Getting your Oceanographic Data for EIS

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You can put the data in as:

- Detailed entries in a table
- A screen-grab (‘alt-print scrn’)
- Summary values just in the text

- **bathymetry**
- **wave-wind climate**
- **nautical infrastructure**
- **seawater temperatures, oxygen, nutrients, etc**
- **tides**
- **deep ocean currents**
- **seafloor composition**

Aside from these pages, you will find
Lots of other text and graphic data on the web.

1. For your local **bathymetry** -
   "http://ngdc.noaa.gov/mgg/global/global.html"
   --> 'Create Custom Grids'
   --> Enter map area (+- 2 degrees ?)
   --> Ask for ASCII grid and header, & bedrock datum*
   --> Submit, Request the coastline, retrieve and save the data
   --> Extract the grid from the zip (eg: 'cjj_eis-2248.asc') by dragging the file to a (non-zip) folder

2. Open ArcMap (on the computer – GIS mapping software)
   --> Open the ASCII grid (ArcCatalog-View-Toolbox-CreateRaster) and make a map in colour by adjusting (Properties-Symbology) to Classified and choosing a color bar.
   --> Plot your EIS site with a point symbol, and save the image to paste it into your report.

3. Done !

*Some polar projects may need to use ice surface.

GEODAS Grid Translator - Design-a-Grid help

Windows | Macintosh | UNIX-LE (Linux-X86, etc.) | UNIX-BE (Sun, etc.)

Reset | Submit | Your Grid Id: cjj_eis (Create 8-char Identifier for Grid)

Grid Database: ETOPO1 1-minute Global Relief

Grid Area in degrees and minutes

Upper Latitude: 60 0 N

Left Longitude: 10 0 W

Right Longitude: 20 0 E

Lower Latitude: 50 0 S

Grid Cell Size: 1 minute

Number of Latitude Cells: 6601 Number of Longitude Cells: 1801

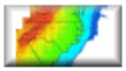
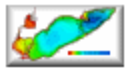
Grid Format:

Output Grid Format:
- Binary Raster Format
- ASCII Raster Format
- XYZ (lon,lat,depth)

Output Grid Header:
- ASCII (Arc) Header
- No Header

Greenland/Antarctica Surface Option:
- Ice Sheet Surface
- Bedrock Surface

Advanced (more fields)

S  ETOPO1 Global Relief  US Coastal Relief Model  Great Lakes Bath

1. For your local **wave-wind climate** -
   "http://polar.ncep.noaa.gov/waves/index2.shtml "
   --> ‘Product Viewer'
   --> Select region; checkbox “Bulletin”
   --> Click on nearest buoy
   --> Submit, save the ASCII data (BULL file)
   --> Open that in Excel and extract Hs, Tp, Dir
   and wind stats too if relevant

2. Make some statistics, such as averages, standard deviations and 5% largest decile.

3. Generate a graphic to combine a Wavewatch III map and your statistics.

4. Done !

Local forecast by "City, St" or Zip Code
City, St Go

Text-only version
All Products
Operational
Experimental
Developmental (limited access)
Frequently Asked Questions
About Us
Mission
Tech Procedure Bulletins
Publications
Personnel
NOAA Staff Dir.
Contact Us

NOAA WAVEWATCH III ®

NWW3 Product Viewer

Home | Product Viewer | Product Table | Product Descriptions | Model Description | Model Data Access

Choose a Model
Choose a Region
Choose a Run Time
Need help?

