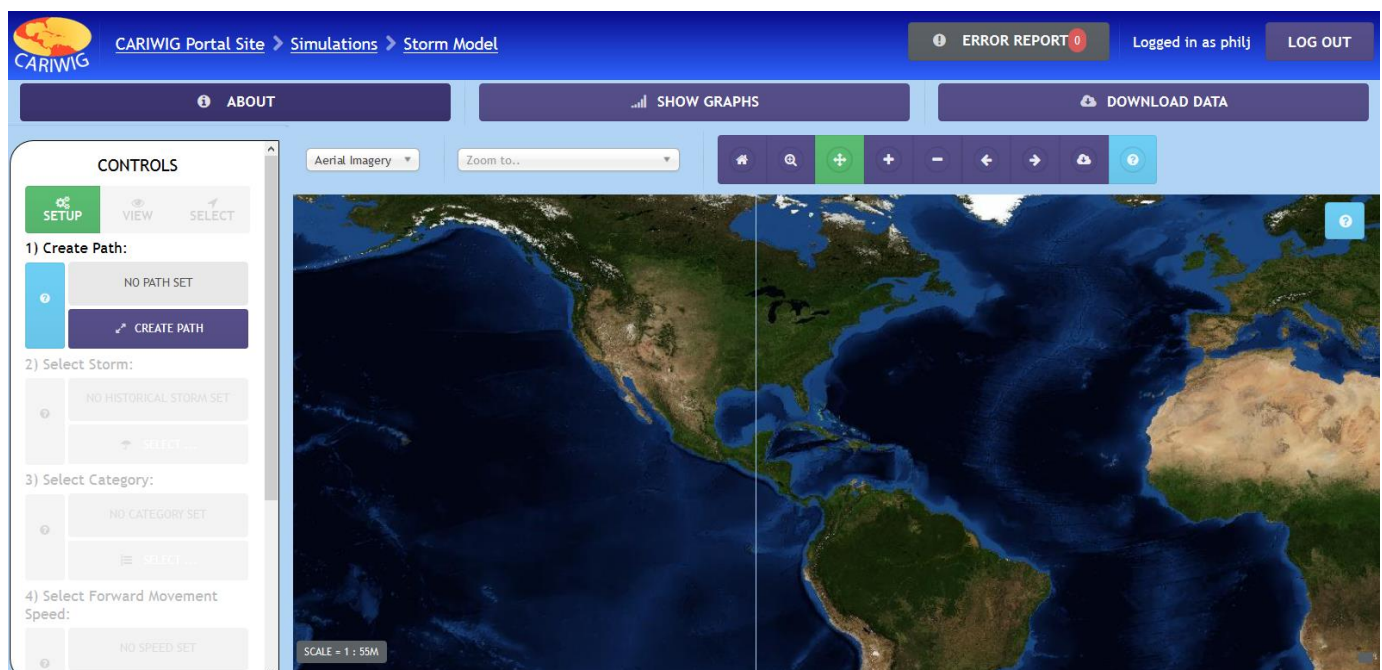


### Introduction

The *Tropical Storm Model* generates a grid of rainfall intensity and wind speed data based on historic storm data.

The *Tropical Storm Model* has two components:

- The *Controls Panel* on the left hand side provides access to controls to setup the Storm Model, view the outputs and manage selected grid cells.
- The *Map Panel* maps the domain of this tool and provides tools for interactive zooming and selection (see *Map Panel Help* for details).



