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### Attributing GIS Data: Mitigating "Death by GPS"

Rick Hamilton CGSIC Executive Secretariat Survey, Mapping and Geo-Sciences Subcommittee September 12, 2016

#### **GPS Global Address and Traffic Monitoring Center**



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#### 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).



U.S. Department of Homeland Security United States Coast Guard



# 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."

The Cline Avenue Bridge was demolished and closed in 2009

CALL POLICE PPLEAS

KEEP OUT

MickeyBPhotography

Woman Dies After GPS Directs Couple Onto Closed Bridge, Police Say

Chris M. Morris, ARS Tech

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

# 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 <u>GPS mapping problems</u> 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: <u>Map Share Reporter</u> and <u>NAVTEQ</u>.

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.

#### http://www.gps.gov/support/user/mapfix/



#### Partner with the Map Data centers



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....



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





## "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."



### My GPS told me to! Why would these drivers not know this is a private driveway?

If I told you to...

Why would this driver not know this is a goat path?



### **Dedicated Truck Routing Guidance Systems**

 "GPS is sending trucks down our road that cannot fit.
You have to stop them."





## **GPS** and **Designated** Truck Routes



"Who would believe that this thing could be dangerous? But it is," said Schumer.

#### Tips for safe use of GPS navigation systems

#### GPS Selection Guide For CMVs

#### Did You Know...

Not all global positioning systems (GPS) are created equal. Some navigation systems are designed specifically for commercial truck and bus drivers.

#### Why does it matter which navigation system you use?

If you use a navigation system that does not provide you with important route restrictions, such as low bridge overpasses, the shortcut you thought would save you time and fuel, may, in fact, end up costing you a lot more money than you bargained for!

That's why it is critical that you use the right GPS navigation system when you operate your commercial truck or bus on our Nation's roadways.

Thanks for putting safety first!

US DOT Federal Motor Carrier Safety Administration Increases Education and Awareness for Drivers Commercial Motor Vehicles

Learn more tips





This woman was "A little embarrassed" but many others have not been so lucky.

FOODLAND

FOODLAND

# It is not enough anymore to input data into GIS databases

Stay On Designated Roads

#### We need to find a way to attribute the data

Need data to activate voice over software Warn users when the vehicle they are using is not appropriate for the path they are turning on to.

# Pathways

- How do we partner with industry to engage them in the problem?
- Should we bring these companies to an "Industry Day" or to forums such as these CGSIC meetings?
- Why aren't they at large exhibitions like ION?
- How do we propose equipment/software changes to inform users of dangerous turns?
- 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
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# **Questions**?

