

# North East Asian Regional Global Ocean Observing System



United Nations  
Educational, Scientific and  
Cultural Organization



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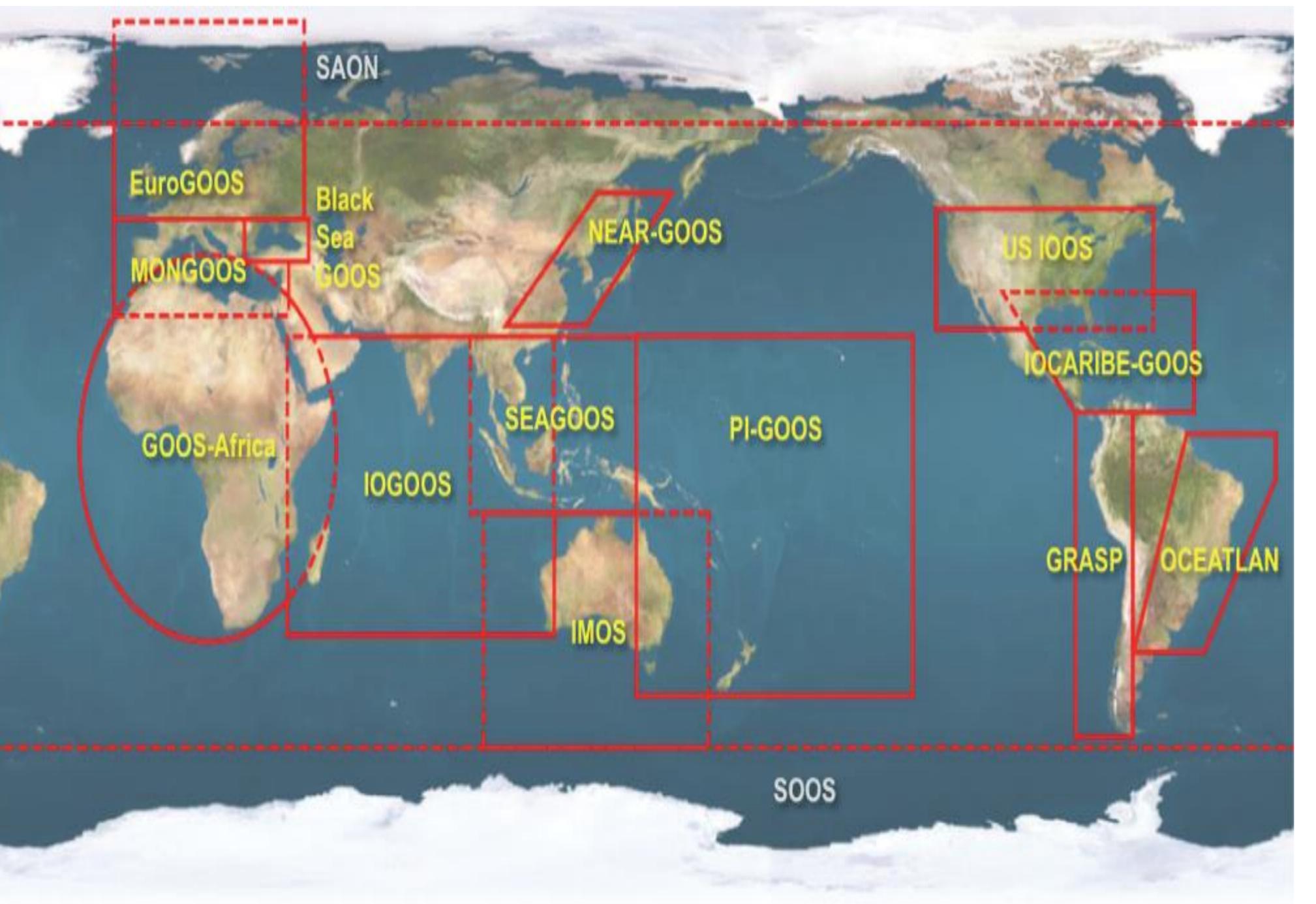
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# NEAR-GOOS

