Welcome to CHS   https://chs.erdc.dren.mil

Modern probabilistic coastal hazard studies have evolved since their post-Hurricane Katrina origin. **CHS houses study results** at model **save points** for several of these regional coastal studies. The **most recent study** added to CHS is the **South Atlantic Coastal Study (SACS).** Divided into phases, as of September 2021, CHS houses the results for Phase I: Puerto Rico and US Virgin Islands, Phase 2: North Carolina to Southeast Florida, and Phase 3: Southwest Florida to Mississippi.
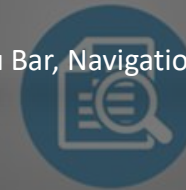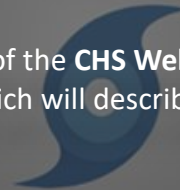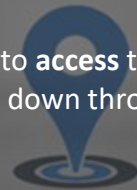
Quick Start

This Quick Guide will **step** through how to **access** the different parts of the **CHS WebTool**: the Menu Bar, Navigation Pane, Map and its tools, and Save Point and File Selection Query Window. Scroll down through each page which will describe each section.

Some Key Notes for Users:

- The **User's Guide**, accessed through the **Help Menu**, provides additional details on system capabilities;
- The **FAQ** in the Help Menu provides some **tips and guidance**, such as how to increase navigation and download speed;
- **Hexagons** are used to represent **areas** with save points when zoomed out beyond the range where points can be discerned. **Hovering** on a hexagon displays the **number of save points** in that area. Save points will appear once a **Regional Study is selected** from the Navigation Pane and **the map is zoomed in** to level 11 or higher; and
- There **are aids in CHS** itself to help:
    - The **Status Notes** at the top of the Navigation Pane (left panel) tell you helpful, current information.
    - **Instruction buttons** provide information on how to use part of a tool or popup.
    - **Hover over information circles** ⓘ for more information (e.g. model condition details).
    - **Reach out** to CoastalHazardsGroup@erdc.dren.mil for more help.

Welcome to CHS

https://chs.erdc.dren.mil

First time here?

Please proceed through this brief guide to get started. In the black Menu Bar at the top, see the User Guide under 'Help' for more information.
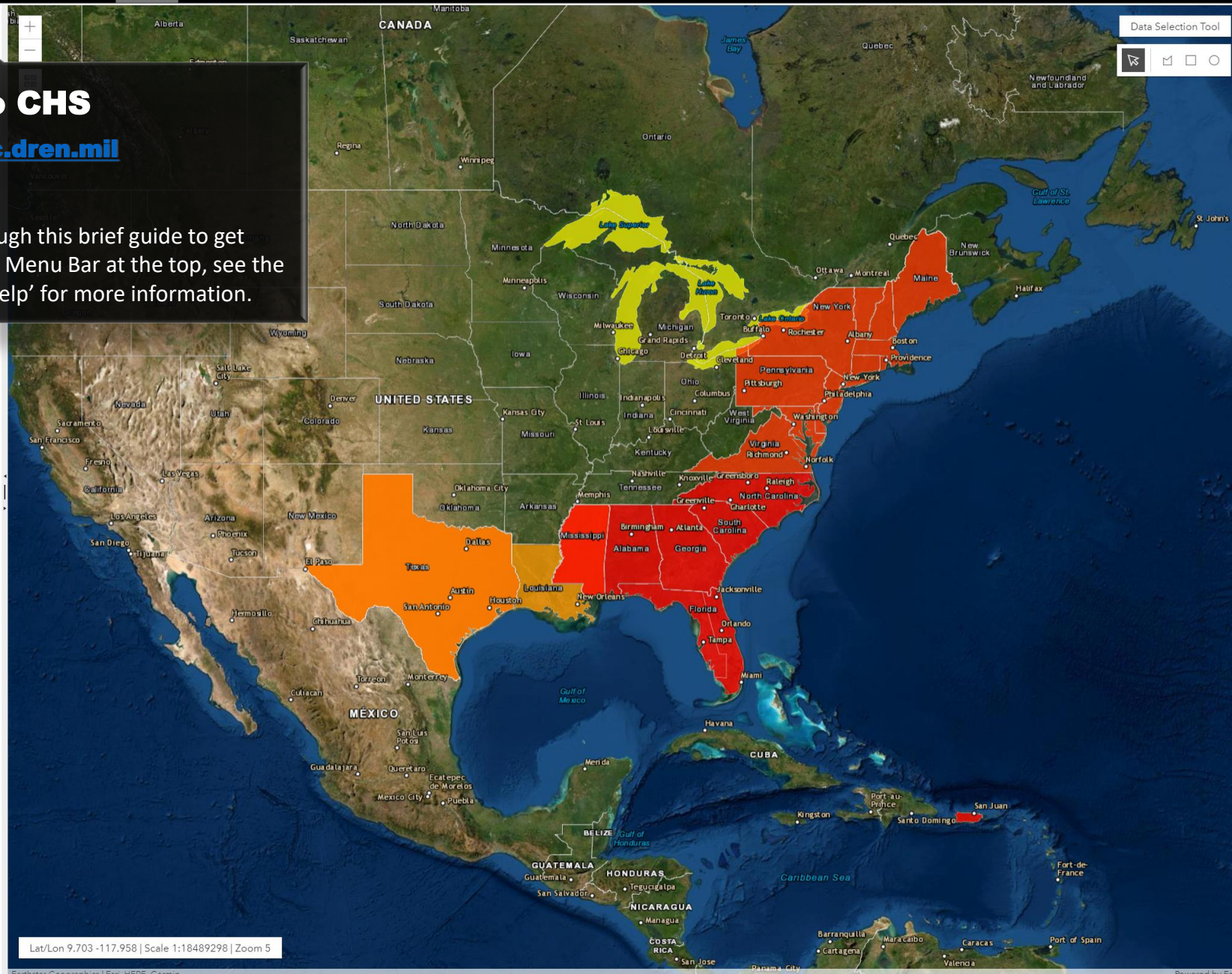
⌂ / Search / Study

