

F.Akazawa, T. Kawano, K. Sato, I. Ueki, S. Masuda, and K. Ando.

Research and Development (R&D) Center for Global Change (RCGC) Japan Agency for Marine-Earth Science and Technology (JAMSTEC)

Background:

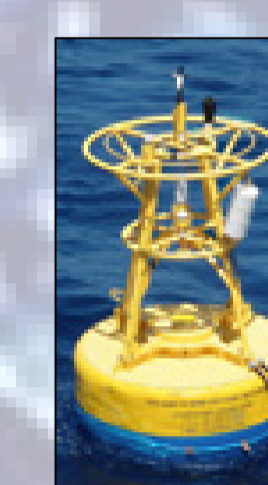
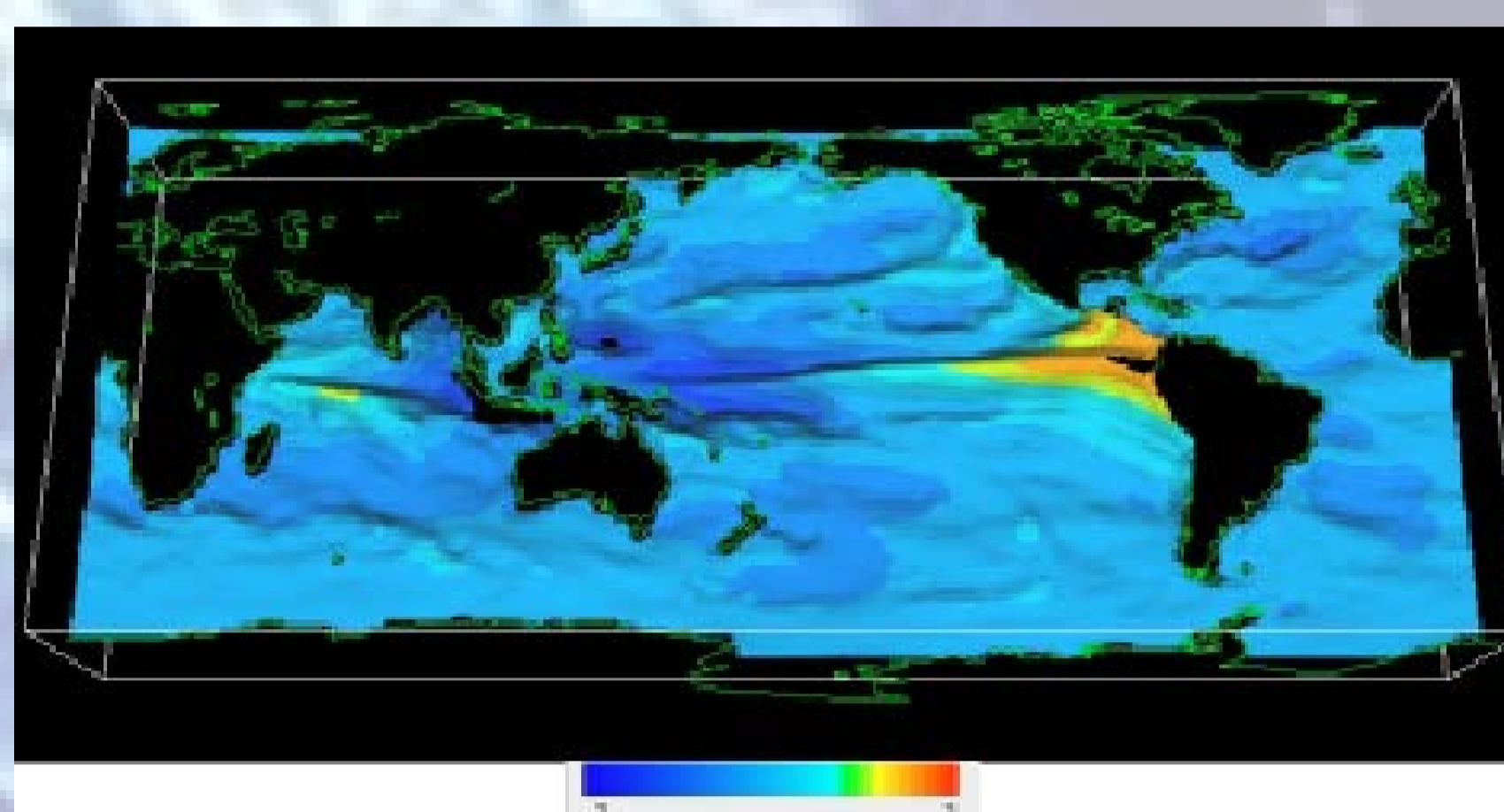
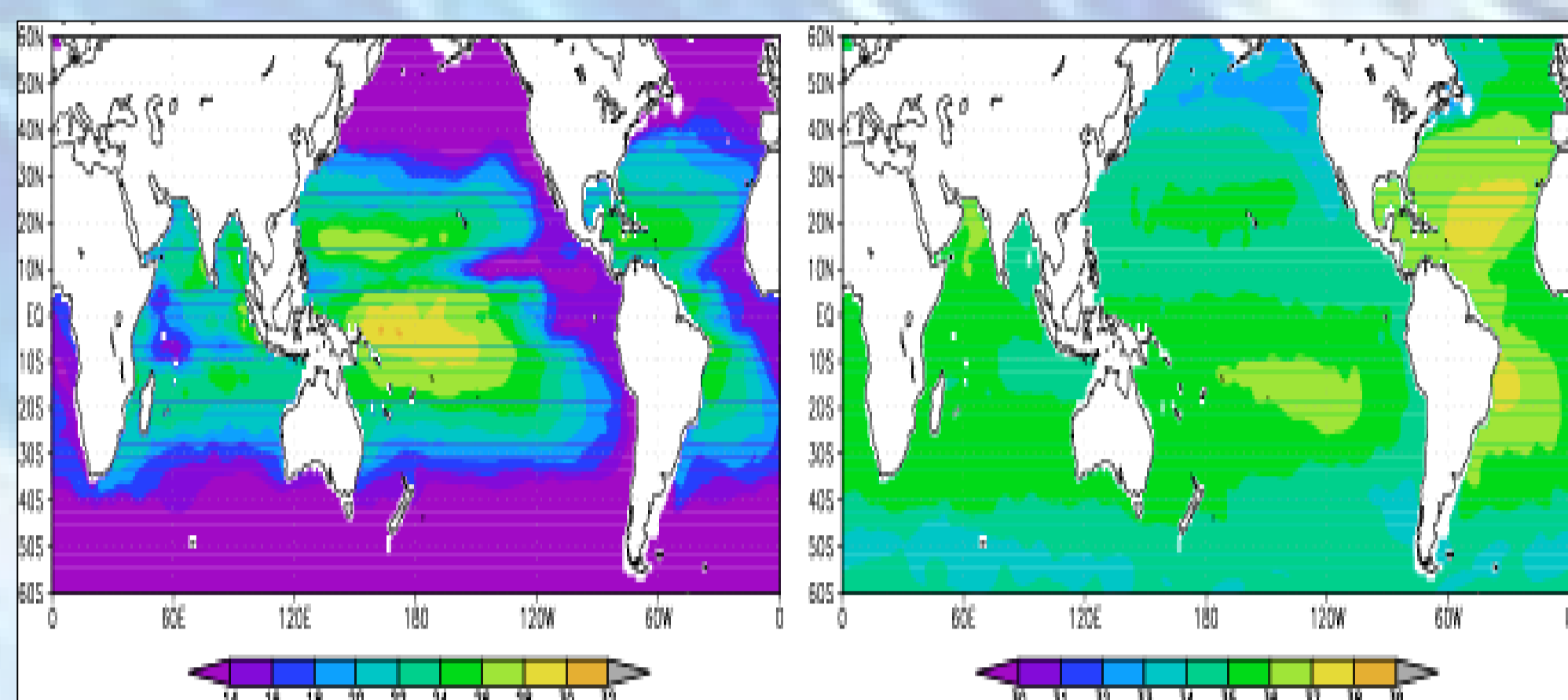
One of the major missions of The Global Earth Observation System of Systems (GEOSS) is to deliver an extraordinary range of information to both the general users and to specialist decision makers. JAMSTEC are now building the "GEOSS-AP ocean data networking system". The first version of the system is aimed at sharing the metadata in GEOSS-AP countries, which consists of observation summary, positions, observed variables, period, and other information in conjunction with in-situ ocean observations.

