

Met Office

Observations Supply

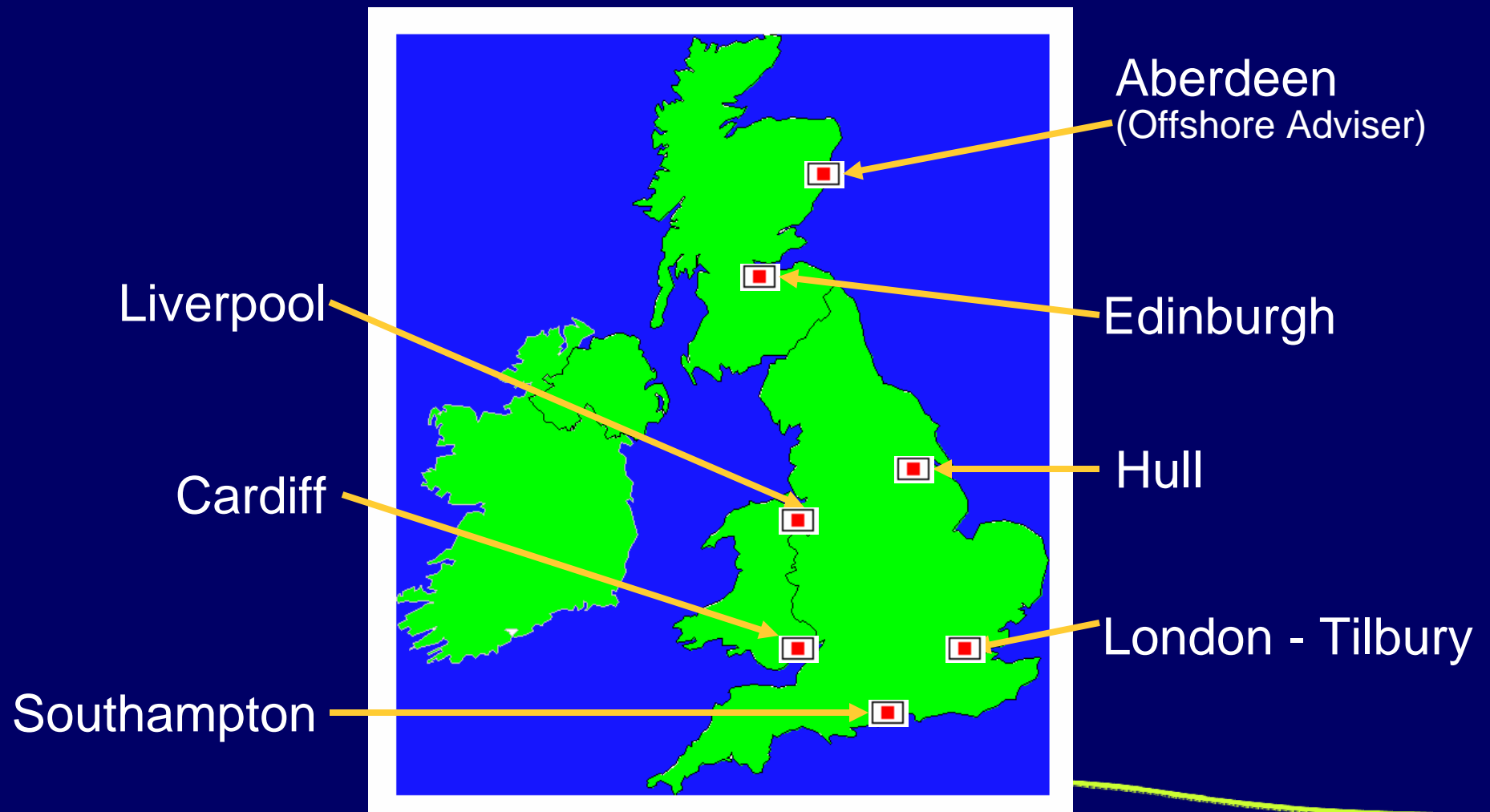
Marine Networks

MARINE NETWORKS



- VOS (& VOSCLim)
- Offshore Units
- Moored Buoys
- Drifting Buoys
- ASAP

Port Met Offices



PMO Inspections

2002

- **UK VOS Inspections** **538**
- **Offshore installations** **23**

[Three monthly Inspection regime ??]

