# Searching for Datasets

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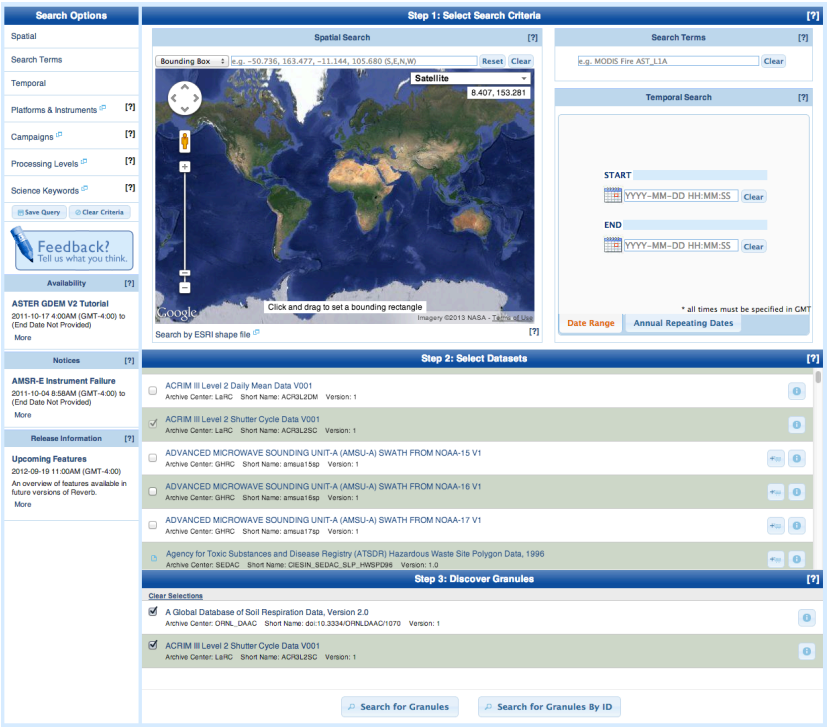
## Overview

Let's look at an overview of the Dataset Discovery page. The purpose of this page is to identify datasets which are relevant to the user's criteria. The criteria that the user is entering for dataset filtering will translate into granule discovery. As filters are chosen, the dataset listing will be modified accordingly. If there's no criteria provided, then no filtering will be applied to the granule results.

Dataset Discovery is a 3 step process. **Step 1: Select Search Criteria**; which allows the user to perform a spatial search, temporal search, enter search terms, and select from a list of additional search option. Completing this step will filter the datasets listing. **Step 2: Select Datasets**; which allows the user to select the datasets, which will be used to discover granules. **Step 3: Discover Granules**; which allows the user to discovery granules based on the information completed in Step 1 & 2.

You can also access the shopping cart directly from this page to order complete datasets.





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# Step 1: Select Search Criteria

## Free Text Search

Search terms are used to filter datasets according to the users entered text. The user's search terms are searched against targeted fields within the dataset metadata. To begin your search using **Search Terms**, enter earth, atmosphere, ocean, or land science terms into the **Text Search Box**. You can also enter the dataset name. Searching will automatically begin after a short period of time.

This feature provides a quick method for identifying dataset of interest. It lists those datasets that not only have the term in their name but also those that are scientifically relevant to the term you entered.

