Improving Access: Texas Topographic Map Project

Mark Phillips
ALA – June 24, 2012
Overview

• Background
• Goals
• Process
• Challenges
• Next Steps
• Questions
Background

• UNT Libraries Digital Projects Unit
  – Infrastructure, workflows, tools, digital preservation services for UNT

• Portal to Texas History
  – 200+ Partners around the State of Texas
  – 200,000+ Items
  – 2,600,000+ Images
  – 5,000,000+ Uses in the last three years
Map Collection Highlights
Texas Soil Surveys

- Digitized all pre-1950 surveys and maps
- Digitizing all post-1950 surveys and maps,
- 75% complete at this point
- 356 items, 23,893 files with 56,600+ uses in three years
Texas General Land Office

• Historic County Map Collection
• Popular set of maps from the GLO
• Complete county coverage of Texas
• 926 maps
• 44,330+ uses in two years
UT Arlington Map Collection

- Mapping the Southwest Grant Project
- NEH Grant PW-50625-10
- Collaboration between UNT and UTA
- Digitization of 5000+ historic maps from the UTA Cartographic Collection
- Provide access via the Portal to Texas History
- 2,153 maps so far
- 25,675+ uses of collection
USGS Topo Maps

- 7.5 minute 1:24,000 scale (completed 1992)
- 55,000 maps covering 48 states
- Digital Raster Graphic (DRG) editions produced 1995-1998
- Files
  - Geotiff - .tif
  - Metadata file - .fgd
  - World file - .tfw
- 4,281 maps for Texas
Goals

• Acquire, describe and provide access to a large set of digital map content
• Expose the 7.5 Minute Quadrangles to a different audience
• Investigate methods for automatic metadata creation
• Improve access points to Quadrangle maps.
• Provide “data access” for GIS users and “real world” access for everyone else
Process

- Locate Maps
- Harvest Maps
- Map existing metadata
- Extract additional metadata based on location
- Create metadata records
- Ingest into repository
Metadata Lookup

- County lookup for 9 points via Google
- Named place lookup using GeoNames Web-services
- Custom location normalization script
About the Portal
The Portal is a gateway to Texas history materials. You may discover anything from an ancestor’s picture in a college yearbook to a rare historical map.

Resources for Educators
We offer teaching materials that connect your students with primary source historical documents to dramatically enrich their learning.

Recent Additions
The Portal continues to grow as new partners contribute digital versions of their collections. See some of our latest materials here.

Search within the The Portal to Texas History
Everything | Books | Maps | Photos | Newspapers

Advanced Search
Search Help

Featured Collection
USGS Topographic Map Collection
The USGS took over responsibility for mapping the country in 1879 and has been the primary civilian mapping agency of the United States ever since. This collection features the best known USGS maps which are the 1:24,000-scale topographic maps, also known as 7.5-minute quadrangles for the state of Texas.

More Collections...

Featured Partner
Anderson County Historical Commission
The Anderson County Historical Commission provides materials for the Rescuing Texas History project. Images include local citizens, businesses, and homes.

More Partners...
USGS Topographic Map Collection

What's Inside this Collection.

The United States Geological Survey (USGS) is the largest civilian mapping agency in the country (in addition to many other scientific endeavors). As part of their project, each region of the United States has been divided into square “quadrants” and mapped. The “quadrangle” maps include states (excluding parts of Alaska), territories, and trusts of the United States.

Between 1985 and 1998, more than 60,000 of the maps were scanned to make them available in a digital format, though not every state was represented in the digitization project. The original maps were created over the previous three to four decades on paper before being scanned. Since then, newer maps have been created as “born-digital” objects at higher standards than the previous ones.

Each of the Digital Raster Graphic (DRG) maps in this collection was scanned by USGS from a standard topographic map depicting a specific quadrant. This collection is also limited to just over 4200 maps covering Texas and border areas (though most of the United States and territories are online at the USGS site).