Major purpose:

Will contribute to accelerate data sharing, and encourage ocean research activities with the view to mitigate possible weather and climate disasters in the Asia Pacific region.

General ocean science data:

- Sea surface temperature (SST)
- Sea surface salinity (SSS)
- Sea level high (SLH)
- eXpendable Bathy Thermograph(XBT)
- Moored Buoy

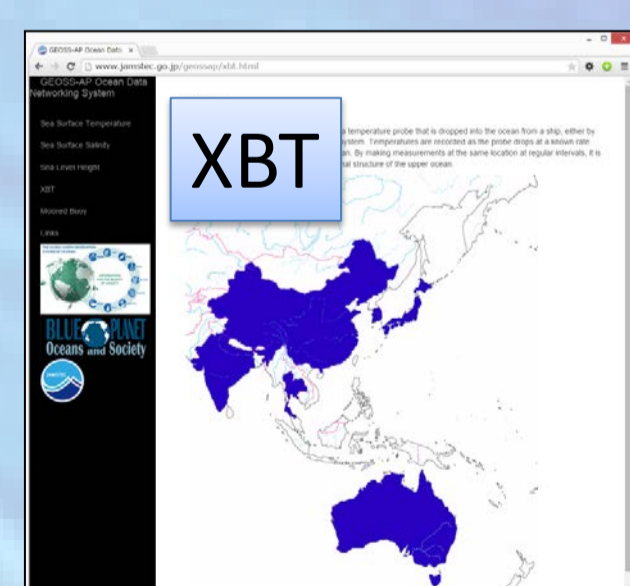
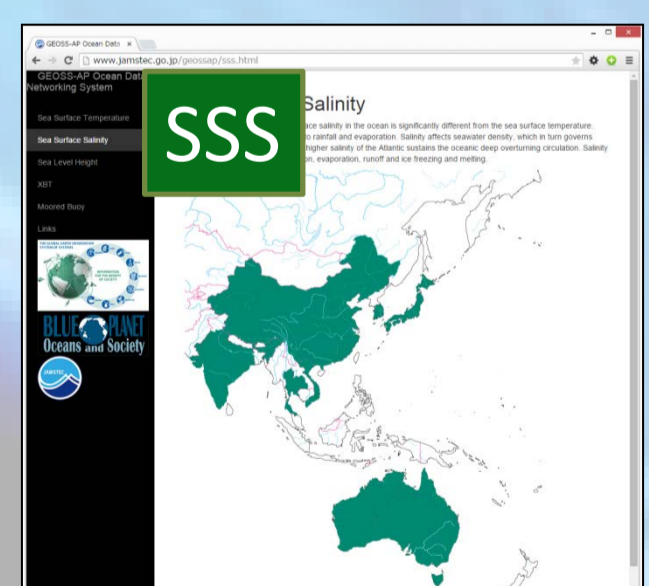
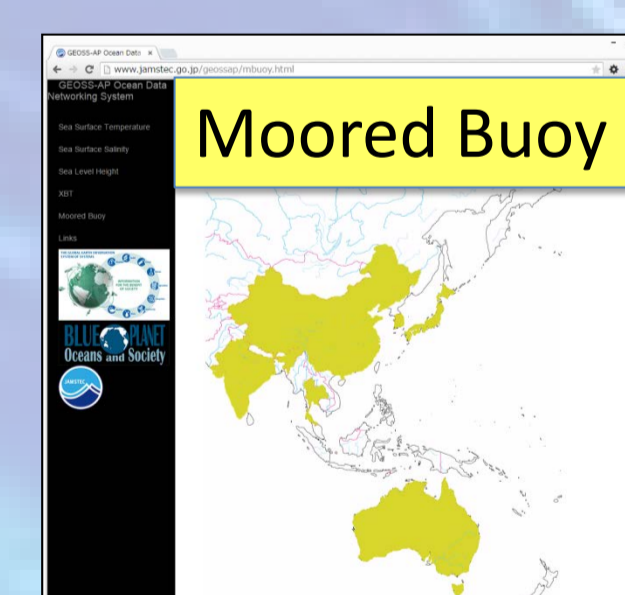
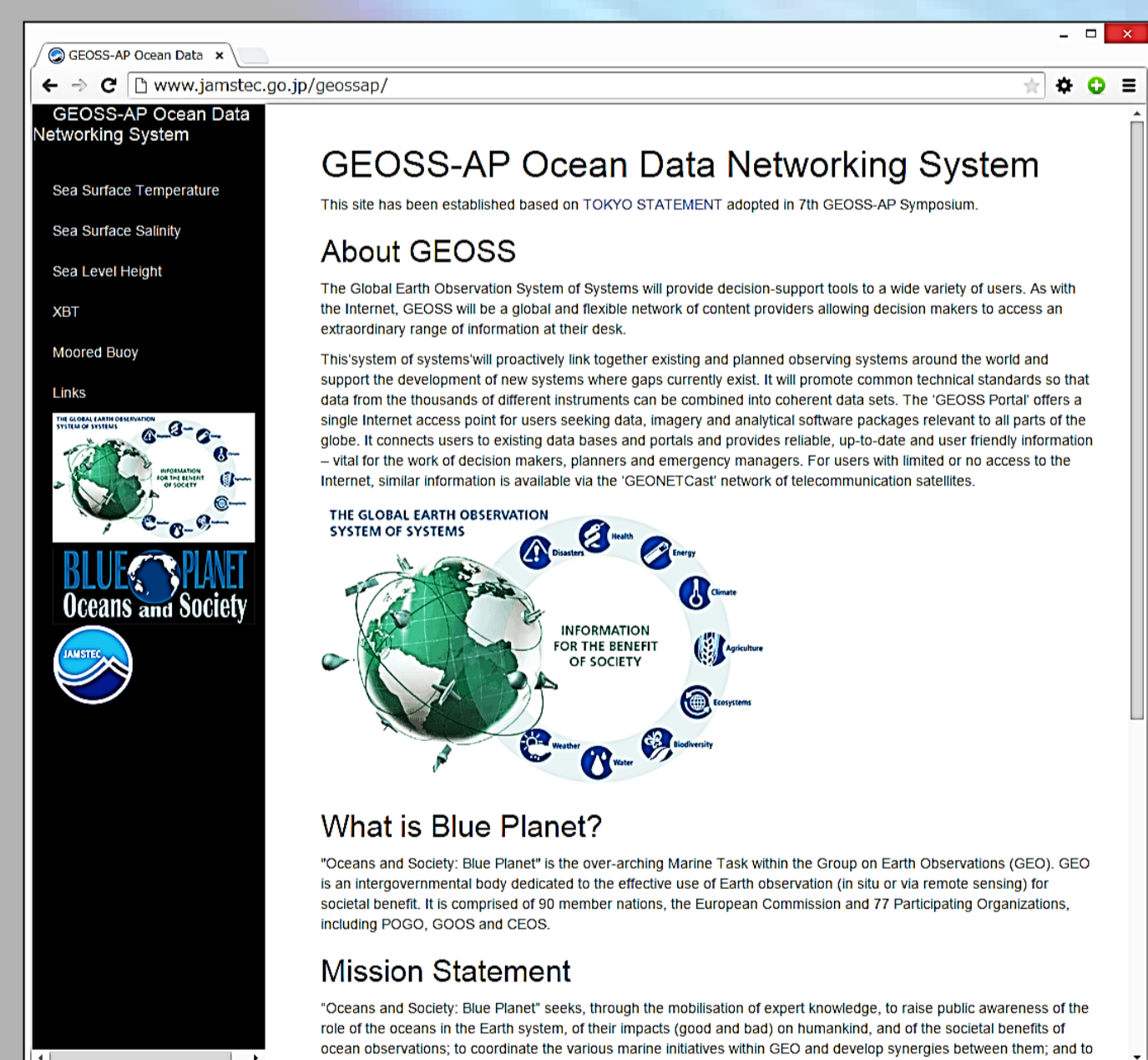


Data site of Asia Pacific countries:

- | | |
|---|---|
| <ul style="list-style-type: none">  Japan <ul style="list-style-type: none"> • NEAR-GOOS Regional Real Time Data Base • NEAR-GOOS Regional Delayed Mode Data Base | <ul style="list-style-type: none">  India <ul style="list-style-type: none"> • Indian National Centre for Ocean Information Services |
| <ul style="list-style-type: none">  Australia <ul style="list-style-type: none"> • Coastal Data Portal • Coastal Research | <ul style="list-style-type: none">  Thailand <ul style="list-style-type: none"> • Central Database System and Data Standard for Marine and Coastal Resources |
| <ul style="list-style-type: none">  China <ul style="list-style-type: none"> • NEAR-GOOS Real Time Data Base • China Delayed Mode Database for NEAR-GOOS | <ul style="list-style-type: none">  Vietnam <ul style="list-style-type: none"> • Not yet have Data site. Inquire by E-mail. • Vietnam's META-data is published in this web portal |
| <ul style="list-style-type: none">  Korea <ul style="list-style-type: none"> • Korea Real Time Database for NEAR-GOOS • NEAR-GOOS Korea National Delayed Mode Data Base | |

GEOSS-AP Ocean Data Networking System Web Portal:

Web data portal build via core framework(GYRE-System).
To encourage ocean research activities by searching the oceanographic data easily and speedily.
To give opportunities the countries which don't have the public data base site to disclose their meta information about their oceanographic data.



