Civil GPS Service Interface Committee

- Chaired by the Department of Transportation (DOT)
- Meets once a year in plenary session
- Subcommittees: These subcommittees meet as needed including overseas
  - International
  - Timing
  - U.S. States and Localities
  - Surveying, Mapping, and Geo-Sciences
Civil GPS Service Interface Committee

• Represent civil interests in GPS management and operations decisions
• Collect civil user requirements for GPS
• Collect information from users of GPS for input back into the GPS program
• Support U.S. Space-Based PNT Policy
U.S. Coast Guard Navigation Center

- Commanding Officer is CGSIC Deputy Chair
- CGSIC Executive Secretariat for management and administrative duties
- Civil Service Center for GPS Operational Information
The GPS Triad
Joint GPS User Support Service

USAF GPSOC (military)

FCC
PIRT
NTIA

USCG NAVCEN (surface)

NORAD/NORTHCOM
USSTRATCOM
JSC

FAA NOCC (airspace)
NAVcen Report a Problem page

You do not have to give us personal information to visit our site. We will collect personally identifiable information (name, email address, telephone number) only if specifically and knowingly provided by you.

Any information provided will solely be used to resolve the problem that you are reporting. Resolution of the reported problem may initiate the sharing of the information provided with other U.S. Government agencies. These agencies may contact you directly in order to expedite resolution of the reported problem.

All personally identifiable information provided will be kept internal to the U.S. Government.

If you are experiencing GPS issues relating to: positioning, navigation, timing or signals please proceed to fill out a GPS disruption report using the form below:

* Denotes a required field

1. * Your Name:
2. * Email Address:
3. * Telephone number: [i.e. (703) 313-5600]

4. Preferred method and time to be contacted if additional information is necessary:

5. * What was the start time and date of the GPS disruption?

6. * Is the GPS disruption ongoing?

7. * Where did the disruption occur? (LAT/LONG: Nearest City or landmark)

8. GPS user equipment make and model (receiver manufacturer and model, antenna type, etc.)?

9. GPS installation type (aviation, marine, surveying, agriculture, transportation, timing)?

10. What was the elevation of the GPS antenna?

11. What GPS frequency are you using? (press Ctrl while selecting to select multiple satellites)

12. How many satellites were being tracked at the time of the disruption?

13. Which satellites were being tracked at the time of the disruption? (press Ctrl while selecting to select multiple satellites)

14. What was the GPS receiver being used for at the time of occurrence?

15. Summary (Please provide any additional information, unusual screen display indicating a problem and/or operator intervention that may have helped?)

Click Here For Choices: Other:

- Above Ground Level
- Above Sea Level

Remaining Characters: 3000
What Are Jammers?

Generally includes devices commonly called signal blockers, GPS jammers, cell phone jammers, text blockers, etc

• Illegal radio frequency transmitters
• Designed to block, jam, or otherwise interfere with authorized radio communications
Why Are Jammers Prohibited?

• Jammers do not just weed out noisy or annoying conversations and disable unwanted GPS tracking.

Jammers can prevent 9-1-1 and other emergency phone calls from getting through.

Can interfere with ambulance, police and other law enforcement communications.
Interference at a “Highly Automated Container Port Facility”

One ship can bring as many as 19,000 20ft containers

Shanghai Harbor: 33.62 million TEUs in 2013.
Known incidents of Interference

- Jammers' overwhelm anti-theft devices on cars and Trucks. 46 luxury cars returned to Port of Los Angeles discovered with GPS jammers attached to the batteries
- Have been used in vicinity of airports disrupting air traffic
- Establishing quiet zones and text-free zones in Churches and Schools
- Used to defeat the fleet tracking devices in company cars and trucks for theft of high value pharmaceuticals
- Used to defeat attempts to document road use for taxes
- These uses of jammers are all illegal
- Used to disrupt communications during commission of a robbery
- Used in vicinity of a major port disabling GPS on large cruise ships attempting to dock

These uses of jammers are all illegal

http://miamicaptain.com/
GPS Global Address and Traffic Monitoring Center
No.

We don't have this!
Maritime Information Operations Center
Responsibilities

24/7 Operation:

- Web based Information Services
- Navigation Information Service (NIS)
- GPS Civil Interface
- Long Range Identification and Tracking (LRIT)
- DGPS Monitor & Control.
- Nationwide Automatic Information System (AIS).
Users reporting mapping problems

• “My Grandmother’s address is wrong in GPS and I am worried about emergency services getting to her. You need to fix it.”

• “My customers cannot find my business location in GPS, please fix it.”

• “GPS is directing customers to a competitor’s location instead of mine. The address is wrong and you need to correct it.”
Disclaimer on the NAVCEN web-site

Please read before submitting a report:

If your GPS unit or others' GPS units are leading people to an incorrect address OR are otherwise leading people to an incorrect location, the problem is not likely a "GPS" problem, but rather, it is very likely a MAPPING problem.

