EUROFLEETS CONFERENCE:

EVIOR portal perspectives

Dick M.A. Schaap – MARIS June 2013



EUROFLEETS 1:

initial European Virtual Infrastructure in Ocean Research (EVIOR), by way of an integrated information portal:

- providing up-to-date information about research vessels (RVs),cruise programmes, completed cruises and special equipment
- demonstrator for a Generic Cruise Planning System
- prototype for a Dynamic Vessel Tracking & Events System.



EUROFLEETS 1:

• EVIOR integrates existing modules from SeaDataNet (pan-European marine and ocean data management infrastructure), EurOcean and POGO (Partnership for Observation of the Global Oceans)

 has gathered entries together with all RV operators. Full European coverage. Cooperation with SeaDataNet, EurOcean, POGO, ISOM and ERVO







European Virtual Infrastructure in Ocean Research (EVIOR)





Cruise Summary Reports

Geographical box

D Time period pine .

Research Vessel Polarstern Belgica G.O. Sars Sonne Maria S. Merian >> More **Country operator**

| Germany | |
|----------------|--|
| Norway | |
| Belgium | |
| France | |
| United Kingdom | |
| >> More | |
| | |

Discipline

| and the second | |
|------------------------------------------------------------------------------------------------------------------|--------------|
| Biological oceanography Physical oceanography | (15) (13) |
| Marine geology | (8) |
| Chemical oceanography | (6) |
| Fishe <mark>r</mark> ies and aquaculture | (6) |
| >> More | |
| Sea area | |
| North East Atlantic Ocean (limit 40W) | (8) |
| Southern Ocean | (7) |
| Baltic Sea | (5) |
| South Atlantic Ocean | (5) |
| North Sea | (4) |
| >> More | |
| Related actions: | |
| Extended Search | |
| Updating | |
| Cruise Summary Reports | |
| Research Vessels | |
| Large Expendeable Instrun | ante |

Welcome to the Cruise Programmes

Start » Scheduled



Chief scientist en **Chief scientist**

organisation **Funding agency**

Objectives CSR reports

| Country operator | | | | | Details |
|------------------------------------------|-------|-----------------------------------------|-----------------------|---------|--------------------|
| Germany | (30) | | | | Tunnut data |
| Norway | (10) | | | | Input date |
| Belgium | (8) | | | | Cruise name |
| France United Kingdom | (6) | | | | |
| » More | (3) | | | | Status |
| Discipline | | | | | Shipcode |
| Biological oceanography | (15) | | | | |
| Physical oceanography | (13) | و والالوج | | | Vessel name |
| Marine geology | (8) | | | - | |
| Chemical oceanography | (6) | Zoom in to sele | ected 9 20 | 0 50 🤇 | Ship operator |
| Fisheries and aquaculture | (6) | Cruise name 🛱 | Vessel name ≑ | Country | Country operator |
| » More | | ANT-XXVIIII/3 | Polarstern | German | Departure |
| Sea area | | | - oldrotorin | | Departure |
| North East Atlantic Ocean (limit 40W) | (8) | ANT-XXVIIII/2 | Polarstern | German | Arrival |
| Southern Ocean | (7) | ANT-XXVIIII/1 | Polarstern | German | Berths |
| Baltic Sea | (5) | 2.000.000000000000000000000000000000000 | | | |
| South Atlantic Ocean | (5) | ANT-XXIX/10 | Polarstern | German | Departure port |
| North Sea | (4) | | | | |
| » More | _ | ANT-XXIX/9 | Polarstern | German | Arrival port |
| Related actions: | | | | | Specific area |
| Extended Search | | ANT-XXIX/8 | Polarstern | German | opecific area |
| Updating | | ANT-XXIX/7 | Polarstern | German | Sea area |
| Cruise Summary Reports | | ANT-AATA// | Polarstern | German | |
| Research Vessels | | ANT-XXIX/6 | Polarstern | German | Latitude1 |
| Large Expendeable Instrun | ients | | | | Latitude2 |
| | | EURO-BASIN SW Iceland 2013 | Bjarni Saemundsson | Iceland | Longitude1 |
| | | | | | |
| | | | | | Longitude2 |
| | | | | | Discipline |
| uise P | r n (| iram | mes | 5 | |
| | | <u></u> | | - | Chief scientist na |

