

# The Port Of Fujairah ensures safe navigation

**Port of Fujairah**, also called Fujairah Port, is a deep port located in Fujairah, United Arab Emirates. It is the largest port on the eastern seaboard of the United Arab Emirates and the world's second-largest bunkering hub.

Saab has completed a contract to implement a Vessel Traffic Management Information System (VTMIS) for the Port of Fujairah, along with a five-year maintenance agreement. Dubai-based Elcome International LLC was the subcontractor responsible for local support of installation, training and maintenance.

The VTMIS allows the Port Control Centre to actively monitor and organize the vessel traffic in the port and make ship movements safe and more efficient. The layout of the port with large anchorage areas in front of it poses a challenging environment. The diverse activities, such as cargo operations, bunkering, storing, crew changes and repairs, can have conflicting traffic patterns.

Elcome International LLC awarded an order to Xylem Analytics Regional Integration Center (RIC) in UAE for supply and installation of the **MOTUS (movement in Latin) Wave Buoy** and a landbased Tide- Met Station.

**“The Aanderaa MOTUS Wave Buoy is essential for measuring the weather parameters, waves and currents in the area”**

The solution is offered by Xylem Analytics Regional Integration Center (RIC) UAE. The core of the system was the **MOTUS wave sensor** which is optimized for the DB1750 data buoy and the **Doppler Current Profiler Sensor (DCPS)**, Gill Instruments GMX 500 compact weather station. The latter employs a fast dynamic compensation algorithm specifically well suited for buoy measurements. In addition, our local engineering team gained valuable experience in mooring design with the support of Aanderaa, which was utilized to provide a new



MOTUS Wave Buoy on East Shores of Fujairah.

type of mooring suitable for rough wave locations. Based on this, the requirements from the Port of Fujairah was fulfilled by supplying a solution where:

1. All sensors were mounted firmly on the buoy, no moving parts
2. Subsea sensors were mounted in a protective moon pool tube
3. Power package for equipment was designed with enough capacity
4. Lantern solution with Solamax 65
5. Data delivered in real-time on Aanderaa Geoview software via UHF radio & GPRS telemetry for integration to the reporting services of the Port of Fujairah
6. No magnetic interference of chains on wave and current sensors by utilizing an external compass
7. Mooring designed with a combination of rope and chain that could withstand the harsh local environment



MOTUS Wave Buoy Solutions

### Tide- Met Station

An Aanderaa Vented Tide sensor was installed on the jetty with reference to local datum near the Port of Fujairah control office. The tide sensor was directly connected to Smart guard data logger via RS-422 cable connection for data delivery to Aanderaa Geoview software. The Aanderaa tipping bucket type Rainfall Sensor 4628, GMX500 compact weather station and Vaisala PWD20W visibility sensor were installed along with SmartGuard data logger at the roof of the Port of Fujairah control office. The sensor data were delivered to Geoview software via a direct Ethernet connection.

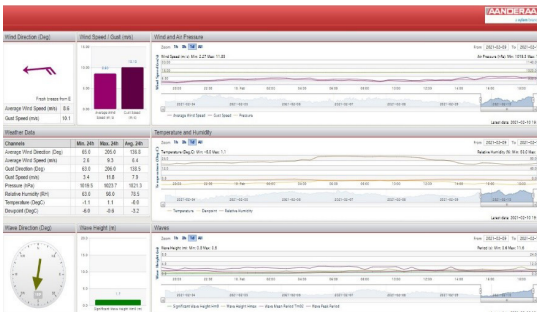


**Aanderaa GeoView** is a web-based display solution for environmental data display.

- Display of both real-time and historical data in graphs
- Data storage and retrieval from included database
- Zoom on a time scale to study a subset of the data for a certain parameter
- Standard statistic analysis for min, max, average over selectable intervals
- Possible to show data from one or more stations in the same display if desired



Tide Sensor installed at Port Jetty



Aanderaa GeoView

**For more information and questions, please contact us at:**

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