



# How to Use – USGS/EROS Emergency Operations Web Resources

December 2007

Emergency Operations Project

U.S. Department of the Interior

U.S. Geological Survey

# Overview and Table of Contents

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- + Interactive GIS Map Viewer
- + GIS Resources
- + Digital Library

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- + Frequently Asked Questions (FAQs)

## + Pixia Imagery Quickly (IQ) WMS Viewer

# USGS/EROS EO Project Definition

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- ✚ Support federal, state, and local agencies by supplying priority geospatial information over domestic and international areas of interest (pre- and post-event)
- ✚ How?
  - ✚ Promote USGS' role in supporting Disaster Response activities
  - ✚ Provide training to the user community on USGS/EO capabilities
  - ✚ Organize and make USGS imagery and other geospatial data available on a priority basis
  - ✚ Develop methods for efficient data ingest, discovery, and delivery

# EO Data Access and Distribution

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## ✚ Web Mapping Service (WMS) Users

- ✚ Users require viewing access to data but do not necessarily need to possess the data
- ✚ USGS/EROS EO data holdings are accessed through a user's local GIS client
- ✚ EO will service these users through the prototype [Pixia](#) system as well as Seamless service capabilities

## ✚ FTP or Download Users

- ✚ Users require access to data and want a local full-resolution copy of data
- ✚ Data will be delivered in compressed image tile form (ZIP)
- ✚ EO will service these users through the [Hazards Data Distribution Server \(HDDS\)](#)

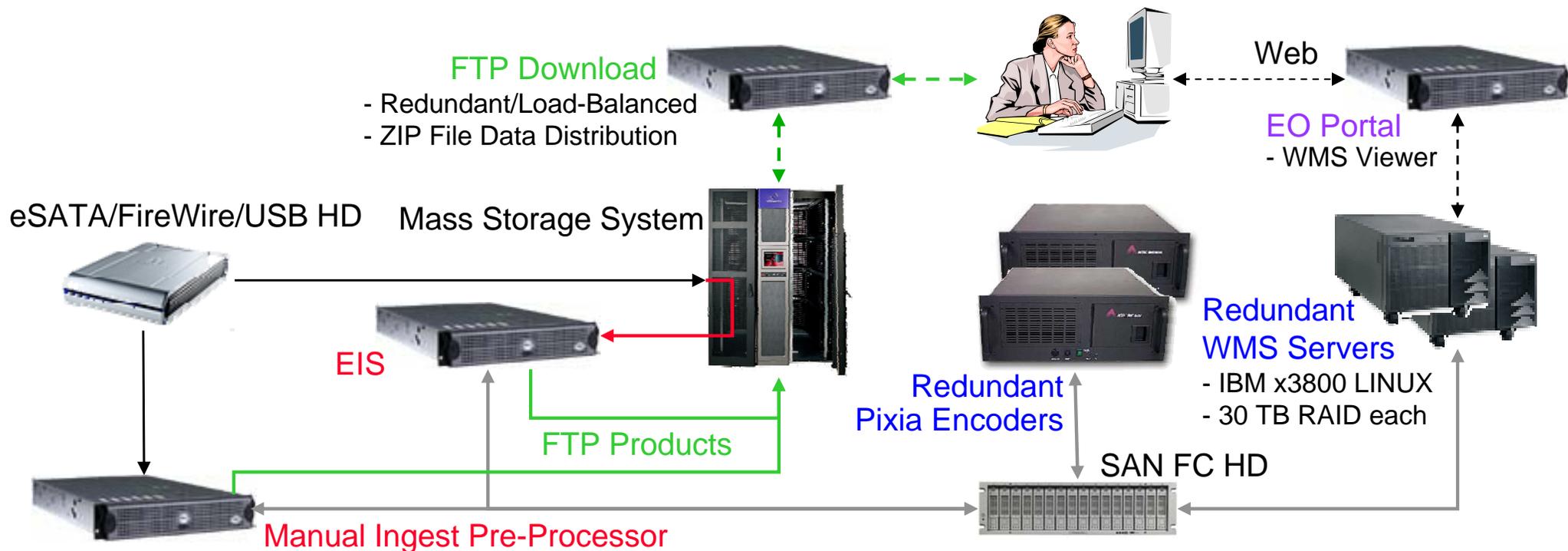
# EO Technical Liaison Services

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- ✚ Support FEMA executive agent
  - ✚ Provide coordination for scheduling, acquisition, processing, archiving, and dissemination of all emergency image acquisitions according to Standard Operating Procedure for USGS Response to Requests for Emergency Acquisition of Imagery (Pre-Scripted Mission Assignments)
  - ✚ Provide information as requested for DHS IRSCC operations
  - ✚ Provide information as requested for FEMA NRCC operations
  - ✚ Support FEMA Joint Field Office operations by providing on-site support by deploying subject matter experts as requested
- ✚ Provide support to local, state, and federal agencies by attending telecons, meetings, and workshops; gathering input for system requirements; and participating in other activities as required
  - ✚ Support the USGS State Liaisons with data needs
- ✚ Support the International Charter (IC)

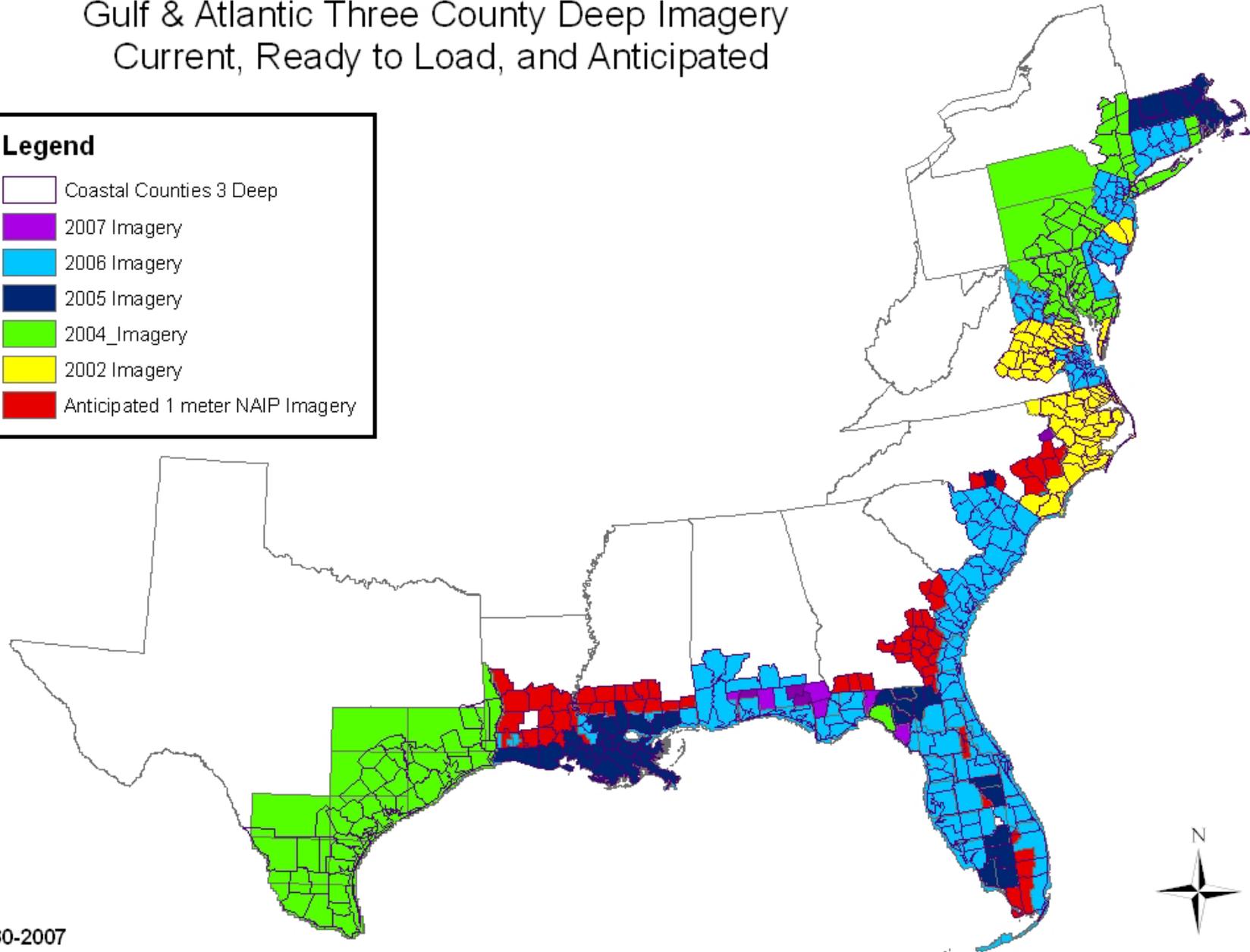
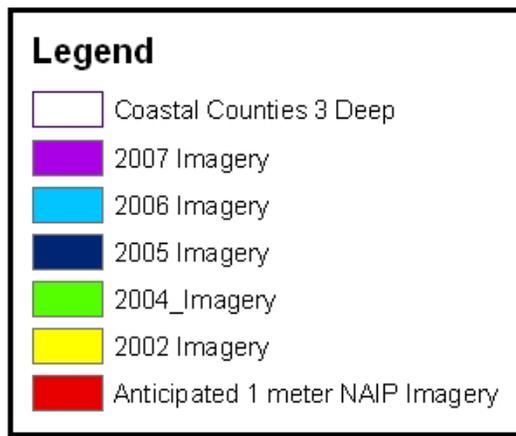
# USGS/EROS EO System Architecture