| | 8/13/2012 10:10:51 AM |
|------|---------------------------------------------------------|
| | ANT-XXVIIII/3 |
| | Scheduled |
| | <u>06AQ</u> |
| | Polarstern |
| | F. Laeisz Shipping Group |
| r | Germany |
| | 2014-07-30 |
| | 2014-10-07 |
| | Unknown |
| | Tromsø |
| | Bremerhaven |
| | Arctic Ocean |
| | Arctic Ocean |
| | 53 |
| | 70 |
| | 4 |
| | 15 |
| | Cross-discipline |
| ame | Prof. Dr. Rüdiger Stein |
| mail | Ruediger.Stein@awi.de |
| | Alfred-Wegener-Institute for Polar- and Marine Research |
| | |
| | Alfred-Wegener-Institute for Polar- and Marine Research |
| | geosciences, biology, physical oceanography |
| | Click here to go to the Cruise Summary Reports |

旦

Cruise Programme database total

| Country | Cruise | Country | Cruise |
|---------|--------|----------------|--------|
| Belgium | 229 | Netherlands | 92 |
| Estonia | 5 | Norway | 246 |
| Finland | 17 | Poland | 62 |
| France | 161 | Portugal | 29 |
| Germany | 304 | Romania | 23 |
| Greece | 43 | Spain | 88 |
| Iceland | 20 | Sweden | 87 |
| Ireland | 172 | Turkey | 41 |
| Italy | 74 | United Kingdom | 151 |
| | | TOTAL | 1844 |





| Welcome to t | he Cruise | Summary Reports | | | | | | | | | |
|---------------------|-----------|----------------------------------|------------|--------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------|---------------------------------------------------------------------------|---------------------------------------------|--------------------------------------------|---------------------------------------------------------------|------------------|
| Search | | all | | | | | | | | | |
| ree search | | - 🦾 - Euroflog | Towar | de an Alliance | | | | | and the second second | | |
| Country of ship | All | Euroflee | of Eur | opean Research F | leets | | | 100 | | | |
| | | | | - P | 10000 | PROGRAM | ME | 20 | | | |
| roject | All | Welcome to the Cruise S | ummary Rep | orts | | | | | | | |
| ruise name/nr | | Search results | ·····/···· | | | | | | | | |
| liscipline | All | | | 10.0 | | - 1005 | | | 1.01.1.20 | | |
| orts | All | _ | 0 | Refine query Ne | | | | | | | |
| | | Platform/Ship Name Haakon Mosby | Norway | of ship Cruise name 2013606 | | <mark>.om ≑</mark>)13-03-14 | | o≑ 013-03-18 | Show 3 | | |
| ountry of institute | All | KBV 592 | Sweden | 2013600 | |)13-03-14 | | 013-03-14 | 3 | | |
| | | | Sweden | 2013K07 | | 12-02-14 | | 013-03-14 | 3 | | |
| | | Unknown | | Details | | | | | | | |
| Developed by CarDat | - N - 4 | G.O. Sars | Norwa | | | | I | Refine query N | lew query Result | ts Found 8358 Show 187 | 6 Previous N |
| Powered by SeaDat | anet | KBV 001 Poseidon | Swede | Details of 2010614 (BSH | 20103265) | | | | | | |
| | | KBV 592 | Swede | General Information | | | | | | | |
| | | Sagita | Slover | Platform/Ship Cruise name | Haakon Mo 2010614 | SDY | | | | | |
| | | Unknown | | Cruise begin | 2010-07-3 | 1 | | | | | |
| | | | | Cruise end | 2010-08-1 | 7 | | | | | |
| | | Haakon Mosby | Norwa | Port of departure | Tromsø | | | | | | |
| | | KBV 002 Triton | Swede | Port of return Chief Scientist(s) | Longyearb | | n Environme | ntal and Damat | e Sensing Center | | |
| | | Magnus Heinason | Denma | Responsible Laboratory | University | | II EIIVII OIIIIIE | intal and Remot | e Sensing Center | | |
| | | | | Country | Norway | | | | | | |
| | | KBV005 | Swede | Location | | | | | | | |
| | | Haakon Mosby | Norwa | General Ocean Areas | Barents Se Norwegian | | | | | | |
| | | | | Marsden squares (S,N,E,W) | | 80.0, 10.0 80.0, 0.0, | | | | | |
| | C | | | Bounding Box(es) | South | West | North | East 10 | | | |
| ruise | e Su | mmary | | | 70 70 | 10 | 80 80 | 20 | | | |
| epor | |) | | Specific Geographic Areas | Fram Strai | t. Istern Fram | Strait 78 26 | | 0-10 E, this area | included the Molloy deep. | |
| | | | | Objectives | | | | | | | |
| |) | | | Description | -deploy the -conduct C -recover (b -conduct s -deploy fiv | ree acoustic TD survey by ROV) and tandard hyd e moorings | tomograph in the Fram d service two drography se in Van Mijer | bottom-mount ection Soerkapp ofjorden | e Fram Strait ed RDI ADCPs (Sto Vest | orfjorden sill and west of Sp rrent. small scale hydrograp | |

