

KOPRI (Korea Polar Research Institute) and Research with Icebreaker “ARAON”

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In my presentation, I will talk about a brief introduction of KOPRI and my future plan of research with icebreaker “ARAON”.

Korea’s polar research history began in 1987 with Polar Research Center of Ocean Research Institute, which was set up as part of Antarctic station construction program. Since that, it expanded from a mere Polar Research Laboratory to Polar Research Institute, a subsidiary research unit of Korea Ocean Research Institute. Korea Polar Research Institute is now a real international polar research institute operating King Sejong Station in Antarctic and Dasan Station in Arctic. In addition, icebreaker “ARAON” built 2 Nov. 2009, succeed the first Antarctic and Arctic sea survey in recently. And, we have lots tasks to complete building up of Jangbogo Station, which is 2nd station in Antarctic and reconstruction of Dasan Station in arctic in order to build up such infrastructures of polar research.

ARAON can cover pole to pole through equatorial; hence numerous ground truth data can be gathered along with ARAON track, including chemical data in water and in atmosphere, and biological data in water.

For example, on remote sensing, sea surface reflectance and temperature are recorded automatically, and about 7m-depth salinity as well. Therefore, those data can be used if we have any idea about satellite data calibration and validation, and develop of new algorithm as well. International collaboration should be needed to use these data efficiently.