



# **EarthExplorer Help Documentation**

Version 0.5

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### ***Document History***

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6		

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## I. Introduction

EarthExplorer (<http://earthexplorer.usgs.gov>) provides online search, browse display, data download, and exports of metadata to support scientists and users with access to earth science data from the archives of the U.S. Geological Survey (USGS). EarthExplorer provides an enhanced user interface using state-of-the art JavaScript libraries, Hypertext Preprocessor (PHP), and the advanced Oracle spatial engine.

### A. Key Features

Key features in EarthExplorer include:

- Fast, geospatial search engine
- Map viewer for viewing overlay footprints and browse overlays
- Simple, fast Graphical User Interface (GUI)
- Data access tool to search and discover data
- Textual query capability
- Keyhole Markup Language (KML) export capability to interface with Google Earth
- Save or export queries, results, and map overlay for reuse
- Request on-demand products
- Access to browse images from standard products
- User authentication service for access to specialized datasets and tools
- Access to Landsat Data Continuity Mission (LDCM) quality band data
- Standard product downloads
- User notifications of new acquisitions and available products through subscription services
- Updated software code base supporting JavaScript and PHP

### B. System/Browser requirements

The following are the hardware and software requirements for using EarthExplorer:

- Hardware Requirements - Windows:
  - 233 Gigahertz (GHz) processor - 2GHz or better recommended
  - Minimum of 256 Megabyte (MB) Random Access Memory (RAM) - 4 Gigabyte (GB) recommended
  - Minimum of 20GB of free space - 100GB recommended
  - Display capable of 800x600 with 256 colors and 32MB of video RAM
  - Mouse
  - Keyboard
- Hardware Requirements - Apple Mac:
  - Intel x86 or PowerPC G3, G4, or G5 - 2GHz or better recommended
  - Minimum of 256MB RAM - 4GB recommended
  - Minimum of 20GB of free space - 100GB recommended
  - Display capable of 800x600 with 256 colors and 32MB of video RAM
  - Mouse
  - Keyboard
- Support handheld and tablet devices via browsers

- Network Requirements:
  - Broadband connection 15 Megabit per Second (Mbps)
  - 3G network impacts display speed
- Software Requirements:
  - Operating System: Windows XP, Windows Vista, Windows 7, Windows Server 2000, Windows Server 2003, Windows Server 2008
  - Mac OS X
  - Unix
  - Linux
  - Solaris
- Browsers supported:
  - Internet Explorer (7.x, 8.x, 9.x)
  - Firefox (3.x, 4.x)
  - Chrome (10.x)
  - Opera (10.x)
  - Safari (5.x)

## II. User Interface

The EarthExplorer user interface provides the overall capability for you to interact with the EarthExplorer components and services. The EarthExplorer user interface (Figure 1) is composed of the following key elements:

- Standard USGS header/footer elements
- EarthExplorer menu bar
- Body

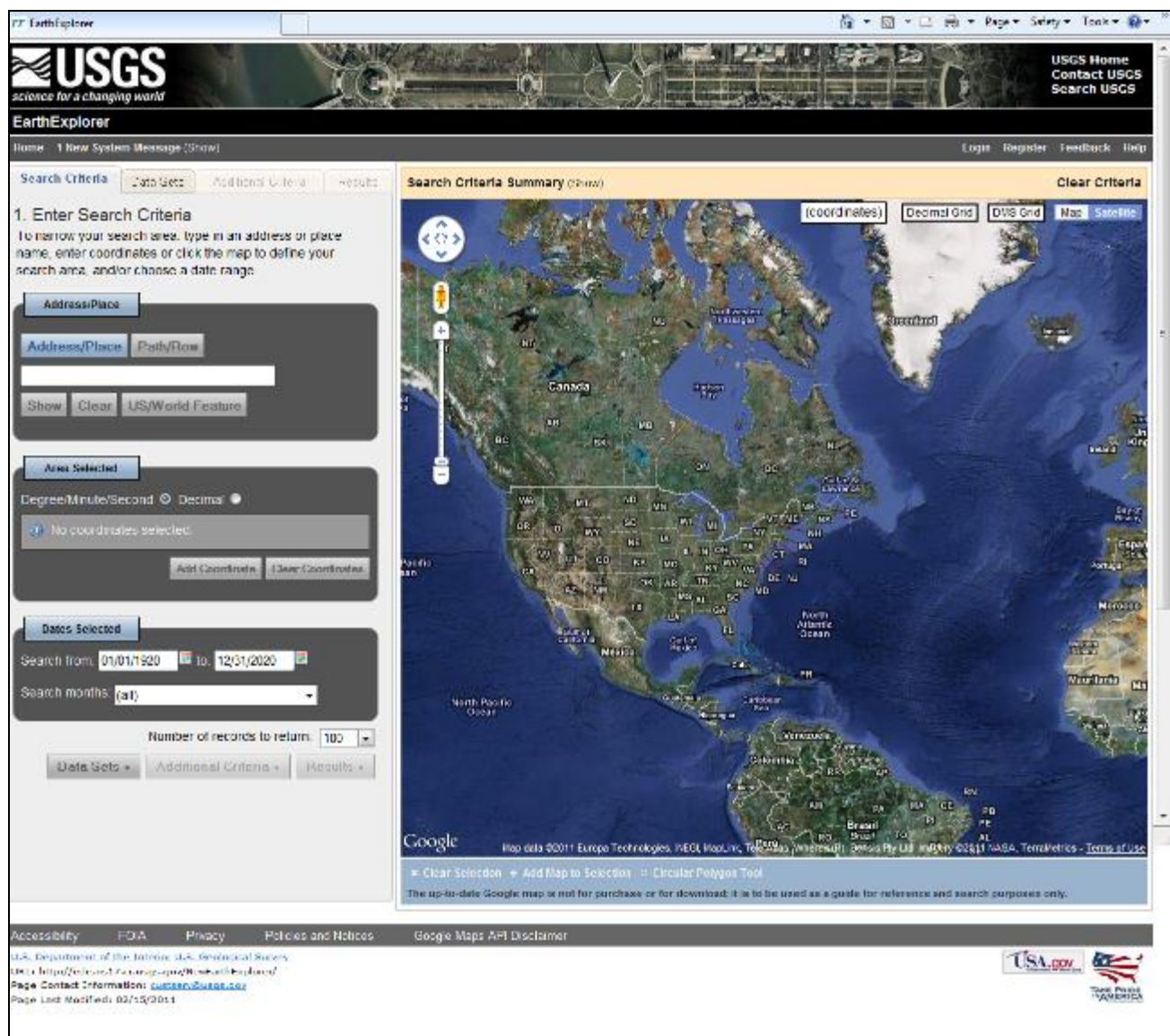


Figure 1 - EarthExplorer User Interface

### A. Header/Footer Elements

The EarthExplorer header/footer elements are based on the [USGS Visual Identification Policy](#) standard guidelines. The EarthExplorer client is compliant with Section 508 guidelines.



## 1. Header

The EarthExplorer client header (Figure 2) is located at the top of the web page. The header is common across all web pages in EarthExplorer but may be different based on your user role or 'branding' applied to the EarthExplorer client.



Figure 2 - Header

Elements of the header include:

- USGS Logo (upper left corner) reflects the relevance of the Bureau's work in today's world and communicates USGS's purpose to the public.
- USGS Links (upper right corner) reflect links to the USGS website, USGS contact information, and the USGS search tool.
- Title Bar is a standard bar describing the website; in this case, 'EarthExplorer'.
- EarthExplorer Menu Bar.

## 2. EarthExplorer Menu Bar

The EarthExplorer menu bar (Figure 3) is directly below the header. The EarthExplorer menu bar supplies a common starting point to access additional functionality, options, and preferences for the EarthExplorer client via dropdown menus.



Figure 3 - EarthExplorer Menu Bar

The common menu items in the header include:

- Home – Returns you to a common starting point within the application.
- System Message – Provides links and information regarding system messages.
- Login – Provides a link to the EarthExplorer Login/Registration Service.
- Register – Provides a link to the EarthExplorer Registration Service.
- Feedback – Provides a link to the feedback form.
- Help – Provides information about EarthExplorer.

Additional menu bar items display when you register or log in. Some of these additional features include:

- Profile – Provides access to your profile preferences and allows you to customize your profile.
- Save Criteria – Allows you to save your search criteria for future searches.
- Load Favorite – Allows you to load/apply a saved search criteria.
- Manage Criteria – Allows you to modify previously saved search criteria.

These options are described in further details in the EarthExplorer Profile (Section III).

### 3. Footer

The EarthExplorer client footer (Figure 4) is located at the bottom of the web page. The footer is common across all web pages in EarthExplorer but may be slightly different based on your user role or 'branding' applied to the EarthExplorer client.



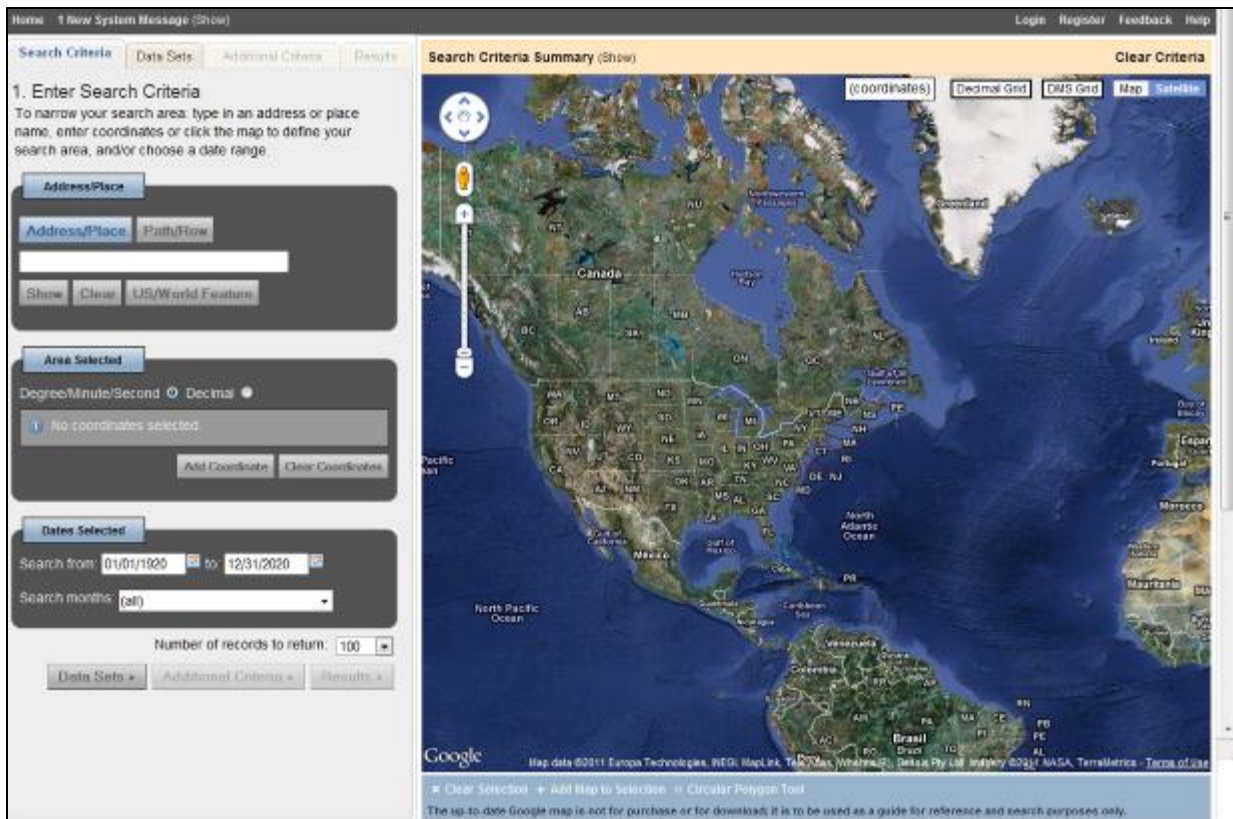
**Figure 4 - Footer**

The common menu items in the footer include:

- Accessibility – Provides a link to the [USGS Accessibility Policy \(Section 508\)](#). The USGS Accessibility Policy ensures that all electronic and information technology developed, procured, maintained, or used by the USGS is accessible to people with disabilities.
- FOIA – Provides a link to the [U.S. Geological Survey Freedom of Information Act \(FOIA\) Electronic Reading Room](#). FOIA requests for a copy of USGS records can be made by any individual or public/private organization other than a Federal agency.
- Privacy – Provides a link to the [USGS Privacy Policies](#). This information identifies USGS and the Department of Interior (DOI) privacy policies.
- Policies and Notices – Provides a link to the [USGS Policies and Important Notices](#) website. This information describes the principal policies and other important notices that govern information posted on USGS websites.
- Google Maps API Disclaimer – Provides a link to the [Google Maps API Disclaimer](#). This information outlines the Google Map Application Programming Interface (API) terms and conditions for using the Google Map service.

### B. Body

The body (Figure 5) includes the main EarthExplorer capabilities and is composed of the Search Criteria and the Google Map components.



**Figure 5 - Body**

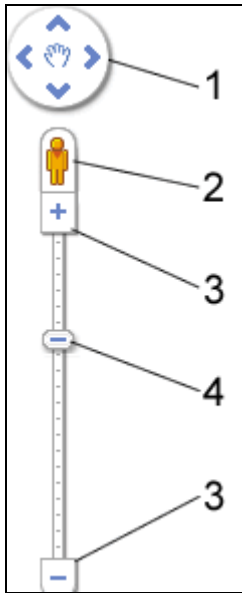
## **1. Search Criteria**

The EarthExplorer Search Criteria component is located on the left side of the EarthExplorer body element. The Search Criteria component allows you to enter search criteria, select datasets to query, enter additional criteria, and review results in a tabular window. Additional details on the Search Criteria component are provided in the 'Perform a Search' in section IV.

## **2. Google Map**

The Google Map component is located on the right side of the EarthExplorer body element. The Google Map application interface embeds Google Maps within the EarthExplorer client.

Before using the Google Map component, you should be familiar with the navigation and location features provided in the Google Map interface that EarthExplorer uses.



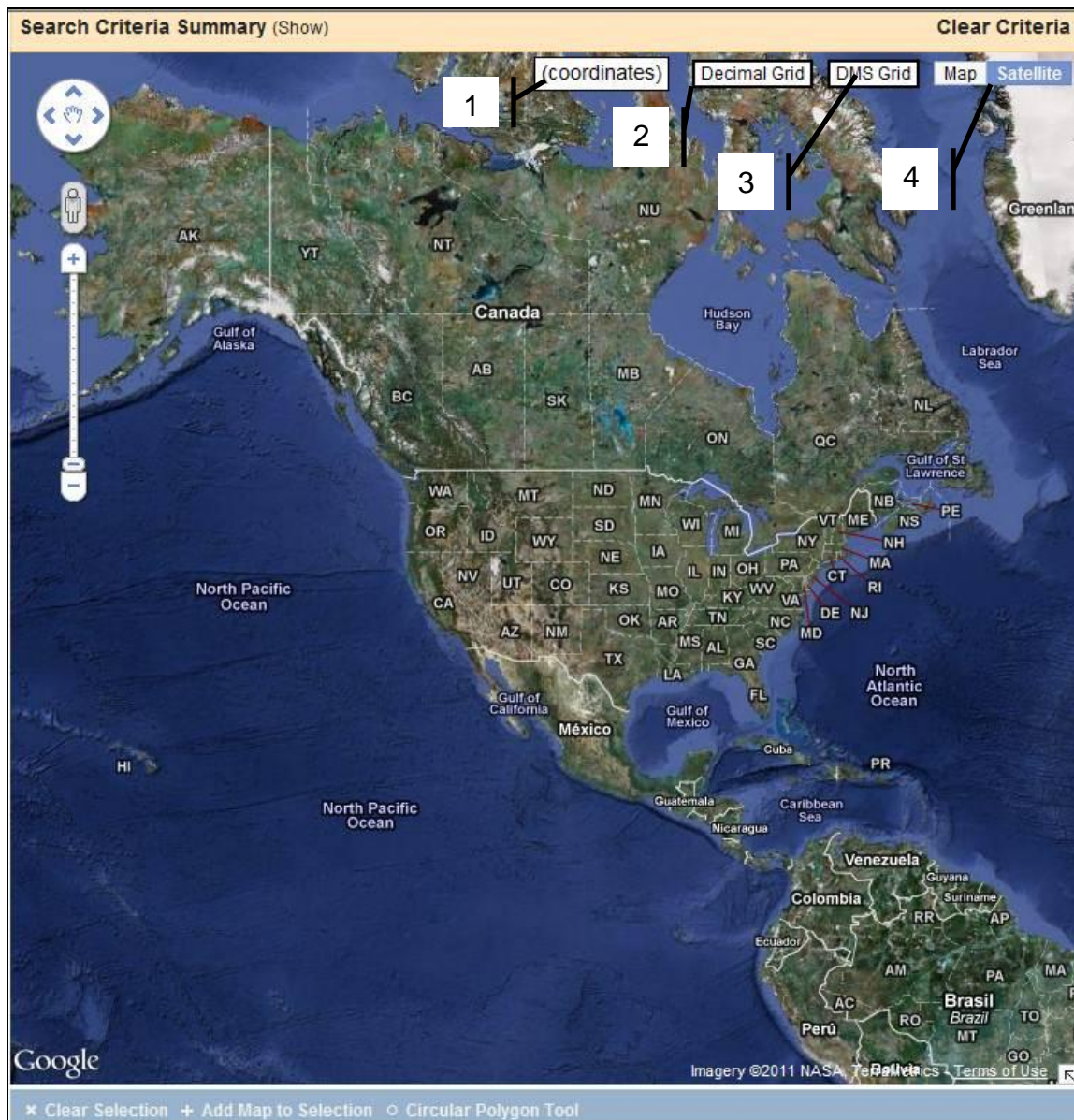
**Figure 6 - Google Map Navigation Controls**

Use the following controls to [navigate Google Maps](#) (Figure 6):

- Pan Control – Click the appropriate arrow to move the view north, south, east or west. (1)
- Street View – Click and drag to navigate to the street-level view of the interested area (2).
- Zoom – Click the plus sign (+) to zoom in to the center of the map; click the minus sign (-) to zoom out (3).
- Zoom Slider – Drag the zoom slider up/down to zoom in or out incrementally (4).
- Pan – Click and drag the map to the desired location or view.
- Use Page Up, Page Down, Home, and End for faster scrolling up, down, left, and right, respectively.
- Press Control and click the plus sign (+) to zoom in or press Control and click the minus sign (-) to zoom out.



The Google Map component provides the following custom location features (Figure 7) to aid in locating geospatial data.



**Figure 7 - Custom Location Features**

Google Maps offers the following location features:

- Coordinates – Coordinate values update as you move the mouse on the map interface.
- Decimal Grid – Overlays a decimal degree grid over the map interface. Click to turn on and off.
- DMS Grid – Overlays a Degrees, Minutes, Seconds (DMS) grid over the map interface. Click to turn on and off.
- Map/Satellite – Toggles between the Map View and the Satellite View.
  - Map View:
    - Terrain – Shows basic topographic features.

- Satellite View:
  - 45° – Zooms to special 45° imagery for certain locations.
  - Labels – Displays feature labels.

### III. Registration and Profile

Registered users can use all of EarthExplorer's features, including saving search criteria, downloading data, and accessing subscription services. The USGS EarthExplorer system requires you to register to download data. The information gathered from the registration process is not distributed to other organizations and is only used to determine trends in data usage and for certain orders. The same login can be used for the [USGS Global Visualization Viewer \(GloVis\)](#) and [USGS Hazards Data Distribution System \(HDDS\)](#) systems.

To ensure privacy and security, all information entered in the EarthExplorer Registration service uses Hypertext Transfer Protocol with Secure Sockets Layer (HTTPS) protocol. This privacy ensures that the information is encrypted from your browser to the EarthExplorer application.

