The Shipborne European Common Automatic Weather Station (EUCAWS)

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Objectives

Calendar

Functionalities
Architectures, acquisition, transmission, configuration, local output

Eucaws project
Collaboration, validation, internal development, workshop, purchasing issues
Objectives

A common AWS for European countries:

- Automation of European Fleet
- Standardisation of systems – easier maintenance
- Higher quantities, lower prices
- Adaptable to many sensor types
Calendar

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<td>Prototypes fabrication</td>
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Functionalities

EUCAWS Architecture: Outside

- Size: 54 x 45 x 25 cm
- Weight: 16 kg
- Installation kit
- Handle
- On/Off switch
- Air pressure inlet
- Antennas
Functionalities

EUCAWS Architecture: Inside

- Several electronic boards
- Power supply unit
- Sensor connectors
- Protections
- Barometer inside
EUCAWS will be able to acquire:
- Pressure
- Temperature
- Humidity
- Wind
- SST
- Heading (compass)
- Navigational data (GPS)

Connection with TurboWin + to add visual observations

EUCAWS is designed to be highly adaptable to all sensors available at various NMS, future sensors, multisensors…
Functionalities

Satellite communication

- Iridium Transmission
  - Port mode, Area mode, Trigger mode
  - Several transmission frequency
  - E-SURFMAR data format #100
  - Size of weather messages 30..54 bytes
  - A processing center to decode messages and encode BUFR
Functionalities

Maintenance tool: Service Unit
Functionalities

LMF: Landbased Monitoring Facility
Functionalities

Local Output

Ship Monitoring Display (SMD) for TurboWin +

Permanent Sensor Output
Eucaws project

European successful collaboration

- First European tender for meteorological equipment
- Very active project team leaded by Météo-France, DWD and KNMI
- Share of experiences, expertises and practices: very benefic to end with a better product
Eucaws project

**Validation**

- Factory Acceptance Test: December 2014
- Site acceptance test: February 2015: on ferry Armorique, comparison with other AWS
- Final Acceptance period
  June 2015 - March 2016
Eucaws project

Internal development

TurboWin +

Eucaws Config
Eucaws project

Eucaws workshop: 18 - 19 April 2016: Hamburg

- Presentation and training on Eucaws station
- 3 prototypes
- ~ 30 participants from 7 European countries
Eucaws project

Purchasing issues

Tenders
- Framework agreement and a common price list for E-surfmar countries
- 1 subsequent contract per country

Stations ordered in 2016

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<th>Country</th>
<th>Number of stations</th>
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<td>Germany</td>
<td>35</td>
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<td>France</td>
<td>5</td>
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<td>E-Surfmar</td>
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Order in 2016 of Software and hardware evolution
- Hardware: 4 handles, system to block the door open
- Software: storage of data, show current values, download of configurations…
Thank you for your attention