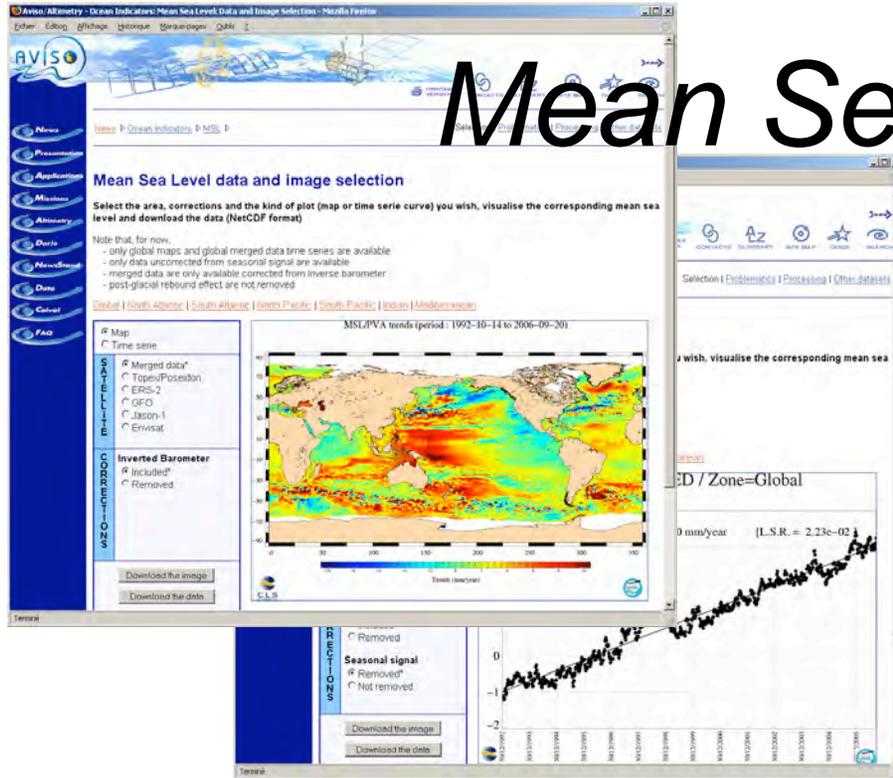


# Mean Sea Level web site

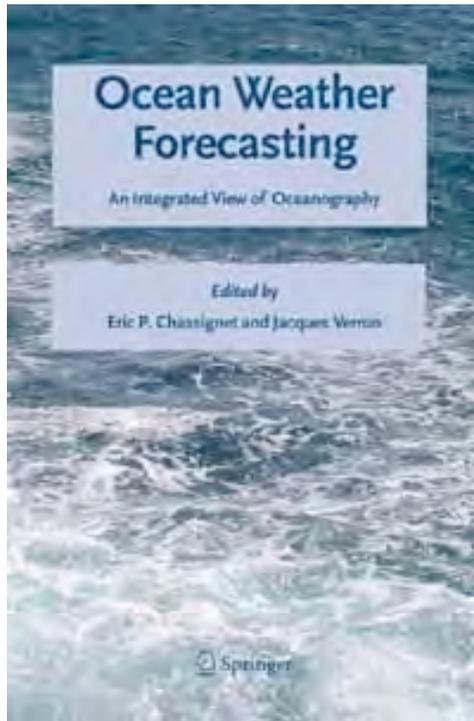


## Aviso new online Mean Sea Level database

- **Maps and time series (as figures and as data)**
- since November 1992 (depending on the mission)
- With / without Inverse Barometer correction (Jason-1, T/P)
- By satellite (T/P, Jason-1) and merging all satellites
- Time series over basins (N. & S. Atlantic and Pacific, Indian, Mediterranean,
- Time series figures corrected or uncorrected from seasonal variations
- **Updated for every cycle** processed and validated

