

WORLD METEOROLOGICAL ORGANIZATION

INTERGOVERNMENTAL OCEANOGRAPHIC
COMMISSION (OF UNESCO)

JOINT WMO/IOC TECHNICAL COMMISSION FOR
OCEANOGRAPHY AND MARINE METEOROLOGY
(JCOMM)

SHIP OBSERVATIONS TEAM (SOT)

EIGHTH SESSION

CAPE TOWN, SOUTH AFRICA, 20-24 APRIL 2015

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(25.03.2015)

ITEM: 10.2.2

Original: ENGLISH

VOSCLIM DATA ASSEMBLY CENTRE (DAC) REPORT

(Submitted by Eric Freeman (USA))

Summary and purpose of the document

This report, by the National Centers for Environmental Information - NCEI (acting as the DAC for the VOS Climate Fleet), provides information on the present status of the DAC activities in accordance with its Terms of Reference. It includes information on the status of the project website, including the collection and provision of real-time and delayed-mode observation data, metadata, ship listings and other project information.

ACTION PROPOSED

The Team will review the information contained in this report, and comment and make decisions or recommendations as appropriate. See part A for the details of recommended actions.

The Team will be invited to consider the display and availability of project data on the website and to advise the DAC of any further requirements, as necessary.

Appendices: A. Screen Captures from the updated VOSCLim Fleet DAC Website

DISCUSSION

10.2.2 VOSClm Data Assembly Centre (DAC) report

10.2.2.1 The US NOAA National Centers for Environmental Information (NCEI), acting as the DAC for the VOSClm fleet, reported on the present status of the DAC activities in accordance with its Terms of Reference. The DAC reported on the status of the project website, including the collection and provision of real-time and delayed-mode observation data, metadata, ship listings and other project information. In the coming years, the MCDS will replace the MCSS and at that time it is expected that the VOSClm DAC will be upgraded to the MCDS Global Data Assembly Centre (GDAC) for the VOSClm.

Data Assembly

10.2.2.2 NCEI maintains several archives in support of the VOSClm Fleet and hosts a web presence¹ for access to fleet information and data. The archive consists of three data streams:

- GTS - near-real time collection of ship observations
- BUFR – ship observations plus model fields
- GCC – Global Collection Centers delayed mode ship observations

10.2.2.3 VOSClm observations from all streams are captured based on the most current VOSClm ship list² available. GTS ship observations are transmitted over the GTS under a variety of WMO headers. BUFR ship observations are transmitted daily from the UK Met Office via the GTS under WMO abbreviated headers ISXX4* and IOXX4* (where * is equal to 0, 1, 2 or 3).

10.2.2.4 The DAC continues to report quarterly to the GCCs on the number of delayed mode VOSClm observations parsed from the delayed mode files distributed to Responsible Members (RM). This information is used in the GCC annual reports.

10.2.2.5 All observations are decoded into the International Maritime Meteorological Archive (IMMA) format³ and placed on the project web site⁴.

VOSClm Web Page and Data Access

10.2.2.6 NCEI reported that the VOSClm DAC web pages were significantly modified in 2013 due to NCEI web operations being moved to a web content manage system. The website was streamlined and provides a new look and feel. All data and Fleet information remain as before. Screen shots of the updated DAC VOSClm Fleet web pages are provided in Appendix A.

10.2.2.7 The URL for data access is:

<http://www.ncdc.noaa.gov/data-access/marineocean-data/vosclim/data-management-and-access>

and provides links to ftp downloads and NCEI Climate Data Online (CDO)⁵ for subsetting VOSClm Fleet observations. The Marine CDO access system is currently under construction and is being upgraded significantly to enhance marine data access and provide more user-friendly functions for data access. The CDO subsetting interface should be fully functional by June 2015 and at that time will provide map search functions and other subsetting options, such as call sign and temporal/spatial parameter subsetting capabilities.

