



**KOREA'S COLLABORATION FOR COVID-19 PREPAREDNESS AND RESPONSE
AMID COVID-19 PANDEMIC FOR THE PAST THREE SEASONS (FROM 2020 TO 2023)**

ABSTRACT & SUMMARY

For the past three seasons, the COVID-19 pandemic was a key issue and a big challenge for all Manager of National Antarctic Programs (MNAPs). It can be said that COVID-19 has given MNAPs an opportunity to anticipate the unforeseen future and be able to react quickly in a rapidly changing situation.

The Korean Antarctic Research Program (KARP), organized by Korea Polar Research Institute (KOPRI) has actively cooperated with international governments and other related organizations such as COMNAP to cope with COVID-19 pandemic from 2020. Based on close and active collaboration among MNAPs, Governments and other related organizations, there was no single reported case on COVID-19 infection at King Sejong Station (KSJ) and Jang Bogo Station (JBG) for the past three seasons.

This poster will introduce how Korea has responded to COVID-19 pandemic for safe Antarctic field activities over the past three seasons from 2020-2023.

OVERVIEW OF PAST THREE SEASONS AT A GLANCE

SEASON	2020-2021 Antarctic Season	2021-2022 Antarctic Season	2022-2023 Antarctic Season
BORDER RESTRICTION	Restricted (NZ and Chile)	Restricted (NZ and Chile)	Lifted (NZ and Chile)
QUARANTINED & ISOLATION	Mandatory for 14 days (N/A because there was no entry to NZ and Chile)	Mandatory for 14 days (Government-run facility)	Voluntarily for 5 days (Designated accommodation)
TRANSPORTATION WAYS TO/FROM ANTARCTICA	Only by RV ARAON (From Korea to KSJ via JBG)	Inter-continental Flights & RV ARAON	Inter-continental Flights & RV ARAON
TOTAL NUMBER OF PARTICIPANTS (PAX)	41 pax (=JBG 23pax + KSJ 18pax)	184 pax (=JBG 93pax + KSJ 91pax)	192 pax (=JBG 72pax + KSJ 120pax)

COVID-19 PREPAREDNESS AND RESPONSE FOR THE PAST THREE SEASONS

2020-2021 SEASON

OVERVIEW

The most severe period of COVID-19 pandemic. KOPRI only used RV ARAON to dispatch & withdraw Overwinter Team to/from Antarctica.

OPERATING QUARANTINED FACILITY

To prevent COVID-19 infection case, KOPRI operated its own quarantine facility for 14 days, and conducted two-times PCR tests during the period (Figure 1).



Figure 1. Conducting PCR test during the quarantine period

THE LONGEST CRUISE & THE LOWEST PARTICIPANTS

RV ARAON sailed for 139 days for the mission with 41 passengers to visit Jang Bogo station and King Sejong station. She departed from Korea on 31 OCT 2020 and then came back to Korea on 18 MAR 2021 (Figure 2).



Figure 2. RV ARAON departed for the Antarctica

2021-2022 SEASON

OVERVIEW

Border restrictions applied for both Chile and New Zealand. Only a limited number of personnel authorized by the Chilean and New Zealand governments were allowed to enter the country for Antarctic activities.

ISOLATION & QUARANTINE AT GOVERNMENT-OPERATING FACILITIES IN MANDATORY

[FOR JANG BOGO STATION VISITORS]

All visitors had to complete 14-day isolation at a designated quarantine facility, called Managed Isolation Quarantine (MIQ), operated by New Zealand.

[FOR KING SEJONG STATION VISITORS]

All visitors had to complete 7-day isolation at a designated quarantine facility operated by the Chilean government.

MOBILE COVID-19 TEST FACILITY UNIT (Figure 3 and 4)

KOPRI set up a mobile COVID-19 test facility unit by using 20ft dry container as a basic frame with negative air pressure, PCR test and Rapid Antigen Test (RAT). That was installed and operated on RV ARAON and KSJ.



Figure 3. Exterior of facility



Figure 4. COVID-19 testing devices

CELLTRION'S COVID-19 ANTIBODY TREATMENT

COVID-19 antibody treatment medicine, manufactured by Celltrion, provided to Antarctic stations and RV ARAON prior to its Antarctic season start based on close cooperation among KOPRI, the Ministry of Ocean and Fisheries (MOF) of the Korean government, and the Korea Disease Control and Prevention Agency (KDCPA).

2022-2023 SEASON

OVERVIEW

Border restriction was lifted for both Chile and New Zealand. Even though quarantine isolation period was not mandatory in both countries. All Antarctic visitors had to complete 5-days of isolation as a part of KOPRI's own COVID-19 quarantine policy and regulation based on COMNAP's recommendation.

As a part of prevention measure from the introduction of COVID-19 into Antarctica, COVID-19 treatment medicine (PAXLOVID), COVID-19 testing unit, COVID-19 vaccination program and other related measure and recommendation conducted at Antarctic stations (figure 6.)

ONSITE COVID-19 PREVENTION PROTOCOL

COVID-19 Prevention and Quarantine protocol applied to Antarctic stations onsite.

CATEGORY	LEVEL 1 (NORMAL)	LEVEL 2 (CAUTION)	LEVEL 3 (ALERT)
EFFECTIVE WHEN..	More than 7 days were passed from new arrival	New arrival of personnel or freight is occurred within 7 days	COVID-19 positive case is confirmed
MASK	Not necessary	Mandatory	Mandatory
SOCIAL DISTANCING	None	1 meter	2 meters
MEAL TIME	Normal	2-shift	Take-out
COMMON FACILITY	Normal	Limitation on time and total number of user	Prohibition on use

Figure 6. COVID-19 Prevention Protocols at a glance

CLOSE COOPERATION WITH THE KOREAN GOVERNMENT AND OTHER RELATED ORGANIZATIONS

COVID-19 treatment medicine (PAXLOVID/Pfizer) was provided to KOPRI based on the cooperation with MOF and KDCPA for emergency use onsite.

