

Environmental Monitoring

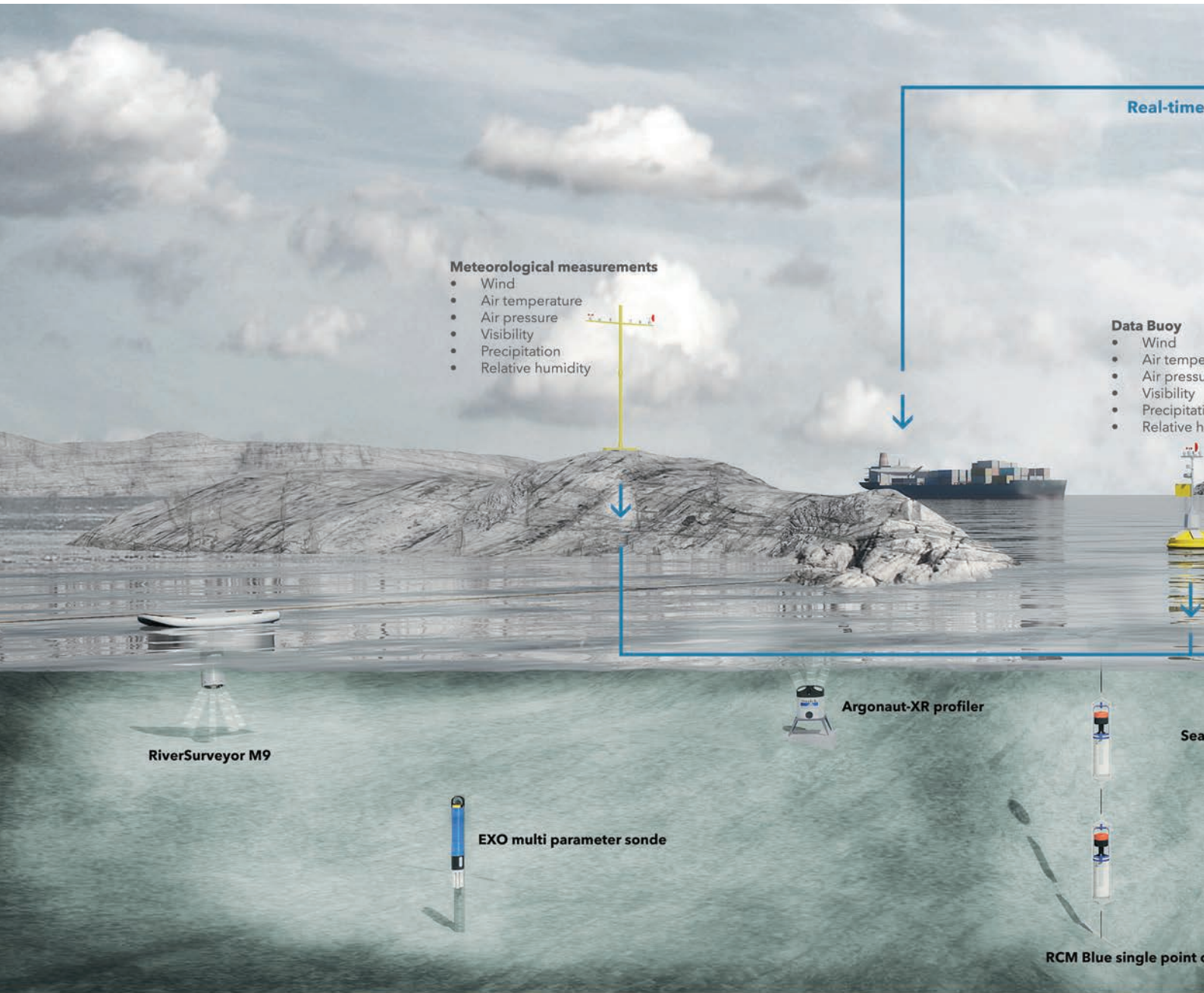
System Integration

Aquaculture

Offshore Installation

Recovery

Oceanography



REAL-TIME HYD/MET SYSTEMS

AANDERAA
a xylem brand

SonTek
a xylem brand

WATER LOG
a xylem brand

YSI
a xylem brand

Marine Transport

Weather Monitoring

Ferrybox

Oil & Gas

Observatory

Oil Spill

Harbour Monitoring

communication from Xylem Hyd/Met system distributed by AIS system

temperature
humidity

VTS Office

SmartGuard
Data Logger

Real-time communication from Xylem Hyd/Met system

Guard String System

HydroSurveyor

Argonaut-SL500 profiler

CastAway-CTD

Oceanographic measurements

- Current speed & direction in many layers
- Water level
- Significant wave height
- Wide range of parameters available