- Author name: CLS/Cnes/Legos
- Year: 2007 - updates
- Public aimed: general public, climatologists, environmental agencies
- Medium: web
- Size / Format: N/A
- Language(s): English, French

<http://www.aviso.oceanobs.com/msl/>



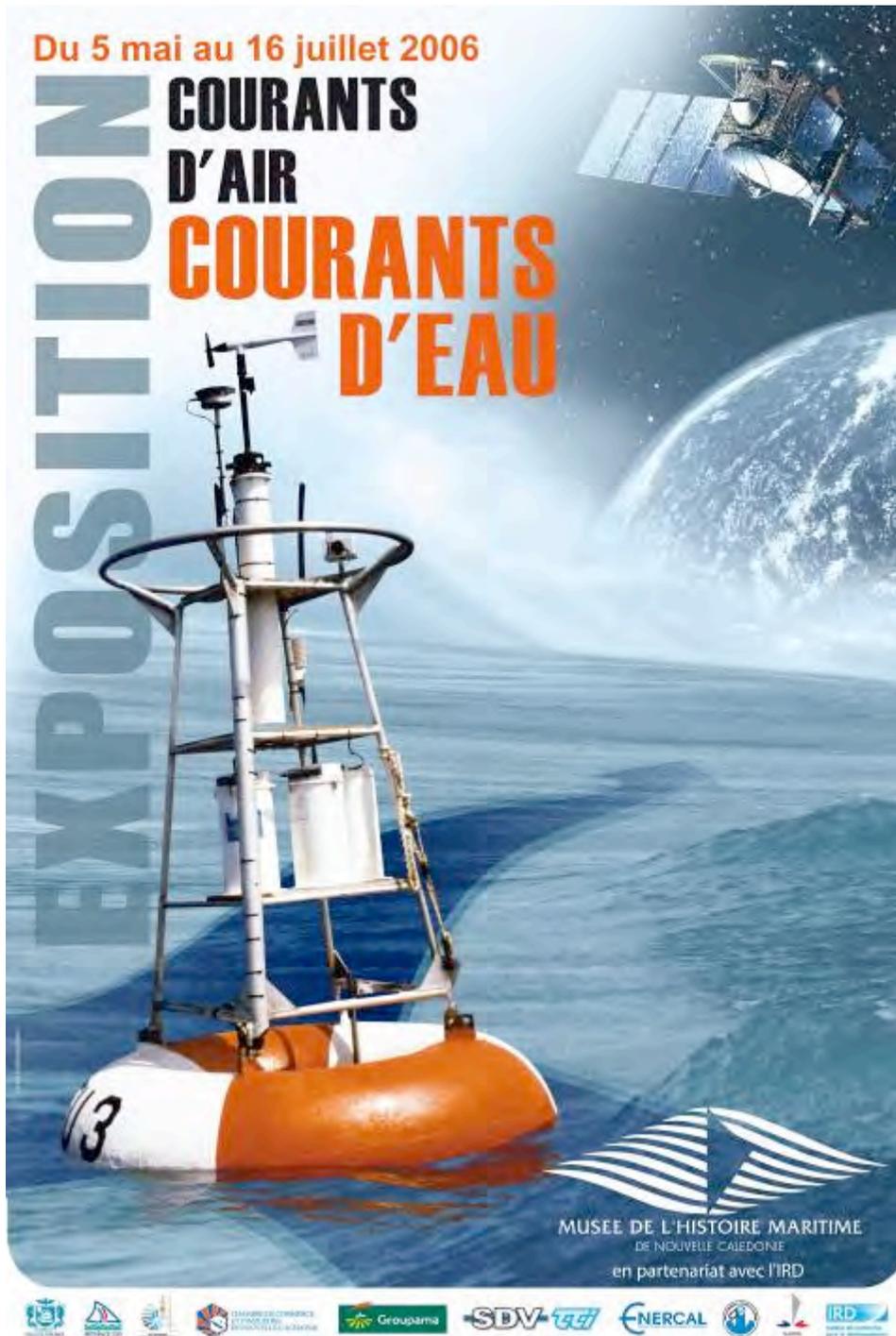
**Ocean Weather Forecasting  
An Integrated View of  
Oceanography**

