From: **Alana Sherman** geosense@listserver.mbari.org
Subject: [geosense] Discussion with Sintela
Date: July 2, 2025 at 9:40 AM
To: GeoSense Development Project List Server geosense@listserver.mbari.org

Hi all
I am sharing these notes from our call with Sintela, which took place this morning. I will place a copy of this email in the project library (located in the Project Data folder, which has a subfolder for deployments, and I have created a folder for Norway). Aaron M and I met with Andrew and David. Here is what we discussed:

1. If you have network access during the deployment, they will review the data and provide suggestions while you are in Norway. They don't need access to the instrument, but you can screen share over Zoom, and that will be sufficient. Andrew suggests starting with the gauge length at the default, which is set to 6.33 m. You can adjust this in the following location: Optical Settings > Advanced > RF and Sequencing on the right-side panel. The options are set to fixed lengths, so you do not need to enter a number. There is a loss of resolution as you change this option.

2. There are a couple of suggestions to geolocate the channels on the cable:
    a. David suggested that you could buy cold spray and that if you spray it on a section, you will see just that channel- it won't impact the other channels. This is a great trick we should remember, but it does not work on buried cable, so
    b. You can push a stick down above the cable, making a small pressure signal. This should work as well.
    c. Andrew suggested that for each layer of the spiral, you denote the location at N, S, E, W., and you should be able to interpolate in between

3. Time syncing:
    1. There may be a GPS input to our instrument; we will connect the instrument to the network next week to update the software and verify this. If it is implemented, then we can attach a GPS antenna, and that will handle keeping the time from drifting
    2. We can connect an NTP server to the network and utilize it. I will purchase one so we can have it here next week for testing.
    3. The maximum drift is about 1 second a day without either of these methods

4. Event syncing: There is no input for an eternal trigger to sync events. We will need to use the GPS or NTP server to mark the time when events occurred.
5. Software: We will update the software to a new version next week. It will include:
    a. working OTDR
    b. ability to record without the high-pass filter to catch events at one mHz
    c. Possibly a higher ping rate option
6. Record at a higher rate: Paul asked if we could record at a higher rate than 1 kHz. We can change this in the following place: Engineering tab -> Analysis -> Decimator. I will take some screenshots to share with you.

7. Other notes: Andrew thought the cable on the surface and covered with sand would work quite well, despite not being buried.

Aaron, please add anything I may have forgotten. I will send a separate note about some discussion of the LRAUV stuff.

Alana