For more information about the United States Geological Survey, visit: http://www.usgs.gov/

For more information about DRG maps and the USGS digitization projects, visit: http://topo maps.usgs.gov/drg/
Search Inside the USGS Topographic Map Collection

Everything | Books | Maps | Photos | Newspapers

Submit

You limited your search to:

- Collection: USGS Topographic Map Collection

Results 1 - 10 of 4,275

Sort by: Best Match

7 L Ranch Quadrangle

Date: 1991
Creator: Geological Survey (U.S.)
Description: Topographic map of a portion of Texas from the United States Geological Survey (USGS) project. The map includes towns, historic or notable sites, bodies of water, and other geologic features. Scale 1:24,000
Contributing Partner: UNT Libraries Government Documents Department

Abbott Quadrangle

Date: 1979
Creator: Geological Survey (U.S.)
Description: Topographic map of a portion of Texas from the United States Geological Survey (USGS) project. The map includes towns, historic or notable sites, bodies of water, and other geologic features. Scale 1:24,000
Contributing Partner: UNT Libraries Government Documents Department
Argyle Quadrangle

Date: 1978
Creator: Geological Survey (U.S.)
Description: Topographic map of a portion of Texas from the United States Geological Survey (USGS) project. The map includes towns, historic or notable sites, bodies of water, and other geologic features. Scale 1:24,000
Contributing Partner: UNT Libraries Government Documents Department

Aubrey Quadrangle

Date: 1978
Creator: Geological Survey (U.S.)
Description: Topographic map of a portion of Texas from the United States Geological Survey (USGS) project. The map includes towns, historic or notable sites, bodies of water, and other geologic features. Scale 1:24,000
Contributing Partner: UNT Libraries Government Documents Department
### Aubrey Quadrangle

**Description:** Topographic map of a portion of Texas from the United States Geological Survey (USGS) project. The map includes towns, historic or notable sites, bodies of water, and other geologic features. Scale 1:24,000

**Creator(s):** Geological Survey (U.S.)

**Location(s):**
- United States - Texas - Denton County - Mustang
- United States - Texas - Denton County - Aubrey
- United States - Texas - Denton County - Spring Hill
- United States - Texas - Denton County

**Creation Date:** 1978

**Partner(s):**
- UNT Libraries Government Documents Department

**Collection(s):** USGS Topographic Map Collection

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**Resources & Educators**

We offer teaching materials that connect your students with primary source historical documents to dramatically enrich their learning. See all resources.

**Feedback:**

If you are having problems, need to report errors, or have questions or comments for the staff, please use our **Feedback Form**.
<table>
<thead>
<tr>
<th>Creator (Cartographer):</th>
<th>Geological Survey (U.S.)</th>
</tr>
</thead>
</table>
| Publisher Info:         | Publisher Name: Geological Survey (U.S.)
Place of Publication: Reston, Virginia |
| Original Creation Date: | 1978 |
| Coverage:               | Place
United States - Texas - Denton County - Mustang
Place
United States - Texas - Denton County - Aubrey
Place
United States - Texas - Denton County - Spring Hill
Place
United States - Texas - Denton County - Krugerville
Era
The Texas Landscape |
| Description:            | Topographic map of a portion of Texas from the United States Geological Survey (USGS) project. The map includes towns, historic or notable sites, bodies of water, and other geologic features. Scale 1:24,000 |
| Note:                   | Digital Raster Graphic (DRG) was created on 1997-01-10 from a source map published in 1978 |
| Physical Description:   | 1 map : col. ; 69 x 56 cm. |
| Language:               | English |
| Subject(s):             | UNTL-BS : Landscape and Nature - Geography and Maps
UNTLS-BS : Places - United States - Texas - Denton County
LCSH : Texas -- Maps, Topographic.
LCSH : Texas -- Surveys. |
| Subject(s): | UNTL-BS: Landscape and Nature - Geography and Maps  
|           | UNTL-BS: Places - United States - Texas - Denton County  
|           | LC: Texas -- Maps, Topographic  
|           | LC: Texas -- Surveys  |
| Keyword(s): | maps | topographic maps | survey maps | geologic maps | DRG maps | topography  
|           | geologic surveys | elevations | quadrangle maps  |
| Series Title: | Digital Raster Graphic Topographic Maps: 7.5 Minute Series (Topographic)  |
| Partner: | UNT Libraries Government Documents Department  
|           | About | Browse Partner's Holdings  |
| Collection: | USGS Topographic Map Collection  
|           | About | Browse this Collection  |
| Identifier: | LOCAL-CONT-NO: DT00001024846  
|           | LOCAL-CONT-NO: 033038c8  
|           | ARK: ark:/67531/metaph108405  |
| Resource Type: | Map  |
| Format: | Image  |
| Rights: | License: pd  
|           | Access: public  
|           | Statement: Maps and information obtained through USGS. Acknowledgement of the USGS would be appreciated in products derived from these data.  |

Contact Us  
For questions regarding content on this site, contact us: feedback.