Springer

2006, XII, 578 p., Hardcover

ISBN: 978-1-4020-3981-2

- Author name: Chassignet, Eric P. and Verron, Jacques (Eds.)
- COPAS, Tallahassee and LEGI, Grenoble
- Year: 2006
- Public aimed: decision-makers, scientists, end-users...
- Medium: Book
- Language(s): English

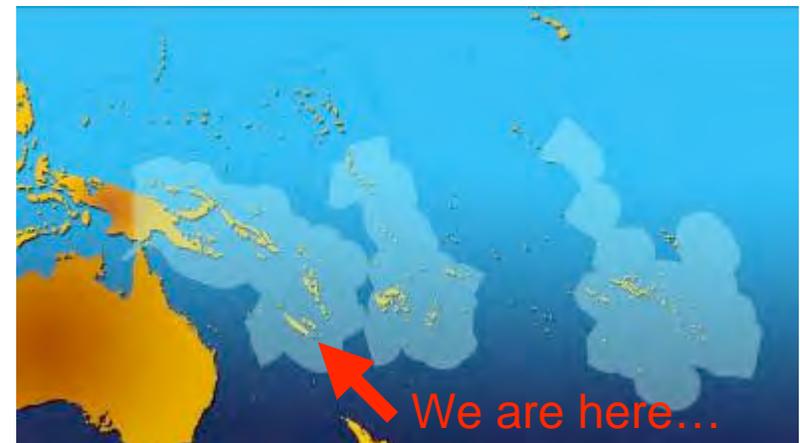


« Courants d'air, courants d'eau »,  
a public exhibition held in Nouméa  
based on oceanography and satellite  
remote sensing.

Christophe Maes<sup>1</sup>  
and Valérie Vattier<sup>2</sup>

1 IRD-LEGOS, Nouméa

2 Maritime Museum of New Caledonia, Nouméa



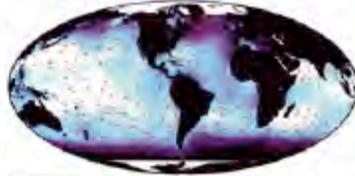
## Vers l'océanographie opérationnelle

Prévoir l'océan comme on prévoit l'atmosphère est actuellement un thème en plein développement. Grâce aux observations fournies par les satellites et les instruments en mer, les océans sont mieux compris aujourd'hui, leurs échanges avec l'atmosphère mieux perçus et leurs mouvements mieux anticipés.

### L'observation par satellite

Étudier les océans signifie les observer régulièrement afin de collecter rapidement et fréquemment des mesures sur l'ensemble du globe. Grâce aux satellites, il est maintenant possible d'obtenir très rapidement des informations précieuses comme la température de surface, la vitesse et la direction des vents en surface, la hauteur des vagues, ou encore la teneur en chlorophylle de l'eau. Mais il ne faut s'agir que de mesures de surface. Les données recueillies au sein des océans par les navires, les bouées ou d'autres équipements continuent d'être complémentaires et nécessaires.

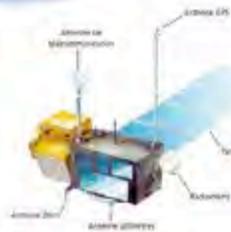
Exercice du réseau océanique mondial



Cette carte a été réalisée à partir de données de sondes Espace-Océan entre octobre 92 et juillet 93. Les lettres indiquent correspondances et des zones de zones, les lettres blanches et les zones en jaunes. Et sur la surface des océans ou des continents.

### Modéliser pour mieux prévoir

Avant d'être communiquées aux scientifiques et autres utilisateurs du monde entier, les données sont traitées, analysées et éventuellement corrigées. Des modèles numériques performants, conçus à partir de méthodes rigoureuses de calcul permettent maintenant de prévoir l'état de la mer, la circulation océanique, l'évolution à long terme du climat ou les variations du niveau des océans.



