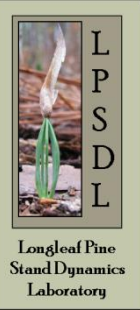




Mapping and Data Management



Presented by

John Gilbert¹

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² Alabama Cooperative Extension System and Longleaf Pine Stand Dynamics Laboratory, Auburn University School of Forestry and Wildlife Sciences

Alabama Forest Landowners Annual Meeting
April 6, 2013



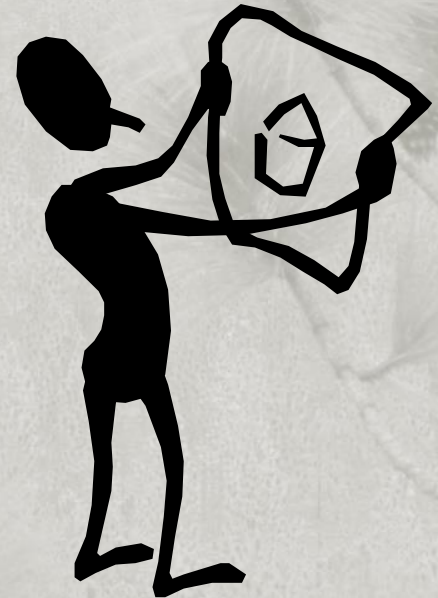
Spatial Opportunities

- Emerging technology
- Basic navigation
- Identify site and stand locations
- Planning and management activities
- Storing and sharing information
- Tools often available online and free



Why Are You Interested in Maps?

- Online mapping and spatial resources
 - Simple Monitoring and Planning
 - Natural Resource Management
- Property searches
 - Tax and appraisal information
- Historical information
 - Land patents
 - Survey notes
- Data management and record keeping



Identify Areas of Interest

- Property boundaries
- Timber stands
- Roads
- Gates
- Streamside Management Zones (SMZs)
- Stream Crossings
- Logging decks and hazards
- Wildlife food plots
- Burn plans
- Pastures
- Hunting leases
- Agroforestry/silvopasture areas

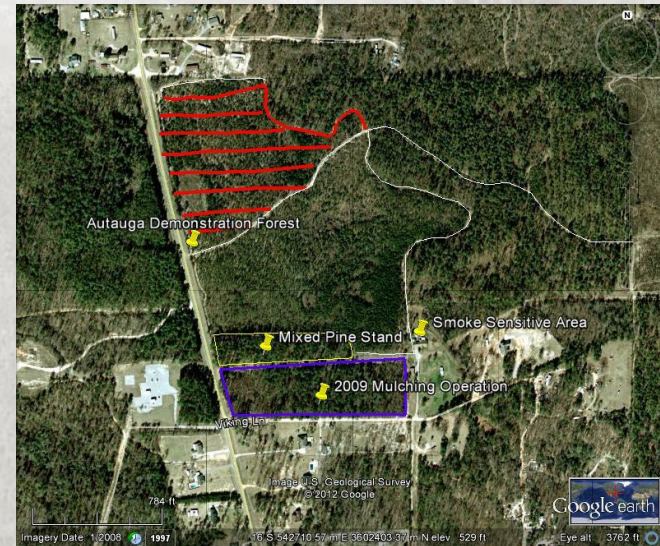
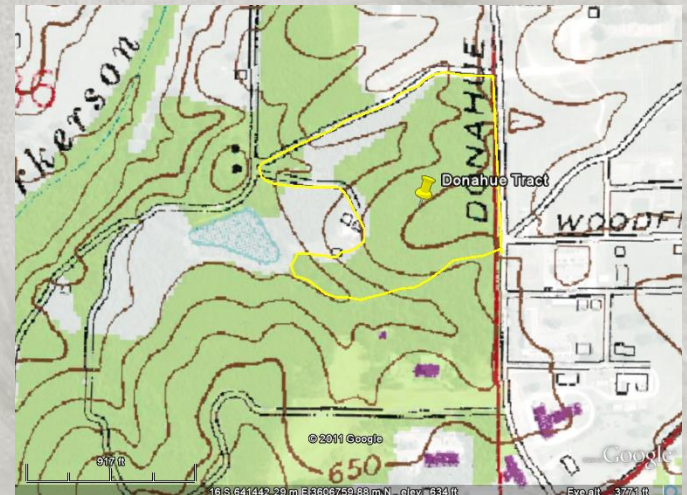


