

Hazards Data Distribution System (HDDS) Explorer Help Documentation

Version 1.1

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## I. Introduction

HDDS Explorer (<a href="http://HDDSExplorer.usgs.gov">http://HDDSExplorer.usgs.gov</a>) is a unique collection of imagery and documents designed to assist in the response to natural and man-made disasters. Like a traditional web-based interface to an imagery archive (such as USGS' Earth Explorer), HDDS provides geographic search capabilities based on latitude and longitude boundaries and other criteria. HDDS contains imagery acquired in the aftermath of a disaster as well as imagery of the same region before the event.

#### A. Key Features

Key features in HDDS Explorer 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
- Text based query capability
- Input KML or shape files to define area of interest (AOI)
- Keyhole Markup Language (KML) browse/metadata export capability to interface with Google Earth
- Save or export queries, results, and map overlay for reuse
- Access to browse imagery
- User authentication service for access to restricted events and tools
- Standard product downloads
- User notifications of new acquisitions and available products through subscription services

#### B. System/Browser requirements

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

- Hardware Requirements Windows:
  - o 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:
    - o Intel x86 or PowerPC G3, G4, or G5 2GHz or better recommended
    - o 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:
  - o Broadband connection 15 Megabit per Second (Mbps)
  - o 3G network impacts display speed
- Software Requirements:
  - Operating System: Windows XP, Windows Vista, Windows 7, Windows Server 2000, Windows Server 2003, Windows Server 2008
  - o Mac OS X
  - o Unix
  - o Linux
  - o Solaris
- Browsers supported:
  - o Internet Explorer (8.x, 9.x, 10.x, 11.x)
  - o Firefox (23.x)
  - o Chrome (20.x)
  - o Opera (12.x)
  - o Safari (5.x)

## II. User Interface

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

- Standard USGS header/footer elements
- HDDS Explorer menu bar
- Body

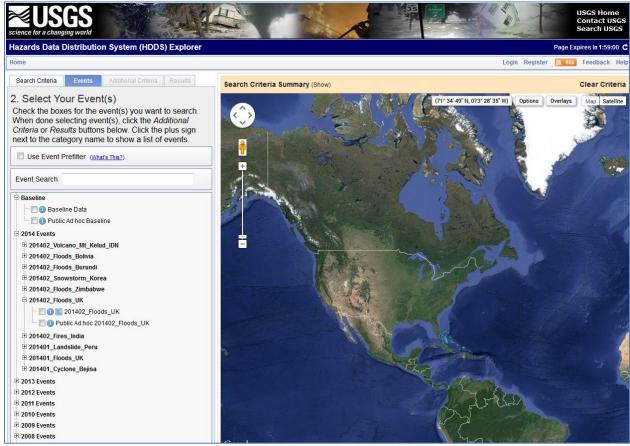


Figure 1 - HDDS Explorer User Interface

## A. Header/Footer Elements

The HDDS Explorer header/footer elements are based on the <u>USGS Visual</u> <u>Identification Policy</u> standard guidelines. The HDDS Explorer client is compliant with <u>Section 508 Workforce Rehabilitation Act of 1973</u> web content guidelines.

#### 1. Header

The HDDS Explorer client header (Figure 2) is located at the top of the web page. The header is common across all web pages in HDDS Explorer.



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, 'HDDS Explorer'.
- HDDS Explorer Menu Bar.

#### 2. HDDS Explorer Menu Bar

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



Figure 3 – HDDS Explorer Menu Bar

The items in the menu bar include:

- Home Returns you to your original starting point within the application.
- System Message Provides links and information regarding system status and upcoming events/changes.
- Login Provides a link to the HDDS Explorer Login service.
- Register Provides a link to the HDDS Explorer Registration Service.
- RSS RSS feeds allow you to receive updates when new data is ingested into the Hazards Data Distribution System (HDDS) Figure 4 and Figure 5.
- Feedback Provides a link to the feedback form (Figure 6).
- Help Provides information about HDDS Explorer.

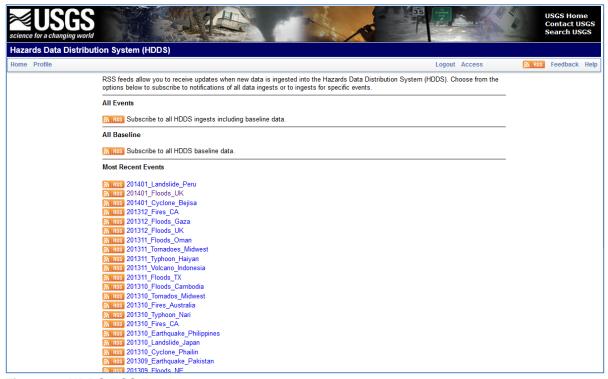


Figure 4 - HDDS RSS Feeds

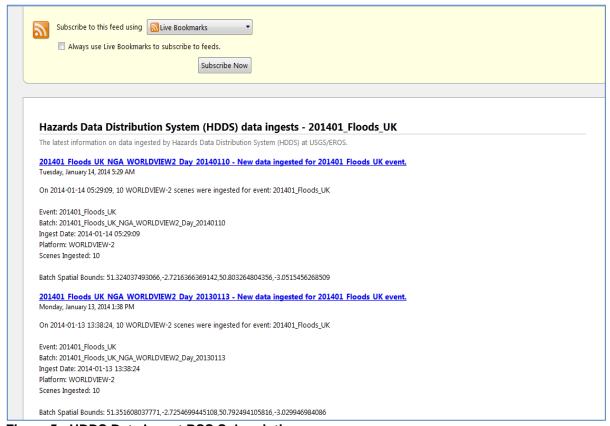


Figure 5 - HDDS Data Ingest RSS Subscription

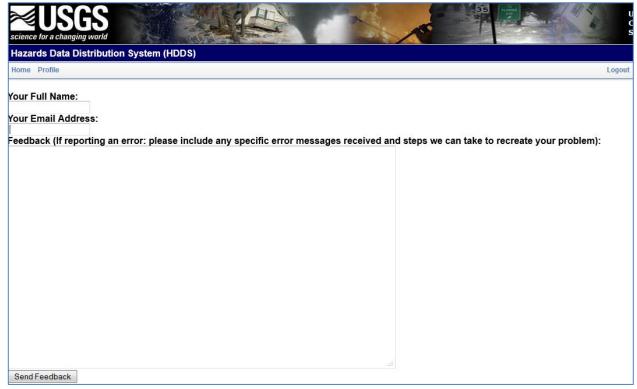


Figure 6 - HDDS Feedback Form



Figure 7 - HDDS Explorer Menu Bar when logged in

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 current 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.
- Access Allows you to request access to restricted data for specific events.

These options are described in further detail in the HDDS Explorer Profile (Section III).

#### 3. Footer

The HDDS Explorer client footer (Figure 8) is located at the bottom of the web page. The footer is common across all web pages in HDDS Explorer.



Figure 8 - Footer

The common menu items in the footer include:

- Accessibility Provides a link to the <u>USGS Accessibility Policy (Section 508)</u>.
  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>U.S. Geological Survey Freedom of Information Act (FOIA) Electronic Reading Room</u>. 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 <u>USGS Privacy Policies</u>. This information identifies USGS and the Department of Interior (DOI) privacy policies.
- Policies and Notices Provides a link to the <u>USGS Policies and Important</u>
   <u>Notices</u> 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 <u>Google Maps API</u>
   <u>Disclaimer</u>. This information outlines the Google Map Application
   Programming Interface (API) terms and conditions for using the Google Map service.

#### B. **Body**

The body (Figure 9) includes the main HDDS Explorer capabilities and is composed of the Data Search Functions and the Google Map components.

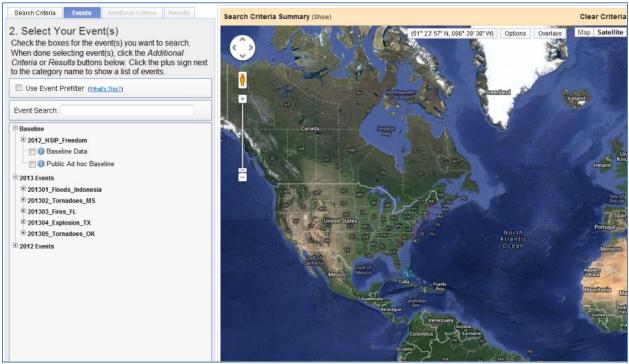


Figure 9 - Body

#### 1. Search Criteria

The HDDS Explorer Data Search component is located on the left side of the HDDS Explorer body element. The Data Search components are divided among 4 tabs and allow users to enter search criteria, select events to query, enter additional criteria, and review results in a tabular window. Additional details on the Data Search component are provided in the 'Perform a Search' in section IV.

## 2. Google Map Interface

The Google Map component is located on the right side of the HDDS Explorer body element. The Google Map application interface embeds Google Maps within the HDDS Explorer client. The Google Map is a useful tool for defining a search area, visualizing spatial coverage, and for verifying that results fall in the area of interest.

Before using the Google Map component, you should be familiar with the navigation and location features provided in the Google Map interface for HDDS Explorer.

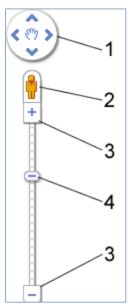


Figure 10 - Google Map Navigation Controls

Use the following controls to navigate the Google Map (Figure 10):

- 1.Pan Control Click the appropriate arrow to move the view north, south, east or west.
- 2.Street View Click and drag to navigate to the street-level view of the interested area.
- 3.Zoom Click the plus sign (+) to zoom in to the center of the map; click the minus sign (–) to zoom out.
- 4.Zoom Slider Drag the zoom slider up/down to zoom in or out incrementally. 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 11) to aid in locating point of interest.



Figure 11 - Custom Location Features

Google Maps offers the following location features:

- (1) Coordinates Coordinate values update as you move the mouse on the map interface.
- (2) Options
  - Auto-Center Centers the map on the display
  - Polygon When on the search criteria tab it will allow entering search criteria by polygon

- Circle When on the search criteria tab it allows entering search criteria by using a circle radius
- (3) Overlays Displays a grid based on the selection
  - Decimal Overlays a decimal degree grid over the map interface. Click to turn on and off.
  - DMS Overlays Degrees, Minutes, Seconds (DMS) grid over the map interface. Click to turn on and off.
- (4) Map/Satellite Toggles between the Map View and the Satellite View.
  - Map View:
    - o Terrain Shows basic topographic features.
  - Satellite View:
    - Labels Displays feature labels.

## III. Registration and Profile

The USGS HDDS Explorer system requires users to register in order to download data. Registration also allows users to access all of HDDS Explorer's features, such as the saving of search criteria and accessing subscription services.

The HDDS Explorer registration management is a shared service with other USGS data access systems. This means that HDDS Explorer login credentials can also be used for the <u>USGS Global Visualization Viewer (GloVis)</u> and <u>USGS EarthExplorer</u> systems. Similarly, if the user has a pre-existing account on the USGS GloVis and/or EarthExplorer system, these credentials may also be used to access HDDS Explorer.

The information gathered from the registration process is not distributed to other organizations and is only used to determine trends in data usage. To ensure privacy and security, all information entered in the HDDS Explorer Registration Service uses Hypertext Transfer Protocol with Secure Sockets Layer (HTTPS) protocol. This protocol ensures that the information is encrypted from your browser to the HDDS Explorer application.

A new policy implemented on October 1, 2012 requires all pre-existing users update their registration information as additional items were added to the registration questionnaire. After the initial entry or update, users will be prompted every other year to re-verify their user profile.

The HDDS Explorer Registration interface consists of the following key elements:

- Registration
- Login
- Profile

User interface features in the registration service include the following:

- Values in **Bold Black** 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 advances to the next page in the registration process.
- An invalid entry produces a popup message explaining the error.
- The 'Cancel' button returns 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 HDDS Explorer menu.

