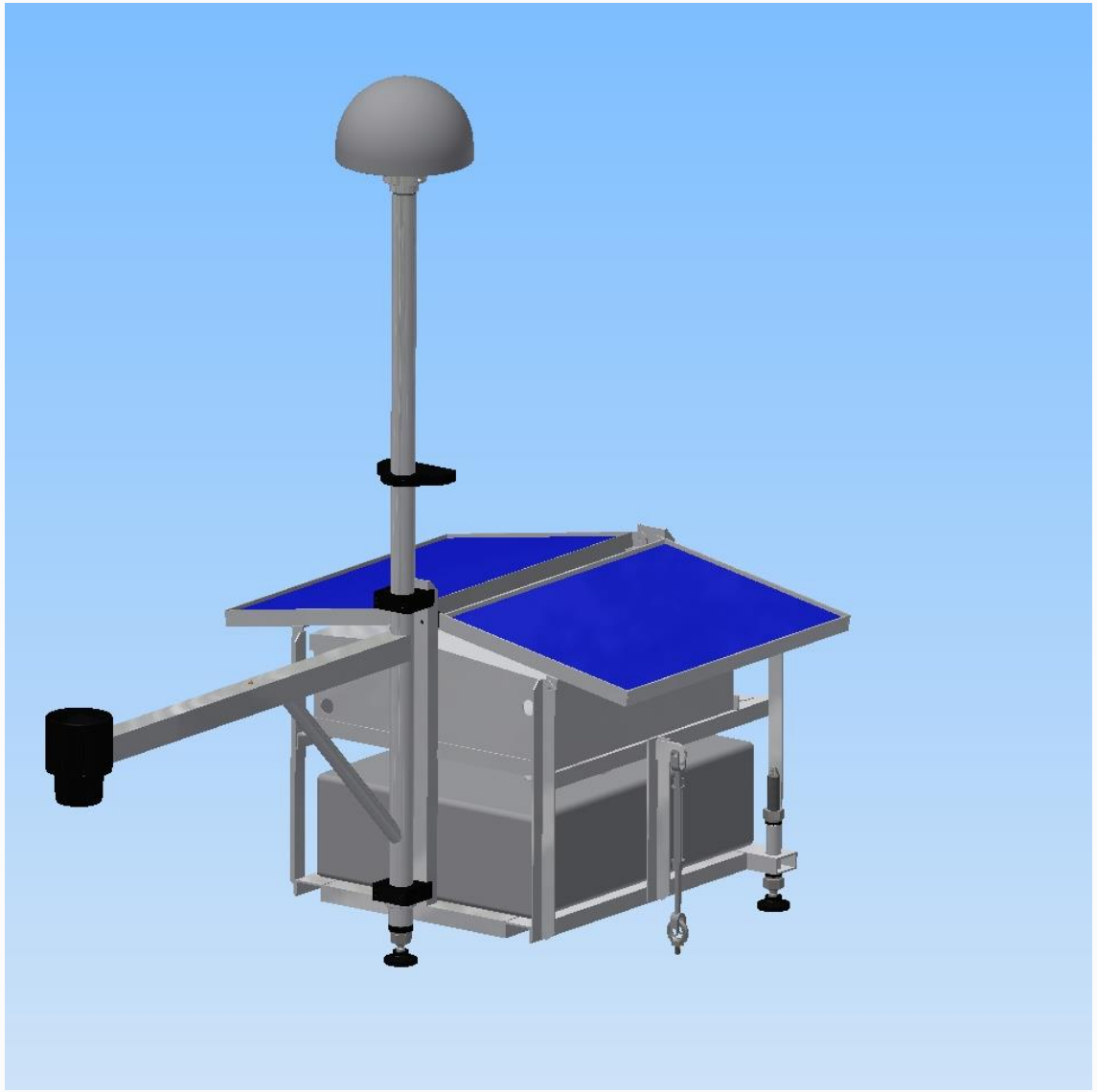
National Oceanography Centre

PASS-SWIO

Portagauge Design

PASS-SWIO PortaGauge

- PortaGauge is a portable tide gauge that is designed to be easily transportable from site to site.
- It is a stand-alone system.
- It is powered from rechargeable batteries.
- The batteries are charged via solar panels.
- A radar sensor measures the sea level height.
- A GNSS (Global Navigation Satellite System) measures vertical land movement.
- A water filled tank provides ballast for stability.