Image US Geological Survey © 2012 Google

Basic Types of Maps

- Stand map
- Aerial photography
- Topographic
- Soils information



Other Types of Information

- Parcel data and tax information
- Historical aerial photographs
- Land patent or surveyors notes

The screenshot displays a web browser window with a GIS application. The browser title is "Printed From MapGuide - Windows Internet Explorer". The URL is "http://www.albamags.com/Supporter13/PRINT_PREVIEW.php?DESGID=602b7ee6-97c2-11e2-903c". The application shows a map of a parcel with a red outline. The map is titled "Covington County AL - 2012 Free Public Website" and "Parcel Details". The map scale is 1:1000. The browser window also shows a table of parcel data.

Parcel	Parcel No.	Parcel Area	Parcel Value
25528	25 10 09 29 5 001 007 000	21.00	\$47,250.00

The table also includes columns for "Parcel Address", "Owner Address", "Land Use", "Assessed Value", "Assessed Date", "Assessed Year", "Assessed Value", "Assessed Date", "Assessed Year", "Assessed Value", "Assessed Date", "Assessed Year".

470



The United States of America,

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETING:

Homestead Certificate No. 12147 }
Application 21198 }
United States of America }
CERTIFICATE of the Register of the Land Office at Montgomery
Alabama, whereby it appears that, pursuant to the Act of Congress approved
20th May, 1862, "To secure Homesteads to actual settlers on the public domain," and the acts
supplemental thereto, the claim of Edgar T. Albritton has been
established and duly consummated in conformity to law for the North East quarter
of The North East quarter of Section Twenty in Township
four North of Range Sixteen East of St. Stephens
Meridian in Alabama, containing thirty nine acres
and eighty six hundredths of an acre

Mapping Opportunities

- Have you ever been interested in making maps for your property?
- Are you worried it will be too technical or complicated?
- Do you have a computer and internet access?



An aerial photograph of a vast, forested valley. In the distance, a small town or village is visible, surrounded by more trees. The entire image is overlaid with a semi-transparent grid pattern. In the foreground, several pine tree branches with needles are visible, framing the right side of the image. The overall tone is muted and slightly hazy.

Online Mapping and Spatial Resources



Mapping Your Land: An Overview for Landowners

Online Mapping and Spatial Resources
for the Private Forest Landowner



Longleaf Pine
Stand Dynamics
Laboratory



www.auburn.edu



Online Mapping and Spatial Resources for the Private Forest Landowner

- Funding from an Alabama Forests Forever Grant
- 225 copies printed
- See Longleaf Pine Stand Dynamics Lab website:
<http://www.lpsdl.auburn.edu/>
- Booklet available online at:
http://www.lpsdl.auburn.edu/pdfs/MappingBook_FINAL.pdf

How to Use this Booklet

- Designed for private landowners and conservation professionals
- Provides tutorial information with to help users to make maps, acquire, and store data for an area of interest
- Focus on stand maps, aerial photography, topographic, and soils information
- 5 sections, each with keywords, homepage links, tutorial information, examples, screen-shots, and tips

Section 1: USDA Natural Resources Conservation Service (NRCS) Web Soil Survey

Web Soil Survey - Windows Internet Explorer

http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

File Edit View Favorites Tools Help

Web Soil Survey

USDA United States Department of Agriculture
Natural Resources Conservation Service

Web Soil Survey

Contact Us Download Soils Data Archived Soil Surveys Soil Survey Status Glossary Preferences Link Logout Help

Area of Interest (AOI) Soil Map Soil Data Explorer Shopping Cart (Free)

Search

Area of Interest

Import AOI

Quick Navigation

Address

State and County

Soil Survey Area

Latitude and Longitude

PLSS (Section, Township, Range)

Bureau of Land Management

Department of Defense

Forest Service

National Park Service

Hydrologic Unit

Area of Interest Interactive Map

View Extent: Contiguous U.S. Scale: (not to scale)

Legend

Map showing the contiguous United States with state abbreviations and a red boundary indicating the Area of Interest (AOI).