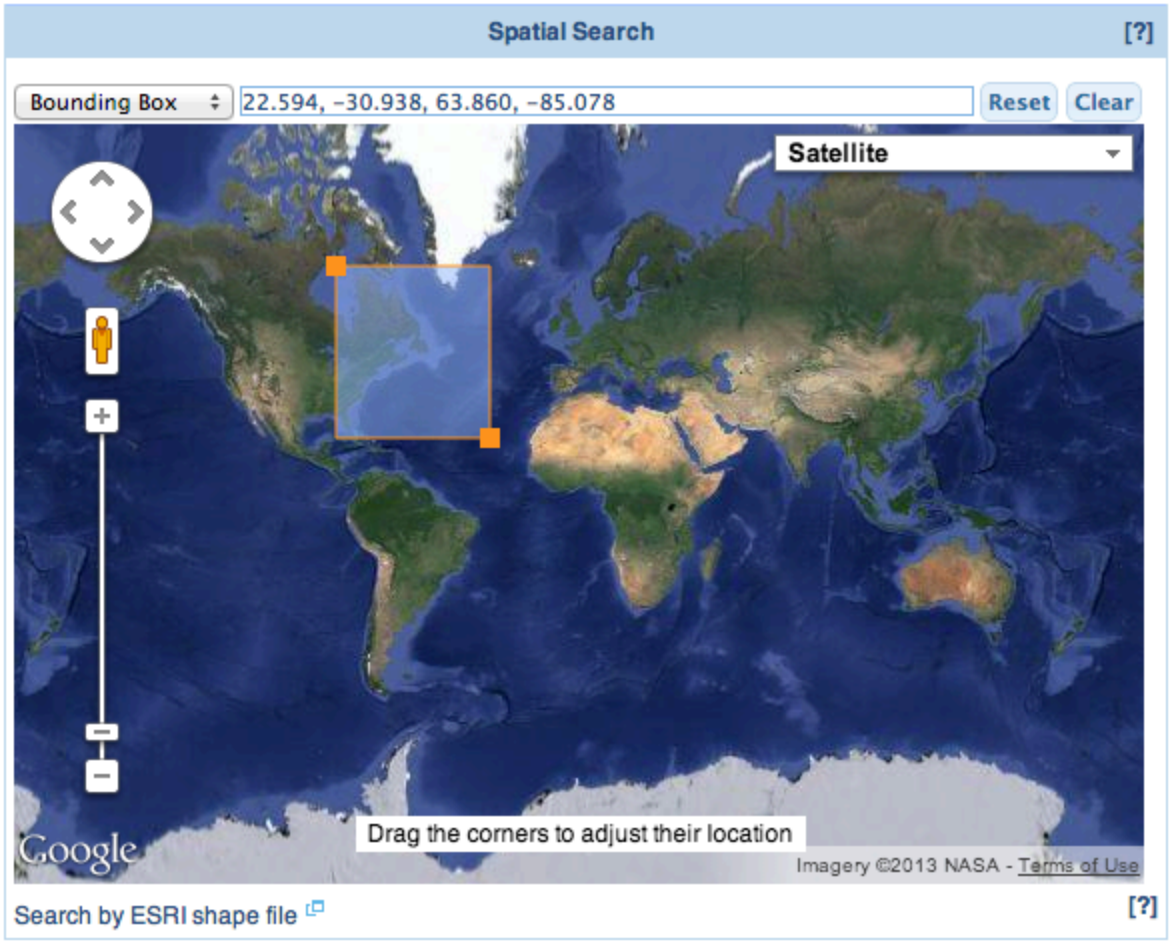
## Spatial Search

You may select a geographic region of interest in the spatial section.

> If no spatial information is used in your search, all datasets are included, including datasets that have no spatial information, datasets covering the entire globe, and datasets covering only a small part of the globe.

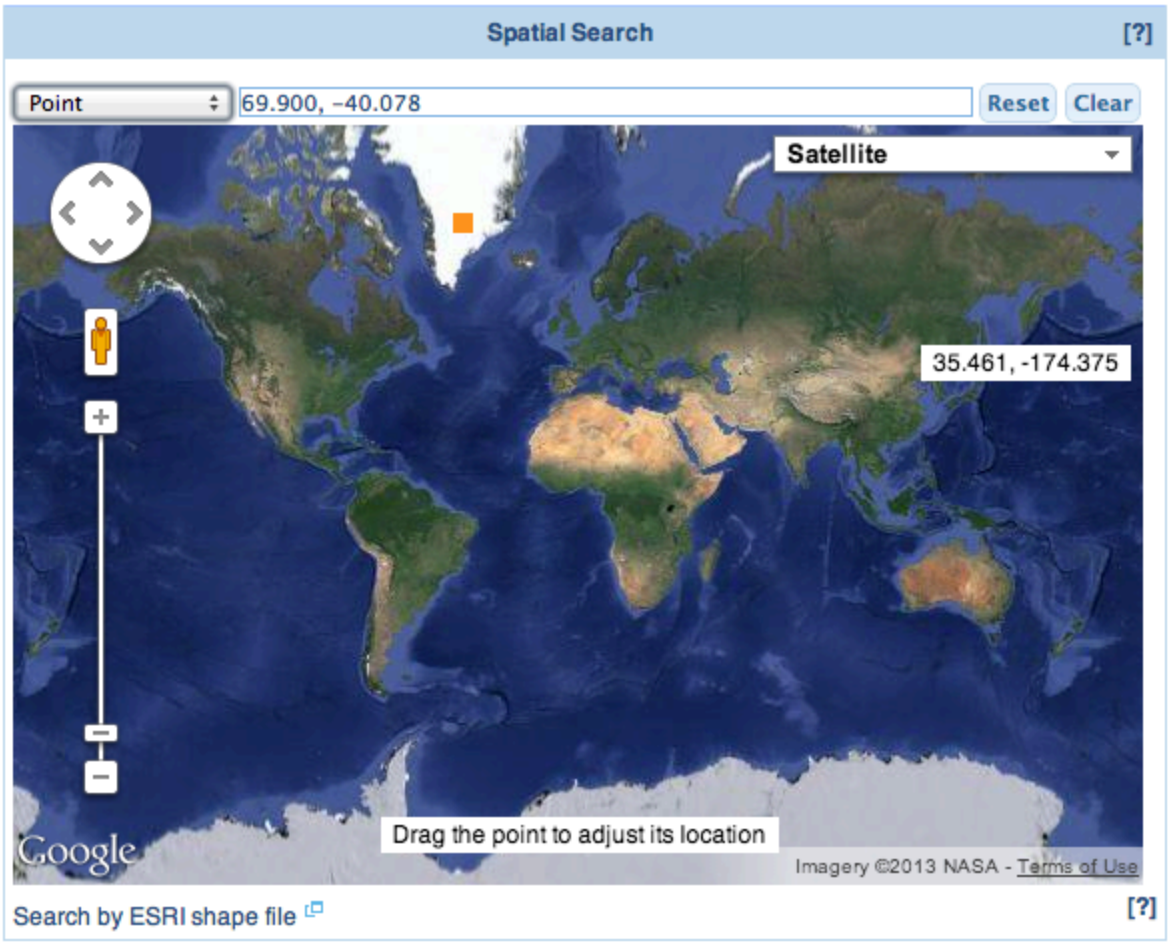
### Bounding Box

**Bounding Box,** which allows the user to search for granules within a specific area. **Step 1:** Select Bounding Box from the entry type and select the map style. **Step 2:** The coordinates can be entered in the text box in the following order (S,E,N,W). OR Click once to set the North-West corner then drag the corners to adjust their location.



