International Meteorological & Oceanographic Consultants

Corporate Profile

- **Company Name:** International Meteorological & Oceanographic Consultants Co.,Ltd.
- **Established:** 1970
- **Head Office:** 9F, Tsukiji Sanchome Building, Tsukiji 3-9-9, Chuo-ku, Tokyo 104-0045
- **R&D Office:** 7112-2, Hasaki, Kamisu-shi, Ibaraki 314-0408
- **Branch Offices:** Hokkaido, Osaka
- **President & CEO:** Yusuke Uchimura
- **Executive Vice President:** Azumi Kado

Field of Business ①Wind Power Generation

We conduct surveys, observation, analysis and other related work for offshore wind power generation projects, as well as small, medium, and large-scale onshore wind power generation projects.

Category	Item	Details
Analysis	Site Assessment	Wind/wave conditions, seabed topography/composition
	Weather	Wind conditions (including power generation forecasts, availability rate and capacity utilisation rate)
	Metocean	Waves, current, tsunamis, storm surge etc.
	Seabed/Sediment	Seabed topography (long-term and short-term forecasting), shoreline changes, sediment transport, scour volume, liquefaction
	Water Quality	Turbidity diffusion, etc.
	Underwater Noise	Underwater sound propagation
	Uptime Calculation	Construction works, maintenance (access vessel)
Survey/ Observation	Metocean	Wave/current conditions (seabed-mounted and floating)
	Weather	Wind conditions (metmast, Doppler LiDAR)
	Water Quality	Turbidity, water temperature, salinity, dissolved oxygen, chlorophyll, etc.
	Benthos	Particle size distribution, loss on ignition, sulphides, etc.
	Geophysical	Seabed topography survey (including scour survey), bathymetric survey
Planning	Fisheries	Investigation of regional/fisheries promotion and coexistence measures
		Fisheries operations, impact, and monitoring surveys
Other	Data Monitoring	Development + implementation of metocean data management systems

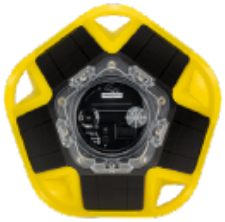
We are the exclusive distributor in Japan for the Spotter Buoy, a compact GPS-based wave observation buoy developed by Sofar Ocean(USA). Beyond sales, we also provide services including installation and removal. We also offer advanced wave forecasting services using Spotter data.