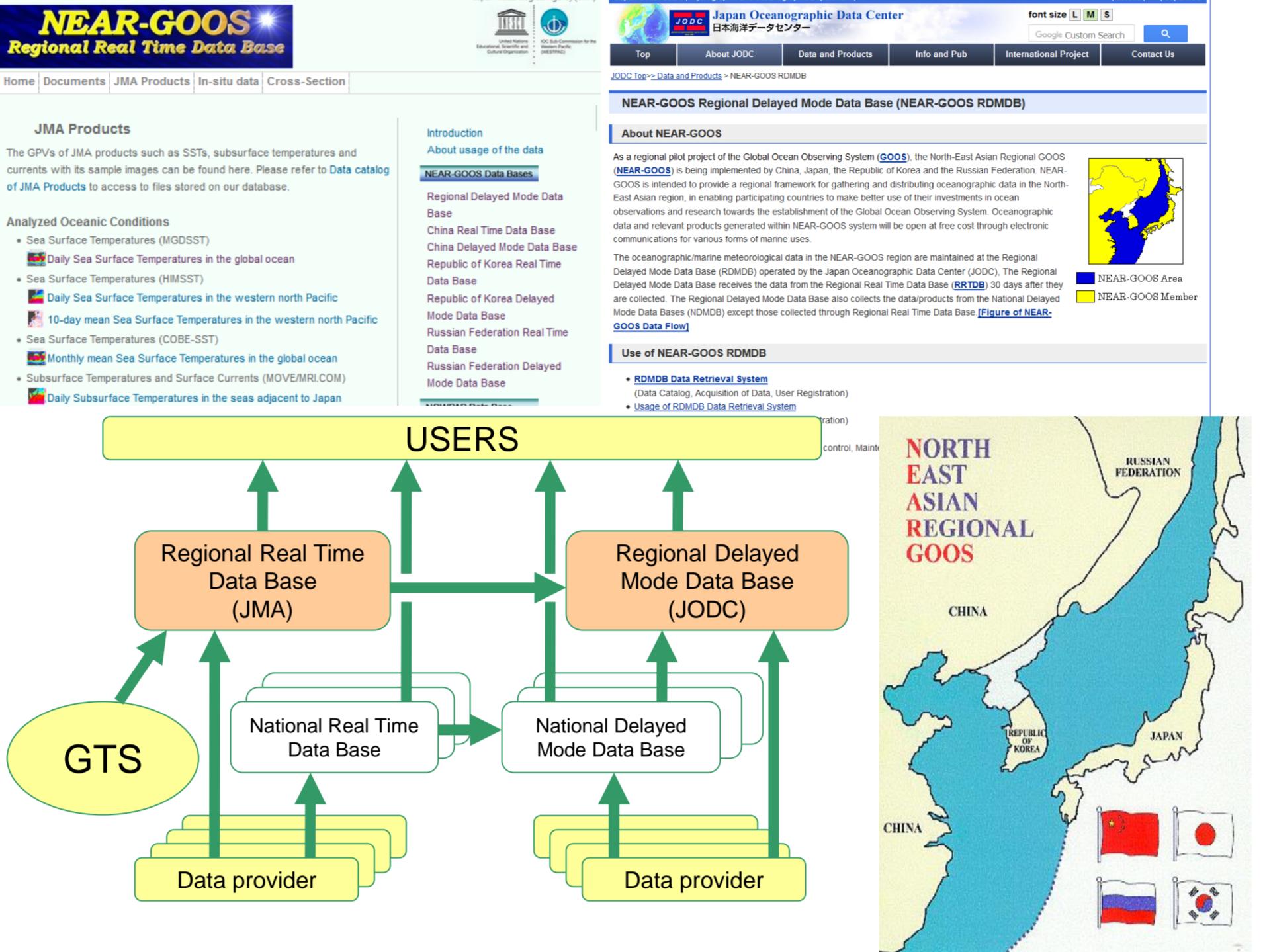
NEAR-GOOS is a regional ocean observing initiative being undertaken in partnership between PR China, Japan, the Republic of Korea, and the Russian Federation, in association with the GOOS. It was initiated in 1996 upon the formal adoption by the 29th Executive Council of the IOC following a recommendation from the WESTPAC Regional Sub commission of IOC.

