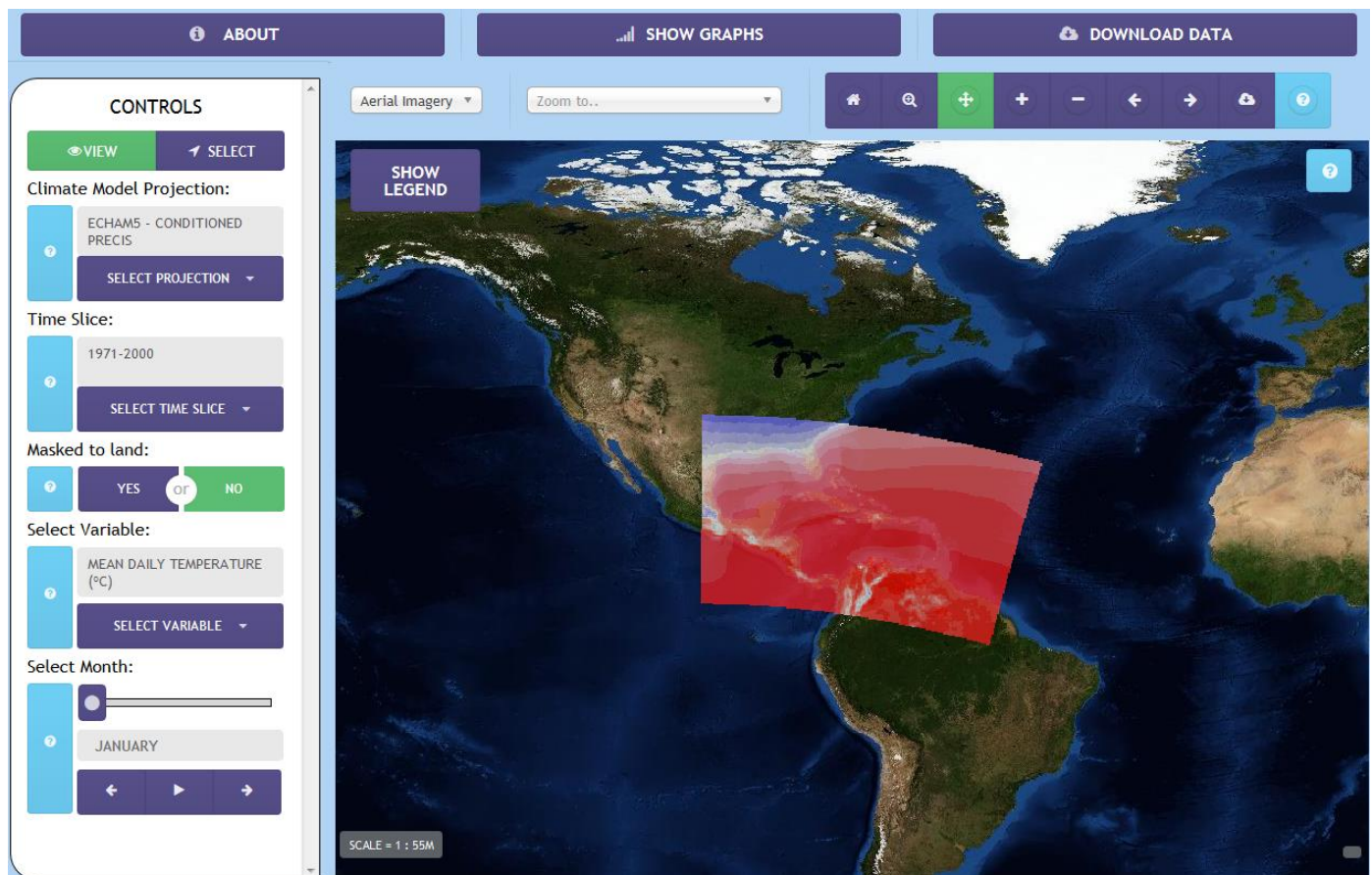


Introduction

The *Regional Climate Model* viewer provides access to Regional Climate Model weather variables averaged by calendar month for a selection of time slices. The *Regional Climate Model* viewer has three components:

- The *Controls Panel* on the left hand side provides access to controls to select variables, time slices, model outputs and calendar months;
- The *Map Panel* shows a grid coloured in accordance with the average value of a weather variable. The *Map Toolbar* provides tools for interactive zooming, panning and selection of grid cells (see *Map Navigation Help* for details).
- The top button bar provides tools for graphing (see *Graph Tool Help* for details) and downloading data



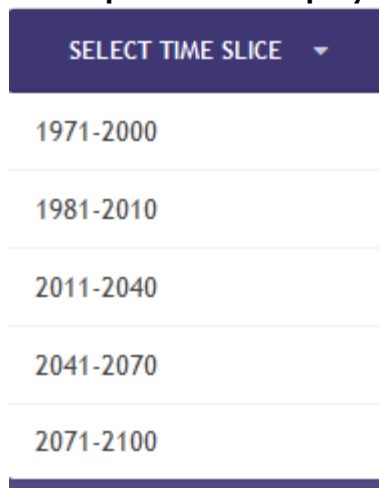
The Regional Climate Model Viewer

The Controls Panel

The *Controls Panel* has two modes: *View* and *Select*. The *View* mode allows changes to the current map view. The *Select* mode displays current map selections. Green buttons show a currently selected item. Purple buttons show alternative selections or provide access to dropdown selectors.

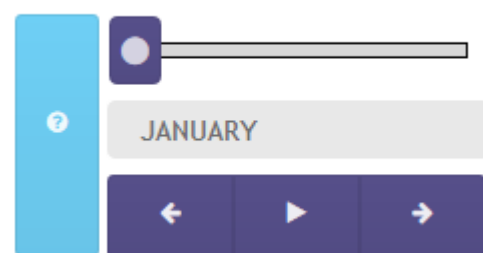
The main controls provided in *View* mode are:

1. *Climate Model Projections* – switches the view to use outputs from different climate model projections. Currently available models runs are conditioned by the GCMs
 - a. ECHAM5
 - b. HADCM3Q0
2. The Time Slice selector is a dropdown of available time-slices. To activate the dropdown press the *SELECT TIME SLICE* button and select the period you wish to display. The label on the control panel will display your current choice.



3. The *Masked to Land* selector restricts the display of the variable to land areas. Please note that this is at coarse resolution and that smaller islands may be omitted.
4. The *Variable* selector is a dropdown menu of the available weather variables. To activate the dropdown press the *Select Variable* button and choose the variable you wish displayed. The currently selected variable will be displayed.
5. The *Month* selector provides the means to display averages for different calendar months. The selection can be chosen using the slider or by stepping through the months using the arrow controls. An animation of all months can be started by pressing the *play* button '▶' on the *Select Month* control. To stop the animation press the stop button, '■'.

Select Month:

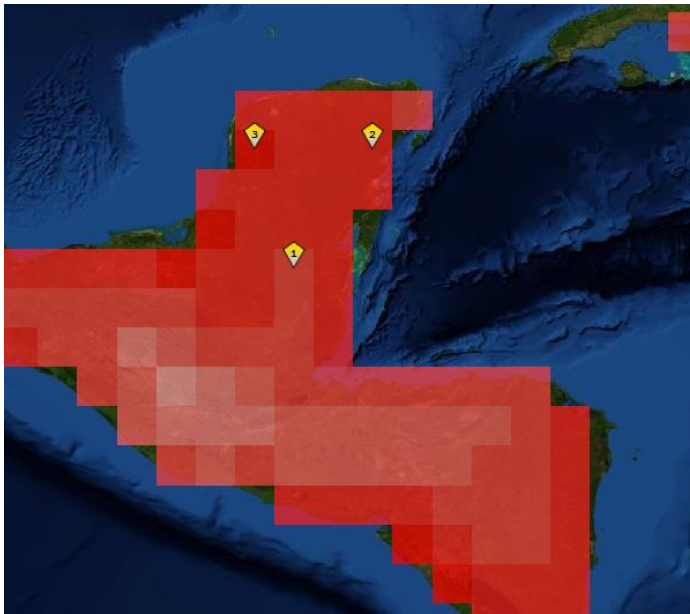


Viewing Data

The current data layer is displayed on the map view. The map view can be zoomed and panned to investigate average monthly values (see *Map Panel Help* pages for details). Data is coloured according to its value. The value range can be seen in the legend in the map window. To see values associated with individual grid squares, hover the mouse over a grid and the value underneath the mouse pointer will be displayed in a small popup.