The EarthExplorer Registration interface consists of the following key elements:

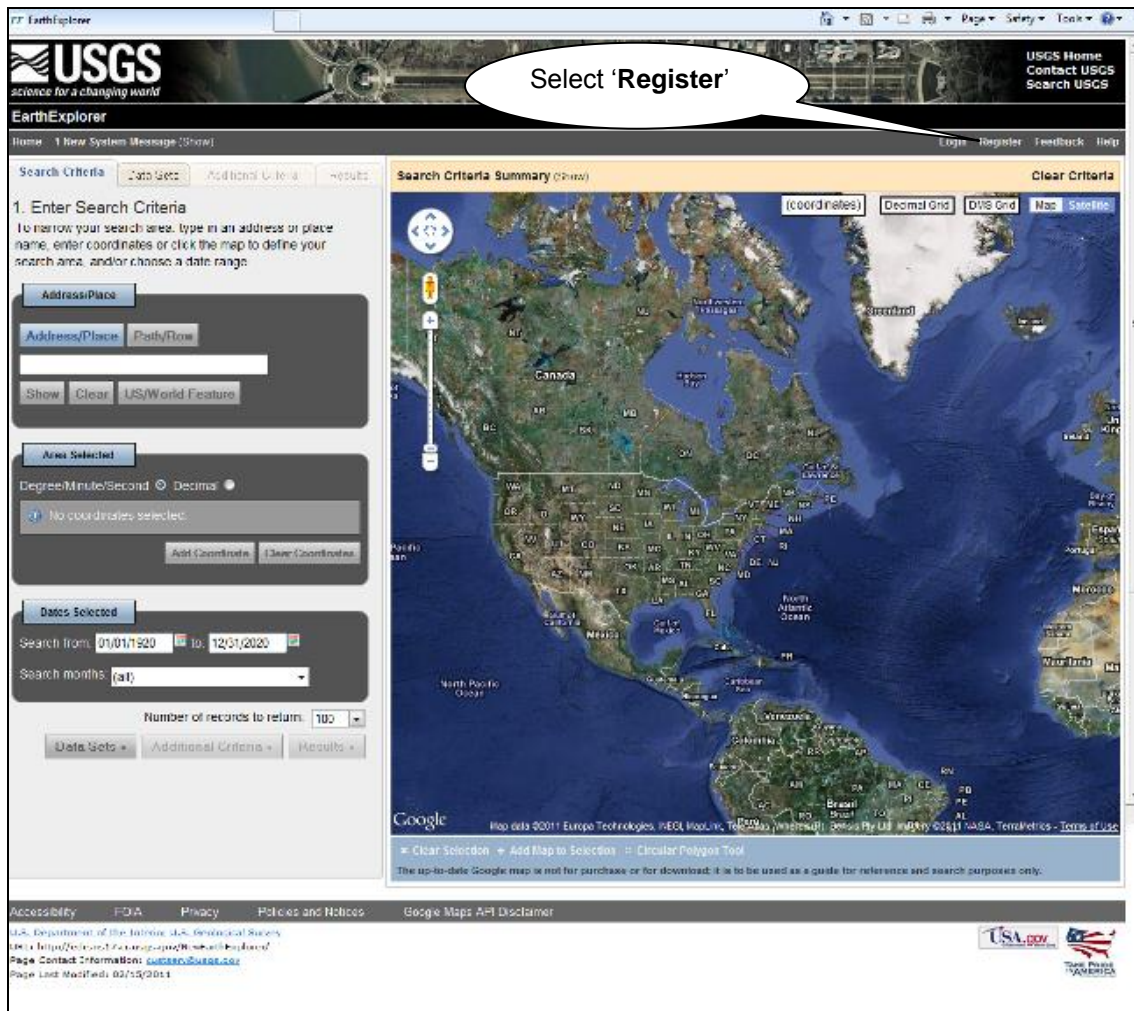
- Registration
- Login
- Profile

User interface features in the registration service include the following:

- Values in red with an asterisk '\*' are required values.
- The 'Continue' button performs an edit check; if the values entered pass the edits for that form, the information is saved and you advance to the next page in the registration process.
- An invalid entry produces a popup message explaining the error.
- The 'Cancel' button returns you to the initial registration page without saving any information.
- The 'Reset' button clears all information from the current form.

#### A. Registration

To register, select the 'Register' menu item from EarthExplorer menu.



**Figure 8 - Registration**

### 1. Registration Login Page

The Registration process (Figure 8) requires you to create a username and password, select a secret question, and type a secret answer. Once registered with EarthExplorer, only the 'Login' process is required.



EarthExplorer - Windows Internet Explorer

EE https://edcns17.cr.usgs.gov/NewEarthExplorer/register/index?RET\_ADDR=http://edcns17.cr.usgs.gov/NewEar...

File Edit View Favorites Tools Help

USGS science for a changing world

EarthExplorer

Home Login Register Feedback Help

1. Login 2. User Affiliation 3. Address 4. Confirmation

The USGS registration service allows you to register and save information that can be used to access a specific USGS site or to place orders for USGS products. Additional features, such as the ability to save search information, may also be available to registered users depending on the site accessed.

To register, please create a user name and password. The information you provide will be secure and not shared with others. Review our [privacy policy](#).

**Login Information**

Username:  You may wish to use your email address for your user name.

Password:  Password must be at least 8 characters long

Confirm Password:

Secret Question:  Pick a secret question

Secret Answer:

Cancel Reset Continue

Note: All fields are required.

Accessibility FOIA Privacy Policies and Notices Google Maps API Disclaimer

U.S. Department of the Interior U.S. Geological Survey

URL: https://edcns17.cr.usgs.gov/NewEarthExplorer/register/index

Page Contact Information: [custserv@usgs.gov](mailto:custserv@usgs.gov)

Page Last Modified: 02/15/2011

USA.gov TAKE PRIDE IN AMERICA

Trusted sites | Protected Mode: Off

**Figure 9 - Registration Login**

The Registration Login page (Figure 9) requires you to type the following values:

- Username **(Required)** – Type your preferred username.
- Password **(Required)** – Type a password. The password must be at least 16 characters long.
- Confirm Password **(Required)** – Type the password entered in the previous password field.
- Secret Question **(Required)** – Select a secret question when registering. If you forget your password, answering the secret question allows you to change your password.
  - Select a question that can be answered easily but is difficult for others to guess. Secret questions should be treated the same as any other confidential information and should never be shared.
- Secret Answer **(Required)** – Type the appropriate response to the selected secret question.
- Cancel – Returns you to the initial registration page without saving any information
- Reset – Clears all information from the form.
- Continue – Performs a check; if the values entered are valid, the information is saved and you advance to the User Affiliation/Data Usage form.

## 2. User Affiliation/Data Usage Information Page

The User Affiliation/Data Usage Information page (Figure 10) allows you to enter your affiliation and identify uses of the data. This information is used to gather statistics on how the data is used and what organizations are using this data.

The screenshot shows a web browser window titled "EarthExplorer - Devmast - Windows Internet Explorer". The address bar shows the URL "https://edcns16.cr.usgs.gov/NewEarthExplorer\_devmast/register/useraffiliation". The browser's menu bar includes File, Edit, View, Favorites, Tools, and Help. The toolbar shows various icons for navigation and search. The main content area displays the USGS logo and the text "science for a changing world". Below the logo, the page title "EarthExplorer - Devmast" is shown, along with links for Home, Reset, Login, Register, Feedback, and Help. The main heading is "User Affiliation/Data Usage Information". The form includes a section for "User Affiliation (Should reflect your eligibility to receive data, not your home organization)" with a dropdown menu for "Affiliation". Below this is a section for "Data Usage (used to determine how products are being used and what to offer in the future):" with a dropdown menu for "Primary Data Usage". The "Secondary Usage (Please select all that apply):" section contains a grid of checkboxes for various categories: Agriculture, Climate Change, Cryosphere, Ecosystem Studies, Education, Emergency Response, Energy, Fire, Forestry, Geology, Human Ecology, Human Health, Insurance, International Land Issues, Land Change, National Security, Natural Resources, Planning, Socioeconomics, Telecommunications, Terrestrial Monitoring, Visualization, and Water. An "Other Use:" section with a text input field is also present. At the bottom of the form are "Cancel", "Reset", and "Continue" buttons. A red asterisk indicates that the "Affiliation" field is required.

Figure 10 - User Affiliation/Data Usage Form

The User Affiliation/Data Usage (Figure 10) form identified the affiliation you are associated with and the primary and secondary uses of the data. The USGS uses this information to determine data usage trends, which provide target specific user groups.

The User Affiliate/Data Usage page requires you to type the following values:

- Affiliation **(Required)** – Indicates the organization you are most affiliated with. Based on the value selected, additional information may be required, such as:
  - Department
  - Agency
- Primary Data Usage **(Required)** – Indicates the primary use of the data.
- Secondary Usage – Indicates other uses of the data.
- Other Use – If none of the secondary values match, enter other uses of the data.

### 3. Address page

Type the address information in the Address page (Figure 11). The address information is used only for contact information. Some products require shipping information to deliver products. Address information is not shared with any commercial or other government agencies. Please refer to the [USGS/DOI Privacy Policy](#) concerning how this information is used.

EarthExplorer - Devmast - Windows Internet Explorer

https://edcns16.cr.usgs.gov/NewEarthExplorer\_devmast/register/addresscontact

File Edit View Favorites Tools Help

USGS science for a changing world

EarthExplorer - Devmast

Home Reset

1. Login 2. User Affiliation 3. Address 4. Confirmation

Steps for entering Address information (We do not share any information you enter here!)

Enter the address where we can contact you.  
Provide Billing and Shipping addresses only if different from your Contact Address.  
Click the "Submit Address Information" button when you are done.

Contact [Customer Services](#) if you are a business partner or if you qualify for special ordering options.

**Contact Information**

\*First Name:

\*Last Name:

Company/Organization:

\*Address 1:

Address 2:

\*Country:

\*City:

State/Province:  Example: SD, South Dakota, sd, south dakota

\*Zip/Postal Code:

\*E-mail:

Alternative E-mail:

\*Telephone:  Example: 6055946885, 605 594 6885, 605-594-6884. (Phone # used only if we have questions about an order)

Fax:

Cancel Reset Continue

\* = Required Field

Accessibility FOIA Privacy Policies and Notices Google Maps API Disclaimer

Done

Trusted sites | Protected Mode: Off

Figure 11 - Address

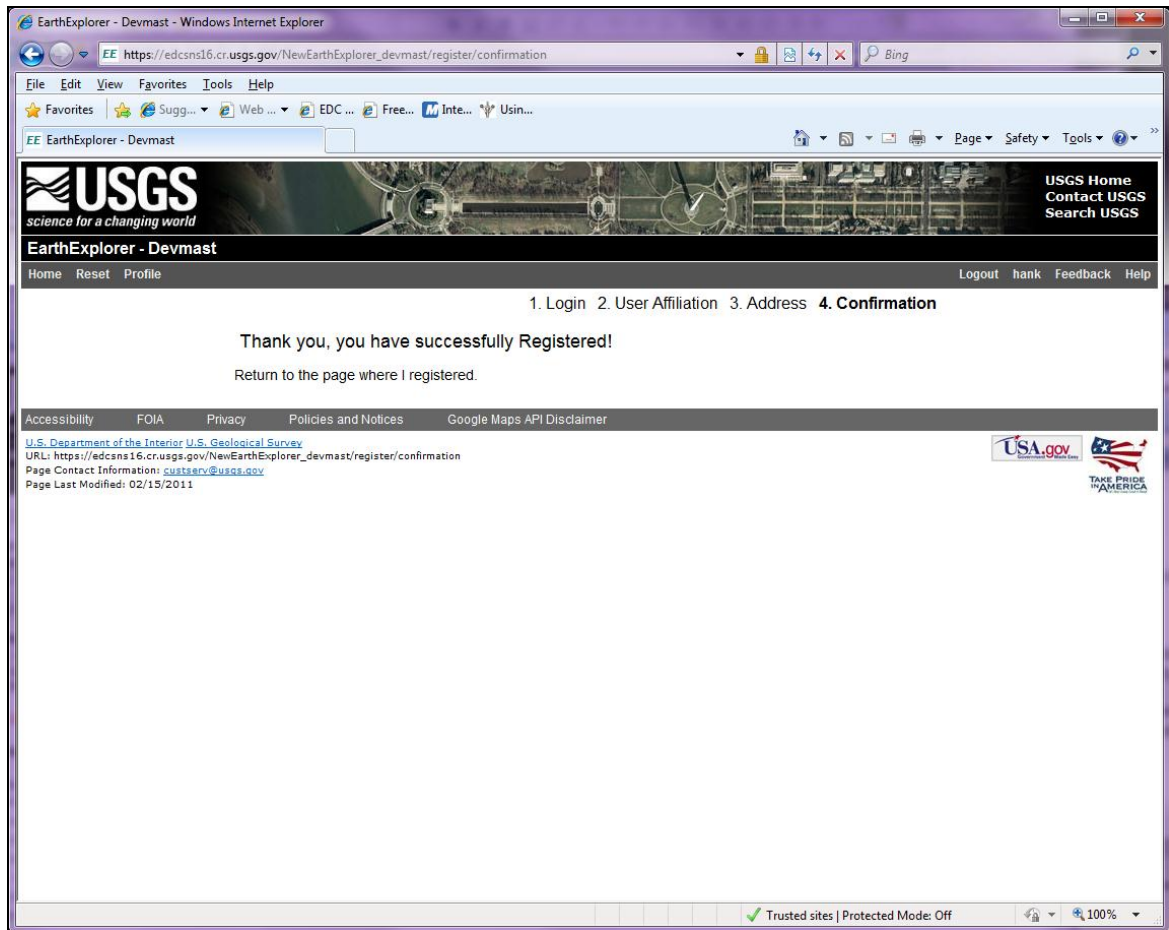
The Address page requires you to type the following values:

- First Name **(Required)** – First name of the user.
- Last Name **(Required)** – Last name of the user.
- Company/Organization – Affiliated company or organization.
- Address 1 **(Required)** – Address line 1.
- Address 2 – Address line 2.
- Country **(Required)** – Country you are from.
- City **(Required)** – City where you reside.
- State/Province **(Required)** – State/province where you reside.

- Zip/Postal Code **(Required)** – Zip code or postal cod.
- E-mail **(Required)** – Email address.
- Alternative E-mail – Additional email address.
- Telephone **(Required)** – Primary telephone number.
- Fax – Fax number.

#### 4. Confirmation

The Confirmation page (Figure 12) displays after successful registration. Click 'Return to the page where I registered' to return to the page you started the registration process.



**Figure 12 - Confirmation Page**

After registering for the first time, you are automatically logged in to EarthExplorer.

#### B. Login

The Login page allows you to log in to EarthExplorer. A registered user can use all of EarthExplorer's features, including saving search criteria, downloading data, and accessing subscription services.



## 1. Login Process

- To log in, select the 'Login' menu item from the EarthExplorer menu (Figure 13). (Note: After registering the first time, you are automatically logged in.)

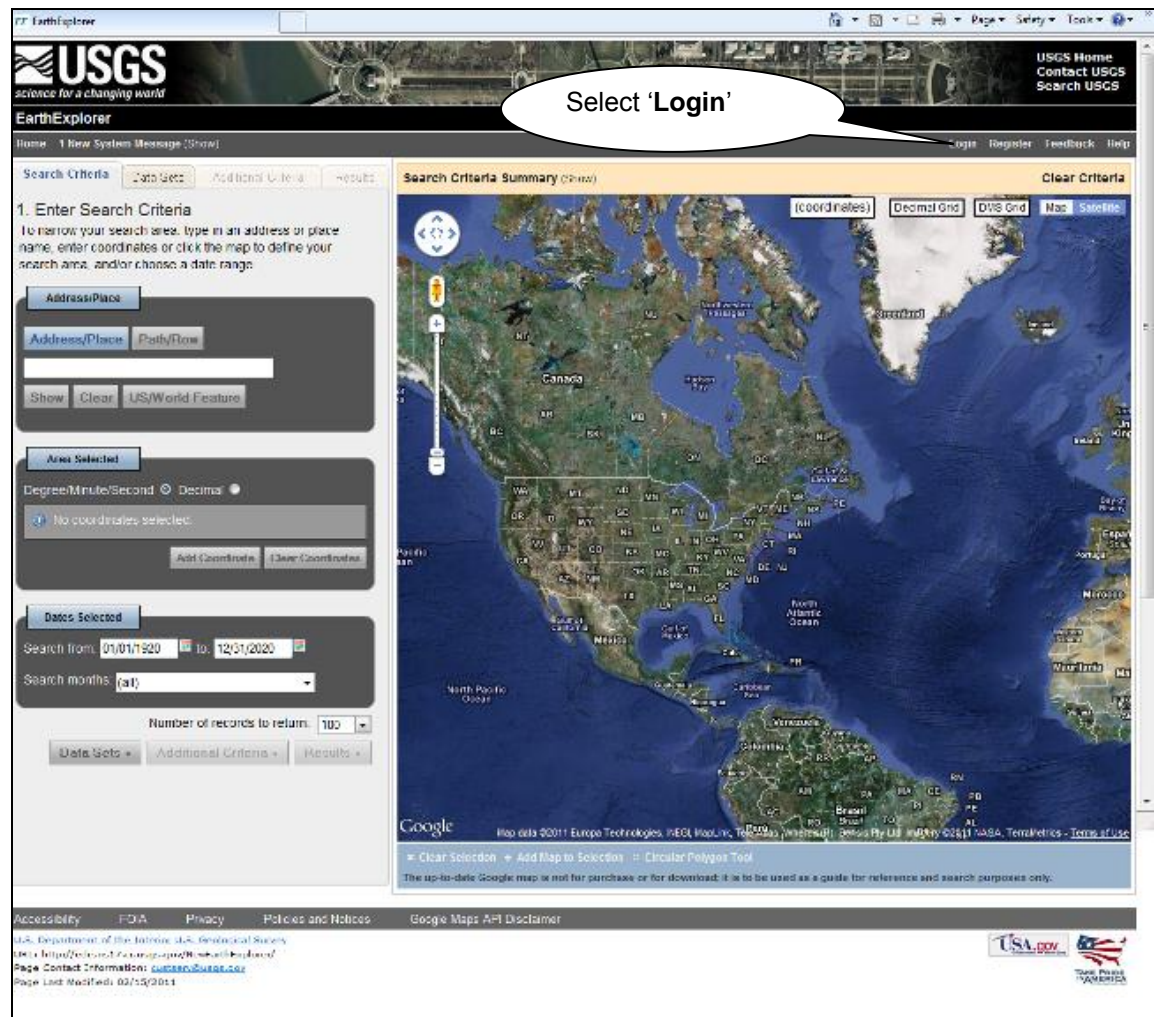


Figure 13 - Login

- Type the username and password and then click the 'Sign In' button (Figure 14).

When you sign in using your user name and password, information in your profile can be used to access a specific USGS site or to place orders for USGS EROS products.

**Sign in using your USGS registered username and password**

Username:

Password:

[Forgot your password?](#)

Figure 14 - Login/Password

- c. Click the [Forgot your password?](#) link to receive directions for updating the password.
- d. Once logged in, additional items appear in the main menu bar:

## 2. Logout Process

To log out of EarthExplorer, click 'Logout' in the EarthExplorer menu.

## C. Profile

The Profile menu allows you to modify your profile information.

### 1. Profile Home

The 'Profile Home' option allows you to modify your profile information (Figure 15). The following are profile options you can modify:

- a. Change Password – View and change a password
- b. Edit Secret Question – View and change a secret question
- c. Contact Information – View and modify contact information
- d. Billing Address – View and modify billing information
- e. Shipping Address – View and modify shipping information
- f. User Affiliation – View and modify your affiliation

The screenshot shows the 'EarthExplorer - Devsys' interface. At the top, there's a navigation bar with 'Home', 'Profile', 'Logout', 'Feedback', and 'Help'. The 'Profile' menu is expanded, showing a list of options. The main content area is divided into several sections: 'Login Information' with fields for 'Username' and 'Password' (masked with asterisks) and a 'Change Password' button; 'Secret Question Information' with a 'Secret Question' field (containing 'What is your school mascot?') and a 'Secret Answer' field (masked with asterisks), with an 'Edit' button; three columns for address information: 'Contact Address Information', 'Billing Address Information', and 'Shipping Address Information', each with fields for 'First Name', 'Last Name', 'Company', 'Address 1', 'Address 2', 'City', 'State/Province', 'Postal Code', 'Country', 'Email', 'Alt. Email', 'Telephone', and 'Fax', each with an 'Edit' button; and 'User Affiliation / Data Usage Information' with fields for 'Affiliation Name' (US Federal Government - Executive Branch), 'Department Name' (Department of the Interior (DOI)), 'Agency Name' (Geological Survey (USGS)), 'Primary Usage', and 'Secondary Usage' (None selected), with an 'Edit' button.

Figure 15 - Edit User Profile

Click the 'Edit' button to modify the desired information.

## 2. Interface Options

The 'Interface Options' page allows you to modify information associated with the overall system interface. The following options modify the overall EarthExplorer interface:

- a. Interface options (Figure 16) – Modifies tool tips, the number of metadata results per page, and other specific system options. For some options, only the Application Administrator can modify.

