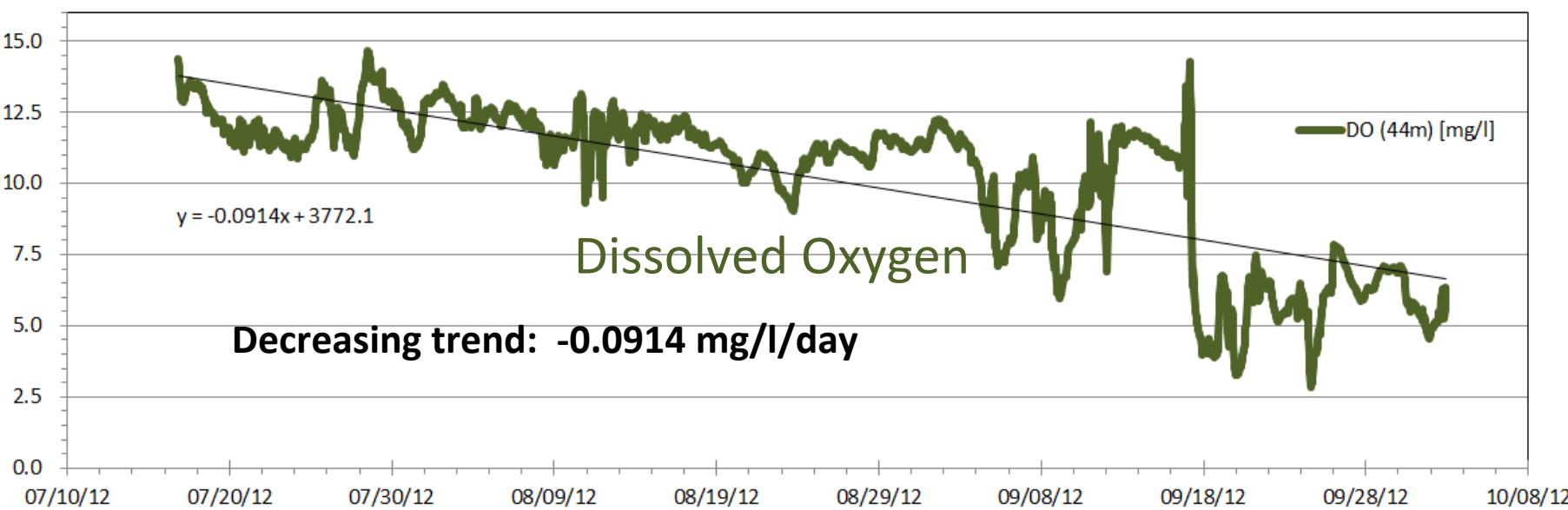
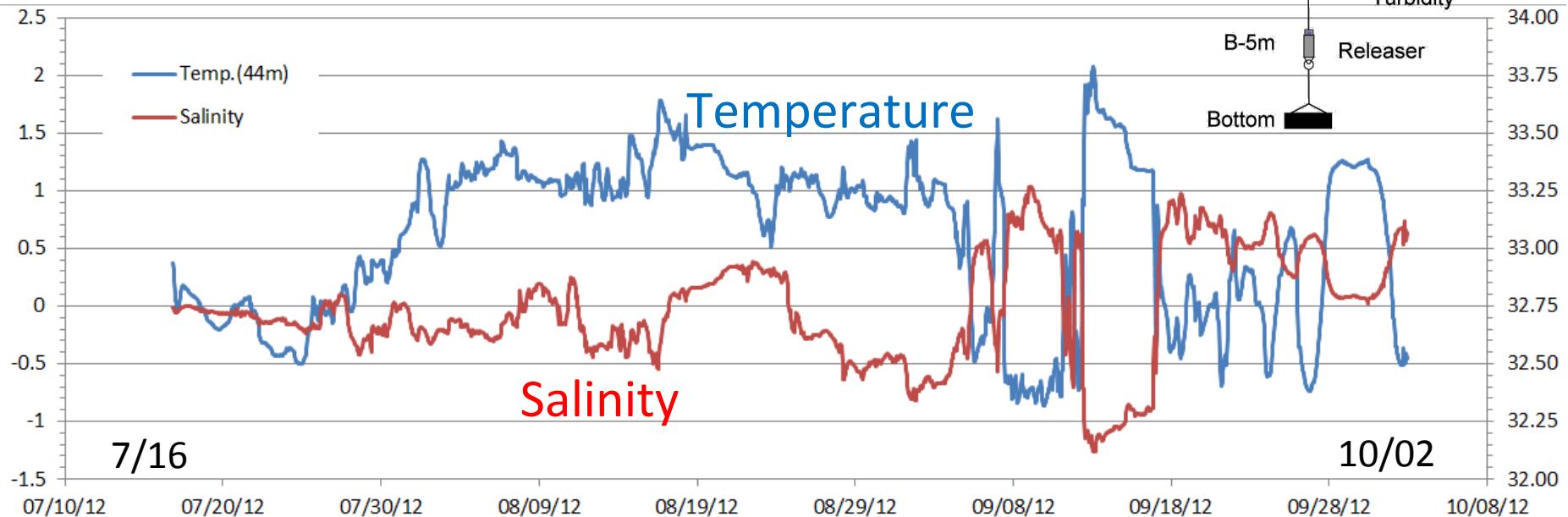
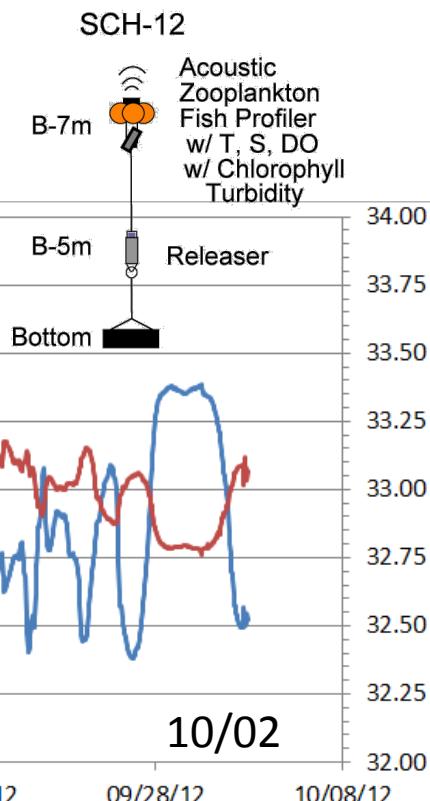


