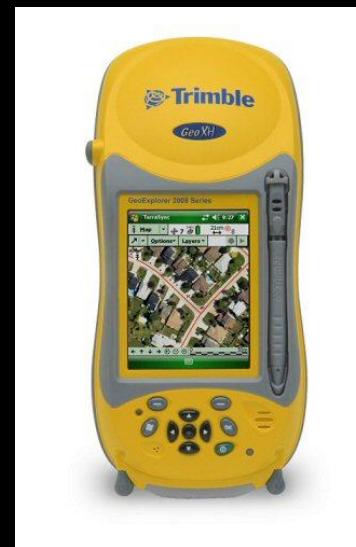


Handheld GPS Applications



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Presentation Outline

- Introduction
- Agriculture Applications
- Recreational Applications
- Useful Software
- Exercise
- Questions

Introduction

- GPS technology invented in the 70's primarily for government uses.
- Selective Availability turned off in 2000.
- Accuracy increased from ~ 100 ft to ~ 30 ft
- WAAS enabled handheld devices ~ 10 to 15 ft

Introduction

- Civilian uses for GPS exponentially increasing.
 - Guidance
 - Surveying
 - Mapping
 - Construction

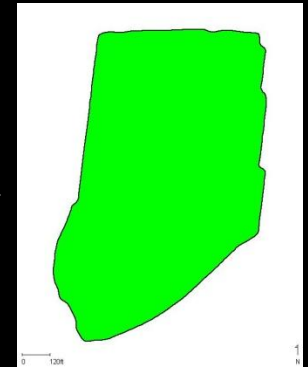


Mapping

- Many forms of mapping devices from \$100 to \$500.
- Prices vary depending on features and accuracy.
- Primary manufacturers: Garmin, Magellan, and Lowrance.
- Important to match your device to your application.
 - Mapping
 - Data recording & manipulation

Ag Applications

- Determine Area
 - Ponds
 - Fields
- Mark Locations
 - Trouble spots
 - Insect traps
 - Rain gauges
 - Fallen trees



Ag Applications

- Mark Locations
 - Downed fences
 - Soil samples
 - Macronutrient recommendations
 - New fence line locations
 - Sink holes in pastures
 - Paddock layout/management
 - Farm roads
 - Farm feature maps



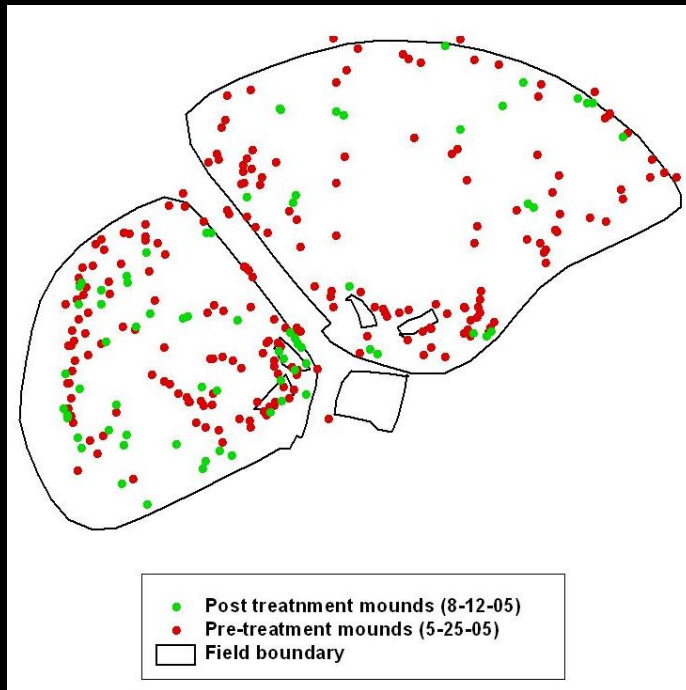
Ag Applications

- Premise ID
 - Requires 911 address *OR*
 - GPS coordinates
- Nutrient Management plans
 - Recording poultry litter applications
- Horticulture applications
 - Create map of gardens
 - Mark plant locations (native plants, invasive species, etc.)



