

# The USGS Geospatial Liaison Network

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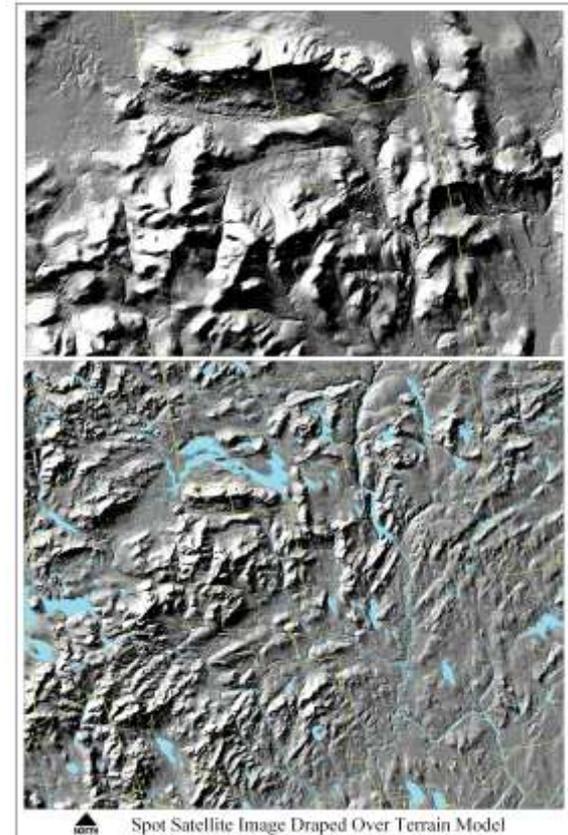


# Today's Presentation

- NSDI Review
- Overview of National Geospatial Programs Office
  - Federal Geographic Data Committee
  - Geospatial One-Stop
  - The National Map
  - Liaison Network
- Examples of NGP Projects in the Northeast

# National Spatial Data Infrastructure

- Executive Order 12906: COORDINATING GEOGRAPHIC DATA ACQUISITION AND ACCESS: THE NATIONAL SPATIAL DATA INFRASTRUCTURE
  - Signed by President Bill Clinton on April 11, 1994, launched the initiative to create the NSDI.
  - President George W. Bush amended EO 12906 by issuance of Executive Order 13286 on March 5, 2003.



# NSDI Building Blocks

Clearinghouse/Portal

Metadata

Framework

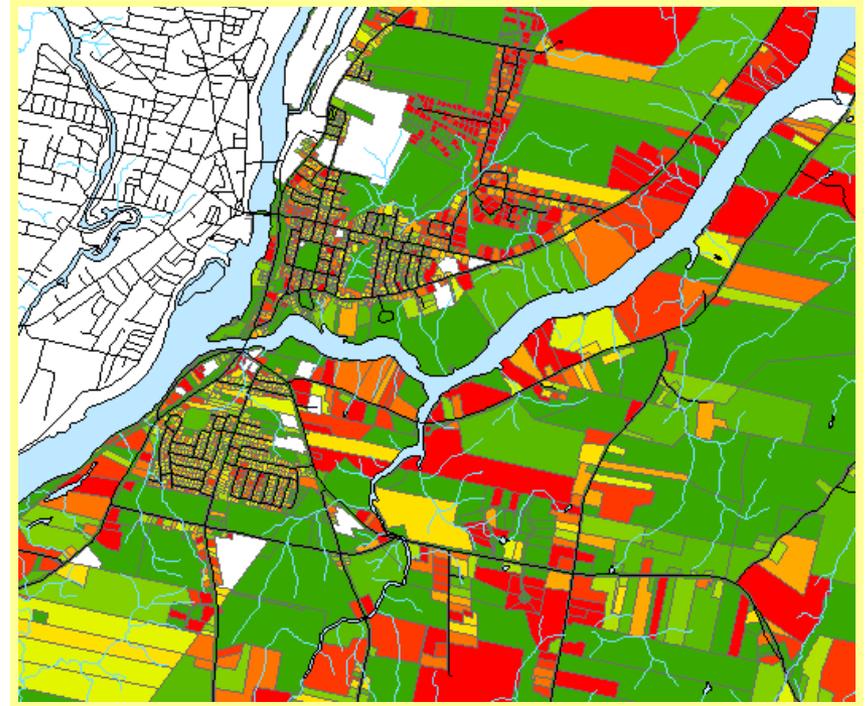
GEOdata

Standards

*Partnerships*

# NSDI Framework Layers

- Geodetic control
- Orthoimagery
- Elevation
- Transportation
- Hydrography
- Governmental units
- Cadastral information