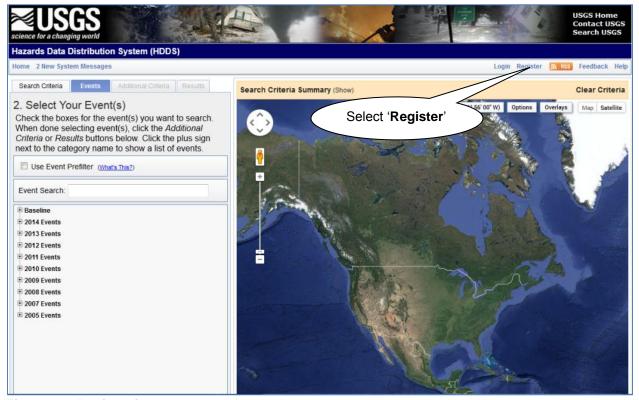


Figure 12 - Registration

## 1. Registration Login Page

The Registration process (Figure 12) requires users to create a username and password, select a secret question, and type a secret answer. Once registered with HDDS Explorer, only the 'Login' process is required.

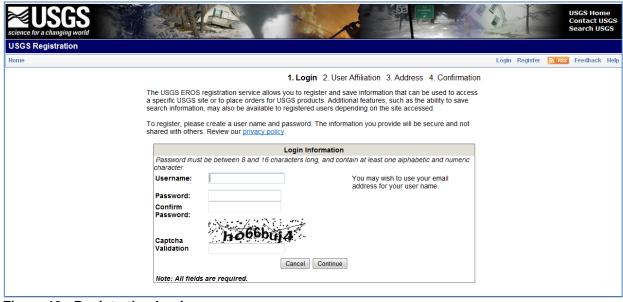


Figure 13 - Registration Login

The Registration Login page (Figure 13) requires users to type the following values:

• \*Username (Required) – Type preferred username.

- \*Password (Required) Type a password. The password must be between 8 and 16 characters long and contain at least one alphabetic character and one numeric character.
- \*Confirm Password (Required) Type the password entered in the previous password field.
- Captcha Validation (Required) Type in the system generated captcha response.
- Cancel Returns to the initial registration page without saving any information
- 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 14) allows users to enter affiliation and identify uses of the data. This information is used to gather statistics on data applications and types of organizations using remotely-sensed data.

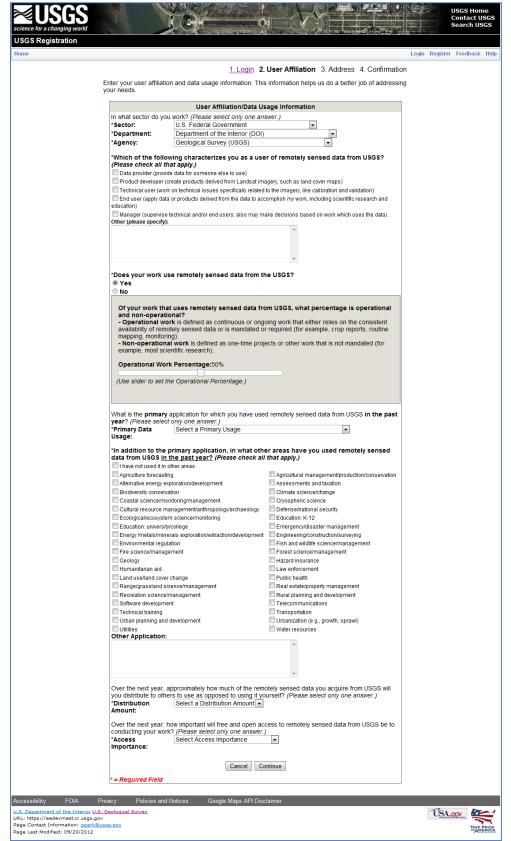


Figure 14 - User Affiliation/Data Usage Form

The User Affiliation/Data Usage (Figure 14) form identifies affiliation along with 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 users to type the following values:

- \*Sector: Indicates the organization affiliation (Required)
  - U.S. Federal Government
  - U.S. State/Provincial/Department Government
  - U.S. Local Government
  - Tribe/Nation/Indigenous Group
  - Non-U.S. Federal/National Government
  - Academic Institution
  - Non-profit Organization
  - Private Business
  - General Public
  - Other
- Additional Department/Agency: Based on the value selected above, additional information may be required, such as:
  - \*Department (Required)
  - \*Agency (Required)
- User of remotely sensed data: \*Which of the following characterizes you as a user of remotely sensed data from USGS? Select the characteristic that identifies your role as a user of remote sensed data. (Required)
  - Data provider
  - Product developer
  - Technical user
  - End user
  - Manager
  - Other (please specify)
  - \*Data Use: Does your work use remotely sensed data from the USGS (Y/N)
    (Required)? If yes, select the operational percentage that identifies the
    percentage used for operational support.
  - \*Primary application: Select the primary application for which you have used remotely sensed data from the USGS in the past year. Select one (1) item from the drop-down menu box. (Required)
  - \*Secondary use of data: In addition to the primary application, in what other areas have you used remotely sensed data from USGS in the past year?
     (Please check all that apply.) (Required)

- Other Application If none of the secondary values match, enter the other application(s) of the data.
- \*Distribution characteristics: Over the next year, approximately how much of the remotely sensed data you acquire from USGS will you distribute to others to use as opposed to using it yourself? (Please select only one answer.) (Required)
- \*Importance of free and open access to data: Over the next year, how important will free and open access to remotely sensed data from USGS be to conducting your work? (Please select only one answer.) (Required)

Cancel – Returns to the initial login page without saving any information.

Continue – Performs validation of the information entered; if the values entered are valid, the information is saved and you advance to the User Affiliation/Data Usage form.

## 3. Address page

Type the address information in the Address page (Figure 15). The address information is used only for contact information; however, some data products require shipping information to deliver products. Address information is not shared with any commercial or other government agencies. Please refer to the <a href="USGS/DOI">USGS/DOI</a> Privacy Policy concerning how this information is used.

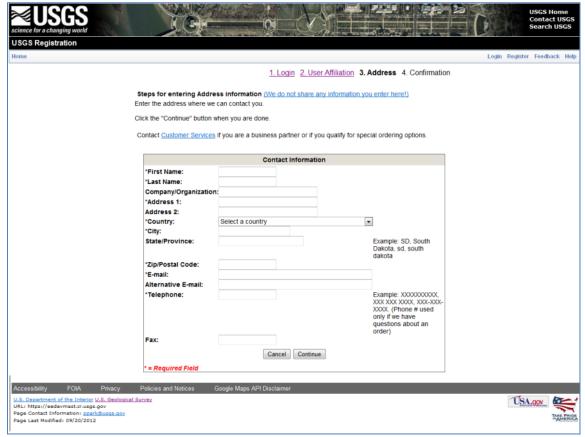


Figure 15 - Address

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 code.
- \*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 16) displays after successful registration. Click 'Return to the page where I registered' to return to the page you started the registration process.

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

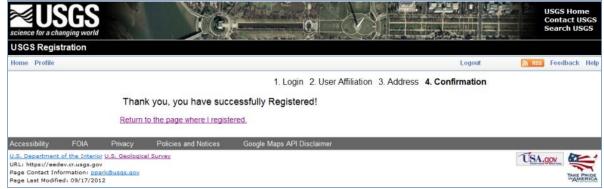


Figure 16 - Confirmation Page

## B. Login

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

## 5. Login Process

a. To log in, select the 'Login' menu item from the HDDS Explorer menu (Figure 17). (Note: After registering the first time, you are automatically logged in.)



Figure 17 - Login

b. Type the username and password and then click the 'Sign In' button (Figure 18).



Figure 18 - 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:

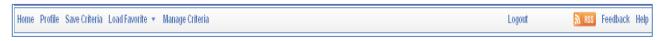


Figure 19 - Menu Bar Items

## 6. Logout Process

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

#### C. Access

Some HDDS data is provided under special licensing agreements that restrict the data's usage. Data is restricted on an event-by-event basis. An example of request for restricted data is commercial data that has a licensing agreement. Figure 9A is displayed to the user when selecting data requiring request for restricted data.

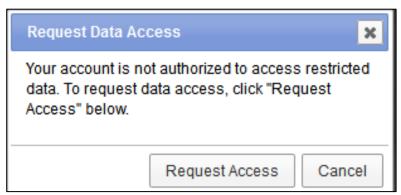


Figure 19A - Request Data Access dialog

Fill out the Access Request Form to gain access to restricted data for a particular event (Figure 19B). Fill out the information on the form and select 'Request Access'.

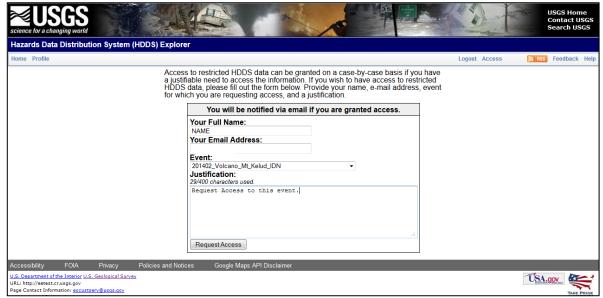


Figure 19B - Access Request Form

**Figure 19C** is the Access Request Form reply form. The request for access is reviewed by USGS Emergency Operations staff for validity, licensing restricts, organization, and needs of the user.

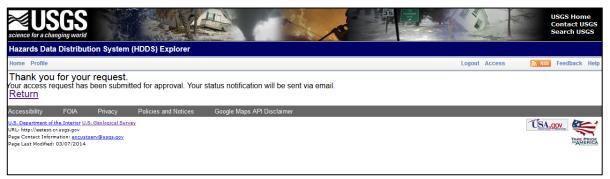


Figure 19C - Access Request Form reply

After review by Emergency Operations staff for applicability, an email is delivered to the requestor, indicating approval or disapproval (Figure ).

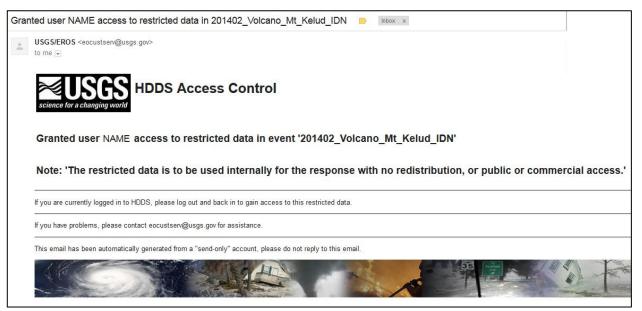


Figure 19D - Access Request approval email

#### D. Profile

The Profile menu allows users to modify profile information.

#### 7. Profile Home

The 'Profile Home' option allows users to modify profile information (Figure 20). The Username cannot be modified.

- a. Change Password View and change a password
- b. Contact Address View and modify contact address
- c. User Affiliation View and modify your affiliation

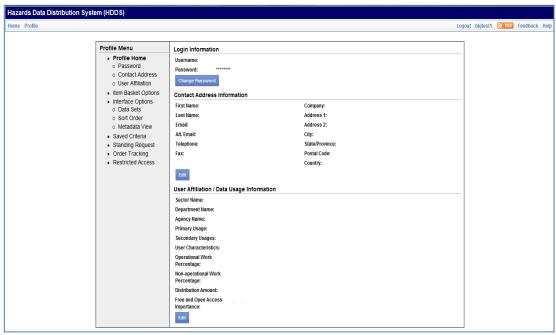


Figure 20 - Edit User Profile

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

## 8. Item Basket Options

Allows you to delete a bulk order. Only available when there are items in the item basket.

## 9. Interface Options

The 'Interface Options' page allows users to modify information associated with the overall system interface. The following options modify the overall HDDS Explorer interface:

d. Interface options (Figure 21) – Modifies the number of metadata results per page, result set size, allow standing requests and other specific system options. For some options, only the Application Administrator can modify.