## One of 13 GOOS Regional Alliances



The North-East Asian Regional-Global Ocean Observing System (NEAR-GOOS) is the first regional pilot project of GOOS.

## NEAR-GOOS Data System



NEAR-GOOS provides through its database system various oceanographic data that are useful for PICES community.

## IOC/WESTPAC Coordinating Committee for NEAR-GOOS

- To review the status of NEAR-GOOS and progress,
- To discuss the follow up activities towards the goals of NEAR-GOOS strategy,
- To identify the role of NEAR-GOOS in global GOOS development and effective ways of interactions with other GRAs and related regional programs and projects



18<sup>th</sup> Session of IOC/WESTPAC Coordinating Committee for NEAR-GOOS, 20-22 November 2017, Fuzhou, China

## NEAR-GOOS Databases

| Country | Database      | Responsible organization | URL   |
|---------|---------------|--------------------------|---|
| Japan   | Regional RTDB | JMA                      | <a href="https://www.data.jma.go.jp/gmd/goos/data/database.html">https://www.data.jma.go.jp/gmd/goos/data/database.html</a> |
|         | Regional DMDB | JODC                     | <a href="http://near-goos1.jodc.go.jp">http://near-goos1.jodc.go.jp</a>   |
| China   | National RTDB | NMERC                    | <a href="http://neargoos.nmefc.cn/index.shtml">http://neargoos.nmefc.cn/index.shtml</a>                                     |
|         | National DMDB | NMDIS                    | <a href="http://near-goos.nmdis.org.cn">http://near-goos.nmdis.org.cn</a>   |
| Korea   | National RTDB | KHOA                     | <a href="http://www.khoa.go.kr/neargoos/">http://www.khoa.go.kr/neargoos/</a>   |
|         | National DMDB | NIFS                     | <a href="http://www.nifs.go.kr/kodc/eng/01_about/02.jsp">http://www.nifs.go.kr/kodc/eng/01_about/02.jsp</a>                 |
| Russia  | National RTDB | FERHRI                   | <a href="http://rus.ferhri.ru/esimo/Projects/Neargoos/">http://rus.ferhri.ru/esimo/Projects/Neargoos/</a>                   |
|         | National DMDB | POI                      | <a href="http://pacificinfo.ru/near-goos/">http://pacificinfo.ru/near-goos/</a>   |

RTDB: Real-Time DataBase

DMDB: Delayed mode DataBase

## NEAR-GOOS Working Groups

### WG on Data Management

- To improve NEAR-GOOS databases networking system (QA/QC, data inventories, standard formats etc.)

### WG on Products

- To improve the NEAR-GOOS products in a comprehensive manner.
- Complete the user analysis and discuss necessary actions

### WG on Ocean Forecasting Systems

- To enhance an efficiency of the existing forecasting capability in the region and cooperation between national operational forecasting systems