The Tropical Storm Model Tool

### The Controls Panel

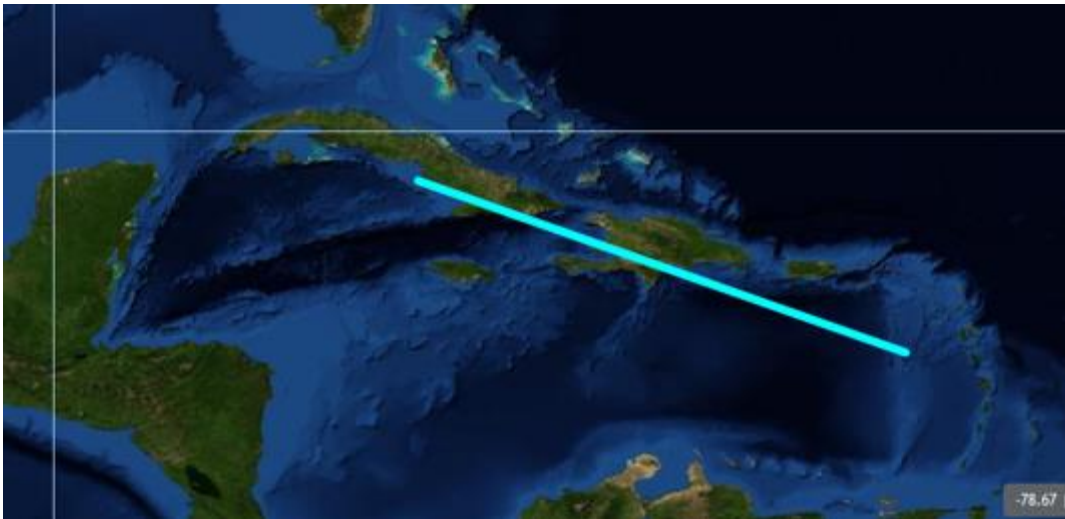
The controls panel has three modes – *Setup*, *View* and *Select*.

Green buttons show a currently selected item. Purple buttons show possible alternative selections or provide access to dropdown menus. Current selections are indicated as grey labels above the controls.