R/V Mirai 2012 Arctic Ocean cruise

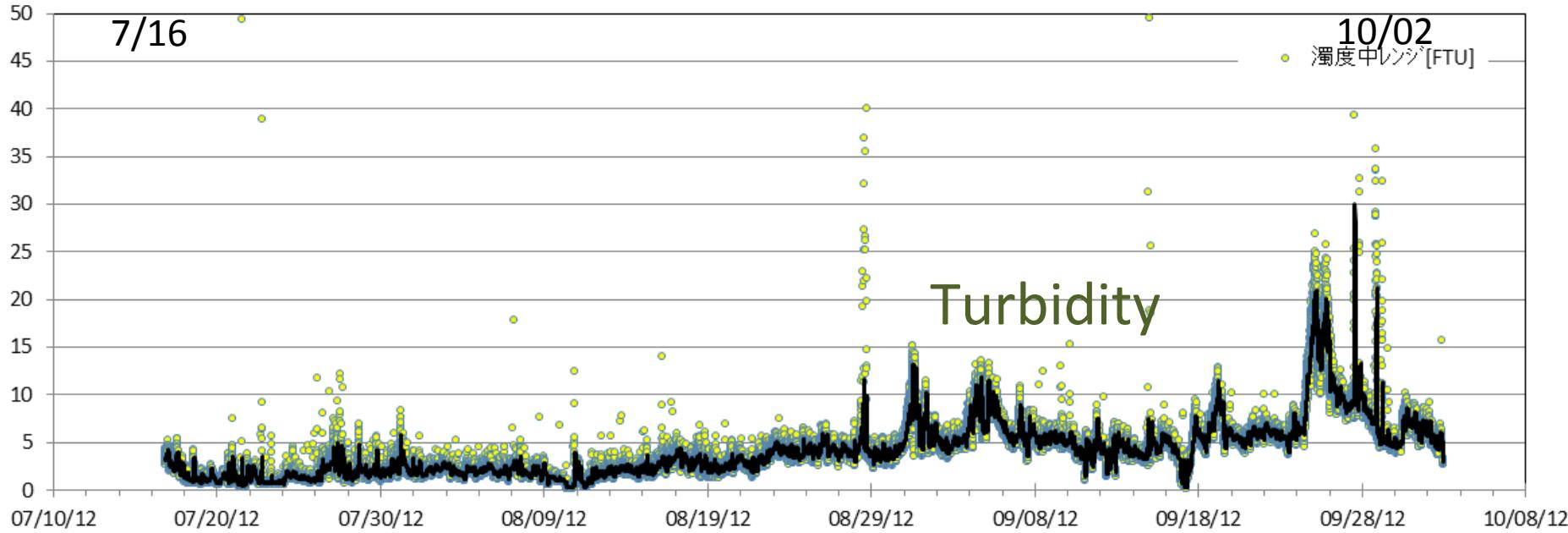
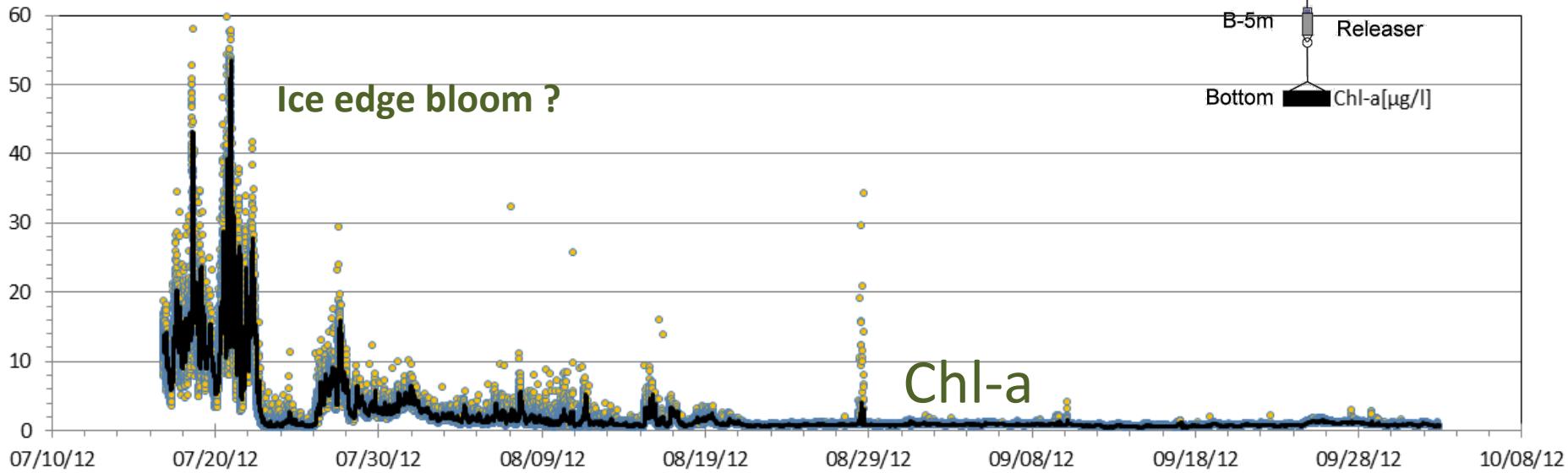
CTD location (Sept.13th ~ Oct.4th)