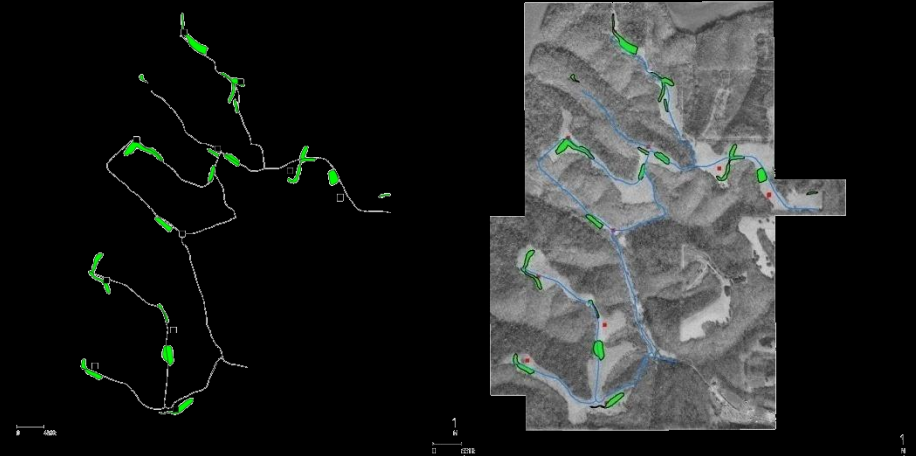
Ag Applications

- Fire ant management



Recreation

- Hunting
 - Mark shooting stands
 - Locate vehicle
 - Track deer
 - Map hunting area
 - Map green fields

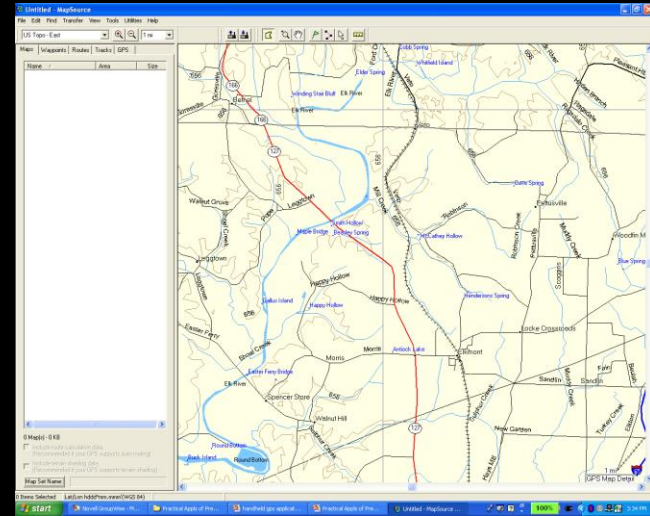
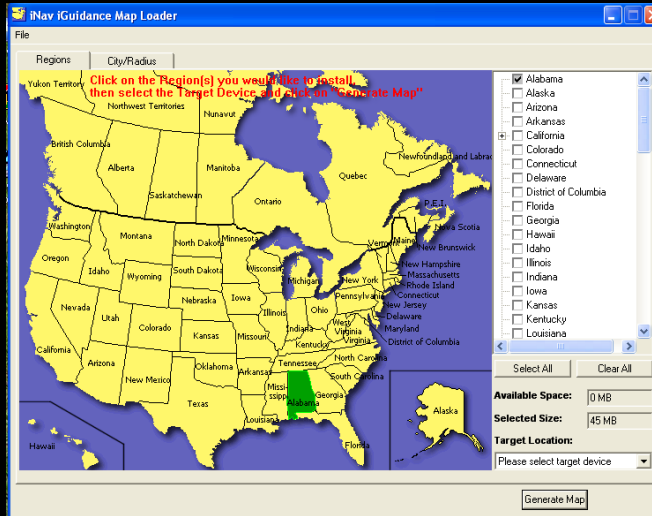


