

1 DOWNLOAD LANDSAT DATA

The main archive of Landsat satellite (all missions – TM/ETM/OLI) is earth explorer website: <https://earthexplorer.usgs.gov/>.

First step is to create user login for this website so that you are able to download the data.

Let us now search and download data for KhanhHoa province in Vietnam for the time period January to June 2017.

Step 1:

In the “Search Criteria” tab type in your “address/place” of your interest, in this case “KhanhHoa” and click “enter”

Search Criteria | Data Sets | Additional Criteria | Results

1. Enter Search Criteria

To narrow your search area: type in an address or place name, enter coordinates or click the map to define your search area (for advanced map tools, view the [help documentation](#)), and/or choose a date range.

Address/Place | Path/Row | Feature | Circle

KhanhHoa

Show Clear

Click on an Address/Place to show the location on the map and add coordinates to the Area of Interest Control.

| Num | Address/Place | Latitude | Longitude |
|-----|--------------------|----------|-----------|
| 1 | Khanh Hoa, Vietnam | 12.2585 | 109.0526 |

Coordinates | Predefined Area | Shapefile | KML

Degree/Minute/Second | Decimal

No coordinates selected.

Use Map Add Coordinate Clear Coordinates

Date Range | Result Options

Search from: 01/01/2017 to: 06/30/2017

Search months: (all)

Data Sets » Additional Criteria » Results »

Figure 1: Setting the search criteria

Click on the result (red box) and a location popup will appear over on the map.

Step 2:

Now enter the date range for which data is required in the same tab.

Search Criteria | Data Sets | Additional Criteria | Results

1. Enter Search Criteria

To narrow your search area: type in an address or place name, enter coordinates or click the map to define your search area (for advanced map tools, view the [help documentation](#)), and/or choose a date range.

Address/Place | Path/Row | Feature | Circle

KhanhHoa Show Clear

Click on an Address/Place to show the location on the map and add coordinates to the Area of Interest Control.

| Num | Address/Place | Latitude | Longitude |
|-----|------------------------------------|----------|-----------|
| 1 | Khánh Hòa, Vietnam | 12.2585 | 109.0526 |

Coordinates | Predefined Area | Shapefile | KML

Degree/Minute/Second | Decimal

No coordinates selected.

Use Map Add Coordinate Clear Coordinates

Date Range | Result Options

Search from: 01/01/2017 Use to: 06/30/2017 Use

Search months: (all)

Data Sets > Additional Criteria > Results >

Figure 2: Setting the date range

Step 3: Select the datasets you want to search and set the additional criteria of those data with cloud cover less than 20%

Search Criteria | Data Sets | Additional Criteria | Results

2. Select Your Data Set(s)

Check the boxes for the data set(s) you want to search. When done selecting data set(s), click the *Additional Criteria* or *Results* buttons below. Click the plus sign next to the category name to show a list of data sets.

Use Data Set Prefilter [\(What's This?\)](#)

Data Set Search:

- Aerial Imagery
- AVHRR
- CEOS Legacy
- Commercial Satellites
- Declassified Data
- Digital Elevation
- Digital Line Graphs
- Digital Maps
- EO-1
- Global Fiducials
- HCMM
- ISERV
- Land Cover
- Landsat
 - Landsat Analysis Ready Data (ARD)
 - Landsat Collection 1 Level-2 (On-Demand)
 - Landsat Collection 1 Level-1
 - Landsat 8 OLI/TIRS C1 Level-1
 - Landsat 7 ETM+ C1 Level-1
 - Landsat 4-5 TM C1 Level-1
 - Landsat 1-5 MSS C1 Level-1
 - Landsat Pre-Collection Level-1

Clear All Selected Additional Criteria > Results >

3. Additional Criteria (Optional)

If you have more than one data sets selected, use the dropdown to select the additional criteria for each data set.

Data Sets: **Landsat 8 OLI/TIRS C1 Level-1**

Landsat 8 OLI/TIRS C1 Level-1

Landsat Product Identifier

WRS Path to

WRS Row to

Land Cloud Cover

All

Less than 10%

Less than 20%

Less than 30%

Less than 40%

Scene Cloud Cover

All

Less than 10%

Less than 20%

Less than 30%

Less than 40%

Clear All Criteria Results >

Figure 3: Setting additional criteria and listing results

Here we are selecting only Landsat 8 data. For previous years you can also try with Landsat 7 ETM, and Landsat 4/5 TM. Finally click the “Results” to see list of all available data with our conditions met for the study area in the given period of time.

