

Annual Update on Korean Arctic Research Program

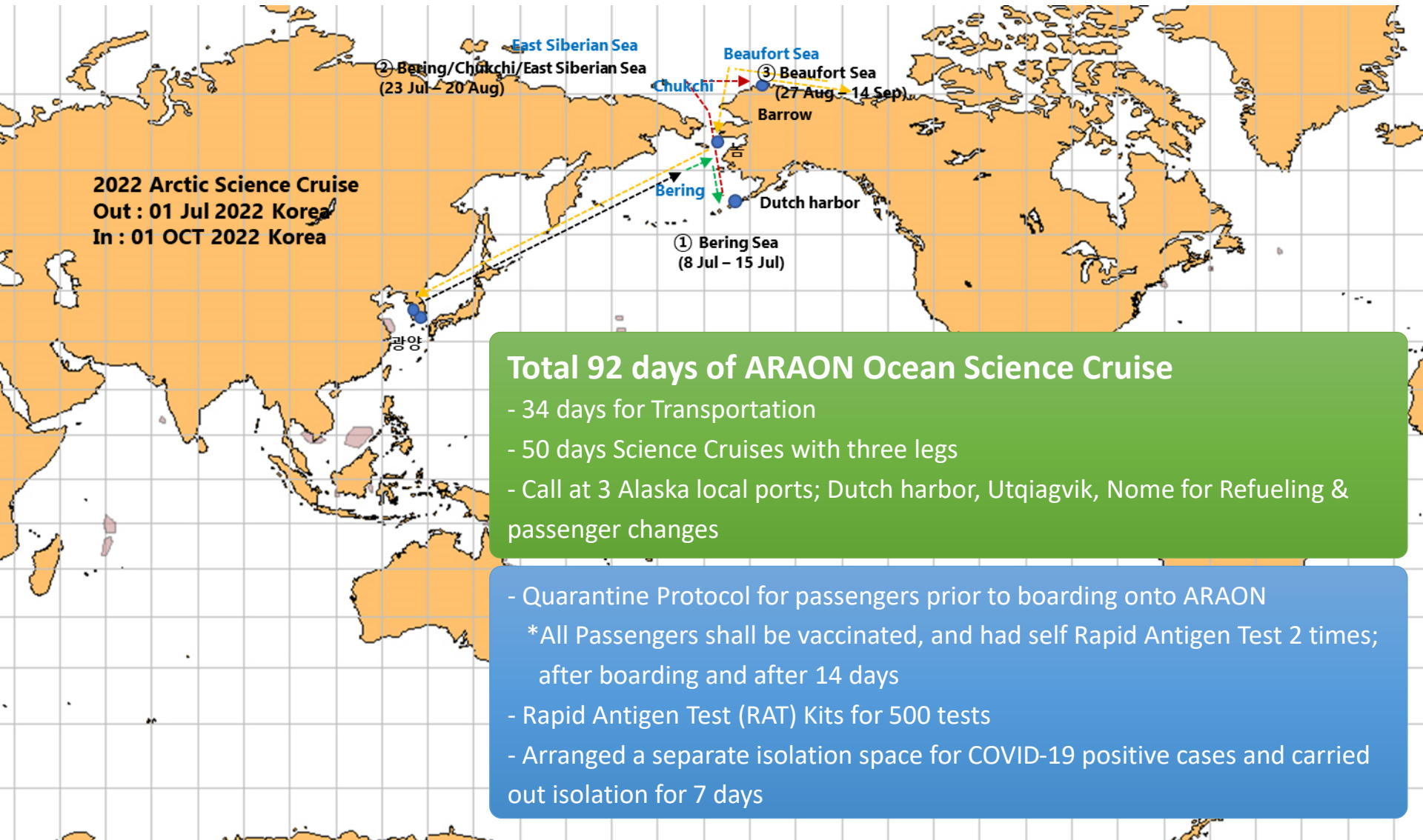
For 2023 FARO Annual Meeting



Highlights on Korean Arctic Research Campaign in 2022

- ◆ The Korean Arctic Research campaign in 2022 was conducted in full swing amid the COVID-19 pandemic.
- ◆ All Arctic fieldwork participants were encouraged to get a COVID-19 vaccination prior to their fieldwork according to the Korean government's guidelines.
- ◆ Terrestrial-based Research Campaign in 2022: 13 research groups with 47 scientists at Arctic Dasan station from March to September (155 days)
- ◆ Arctic Ocean Science Cruise by IBRV *ARAON*: Supported 11 ocean science research projects with 109 participants in the area of Bering / Chukchi / East-Siberian/ Beaufort sea by three science Cruise legs from July to October (92 days)
- ◆ KOPRI officially joined Svalbard Integrated Arctic Earth Observing System (SIOS) program as a new member institution in April 2022.