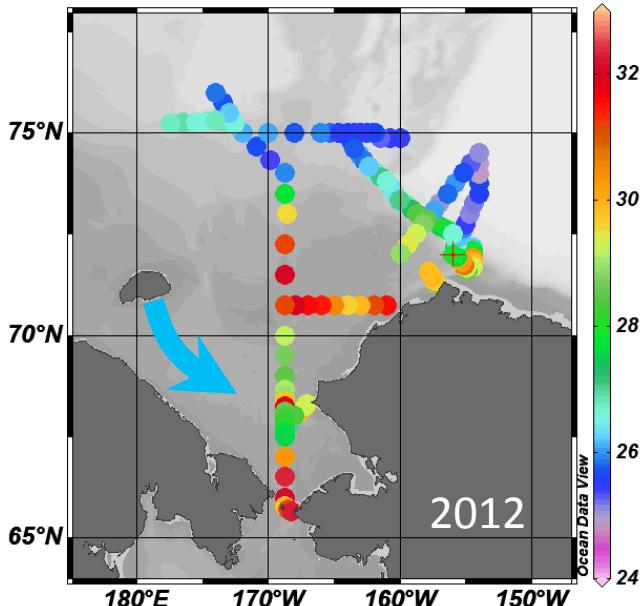
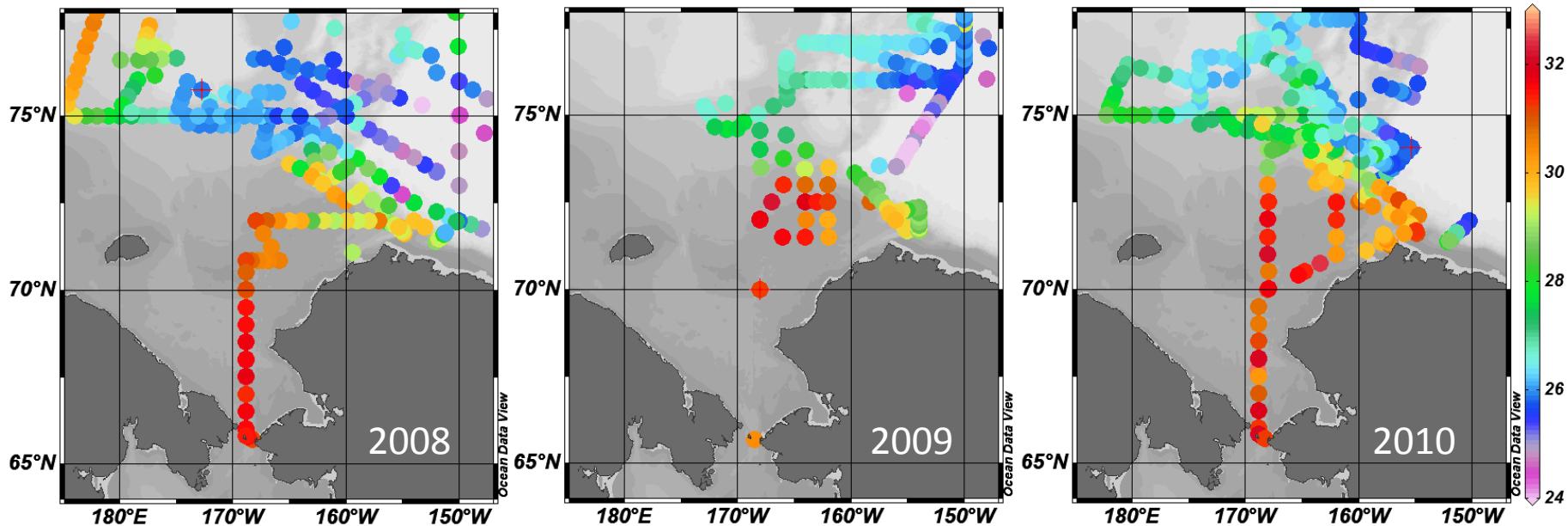
Preliminary results From SCH-12 (July 16 to October 02)



Preliminary results From SCH-12 (July 16 to October 02)



Comparison of surface salinity in 2012 with those in 2008, 2009, & 2010



Sea ice condition in the Chukchi Sea.
▪ Some sea ice remained
Around Wrangle Islands until early Sept.

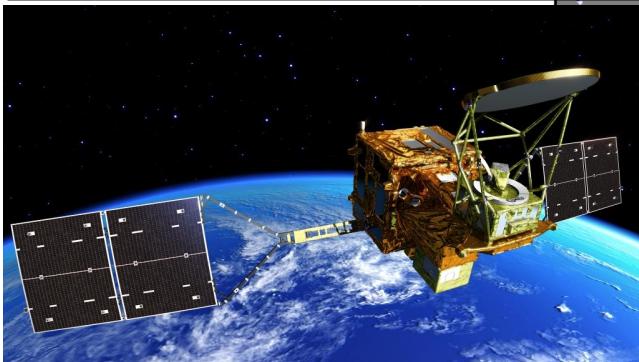


It affected low salinity condition
around the Hope Valley in autumn
2012.