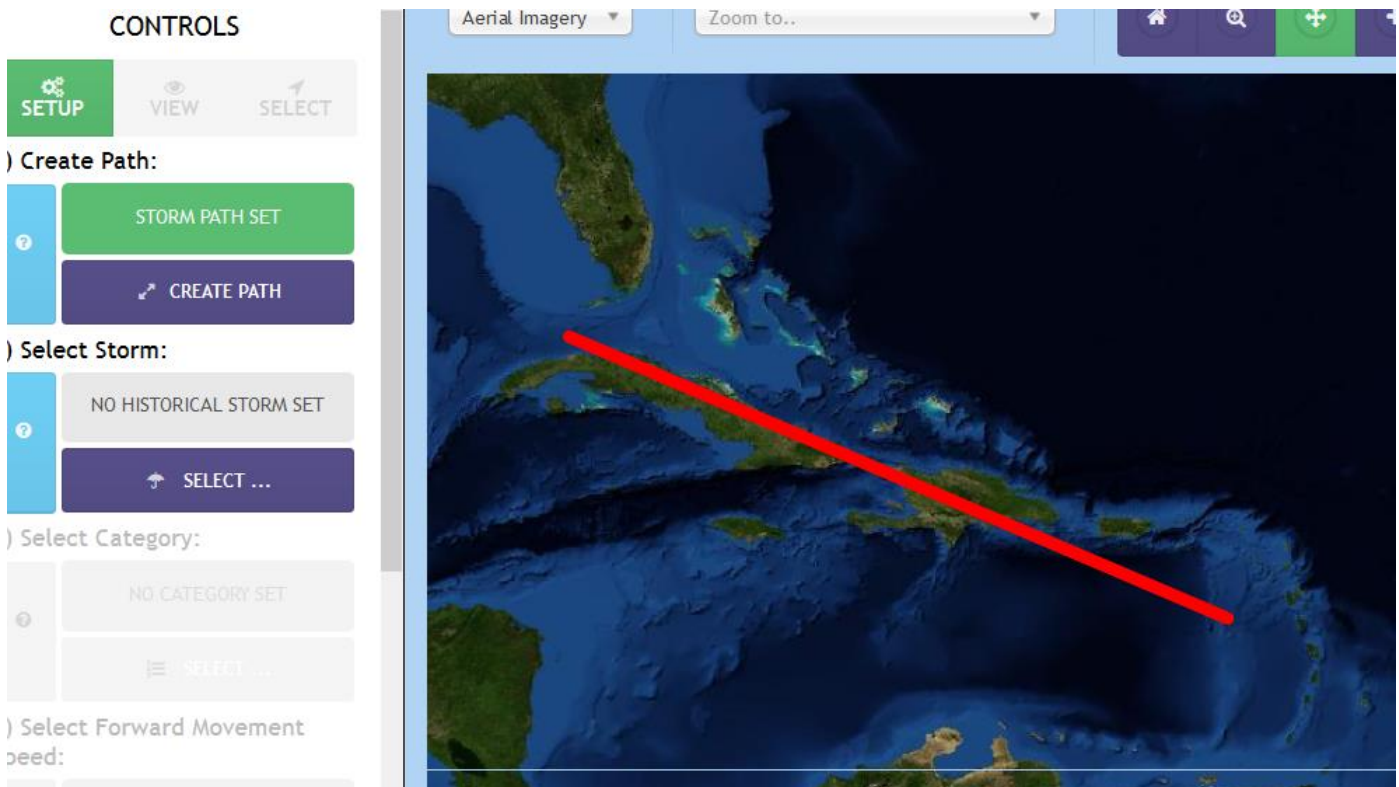
## Setting up a Storm

### Step 1: Create a storm path

First zoom and pan the map to show your desired model domain (see *Map Navigation Help*). Press the *Create Path* button. The button changes to indicate that you are now in *DRAWING* mode. Using the mouse, select the start location of your storm. Once the start point has been selected, move the mouse to extend a cyan straight line from the start location.



To set the end of the storm path, click the mouse button again. The path will be recoloured red and the label in the *Controls Panel* will indicate that the storm path is set.





