

Geocaching

Using Billion Dollar Military Satellites to find Tupperware in the Woods

What is geocaching?

Geocaching is a worldwide game of hiding and seeking treasure. A geocacher can place a geocache in the world, pinpoint its location using GPS technology and then share the geocache's existence and location online. Anyone with a GPS unit can then try to locate the geocache.

So, what is GPS?

Global Positioning System. Consists of 24 to 32 satellites, control stations and ground antennas, and user devices.

Who uses GPS?

Originally used by the US military, opened to civilian use after airline navigation error in 1983 (S Korean airline shot down by Soviet aircraft).

- Civilian uses
 - Navigation
 - Fitness
 - Geocaching
 - Golf
- Commercial uses
 - Surveying
 - Map-making
 - Navigation
 - Cellular phones
 - Tectonics
 - Tourism
 - Vehicle tracking, pet tracking, person tracking
 - Agriculture
 - Geotagging

How does it work?

- Satellites transmit the current time and orbital information. The receiver uses this information to determine its location.
- GPS is a one-way system! A GPS receiver does not tell anyone where you are.
- Speed and direction are computed from position changes.

How Geocaching started

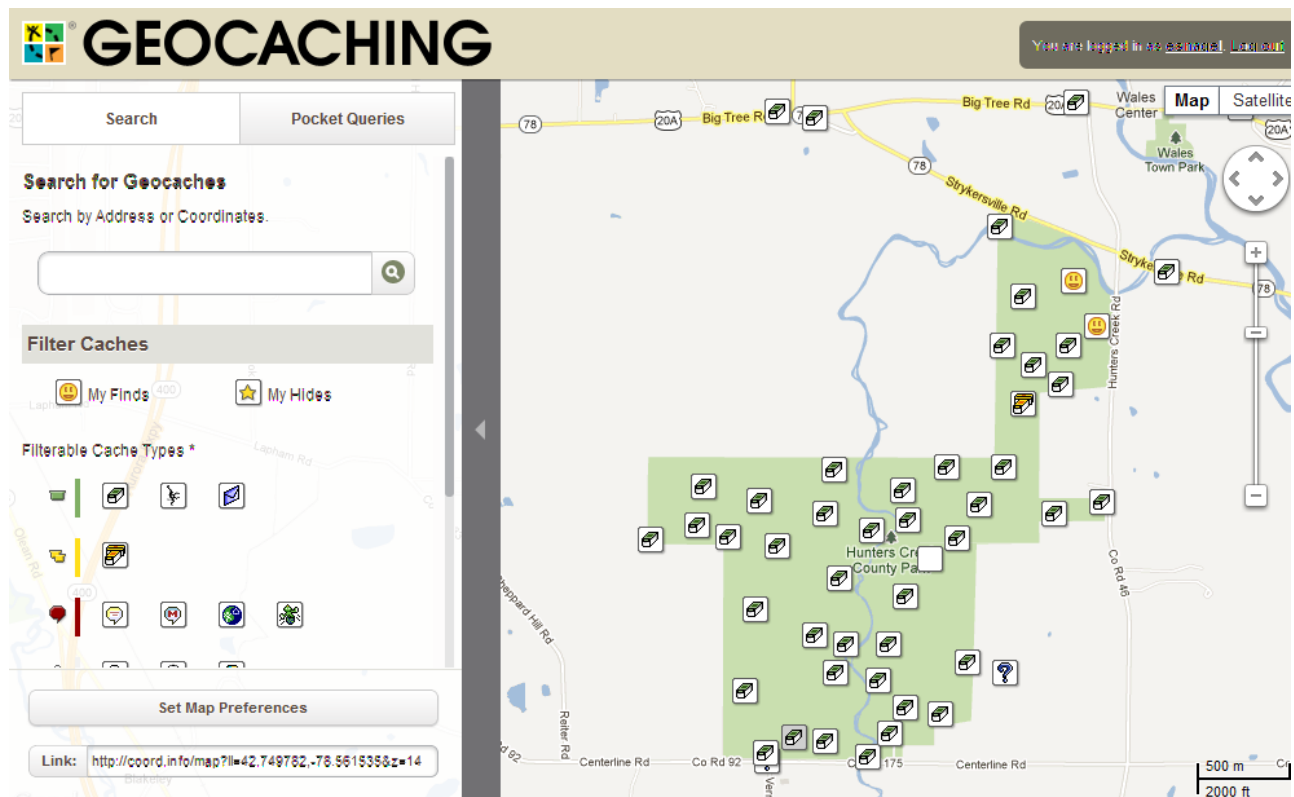
May 2, 2000 Selective Availability was turned off, greatly improving GPS accuracy.

