

# E-SURFMAR Report

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# E-SURFMAR

## EUMETNET Members

### 29 European Meteorological Services.

Austria, Belgium, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, FYROM, Germany, Greece, Hungary, Iceland, Italy, Ireland, Latvia, Luxembourg, Montenegro, Netherlands, Norway, Poland, Portugal, Serbia, Slovenia, Spain, Sweden, Switzerland, United Kingdom

19 out of them are participating in E-SURFMAR

## ■ Objectives

- to coordinate, optimise and progressively integrate the European activities for surface observations over the sea in support of Numerical Weather Prediction (NWP)

## ■ Two components

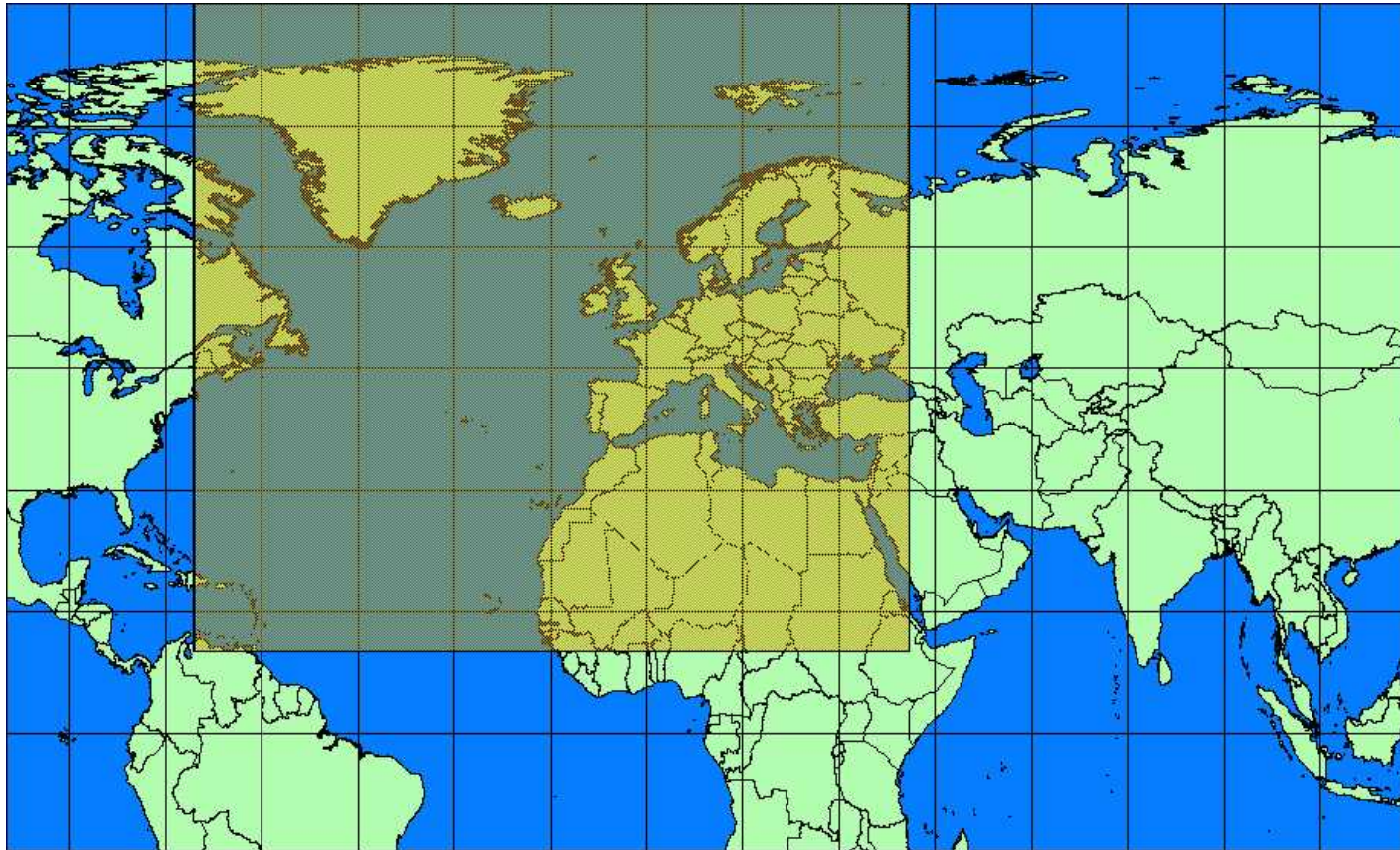
- Conventional Voluntary Observing Ships (VOS)  
or ships equipped with Automated Weather Stations (S-AWS)
- Drifting and Moored Data Buoys

# Cooperations

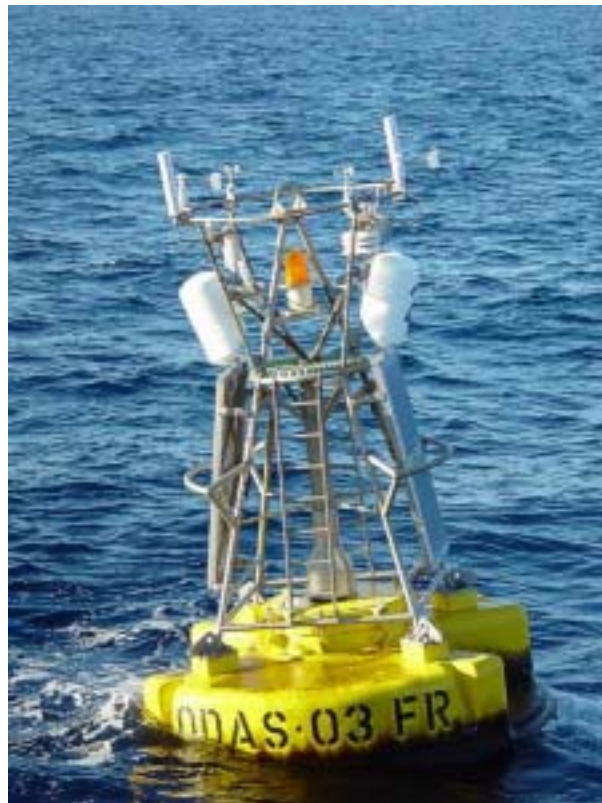
## ■ E-SURFMAR

- contributes to:
  - the World Weather Watch of WMO - all observations are reported onto its Global Telecommunication System (GTS) in real time
  - and the Copernicus (was GMES) Marine Core Service
- works closely with the JCOMM Data Buoy Cooperation Panel (DBCP) and the JCOMM Ship Observation Team (SOT)
- cooperates with NOAA and the Meteorological Service of Canada, as well as with IMI, BSH and PdE and other Mediterranean (MOON) oceanographic agencies

# E-SURFMAR area



# Data Buoys



# Data Buoy Management

E-SURFMAR is responsible for the European meteorological data buoys

Expert Team – Data Buoy (ET-DB) took over in 2013 the attributions of Data Buoy Technical Advisory Group (DB-TAG)  
- is an action group of the DBCP

## Meetings:

January (Geneva) and May 2005 (Hamburg)

June 2006 (Galway)

May 2007 (Larnaka)

May 2008 (Reykjavik)

May 2009 (Southampton)

May 2010 (Madrid)





May 2011 (Héraklion)

May 2012 (Las Palmas)