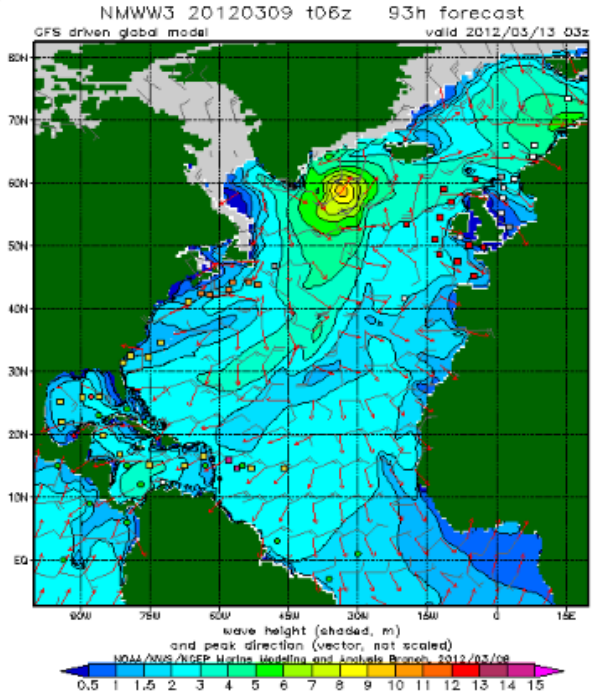
Significant Wave Height
Wind Sea Wave Height
Primary Swell Wave Height
Secondary Swell Wave Height
Wind Speed and Direction
Peak Wave Period
Wind Sea Period
Primary Swell Period
Secondary Swell Period

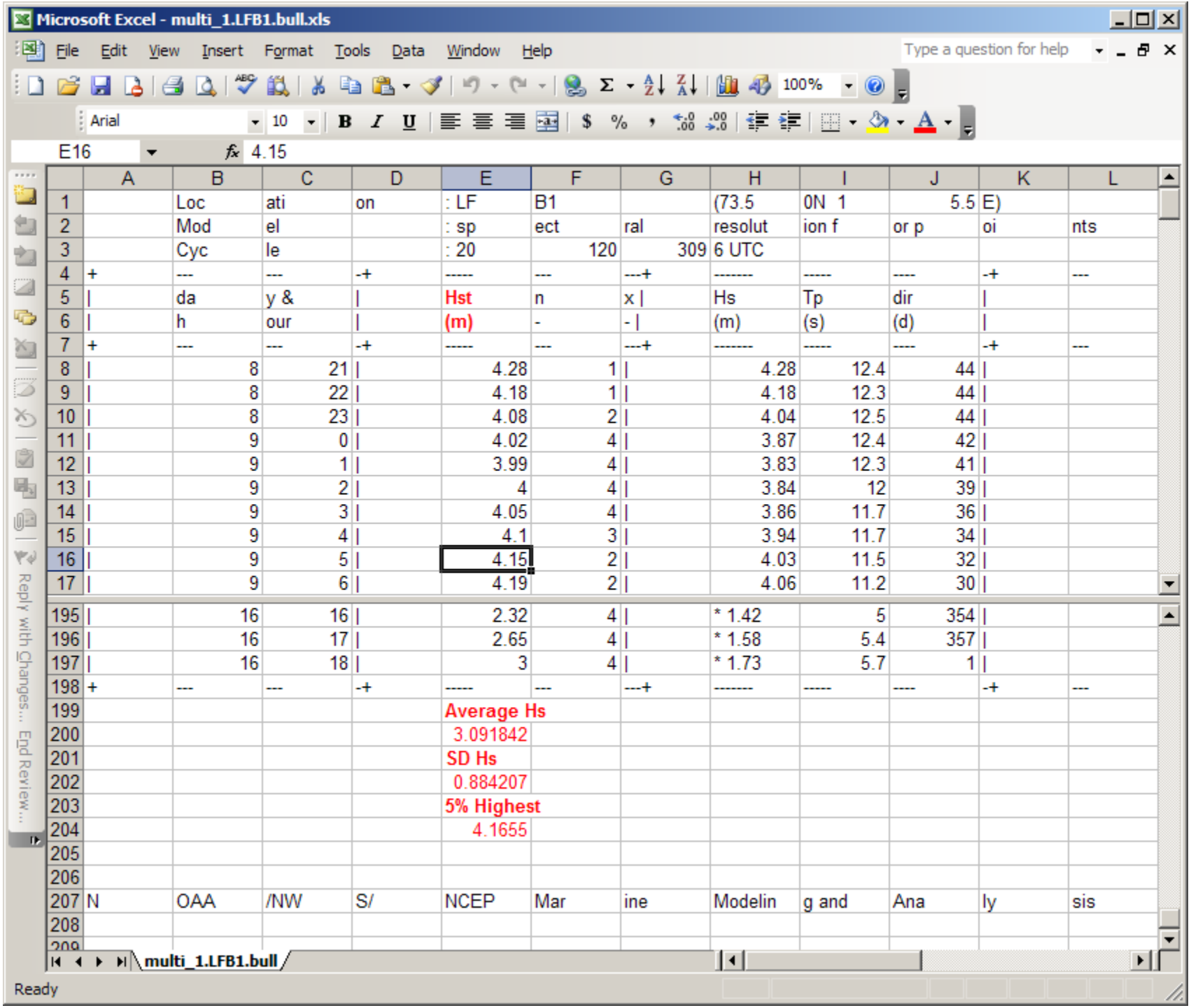
North Atlantic (Global) (Latest run) 2012/03/09 06z