Section 1: USDA Natural Resources Conservation Service (NRCS) Web Soil Survey

- Online application
- Locate a piece of property or an area of interest
- Create a boundary for the area of interest
- Display soil information with aerial photographs and/or topographic layers as backgrounds
- Create maps
- Create basic or detailed soil reports

Soil Map—Lee County, Alabama
(Donahue Tract)



Map Scale: 1:3,150 if printed on A size (8.5" x 11") sheet.



Soil Map—Lee County, Alabama Donahue Tract

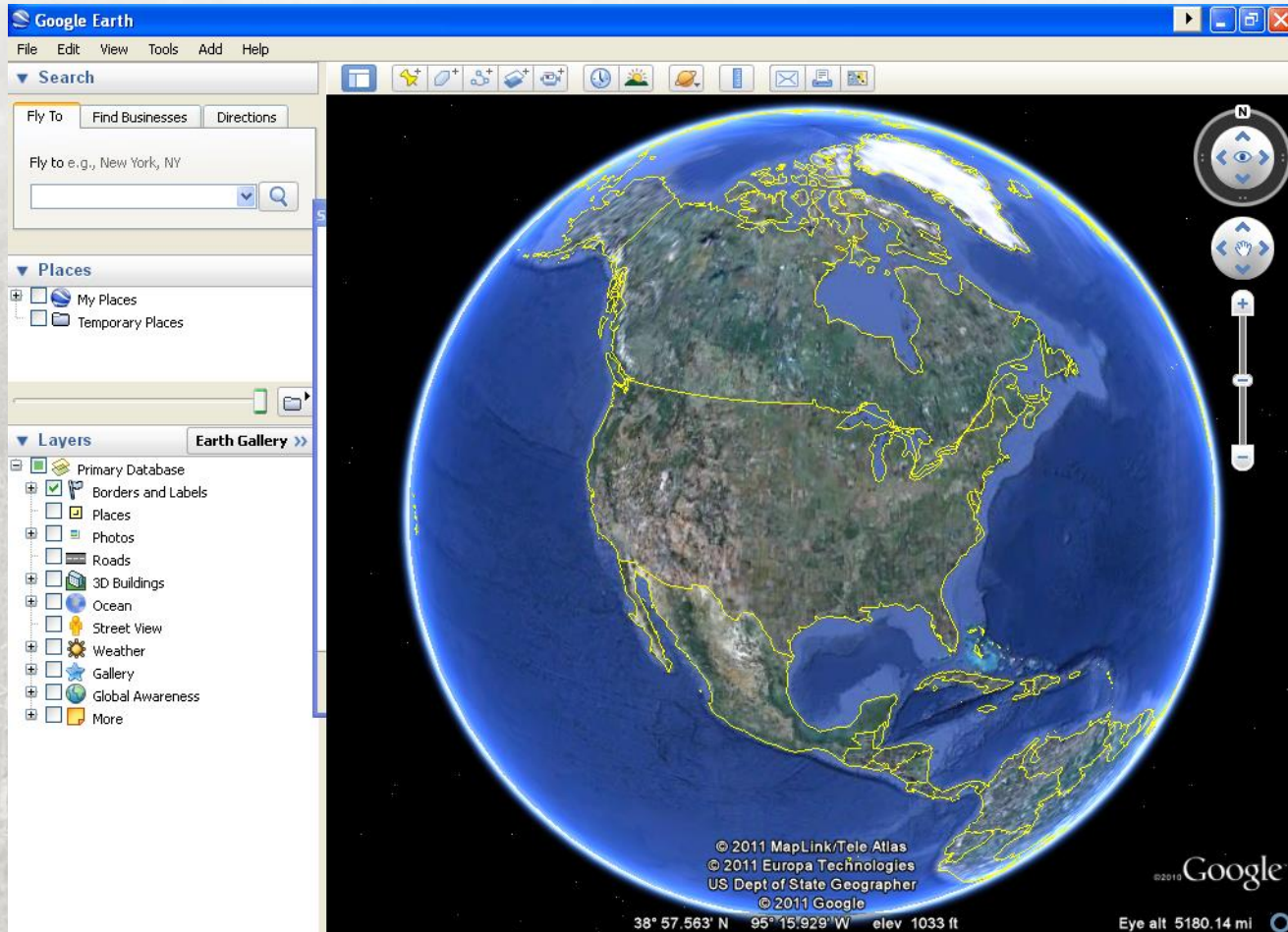
Map Unit Legend

Lee County, Alabama (AL08)			
Map Unit Symbol	Map Unit Name	Acres by ACI	Percent of ACI
24	Meryll loamy sand, 1 to 5 percent slope	119	79.2%
25	Meryll loamy sand, 6 to 10 percent slope	43	20.2%
Totals for Area of Interest		224	100.0%



Web Soil Survey
National Cooperative Soil Survey

Section 2: Google Earth



© 2011 MapLink/Tele Atlas, © 2011 Europa Technologies,
US Dept of State Geographer, © 2011 Google

Section 2: Google Earth

- Requires downloading a program
- Locate a piece of property or area of interest
- Store location and description information
- Create maps
- Opportunities for improved communication

