

Meteorological Stations

Tower

Telemetry and Data Logger

Multi-parameter sensor: wind speed, direction, rainfall, rainfall intensity,
barometric pressure, air temperature, relative humidity

Pyranometer

Photosynthetically active radiation (PAR)

Soil moisture and temperature

Snow depth (sonic ranging)





Midlake Buoy – Flathead and Kentucky

3-Point Mooring

Surface:

Telemetry and Data Logger

Meteorological

wind direction, speed

barometric pressure

relative humidity

photosynthetically active radiation (PAR)

air temperature

Subsurface:

Thermistors (temperature) (every 1 m to 30 m, then 5m to 115m)

Multi-parameter sonde (5m, 10m, 20m?)

pH/ORP

ROX optical dissolved oxygen

conductivity/temperature

chlorophyll

phycocyanin (blue-green algae)

turbidity?

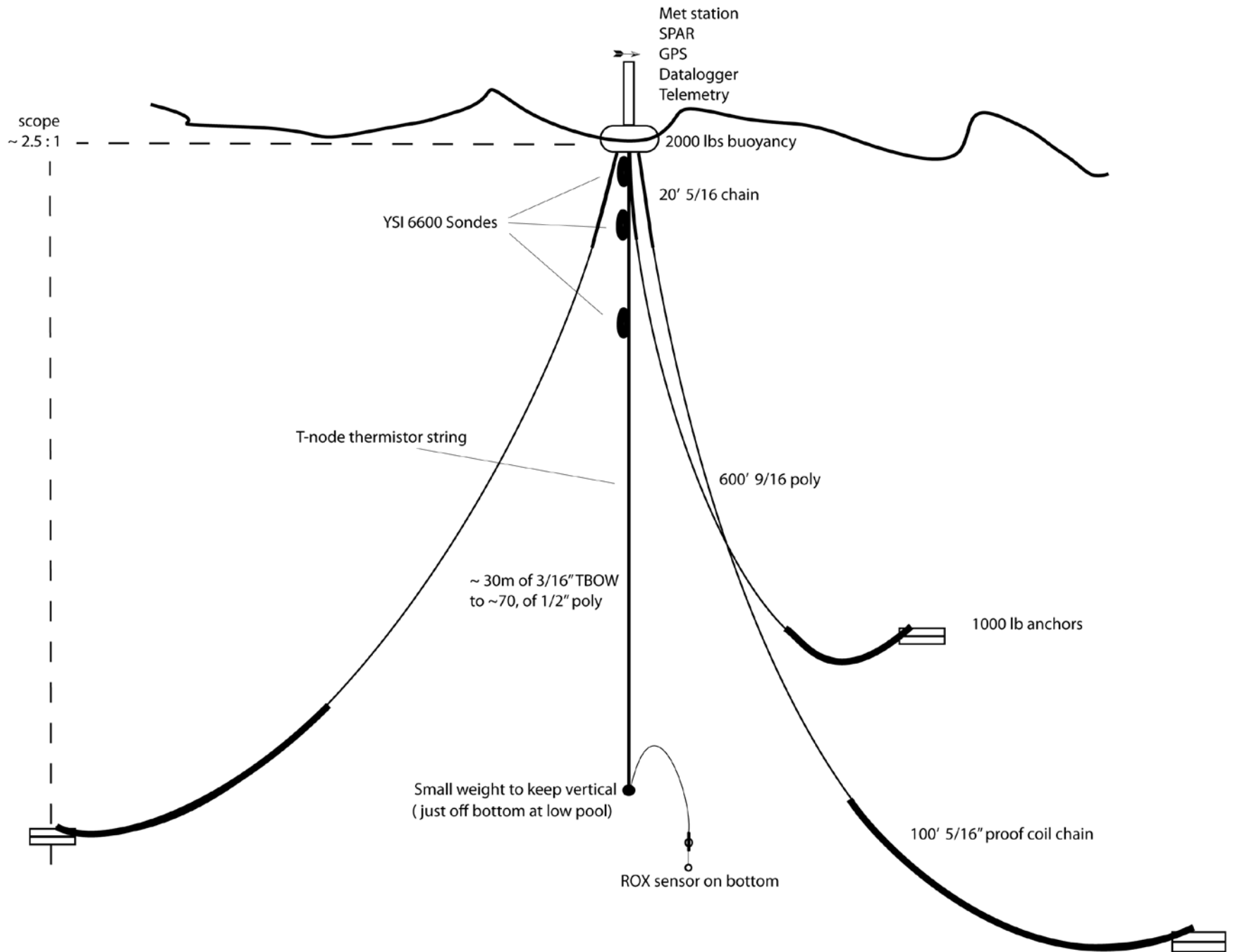
ROX optical dissolved oxygen (less than 1 m off lake bottom)

Photosynthetically active radiation (PAR) (5m, 10m, 20m)

Colored Dissolved Organic Matter?