1 <http://www.ncdc.noaa.gov/data-access/marineocean-data/vosclim>

2 <ftp://esurfmar.meteo.fr/pub/Pub47/>

3 <http://icoads.noaa.gov/e-doc/imma/R2.5-imma.pdf>

4 <http://www.ncdc.noaa.gov/data-access/marineocean-data/vosclim/data-management-and-access>

5 <https://www.ncdc.noaa.gov/cdo-web/>

10.2.2.8 For an automated download, the data is available on an anonymous FTP site <ftp://ftp.ncdc.noaa.gov/pub/data/vosclim>. Separate folders exist for each year beginning with 2001. Also available for download from the FTP site is award pictures, ship pictures, monthly statistics and suspect ship reports.

VOSClm Ship List

10.2.2.9 During 2014, preparations and testing were performed to transition VOSClm operational processing at the DAC from the old NCDC-maintained ship list to use of the more frequently updated ESURFMAR informal Pub 47 ship list. ESURFMAR produces two VOSClm ship lists, active-only and a full VOSClm historical list containing both active and inactive ships. NCEI is archiving a daily snapshot of both lists and is using the full historical list for operational processing.

10.2.2.10 On 1 January 2015, this operational change went into effect and the DAC ship list was then abandoned and removed from the DAC website. Benefits of this change include: access to the most current VOSClm metadata when processing; and one less requirement on PMOs to provide metadata to two different locations to ensure accurate VOSClm data processing.

APPENDIX A

SCREEN CAPTURES FROM THE UPDATED VOSCLIM FLEET DAC WEBSITE

Home > Data Access > Marine / Ocean > Voluntary Observing Ship Climate (VOSClm) Fleet


Quick Links

- Land-Based Station ▼
- Satellite ▼
- Radar ▼
- Model ▼
- Weather Balloon ▼
- Marine / Ocean ▲
 - Global Marine Data
 - ICOADS
 - Marine Data Map Access
 - ERSST v3b ▼
 - Surface Flux Analysis (SURFA)
 - Voluntary Observing Ship Climate (VOSClm) Fleet** ▲
 - Data Management and Access
 - Ship Metadata
 - Blended Sea Winds
 - Paleoclimatology ▼
 - Severe Weather ▼

Voluntary Observing Ship Climate (VOSClm) Fleet

The aim of Voluntary Observing Ship Climate (VOSClm) Fleet is to provide a high-quality subset of VOS data in both real time and in delayed mode, supplemented by an extensive array of metadata, to support global climate studies and research.

The VOSClm Fleet builds on the strong foundation of the VOS Climate Project that ran between 2001 and 2009.

The VOSClm Project  followed the successful VOS Special Observing Project North Atlantic (VSOP-NA) that was conducted on behalf of the World Climate Research Project (WCRP) between May 1988 and September 1990. The aim of VSOP-NA was to establish the effects on the quality of VOS data of different ship instrumentation and observing practices.

A review of the VOSClm Project was initiated in 2008 and concluded that the operational project goals had been achieved and that there were many positive results that should be applied across the entire VOS Fleet. It was proposed and agreed at the Ship Observations Team Fifth Session (SOT-V) in 2009 to end the VOSClm Project but to create a new VOSClm class of VOS reporting vessel.

For more information on VOSClm please visit the [Voluntary Observing Ship Scheme](#) website.

- **Data Management and Access**
Data are collected at NOAA's National Climatic Data Center (NCDC), converted to a common format, and made available through FTP and database access along with supporting quality monitoring statistics.
- **Ship Metadata**
Upon recruitment of a ship into the VOSClm fleet, the Port Meteorological Officer (PMO) collects an extensive list of metadata about the ship as required for WMO No. 47 – International List of Selected, Supplementary, and Auxiliary Ships.

