

# Daily cloud-free, AVHRR-derived, optimally interpolated SST images from NOAA-11 satellite in 1993 (GB project)

**Website:** <https://www.bco-dmo.org/dataset/2445>

**Version:** final

**Version Date:** 2004-06-16

## Project

» [U.S. GLOBEC Georges Bank](#) (GB)

## Program

» [U.S. GLOBal ocean ECosystems dynamics](#) (U.S. GLOBEC)

Contributors	Affiliation	Role
<a href="#">Bisagni, James J.</a>	University of Massachusetts Dartmouth (UMASSD-SMAST)	Principal Investigator
<a href="#">Groman, Robert C.</a>	Woods Hole Oceanographic Institution (WHOI BCO-DMO)	BCO-DMO Data Manager

## Table of Contents

- [Dataset Description](#)
  - [Methods & Sampling](#)
  - [Data Processing Description](#)
- [Data Files](#)
- [Parameters](#)
- [Instruments](#)
- [Deployments](#)
- [Project Information](#)
- [Program Information](#)
- [Funding](#)

## 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 GOMMRP & 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

Dr. J. J. Bisagni  
Center for Marine Science and Technology  
University of Massachusetts  
285 Old Westport Road  
North Dartmouth, MA 02747  
508-999-8359  
[jbisagni@umassd.edu](mailto:jbisagni@umassd.edu)  
FAX: 508-999-8197

## 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.
- 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.

[ [table of contents](#) | [back to top](#) ]

---

## Data Files

File
<b>oi_avhrr_1993.csv</b> (Comma Separated Values (.csv), 14.96 KB) MD5:ac7ab320f8e1f8330a1e108f80c672bb
Primary data file for dataset ID 2445

[ [table of contents](#) | [back to top](#) ]

---

## 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, un navigated, navigated	
yrday_utc	Year day image was taken, with 1 being January 1 (UTC)	
day	Day of the month image was taken (UTC)	
time	Time of day image was taken (UTC)	

[ [table of contents](#) | [back to top](#) ]

---

## Instruments

<b>Dataset-specific Instrument Name</b>	Advanced Very High Resolution Radiometer
<b>Generic Instrument Name</b>	Advanced Very High Resolution Radiometer
<b>Dataset-specific Description</b>	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.
<b>Generic Instrument Description</b>	"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).

[ [table of contents](#) | [back to top](#) ]

---

## Deployments

**NOAA-11-GB**

<b>Website</b>	<a href="https://www.bco-dmo.org/deployment/57688">https://www.bco-dmo.org/deployment/57688</a>
<b>Platform</b>	NOAA-11
<b>Start Date</b>	1988-09-24
<b>End Date</b>	2004-06-16
<b>Description</b>	<p>NOAA Satellites</p> <p><b>Methods &amp; Sampling</b> Daily AVHRR-derived OI SST images for the GOMRMRP &amp; 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</p> <p><b>Processing Description</b> 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.</p>

[ [table of contents](#) | [back to top](#) ]

---

## Project Information

### U.S. GLOBEC Georges Bank (GB)

**Website:** [http://globec.who.edu/globec\\_program.html](http://globec.who.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.

[ [table of contents](#) | [back to top](#) ]

---

## 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).

[ [table of contents](#) | [back to top](#) ]

---

### Funding

Funding Source	Award
National Science Foundation (NSF)	<a href="#">unknown GB NSF</a>
National Oceanic and Atmospheric Administration (NOAA)	<a href="#">unknown GB NOAA</a>

[ [table of contents](#) | [back to top](#) ]