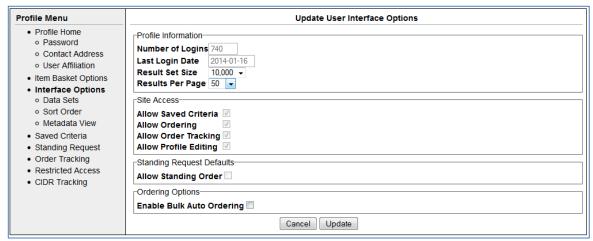


Figure 21 - Interface Options

e. Data Sets page (Figure 22) – Modifies the list of events shown in the Events list Component.



Figure 22 - Events List

f. Sort Order page (Figure 23) – Modifies the sort order for each event.



Figure 23 - Sort Order

g. Metadata View page (Figure 24) – Allows the user to modify the items and order of the detailed metadata view for each event by dragging and dropping the fields as desired.



Figure 24 - Metadata

#### 10. Saved Criteria

The 'Saved Criteria' option (

) – Modifies the saved criteria options from previous searches.

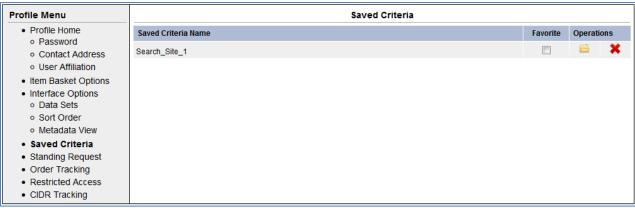


Figure 25 - Saved Criteria

In

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

- Selecting the favorite box icon saves the search criteria to the favorites list
- The load criteria icon loads the search criteria automatically to HDDSExplorer search criteria page
- The delete 

  icon removes the search criteria from the saved criteria

#### 11. Standing Request

Click the 'Standing Request' (Figure 26) to view a list of entered standing requests.



Figure 26 - Standing Request

The Standing Request function sends a notification via email when a new acquisition matches the search criteria for the requested event. The metadata and browse can be reviewed for the returned scenes. See Section IV, D, 3, Standing Request for more details on the Standing Request function.

## 12. Order Tracking

Click the 'Order Tracking' (Figure 27) option to display the list of orders that have been placed.

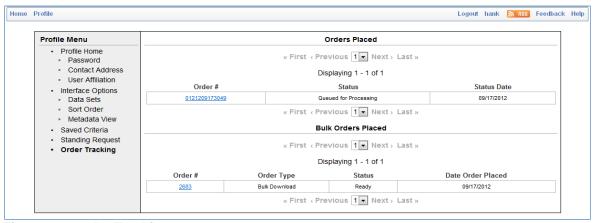


Figure 27 - Order Tracking

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

## IV.Perform a Search

HDDS Explorer allows users to search, download, and order data held in USGS archives through a number of query options. HDDS Explorer uses tabs in the search application to move through each portion of the process. The HDDS Explorer search process/component is divided into four main areas (Figure 28):

- Events Tab Provides the interface for selecting the events to be searched.
- Search Criteria Tab Provides the interface for entering basic search criteria of location and date.
- Additional Criteria Tab Provides an interface for entering additional search criteria specific to the selected events.
- Results Tab Initiates the search and provides the interface for displaying a textual and graphical view of the query results.



Figure 28 - HDDS Explorer Search Tabs

#### A. Select Events:

The 'Events' tab selects which event(s) to search (Figure 29).



Figure 29 - HDDS Explorer Search Tabs - Events

The 'Events' menu (Figure 30) categorizes events into similar event categories. HDDS Explorer 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 events for that collection. Click the minus sign ( •) next to the category name to collapse the list.

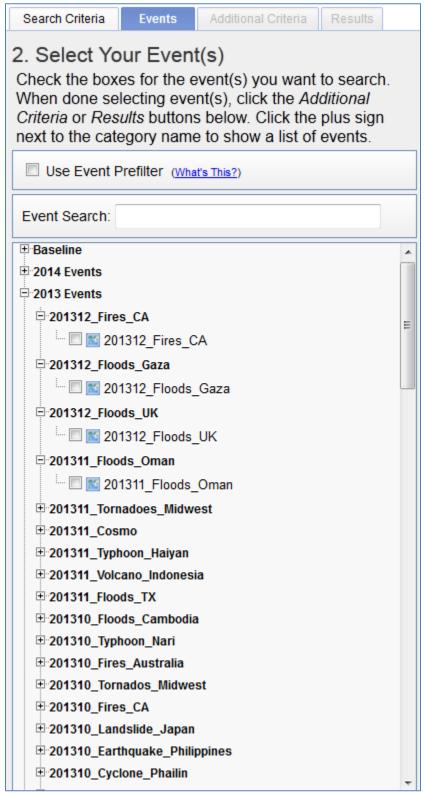


Figure 30 - Data Set Selection Expandable View

Information about a collection is identified with the 'Related Links' icon ( ). Information about each event is identified with the Information icon ( ). Moving the mouse pointer over an event displays a longer description of the event (Figure 31). Selecting the event coverage icon ' displays the coverage area of the event on the map.



Figure 31 - Event mouse over example

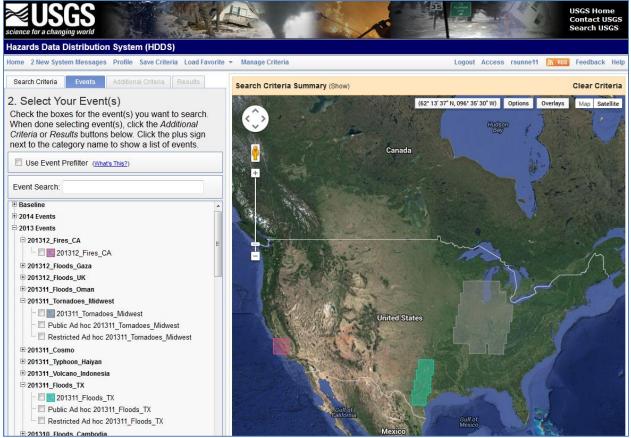


Figure 32 - Event coverage for 201312\_Fires\_CA, 2013\_Tornadoes Midwest, and 201311 Floods TX

Event Prefilter – Select the Event Prefilter option to filter out any events that do not match the parameters input on the Search Criteria tab (Figure 33). Apply the prefilter to narrow the list of events to include only those events that include the area of interest and date range selected on the Search Criteria tab.



Figure 33 - Event Prefilter

Click the 'Clear All Selected' button to deselect all events that were previously selected.

After selecting an event, 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.

#### B. Search Criteria Tab

The Search Criteria tab is used to enter search criteria based on date and area of interest. Users have the option to either type the location criteria via the textual information component or can use the Google Map interface. The search criteria options include:

- Google Map Interface Enter the area of interest through the Google Map interface
- Address/Place tab Type an address or place name
- Feature tab enter the name of a feature to determine location
- Circle tab When the circle option on the Google map is turned on, use this tab
  to enter a lat/long location and define a radius for a circle
- Coordinates tab Enter coordinates to define an area of interest. The area selected is updated as changes are made
- Predefined Area Select from a list of predefined areas for a query, such as state, county, or congressional district
- Shapefile or KML tabs Upload an ESRI shapefile or KML/KMZ file as the query area
- Degree/Minute/Second or Decimal tabs The option to display area of interest and Google Map coordinates in DMS or Decimal degrees.
- Date Range tab Enter an acquisition date or date range
- Result Options tab -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 34) – 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 under the 'Coordinates' section. The coordinates can be toggled between Degree/Minute/Second and Decimal degrees.

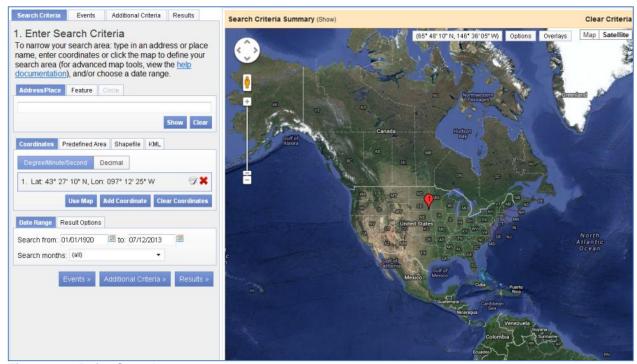


Figure 34 - Point Search

b. Define a line search (Figure 35) – 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 under the 'Coordinates' section.

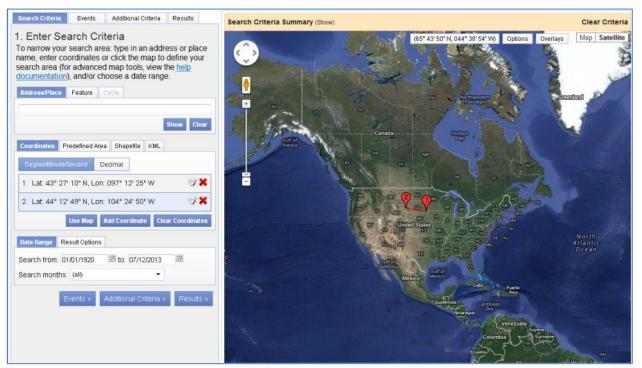


Figure 35 - Line Search

c. Define a rectangle search (Figure 36) – 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 under the 'Coordinates' section. To modify the rectangle, click one of the numbered points on the map and drag the point to a new location.

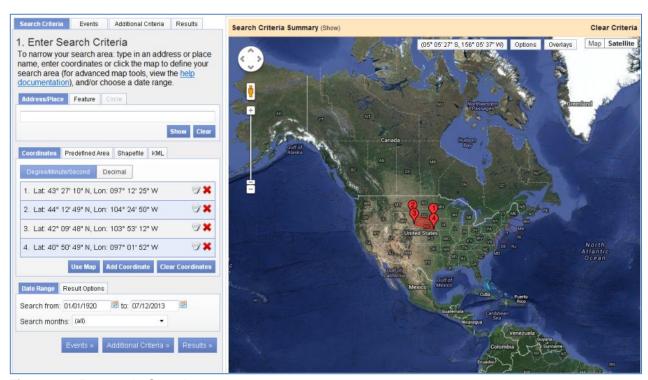


Figure 36 - Rectangle Search

d. Define a polygon – Click multiple times to define an area (Figure 37). As each point of the polygon is selected, the latitude and longitude of the defined polygon displays under the 'Coordinates' section. To modify the rectangle, click one of the numbered points on the map and drag the point to a new location.

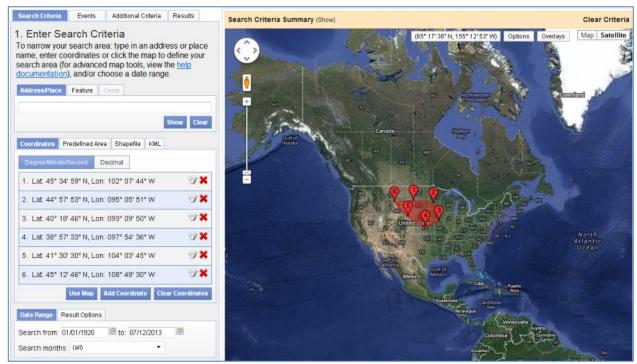
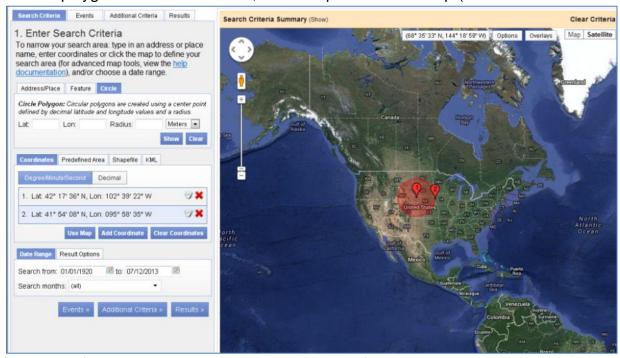


Figure 37 - Polygon Search

e. Define a circle – Select the Options tab on the Google Map display then click the 'Circle' option (Figure 38). The 'Search Criteria' box allows entry of a circular polygon. To define a circle, click two points on the map (



). 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 under the 'Coordinates' section. Select "Polygon Tool" to turn off the Circular Polygon tool.