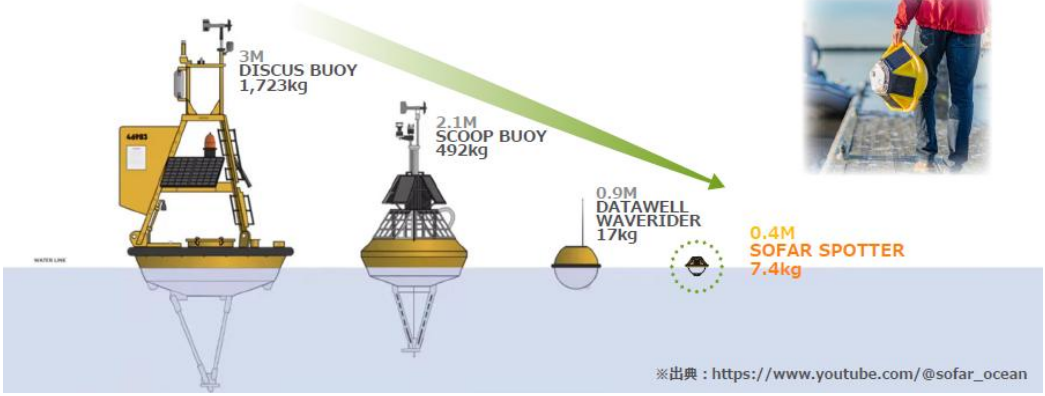
SOFAR

Spotter Buoy

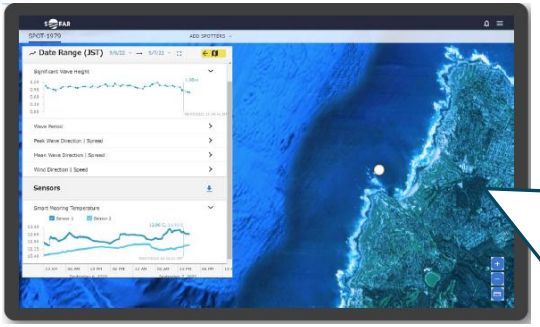
技術仕様

メーカー	Sofar Ocean Technologies,Inc.
寸法	W420×H310mm
重さ	7.45kg(バラストウェイト含む)
接続性	イリジウムSBD(サテライト)
電源	太陽光発電、2W、6Vソーラーパネル×5
バッテリー	リチウムイオン、容量11,200mAh、3.7V(充電式)





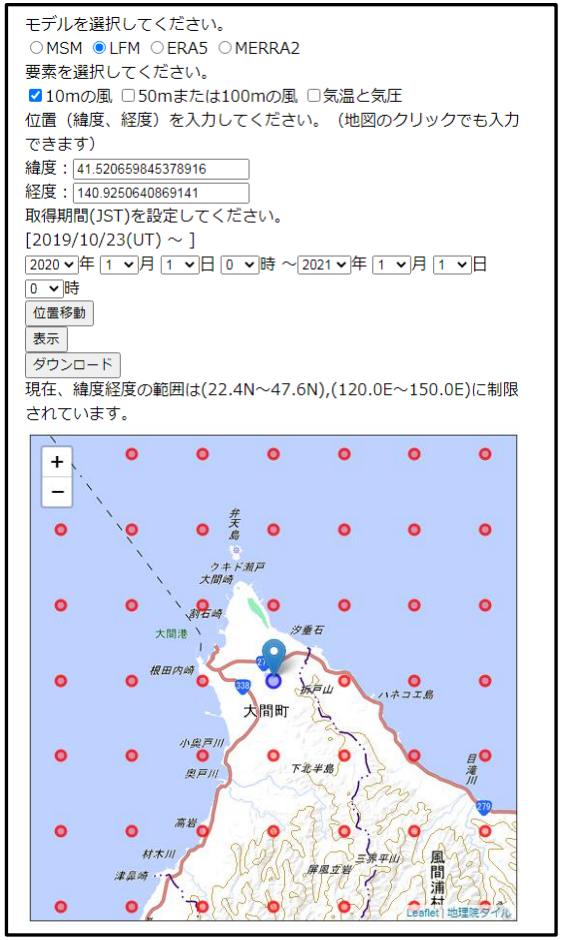
モーションデータ	東西成分、南北成分、高さ成分、緯度、経度
波動周波数レンジ	0.03～1Hz(30秒～1秒)
波向レンジ	0～360度(全方向)
サンプリングレート	2.5Hz
測定精度	波高：±2cm (視程、天候、GPSシステム配置による)
風向・風速	上記をもとに算出。
海面水温(SST)	レンジ　：-5℃～50℃、絶対精度：±0.1℃ 分解能：±0.02℃
気圧計	レンジ：700～1,100hPa 精度　：25℃で±0.5hPa
SDカード	3D変位時系列、16GB(最大容量256GB)
クラウドストレージ	リアルタイムおよび履歴データ出力、 Spotter設定、アラート、マップ、2way通信

