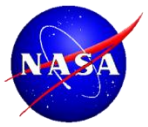

Land Remote Sensing Data Access Workshop

Reverb

Use Cases

March 13-14, 2012

USGS National Training Center, Building 53, Denver Federal Center, Denver, CO

U.S. Department of the Interior

U.S. Geological Survey

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Reverb Use Cases

Reverb Use Case 1: Register for an Account

1.1. Open a browser window and navigate to the Reverb site: reverb.echo.nasa.gov

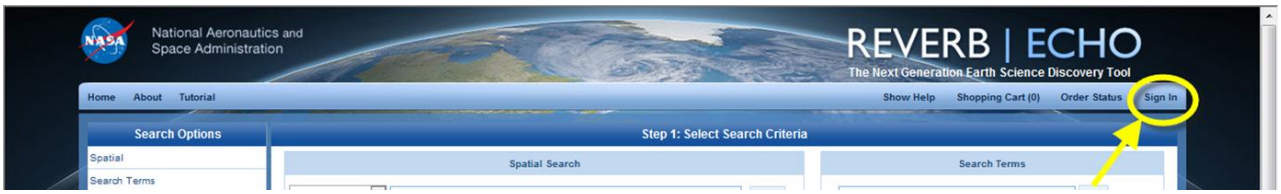
Current supported browsers include:

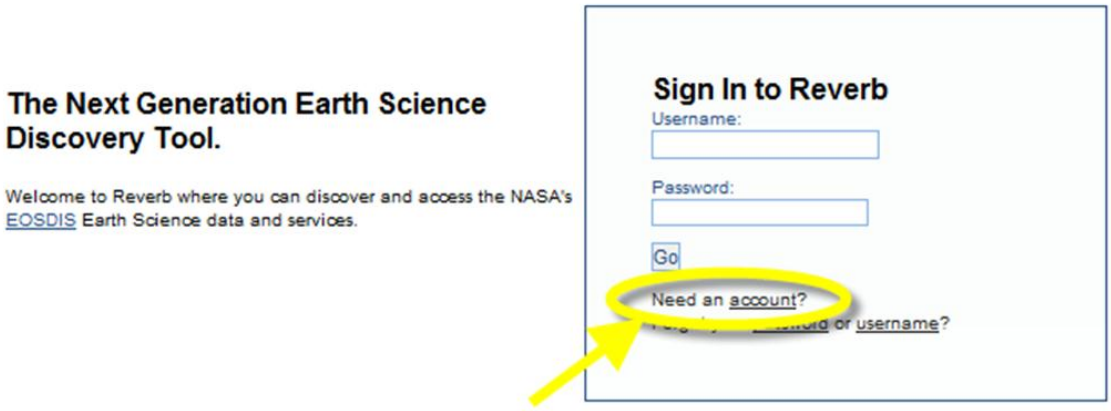
- Internet Explorer (8.x & 9.x)
- Firefox (3.x)
- Safari (Some button or component placement issues exist.)

The vast majority of the data in Reverb is available to both guest and registered users. However, some registered users may have access to restricted data that cannot be searched or ordered by guest users. The data provider will add your Reverb account to their ACL (access control list) if you need access to restricted data.

- If you would like for your queries, search results and shopping cart to be saved between sessions, then become a registered user by creating a Reverb account.
- Reverb and LP DAAC's GDEX use the NASA EOSDIS User registration System.
- If you have already created an account using the old Warehouse Inventory Search Tool (WIST) interface, you will use the same log in information for Reverb.
- By default you are a guest user when you enter Reverb. On the main search form you have the option of either creating a new account or logging on to an existing Reverb account.

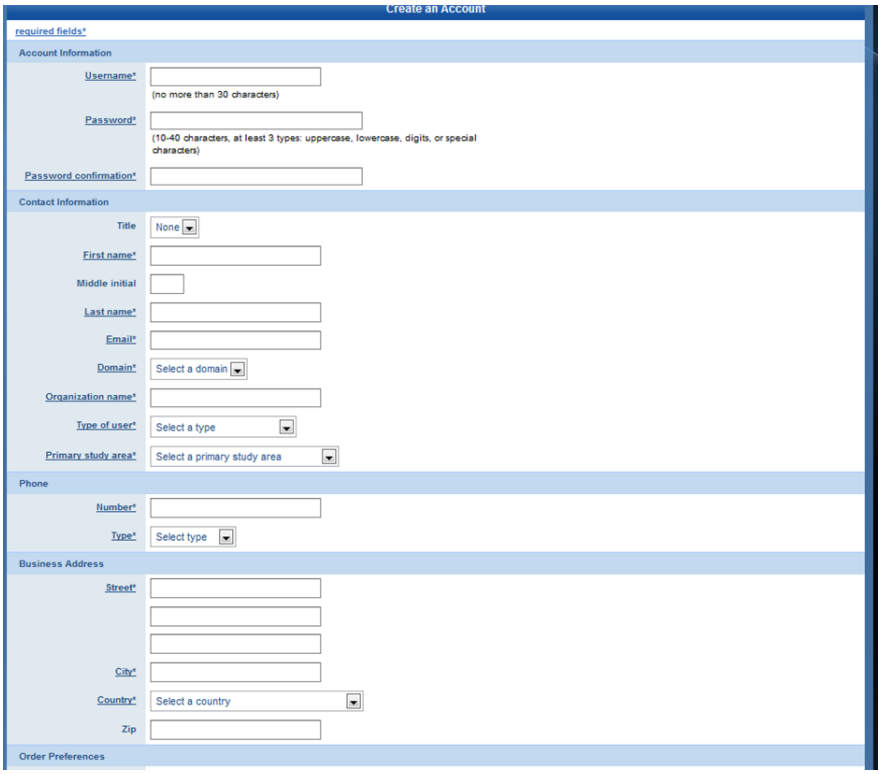
1.2. Click the "Sign In" button in the upper right corner





1.3. Then click on the "Need an account" link in the resulting pop up window

The Create an Account form is displayed. Fields marked with an asterisk are required.



1.4. Fill out the form accordingly.

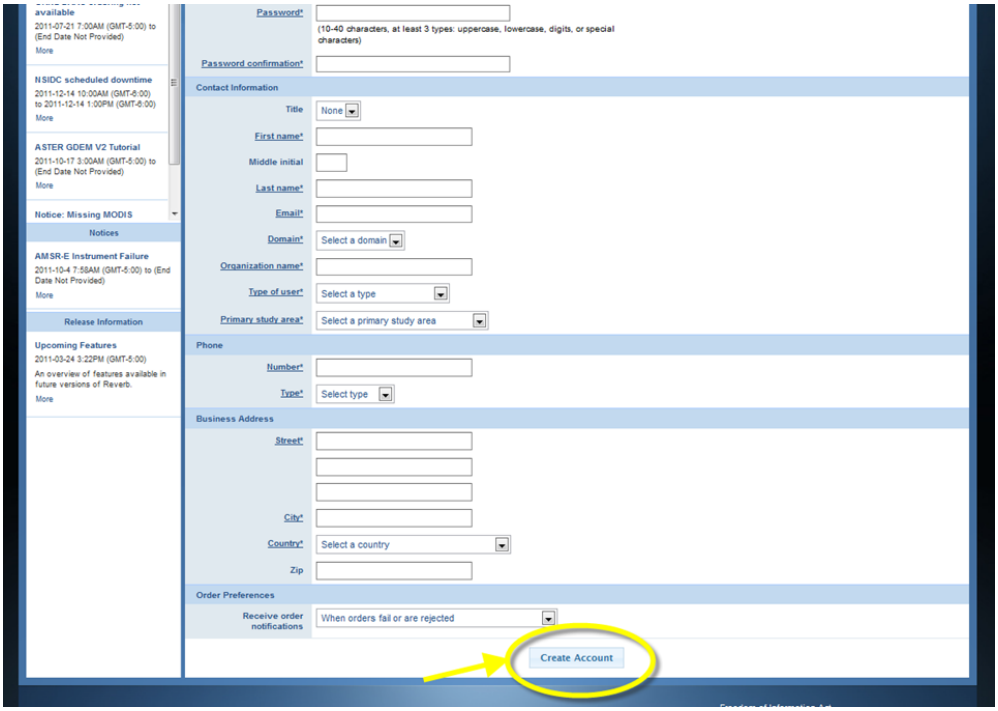
The last section will determine when you will receive e-mails from ECHO.

- The default is e-mail notification only when orders fail or are rejected.

- You should also receive order status information from the data center (e.g., LP DAAC) when an order is submitted to ECHO.

- To begin, we recommend users select “Always”. Once you are comfortable with what notifications are sent, you can always modify your account setting to another notification level.

1.5. Click the “Create Account” button when you have finished.



You will then get this confirmation screen that reports the successful creation of your account.

Please record your user account name at this point. You will need your username and password to sign in to other NASA data access interfaces.

This concludes Reverb Use Case 1.

Reverb Use Case 2: Search and Download Coincident Data

2.1. Open a browser window and navigate to the Reverb site:

reverb.echo.nasa.gov

 The first step in the search process is called Dataset Discovery.

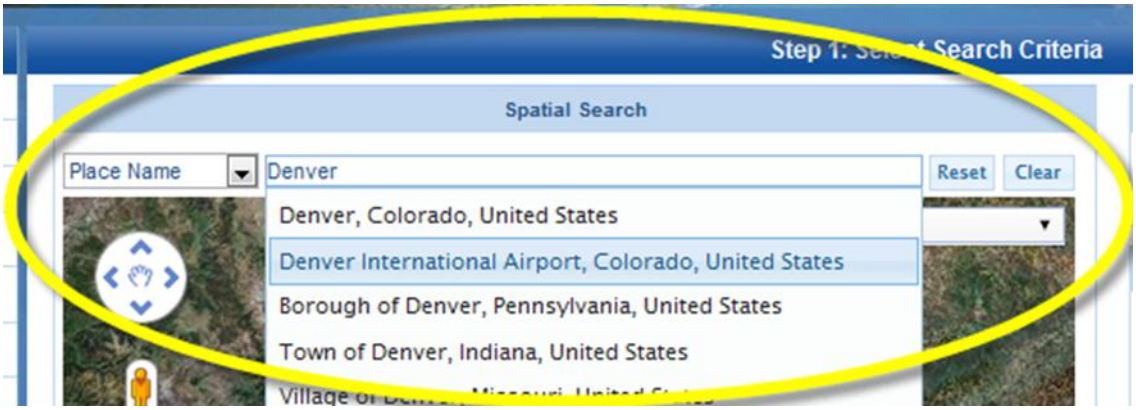
- The purpose of this page is to identify datasets which are relevant to the user's criteria. The criteria that the user is entering for dataset filtering will translate into granule (i.e., data file) discovery. As filters are chosen, the dataset listing will be modified accordingly. If no are criteria 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.

