

What Exactly Is Yacht Monitoring ??



DELTAVILLE BOATYARD

37° 32' 59.0496" N / 76° 19' 46.74" W

There are 2 Distinct Types of Yacht Monitoring

- Security - Theft, Vandalism, Location
- Vessel Systems Overview – Bilges, Fire Tanks

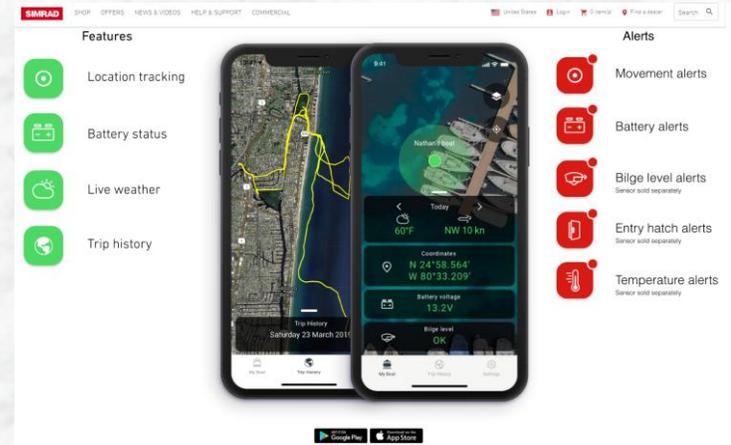
Security – Several Systems available



ABOUT GOST

ALWAYS WATCHING NEVER SEEN
Real-time GPS tracking from any mobile device

Global Ocean Security Technologies (GOST) offers a full line of state-of-the-art wireless security, monitoring, satellite tracking, surveillance, acoustic deterrents and cloaking systems for any size vessel from tenders to ships. Our systems help protect against theft, fire, smoke, high water in the bilge, low voltage, loss of shore power and intrusion with contact sensors, motion detectors, infrared beam sensors, deck sensors, dock pull away sensors and many more. Our sensors, sirens, acoustic sound barriers and flashing lights can chase off intruders before the boat is ever stolen and needs to be tracked. A vessel never stolen is always in better shape than one that has been recovered.



Vessel Systems Overview – Bilges, Fire, Tanks, Batteries, Doors, Hatches and MUCH MORE!



To Name a FEW!!



37° 32' 59.0496" N / 76° 19' 46.74" W

AMCS –Alarm, Monitoring, Control System

For this presentation we will focus on Owner/Operator 40' – 80'



- a. Live aboard
- b. Behind your home
- c. In a Marina
- d. At Anchor in USA
- e. At Anchor/marina in Caribbean

WHERE IS YOUR BOAT

LIVE ABOARD

1. Notification with visual/audible alarms.
2. Document alerts that are not alarms.

IN A MARINA

1. Notification with audible alarm, might irritate marina occupants.
2. Text messages through cell modems.
3. Document alerts that are not alarms.
4. Automation to address non-critical items.

BEHIND YOUR HOME

1. Notification with audible alarm, might irritate neighbors.
2. Text messages through cell modems.
3. Document alerts that are not alarms.
4. Automation to address non-critical items.

AT ANCHOR USA OR CARIBBEAN

1. Notification with audible alarm, might irritate harbor occupants.
2. Text messages through cell modems. Local SIMM??
3. Document alerts that are not alarms.
4. Automation to address non-critical items.
5. Text message and/or audible alarm for anchor slip or swing.
6. Text message and/or audible alarm for another vessel anchoring within your vessels anchor swing.
7. Activate deck and interior lights if the Radar is set to monitor any local vessels.
8. Sound alarm interior and exterior if vessels approach.



YES/NO DO I NEED IT??

If Yes, Why do I need Monitoring?

1. Peace of Mind
2. Safety
3. Insurance
4. More aware of my boat
5. Thefts in the area

If No Why I don't need Monitoring?

1. I know my boat is safe
2. I regularly inspect every aspect of my boat
3. I am fully insured for any mishap on my boat
4. More aware of my boat
5. My boat is in a secure area

SHOULD I WANT IT??

YES

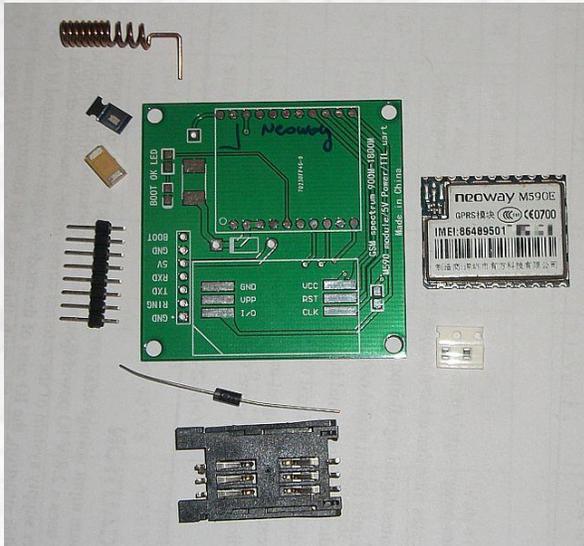
1. Bilges. Not only can I get an alarm for water presence, I can count the number of time the Switch is activated, and know how long the switch was activated. And if the switch is activated for more than 1, 2, 5 minutes I can get another alarm that would indicate a possible defective or plugged up pump.
2. Smoke/Heat alarms while underway, in marina or visually, audibly and by text message.
3. Door/Hatch switches can indicate trespass and lights can be turned on along with exterior alarms.
4. Cameras can record trespass and download incident for police or insurance claims
5. Engine monitoring can prevent/predict issues before a breakdown
6. Tanks levels can provide high level alarms for Black/Grey water and High/Low levels for fuel and potable water.
7. Battery condition can be monitored for better performance
8. I can get these alarms visually, audibly and even by text message.
9. AND MANY MORE!!

SHOULD I WANT IT??

NO

1. I have a Bilge alert system that illuminates a bulb when the switch is lifted. And I have a counter also. I had not thought about time, but it is unlikely my pump will fail because I test it once a month. I do like the idea of getting a text message. Are there alternate ways to get this?
“Cradlepoint” makes a GSM Modem that has binary inputs and a fixed message text structure.
2. Smoke/Heat alarms are managed by a stand alone system with sirens and strobes. Someone in the marina will alert the fire department.
3. Door/Hatch are locked
4. Cameras can record trespass and download incident for police or insurance claims.
5. Engine monitoring can prevent/predict issues before a breakdown./ I routinely check all my engine parameters and keep a log of temperatures and pressure so I can predict my own maintenance program
6. Tanks levels can provide high level alarms for Black/Grey water and High/Low levels for fuel and potable water. I visually check my tanks daily when I am aboard.
7. Battery condition can be monitored for better performance. My batteries and charger are newer and should be fine for many years

GSM Kits



<https://www.instructables.com/id/GSMGPRS-Module-DIY-Kit/>
About \$3.00



https://www.amazon.com/King-Pigeon-Controller-Hydrologic-Monitoring/dp/B07D9CH125/ref=sr_1_fkmr3_1?keywords=modem+gsm+with+relay+input&qid=1570803827&sr=8-1-fkmr3
\$115.00



<https://cradlepoint.com/mobile-networks>
\$279.00

CAN I ADD IT IN STAGES??

YES

Most systems will allow for devices and sensors to be added in stages. However, the boat needs to have a global plan so this can be done properly.

1. A global plan would encompass the “wish list” and a few extras.
2. An example would be binary/switched inputs. If you initially purchase a model that has 15 inputs and you only need 12, then want to add 7 more, then you would need to add another 15 inputs just to get the addition 4 points. Plan forward and purchase the 20 input module.
3. PLC (Programable Logic Controllers) are great devices. However, they usually come with expansion limits based on the model. Remember, PLC’s are single processors and if it fails the entire Monitoring System fails. All PLC’s have processing limits.
4. CAN Bus based systems are modular and use “Distributed Processing”. This allows for greater ability to add devices and for limited global failure. If one device on the bus fails, the rest continue to operate.

Explore and investigate to discover what system addresses the needs of your vessel.

WHAT CAN I MONITOR??

1. Tank Levels
2. Batteries
3. Main Engines
4. Generators
5. Switchboards
6. Bilges
7. Smoke, Fire, CO
8. Doors, Hatches
9. Anchor rode
10. Sacrificial Anodes
11. Weather
12. All NMEA 0183 & 2000
13. Just about anything!

WHAT CAN I CONTROL??

1. Fuel Valves
2. Battery Switches
3. Main Engine Start/Stop
4. Generators Start/Stop
5. Switch from Gen to Gen to Shore
6. Bilge Pumps
7. Tests for Smoke, Fire, CO
8. Doors, Hatch Availability
9. Anchor Windlass
10. Just about anything with a switch!

DOES IT NEED TO BE EXPENSIVE??

Not really! Yacht Monitoring can be as simple as a light that blinks, or a buzzer that sounds.
Or, it can be more than this and send you a text.
Basic Monitoring can run around the same price as a Garmin GPSMap 8619.

DO I NEED A FULL TIME SATELLITE CONNECTION??

No, but you might want a GSM Modem using a SIM card so you can receive text messages from the vessel.
Yes if you want full time monitoring when you are offshore and out of range of the cell towers.

WHAT ARE MY OPTIONS??

There are numerous companies all over the globe offering Yacht Monitoring. They vary in price and complexity. All have positives and negatives with their solutions. It is best to find a local Marine Electronics company that has relationships with Yacht Monitoring systems, and work with them to discover what is best for you and your boat.

I have always felt better knowing a company has been in business for at least 10 years and has created numerous systems over that time. They use name brand hardware and stand behind their product with at least a 2-year warranty.

One other thought for those that travel extensively. The Iridium GO allows your Smart Phone to utilize the Satellite system for messages from the vessel. Many Vessel Monitoring Systems have begun to add Smart Phone integration into the Vessel reporting ability.

THANK YOU!
ANY QUESTIONS??

This presentation was at the courtesy of
Deltaville Boatyard and Boening-USA