



ALWAYS  
ON  
ALWAYS  
VISIBLE  
ALWAYS  
WATCHING

**vesper**

## INNOVATIVE MARINE AIS TECHNOLOGY

Vesper Marine is dedicated to safety on the water for sail, power and work boats. Our award-winning *smartAIS* transponders are designed by the Vesper Marine engineering team with an unwavering focus on quality, exceptional value and outstanding customer support.



**vesper**  
**smartAIS**  
OFFICIAL SUPPLIER

**VOLVO**  
**OCEAN**  
**RACE**  
ROUND THE WORLD

# “THE WATCHMATE VISION IS A TRULY MAGNIFICENT INSTRUMENT”

*Arie Vermeiden, France*

## WELCOME TO VESPER MARINE

Established in 2007 to meet the collision avoidance needs of offshore sailors through advanced AIS hardware and software, Vesper Marine is a privately held company founded by Jeff Robbins (CEO), Deirdre Schleigh (Operations Manager) and Carl Omundsen (Head of Design & Engineering).

Deirdre and Jeff's background in product design and seven years offshore sailing experience created the valuable insight that collision avoidance is too important to be buried deep in the menus of today's complex marine electronics.

The WatchMate series is the result of their desire for a powerful, high value safety system that is easy to use and consumes minimal power keeping it always on, always visible, always watching. Vesper Marine has grown rapidly to include a passionate team of developers, customer service and commercial staff. The head office is located in Auckland, New Zealand.

Vesper Marine designs and manufactures safety focused marine electronics and is recognized as a leading innovator of specialized safety systems and products for the marine industry.



IHS Safety at Sea Award 2012



Lloyd's List Awards Global 2012 Finalist

WINNER OF THE NZ HI-TECH AWARDS 2012



# smartAIS®

## It could save your life



**SAFETY UNDERWAY**  
Collision prevention



**SAFETY AT ANCHOR**  
Anchor Watch



**SAFETY FOR YOUR CREW**  
Man Overboard

## WHAT IS AIS?

The Universal Shipborne Automatic Identification System (AIS) is a system of transponders installed on vessels which transmit over two dedicated digital marine VHF channels.

The AIS data is sent from each vessel every few seconds and contains latitude, longitude and movement information such as course, speed and heading. Static information about the vessel is sent every few minutes and includes the name, type of vessel, length, beam, draft, etc. Nearly all commercial ships are required to carry AIS transponders and each year more sail, power and work boats are fitting AIS equipment.

An AIS transponder sends AIS signals, making your vessel visible to others with AIS equipment, and receives and processes the AIS signals for critical safety information. Your safety is enhanced day and night, when offshore or in busy marine traffic areas or in bad weather when visibility is reduced. AIS devices are also fitted on Aids to Navigation and as portable man overboard (MOB) devices on individuals for visibility to all AIS equipped vessels.

## WHAT IS smartAIS?

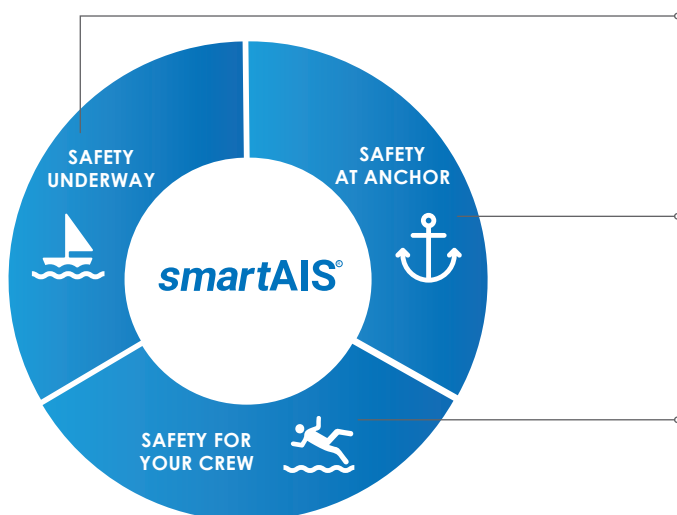
Reinventing the future of AIS.