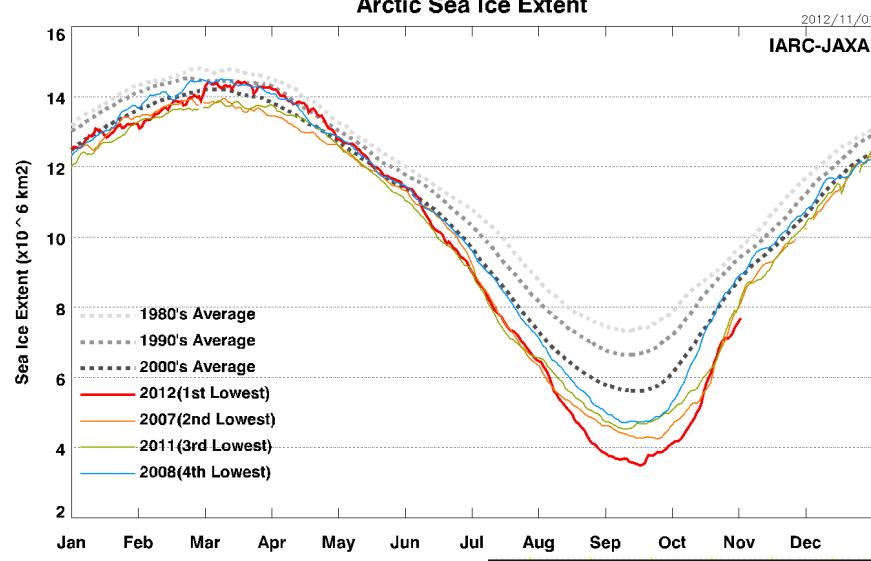
AMSR2 Sea Ice Concentration

20121101

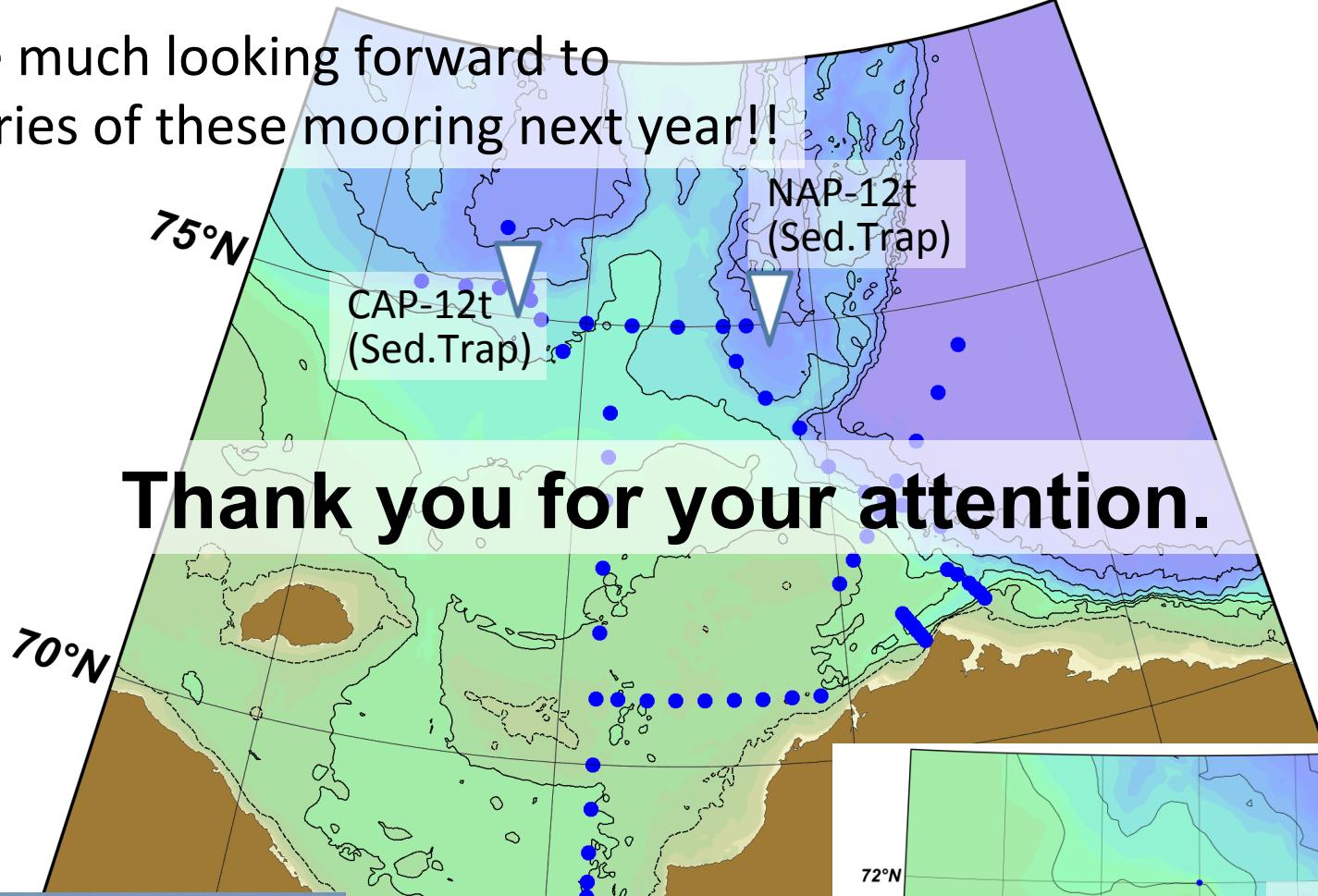