2.2. Begin by selecting an area of interest. Click the drop down menu on the map.

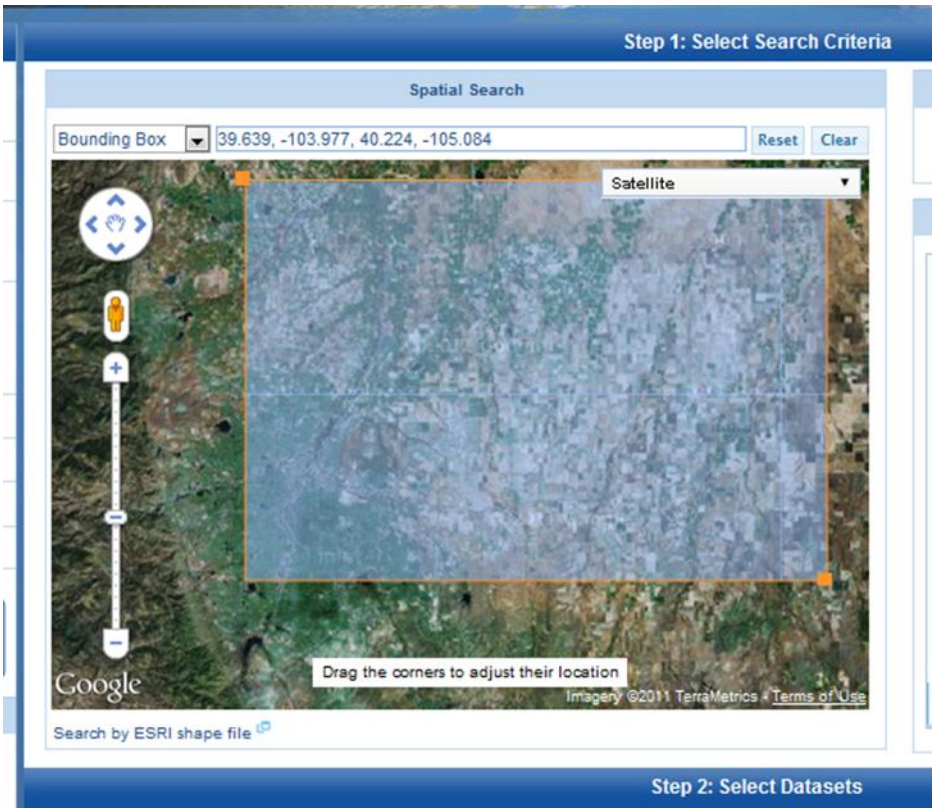
Reverb provides several different spatial search options. They are:

- Bounding Box - allows the user to search for granules within a specific area.
- Point - allows the user to search for granules at a particular point.
- Polygon - allows the user to search for granules based on a plane figure that is bounded by a closed path.
- 2D Coordinates – Data providers specific coordinate systems. Including the MODIS Sinusoidal Tile grid.
- Place Name - allows the user to search for granules by entering a place name.

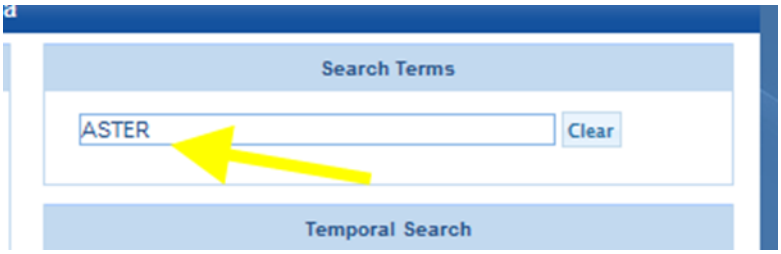
2.3. Make sure “Place Name” is selected. Start typing the word Denver in the search bar and click on Denver International Airport when it appears.



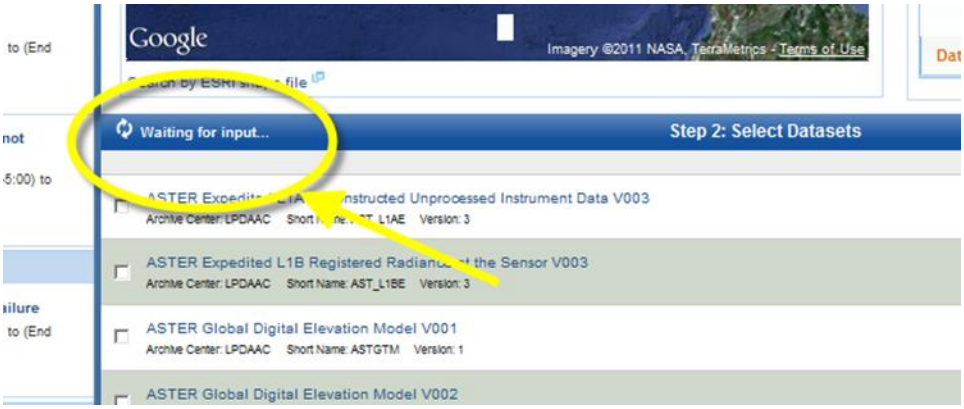
2.4. Make sure “Bounding Box” is selected. Use the scroll wheel to zoom in closer to the Denver Area. Click and drag a box around the city.



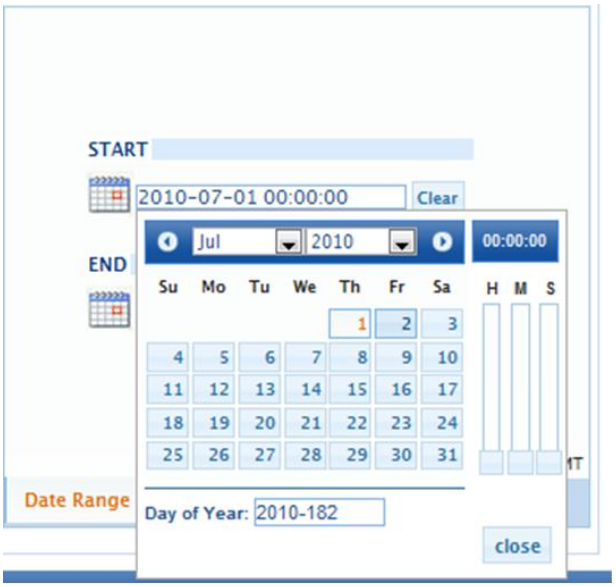
2.5. In the Search terms box, type ASTER.

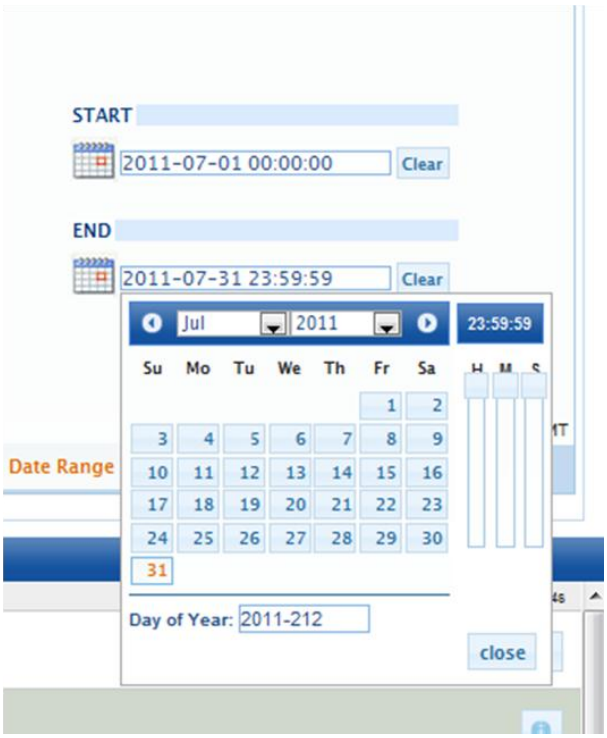


Notice below the map that the available datasets are updating as you constrain your search.

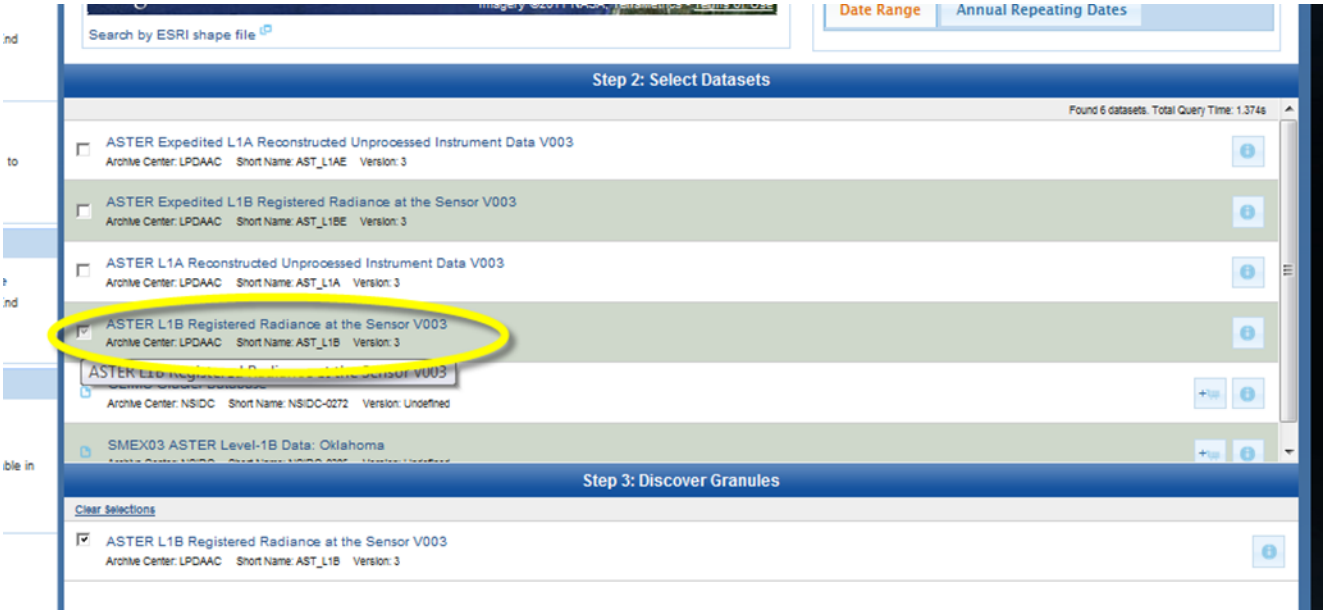


2.6. In the Temporal Search box, Click on the calendar icon to set the start date to July 1st 2010, and the end date to July 31st 2011.



