

Spotter Buoy • *Access Real-Time Surface Data*



A flexible and rapidly deployable metocean buoy that delivers real-time wave spectra, wind (derived), sea surface temperature, and atmospheric pressure data.

- 1 Instant Data Access**
View observations of waves & other surface variables in real time via dashboard and API to improve operational safety & efficiency.
- 2 Scalable**
Significantly lower total cost of ownership vs. traditional platforms. Easily deploy a network to maximize spatial density.
- 3 Rugged & Reliable**
Engineered to operate continuously in harsh marine conditions, from polar ice to extreme heat.

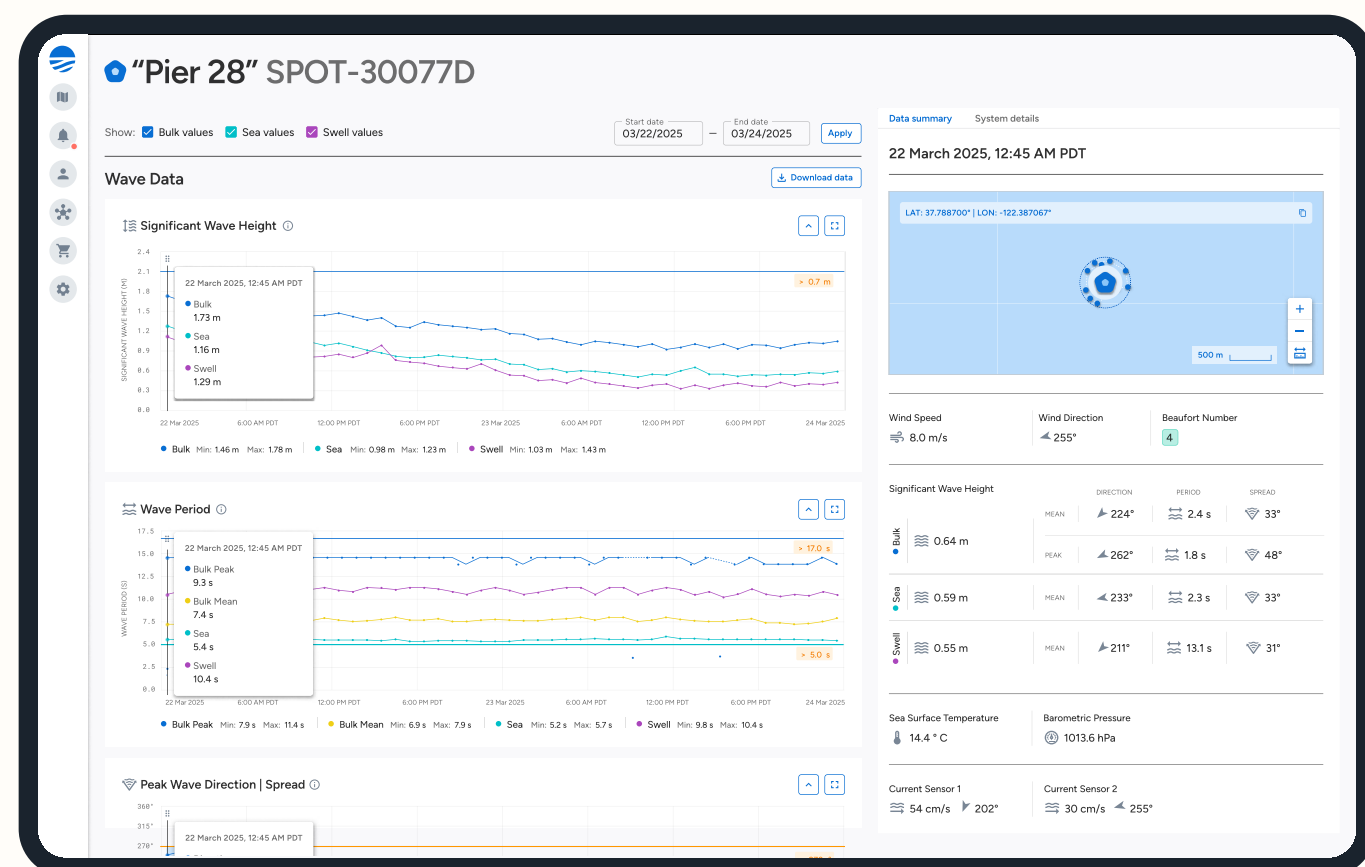
Spotter Measurements Wave & Wave Spectra — Wind (Derived) — Sea Surface Temperature — Atmospheric Pressure

User-Friendly Dashboard & API

View data sent in real time via satellite/cellular or download historical data stored in the cloud.

Remotely adjust settings and initiate over-the-air firmware updates with two-way communication to reduce downtime.

Leverage API to build custom dashboards that visualize forecast data and direct observations.



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Core Specifications

Dimensions	Width: 42 cm (16 in), Height: 31 cm (12.2 in)
Weight	7.45 kg (16 lb 7 oz)
Connectivity	Satellite (Iridium SBD) and Cellular
Primary Power Source	Solar-powered, 5× 2 Watt, 6 Volt solar panels
Battery	Rechargeable lithium-ion 13,400 mAh capacity, 3.7 Volts

Motion Sensing

Motion Data Format	Easting (mm), northing, elevation, latitude, longitude
Wave Frequency Range	0.03 - 0.8Hz (30s - 1.25s)
Wave Direction Range	0 - 360°
Sampling Rate	2.5Hz
Wave Displacement Accuracy	Approximately ±2cm accuracy depends on field of view, weather conditions, and GPS system status

Data Outputs

	Standard Mode	Spectrum Mode	On Device
Significant Wave Height	●	●	● *
Peak Period	●	●	● *
Mean Period	●	●	● *
Peak Direction	●	●	● *
Mean Direction	●	●	● *
Peak Directional Spread	●	●	● *
Mean Directional Spread	●	●	● *
Variance Density Spectrum	○	●	●
Directional Moments (a1, b1, a2, b2)	○	●	●
3D Displacement Time Series @ 2.5 Hz (x,y,z)	○	○	●
Sea Surface Temperature	● **	● **	● **
Barometer	●	●	●
Wind Speed	●	●	○
Wind Direction	●	●	○
Drift Speed	○	○	● *
Drift Direction	○	○	● *
Geographical Coordinates (lat, lon)	●	●	●

Additional Onboard Sensors

Sea Surface Temperature (SST)

Accuracy	±0.1°C absolute
Resolution	±0.02°C
Range	-5°C - 50°C

Barometer

Accuracy	±0.5mbar at 25°C
Range	700 - 1100mbar

Data Storage

- Onboard (SD Card)**

Records time series of 3D displacement data, ships with 16GB SD card (supports up to 2TB, FAT32 format required)
- Cloud Storage (Online Dashboard)**

Online account includes real-time and historical data outputs, Spotter configurations, alerts, maps, and two-way communication

Misc. Specifications

- System Monitoring**

Battery voltage, solar panel power, internal humidity
- Advised Mooring Depth**

5 - 300m
- Visibility Light**

.5s flash every 2.5s (configurable), minimum 1 mile visibility in normal conditions
- Firmware Updates**

USB-C and over-the-air updates (cellular only)
- Usability**

Physical on/off switch, run/idle magnetic toggle, user LEDs and integrated grab handles

*Can derive from SD card data
**Sea Surface Temperature is not available with Smart Mooring