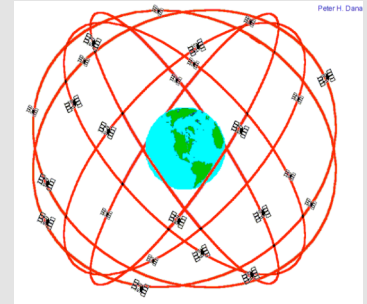


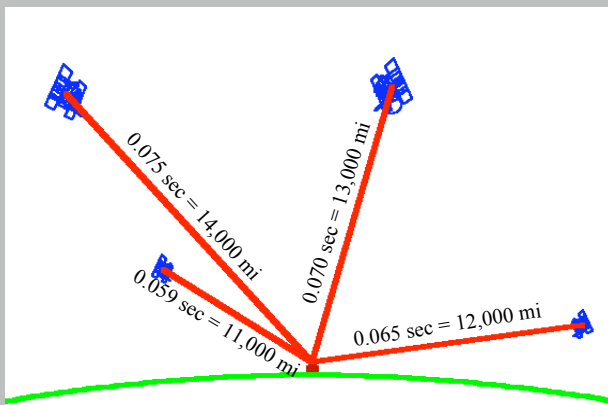
GPS: GLOBAL POSITIONING SYSTEM

What is GPS?

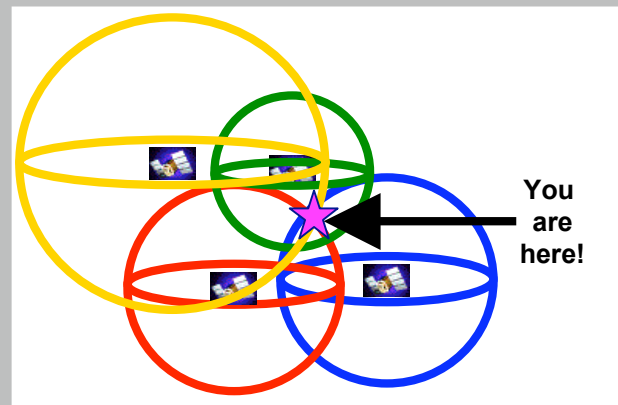
- Satellite-based navigation system
- Designed to provide positioning and timing information:
 - 24 hours/day, 7 days/week
 - under any weather conditions
 - anywhere in the world



What makes GPS work?



Travel time of signal from satellite used to calculate distance



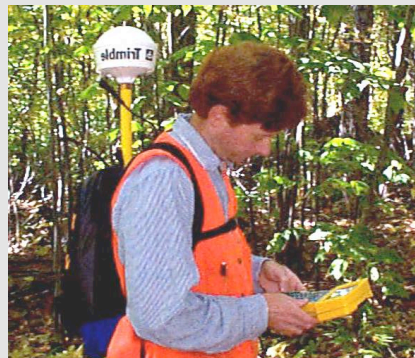
GPS unit triangulates to determine position of the receiver

Types of GPS units



Navigation

10-3 meter accuracy
light-weight, \$100-\$500
navigation, basic mapping



Mapping

~1 meter accuracy
portable, ~\$10,000
resource mapping



Geodetic

centimeter accuracy
bulky, ~\$30,000
high-precision applications

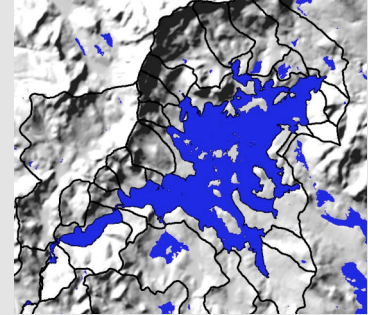
Differential GPS correction

Correction of errors related to atmosphere and satellite errors (ex: WAAS)

GIS: GEOGRAPHIC INFORMATION SYSTEM

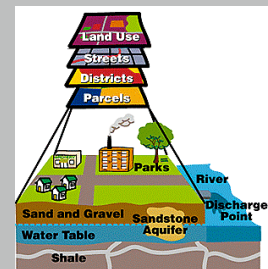
What is GIS?

- Geographic data converted to digital format and georeferenced
- Developed by national, state and local sources
- Can provide information on a many types of features
- Combines geographic information with tabular data

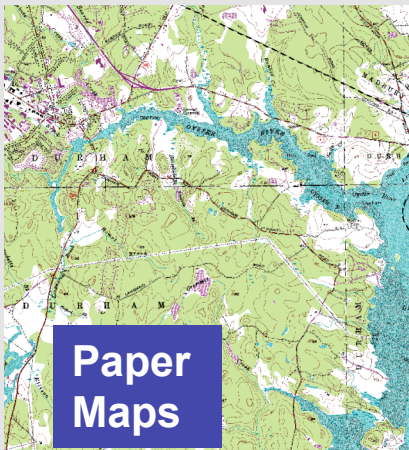


What makes GIS work?

- GIS SOFTWARE - Stack different data layers
- GIS SOFTWARE - Knows how features are related to each other spatially



How do you make GIS data?



Types of GIS data in NH

Topographic maps
Geology
Hydrography: Lakes, Ponds, Rivers, Streams
Demographic (Census)
Wetlands: NWI, USGS, Remote Sensing
Infrastructure: Roads, Rail, Trails, Water, Sewer, Phone lines

Groundwater resources
Landcover/Landuse
Digital Elevation Models
Watershed delineations
Aerial Photographs