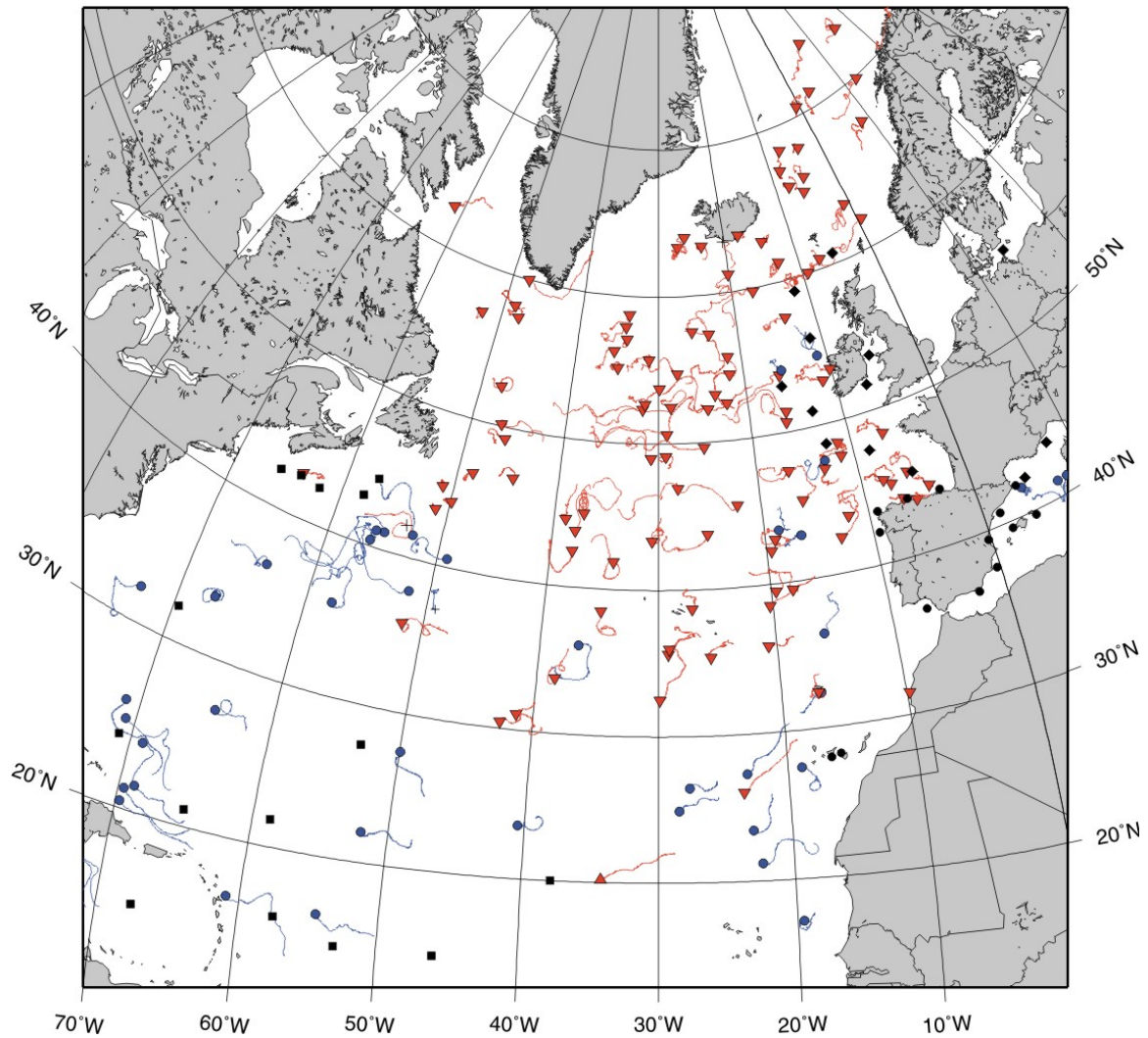
June 2013 (Oslo)

Data Buoy Programme Manager

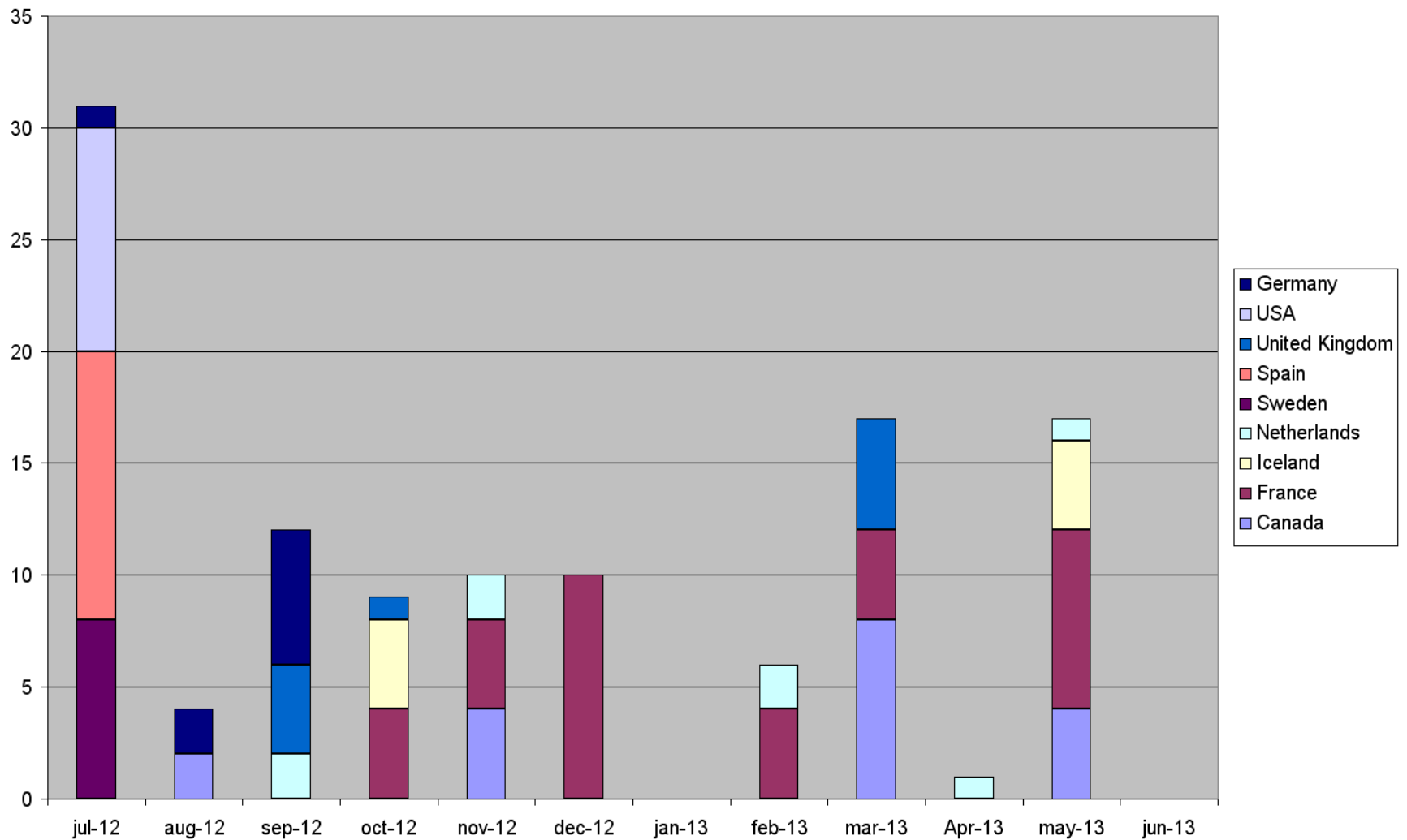
# Network status

-  Iridium SVP-B
-  Argos SVP-B
-  SVP-BW
-  (moored buoys)

