



CoastWatch Data Analysis Tool

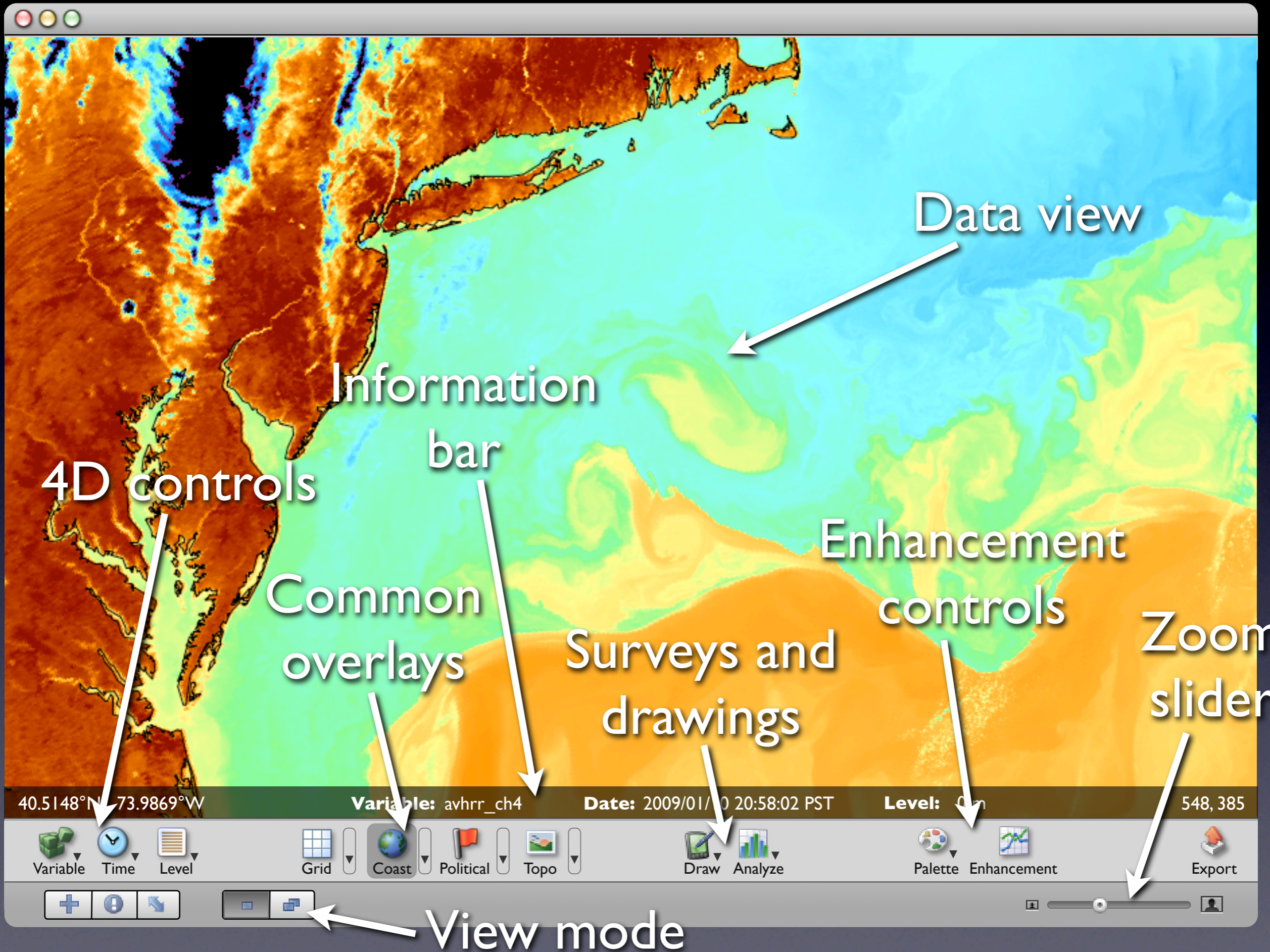
Software Design Review

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What's New

- Simplified user interface design
- Project-based file handling for data aggregation
- 4D-aware interface to work with new datasets
- Tiling and animation support for map comparisons
- Geographic feature support with attributes