- ✦ Hazards Data Distribution System (HDDS) Utilizes the EO Portal Which Provides Pixia Operational Prototype (POP) Web Map Service (WMS) Viewer Access and Search/Data Discovery Via Direct File Transfer Protocol (FTP) Downloads
- ✦ POP Also Provides Direct WMS Access for Local Geographic Information System (GIS) Clients
- ✦ Emergency Operations Ingest Suite (EIS) and Manual Pre-Processing of Data for HDDS Population and Pixia Encoding



# Hurricane Area-Of-Interest (AOI) Data

Gulf & Atlantic Three County Deep Imagery  
Current, Ready to Load, and Anticipated



09-30-2007

# EO Portal: <http://EOportal.cr.usgs.gov>



USGS Home  
Contact USGS  
Search USGS

## Emergency Operations



- **U.S. Disaster Response Imagery**  
View imagery from before and after a disaster.
- **Quick Downloads of U.S. and International Imagery**  
Access disaster response imagery in predefined tiled downloads (HDDS).
- **Interactive GIS Map Viewer**  
Use the interactive map to specify your area of interest and choose data layers.
- **GIS Resources**  
Find Web map services.
- **Digital Library**  
Locate related Web sites, resources, maps, products, presentations, meeting notes, and much more.

## Emergency Operations

Explore critical pre- and post-disaster images and datasets online for immediate viewing and downloading. The U.S. Geological Survey (USGS) Emergency Operations, in support of the Department of Homeland Security, provides these images for use in disaster preparations, rescue and relief operations, damage assessments, and reconstruction efforts. We supply satellite and aerial images for analysis of disaster areas before, during, and after a disaster.

Also Accessible from:  
<http://hdds.usgs.gov>

[Accessibility](#) [FOIA](#) [Privacy](#) [Policies and Notices](#)

U.S. Department of the Interior | U.S. Geological Survey  
URL: <http://gisdata.usgs.net/EO/index.php>  
Page Contact Information: [ecustserv@usgs.gov](mailto:ecustserv@usgs.gov)  
Page Last Modified: November 02, 2007



# EO Portal: U.S. Disaster Response Imagery



[USGS Home](#)  
[Contact USGS](#)  
[Search USGS](#)

## Emergency Operations

Click on this link to get to a quick look viewer for WMS holdings organized by event

### ■ U.S. Disaster Response Imagery

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[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)  
URL: <http://gisdata.usgs.net/EO/index.php>  
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# EO Portal: U.S. Disaster Response Imagery



USGS Home  
Contact USGS  
Search USGS

## Emergency Operations

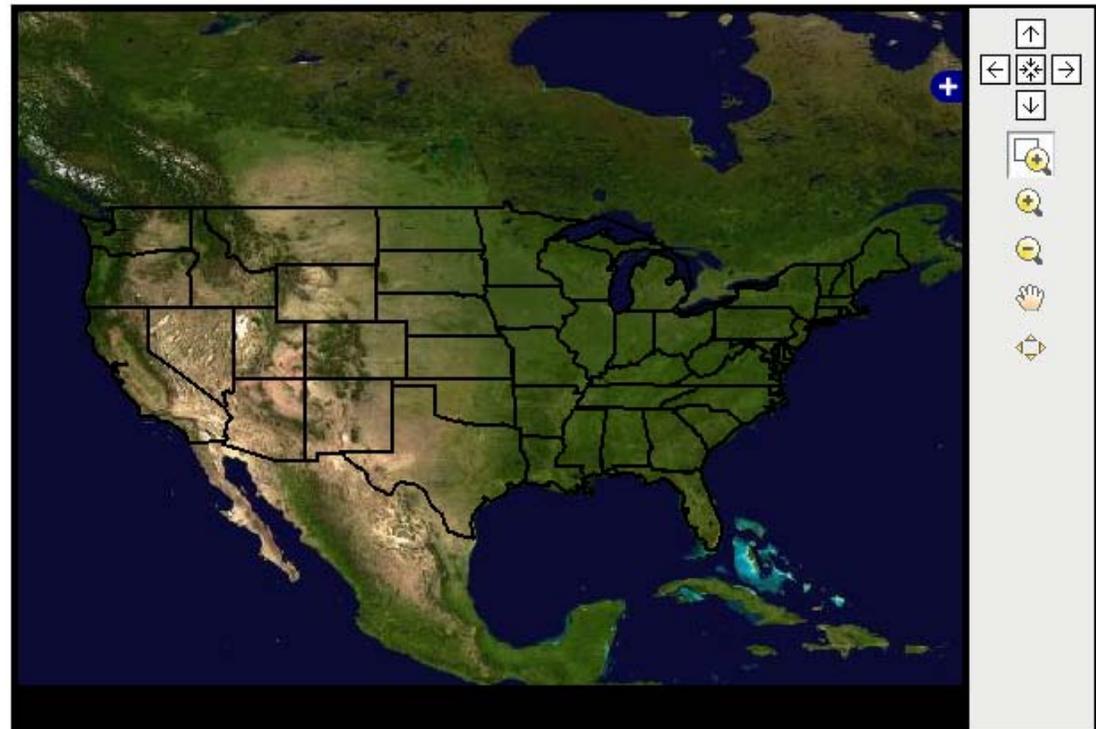
- HOME
- U.S. Disaster Response
- Quick Downloads
- Interactive GIS Map Viewer
- GIS Resources
- Digital Library

### U.S. Disaster Response Imagery

View images of an area taken prior to a disaster with Baseline Data. As you zoom in on the map, the most current imagery at each spatial resolution will appear. After a disaster occurs, select the type of disaster, and the name of the new disaster will appear along with a post-event button. Click this button to view new images of the extent of the disaster.

#### Baseline Data

- Earthquakes ▶
- Fires ▶
- Floods ▶
- Human-induced ▶
- Hurricanes ▶
- Tornadoes ▶
- Volcanoes ▶



Baseline data are displayed by default – click on the links to see data for a specific event

The viewer works best in Firefox or Internet Explorer 7; we are resolving issues with Internet Explorer 6.

# EO Portal: U.S. Disaster Response Imagery



USGS Home  
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Search USGS

## Emergency Operations

- HOME
- U.S. Disaster Response
- Quick Downloads
- Interactive GIS Map Viewer
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### U.S. Disaster Response Imagery

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Baseline Data

Earthquakes ▶

Fires ▶

CA Fires

CA Fires (w/ Fire Perimeters)

Floods ▶

Human-induced ▶

Hurricanes ▶

Tornadoes ▶

Volcanoes ▶

Navigation controls to  
Zoom and/or pan view



Map view zooms into the area affected by the event and turns on data layers for the event

The viewer works best in Firefox or Internet Explorer 7; we are resolving issues with Internet Explorer 6.



# EO Portal: Quick Downloads (HDDS)



USGS Home  
Contact USGS  
Search USGS

## Emergency Operations

Click on this link to download imagery, KMLs, metadata, and shapefiles using the hazards data distribution system (HDDS)

### ■ U.S. Disaster Response Imagery

View imagery from before and after a disaster.

### ■ Quick Downloads of U.S. and International Imagery

Access disaster response imagery in predefined tiled downloads (HDDS).