Significant Wave Height and Peak Direction forecast for 93 Hours

Buoy Info: Bulletin Spectra Sources

Loop Images << Stop >> Adjust Speed Slower Faster Advance One |< < > >|





	A	B	C	D	E	F	G	H	I	J	K	L
1		Loc	ati	on	: LF	B1		(73.5	0N 1	5.5	E)	
2		Mod	el		: sp	ect	ral	resolut	ion f	or p	oi	nts
3		Cyc	le		: 20	120	309	6 UTC				
4	+	---	---	-+	-----	---	---+	-------	-----	----	-+	---
5	|	da	y &	|	Hst	n	x |	Hs	Tp	dir	|
6	|	h	our	|	(m)	-	- |	(m)	(s)	(d)	|
7	+	---	---	-+	-----	---	---+	-------	-----	----	-+	---
8	|	8	21	|	4.28	1	|	4.28	12.4	44	|
9	|	8	22	|	4.18	1	|	4.18	12.3	44	|
10	|	8	23	|	4.08	2	|	4.04	12.5	44	|
11	|	9	0	|	4.02	4	|	3.87	12.4	42	|
12	|	9	1	|	3.99	4	|	3.83	12.3	41	|
13	|	9	2	|	4	4	|	3.84	12	39	|
14	|	9	3	|	4.05	4	|	3.86	11.7	36	|
15	|	9	4	|	4.1	3	|	3.94	11.7	34	|
16	|	9	5	|	4.15	2	|	4.03	11.5	32	|
17	|	9	6	|	4.19	2	|	4.06	11.2	30	|
195	|	16	16	|	2.32	4	|	* 1.42	5	354	|
196	|	16	17	|	2.65	4	|	* 1.58	5.4	357	|
197	|	16	18	|	3	4	|	* 1.73	5.7	1	|
198	+	---	---	-+	-----	---	---+	-------	-----	----	-+	---
199					Average Hs							
200					3.091842							
201					SD Hs							
202					0.884207							
203					5% Highest							
204					4.1655							
205												
206												
207	N	OAA	/NW	S/	NCEP	Mar	ine	Modelin	g and	Ana	ly	sis
208												

1. For the **nautical infrastructure** – like seafloor, cables, seafloor type, reefs, etc.

2. Visit the downstairs reading desk in Benson Library

2. Ask for and consult their nautical charts catalog and locate the map code that best covers your EIS location.

3. Scan that part of the map to a digital graphic which can be included in your paper. Look at the symbols like: + - rock reefs, uuuu – coral reefs, S.Co.S symbols (e.g.) - shell+coral+sand

4. Done !

1. For **seawater temperatures, oxygen, nutrients, etc** – use the WORLD OCEAN ATLAS SELECT "http://www.nodc.noaa.gov/OC5/WOA09/woa09data.html".

2. Fill in the query sheet (see next slide) and order your data for each variable. Enter the geographic area. Decide whether you really need annual or seasonal data.

3. If the water column properties are critical, plot them using EXCEL. And enter the plot into your paper. Put your data into a table or text.