### Les satellites

Les données s'ajoutent depuis l'espace aux autres données recueillies en mer et en surface au cours des années. De grands programmes, comme le programme Argos, assurent le transfert le plus efficace possible des données.



Modèle de prévision d'un cyclone (12 décembre 1999). Météo-France a des responsabilités nationales et internationales dans la gestion des prévisions météorologiques. Il est ainsi sollicité par les autorités pour fournir, en temps réel, des prévisions météorologiques et océanographiques (prévisions de déferlance).

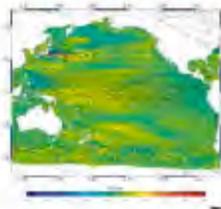
### De nombreuses applications

Les données, recueillies plusieurs fois par jour, contribuent aujourd'hui aux prévisions océaniques utilisées quotidiennement dans de nombreux domaines tels que la météorologie marine, la prévision climatique, la navigation, la gestion des ressources halieutiques, la construction et l'exploitation offshore ou encore la prévision climatique. Météo France, un des acteurs incontournables de la sécurité en mer, a ainsi développé un modèle de dérive qui lui permet de prévoir le déplacement des masses de polluants ou encore la dérive d'objets flottants à la surface de l'océan.



Un modèle de prévision de la dérive des masses de polluants ou des objets flottants à long terme.

### Les courants du Pacifique vus par satellite



Exposition  
Courants d'air, Courants d'eau,  
Nouméa, 2006.



R/V Alis



# IDS outreach product

## Network on Google Earth

Make a virtual tour of the DORIS network with [Google Earth](#).



### DORIS network on Google Earth:

[Download the file](#) (February 2007).

Depending on the resolution of the image, we sometimes adjusted the position of the antenna of the station according to our knowledge of the site. Some positions could still be improved with your help. Comments, maps and pictures are welcome at any time to help us to improve the virtual tour and should be e-mailed to the [Central Bureau](#).



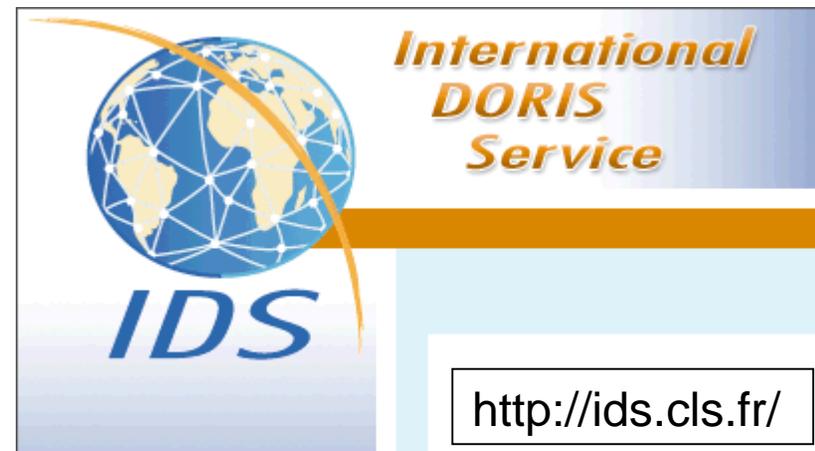
Copyright © 1999-2007 CNES-CLS. All rights reserved.

Last updated: 2007/02/06  
[Webmaster](#)

## New IDS web site

- Improved organization
  - Easier navigation
- Analysis Coordination pages
  - beside the usual "IDS" and "DORIS system" headings
- Virtual tour of the DORIS network via Google Earth

- Author name: G. Tavernier (CNES)
- L. Soudarin (CLS)
- Year: 2007
- Public aimed: general public
- Medium: web site
- Size / Format:
- Language(s): English