June 2013

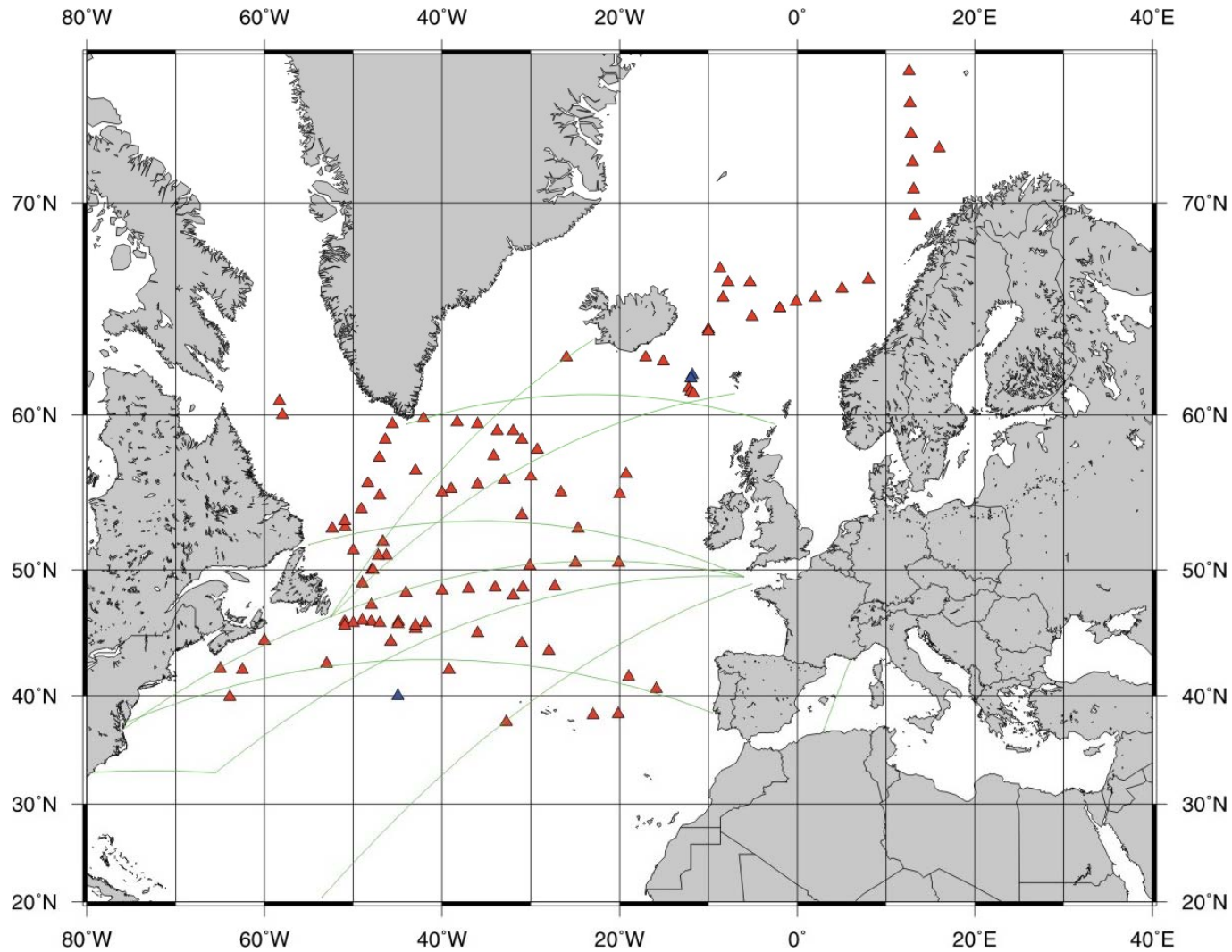


# Drifting buoys deployed (July12-June13) (117 units)

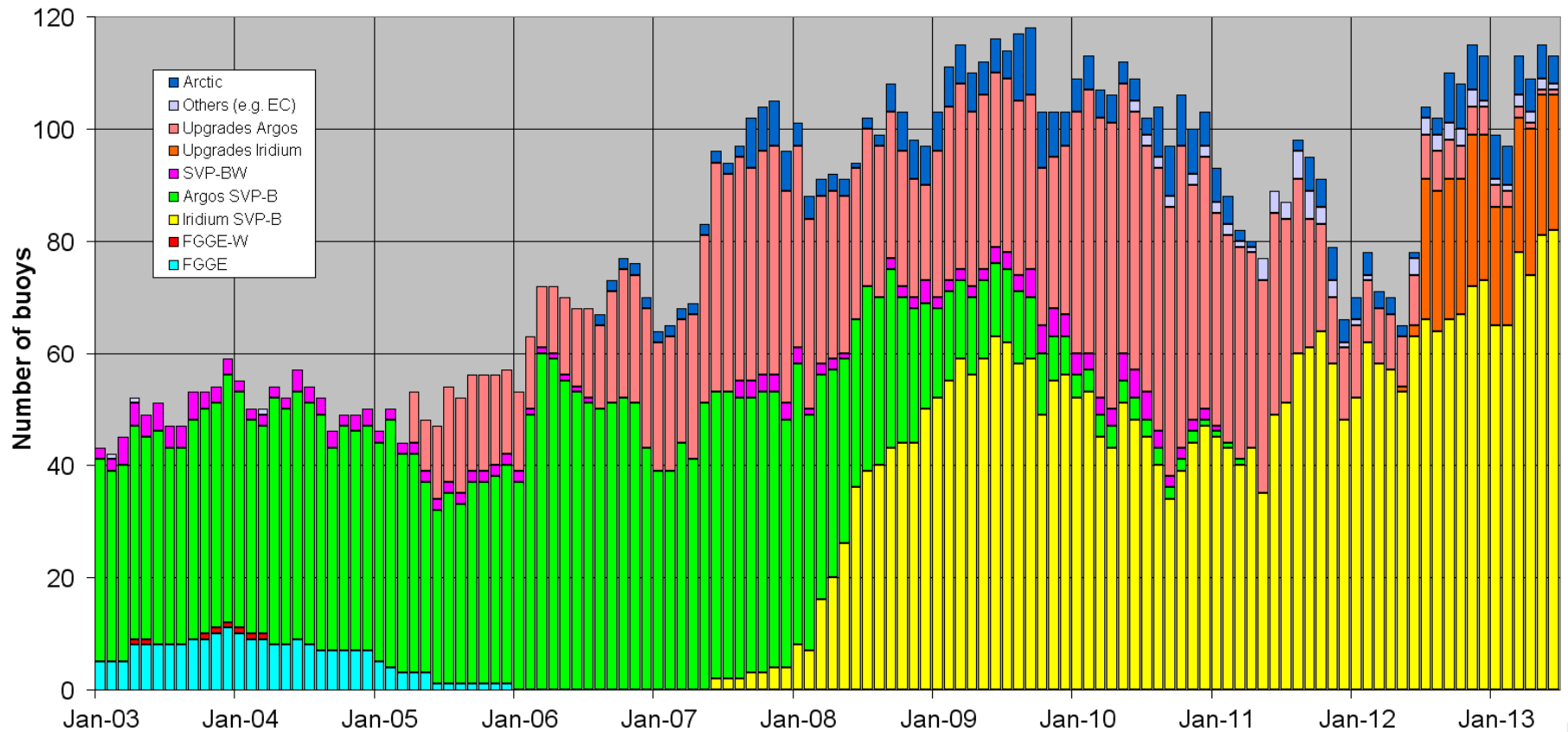