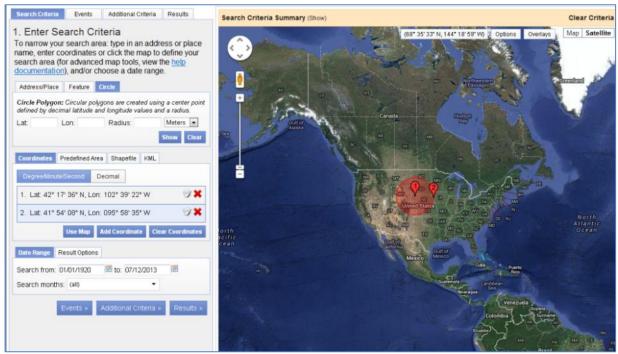


Figure 39 - Example circular area of interest

Clear Selection (Figure 40) – Click the 'Clear Coordinates' button to clear the geographic search criteria from the map.



Figure 40 - Clear Selection

f. Add Map to Selection (Figure 41) – Click the 'Use Map' button to add the current map view as the area of interest.



Figure 41 - Add Map to Selection

The color of the screen changes, indicating the area displayed on the map as an area of interest (Figure 42). The latitude and longitude of the map extent will be displayed under the 'Coordinates' section.

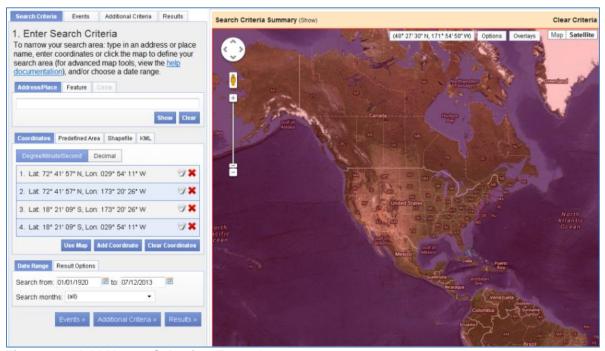


Figure 42 - Add Map to Selection Example

## 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 43). Press Enter or click 'Show' to display the location on the map along with the latitude and longitude under the 'Coordinates' section (Figure 44).

# 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 47914 252nd St, Sioux Falls, SD Show Clear

Figure 43 - Enter Address

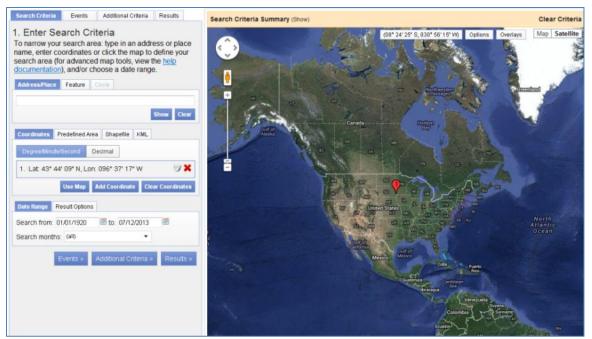


Figure 44 - Enter Address Location

b. Latitude/Longitude – Enter a specific latitude/longitude; for example, type 43 43' 57" N, 096 37' 42" W (Figure 45). Press Enter or click 'Show' to display the location on the map and to populate the 'Coordinates' section. (Figure 46).



Figure 45 - Enter Latitude/Longitude

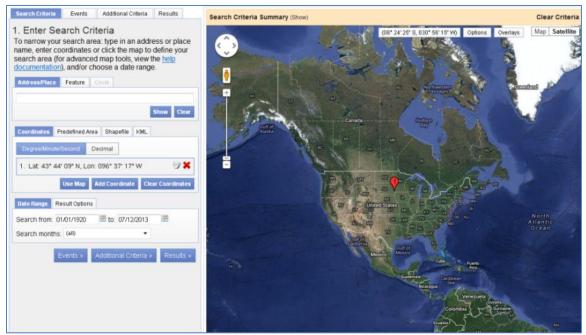


Figure 46 - Enter Latitude/Longitude Location

c. Place Name – Enter a place name. For example, type Mount Rushmore (Figure 47) and press Enter or click 'Show' to display the location on the map and to populate the 'Coordinates' section.(Figure 48).

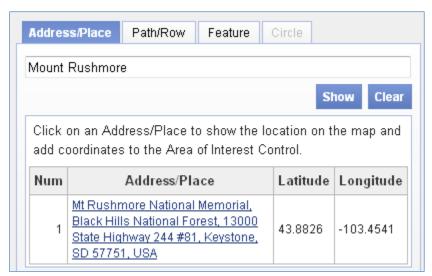


Figure 47 - Place Name

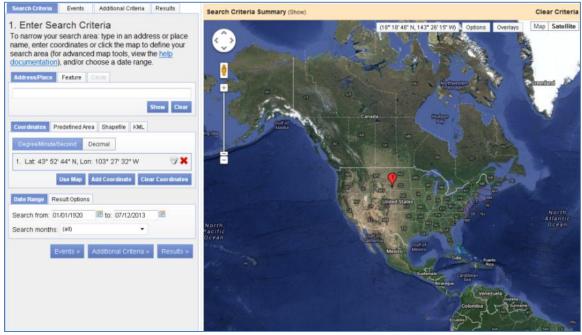


Figure 48 - Place Name - Specific location

If you are unsure of a specific location, type a place name and press Enter (or click 'Show') to display a list of possible options. For example, type Hoover Dam and then click 'Show' to display a list of possible places that match Hoover Dam.

Click an item in the Address/Place list to show the location on the map (Figure 49).

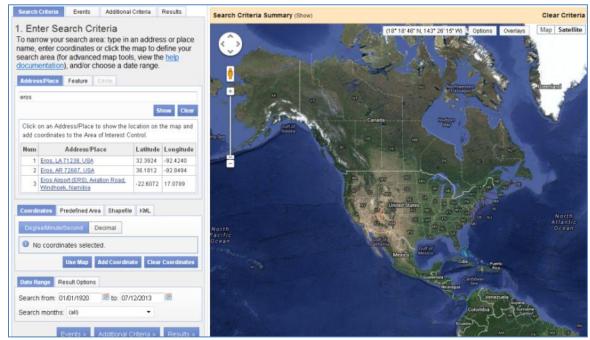


Figure 49 - Place Name - Multiple Option - Selected Place

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

Click the 'Feature' button to display the US/World Feature Search dialog box. Type in a geographic feature name or select a State/Country, Feature Class, or Feature type from a drop-down menu (Figure 50).

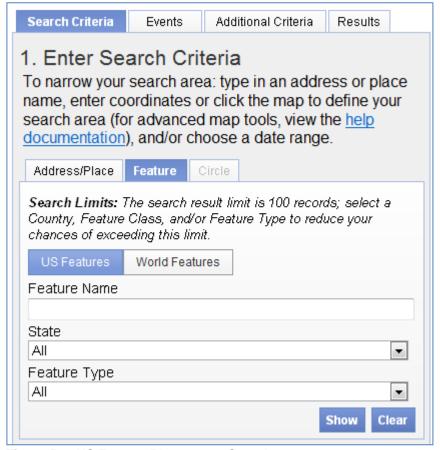


Figure 50 - US Feature Place name Search

For example, on the 'US Features' tab, select 'South Dakota' from the State drop-down menu, select 'Airport' from the Feature Type drop-down menu, and click 'Search' to display a list of all airports in South Dakota (Figure 51).

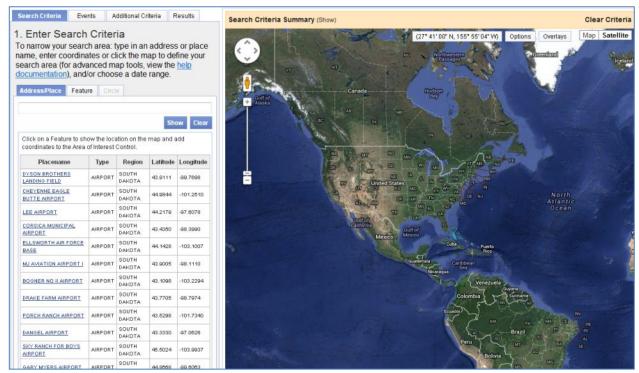


Figure 51 - US Feature Place name Search Results

Click the desired feature from the results list to close the dialog and display the feature location on the map (Figure 52).

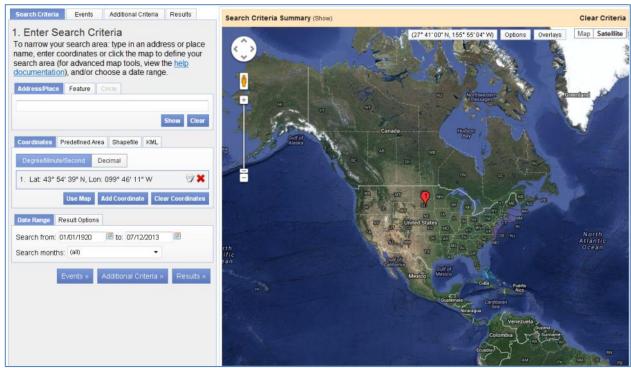


Figure 52 - US Feature Place name Selected

# 3. Enter Search manually using Coordinates or Shapes Area Selected

A second way to define an area of interest is to manually type the latitude/longitude in the Coordinates tab.

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 53).



Figure 53 - Add Coordinate

Click 'Add Coordinate' to display the 'Add new Coordinate' dialog box. As shown in Figure 54, 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 coordinates are displayed. Use this method to enter multiple points (Figure 55).

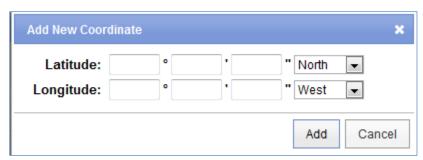


Figure 54 - Add New Coordinate

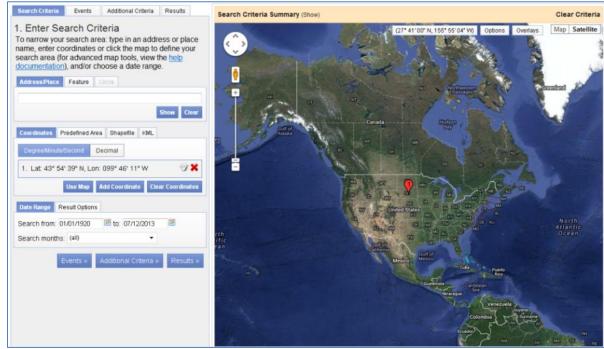


Figure 55 - Add New Coordinate Location

Click **★** to delete a coordinate or click **✓** to edit a coordinate (Figure 56).

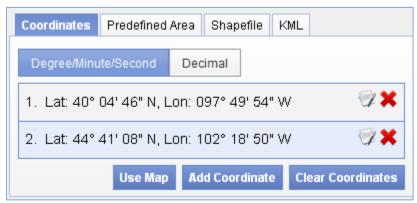


Figure 56 - Delete or Edit Coordinates

#### 4. Predefined Area

The 'Predefined Area' option provides a list of predefined areas to perform a search on. The list of predefined areas includes:

- States
- Counties
- Congressional Districts

Selecting the 'Predefined Area' tab displays the 'Add Shape' dialog box as shown in Figure 57. Select the desired State, Area type (State, County, Congress District), and Area (County name or Congressional District name).