Unlike an ordinary AIS which only sends and receives data, *smartAIS* from Vesper Marine is an active safety system with smart alarm logic that proactively alerts you when you have potential collision situations. It plots your anchor position and alerts you if your anchor drags. It continuously watches for a man overboard and triggers an alarm for quick action.

*smartAIS* puts you in control of every situation, furnishing you with navigation sensor data, GPS and AIS information. Its intelligent alarm management prioritizes alarms for most critical action. Its low power consumption keeps it always on, always visible, always watching. *smartAIS* transmits information over WiFi to your mobile device for access anywhere on your vessel. Using the WatchMate *smartAIS* app, you can monitor vessel information, customise alarms, change alarm profiles, be alerted if the anchor drags or there is a man overboard and much more, right from your mobile device.

*smartAIS* technology - Winner of the Pittman Innovation Award in Electronics 2018.

## THE *smartAIS* ADVANTAGE ONLY VESPER MARINE HAS IT!



### SAFETY UNDERWAY

#### Collision Prevention

Continuously determine crossing situations, receive collision alarms with full vessel information for critical action.

### SAFETY AT ANCHOR

#### Anchor Watch

Sleep soundly, knowing you'll be alerted if your anchor is dragging.

### SAFETY FOR YOUR CREW

#### Man Overboard

Be alerted when your crew activate an AIS MOB device and see their current location for easy retrieval.



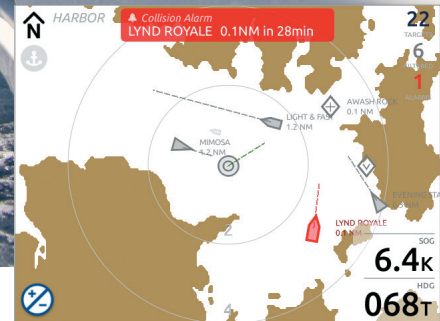
## SAFETY UNDERWAY

**smartAIS proactively alerts you when you have potential collision situations.**

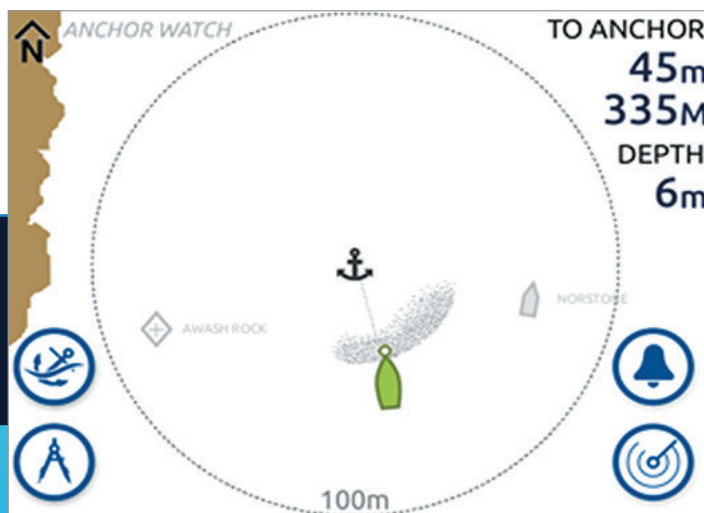
It combines GPS data such as position, course and speed along with AIS data and smart alert logic to continually determine safety implications and alert you. It computes the closest point of approach and time until the closest point of approach and has critical alarms to warn you of vessels posing a threat. Its smart alarm management organizes alarms for the most critical response. The alarms are always on and do not need any additional interface.

Manage your vessel's navigation or take decisive action from anywhere on board using your mobile device and the WatchMate *smartAIS* App or any 3rd party navigation software and apps. Customize alarms, change alarm profiles, activate Anchor Watch and much more. You can connect up to 5 other devices such as a tablet, smartphone, PC or Mac simultaneously or it is expandable to unlimited devices with an external WiFi router.

Designed for minimal power consumption, *smartAIS* is always on, always visible, always watching.



My Instruments		
HDG	Water Speed	COG
355 <sub>T</sub>	1.5 <sub>K</sub>	165 <sub>T</sub>
GWD	GWS	Depth
310 <sub>T</sub>	8.2 <sub>K</sub>	12 <sub>m</sub>
AWA	AWS	Water Temp
40 <sub>P</sub>	8.9 <sub>K</sub>	25.7 <sub>°C</sub>



## SAFETY AT ANCHOR

**smartAIS plots your position in relation to the anchor and marks your positions over time to determine if you are dragging.**

The alarm sounds if you drag outside a circular zone configured around your anchor position. Set customized alarms for increased wind speed, wind direction change or minimum water depth. When you drop anchor, activate Anchor Watch using your smart phone, tablet or smart watch from anywhere on-board. Even if your mobile is powered off or the app is closed, the *smartAIS* Anchor Watch continues to monitor the situation and sound the alarm to warn you. You'll be safer and sleep better because of the dedicated Anchor Watch.

# smartAIS<sup>®</sup>

It could save your life

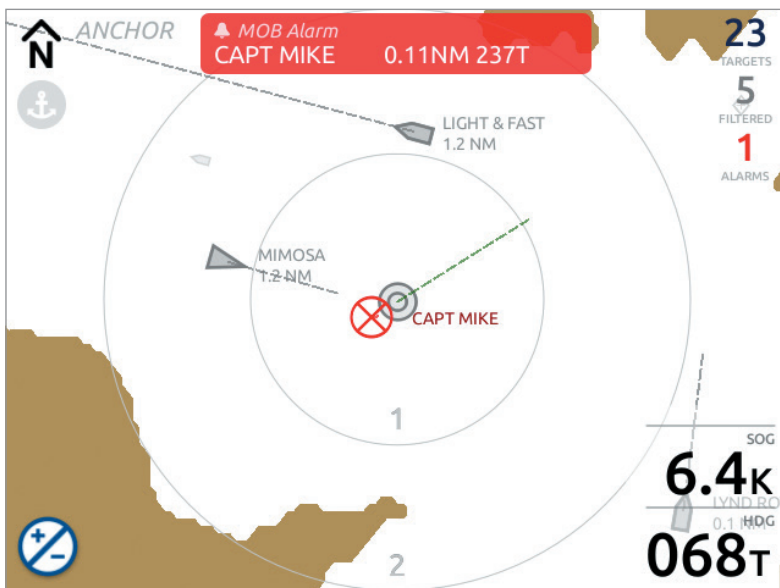


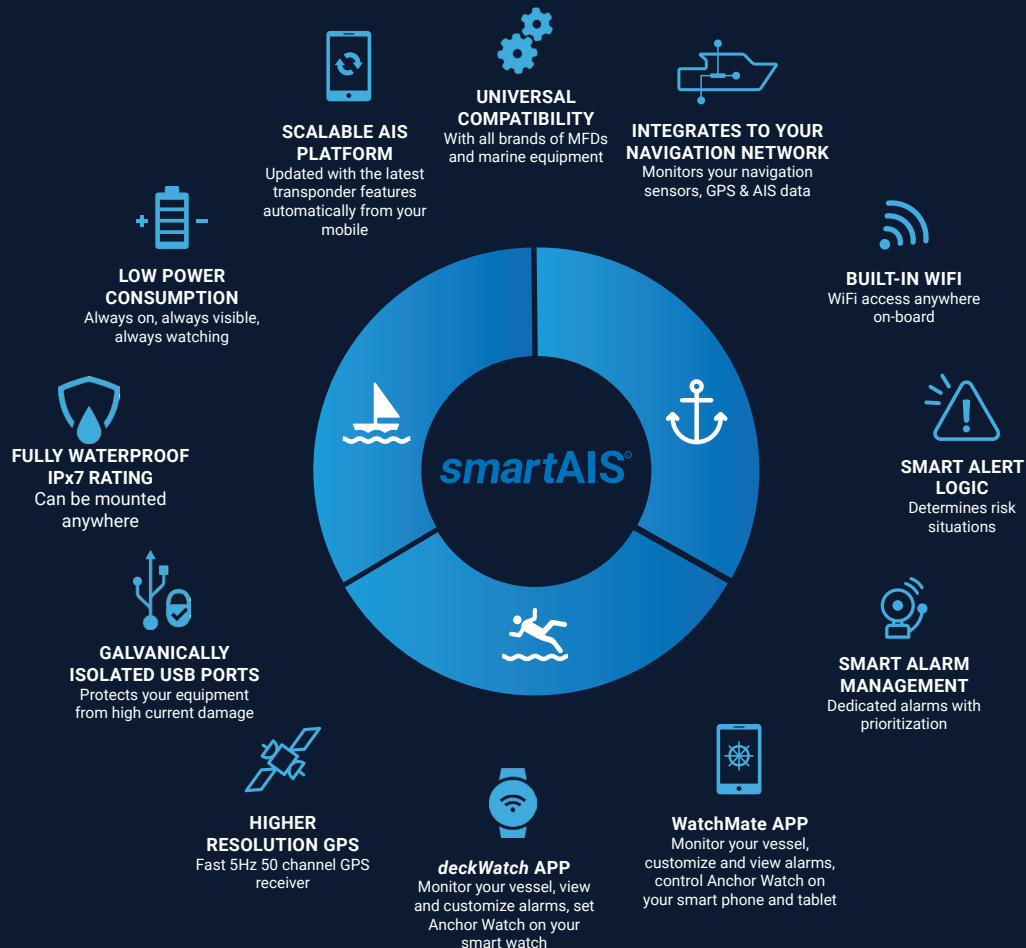
SAFETY FOR YOUR CREW



smartAIS silently and continuously watches for a Man Overboard (MOB) and sounds the alarm as soon as it detects one.

Equip your crew members with any manufacturer's AIS MOB device and when your crew activate it, see their continuously updated location, bearing and range for easy retrieval. smartAIS can associate the devices to names of your crew members. When an alarm is triggered, it displays the name of your crew member which is quicker and easier to recognize rather than a string of numbers.





## YOUR *smartAIS* RANGE

### WATCHMATE VISION<sup>2</sup>



Ultimate standalone transponder with color touch screen display with WiFi to view AIS, navigation and instrument data on your smartphone, tablet or smartwatch anywhere on board.