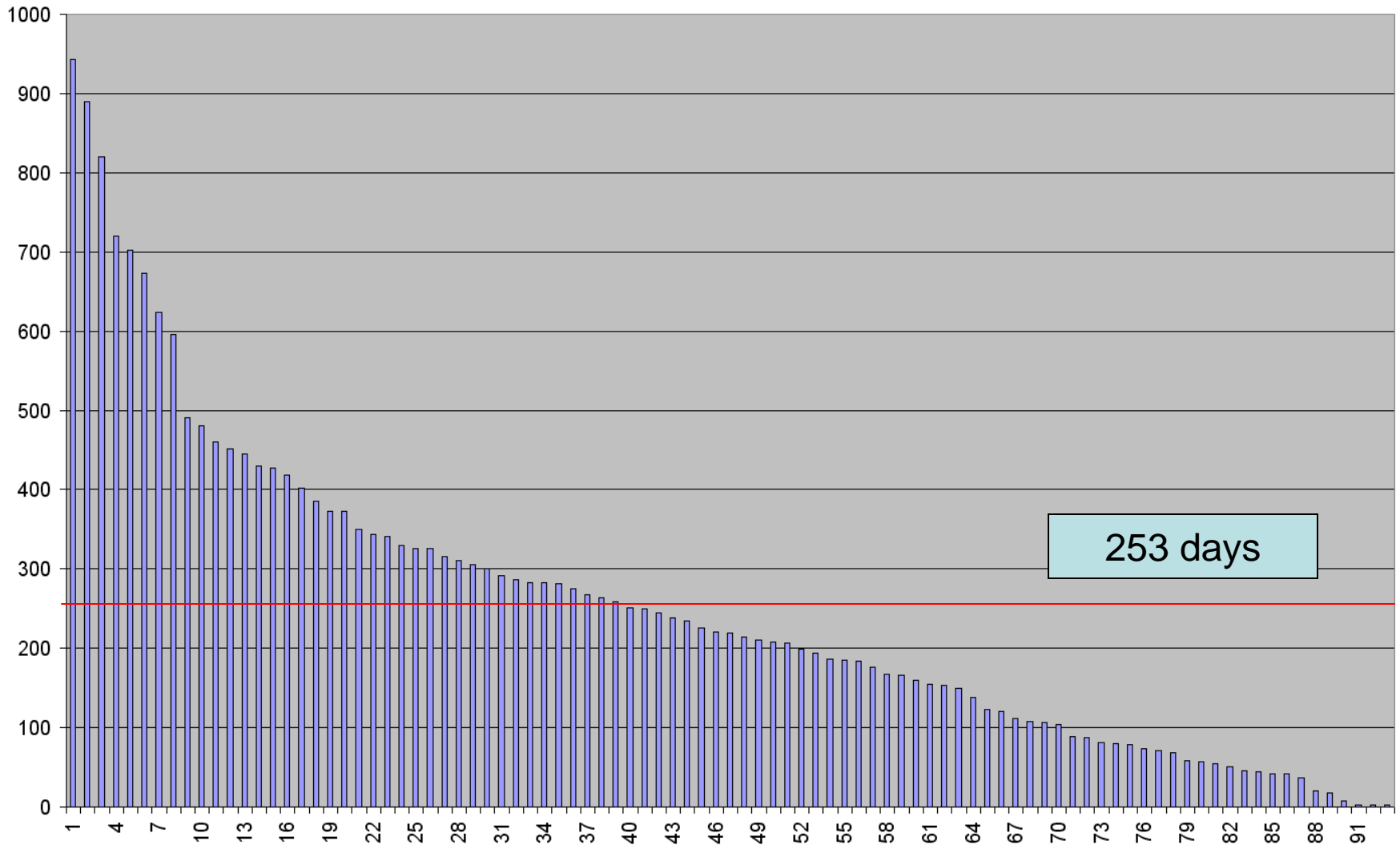
# Deployment locations



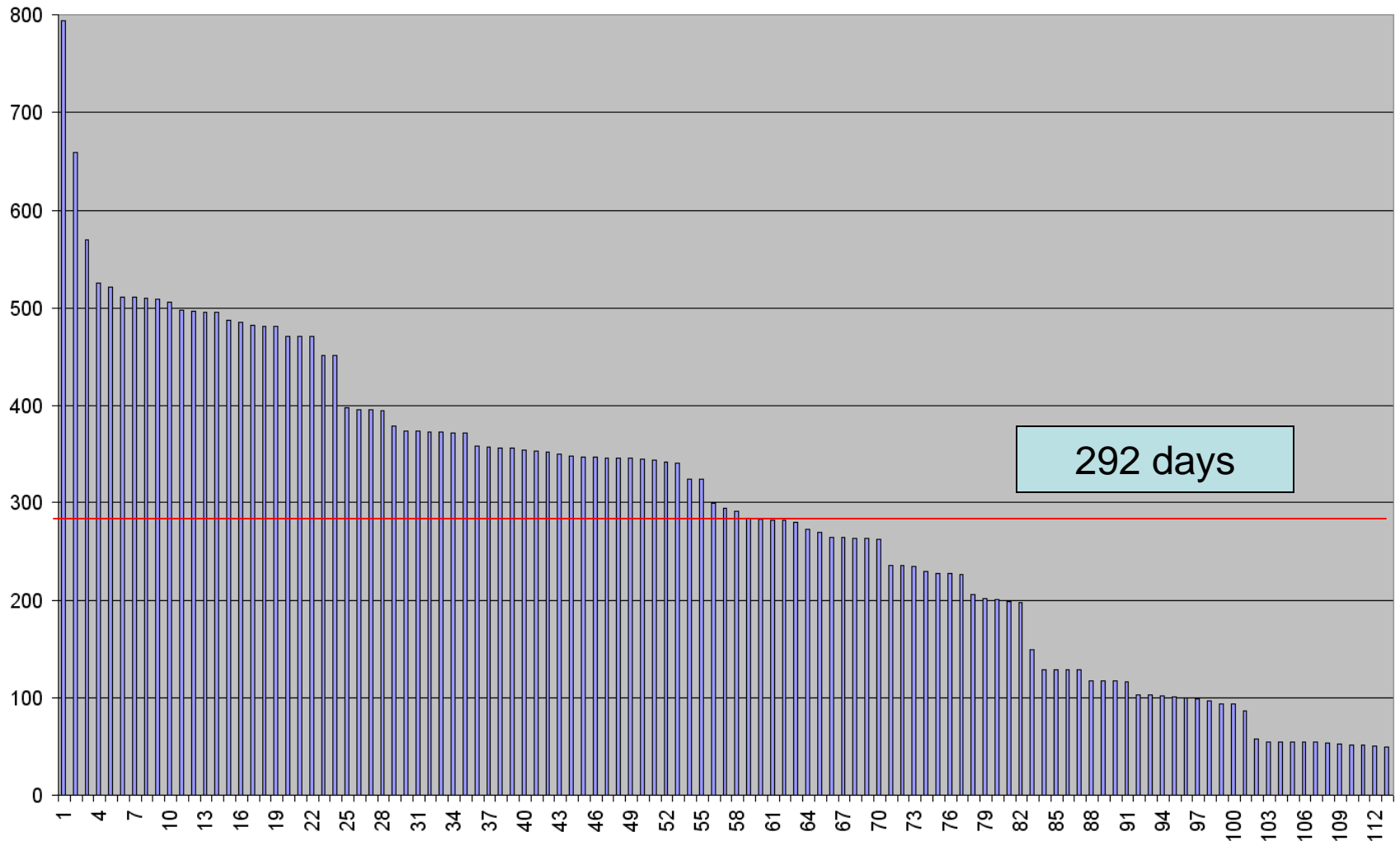
# Drifting Buoys (number of buoys in operation)



