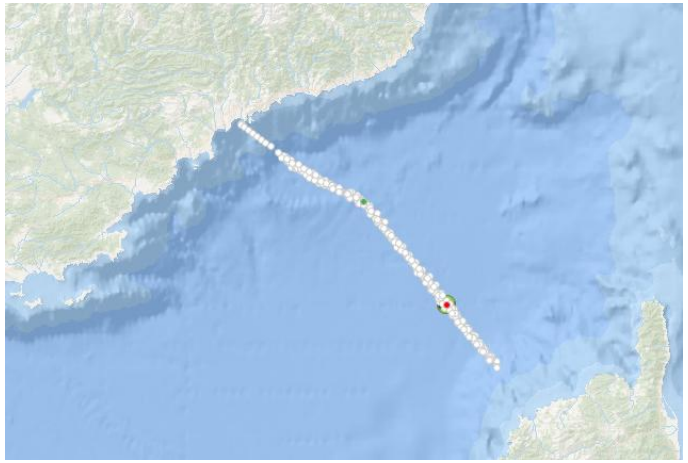
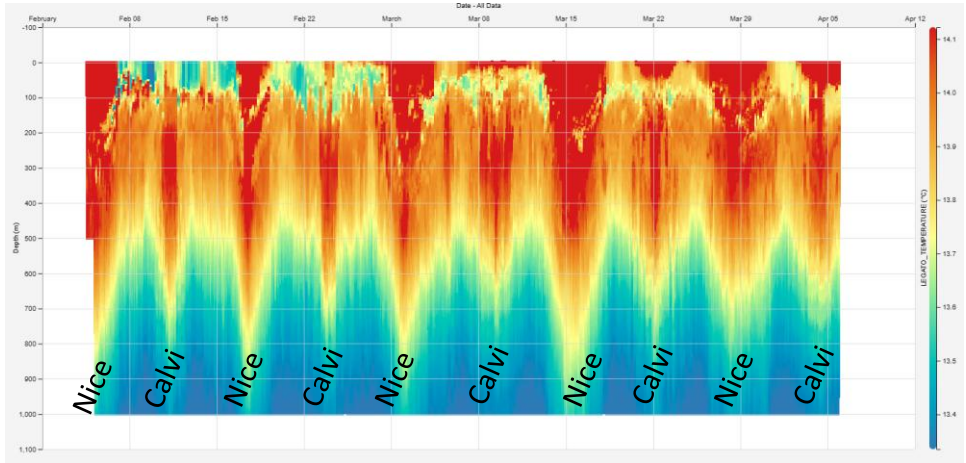

# Mission in Morocco
# Opportunity to use a SeaExplorer glider

# Underwater gliders

An ocean glider is a slow moving autonomous, unmanned underwater vehicle used for ocean science. Since gliders require little or no human assistance while traveling, these little robots are uniquely suited for collecting data in the water column, from surface up to 1000m depth with a horizontal speed of 1km/h.

Gliders may be equipped with a wide variety of sensors to monitor temperature, salinity, currents, acoustics and other ocean conditions. This information creates a more complete picture of what is happening below the ocean surface, as well as trends scientists might not otherwise be able to detect from satellites or large research ships.





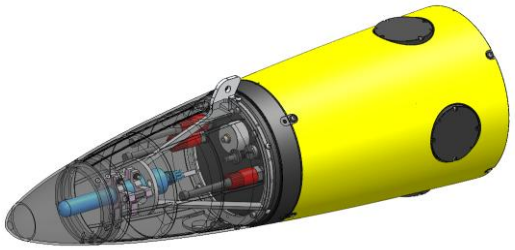

Example of a temperature profiles from a SeaExplorer glider going from Nice to Calvi between february 4th to March 6th 2026

# SEAEXPLORER - *Payload proposal*

For this mission, 2 different payloads are proposed to scientists.