EarthExplorer - Devsys

Home Profile Logout

**Profile Menu**

- Profile Home
- Password
- Secret Question
- Contact Address
- Billing Address
- Shipping Address
- User Affiliation
- **Interface Options**
- Data Sets
- Sort Order
- Metadata View
- Saved Criteria
- Standing Request
- Order Tracking

**Update User Interface Options**

**Profile Information**

Query Record Limit: 1000

Number of Logins: 29

Last Login Date: 2011-07-05

Area of Interest:

Show Tooltips: ☐

Last Authorization Date:

Results Per Page: 50

No Charge LTA Order: ☐

Landsat Order Limit:

**Site Access**

Allow Searching: ☒

Allow Saved Criteria: ☒

Allow Saved Results: ☒

Allow Ordering: ☒

Allow Order Tracking: ☒

Allow Standing Requests: ☒

Allow Profile Editing: ☒

Allow Search Count: ☒

Use Projects: ☒

Cancel Reset Update

Figure 16 - Interface Options

- b. Data Sets page (Figure 17) – Modifies the list of datasets shown in the Data Sets Component.

EarthExplorer - Devsys

Home Profile Logout

**Profile Menu**

- Profile Home
- Password
- Secret Question
- Contact Address
- Billing Address
- Shipping Address
- User Affiliation
- **Interface Options**
- **Data Sets**
- Sort Order
- Metadata View
- Saved Criteria
- Standing Request
- Order Tracking

**Data Set List**

Please check all data sets you wish to use

- ☒ Aerial Photo Mosaics
- ☒ Aerial Photo Single Frames
- ☒ Aircraft Scanners
- ☒ Antarctic Flight Line Maps
- ☒ ASAS
- ☒ DOQ
- ☒ High Resolution Orthoimagery
- ☒ NAPP
- ☒ NHAP
- ☒ SLAR
- ☒ Space Acquired Photography
- ☒ AVHRR Composites
- ☒ AVHRR Orb Seg
- ☒ Calibration Sites
- ☒ Dunhuang, China
- ☒ Dome C, Antarctica
- ☒ Frenchman Flat, USA
- ☒ Ivanpah Playa, USA
- ☒ La Crau, France
- ☒ Negev, Southern Israel
- ☒ Railroad Valley Playa, USA
- ☒ Tuz Golu, Turkey
- ☒ Algeria 3
- ☒ Algeria 5
- ☒ Libya 1
- ☒ Libya 4
- ☒ Mauritania 1
- ☒ Mauritania 2
- ☒ IKONOS-2
- ☒ IKONOS-2 Viewable
- ☒ IRS-P6-AWIFS Viewable
- ☒ QUICKBIRD-2 Viewable
- ☒ WORLDVIEW-1 Viewable
- ☒ Declass 2 (2002)

Figure 17 - Data Set List

c. Sort Order page (Figure 18) – Modifies the sort order for each dataset.

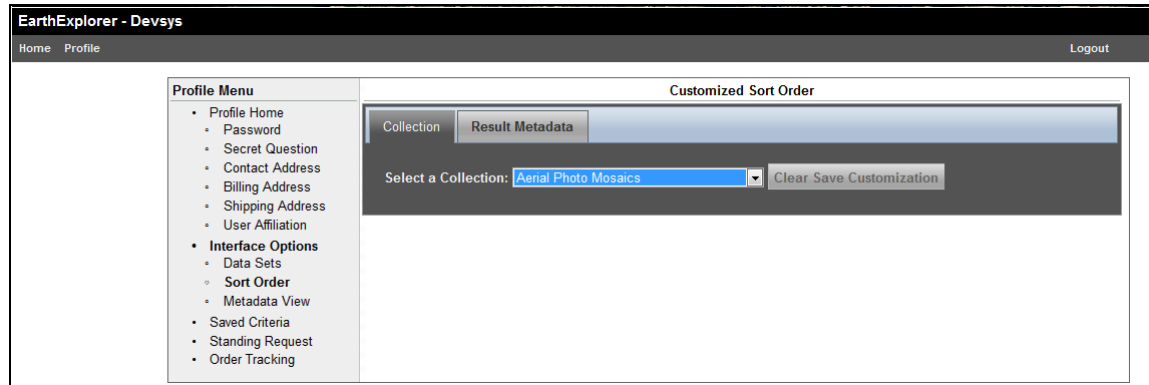


Figure 18 - Sort Order

d. Metadata View page (Figure 19) – Modifies the detailed metadata view for each dataset.

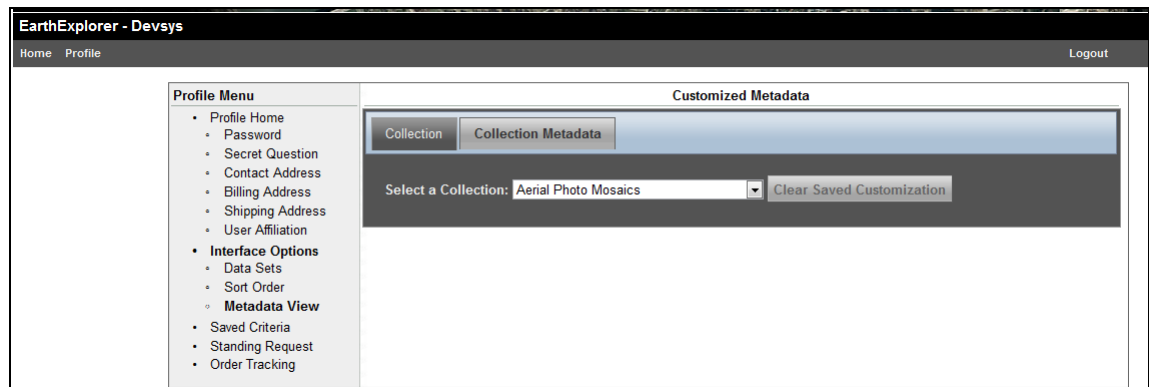


Figure 19 - Metadata View

### 3. Saved Criteria




The 'Saved Criteria' option (Figure 20) – Modifies the saved criteria options from previous searches.



Figure 20 - Saved Criteria

In Figure 20, the search criterion was saved with the name 'Search\_Site\_1'. Any information can be entered when saving the search criteria.



- The star  icon saves the search criteria to your favorites list
- The load criteria icon  loads the search criteria automatically to EarthExplorer
- The delete  icon removes the search criteria from the saved criteria

#### 4. Standing Request

Click the 'Standing Request' (Figure 21) to view a list of entered standing requests.

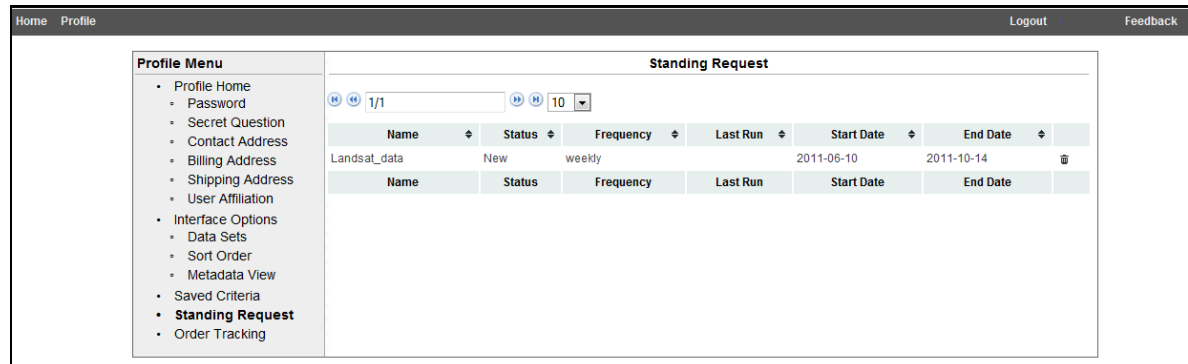


Figure 21 - Standing Request

The Standing Request function notifies you via email when a new acquisition matches the search criteria for the requested dataset. You can then review metadata and browse for the returned scenes. See Section IV, D, 3, Standing Request for more details on the Standing Request function.

#### 5. Order Tracking

Click the 'Order Tracking' (Figure 22) option to display the list of orders you placed.

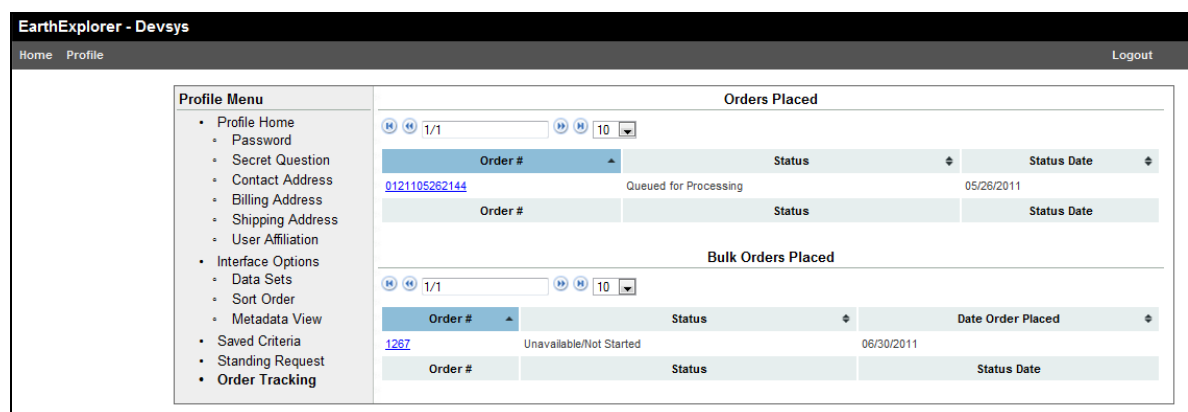


Figure 22 - Order Tracking

Click the order number to show the order details, the products ordered, and the current status of each item ordered.

## IV. Perform a Search

EarthExplorer allows you to search, download, and order data held in USGS archives through a number of query options. EarthExplorer uses tabs in the application to move through each portion of the search process. The EarthExplorer search process is divided into four main areas (Figure 23):

- Search Criteria Tab – Provides the interface for entering various search options.
- Data Sets Tab – Provides the interface for selecting the datasets you are interested in searching.
- Additional Criteria Tab – Provides an interface for entering additional search criteria specific to the selected datasets.
- Results Tab – Provides the interface for displaying a textual and graphical view of the query results.



Figure 23 - EarthExplorer Search Tabs

### A. Search Criteria Tab

The Search Criteria tab provides a location to enter search criteria for an area of interest. You have the option to either type the location criteria via the textual information component or with the Google Map interface. The search criteria options include:

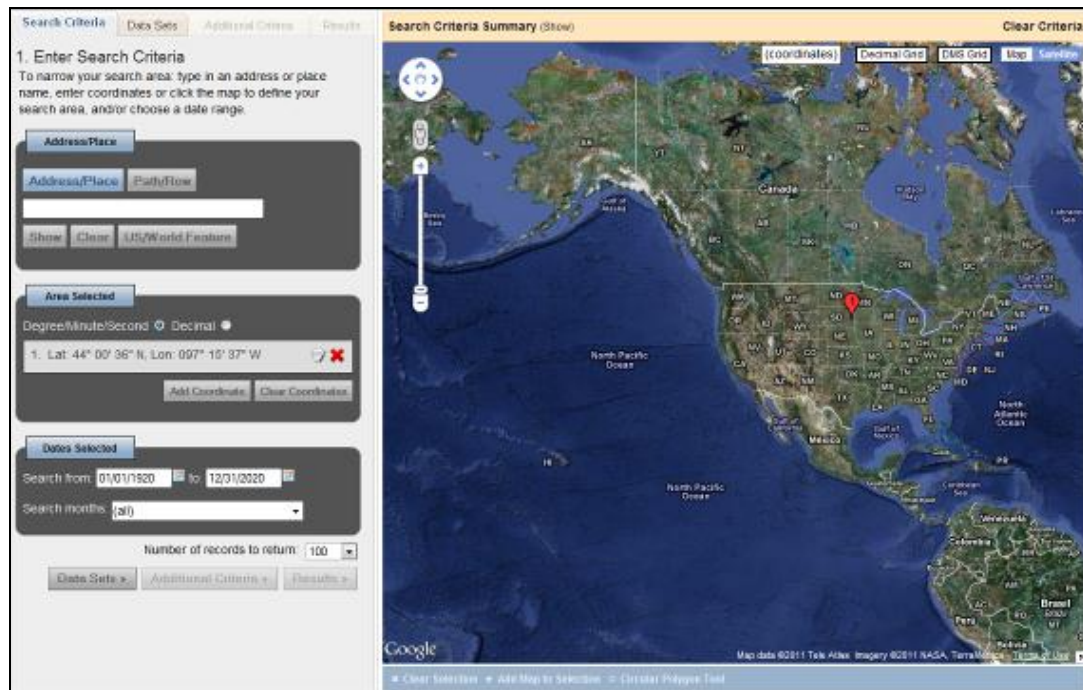
- Google Map Interface – Enter the area of interest through the Google Map interface
- Address/Place – Enter an address or place name
- Area Selected – Enter coordinates to define an area of interest. The area selected is updated when you select an area on the map or when you enter an address or place name
- Dates Selected – Enter a date or date range
- Number of records to return – Modify the number of scenes returned from a search.

#### 1. Enter Area of Interest Search using Google Map Interface

Using the Google Map interface, enter the geospatial area of interest using the mouse or other pointing device.

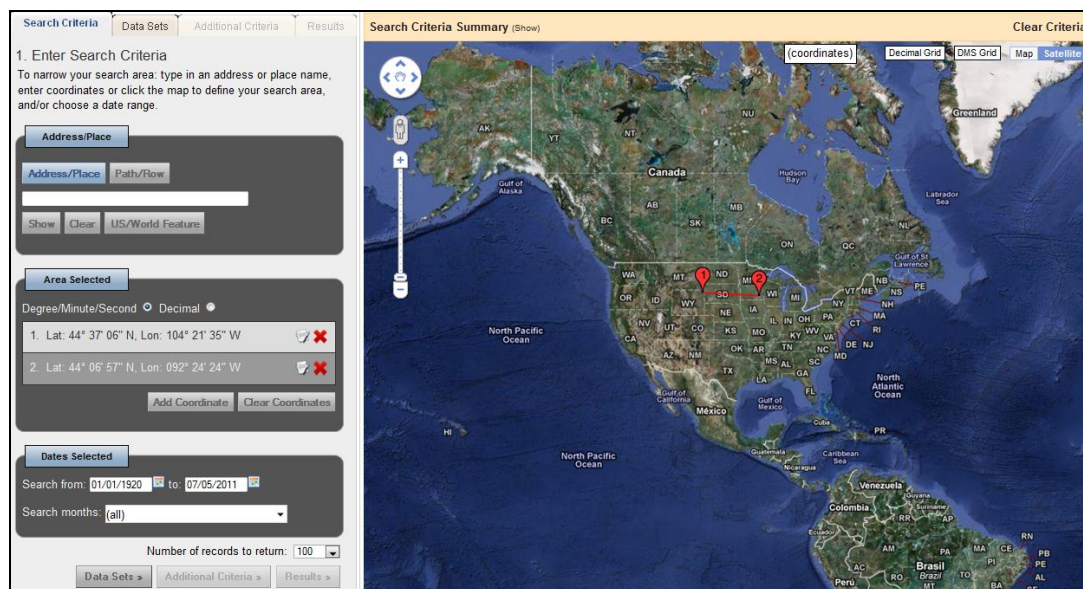
Options for entering location criteria include:

- a. Define a single point search (Figure 24) – Click an area on the map once using the mouse to define a single point search. The latitude and longitude of the point selection displays in the 'Area Selected' box.



**Figure 24 - Point Search**

- b. Define a line search (Figure 25) – To perform a line search, select two points on the map to define a line segment. The latitude and longitude of the two points selected display in the 'Area Selected' box.



**Figure 25 - Line Search**

- c. Define a rectangle search (Figure 26) – Press the Shift key after starting the selection, and continue to hold the Shift key until the correct rectangle or square is defined. This action defines the constraints of the rectangle / square. If you press the Shift key before making the selection, the resulting selection is added to the existing selection. The latitude and longitude of the four points selected display in the 'Area Selected' box. To modify the rectangle, click one of the numbered points on the map and drag the point to a new location.



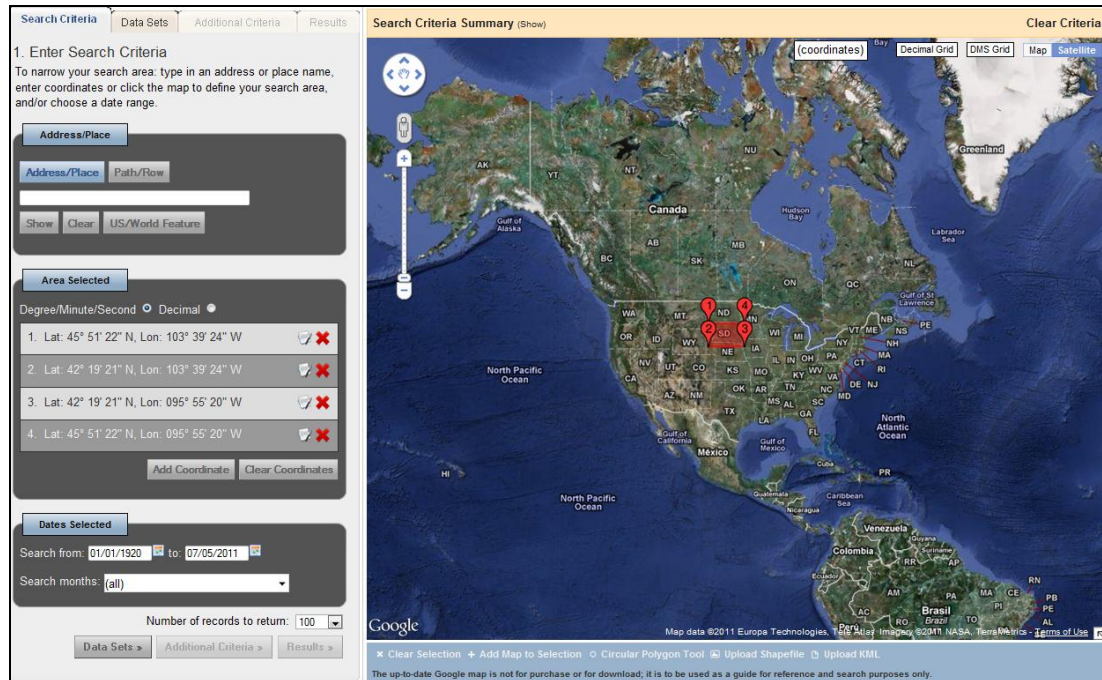


Figure 26 - Rectangle Search

- d. Define a polygon – Click multiple times to define an area (Figure 27). As each point of the polygon is selected, the latitude and longitude of the defined polygon displays in the 'Area Selected' box. To modify the rectangle, click one of the numbered points on the map and drag the point to a new location.

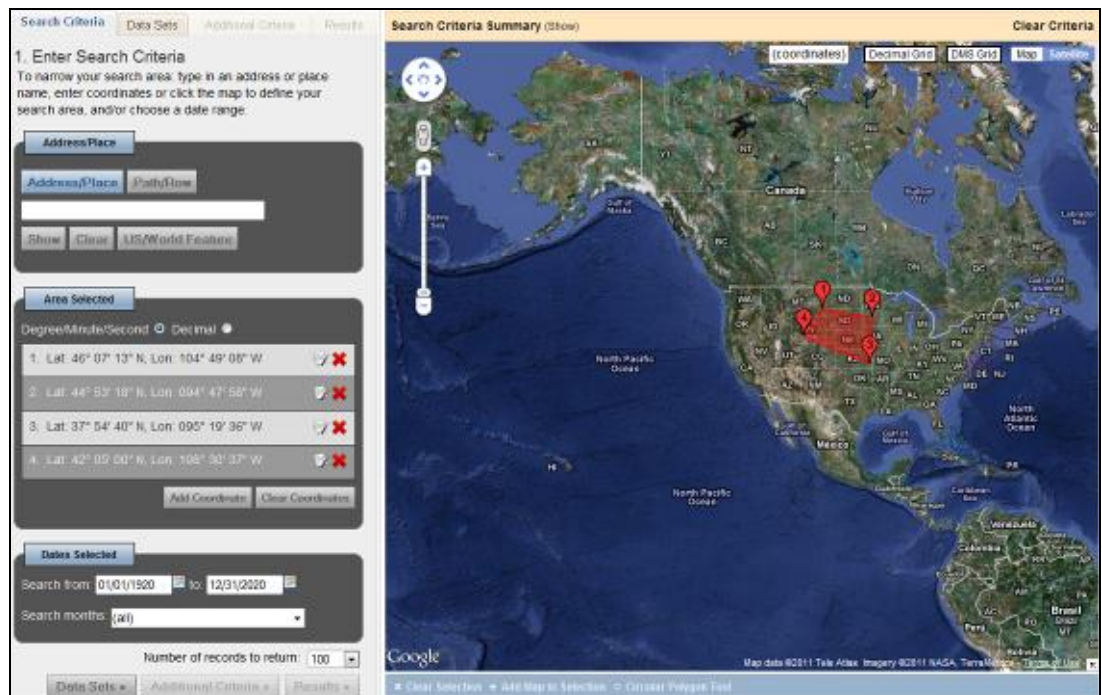


Figure 27 - Polygon Search

- e. Define a circle – Click the ‘Circular Polygon Tool’ at the bottom of the Google Map interface (Figure 28). To define a circle, click two points on the map (Figure 29). To modify the circle radius, click and drag one of the points to a new location. The coordinates of the points defining the circle display in the ‘Area Selected’ box. Click “Point Polygon Tool” to turn off the Circular Polygon tool.