- SA turned on: 1,000 feet (length of a football field)
- SA turned off: 65 feet.
- With WAAS: 4-5 feet

May 3rd, the "Great American GPS Stash Hunt" was started when a computer consultant hid a container in the woods and posted the coordinates on the Internet.

How do you get started geocaching?

1. Go to geocaching.com & create an account
2. Use the map to find geocaches around you



3. View the details of a cache
 1. Read the logs – has someone found it recently?
 2. Check the difficulty level, 1 to 5 stars
 3. Read the description
4. Send the details to your GPS
 1. Plug your GPS into your computer
 2. Install as necessary
 3. Click [Send to My GPS](#) button
5. Select Geocache / Waypoint on receiver
6. GO FIND IT!

Boy Scout Geocaching Merit Badge Requirements (Excerpt)

1. Do the following:

1. Explain to your counselor the most likely hazards you may encounter while participating in geocaching activities and what you should do to anticipate, help prevent, mitigate, and respond to these hazards.
2. Discuss first aid and prevention for the types of injuries or illnesses that could occur while participating in geocaching activities, including cuts, scrapes, snakebite, insect stings, tick bites, exposure to poisonous plants, heat and cold reactions (sunburn, heatstroke, heat exhaustion, hypothermia), and dehydration.
3. Discuss how to properly plan an activity that uses GPS, including using the buddy system, sharing your plan with others, and considering the weather, route, and proper attire.

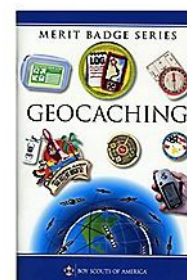


2. Discuss the following with your counselor:

1. Why you should never bury a cache
 2. How to use proper geocaching etiquette when hiding or seeking a cache, and how to properly hide, post, maintain, and dismantle a geocache
 3. The principles of Leave No Trace as they apply to geocaching
3. Explain the following terms used in geocaching: waypoint, log, cache, accuracy, difficulty and terrain ratings, attributes, trackable. Choose five additional terms to explain to your counselor.
4. Explain how the Global Positioning System (GPS) works. Then, using Scouting's Teaching EDGE, demonstrate the use of a GPS unit to your counselor. Include marking and editing a waypoint, changing field functions, and changing the coordinate system in the unit.

5. Do the following:

1. Show you know how to use a map and compass and explain why this is important for geocaching.
2. Explain the similarities and differences between GPS navigation and standard map reading skills and describe the benefits of each.



6. Describe the four steps to finding your first cache to your counselor. Then mark and edit a waypoint.

Cache In Trash Out



Cache In Trash Out is an ongoing environmental initiative supported by the worldwide geocaching community. Since 2002, geocachers have been dedicated to cleaning up parks and other cache-friendly places around the world. Through these volunteer efforts, we help preserve the natural beauty of our outdoor resources!

CITO on every hunt

Cache In Trash Out doesn't just happen once a year. It can easily happen on every geocache adventure. Bring a trash bag along with you on your walks in the woods and pick up the occasional piece of trash you see on the trail. Even this small act can make a huge difference.

Geocachers' Creed

When placing or seeking geocaches, I will:

- Not endanger myself or others
- Observe all laws & rules of the area
- Respect property rights and seek permission where appropriate
- Avoid causing disruptions or public alarm
- Minimize my and others' impact on the environment
- Be considerate of others
- Protect the integrity of the game pieces

Leave No Trace

I promise to practice the Leave No Trace frontcountry guidelines wherever I go:

- Plan ahead.
- Stick to trails.
- Manage your pet.
- Leave what you find.
- Respect other visitors.
- Trash your trash.

Webelos Scout Requirements

- Discuss with your leader or parent/guardian the importance of the Leave No Trace frontcountry guidelines.
- On three separate outings, practice the frontcountry guidelines of Leave No Trace.
- Earn the Outdoorsman activity badge.
- Participate in a Leave No Trace - related service project.
- Promise to practice Leave No Trace frontcountry guidelines by signing the Cub Scout Leave No Trace Pledge.
- Draw a poster to illustrate the Leave No Trace frontcountry guidelines and display it at a pack meeting.