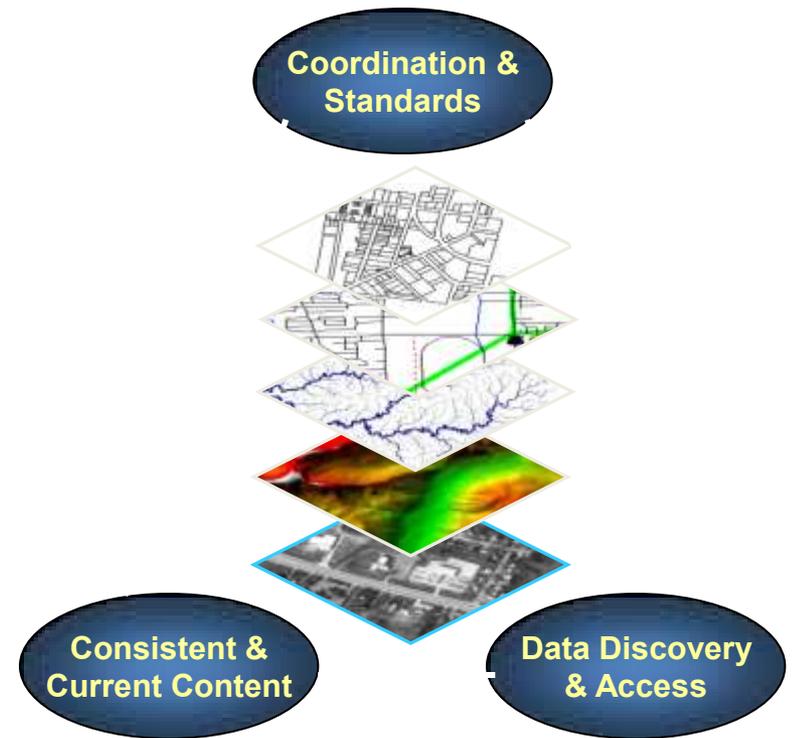


***National Standards***

# The National Geospatial Program

..... *Unified portfolio of NSDI components*

- *The National Map*
- *Geospatial One-Stop*
- *Federal Geographic Data Committee*



# Eastern Region NSDI Partnership Office

## *.....Geospatial Liaisons for States*

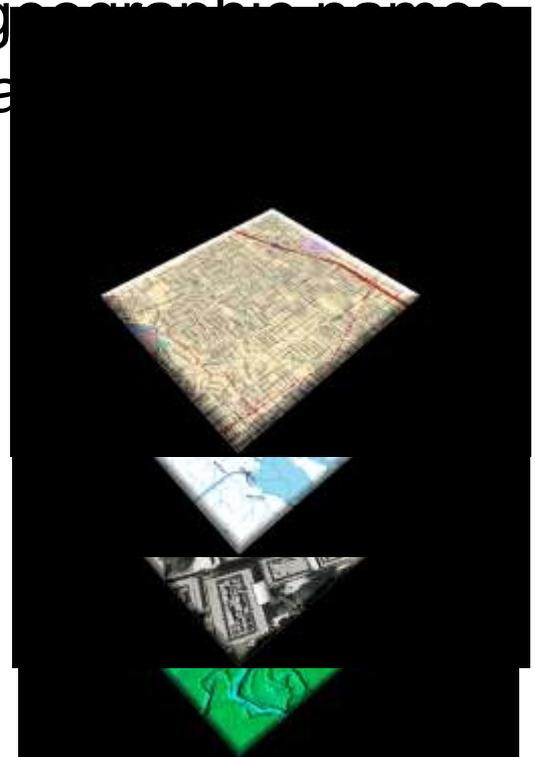


- *State Liaisons are the NGP’s “feet on the ground”*
- *The Liaison’s role is to foster teamwork and build partnerships*
- *Promote the NSDI and USGS products and services*

# USGS Geospatial Products and Services from the USGS

# *The National Map*

- *The National Map* is the 21<sup>st</sup> century follow up to the familiar USGS topographic map series
- *The National Map* includes eight data layers: hydrography, elevation, orthoimagery, geographic names, boundaries, transportation, land cover and use
- Public domain data will support:
  - topographic maps at 1:24,000-scale
  - products and services at multiple scales and resolutions
  - analysis, modeling, and other applications at multiple scales and resolutions





USGS Home  
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### The National Map

- The National Map Home
- US Topo
- National Map Viewers
- Products and Services
- Partnerships
- Reading Room
- News & Events
- The National Map Corps
- National Geospatial Program
- History of USGS Topographic Maps
- A Celebration of 125 Years of Topographic Mapping

# The National Map

## Introduction to The National Map



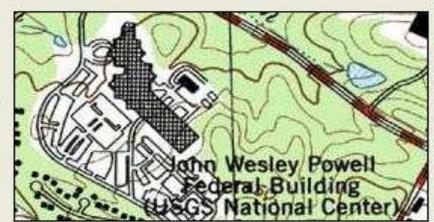
[Get the latest Flash player](#)

*National Map* is foundational to implementation of the Department of the Interior (DOI) [Geospatial Modernization Blueprint](#) and meeting the DOI mission to protect America's treasures for future generations, provide access to our nation's natural and cultural heritage, offer recreation opportunities, honor our trust responsibilities, conduct scientific research, provide wise stewardship of energy and mineral resources, foster sound use of land and water resources, and conserve and protect fish and wildlife. *The National Map* also underpins the [USGS Science Strategy](#) which is based on a systems approach to help address multi-faceted issues, provide better understanding of earth processes and evaluate broad causes and consequences of the use and management of natural resources.

This is a new version of *The National Map* web site. The site will continue to undergo revisions and we welcome your suggestions and comments to improve this site. Please direct comments to [nationalmap@usgs.gov](mailto:nationalmap@usgs.gov).