Update: Filters must be applied below before viewing conditions.
Status: See Quick Start Guide in Help Menu for guidance.
SACS South Atlantic and Gulf of Mexico dren is being loaded daily.

Regional Coastal Studies

Select study...

Save Point (Model Condition/Area)

Instructions

Apply Filter

Name	Select	Results	Statistics
No records available.			

Data Selection Tool

CANADA

UNITED STATES

MÉXICO

Gulf of Mexico

CUBA

Caribbean Sea

Lat/Lon 9.703 -117.958 | Scale 1:18489298 | Zoom 5

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Regional Coastal Studies

Instructions

Select study...   ▾

Save Point (Model Condition/Area)

Instructions

Apply Filter

Name	Select	Results	Statistics
No records available.			

Data Selection Tool

Study Selection

The polygons represent all the regional coastal study areas where save point data can be accessed and downloaded.

Select a regional coastal study from the top drop down list. The map will be updated to reflect your selection.

Lat/Lon 9.703 -117.958 | Scale 1:18489298 | Zoom 5

🏠 / Search / Study

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Regional Coastal Studies

Instructions

North Atlantic Coast Comprehensive Study (NACCS) ▾

Save Point (Model Condition/Area)

Instructions

Apply Filter

Name	Select	Results	Statistics
▾ Virginia to Maine			
Base Conditions ⓘ	☑	≡	⬓
Base Conditions, Tides ⓘ	☐	≡	⬓
Base Conditions, 96 Random Tides ⓘ	☐	≡	⬓
Base Conditions + SLC1 ⓘ	☐	≡	⬓
Validation, Historical, Tides ⓘ	☐	≡	⬓

Data Selection Tool

Data Selection (1)

The map has been focused on the
selected Regional Coastal Study. Users
are now able to view model conditions
available for the selected study in the
'Save Points (Model Condition/Area)'
table. By default, the Base Condition for
each study is automatically selected.

Turn on and off the blue checkboxes to
choose the condition/area to be
displayed on the map and downloaded.
The icons (ⓘ) provide information on
the model condition and storm types
evaluated for the selected study.

The icons in the Results and Statistics
columns indicate the types of data that
are housed in the CHS data repository for
each model condition/area. Hover over
each icon to see the available data for a
condition/area.