Get the *smartAIS* advantage of Safety Underway, Safety at Anchor and Safety for your Crew with a fully standalone *smartAIS* transponder, WatchMate Vision<sup>2</sup>. Winner of the NMMA Innovation Award, the WatchMate Vision<sup>2</sup> has a large 5.7" bright color touchscreen with an intuitive interface for easy operation of all transponder functions. It comes with worldwide coastal outlines for better situational awareness. Its intelligent filtering prioritizes and shows only those targets which have a collision risk. It has a built-in GPS antenna with an optional external antenna when a view of the sky is not available. Use it as a standalone transponder or integrate it with your network of chart plotters, MFDs and NMEA instruments. It has a NMEA 2000 gateway which gives you get complete access to all navigation sensor data in addition to GPS and AIS information.



Use a WiFi tablet, smartphone or smartwatch as your AIS, navigation and instrument display. Seamlessly integrates with all MFDs and onboard NMEA networks.

### WATCHMATE XB-8000

It is a full-featured Class B *smartAIS* transponder with all the *smartAIS* functions of Collision Prevention, Anchor Watch and MOB Alarm working actively for the safety of your vessel and crew. It can be viewed on any tablet, smartphone, PC or Mac over WiFi or USB, but is continuously watching and alerting you even when your screen is off. It comes with an alarm and silence switch that can be mounted anywhere on board. It is easy to integrate with your network of chart plotters, MFDs and NMEA instruments. All your navigation instrument data from NMEA 2000 or NMEA 0183 along with GPS and AIS is available on your mobile devices for alarm management and critical action, giving you complete control of every situation. Winner of the Practical Sailor Gear of the Year and Vancouver Boat Show Best in Show awards.

**PAS**  
www.practical-sailor.com  
BEST CHOICE 2017

VANCOUVER  
INTERNATIONAL  
**BOAT  
SHOW**

Best in Show

# EASY TO INTEGRATE

Interface with devices over NMEA 0183, NMEA 2000, WiFi and USB



## NMEA translations – An integrated gateway.

An intelligent integrated gateway that allows different generations and brands of marine electronics on NMEA 0183 or NMEA 2000 networks to talk to each other and transfer data seamlessly, all without extra multiplexing electronics, exhaustive installations or configuring.