### ■ Interactive GIS Map Viewer

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U.S. Department of the Interior | U.S. Geological Survey  
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# EO Portal: Quick Downloads (HDDS)



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Contact USGS  
Search USGS

## Emergency Operations

- HOME
- U.S. Disaster Response
- Quick Downloads
- Interactive GIS Map Viewer
- GIS Resources
- Digital Library

### Quick Downloads of U.S. and International Imagery

Please go directly to our [Hazards Data Distribution System \(HDDS\)](#) to choose from a wide variety of tiled satellite and aerial images to download.  
In the future, access our new Tiled Data Distribution System directly from this Emergency Operations Web portal.

**HAZARDS DATA DISTRIBUTION SYSTEM (HDDS)**

Currently provides a link to the Hazards Data Distribution System (HDDS) for FTP downloads

Will provide graphical search and access via Tiled Data Distribution System (TDDS) in the future



# Hazards Data Distribution System: HDDS



USGS Home  
Contact USGS  
Search USGS

**Hazards Data Distribution System (HDDS)**  
Center for Earth Resources Observation and Science (EROS)

## HAZARDS DATA DISTRIBUTION SYSTEM (HDDS)

### Choose an Event and Interface

Welcome to the USGS EROS Hazards Data Distribution System (HDDS). Data access and delivery services are provided by the following interfaces that take into consideration users' network capability. Users are able to obtain full-resolution GeoTIFF images or JPEG images at medium and low quality compressions.

#### Event

Select the type of data to view

- Baseline
- Event/Disaster Response

2006 Pre-Event Data - 2006  
DR\_1711\_KS\_Flood\_FEMA - 2007  
2007\_Greece\_Fires - 2007  
2007\_Hurricane\_Felix - 2007  
2007\_Hurricane\_Humberto - 2007

#### Interface

- Non-graphical FTP Download
- Status-graphic FTP Download
- Map Interface

[Continue](#)

#### U.S. Disaster Response Imagery

[View imagery from before and after a disaster.](#)

[Home](#)

Select either baseline (pre-event) data or data collected for a specific event

[Link to go back to EO Portal](#)

# Hazards Data Distribution System: HDDS



USGS Home  
Contact USGS  
Search USGS

Hazards Data Distribution System (HDDS)  
Center for Earth Resources Observation and Science (EROS)

## HAZARDS DATA DISTRIBUTION SYSTEM (HDDS)

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#### Event

Select the type of data to view

- Baseline**
- Event/Disaster Response**

BL\_TX\_200601\_houston\_tx\_1ft-2007  
BL\_FL\_200512\_hendry\_county\_fl\_1ft-2007  
BL\_FL\_200601\_charlotte\_cnty\_fl\_1ft-2007  
BL\_SC\_2006\_south\_carolina\_naip\_1m-2007  
BL\_200611\_mississippi\_river\_levee\_1ft-2007

#### Interface

- Non-graphical FTP Download**
- Status-graphic FTP Download**
- Map Interface**

[Continue](#)

#### U.S. Disaster Response Imagery

[View imagery from before and after a disaster.](#)

[Home](#)

Select either baseline (pre-event) data or data collected for a specific event

Data listed by "BL\_<state>"

[Link to go back to EO Portal](#)

# HDDS: Data Access by Type

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**Hazards Data Distribution System (HDDS)**  
Center for Earth Resources Observation and Science (EROS)

**EM\_3279\_CA\_FIRE 2007 - HAZARDS DATA DISTRIBUTION SYSTEM (HDDS)**

**Direct Data Access**

Link directly to data from the FTP server.  
📁 [ftp://edcftp.cr.usgs.gov/pub/data/disaster/EM\\_3279\\_CA\\_FIRE](ftp://edcftp.cr.usgs.gov/pub/data/disaster/EM_3279_CA_FIRE)

Link directly to restricted data via HTTP (username and password required)  
📁 [http://edcftp.cr.usgs.gov/disaster\\_restricted/EM\\_3279\\_CA\\_FIRE/data/](http://edcftp.cr.usgs.gov/disaster_restricted/EM_3279_CA_FIRE/data/)

**Data Discovery**

Use these links to quickly locate data of interest to you.

- 📁 [browse](#)
- 📁 [compressed\\_low\\_quality](#)
- 📁 [compressed\\_med\\_quality](#)
- 📁 [csv](#)
- 📁 [docs](#)
- 📁 [kml](#)
- 📁 [shapefiles](#)
- 📁 [xml](#)

**Download Data**

**Restricted Data Access (password is required)**

- 📁 [Imagery](#)

**Direct Data Access**

- 📁 [Imagery](#)
- 📁 [Vector Data](#)

Home

Event name

Direct link to FTP server

Links to folders for compressed data, metadata, and browse

Links to image and vector data

**Browse** – Reduced size/quality JPEGs  
**Compressed\_Low/Med** – Full resolution JPEGs  
**CSV** – Comma separated text metadata  
**Docs** – Documentation files  
**KML** – To load footprints/links into Google Earth  
**Shapefiles** – GIS footprints  
**XML** – XML FGDC-compliant metadata

# HDDS: Direct FTP Server Access

Index of ftp://edcftp.cr.usgs.gov/pub/data/disaster/EM\_3279\_CA\_FIRE

[Up to higher level directory](#)

 <a href="#">browse</a>	11/21/2007	9:17:00 PM
 <a href="#">compressed_low_quality</a>	11/21/2007	9:17:00 PM
 <a href="#">compressed_med_quality</a>	11/21/2007	9:17:00 PM
 <a href="#">csv</a>	11/23/2007	5:42:00 PM
 <a href="#">data</a>		
 <a href="#">docs</a>		
 <a href="#">event.xml</a>		
 <a href="#">event.xml.backup</a>		
 <a href="#">kml</a>		
 <a href="#">shapefiles</a>		
 <a href="#">template.xml</a>		
 <a href="#">xml</a>		

Index of

ftp://edcftp.cr.usgs.gov/pub/data/disaster/EM\_3279\_CA\_FIRE/data

[Up to higher level directory](#)

 <a href="#">AERIAL_USGS</a>	11/30/2007	1:50:00 PM
 <a href="#">ASTER</a>	11/28/2007	2:40:00 PM
 <a href="#">BARC</a>		
 <a href="#">EO1</a>		
 <a href="#">LANDSAT7</a>		
 <a href="#">MASTER</a>		
 <a href="#">NASA_ikhana_UAV</a>		
 <a href="#">TerraSATX</a>		

Index of

ftp://edcftp.cr.usgs.gov/pub/data/disaster/EM\_3279\_CA\_

[Up to higher level directory](#)

 <a href="#">ALI_README.txt</a>	7 KB	10/25/2007	4:07:00 PM
 <a href="#">EO1A0400372007296110KF.tgz</a>	124377 KB	10/25/2007	4:07:00 PM
 <a href="#">EO1A0400372007296110KF_GeoTiff.zip</a>	12774 KB	10/28/2007	6:46:00 AM
 <a href="#">EO1A0400372007298110KF.tgz</a>	100442 KB	10/29/2007	9:13:00 PM
 <a href="#">EO1A0400372007306110KF.tgz</a>	97846 KB	11/7/2007	9:50:00 PM

# HDDS: Data Discovery

## Data Discovery

Use these links to quickly locate data of interest to you.

- browse
- compressed\_low\_quality
- compressed\_med\_quality
- csv
- docs
- kml
- shapefiles
- xml



USGS Home  
Contact USGS  
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**Hazards Data Distribution System (HDDS)**  
Center for Earth Resources Observation and Science (EROS)

## EM\_3279\_CA\_FIRE 2007 - HAZARDS DATA DISTRIBUTION SYSTEM (HDDS)

### Direct Data Access

Link directly to data from the FTP server

<ftp://edcftp.cr.usgs.gov/pub/data/disaster/>

Link directly to restricted data via HTTP

<http://edcftp.cr.usgs.gov/disaster/>

### Data Discovery

/compressed\_low\_quality/

.. Parent Dir

- AERIAL\_USGS
- QUICKBIRD\_NGA
- SATELLITE

### Data Discovery

/compressed\_low\_quality/QUICKBIRD\_NGA/

.. Parent Dir

Denotes file is on tape. The transfer start may be delayed if the data needs to be read from tape.