As one of the cornerstones of the U.S. Geological Survey's (USGS) [National Geospatial Program](#), *The National Map* is a collaborative effort among the USGS and other Federal, State, and local partners to improve and deliver topographic information for the Nation. It has many uses ranging from recreation to scientific analysis to emergency response. *The National Map* is easily accessible for display on the Web, as products and services, and as downloadable data. The geographic information available from *The National Map* includes orthoimagery (aerial photographs), elevation, geographic names, hydrography, boundaries, transportation, structures, and land cover. Other types of geographic information can be added within the viewer or brought in with *The National Map* data into a Geographic Information System to create specific types of maps or map views. *The National Map* is a significant contribution to the [National Spatial Data Infrastructure](#) (NSDI) and currently is being transformed to better serve the geospatial community by providing high quality, integrated geospatial data and improved products and services including new generation digital topographic maps.

In addition to being an important contribution to the NSDI, *The*



### [Mark DeMulder at Where2.0](#)

National Geospatial Program Director Mark DeMulder was recently a keynote presenter at the 2010 O'Reilly [Where2.0 Conference](#), March 30 April 1, in San Jose. The Where2.0 Conference and following "camp" is billed as a gathering where leading edge developers building location-aware technology can interact with businesses and organizations seeking location apps, platforms and hardware. DeMulder's presentation, titled ["The Digital National Map of the United States of](#)

# The National Map

The screenshot displays the USGS TNM 2.0 Viewer interface within a Windows Internet Explorer browser. The browser's address bar shows the URL <http://viewer.nationalmap.gov/viewer/>. The page header includes the USGS logo with the tagline "science for a changing world" and the text "The National Map Viewer". A search bar is present with the placeholder text "Find a Place" and a search button. Below the search bar, a small text snippet reads "e.g., Phoenix, AZ, or -115,14,36.17". The main map area shows a shaded relief topographic map of the United States, with state boundaries and major cities labeled. A "GIS Toolbox" is visible on the left side, and a "Base Map" menu is on the right, with "Shaded Relief" selected. The bottom of the browser window shows the Windows taskbar with several open applications: "Mail - Inbox - IBM Lot...", "Microsoft PowerPoint...", "ARRA.mxd - ArcMap...", "The National Map: Vie...", and "USGS TNM 2.0 Viewer...". The system tray on the right shows the time as 3:10 PM.



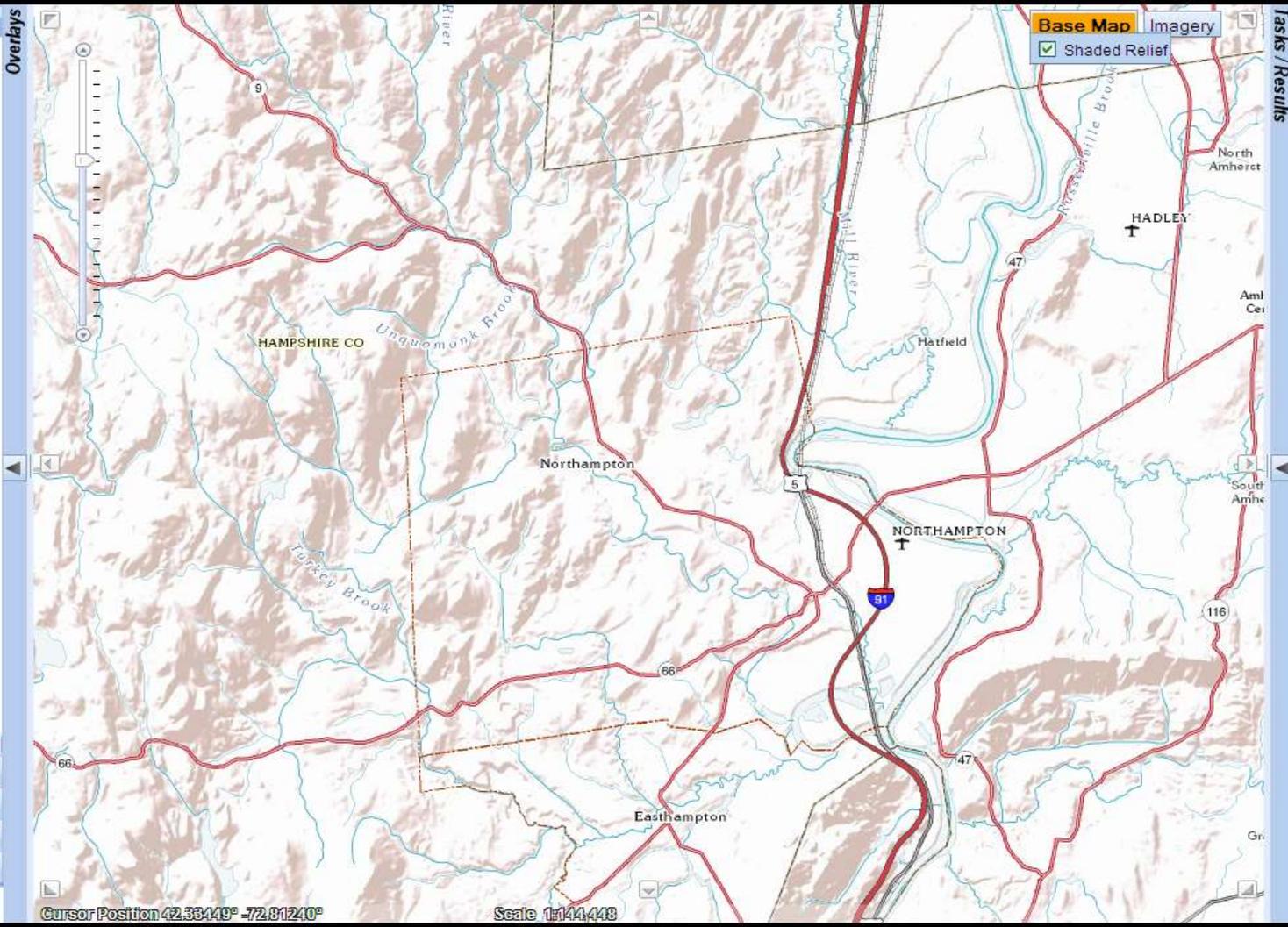
***“Integrated, certified base mapping content”***