🏠 / Search / Study

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Regional Coastal Studies

Instructions

North Atlantic Coast Comprehensive Study (NACCS) ▾

Save Point (Model Condition/Area)

Instructions

Apply Filter

Name	Select	Results	Statistics
▾ Virginia to Maine			
Base Conditions ⓘ	☑	≡	⌁
Base Conditions, Tides ⓘ	☑	≡	⌁
Base Conditions, 96 Random Tides ⓘ	☑	≡	⌁
Base Conditions + SLC1 ⓘ	☑	≡	⌁
Validation, Historical, Tides ⓘ	☑	≡	⌁

Data Selection Tool

Data Selection (2)

To enable changes made in the
navigation pane, users must click the
"Apply Filter" button to view hexagons
and points on the map. Once the
selected model conditions/area has been
applied, the red square to the top right
of the "Apply Filter" button will turn
green indicating that changes have been
applied to the map. Repeat this process
to make changes to the selected model
conditions/area.

Lat/Lon 33.335 -92.790 | Scale 1:9244649 | Zoom 6

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⌂ / Search / Study

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Regional Coastal Studies

| Instructions |

North Atlantic Coast Comprehensive Study (NACCS) ▾
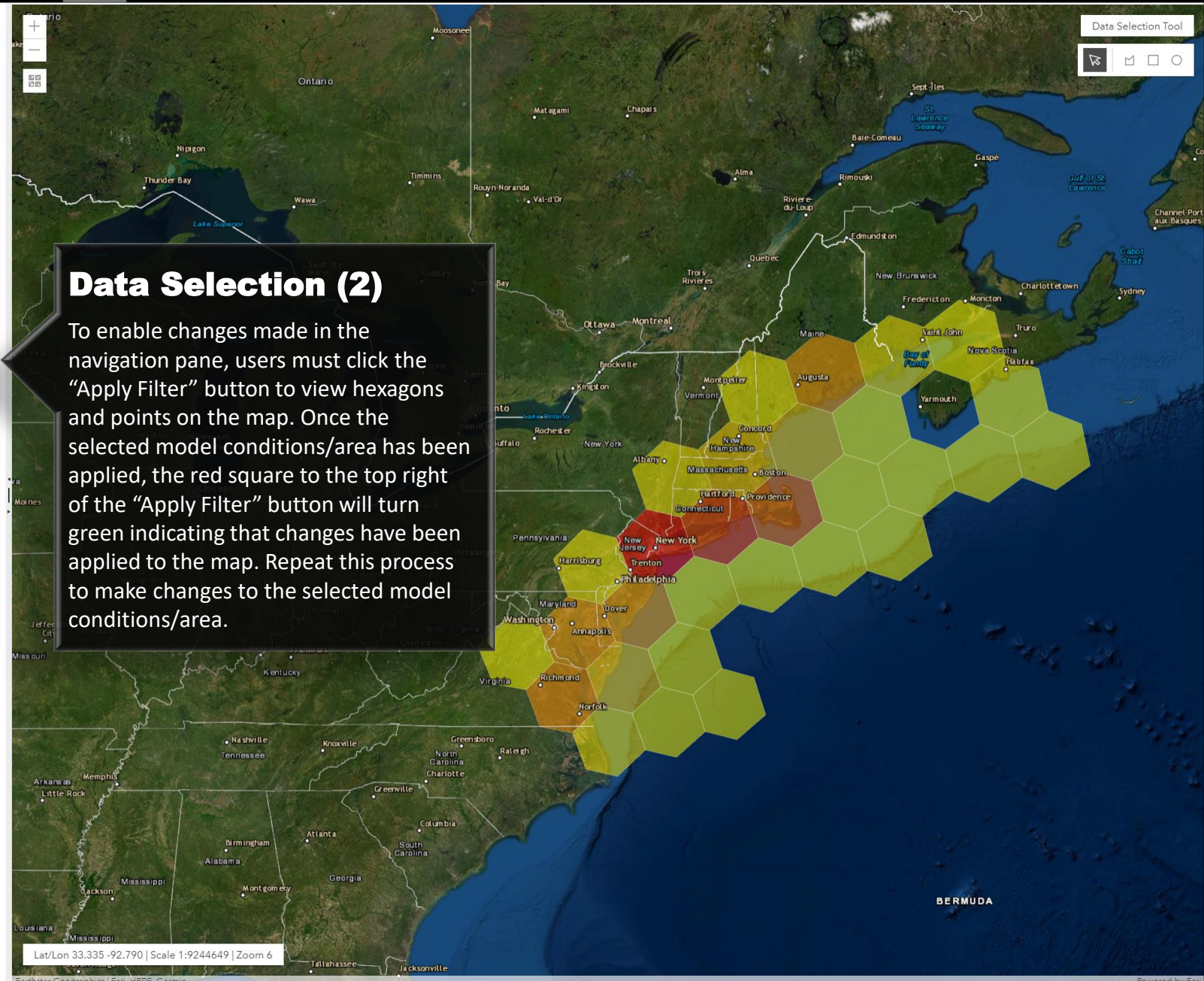
Save Point (Model Condition/Area)
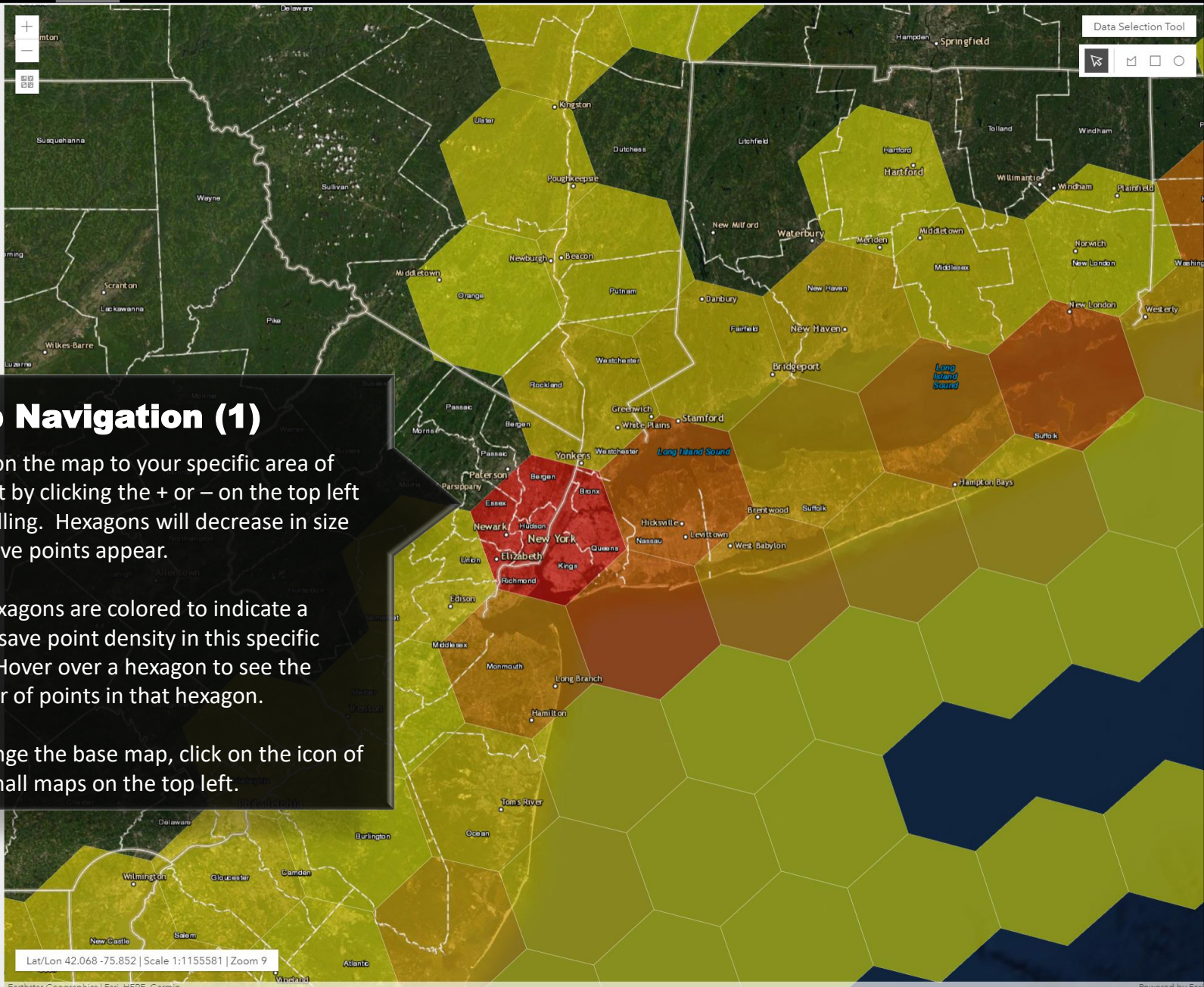
| Instructions |

| Apply Filter |

Name	Select	Results	Statistics
▾ Virginia to Maine			
Base Conditions ⓘ	☑	☰	
Base Conditions, Tides ⓘ	☑	☰	
Base Conditions, 96 Random Tides ⓘ	☑	☰	
Base Conditions + SLC1 ⓘ	☑	☰	
Validation, Historical, Tides ⓘ	☑	☰	

Data Selection Tool

Map Navigation (1)

Zoom on the map to your specific area of
interest by clicking the + or – on the top left
or scrolling. Hexagons will decrease in size
until save points appear.