Recreation

- Fishing
 - Mark favorite locations
 - Navigation aide
 - Campsite location
 - Packages available from Garmin
 - Mark locations of trot lines or jugs in the river, etc.
- Geocaching
 - Navigational aid for finding geocaches

Software

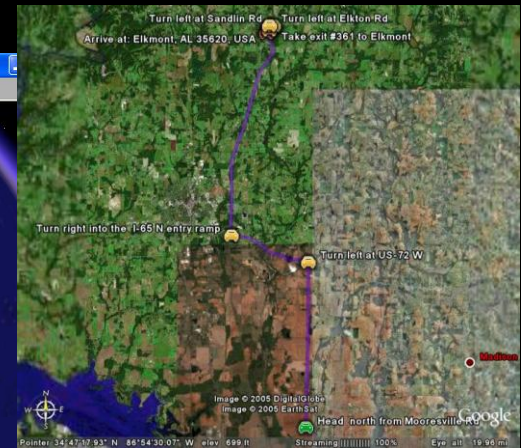
- Garmin software
- Navigation packages
 - iGuidance, StreetSmart
 - Must make sure the package will work with your unit



Software

- Google Earth

- Free version for download
- EC version available to AL State Gov't employees (including Extension)

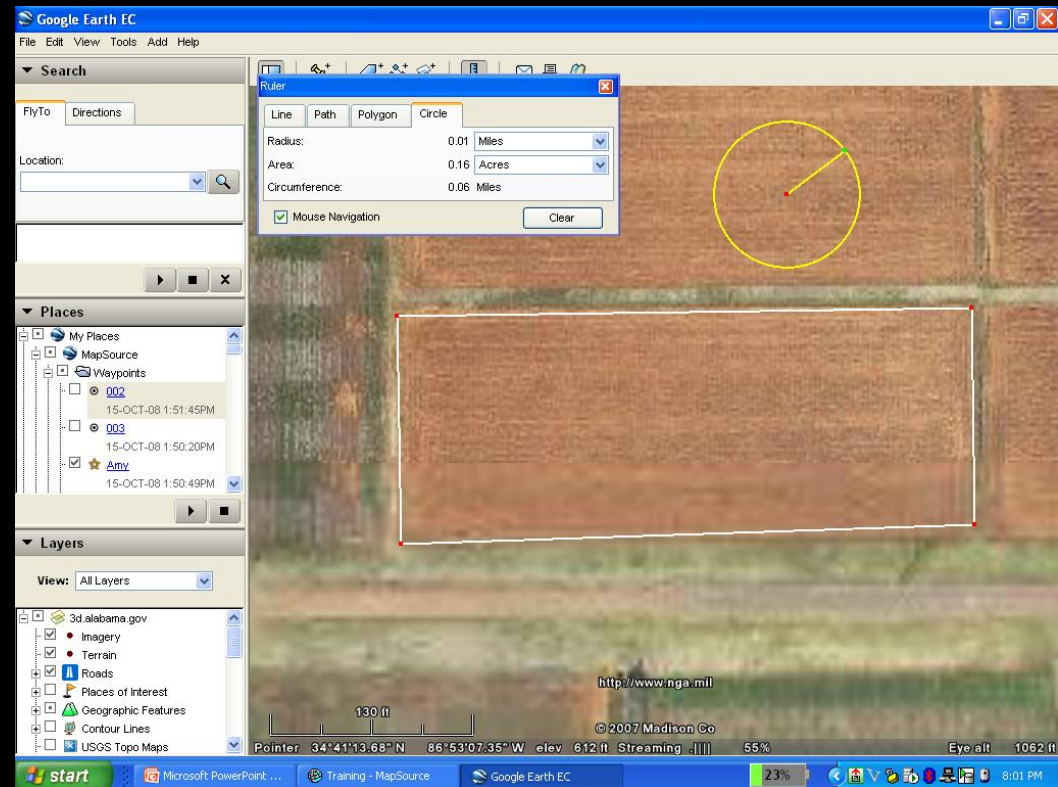


Applications for Google Earth

- Access to up-to-date aerial imagery
- Ability to import data (points, boundaries)
- Acreage determination
- Add features, mark locations
- 3D visualization tool
- Map creation capabilities
- Latitude/Longitude Coordinate information
- Direction information

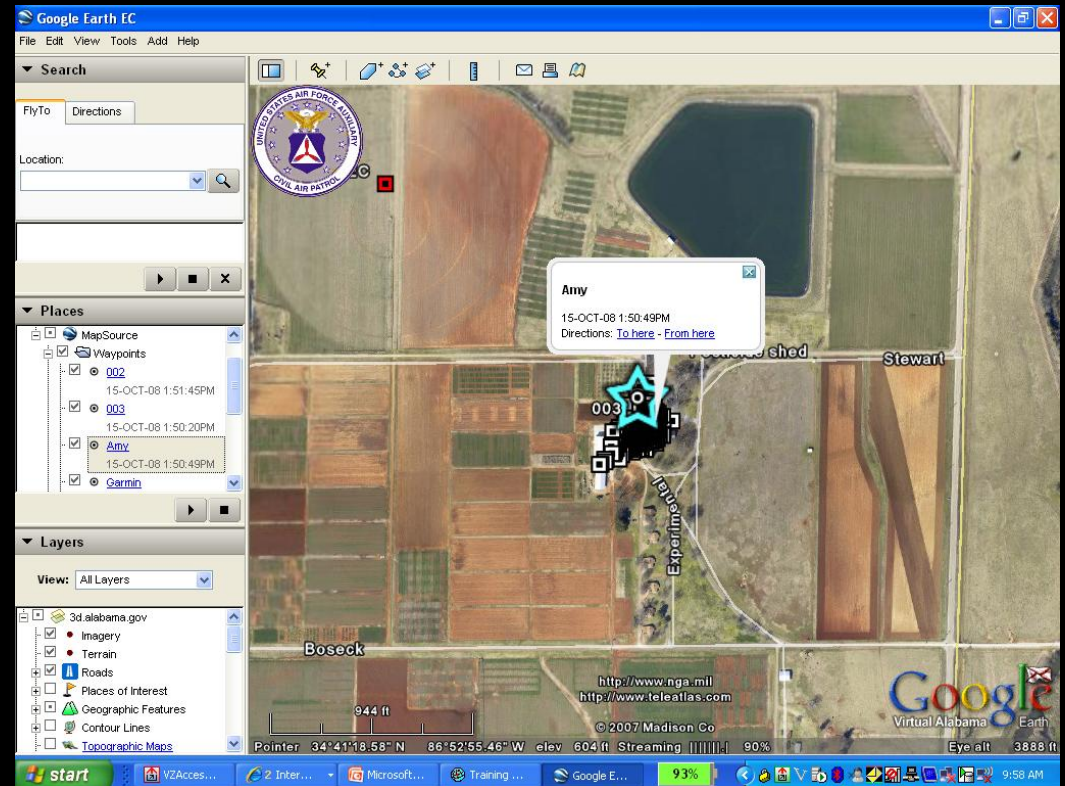
Software

- MapSource is free with your Garmin device.
- Import and Export of data.
- Allows manipulation of data.
- Create waypoints or area features using aerial photo data



Software

- Edit icons of points
- Colors of features
- Add attribute data
- Measurement tools
- View data in Google Earth
 - Show maps schools, churches, waterways, etc



Software

- Make maps
- Use aerial images, topography maps, etc as background
- Save them in printable format



Exercise

- Map an area
- Map a waypoint
- Rename area & waypoint features
- Swap units with your neighbor
- Navigate to previously defined waypoint
- *Literature available on purchasing considerations*



Questions