Unfortunately, the Navigation Center cannot assist you with GPS unit mapping problems, as we do not develop, control, nor repair the mapping software contained in GPS units, including vehicle navigation systems. Please see our GPS mapping problems page for additional information.

To correct mapping problems such as an incorrect address, or to request a change to the address for a business or home, or to add an address, please submit your corrections to these websites: Map Share Reporter and NAVTEQ.

Please understand that until mapping software is updated in GPS units (owners must usually purchase and install update mapping data), GPS units will continue to show previously incorrect addresses or locations. Again, this is not a GPS problem.
Help with Address, Route, and Map Problems in GPS Devices and Apps

Frustrated by wrong/missing addresses, improper directions, or other mapping errors in GPS devices and apps? The problem is not GPS. The problem is inaccurate map data within the devices/apps.

Map data comes from the private sector, not the government's GPS satellites. The following links will help you contact the companies responsible for updating GPS device maps/routes.

Get help with a map/route problem that...

- Affects many GPS devices and maps
- Affects your own GPS device
- Increases residential truck traffic

If you are experiencing GPS signal loss (outside of a building, tunnel, etc.) or other unusual behavior, please visit our GPS Service Outages & Status Reports page. GO THERE
Partner with the Map Data centers

How to Report a Map/Route Problem Affecting Many GPS Devices and Maps

Follow these instructions if you have a problem caused by a map/route error in other people's GPS devices/apps and online maps. For example:

- Your address, street name, etc., is wrong/missing
- Drivers can't navigate properly to your location
- Other people's deliveries arrive at your location
- GPS devices send drivers through your property, back roads, etc.

If your problem doesn't quite fit this description, return to the main Address, Route, and Map Problems page. GO THERE ➔

1 Submit a correction online

Visit the following websites to report the map/route error directly to the companies and organizations that maintain digital maps. To reach the most GPS users, we recommend reporting the same problem at each of these websites.

- **NAVTEQ Map Reporter ➔**
  Corrects devices by Garmin, Nokia, etc.

- **TomTom Map Share Reporter ➔**
  Corrects devices by TomTom, Apple, etc.

- **Google Maps: Report a problem or fix the map ➔**
  Corrects the popular mobile app

- **OpenStreetMap Project ➔**
  Corrects MapQuest and other services

The websites above are not run by the government and may require registration and/or browser plug-ins. We list them for information only and do not endorse any non-governmental products, services, or views.
Most importantly...

2. Wait patiently

After you submit your problem report, it may take weeks or months for each map provider to verify it and issue a map update.

Once an update is issued, users of mobile apps and online maps will see it immediately.

However, people with dedicated GPS devices, such as car navigation systems, will have to download the update to see the change. Unfortunately, most people do not update their devices regularly.

Please understand that the government cannot correct map/route errors in consumer devices. The government's GPS satellites are simply beacons, like lighthouses, that devices use to calculate their own latitude and longitude. **LEARN HOW GPS WORKS**

Companies Provide + Government Provides = Navigation

The private sector is responsible for maintaining the map and route data in GPS devices/apps. For further help with maps, devices, and apps, please contact the companies that produce them.
Unless the address has been accurately recorded by the Google StreetMap car or other GIS data mapper, it may, in fact, not be in the correct location.

New automobile map version may already be 1-2 years out of date at time of purchase.
That house at the end may be the third house on this street but to mapping algorithms, its at the end of the street so it is #10, or #100 or #1000
“If you send one more car down my driveway in the middle of the night, I don’t care, I’m putting out a spike strip.”
If I told you to...
Dedicated Truck Routing Guidance Systems

• “GPS is sending trucks down our road that cannot fit. You have to stop them.”
Easy to dismiss but....

- These are your users and the GPS system as a whole is blamed
- This is a problem for Emergency Services, First Responders
- Some are very important business users:
  - Grocery Stores
  - Hotels
  - Dealerships
  - Tech industry
  - Gas Station
  - Banks
  - Government Services

Education is important and necessary and we need to enlist the entire GIS community to address the problem
Woman Dies After GPS Directs Couple Onto Closed Bridge, Police Say

Death by GPS
Why do we follow digital maps into dodgy places?

The Cline Avenue Bridge was demolished and closed in 2009.
Pathways

• How do users know where to get this information, how to report?
• Should we partner with industry to engage them in the problem?
• Should we bring these companies to an “Industry Day” or to forums such as Maps Camp?
• Why aren’t they at large exhibitions like ION?
• Should we propose equipment/software changes to inform users of correction methods that are built right in to the GNSS devices?
• Should there be an industry standard for this kind of information exchange method for UE?
No matter who is driving and where they are trying to go, at some point....
It will always be necessary to look out the window.
NAVCEN Contact Information

• Navigation Information Service

• [http://www.navcen.uscg.gov](http://www.navcen.uscg.gov)

• E-mail: nisws@navcen.uscg.mil
• Phone: +1 703 313 5900
• Fax: +1 703 313 5920

• Civil GPS Service Interface Committee Secretariat
• E-mail: rick.hamilton@uscg.mil
Questions ?