Find a Place Search e.g., Phoenix, AZ or -115.14 36.17

Download Data

- Base Data GIS Toolbox
  - US Topo: Current Available
  - Geographic Names (GNIS)
  - Structures
  - Transportation
  - Governmental Unit Boundaries
  - Map Indices
  - Hydrography (NHD)
  - Land Cover (NLCD)
  - Contours (Beta) - Small Scale
  - Large Scale Shaded Relief
  - Large Scale Imagery
  - Scanned Maps (Beta)
- Download Selectable Polygons
- Inventory Services
- Featured Example Mashups
- User Added Content
- Content Reorder Layers

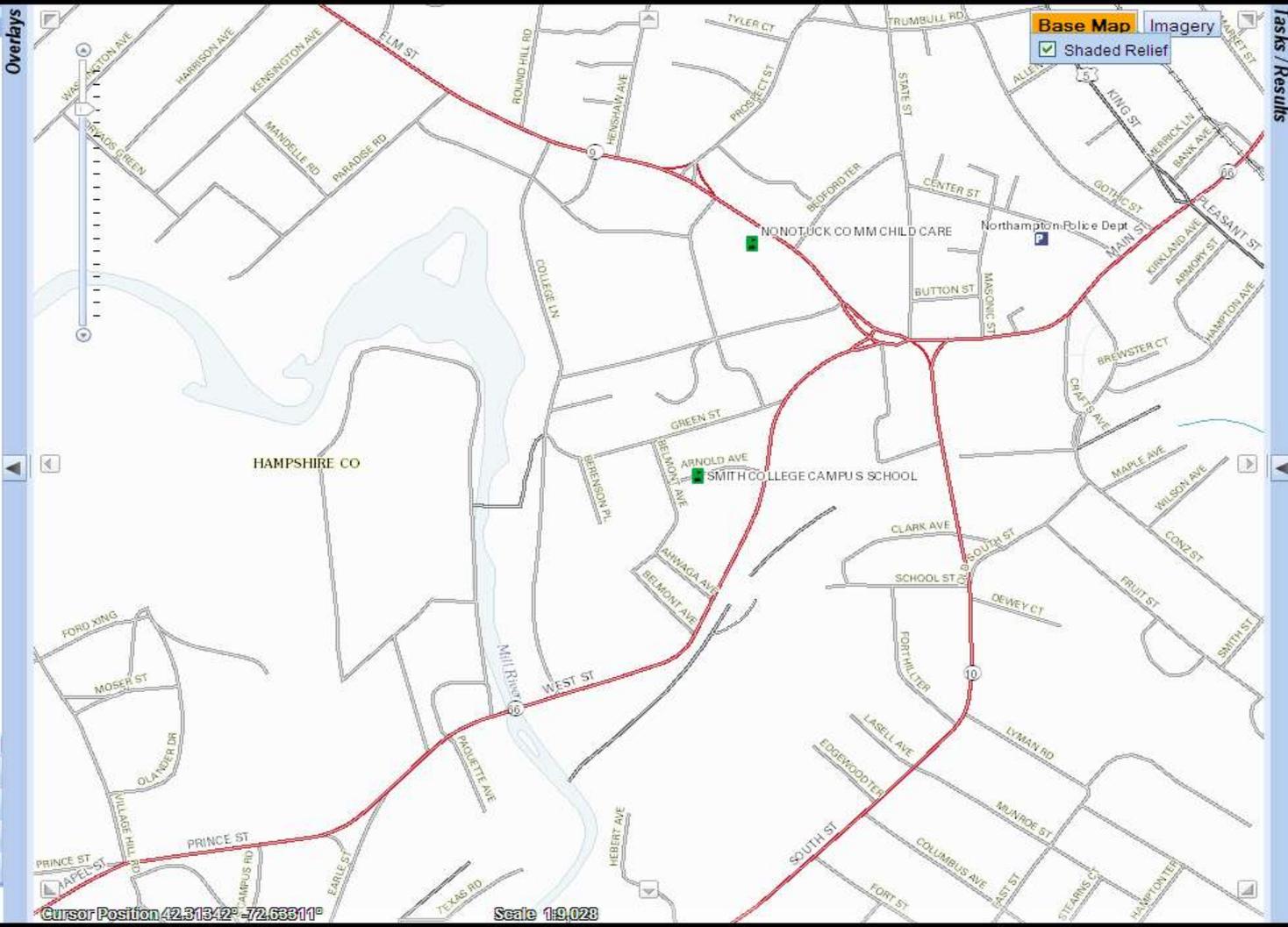




Find a Place Search e.g., Phoenix, AZ or -115.14 36.17

Download Data

- Base Data
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LOADING  
Updating  
vectorSelectablePolygons...

