

Annual Update on Korean Arctic Research Program

For 2022 FARO Annual Meeting

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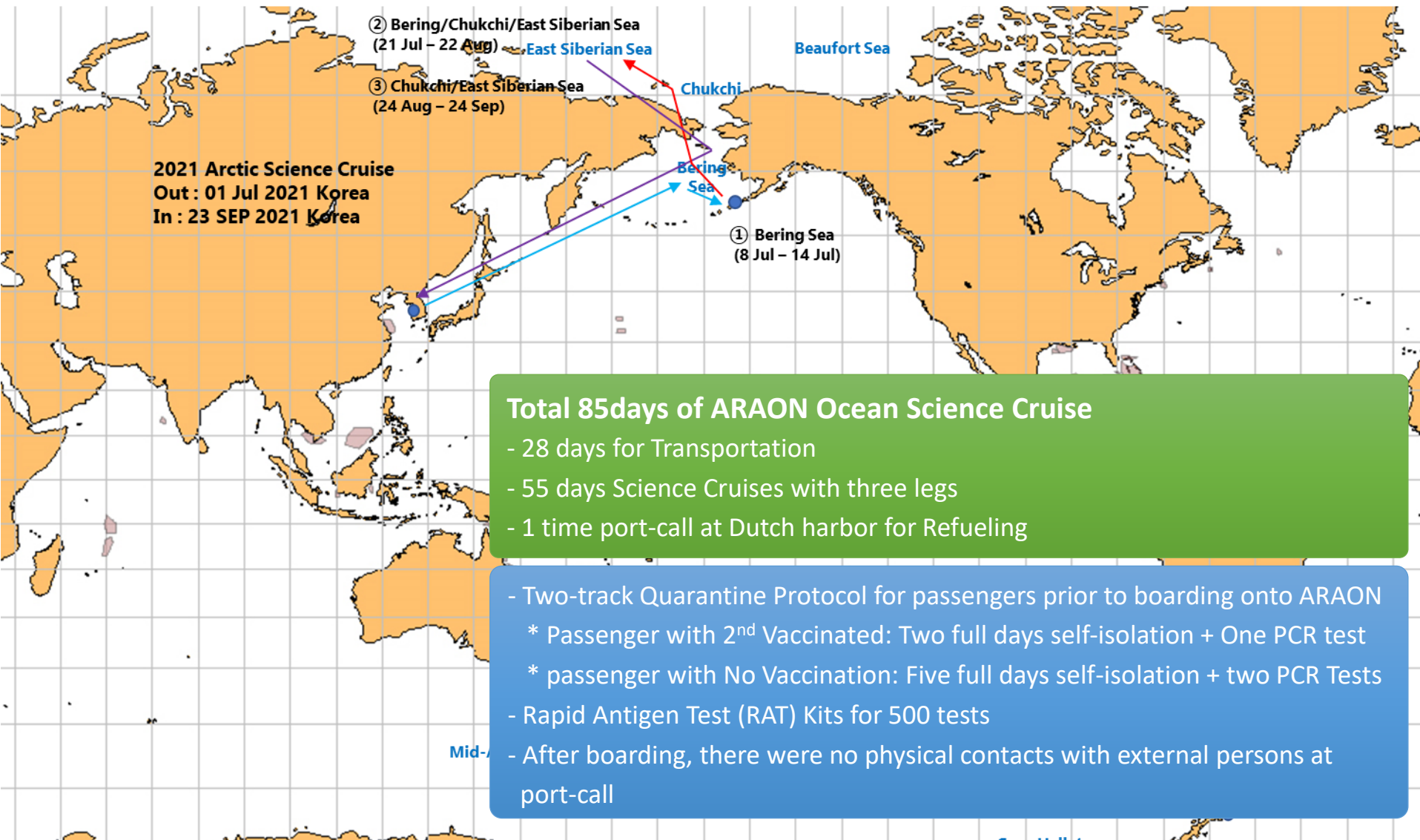
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Overview on Korean Arctic Research Program 2021

- ◆ Korean Arctic Research campaign in 2021 were conducted with scaled-down and limitations amid COVID-19 pandemic situation.
- ◆ All Arctic fieldwork participants were encouraged to get COVID-19 vaccination campaign according to Korean government's guideline.
- ◆ Terrestrial-based Research Campaign
 - ❖ Four research groups with 14 scientists at Arctic Dasan station, Ny-Alseund in the second half of 2021
 - ❖ One research group with 14 international scientists at Kanggerlussuaq, Greenland for drone-based test flight campaign in September 2021
- ◆ Arctic Ocean Science Cruise by IBRV *ARAON*
 - ❖ ARAON supported 10 ocean science research projects in the area of Bering / Chuckchi / East-Siberian sea by three science Cruise legs