4. Done !

Data Sets & Products

WORLD OCEAN ATLAS SELECT (WOA*select*)

The WOA*select* is a selection tool in which the user can designate a geographic area, depth, and oceanographic variable to view climatological means or related statistics for the given variable at the requested depth for the requested geographic area. The projection is a Geographic Coordinate System (lat and long). The source data for the climatological means and statistics is the *World Ocean Atlas 2009* (WOA09).

The user may also download the data for the requested geographic area and variable for all depths in a comma separated value (csv) ASCII format or a shapefile format which is compatible with GIS software such as ArcMap. Information about the formats is availabe at format description page.

We would like to thank Betsy Schenck-Gardner of the National Coastal Data Development Center (NCDDC) for providing us with the initial routines for creating shapefiles.

This is a first version of WOA*select*. An improved version is already in preparation. For any questions about this product, please e-mail OCLhelp desk.

- Temperature
- Salinity

WOAselect figure - Windows Internet Explorer

http://www.nodc.noaa.gov/cgi-bin/OC5/SELECT/woaselect.pl?parameter=1

File Edit View Favorites Tools Help

Favorites | Colorado.edu | UCB Libraries | ITS Labs Page | myCUinfo | CULink | CUConnect | CULearn | PLUS | RefGrab-It | Report Lab Problems

WOAselect figure

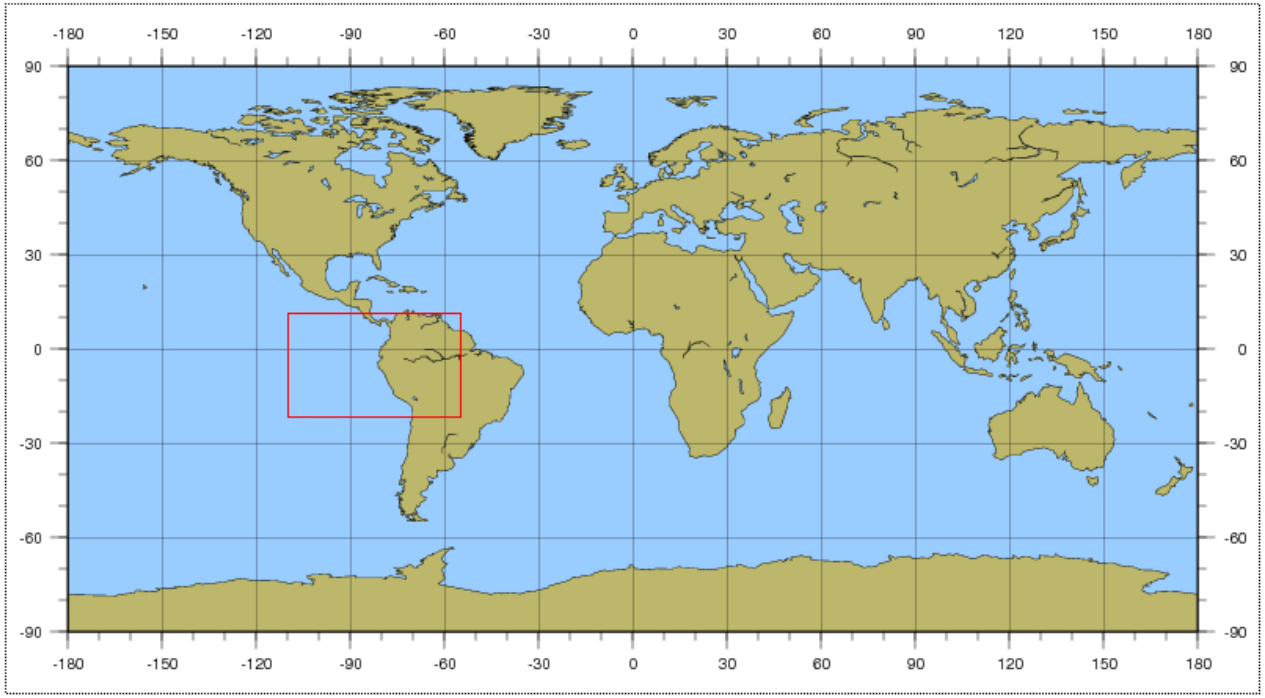
Page Safety Tools

NOAA Satellite and Information Service

NODC All of NOAA Search Go

You are here: NODC Home > Ocean Climate Laboratory > OCL Products > WOAselect > Temperature