✕ Clear Selection + Add Map to Selection ➤ Circular Polygon Tool

Figure 28 - Circular Polygon Tool

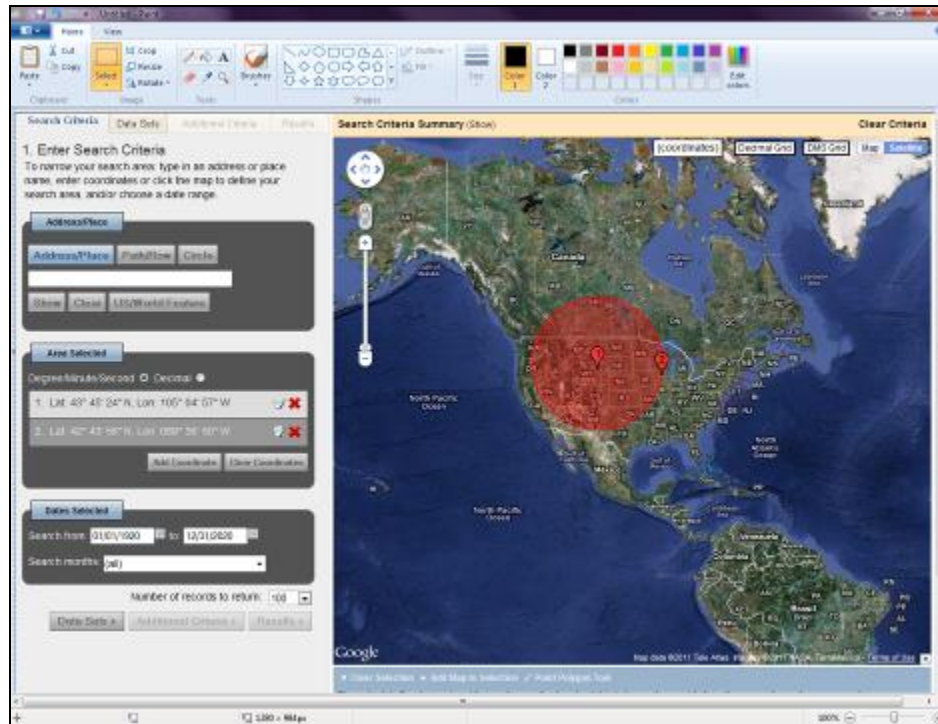


Figure 29 - Example circle area of interest

- f. Clear Selection (Figure 30) – Click the ‘Clear Selection’ button to clear the search criteria from the map.

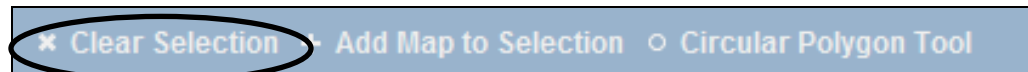


Figure 30 - Clear Selection

- g. Add Map to Selection (Figure 31) – Click the ‘Add Map to Selection’ button to add the current map view as the area of interest.



Figure 31 - Add Map to Selection

The color of the screen changes, indicating the area displayed on the map as an area of interest (Figure 32). The latitude and longitude of the map extent display in the ‘Area Selected’ box.

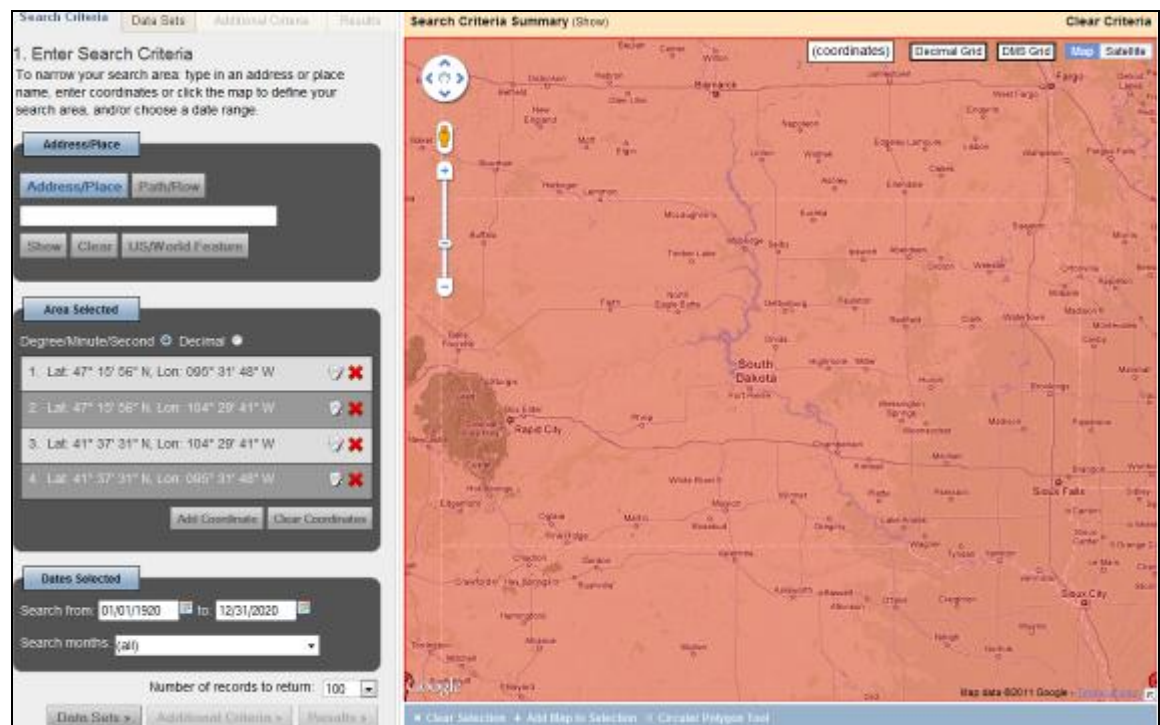


Figure 32 - Add Map to Selection Example

The coordinates of the map extent display in the ‘Area Selected’ box.

## 2. Enter Search using Address/Place

The Address/Place subcomponent allows you to enter a specific address, latitude, longitude, United States or World feature, or Landsat Worldwide Reference System (WRS) Path/Row.

- a. Address – Enter a specific address; for example, in the Address: field, type 47914 252nd St, Sioux Falls, SD (Figure 33). Press Enter or click ‘Show’ to



display the location on the map and the coordinate in the 'Area Selected' subcomponent (Figure 34).

### 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, and/or choose a date range.

Address/Place

Address/Place Path/Row

47914 252nd St, Sioux Falls, SD

Show Clear US/World Feature

Figure 33 - Enter Address

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, and/or choose a date range.

Address/Place

Address/Place Path/Row

47914 252nd St, Sioux Falls, SD

Show Clear US/World Feature

Area Selected

Degree/Minute/Second Decimal

1. Lat: 43° 43' 57" N, Lon: 96° 37' 42" W

Add Coordinates Clear Coordinates

Dates Selected

Search from: 01/01/1920 to: 12/31/2000


Search months: (all)

Number of records to return: 100

Data Sets Additional Criteria Defaults

Search Criteria Summary (Show) Clear Criteria

(coordinates) Decimal Grid DMS Grid Map Satellite



Google

Map data ©2011 Tele Atlas; Imagery ©2011 NASA; Terrain data ©2011

Figure 34 - Enter Address Location

Page: 26

- b. Latitude/Longitude – Enter a specific latitude/longitude; for example, type 43 43' 57" N, 096 37' 42" W (Figure 35). Press Enter or click 'Show' to display the location on the map and the coordinates in the 'Area Selected' subcomponent (Figure 36).

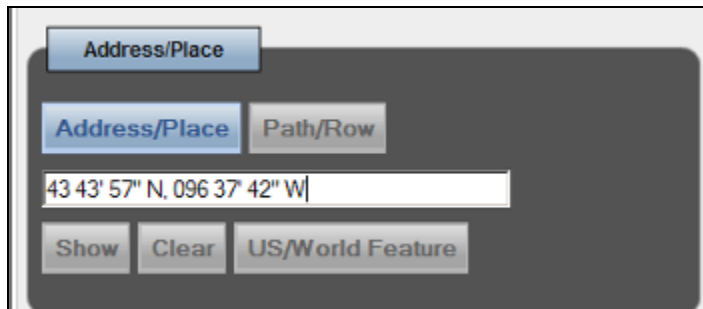


Figure 35 - Enter Latitude/Longitude

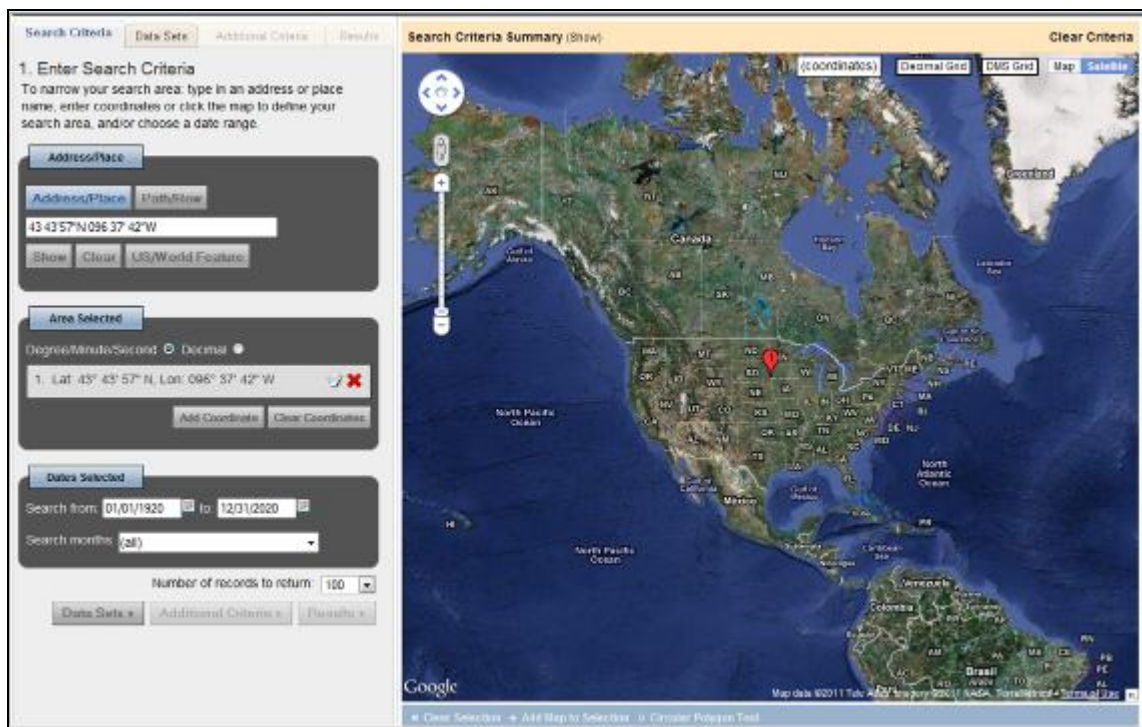


Figure 36 - Enter Latitude/Longitude Location



- c. Place Name – Enter a place name. For example, type Mount Rushmore (Figure 37) and press Enter or click ‘Show’ to display the location on the map and the coordinate in ‘Area Selected’ (Figure 38).

Address/Place

Address/Place Path/Row

Mount Rushmore

Show Clear US/World Feature

**Figure 37 - Place Name**

If you are unsure of a specific location, type a placename and press Enter (or click ‘Show’) to display a list of possible options. For example, type EROS and then click ‘Show’ to display a list of possible places that match EROS.

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, and/or choose a date range.

Address/Place

Address/Place Path/Row

EROS

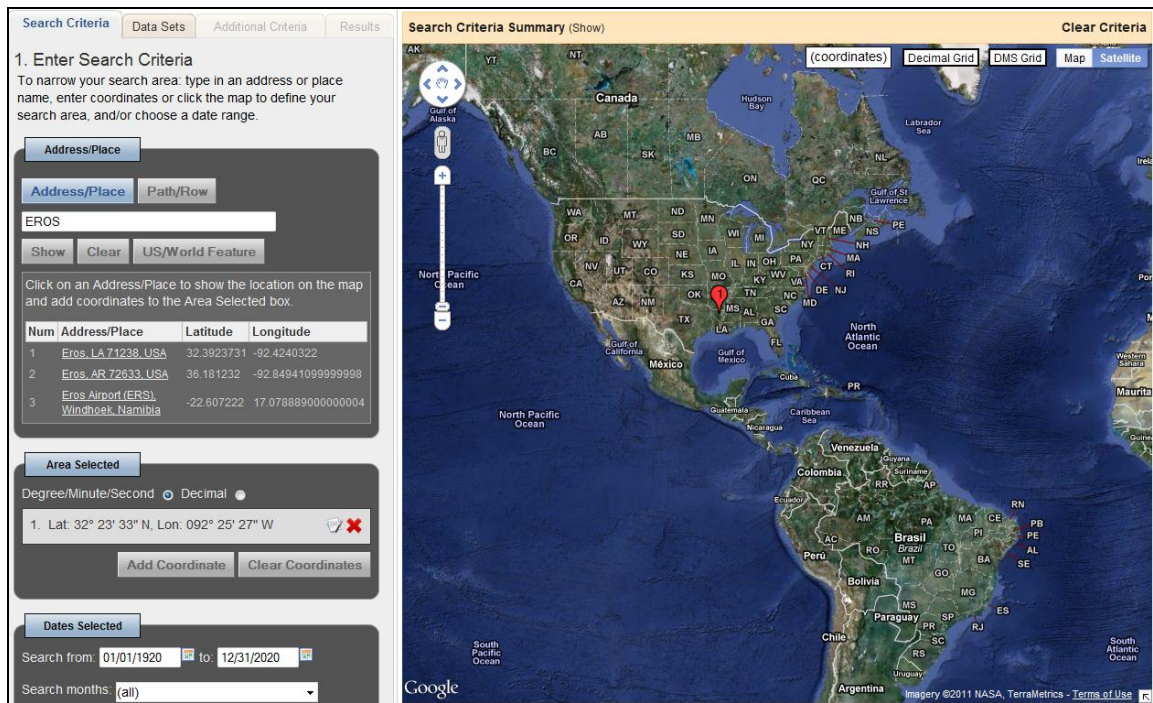
Show Clear US/World Feature

Click on an Address/Place to show the location on the map and add coordinates to the Area Selected box.

Num	Address/Place	Latitude	Longitude
1	<a href="#">Eros, LA 71238, USA</a>	32.3923731	-92.4240322
2	<a href="#">Eros, AR 72833, USA</a>	36.181232	-92.84941100000003
3	<a href="#">Eros Airport (ERS), Windhoek, Namibia</a>	-22.607222	17.078889000000003
4	<a href="#">Eros, Guanajuato, Mexico</a>	21.1488856	-101.73266849999999
5	<a href="#">Eros, Hererobaa, Namibia</a>	-22.1315018	14.290271599999992
6	<a href="#">Eros, La Paloma, Uruguay</a>	-34.6665129	-54.1533541
7	<a href="#">Eros, Saltillo, Coahuila, Mexico</a>	25.4608401	-101.01379310000003

**Figure 38 - Place Name - Multiple Options**

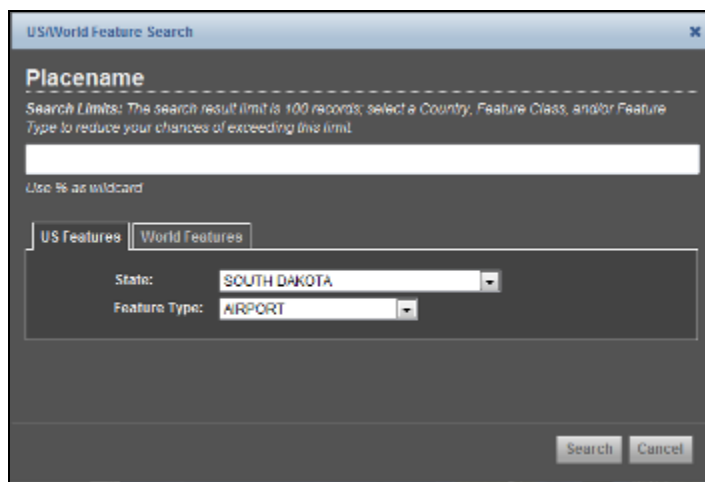
Click an item in the Address/Place list to show the location on the map (Figure 39).



**Figure 39 - Place Name - Multiple Option - Selected Place**

- d. US/World Feature – Select either a United States or World feature.

Click the 'US/World Feature' button to display the US/World Feature Search dialog box. Type a State/Country, Feature Class, or Feature type (Figure 40).



**Figure 40 - US Feature Place name Search**

For example, on the 'US Features' tab, select 'South Dakota' from the State dropdown, select 'Airport' from the Feature Type dropdown, and click 'Search' to display a list of all airports in South Dakota (Figure 41).

US/World Feature Search

US Features | World Features

State: SOUTH DAKOTA

Feature Type: AIRPORT

**Results**

Placename	Type	Region	Latitude	Longitude
SKY RANCH FOR BOYS AIRPORT	AIRPORT	SOUTH DAKOTA	45.502441	-103.993707
BELLE FOURCHE MUNICIPAL AIRPORT	AIRPORT	SOUTH DAKOTA	44.733224	-103.859237
MITCHELL'S STRIP AIRPORT	AIRPORT	SOUTH DAKOTA	44.467582	-103.767379
BRUCH AIRFIELD	AIRPORT	SOUTH DAKOTA	44.494903	-103.396241

Search Cancel

**Figure 41 - US Feature Place name Search Results**

Click the desired feature from the results list to close the dialog and display the feature location on the map (Figure 42).

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, and/or choose a date range.

**Address/Place**  
Address/Place: Path/Row  
Show Clear US/World Features

**Area Selected**  
Degree/Minute/Second | Decimal  
1. Lat: 44° 44' 00" N, Lon: 103° 51' 30" W  
Add Coordinate Clear Coordinates

**Date Selected**  
Search from: 01/01/1990 to: 12/31/2020  
Search months: (all)  
Number of records to return: 100  
Data Sets Additional Criteria Results

**Search Criteria Summary (Show)** Clear Criteria

(coordinates) Decimal Grid DMS Grid Map Satellite

Google

Map data ©2011 Terra USA, Imagery ©2011 Google, Streets ©2011 Google

**Figure 42 - US Feature Place name Selected**

- e. Path/Row – Select the Path/Row option to enter WRS1 or WRS2 path row criteria for the search.

Select the Path/Row button to display the Path/Row WRS criteria dialog box (Figure 43). Select either WRS1 or WRS2 and then type the Path and Row for the desired area. For example, select 'WRS2' and type Path: 31 and Row: 29 to identify the center point for WRS2, Path 31, and Row 29. Click 'Show' to identify the path/row location on the map (Figure 44).

**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, and/or choose a date range.

**Address/Place**

Address/Place | **Path/Row**

Type: WRS2 | Path: 31 | Row: 29

Show | Clear

**Area Selected**

Degree/Minute/Second | **Decimal**

No coordinates selected.