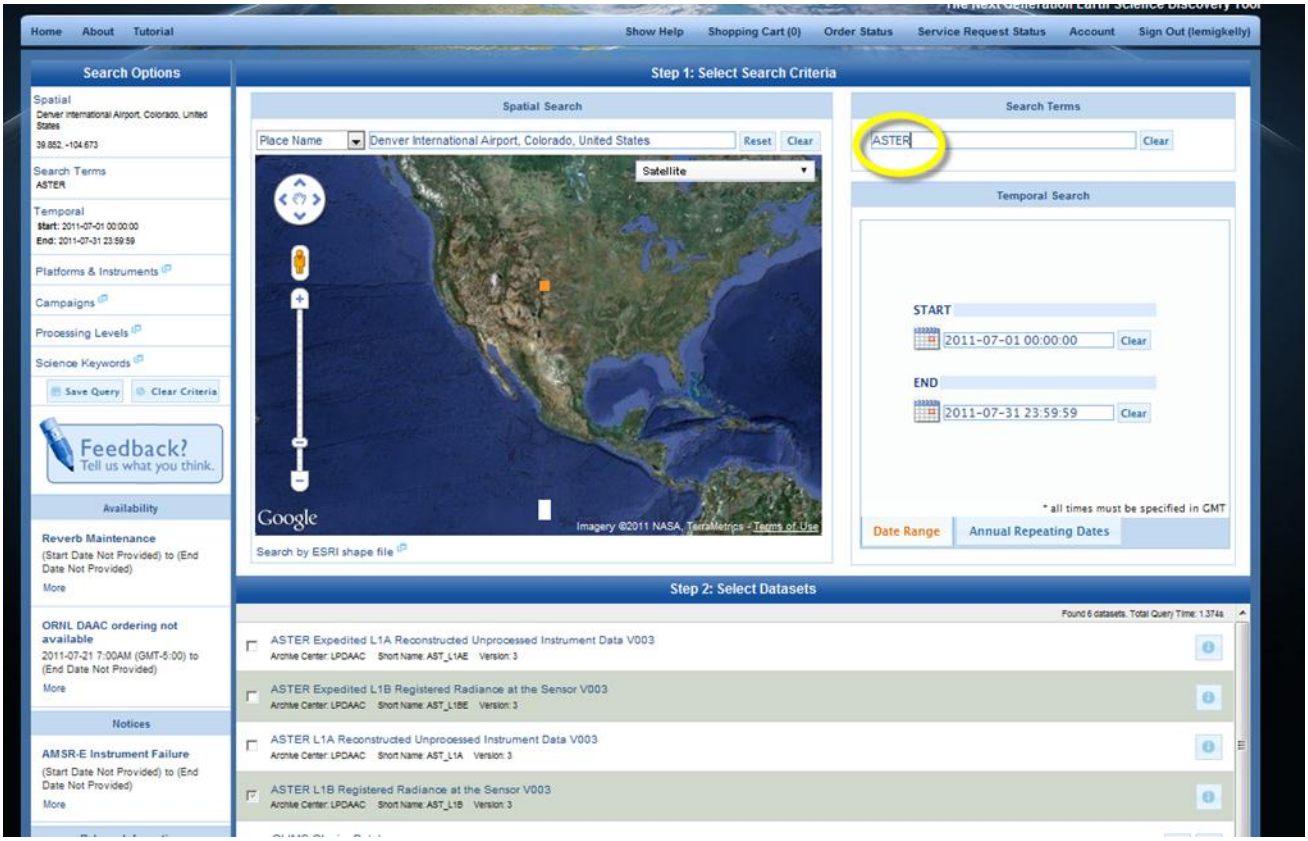


2.7. Under “Step 2: Select Datasets” you should now see a list of datasets that match the criteria we have entered. Place a check in the box next to ASTER L1B Registered Radiance at the Sensor V003.



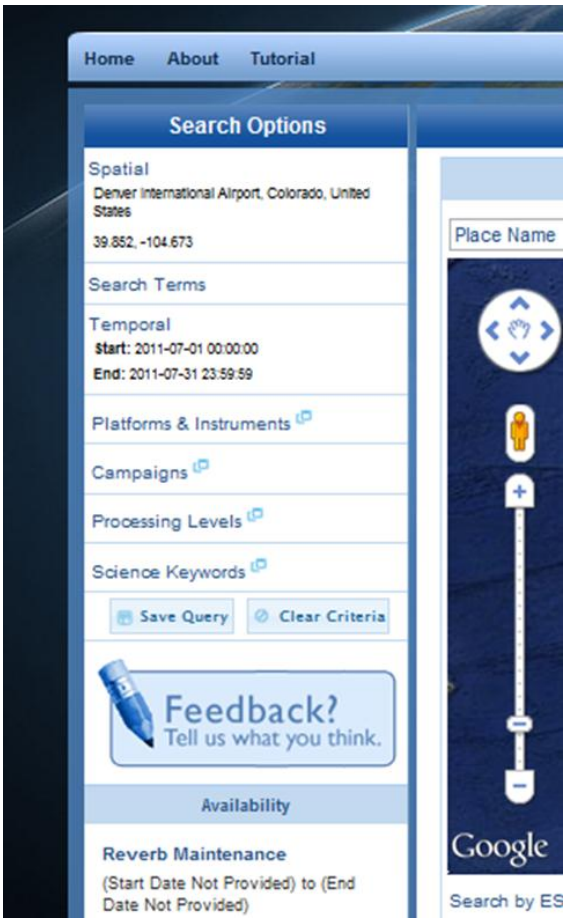
Now you will see that the ASTER dataset has been added to “Step 3: Discover Granules.”

2.8. To add more datasets to our search, we need to clear the word ASTER from the search terms box. Now, in the search terms box in the upper right, type the word Fire.

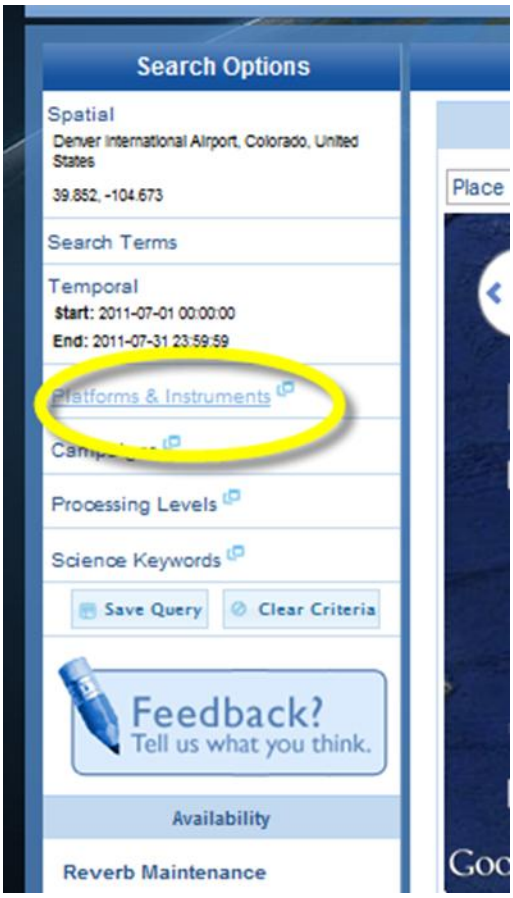


Another way to filter datasets is by the Search Options section on the left panel of the page. Other filters include:

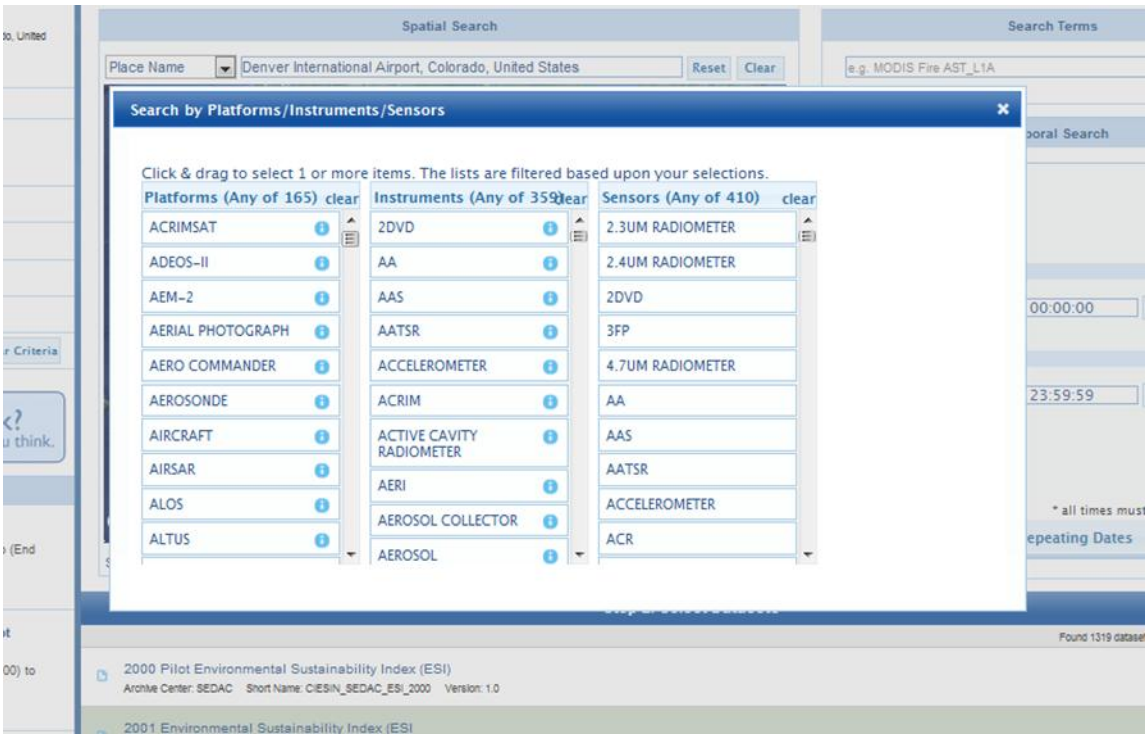
- Platforms & Instruments
- Campaigns
- Processing Levels
- Science Keywords