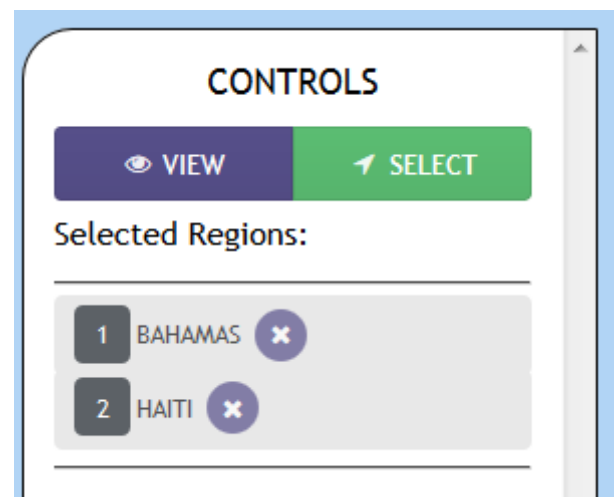
Selecting Grid Cells

To create graphs or download data, one or more grid cells should first be selected. It may



be helpful to zoom or pan the map to pinpoint your chosen location(s). To select a grid cell click on any of the coloured squares on the map. A pin will be displayed on the map to show your selection. The number of the each selection is shown in the pin.

When a grid is selected the *Controls Panel* will switch to the *Select* mode (clicking the *View* button in the *Controls Panel* will revert to the *View* mode). The *Select* mode lists currently selected grid cells. A selection may be removed by clicking the 'x' next to the selection.



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

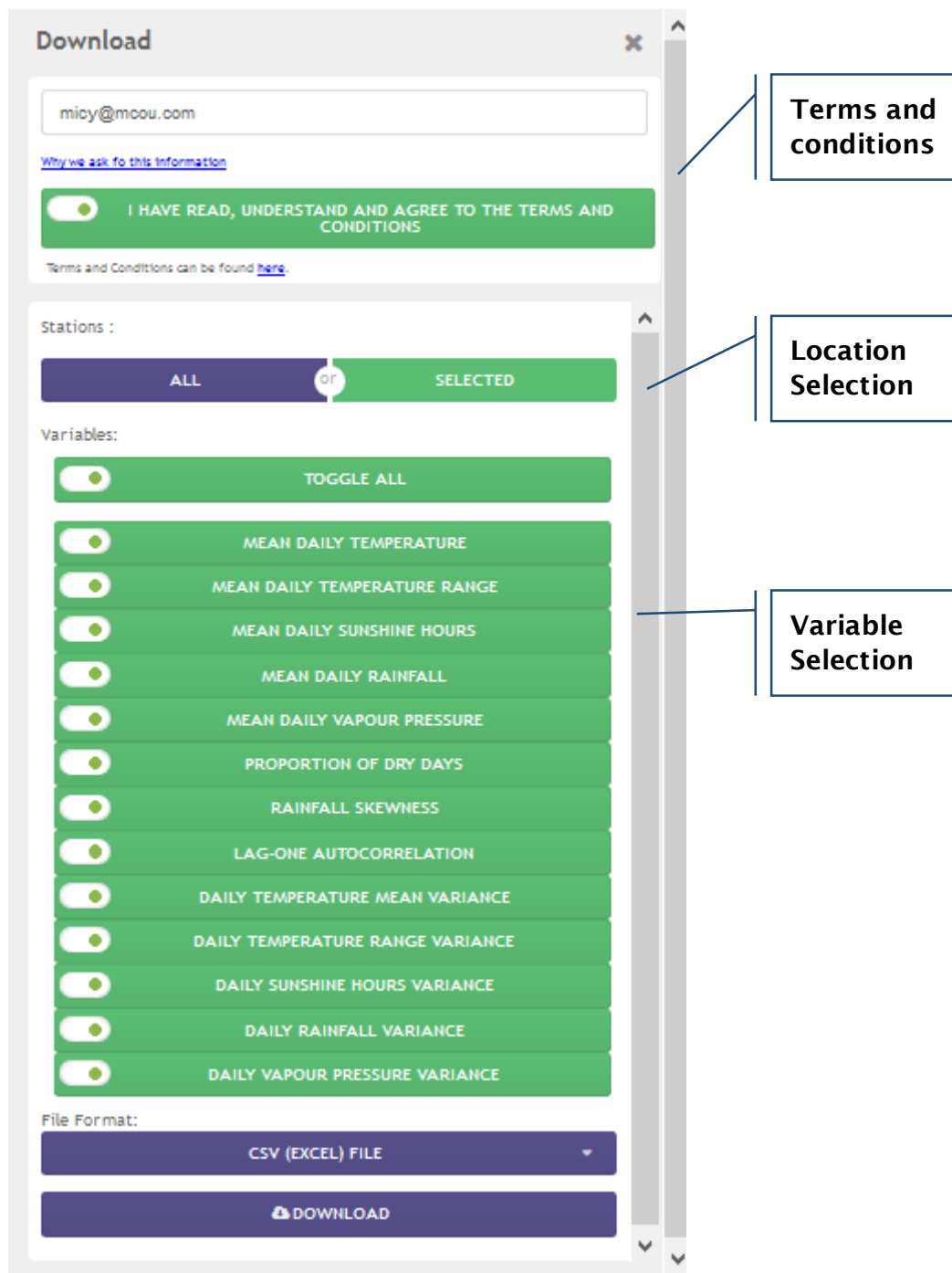
Once one or more stations are selected, the graphing and download-data tools are activated.

