



# Korea's Arctic Science 2020 update

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## Arctic Dasan Station(Svalbard)

- **Opening Day** : 29 April 2002
- **Floor Space** : 216m<sup>2</sup>
- **Accommodation Capacity** : Up to 16
- **Operated as** : Summer Station
- **Location** : 78° 55' N, 11° 56' E



## Main Research Fields



Arctic Sea Ice Research



Environmental Change  
Survey on Upper  
Atmosphere and Space



Marine and Terrestrial Ecosystems



Microbiology

# Research Activities in Ny-Alesund



## First half of the year

- **Currently suspend due to COVID-19 outbreak**
- Research activities : 4 Teams
- No. of Persons : 12 People

## 2nd half of the year

- Research activities : 3 Teams
- No. of Persons : 15 People

# Infrastructure



## IBRV ARAON

- **Completion** : 2 Nov 2009
- **Cruise Distance** : 20,000 nautical mile
- **Number of Passengers** : 85
- **Icebreaking Ability** : KR PL-10(DAT-30°C)
- **Loading Capacity** : 31TEU



## Annual Cruise Plan

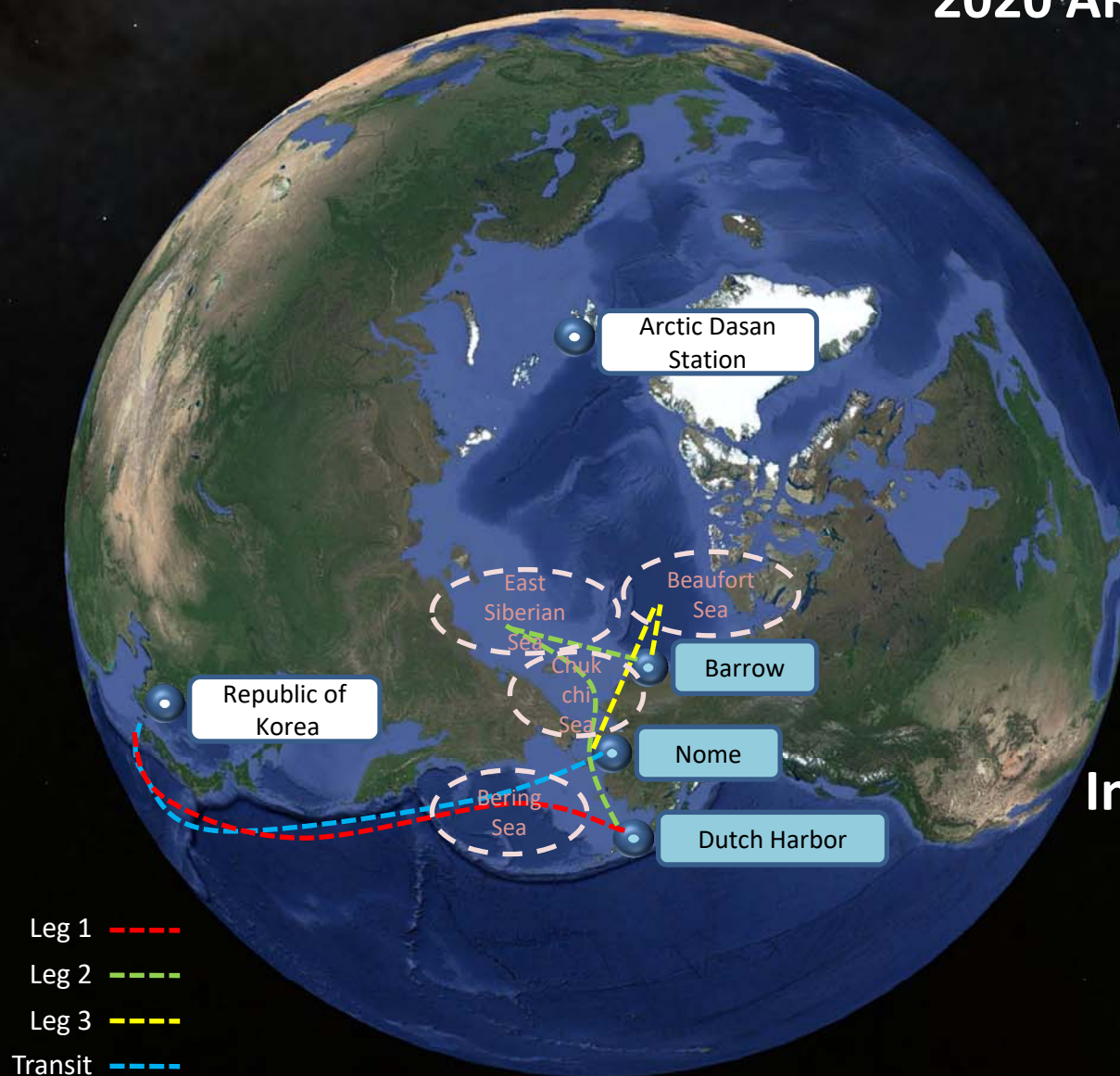


## 2020 ARAON Arctic Cruise Plan

Item	Period	Activities	Days (Research)
Leg 1	Jul 1 ~Jul 22	Research activities (Bering)	7
Leg 2	Jul 22 ~ Aug 23	Research activities (Bering, Chukchi, East Siberian)	25
Leg 3	Aug 23 ~Sep 21	Research activities (Beaufort)	20

## International Passengers

2017	2018	2019	2020
33	22	14	23



Leg 1 ---  
 Leg 2 ---  
 Leg 3 ---  
 Transit ---



# Large campaign plans(1)



## Korea-Arctic ocean Warming and Response of Ecosystem Study (K-AWARE)

- **Purpose of the project**

- The project aims to elucidate ongoing environmental change in the rapid transition due to the sea ice decline, and to predict their impact on the Arctic marine ecosystem and climate system.
  - ✓ To evaluate the effect of the ocean warming on ocean environment by comprehensive monitoring system on sea ice and the ocean
  - ✓ To assess the influence of sea ice decline on the physical and biogeochemical cycle
  - ✓ To assess the impacts of multiple stressor on Arctic ecosystem structure and functioning
  - ✓ To predict the future environmental change patterns by the Arctic ocean warming

- **Budget** : USD 17million for 6 years (USD 3~3.5 million for a year)

- **Principal Investigator** : Dr. Eun-jin YANG

- **Target region** : Chukchi Sea, East Siberian Sea and Central Arctic Ocean

# Large campaign plans(2)



## Research on the Arctic Seabed and the Change in Seabed Environment

- **Purpose of the project**
  - To build database based on information on geological environment of the Arctic submarine
  - To investigate the change in the Arctic seabed cause by warming over the Arctic
- **Budget** : USD 14million for 6 years (USD 2~2.5 million for a year)
- **Principal Investigator** : Dr. Young-keun JIN
- **Target region** : Chukchi Plateau, East Siberian Sea, Beaufort Sea

Thank You