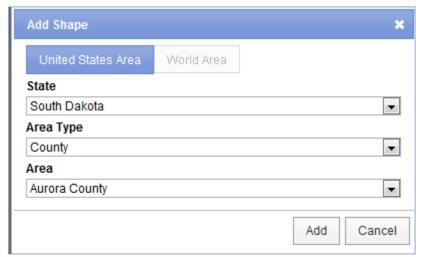


Figure 57 - Predefined Area - Add Shape

The outline of the selected Predefined area is then displayed on the Google Map interface (Figure 58).

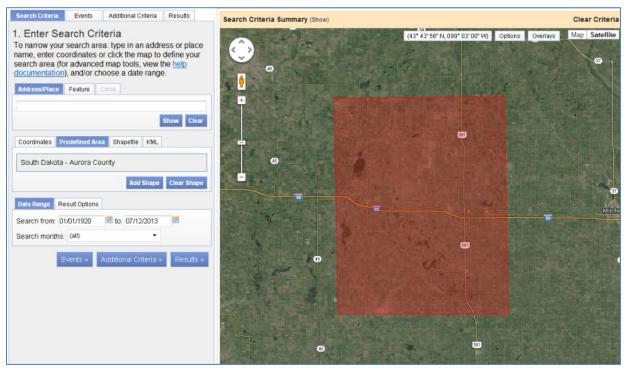


Figure 58 - Predefined Search Area

## 5. Upload ESRI Shapefile or KML file

The HDDS Explorer interface provides the capability to upload either an ESRI Shapefile or Google Earth Keyhole Markup Language (KML) file as search criteria.

# a. Upload ESRI Shapefile

Selecting the 'Shapefile' tab on the 'Coordinates' dialog box displays the input form for the uploading ESRI Shapefile information for a search area (Figure 59). Shapefiles are limited to one record containing one polygon or line string with a maximum 30 points.

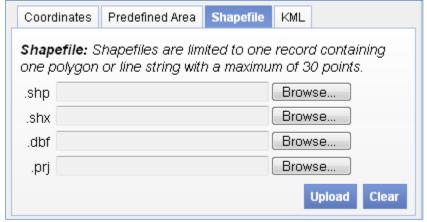


Figure 59 - Upload ESRI Shapefile

The ESRI Shapefile dialog box requires all of the following files: .shp, .shx, .dbf and .dbf.

# b. Upload KML/KMZ file

Selecting the 'KML' tab on the 'Coordinates' dialog box displays the input form for the uploading a KML or KMZ file for a search area (Figure 59). The KML or KMZ file is limited to one record containing one polygon or line string with a maximum 30 points.



Figure 60 - Upload KML/KMZ file

Browse to the desired KML or KMZ file, select the desired file, and then select the 'Upload' file button to process the KML/KMZ file to the desired polygon search area. Figure 61 is an example KML file uploaded to HDDS Explorer with 4 polygon points identified in the KML.

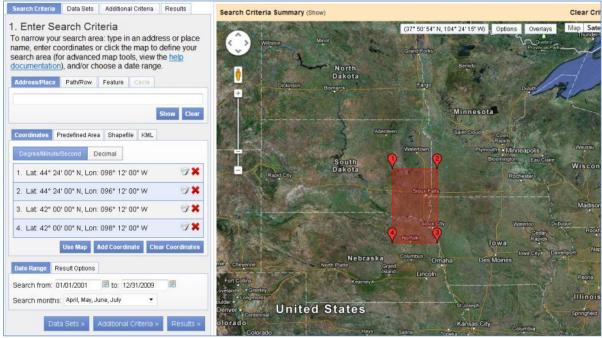


Figure 61 - Example uploaded KML file

The following is the example used to create the KML polygon search example.

```
<?xml version="1.0" encoding="UTF-8"?>
<kml xmlns="http://earth.google.com/kml/2.0">
<Document>
<Placemark>
<Polygon> <outerBoundaryIs> <LinearRing>
 <coordinates>
 -98.2,44.4
 -96.2,44.4
 -96.2,42
 -98.2,42
 -98.2,44.4
 </coordinates>
</LinearRing> </outerBoundaryIs> </Polygon>
<Style>
 <PolyStyle>
 <color>#a00000ff</color>
 <outline>0</outline>
 </PolyStyle>
</Style>
</Placemark>
</Document></kml>
```

## 6. Dates Selected

The 'Dates Selected' option provides a method for entering a beginning and ending acquisition date range to refine the search criteria (Figure 62). 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 62 shows a search range of 01/01/2008 to 12/31/2009, with selected months of April, May, June, and July.

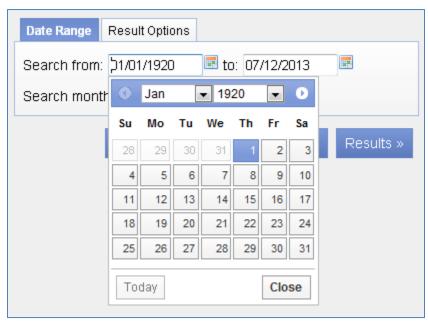


Figure 62 - Dates Selected

#### 7. Number of records to return

The HDDS Explorer interface allows you to select the number of records to return from a search. Use the 'Results Options' tab to select the maximum number of scenes returned (Figure 63). The maximum number available can be modified in the Interface Options of the user Profile.

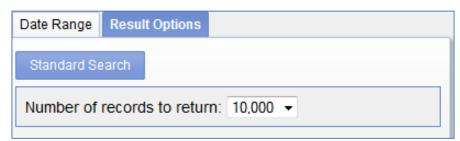


Figure 63 - Number of records to return

Once you enter the search criteria, click the 'Results' tab at the top or bottom of the 'Enter Search Criteria' form or proceed to the Additional Criteria tab.

# C. Enter Additional Criteria:

The 'Additional Criteria' tab is an optional input area that allows the entry of additional search criteria specific to the event(s) selected. Click the 'Additional Criteria' tab to display the additional criteria for the first event selected (Figure 64). The type and number of search criteria will vary by event.

Search Criteria Events Additional Criteria Results

Figure 64 - HDDS Explorer Additional Criteria Tab

To narrow the results of a search, each event in HDDS Explorer has additional specific criteria that can be entered (Figure 65).

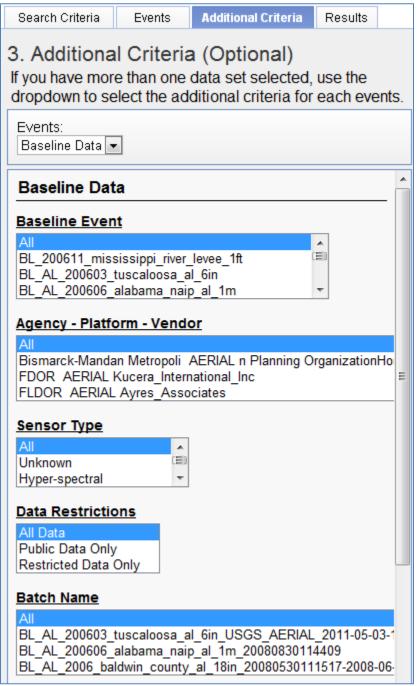


Figure 65 - Example Additional Criteria form

Select the event from the drop-down menu (if you only select one event, only one event appears in the drop-down menu) (Figure 66).



Figure 66 - Event Criteria forms

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

- Baseline Event
- Directory
- Filename

Click the title of a search criteria attribute link to the data dictionary for the selected data set to provide information about the particular search item.

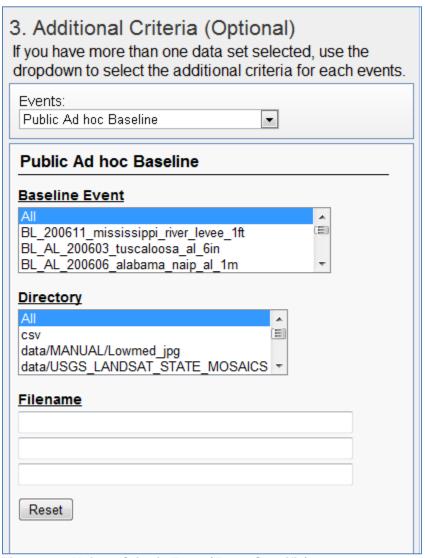


Figure 67 - Unique Criteria Form (Event-Specific)

Enter the additional criteria as desired to narrow the search (Figure 67). Click the 'Reset' button to clear the page of the current event listed. The 'Reset All' button clears the criteria forms for all the events listed. Once you enter the additional criteria (if any), click the 'Results' tab near the top of the screen or the button near the bottom of the screen to execute a search. Wild card characters such as '%' and '?' can be used in the text fields to help narrow down searches.

## D. View Search Results

The 'Results' tab (Figure 68) executes a search based on the search criteria and displays the results. 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 69).



Figure 68 - HDDS Explorer Results Tab

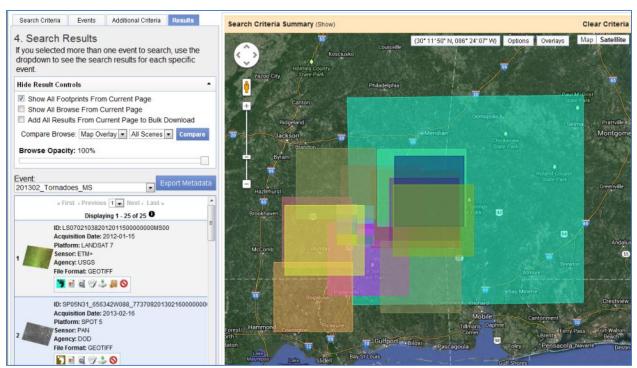


Figure 69 - Example Results

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 Result Controls (Figure 70) 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
- Add all search results displayed on this page to the bulk item basket
- Add all search results from current page to order
- Compare Browse tool

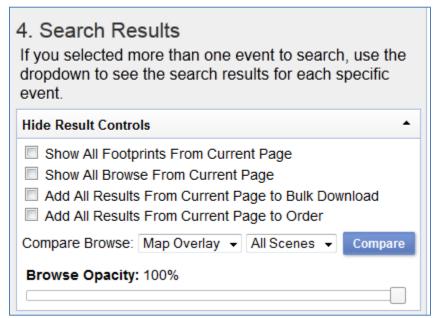


Figure 70 - Search Result Controls

Select 'Show All Footprints' (Figure 71) to display all footprints from the current page of results. Deselect to clear the footprints.

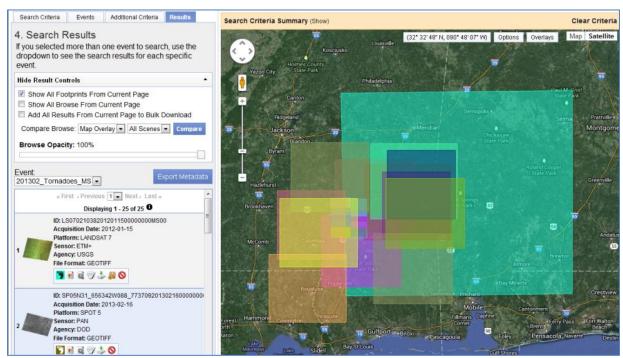


Figure 71 - Show All Footprints

Select 'Show All Browse' (Figure 72) to display all browse from the current page of results. Deselect this option to clear all browse.

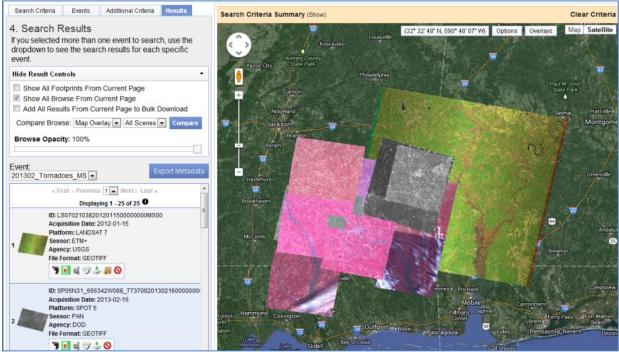


Figure 72 - Show All Browse

Select 'Add All Results from Page to Bulk Download will add all results displayed on the current page to the item selection basket as a bulk order. You must be logged in for this option to be displayed.