# IDS outreach product

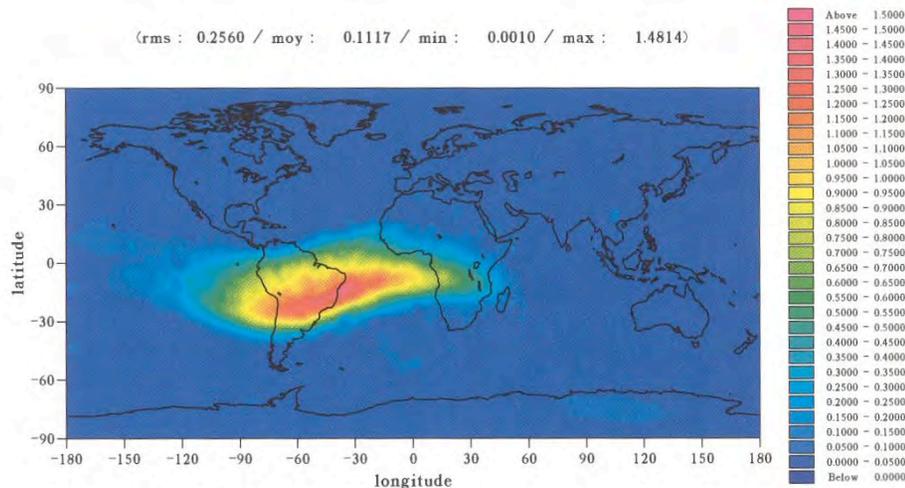


Fig. 7 Plot of the relative SAA dose exposure in 2002–2005 at the 1,300 km altitude of Jason-1 (dimensionless units)

## ***DORIS Special Issue in Journal of Geodesy***

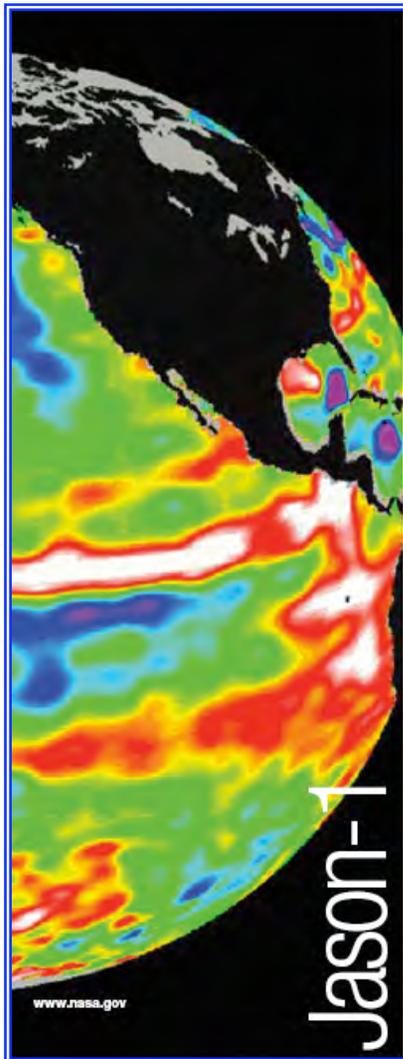
- Guest Editor: P. Willis
- 17 articles
- Volume 80, Numbers 8-11
- November, 2006
- ISSN: 0949-7714

<http://www.springerlink.com/content/x064n7136046/>

- Author name: P. Willis
- IGN/IPG Paris
- Year: 2006
- Public aimed: scientists, , university students
- Medium: journal
- Size / Format: 21 cm x 28 cm
- Language: English



# Jason 5th Anniversary/ Ocean Literacy Bookmark



National Aeronautics and Space Administration



Centre National d'Études Spatiales



**What you should know about the ocean**  
Seven Essential Principles

1. Earth has one big ocean with many features.
2. The ocean and life in the ocean shape the features of Earth.
3. The ocean is a major influence on weather and climate.
4. The ocean makes Earth habitable.
5. The ocean supports a great diversity of life and ecosystems.
6. The ocean and humans are inextricably linked.
7. The ocean is largely unexplored.