The WatchMate Vision<sup>2</sup> and WatchMate XB-8000 provide AIS data, NMEA 2000 and 0183 data to any third-party software on your computer or apps on your smartphone or tablet via WiFi. Monitor navigation data on your WatchMate App or deckWatch App or use it with third party apps of your choice!

This *smartAIS* transponder supports a wide range of wind, depth, speed, heading, log, temperature, barometric pressure and autopilot PGNs. *smartAIS* transponders also translate NMEA2000 to 0183 for older MFDs and chart plotters.

**Problem #1:** Sailing and navigation apps cannot talk directly to a NMEA 2000 network as the apps use the 0183 protocol. We need to translate data in another way.

**Vesper Marine Solution #1:** Vesper Marine AIS transponders receive NMEA 2000 PGNs and automatically convert these to 0183 sentences for smart phones or tablets via WiFi and computers over USB.

**Problem #2:** A vessel has an older chart plotter (0183 only) with new NMEA 2000 instruments.

**Vesper Marine Solution #2:** The WatchMate XB-8000 or Vision<sup>2</sup> receive the new instrument data from the vessel's NMEA 2000 network and automatically convert the data to 0183 sentences for the older chart plotter that is connected to the transponder's power/data cable.

**Problem #3:** How to control devices on the NMEA 2000 network from a mobile device

**Vesper Marine Solution #3:** Use third party navigation software on a mobile device to plot a route and transfer the waypoints via WiFi to your *smartAIS* transponder. Since the mobile device uses NMEA 0183 protocol, the transponder translates 0183 sentences to NMEA 2000 PGNs, communicating with the autopilot to steer the selected course via the NMEA 2000 Bus.

# EXCLUSIVE TECHNOLOGY ADVANTAGES

Expert Navigator Stan Honey relies on Vesper Marine AIS technology onboard the 100ft Super Maxi Comanche during her 2016 Transatlantic record breaking run.

**“Maintaining an enviable reputation for highly differentiated, reliable and award winning AIS solutions has established Vesper Marine as a global leader.”**



The Vesper logo features a stylized white wave icon above the word "vesper" in a lowercase, white, sans-serif font.

## ■ **Compatibility with all MFD brands.**

Vesper Marine AIS technology has been purpose engineered for 100% compatibility with all AIS enabled MFDs (Multi Function Displays). Every Vesper Marine transponder seamlessly integrates to provide highly accurate AIS data to every brand through NMEA 2000 or NMEA 0183.

## ■ **Dedicated AIS focus. A respected worldwide AIS specialist.**

Vesper Marine technology works to prevent vessel collisions and protects lives at sea. Worldwide, billions of dollars in oil, gas, power and communications assets are protected 24/7 thanks to Vesper Marine's AIS focus and innovative technology.

## ■ **Safety drives all decision making as the core of the business.**

A critical question throughout all R&D stages is 'Does it enhance safety and save lives?'

## ■ **Exclusive technical and performance advantages.**

Features, benefits, problem solvers and long life performance only Vesper Marine offers.

## ■ **100% vertically integrated.**

Hardware, firmware, apps all developed and engineered inhouse to ensure outstanding performance and seamless integration.



## EXCLUSIVE VESPER MARINE TECHNOLOGY ADVANTAGES



### Compatibility with all MFD brands.

Vesper Marine AIS technology has been purpose engineered for compatibility with all AIS enabled MFDs (Multi Function Displays). Every transponder seamlessly integrates to provide highly accurate AIS data to all MFDs through NMEA 2000 or 0183.



### Dedicated Alarms

Unlike an ordinary AIS which only sends and receives data, Vesper Marine has smart alarm logic that sounds its own dedicated alarm for anchor drag, man overboard or collision avoidance. It also triggers an alarm on your smart phone or tablet.



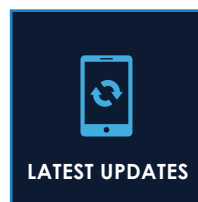
### 5HZ GPS.

All Vesper Marine AIS transponders feature a fast 5Hz GPS update rate providing greater detail and higher resolution plotting. The result is smoother tracking on chart plotters, MFDs and mobile apps.