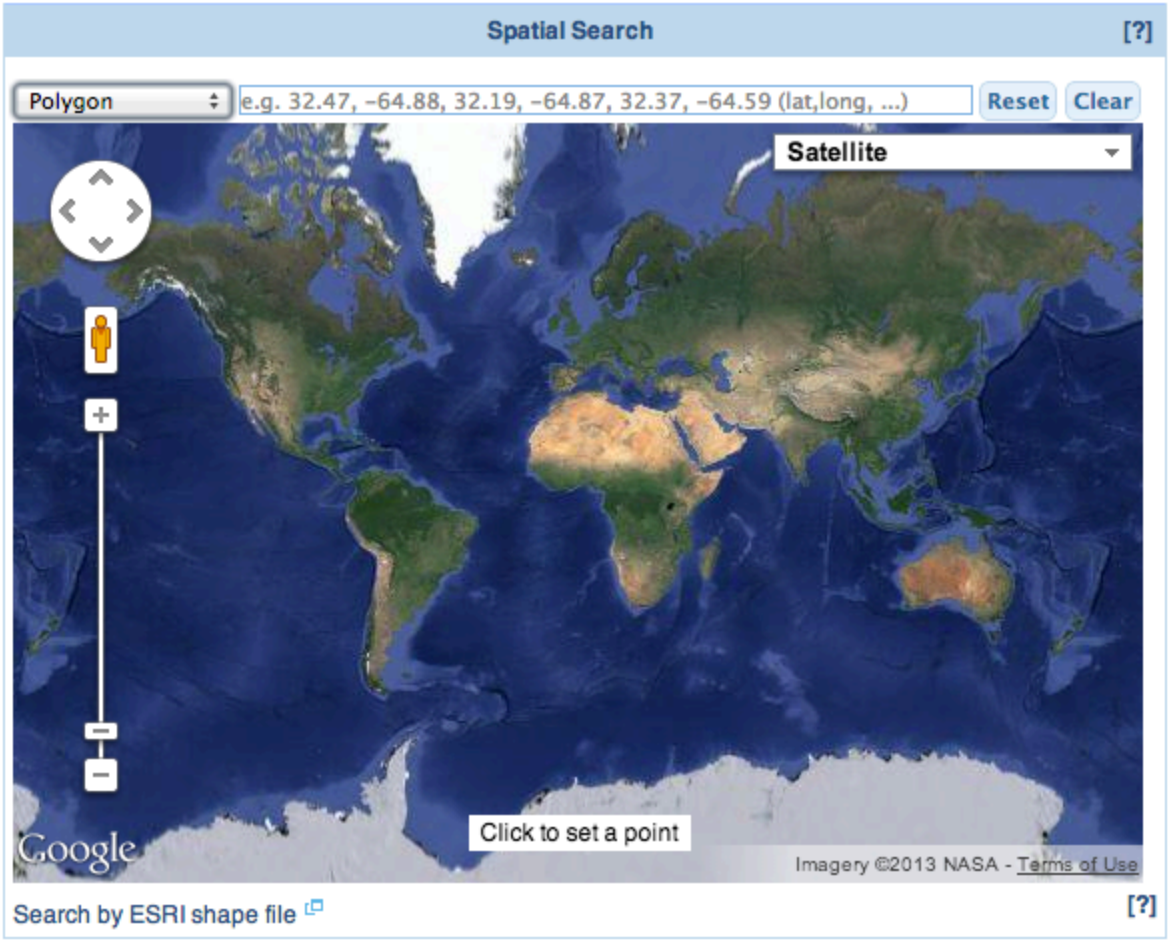

## Point

**Point,** which allows the user to search for granules at a particular point. **Step 1:** Select Point from the entry type and select the map style. **Step 2:** The LAT and LON can be entered in the text box. OR Click once to set a spatial point then drag the point to adjust its location.




### Polygon

**Polygon,** which allows the user to search for granules based on a plane figure that is bounded by a closed path. **Step 1:** Select Polygon from the entry type and the map style. **Step 2:**Click the map to set a point. **Step 3:** Click again to set another point, or drag existing points.