Overview



Data view

Information bar

4D controls

Common overlays

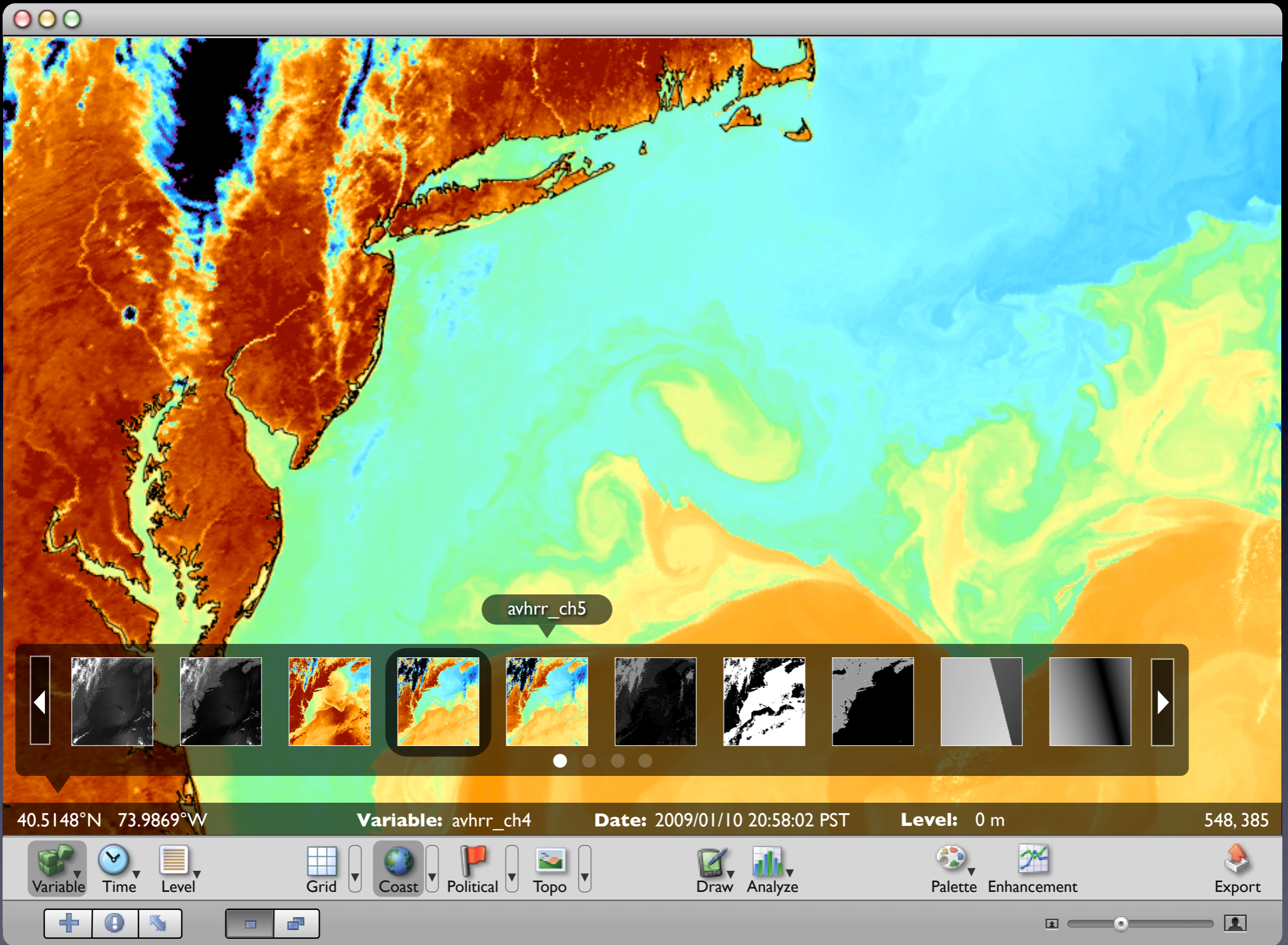
Surveys and drawings

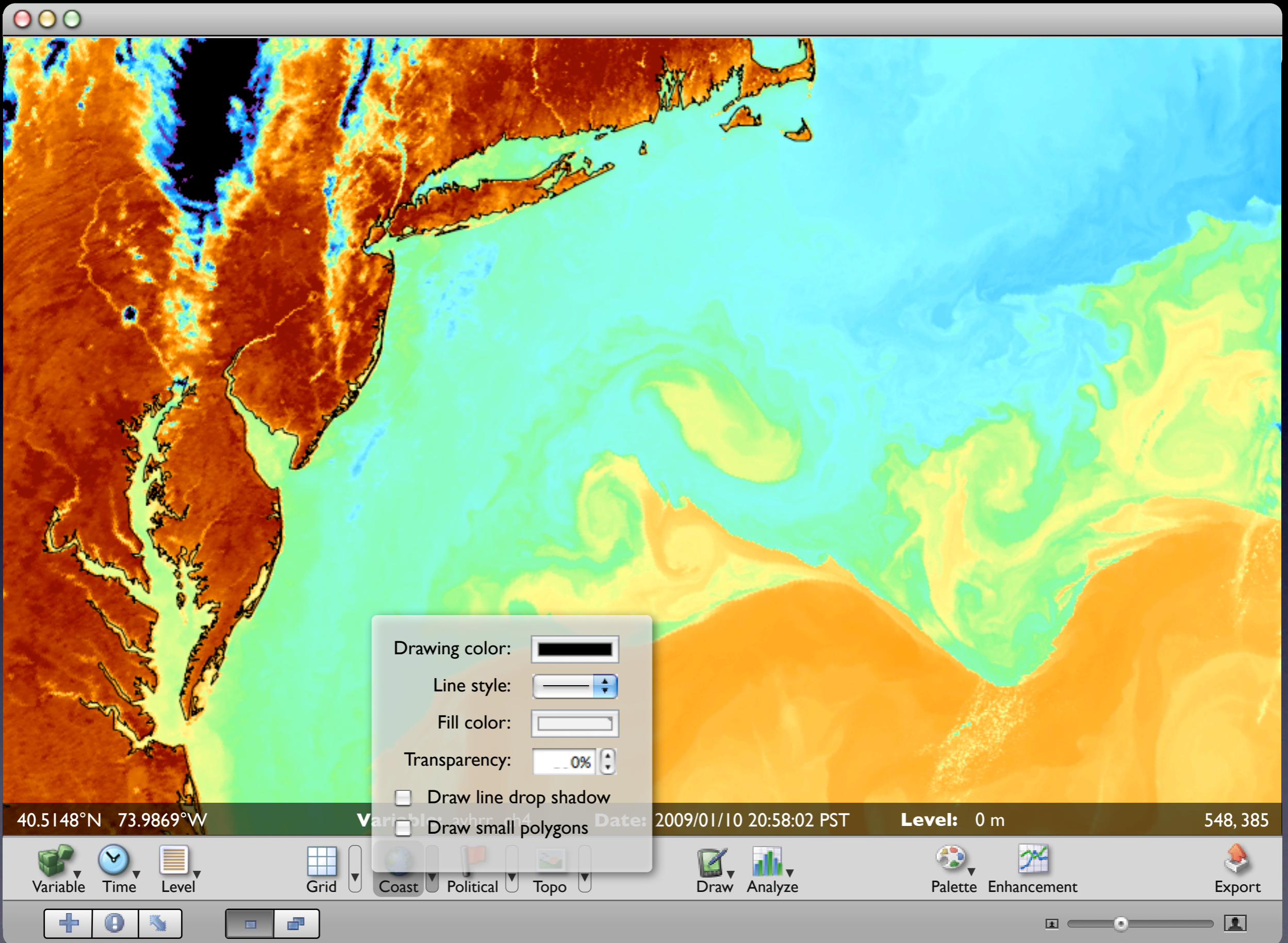
Enhancement controls

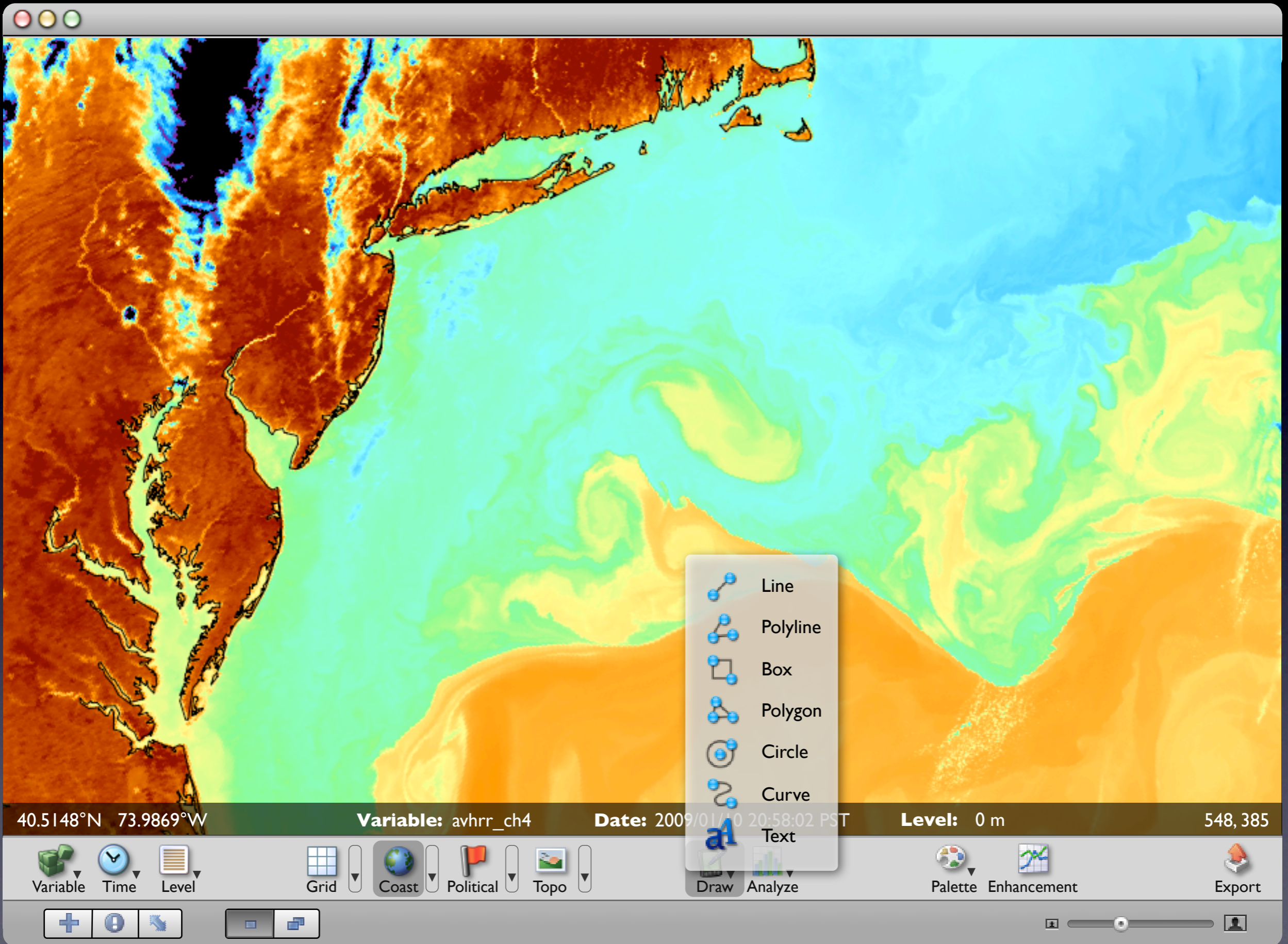
Zoom slider

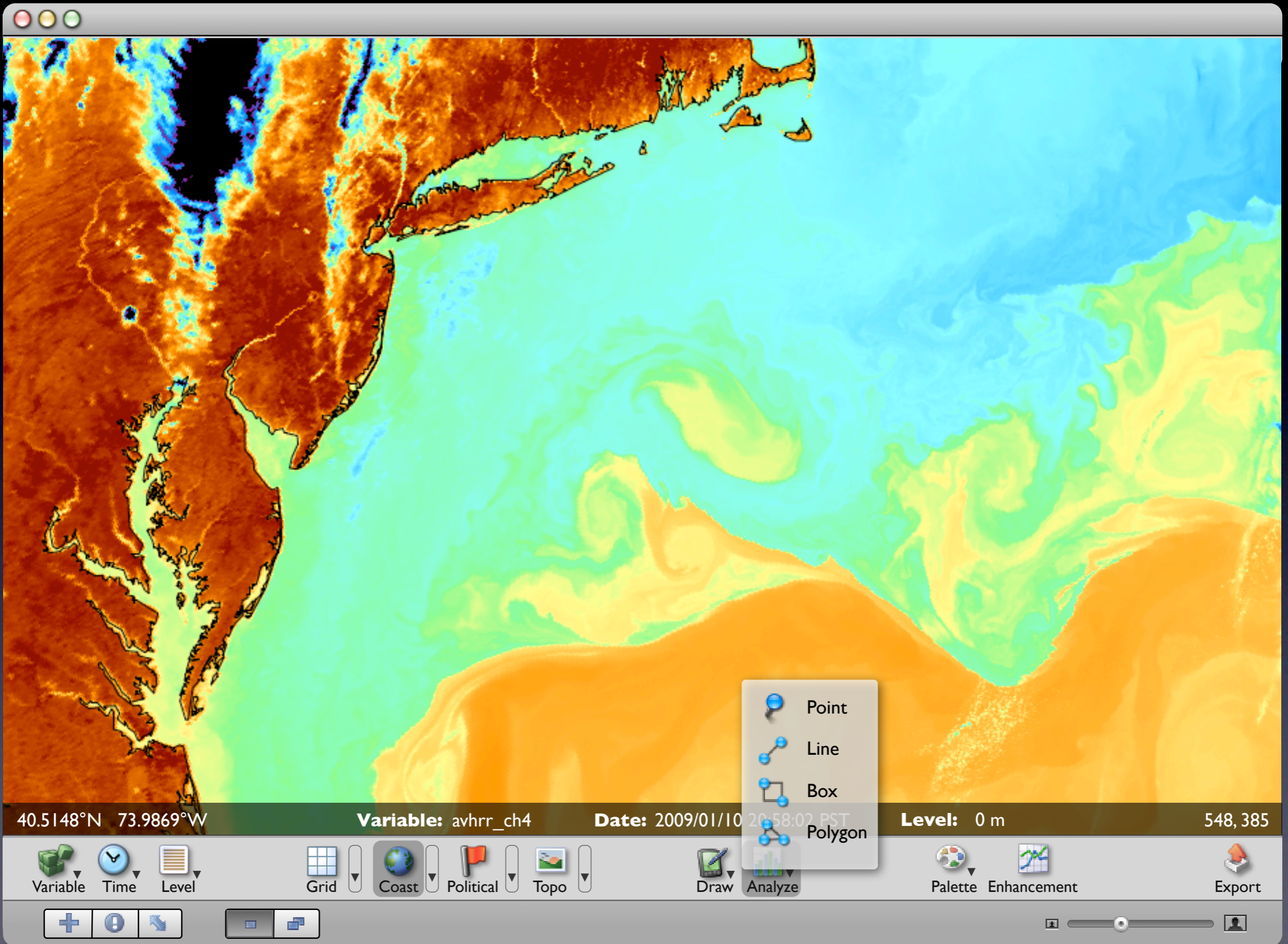
View mode

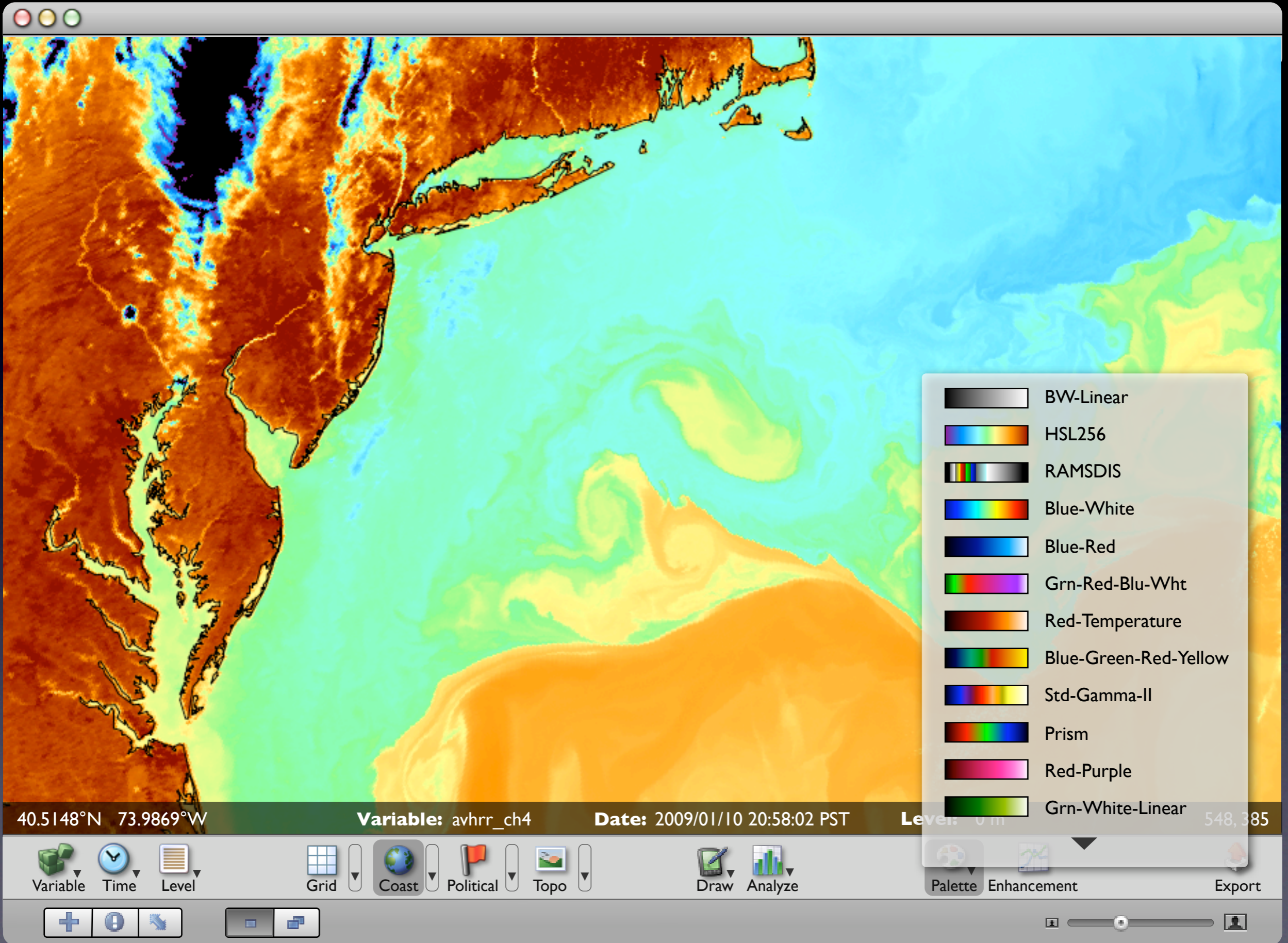