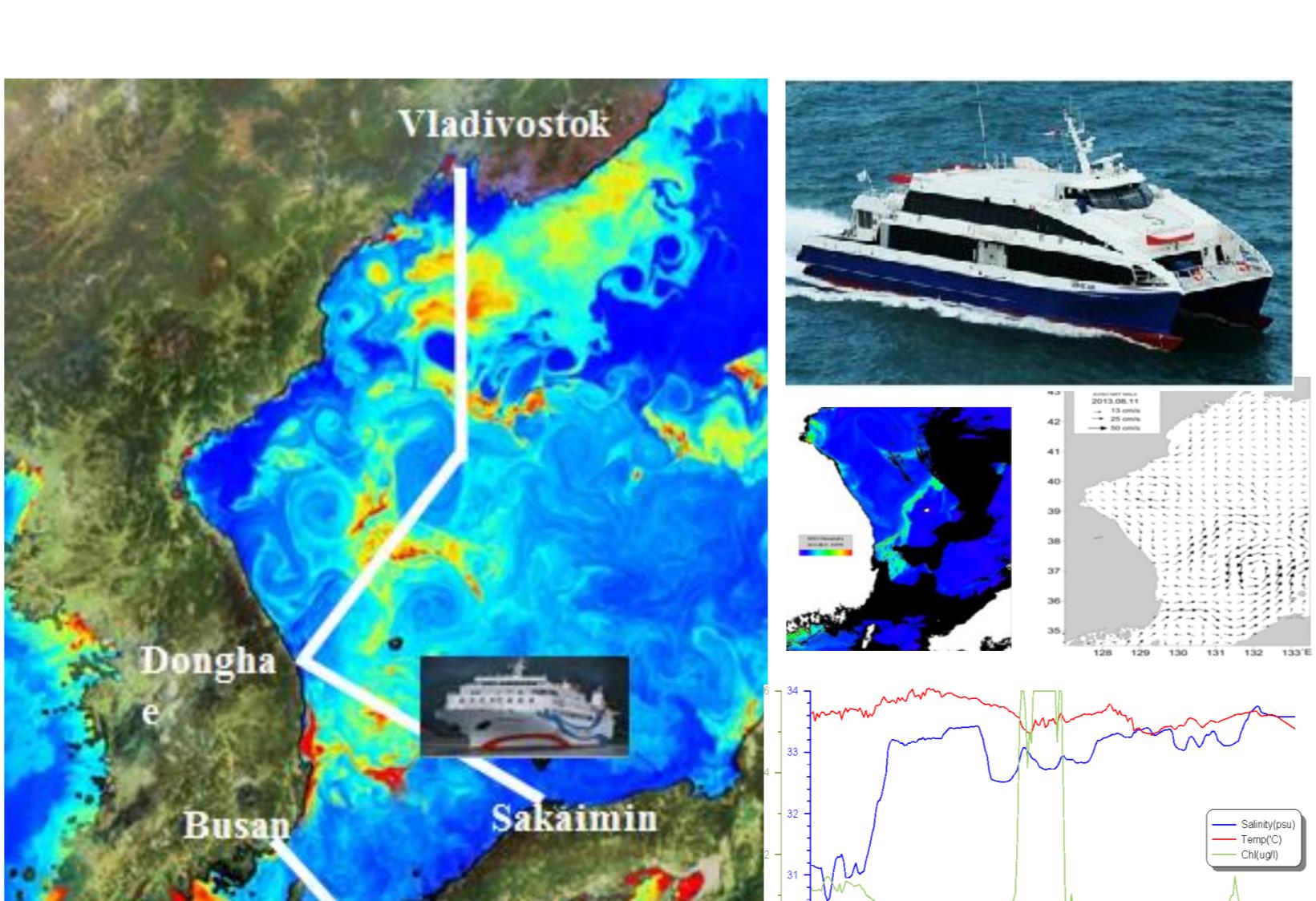
## Regional Real-Time Database

| Description of data  | Source      | Type                     | Remarks  |
|--|-------------|--------------------------|--|
| <b>Data</b>  |             |                          |  |
| WMO international codes for oceanographic and marine meteorological data (NEAR-GOOS region and global) | GTS         | In-situ data             | FM13 SHIP, FM18 BUOY, FM62 TRACKOB, FM63 BATHY, FM64 TESAC |
| <b>Products</b>  |             |                          |  |
| Daily SSTs (MGDSST <sup>1</sup> and HIMSST <sup>2</sup> )  | JMA         | Images and analysis GPVs | <sup>1</sup> Global<br><sup>2</sup> western North Pacific  |
| 10 day mean SSTs (HIMSST)  |             |                          | western North Pacific                                      |
| Monthly mean SSTs (COBE-SST)   |             |                          | Global   |
| Daily subsurface temperatures and surface currents (MOVE/MRI.COM)                                      |             |                          | the seas adjacent to Japan                                 |
| 10 day mean subsurface temperatures and surface currents (MOVE/MRI.COM)                                |             |                          | the seas adjacent to Japan                                 |
| Monthly mean subsurface temperatures (MOVE/MRI.COM)  |             |                          | the seas adjacent to Japan                                 |
| Monthly mean subsurface temperatures (3DVAR)   |             |                          | Pacific  |
| Monthly mean sea surface height anomalies (CMEMS, Pacific)   |             |                          | Reanalysis products only                                   |
| Sea ice concentrations   |             |                          | north-east Asian marginal seas                             |
| JMA research vessels cruise plan   | JMA and POI | Images and in-situ data  |  |
| Cross-basin climate monitoring section   |             |                          |  |

## Pilot project Ferry Boat Monitoring (since 2017)

Objective: Monitoring the status and changes in the marine environment

- Ferry boats observe surface water temperature and salinity during cruising
- The obtained data is transmitted by using local cellular phone system.