Physical oceanography and Zooplankton

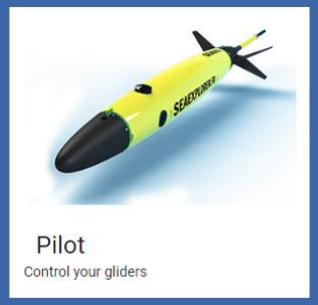
- RBR - LEGATO
  - Conductivity
  - Temperature
- RBR - CODA
  - Dissolved oxygene
- RBR - TRIDENTE
  - Fluorescence in CHLA
  - Florescence in CDOM
  - Turbidity
- NORTEK - AD2CP
  - Currents
- Hydroptic - UVP6
  - Zooplancton images



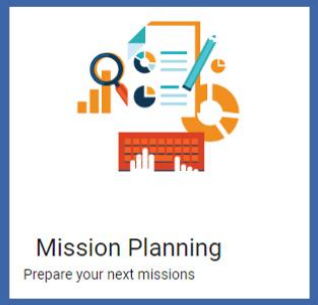
Physical oceanography and Acoustics

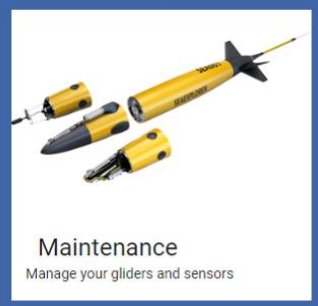
- RBR - LEGATO
  - Conductivity
  - Temperature
- RBR - CODA
  - Dissolved oxygene
- RBR - TRIDENTE
  - Fluorescence in CHLA
  - Florescence in CDOM
  - Turbidity
- Turbulent research - Porpoise
  - Single hydrophone acoustic recorder

GLIMPSE
ALSEAMAR

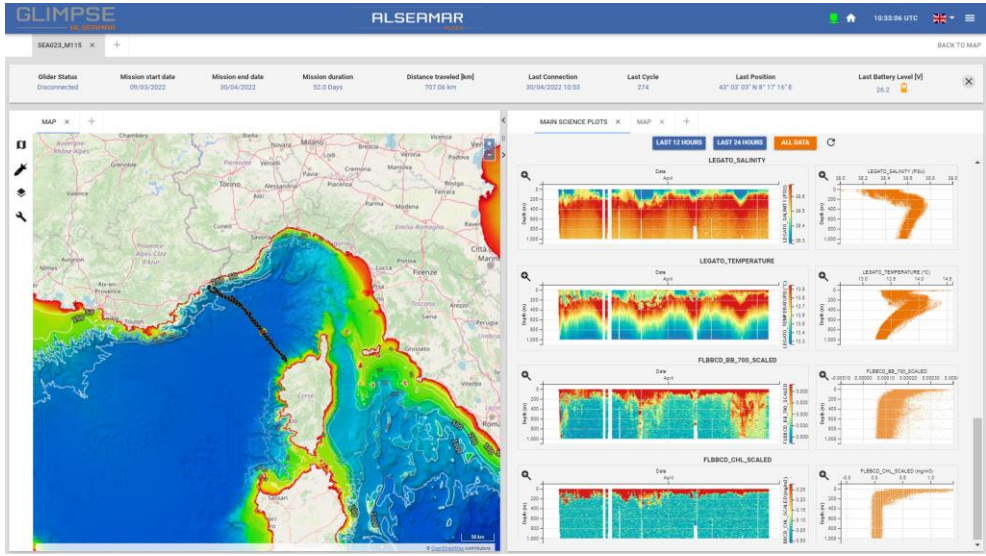







# Mission organisation




- Before the mission
  The SeaExplorer glider will be prepared by Alseamar team according to the user needs. This glider will be tested in northern mediterranean sea.
- During the mission
  user will follow the mission in real time including scientific data visualization and will be able to request a modification of the mission to the glider pilots
- After the mission
  Alseamar scientific team will help the user with the dataset and will perform all specific operations (ADCP calculations, zooplankton analysis …)



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# To go further

- Understanding underwater gliders
  - https://www.youtube.com/watch?v=L4xHD5y6DU4
  - https://www.youtube.com/watch?v=P1sZRVzKWVY

- Papers from ODYSSEA Mission in Marocco
  - https://journals.nasspublishing.com/index.php/sms/article/view/2162/1082
  - https://jcr.kglmeridian.com/view/journals/coas/113/SI/article-p1049.xml