The hexagons are colored to indicate a
higher save point density in this specific
study. Hover over a hexagon to see the
number of points in that hexagon.

To change the base map, click on the icon of
four small maps on the top left.

Lat/Lon 42.068 -75.852 | Scale 1:1155581 | Zoom 9

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Regional Coastal Studies

Instructions

North Atlantic Coast Comprehensive Study (NACCS)	▼

Save Point (Model Condition/Area)

Instructions

Apply Filter

Name	Select	Results
▼ Virginia to Maine		
Base Conditions ⓘ	☑	☰
Base Conditions, Tides ⓘ	☑	☰
Base Conditions, 96 Random Tides ⓘ	☑	☰
Base Conditions + SLC1 ⓘ	☑	☰
Validation, Historical, Tides ⓘ	☑	☰

Data Selection Tool

Map Navigation (2)

Save points appear at Zoom Level 11 and higher as indicated in the bottom left box with Latitude and Longitude. The pointer can be used to grab and pan, hover, or click. Hovering on a save point will display the ADCIRC save point ID. Clicking on a point will display a popup box with information specific to available data at that location.

Lat/Lon 40.902 -72.260 | Scale 1:288895 | Zoom 11

🏠 / Search / Study

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Regional Coastal Studies

Instructions

North Atlantic Coast Comprehensive Study (NACCS) ▼
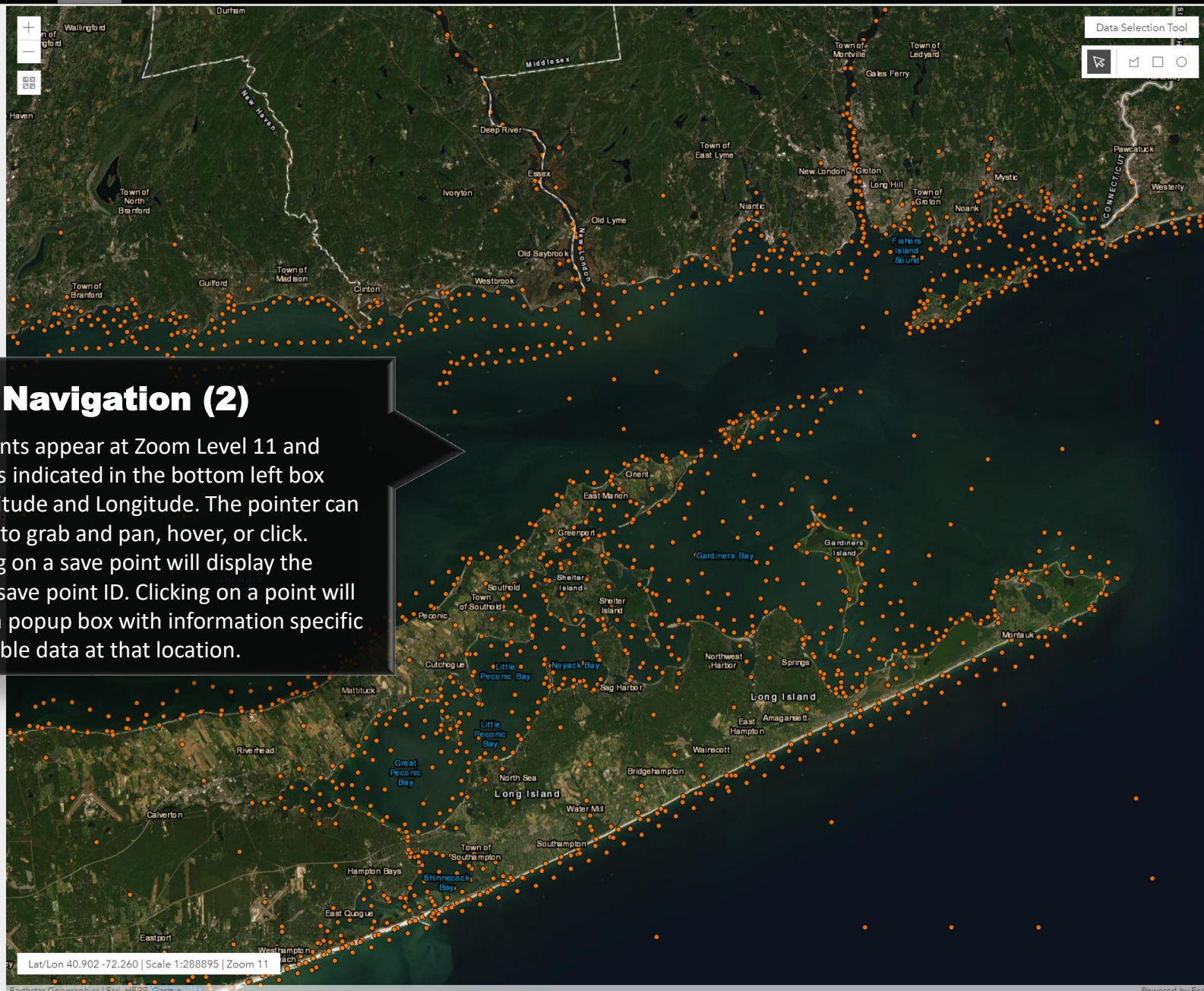
Save Point (Model Condition/Area)