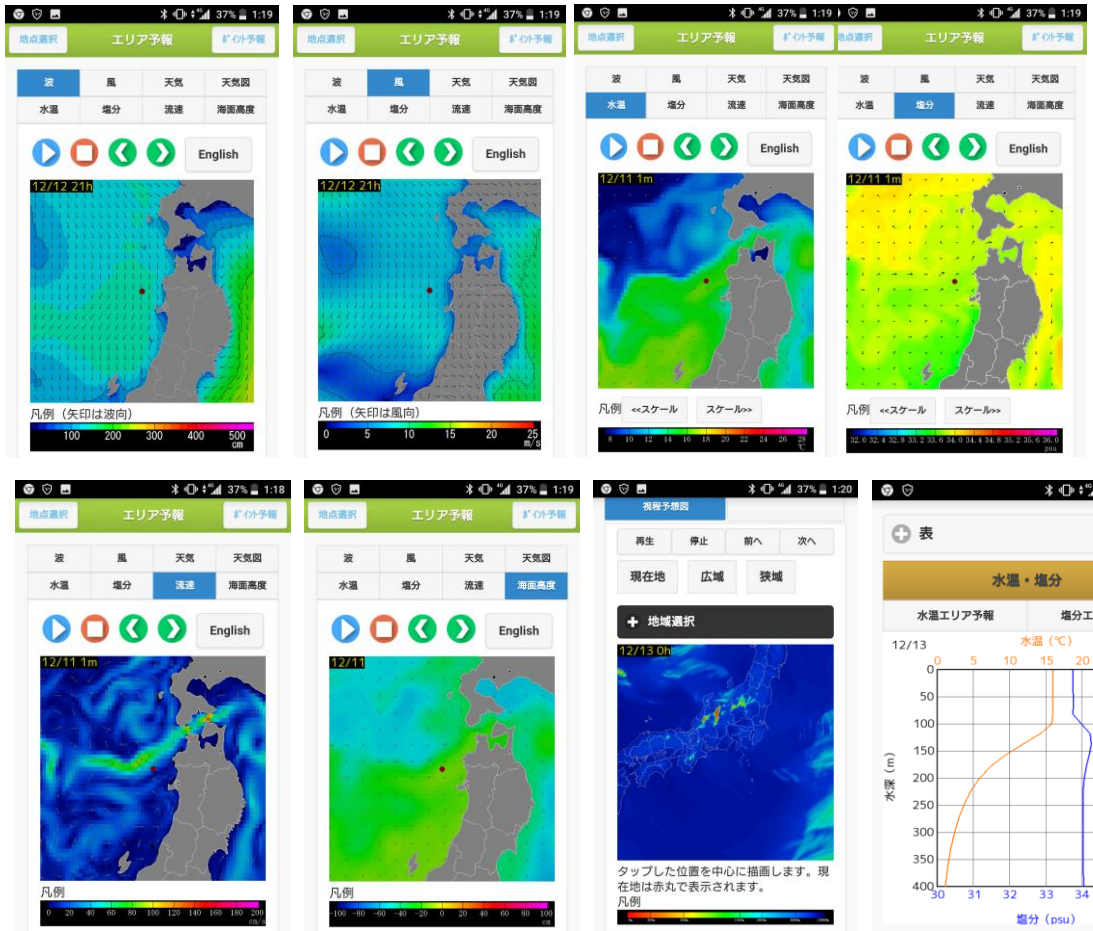


Observation data and wave forecasts can be viewed via tablet or smartphone!

Field of Business ③Metocean Forecasting

We provide highly localised weather and sea condition forecasts via a dedicated app. By utilising data from sources like Spotter Buoys, we can deliver more advanced and sophisticated forecasts. We also maintain an archive of historical metocean forecast data (GPV) and provide GPV datasets for both domestic and international use.





1. We maintain an office in Kamisu City, Ibaraki, where we conduct hydraulic model experiments using the large-scale wave basin facilities owned by the Fisheries Engineering Institute (Kamisu Campus) of the Japan Fisheries Research and Education Agency.
   We primarily focus on ports, fishing ports, and coastal areas, where we verify the impacts of waves and tsunamis through wave tank experiments. These experiments provide fundamental data to support the establishment of design conditions and the evaluation of countermeasures.

Source: National Research and Development Agency Fisheries Research and Education Agency website https://www.fra.affrc.go.jp/access/kamisu/

2. We also conduct surveys, observation, analysis, and planning related to ports and fishing ports as part of our construction consulting services. The scope and content of these activities are similar to those described in “(1) Wind Power Generation Projects.”