Voluntary Fleet

December 2002

■ Selected ships	426	[415 in July 2003]
■ Auxiliary ships	23	
■ Offshore units	33	
■ <u>TOTAL (SHIP CODE)</u>	<u>482</u>	

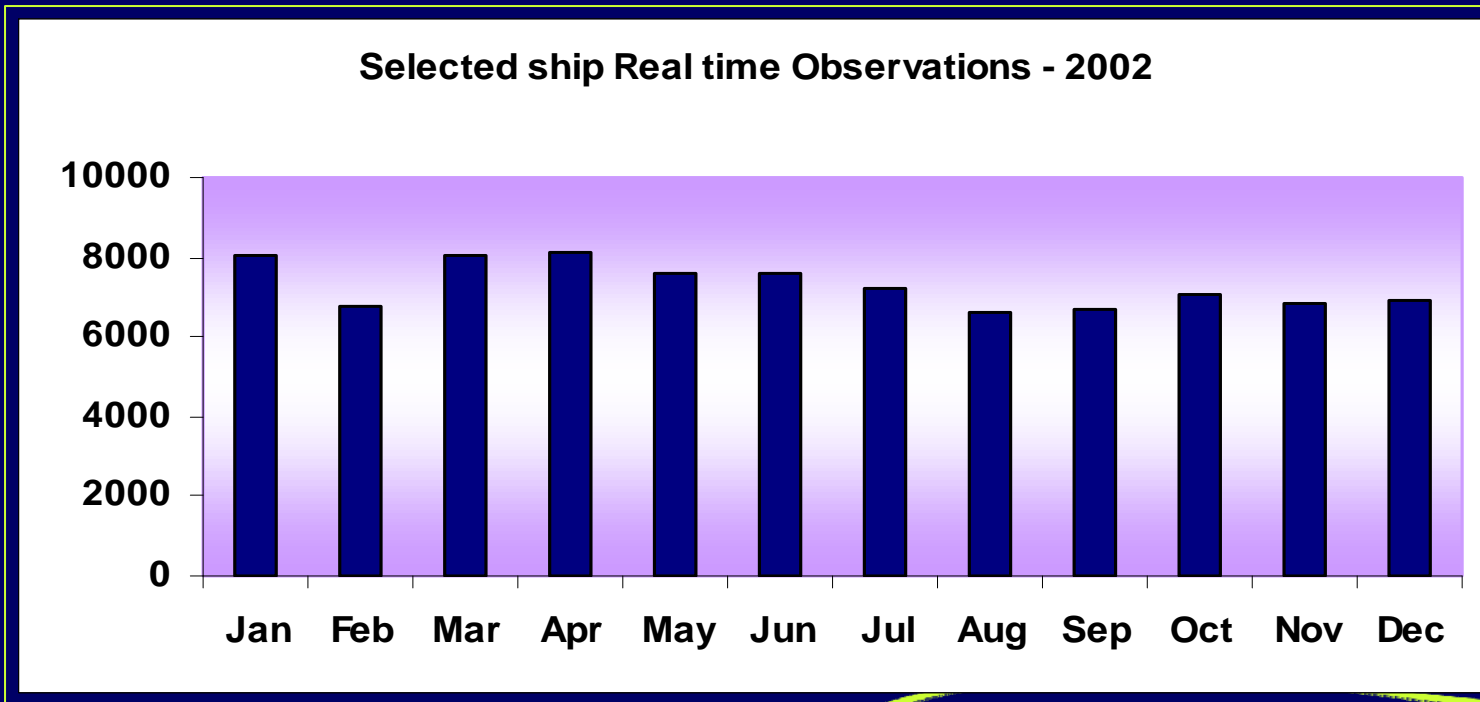
'Marid' ships	28
VOSCLim ships	19

Real time observations

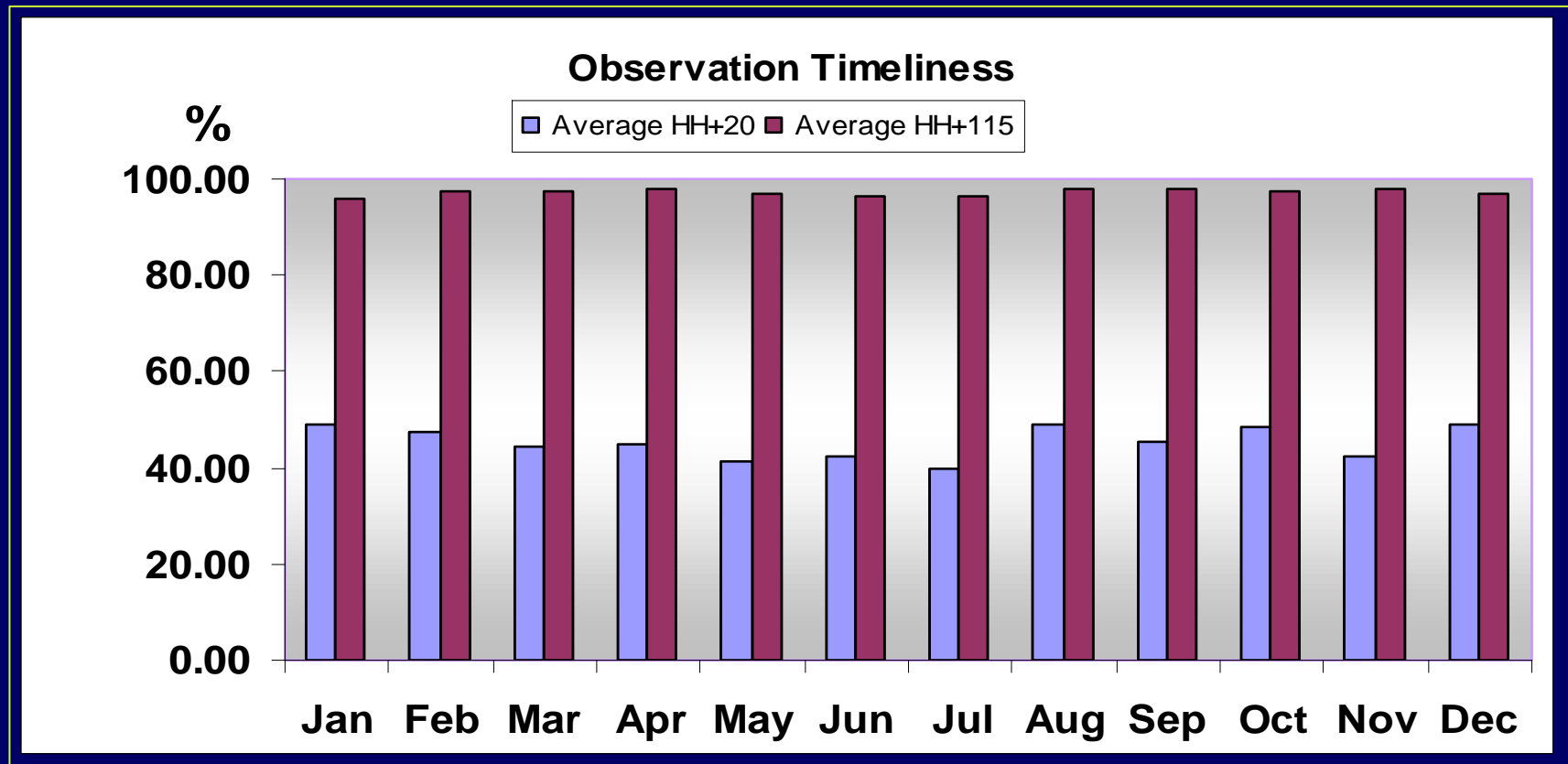
Selected ships87635 Observations

Offshore installations.....21004 Observations

TOTAL 108639 Observations



Observation Timeliness



Logbooks

Voluntary Observing Ships

- **Electronic TurboWin Logbooks.....82**
of which 53 ships are equipped with dedicated laptop computers