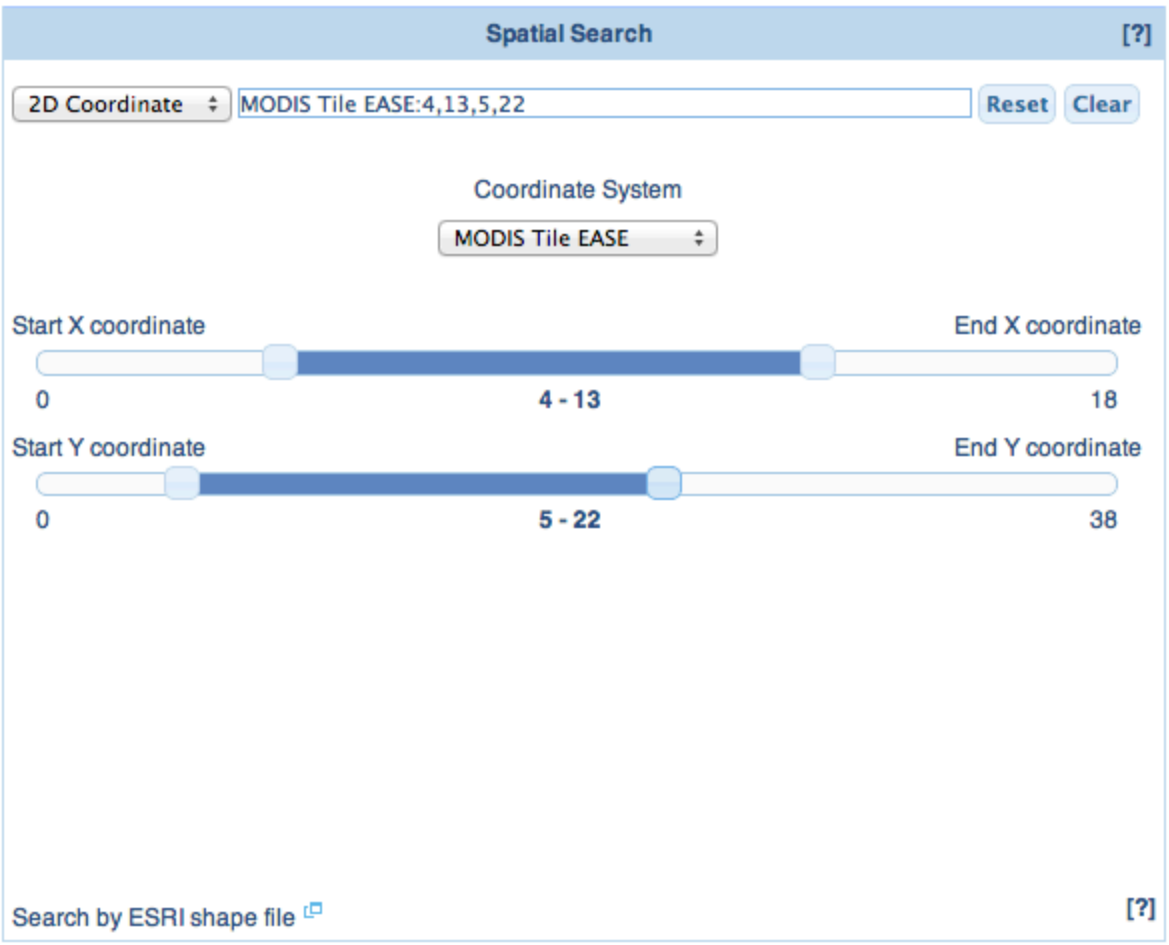



### 2D Coordinates

**2D Coordinates,** The data providers may choose to utilize a 2D coordinate system, for granules. **Step 1:** Select 2D Coordinate from the entry type and the map style. **Step 2:** Select the coordinate system. **Step 3:** Slide the boxes to set the Start and End X/Y Coordinates.

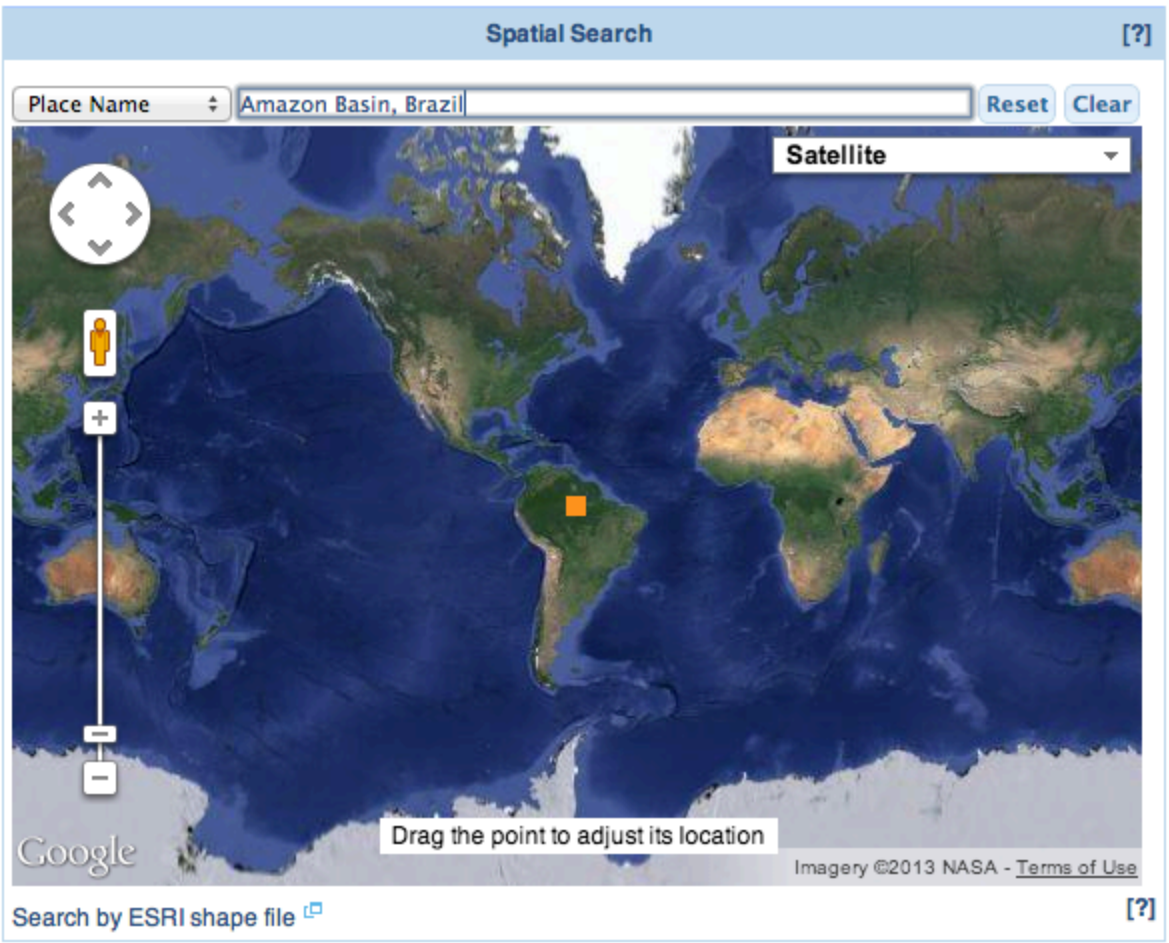
Current Supported Coordinate Systems:

- CALIPSO
- MISR
- MODIS Tile EASE
- MODIS Tile SIN
- WRS-1
- WRS-2



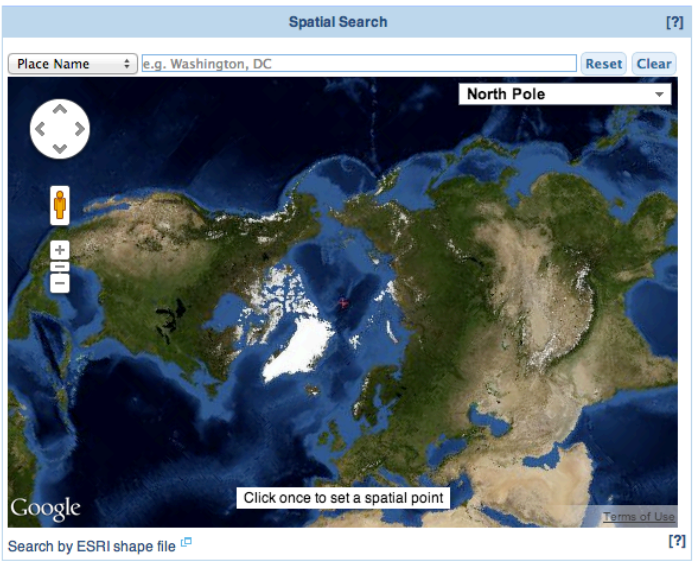

### Place Name

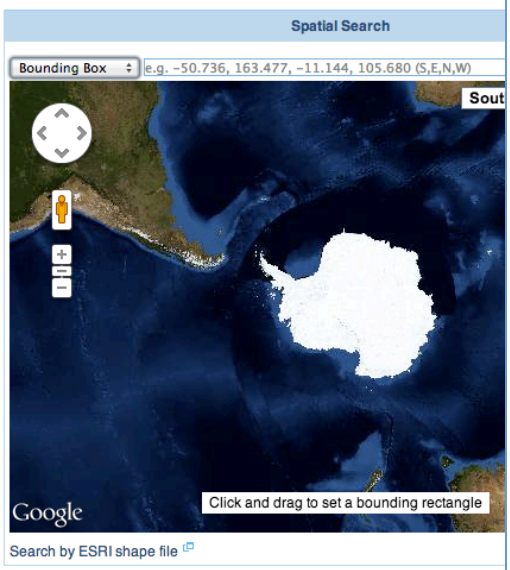
**Place Name,** which allows the user to search for a specific area by city, state, country or continent. **Step 1:** Select Place Name from the entry type and select the map style. **Step 2:** Type in the destination of the search by city, state, country or continent then click on the correct name in the drop down menu. This converts the place to a point.




## Polar Map Projections

**Stereographic North and South Pole Maps,** which allow for searching over the North and South Poles, respectively.




## Temporal Search

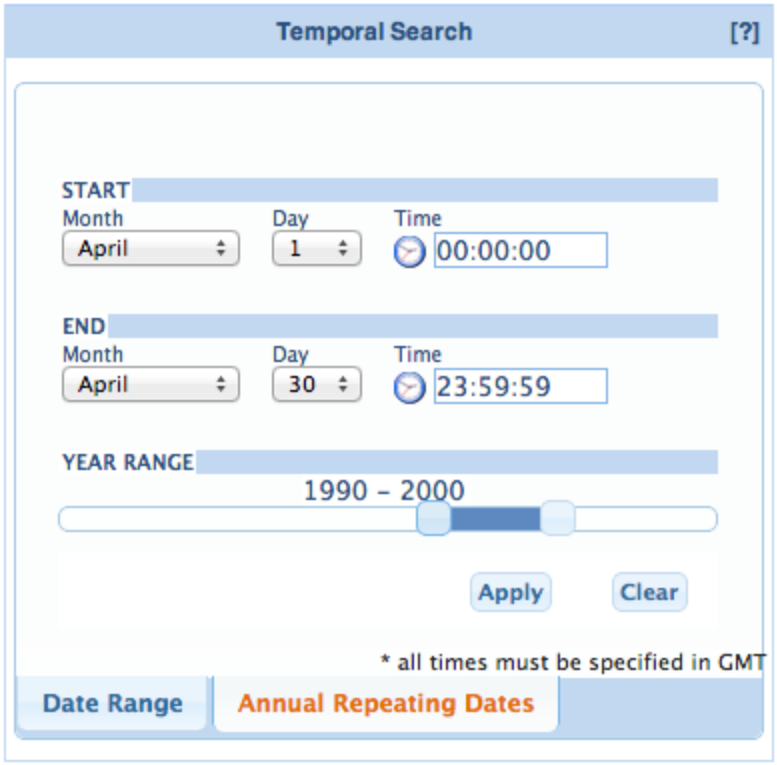
Date and Time ranges can be entered to refine your search.

> If no temporal information is used in your search, all datasets are included, including datasets that have no temporal information and datasets covering any time range.

Dates can be entered into the text field manually in standard date format, Day of Year (Julian) format or by selecting from the calendar provided. The standard date format requires that the user enter year, month, and day of the month to be specified as shown below.

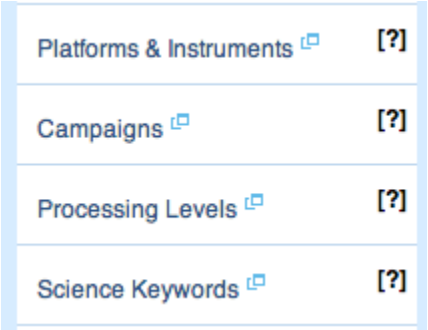
## Seasonal or Annual Repeating Date Range Searches

The following shows an Annual Search of April 1 - 30 from the years 1990 and 2000. This can be accessed by clicking the "Annual Repeating Dates" tab at the bottom of the "Temporal Search" box.