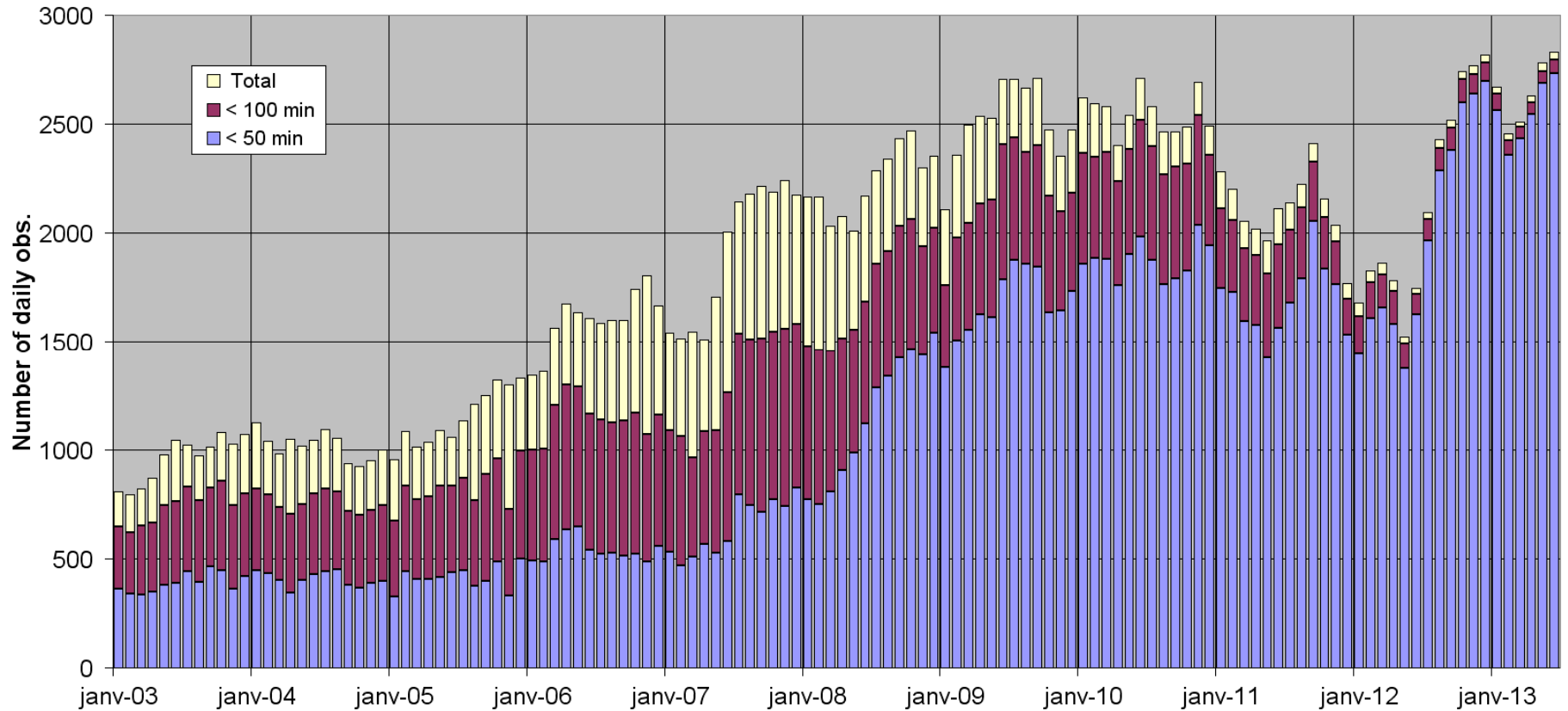
# Average lifetime of buoys (AP) (93units, 161 last year)



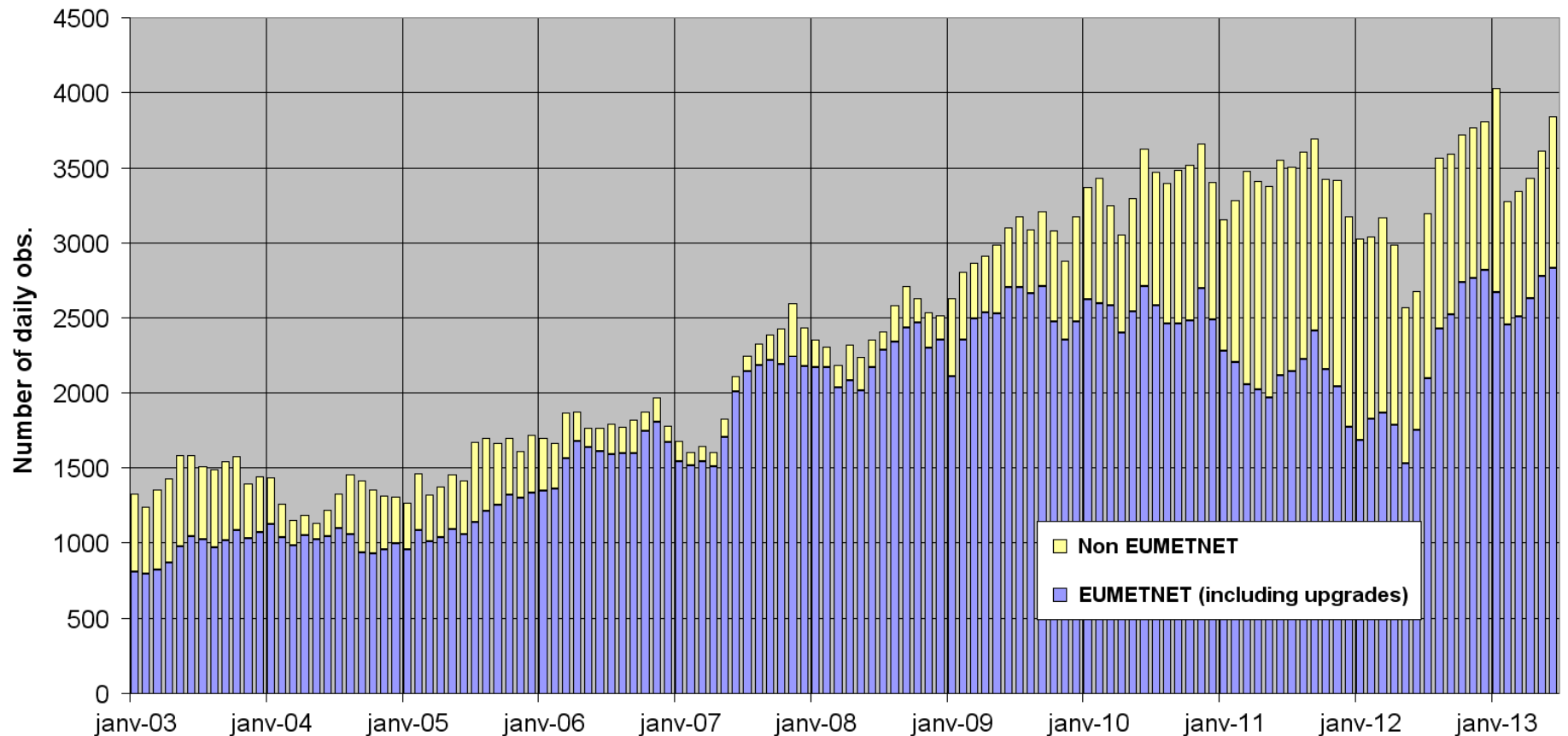
# Age of the network (113 buoys)