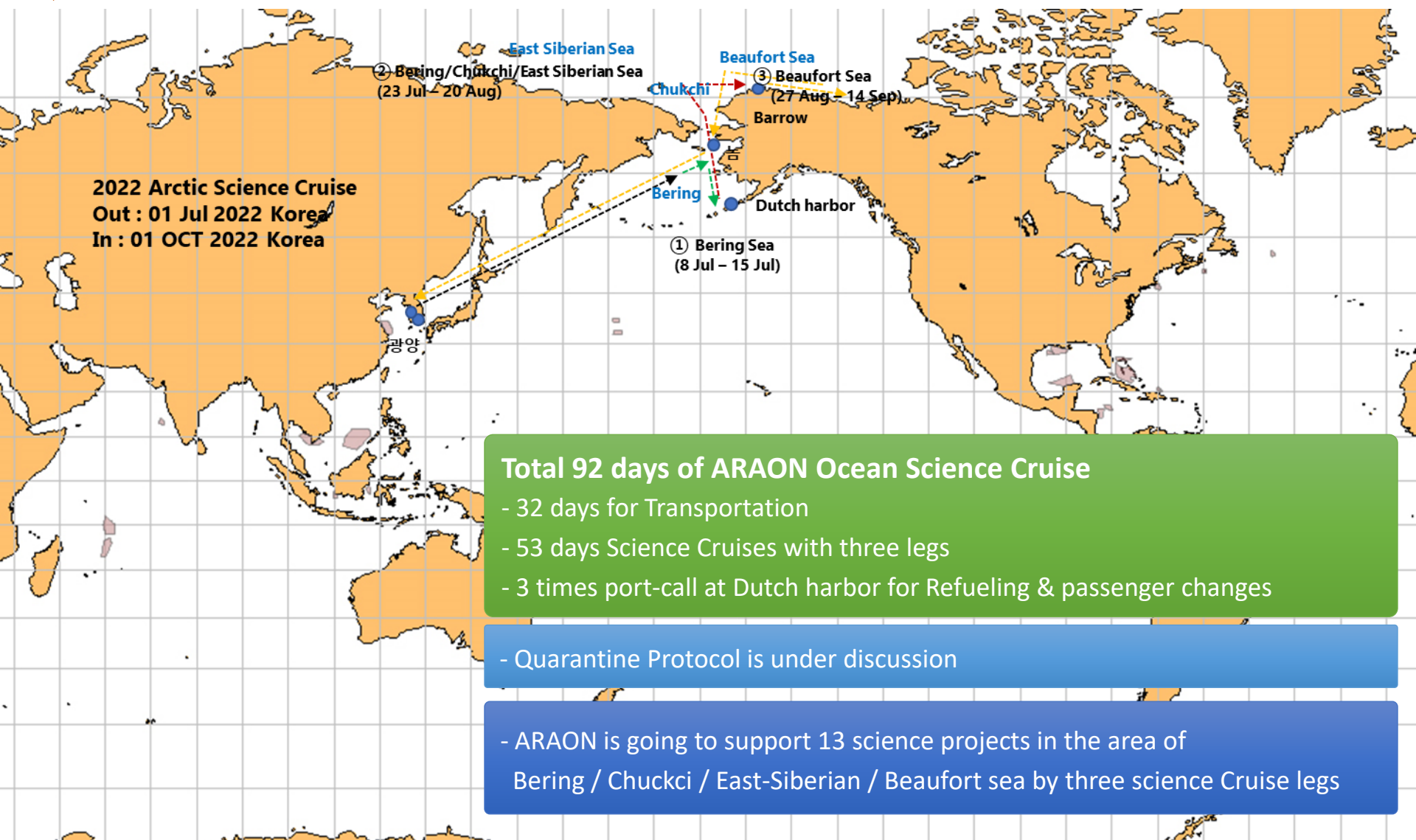
2021 Arctic Ocean Science Cruise by *ARAON*



Total 85days of ARAON Ocean Science Cruise

- 28 days for Transportation
- 55 days Science Cruises with three legs
- 1 time port-call at Dutch harbor for Refueling
- Two-track Quarantine Protocol for passengers prior to boarding onto ARAON
 - * Passenger with 2nd Vaccinated: Two full days self-isolation + One PCR test
 - * passenger with No Vaccination: Five full days self-isolation + two PCR Tests
- Rapid Antigen Test (RAT) Kits for 500 tests
- After boarding, there were no physical contacts with external persons at port-call

TENTATIVE 2022 Arctic Ocean Science Cruise by *ARAON*



Total 92 days of ARAON Ocean Science Cruise

- 32 days for Transportation
- 53 days Science Cruises with three legs
- 3 times port-call at Dutch harbor for Refueling & passenger changes

- Quarantine Protocol is under discussion

- ARAON is going to support 13 science projects in the area of Bering / Chukci / East-Siberian / Beaufort sea by three science Cruise legs

Next Generation Icebreaker Project

At a Glance

- The final result of feasibility survey on Korea's Next Generation Icebreaker Building Projects gave a greenlight for this project in the mid of 2021.
- KOPRI set up a special unit for Next Generation IBRV project in August 2021.
- Project Period & Estimated Budget: 2022–2026 / Approx. USD 200 Million
- Draft Timeline

2023	Concept Design
2023–2024	Basic Design
2024	Steel Cutting
2025	Keel Laying & Launching
2026	Sea Trial & Test Voyage
2026.12	Delivery & Commission



Next Generation Icebreaker Project

Concept Specification

	ARAON since 2009	Next Generation IBRV
Icebreaking Capability (Winterization)	1m / 3knots (−35 ° C)	1.5m / 3knots (−45 ° C)
Research Equipment	Fixed Research Equipment	Module-type Research Equipment (Moonpool, AUV, ROV, U-CTD and etc.)
Gross Tonnage	7,507tons	15,450tons
Dimension (L x W x D)	111m x 19m x 9.9m	138.6m x 25m x 13m
Operation Days with no Resupply	70days	75days
Fuels	MGO(Low Sulphur)	MGO(Low Sulphur) + LNG
Accommodation	85 pax. (including 26 crews)	100 pax (including 34 crews)
Operation Area	Arctic & Antarctic ocean	Arctic ocean (Mainly)

FARO Annual meeting 2022 / END/

Thank you