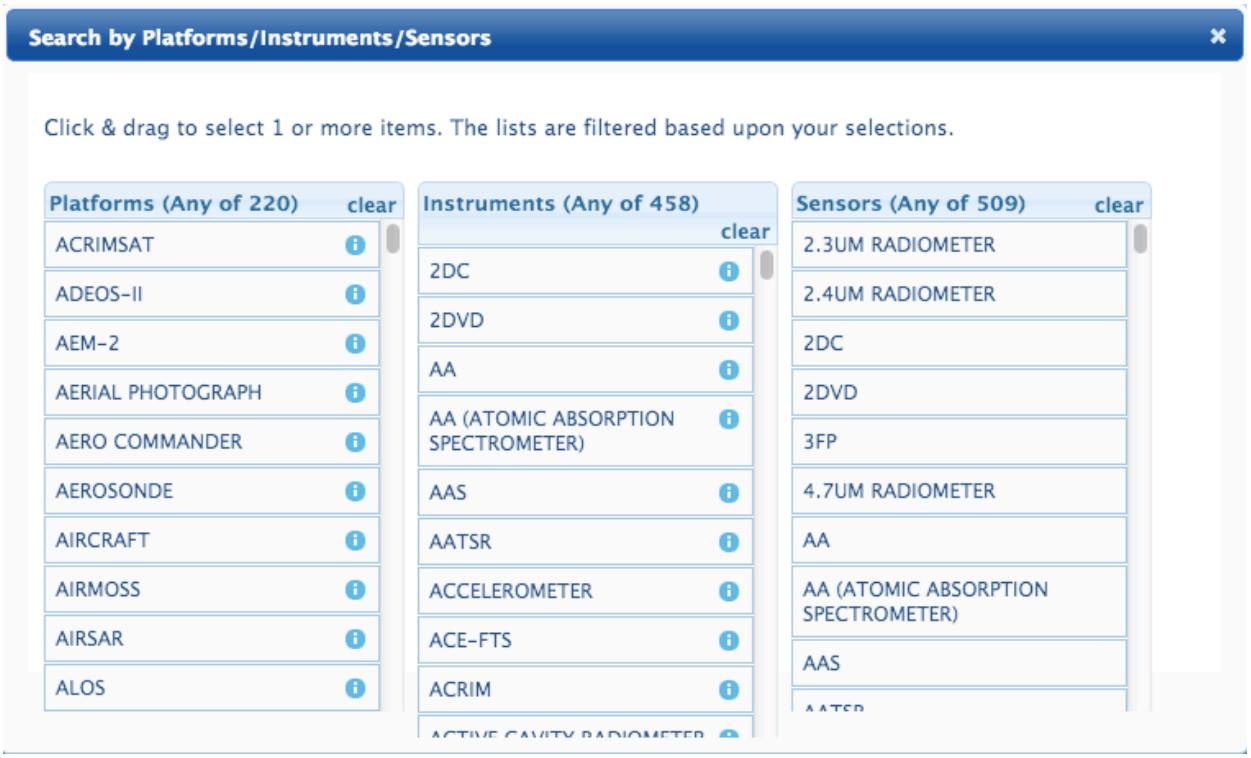

## Other Search Options

Reverb also provides other specific search items based on metadata catalogued within ECHO. These are exposed via the extra search options on the left hand side of the main Reverb dataset search page.



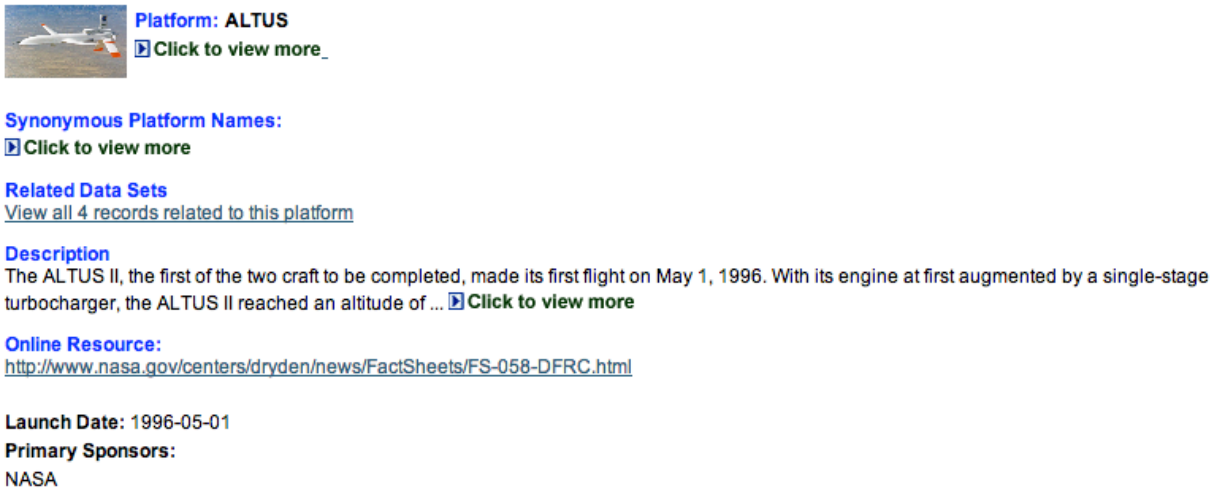

### Platforms, Instruments, and Sensors

Make a selection by clicking the desired Platform(s), Instruments(s) or Sensor(s). Based on the selected subset, the list will be filtered. (e.g. If you select a subset from platforms, the instruments and sensors subsets will be filtered. Selecting a subset from the filtered instruments will further filter the sensor list. Filtering also works in the opposite direction as well.). Click and drag to select more than one item. After making your final selections the datasets associated will be filtered.




To get more information on a platform, the user can view platform definitions from GCMD by clicking the information icon ( ) next to the platform name. See the screenshot below for an example.

> Note: If there is no corresponding information in GCMD, this link will not work.