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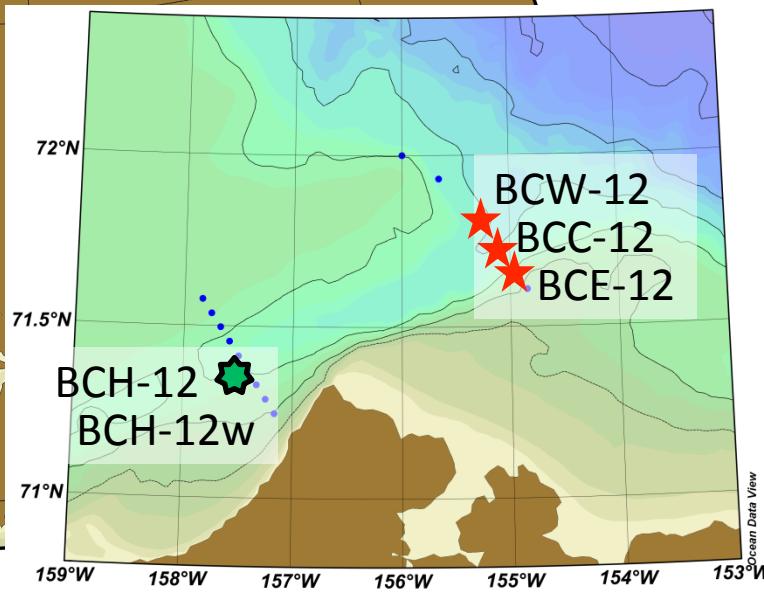
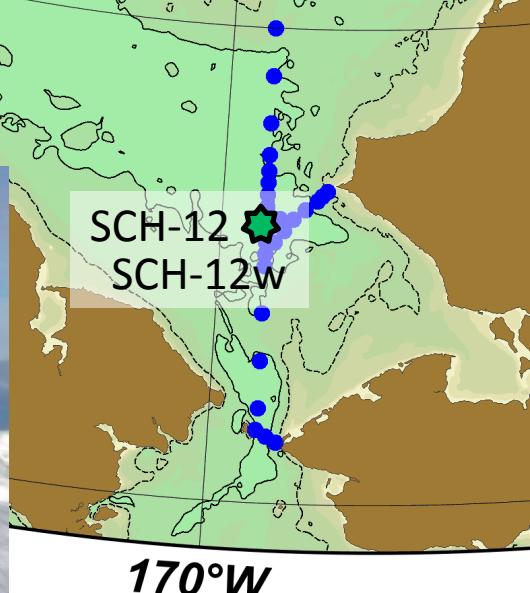
Arctic Sea Ice Extent