### Vesper Marine as the Primary GPS Source.

One GPS Antenna is required for the entire vessel with Vesper Marine AIS transponders. Competitor's AIS units communicate only position data to an MFD on NMEA 2000 and not the full data required by the MFD making it necessary for two GPS antennas.

Vesper Marine GPS carries position data plus the entire GNSS suite required by chart plotters and MFDs (i.e. Satellite Communications and GPS accuracy data).



### Upgradable AIS Platforms - Robust and future proofed protecting your investment.

Vesper Marine AIS transponders offer a long service life on board. The unique combinations of durable hardware, robust software, market leading electronic protection, and the Vesper Marine upgradable platform advantage ensures customer's AIS investment is maintained and regularly evolving to offer enhanced features.

Upgrades to *smartAIS* transponders are delivered automatically over WiFi right from your mobile phone or tablet. Through ongoing development, Vesper Marine AIS transponders do not become outdated as soon as a new model is launched.



### Galvanically isolated USB ports.

Protects the transponder and connected equipment (eg. laptops) against damage due to inadequately bonded or damaged circuits. Significant voltage differences between battery banks and inverter, genset or shore power supply can lead to high current damage with other brands of AIS transponders.



### Low Power Consumption

Keeps it always on, always visible, always watching. Unlike MFDs which require high power, Vesper Marine AIS transponders can be always on for extended periods of time. Particularly on a long voyage when charging from solar or wind and when the MFD is switched off, it keeps you alerted of any potential risks.



### Fully Waterproof

Vesper Marine AIS transponders are fully waterproof (IPx7) and can be safely mounted almost anywhere on the boat. With an IPx7 rating, it is totally submersible in water up to 1m for up to 30 mins.

# deckWatch

SAFETY LIKE NEVER  
BEFORE. NOW ON YOUR  
SMART WATCH.



DAME  
NOMINATED  
2017



Your *smartAIS* transponder just got smarter with the free *deckWatch* App from Vesper Marine. Get instant information on your smart watch about collision targets, set up Anchor Watch or get alerted if a crew member goes overboard. Also monitor vessel navigation data like depth, speed, wind speed, heading with just a flick of your wrist on *deckWatch*.

The *deckWatch* App from Vesper Marine will transform your boating safety. A free app for your Android Wear 2 smart watch, *deckWatch* gives you instant access to critical safety information. *deckWatch* uses the power of Android Wear 2 to connect your smart watch directly to the WiFi of your *smartAIS* transponder. Get alerted with *smartAIS* alarm features directly on your wrist. It is your safety companion anywhere on the boat. You do not have to reach for your smart phone or tablet or carry them around in rough sea conditions. You can monitor your *smartAIS* transponder with just a flick of the wrist. That's safety on hand exclusively from Vesper Marine.

*deckWatch* works with Vesper Marine's *smartAIS* transponders WatchMate Vision<sup>2</sup> and WatchMate XB-8000. Your *smartAIS* transponder immediately transmits AIS, GPS and navigation data over WiFi to your smart watch using the *deckWatch* App.

To get started, go to the Google play store on your smart watch and download the *deckWatch* App. Next, link your smart watch with your transponder WiFi and you are ready to go.



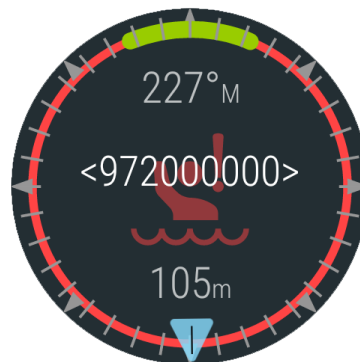
*deckWatch* is the winner of the NMMA Innovation Award in the Safety Equipment Category (IBEX) as well as a nominee for the DAME Design Award in the Life-saving and Safety Equipment Category (METSTRADE)



Instantly see critical information about a collision risk



Mark and monitor your anchor position



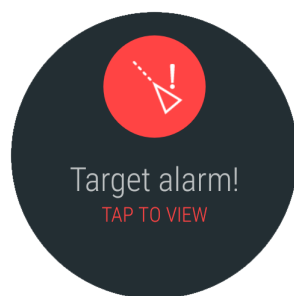
See the bearing and distance of a man overboard



Get access to all navigation instrument data

### Collision Prevention

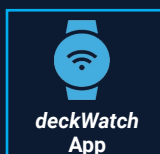
View collision target with details of vessel name, CPA, TCPA, distance and bearing information to help you contact the vessel in an emergency. Scroll from one target to the next. When a target vessel turns orange that's a warning sign of a potential collision. When red, you have a high collision risk and an alarm is triggered. See the target that is on a collision path with your vessel to enable you to take immediate action.