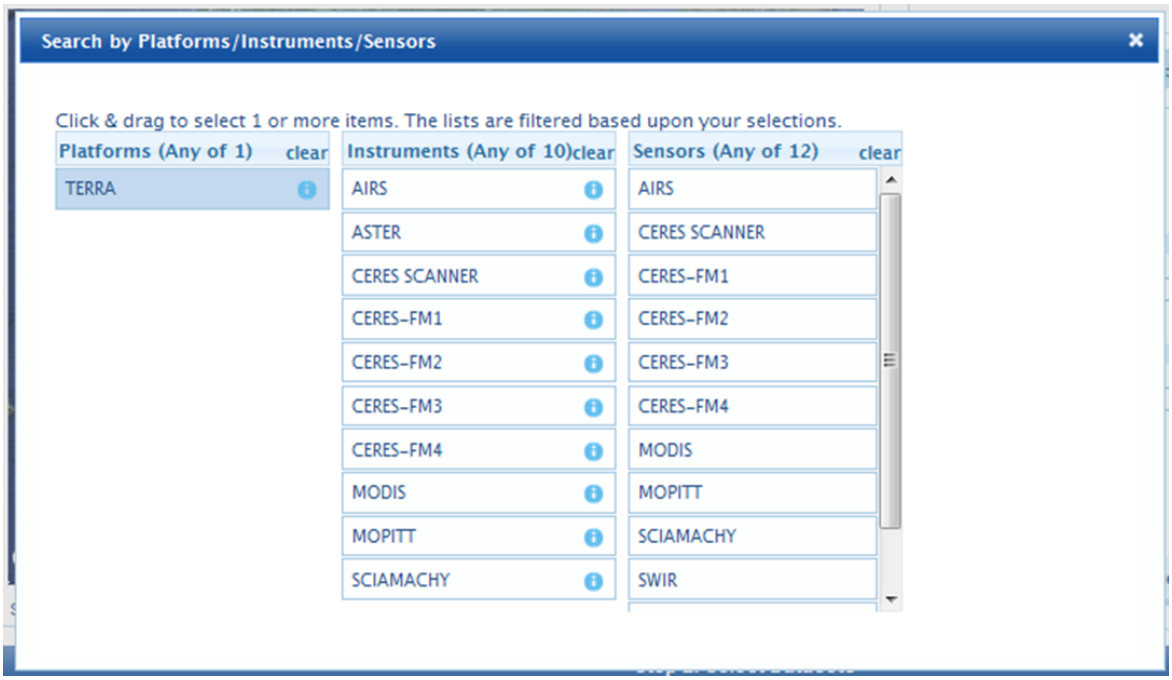
2.9. Click on the “Platforms & Instruments” Section.



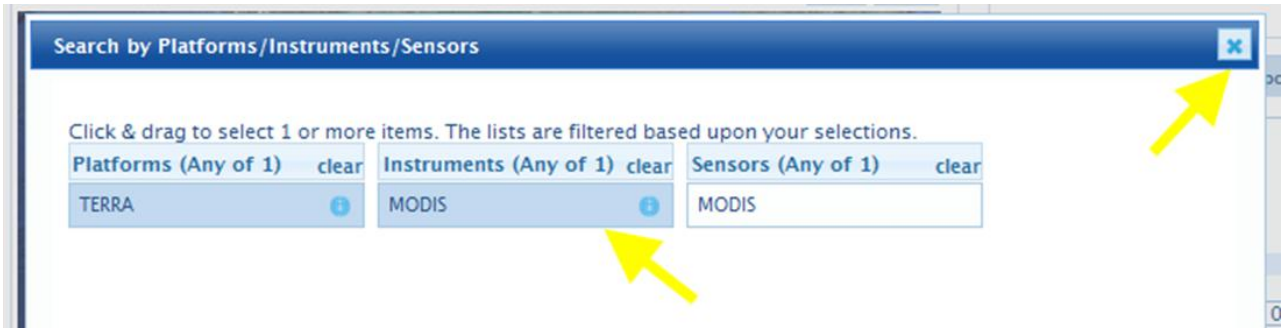
In the resulting pop up box, you will see a listing of platforms, instruments and sensors. Clicking on an item from one list will filter the others.



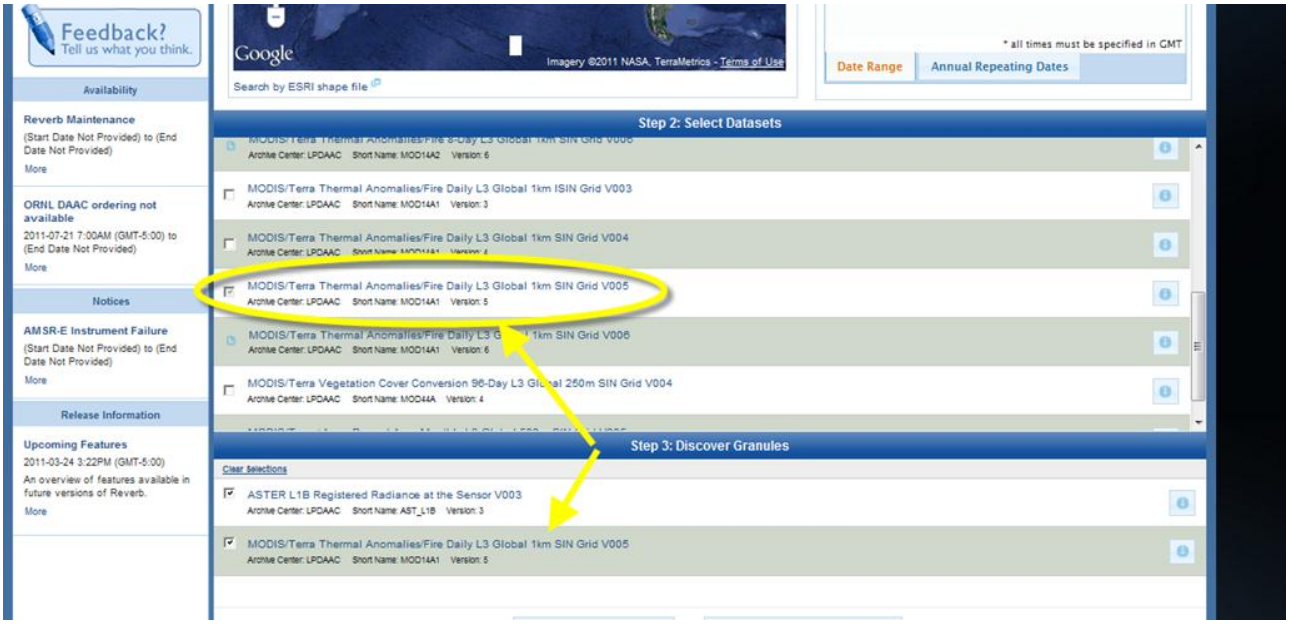
2.10. Scroll down in the list of platforms and find “TERRA”. Click on the section to update the lists of instruments and sensors.



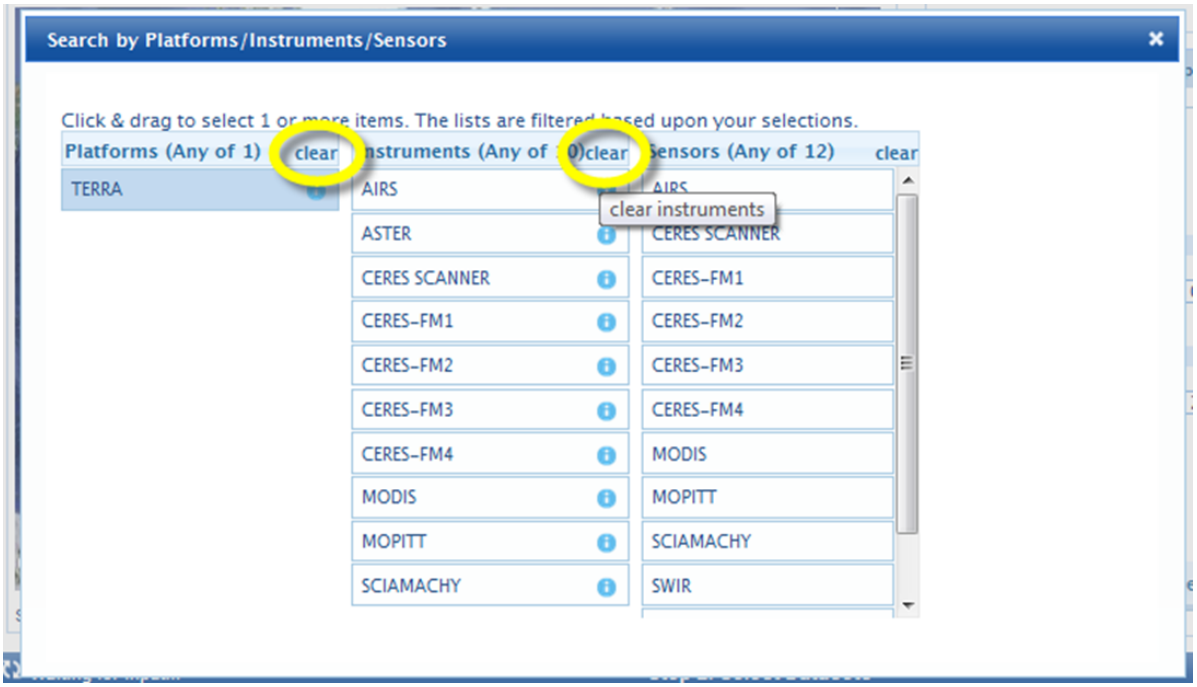
2.11. Click on the MODIS section on the instruments column. Then click the x in the upper right to close the pop up.