Section 2: Google Earth Developing a Database

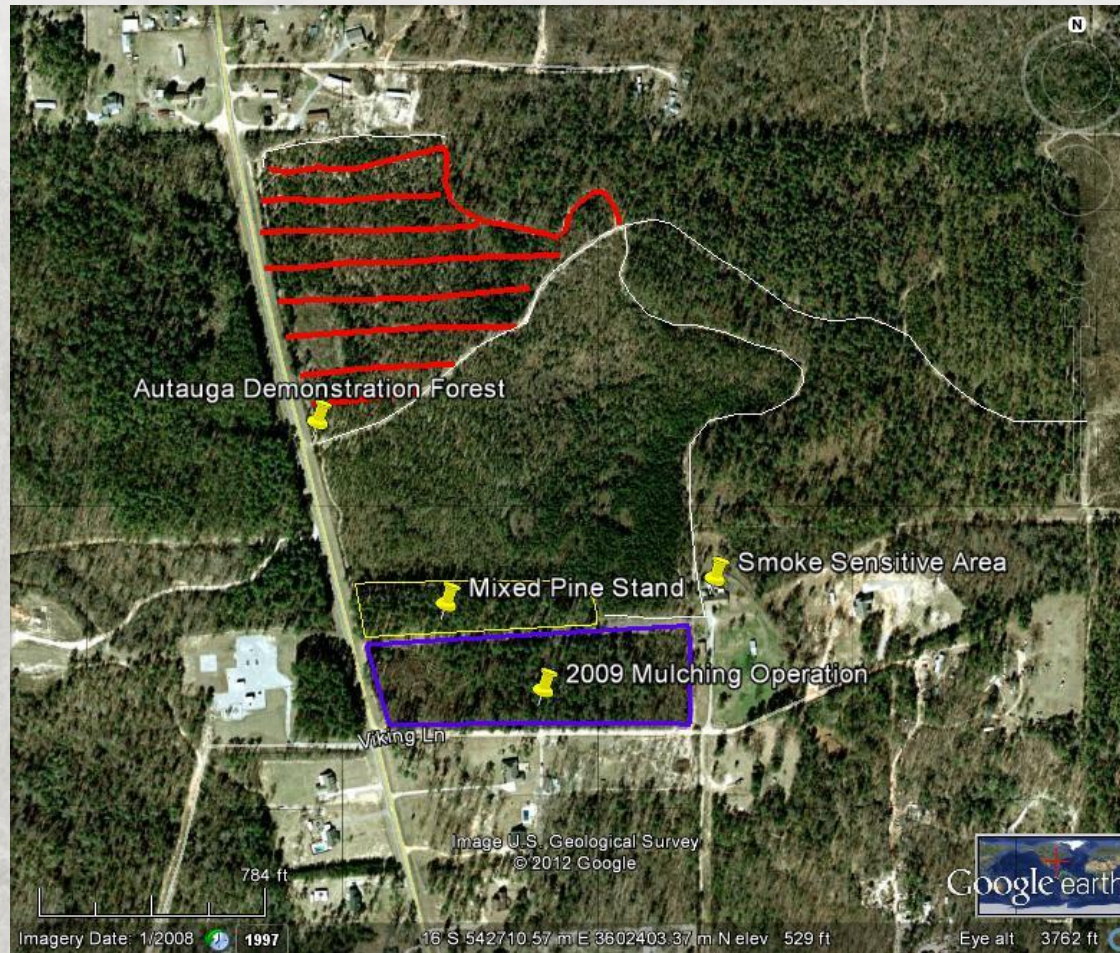


Image US Geological Survey © 2012 Google

Section 3: Alabama Historic Aerial Photo Archive

[Home](#) | [Help](#) | [Graphics Tutorial](#) | [Aerial Photography](#) | [Historical Maps](#) | [Contemporary Maps](#) | [About this site](#) | [Feedback](#)

Air Photo Archive

<http://alabamamaps.ua.edu>

Autauga	Dallas	Marengo
Baldwin	DeKalb	Marion
Barbour	Elmore	Marshall
Bibb	Escambia	Mobile
Blount	Etowah	Monroe
Bullock	Fayette	Montgomery
Butler	Franklin	Morgan
Calhoun	Geneva	Perry
Chambers	Greene	Pickens
Cherokee	Hale	Pike
Chilton	Henry	Randolph
Choctaw	Houston	Russell
Clarke	Jackson	St Clair
Clay	Jefferson	Shelby
Cleburne	Lamar	Sumter
Coffee	Lauderdale	Talladega
Colbert	Lawrence	Tallapoosa
Conecuh	Lee	Tuscaloosa
Coosa	Limestone	Walker
Covington	Lowndes	Washington
Crenshaw	Macon	Wilcox
Cullman	Madison	Winston
Dale		

Section 3: Alabama Historic Aerial Photo Archive

- Online application
- View historical aerial photographs
- Order digital copies



Section 4: NRCS Geospatial Data Gateway

- Online application to search for data
- Requires a Geographic Information System (GIS) or viewer
- For more advanced users
- Search for data (examples include aerial imagery, topographic maps, elevation information, soils, land use land cover, geology, climate data, etc.)



Section 5: USDA National Agroforestry Center (NAC) CanVis

- Requires downloading a program or requesting a CD or DVD
- Create visual simulations of potential management options using digital photographs
- Excellent online tutorials and help menus



CanVis Examples



<http://www.unl.edu/nac/simulation/examples.htm>

Plenty of Additional Options

- Global Positioning System (GPS) Visualizer
- DRN GARMIN/DNR GPS
- Forest*A*Syst
- Use your favorite search engine