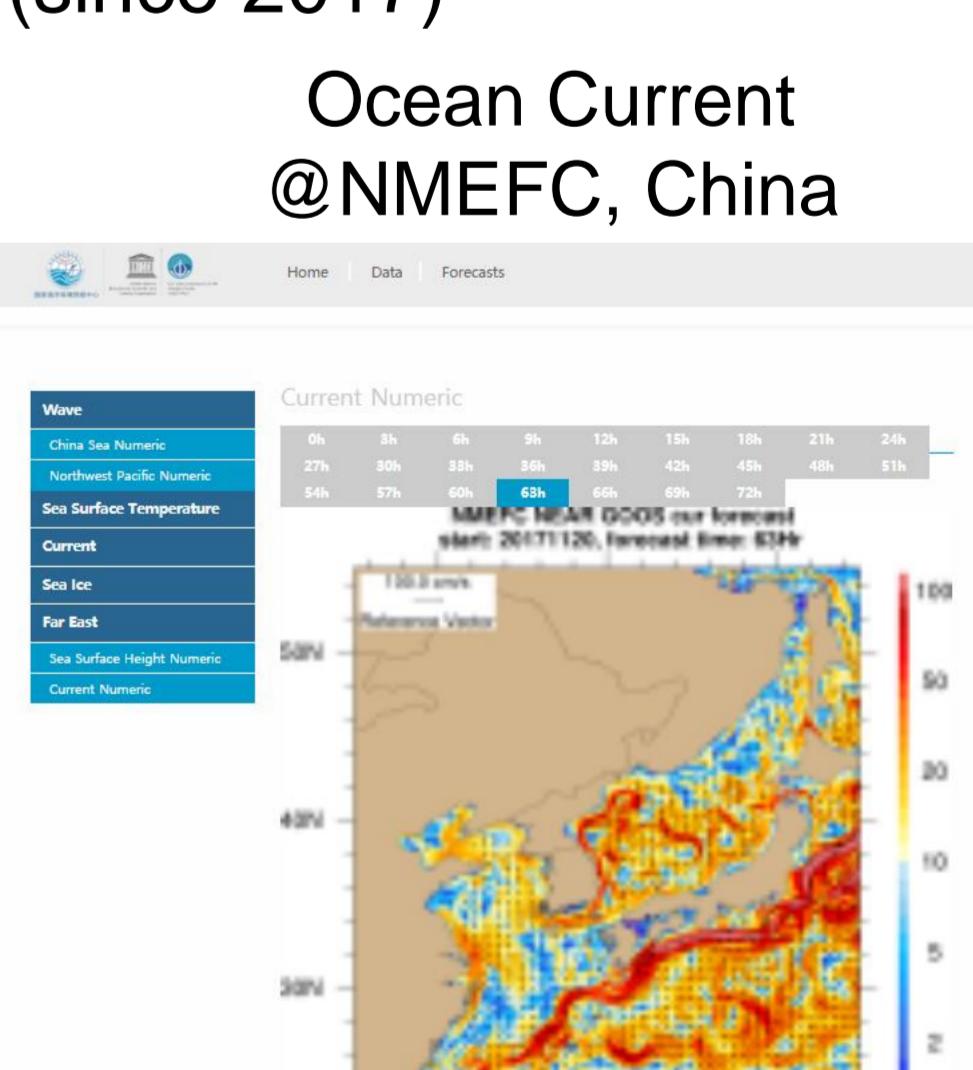
Water Temperature @JMA, Japan

Wind @KIOST & KHOA, Korea

Ocean Wave @FERHRI, Russia

## Ocean Forecasting System (since 2017)

- Ocean Forecasting System WG (OFS WG) organized its 1st technical meeting in Ansan, Korea on 16-18 August, 2017
- agreed that prepare pre-operational web pages of ocean forecasts
  - Forecast Elements:
    - Wind
    - Ocean current
    - Sea water temperature
    - Ocean wave
    - Sea Ice (under consideration)
  - The pre-operational forecast pages are being prepared by Members.