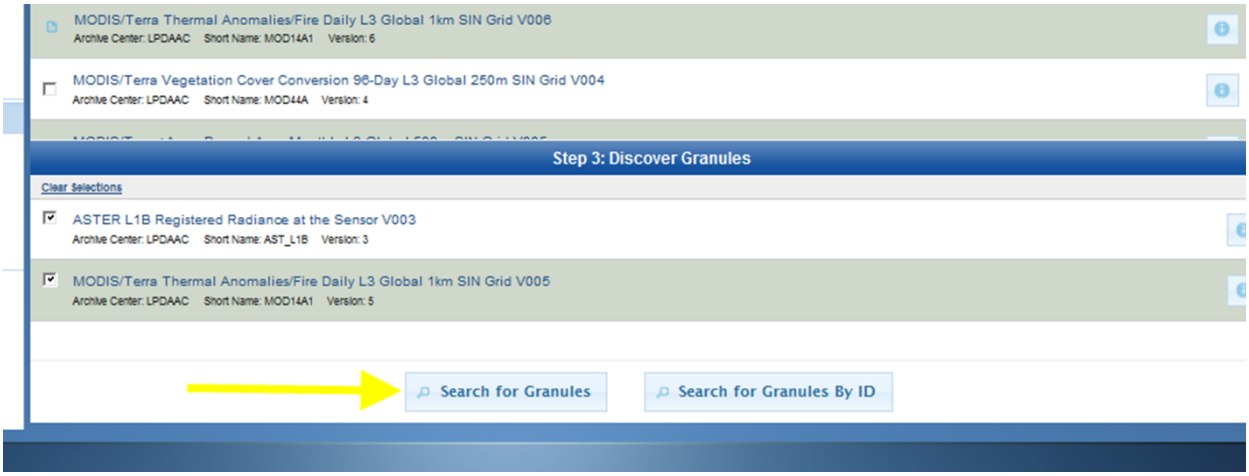
2.12. Under Step 2: Select Datasets, Check the box next to the MODIS/Terra Thermal Anomalies/Fire Daily L3 Global SIN Grid V005.



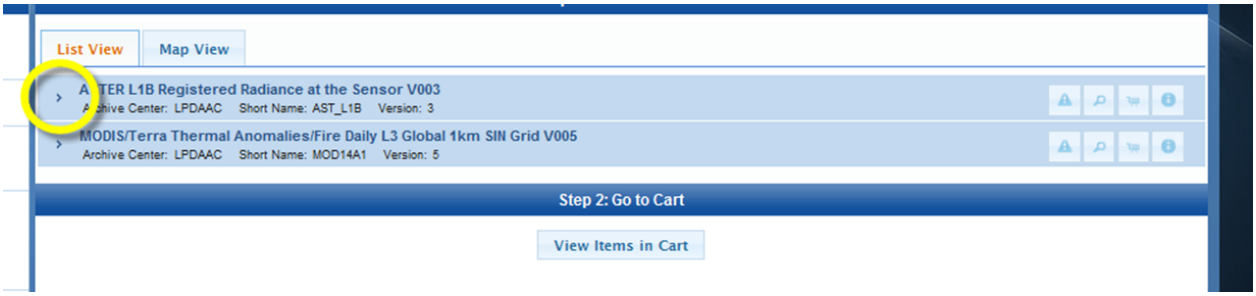
2.13. Now clear the word “Fire” from the search terms box. Click the “Platforms & Instruments” section and clear the inputs entered there as well.



2.14. Now click the “Search for Granules” button at the bottom of the page.



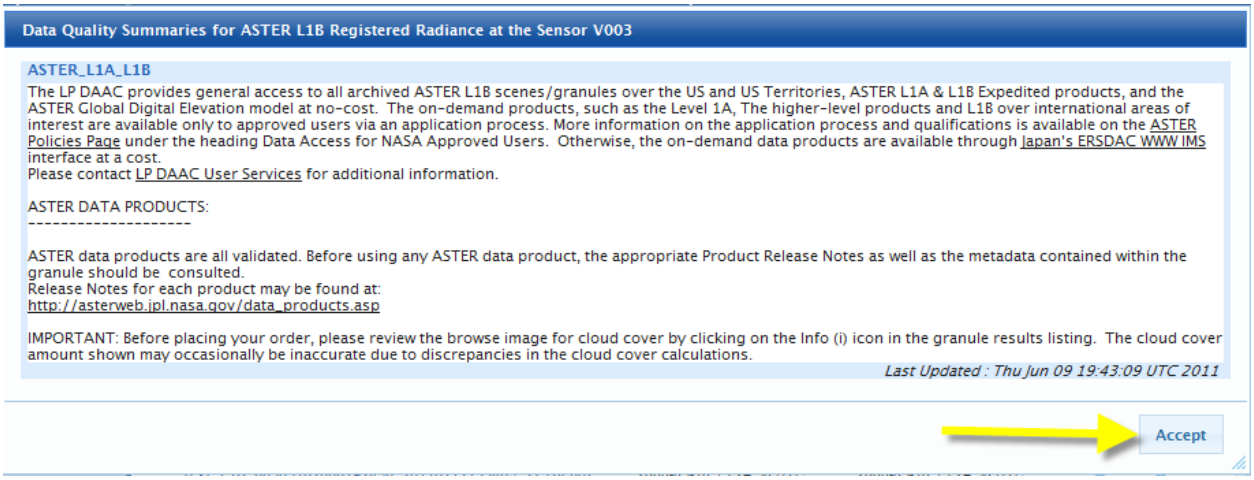
2.15. The next screen displays the results or your search. Both datasets are listed but are collapsed. The default view is “List View.” To see the granules returned for each dataset, click the arrow to the left of the ASTER product.



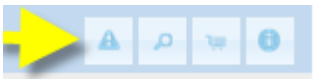
After you click the arrow, if there are any Data Quality summaries for that dataset, they will be displayed.

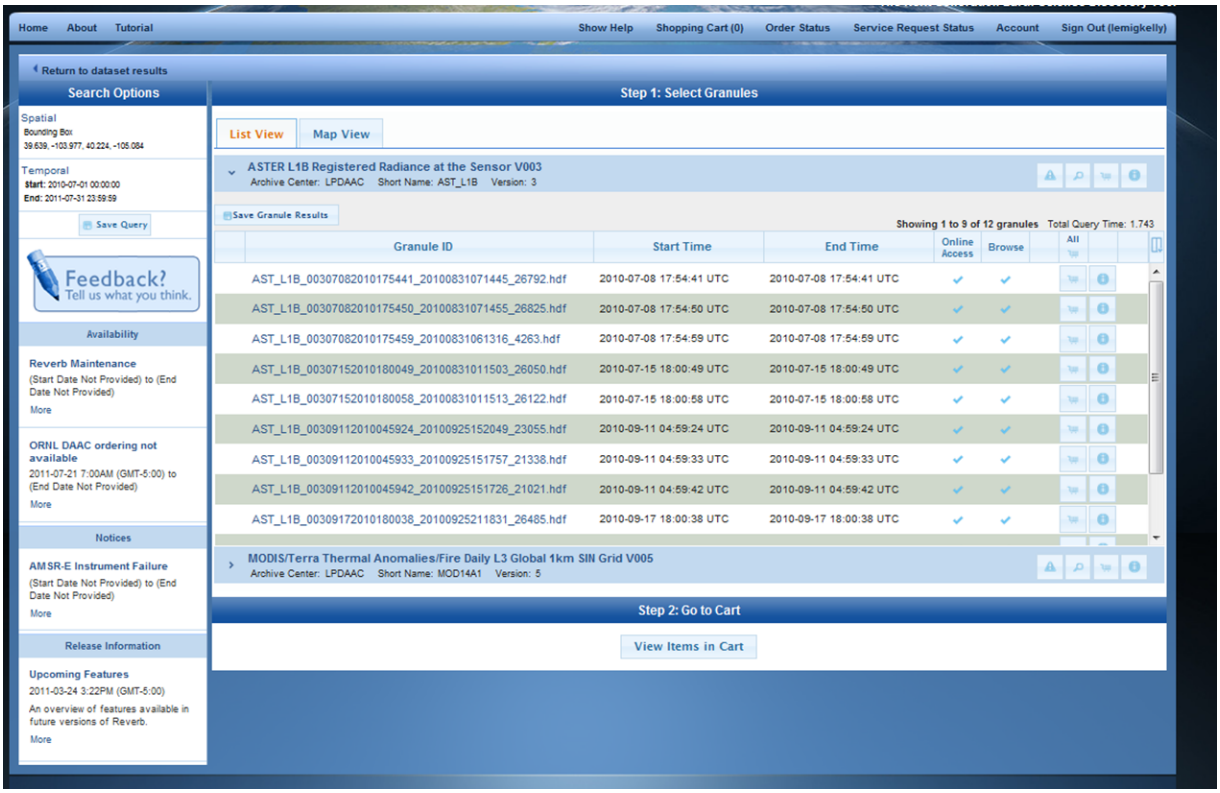
- Data Quality Summaries provide important notices about data.

2.16. Once you have read the information, click the "Accept" button in the lower right corner.



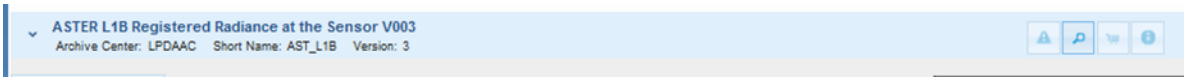
2.17. Once you have acknowledged a data quality summary, it will not pop up automatically again. If you would like to see the summary again, click the triangle with the "i" button in the dataset row.





2.18. The ASTER granules matching our search should now be displayed. Repeat the previous steps to expand the MODIS dataset.

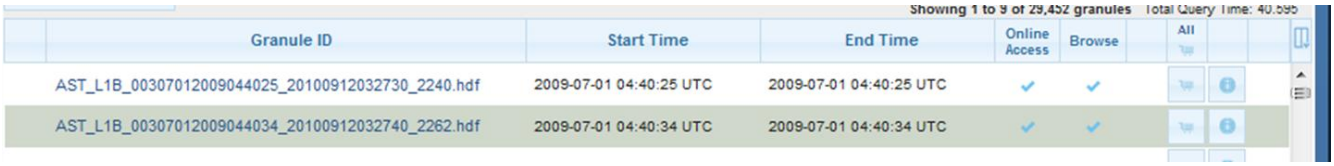
At this point, there are a few different ways to sort your granule results. The following is a listing of the functions on this page:



- In the dataset bar, there are 4 buttons. The first brings up the Data Quality Summary, the Magnifying glass brings up more search options such as band availability, the Shopping cart button in this location adds the entire dataset to the cart, and the info button loads a pop up box with additional metadata information.