- QB02N32\_545138W116\_6349E02007103000000000PN00\_L0001001001.zip (16 MB)
- QB02N32\_353748W116\_6343752007103000000000PN00\_L0001001001.zip (19 MB)
- QB02N33\_540624W117\_1016F92007103000000000PN00\_L0001001001.zip (23 MB)
- QB02N33\_367986W117\_1020E62007103000000000PN00\_L0001001001.zip (15 MB)
- QB02N33\_302499W117\_1020E320071030000000000PN00\_L0001001001.zip (11 MB)
- QB02N33\_336038W117\_1022E420071030000000000PN00\_L0001001001.zip (10 MB)
- QB02N34\_J67913W117\_1010442007103000000000PN00\_L0001001001.zip (14 MB)
- QB02N34\_199374W117\_0999E92007103000000000PN00\_L0001001001.zip (11 MB)
- QB02N34\_327777W117\_0997192007103000000000PN00\_L0001001001.zip (16 MB)

Folders for each type of data...

Home



# HDDS: FTP Image/Vector Data Download

## Download Data

Restricted Data Access (password is required)

Imagery

Direct Data Access

Imagery

Vector Data



USGS Home  
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### Hazards Data Distribution System (HDDS)

Center for Earth Resources Observation and Science (EROS)

## EM\_3279\_CA\_FIRE 2007 - HAZARDS DATA DISTRIBUTION SYSTEM (HDDS)

## Direct Data Access

Link directly to data from the FTP server.

[ftp://edcftp.cr.usgs.gov/pub/data/disaster/EM\\_3279\\_CA\\_FIRE](ftp://edcftp.cr.usgs.gov/pub/data/disaster/EM_3279_CA_FIRE)

Link directly to restricted data via HTTP (username and password required)

[http://edcftp.cr.usgs.gov/disaster\\_restricted/EM\\_3279\\_CA\\_FIRE/data/](http://edcftp.cr.usgs.gov/disaster_restricted/EM_3279_CA_FIRE/data/)

## Data Discovery

/data/

- .. Parent Dir
- AERIAL\_USGS
- ASTER
- BARC
- EO1
- LANDSAT7
- MASTER
- NASA\_ikhana\_UAV
- TerraSATX

## Data Discovery

/dataNASA\_ikhana\_UAV/

.. Parent Dir

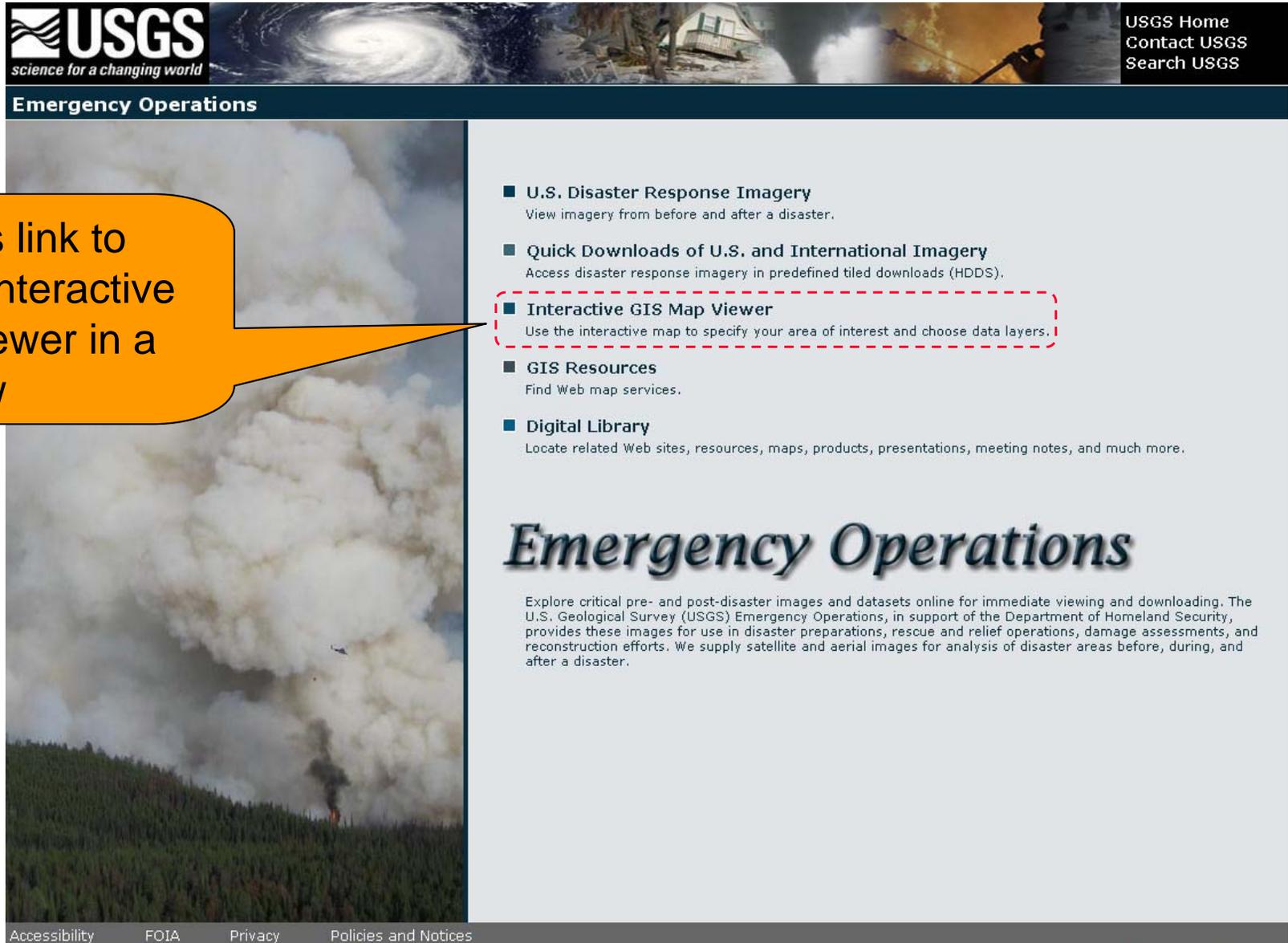
Denotes file is on tape. The transfer start may be delayed if the data needs to be read from tape.

- Arrrno.zip (9 MB)
- BuckweedRanch.zip (59 MB)
- GrassValleySlide.zip (19 MB)
- Harris.zip (14 MB)
- Rice.zip (11 MB)
- Sanitago.zip (11 MB)
- WitchPoomacha.zip (66 MB)

Home

Folders for each type of data...

# EO Portal: Interactive GIS Map Viewer



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Click on this link to launch the interactive GIS map viewer in a new window

# EO Portal: Interactive GIS Map Viewer

USGS Hazards Data Distribution System Viewer [\(Return to start page\)](#)

**Zoom**

Query

Tools

Downloads

Documents

Scale Information  
Out In  
Scale ~ 1:33,114,026

**Display** Download

- ▼ **Places (Names)**
  - VMAP-0 Cities
- ▼ **Transportation**
  - National Atlas Airports
  - National Atlas Amtrak Stations
  - National Atlas and BTS Roads
- ▼ **Boundaries**
  - Urban Area View Only Data Coverage
  - Urban Area Public Data Coverage
  - National Atlas States
  - Countries Line
- ▼ **Weather/Climate**
  - GOES I/M Winds
  - NEXRAD US Base Reflectivity Composite
- ▼ **Disaster Resources**
  - Current Fire Perimeters
  - Past 2007 Fire Perimeters
  - LandScan 2002 Global Population
- ▼ **Orthoimagery**
  - San\_Bernardino-CA-2007-1FT
  - US Emergency Operations Imagery - PIXIA
- ▼ **Elevation**
  - USGS Shaded Relief
  - NOSA Shaded Relief

USGS

# EO Portal: GIS Viewer Layer Controls

- ✚ Pick boxes allow user to turn layers on and off
- ✚ Layers are provided by:
  - ✚ USGS/EROS EO Project WMS (Pixia)
  - ✚ USGS National Map server
  - ✚ NOAA Weather/Climate
  - ✚ Other relevant disaster resources (i.e. – GeoMAC Fire Perimeters)
- ✚ Zoom and scale control at top



The screenshot displays a GIS viewer interface. On the left, a map shows the Eastern United States and the Caribbean region, with major cities like Ottawa, Toronto, Lake Ontario, Erie, Boston, New York, Philadelphia, Washington D.C., Nassau, Kingston, Santo Domingo, and San Juan labeled. On the right, a control panel is visible. At the top of the panel is a 'Scale Information' section with a zoom slider and a scale of approximately 1:33,114,026. Below this are 'Display' and 'Download' buttons. The main part of the panel is a list of layer categories with checkboxes:

- Places (Names)**
  - VMAP-0 Cities
- Transportation**
  - National Atlas Airports
  - National Atlas Amtrak Stations
  - National Atlas and BTS Roads
- Boundaries**
  - Urban Area View Only Data Coverage
  - Urban Area Public Data Coverage
  - National Atlas States
  - Countries Line
- Weather/Climate**
  - GOES I/M Winds
  - NEXRAD US Base Reflectivity Composite
- Disaster Resources**
  - Current Fire Perimeters
  - Past 2007 Fire Perimeters
  - LandScan 2002 Global Population
- Orthoimagery**
  - San\_Bernardino-CA-2007-1FT
  - US Emergency Operations Imagery - PIXIA
- Elevation**
  - USGS Shaded Relief
  - NOSA Shaded Relief

# EO Portal: GIS Viewer Tools

## Zoom Menu

-    Zoom In, to Full Extent, Out
-    Zoom to Region, Back, to Point

## Query Menu

-  Display Map Feature Attributes
-   Search for Place, Elevation Query
-   Elevation Profile, U.S. Grid Query

## Tools Menu

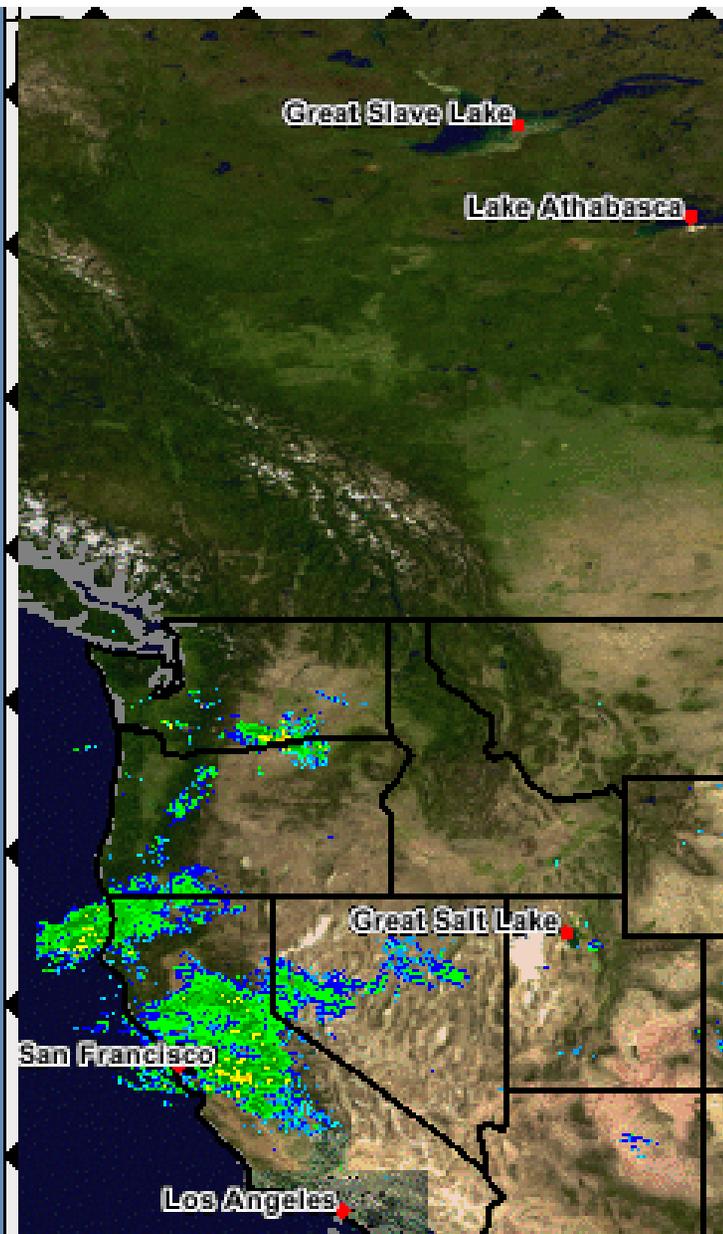
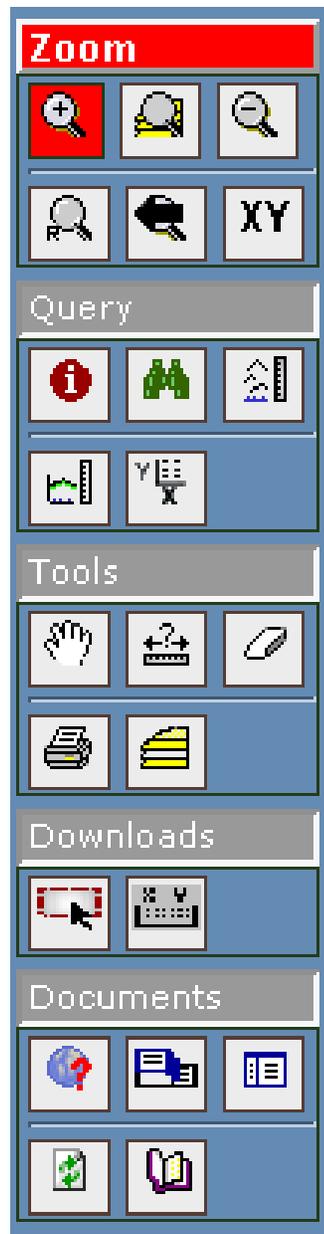
-    Pan, Measure, Clear Results
-   Create PDF, Transparency Tool

## Downloads Menu

-   Define Area, Define Coordinates

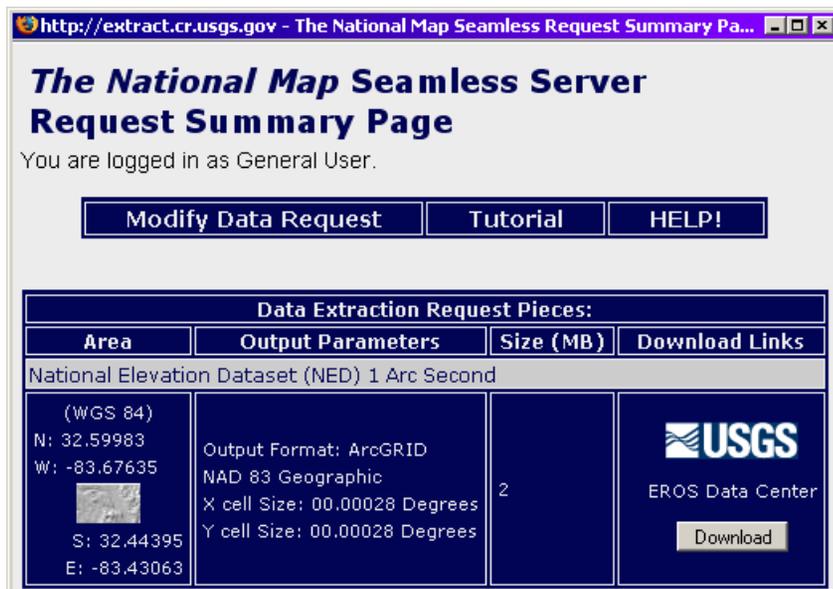
## Documents Menu

-    Map Info, Display Layers, Legend
-   Refresh, Help/Instructions



# EO Portal: Download Layer Controls

- Select layer(s) to download
- Lists which layers are available for downloading
- Use tools menu to select area or region to download (may need to zoom in to allow downloads)
- Define Area, Define Coordinates
- Download dialogue will open in a new window:



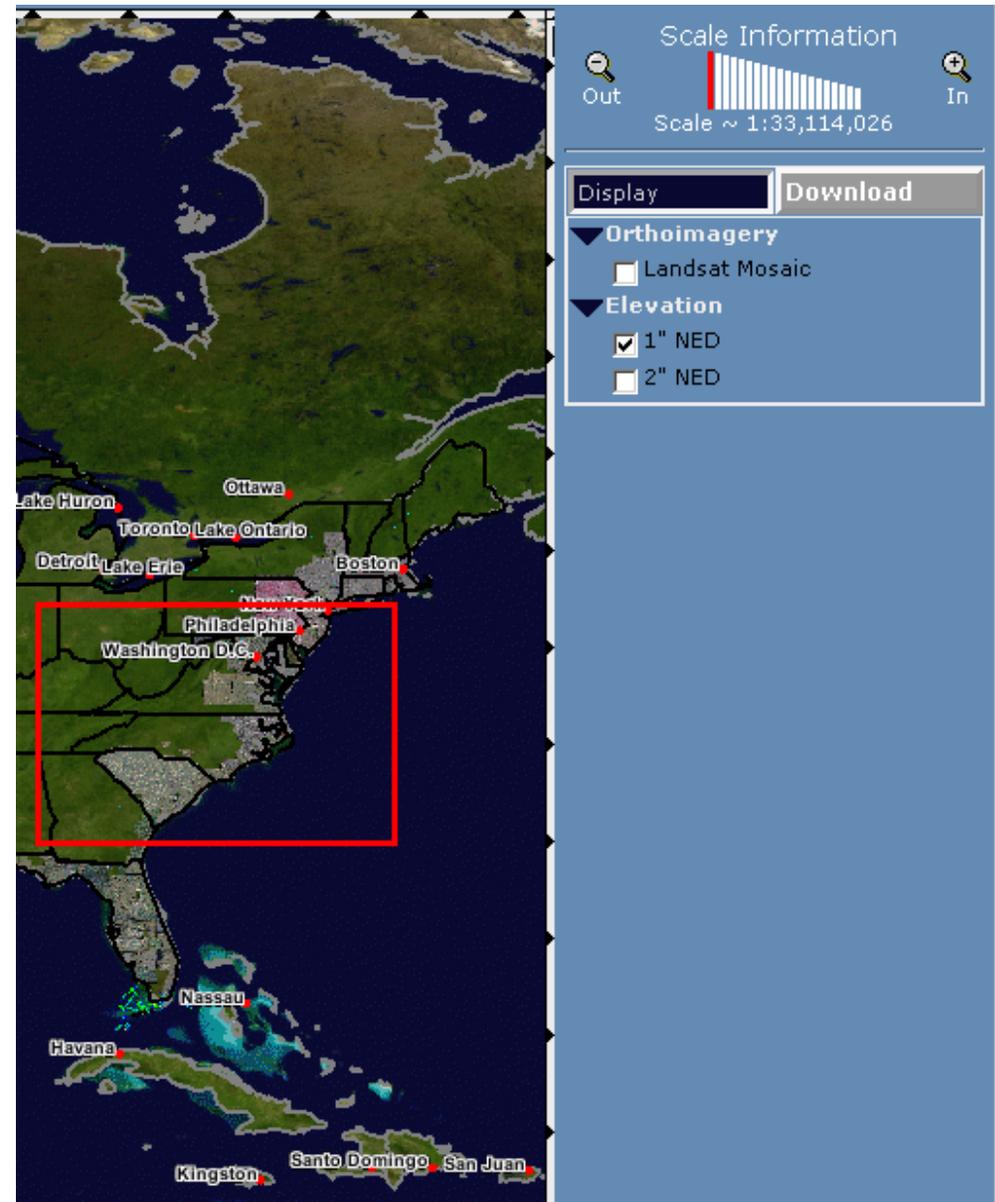
<http://extract.cr.usgs.gov> - The National Map Seamless Request Summary Page

**The National Map Seamless Server Request Summary Page**

You are logged in as General User.

[Modify Data Request](#) [Tutorial](#) [HELP!](#)

Data Extraction Request Pieces:			
Area	Output Parameters	Size (MB)	Download Links
National Elevation Dataset (NED) 1 Arc Second			
(WGS 84) N: 32.59983 W: -83.67635  S: 32.44395 E: -83.43063	Output Format: ArcGRID NAD 83 Geographic X cell Size: 00.00028 Degrees Y cell Size: 00.00028 Degrees	2	 EROS Data Center <a href="#">Download</a>



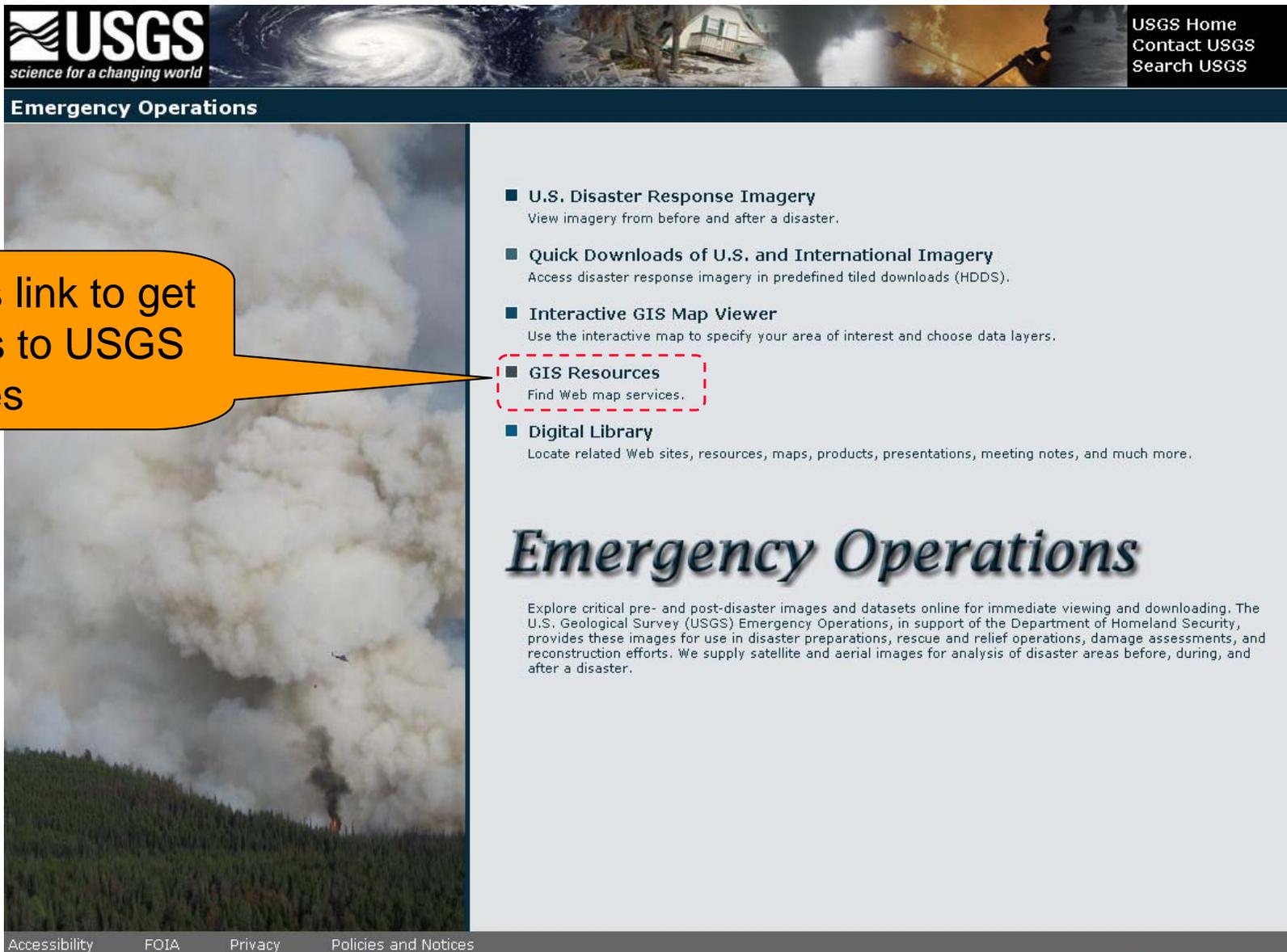
Scale Information  
Out In  
Scale ~ 1:33,114,026

Display Download

Orthoimagery  
 Landsat Mosaic

Elevation  
 1" NED  
 2" NED

# EO Portal: GIS Resources



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science for a changing world

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## Emergency Operations

- **U.S. Disaster Response Imagery**  
View imagery from before and after a disaster.
- **Quick Downloads of U.S. and International Imagery**  
Access disaster response imagery in predefined tiled downloads (HDDS).
- **Interactive GIS Map Viewer**  
Use the interactive map to specify your area of interest and choose data layers.
- **GIS Resources**  
Find Web map services.
- **Digital Library**  
Locate related Web sites, resources, maps, products, presentations, meeting notes, and much more.

## Emergency Operations

Explore critical pre- and post-disaster images and datasets online for immediate viewing and downloading. The U.S. Geological Survey (USGS) Emergency Operations, in support of the Department of Homeland Security, provides these images for use in disaster preparations, rescue and relief operations, damage assessments, and reconstruction efforts. We supply satellite and aerial images for analysis of disaster areas before, during, and after a disaster.

