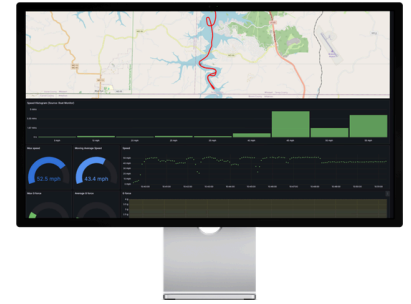


# Sensor Marine Vessel Lab

Sensor Marine



## Bring the Lab to the Water

Sensor Marine Vessel Lab is the engineering analytics service that turns your sea trials into live, cloud-delivered insight – utilizing the award winning Sensor Marine Boat Monitor platform.

## Run it. Measure it. Refine it.

Critical data from every test run appears on a dashboard designed for R&D teams:

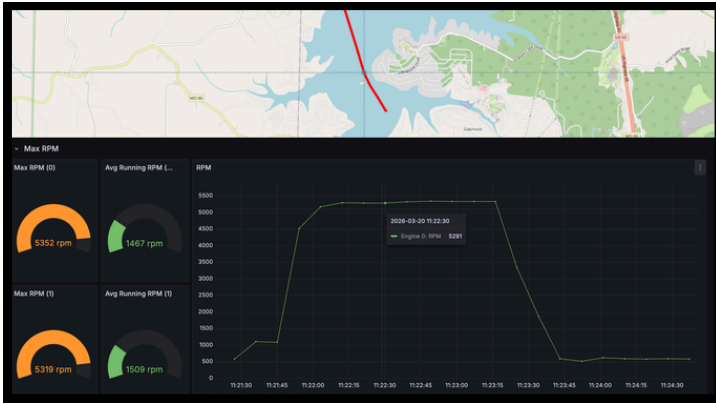
- **Speed, position, and heading** – captured by the Boat Monitor's integrated GPS, independent of any other electronics on board. Works on bare prototypes with nothing else wired in.
- **Impact G-loads** – logged continuously by the Boat Monitor's built-in 3-axis accelerometer, geo-tagged to the exact wave or maneuver that caused them. No extra IMU to install.
- **Engine RPM, trim, and boost pressure** – pulled off the NMEA 2000 bus in real time
- **Fuel flow, engine hours, and temperatures** – see efficiency curves build as the boat runs
- **Propeller, trim, and setup comparisons** – run back-to-back trials with data captured for comparison before the boat is back on the trailer

See data visually, adjust time spans to zoom in on key moments, and export raw data for further analysis.

*Your test captain runs the boat.*

*Your engineers watch the data from  
the office — or from anywhere.*





Vessel Lab - Web Dashboards

## CAPTURED EVERY FIVE SECONDS...

Source	Data Captured
Sensar Marine (BM700)	GPS position, speed, heading, 3-axis G-force / impact, battery voltages, bilge pump activity
PGN 127488 (Engine Rapid)	RPM, boost pressure, engine trim/tilt
PGN 127489 (Engine Dynamic)	Fuel flow, engine hours, coolant temp, oil pressure, oil temp, alternator voltage
PGN 127505 (Fluid Level)	Fuel and water tank levels
PGN 129026 (COG & SOG)	Course and speed over ground from N2K GPS (redundant to native GPS)

Multi-instance support for multi-engine boats. Export data for additional analysis. Additional PGNs (trim tabs, rudder angle, wind, depth, etc.) available – pushed remotely, no site visit required.

Engine Parameters, Dynamic PGN: 127489											
Time	alternator_potential	deviceID	engine_coolant_tare	engine_discrete_a	engine_discrete_sta	engine_instance	engine_oil_pressure	engine_oil_temp_cK	engine_temp_cK	fuel_pressure_kPa	fuel_L
2020-04-16 11:23:44	1405	0012460029c0e917	1051	0	0	1	5755	3801	33015	0	0
2020-04-16 11:23:44	1438	0012460029c0e917	1010	0	0	0	5810	3821	33015	0	0
2020-04-16 11:23:35	1405	0012460029c0e917	1138	0	0	1	5864	3801	33015	0	0
2020-04-16 11:23:35	1441	0012460029c0e917	1098	0	0	0	5788	3811	33015	0	0
2020-04-16 11:23:26	1400	0012460029c0e917	1244	0	0	1	5963	3781	33015	0	0
2020-04-16 11:23:26	1437	0012460029c0e917	1199	0	0	0	5897	3801	33015	0	0


Engine Parameters, Rapid Update PGN: 127488						
Time	deviceID	engine_boost_pressure_kPa	engine_instance	engine_speed_1_4th_rpm	engine_trim_pct	instance
2020-04-16 10:22:10	0012460029c0e917	443	0	2332	1	0
2020-04-16 10:22:10	0012460029c0e917	461	1	2364	0	1
2020-04-16 10:22:19	0012460029c0e917	435	0	2498	1	0
2020-04-16 10:22:19	0012460029c0e917	460	1	2384	0	1
2020-04-16 10:22:29	0012460029c0e917	412	0	2380	1	0
2020-04-16 10:22:29	0012460029c0e917	438	1	2484	0	1

Raw Data Export

**Vessel Lab Pricing**  
 \$1,495 per boat per year  
 +required hardware


### Required Hardware

**Boat Monitor**  
BM700, \$399



3.8" x 4.4" x 1.4"  
15oz

**Expansion Hub**  
EH700, \$399



5" x 5.5" x 1.3"  
16 oz