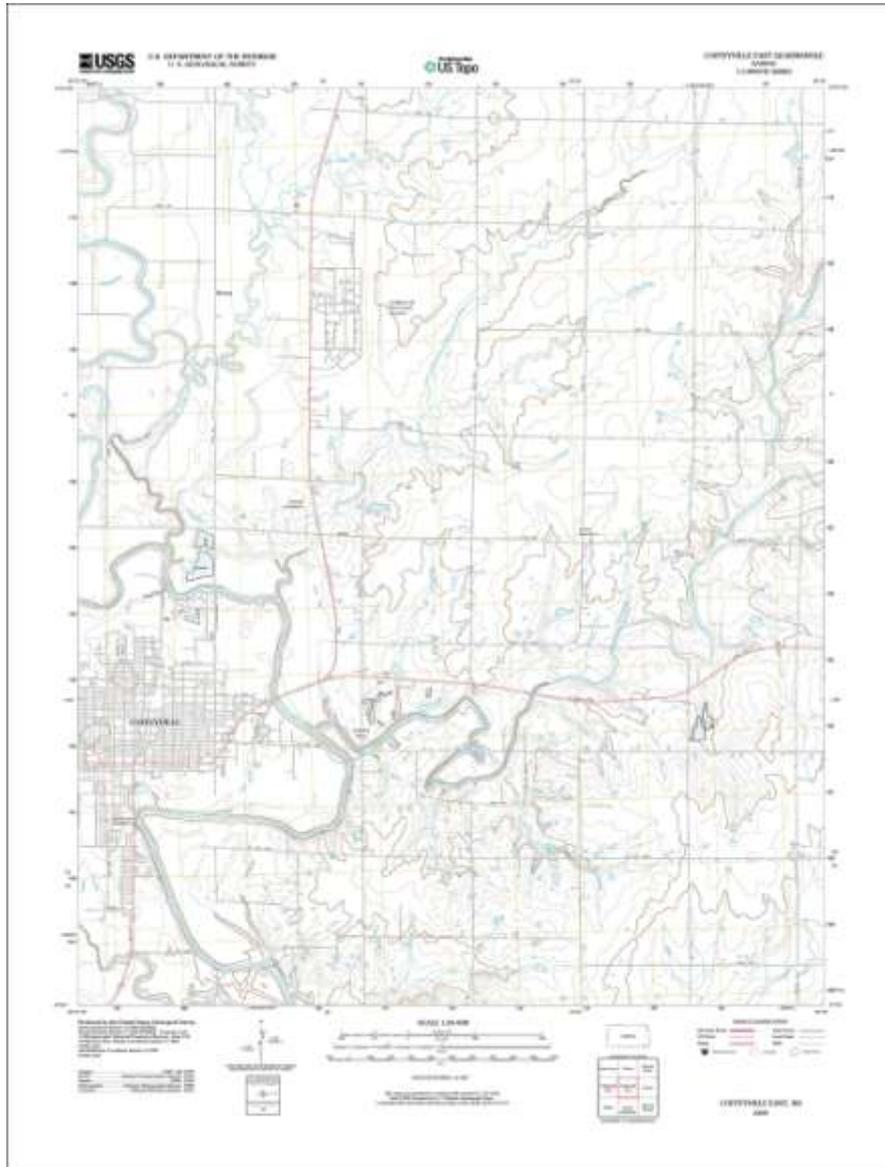
- Download
- Inventory
- Featured
- User Add

Content Reorder Layers

# The National Map Products and Services

- Image maps – beta
- USTopo
- Web Services – WMS, WFS, WCS
- Data downloads

# US Topo



## ***Learn about US Topo***

- See our new page here: [nationalmap.gov/ustopo](http://nationalmap.gov/ustopo)
- Nationwide regeneration of 7.5-minute map series using *The National Map* data on a three year cycle
- Look and feel of original map series
- First year production (2009) did not include contours or hydro
- Increased generation rate – several hours per map; 7.5-minute topo program took many years
- Long-term goal of best and most current data from local partners
- Files easily viewed, printed, and exchanged
- Maintain complete national coverage while ensuring regular updates



- USGS Store Home
- 
- Advanced Search
- Map Locator
- Product Catalog**
- Recreation Passes
- Haiti Maps
- Education Products
- Featured & New Products
- Maps
- Books & Reports
- Other Products

## Welcome To The USGS Store

*Here you can find maps, Federal Recreation passes, scientific reports, educational materials, and much more!*

### Forest Service Visitor Maps

[View All >>](#)

Nearly 400 recreation-friendly maps help you plan your hiking, camping, and fishing outings.

