

Download Landsat Data via GLOVIS Data Portal

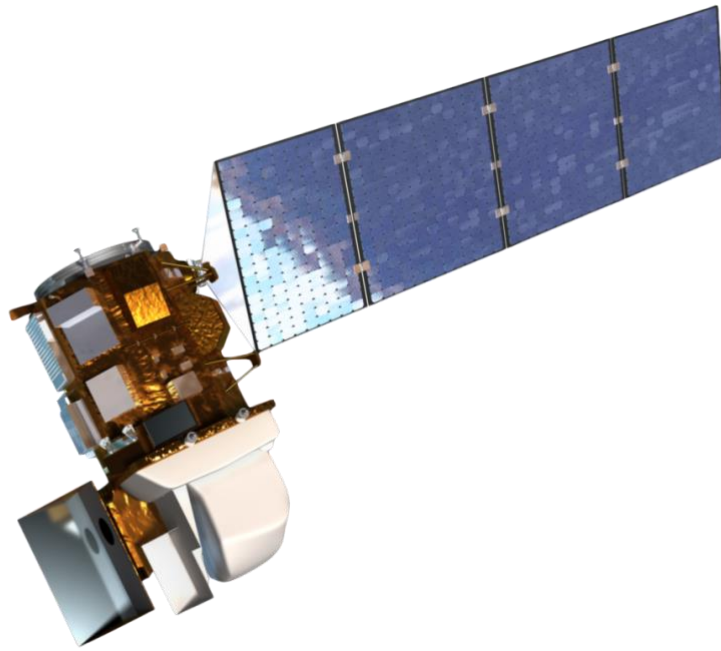


Image: NASA

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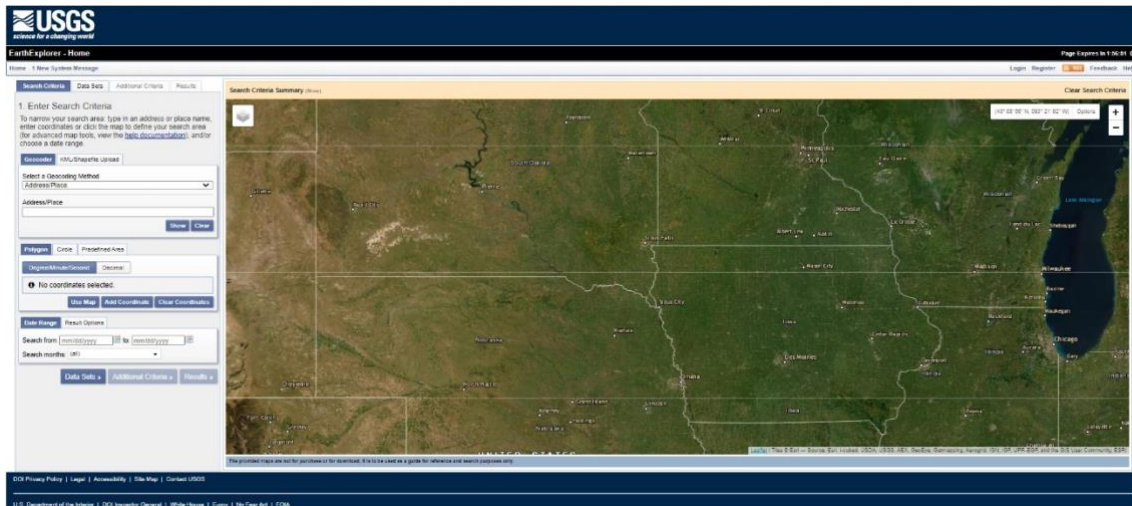


To access Landsat-data three main portals are available:

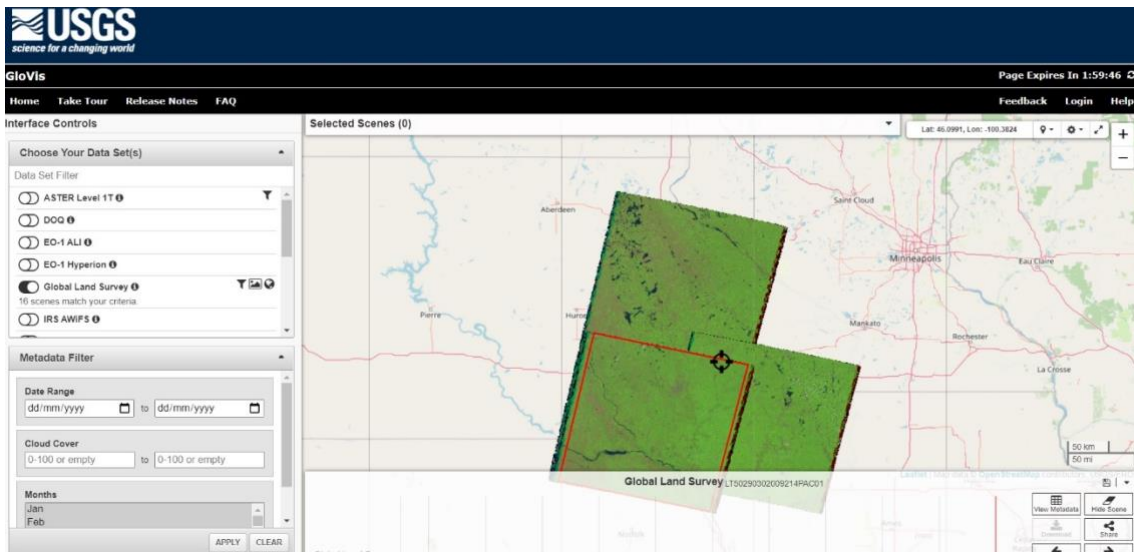
- GLOVIS: <https://glovis.usgs.gov/app>
- Earth Explorer <https://earthexplorer.usgs.gov/>
- LandsatLook <https://landsatlook.usgs.gov/explore>

The content and possibilities to access Landsat-8 data is similar for the 3 pages. The main differences are in the layout and the search structure. In addition, the different portals have different type of data sets available and also different processing level. Earth Explorer for instance includes Landsat images in L2 that is recommended for use in a analysis-ready manner as the images are also corrected for atmospheric and topographic effects.

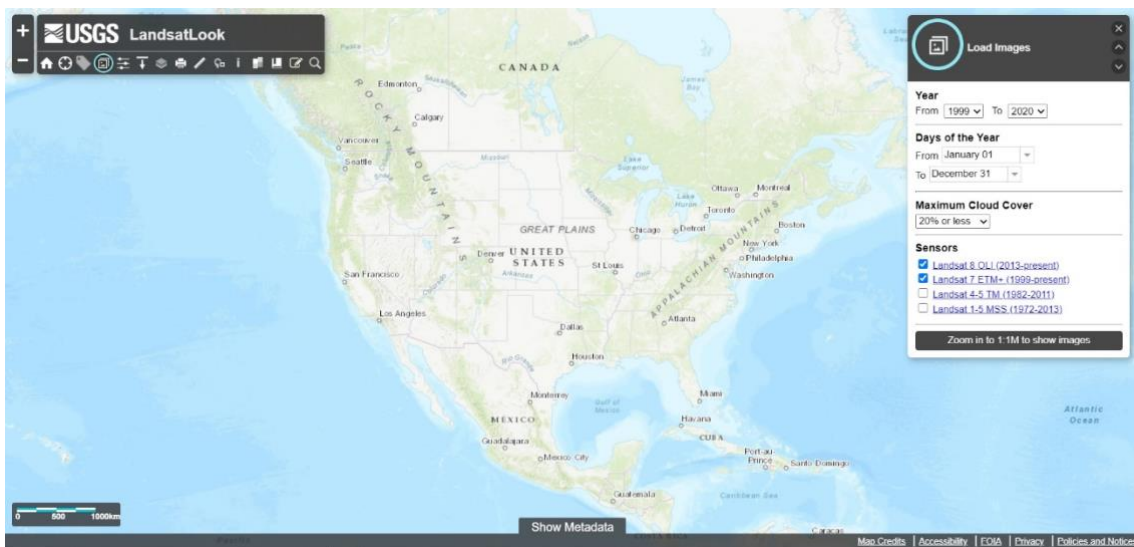
The EarthExplorer start page:



The GLOVIS start page:

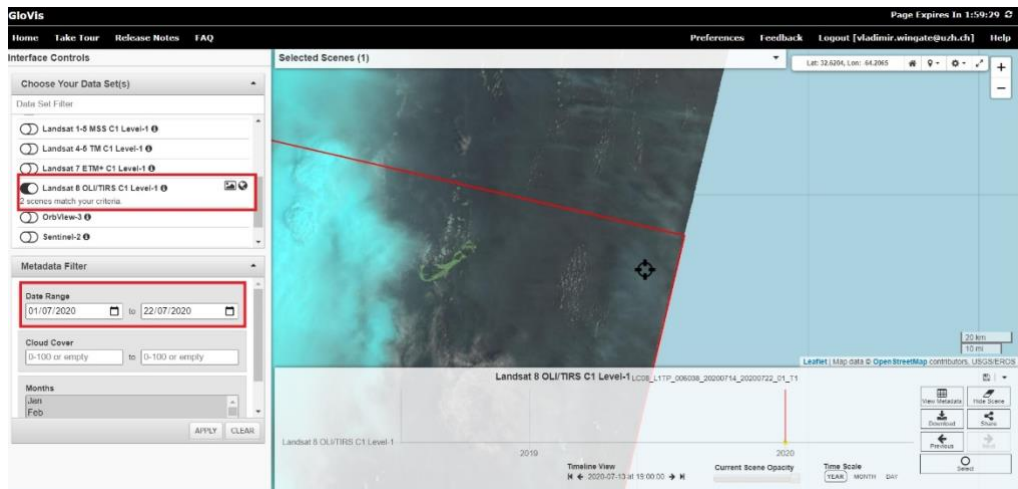


The LandsatLook Viewer start page:

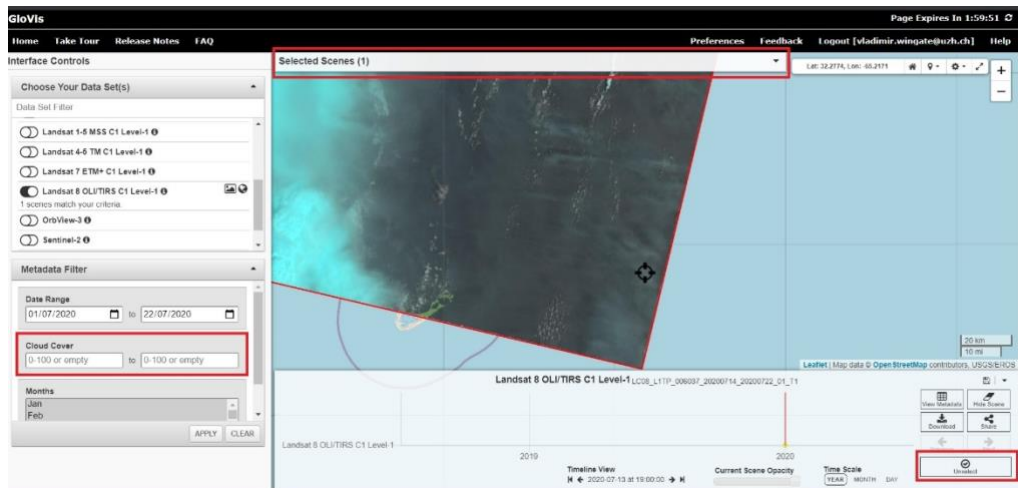


In the following we will focus on **GLOVIS**, however, the general procedure is similar in EarthExplorer and the LandsatLook Viewer.

First, you need to create an account and log in (data is for free), then define the Landsat mission you are interested in the menu item “Collection” (in this case Landsat-8 OLI) and the date range you are interested in.