current meter

xylem
Let's Solve Water

Multi-sensor Current Meters & Profilers

Aanderaa SeaGuardII DCP



The SeaGuardII DCP is a Doppler Current Profiler with multi-sensor capability and a typical range of 30-80m. Its unprecedented flexibility makes it the perfect instrument to address different application scenarios by setting up up to three profiles simultaneously, either instrument or surface referred.

Key Features

- Improved acoustic transducer head, user selectable broadband or narrowband, single ping standard deviation better than 3.0 cm/s (with a 2m cell size in broadband) and tilt compensation for each ping
- Low power consumption (i.e. 20 months deployment with a 30 minutes sampling interval)
- Connection to all Aanderaa Smart Sensors, integration of third party analog and serial sensors with power control
- Enhanced real time functionality



SonTek-SL Side-Looker Doppler Current Meter



The SonTek-SL (Side-Looker) is a long-term monitoring solution available in three models. This system provides the highest quality Doppler velocity data without requiring the user to become an expert on Doppler technology.

Key Features

- Water Velocity, Level and Profiling
- Compact, Hydrodynamic Design
- Acoustic-Pressure "Duo" Water Level (3G models only)
- Wave Spectra Option



Aanderaa RCM Blue and SeaGuard RCM

The RCM Blue is a self-recording single-point current meter offering Bluetooth for communications and data retrieval. The SeaGuard RCM is a single-point current meter with multi-sensor and real time capability offering additional flexibility. Both instruments use the ZPulse Doppler Current Sensor for improved data quality.

Key Features

- Low current drain and large battery capacity for long-term deployment
- Multiparameter capability using Aanderaa plug-and-play smart sensors and up to 4 analog third party sensors and real time communication (for SeaGuard only)
- Handle more than 50° tilt and still ensure high quality measurements



SonTek Acoustic Doppler Profiler (ADP®)



The SonTek ADP® is a 3-axis (3D) water current profiler with proven, reliability, accuracy, and "ease-of-use". The ADP uses state-of-the-art transducers and electronics designed to reduce side-lobe interference problems.

Key Features

- Bottom Tracking for boat-mounted survey
- Directional Wave recording
- Side-looking configurations
- Velocity profiles up to 200m



Ocean



Coastal



Systems

SonTek Argonaut-XR



The Argonaut-XR offers exceptional value for near shore deployments in less than 40m of water. Designed specifically for mounting on the bottom of a channel or harbor, the XR features a special mode that automatically adjusts one of its measurement cells for changing water level.

Key Features

- Current Profiling
- Simple setup and deployment
- Affordable wave measurement
- "Auto Tide" feature adapts to changing water levels



SonTek ADVOcean-Hydra 3D Velocity Meter



Designed for use in challenging ocean environments, the ADVOcean-Hydra represents the ultimate solution for measuring precise 3D velocity. The ADVOcean-Hydra can be integrated with an array of external sensors to form a comprehensive oceanographic data collection system.

Key Features

- Turbulence
- Waves
- Boundary layers
- Distance-to-bottom



SonTek HYDROSURVEYOR®



The SonTek HydroSurveyor® is a 5-beam ADP designed to collect bathymetric, water column velocity profile, and acoustic bottom tracking data as part of a hydrographic survey.

Key Features

- Sound speed integration and interpolation (with CastAway-CTD)
- Speed over ground (Acoustic Bottom Tracking)
- 5-beam depth soundings (50° swath)
- Water column velocity (currents) mapping



Smart Water Quality Sensors

Aanderaa Smart Sensors



Connected to SeaGuard or SmartGuard by the AiCaP bus, the Aanderaa Smart Sensors can be easily exchanged both in house and in the field. Data, including linearization, scaling and necessary compensation is processed in the sensor to output engineering values. Data can also be output via serial cable and be connected to other logger systems or PC.