Add Coordinate | Clear Coordinates

**Dates Selected**

Search from: 01/01/1920 to: 12/31/2020

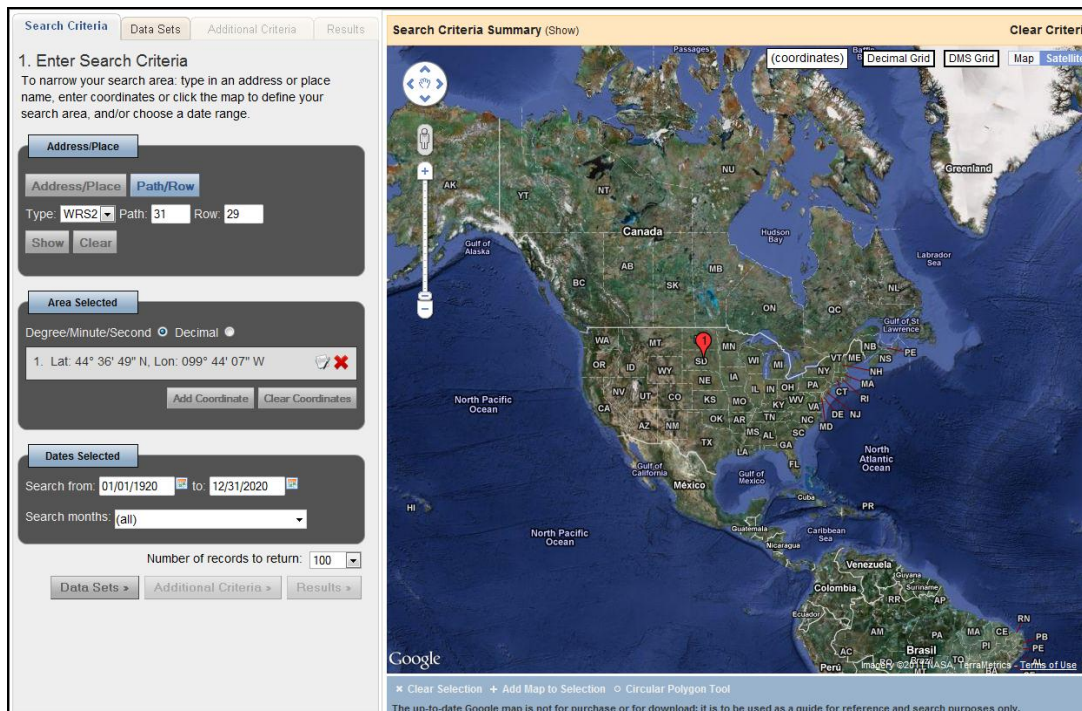
Search months: (all)

Number of records to return: 100

Data Sets > | Additional Criteria > | Results >

Figure 43 - Path/Row



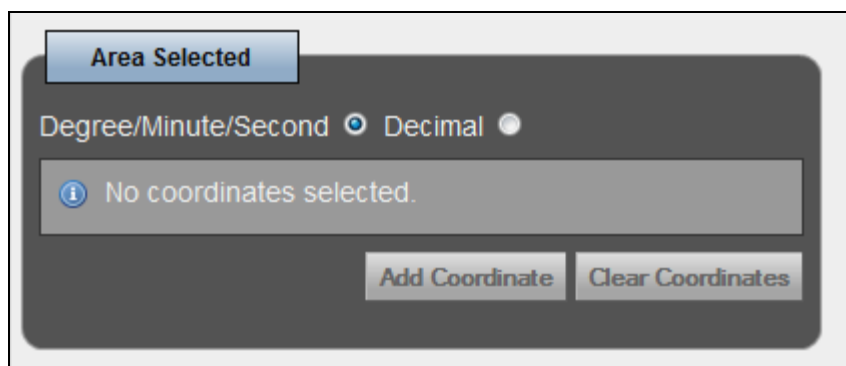


**Figure 44 - Path/Row Location**

### 3. Enter Search manually using the Area Selected

To add or update the Area Selected coordinates, enter the location information using the Google Map interface or the Address/Place interface. A second way to define an area of interest is to manually type the latitude/longitude coordinates within the 'Area Selected'.

To enter latitude/longitude coordinates manually, select the 'Degree/Minute/Second' or 'Decimal' option. This method displays how the latitude/longitude information is entered. Click 'Add Coordinate' (Figure 45).



**Figure 45 - Add Coordinate**

Click 'Add Coordinate' to display the 'Add new Coordinate' dialog box. As shown in Figure 46, enter degrees, minutes, and seconds of a point in the dialog box. After clicking Add, the dialog disappears, the point displays on the map, and the coordinate is added to Area Selected. Use this method to enter multiple points (Figure 47).

Add New Coordinate

Latitude:

North

Longitude:

West

Add
Cancel

Figure 46 - Add New Coordinate

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, and/or choose a date range.

Address/Place

Address/Place

Path/Row

Type: 

Wider

 Path: 

31

 Row: 

29

Show Clear

Area Selected

Degree/Minute/Second
Decimal

1. Lat: 43° 57' 00" N, Lon: 006° 37' 00" W

Add Coordinate Close Coordinates

Dates Selected

Search from: 

01/01/1920

 to: 

12/31/2020

Search months: 

(all)

Number of records to return: 

100

Data Sets Additional Criteria Results

Search Criteria Summary (Show)

(coordinates)

Universal Grid

UIMS Grid

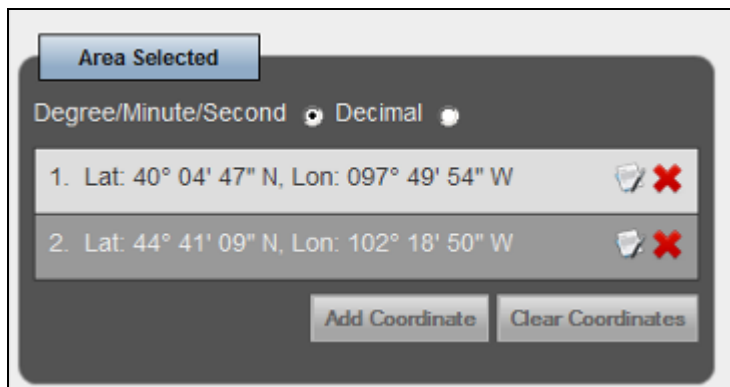
Map

Scatter Plot

Clear Selection Add Map to Selection Clear All Records

Figure 47 - Add New Coordinate Location

Click  to delete a coordinate or click  to edit a coordinate (Figure 48).



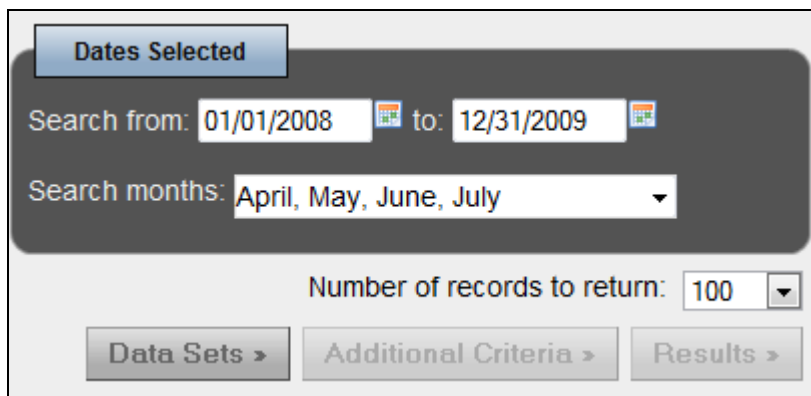
The 'Area Selected' dialog box has a title bar 'Area Selected'. Below it are two radio buttons: 'Degree/Minute/Second' (selected) and 'Decimal'. There are two input fields for coordinates. The first field contains '1. Lat: 40° 04' 47" N, Lon: 097° 49' 54" W' and the second contains '2. Lat: 44° 41' 09" N, Lon: 102° 18' 50" W'. Each field has a pencil icon for editing and a red X icon for deleting. At the bottom are two buttons: 'Add Coordinate' and 'Clear Coordinates'.

**Figure 48 - Delete or Edit Coordinates**

#### **4. Dates Selected**

The 'Dates Selected' option provides a method for entering a beginning and ending date range to refine the search criteria (Figure 49). You are not required to modify the default date range; however, a date range is highly recommended to reduce the number of search results returned from a search. 'Search Months' allows you to specify which months to search within the date range specified.

For example, Figure 49 shows a search range of 01/01/2008 to 12/31/2009, with selected months of April, May, June, and July.



The 'Dates Selected' dialog box has a title bar 'Dates Selected'. It contains two date input fields: 'Search from: 01/01/2008' and 'to: 12/31/2009', each with a calendar icon. Below these is a 'Search months:' dropdown menu showing 'April, May, June, July'. At the bottom right is a 'Number of records to return:' dropdown menu set to '100'. At the bottom are three buttons: 'Data Sets >', 'Additional Criteria >', and 'Results >'.

**Figure 49 - Dates Selected**

#### **5. Number of records to return**

The EarthExplorer interface allows you to select the number of records to return from a search. Use the 'Number of records to return' dropdown to select the maximum number of scenes returned (Figure 50).

The image shows a web interface for search criteria. At the top, there are four tabs: 'Search Criteria' (active), 'Data Sets', 'Additional Criteria', and 'Results'. Below the tabs, the section is titled '1. Enter Search Criteria' with a descriptive paragraph: 'To narrow your search area: type in an address or place name, enter coordinates or click the map to define your search area, and/or choose a date range.'

There are three main sections for input:

- Address/Place:** Contains sub-tabs 'Address/Place' and 'Path/Row'. The 'Path/Row' sub-tab is active. It has fields for 'Type' (set to 'WRS2'), 'Path' (set to '31'), and 'Row' (set to '29'). There are 'Show' and 'Clear' buttons.
- Area Selected:** Has radio buttons for 'Degree/Minute/Second' and 'Decimal' (selected). Below is a message box that says 'No coordinates selected.' and buttons for 'Add Coordinate' and 'Clear Coordinates'.
- Dates Selected:** Has date pickers for 'Search from' (01/01/1920) and 'to' (12/31/2020). Below is a dropdown for 'Search months' set to '(all)'.

At the bottom of the form, there is a field 'Number of records to return' with a value of '100' and a dropdown arrow. This field is circled in the image. Below this field are three buttons: 'Data Sets >', 'Additional Criteria >', and 'Results >'.

**Figure 50 - Number of records to return**

Once you enter the search criteria, click the 'Data Sets' tab at the top or bottom of the 'Enter Search Criteria' form.



## B. Select Data Set(s):

The 'Data Sets' tab selects which dataset(s) to search (Figure 51).



Figure 51 - EarthExplorer Search Tabs - Data Sets

The 'Data Set' menu (Figure 52) categorizes datasets into similar data collections. EarthExplorer uses a dynamic tree menu with expandable/collapsible links for each major data category. Click the plus sign (+) next to the category name to expand the list of datasets for that collection. Click the minus sign (-) next to the category name to collapse the list.

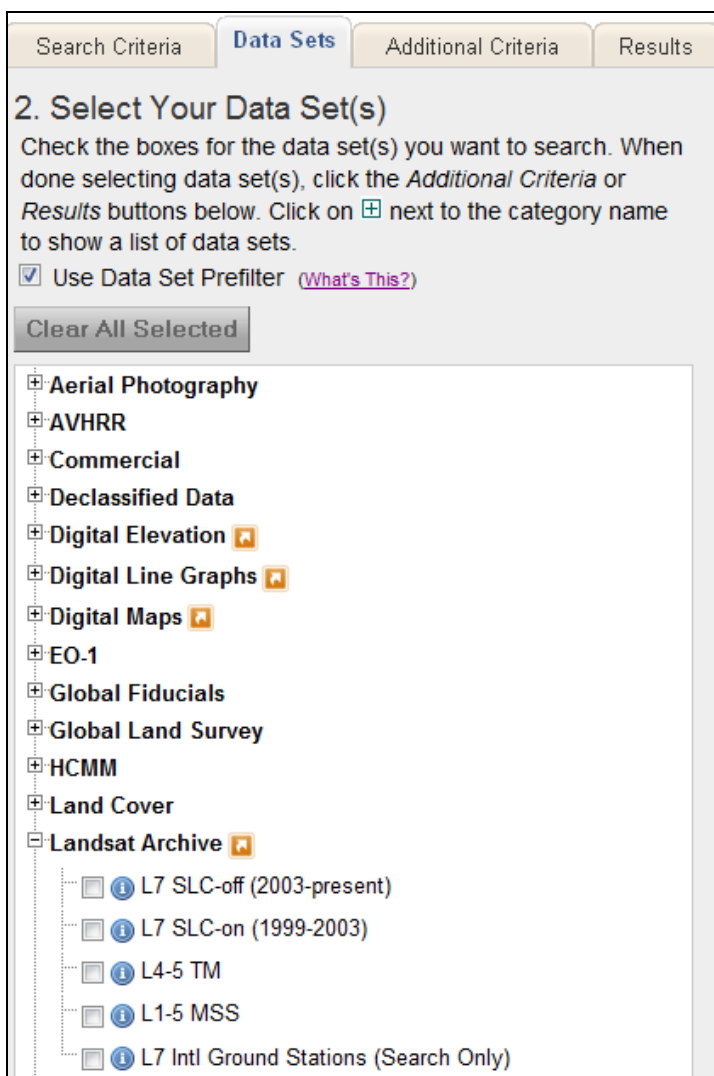
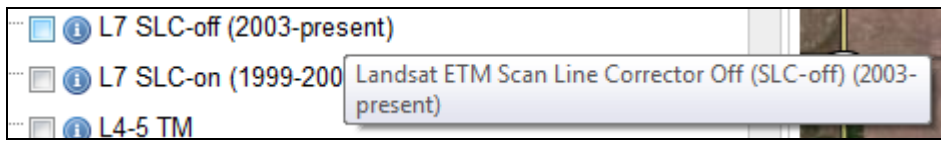


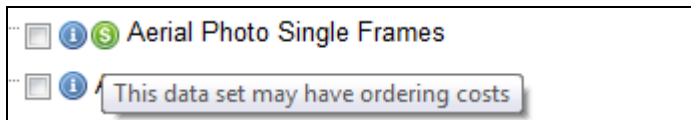
Figure 52 - Data Set Selection Expandable View

Information about a collection is identified with the 'Related Links' icon (🔗). Information about each dataset is identified with the Information icon (i). Moving the mouse pointer over a dataset displays a longer description of the dataset (Figure 53).



**Figure 53 - Dataset mouse over example**

The majority of the datasets are available for download from the USGS at no cost. A few datasets have a minimal fee to cover the cost of increasing the priority in production. These datasets are identified with a dollar sign icon (\$) (Figure 54).



**Figure 54 - Dataset with cost of reproduction icon**

**Data Set Prefilter** – Select the Data Set Prefilter option to filter any datasets that do not match a user's search criteria. Apply the prefilter to narrow the list of datasets to include only those based on the area of interest, date range, and months selected on the Search Criteria tab. The prefilter does not guarantee results for the defined search criteria.

Click the 'Clear All Selected'  button to unselect all datasets that were selected.

After selecting a dataset, click the 'Additional Criteria' tab to enter additional criteria, or click the 'Results' tab to execute the search and view the results for the criteria entered.

### C. Enter Additional Criteria:

The 'Additional Criteria' tab is an optional input area that allows the entry of additional search criteria specific to the dataset(s) selected. Click the 'Additional Criteria' tab to display the additional criteria for the first dataset selected (Figure 55).

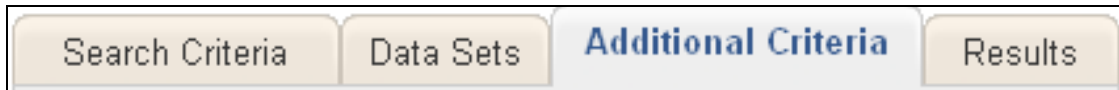


Figure 55 - EarthExplorer Additional Criteria Tab

To narrow the results of a search, each dataset in EarthExplorer has additional specific criteria that can be entered (Figure 56).

Search Criteria Data Sets **Additional Criteria** Results

**3. Additional Criteria (Optional)**  
If you have more than one data set selected, use the dropdown to select the additional criteria for each data set.

**Criteria Forms**  
Data Set:  
L7 SLC-OFF (2003-present) Level 0

**L7 SLC-OFF (2003-present) Level 0**  
All Landsat 7 ETM+ scenes acquired after July 14, 2003 were collected in SLC-off mode.  
Landsat 7 ETM+ scenes acquired from 5/31/03 - 7/14/03 and 9/3/03 - 9/17/03 are not available.

**WRS Path**  
to

**WRS Row**  
to

**Cloud Cover**  
All  
Less than 20%  
Less than 10%  
Less than 30%  
Less than 40%

**Data Category**  
All  
Normal Data  
Partial Aperture Calibration Data

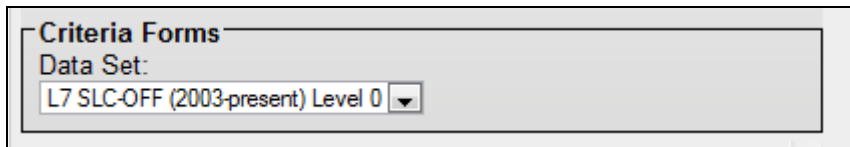
**Day Night**  
All  
Day  
Both  
Night

**Landsat Scene Identifier**

Reset All Criteria Results >

Figure 56 - Example Additional Criteria form

Select the dataset from the dropdown (if you only select one dataset, only one dataset appears in the dropdown) (Figure 57).

The image shows a web interface element titled "Criteria Forms" in a blue header. Below the header is a light gray rectangular box. Inside this box, the text "Data Set:" is followed by a dropdown menu. The dropdown menu is currently open, showing the selected option "L7 SLC-OFF (2003-present) Level 0" with a small downward-pointing arrow on the right side of the text.

**Figure 57 - Data Set Criteria forms**

Each criteria page is different and is based on the unique specific search criteria defined for that dataset. In the following example, the specific search criteria include:

- WRS Path
- WRS Row
- Cloud Cover
- Data Category
- Day Night
- Landsat Scene Identifier

Click the title of a search criteria attribute to provide information about the particular search item.

Search Criteria
Data Sets
**Additional Criteria**
Results

### 3. Additional Criteria (Optional)

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


**Criteria Forms**  
Data Set:  
L7 SLC-OFF (2003-present) Level 0

**L7 SLC-OFF (2003-present) Level 0**  
All Landsat 7 ETM+ scenes acquired after July 14, 2003 were collected in SLC-off mode.  
  
Landsat 7 ETM+ scenes acquired from 5/31/03 - 7/14/03 and 9/3/03 - 9/17/03 are not available.  
  
**WRS Path**  
to  
  
**WRS Row**  
to  
  
**Cloud Cover**  
All  
Less than 20%  
Less than 10%  
Less than 30%  
Less than 40%  
  
**Data Category**  
All  
Normal Data  
Partial Aperture Calibration Data  
  
**Day Night**  
All  
Day  
Both  
Night  
  
**Landsat Scene Identifier**

Reset All Criteria
Results >

**Figure 58 - Unique Criteria Form**

Enter the additional criteria as desired to narrow the search (Figure 58).

Click the 'Reset'  button to clear the page of the current dataset listed. The 'Reset All' button clears the criteria forms for all the datasets listed. Once you enter the additional criteria (if any), click the 'Results' tab or button to execute a search.

## D. View Search Results

The 'Results' tab (Figure 59) executes a search using the search criteria and displays the results for the search criteria. The left side of the page displays the results panel with the thumbnail and textual information for each scene returned from the search. The right side of the page displays the Google Map interface with an outline of the identified area of interest (Figure 60).