Contact Information

- [VOSClm Focal Point](#)
- [VOSClm Scientific Advisor](#)
- [VOSClm Data Access](#)

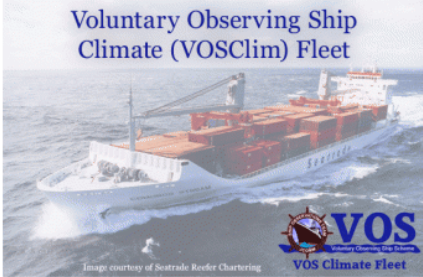


Image courtesy of Seastrade Reeder Chartering

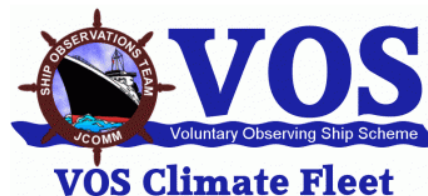
A.1. VOSClm DAC Home Page: <http://www.ncdc.noaa.gov/data-access/marineocean-data/vosclim>

Quick Links

- Land-Based Station ▼
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 - Ship Metadata
 - Blended Sea Winds
- Paleoclimatology ▼
- Severe Weather ▼

Voluntary Observing Ship Climate (VOSClim) Fleet Data Management and Access

Voluntary Observing Ship Climate (VOSClim) Fleet observations are collected from multiple sources, both in real time and in delayed mode, and made available through the VOSClim Data Assembly Centre (DAC). Data are collected at NOAA's National Climatic Data Center (NCDC), converted to a common format, and made available through FTP and database access along with supporting quality monitoring statistics.



- **FTP: ASCII Data**
Access to VOSClim data directly from monthly text files
- **Climate Data Online (CDO) Marine Data**
Access to VOSClim data as well as data from buoys and other ships through NCDC's CDO web access application
- **Monitoring Reports**
Access to VOSClim monthly statistics and ships suspect list*
**Note: There are no ship suspect reports for January–April 2002 and reports exist only for limited elements for the remainder of 2002*
- **Archive Data Format Documentation**
The International Maritime Meteorological Archive (IMMA) format documentation

To learn more about VOSClim and to obtain contact information, visit the [Voluntary Observing Ship Climate Fleet](#) page.

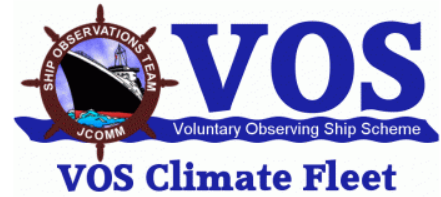
A.2. VOSClim DAC Data and Monitoring Report Access: <http://www.ncdc.noaa.gov/data-access/marineocean-data/vosclim/data-management-and-access>

Quick Links

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ERSST v3b	▼
Surface Flux Analysis (SURFA)	
Voluntary Observing Ship Climate (VOSClm) Fleet	▲
Data Management and Access	
Ship Metadata	
Blended Sea Winds	
Paleoclimatology	▼
Severe Weather	▼

Voluntary Observing Ship Climate (VOSClm) Fleet Ship Metadata

Upon recruitment of a ship into the [Voluntary Observing Ship Climate \(VOSClm\) Fleet](#), the Port Meteorological Officer (PMO) collects an extensive list of metadata about the ship as required for WMO No. 47 – International List of Selected, Supplementary, and Auxiliary Ships. Metadata about the type of instrumentation, location, and exposure are absolutely essential to a correct interpretation and use of the observations. The metadata also includes mandatory digital photographs of the instruments and their location. Please send additional photographs as well as all Ship List updates and inquiries to Eric.Freeman@noaa.gov.



- [World Meteorological Organization \(WMO\) Pub No. 47 and European Meteorological Services Network Surface Marine Programme \(E-SURFMAR\) Metadata Listings](#)
VOS operational resources, metadata, and WMO No. 47 (Pub 47)
- [Informal Pub 47 VOSClm Ship List](#)
VOSClm list at E-SURFMAR provided in an Excel spreadsheet
- [Ship Photographs](#)
National Climatic Data Center (NCDC) FTP site containing ship and instrument photographs of ships sorted by call sign and ship name
- [Dutch VOSClm Ships](#)
Dutch website with ship photographs
- [Award Pictures](#)
NCDC FTP site containing pictures of VOSClm Project awards and presentations

To learn more about VOSClm and to obtain contact information, visit the [Voluntary Observing Ship Climate Fleet](#) page.

A.2. VOSClm DAC Metadata Links and Ship Photographs: <http://www.ncdc.noaa.gov/data-access/marineocean-data/vosclim/ship-metadata>