Select 'Add All Results from Page to Order' ( ) to add all results displayed on the current page to the item selection basket. You must be logged in for this option to be displayed.

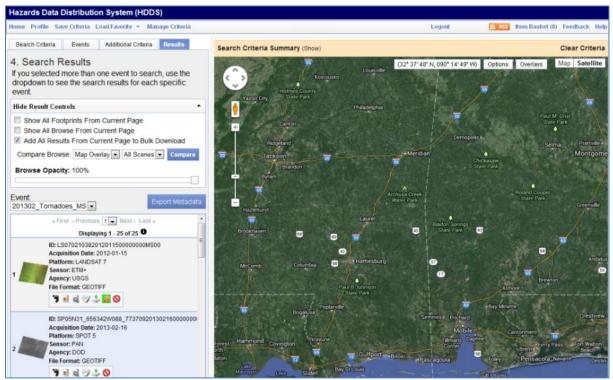


Figure 73 - Add All Results from Current Page to Bulk Download

The 'Browse Opacity' slider (Figure 74) adjusts the opacity level of the overlay browse images.

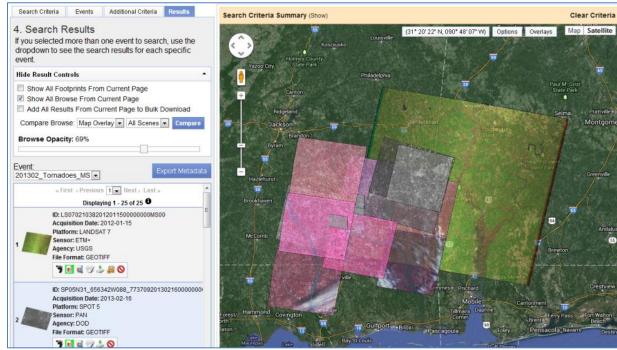


Figure 74 - Browse Opacity Example

## 2. Search Results List

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

# c. Multiple Events

HDDS Explorer searches multiple events (Figure 75). The results of the first event display in the results panel. Use the "Event" selection box to select and view each additional event.

Figure 76 displays an example of search results.

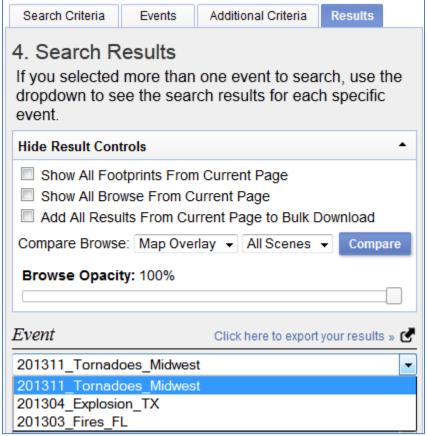


Figure 75 - Select Event Results

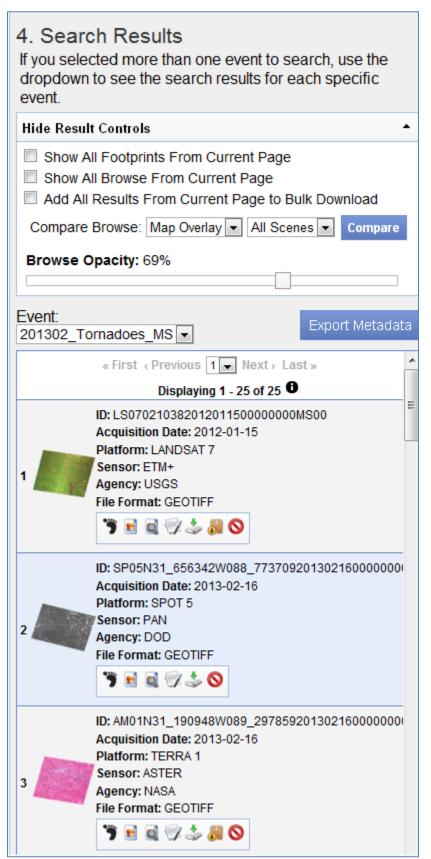


Figure 76 - Example Search Results

# d. Overlay and Download Controls

Each search result record includes a thumbnail image, attribute information on each scene, links to view browse and download data, and other visualization controls. Based on the event and user profile, some controls may not be available (Figure 77).



Figure 77 - 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 78). 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.

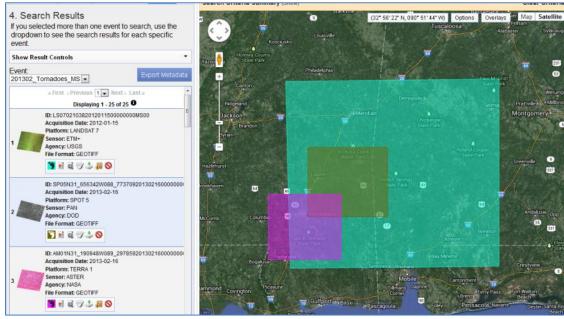


Figure 78 - Footprint Overlay

Show Browse Overlay – Click the 'Show Browse Overlay' ( ) icon to display a preview image (browse) of the scene on the map ( Figure 79). 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.

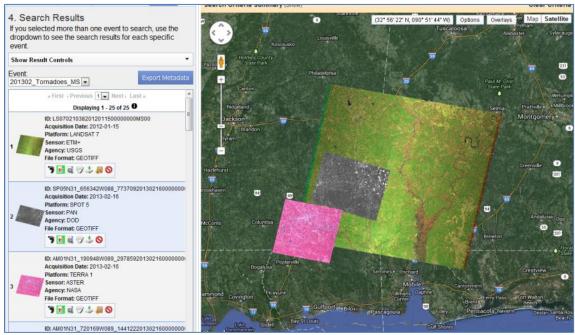


Figure 79 - Browse Overlay

- Show Metadata and Browse Click the thumbnail image or icon to display the browse image and full metadata for the selected scene (Section IV, e). The metadata may be customized through the profile screen.
- Download Options Click the 'Download Options' icon ( ) to allow registered users to download the selected data ( Figure 80). Selecting the 'Download Options' icon before registering or logging in displays the following prompt:



Figure 80 - Login before downloading

Click the 'Login' to log in to HDDS Explorer.

After logging in and clicking the 'Download Options' icon, a page similar to the following displays (Figure 81):

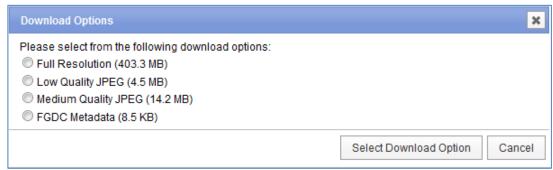


Figure 81 - Download Options Dialog

Depending on the event, multiple products may be available for download. After selecting the desired product, and clicking "Select Download Option", the following dialog displays (Figure 82):



Figure 82 - Download Scene

Click 'Download' to start the download process. A 'File Download' dialog box displays ( Figure 83). Select 'Save' to prompt for the location to save the file.

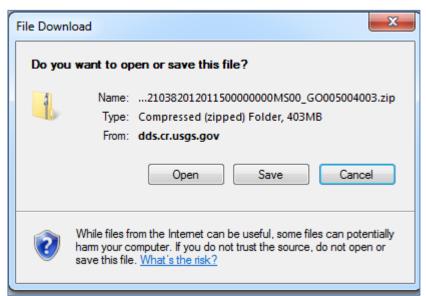


Figure 83 - Download Scene Dialog

Bulk download – Click the 'Bulk Download' icon ( ) to allow registered users to bulk download the selected data (Figure 84). Selecting the 'Bulk Download' icon adds the selected scenes to the Item Basket.

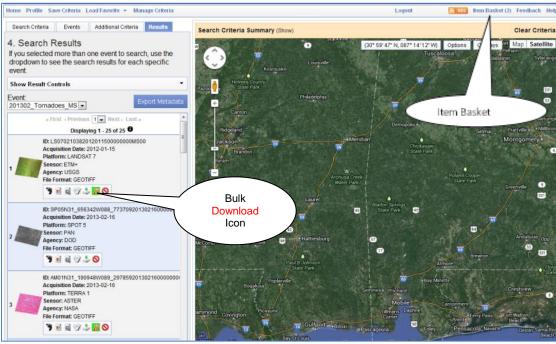


Figure 84 - Bulk Download - Added to Item Basket

Selecting the 'Item Basket' in the menu displays the 'Bulk Download Item Basket' (Figure 85). Based on the event, multiple options may be available to select the type of product(s) to download.

After identifying the type of product desired, select the 'Proceed to Checkout' button to review the bulk request (Figure 86).

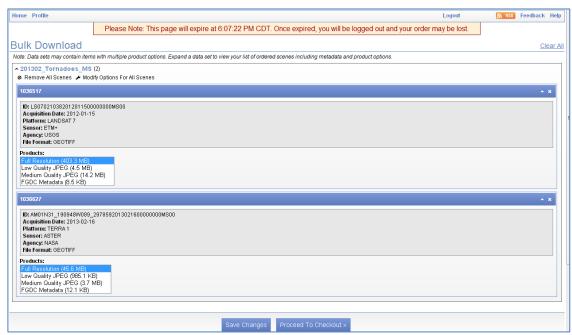


Figure 85 - Bulk Download Item Basket

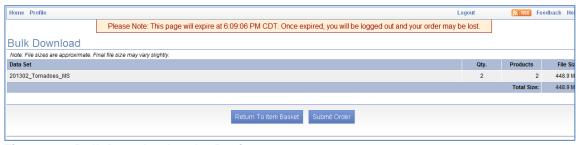


Figure 86 - Bulk Download Order Review

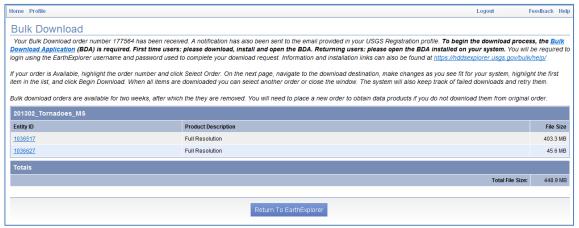


Figure 87 - Bulk Download Validation

Selecting the 'Submit Order' button submits the bulk order for processing.

The 'Bulk Download Validation' form (Figure 87) displays the scenes requested through the bulk download interface. To begin the download process, the Bulk Download Application (BDA) is required. First time users: please download, install and open the BDA. Returning users: please open the BDA installed on your system. You will be required to login using the HDDS Explorer username and password used to complete your bulk download request.

#### e. Browse and Metadata

HDDS Explorer displays a thumbnail image, browse, and detailed metadata information for each scene returned from a search (Figure 88).



Figure 88 - Example Scene Level Results

Show Browse and Metadata – On the thumbnail, mouse over to display the 'Show Browse and Metadata' (Figure 89).

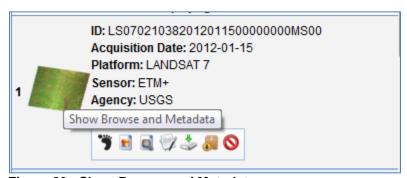


Figure 89 - Show Browse and Metadata

Click the thumbnail image or icon to display the reduced resolution browse image and full metadata for the selected scene (Figure 90).



Figure 90 - 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 is displayed to allow viewing multiple browse images.
- Data Set Attributes Each data set has a unique set of attributes describing the metadata associated with the listed scene. Each attribute has a hyperlink to the data dictionary to provide detailed information on that particular attribute.
- 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 91).

