

# SPOTTER BUOY PROGRAM



SeaKeepers partners with SoFar, a company dedicated to creating pervasive sensor networks that understand and monitor ocean environments and provide critical data for ocean enthusiasts, industry, and conservation. They accomplish this by integrating three different but critical perspectives: deep domain expertise in oceanography; human-centered product design; and the engineering know-how to get it all done.

## OCEAN DATA SIMPLIFIED

SoFar's first product, Spotter, is their initial contribution towards drastically simplifying and democratizing the collection of ocean data. The Spotter system is a low-cost, solar-powered ocean wave measurement and tracking device, fully integrated in an online dashboard. Through it, you can receive real-time data, status updates, and configure your devices remotely. All you have to do is turn the Spotter on to start collecting real-time data.



Ocean Spotter Sensor | Credit: SoFar Ocean

## SPOTTER BUOY

The Spotter Buoy is a compact, solar-powered, surface-follower, which measures surface waves and currents. This device is the result of extensive research and experimentation with low-cost sensing strategies for ocean waves. By integrating GPS, satellite communication, and solar technology, the Spotter overcomes battery storage limitations and can operate anywhere in the world. Spotters are compact and light so they can be deployed from any size vessel.



Deploying a Spotter | Credit: SoFar Ocean

## REAL TIME DATA ACCESS & LIVE TRACKING

Data collected by Spotters is transmitted to SoFar's own database. From there, it can be used by other entities to help improve ocean weather forecasting and be an open source of data for academic research. The broader implications are that the technology can help vessel captains and those studying weather systems and climate change with real-time ocean data. The Spotter is designed to function indefinitely once deployed,

and each unit is solar powered and built to be as durable as possible. This differs from most traditional drifters, which have a finite lifespan and are limited by their battery supply. While SoFar's Spotters have a much longer useful lifespan, they still face the possibility of failing. For this reason, they are continuously monitored and tracked by GPS so that by the end of their third year at sea, they are checked to see if retrieval is necessary.