-conduct process studies on mixing in Van Mijenfjorden by using current, small scale hydrography and

microstructure measurements.

Cruise Summary Reports - totals

9

| Year | No. of Cruise Summary Reports | No. of countries |
|------|----------------------------------|------------------|
| 2005 | 888 | 21 |
| 2006 | 947 | 24 |
| 2007 | 985 | 23 |
| 2008 | 1400 | 24 |
| 2009 | 1363 | 22 |
| 2010 | 1546 | 21 |
| 2011 | 835 | 21 |
| 2012 | 420 | 19 |



< Back to Eurofleets homepage

Towards an Alliance of European Research Fleets



This directory is a searchable database of European reseach vessels. Operators/managers can enter/update their research vessels online or by contacting the helpdesk.

Operating RVs

Last update

helpdesk.

(c) Powered by

Prepare your query with a combination of the following criteria:

[Vessel Name] < Back to Eurofleets homepage [Vessel Category]

Towards an Alliance of European Research Fleets

-

Cruise Programmes database

Cruise Summary Reports database

Large Exchangeable Instruments database



Eurofleets European Vessel Database

James Clark Ross

Contact Information



Print PDF

< Back to Search



09.02.2009

This directory is a searchable database of

Operators/managers can enter/update their research vessels online or by contacting the

European reseach vessels.

| | | Owner | British Antarctic Survey (BAS) |
|------------------------------------------|----------------------------------|----------------|-----------------------------------------------------------------------------------------------|
| 1 - | id . | Operator | British Antarctic Survey (BAS) |
| - Antonio | A CONTRACTOR | Contact person | Chris Hindley |
| | RI . | Address | High Cross Madingley Road CB3 OET Cambridge United Kingdom |
| | | Telephone | +44 0 1223 221497 |
| Status Main activity | Operating Multiple activities | Fax | +44 0 1223 362616 |
| Operating area Country | Other United Kingdom | Website | http://www.antarctica.ac.uk//living_and_working/research_ships/rrs_james_clark_ross/index.php |
| ICES code NODC code | 74JC 74JC | Email | C)HH@bas.ac.uk |
| Call sign Year built | ZDLP 1991 | Observations | |
| Homeport Length Avail. for charter | Stanley 99.04 m Yes | Technical Deta | ils |
| | | | |

Main Dimensions

| Length | 99.04 | |
|----------------------------|-------|--|
| Freeboard to Work Deck (m) | 3.3 | |
| Draft (m) | 6.4 | |