Instructions

Apply Filter

Name	Select	Results	Statistics
▼ Virginia to Maine			
Base Conditions ⓘ	☑	☰	📈
Base Conditions, Tides ⓘ	☑	☰	📈
Base Conditions, 96 Random Tides ⓘ	☑	☰	📈
Base Conditions + SLC1 ⓘ	☑	☰	📈
Validation, Historical, Tides ⓘ	☑	☰	📈

Save Point Popup

Clicking on a point will display a popup box that provides the location, point IDs, and a set of tabs for Model results and Statistics for the study conditions selected in the navigation pane. The selected point will be highlighted by a cyan-colored circle.

Select each tab to see the types of parameters available to download for that specific Model/Statistics result. Data for the selected point of interest can be downloaded by clicking the blue download arrow in the top left corner of the popup.

Some studies may also include static images of the hazard curves. Click the hazard curve icon (📈) to view and download the image. Visualization of the statistics and model results is under development and will be accessible by clicking the data icon (▦).

🔍 Zoom to

Point Location: (-72.3025, 41.1789)   ⧉ ✕

⬇

Details	
Location Data Types:	ADCIRC Save Point 9172
	STWAVE Save Point 2204 Grid 5 (LID)
	AEP Save Point 9172
	NLR Save Point 9172
CHS ID:	15550

ADCIRC   STWAVE   **AEP**   NLR

AEP Save Point 9172

Region/Condition	Hs	WL
Base Conditions	▦	▦ ▦
Base Conditions, 96 Random Tides	▦	▦ ▦
Base Conditions, Tides	▦ ▦	▦

Lat/Lon 40.826 -72.600 | Scale 1:288895 | Zoom 11

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Regional Coastal Studies

Instructions

North Atlantic Coast Comprehensive Study (NACCS)   ▼

Save Point (Model Condition/Area)

Instructions

Apply Filter	

Name	Select	Results	Statistics
▼ Virginia to Maine			
Base Conditions ⓘ	☑	☰	〽
Base Conditions, Tides ⓘ	☑	☰	〽
Base Conditions, 96 Random Tides ⓘ	☑	☰	〽
Base Conditions + SLC1 ⓘ	☑	☰	〽
Validation, Historical, Tides ⓘ	☑	☰	〽

Data Selection Tools

To select save points for data download, use one of the shapes on the top right. Make sure to select all the Conditions of interest in the Navigation Pane that you plan to download before using the Data Selection Tool.

To use the polygon tool, click the shape, then place your pointer on the map where you want to start the polygon. Click vertices forming a shaded polygon and close the polygon. Finishing the area will bring you to the Save Point Selection and Download Window populated by your selected points.

To use the rectangle, place your pointer in one corner of the rectangle, press and hold the mouse button, drag to the other corner and release the mouse button. For the circle tool, press and hold at the center, drag along a radius and release at the edge of your circle. If you need to redraw your shape, *x* out of the Save Point Selection and Download Window and repeat.