To change the path or create a different storm path click *Create Path* again and redo the operation. When you are happy with the *Storm Path* move onto Step 2.

## Step 2: Select Historical Storm

Once a storm path is defined, use the *Select Storm* dropdown menu in the *Controls Panel* to select a notable historical storm. The storms currently available are Dean, Katrina and Ivan.

## Step 3: Select Storm category

Select the category of the storm. The available categories are 1, 3 and 5 on the Saffir-Simpson Wind scale.

## Step 4: Select Forward Speed of the storm

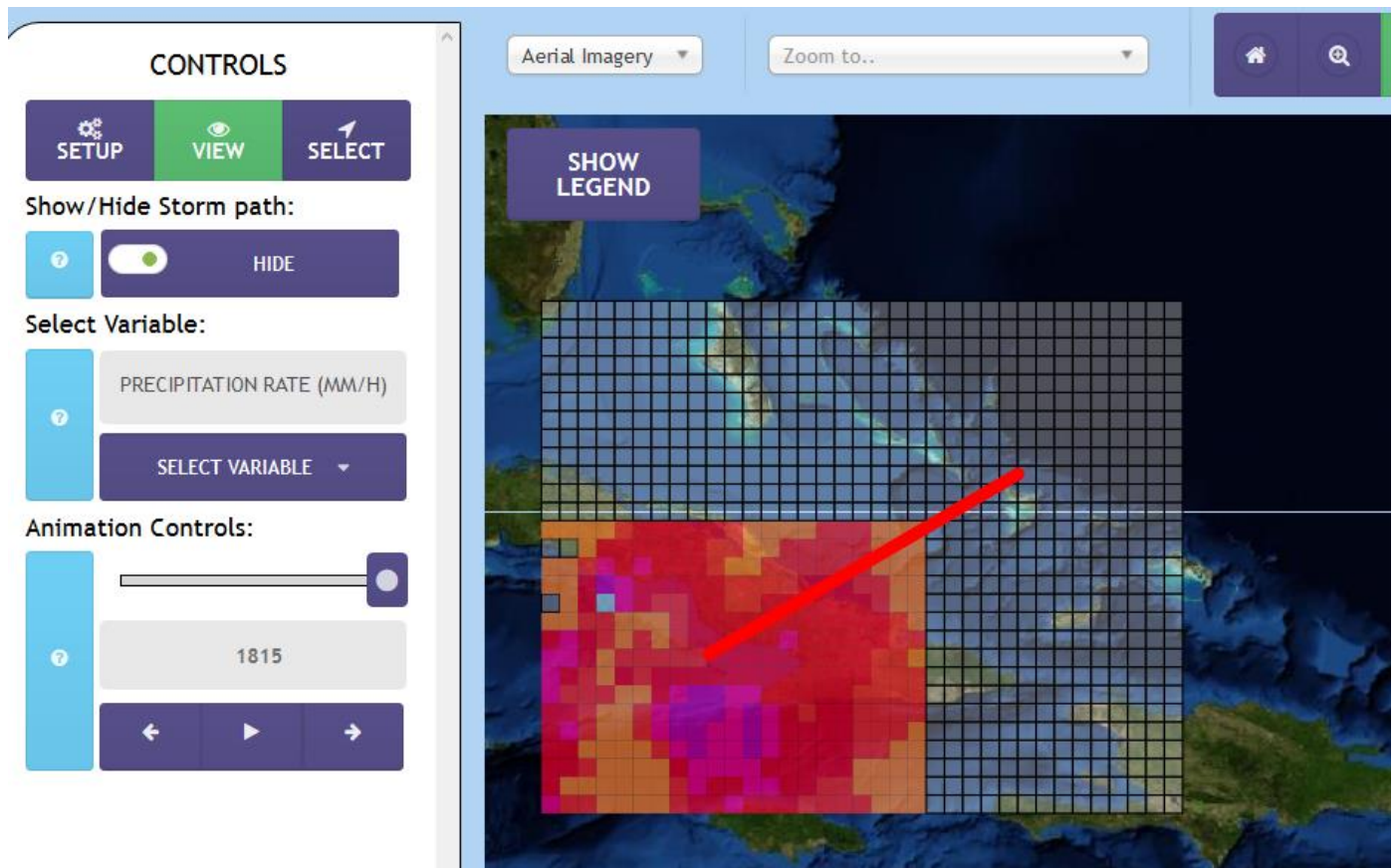
Select the forward speed of the storm from the available options in the dropdown menu.