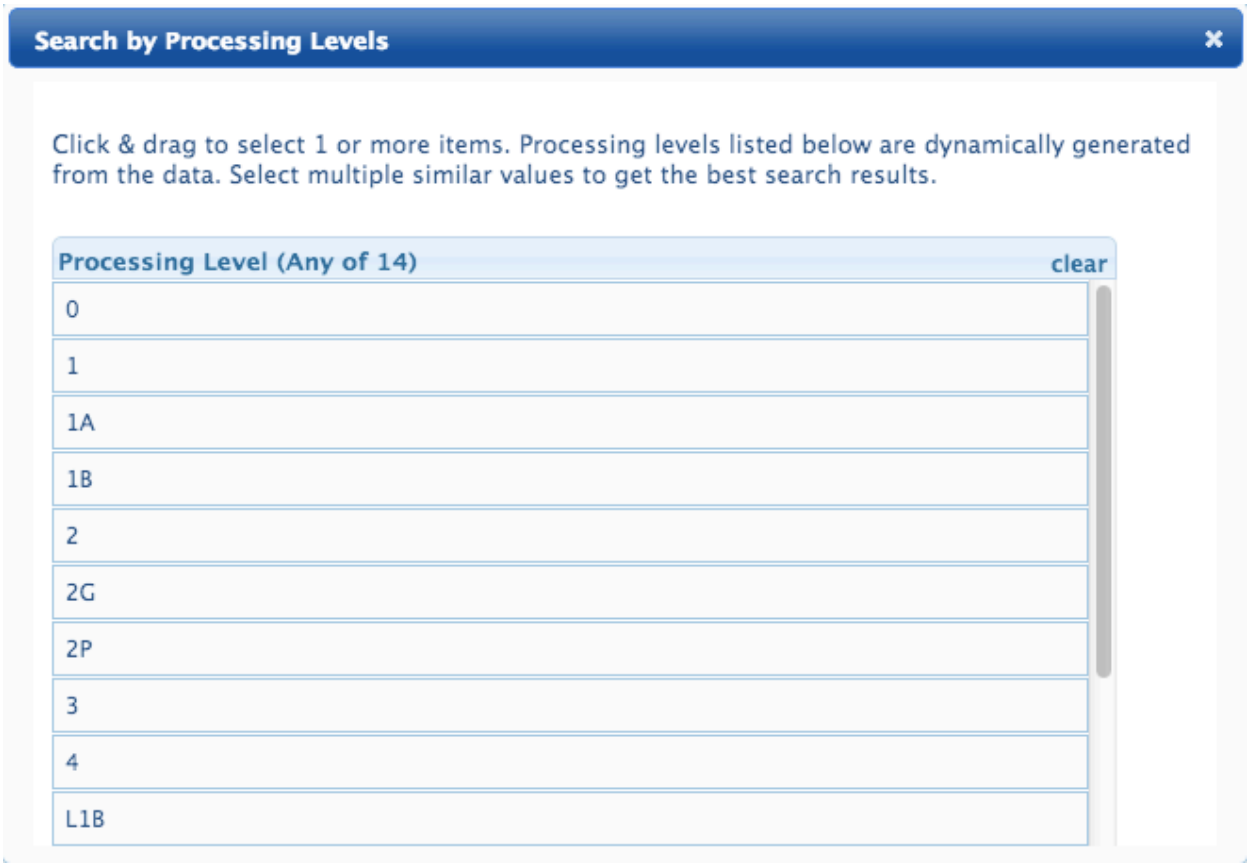

## Campaigns

Make a selection by clicking on the desired Campaign. Click and drag the mouse to select more than one item. Based upon your selection the datasets associated will be filtered.

## Processing Levels

For more information on Processing Levels please refer to this website.

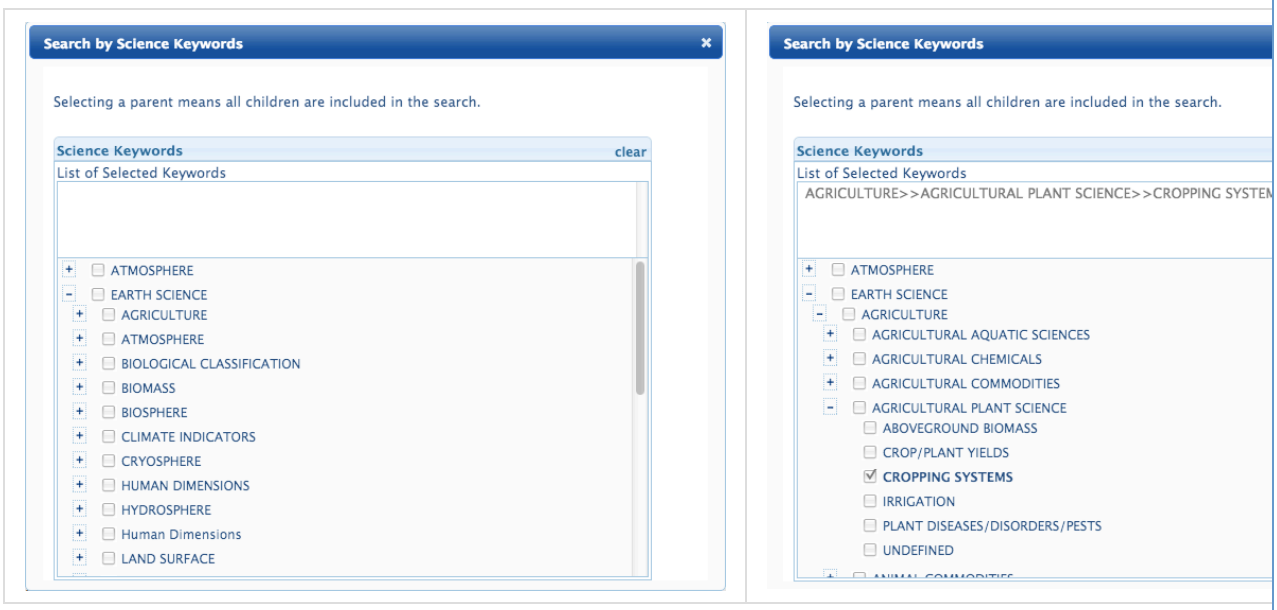
Make a selection from any of the processing levels by clicking on the desired level. Click and drag the mouse to select more than one item. Based upon your selection the datasets associated will be filtered.