2022 Arctic Ocean Science Cruise by *ARAON*

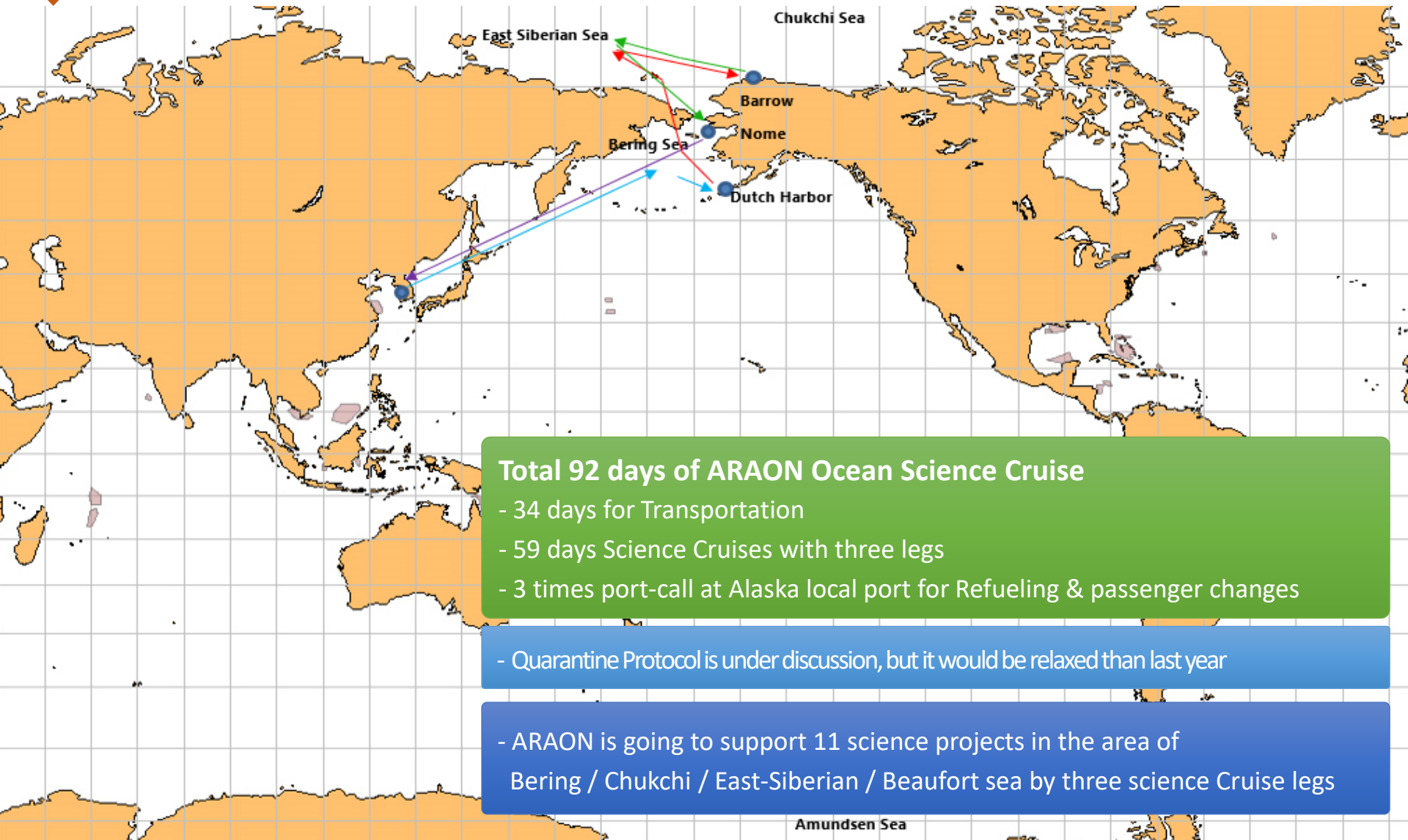


Total 92 days of ARAON Ocean Science Cruise

- 34 days for Transportation
- 50 days Science Cruises with three legs
- Call at 3 Alaska local ports; Dutch harbor, Utqiagvik, Nome for Refueling & passenger changes

- Quarantine Protocol for passengers prior to boarding onto ARAON
 - * All Passengers shall be vaccinated, and had self Rapid Antigen Test 2 times; after boarding and after 14 days
- Rapid Antigen Test (RAT) Kits for 500 tests
- Arranged a separate isolation space for COVID-19 positive cases and carried out isolation for 7 days

TENTATIVE 2023 Arctic Ocean Science Cruise by *ARAON*



Total 92 days of ARAON Ocean Science Cruise

- 34 days for Transportation
- 59 days Science Cruises with three legs
- 3 times port-call at Alaska local port for Refueling & passenger changes

- Quarantine Protocol is under discussion, but it would be relaxed than last year

- ARAON is going to support 11 science projects in the area of Bering / Chukchi / East-Siberian / Beaufort sea by three science Cruise legs

Next Generation Icebreaking Research Vessel Building Project

At a Glance

- Since April 2022, KOPRI has been carrying out a Next Generation Icebreaking Research Vessel building project
- Project Period & Budget: 2022–2026 (5 Years) / Approx. USD 220 Million
- Draft Timeline
 - 2022–2023 Concept / Basic Design
 - 2024 Detailed design & Steel Cutting
 - 2025 Keel Laying & Launching
 - 2026 Sea Trial & Delivery
 - 2026.12 Commission



Next Generation Icebreaking Research Vessel Building Project

At a Glance



Next Generation Icebreaking Research Vessel Building 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 (Multi-channel Seismic System, Giant Piston Corer, ROV and etc.) |
| Gross Tonnage | 7,507tons | Abt. 15,450tons |
| Dimension (L x W x D) | 111m x 19m x 9.9m | Abt. 138.6m x 25m x 13m |
| Operation Days Without supply | 70 days | Over 75 days |
| Type of Fuels | MGO(Low Sulfur) | MGO(Low Sulfur) + LNG |
| Accommodation | 85 pax. (including 26 crews) | 100 pax. (including 34 crews) |
| Operation Area | Arctic & Antarctic ocean | Arctic ocean (Mainly) |

2023 FARO Annual meeting

Thank you

