MARNET – Marine Environmental Monitoring Network of the BSH

Baltic Sea Measurement Station - Arkona Basin - semi-submersible

54° 53.0' N, 13° 52.0' E ;in operation since September 2002

Leibniz Institute for Baltic Sea Research Warnemünde

Leibniz Association

Data Telemetry

- 5G-Industry-Router
- 2 SIM-Cards, roaming
- GPS
- WLAN
- Ethernet-Switch
- 5,5 Watt max.

Energy Source 1

- 2 pcs. Wind turbine
- 24 V
- 500 Watt Power

Energy Source 2

- photovoltaics
- 8 modules
- 24 V
- 800 Watt Power

Energy storage

- Lithium LiFePO4
- Maintenance free
- 24 V
- 400 Ah

Data processing

- Windows-Industrial-PC
- Intel Pentium CPU
- 4 GB RAM
- 128 GB SSD
- 6 RS232/485 Ports
- 4 USB Ports

Ground platform (approximately 100 m offset)

- Temperature
- Conductivity
- ADCP current meter
- Wave measurement
- Acoustic modem

Meteorology

- Wind direction
- Wind speed
- Air temperature
- Humidity
- Air pressure
- Global radiation

Housekeeping

- Battery voltage
- Charge current - solar
- Charge current – wind
- Inclination
- Compass
- Discharge current
- Acoustic transmission

2m

- Temperature
- Conductivity
- Chlorophyll a
- Turbidity

5m

- Temperature
- Conductivity
- Chlorophyll a
- Turbidity

7m

- Temperature
- Conductivity
- Oxygen
- Radioactivity

16m

- Temperature
- Conductivity

25m

- Temperature
- Conductivity
- Acoustic modem

33m

- Temperature
- Conductivity

40m

- Temperature
- Conductivity
- Oxygen
- Pressure

42m

- Temperature
- Conductivity

INFORMATION

The IOW-MARNET stations are financed by BSH. They transmit data every hour directly to BSH and via the Internet to the Network data base at IOW. All MARNET stations contribute to the Global Ocean Observing System (GOOS / BOOS)

BUNDESAMT FÜR SEESCHIFFFAHRT UND HYDROGRAPHIE

- 2002 installed, 2011 renewed
- is lowered or hauled in when there is sea ice

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