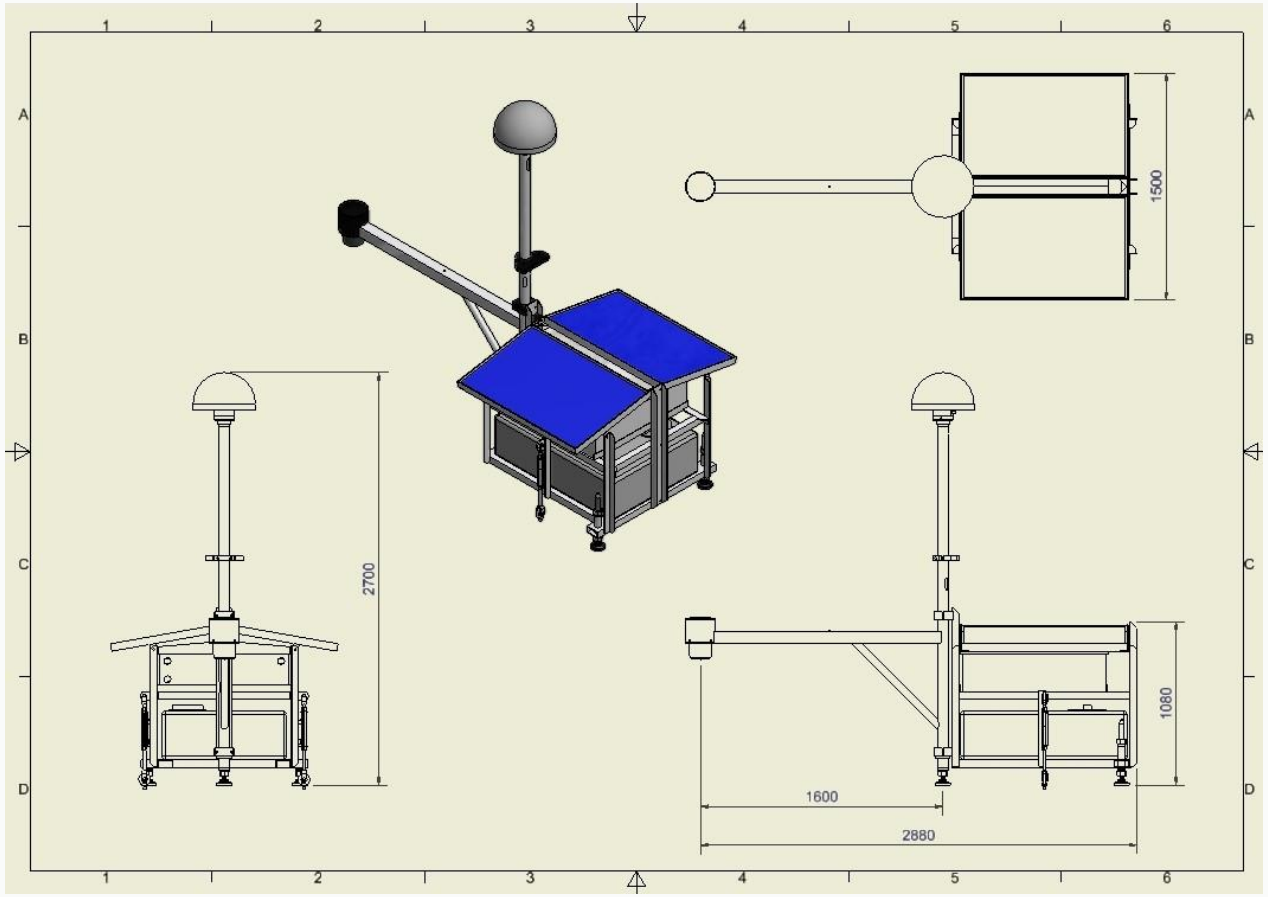


PortaGauge Instrumentation

- PortaGauge consists of a datalogger, radar sensor, barometer and a GNSS.
- Vegapuls 6X radar provides readings for sea level.
- Vaisala barometer is used to measure atmospheric pressure.
- Sutron Satlink3 datalogger is used to record sea level measurements from the radar.
- Trimble GNSS measuring vertical land movement and sea level, is also installed.
- 4G mobile network is used for data recovery.

PortaGauge Construction

- PortaGauge dimensions 2.88m x 1.5m x 2.77m
- The frame is constructed from Aluminium.
- A water tank is used to provide ballast for stability.
- Instrumentation is housed in fibreglass cabinets and placed inside a steel box.
- The solar panels are installed above the steel box on a hinge mechanism, for easy access.
- The GNSS antenna is mounted on a rigid mast.



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Thank You

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