## GCMD Science Keywords

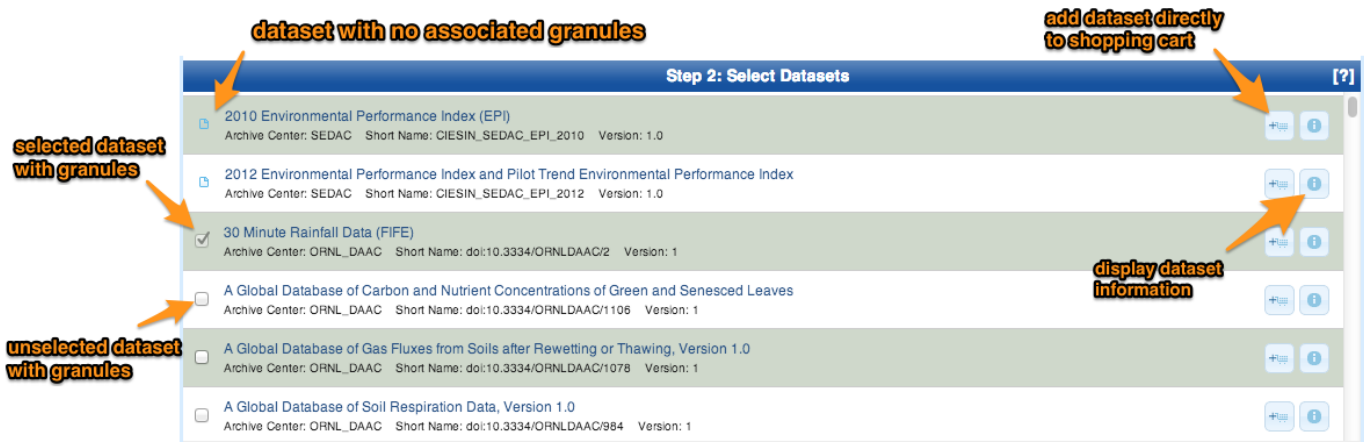
For more information on Science Keywords please refer to this website.

Make a selection by expanding the plus (+) symbol next to the keyword and clicking on the desired science keyword check box. Checking a parent box checks all children boxes. Based upon your selection the datasets associated will be filtered.



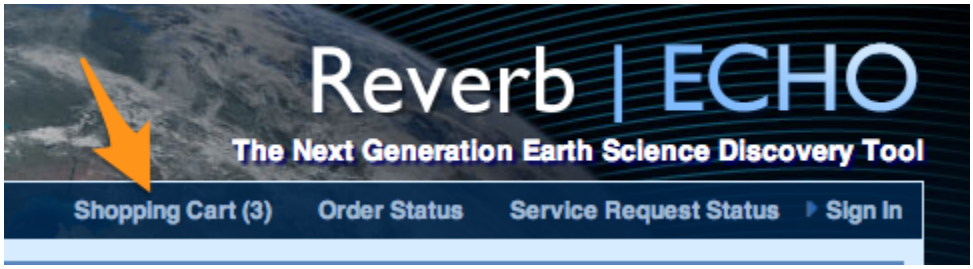
# Step 2: Select Datasets

Next to each dataset **with granules** there's a check box on left side. Click the check box for each dataset you would like to search. A check mark symbol should appear in the box. Datasets without granules are not selectable. User can also add datasets to the shopping cart by clicking the shopping icon (
). Re-clicking the shopping cart icon will remove the dataset from the cart. Clicking the information icon (
) next to the dataset will bring up information about that dataset. Refer to the annotated screenshot below.



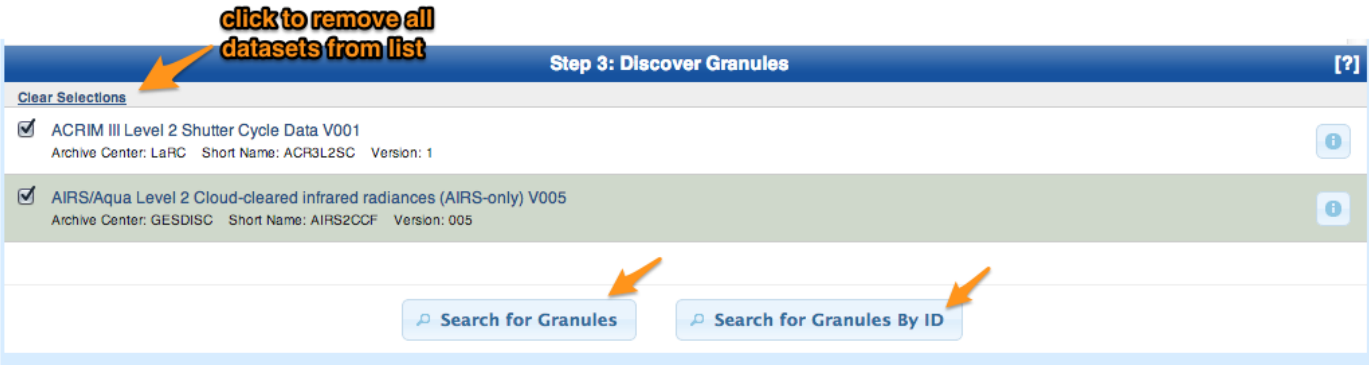

## Accessing the Shopping Cart Directly

To jump directly to the Ordering/Download/Service process if you have added entire datasets to your shopping cart, simply click the Shopping Cart menu item in the top menu bar as shown. Otherwise, proceed to Step 3.




# Step 3: Discover Granules

Once you have completed Step 2 you can **Discover Granules** by selecting **Search for Granules** or **Search for Granules by ID**. A list of the datasets selected will be shown. Datasets can be removed from the list by clicking the check box. All of the datasets selected may be removed by selecting the link '**Clear Selections**'.




## Searching for Granules By ID

If you know the Granule URs or the Local Granule ID for the specific data you want to order, you can click on the **Search for Granules By ID** butt on in Step 3. This will show the following dialog on the next screen, allowing you to specify these values directly.

**Search by ID: 'AIRS/Aqua Level 2 CO2 support retrieval (AIRS+AMSU) V005'** ✖

◉ Search by Granule UR ○ Search by Local Granule ID

Enter one ID or pattern per line. Wildcards % (0 or more characters) and _ (exactly one character) indicate a pattern. Use \ to escape any wildcards in an ID.

Clear OK Cancel