Daily cloud-free, AVHRR-derived, optimally interpolated SST images from NOAA-14 satellite in 1996 (GB project)

Website: https://www.bco-dmo.org/dataset/2449
Version: final
Version Date: 2007-05-23

Project
» U.S. GLOBEC Georges Bank (GB)

Program
» U.S. GLOBal ocean ECosystems dynamics (U.S. GLOBEC)

Contributors	Affiliation	Role
Bisagni, James J.	University of Massachusetts Dartmouth (UMASSD-SMAST)	Principal Investigator
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Dataset Description

PI: J. J. Bisagni
Dataset: Daily Cloud-Free, AVHRR-Derived, Optimally Interpolated (OI) SST images

OI SST Images

Daily AVHRR-derived OI SST images for the GOMRMRP & U.S. GLOBEC Georges Bank Program studies

Domain: 39.107 - 45.511 degree North latitude, 63.504-72.164 degree West longitude,

4 October 1993 - 31 December 1998

Data Provider

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Notes

- The image aspect ratio is now correct. The images should be square. This problem within the IDL engine was solved November 2007 by switching to the ferret application to generate the images.
- Images were constructed by first using bi-cubic spline interpolation of the 5-day averaged OI SST grids (produced at 5-day intervals through GOMRMRP funding). The 5-day images were then interpolated linearly in time to produce daily images.
- Information/validation regarding the gridded OI data and the (ASCII) grids are available J. Bisagni at the address above.
- Images are 512 X 512 pixels, possess a resolution of ~7 km and are displayed as .GIF images.
- The archive "switches" from NOAA-11 to NOAA-9 during September 1994 due to the NOAA-11 failure in September 1994.
- The archive currently ends on 5 August 1995 due to the failure of NOAA-9
- *NOTE*: These data are preliminary. Adjustment of data from each satellite (NOAA-9, NOAA-11 and NOAA-14) relative to sea truth values from NOAA data buoys will result in a final calibrated data set at sometime in the future.
- The colorbar used is derived from so-called Pete's Palette, or pete24, and converted to an equivalent palette in the ferret scheme. (See petespalette.spk.

Downloading the image

You can capture the gif image if your browser has that capability.

As a courtesy, please notify Jim Bisagni via email about your intent to use the SST OI fields, so that he may keep a record.

Last edited: November 14, 2007

Methods & Sampling

Daily AVHRR-derived OI SST images for the GOMRMRP & U.S. GLOBEC Georges Bank Program studies

Domain: 39.107 - 45.511 degree North latitude, 63.504-72.164 degree West longitude,

4 October 1993 - 31 December 1998

Data Processing Description

- The image aspect ratio is not quite right. The image should be square. This problem within the IDL engine will be solved shortly (May 20, 2002)
- Images were constructed by first using bi-cubic spline interpolation of the 5-day averaged OI SST grids (produced at 5-day intervals through GOMRMRP funding). The 5-day images were then interpolated linearly in time to produce daily images.
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Data Files

File
oi_avhrr_1996.csv (Comma Separated Values (.csv), 80.37 KB) MD5:1b2da0fb96f2f1b26695be89798f01df Primary data file for dataset ID 2449

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Parameters

Parameter	Description	Units
images	Satellite number	
description	Description of satellite	
contributor	Name of contributor providing the image(s)	
color_bar	Link to legend showing color of image and water temperature	
month	Month, with 1 meaning January when image was taken (UTC)	
year	Year when image was taken (UTC)	
status	Status of image, e.g. unprocessed, unnavigated, navigated	
yrday_utc	Year day image was taken, with1 being January 1 (UTC)	
day	Day of the month image was taken (UTC)	
time	Time of day image was taken (UTC)	

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Instruments

Dataset-specific Instrument Name	Advanced Very High Resolution Radiometer
Generic Instrument Name	Advanced Very High Resolution Radiometer
Dataset-specific Description	Advanced Very High Resolution Radiometer (AVHRR). Carried aboard the National Oceanic and Atmospheric Administration`s (NOAA) Polar Orbiting Environmental Satellite series, the AVHRR sensor is a broad-band, 4- or 5-channel scanning radiometer, sensing in the visible, near-infrared, and thermal infrared portions of the electromagnetic spectrum.Additional description.
Generic Instrument Description	"The AVHRR instrument consists of an array of small sensors that record (as digital numbers) the amount of visible and infrared radiation reflected and (or) emitted from the Earth's surface" (more information).

