

Show-n- "Stay Tuned"

Vessel Tracker

The Wish list...

- To be able to answer the question "Where are the UNOLS ships now?" (in other words –the geographic location of each ship in near real time)
- A visual display of the world oceans with ship positions
- Automated feeds of lat and long data in a standard format



The Situation, Challenges...

- Many ships have Automatic Identification Systems (AIS):
 - But not the entire fleet?
 - Relies on VHS (but there is a satellite option)

• Ships collect GPS data, but how do we send the lat/long to the UNOLS Office without putting more work on the ship's crew or technicians.



A Solution?

• Vessel Tracker – Smart box





Erin – not "Eric"



Vessel Tracker – One example

Advanced wireless technology for the tracking and monitoring of remote assets



SATELLITE MANAGED ASSET READY TRACKED

Designed for the intelligent management of powered and non-powered fixed and movable assets, SMARTONE is a practical solution to improve operating efficiency and security

Feature Set:

Standard Messaging:

Resume sleep

Alternative Reporting:

motion

· Up to 12 programmable sleep

· Alternate supervisory reporting

schedule triggered by "alarm" or

· Transmits GPS location on alternate

· Engage interval override on motion

for set time or while in motion

interval for programmed time or while

time-of-wake settings

alarm remains active

· Message on start and stop

Integrated Motion Sensor:

Front View

The "Asset Ready" design allows it to be easily installed and field managed without the need for harnesses antennas or external power. The SMARTONE is powered by 4 "off-the-shelf" AA 1.5V lithium batteries providing 3+ years of battery life and removes the need to purchase expensive proprietary batteries for replacement

The SMARTONE utilizes motion sensors, comparative GPS positioning and custom configured sensors to gather and transmit asset status information. Each SMARTONE is custom configured to track its asset's specific needs and provide intermediate and emergency alerts by email and/or text/cellular

SMARTONE Certifications:

Intrinsic Safety (UL Class 1, Division 1 Groups A, B, C, D) for US and Canada FCC CFR Parts 15 and 25 Industry Canada CE Mark (European Certification) COFETEL Standards: SAE J1455 MIL STD 810 NEMA 4X / IP68 RoHS Compliant

SMARTONE Setup:

- · Up to 12 different reporting times Interval or 24 hour operation mode
- Alternate reporting scheduling
- Low Battery Message Motion Sensor/Vibration parameters
- and scheduling Reduced Messaging/Re-centering
- Contact Closure parameters Delay To Start
- Diagnostic messages



· Power on and off by changing the orientation of the connector cover Power cycling the unit initiates GPS re-centering functionality



For more information on how Avonn's advanced product technologies can become an integral part of your wireless solution, contact us today at 985-893-1048 or visit us on the web at www.axonn.com for more information. Copyright 2009 Axonn. LLC / All Rights Reserved Axonn and SMARTONE are trademarks of Axonn, LL 0209/v1.2

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- Change of Location: · Wake, GPS locate, Transmit location, · Theft recovery reporting based on distance moved · Reduced messaging mode Field Replaceable Batteries:
 - Uses 4 AA "off-the-shelf" 1 5V lithium batteries for 3+ years battery life
 - Accessories: · Open door sensor
 - · Bare wire cable USB Configuration Cable
 - Installs in minutes using automotive adhesive tape or included mounting bracket

Global LEO Satellite operation using the Globalstar Simplex Data Network

Messaging Cost Reduction Feature:

6.5" Side View

- SmartOne by Fleet Analytics
- Small and Portable
- No need for antennas or external power.
- Powered by 4 "off-the-shelf" AA 1.5V lithium batteries providing 3+ years of battery life
- Global Satellite operation
- Weather Resistant Not Sure??
- Cost per unit varies \$130 to \$215



Vessel Tracker

Data - Maritime Information Services offers a service that will send the data back to shore automatically in a standard format
Data Service - About \$30/month
No additional effort for ship operators in terms of providing the data to the Office
Plans - Endeavor Trial