Research Vessels **Database**



| - | | |
|-----|--------|--|
| 1.1 | 120120 | |

Multiple activities

Prototype for a Dynamic Vessel Tracking & Events System

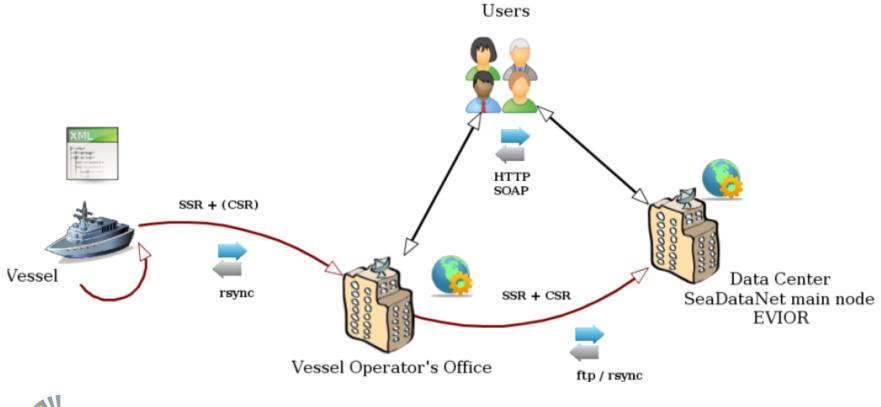
 giving dynamic cruise tracks and present position of vessel of selected RVs on map with position, speed and bearing

 Including daily Ship Summary Reports (SSR) of events as registered in an onboard system for underway instruments

 underway instruments are described as SensorML files. The data and capabilities are retrievable by an Sensor Observation Service (SOS)



Transfer of SSR and CSR









Select Research Vessel

- 🕥 Sarmiento de Gamboa
- Hesperides

Select mode

- o dynamic position, bearing and speed of selected RV
- track-chart from prototype start to present with geographic positions, speeds and bearings

Retrieve the 24 hours Ship Summary Report (SSR) and related log of events by clicking on any position of the vessel track.

Off

On



| vessel_name | Hesperides | * |
|------------------------|---------------------|---|
| vessel_c174 | SDN:C174:198:29HE | E |
| last_navigation_update | 2013-04-11T11:47:28 | |
| last_date | 2013-04-11T11:47:27 | |
| last lat | -77 1494774 | - |

| Date | Speed | Bearing |
|---------------|-------|-----------------------|
| 2013-03-03121 | 11.0 | JU4.UJ |
| 2013-03-05T22 | 11.7 | 301.19 |
| 2013-03-05T23 | 11.8 | 305.64 |
| 2013-03-06T00 | 12.4 | 320.53 |
| 2013-03-06T01 | 13.3 | 32 <mark>1.4</mark> 4 |
| 2013-03-06T02 | 11.5 | 309.13 |

EUROFLEETS 2 => further development of EVIOR

Ultimate goal is to establish a common system for giving e-access to underway and operational information and data from sailing research vessels. Foreseen as:

 a generic RV boardsystem, to be installed and configured at research vessels, capable of recording any possible event, ranging from a sample taken or an observation done to any malfunction occurring;



• an en-route Cruise Summary Reporting (CSR) system integrated into the RV boardsystem with output to the EVIOR portal, giving dynamic cruise track and position, an overview of events, and first level inventory of oceanographic measurements made and samples taken during the cruises;

• a linkage between the shipboard metadata and data systems to the EVIOR portal for giving users opportunities for direct access to operational data for selected situations.



EUROFLEETS 2 EVIOR implementation:

• Developing new features in the EUROFLEETS Automatic Reporting System (EARS)that was developed for recording any possible event

• Standardization of the data acquisition process by adopting OGC Sensor Web Enablement (SWE) technologies to streamline the transfer of metadata and data, together with SeaDataNet and JERICO



EUROFLEETS 2 EVIOR implementation:

 Further developments and maintenance of the database services for Research Vessels, Cruise Programmes, Cruise Summary Reports and Special Equipment

• Further development of a generic Cruise Planning System



Expected results of Eurofleets 2 activities (WP4 + WP13)

- implementation of the "virtual fleet "concept for a coordinated and cost-effective use of European RVs by providing up-to-date information on cruises
- streamlining the transfer of metadata and data from RVs to data centres at shore to users
- giving e-access to underway data