Single Image Mode

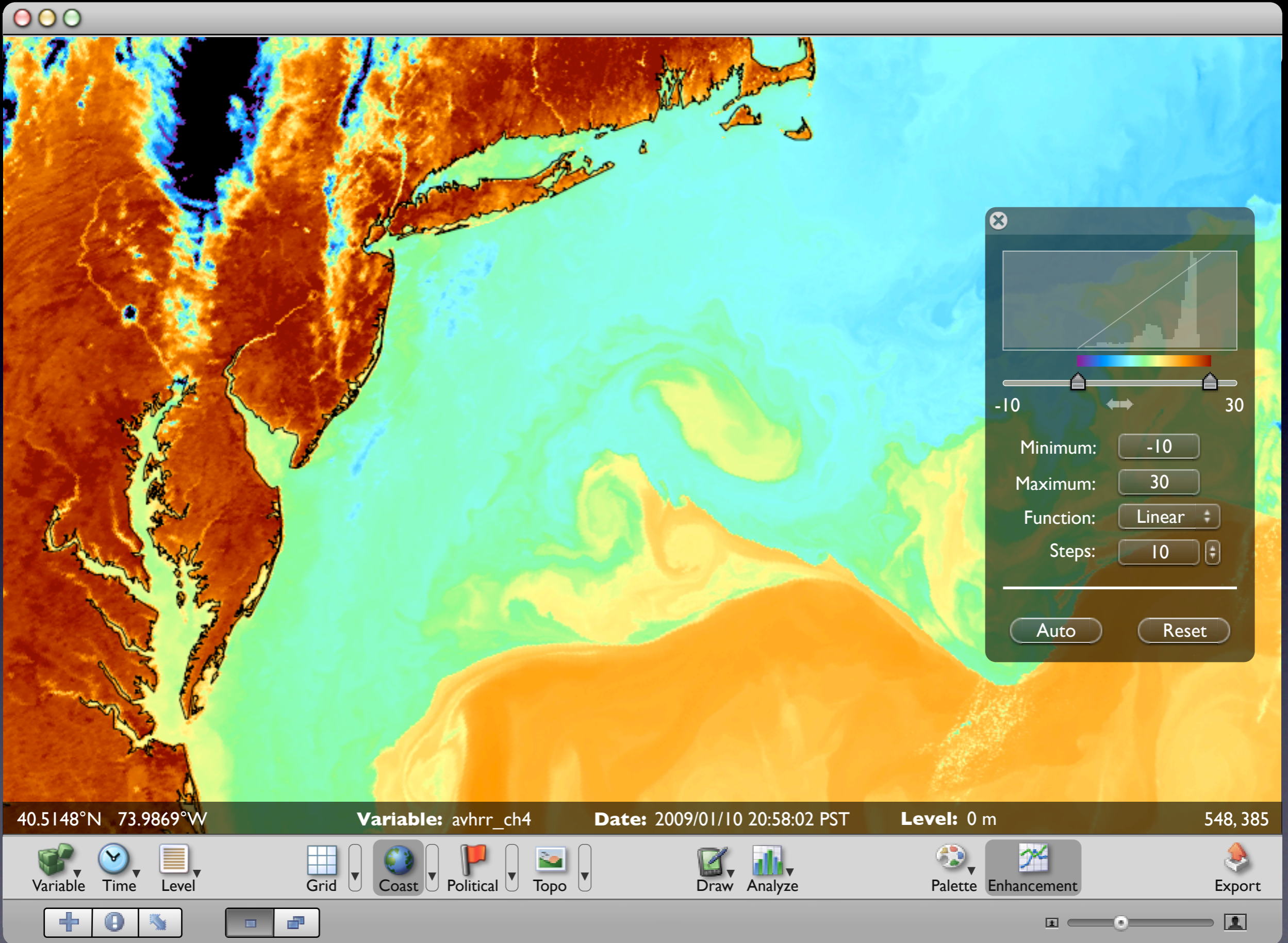












Tiled Image Mode

The screenshot displays the CDAT software interface with four satellite data panels and a control menu. The panels show different channels of satellite data for the same location and time.

- Top Left Panel:** Variable: avhrr_ch2, Date: 2009/01/10 20:58:02 PST, Level: 0 m. Shows a grayscale image of the satellite channel.
- Top Right Panel:** Variable: avhrr_ch4, Date: 2009/01/10 20:58:02 PST, Level: 0 m. Shows a color-coded satellite channel.
- Bottom Left Panel:** Variable: cloud, Date: 2009/01/10 20:58:02 PST, Level: 0 m. Shows a color-coded cloud mask.
- Bottom Right Panel:** Variable: sat_zenith, Date: 2009/01/10 20:58:02 PST, Level: 0 m. Shows a grayscale image of the satellite zenith angle.

A control menu on the left side of the interface lists various variables with checkboxes:

- avhrr_ch1
- avhrr_ch2
- avhrr_ch3
- avhrr_ch4
- avhrr_ch5
- sst
- cloud
- cloudx
- graphics
- rel_azimuth
- sat_zenith
- sun_zenith

The bottom toolbar contains various controls:

- Buttons for Variable, Time, and Level.
- Map style selection: Grid, Coast, Political, Topo.
- Sort by options: Sort by, Descending, Ascending.
- Animation and Export buttons: Animate, Export.
- Navigation and zoom controls.

Coordinates 40.5148°N 73.9869°W are visible in the bottom left, and the number 548,385 is in the bottom right.