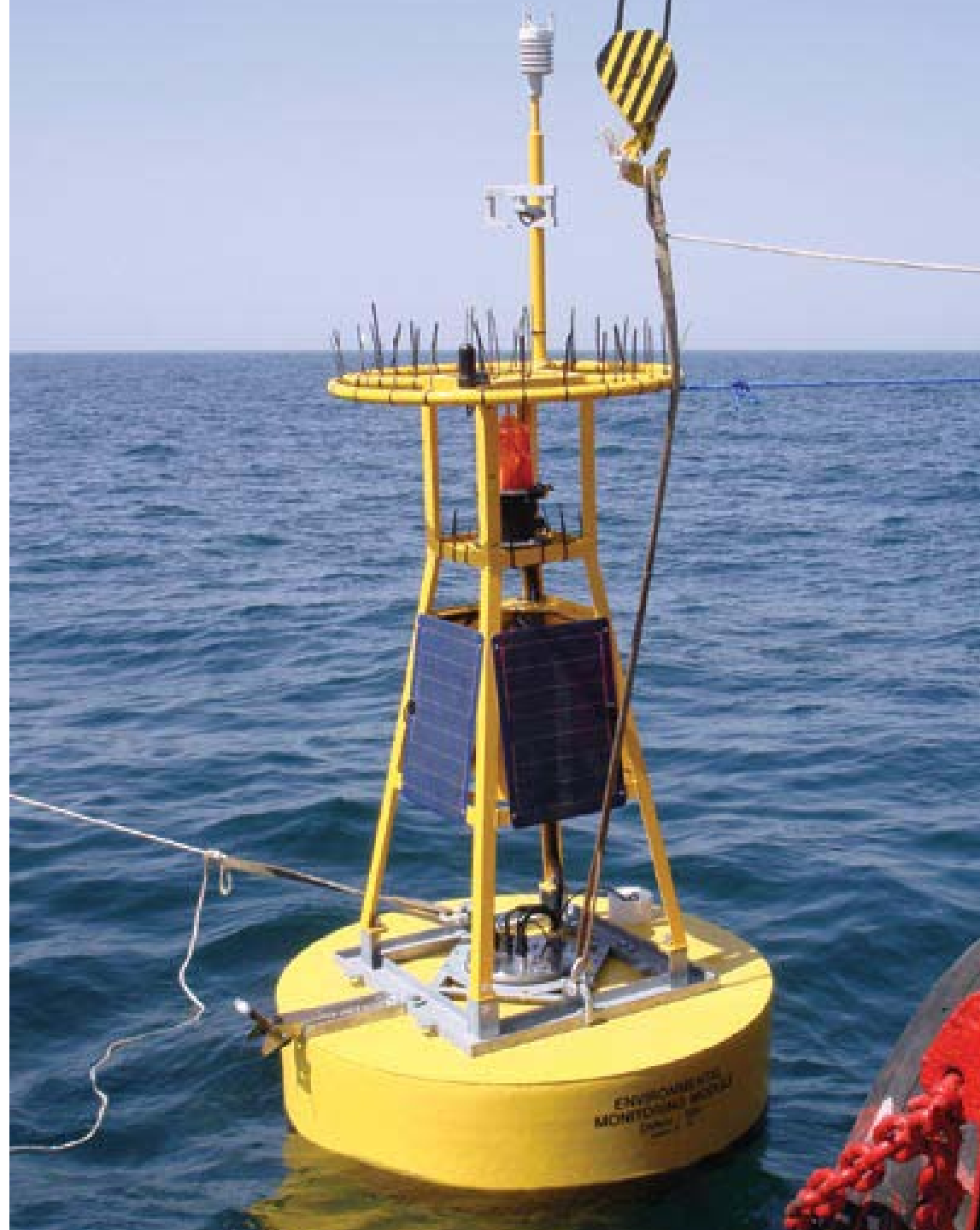
Sediment traps

Acoustic Doppler Profiler



YSI EMM2000 Buoy

- 5.5 ft in diameter
- 10.8 ft in height
- softlite lonomer foam hull, aluminum, galvanized steel
- 2000 lb buoyancy weight
- 675 lb gross weight
- tower height 6.2 ft