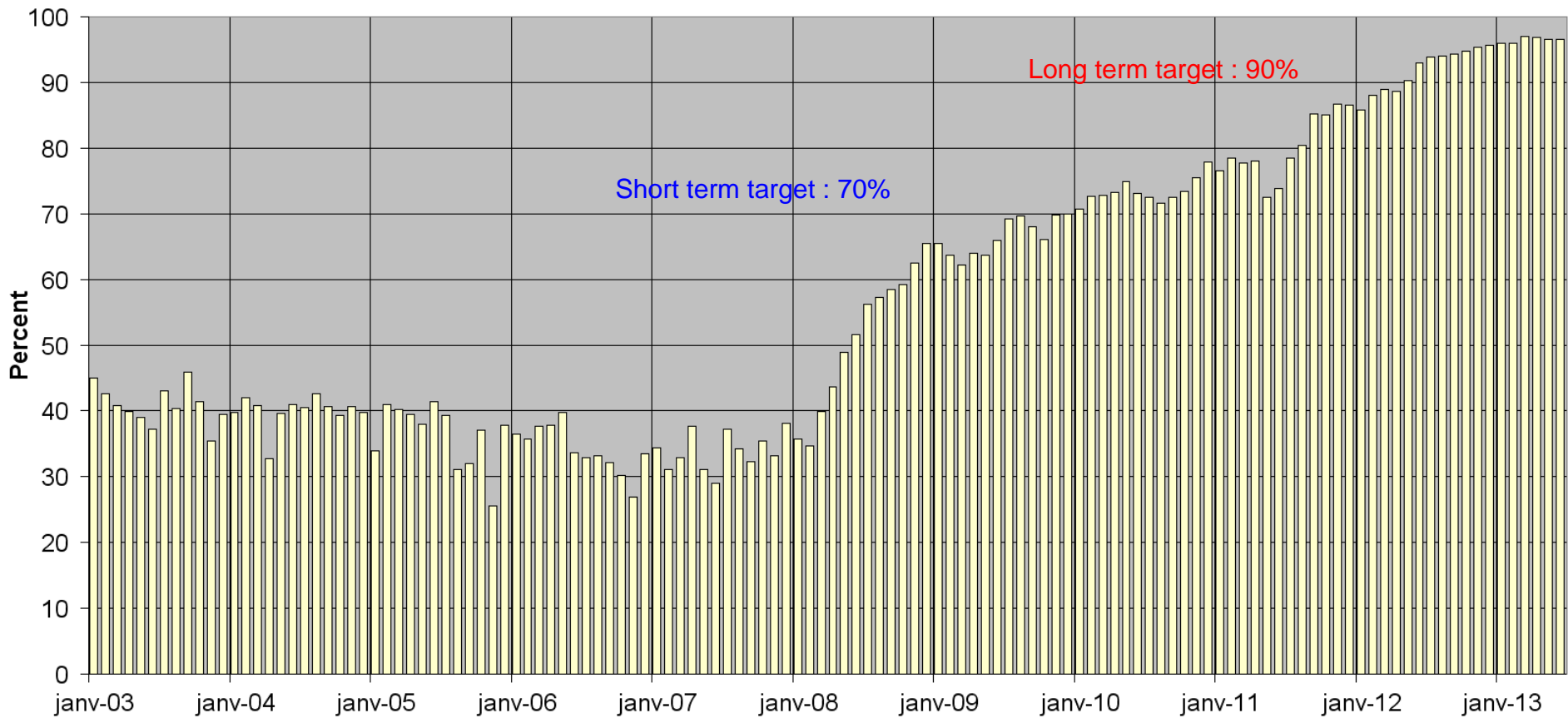
# Drifting Buoys Number of observations



# Drifting Buoys (Data availability)



# Drifting Buoys (Data timeliness % < 50 min)



# Contribution to IPY and EUCOS north area

- Contribution through IABP

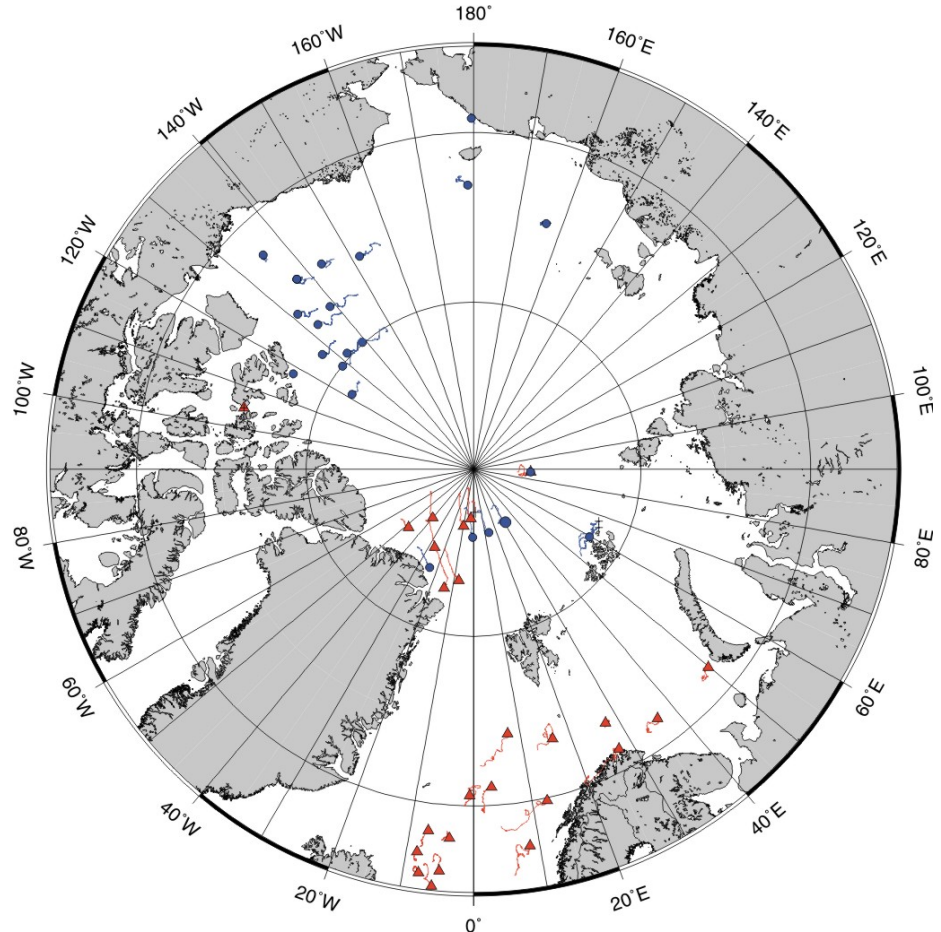
- 2 IcesAir in 2006,
- 3 ICEB buoys in 2007
- 4 SVP-B (2 Argos – 2 Iridium) in 2007
- 5 SVP-B (Argos) in 2008
- 15 SVP-B (Argos) in 2009
- extra free buoys from 2009 (10 to MetNo + 2 to NOAA) in 2010
- 3 New ICEB (2 Argos, 1 Iridium) + 12 SVP-B (Iridium) in 2011
- 22 SVP-B (Iridium) in 2012
- 13 SVP-B (Iridium) in 2013