**Go here!**



Product Number: 209250

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### Maps



Maps, Maps, Maps read more about different kinds of USGS map products.

### Map Locator



Find, Order, or Download FREE Topographic Maps!

**US Topo:** The next generation of topographic maps. Illustrates available US Topos and Digital Maps-Beta.

### Recreation Passes



Provides entry into US National Parks, National Forests, and other places.

### Education Products



Several hundred of the most useful USGS maps for teaching and learning.

### Other Items of Interest

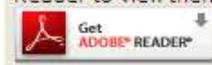
#### Other USGS Links

Find a [USGS Map Dealer](#) in your area.

### Tips For Using This Site

This website will time out after 30 minutes of inactivity, if you cannot complete your order please "SAVE YOUR BASKET" for later, otherwise your shopping basket will be lost.

Some products have a detailed PDF version, download Adobe Reader to view them.



### We Want To Know

If you encounter any problems or have questions please call **1-888-ASK-USGS** (1-888-275-8747) **Select Option 1** or email us at: [usgsstore@usgs.gov](mailto:usgsstore@usgs.gov).



Don't see the Map Locator? [Help](#)

### Map Locator

Having trouble? Call: 1-888-ASK-USGS (1-888-275-8747) or Write: [usgsstore@usgs.gov](mailto:usgsstore@usgs.gov) for help.

Name	Extent	Date	Map	File	Size
Redding "Digital Map - Beta"	7.5X7.5	2009	<a href="#">order</a>	<a href="#">download</a>	2326 KB
Redding	7.5X7.5	1991	<a href="#">order</a>	<a href="#">download</a>	1056 KB
Redding	30X60	1984	<a href="#">order</a>	<a href="#">download</a>	1358 KB

#### STEP 1.

SEARCH: [\[Search Help\]](#)

Redding, CA

Search Type:

#### OR FIND A PLACE ON THE MAP

[\[Navigation Help\]](#)

FIRST, NAVIGATE around the map: double click to re-center, click and drag to pull the map around, zoom in and out.

THEN, MARK POINTS on the map: click on a place to add a marker .

NOTES: You can switch between Navigate and Mark Points at any time.

The following [map footprints](#) appear when you are in the Mark Points mode and zoomed in:

7.5 and 15 Minute

1

Hide US Topo and "Digital Maps - Beta"

[About USGS Maps](#)

[About GeoPDF Maps](#)

[About US Topo](#)

[US Topo Quickstart](#)

US Topo  "Digital Maps - Beta"

Do more with GeoPDF:

- **Annotate** with geospatial information
- **Measure** distances and area, in your

#### STEP 2.

#### SELECT AND GET YOUR MAPS

FIRST, click on the marker to see an information bubble showing maps available.