Step 4: Check the listed scenes using browse images, select and download only the **123/52** scene

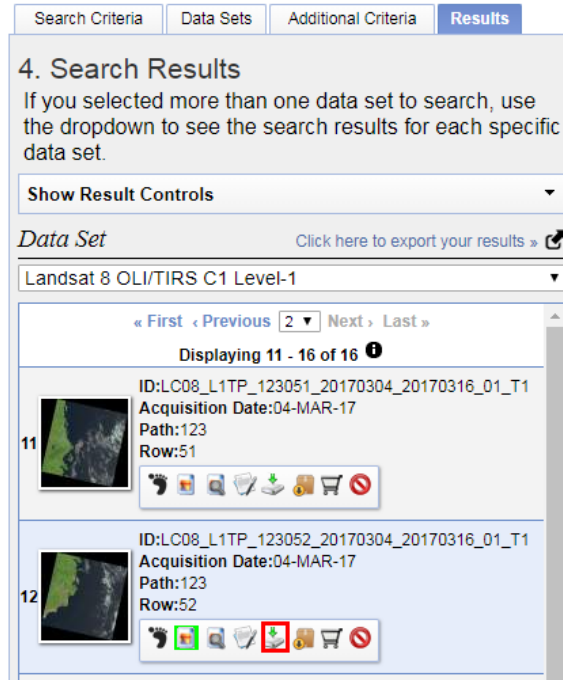


Figure 4: list of available landsat 8 data for the given period of time

The image icon under each result can be used to see the preview of that landsat scene (see Figure 4). The download icon can be used to download that single scene with out ordering. While the Bulk download icon can be used to get a single link to download multiple products at a time. More details on bulk download can be found in these links – [[link1](#)], [[link2](#)]

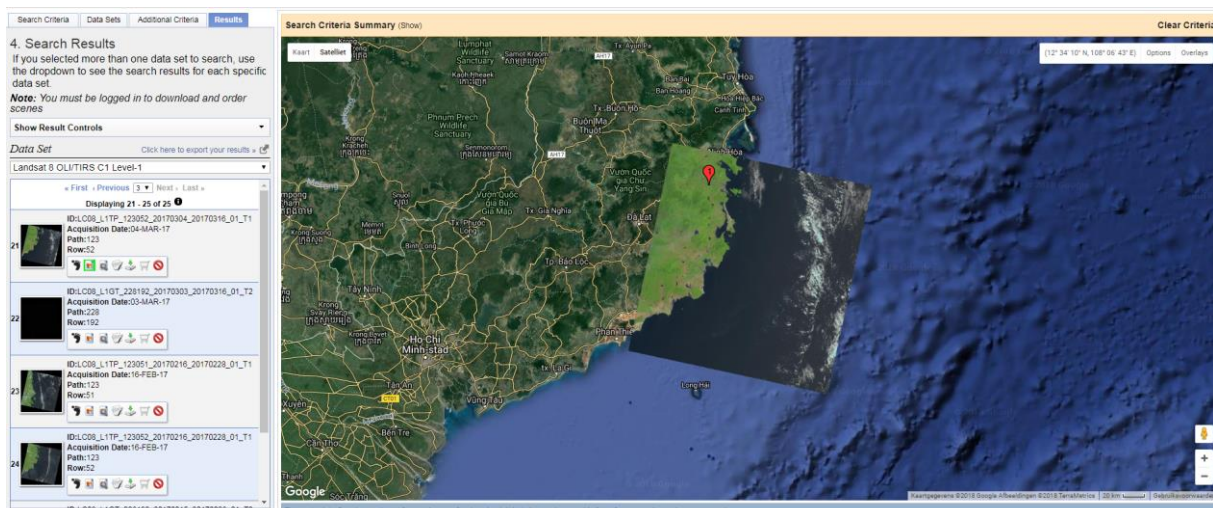


Figure 5: showing the preview image of a landsat scene

Now that the image dated 4 March 2017 looks really good, click on the download icon to get the data. You have to login in order to download the data.

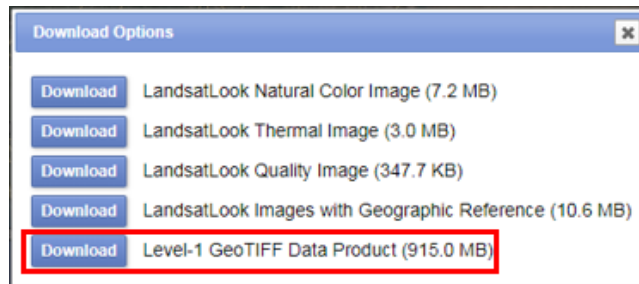


Figure 6: Landsat download options, select the one highlighted

From the list of options download the “Level-1 GeoTIFF Data Product” to get all the spectral bands and metadata of the scene.

Similarly download the L8 data dated **20 March 2017** and **23 May 2017**