**Understanding the science behind ocean circulation**

Jason-1 is an Earth-orbiting satellite designed to make precise measurements of sea-surface height. Data and information from Jason-1 are being used for scientific research and operational applications ranging from climate studies, to ship routing, yacht race support, and basic science education. Jason-1 is a joint venture between NASA and France's Centre National d'Études Spatiales (CNES). Through education and public outreach, Jason-1 supports the development of an ocean-literate society. Ocean literacy is an understanding of the ocean's influence on you and your influence on the ocean.

An ocean-literate person:

- understands the Essential Principles, and fundamental concepts about how the ocean functions;
- can communicate about the ocean in a meaningful way;
- is able to make informed and responsible decisions regarding the ocean and its resources.



Jason-1 5th Anniversary  
2007-2008  
<http://sealevel.jpl.nasa.gov>

Jet Propulsion Laboratory  
California Institute of Technology  
Pasadena, California  
JPL 400-000X 11/08

The 5th anniversary commemorative bookmark was designed to highlight the seven essential principles that everyone should know about the ocean. A consortium of government and non-government agencies, known as the ocean literacy network determined these principles and some fundamental concepts, as a ocean-oriented approach to science education.

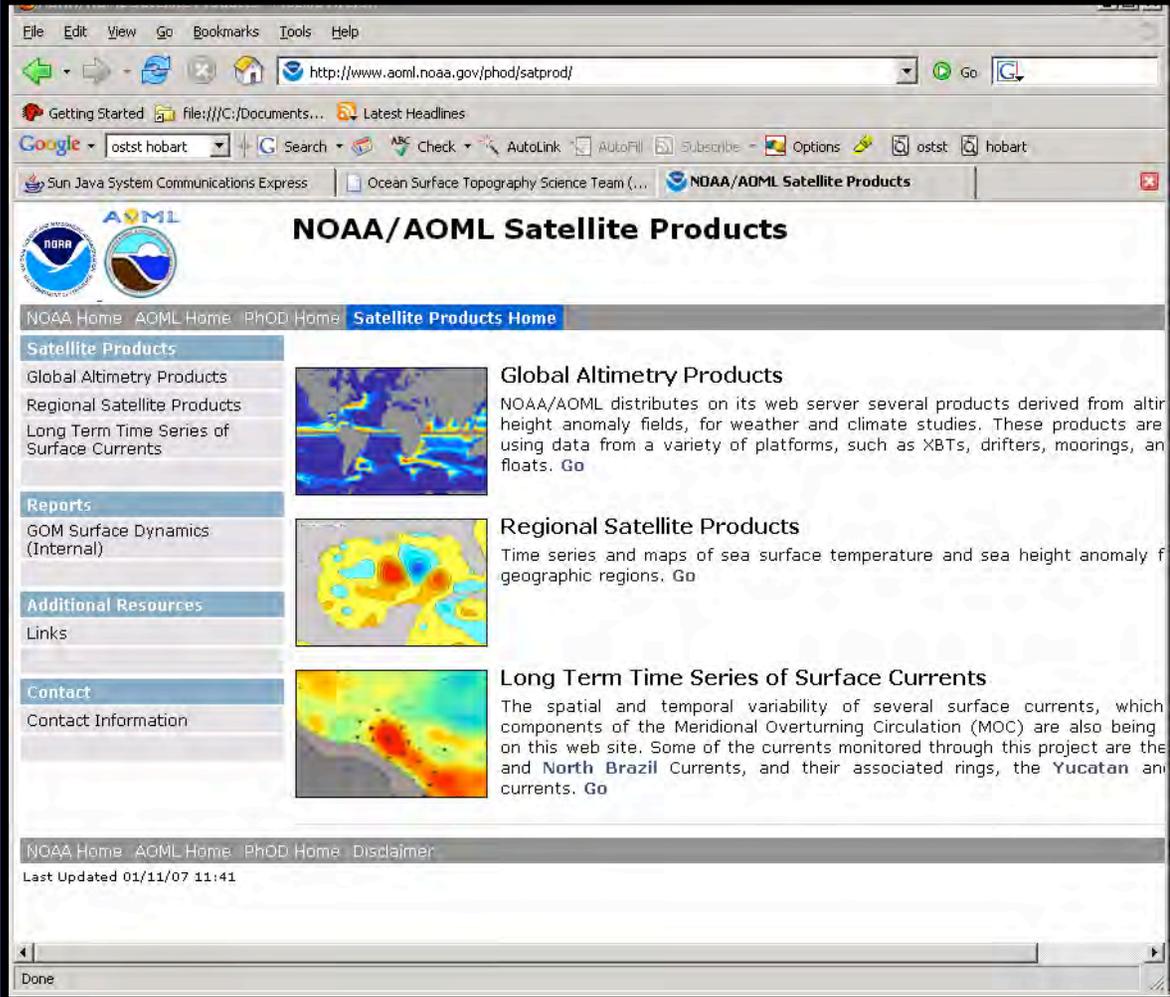
For copies contact [Annie.Richardson@jpl.nasa.gov](mailto:Annie.Richardson@jpl.nasa.gov)