# North EUCOS area and Arctic

All buoys on the map are measuring  
**air pressure** at least

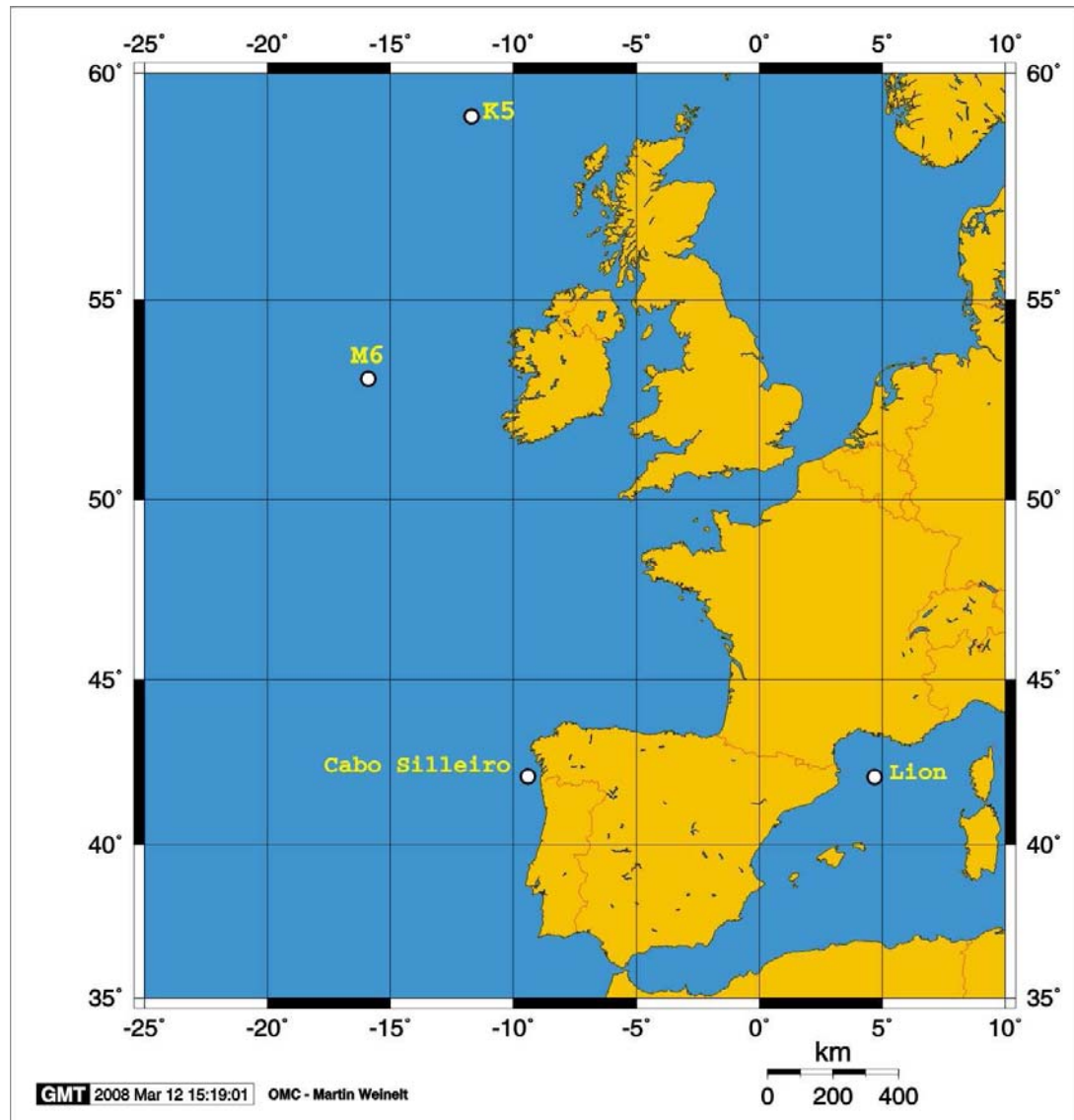
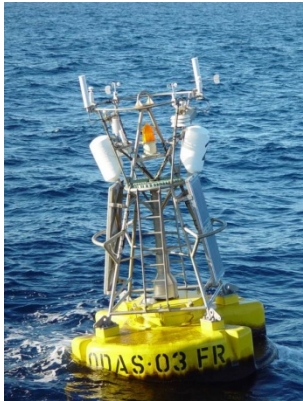
**Non-EUMETNET** drifting buoys in blue  
**EUMETNET** drifting buoys in red



**June 2013**

# EUCOS Moored Buoys

- K5 operated by the Met Office
- M6 operated by IMI and Met Eireann
- Cabo Silleiro operated by Puertos del Estado
- Lion operated by Meteo-France



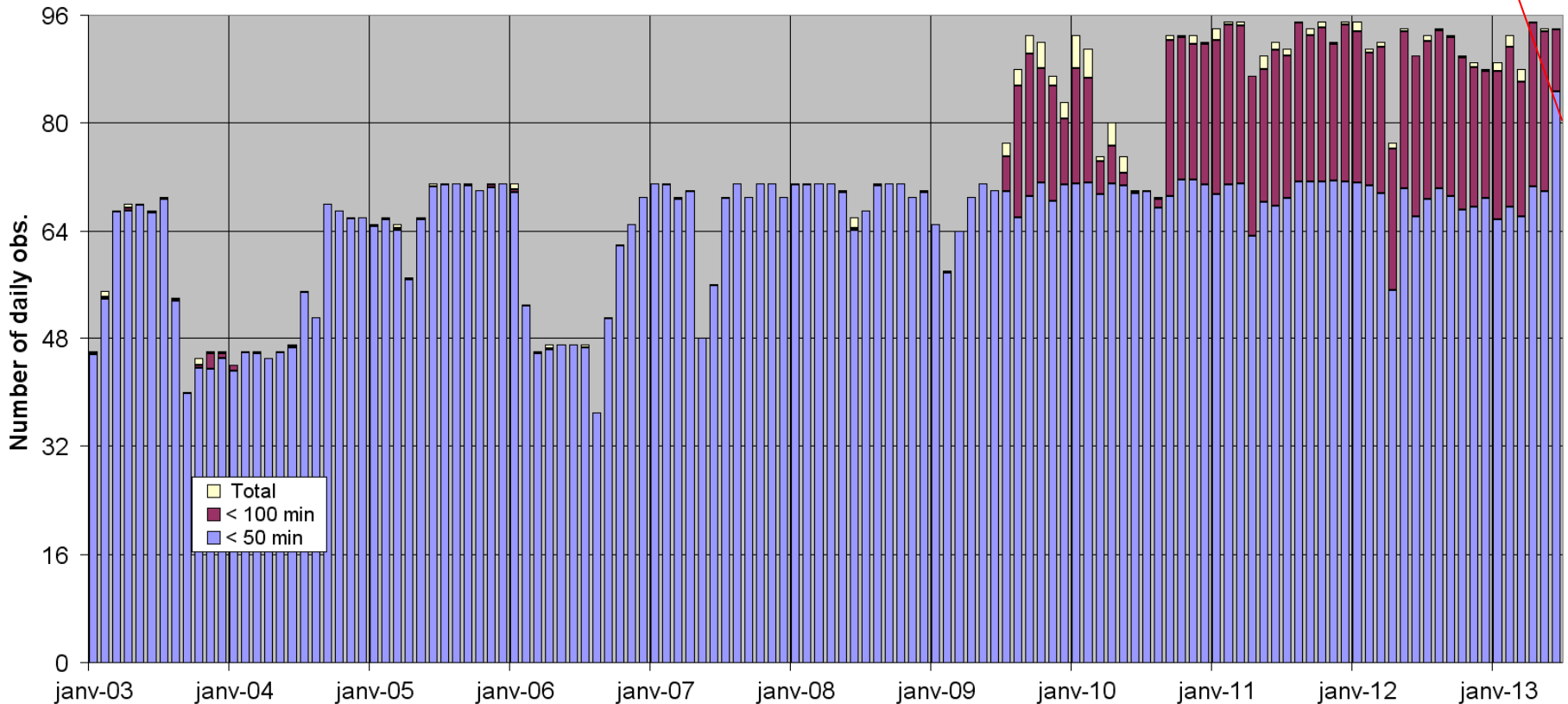
# EUCOS Moored Buoys

WMO	Name	Type	Country	GTS reports
<b>64045</b>	K5	K-pattern	UK	FM-13 SHIP FM-96 BUFR (spectral wave)
<b>62095</b>	M6	K-pattern	Ireland	FM-13 SHIP
<b>62084</b>	Cabo Silleiro	SeaWatch	Spain	FM-96 BUFR
<b>61002</b>	Lion	K-pattern	France	FM-13 SHIP FM-65 WAVEOB FM-96 BUFR (spectral wave)