We are much looking forward to recoveries of these mooring next year!!



Thank you for your attention.



Look ahead to plans for summer/autumn 2013
ship-based research in Pacific Arctic Region

c. Japan

c-1. R/V Mirai 2013 cruise

R/V Mirai (JAMSTEC)

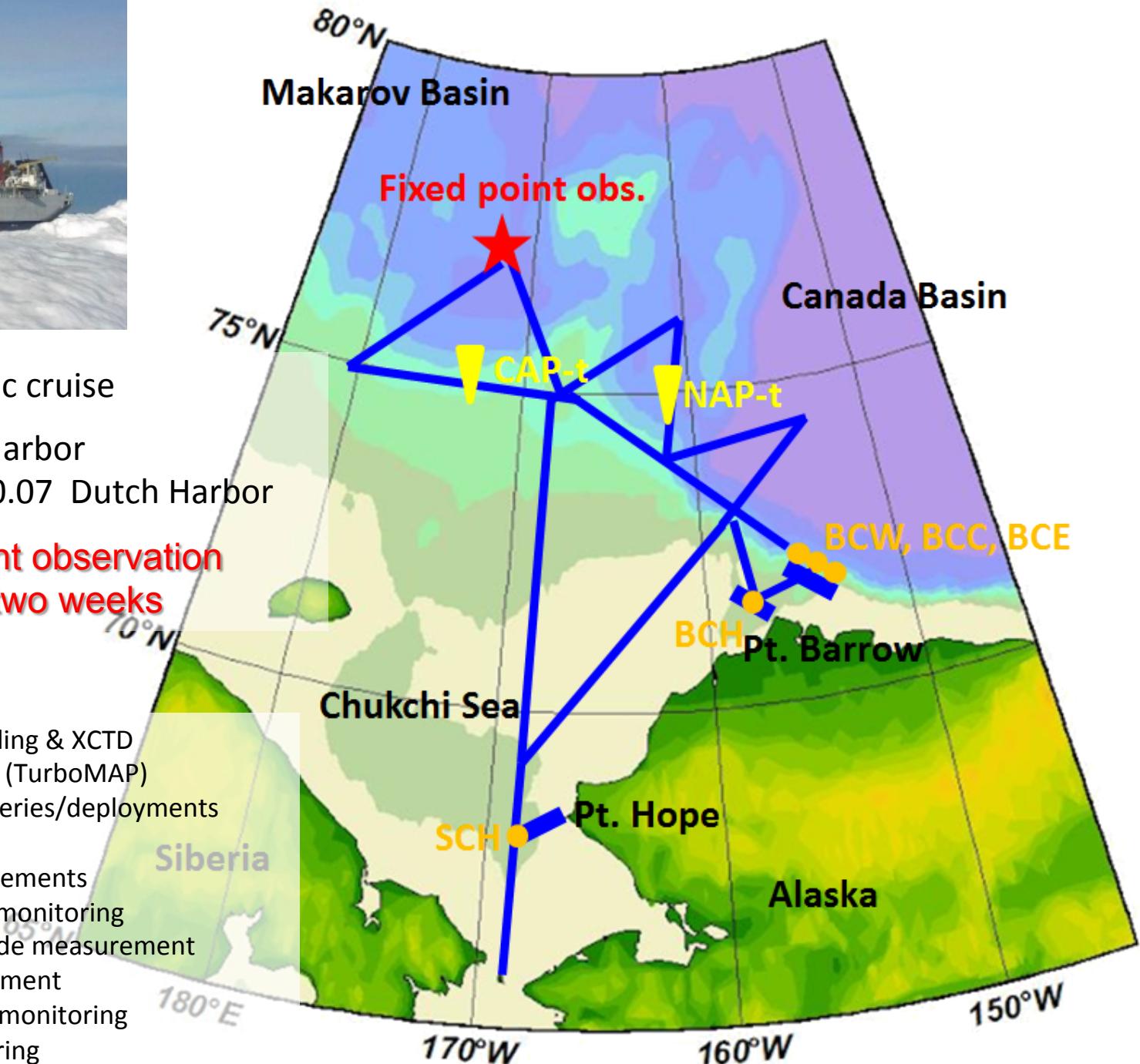


R/V Mirai 2013 Arctic cruise

2013.08.28 Dutch Harbor
to 2013.10.07 Dutch Harbor

including fixed point observation
for approximately two weeks

- CTD/LADCP/water sampling & XCTD
- Turbulent measurement (TurboMAP)
- Sed. Trap mooring recoveries/deployments
- Plankton net sampling
- Bio-geochemical measurements
- General meteorological monitoring
- Radio-sonde/Ozone-sonde measurement
- Doppler radar measurement
- Surface water sampling/monitoring
- Shipboard ADCP monitoring



