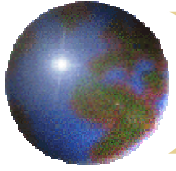


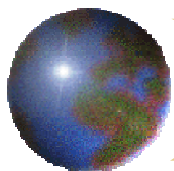
# *Global Positioning System (GPS)*

What is it & how can I use it in  
genealogy?

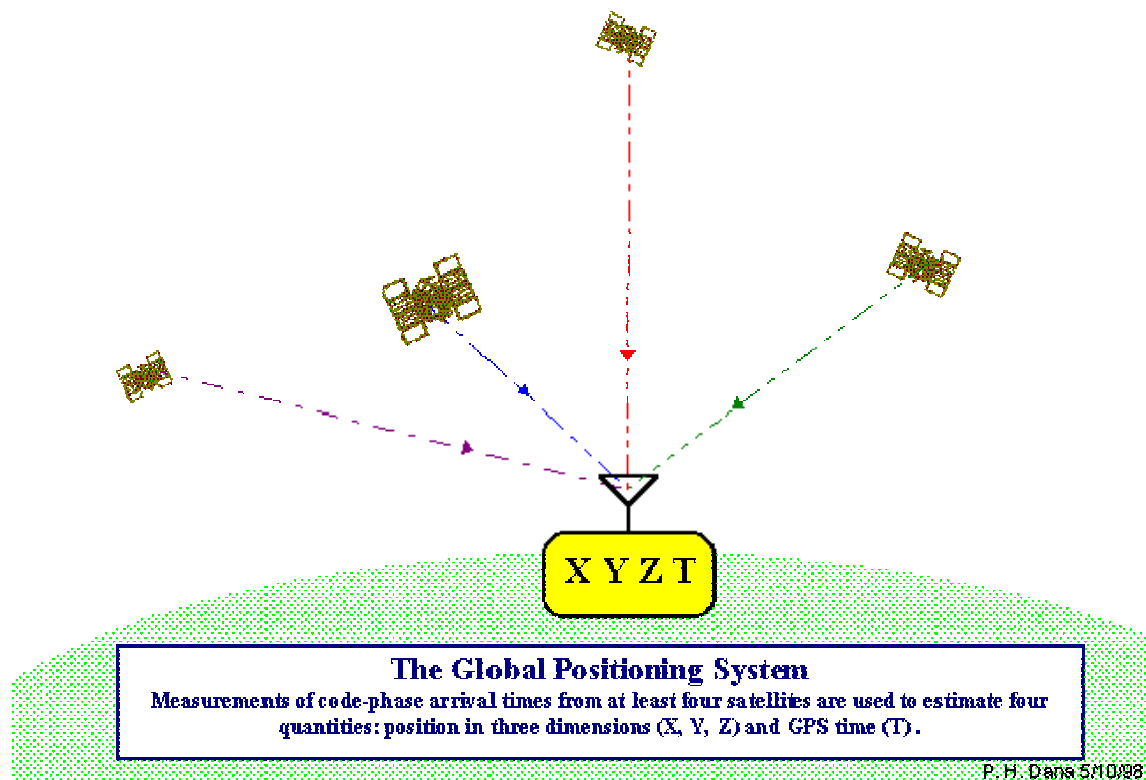


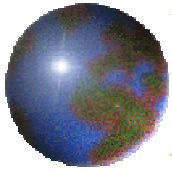
## *What is GPS?*

- GPS is a Satellite Navigation System.
- GPS is funded by and controlled by the U. S. Department of Defense (DOD). While there are many thousands of civil users of GPS world-wide, the system was designed for and is operated by the U. S. military.
- GPS provides specially coded satellite signals that can be processed in a GPS receiver, enabling the receiver to compute position, velocity and time.
- Four GPS satellite signals are used to compute positions in three dimensions and the time offset in the receiver clock.



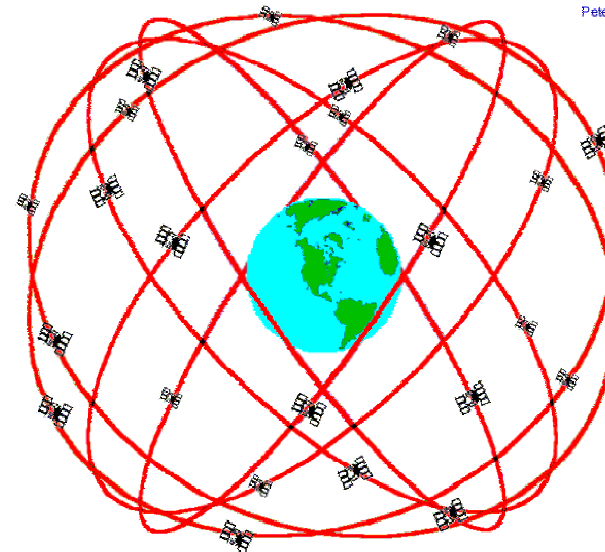
# *What is GPS? (Graphical View)*



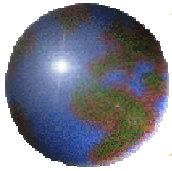


# Space Segment of GPS

- The Space Segment of the system consists of the GPS satellites. These space vehicles (SVs) send radio signals from space.
- The nominal GPS Operational Constellation consists of 24 satellites that orbit the earth in 12 hours. There are often more than 24 operational satellites as new ones are launched to replace older satellites. The satellite orbits repeat almost the same ground track (as the earth turns beneath them) once each day. There are six orbital planes (with nominally four SVs in each), equally spaced (60 degrees apart), and inclined at about fifty-five degrees with respect to the equatorial plane. This constellation provides the user with between five and eight SVs visible from any point on the earth.



**GPS Nominal Constellation**  
**24 Satellites in 6 Orbital Planes**  
**4 Satellites in each Plane**  
**20,200 km Altitudes, 55 Degree Inclination**

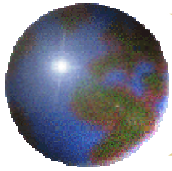


# Control Segment of GPS

- The Control Segment consists of a system of tracking stations located around the world.
- The Master Control facility is located at Schriever Air Force Base (formerly Falcon AFB) in Colorado. These monitor stations measure signals from the SVs which are incorporated into orbital models for each satellite. The models compute precise orbital data (ephemeris) and SV clock corrections for each satellite. The Master Control station uploads ephemeris and clock data to the SVs. The SVs then send subsets of the orbital ephemeris data to GPS receivers over radio signals.

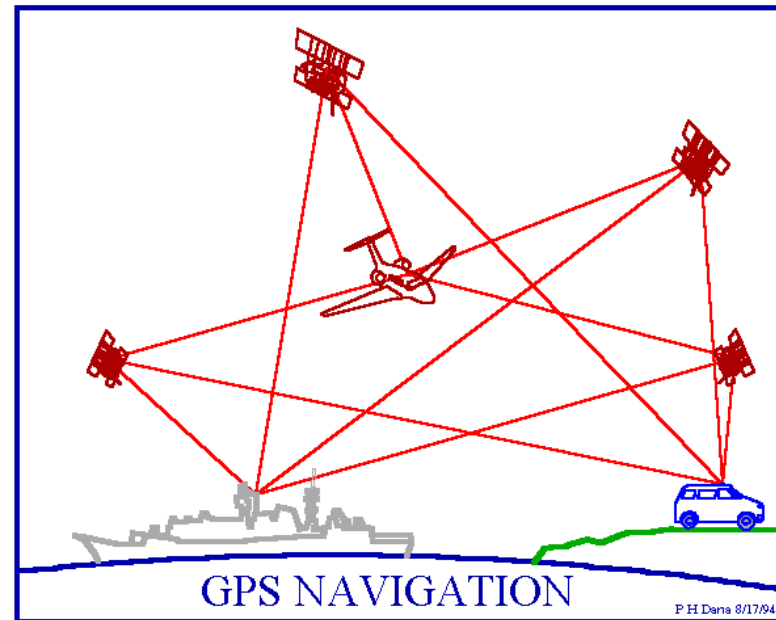


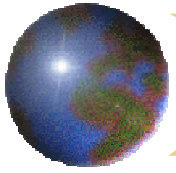
Global Positioning System (GPS) Master Control and Monitor Station Network



# *User Segment of GPS*

- The GPS User Segment consists of the GPS receivers and the user community. GPS receivers convert SV signals into position, velocity, and time estimates. Four satellites are required to compute the four dimensions of X, Y, Z (position) and Time. GPS receivers are used for navigation, positioning, time dissemination, and other research. Navigation in three dimensions is the primary function of GPS. Navigation receivers are made for aircraft, ships, ground vehicles, and for hand carrying by individuals.





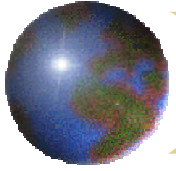
# *My GPS Equipment & Video*

- Garmin GPS V

- GPS V Video

  - Basic Information

  - Advanced Information



## *How can I use GPS in Genealogy?*

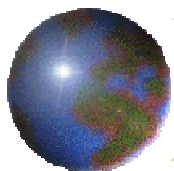
✚ Find and/or mark locations:

▣ Homesteads

▣ Cemeteries

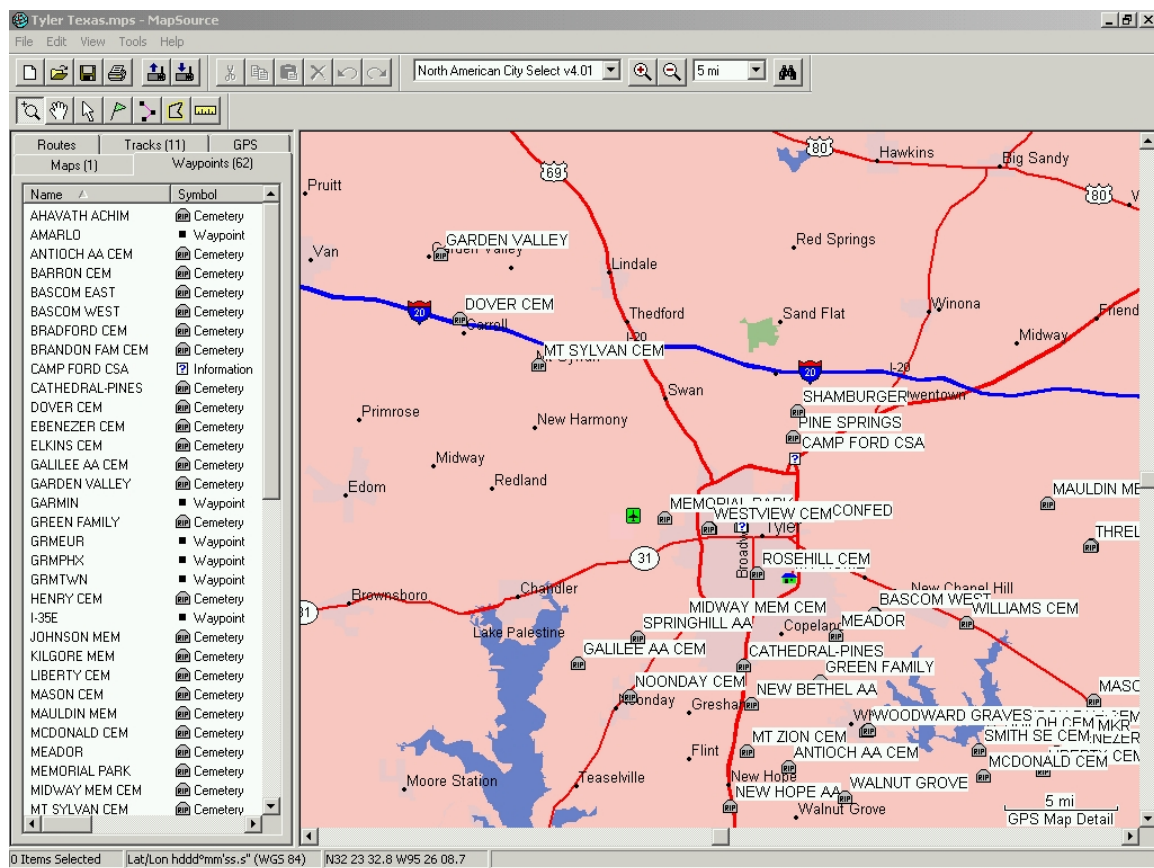
▣ Travel Routes

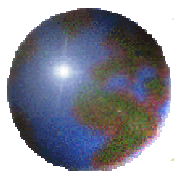




# How can I use GPS in Genealogy?

(Current Project)





# Current GPS Project

(Cemetery – Texas Tombstones Project)

Smith County Texas Cemetery Photographs - Microsoft Internet Explorer

Address: <http://www.rootsweb.com/~usgenweb/tx/cemph/smith/cemsd-g.html>

## ♦Green Family Cemetery♦

SE-08  
Latitude: N 32:15:12.1  
Longitude: W 095:14:58.7

*This cemetery is located on Rhone Quarter Road (FM2964) south of the Tyler City Limits. The cemetery is on the west side of the road near the intersection with CR2167. It is just west of Whitehouse, Texas and is entirely surrounded by a chainlink fence.*

*Bronze plate on chain link fence: "Green Family Cemetery. This fence donated by Mrs. Mattie Patricia Yancy in memory of her father James Madison Green. 1980."*

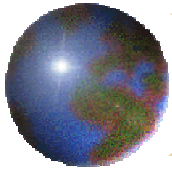
by  
*Lawrence E. Oliver*

<a href="#">Entrance gate</a>	<a href="#">Bronze plaque next to gate</a>
<a href="#">View to left from entrance gate</a>	<a href="#">View to right from entrance gate</a>

- [Smith County Cemetery Listings A - C](#)
- [Smith County Cemetery Listings D - G](#)
- [Smith County Cemetery Listings H - K](#)
- [Smith County Cemetery Listings L - M](#)
- [Smith County Cemetery Listings N - R](#)
- [Smith County Cemetery Listings S](#)
- [Smith County Cemetery Listings T - Z](#)

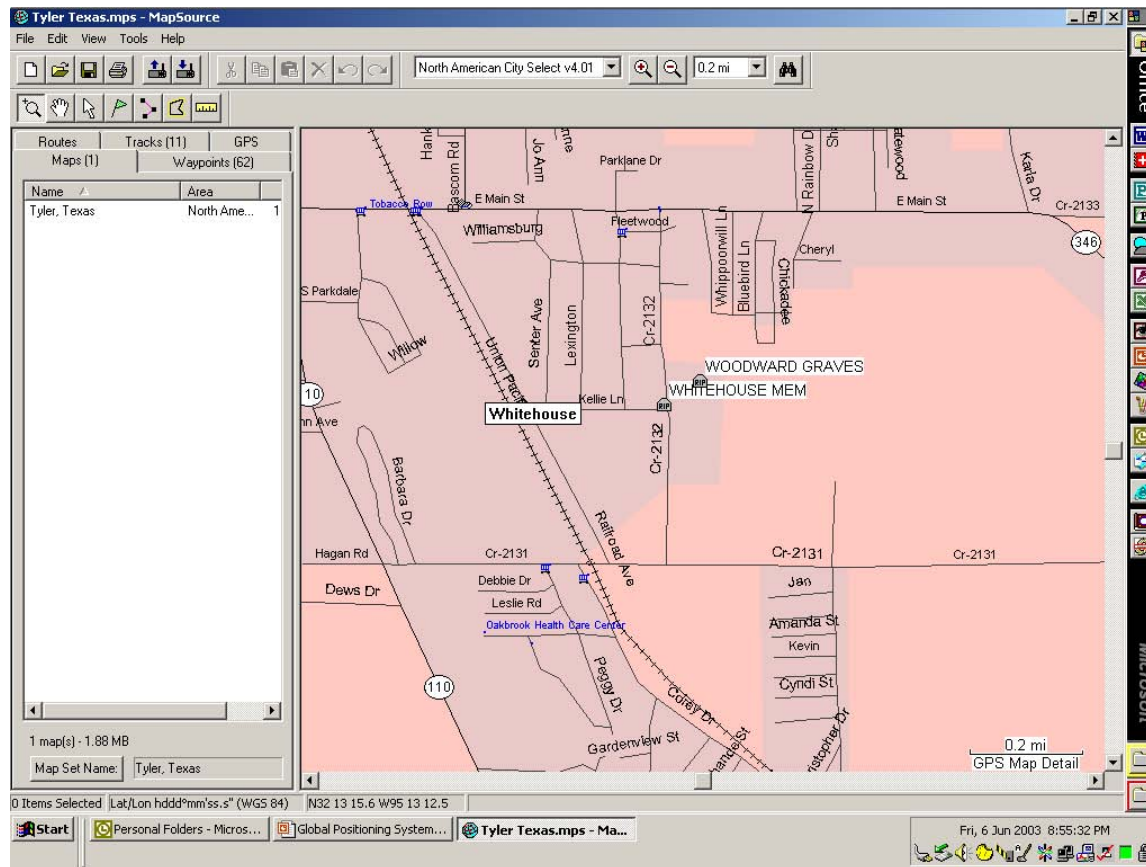
Done Internet

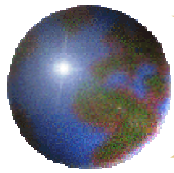
Start Personal Folders - Micros... Global Positioning System... Tyler Texas.mps - Map5o... Smith County Texas C... Fri, 6 Jun 2003 9:03:57 PM



# Current Project

(Cemetery with Graves - GPS)





# Current GPS Project

(Cemetery with Graves – Texas Tombstone Project)

Smith County Texas Cemetery Photographs - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites Media History Mail Print Edit Discuss AdShield Offline

Office

## Whitehouse Memorial Cemetery

Whitehouse, TX  
SE-01  
Latitude: N 32:13:18.0  
Longitude: W 095:12:52.3

Take State Hwy 110 southeast of Tyler, Texas to the city of Whitehouse, Texas. In Whitehouse turn left on State Hwy346 and continue to CR2132 and turn right (south). Continue for about 1 mile and the cemetery is on the left (east) side of the road.

by  
Lawrence E. Oliver

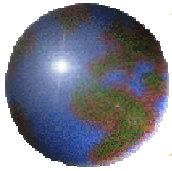
<a href="#">Main Sign for the Whitehouse Memorial Cemetery</a>	
<a href="#">George M. Terry</a>	<a href="#">H. Young &amp; Ida B. Terry</a>
<a href="#">G.W. &amp; S.A. Terry</a>	<a href="#">Millard L. &amp; Nina L. Terry</a>
<a href="#">James N. &amp; Mannie B. Terry</a>	<a href="#">John H. &amp; Donna M. Terry</a>
<a href="#">Rube H. Terry</a>	<a href="#">Rickey Wayne Terry, Jr.</a>
<a href="#">Worth &amp; Pearl Terry</a>	<a href="#">Caroline Cevers Rushing</a>
<a href="#">Allen Rushing (b.1806)</a>	<a href="#">Albert D &amp; Alice Ann Barbee Winston</a>
<a href="#">Allen Rushing (b.1877)</a>	<a href="#">Thomas Jackson &amp; Leslie Earle Winston Haynie</a>
<a href="#">Etta Faye Winston</a>	<a href="#">John Edward &amp; Clara Day Woodward</a>
<a href="#">Ethel Rushing</a>	<a href="#">Earl S. &amp; Julia Bradshaw Winston</a>
<a href="#">Harrold A. Winston</a>	<a href="#">Jerry Winston &amp; Jack Ingle Haynie</a>
<a href="#">Richard Allen, Jr. &amp; Edna Mae Rushing</a>	<a href="#">Missouri Virginia Wright Rushing</a>
<a href="#">Ola A. Winston</a>	<a href="#">Ross &amp; Florence Winston Rushing</a>
<a href="#">Rushing Family Monument</a>	<a href="#">Thomas Allen &amp; Rachel Alice Livingston Winston</a>
<a href="#">William P. Rushing</a>	<a href="#">Winston &amp; Woodward Family Plot</a>

Microsoft

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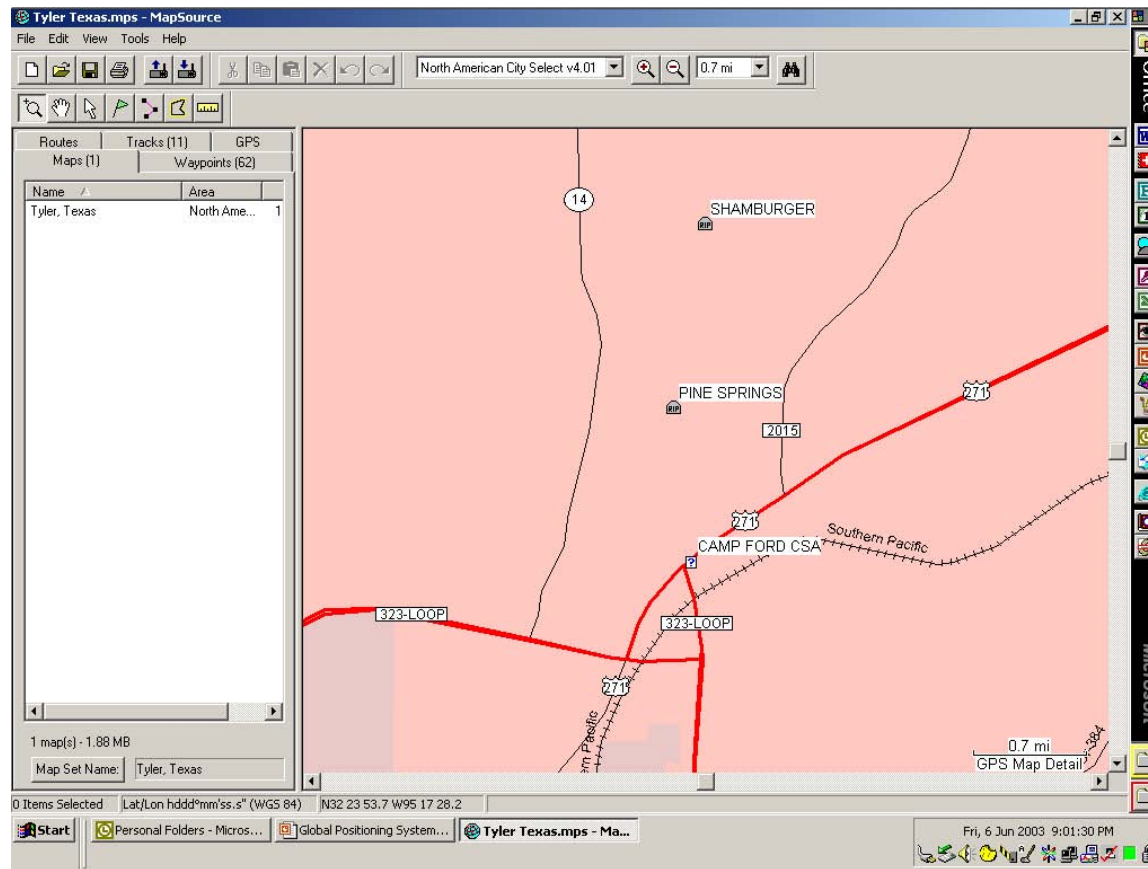
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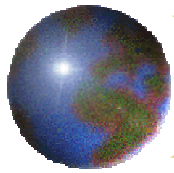
Fri, 6 Jun 2003 9:14:57 PM



# Current Project

*(Points of Interest)*





# Current Project

(Points of Interest)

Smith County Texas Cemetery Photographs - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites Media History Mail Print Edit Discuss

Address <http://www.rootsweb.com/~usgenweb/tx/cemph/smith/cems-s.html> Go

♦ **Shamburger Cemetery** ♦

*NE-08*  
*Latitude: N 32:25:36.5*  
*Longitude: W 095:16:01.4*

*Take US271 northeast from Tyler, Texas, to CR334 and turn left (north). Follow CR334 to the intersection of CR329 (Ford Road). Continue one-half mile on CR334 and the cemetery is on the left (west) side and about 50 feet off the road.*

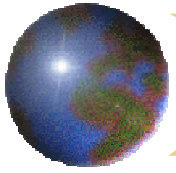
*Located across the road from the old Shamburger homelace. Cemetery was established in 1875.*

*by*  
*Lawrence E. Oliver*

[Shamburger Cemetery View & Gate](#) [Cemetery Sign by Entrance](#) [Shamburger Cemetery Historical Monument](#)

Internet

Start Personal Folders - Micros... Global Positioning System... Tyler Texas.mps - Map5o... Smith County Texas C... Fri, 6 Jun 2003 9:20:57 PM



# *Questions ?*