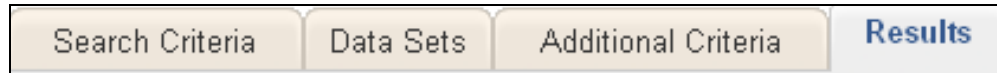


Figure 59 - EarthExplorer Results Tab

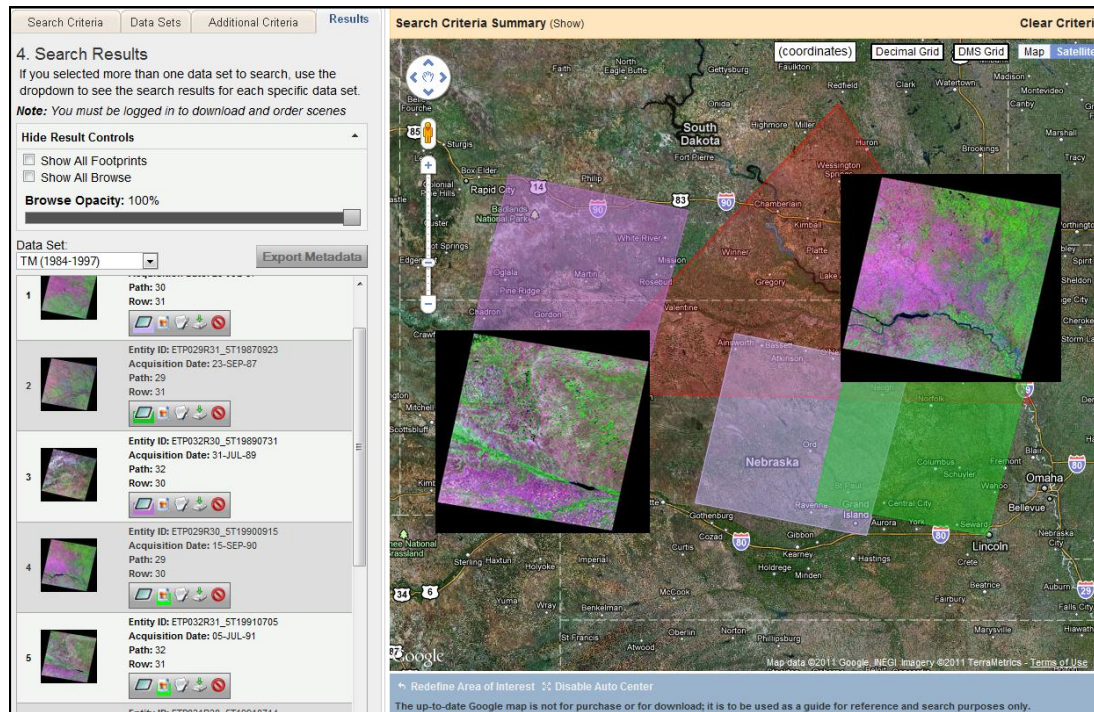


Figure 60 - Example Results

The Search Results panel includes the following components:

- Show Result Controls – Shows all footprints, provides browse options, adds all page results to the shopping basket, and modifies the opacity of browse displayed on the map
- Search Results List – Displays the thumbnail, textual information, icons to view details of each scene, view browse, and request downloads of data and other visualization controls for each record returned from the search
- Google Map Interface – Displays the search area, views footprints on the map, and reviews a browse image for each scene through the Google Map interface

### 1. Search Result Controls

The Search Results Controls (Figure 61) provide options for:

- Displaying all footprints on the map display from the search results list
- Displaying all browse on the map display from the search results list
- Adding all search results displayed on this page to the item basket




#### 4. Search Results

If you selected more than one data set to search, use the dropdown to see the search results for each specific data set.

**Note:** You must be logged in to download and order scenes

**Hide Result Controls** ▲

☐ Show All Footprints  
☐ Show All Browse  
☐ Add All Results from Page to Order

**Browse Opacity: 100%**  


Data Set:  
L7 SLC-off (2003-present) ▼

Export Metadata

Figure 61 - Search Result Control

Select 'Show All Footprints' (Figure 62) to display footprints from the current page of results.

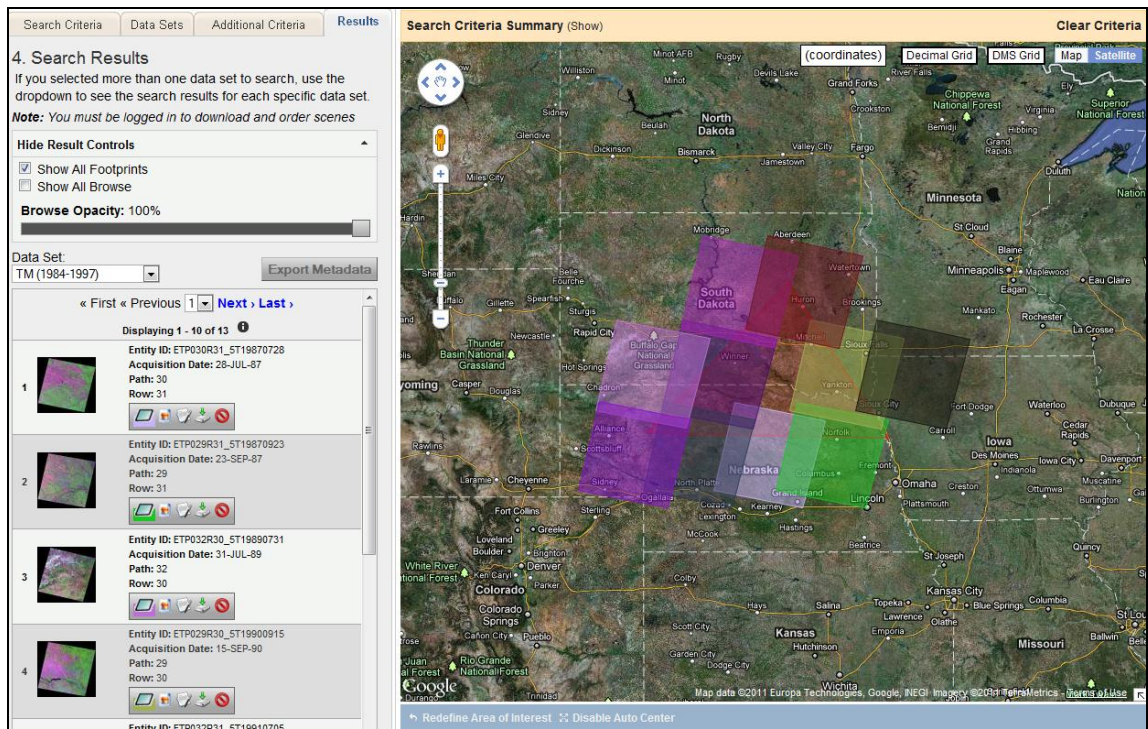


Figure 62 - Show All Footprints

Select 'Show All Browse' (Figure 63) to display all browse from the current page of results.

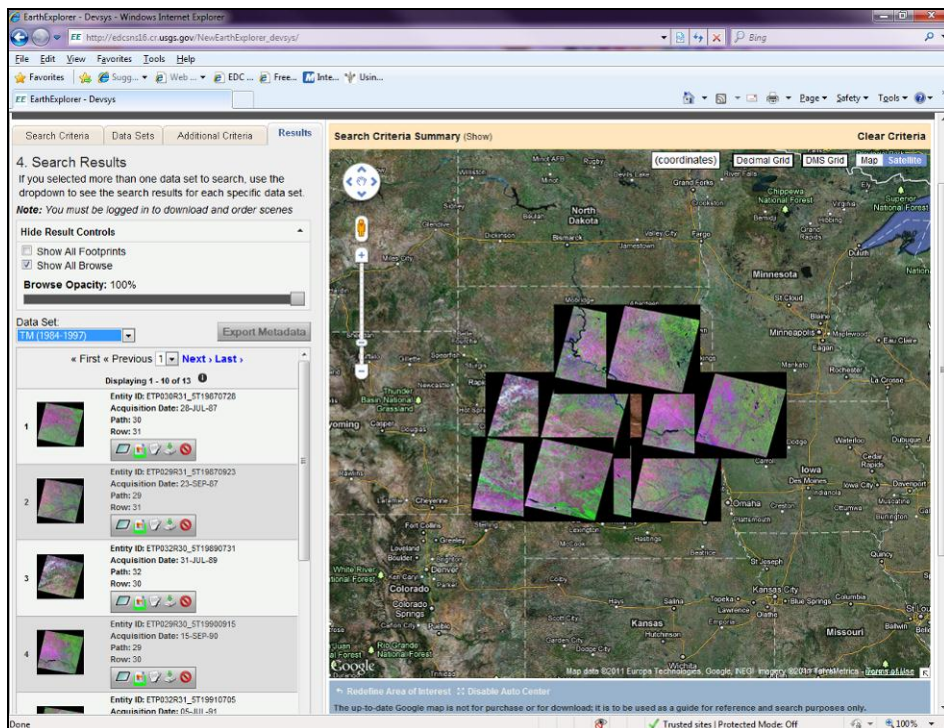


Figure 63 - Show All Browse

Select 'Add All Results from Page to Order' to add all results displayed on the current page to the item selection basket.

The 'Browse Opacity' slider (Figure 64) adjusts the opacity level of the overlay browse images.

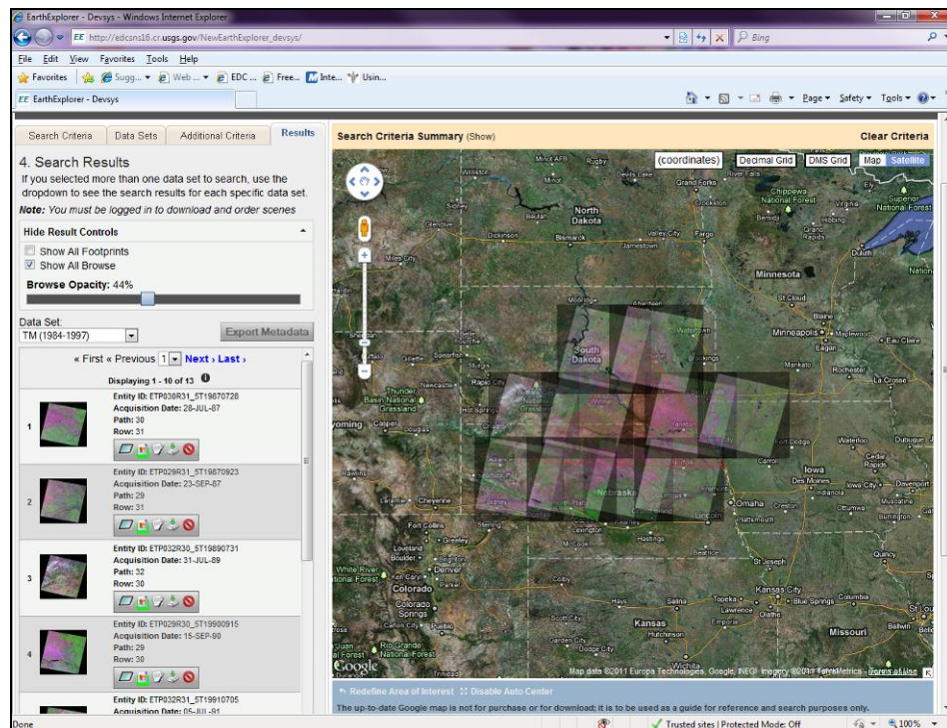


Figure 64 - Browse Opacity Example

## 2. Search Results List

The Search Results List provides the controls for displaying the search results. Each search result includes a thumbnail image, textual information on each scene, links to view browse and download, and other visualization controls.

### a. Multiple Datasets

EarthExplorer searches multiple datasets (Figure 65). The results of the first dataset display in the results panel. Use the "Data Set" selection box to select and view each additional dataset.



Search Criteria

Data Sets

Additional Criteria

Results

### 4. Search Results

If you selected more than one data set to search, use the dropdown to see the search results for each specific data set.

**Note:** You must be logged in to download and order scenes

Show Result Controls

Data Set:

TM (1984-1997)

L7 SLC-on (1999-2003)

TM (1984-1997)

Previous 1 Next Last

Export Metadata

Figure 65 - Select Data Set Results

Figure 66 displays an example of search results.

Search Criteria

Data Sets

Additional Criteria

Results

### 4. Search Results

If you selected more than one data set to search, use the dropdown to see the search results for each specific data set.

Show Result Controls

Data Set:

TM (1984-1997)

Export Metadata

« First « Previous 1 Next Last »

Displaying 1 - 10 of 29

1	<div> <div>Entity ID: ETP030R31_5T19870728</div> <div>Acquisition Date: 28-JUL-87</div> <div>Path: 30</div> <div>Row: 31</div> <div> </div> </div>
2	<div> <div>Entity ID: ETP029R31_5T19870923</div> <div>Acquisition Date: 23-SEP-87</div> <div>Path: 29</div> <div>Row: 31</div> <div> </div> </div>
3	<div> <div>Entity ID: ETP031R28_4T19890630</div> <div>Acquisition Date: 30-JUN-89</div> <div>Path: 31</div> <div>Row: 28</div> <div> </div> </div>
4	<div> <div>Entity ID: ETP035R30_5T19890704</div> <div>Acquisition Date: 04-JUL-89</div> <div>Path: 35</div> <div>Row: 30</div> <div> </div> </div>
5	<div> <div>Entity ID: ETP026R30_5T19890705</div> <div>Acquisition Date: 05-JUL-89</div> <div>Path: 26</div> <div>Row: 30</div> <div> </div> </div>

Submit Standing Request »

Figure 66 - Example Search Results

## b. Overlay and Download Controls

Each search result record includes a thumbnail image, textual information on each scene, links to view browse and download data, and other visualization controls. Based on the dataset and user profile, some controls may not be available (Figure 67).

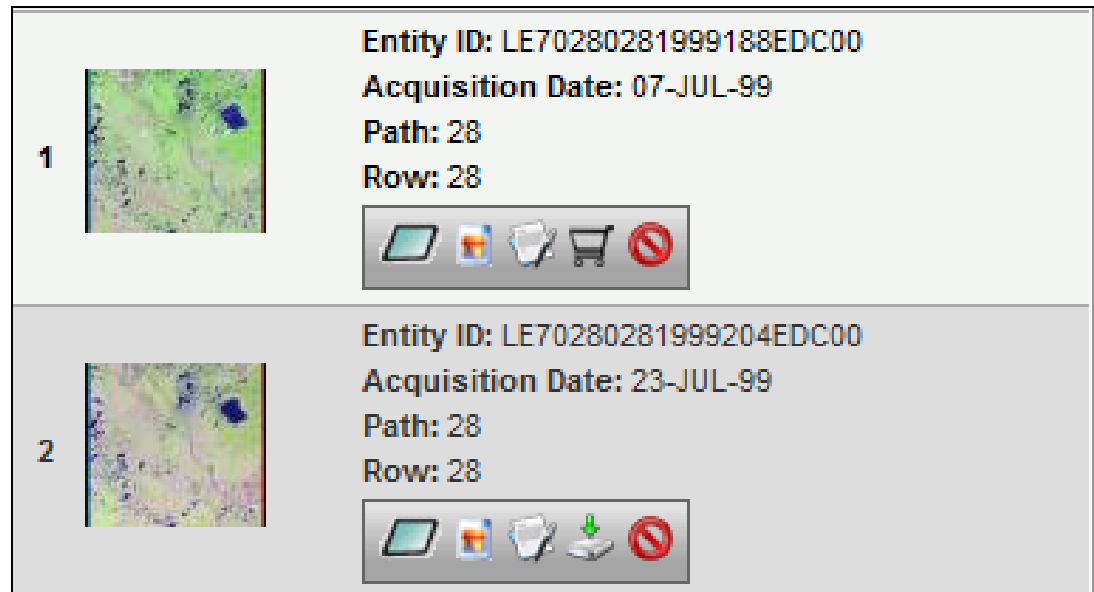



Figure 67 - Example Scene Level Results

The following is an overview of the overlay and download controls:

- Show Footprint – Select the ‘Show Footprint’ () icon to display the footprint of the selected scenes on Google Map (Figure 68). When the footprint option is on, the footprint icon is highlighted. Click the highlighted icon to turn off the footprint option. Multiple footprints can be selected and displayed on the map. Each footprint displays in a different color.



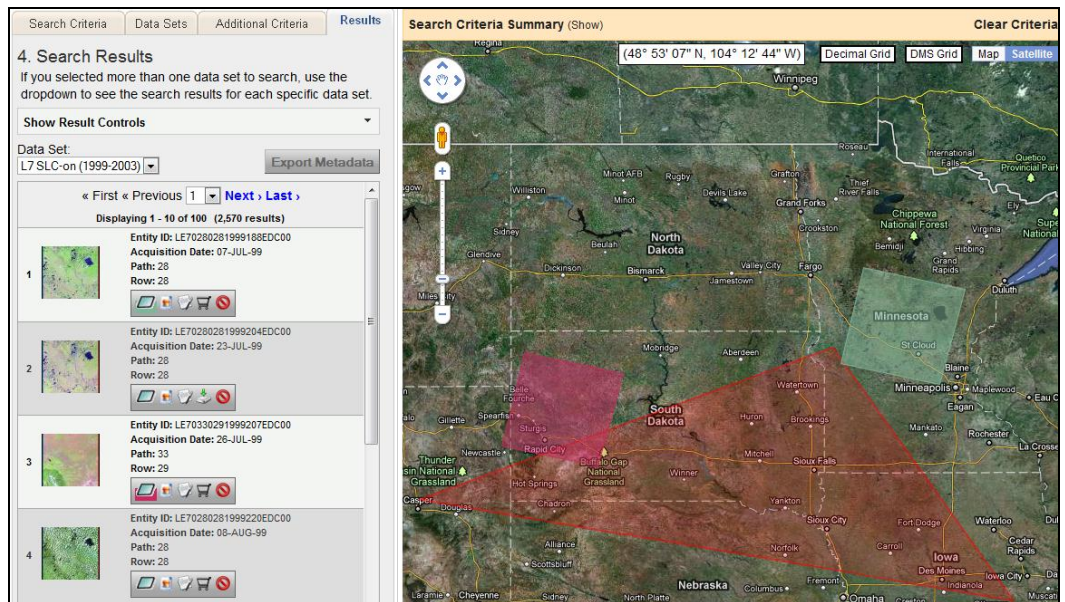



Figure 68 - Footprint Overlay

- Show Browse Overlay – Click the ‘Show Browse Overlay’ () icon to display a preview image (browse) of the scene on the map (Figure 69). When the browse option is on, the browse icon is highlighted. Click the highlighted icon to turn off the browse option. Multiple browse can be selected and displayed on the map.

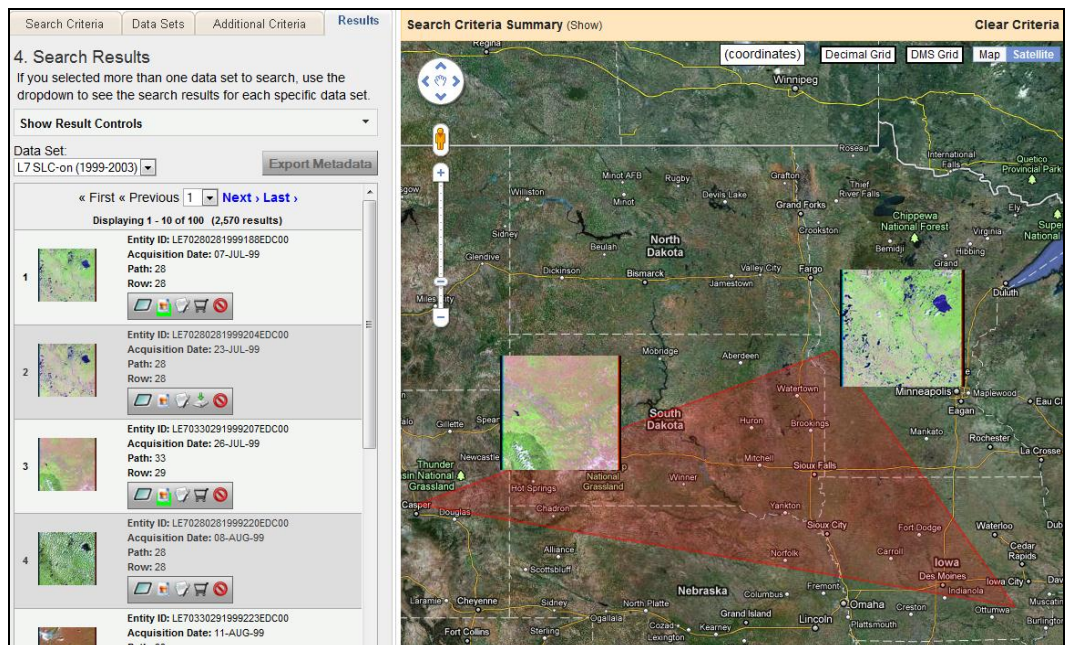


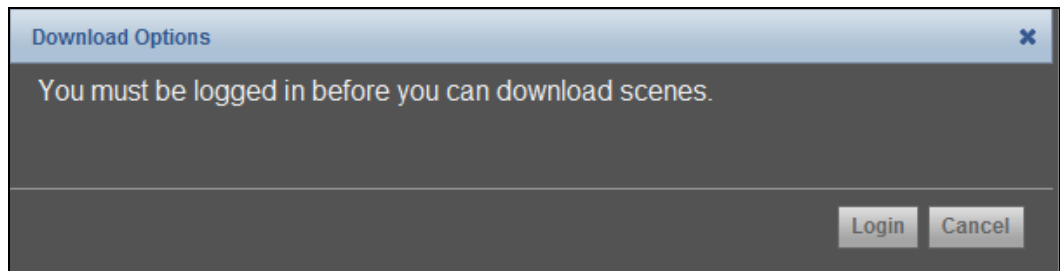


Figure 69 - Browse Overlay

- Show Metadata and Browse – Click the thumbnail image or  icon to display the reduced resolution browse image and full metadata for the selected scene (Section IV, d).