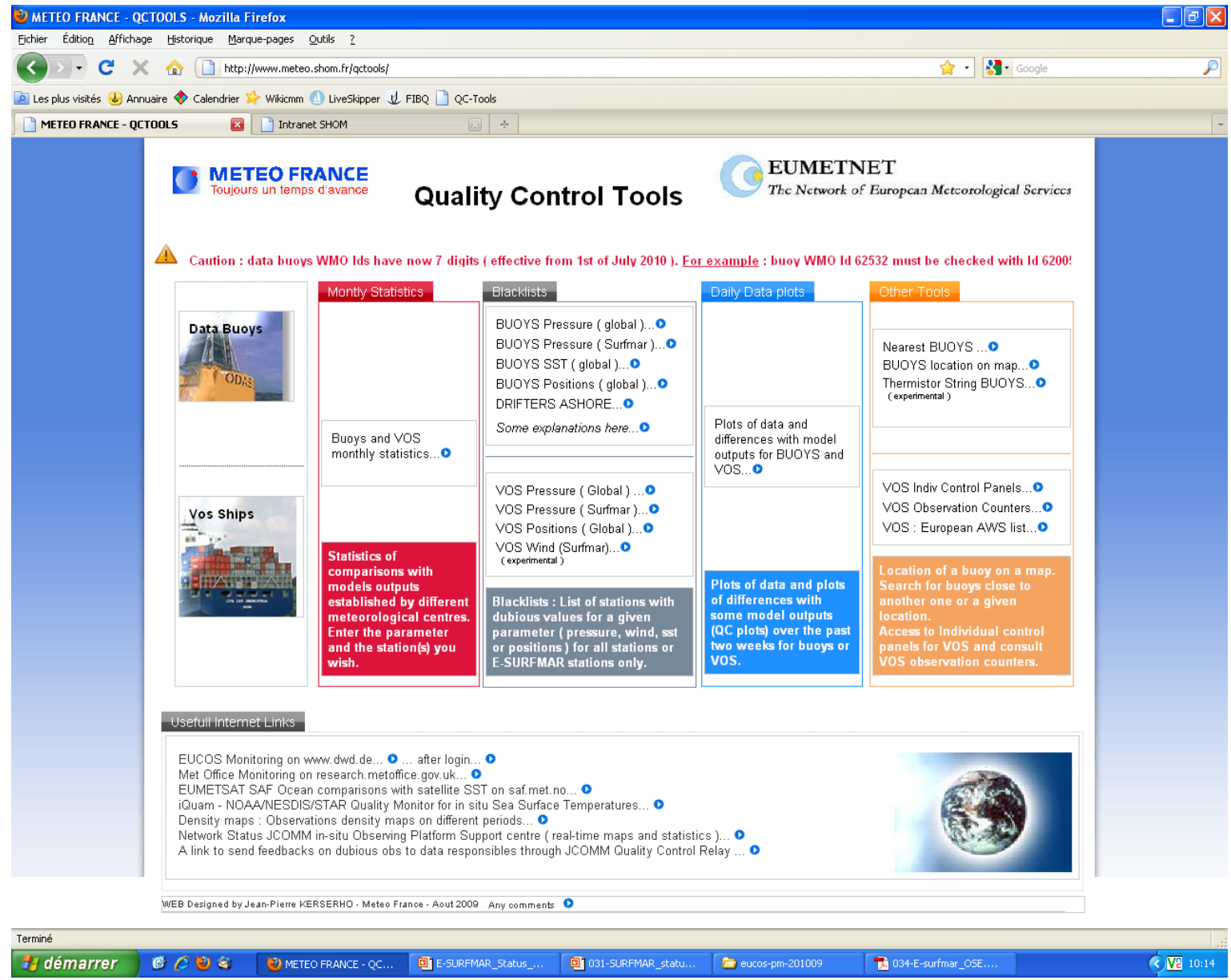
# Moored Buoys data availability (EUCOS)

(K5, M1 then M6 and Lion, then Cabo Silleiro)  
Data availability - Average number of hourly observations per day

Improvement in  
timeliness for Cabo  
Silleiro



# Data Quality Control Tools



The screenshot shows a web browser window titled "METEO FRANCE - QCTOOLS - Mozilla Firefox". The address bar shows the URL "http://www.meteo.shom.fr/qctools/". The browser's menu bar includes "Fichier", "Édition", "Affichage", "Historique", "Marque-pages", and "Outils". The browser's toolbar shows "Les plus visités", "Annuaire", "Calendrier", "Wikicmm", "LiveSkipper", "FIBQ", and "QC-Tools". The browser's tab bar shows "METEO FRANCE - QCTOOLS" and "Intranet SHOM".

The website content includes:

- Logos:** METEO FRANCE (Toujours un temps d'avance) and EUMETNET (The Network of European Meteorological Services).
- Section Header:** Quality Control Tools
- Warning:** Caution : data buoys WMO Ids have now 7 digits ( effective from 1st of July 2010 ). For example : buoy WMO Id 62532 must be checked with Id 6200!
- Navigation Tabs:** Monthly Statistics, Blacklists, Daily Data plots, Other Tools.
- Data Buoy Section:** Includes an image of a buoy and a link to "Data Buoy".
- Vos Ships Section:** Includes an image of a ship and a link to "Vos Ships".
- Monthly Statistics:**
  - Buoys and VOS monthly statistics...
  - Statistics of comparisons with models outputs established by different meteorological centres. Enter the parameter and the station(s) you wish.
- Blacklists:**
  - BUOYS Pressure ( global )...
  - BUOYS Pressure ( Surfmar )...
  - BUOYS SST ( global )...
  - BUOYS Positions ( global )...
  - DRIFTERS ASHORE...
  - Some explanations here...
  - VOS Pressure ( Global )...
  - VOS Pressure ( Surfmar )...
  - VOS Positions ( Global )...
  - VOS Wind (Surfmar)...
  - ( experimental )
  - Blacklists : List of stations with dubious values for a given parameter ( pressure, wind, sst or positions ) for all stations or E-SURFMAR stations only.
- Daily Data plots:**
  - Plots of data and differences with model outputs for BUOYS and VOS...
  - Plots of data and plots of differences with some model outputs (QC plots) over the past two weeks for buoys or VOS.
- Other Tools:**
  - Nearest BUOYS ...
  - BUOYS location on map...
  - Thermistor String BUOYS... ( experimental )
  - VOS Indiv Control Panels...
  - VOS Observation Counters...
  - VOS : European AWS list...
  - Location of a buoy on a map. Search for buoys close to another one or a given location. Access to Individual control panels for VOS and consult VOS observation counters.
- Usefull internet Links:**
  - EUCOS Monitoring on www.dwd.de... after login...
  - Met Office Monitoring on research.metoffice.gov.uk...
  - EUMETSAT SAF Ocean comparisons with satellite SST on saf.met.no...
  - iQuam - NOAA/NESDIS/STAR Quality Monitor for in situ Sea Surface Temperatures...
  - Density maps : Observations density maps on different periods...
  - Network Status JCOMM in-situ Observing Platform Support centre ( real-time maps and statistics )...
  - A link to send feedbacks on dubious obs to data responsables through JCOMM Quality Control Relay ...
- Footer:** WEB Designed by Jean-Pierre KERSERHO - Meteo France - Aout 2009 - Any comments

# Data buoys reporting

- Monthly report
- Annual report
- Working area of the E-SURFMAR website based on mediawiki, every participant to the programme can easily collaborate on its content

<http://esurfmar.meteo.fr/>

- Public website

<http://www.eumetnet.eu/>