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Report from the Republic of Korea on Its Cooperation with the Consultative Parties and the Wider Polar Community

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Background

The Republic of Korea is entering a new stage of Antarctic research with the construction of a second station, Jang Bogo, in the higher latitude Antarctic and the full use of its research icebreaker, Araon, that was commissioned 5 years ago. This report is written to inform the ATCM community of our current circumstances and outlook at the cross road of recent infrastructure completion and renewed aspirations for science that matters.

Current Status

Ross Sea and Northern Victoria Land with the new Jang Bogo as the base camp began to serve the science needs of the Korean Antarctic program after two years of station construction. Just past season, over 100 science personnel from multiple disciplines participated in a range of land-based to ocean-going field expeditions in the area. These include ice core studies, meteorite search, oceanography, geophysics and many more. Our environmental monitoring program around the station is becoming established with the complete installation of remaining equipment.

Korea's first station, King Sejong, at the tip of the Antarctic Peninsula remains as the key research site for the Korean Antarctic Program and will continue to be so in the coming years. This season King Sejong welcomed over 100 summer scientists as usual, many of whom are in life science. Full renovation of King Sejong is planned over the next few years to enhance research support capacity which will offer a greater potential for cooperation with neighbors and new collaborators.

International Cooperation

A number of scientists who used our research infrastructure last season were from foreign national Antarctic programs. International cooperation is becoming more important than ever for the Korean program. There are patterns taking shape with this new development. Reaching Jang Bogo and Terra Nova Bay in the Ross Sea sector, we share the logistics heavily with the Italian program and there is also scientific cooperation dwelling on and also emerging from this encounter. Ice core studies relying on coordinated helicopter support and ocean observations using Araon's transit are some examples. There is also a growing collaboration with the New Zealand program as we use Christchurch as the gateway into this part of Antarctica. More detailed planning is underway on this subject.

Access and resupply of the Korea program to King Sejong is now resorting mostly to chartered platforms and means. In this process, cooperation with the traditional colleague, the Chilean program that is based in Punta Arenas, another Antarctic gateway, is showing an obvious sign of growth. As the Chilean program is enlarging and upgrading its facilities along the Antarctic Peninsula, this could develop into more systematic collaboration rendering the Korean program wider special coverage and providing the Chilean program with research partners in similar disciplines with mutual benefits to both programs.

In the western Antarctic between King Sejong and Jang Bogo, another case of international cooperation is rapidly evolving. Araon is becoming a work horse for jointly planned and pursued international research (Korea with Sweden, UK, US and soon with Norway) in the Amundsen Sea, where the most rapid glacial collapse is irrecoverably proceeding. It is worthwhile to note that this venture is also offering a test bed for more innovative research tools such as new lines of autonomous unmanned vehicles.

International cooperation is an essential part of the Korean Antarctic program. The Korean program will continue to collaborate with the Consultative Parties but will also explore how to support the relatively new members of the Antarctic community or those in temporary difficulties, just as Korea was assisted in the past.

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Last season, the Korean program supported and cooperated with the Romanian program and the Brazilian and Portuguese scientists.

The Korean Antarctic program is now taking upon a new challenge to run two stations that are separated by a wide distance. The program will strive to generate significant outcomes out of these two stations that happen to be in climatically very different regimes while making the best use of its research icebreaker. We will work scrupulously to build a model for combining and coordinating science needs and operational demands all the while still helping each other with many different partners in a tailored and optimal fashion.