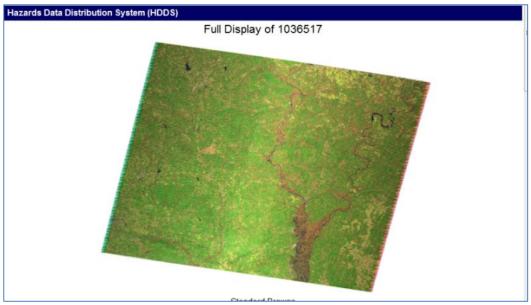


Figure 91 - Open New Window - Display Browse

 FGDC Format – Click the 'FGDC Format' button at the bottom of the Data Set Attributes screen to display the metadata in the Federal Geographic Data Committee (FGDC) format. Scroll down to the bottom of the FGDC view and Click 'Table Format' to return to the 'Browse and Metadata' view ( Figure 92).

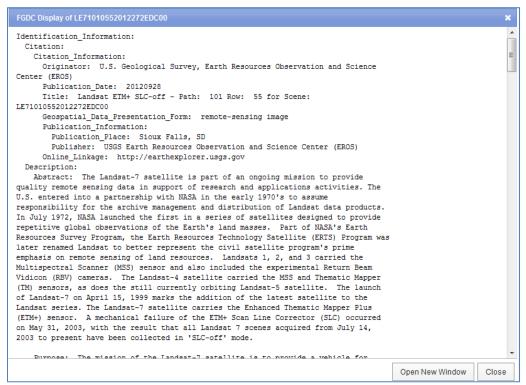


Figure 92 - FGDC Format

f. Search Results Controls

The HDDS Explorer 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 50 of 50 <sup>●</sup> ) Click to see the number of records in the event. Figure 93 provides an example. In this case, the search returned 50 records but the number of items in the event is 1,036,237 (Figure 94).



Figure 93 - Default Search Results Returned = 50



Figure 94 - Total Search Results of query = 1,036,237

To modify the number of search results, refer to the 'Profile' on the HDDS Explorer menu. Select the 'Results per Page' in the profile to modify the 'Results Per Page:' on the 'Update User Interface Options' panel (Figure 95).

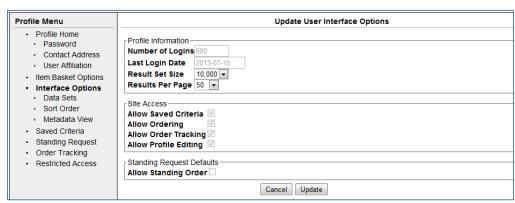


Figure 95 - Search Criteria - Number of records to return

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

## g. Export Metadata

HDDS Explorer provides an option to 'Export Metadata' results in a number of popular formats. Figure 96 is an example of the Metadata Export Dialog Box. Selecting the Export Type to select metadata results from the 'Current Results' or 'Non-Limited Results' to export the entire dataset. (**Error! Reference source not found.**).

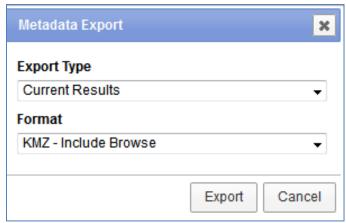


Figure 96 - Metadata Export Dialog Box

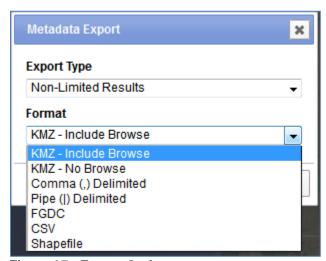


Figure 97 - Export Options

To export metadata, select the 'Click here to export your results'. Select the 'Include Browse' option to include browse images with the metadata. To export the entire dataset, use the 'Non-Limited Results' option.

The following metadata formats are supported:

 KMZ - Generates a .kmz 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 standard is used for this KMZ file.
- Comma Delimited Generates a .txt file, with the delimiter being a comma for easy ingest into Microsoft Excel.
- Pipe Delimited Generates a .txt file, with the delimiter being a pipe '|' for easy ingest into popular database packages.
- FGDC Generates a FGDC format file in ISO 19115 format.
- Full Results (CSV) 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.
- 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.

The export process is a batch process so as not to tie up the user's metadata request. The metadata requested is emailed to the customer's email address in their profile. The message displayed in **Error! Reference source not found.** is n information message for the user to check their email in a few minutes for their metadata results.

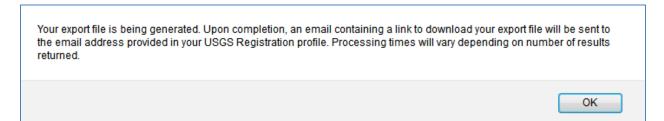


Figure 98 - Export Message

Figure 99 is an example message for metadata results:

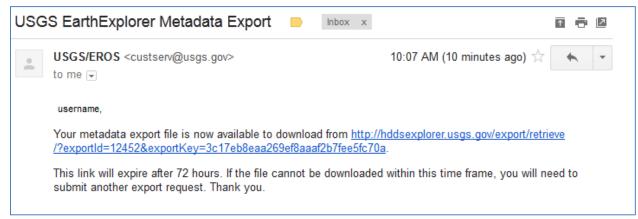


Figure 99 - Example metadata results message

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

## 3. Web Mapping Services (WMS) On Demand Request

A Web Mapping Service (WMS) order request can be placed from the Results tab. This is accomplished by adding individual scenes to the Item Basket or selecting "Add All Results From Current Page to Order". Select Item Basket and an order will be submitted to receive the WMS link. Note: The WMS data is created from the 90 percent quality medium resolution product.

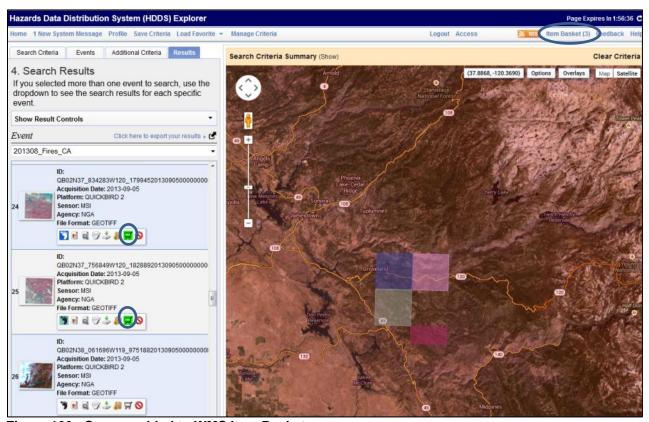


Figure 100 - Scenes added to WMS Item Basket

Selecting the 'Item Basket' in the menu displays the 'On-Demand Item Basket' (Figure 101).

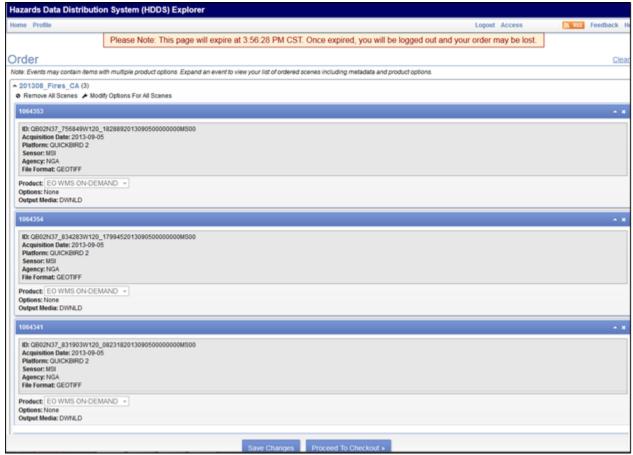


Figure 101 - On-Demand Item Basket

Make changes to the scenes in the WMS request, remove scenes, or if the order request is correct, select the 'Proceed to Checkout' button.

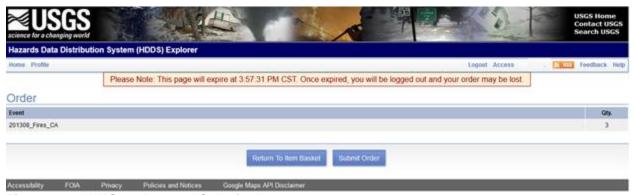


Figure 102 - WMS On Demand Submittal

Selecting the 'Submit Order' button in Figure 102 submits the WMS order request for processing. Figure 103 is the WMS order summary screen. Select the 'Return To HDDS Explorer' to continue.



Figure 103 - WMS on Demand Order Summary

A USGS Online Order Confirmation email will be sent with the order details (Figure 104).

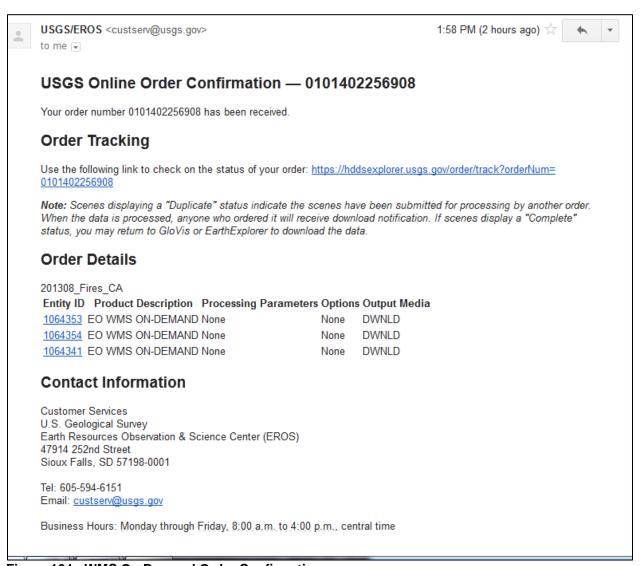


Figure 104 - WMS On Demand Order Confirmation

When the order is complete, a USGS WMS email notification (Figure 105) is delivered containing the WMS link that can be copied into a GIS software package or mapping tool to access the data. The WMS link will only be available for two weeks.

USGS/EROS eocustserv@usgs.gov

Greetings,

End User License Agreement

You have selected a data set that may include usage restrictions. These data are subject to the terms and conditions specified in the accompanying license.

Use of the data in published work shall include the copyright/logo from the original data provider. Any data redistributed to licensed users shall include a copy of the license agreement.

USGS will not be held responsible or liable for misuse or misrepresentation by the end users and is not required to enforce these provisions beyond communicating them to the user. It is the responsibility of the user to adhere to these terms and conditions.

\_\_\_\_

The Web Map Service(WMS) product the you ordered from the USGS is now available.

A GIS software application or online mapping tool that supports WMS is required for viewing the georeferenced data from the USGS WMS server. The WMS link provides access to data by connecting to a server over the Internet without having to download large files on your computer. Please note that the link is not intended to work in a basic web browser or as a download.

The following URL can be copied to your GIS software package or mapping tool to access the data. The WMS link will only be available for two weeks.

http://earthexplorer.usgs.gov/wms/custom/25d78da4-3e09-4617-9343-ef1f0ef307a9

The USGS WMS server provides access to an image of the data for basic mapping and data visualization applications, but does not provide access to the actual data files. You may return to HDDS Explorer to download data products for more complex analysis.

If you have any questions, please contact Customer Services at <a href="eocustserv@usgs.gov">eocustserv@usgs.gov</a>. For help with your mapping application, please check your help files or on-line GIS references for specific instructions on how to add a map service.

Thank you,

**USGS EROS Customer Services** 

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Technical Services Support Contract to the

USGS Earth Resources Observation and Science Center

47914 - 252nd Street Sioux Falls, SD 57198 Phone: (605) 594-6151 Toll Free: 800-252-4547 Fax: (605) 594-6589

Fax: (603) 394-6389 Email: eocustserv@usgs.gov Website: http://eros.usgs.gov

Figure 105 - WMS On Demand email with WMS Link

The following example depicts how to use a WMS On Demand Order link in ESRI ArcMap. Other GIS packages provide similar capabilities. To add the wms layer to ArcMap, select the 'Add Data' function in ArcMap (Figure 106).

