



# **REAL-TIME HYD/MET SYSTEMS**

Designed to monitor the traffic conditions to ports and fairways and display info in existing systems.

The primary purpose is to give real-time data for wind and current conditions for safe navigation during ship arrivals and departures and cargo transfer.

Important data, both real-time and historical, are made available to VTS operators, ship pilots, ship's bridges, harbour authorities and other public and governmental bodies via channels such as internet or AIS system.

### SAFE NAVIGATION

- Current speed and direction in multiple depths from surface to seabed.
- Continuous monitoring of vital parameters at sea and in air.
- Real-time sea and air parameters are distributed by the AIS system.
- Secure docking and improved cargo handling.
- All information available in one real-time web display application.

### **ENVIRONMENTAL MONITORING**

- Sediment movement and dredging planning.
- Monitor ocean health and oxygen concentration.
- Expandable platform for additional environmental parameters.
- Data stored in SQL database for further analysis.
- Dynamic tracking of oil spill pollution.
- Critical information to stakeholders after natural disasters or accidents at sea.

#### **IMPROVE PORT EFFICIENCY**

- Provide Harbour Master with a complete real-time overview of conditions affecting traffic.
- Historical data is valuable for research, science discharge permitting.
- Full control of vital parameters when loading/unloading to achieve max efficiency.
- Lower insurance cost against environmental, docking and operation damage.
- Proof and documentation in insurance claims.



## **AANDERAA HYD/MET SYSTEMS ARE PRESENT ALL OVER THE WORLD**

Harbours and fairways have installed Aanderaa Hyd/Met systems all over the world.

- Large ports with radar based Vessel Traffic Management (VTS) have Aanderaa Hyd/Met systems giving important input of data for safe maneuvering.
- Smaller ports without radar based VTS systems are also using Aanderaa Hyd/Met systems for navigational safety and improved port efficiency.

#### 66

The Aanderaa Data Instruments weather station, installed at Ognøykalven near Kårstø, is a very important facility for Kårstø Harbour. In order for us to operate the harbour in the most secure way; we are dependent upon receiving accurate data about wind speed and sea current as well as sea temperature in the harbour. It is also important for the pilots to have an overview of the external influences while maneuvering the ship when docking and departing.

Henry Mardal, Harbour Master at Kårstø

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