Downloading Data

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

- A *Download* popup-window will then appear. Provide an email address (if one is not already entered) and agree to the terms and conditions;
- Select the locations you wish to download. If you have selected a cell or cells on the map 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-all or to select-all click the *ALL* button at the top of the list of variables.



The screenshot shows a 'Download' popup window with the following sections:

- Terms and conditions:** A text input field containing 'micy@moou.com', a link 'Why we ask for this information', a green toggle switch that is turned on, and the text 'I HAVE READ, UNDERSTAND AND AGREE TO THE TERMS AND CONDITIONS'. Below this is a link 'Terms and Conditions can be found [here](#)'.
- Location Selection:** A section titled 'Stations :' with two buttons: 'ALL' (dark blue) and 'SELECTED' (green), separated by an 'OR' button.
- Variable Selection:** A section titled 'Variables:' with a 'TOGGLE ALL' button and a list of 14 variables, each with a green toggle switch that is turned on:
 - MEAN DAILY TEMPERATURE
 - MEAN DAILY TEMPERATURE RANGE
 - MEAN DAILY SUNSHINE HOURS
 - MEAN DAILY RAINFALL
 - MEAN DAILY VAPOUR PRESSURE
 - PROPORTION OF DRY DAYS
 - RAINFALL SKEWNESS
 - LAG-ONE AUTOCORRELATION
 - DAILY TEMPERATURE MEAN VARIANCE
 - DAILY TEMPERATURE RANGE VARIANCE
 - DAILY SUNSHINE HOURS VARIANCE
 - DAILY RAINFALL VARIANCE
 - DAILY VAPOUR PRESSURE VARIANCE
- File Format:** A dropdown menu currently set to 'CSV (EXCEL) FILE'.
- Download:** A large blue button with a download icon and the text 'DOWNLOAD'.

Annotations on the right side of the image point to these sections:

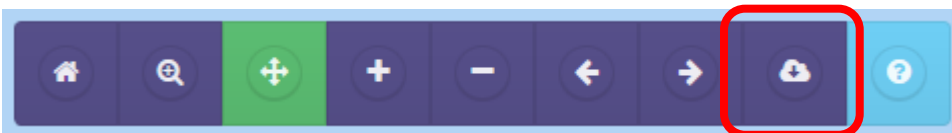
- 'Terms and conditions' points to the agreement section.
- 'Location Selection' points to the 'Stations :' section.
- 'Variable Selection' points to the list of variables.

The *Download* popup-window

- Select the output format by clicking the dropdown. The output formats available for Regional Climate Model 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)
 - GeoTiff – georeferenced images of the gridded data suitable for use in GIS and other analysis software
- 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 Regional Climate Model Viewer

To exit the *Regional Climate Model* viewer use the back button on your browser or click the navigation links at the top of the *Data Viewer* page.