Available sensors

- Doppler current sensor
- Oxygen Turbidity sensor
- Pressure, Tide and Wave
- Conductivity and Temperature



Aanderaa Oxygen Optode



The Aanderaa Oxygen Optode is designed to measure absolute oxygen concentration and air saturation. The Optode has been used to measure dissolved oxygen for years without drift.

Key Features

- Response time <8 sec (63%)
- High accuracy
- Not stirring sensitive (it consumes no oxygen)
- Lower fouling sensitivity



Aanderaa Pressure Sensor (0-6000m)



These intelligent sensors are designed for use on Aanderaa data loggers as well as in other measuring systems.

Key Features

- Smart Sensor technology
- Calibration coefficients stored internally
- Accuracy: 0.01%
- Low maintenance needs
- Low current drain



YSI EXO1 & EXO2 Multi-parameter Water Sondes



The EXO multi-parameter water quality sondes are developed by YSI for challenging marine and freshwater conditions.

Key Features

- EXO1 has 4 sensor ports - EXO2 has 6 sensor ports + anti-fouling wiper
- CTD plus 3-5 additional sensors in one small package
- High-accuracy sensors with on-board memory
- Wireless communications
- Seamless integration into comprehensive array of environmental monitoring systems



SonTek CastAway CTD



The SonTek CastAway CTD is a hand deployable conductivity, temperature, and depth instrument for hydrographic profiling.

An integrated LCD screen displays an intuitive user interface for deployment and immediate review of collected data including both statistics and profile plots.

Key Features

- Salinity accuracy: 0.1 PSU
- Temperature accuracy: 0.05°C
- Integrated GPS position
- Real-time display screen



Water Level Recorder

WaterLog Radar

Designed for non-contact water level measurement, the Radar Series (H-3611/12/13) incorporates an LCD display, low current operation and a high accuracy data for ranges up to 230ft.

Key Features

- Frequency range 26GHz
- Low current operation (8.0mA typical standby)
- Continuous operation, no warm up or "lock on"
- Out of the box measurement range: 0.75-131ft (0.3m- 40m with H-3611/13) or 0.75-230ft (0.3m-70m with H-3612)



Controllers, Buoys & Software

Aanderaa SmartGuard

The Aanderaa SmartGuard is the sensor and instrument hub for ocean, lake, reservoir, estuary and river hydrometric stations. It is designed for ease of integration into a single Aanderaa observatory node with new and existing sensor technologies via self-describing XML data output formats. SmartGuard interfaces with all Aanderaa atmospheric and in water sensors, along with a comprehensive array of 3rd party sensors.

Key Features

- Tailored for smart Met stations
- Flexible and easy set-up configuration
- Fits Aanderaa Smart Sensors including serial and analog sensors from any other vendors
- Real-time data through serial, LAN or USB connection with internal storage on SD card



YSI EMM2.0 - Coastal Buoy

The YSI EMM2.0 is one of the most versatile and reliable buoy solutions on the market. These buoys have been deployed with wet-chemistry nutrient and metal analyzers, current meters, water quality monitors, GPS, atmospheric sensors, wave sensors, hydrocarbon sensors, and more.

Key Features

- 4300lbs of buoyancy
- Perfect for monitoring in bays, estuaries, coastal and ocean areas
- Non-sinkable foam hull
- Corrosion-resistant metal



Aanderaa GeoView

Aanderaa GeoView is a web based display solution for environmental data display and is part of the Aanderaa Real-Time Solution. This gives the user vast opportunities for interfacing meteorological, oceanographic, or other environmental research equipment in a networked solution giving access to data real-time.

Key Features

- Web based application showing real-time data in a standard browser
- Display of both real-time and historical data in graphs
- Data storage and retrieval from included database
- Zoom on time scale to study a subset of the data for a certain parameter



Xylem Analytics

Xylem Analytics are a major global manufacturer of market leading brands including Aanderaa, SonTek, WaterLOG, and YSI. The group's success is built on innovation & application expertise with water quality monitoring instrumentation and flow monitoring instrumentation. Customers around the world choose Xylem Analytics because our instruments are designed and manufactured to the highest standard – continually meeting the needs of their specific requirements.