## Step 5: Run the Model

Press the *RUN MODEL* button to start the storm simulation. The model will take a few moments to complete, depending on the length of your storm track and the speed of the storm. Whilst the model is running the map window will display a graphic.

## Viewing the Storm Model Output

When the model run is complete the *Controls Panel* will change to *VIEW* mode and the storm model domain will be shown as a grid on the map. The *Animation Control* may be used to control a step-through visualization of the storm simulation results.



The *Controls Panel* in *View* mode can be used to alter the variable being displayed (Precipitation or Windspeed), show and hide the storm track and to select a model time to be visualized.

Use the arrow keys or the slider on the *Animation Control* to show the grid of values at a particular model-time during the storm simulation. You can also animate the time frames by pressing the *Play* button on the animation control. Press the pause button to pause the animation.

## CONTROLS

SETUP VIEW SELECT

Show/Hide Storm path:

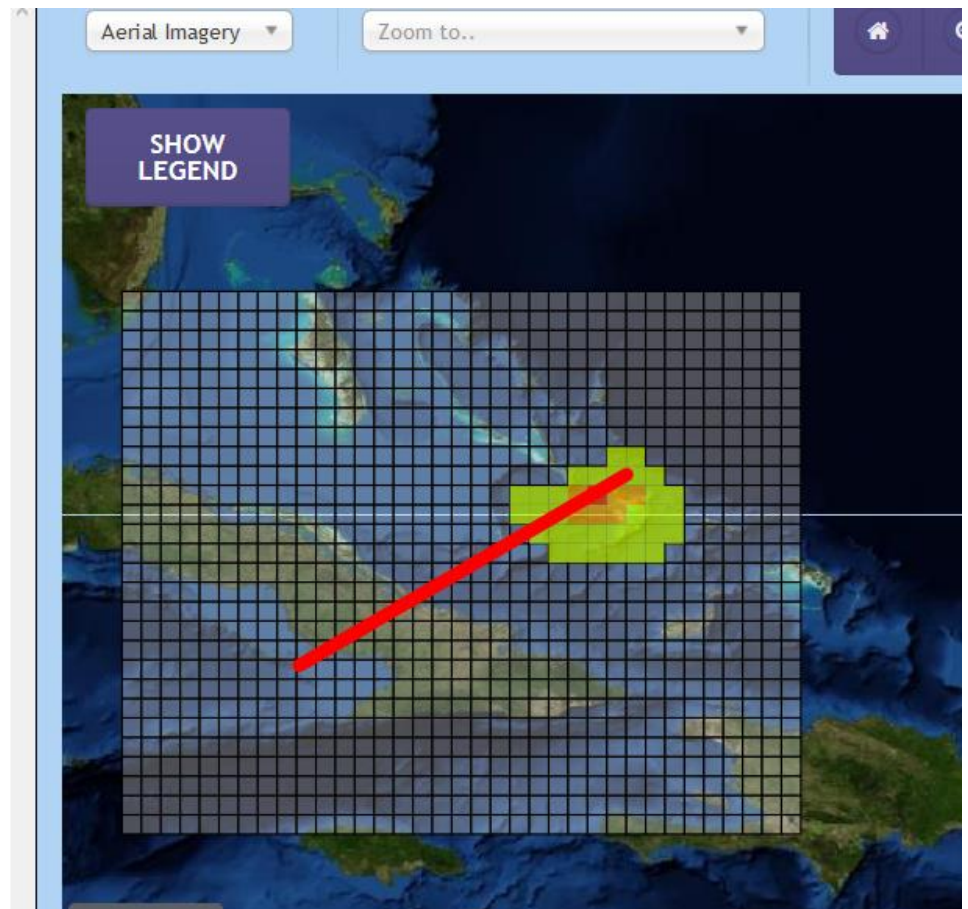
HIDE

Select Variable:

WIND SPEED (M/S)  
SELECT VARIABLE ▾

Animation Controls:

135  
◀ ▶ ▶



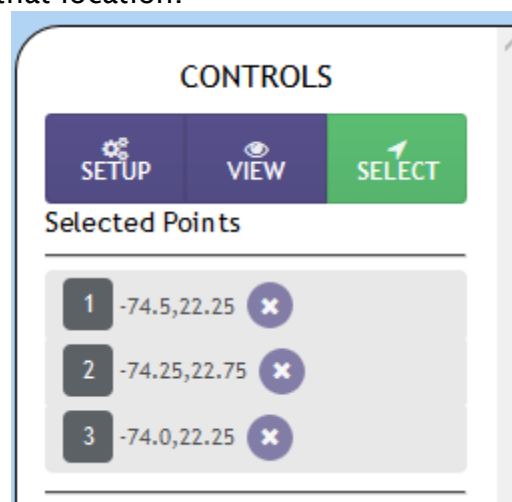
## Selecting Grid Cells



To create graphs or obtain downloads, one or more of the model domain grid cells should be selected. To select a domain grid cell, click within the simulation domain. A pin is displayed on the map to show your selection(s). The number of the selection is shown in the pin.

When a grid-cell is selected the *Controls Panel* will change to the *Select* mode. (To change back to the *View* or *Setup* modes, simply click the corresponding buttons in the *Controls Panel*). The *Select* view lists the currently selected locations. To remove a

selection click the “x” next to that location.



The *Controls Panel* in *Select* mode showing a list of current grid cell selections