To define the spatial borders of your data search, you can navigate with the mouse to your area of interest. Additionally, you can define the filter for cloud cover and apply your criteria for the search.



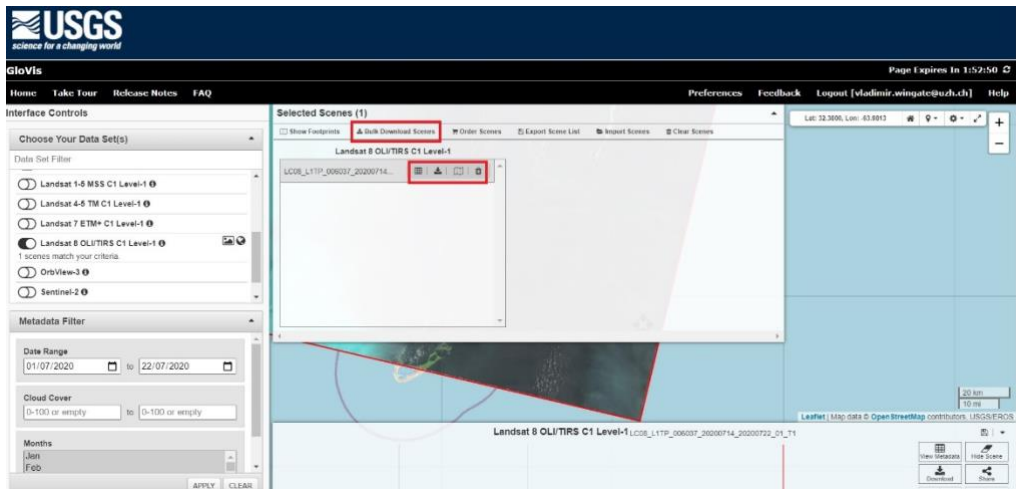
When searching for several time steps, the “time scale” can be changed to “day” in order to see the individual overflights. Then select the scene of your choice (right click), which will then appear in “selected scenes”.

The screenshot displays the USGS GloVis web interface. At the top left is the USGS logo with the tagline "science for a changing world". The main navigation bar includes "Home", "Take Tour", "Release Notes", "FAQ", "Preferences", "Feedback", "Logout [npoc@geo.uzh.ch]", and "Help". A page expiration timer shows "Page Expires In 1:59:50".

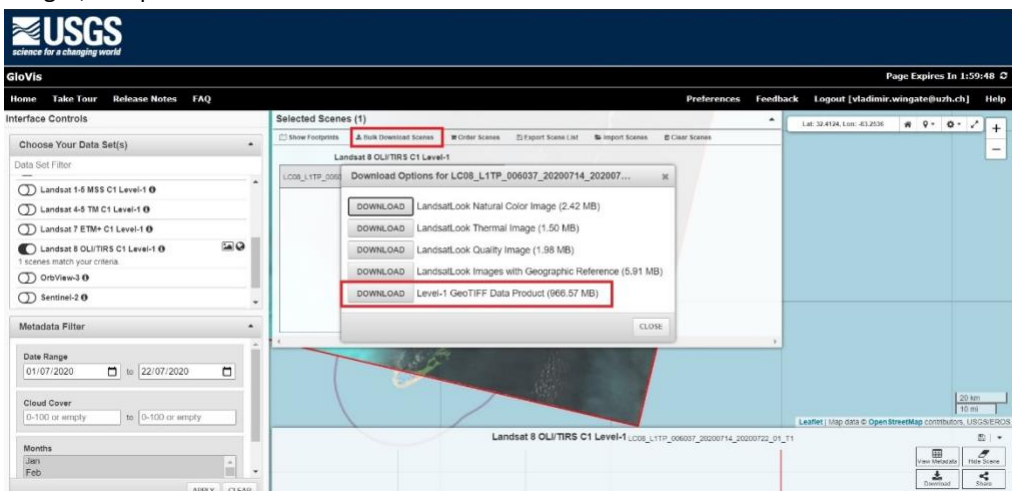
The interface is divided into several sections:

- Interface Controls:** Contains a "Choose Your Data Set(s)" section with radio buttons for "Landsat 1-5 MSS C1 Level-1", "Landsat 4-5 TM C1 Level-1", "Landsat 7 ETM+ C1 Level-1", "Landsat 8 OLI/TIRS C1 Level-1" (which is selected), "OrbView-3", and "Sentinel-2". Below this is a "Metadata Filter" section with a "Cloud Cover" range from 0 to 40 and a "Months" dropdown menu.
- Selected Scenes (2):** A map of Europe showing two satellite scenes. One scene is highlighted with a red border. The map includes a scale bar (50 km / 50 mi) and a "Leaflet | Map data © OpenStreetMap contributors, USGS/EROS" attribution.
- Timeline View:** A horizontal timeline for "Landsat 8 OLI/TIRS C1 Level-1" data. It shows three scenes: "2021-04-15", "2021-05-01", and "2021-05-15". A red box highlights the "Time Scale" dropdown menu, which is currently set to "DAY". Other controls include "Timeline View" (set to "H"), "Current Scene Opacity", and "Unselect".

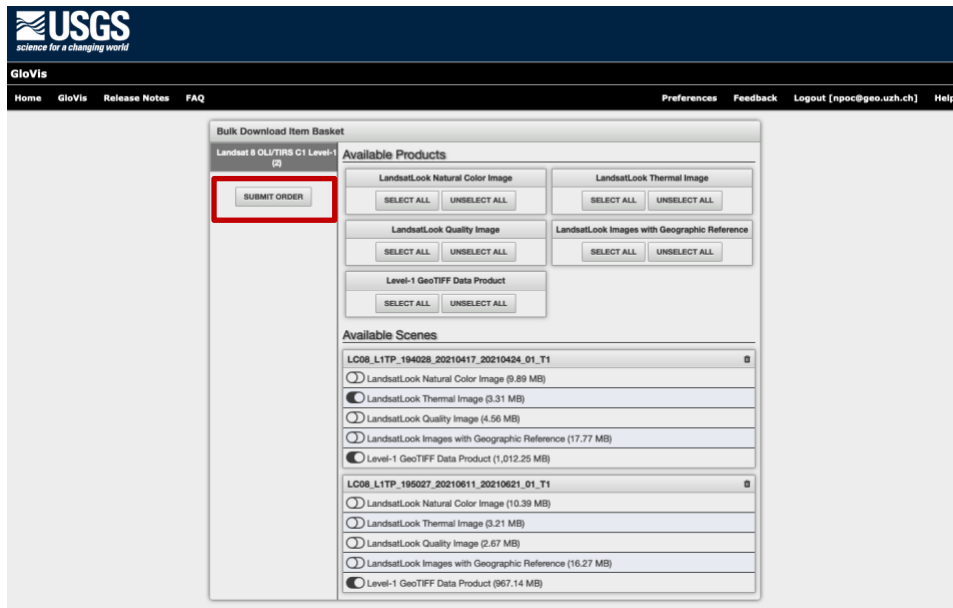
Once you have selected the wished images, navigate to the “Selected Scenes” panel. Here, you can view the image meta data, and download the actual Landsat scene.



Click on the download icon, and the download option will appear for you selected scene. Level-1 GeoTiff is used for detailed analyses. With external tools the image can then be atmospherically corrected, however, nowadays it is recommended to directly download L2 data sets (e.g. from Earth Explorer). The other download options are for visualization only. If you have selected several scenes, or wish to download both the analyses and visualization images simultaneously, click the “Bulk download scenes” option, tick the desired images, and press “submit order”.



A new page now opens and you need to login (registration needed). After the login, you will reach the download page. Now you can select individually the wished images and submit the order.



Afterwards you will get an information mail how to continue the download process. You first need to download and install the Bulk Download Application (BDA), which then allows you to download even large amounts of satellite images:

