Land Records can be an exciting addition to your family history search. The United States Government transferred ownership of land to millions of individuals thru Homestead Acts. These transfers were called “Land Patents.” These transfers occurred on “Public Lands.”

Those States that were created out of the public domain are lands now embraced in the States of AL, AK, AZ, AR, CA, CO, FL, ID, IL, IN, IA, KS, LA, MI, MN, MS, MO, MT, NB, NV, NM, ND, OH, OK, OR, SD, UT, WA, WI and WY.

STEP 1: Locating a Land Record.
Single left click on the “Green – Search Land Patents” tab in left upper corner.

Records can be searched thru basic and advanced searches. Most records can be searched on the basic screen by selecting a “State”, last Name of the Individual and clicking on “Search.” (You can also use a “wildcard” in your “name” search. Your results will look similar to this.

```
<table>
<thead>
<tr>
<th>Patentee Name</th>
<th>State</th>
<th>County</th>
<th>Date</th>
<th>Description</th>
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<tbody>
<tr>
<td>GRAVES, DANIEL</td>
<td>UT</td>
<td>Utah</td>
<td>12/1/1874</td>
<td>Utah 45</td>
</tr>
<tr>
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<td>UT</td>
<td>Salt Lake</td>
<td>10/13/1873</td>
<td>Utah 647</td>
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<tr>
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<td>UT</td>
<td>Salt Lake</td>
<td>7/29/1875</td>
<td>Utah 1431</td>
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<tr>
<td>GRAVES, JAMES C</td>
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<td>Tooele</td>
<td>8/10/1922</td>
<td>Salt Lake City 207500</td>
</tr>
</tbody>
</table>
```

Selecting the “Patentee name,” will bring you to 4 screens that will describe the Land Patent.

Each screen will give you valuable information about the land patent. Review each screen for the information that it has. You can print off a copy of the land patent if your highlighted name has an “image icon.” From the Legal Land Description, either write this information down or print it. You may be able to get an exact location of the land from the following web site.

STEP 2: Retrieving Satellite Photos or Topographic Maps of your Land Patent.
Access the “TRS Converter Site - www.esg.montana.edu/gl/trs-data.html

This program from Montana State University returns a Satellite Photo or Topographical Map of the Legal Land Description in 17 Western States. (Check this site to see if other States are included later).
Program works by selecting the “State Meridian, imputing the Township, Range and Section of your Land record, then click on submit. Within a few seconds a response will give you a description of the land, options for “maps” and nearby named places. Near the middle of the page, will be a connection to “TerraServer.” This will give you the Satellite photo or a Topographical map display of your land record. Print this page.

Note: For a map of the Principal Meridians and Base lines of the United States, see http://www.ca.blm.gov/pa/cadastral/meridian.html

STEP 3: Using the TerraServer Site.

Click on the “Switch to TerraServer.” A Satellite photo of your land record is display along with the date of the photo. The photo comes from the USGS – United States Geographical Survey. Directly to the left of the photo is the “link” to the topographical map. (USGS Topo Map – note the date of this map). Clicking on this “link” will give you a topographical map of your land record. Locate the section of your land record and discover “where” your ancestor’s property was. (Don’t forget to use the handout on Townships, Range and Sections to “map” out the property line). Use the different options on the “Toolbar” to discover more information about your “land record.” You can print most screens! (You may find that www.topozone.com gives a better read out)*

STEP 4: Name, Place and Location Search.

The U.S Government provides one of the best search sites on the Internet. Access: http://geonames.usgs.gov/pls/gnis/web_query.gnis_web_query_form This site will return a description of the “object” along with Latitude and Longitude readings* and Quadrangle map name. Use % as the “wildcard” search symbol. Write or print the information.

<table>
<thead>
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<th>Feature Name:</th>
<th>Wite Fort Cemetery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feature Type:</td>
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</tr>
<tr>
<td>State:</td>
<td>Utah</td>
</tr>
<tr>
<td>County:</td>
<td>Salt Lake</td>
</tr>
<tr>
<td>Variant Name(s):</td>
<td>Wights Fort Cemetery</td>
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<tr>
<td>USGS 7.5' x 7.5' Map:</td>
<td>Midvale</td>
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<tr>
<td>latitude (mm/mm'nm):</td>
<td>403514N</td>
</tr>
<tr>
<td>Longitude (mm/mm'nm):</td>
<td>1145623W</td>
</tr>
</tbody>
</table>

TopoZone.com Display feature in TopoZone.

Display FIPS55 Place Code: Note: Not all place codes are available through this site. To search the FIPS55 database or download FIPS55 files, go to the FIPS55 site.

View USGS Digital Raster Graphic (DRG) covering this feature from TerraServer. A DRG is a digitized version of a USGS topographic map. Visit the USGS Digital Backyard for more information.

View USGS Digital Orthophoto Quadrangle (DOQ) covering this feature from TerraServer. A DOQ is a black-and-white, aerial photographic image map. Note that images are not available for all locations. Visit the USGS Digital Backyard for more information.
Click on the “DRG” (Digital Raster Graphic) to see a Topographical map. You will need to pay close attention to the details of these maps! Use the “zoom” feature to zoom in or out to get the detailed information you need to locate your “Name, Place or Location.” You will normally need to “zoom” in to locate your information. Make note of landmarks, section numbers etc to assist you in locating your “record.” Don’t forget to print your results!


GPS stands for Global Positioning Satellite System. Most GPS devices use 12 or more Satellites to pinpoint your exact location anywhere in the world. The more you spend the better the mapping and location features will be.

GPS can be used in Family History by recording the Latitude and Longitude coordinates of any interest directly to your device. You can use different Mapping and locations features from your device to locate your “Personal Family History Site.” This information can be derived from the previous Steps on this handout or from actually being on the “Site” itself. The Legacy® genealogy program will allow you to input your “GPS” information and use it. You can put GPS coordinates in other genealogy programs in a note field.

PART B: Using Map Internet Sites to plan a Trip.

Once you have a number of “Personal Family History Sites” located, you may want to plan a trip. Don’t forget to use a “Map Internet Site” to give you driving directions, etc. There are many sites to choose from. Follow easy to use guides to discover which type of map you will need. Many of these “Sites” have maps from all over the world. Mapquest®, Yahoo Maps® and many others are out there for you to use.

As you have discovered, many hours of research can be done from your home and computer. Using the Internet and some of the above ideas, you can better plan your time in gathering important family history information.

*Using www.topozone.com . Once you have logged onto the site, Single left click on “View Maps.” From this screen, you can access any search you might have. Topozone, in my option - offers more accurate information along with a “Red” crosshair to identify your location.

kenfh@infowest.com 4/04
# THEORETICAL TOWNSHIP DIAGRAM

SHOWING

METHOD OF NUMBERING SECTIONS

WITH ADJOINING SECTIONS

<table>
<thead>
<tr>
<th></th>
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<th>31</th>
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<tr>
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<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>6</td>
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</table>
SECTION DIAGRAM
SHOWING
SMALL SUBDIVISIONS

40 Ch. 80 Ch. 40 Ch.

W NW NW NW
20 ac.

E NW NW NW
20 ac.

W NW NW NW
10 ac.

E NW NW NW
20 ac.

W NW NW NW
20 ac.

E NW NW NW
10 ac.

N NE NE NE
20 ac.

S NW NW NE
20 ac.

S NW NW NE
10 ac.

S NW NW NE
20 ac.

S NW NW NE
30 ac.

S NW NW NE
20 ac.

S NW NW NE
10 ac.

S NW NW NE
20 ac.

S NW NW NE
30 ac.

S NW NW NE
20 ac.

S NW NW NE
10 ac.

S NW NW NE
20 ac.

S NW NW NE
30 ac.

S NW NW NE
20 ac.

S NW NW NE
10 ac.

S NW NW NE
20 ac.

S NW NW NE
30 ac.

Sec.

NW SW
20 ac.

NE SW
20 ac.

NW SE
20 ac.

NE SE
20 ac.

SW SE
20 ac.

SE SE
20 ac.

S E
40

Sec.
The two systems for describing land in the United States are **METES AND BOUNDS** and **THE RECTANGULAR SURVEY SYSTEM**.

**METES AND BOUNDS** uses the location of landmarks (trees, streams, rocks, etc.) and boundaries of adjoining land to describe a plot of land. It is primarily used in those states where land was granted by the state rather than by the federal government. These are the thirteen original states and Hawaii, Kentucky, Maine, Tennessee, Texas, Vermont and West Virginia.

**THE RECTANGULAR SURVEY SYSTEM** uses a surveyed grid of meridians, baselines, townships and ranges to describe land in the thirty remaining states known as Public-Domain States. The Continental Congress enacted the Ordinance of 1785 to establish a public land survey based on a rectangular grid and authorized the Treasury Board to sell public lands for revenue.