- **Paper Logbooks received in 2002380**
compared with 504 the previous year

Offshore Oil and Gas Installations

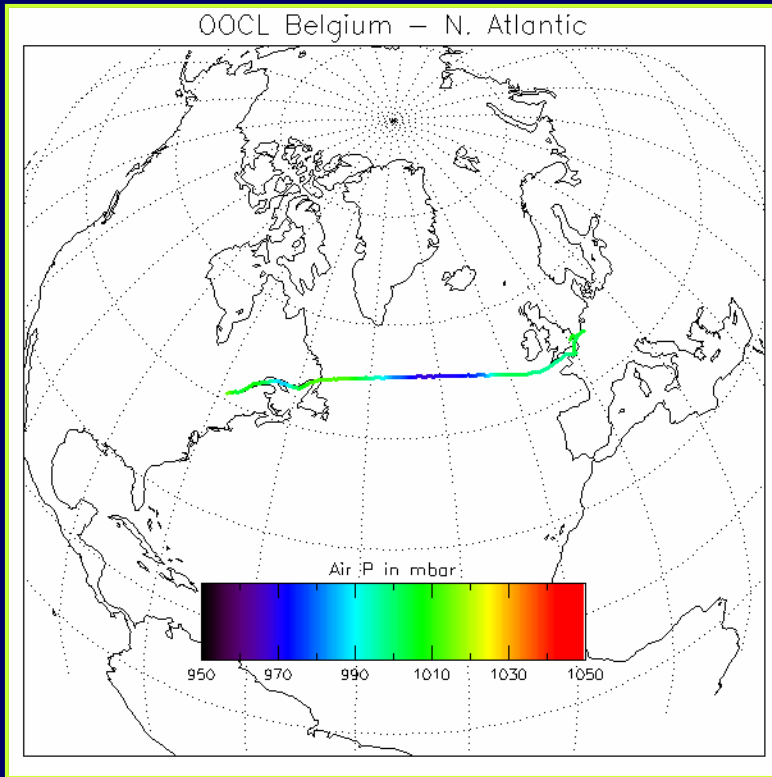
- **Electronic TurboWin Logbooks32**

Awards and Presentations



- **Annual 'Excellent' Awards**
(300 book awards to top observers)
- **TurboWin Awards**
(Framed certificate for top 4 ships and book awards to principal observers)
- **Long Service Awards**
(4 barograph awards to Ship Masters)
- **Offshore Awards**
(15 book awards for top observers)
- **VOSCLIM Awards**
(Certificates of participation for UK project ships)
- **Special Awards**

Automatic Systems



Air pressure
27/11/00 - 8/12/00



Automet

ASAP Operations

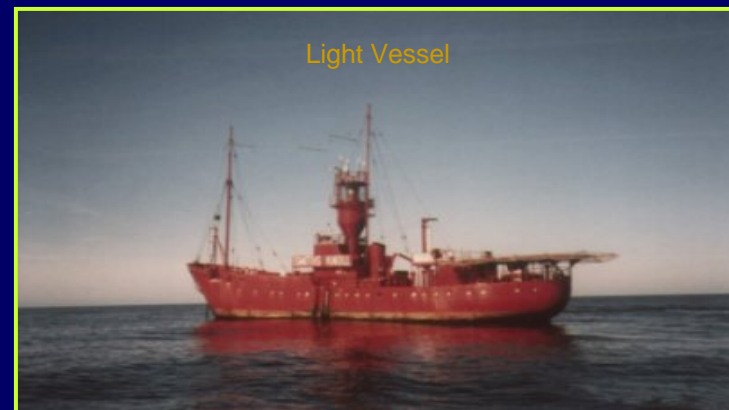
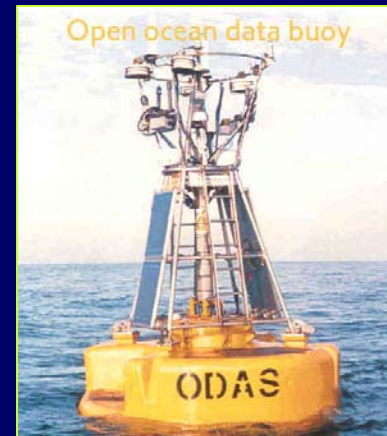
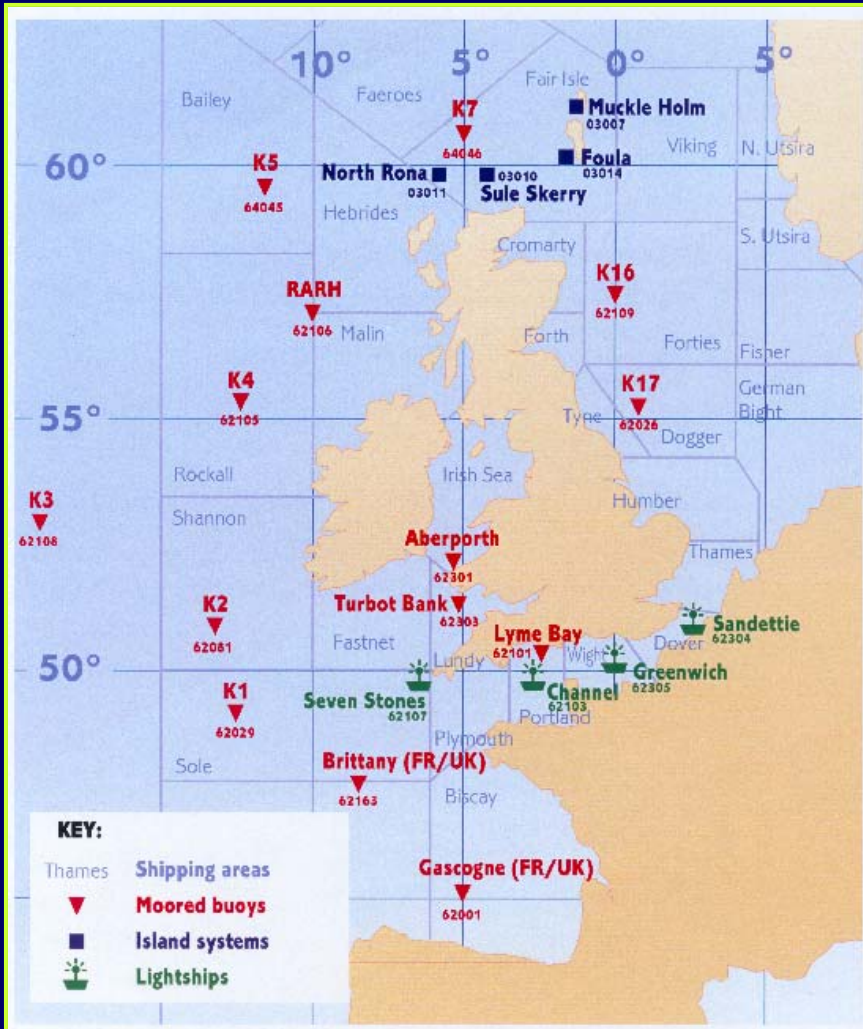


