

B05-P11

OBSERVATION OF ARCTIC SEA ICE CONDITION IN THE CANADA BASIN IN 2014 SUMMER -FROM JOIS2014 CRUISE-

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The ice extent of Arctic Ocean in recent year showed the record minimum ($3.5 \times 10^6 \text{km}^2$) in September 16 2012, which is much less than that of previous record minimum in 2007 ($4.25 \times 10^6 \text{km}^2$). The decreasing had rapidly begun to decrease in August 2012. Then it has restored to $5.0 \times 10^6 \text{km}^2$ in 2013 and 2014 [Fig. 1]

Since 2009, we participated in Joint Ocean and Ice Study (JOIS) and observed sea ice condition at the Arctic Ocean. JOIS is an important contribution from Department Fisheries and Oceans Canada to international Arctic climate research programs. Primarily, it involves the collaboration of Department of Fisheries and Oceans Canada researchers with colleagues in the USA from Woods Hole Oceanographic Institution (WHOI).

We joined to JOIS2014 cruise in the Canada basin in September 22 to October 17 2014 [Fig.2]. While this cruise we observed not only sea ice observation by the Electro-magnetic induction ice profiler, the portable passive microwave radiometers, a forward looking camera, but also ship motion observation, atmospheric observation on the Canadian coast Guard ice-breaker Louis S. St-Laurent. We will report observed sea ice condition in 2014 summer with in-situ atmospheric and oceanic data.

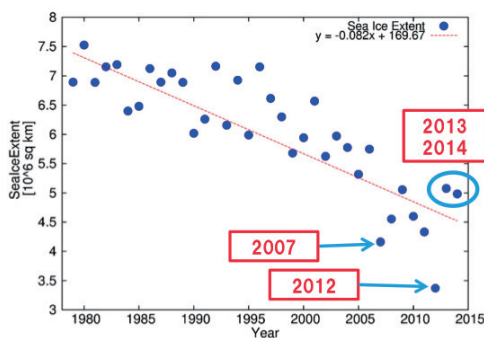


Fig.1 Arctic Sea Ice Extent [1979-2014]

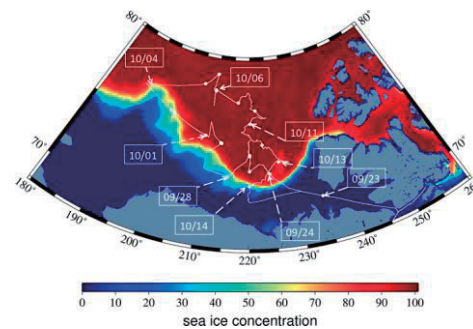


Fig.2 Cruise Track and Sea Ice concentration of JOIS2014