Data Selection Tool

Lat/Lon 40.902 -72.260 | Scale 1:288895 | Zoom 11

/ Search / Study

Data Selection Tool

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Status: See Quick Start G
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Regional Coastal Studies

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Save Point (Model Cond

Name

▼ Virginia to Maine

Base Conditions ⓘ

Base Conditions, Tides ⓘ

Base Conditions, 96 Rand

Base Conditions + SLC1 ⓘ

Validation, Historical, Tide

Selected Save Points   ✕

| Save Points | Downloads |

| Instructions |

Drag a column header and drop it here to group by that column

☐	Co-Located IDs	⋮	Models	⋮	Statistics	⋮	Lat	⋮	Long	⋮
☐	1464 - STWAVE (Grid 5) 7127 - ADCIRC, AEP, NLR		ADCIRC STWAVE (Grid 5)		AEP NLR		41.2833		-72.35	
☐	358 - STWAVE (Grid 5) 626 - ADCIRC, AEP, NLR		ADCIRC STWAVE (Grid 5)		AEP NLR		41.2515		-72.3861	
☐	366 - STWAVE (Grid 5) 639 - ADCIRC, AEP, NLR		ADCIRC		AEP NLR		41.2598		-72.2872	
☐	356 - STWAVE (Grid 5) 624 - ADCIRC, AEP, NLR									
☐	2203 - STWAVE (Grid 5) 9171 - ADCIRC, AEP, NLR		ADCIRC STWAVE (Grid 5)		AEP NLR		41.2135		-72.3114	
☐	33 - STWAVE (Grid 5)		ADCIRC							

Save Point Filter and Selection Window

The window that opens will let you sort and filter the save points selected in the map by ID, Model, Statistics, and coordinates. To sort and filter, see the detailed directions at the top of the window and in the user guide.

Scroll down to see all files that can be downloaded. Select a point by clicking the check box on the left. Points can be selected during a filter or sort. Select/Unselect all points using the checkbox in the top row. Select at least one point and click on the "Downloads" tab to move on to select specific files associated for the selected points. Large numbers of points will take longer to download.

Lat/Lon 41.189 -72.268 | Scale 1:288895 | Zoom 11

Save Point File Download

The download table will let you sort and filter the data files for each selected point by ID, Storm Type, Model or Statistics Results, Model Condition or Sub-Region and Attribute, similarly to the Save Point Tab. You are able to select individual files, a change from the Legacy CHS web-tool, which downloaded all files for a point, both slowing download speed and sometimes requiring post-processing. Future updates will allow for data viewing.

Scroll down to see all files that can be downloaded. Select specific files types by clicking on the left check box or the select/unselect tool in the top row. Click on a download file button at the top of the table for H5, CSV, or both H5 and CSV files. A zip file with all the selections will be downloaded to your default download directory. An alert should indicate the server has received the request.

For further information, please click the help menu and view the user guide or contact information.

Selected Save Points

Save Points | Downloads

Drag a column header and drop it here to group by the column

	Co-Located IDs	Storm Type	Result / Statistic	Region / Condition	Attribute	FileName
☑	NLR	TS	NLR	Base Conditions Base Conditions + SLC1 Base Conditions, 96 Random Tides Base Conditions, Tides Validation, Historical, Tides	Statistics	NACCS_TS_Sim0_Post0_Stat_WaterLevel_NLR
☑	248 - ADCIRC	XH	ADCIRC	Base Conditions + SLC1	Peaks	NACCS_XH_SimB1HTgslc1p0_Post0_SP00248_ADCIRC01_Peaks
☑	249 - ADCIRC	XH	ADCIRC	Base Conditions + SLC1	Peaks	NACCS_XH_SimB1HTgslc1p0_Post0_SP00249_ADCIRC01_Peaks
☐	525 - ADCIRC	XH	ADCIRC	Base Conditions + SLC1	Peaks	NACCS_XH_SimB1HTgslc1p0_Post0_SP00525_ADCIRC01_Peaks

Regional Coastal Studies

North Atlantic Coast Co...

Save Point (Model Cond...

Name

▼ Virginia to Maine

- Base Conditions ⓘ
- Base Conditions, Tides
- Base Conditions, 96 Rand...
- Base Conditions + SLC1
- Validation, Historical, Tide...

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Lat/Lon 41.189 -72.268 | Scale 1:288895 | Zoom 11