Water Temperature

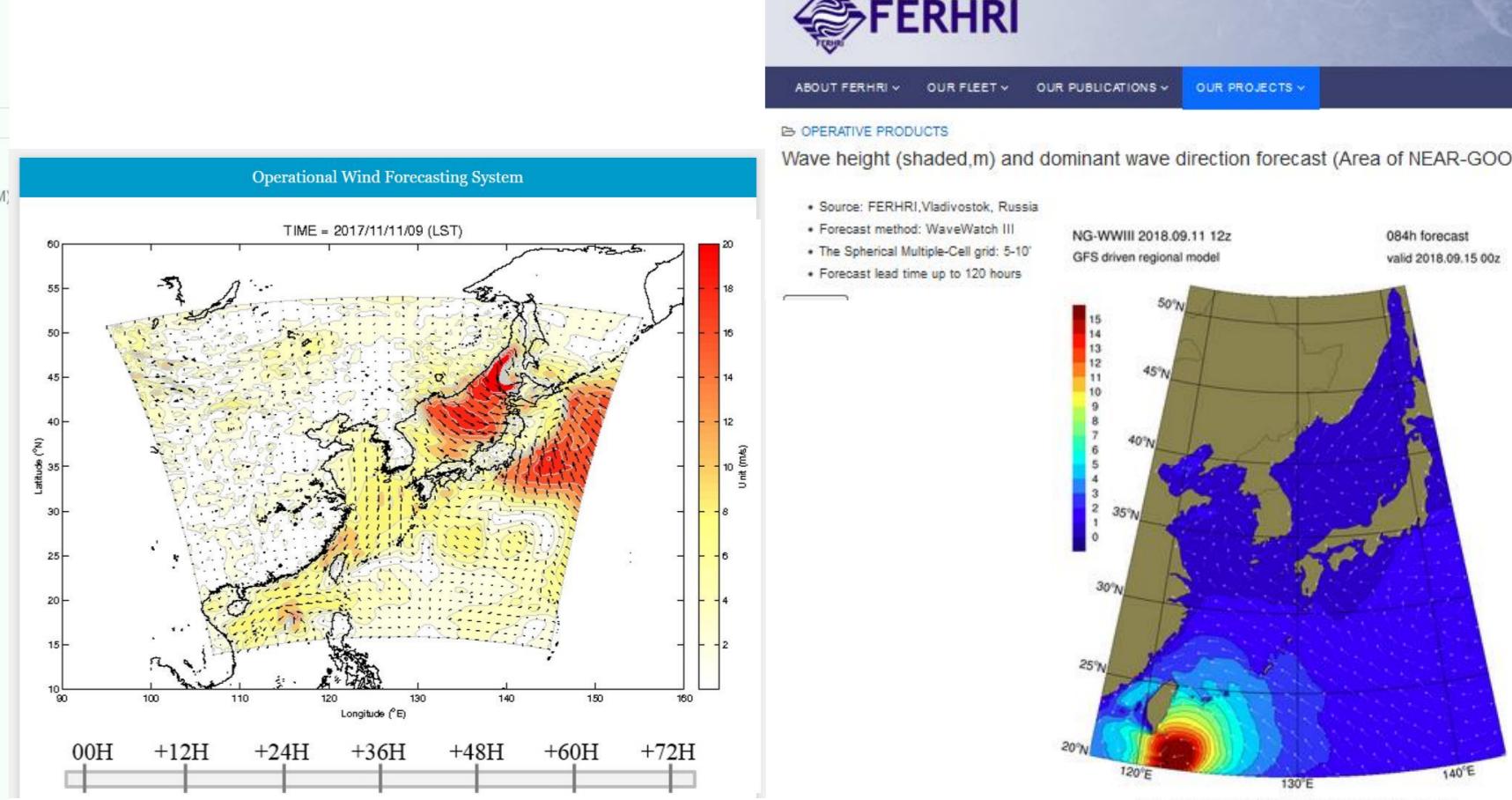
@JMA, Japan

Wind

@KIOST & KHOA, Korea

Ocean Wave @FERHRI, Russia

NEAR-GOOS Regional Real Time Data Base



## Pilot project

### Cross-basin Climate Monitoring Section

jointly conducted by JMA, Japan and POI, Russia since 2011

to improve the understanding of the response of the regional seas to climate change

