



XXXIII Antarctic Treaty Consultative Meeting
3rd to 14th May, 2010

Punta del Este - Uruguay

Agenda Item: ATCM 14

Presented by: Korea (ROK)

Original: English

The First Antarctic Expedition of Araon





The First Antarctic Expedition of *Araon*

The earlier versions that are relevant to the present document were submitted to the XXX ATCM (IP 45) and XXXI ATCM (IP 38) as information papers by the government of Korea. Korea's ice-breaker, *Araon*, was delivered to the ship operator, Korea Polar Research Institute (KOPRI), after the ship-building was finished on 2 November 2009.

Araon, a 7,487 ton ice-breaking research vessel, can accommodate up to 85 persons (25 crew and 60 researchers) and load up to 31 TEU (20ft container). Her endurance is around 70 days (20,000 nautical miles) without additional supply.

She departed her mother port, Incheon, Korea on 18 December 2009 and she returned after completing a three-month Antarctic expedition, which was her first. *Araon*'s mission on the first Antarctic expedition was to test the ice-breaking capability by breaking one-meter multiple-year ice conditions (KR PL 10) and to support an in-depth survey on candidate sites for Korea's second station in Antarctica.

After a 20-day cruise from Incheon, *Araon* was docked at Lyttelton Port in Christchurch, New Zealand for fuelling and embarking research teams and then she headed to Cape Burks on 12 January 2010.

The ice-breaking test was implemented in Cape Burks, and she succeeded in navigating at a rate of three knots through ice that was more than 1m thick. The expedition to Cape Burks was accompanied with Russian *Academic Federov* and the ice-breaking test was supported by Russian ice-navigation experts.

During the test, 23 researchers conducted an in-depth survey on Cape Burks—one of two candidate sites for the second station. After completing the ice-breaking test and the survey on Cape Burks, *Araon* moved to Terra Nova Bay, which is another candidate, and the researchers performed a four-day site survey. After finishing the missions, *Araon* returned to Christchurch on 18 February 2010 and finally came back to Incheon Port on 15 March 2010.

Araon is now preparing for the Arctic expedition and research activities, which is expected to depart around the beginning of July 2010. She will support research activities on climate change, fast retreat of sea ice and paleoclimate response of the marine ecosystem in west Antarctica from the next austral summer season.

(Contact point: Mr Dongmin JIN, KOPRI, dmjin@kopri.re.kr)