- Save granule results - 

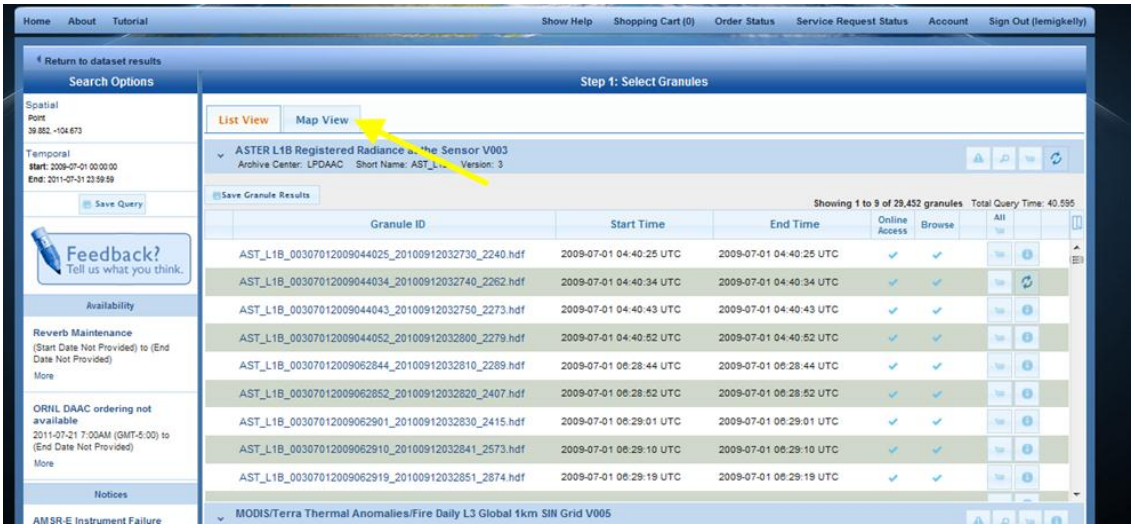
This button will create a .csv file that includes all results from the search.



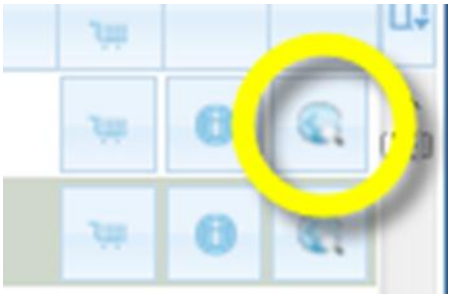
Under the granules section, there is an option to add all granules returned in the search (up to 2000 at a time) by clicking the button with the shopping basket and the word “All”. Otherwise, clicking the shopping cart next to each individual granule will add items to your cart.

- There is also an info button for each individual granule. This will load in a pop up window and shows information such as the granule metadata and the online access urls. You can click on the online access link if it is available and download individual granules this way if you prefer.

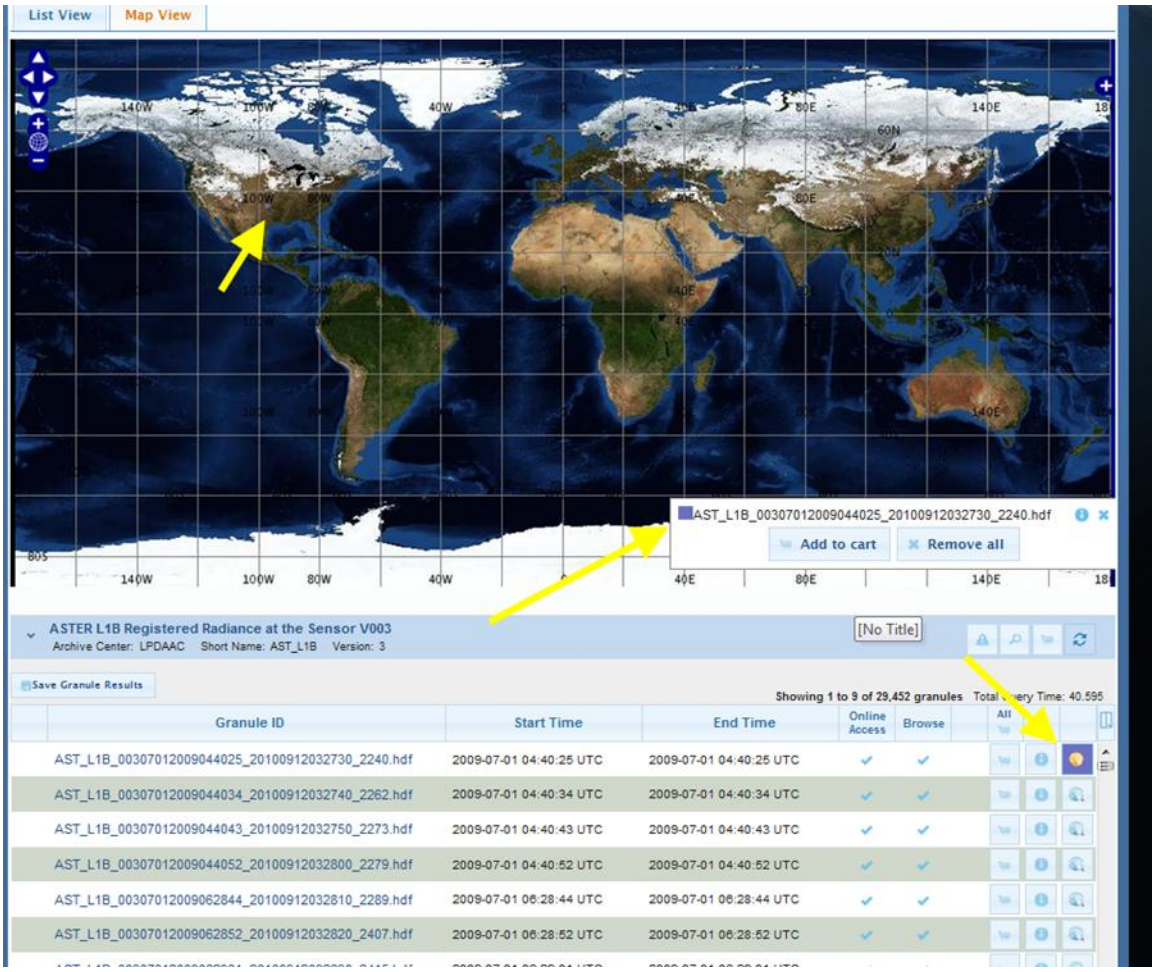
2.19. Now that you are familiar with all of the options for the list view, click on the Map View tab.



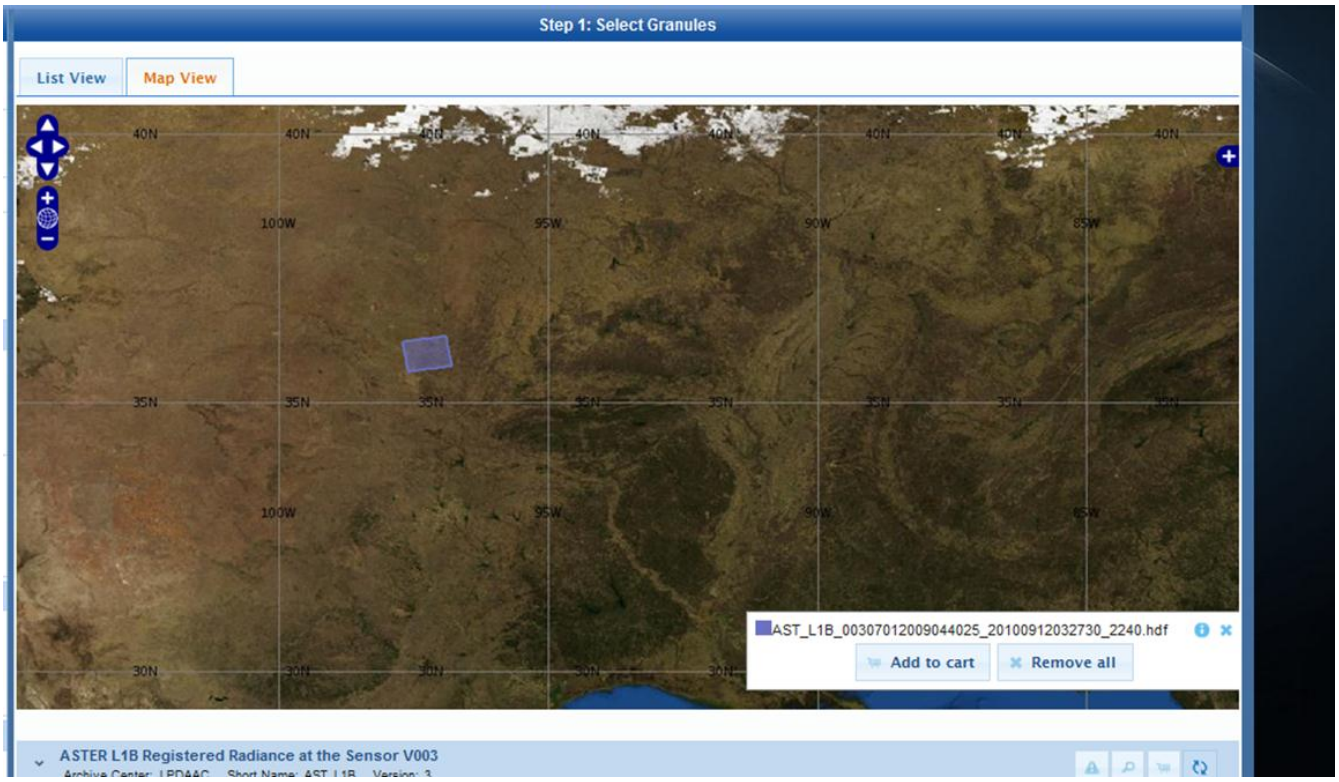
This view shows a map at the top, and the granules below. You will also notice a new button in the granule rows. This button loads a footprint of the scene on the map so you can view the coverage. Click on the button that looks like a globe with a magnifying glass for the first granule.



Notice that the button changed color. This helps you locate the footprint on the map. You will also notice a legend has appeared on the map. This is to help you quickly add those granules to the cart, or remove them from view when you have scrolled through a long list of granules.