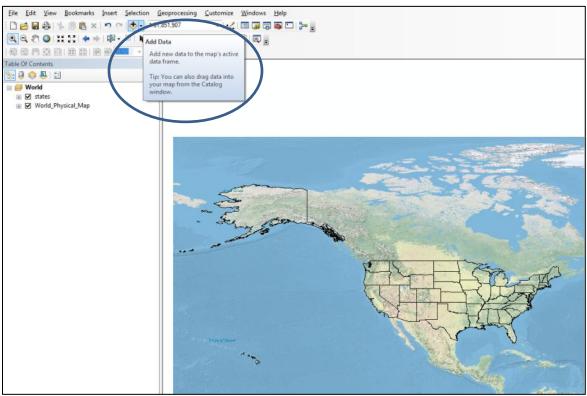


Figure 106 - Example ESRI ArcMAP - Add Data

In the 'Add Data' function, selection 'GIS Servers' in the 'Look in:' dialog box (Figure 107).

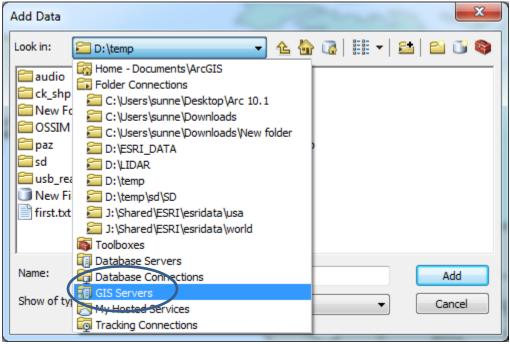


Figure 107 - Add GIS Servers

Figure 108 is the ArcMap GIS Servers dialog box. Select the 'Add' button in the dialog. This will display the dialog box in Figure 109.

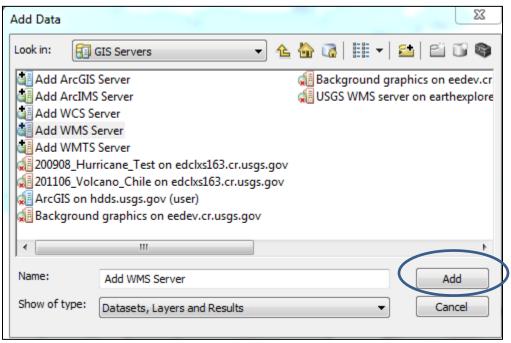


Figure 108 - Add WMS Server

The 'Add WMS Server' dialog allows you to insert the WMS link received in the email into the 'URL' field in the dialog box (Figure 109). After pasting the WMS link into the URL field, select the 'Get Layers' button.

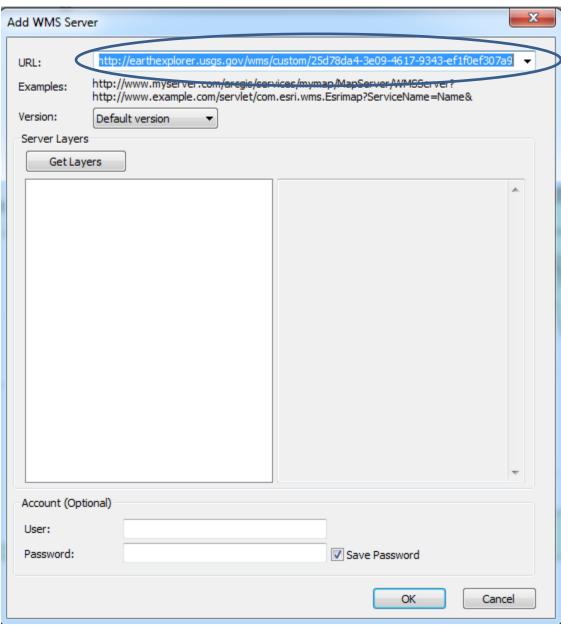


Figure 109 - Paste link from email into URL

Selecting the 'Get Layers' button displays the list of scenes selected in the WMS request (Figure 110). Select the 'OK' button to proceed to Figure 111.

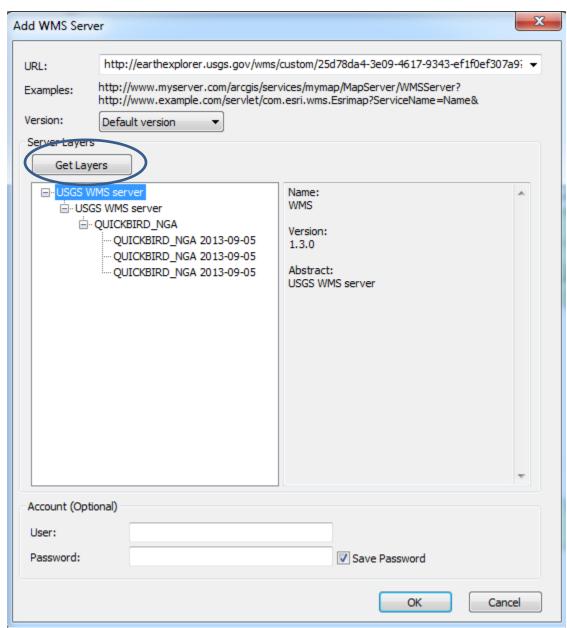


Figure 110 - Add Layers (Select Get Layers)

Selecting the 'Add' button in the 'Add Data' dialog in Figure 111 will add the WMS layer to the ArcMap layout.

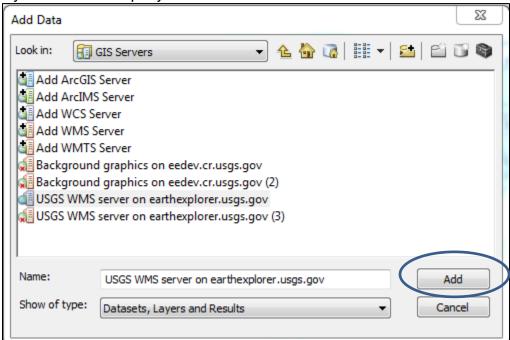


Figure 111 - Add Layer to ArcMap Layout

Figure 112 is an example of the WMS layer added in the ArcMap Table of Contents dialog.

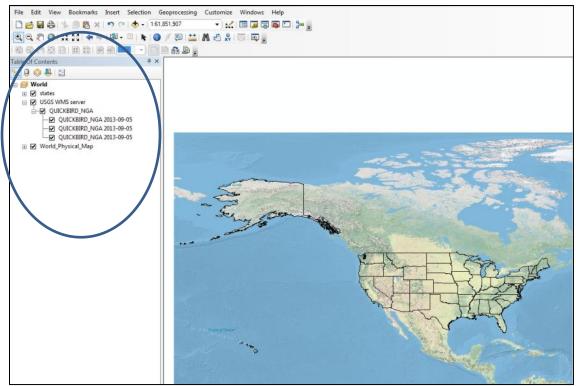


Figure 112 - List of WMS Scenes selected in the WMS Layer are displayed in ArcMap Table of Contents

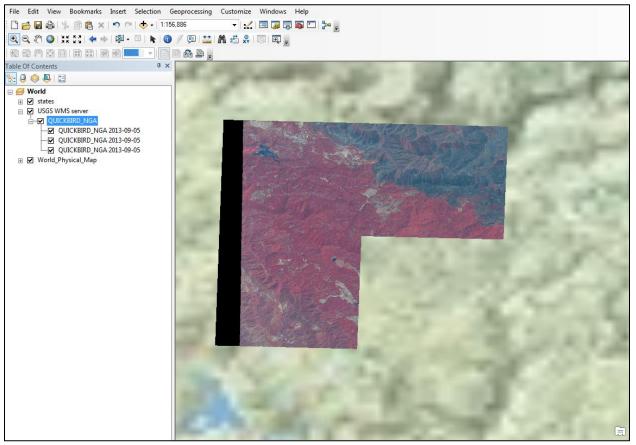


Figure 113 - Example WMS scenes in ArcMap

## 4. 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 HDDSExplorer.

The 'Submit Standing Request' button is at the bottom of the search results list panel (Figure 114).

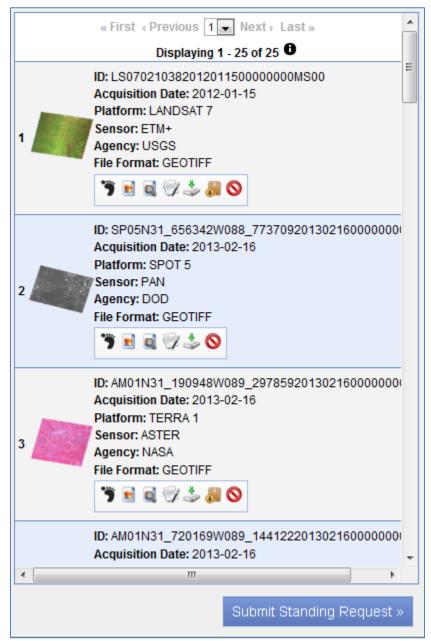


Figure 114 - Submit Standing Request

Select the 'Submit Standing Request' button to display the 'Save as Standing Request' form (Figure 115).

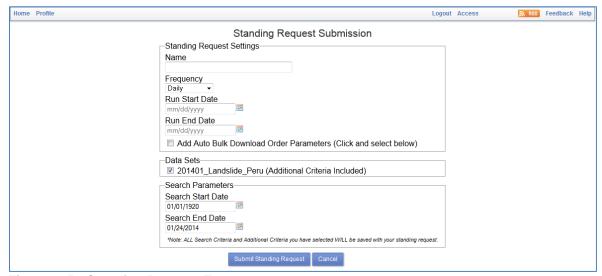


Figure 115 - Standing Request Form

Enter the following criteria for a standing request:

- Name Enter a name for this request
- Frequency Select Daily, Twice Daily, Weekly, Monthly, or Quarterly, which determines how frequently the search will run
- Date range for the execution of the standing request.
  - Run Start Date Select the date the standing request should start running
  - Run End Date Select the date the standing request should stop running
- Add Auto Bulk Download Check this box to create a bulk download order from the standing request results.
  - Once the checkbox is clicked a Bulk Download Parameters section will appear to show the type of downloads available.
  - o Click on the download type desired for each event.
- Datasets
  - The list of datasets selected to run the standing request against
- Search Parameters
  - The search parameter refers to Acquisition Date Range.
  - Acquisition Start Date Select the start date for the search date (if a start date was selected in the search criteria, the date is carried over to the standing request)
  - Acquisition End Date Select the end date for the search date (if an end date was selected in the search criteria, the date is carried over to the standing request )

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

To review standing requests, click 'Profile' on the HDDS Explorer Main menu bar (Figure 116).



Figure 116 - Manage Criteria

This action displays the 'Profile Menu'. Click 'Standing Request' on the Profile menu to see the list of entered standing requests (Figure 117).



Figure 117 - 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 (Figure 118).

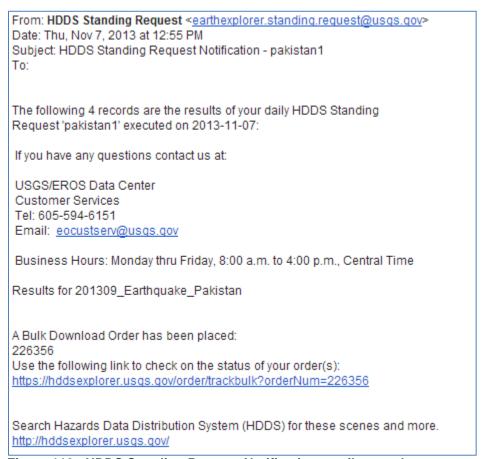


Figure 118 - HDDS Standing Request Notification email example

## **Appendix**

Acronym	Description
Section 508	Section 508 Workforce Rehabilitation Act of 1973
API	Application Programming Interface
DMS	Degrees, Minutes, Seconds
DOI	Department of Interior
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