THEN, click on "order" and/or

2

3

# *The GeoPDF format...*

## **Provides some GIS functionality in a familiar viewer**

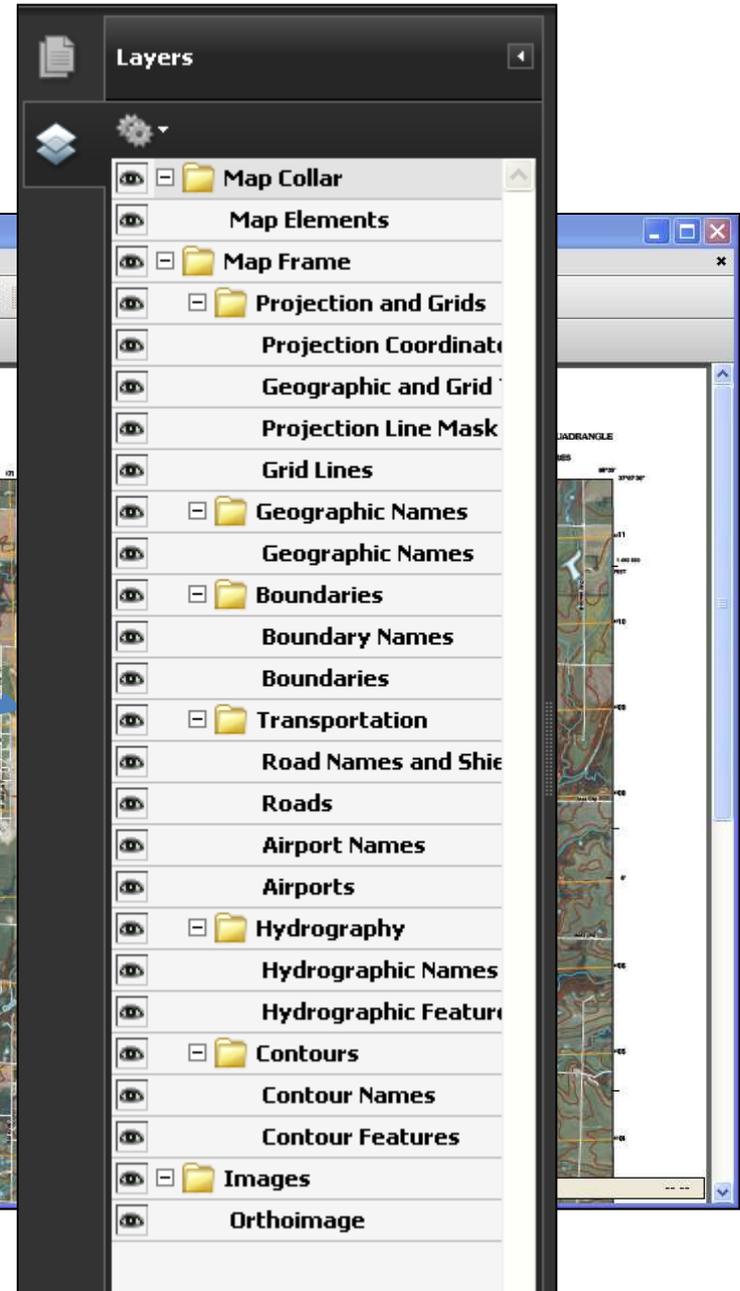
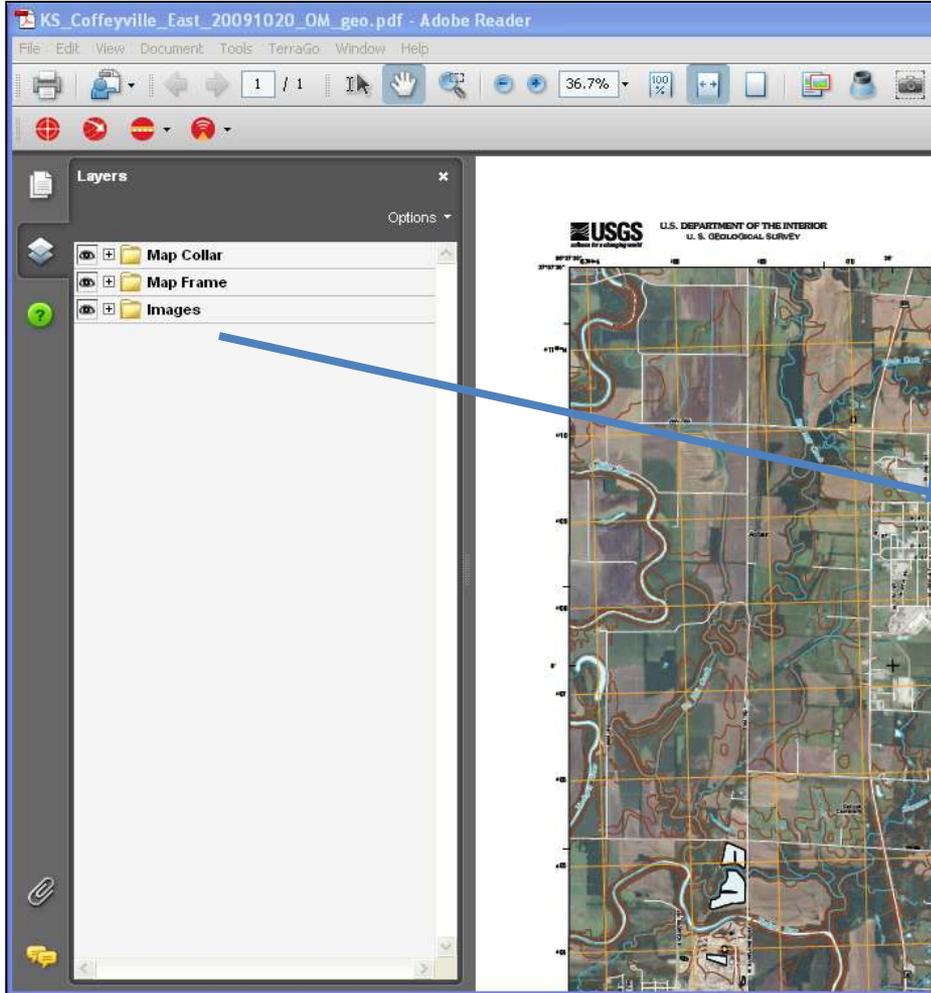
- Broad appeal and easy transfers
- Combines Adobe Reader functionality with TerraGo geospatial tools
- Layers can be turned on/off
- Pan, zoom, loupe (chip) controls
- Display map coordinates
- Google maps link
- Calculate areas and lengths
- Can search by feature names

# Downloaded Map Adobe Reader with GeoPDF Tools

The screenshot displays the Adobe Reader interface with a GeoPDF map. The map is titled "CORREYVILLE EAST QUADRANGLE KANSAS 7.5-MINUTE SERIES" and features a grid overlay. Annotations include:

- Adobe Acrobat and Terrago Technologies tools:** A green box pointing to the top toolbar.
- Layers list (compressed):** A green box pointing to the "Layers" panel on the left, which lists "Map Collar", "Map Frame", and "Images".
- Interactive GeoPDF map:** A green box pointing to the map area.
- Access to FGDC metadata:** A green box pointing to a paperclip icon in the bottom-left corner of the map area.
- Georeferenced cursor coordinates:** A green box pointing to a coordinate display at the bottom right, showing "Lon: --- Lat: --- MGRS: ---".

