Philibert ADAM

Boatbot Experiments

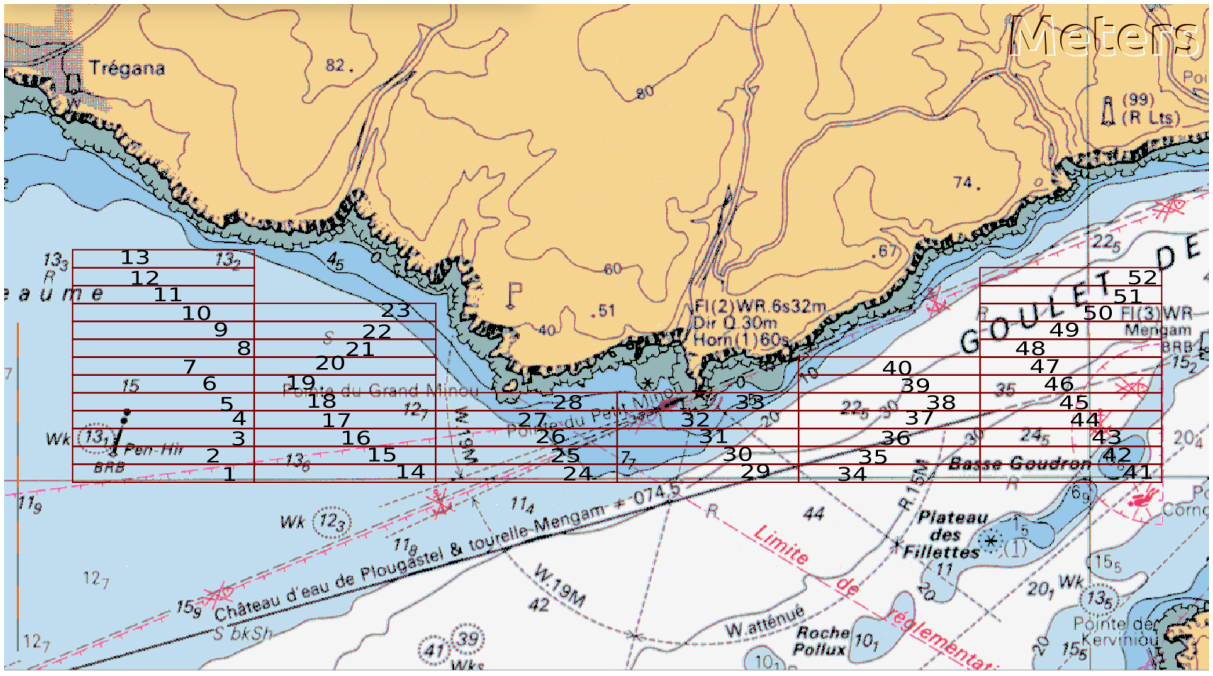
June 14th, 2019

Objective

- Test of secondary (and smaller) controller setup
- Gather Magnetic, GNSS-Data on Brique 10

Area of Deployment

Brique 10 of search area for La Cordelière



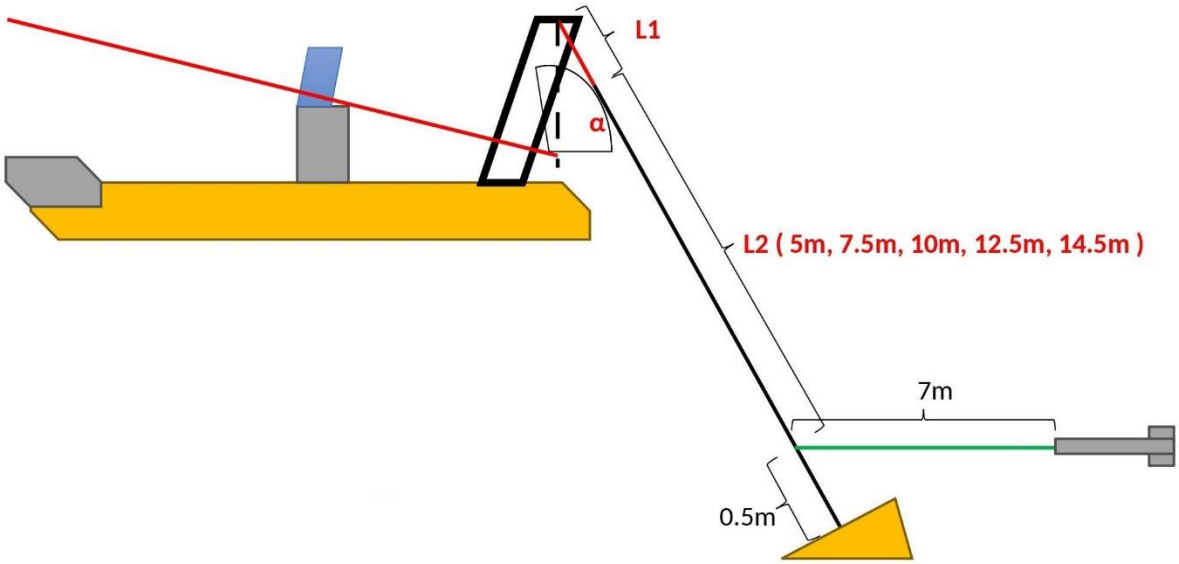
Maritime Weather

- High to low tide
- 4kts currents
- Wind from Southwest-West
- Over 1m swell

Boatbot Setup

- L1 ≈ 0.5m
- L2 = 12.5m
- α ≈ 57°
- Small Controller Box
    - See config.yaml for controller setup
- Depressor, Magnetometer, IMU, GNSS
- Navigation Computer (Boatbot)

- Data Computer (Hydro)



Participants

- Calvin Lacher (External Intern)
- Joshua Francis (External Intern)
- Philibert ADAM (Student Intern)

Results

- Small Controller worked
- Brique 10 completed
  - Retrieved magnetic data
  - Retrieved GNSS data
- Water depth: 16-19m
- Sensor depth:
  - Magnetometer: ~7m
  - Depressor: ~7.5m

Problems

- RTK-Connection not stable
- Strong currents
  - Made going from east to west difficult without putting high stress on depressor rope
  - Difficult to keep constant speed of ~4kts during brique
- High swell made it difficult to set everything up
- Boat went in snake lines because of the currents