The screenshot displays the CDAT software interface with the following components:

- Main Display:** Six maps showing sea surface temperature (sst) at 0 m level for various dates in January 2009. Each map includes a metadata box:
 - Map 1: Variable: sst, Date: 2009/01/23 18:29:47 UTC, Level: 0 m
 - Map 2: Variable: sst, Date: 2009/01/24 06:53:12 UTC, Level: 0 m
 - Map 3: Variable: sst, Date: 2009/01/24 18:19:06 UTC, Level: 0 m
 - Map 4: Variable: sst, Date: 2009/01/25 18:08:25 UTC, Level: 0 m
 - Map 5: Variable: sst, Date: 2009/01/26 06:32:20 UTC, Level: 0 m
- Time Selection Menu:** A list of dates and times with checkboxes:
 - 2009/01/21 06:08:06 UTC
 - 2009/01/21 18:12:49 UTC
 - 2009/01/22 06:00:25 UTC
 - 2009/01/22 17:52:20 UTC
 - 2009/01/23 06:42:57 UTC
 - 2009/01/23 18:29:47 UTC
 - 2009/01/24 06:53:12 UTC
 - 2009/01/24 18:19:06 UTC
 - 2009/01/25 06:42:49 UTC
 - 2009/01/25 18:08:25 UTC
 - 2009/01/26 06:32:20 UTC
 - 2009/01/26 17:57:57 UTC
- Toolbar:**
 - Variable: sst
 - Time: 2009/01/26 06:32:20 UTC
 - Level: 0 m
 - Grid: [Grid icon]
 - Coast: [Coast icon]
 - Political: [Flag icon]
 - Topo: [Topo icon]
 - Sort by: [Sort icon]
 - Descending: [Descending icon]
 - Ascending: [Ascending icon]
 - Animate: [Animate icon]
 - Export: [Export icon]
- Status Bar:**
 - Coordinates: 40.5148°N, 73.7889°W
 - Count: 548,385

Variable: sst
Date: 2009/01/23 18:29:47 UTC
Level: 0 m

Variable: sst
Date: 2009/01/24 06:53:12 UTC
Level: 0 m

Variable: sst
Date: 2009/01/24 18:19:06 UTC
Level: 0 m

Variable: sst
Date: 2009/01/25 06:42:49 PST
Level: 0 m

Variable: sst
Date: 2009/01/25 18:08:25 UTC
Level: 0 m

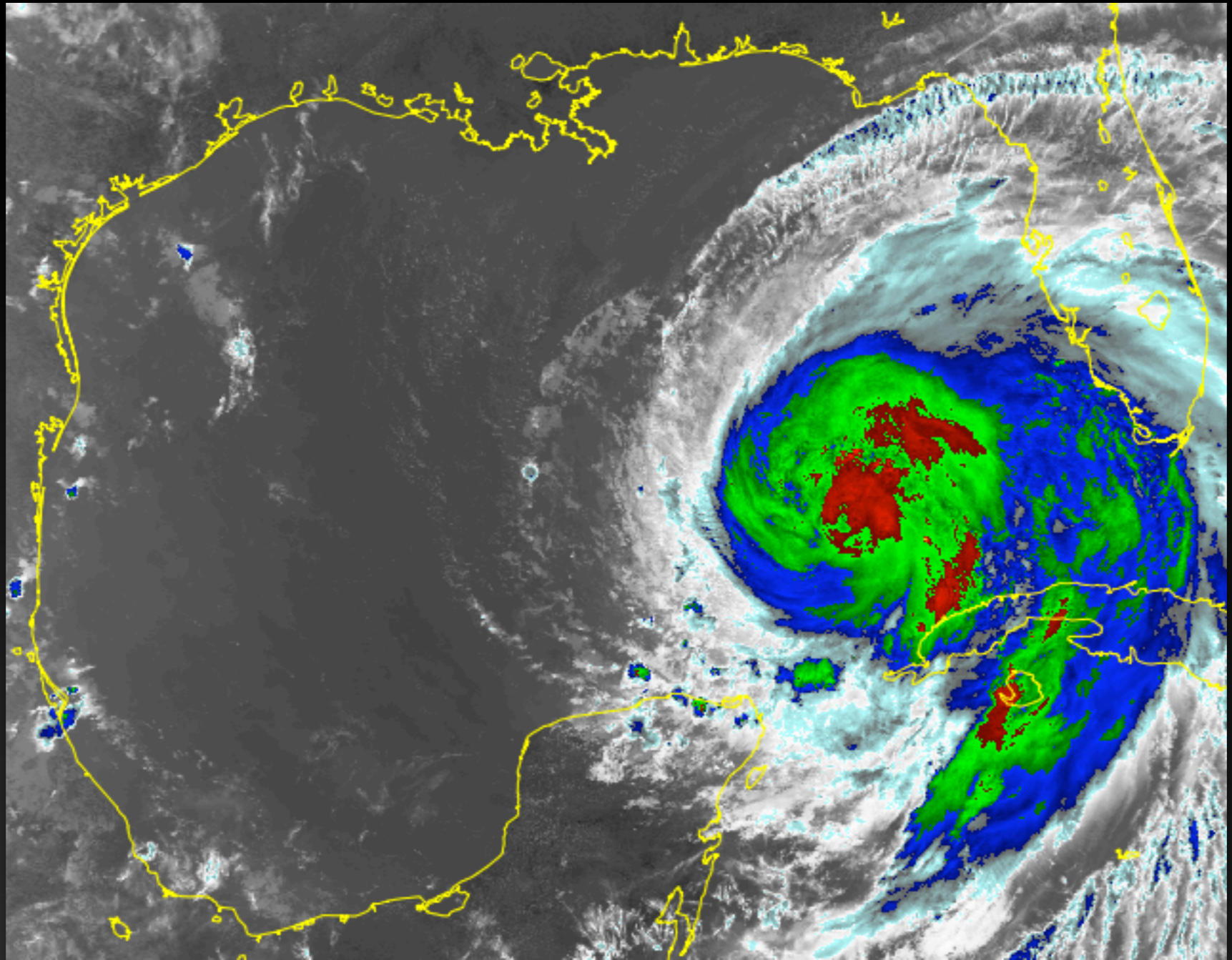
Variable: sst
Date: 2009/01/26 06:32:20 UTC
Level: 0 m

