

## GRA Background Report **NEAR-GOOS**

Dr Guimei LIU

National Marine Environmental Forecasting Center (NMEFC),

Ministry of Natural Resources, China

GOOS Regional Forum-11,

8-9 April 2024 Barcelona, Spain











## Ocean Observing Data Sharing Portal (free and open access)



RTDB of China (http://neargoos.nmefc.cn)



RTDB of Japan (https://ds.data.jma.go.jp/gmd/goos/data/database.html)



RTDB of Korea
(http://www.khoa.go.kr/oceangrid/koofs/eng/observation/obs\_real.do)



RTDB of Russia (http://rus.ferhri.ru/esimo/P rojects/Neargoos/)



DMDB of China (http://near-goos.nmdis.org.cn/)



DMDB of Japan (https://near-goos1.jodc.go.jp)



DMDB of Korea (https://www.nifs.go.kr/k odc/eng/index.kodc)



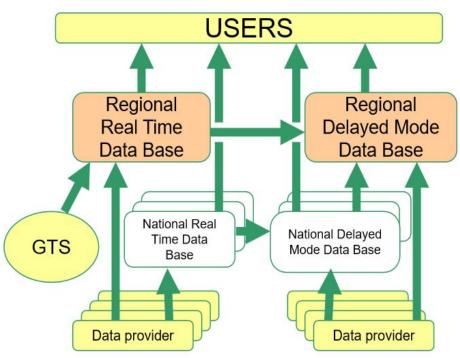
DMDB of Russia (http://pacificinfo.ru/near-goos/)

### **Success Story of DMDBs of NEAR-GOOS**

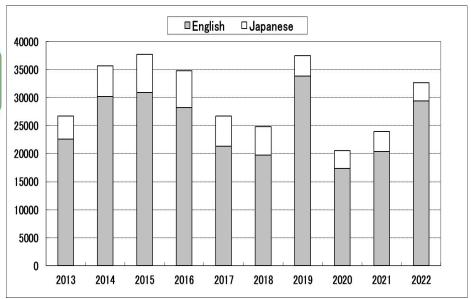
RDMDB of NEAR-GOOS in JAPAN (operated by JODC)

59 types of data

235 GB data volume (as of Dec. 2023)



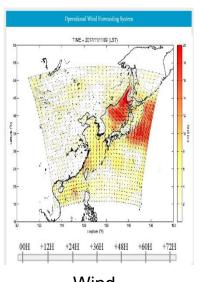
Highest number of hits on RDMDB of NEAR-GOOS in JAPAN is over 37,000



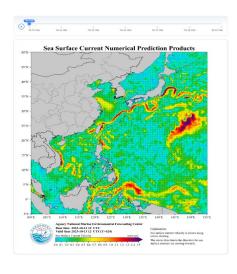
hits on English and Japanese web pages of RDMDB of NEAR-GOOS in Japan

# Ocean Forecasting Services Portal (free and open access)

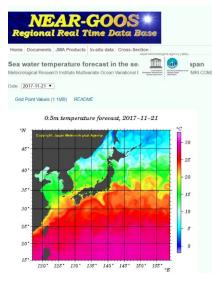
According to the action adopted in NEAR-GOOS, operational ocean forecasting products including wind, current, temperature, wave are separately and daily provided by Member States of NEAR-GOOS.



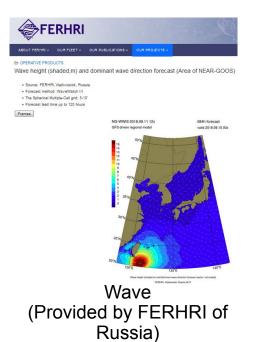
Wind (Provided by KHOA & KIOST of Korea)



Current (Provided by NMEFC of China)



Temperature (Provided by JMA of Japan)

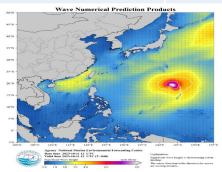


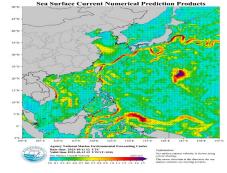
### Success Story of forecast products sharing

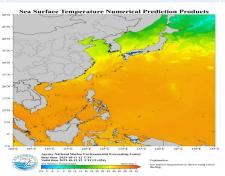
#### ☐ RTDB of NEAR-GOOS in China (operated by NMEFC)

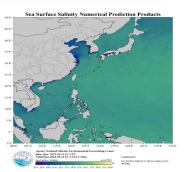
- Products: Current, Wave, Sea Surface Temperature, Salinity
- Frequency: once per day for current, temperature and salinity, and twice per day for wave
- Forecast period: 7-days
- Total Number of Products: 12,760 (From Jan. 2023 to Dec. 2023)
- Total Data Size: 9GB (From 1 Jan. 2023 to Dec. 2023)

Product Name	Number of Products	Data Size (MB)	started Date (for statistics)	End Date (for statistics)
Current	2,550	2,630	1 Jan. 2023	31 Dec. 2023
Wave	5,110	3,800	1 Jan. 2023	31 Dec. 2023
Sea Surface Temperature	2,550	1,474	1 Jan. 2023	31 Dec. 2023
Salinity	2,550	1,415	1 Jan. 2023	31 Dec. 2023









Wave Current

Sea Surface Temperature

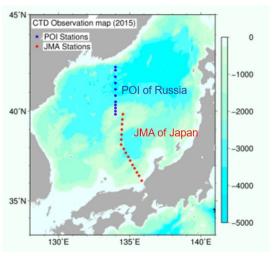
Salinity

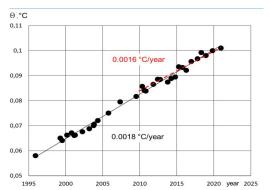
## **Success Story of Synchronized Observation**

- Carried by:
- JMA of Japan and POI of Russia
- Observed elements:
- CTD & water sampling down to the bottom
- Parameters observed:
- Temperature, Salinity, Oxygen, Nitrate, Nitrite, Silicate, PH, Total inorganic carbon
- Synchronized observations:
- 2011 Oct-Nov,2012 Oct-Nov,2013 Oct,2014 Oct,2015
   Oct, 2016 Nov-Dec, 2017 Oct-Nov, 2018 Oct-Dec, 2019
   Oct-Nov, 2020 Oct-Dec, 2021 Dec









Warming trend of bottom water and its recent slowdown (Lobanov et al.,

## **Success Story of Meetings**

- NEAR-GOOS CC Online Session in Oct.
   2023
- NEAR-GOOS CC Online Session in April
   2022
- PICES session in Oct. 2021
- 13th Intergovernmental Session of IOC WESTPAC in April 2021
- NEAR-GOOS online meeting with IOC
   WESTPAC Office in July 2021
- GOOS GRA-X Forum in Sep. 2021



NEAR-GOOS CC Online Session in Oct.2023



NEAR-GOOS CC Online Session in April 2022

## **Priorities**

- Short term
- Put the NEAR-GOOS gateway website in operational service ASAP
- 2. Revitalize NEAR-GOOS WGs and Pilot Projects
- Long term (5+ years)
- Develop an integrated and sustained ocean observing data sharing system
- Provide a unified and timely ocean forecasting service

## What support do you need from GOOS?

- Strengthen partnerships with GOOS structures to increase visibility of NEAR-GOOS
- Acquire success story and best knowledge from other GRAs and the GRA Forum to develop the NEAR-GOOS observing network and data sharing service
- Seek fund from GOOS structures to support operational service of the NEAR-GOOS gateway website