Accessibility   FOIA   Privacy   Policies and Notices

Click on this link to get a list of links to USGS map services

# EO Portal: GIS Resources WMS Links

✚ Provides links to copy into GIS to access EO & USGS WMS servers



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## Emergency Operations

- HOME
- U.S. Disaster Response
- Quick Downloads
- Interactive GIS Map Viewer
- GIS Resources
- Digital Library

## GIS Resources

Follow the links below to find the available Web Mapping Services (WMS), along with descriptions and instructions on how to use the services.

### • Pixia WMS

- Open this in ArcMap! <http://iq.usgs.gov/cgi-bin/nuiwms.exe>
- Place this link into your browser: <http://iq.usgs.gov/cgi-bin/nuiwms.exe?SERVICE=wms&VERSION=1.1.1&REQUEST=GetCapabilities>  
You'll be asked to download the file **nuiwms.exe**. Save this file and rename it as **nuiwms.xml**. Now open the file in your browser.

### • USGS supported WMS services

- Open this into your browser:  
[http://gisdata.usgs.gov/wmsconnector/com.esri.wms.Esrimap/\[SERVICE\\_NAME\]?SERVICE=WMS&REQUEST=GetCapabilities](http://gisdata.usgs.gov/wmsconnector/com.esri.wms.Esrimap/[SERVICE_NAME]?SERVICE=WMS&REQUEST=GetCapabilities)

Replace the [SERVICE\_NAME] with the name from the list below:

ie: **USGS National Atlas** would be:

[http://gisdata.usgs.gov/wmsconnector/com.esri.wms.Esrimap/USGS\\_EDC\\_National\\_Atlas?SERVICE=WMS&REQUEST=GetCapabilities](http://gisdata.usgs.gov/wmsconnector/com.esri.wms.Esrimap/USGS_EDC_National_Atlas?SERVICE=WMS&REQUEST=GetCapabilities)

- Drought\_Monitoring
- EDC\_GNIS
- Hurricane1
- North\_American\_Atlas\_10M\_CAN
- North\_American\_Atlas\_10M\_FN
- North\_American\_Atlas\_10M\_MEX
- North\_American\_Atlas\_10M\_NA
- North\_American\_Atlas\_10M\_USA
- us\_gnis
- USGS\_EDC\_Elev\_NED
- USGS\_EDC\_Elev\_NED\_3
- USGS\_EDC\_Elev\_NED\_9
- USGS\_EDC\_National\_Atlas
- USGS\_EDC\_National\_Atlas\_Indexes
- USGS\_EDC\_Ortho\_DOQQ
- USGS\_EDC\_Ortho\_DRG
- USGS\_EDC\_Ortho\_Landsat7
- USGS\_EDC\_Ortho\_NAIP
- USGS\_EDC\_Ortho\_StateLocal
- USGS\_EDC\_Ortho\_Urban
- USGS\_EDC\_Trans\_BTS\_Roads
- USGS\_Gulf\_Coast



# EO Portal: Digital Library



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## Emergency Operations

Click on this link to access other related information such as presentations, maps, meeting notes, etc.

- **U.S. Disaster Response Imagery**  
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## Emergency Operations

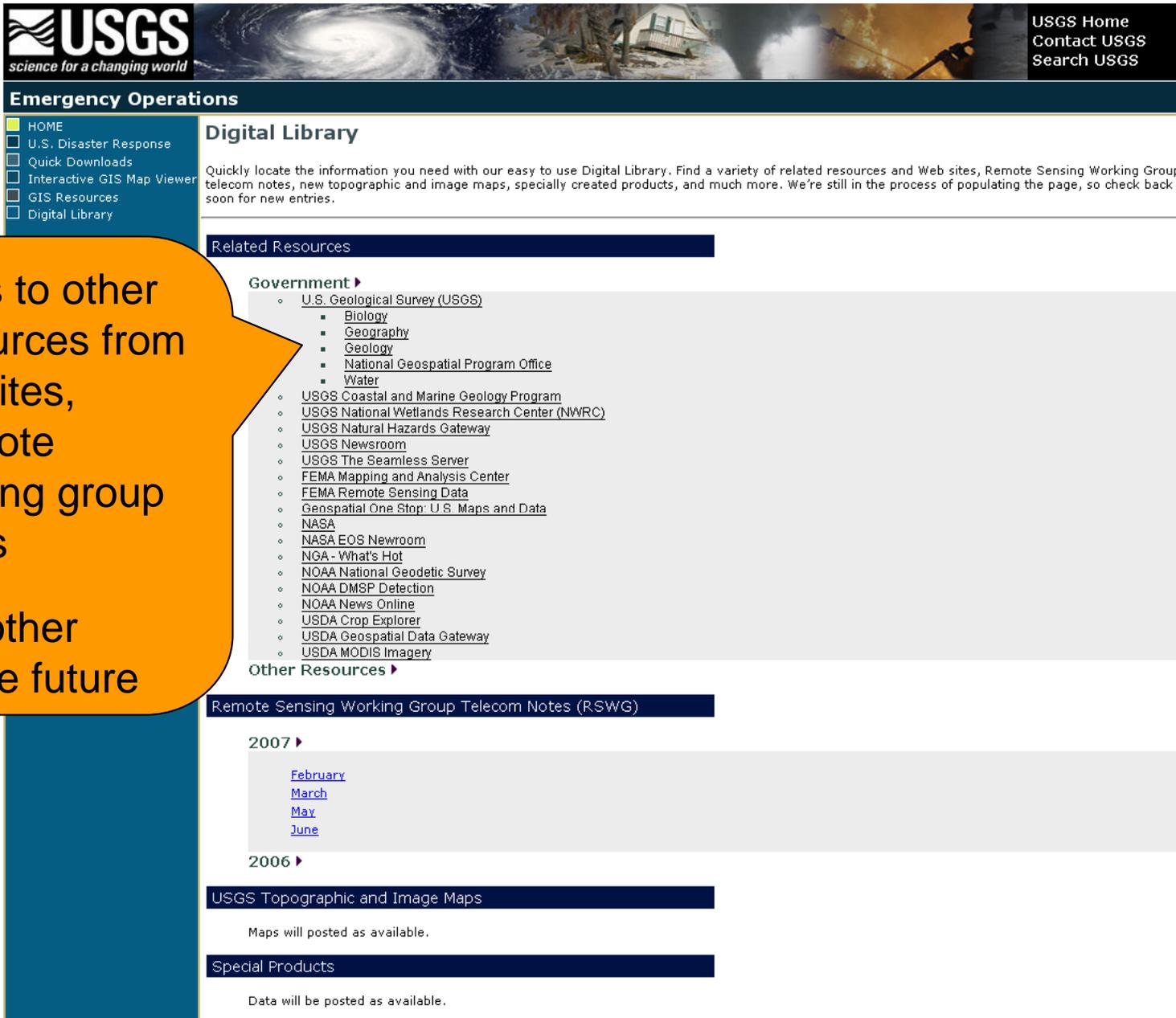
Explore critical pre- and post-disaster images and datasets online for immediate viewing and downloading. The U.S. Geological Survey (USGS) Emergency Operations, in support of the Department of Homeland Security, provides these images for use in disaster preparations, rescue and relief operations, damage assessments, and reconstruction efforts. We supply satellite and aerial images for analysis of disaster areas before, during, and after a disaster.

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U.S. Department of the Interior | U.S. Geological Survey  
URL: <http://gisdata.usgs.net/EO/index.php>  
Page Contact Information: [ecustserv@usgs.gov](mailto:ecustserv@usgs.gov)  
Page Last Modified: November 02, 2007



# EO Portal: Digital Library



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### Digital Library

Quickly locate the information you need with our easy to use Digital Library. Find a variety of related resources and Web sites, Remote Sensing Working Group telecom notes, new topographic and image maps, specially created products, and much more. We're still in the process of populating the page, so check back soon for new entries.