# Downloaded Map Layer List (expanded)



# ***And more changes are coming...***

- Added National Hydrography Dataset (NHD) surface water features
- Added National Elevation Dataset elevation contours (note contours in feet, not meters)
- Will add trails later
- Refine point feature elevations and symbols and label placement
- Apply land cover data to map backgrounds
- Next iteration of maps for California will be to US Topo specs and include above changes over 2009 (or later) photography

# National Geospatial Program

Examples of our work in the Northeast

# Partnership Projects in Maine

## Partnerships Funds

- Improving the Accuracy And Content of Cemetery Features and Names in The Geographic Names Information System
- Development of a Unified Coastline For Maine
- The Inventory of Local And Private Geospatial Data Resources in Maine
- Acquisition of High Resolution Orthoimagery for Cumberland County
- Development, Outreach and Applications in Support Of Stewardship of the National Hydrography Database and the Water Boundary Database
- Synchronization of Geographic Names for Maine
- Acquisition of High Resolution Orthoimagery for York County

## 133 Cities Projects

- Acquisition of LiDAR and High Resolution Orthoimagery for the Capitol Area

## FGDC CAP Grants

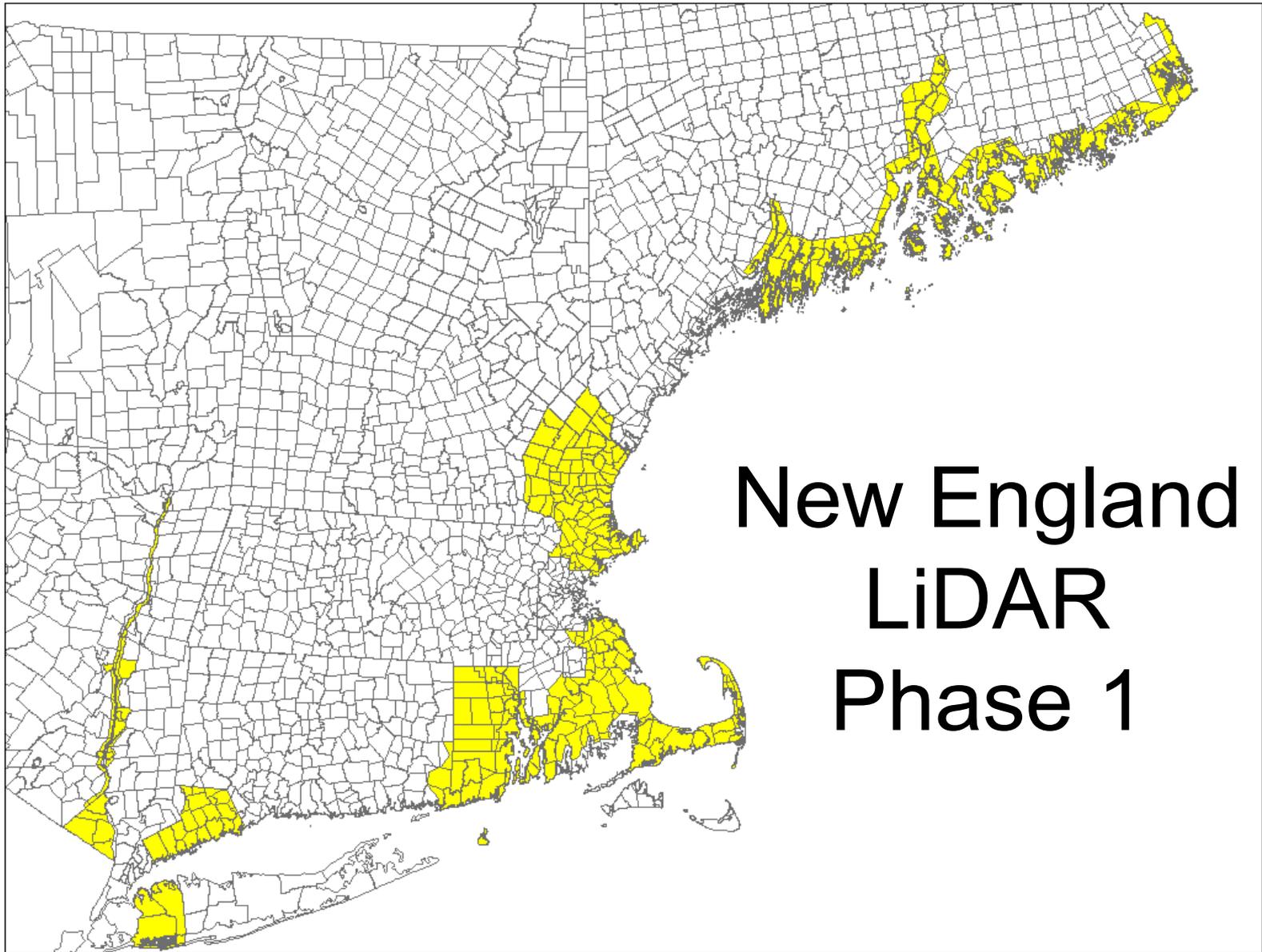
- Geoparcels
- Strategic Plan
- County Needs Assessment



- Metadata Assistance

# It's More Than Money....

- Technical support
- Access to resources - emergency response
- Planning - members of coordinating councils
- Projects – subcommittees
- Participation in users groups



# New England LiDAR Phase 1