- Authors: JPL Outreach Team
- NASA/JPL
- Year: 2006
- Audience: All
- Medium: Bookmark
- Size / Format: 7.5 cm w x 20.3 cm h
- Language(s): English

# NOAA/AOML ALTIMETRY PRODUCTS NRT

<http://www.aoml.noaa.gov/phod/satprod/>

Gustavo Jorge Goni, NOAA/AOML

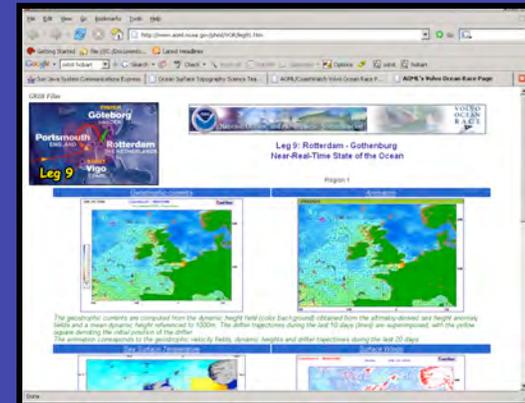


The screenshot shows a web browser window displaying the NOAA/AOML Satellite Products website. The browser's address bar shows the URL <http://www.aoml.noaa.gov/phod/satprod/>. The website features a navigation menu with links to NOAA Home, AOML Home, PHOD Home, and Satellite Products Home. The main content area is titled "NOAA/AOML Satellite Products" and is organized into three columns. The left column contains a sidebar with sections for "Satellite Products" (listing Global Altimetry Products, Regional Satellite Products, and Long Term Time Series of Surface Currents), "Reports" (listing GOM Surface Dynamics (Internal)), "Additional Resources" (listing Links), and "Contact" (listing Contact Information). The middle column displays three satellite altimetry maps: a global map, a regional map of the Gulf of Mexico, and a map of the North Atlantic. The right column contains three text-based sections: "Global Altimetry Products" (describing products derived from altimetry data), "Regional Satellite Products" (describing time series and maps of sea surface temperature and sea height anomaly), and "Long Term Time Series of Surface Currents" (describing the spatial and temporal variability of surface currents). The footer of the website includes navigation links and a timestamp: "Last Updated 01/11/07 11:41".



# NOAA/AOML ALTIMETRY PRODUCTS Outreach

## Volvo Ocean Race



## Semester At Sea



World Ocean Surface Currents (OSCAR - Ocea...)

