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The Third Antarctic Expedition of Araon (2012/2013)

The third Antarctic Expedition of *Araon* (2012/2013)

Background Paper Submitted by Republic of Korea

The main missions of *Araon* in 2012/2013 austral summer season are to provide support for the construction of the Jang Bogo Antarctic Research Station, and to conduct the research programs as well as resupply the King Sejong station. *Araon* will have undertaken these nearly 7 month Antarctic missions for successful completion and return in June.

Araon departed its home port, Incheon, on 31st October 2012 and reached the Terra Nova Bay (74° 37'S, 164° 12'E) with the construction work force to build the Jang Bogo Station on 11th Dec. 2012.

Then *Araon* has continued to support the scientific expeditions in the area of Australian Antarctic Ridge, Terra Nova Bay, Ross sea, Weddell sea: a total of 6 major research projects numbered (I) ~ (VI) below have been being conducted:

- (I) “Petrogenic investigation of the 160°E segment in the circum-Antarctic Ridge” (Australian Antarctic Ridge);
- (II) “Investigation of submarine tectonic activity using ocean bottom seismographs (OBSs), Antarctica (Ross Sea)”
- (III) “Interaction between cryosphere and lithosphere near the Jang Bogo Station (Terra Nova Bay): Integrated monitoring system for the David Glacier and study on evolution of the glacier”
- (IV) “Korea-Polar Ocean in Rapid Transition (K-PORT)” for survey on marine environmental changes in Ross Sea
- (V) “Korea-Polar Ocean Development(K-POD)” for survey on marine ecosystem in Ross Sea
- (VI) “Monitoring of abrupt environmental change in the ice shelf system and reconstruction of Quaternary deglaciation history in West Antarctica” (Weddell Sea)

After completing Antarctic scientific expeditions, *Araon* is scheduled to return to Yeosu port (Korea) on 20th June 2013.

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