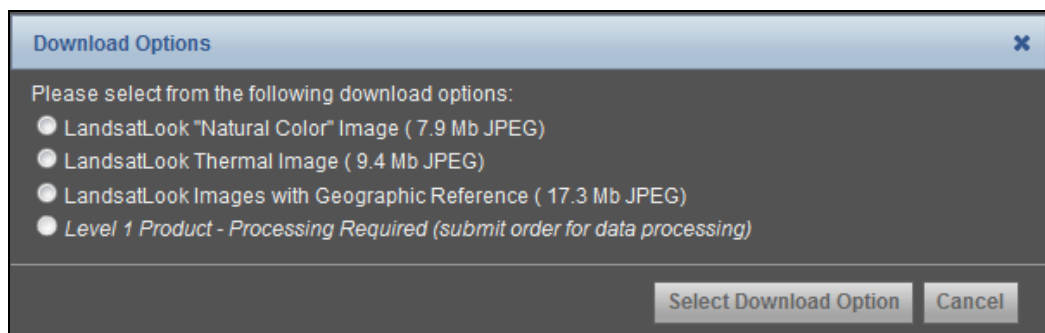
- Download Options – Click the ‘Download Options’ icon () to allow registered users to download the selected data (Figure 70). Selecting the ‘Download Options’ icon before registering or logging in displays the following prompt:



**Figure 70 - Login before downloading**

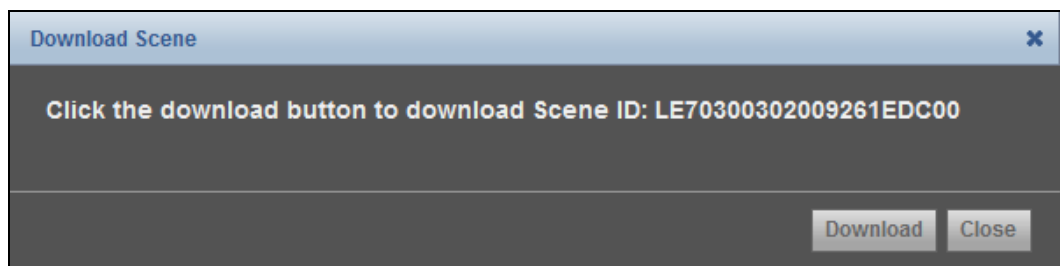
Click the ‘Login’ to log in to EarthExplorer.

After logging in and clicking the ‘Download Options’ icon, a page similar to the following displays (Figure 71):



**Figure 71 - Download Options Dialog**

Depending on the dataset, multiple products may be available for download. After selecting the desired product, and clicking “Select Download Option”, the following dialog displays (Figure 72):



**Figure 72 - Download Scene**

Click ‘Download’ to start the download process. A ‘File Download’ dialog box displays (Figure 73). Select ‘Save’ to prompt for the location to save the file.

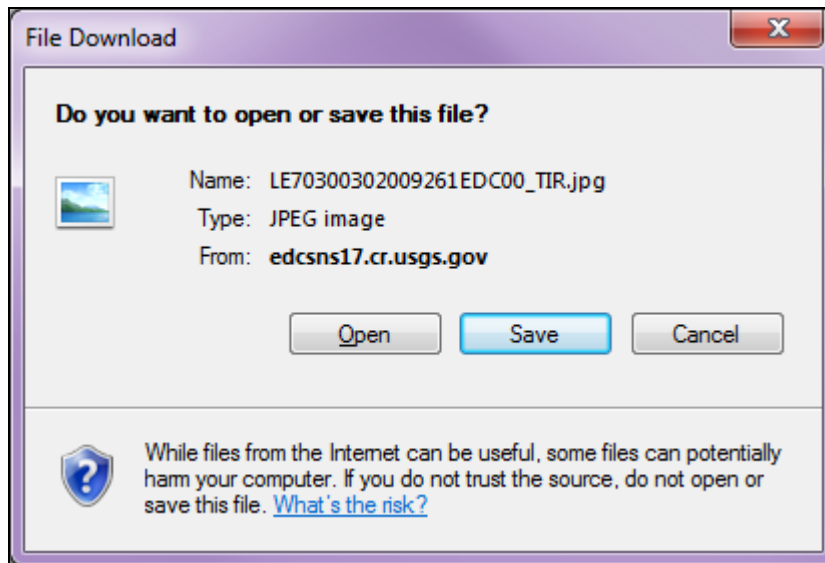


Figure 73 - Download Scene Dialog

### c. Order Controls

The majority of the products available through EarthExplorer for registered users are available via download. In some cases, order requests are available for selected products. Ordering products usually requires some specialized image or data processing. If a dataset has an option for ordering, the 'Order Scene' icon (🛒) displays. This option allows registered users to order or request specialized processing on certain products. The 'Order Scene' icon is greyed out unless you are registered and logged in. In addition, a few products require a small fee for the cost of processing.

Click the 'Order Scene' icon to add the selected scene to the 'Item Basket'. As each scene is added to the 'Item Selection' basket on the menu bar, the number of scenes added to the basket is updated and the 'Order Scene' icon changes to green (Figure 74).

Click the 'Order Scene' icon to add the selected scene to the 'Item Basket'. As each scene is added to the 'Item Selection' basket on the menu bar, the number of scenes added to the basket is updated and the 'Order Scene' icon changes to green (Figure 74).

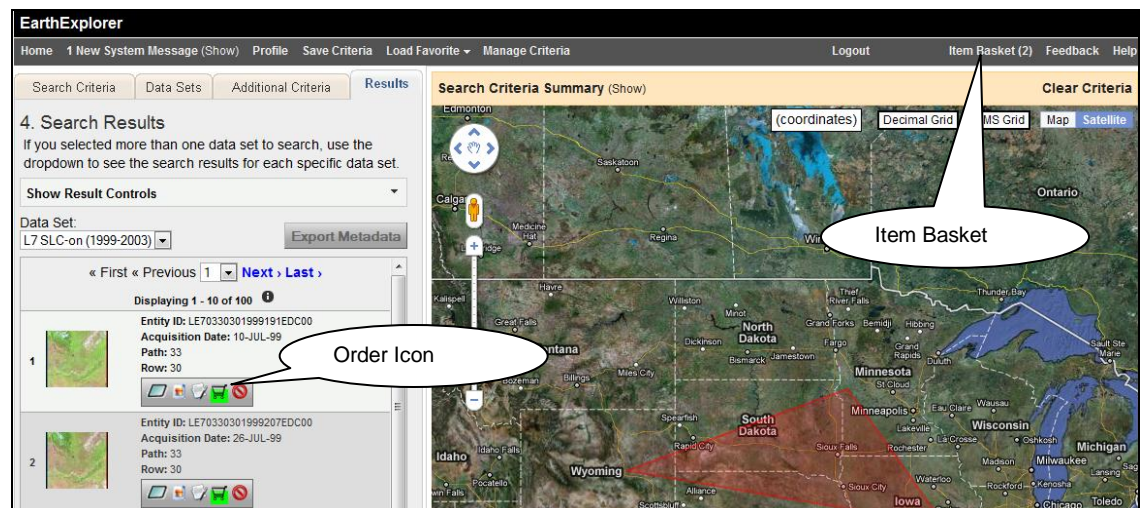


Figure 74 - Order Scene



In some cases, additional ordering parameters may be required to complete an order.

To view items in the Item Basket, click 'Item Basket' in the menu bar or the 'View Item Basket' button at the bottom of the results page (Figure 75).

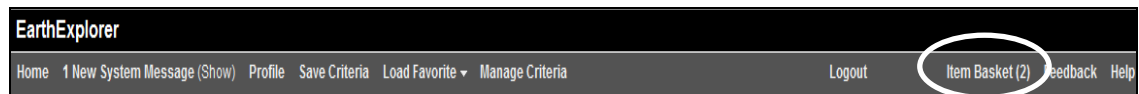


Figure 75 - Item Basket Example

In the following example, the first item is for an Aerial Photo Single Frame scanning request. There is one option for the micron size of processing parameters. The cost of scanning is \$30.

The second item is a request for a Landsat 7 Enhanced Thematic Mapper Plus (ETM+) Level 1 Terrain (Corrected) (L1T)/Level 1 Systematic (Corrected) (L1G) Scan Line Corrector (SLC) OFF On-Demand product. Processing parameters are not available for this product; this item is at no cost.

The overall cost is \$30 for the scanned product and \$5 for the handling fee (Figure 76).

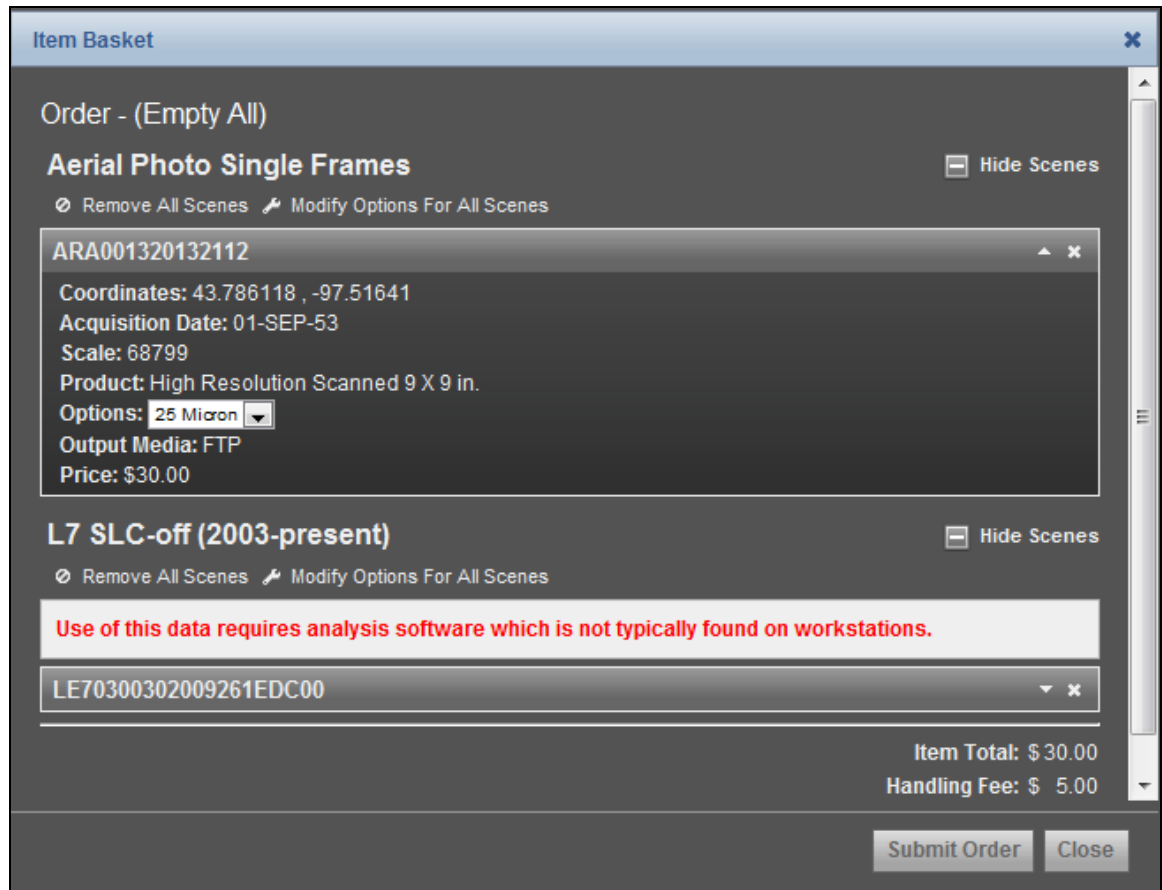


Figure 76 - Item Basket

Click 'Submit Order' to submit the order for processing. You will receive a confirmation email. The Checkout Summary page displays and you can print or save this summary for your records (Figure 77).

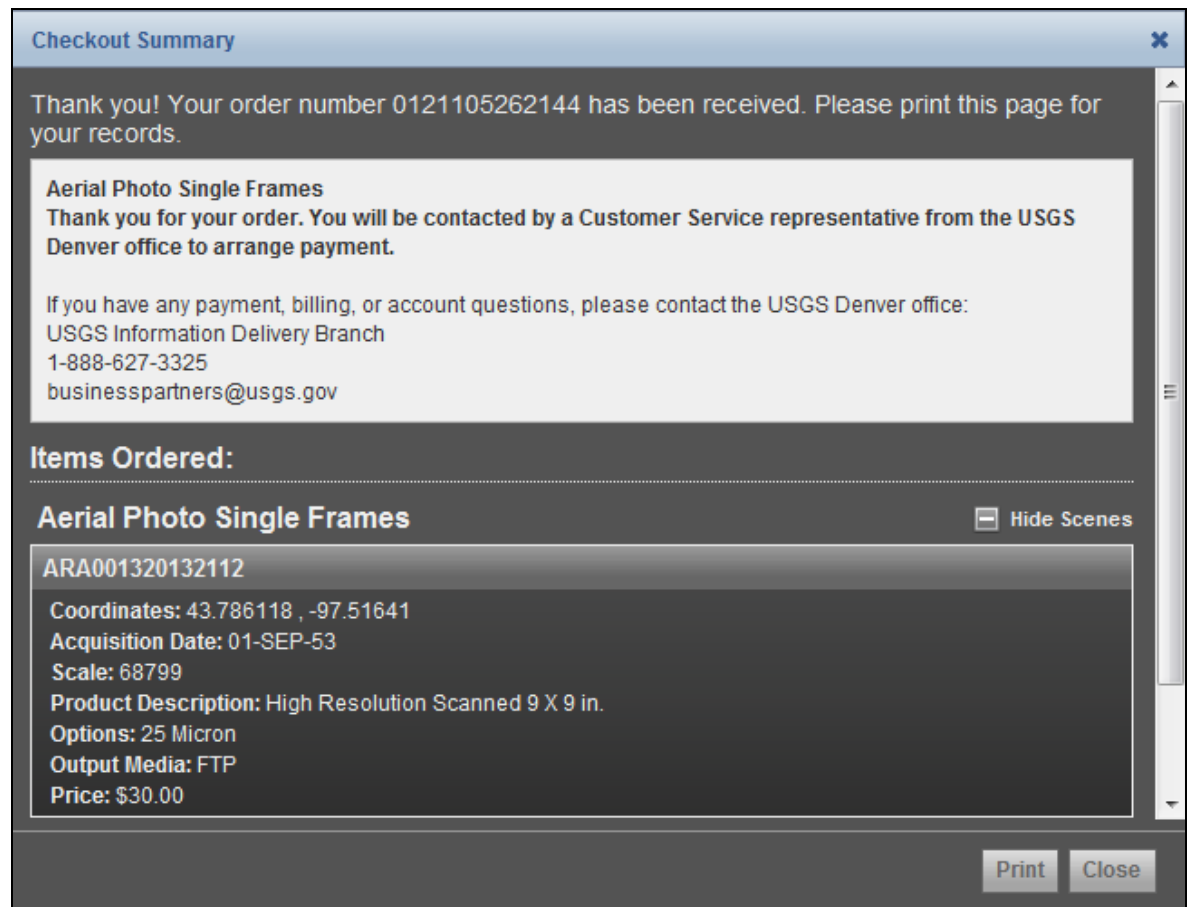

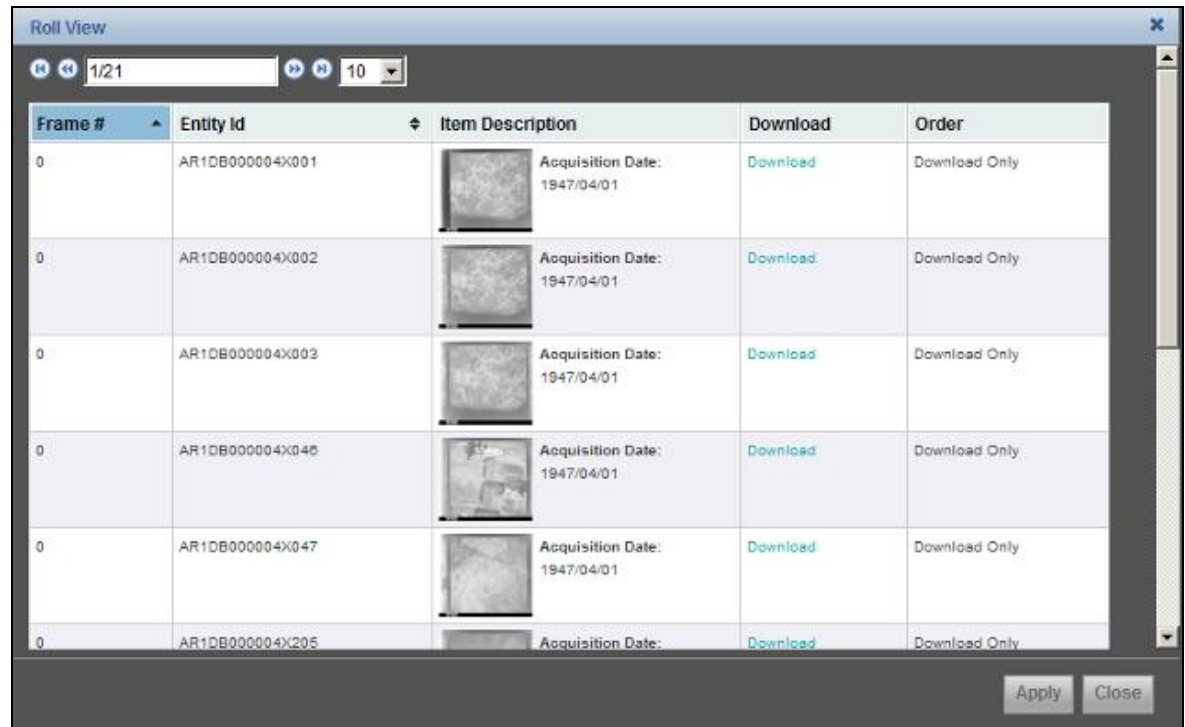


Figure 77 - Checkout Summary



Ordering Aerial Photography provides a method for downloading scenes from an entire roll. Select the roll icon () to display the 'Roll View' for the selected scene's roll (Figure 78).









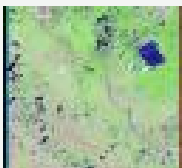
Frame #	Entity Id	Item Description	Download	Order
0	AR1DB000004X001	 Acquisition Date: 1947/04/01	<a href="#">Download</a>	Download Only
0	AR1DB000004X002	 Acquisition Date: 1947/04/01	<a href="#">Download</a>	Download Only
0	AR1DB000004X003	 Acquisition Date: 1947/04/01	<a href="#">Download</a>	Download Only
0	AR1DB000004X046	 Acquisition Date: 1947/04/01	<a href="#">Download</a>	Download Only
0	AR1DB000004X047	 Acquisition Date: 1947/04/01	<a href="#">Download</a>	Download Only
0	AR1DB000004X205	 Acquisition Date: 1947/04/01	<a href="#">Download</a>	Download Only

Figure 78 - Roll View


For each scene on the roll, you can download or order images.

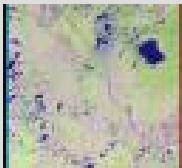
#### d. Browse and Metadata

EarthExplorer displays a thumbnail image, browse, and detailed metadata information for each scene returned from a search (Figure 79).

1


**Entity ID:** LE70280281999188EDC00  
**Acquisition Date:** 07-JUL-99  
**Path:** 28  
**Row:** 28



2


**Entity ID:** LE70280281999204EDC00  
**Acquisition Date:** 23-JUL-99  
**Path:** 28  
**Row:** 28




Figure 79 - Example Scene Level Results

Show Browse and Metadata – On the thumbnail, mouse over to display the 'Show Browse and Metadata' (Figure 80).

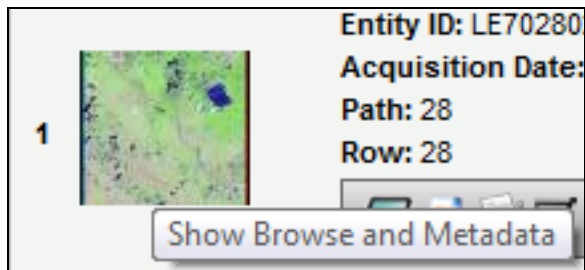



Figure 80 - Show Browse and Metadata

Click the thumbnail image or  icon to display the reduced resolution browse image and full metadata for the selected scene (Figure 81).