- An **INITIAL POINT** (with definite latitude and longitude) is established.
- Then a **PRINCIPAL MERIDIAN** (a true north-south line) is run through the Initial Point.
- A **BASELINE** is run east to west through the Initial Point perpendicular to the Principal Meridian.
- On each side of the Principal Meridian, land is divided into square units called **TOWNSHIPS** (or Congressional Townships). Each boundary of the square is six miles long. A tier of townships running north and south is called a **RANGE**.
- Each **TOWNSHIP** is divided into 36 sections. Each **SECTION** is one mile square and contains 640 acres. These sections are numbered 1 to 36 beginning in the northeast corner of the Township. Each section can be subdivided into halves and quarters (or **ALIQUOT PARTS**). Each quarter section of 160 acres is identified by a compass direction (NE, SE, SW, NW).
- Each **TOWNSHIP** is identified by its relation to the Principal Meridian and Baseline. For example, the seventh township north of the baseline, third west of the Principal Meridian would be **T7N, R3W, 6TH Principal Meridian**.

There are 34 sets of Principal Meridians/Baselines—31 in the continental United States and 3 in Alaska. For a map of the Principal Meridians and Baselines of the United States, see [www.ca.blm.gov/cadastral/meridian.html](http://www.ca.blm.gov/cadastral/meridian.html).
Each Section (above) contains 640 acres that is then divided into quarters:

<table>
<thead>
<tr>
<th>NW 1/4</th>
<th>NE 1/4</th>
</tr>
</thead>
<tbody>
<tr>
<td>160 acres</td>
<td>160 Acres</td>
</tr>
<tr>
<td>SW 1/4</td>
<td>SE 1/4</td>
</tr>
<tr>
<td>160 Acres</td>
<td>160 Acres</td>
</tr>
</tbody>
</table>

Legal method of describing fractional parts of a section.
ATLAS: A bound collection of Maps.

BASE LINE: An imaginary line running West - East, used as a reference point for Latitude.


CONTOUR LINE: A line drawn on a map showing heights above sea level.

*COUNTY TOWNSHIPS: Description of land that is used in legal descriptions. “News from Jimmies Creek.”

DECLINATION DIAGRAM: UTM grid convergence and Magnetic Declination measurements.

DEGREE: A unit for measuring an angle or an arch of a circle. A circle is divided into 360 degrees. Degrees, when applied to the roughly spherical shape of the Earth for geographic and cartographic purposes, are each divided into 60 minutes.

DOQ: Digital OrthoPhoto Quadrangle Image.

DRG: Digital Raster Graphic. Digitized version of a USGS Topographical Map.

GAZETTEER: A list and description of places.

LAND COMPANY: An organization of land speculators that purchased large tracts of land to settlers.

LAND GRANT / PATENT: A piece of land given or sold to an individual or institution by the Government.

*LAND TOWNSHIPS: Legal description of land. Es SW ¼ of NE ¼ S14 TS 39S R15W.

LATITUDE: The angular distance North or South of the Equator, measured in degree’s, minutes and seconds.

LEGEND: A Listing of symbols and information about a map.

LONGITUDE: The angular distance West or East of the Prime Meridian, measured in degree’s. (Prime Meridian – Greenwich, England).

MERIDIAN: An imaginary line running North - South, used as a reference point for Longitude.
METES AND BOUNDS: Uses the location of landmarks (Trees, Streams, etc) and boundaries of adjoining land to describe a plot of land. 13 original colonies, HI, KY, ME, TN, TX, VT, WV.

PUBLIC LAND: 30 States, excluding east coast states, KY, TN, TX. Includes FL, parts of OH, AK.

RELIEF: Elevations or depressions of land or sea bottoms.

SCALE: Relationship of the distance of two points on the map vs the same distance on earth.

QUADRANGLE: A name of a large section of land covering a number of topographical maps.

TERRASERVER: Geography Internet sites, usually displaying different types of maps.

TOPO MAP: Topographical Map. Displays the physical features of a place.


UTM: Universal Transverse Mercator.

7.5: Minute series topographical maps. Will show different amount of detail.

Helpful Internet sites:

www.blm.gov - Bureau of Land Management site, Land patent searches, etc.

www.familysearch.org - Check out the Glossary, Maps and other resources.

www.usgs.gov - U.S. Geological Survey site, Geographical name searches, etc.

www.rootsweb.com - numerous information sites on maps and information on terms etc.

www.esg.montana.edu/gl/trs-data.html - Range, Township converter site!

*Use search engine to locate “Untangling Townships” by Linda Haas Davenport.

Don’t forget to use your “Search Engine” to locate many names, places, maps etc!

Ken Head 8/2002 - kenh@infowest.com