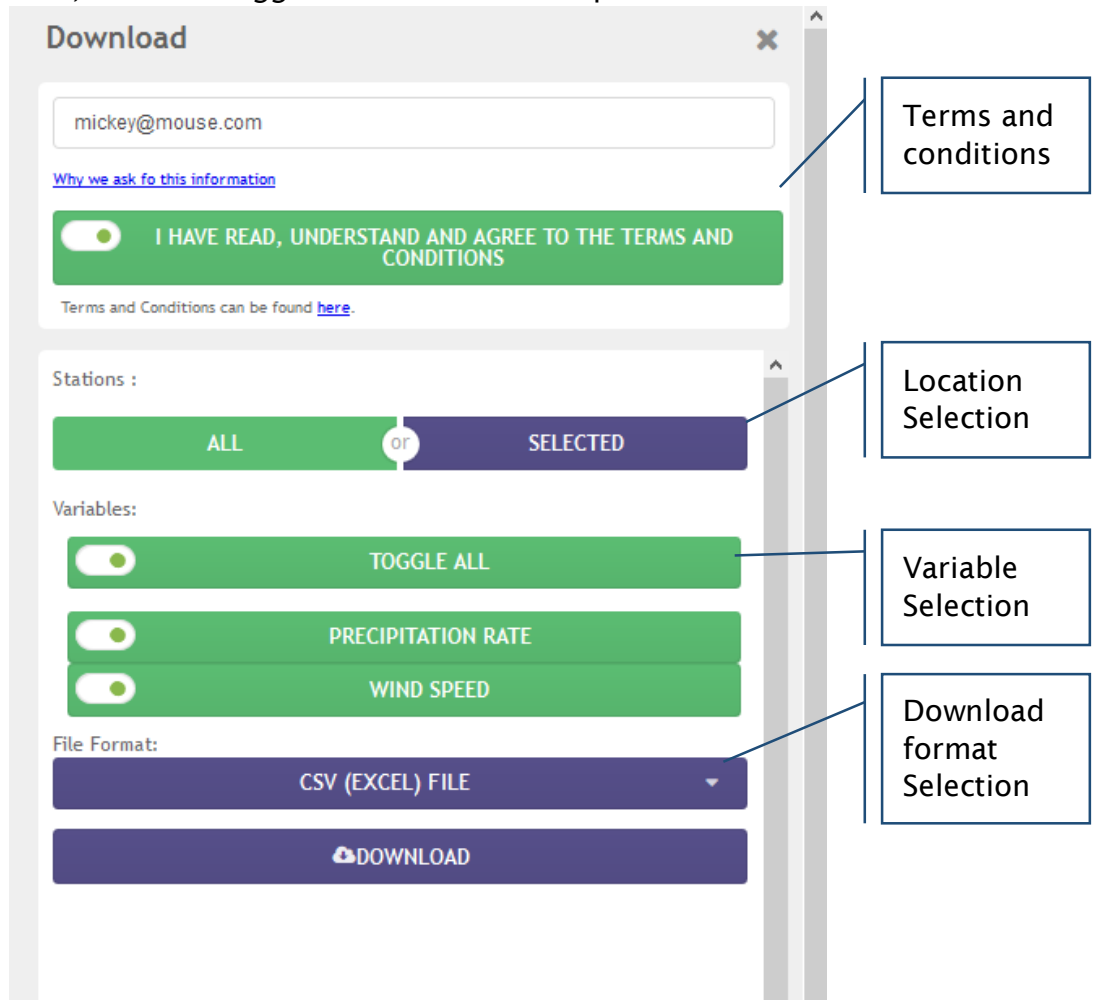
When one or more cells is selected the *Graph Tool* is activated.

## Downloading Data

To download data press the *Download Data* button on the top button bar

- On the download popup window add an email address (if one is not already entered) and agree to the terms and conditions (if applicable)
- Select the locations you wish to download. If you have selected a cell or cells then the *SELECTED* option will be the default (this option is not available if no selection has been made). To change the selection to all stations click the *ALL* button.

- Select the variables you wish to download. By default all variables are selected but the selection can be modified by selecting or deselecting from the variable list. To deselect or select all variables, click the *Toggle All* button at the top of the variable list.

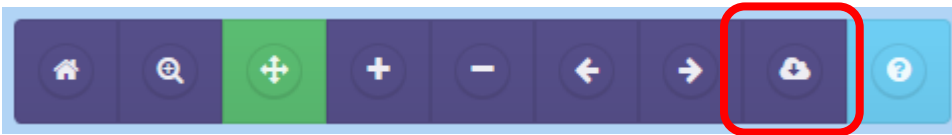


- Select the output file format by clicking the dropdown menu. The output formats available are:
  - Comma Separated Values* (a text based format compatible with Microsoft Excel)
  - ShapeFile* (a GIS format that includes the location and areas of the cell(s) along with associated climate data in an attribute table)
- Click the *Download* button to begin the download process (depending on the resolution of your monitor you may need to scroll down the download popup to see the *Download* button).
- Preparation of the download will take a few moments depending on the amount of data and format selected. Once the files are ready a second *Download* button will be provided. To download the data click this button.
- The data download consists of a zipped archive that contains:
  - The data in the format selected;
  - A copy of the license information;
  - A copy of the metadata information.

- Unzip the downloaded archive to a location on your computer to access the contents.
- The download popup window may be dismissed by clicking the 'x' in the top right hand corner.

## Downloading map images

To download an image of the current map for use in a report or document, use the *Download Map* button on the *Map Toolbar*. A jpeg format image file of the current map view will be prepared for download. When the files have been created, press the *Download* button



## Exiting the Tropical Storm Model Tool

To exit the *Tropical Storm Modelling Tool* use the back button on your browser or click the navigation links at the top of the data viewer page.