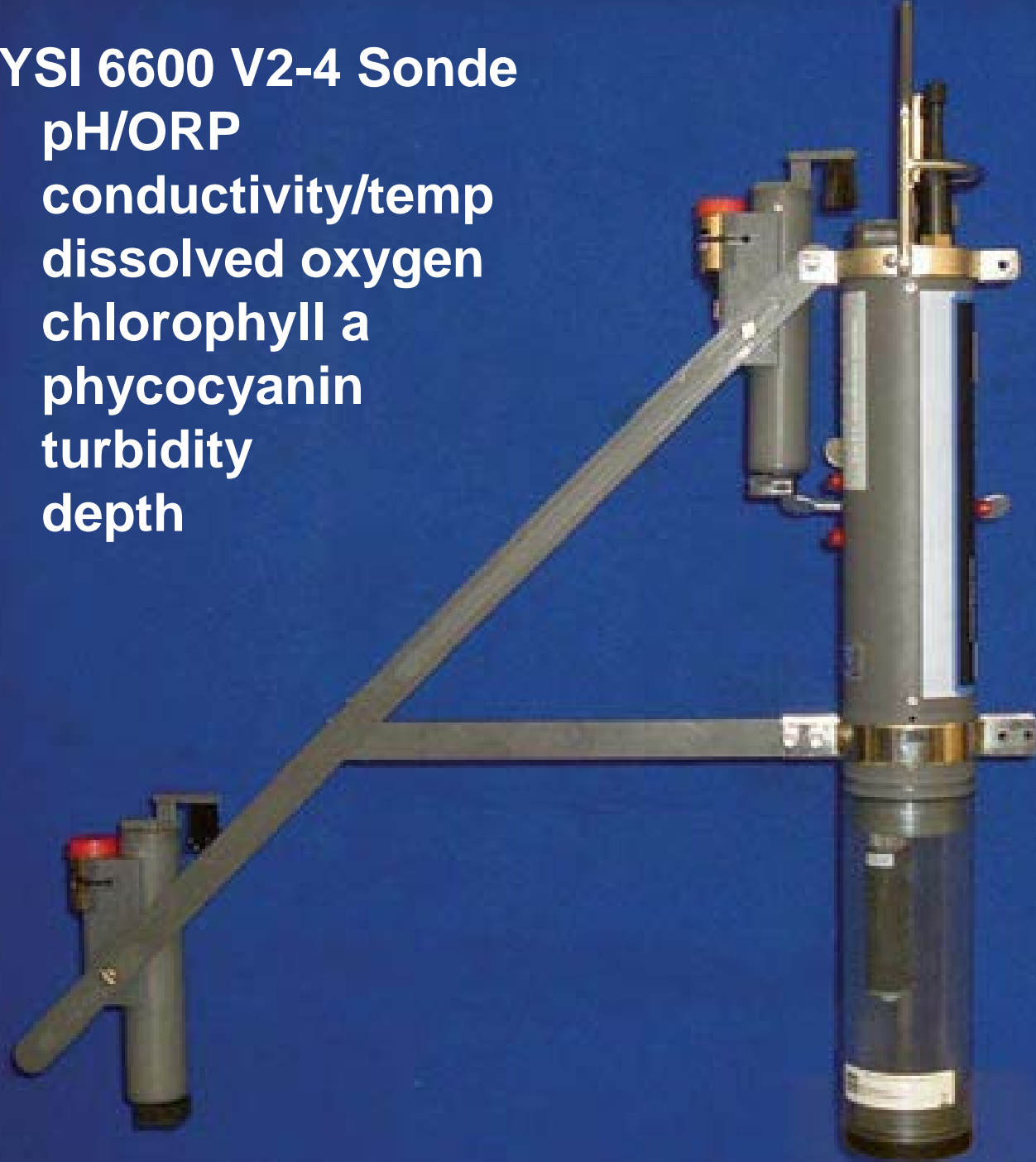




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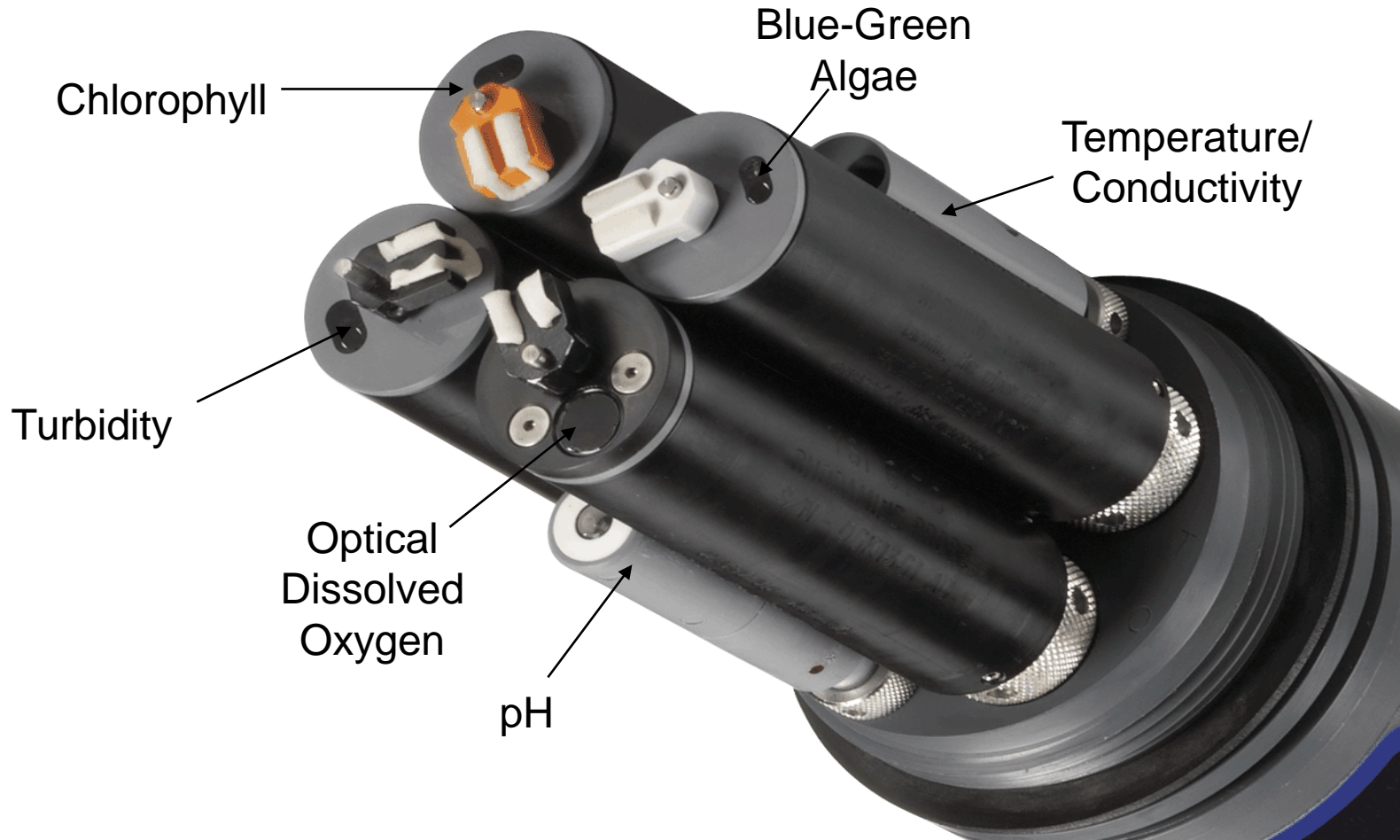


YSI 6600 V2-4 Sonde
pH/ORP
conductivity/temp
dissolved oxygen
chlorophyll a
phycocyanin
turbidity
depth



YSI 6600v2

- YSI 6600v2
 - Multi-parameter sonde



PAR Underwater Sensor



deployed **without** wiper



deployed **with** wiper

Satlantic Nitrate Sensor

- detection 7 ug/L

- accuracy 28 ug/L