Observation period: 2011~

– Late October - early November

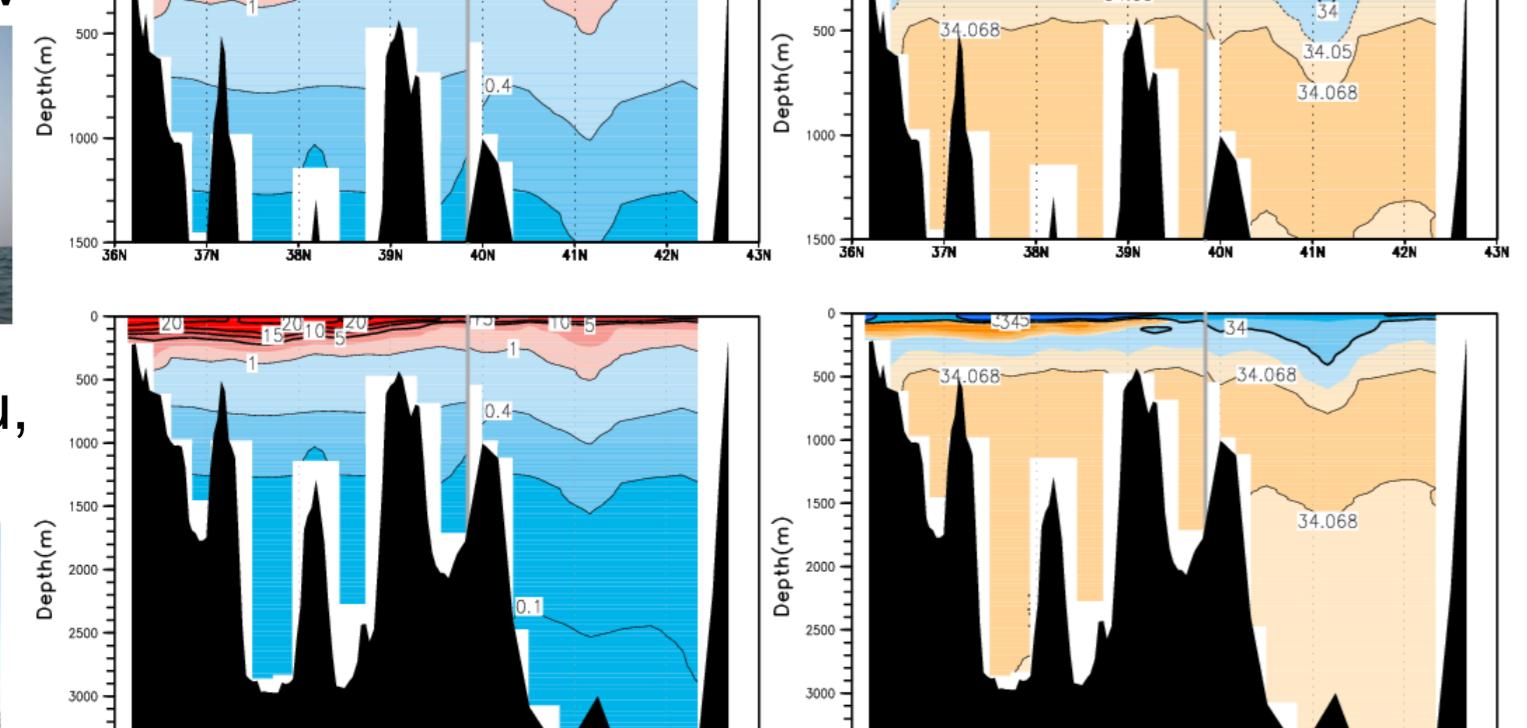
CTD profile data available at RRTDB

– Vertical resolution: 1 dbar

– Parameters: Pressure, Temperature, Salinity, Dissolved Oxygen

R/V Akademik M.A.Lavrentyev

R/V Keifu-maru, JMA



<https://www.data.jma.go.jp/gmd/goos/data/rrtbd/cross-section/cross-section.html>