An aerial photograph of a vast, forested valley. In the distance, a small town or village is visible, surrounded by more trees. The entire image is overlaid with a semi-transparent grid pattern. The text "Property Searches and Information" is centered in the middle of the image.

Property Searches and Information

Property Searches and Tax Information



Alabama Assessor and Property Tax Records Directory



Google™ Custom Search

Page 1 [>> Next Page](#)

Search public records by Alabama county

- Choose an Alabama County ▾

Search public records by Alabama town or zip code

Search public records by category

- Choose a Public Record Category ▾

Search public records in other states

--Choose a State-- ▾

About Assessor and Property Tax Records in Alabama

Each of Alabama's counties contains an Assessor office which is responsible for real and personal property tax records. Land and land improvements are considered real property while mobile property is classified as personal property.

Many counties maintain an online searchable database to find property tax and assessment records. One can typically search using an interactive map, by parcel number, address, or owner name. Counties without an online database can be contacted via phone, fax, mail, or in person.

Advertising

[Search AL Public Records](#)

[AL Marriage Records](#)

[AL Divorce Records](#)

[AL Criminal Records](#)

[AL Death Records](#)

Public Records Search

Advertising

First Name:

Last Name:

State:

Alabama ▾

Select Record Type: Public Background Checks Marriage Divorce Criminal Birth Death Vital

Lee County, AL Online Assessment and Appraisal Record Search

Lee County

ALABAMA

<http://www.leecountyrevenuecommissioner.com/>

Lee County, Alabama

Search Page

Welcome to the Lee County, Alabama online Assessment and Appraisal record search. This search engine provides property tax and appraisal information of record in Lee County, Alabama. This information is updated frequently for the current tax year, but may not reflect actual, up-to-date courthouse records.