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Deployments

NOAA-14-GB

Website	https://www.bco-dmo.org/deployment/57689
Platform	NOAA-14
Start Date	1994-12-30
End Date	2007-05-23
Description	NOAA Satellites **Methods & Sampling** Daily AVHRR-derived OI SST images for the GOMRMRP & U.S. GLOBEC Georges Bank Program studies Domain: 39.107 - 45.511 degree North latitude, 63.504-72.164 degree West longitude, 4 October 1993 - 31 December 1998 **Processing Description** The image aspect ratio is not quite right. The image should be square. This problem within the IDL engine will be solved shortly (May 20, 2002) Images were constructed by first using bi-cubic spline interpolation of the 5-day averaged OI SST grids (produced at 5-day intervals through GOMRMRP funding). The 5-day images were then interpolated linearly in time to produce daily images. Information/validation regarding the gridded OI data and the (ASCII) grids are available J. Bisagni at the address above. Images are 512 X 512 pixels, possess a resolution of ~7 km and are displayed as .GIF images. *NOTE*: These data are preliminary. Adjustment of data from each satellite (NOAA-9, NOAA-11 and NOAA-14) relative to sea truth values from NOAA data buoys will result in a final calibrated data set at sometime in the future.

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Project Information

U.S. GLOBEC Georges Bank (GB)

Website: http://globec.whoi.edu/globec_program.html

Coverage: Georges Bank, Gulf of Maine, Northwest Atlantic Ocean

The U.S. GLOBEC Georges Bank Program is a large multi- disciplinary multi-year oceanographic effort. The proximate goal is to understand the population dynamics of key species on the Bank - Cod, Haddock, and two species of zooplankton (*Calanus finmarchicus* and *Pseudocalanus*) - in terms of their coupling to the physical environment and in terms of their predators and prey. The ultimate goal is to be able to predict changes in the distribution and abundance of these species as a result of changes in their physical and biotic environment as well as to anticipate how their populations might respond to climate change.

The effort is substantial, requiring broad-scale surveys of the entire Bank, and process studies which focus both on the links between the target species and their physical environment, and the determination of fundamental aspects of these species' life history (birth rates, growth rates, death rates, etc).

Equally important are the modelling efforts that are ongoing which seek to provide realistic predictions of the flow field and which utilize the life history information to produce an integrated view of the dynamics of the populations.

The U.S. GLOBEC Georges Bank Executive Committee (EXCO) provides program leadership and effective communication with the funding agencies.

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Program Information

U.S. GLOBal ocean ECosystems dynamics (U.S. GLOBEC)

Website: http://www.usglobec.org/

Coverage: Global

U.S. GLOBEC (GLOBal ocean ECosystems dynamics) is a research program organized by oceanographers and fisheries scientists to address the question of how global climate change may affect the abundance and production of animals in the sea.

The U.S. GLOBEC Program currently had major research efforts underway in the Georges Bank / Northwest Atlantic Region, and the Northeast Pacific (with components in the California Current and in the Coastal Gulf of Alaska). U.S. GLOBEC was a major contributor to International GLOBEC efforts in the Southern Ocean and Western Antarctic Peninsula (WAP).

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Funding

Funding Source	Award
National Science Foundation (NSF)	unknown GB NSF
National Oceanic and Atmospheric Administration (NOAA)	unknown GB NOAA

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