#### Related Resources

##### Government

- U.S. Geological Survey (USGS)
  - Biology
  - Geography
  - Geology
  - National Geospatial Program Office
  - Water
- USGS Coastal and Marine Geology Program
- USGS National Wetlands Research Center (NWRC)
- USGS Natural Hazards Gateway
- USGS Newsroom
- USGS The Seamless Server
- FEMA Mapping and Analysis Center
- FEMA Remote Sensing Data
- Geospatial One Stop: U.S. Maps and Data
- NASA
- NASA EOS Newroom
- NGA - What's Hot
- NOAA National Geodetic Survey
- NOAA DMSP Detection
- NOAA News Online
- USDA Crop Explorer
- USDA Geospatial Data Gateway
- USDA MODIS Imagery

##### Other Resources

#### Remote Sensing Working Group Telecom Notes (RSWG)

2007

- [February](#)
- [March](#)
- [May](#)
- [June](#)

2006

#### USGS Topographic and Image Maps

Maps will be posted as available.

#### Special Products

Data will be posted as available.

Provides links to other relevant resources from government sites, copies of remote sensing working group meeting notes

Plan to offer other products in the future

# EO Project Web Mapping Services (WMS)

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## + Pixia WMS Links

+ Link for ArcMap: <http://iq.usgs.gov/cgi-bin/nuiwms.exe?>

+ Place this link into your browser:

<http://iq.usgs.gov/cgi-bin/nuiwms.exe?SERVICE=wms&VERSION=1.1.1&REQUEST=GetCapabilities>

+ Asked to Download File "nuiwms.exe"

+ Save File and Rename as "nuiwms.xml"

+ Open File "nuiwms.xml" in Browser

## + Frequently Asked Questions (FAQs) About Using Pixia WMS

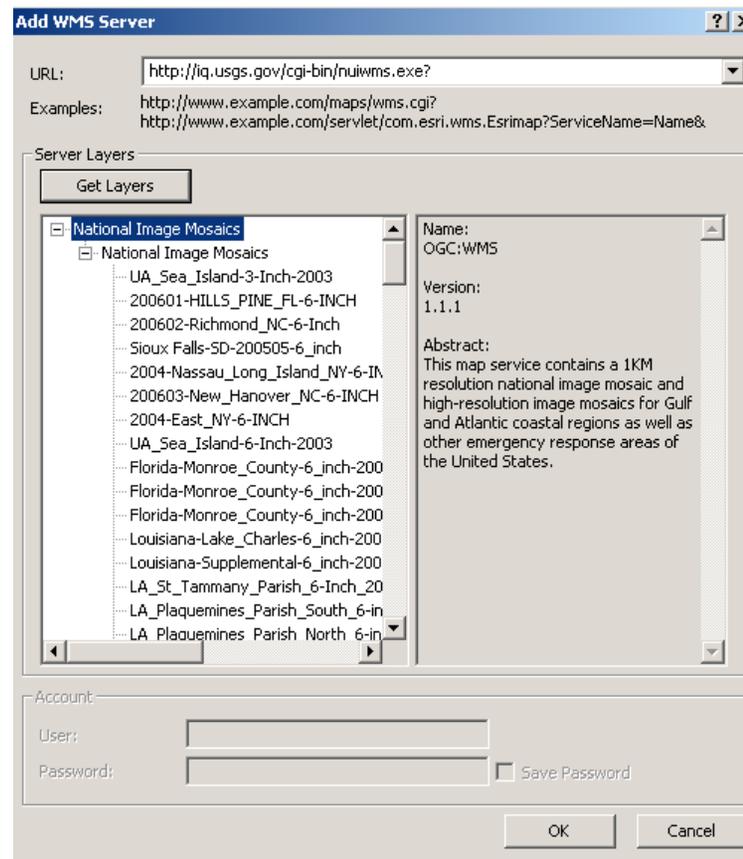
+ *Why does the Pixia WMS sometimes return a blank map in ESRI ArcMap?*

+ This is a known limitation in the Pixia WMS. By forcing a refresh of the ArcMap map frame (by slightly resizing the window or changing the scale factor slightly) the images will usually be redrawn correctly.

# EO Project WMS FAQs (cont.)

✚ *How do I add the Pixia WMS to ArcMap?*

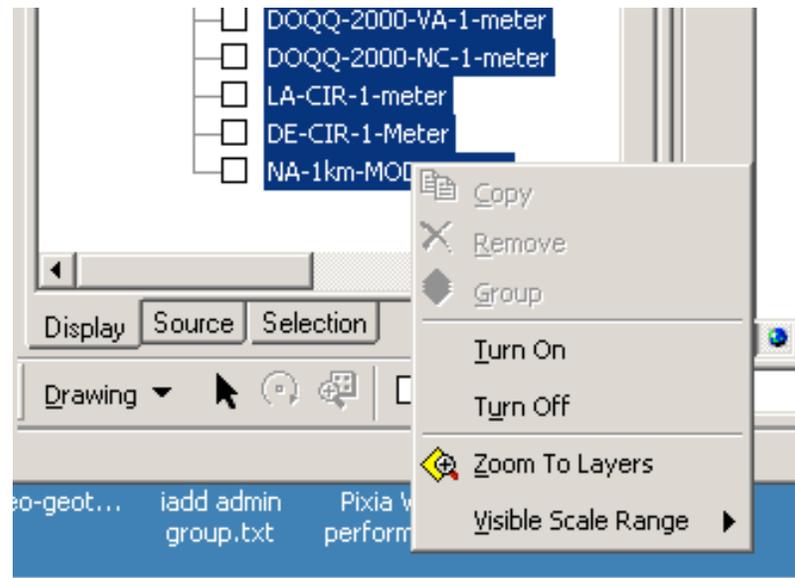
✚ Choose the Add Data Button. Choose "GIS Servers | Add WMS Server" and fill in the URL as shown:



# EO Project WMS FAQs (cont.)

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- ✚ *Why are only a few layers turned on by default in ArcMap?*
- ✚ This appears to be a limitation in ArcMap. You can easily select all WMS layers, right click, and select “Turn On” to display all layers in the WMS.



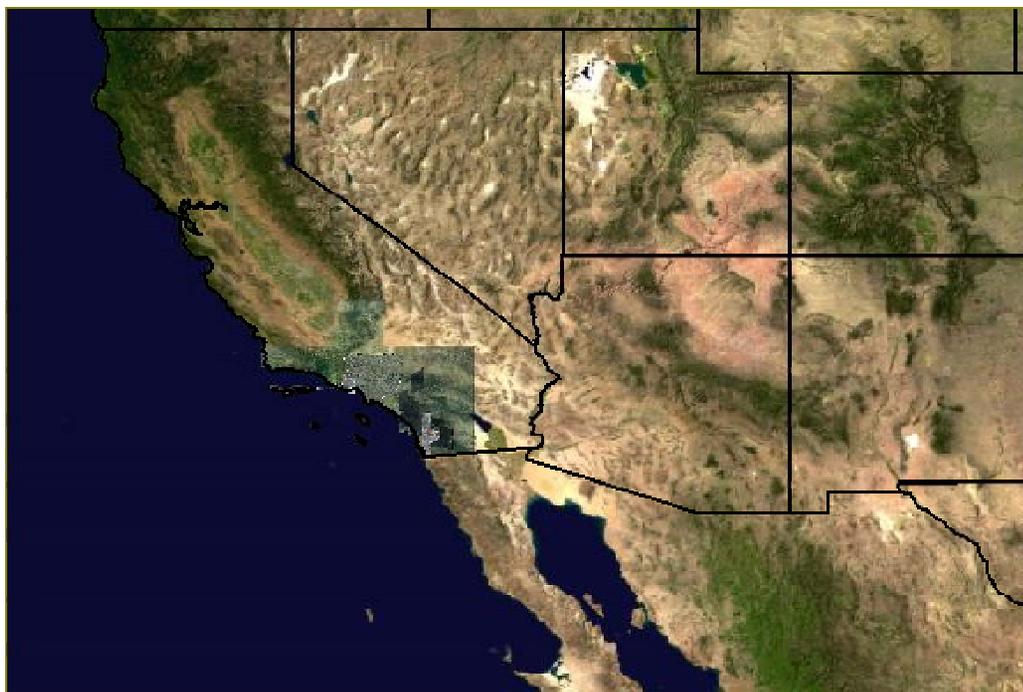
# Pixia Imagery Quickly (IQ) WMS Viewer

<http://iq.usgs.gov>

Viewer for holdings on Pixia WMS Server



- Interstate and Major Roads
- States
- Counties
- Current Fire Perimeters
- Past 2007 Fire Perimeters
- 2007 So. California Fires Post-fire Imagery
- 2007 Hurricane Humberto Imagery
- 2007 Kansas Flood Imagery
- Pre-Event Composite Data



Controls to turn layers on/off and move up/down in stack



scale 1:15,029,328

lon:      lat:  
Cursor Coordinates