40.5148°N 73.9869°W

548,385

Variable Time Level Grid Coast Political Topo Sort by Descending Ascending Animate Export

Animation



2008/09/10 15:50:54 UTC

Speed:

Done Export



Geographic Features

Import

i

Search

File Name	Date
Name. XML	
Name. Doc	
Name. Txt	
Name. Rtf	
Name. Excel	
Name. XML	
Name. Doc	
Name. Txt	
Name. Rtf	
Name. Excel	

Features

Visible	Lat	Lon	Attribute	Attribute ▾
Show				
Show				
Hide				
Show				
Show				
Show				
Hide				
Show				
Show				
Show				
Hide				
Show				
Show				
Show				
Show				

File Format Visibility Filter

Group A
Group B
Group C
New Filter

Filtering

Filter Name i

Attribute match Any ▾ of the following
All

Attribute Name ▾	Equals ▾	Fill in	--	+
Latitude	Less			
Longitude	Bigger			
Sea Surface Temp.				
Pressure				
Wind Direction				

Cancel Done

Attributes and properties

Show Attributes

<input checked="" type="checkbox"/>	Attributes List
<input checked="" type="checkbox"/>	Attribute A Name
<input checked="" type="checkbox"/>	Attribute A Name
<input checked="" type="checkbox"/>	Attribute A Name
<input checked="" type="checkbox"/>	Attribute A Name
<input checked="" type="checkbox"/>	Attribute A Name
<input checked="" type="checkbox"/>	Attribute A Name
<input checked="" type="checkbox"/>	Attribute A Name
<input checked="" type="checkbox"/>	Attribute A Name
<input checked="" type="checkbox"/>	Attribute A Name
<input checked="" type="checkbox"/>	Attribute A Name

Feature ID

First attribute shown in table

Back

Features Properties i

Symbol

Fill Color

Line Color

Layer Color

Shadow

Text Shadow

Text Size

Text Color


Text Font

Saturation

Transparent 0%

Cancel Ok

Feature editing

Symbol  Layer "name" Filter name XXXXX

All	All	All	Attribute ▾	Attribute ▾	Attribute ▾	Attribute ▾	Comparison ▾	△
<input checked="" type="checkbox"/>	1	★	Feature ID,	Value,	Value,	Value,	Value, Chane1	▽
<input checked="" type="checkbox"/>	2	☆	Feature ID,	Value,	Value,	Value,	Value, Chane1	▽
<input checked="" type="checkbox"/>	3	☆	Feature ID,	Value,	Value,	Value,	Value, Chane1	▽
<input checked="" type="checkbox"/>	4	★	Feature ID,	Value,	Value,	Value,	Value, Chane1	▽
<input checked="" type="checkbox"/>	5	☆	Feature ID,	Value,	Value,	Value,	Value, Chane1	▽
<input checked="" type="checkbox"/>	6	☆	Feature ID,	Value,	Value,	Value,	Value, Chane1	▽
<input checked="" type="checkbox"/>	7	☆	Feature ID,	Value,	Value,	Value,	Value, Chane1	▽
<input checked="" type="checkbox"/>	8	☆	Feature ID,	Value,	Value,	Value,	Value, Chane1	▽
<input type="checkbox"/>	9	☆	Feature ID,	Value,	Value,	Value,		▽

Attribute/image comparison

Show comparison results for: i

Select the feature attribute in order to compare to the variable data

Attribute Name ▾	Ratio ▾	Channel ▾
Latitude	Difference	
Longitude		
Sea Surface Temp.		
Pressure		
Wind Direction		

Save

File Format ▾ ⓘ

Save as

Where

Show Features

All Features ▾
✓ Flagged
✓ Visible

Select Attributes to include

Attributes	