2.20. Click on the map in the area of Denver and scroll in to see the footprint.



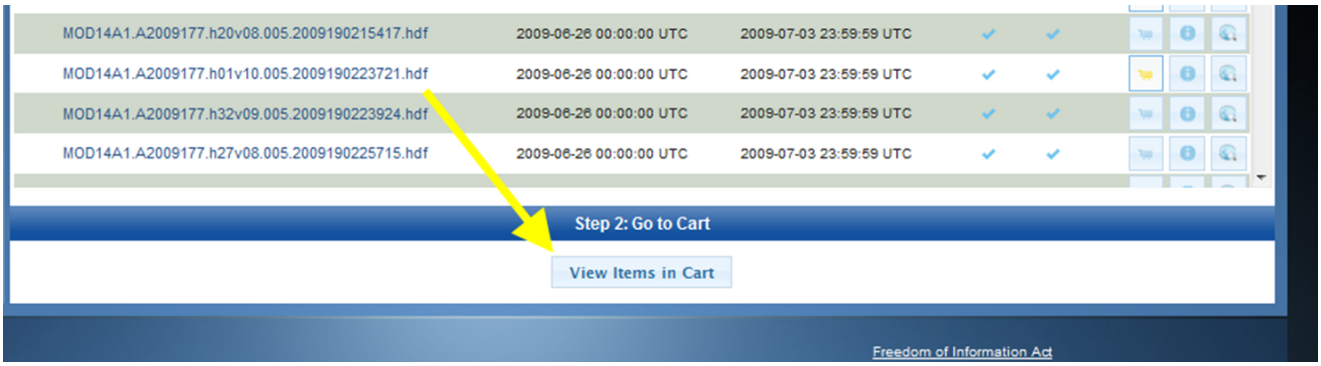
2.21. Scroll through the ASTER granules and add a few more to the map. Notice how each granule gets its own color.

2.22. Now scroll through the MODIS granules and add a few of them to the map.

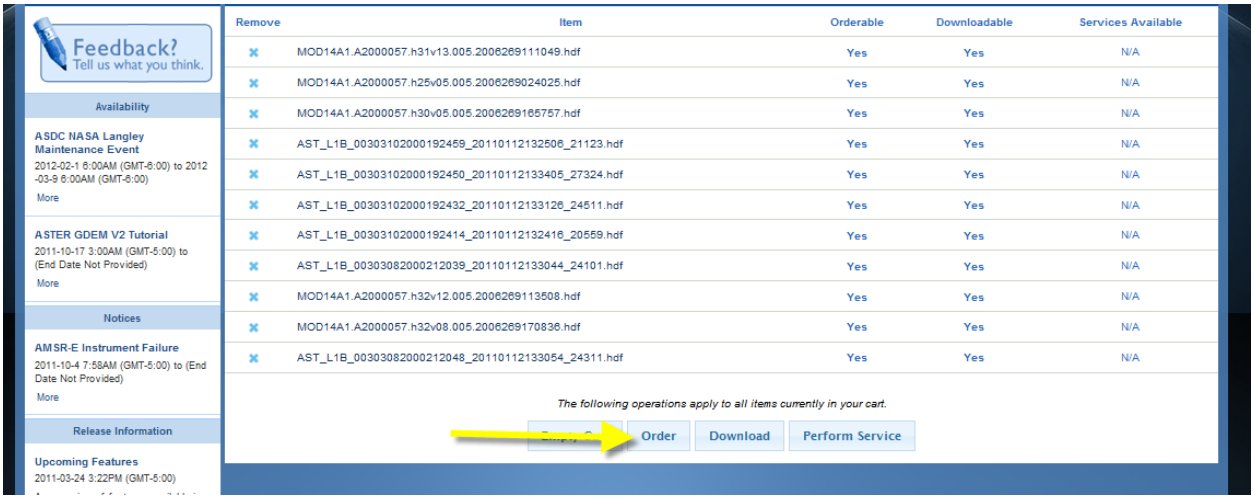
Notice as you are scrolling that Reverb loads more granules dynamically. Once the granule is loaded on the page, it will not need to be re-loaded as you continue scrolling.

2.23. Now let's start adding some granules to the cart. Click the cart icon for 3 granules each of the ASTER and MODIS.

2.24. Next click the View items in cart button at the bottom of the page.



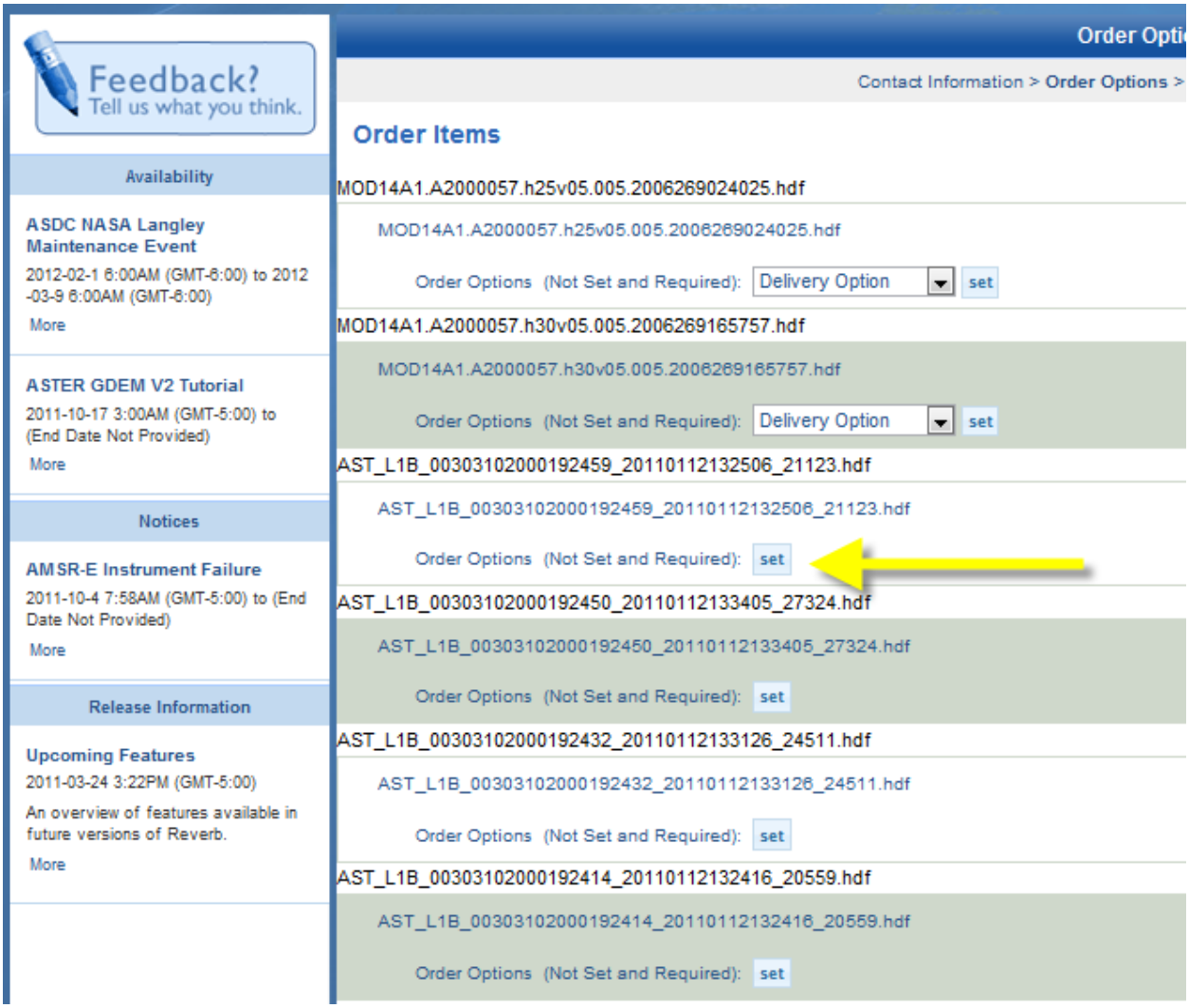
2.25. Now click the “Order” button at the bottom of the page.



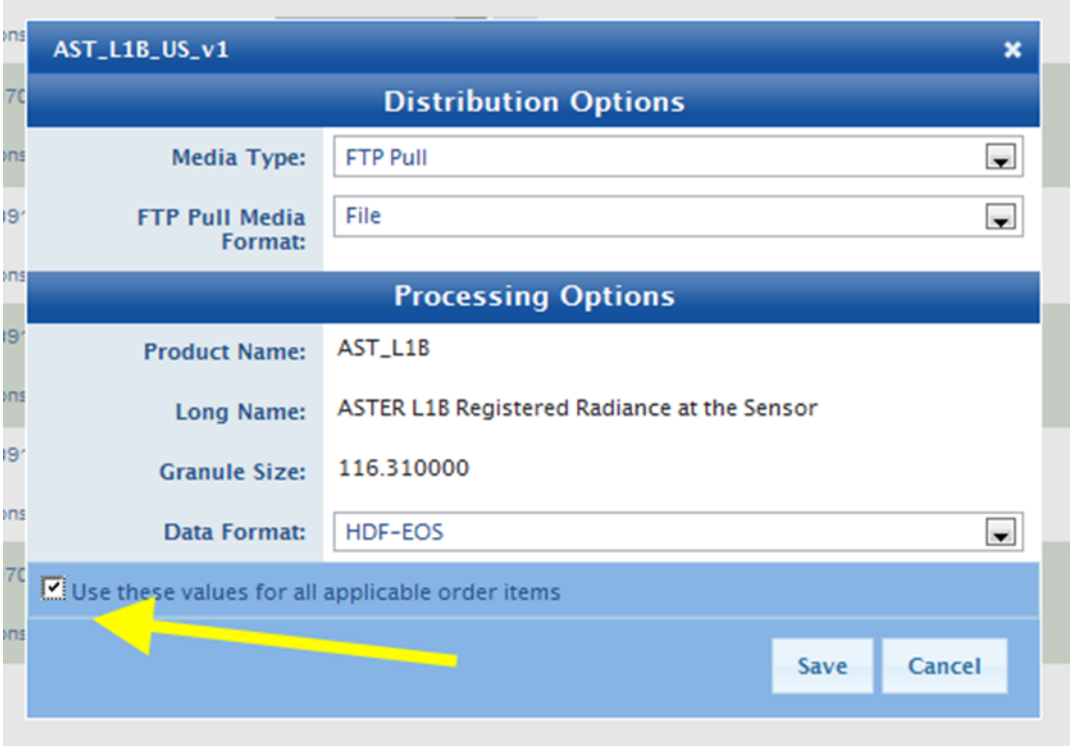
2.26. Verify your contact information is correct and click the “Proceed” button at the bottom of the page.