To begin your search, choose the link below.

[Assessment and Real Property Appraisal](#)

[Current Year Real Estate Tax Info](#)

[Lee County Property Maps](#)

[Pay Property Tax Online](#)



Another Service From:
Oline W. Price, ACTA
Revenue Commissioner

Lee County, AL Online GIS Website

Flagship GIS, Inc.

Lee County GIS

LeelWeb

Map Tools | **Selection Tools** | **Search Options** | **Reports** | **Overlays** | **Flagship Tools**

Zoom In | Zoom Out | Select | Clear Select | select... | select... | Sections | Aerials | Full Map

Zoom County | Zoom Scale | Create Buffer | Clear Buffer

Measure | Print Map | Select Within | Pan

Print · Zoom · Back

43-05-07-26-0-000-017.000

St Adr: 0

Pin: 004972 | Account: 823

Tax Dist: Auburn | Exemption:

Subdiv: NA

NbrHood: AUBURN UNIVERSTIY

Ownership

AUBURN UNIVERSITY
AUBURN UNIVERSITY

AUBURN, AL 36849

Deed: Book: 0000 | Page: 0000000

Prev:

Appraised Value Information

Building \$0.00

Misc Improvements \$0.00

1 : 9,835 | 5,908 x 2,493 (ft)

Row	Tools	Pin	Parcel	Name	Location	TL Bldg	TL Imp	TL Land	TL Mkt
1		004971	05-07-25-0-000-002.001	AUBURN UNIVERSITY	0	\$0.00	\$0.00	\$2,810.00	\$2,810.00
2		004097	05-07-25-0-000-003.000	AUBURN UNIVERSITY	0 AL HWY 147 N	\$0.00	\$0.00	\$2,475,000.00	\$2,475,000.00
3		004972	05-07-26-0-000-017.000	AUBURN UNIVERSITY	0	\$0.00	\$0.00	\$357,500.00	\$357,500.00
4		004098	05-07-35-0-000-001.000	AUBURN UNIVERSITY	0 LEE RD 0085	\$0.00	\$0.00	\$2,618,550.00	\$2,618,550.00
5		004099	05-07-36-0-000-002.000	AUBURN UNIVERSITY	0 US HWY 280 W	\$0.00	\$0.00	\$2,811,600.00	\$2,811,600.00
6		004973	08-01-01-0-000-001.000	AUBURN UNIVERSITY	0 N & S OF CO RD 54	\$0.00	\$0.00	\$2,182,500.00	\$2,182,500.00
7		004974	08-01-02-1-000-001.000	AUBURN UNIVERSITY	0 LEE RD 0091	\$0.00	\$0.00	\$235,130.00	\$235,130.00

US Dept of the Interior Bureau of Land Management General Land Office Records

- Online application
- Information about:
 - Land Patents
 - Survey Plats and Field Notes
 - Land Status Records
 - New Mapping Feature*



Search Documents by Location

The screenshot shows a web browser window titled "Search - BLM GLO Records - Windows Internet Explorer". The address bar displays the URL: <http://www.glorerecords.blm.gov/search/default.aspx#searchTabIndex=1>. The page features a navigation menu with "Search Documents", "Reference Center", "Support", and "Shopping Cart". Below the menu, there are three search tabs: "Search Documents By Type", "Search Documents By Location" (which is selected), and "Search Documents By Identifier".

The "Search Documents By Location" section contains a "Mapped Townships" table and a map of Alabama. The table lists the following township:

	Land Description	Search
<input checked="" type="checkbox"/>	ALABAMA, St Stephens Twp 19.0N Rng 27.0E	<input type="button" value="Search"/>

Below the table, there is a section titled "To search for documents by location:" with the following instructions:

1. Right-click on the map location.
2. Select **Map Township**.
 - The township will be drawn on the map.
 - The township will appear in the panel above.
3. Click **Search** next to the desired township.

The map shows a portion of Alabama, with an orange rectangle highlighting the St Stephens Township area. Labels on the map include "CHAMBERS LEE", "Opelika", "US-280", "Salem", and "Auburn University". The Esri logo is visible in the bottom right corner of the map area.