Temperature



Northern edge 11.5

Western edge -110 Zoom or Redraw World Map -54.5 Eastern edge

Southern edge -22

/cgi-bin/OC5/SELECT/woaselect.pl

Internet | Protected Mode: On

100%

1. For **tides** – visit "http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPort.aspx", "http://tbone.biol.sc.edu/tide/" or http://www.tides.info/.

2. Navigate through the web site for a location same or (close to & similar to) your EIS site.

3. Collect the general information such as typical tidal ranges, diurnal/semidiurnal, current strengths. You can use more detailed info if you need to.

4. Done !

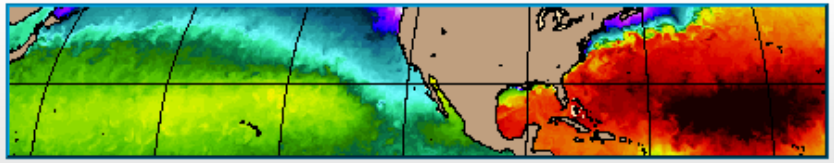
1. For **shallow ocean currents** – visit HYCOM model "http://www7320.nrlssc.navy.mil/GLBhycom1-12/nbrazl.html"

2. Locate your region and look at the graphics to determine the general structure and properties of the currents.

3. Collect the general information and include it in report – as much as it is relevant to your project.

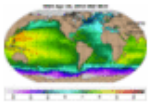
4. Done !

HYCOM



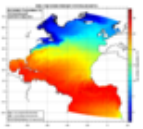
Consortium for Data Assimilative Modeling

Ocean Prediction Systems



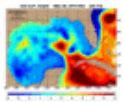
Global (NRL Stennis)

Real-time experiment
Global
1/12° grid
Sub-basins: Atlantic, Indian, Pacific, Polar, and Global



Atlantic (NOAA / NCEP)

Operational Ocean Analysis and Modeling
Atlantic (25°S to 70°N) HYCOM Nowcast/Forecast, run daily
Curvilinear grid, favoring the Western Atlantic:
~5 km at US coastline, 9-17 km at Eastern Atlantic coastline



Gulf of Mexico (NRL Stennis)

Real-time experiment
Regional
1/25° grid
Regions: Gulf of Mexico, Florida Keys, and Florida West Coast

1. For other shallow ocean currents – visit http://www.noc.soton.ac.uk/JRD/OCCAM/

2. Use the graphical The OCCAM Project Area Selector to find the structure of currents.

3. Insert into your paper – as relevant.

4. Done !

National Oceanography Centre, Southampton
UNIVERSITY OF SOUTHAMPTON AND
NATURAL ENVIRONMENT RESEARCH COUNCIL

OCCAM
OCEAN CIRCULATION and
CLIMATE ADVANCED MODELLING PROJECT

Email Address:

Model domain: ? ----------Please Select----------

Model resolution: ? -----Please Select-----

Model run: ?

Model dataset: ?

2D Model variables:

Available 2D variables will be shown here once the choices above have been made.
Selections can then be made with a mouse click.
Some browsers may require the <cntrl> key or <shift> key to be held down for multiple selections.

3D Model variables:

Available 3D variables will be shown here once the choices above have been made.
Selections can then be made with a mouse click.
Some browsers may require the <cntrl> key or <shift> key to be held down for multiple selections.

Longitude: Start: End: ° E

Latitude: Start: End: ° N

Model levels: ? Start: End:

Output format: ? hdf5

Output type: ? 3D volume data (where appropriate)

Estimated size:- ? Estimate

Submit request

1. For **seafloor composition** – visit Dr Jenkins' dbSEABED workstation. Open the ArcGIS project 'wld_proj'.

2. Navigate to your EIS area, not too close in.

3. Collect the general information such as mud, sand, gravel contents, any

4. Done !