File Edit View History Bookmarks Tools Help

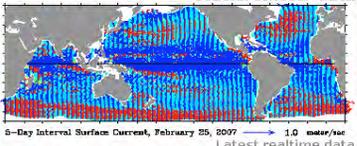
http://www.oscar.noaa.gov/

National Oceanic and Atmospheric Administration

**OSCAR** Ocean Surface Current Analyses - Real time

Home | Project Overview | Data Display & Download | General Interest

Near-real-time ocean surface currents derived from satellite altimeter and scatterometer data



5-Day Interval Surface Current, February 25, 2007 1.0 meter/sec  
Latest realtime data

- Global Dataset for Display and download
- Direct Comparisons of OSCAR to Buoy data
- OSCAR data available through OPeNDAP/DODS

Pilot project for a NOAA/NESDIS Operational Surface Current Processing and Data Center  
**National Ocean Partnership Program (NOPP)**

Home | Project Overview | Data Display & Download | General Interest

OSCAR Project Office  
Earth and Space Research  
1910 Fairview Ave E, Suite 210  
Seattle WA 98102-3620

webmast.oscar@noaa.gov  
Credits | Disclaimer | Privacy Policy

Fabrice Bonjean, Sara Tweedie, Gary Lagerloef, OSTST Hobart 2007

## Outreach Showcase:

OSCAR surface currents (<http://www.oscar.noaa.gov>) will soon be used in the NASA-sponsored educational web site <http://www.oceanmotion.org>

Ocean Motion : Main Page - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://www.oceanmotion.org/

NASA Ocean Motion and surface currents

Home Credits Help View Styles: Standard

Background Impact Gathering Data Researchers/Applications Data Resources Teachers Students Glossary



What do you know about:

Navigation?

Quiz

Coriolis force?

Quiz

Ocean gyres?

Quiz

Ocean warming?

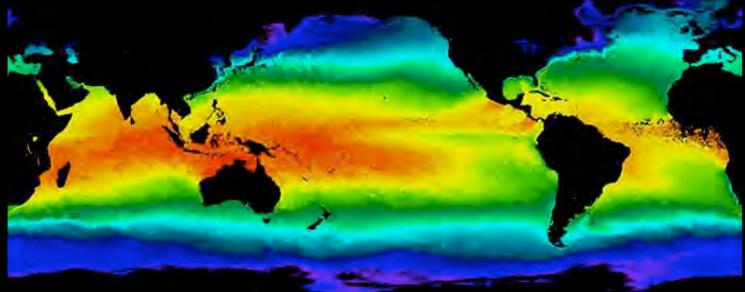
Quiz

Energy balance?

Quiz

Satellites?

Quiz



-15 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 35

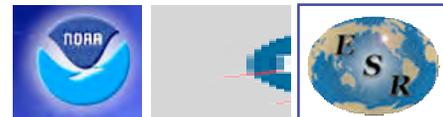
Sea Surface Temperature (°C)

(click to enlarge)  
Image Provided by Norman Kuring

The ocean is a major player in the Earth system. It is in constant motion, with currents flowing on all levels. Data from buoys, drifters, and satellites such as *ocean color*, *sea height*, *temperature*, and *winds*, provide us with observations about the speed and direction of currents and about heat stored in the ocean, which help to predict global climate variations.

Remote sensing from satellites is the most efficient way to get global information about these vast, hard-to-measure expanses.

**Abstract:** The NASA *Ocean Motion* web site allows high school teachers and students to investigate ocean surface currents: their flow patterns, historical roots in early seafaring and exploration, and how their behavior impacts the weather, climate, commerce natural disasters and sea life. Satellite observations of sea surface temperature, height, winds, and ocean color are presently available on the site through an easy-to-use interface. The Global OSCAR data visualizer will be on the site in the next few weeks.



# Outreach Activities at the University of Washington

LuAnne Thompson

- Led discussions in the community after showings of “An Inconvenient Truth”  
*Seattle chapter of the Society of Professional Engineering Employees in Aerospace*  
*Saint Marks Episcopal Cathedral*
- Development of a “Climate 101” talk for the King County Library System
- Leading up the University of Washington contribution to “Focus the Nation” a national day of education on global climate change, [depts.washington.edu/uwfocus/](http://depts.washington.edu/uwfocus/).

