May 15, 2025 . Marine Geophysics
Jack Logan

Notes from previous group:
- Layers!!!
- Glares
- Explore mixing depth in shallow vs deep water

Safety: / Team Members:
Julia Berglund: Crew Chief
Jack Dollar: Safety Lead
Jack Logan: Data Lead
Anna Melegari: Data Garu
Paige Dompier
TA: Jackson Krieger
Collin Beyers
Bia Villas Boas

Weather: 0900: 27°F Mostly cloudy
Feels like 23°F
High: 54°F
70% chance of sleet
10-15 mph winds, 20-30 gusts

- Joanna is ~~mean~~ mean about hats

Emergency Information:
911
Matt Siegfried: (317)
Joanna Millstein: (914)
Marine Channel: Dewalt 3

Equipment + Hazards:
- Boat very unstable, cannot move abruptly
  ↳ even weight distribution
- Be careful around ropes
- Carry fire extinguisher for Motor
- Keep rope from meter

Site Specific Hazards:
- Water → Life jackets
- Sunscreen
- Drawn Hazards
- Wind
- Very cold water
  ↳ do not panic
- Relay all hazards to Bia

- If someone ends up in water:
  - Yell "Man overboard!!"
  - Point to person's location at all times
  - TA's throw life ring
  - Pull person ~~over~~ back in at safe location
  - Wrap submerged person in heat blankets

- If you Fall in:
  - Relax, grab life jacket at chest
  - Lay back remain calm
  - Grab ring, do not scramble back to boat

Scale: 1 square = _____

Rite in the Rain

May 15, 2025

Jack Logan

Site Information:

Name: Stagecoach Reservoir Marina

Coords:

Visitor Center:

Dock site 1: 0342393 m
4460848 m

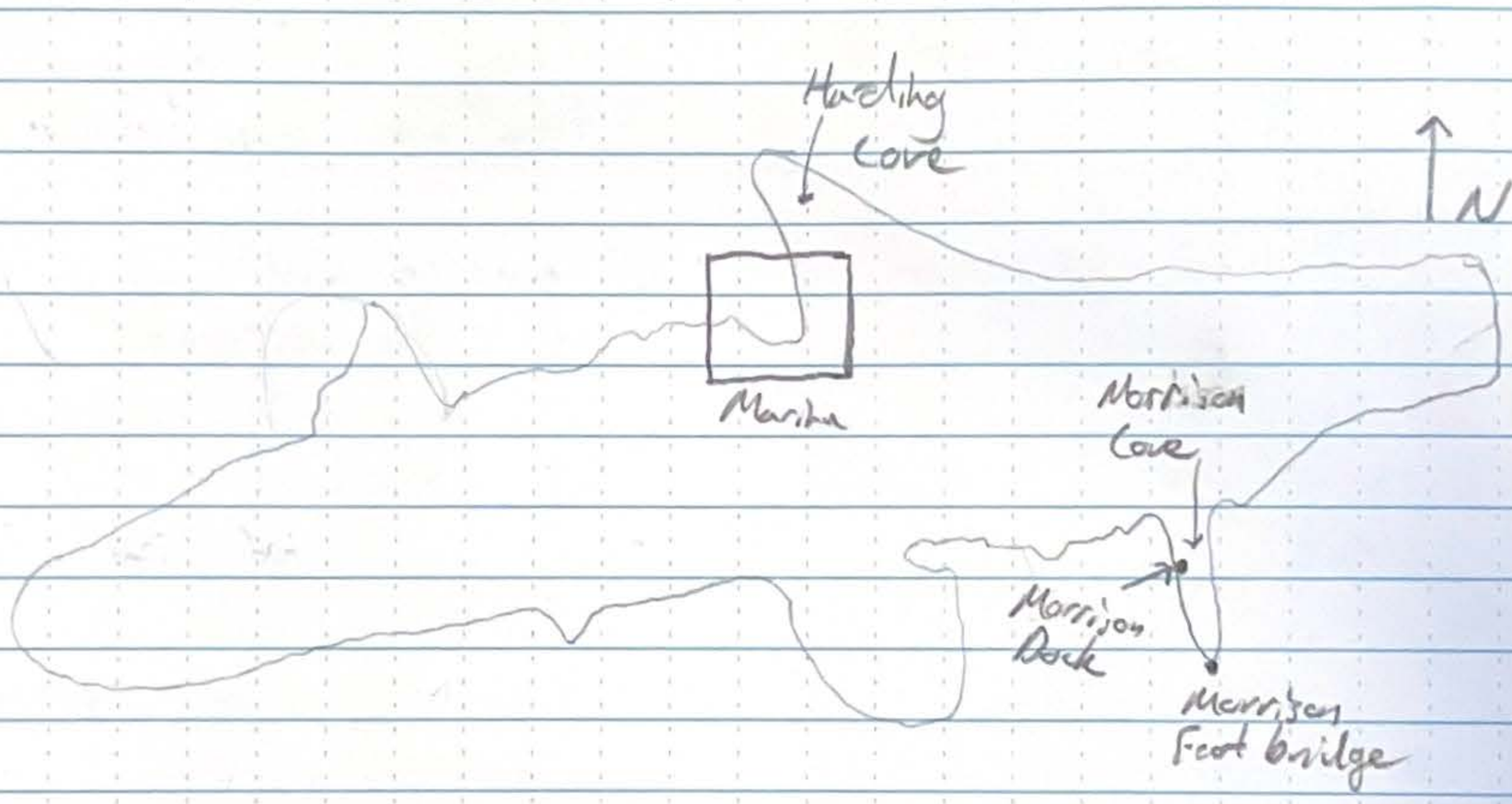
Dock site 2: 0342420 m
4460867 m

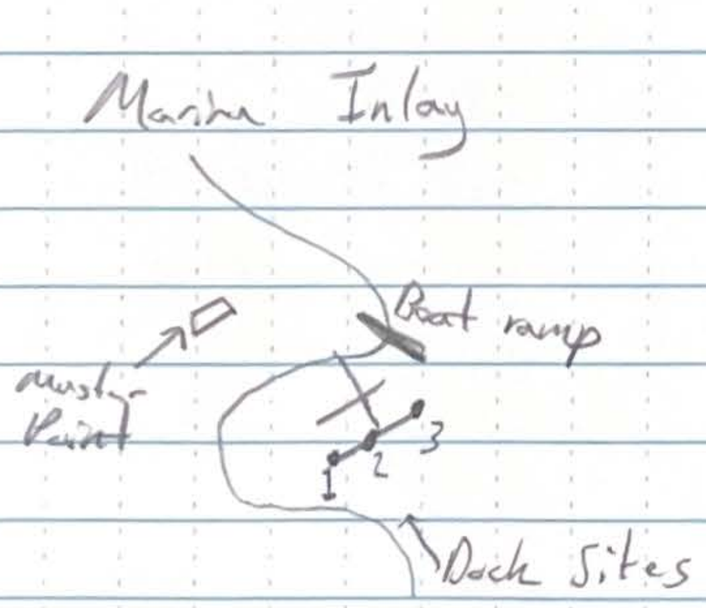
Dock site 3: 0342444 m
4460888 m

Master Pt: 0342260 m
4460888 m

Morrison Cove Marina: ~~0340~~ 0343369 m
4460076 m

Conditions: Currently sunny, typical marina. At day progressed, wind, hail and rain made the area muddy and slippery





Scale: 1 square = _____

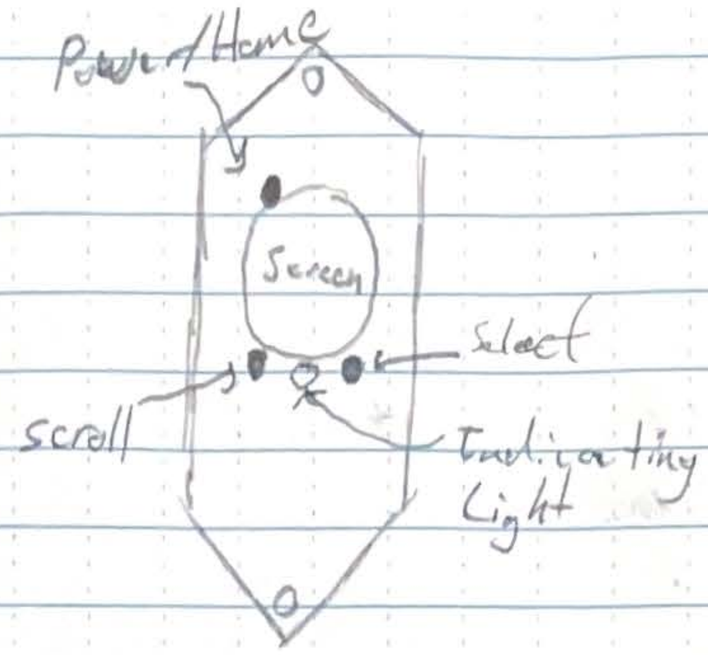
Jack Logan

Survey:

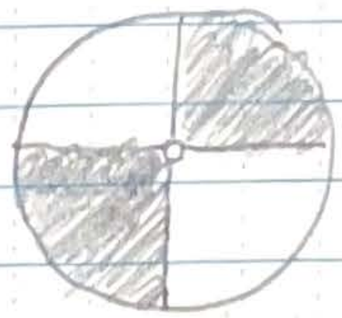
- Equipment:

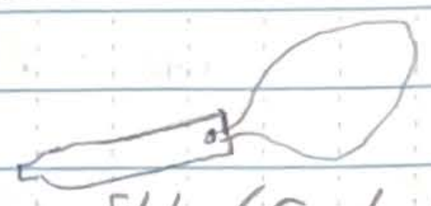
  - CTD + Stylus
  - Rope
  - Spool
  - Life Jackets
  - Secchi Disk
  - Boat

CTD



Secchi Disk





- Casting Procedure:

  - Using stylus, select "Cast" measurement

  - Say "Ready to Cast"
    ↳ Wait for Bin to say "Cast Away"

  - Say "Casting"
    ↳

  - Drop cast into water, let free-fall

  - After it bottoms, pull the CTD up
    ↳ ensure someone is winding the spool

  - Say "cast Clear"

  - Stop measurement by pressing any button

- Plan: - Record cast at each Rock Station.
  - Collect data in Harding sound
    ↳ keep boat close as weather may deteriorate
  - Collect another Rock cast when boat returns
  → Break for lunch
  - Collect cast data ~~until~~ every 30 minutes until time to leave.

* This did not happen

* Arrive at Marina: 1045
  ↳ sunny clouds in distance

Data Collected:

- Dock Round 1:

Sample 1: Time - 1159
Depth - N/A
Station - 1
* Null measurement - not enough slack

Sample 2: Time - 1157
Depth - 7.2m
Station - 1

Sample 3: Time - 1200
Depth - 8.34m
Station - 2

Sample 4: Time - 1210
Depth - 9.24
Station - 3

* Shifting to boat data collection

* Weather moves in (Snow, sleet, wind). Break for lunch 1215

NO MARINE ACQUISITION
- Lightning in Area, shelter in place

- Dock Round 2:

Sample 1: Time - 1328
Depth - 8.26m
Station - 2

* Break again for weather 1330
* Move boat at ~1350 once weather clears, docked in marina for tomorrow's group.

Scale: 1 square = _____

- Dock Round 3:

Sample 1: Time - 1403
Depth - 7.09 m
Station - 1

Sample 2: Time - 1405
Depth - 9.23m
Station - 3

* Snow + Hail roll in at 1410, break

* Relocate to Morrison Cove Bridge
- Bridge over Little Morrison Creek
- Collect temperature where creek interfaces with lake

- Morrison Creek Footbridge:

Sample 1: Time - 1453 * Too shallow for a cast
Depth - NA

Sample 2: Time -
Temp - 7.40°C
Type - Point

Sample 3: Time -
Temp - 7.93°C
Type - Point

* Move to Morrison Cove Marina to collect on the dock

- Morrison Cove:

Sample 1: Time -
Depth - 5.71m
Type - Cast

* Return to main Marina to collect final Rock Casts

- Ctd Round 4:

Sample 1: Time - 1535
Depth - 7.22m
Station - 1

Sample 2: Time - 1536
Depth - 8.38 m
Station - 2

Sample 3: Time - 1537
Depth - 9.24m
Station - 3

Data Collection/Storage:

- Data is stored in the field camp data repository:
  gpgn486-2025-data/Lake/2025-05-15/data

- The data is stored in CSV files. Each cast has its own file

- The file is % commented. Comments contain location, time, sample type, and other useful processing parameters

- The columns are:
  Pressure (Decibar), Depth (Meter), Temperature (Celcius), Conductivity (MicroSiemens per Centimeter), Salinity (Practical Salinity Scale), Sound Velocity (Meters per Second), Density (Kilograms per Cubic Meter)

- No auxiliary datasets

- Data Lead: Jack Logan

- File name structure: ~~(Serial #)_YYYYMMDD_(UTC Time).csv~~

  CC2435009_20250513_182851.csv
  Device Serial number | Date Year, Month, Day | UTC Time

Scale: 1 square = _____