

IONN GNSS + 2013

“Core Technology
Protecting Core Values”

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Nashville, TN





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“Maintaining a higher degree of excellence”

Types of predominant use:

- Management
- Prevention
- Protection
- Defense and Litigation
- Law Enforcement

Prevention

- Area restrictions
- Equipment Speed
- Excessive run times
- Validation of location
- Identifying Operator of equipment
- Recovery from theft

Management

- Fleet Management
- Routing
- Reduction in fuel cost
- Maintenance Programs
- Location of Equipment
- Reduction in false claims
- Company performance

Protection

- Location Verification
- Theft Countermeasure
- Maintenance Control
- Changes in shipment conditions
- Remote control of operation
- Notification of geofence violation
- Inputs for change of electronic conditions

Defense and Litigation

Civil Defense/Litigation

XYZ v. City of Brentwood TN

Bicyclist collides with city vehicle in public park. Bicyclist GPS coordinates and performance proves time speed and distance. Case settled through mediation after consideration of utilizing expert testimony to validate device performance.

State v Burdick

- Brentwood TN
- Numerous unsolved breaking and entering with rapes, case qualifies as serial rapist.
- Suspect spotted by alert Brentwood patrol officer
- Detectives utilize GPS on suspects Jeep.
- After observing suspects Jeep paths of travel, detectives surreptitiously obtain dna and compare to crime scene sample.

State v Burdick Continued

- DNA match confirmed
- Suspect arrested, tried and convicted.
- Offender receives harsh sentence works appeal process.
- Technology was driving force as suspect was an experienced security industry company owner and installer.....

Unsolved

- Female leaves east Nashville restaurant
- Female observed being picked up by yellow TAXI.
- Female found dead in E Nashville on roadside.
- Metro creates law for mandatory on board GPS in all taxi vehicles, must be non interactive, must report, store and maintain trip data for 6 months.

Family saved

- Soldier stationed in Clarksville placed on order of protection due to domestic violence.
- Family secretly moves to Calif.
- Soldiers vehicle is located and tagged in KY
- (no GPS Law in KY)
- Soldier obtains firearm from subordinate and leaves Ft Campbell area and heads west.

Family saved continued

- The device placed on the vehicle was set to include multiple geofences. When the soldier broke the geofence boundary set on the west side of his area of operation, the family was notified, and they moved from their residence.
- After coming within 2 hours of the families Calif residence, PD was contacted, PD arrived at Calif home. Soldiers vehicle was found with duct tape, loaded weapon on front seat, extra ammo, and an abnormal amount of cash.

Family saved III

- Normal surveillance methods would have been cost prohibitive.
- Advanced GPS performance features w geofencing and sms notification provided crucial alert to prepare for a pre meditated strike.
- Accuracy of device was key in determining jurisdiction so the proper agency could respond.

The end result

- Location based services and hardware have been crucial in preventing catastrophic carnage in a variety of arenas.
- Lowered cost of equipment and flexible cost arrangements have been advantageous to private sector.
- Sales and Installation have increased by 900% since 2005.

The location based wishlist

- Use of geofencing with forward reporting for automated services. Ie smart home etc
- Integration with 911 and emergency services for faster response times.
- Maintaining a reasonable expectation of privacy for users.
- Reduced cost in 2 way commercial satcom to support GPS based monitoring services

Wishlist continued

- Integration of GPS with user specifics.
- Alzheimer/persons w medical conditions
- Improvement and access to better technology for controlled inmate release programs
- Increase in 1.5 g signal strength to increase device performance.
- Reduction of RF traffic near 1595.00 band to increase performance and re allocation of bandwidth to reduce current performance issues.

Wishlist III

- Addition or inception of law to minimize and potentially eliminate intentional jamming of signals used by GPS devices.