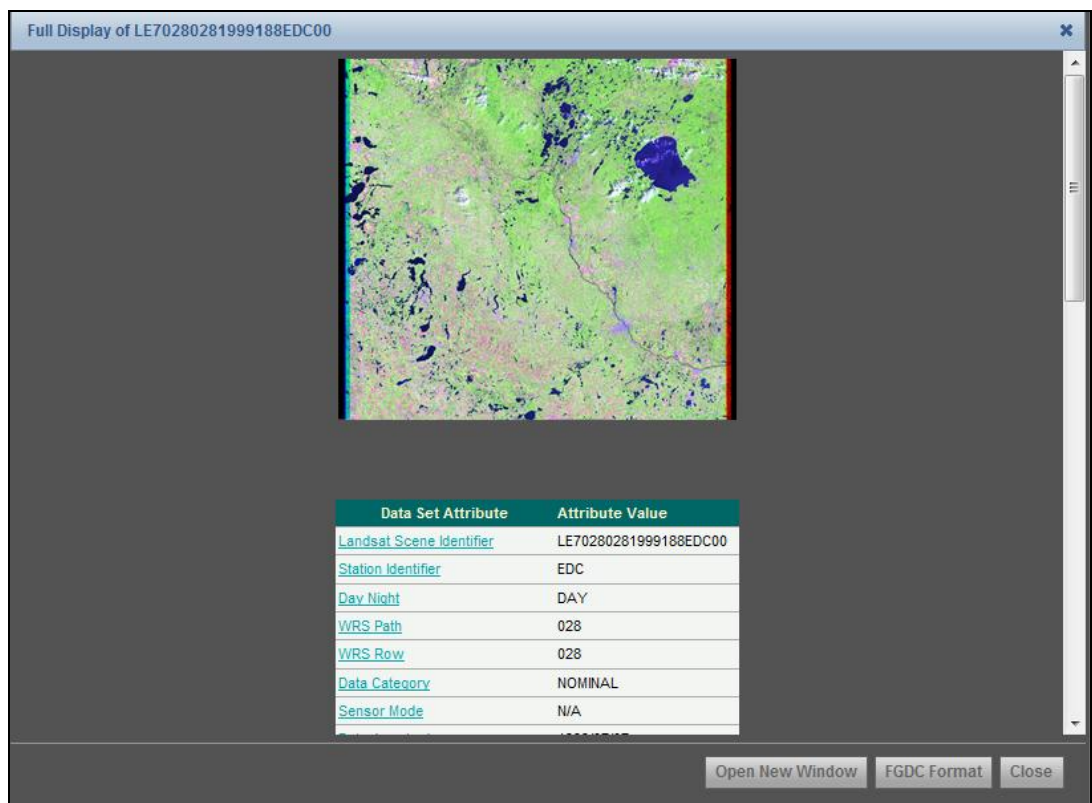
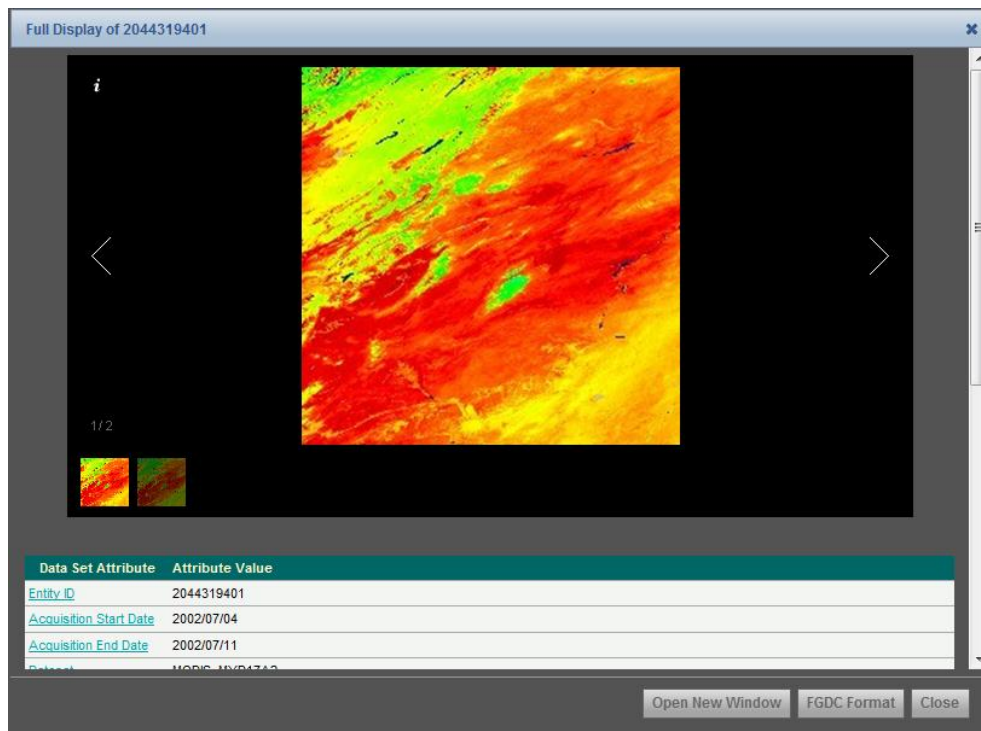


Figure 81 - Browse and Metadata View

The Browse and Metadata view includes the following:

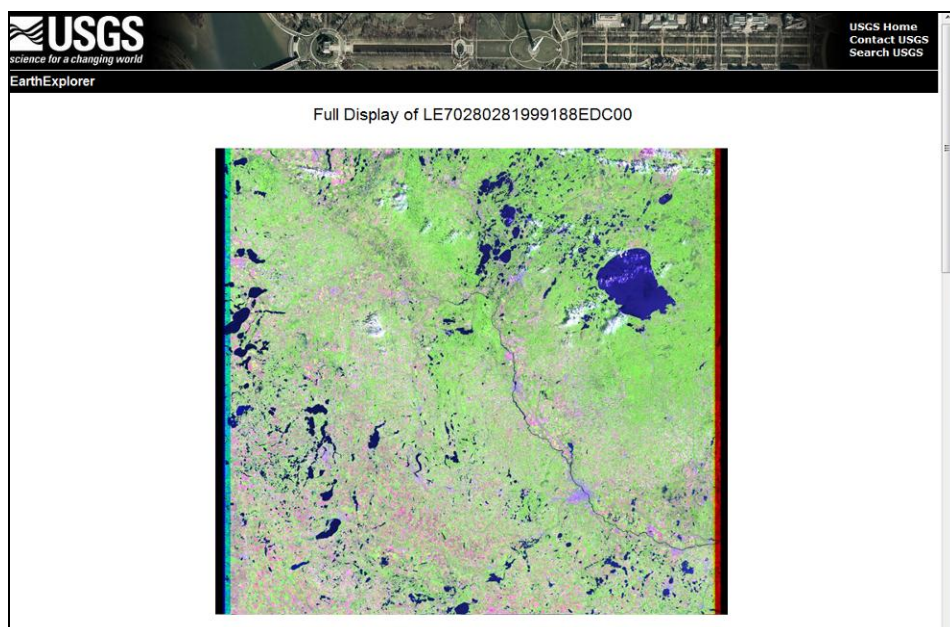
- The Browse image of the selected scene displays at the top center of the lightbox display. If multiple browse areas are available for the image, an image control for multiple browse displays.

Figure 82 is an example of multiple browse for an image. Each available image displays as a thumbnail in the lower left corner of the display. To switch between browse, click the arrow (<>) or click one of the thumbnails at the lower left corner for the page.



**Figure 82 – Multiple Browse Display Example**

- Data Set Attributes – Each dataset has unique attributes describing the metadata associated with the scene. Each attribute has a hyperlink to the detailed information on that particular dataset.
- Attribute Value – The information associated with each attribute.
- Open New Window – Click ‘Open New Window’ to display the selected browse in a separate window (Figure 83).



**Figure 83 - Open New Window - Display Browse**

- FGDC Format – Click the ‘FGDC Format’ button to display the metadata in the Federal Geographic Data Committee (FGDC) format. Click ‘Table Format’ on the FGDC view to display the ‘Browse and Metadata’ view (Figure 84).

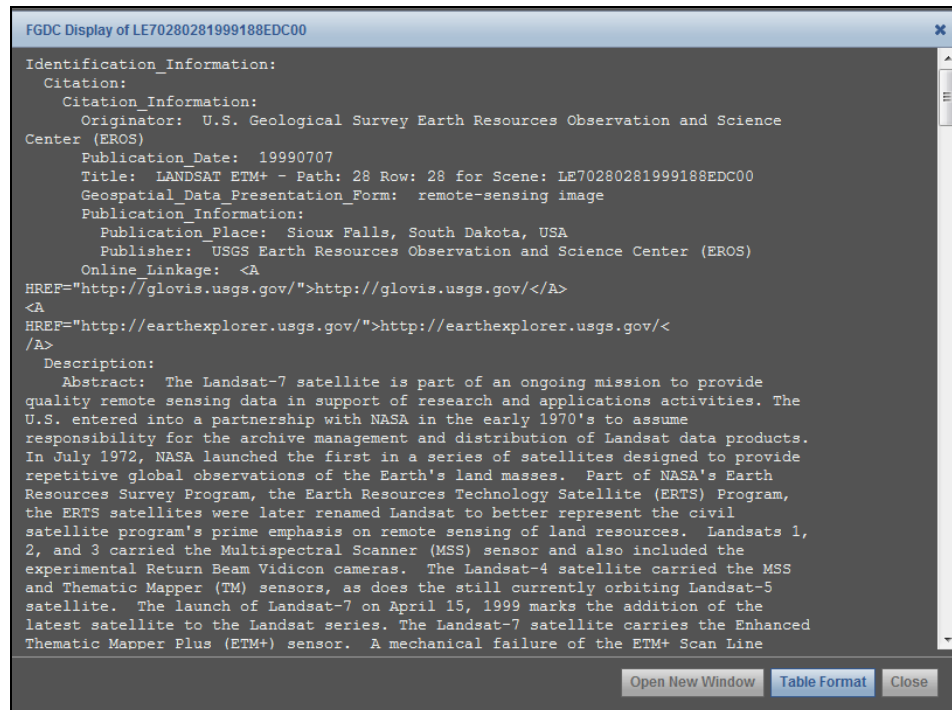


Figure 84 - FGDC Format

#### e. Search Results Controls

The EarthExplorer user interface controls on the Search Results include:

- Scroll bar – Click to view additional items returned from the search.
- Displaying X – XX of XX - Results Per Page – The default ‘Results Per Page’ is ten records. To show more results on the page, change the ‘Results Per Page’ in the ‘User Profile’ to a higher number. The ‘User Profile’ requires you to be registered. Additional information on the ‘User Profile’ is covered in more detail in Section III Registration and Profile.
- Information icon ( **Displaying 1 - 10 of 100** ⓘ ) – Click to see the number of records in the dataset. Figure 85 provides an example. In this case, the search returned 100 records (the default setting) but the number of items in the dataset is 2,570 (Figure 86).

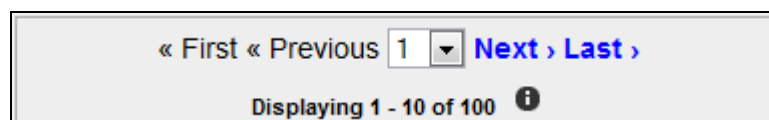


Figure 85 - Default Search Results Returned = 100

« First « Previous 1 ▾ Next » Last »

Displaying 1 - 10 of 100 (2,570 results)

Figure 86 - Total Search Results of query = 2570

To modify the number of search results, refer to the 'Search Criteria' tab and modify the 'Number of records to return:' on the 'Enter Search Criteria' panel (Figure 87).

**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, and/or choose a date range.

**Address/Place**

Address/Place Path/Row

Type: WRS2 ▾ Path: 31 Row: 29

Show Clear

**Area Selected**

Degree/Minute/Second ☒ Decimal ☐

*No coordinates selected.*

Add Coordinate Clear Coordinates

**Dates Selected**

Search from: 01/01/1920 to: 12/31/2020

Search months: (all) ▾

Number of records to return: 100 ▾

Data Sets > Additional Criteria > Results >

Figure 87 - Search Criteria - Number of records to return

Paging controls include the following:

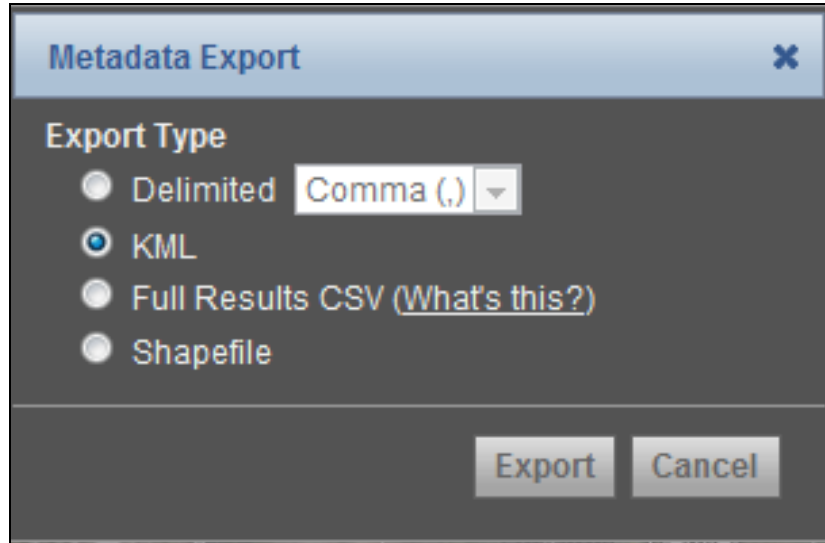
- Page Number (1 ▾) - Selects a different page of results
- Next - Displays the next page
- Previous - Displays the previous page
- First - Displays the first page




- Last - Displays the last page

f. Export Metadata


EarthExplorer provides an option to 'Export Metadata' results in a number of popular formats (Figure 88).



**Figure 88 - Export Options**

To export metadata, select the 'Export Metadata'  button. The following formats are available:

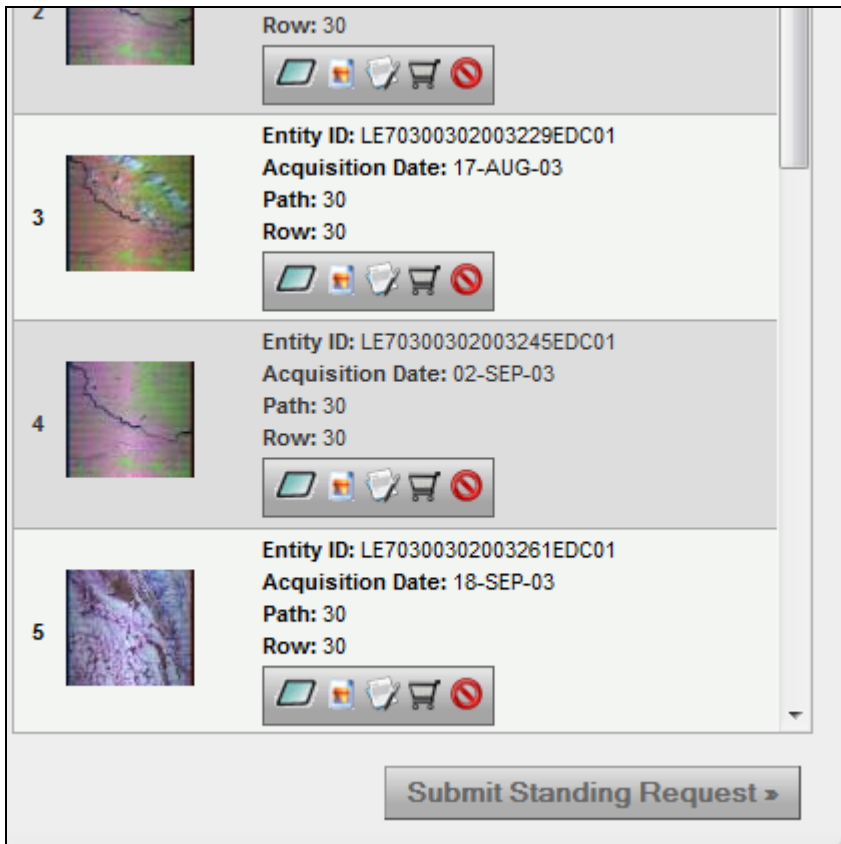
- Delimited – Generates a .txt file, with the delimiter of choice (comma or pipe) with the returned, non-excluded results from a search. The information includes the full metadata as displayed in the lightbox.
- KML – Generates a .kml file with the returned, non-excluded results from a search. The information in this export includes the full metadata as displayed in the standard metadata dialog. The KML 2.2 standard is used for this KML file. This export format is not available for result sets larger than 1000 results.
- Full Results – Allows a user to enter the number of records to return. The export function uses this number, along with the current search criteria to generate a csv formatted export of search results. The metadata in this export includes the metadata returned on the search result screen. This export does not take into consideration excluded scenes.
- Shapefile – Generates a .zip file with the returned, non-excluded results from a search. Files included in the .zip file include a .shp, .shx, .dbf, and .prj. Shapefiles are generated using the ERSI standards. Limited metadata is included with this export. This export is not available for result sets larger than 1000 results.

Click  to exclude a scene from the metadata export. Click **(Restore Excluded Scenes)** to return the excluded scenes to the list.

### 3. Standing Request

The 'Standing Request' function allows registered users to run searches for new acquisitions, in the background, using the same search criteria. The Submit Standing Request button is only visible if you are logged in to EarthExplorer

The 'Submit Standing Request'  button is at the bottom of the search results list panel (Figure 89).



**Figure 89 - Submit Standing Request**

Select the 'Submit Standing Request' button to display the 'Save as Standing Request' form (Figure 90).

**Save as Standing Request** [X]

Name:

Frequency:

Metadata Format:

Browse Link:

Start Date:

End Date:

\*Note: ALL Search Criteria and Additional Criteria you have selected WILL be saved with your standing request.

**Figure 90 - Standing Request Form**

Enter the following criteria for a standing request:

- Name – Enter a name for this request
- Frequency – Select Daily, Weekly, Monthly, or Quarterly, which determines how frequent the search runs
- Metadata Format – Identify the format of the metadata (Text, CSV, FGDC, and Pipe Delimited)
- Browse Link – Determine if a link (Yes/No) to the browse image is included in the standing request search results
- Start Date – Select the start date for the standing request
- End Date – Select the end date for the standing request

Click the 'Submit' button to execute the standing request.

To review standing requests, click 'Profile' on the EarthExplorer Main menu bar (Figure 91).



**Figure 91 - Manage Criteria**

This action displays the 'Profile Menu'. Click 'Standing Request' on the Profile menu to see the list of entered standing requests (Figure 92).

The screenshot shows a web application interface. At the top, there are links for 'Home', 'Profile', 'Logout', and 'Feedback'. On the left, a 'Profile Menu' is displayed with a list of options: Profile Home, Password, Secret Question, Contact Address, Billing Address, Shipping Address, User Affiliation, Interface Options, Data Sets, Sort Order, Metadata View, Saved Criteria, **Standing Request**, and Order Tracking. The 'Standing Request' option is highlighted. The main content area is titled 'Standing Request' and contains a table. Above the table, there are navigation controls: a search bar with '1/1', a 'Previous' button, a 'Next' button, and a dropdown menu showing '10'. The table has the following columns: Name, Status, Frequency, Last Run, Start Date, and End Date. A single row is visible with the following data: Name: Landsat\_data, Status: New, Frequency: weekly, Last Run: (empty), Start Date: 2011-06-10, End Date: 2011-10-14. Below the table, there is a second header row with the same column names: Name, Status, Frequency, Last Run, Start Date, and End Date.

Name	Status	Frequency	Last Run	Start Date	End Date
Landsat_data	New	weekly		2011-06-10	2011-10-14

**Figure 92 - Standing Request**

The Standing Request module sends you an email when a new acquisition matches the search criteria. You can then review metadata and browse for the returned scenes.



## Appendix

Acronym	Description
API	Application Programming Interface
DMS	Degrees, Minutes, Seconds
DOI	Department of Interior
EE	EarthExplorer
EROS	Earth Resources Observation and Science Center
ETM+	Enhanced Thematic Mapper Plus
FGDC	Federal Geographic Data Committee
FOIA	Freedom of Information Act
GB	Gigabyte
GHZ	Gigahertz
GloVIS	USGS Global Visualization Viewer
GUI	Graphical User Interface
HDDS	Hazards Data Distribution Systems
HTTPS	Hypertext Transfer Protocol Secure
KML	Keyhole Markup Language
L1G	Level 1 Systematic Correction
L1T	Level 1 Standard Terrain Correction
LDCM	Landsat Data Continuity Mission
MB	Megabyte
Mbps	Megabit per Second
OGC	Open Geospatial Consortium
PC	Personal Computer
PHP	Hypertext Preprocessor
RSS	Really Simple Syndication
SLC	Scan Line Corrector
USGS	United States Geological Survey
WRS	Worldwide Reference System