

Seafloor geodesy data standardization working group

Kickoff meeting 2022/10/19 12:00 UTC

Minute taker: Pierre Sakic

Version: 01b

NB: the meeting has been recorded and is available upon request

Goals of the working group

Enable the shareability of the seafloor geodesy data collected by the different working groups around the world

Give a better Visibility to those data

Respect FAIR principle (Findable, Accessible, Interoperable, Reusable)

A special accent has to be given to the Interoperability, i.e. the possibility to easily use data of one working group with the software of another one for instance.

Easily store data in existing repositories (David Schmidt: e.g. UNAVCO has funding to build it)

Address the request of standards from the repositories/data center teams

Which technique will be considered

We agree to consider in priority the GNSS/Acoustics, a technique regrouping the maximum of unitary observable. Nevertheless we keep in mind the other technique of the seafloor geodesy ecosystem, namely :

- Acoustic ranging
- Ocean bottom pressure sensors
- Tiltmeters
- Optical Fiber Strainmeter
- Seafloor gravimetry
- Mast Seafloor <>Surface combining GNSS+attitude measurement
- Multi-beam Bathymetry

Data Processing Level model

based on the NASA's Data Processing Level model, Martin H. raised the question on which level should we start ? Start higher level is maybe easier

Level 0 is manufacturer-dependant and they are reluctant to share their internal standard (John DS.)

Which level for the new/not expert user ? => High level is better (James F.)

The working group must decide what is the minimum data requirements to achieve a GNSS/A positioning (Kido-san) This idea is confirmed by Yokota-san & Watanabe-san.

David S. asks how the Japanese working groups share their data => Kido-san: the difference between each teams are known, and a potential conversion is easy

James F. : GARPOS standard (Watanabe et al., Japanese Coast Guards) is a really good basis for discussion

David S. : David Chadwell's (SIO) work, pursued by John DeSanto is also a good starting point.

John DS raises the question of the metadata. How to store the metadata along the data themselves.

Pierre S present a draft for a DPL model for GNSS/A. It can be a good exercise to complete it to have an exhaustive model.

Future actions

A new meeting is planned for the end of November.

Each working group will present his input/output data formats in a short presentation.

In the meantime, the working group can fill a descriptive sheet (file attached)

A dedicated mailing is created

<https://groupes.renater.fr/sympa/subscribe/seafloor-geodesy-data-standardization>

A dedicated Google Drive is set

<https://drive.google.com/drive/folders/1qQQt5WolTIs4qgVQPEufAuYecu7txZs5?usp=sharing>