The browser's status bar at the bottom shows the URL <http://www.glorerecords.blm.gov/default.aspx>, the Internet icon, and a zoom level of 100%.

Example Land Patent for Lee County

Search Results - BLM GLO Records - Windows Internet Explorer

http://www.glorerecords.blm.gov/results/default.aspx?searchCriteria=type=patent|st=AL|cty=081|sp=tru

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT PRIVATE CLAIMS
 General Land Office Records

Search Documents Reference Center Support Shopping Cart

Search Documents Results List

Patents 1 ... 2 3 4 5 6 ... 100 Next

Note: Your list may be incomplete due to an administrative limit of 2000 results. For suggestions on refining your search, [click here](#).

Image	Accession	Names [7]	Date	Doc.#	State	Meridian	Trp - Rng	Aliquots	Sec. #	County
	AL5010...247	ABERCROMBIE, CHARLES	7/29/1839	247	AL	St Stephens	018N - 026E	N1/2	17	Lee
	AL4370...017	ABERCROMBIE, JAMES	6/1/1849	9547	AL	St Stephens	017N - 029E	SE1/4NE1/4	12	Lee
	AL5030...137	ADAIR, JOHN D	12/16/1839	19	AL	St Stephens	018N - 028E	N1/2	2	Lee
	MY-0617-043	ADAMS, ELDRIDGE	6/27/1907	14239	AL	St Stephens	019N - 028E	SW1/4SW1/4	10	Lee
	AL4440...323	ADAMS, ELDRIDGE	3/1/1858	14042	AL	St Stephens	019N - 028E	E1/2SW1/4	10	Lee
	AL1370...379	ADAMS, SAMUEL C	4/8/1837	2481	AL	St Stephens	017N - 027E	SW1/4SE1/4	21	Lee
	AL1370...380	ADAMS, SAMUEL C	4/8/1837	2482	AL	St Stephens	017N - 027E	SE1/4SE1/4	21	Lee
	AL4250...057	ADAMS, SAMUEL C	4/10/1837	3679	AL	St Stephens	017N - 027E	E1/2NE1/4	21	Lee

Internet Explorer

default.aspx?accession=AL4370...017&docClass=STA&sic

Information on [certified copies](#). (You can decide later whether or not to purchase the documents in your cart.)

58.8%

Comment Share

THE UNITED STATES OF AMERICA,

CERTIFICATE

547

To all to whom these Presents shall come, Greeting:

WHEREAS *James Abercrombie of Russell county Alabama*

has deposited in the **GENERAL LAND OFFICE** of the United States, a Certificate of the REGISTER OF THE LAND OFFICE at *Montgomery* whereby it appears that full payment has been made by the said

James Abercrombie according to the provisions of the Act of Congress of the 24th of April, 1820, entitled "An act making further provision for the sale of the Public Lands," for the *South East quarter of the North East quarter of section twelve, in Township Seventeen of Range twentynine, East, in the District of Florida Subject to Sale at Montgomery Alabama containing forty acres and twelve and a half hundredths of an Acre*

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An aerial photograph of a vast forest landscape, with a small town or village visible in the distance. The image is overlaid with a semi-transparent grid pattern. In the foreground, the branches and needles of a pine tree are visible on the right side. The text "Data Management" is centered in the middle of the image.

Data Management

Data Management and Record Keeping

The background of the slide is a faded, high-angle photograph of a cluttered office or library. It shows numerous stacks of papers, books, and folders scattered across a desk and shelves. A desk lamp is visible on the right side, and the overall scene conveys a sense of overwhelming information and disorganization.

- Can be very overwhelming!
- Definitely time consuming
- Spending time early in the process can help you in the long run (entropy!)
- Planning for the future

Data Management and Record Keeping

- Determining information needs
 - Questions to answer
 - File types
 - Conversions
- Organization
 - Paper and digital storage
 - Linking data
 - Backup data
 - Security
 - Planning for the future



Breakout Session

- Presentation and discussion topics
 - Online mapping applications and programs
 - Tax Assessor and Alabama GIS
 - US Dept of the Interior BLM Land Record Searches
 - Data Management
- Handouts
 - Copies of the Mapping Booklet
 - Handout of Links and Keywords

Questions?