Core framework:

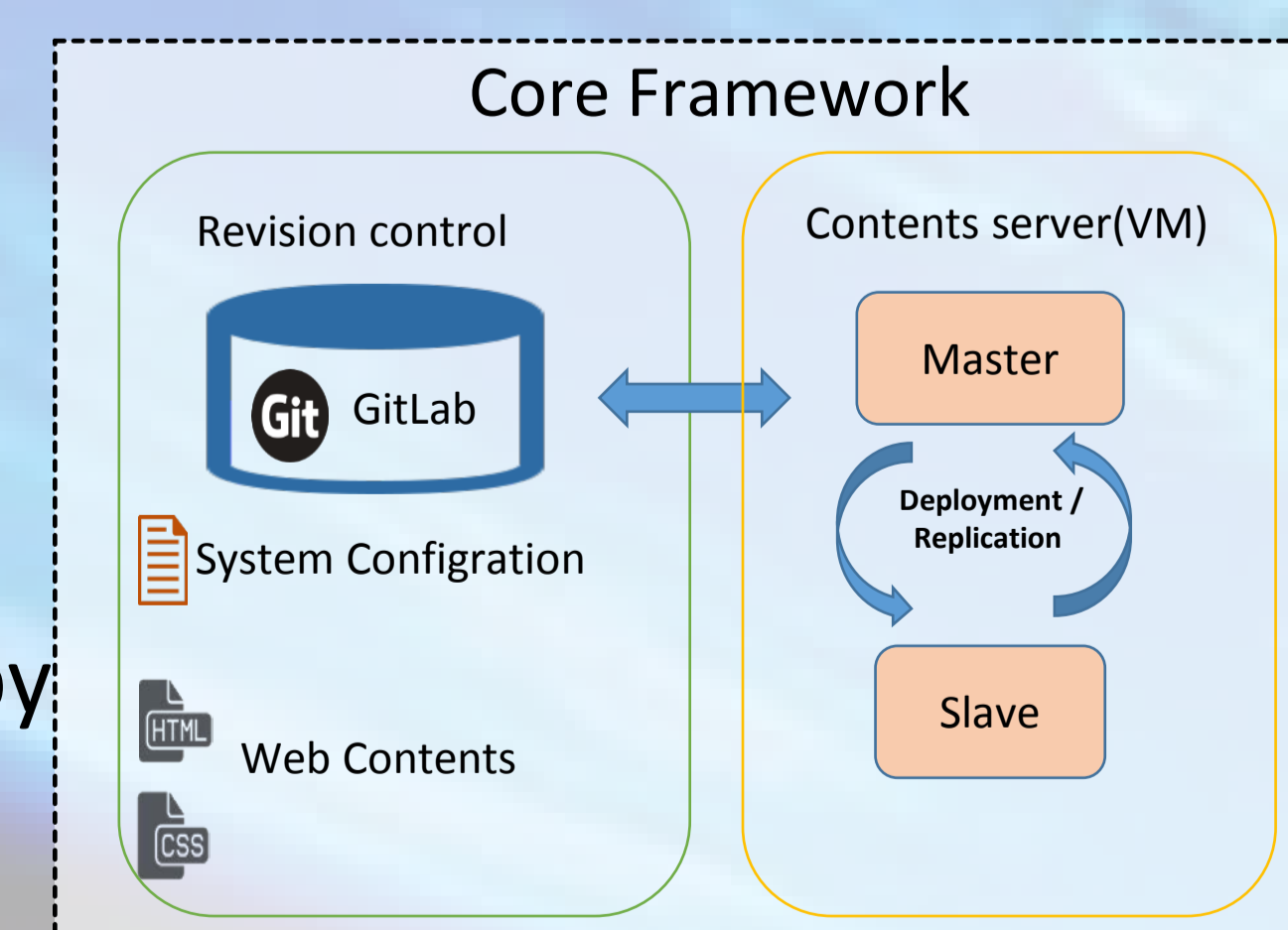
GEOSS-AP server auto deployment and replication environment system(GYRE-System)

Simplifies the server configuration management and content update system.

GYRE-System is a free and open source framework. Build a web server(nginx) on a virtual machine(Oracle Virtual Box)

Operating system and web server configuration managed by chef. Configuration file's version control managed by git

System requirement: Linux Operating System, Oracle Virtual Box, git and chef.



Future works:

- More data (various parameters) from wide variety of instruments
- Publication/distribution of improved API for our open data site
- Promotion of discussion on the unified data format through GEOSS-AP
- Continuously developing a system
 - Register and publish system
 - Visual search system