Hosted by The University of North Texas Libraries  
Site last updated on Thursday, Oct 14, 2010

Technical problems?  
For problems regarding this web site, contact us feedback.

Links  
Disclaimer | AA/EOE/ADA | Privacy Statement | Web Accessibility Policy | State of Texas Online

Rights Information  
Terms of Use
Aubrey Quadrangle

Point: 33.31, -96.94

Boundaries: N: 33.38, E: -96.88, S: 33.25, W: 97.0

Resources for Educators

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Aubrey Quadrangle

This item is available in multiple formats. Choose one below.

View this Map
Number of items: 1
Filetype: tif (image)

Download this Map
Number of items: 3
Filetype: gis (file)

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## Aubrey Quadrangle

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<td>84 bytes</td>
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If you are on Facebook, there's now a perfect place to get the latest in news and stories about the Portal to Texas History. Come join our group today!
Tahoka Quadrangle

Date: 1981
Creator: Geological Survey (U.S.)
Description: Topographic map of a portion of Texas from the United States Geological Survey (USGS) project. The map includes towns, historic or notable sites, bodies of water, and other geologic features. Scale 1:24,000
Contributing Partner: UNT Libraries Government Documents Department

New Lynn Quadrangle

Date: 1991
Creator: Geological Survey (U.S.)
Description: Topographic map of a portion of Texas from the United States Geological Survey (USGS) project. The map includes towns, historic or notable sites, bodies of water, and other geologic features. Scale 1:24,000
Contributing Partner: UNT Libraries Government Documents Department
Usage

• “I was looking at the surveyors map of Liberty County and then the Dayton Quadrangle and found it very interesting. Do you print these maps and if so, what is the size and cost.”

• 19,500+ “uses” in the two years they have been online.
Challenges

• Confusing metadata related to dates
• County lookup Web-services differ substantially
• What kind and how much automatically extracted metadata
• How do users want to find this content
2010-2011 Texas Topo Maps
Project Goals

• Add 4000+ new topographic maps to the Portal to Texas History
• Reuse existing metadata whenever possible
• Automate new metadata creation
• Archive new series of topographic maps
Process

- Harvest zip files from USGS Store
- Extract GeoPDF files
- Batch convert GeoPDF to high resolution jpegs for display
- Merge new map and metadata with existing metadata from quadrangle
- Ingest maps into system
| Subject(s):           | LCSH: Texas -- Maps, Topographic.  
|----------------------|-----------------------------------
|                      | LCSH: Texas -- Surveys.          
|                      | UNTL-BS: Landscape and Nature - Geography and Maps  
|                      | UNTL-BS: Places - United States - Texas - Loving County  
| Keyword(s):          | maps | topographic maps | survey maps | geologic maps | topography | geologic surveys | elevations | quadrangle maps | satellite images | orthographic imagery | topo maps  
| Series Title:        | Digital US Topo Maps: 7.5 Minute Series (Topographic)  
| Partner:             | UNT Libraries Government Documents Department  
|                      | About | Browse this Partner  
| Collection:          | USGS Topographic Map Collection  
|                      | About | Browse this Collection  
| Relation (Is Version Of): | Lindley Ranch Quadrangle, ark:/67531/metaphth107550  
| Identifier:          | ARK: ark:/67531/metaphth211943  
| Resource Type:       | Map  
| Format:              | Image  
| Rights:              | License: Public Domain  
|                      | Access: Public  
|                      | Statement: Maps and information obtained through USGS. Acknowledgment of the USGS would be appreciated in products derived from these data.  

## Adamsville Quadrangle

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<td>16.3 MB</td>
<td>application/pdf</td>
<td>Download</td>
</tr>
</tbody>
</table>
Next Steps

- Historic Topographic Maps
- Lesson plans
- Marketing to increase usage
- Other topographic series
  - 1:100,000
  - 1:250,000
- Other States?
Questions

• http://texashistory.unt.edu/

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