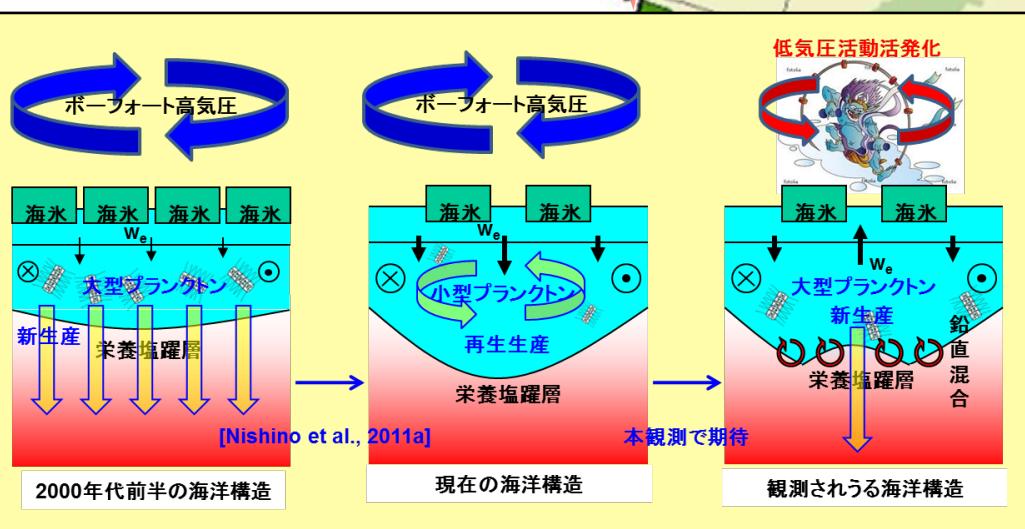
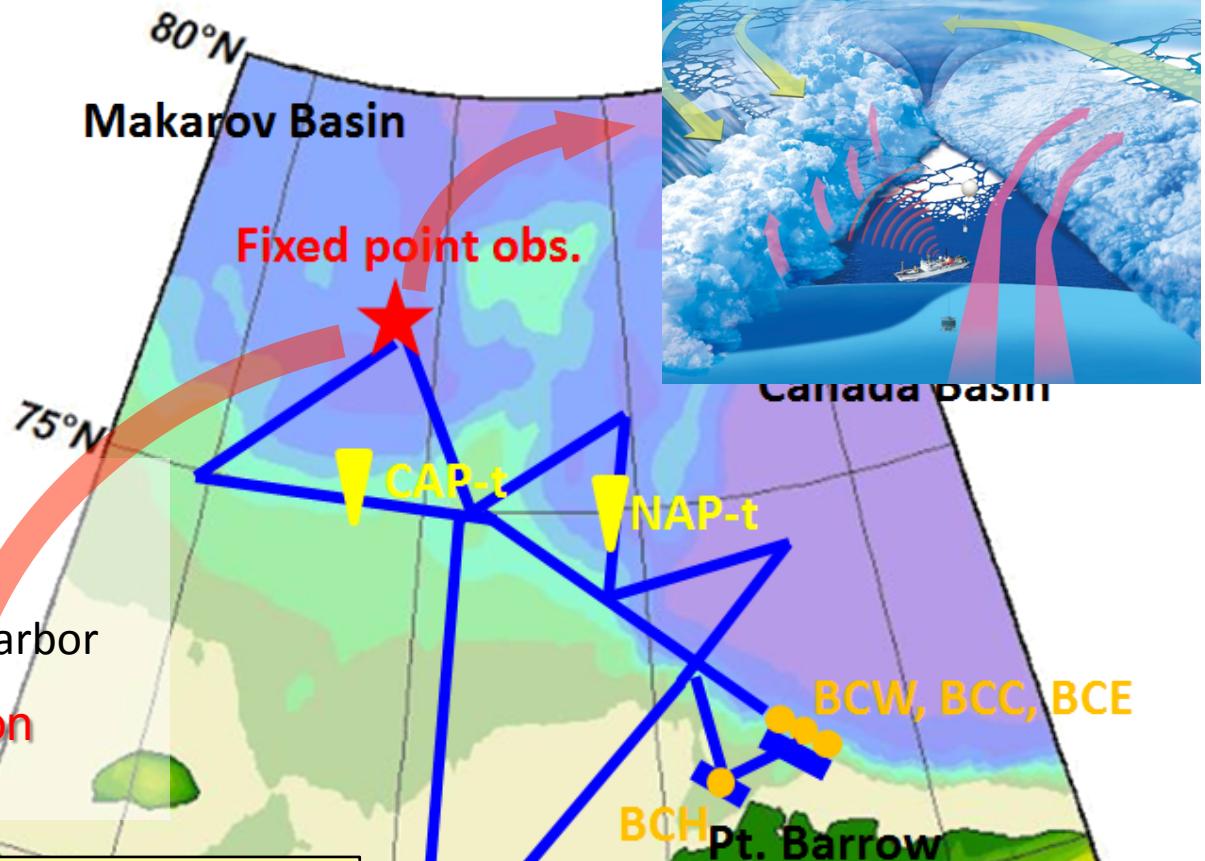
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