UK ASAP
' CanMar Pride '



SURFACE MARINE NETWORKS

Marine Automatic Weather Stations (MAWS)



Instruments

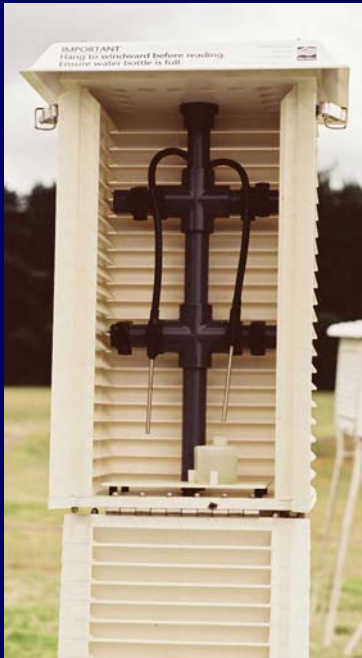
Selected ships

- 1 precision aneroid barometer
- 1 marine barograph
- 2 sheathed thermometers (1 air, 1 wet-bulb) for each screen, plus 2 spares.
- 2 marine screens (or 1 in certain circumstances e.g. training ships)
- 3 sea thermometers (1 protected + 2 spares) for rubber bucket.
- 2 rubber buckets.

Selected ships with Distant Reading Equipment

- 1 precision aneroid barometer.
- 1 marine barograph
- 4 sheathed thermometers plus 2 spares.
- 4 electrical resistance thermometers (ERT).
- 2 marine screens (modified crosspieces for ERT's).
- 1 digital temperature indicator (DTI).
- 1 rubber bucket.
- 1 hull sensor.
- 2 sea thermometers.

Research & Development



Plastic Screens

- Cheaper
- Longer lasting
- Good performance

Publications

- **Ship's Meteorological Logbook**
- **Meteorology for Mariners**
- **Marine Observer's Handbook**
- **Ship's Code Card**
- **Ship's Code & Decode Book**
- **State of Sea booklet**
- **Cloud Types for Observers**
- **Reduction to MSL Card**
- **Auxiliary Ship's Code Card**
- **Dew-point Tables**

The Future

Changes to Marine Networks

- **Reduction from 13 marine staff to 6 staff**
- **Reduction to only 2 Port Met Officers and 1 Offshore adviser**

Implications

- **Substantial reduction in fleet size**
- **Changes to inspection regime**
- **Loss of *The Marine Observer* journal**



The Future

EUMETNET Composite Observing System (EUCOS)

EUCOS Surface Marine Programme

15 European countries have agreed to establish an optional integrated programme for surface marine observations from moored buoys, drifting buoys and VOS. The programme commenced on 1 April 2003 and will initially last for 4 years

Stage 1 (2003 2004)

- **Formulate Surface Marine Network design, observational requirements and management structure**
- **Agree financial arrangements**

Stage 2 (2005 - 2006)

- **Implement the EUCOS Surface Marine Network design**



Questions