2.27. On the order options page, you will need to set the options for each granule.

Select the “Set” button next to the first Aster granule.



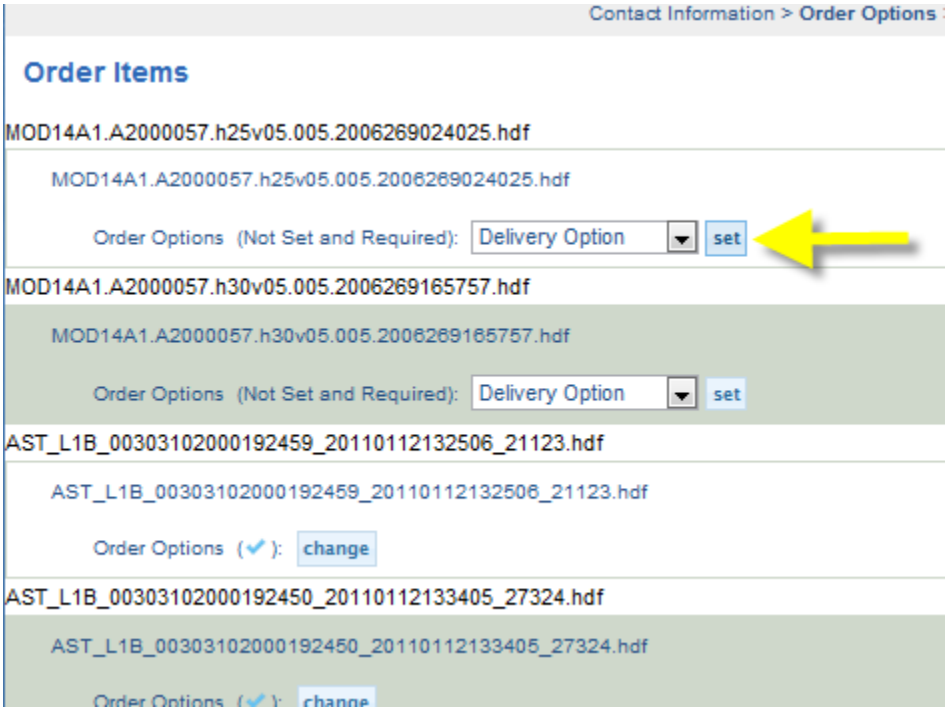
2.28. In the pop up box, make sure the “Use these values for all applicable order items” box is checked.



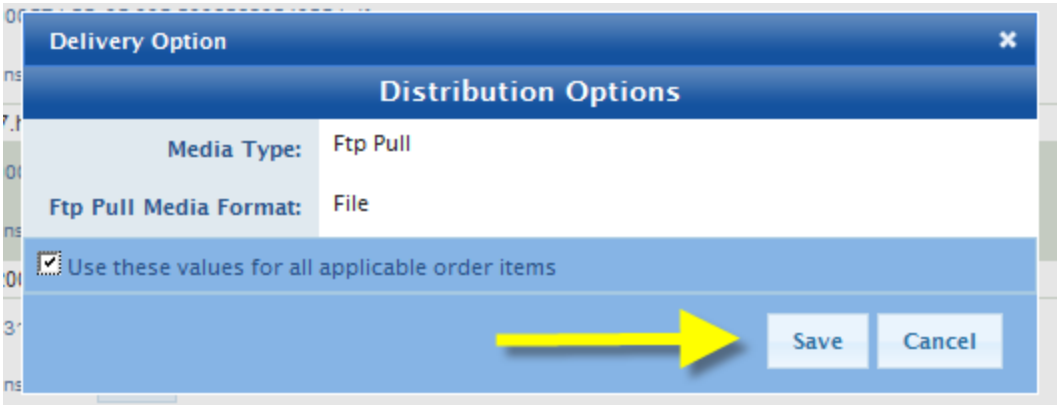
2.29. Then click “Save.”

2.30. All of the ASTER granules should now show a check mark next to order options.

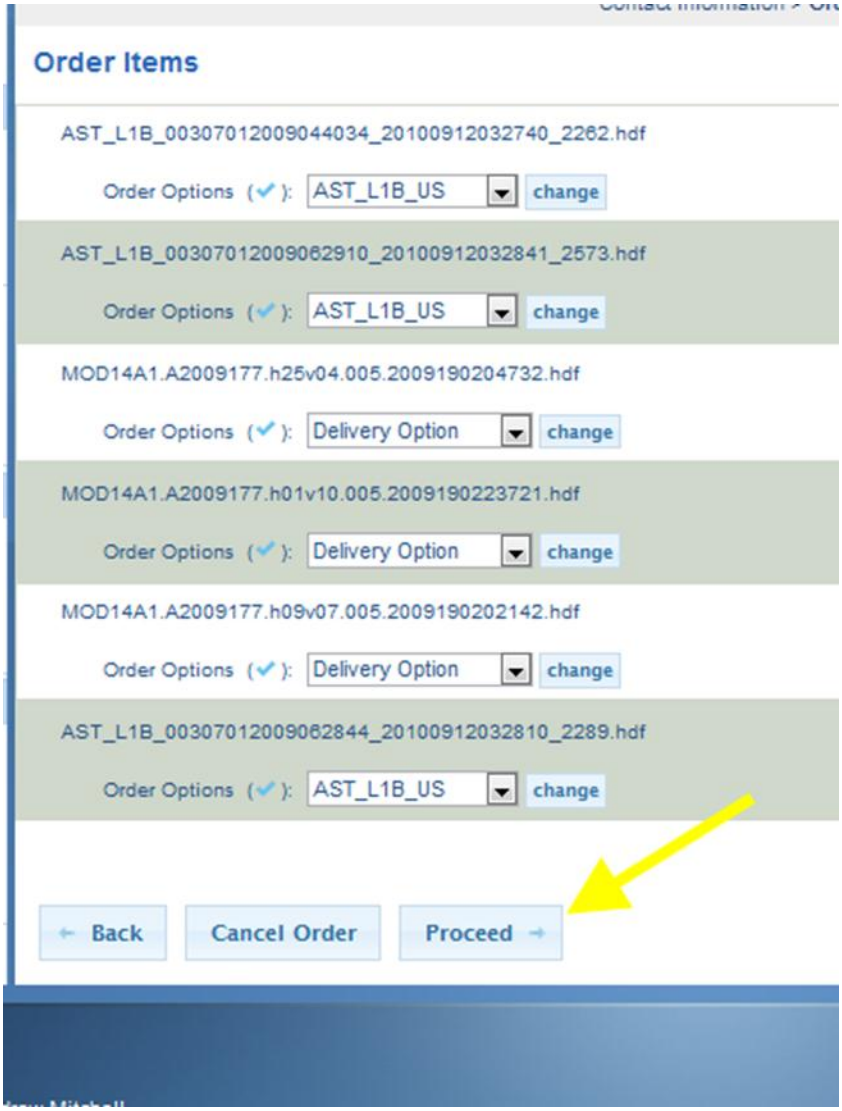
Repeat this process for the first MODIS scene



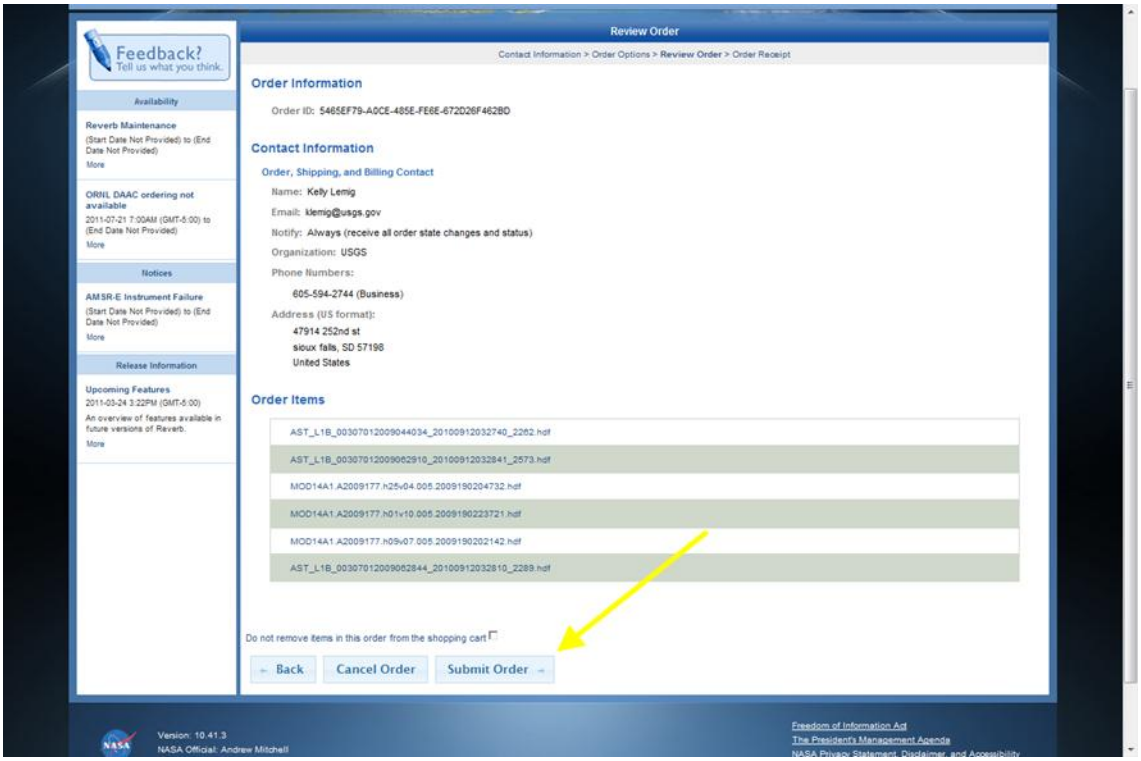
2.31. In the pop up box, make sure the "Use these values for all applicable order items" box is checked.



2.32. Make sure all products have a check in the “Order Options” space. Then click the proceed button on the bottom of the page.



2.33. You now have the opportunity to review your order. If everything is correct, select the “Submit Order” button at the bottom of the page.



This concludes Reverb Use Case 2.