Target Collision Alarm



View Vessel Name, CPA and TCPA of the alarm vessel



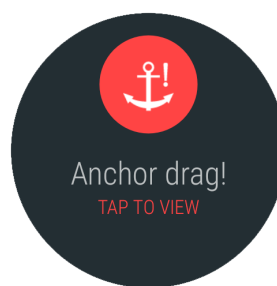
### The *deckWatch* App on your smart watch works with the WatchMate Vision<sup>2</sup> or XB-8000 *smartAIS* transponders.

- View AIS Targets received by the Vesper Marine AIS transponder.
- Set up and manage collision prevention alarm profiles.
- Set up Anchor Watch and monitor anchor position.
- Receive MOB alarms with position information for easy retrieval.
- View NMEA 2000 or NMEA 0183 instrument data like Course, Speed, Depth, Wind Speed and other Nav data.



### Anchor Watch

When you drop anchor, tap the Anchor Icon on the *deckWatch* App to mark its position. *deckWatch* updates the bearing and distance of the vessel from the Anchor position. If the Anchor drags outside the specified radius, you get an alarm and the anchor icon turns red on the *deckWatch* screen. See the anchor position, monitor navigation information and take necessary action.



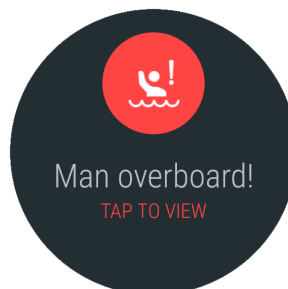
Anchor Drag Alarm



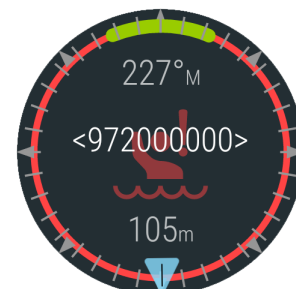
See Vessel position using Anchor Watch

### Man Overboard

In case a crew member falls overboard and activates an MOB device (of any manufacturer) an MOB alarm sounds on your *smartAIS* transponder. Check the alarm on your *deckWatch* App and continuously monitor the MOB location with bearing and distance for immediate retrieval.



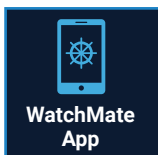
Man Overboard Alarm



See MOB location details

# WATCHMATE APP

## SAFETY ALARMS, MONITORING AND CONTROL OVER WIFI.



The free Vesper Marine WatchMate App is a great way to configure and monitor the WatchMate Vision<sup>2</sup> or XB-8000 *smartAIS* transponder. The App supports Apple and Android phones and tablets allowing target views via a 'radar' plotting screen in north-up or heading-up orientations.



Vesper Marine AIS transponders offer an incredibly long service life on board. The unique combinations of durable hardware, robust software, market leading electronic protection and the Vesper Marine upgradable platform advantage ensures customer's AIS investment is maintained and regularly evolving to include enhanced features. Through ongoing development, Vesper Marine AIS transponders do not become outdated as soon as a new model is launched.

For example, the XB-8000 *smartAIS* transponder is completely upgradeable with a continuous stream of feature updates, adding new and unique capabilities. Recent examples include the capability for firmware to be updated via the app, enhanced Anchor Watch features

such as remote Anchor Move, external switch operation and additional alarm profiles.

The WatchMate app on Apple and Android phones and tablets performs automatic transponder firmware updates directly from the mobile device. These updates include significant enhancements provided free for all owners which can also be downloaded by visiting [support.vespermarine.com](http://support.vespermarine.com).

On board the vessel, the WatchMate App connects tablets and mobiles (Vesper Marine transponders support up to 5 WiFi devices) to the Vesper Marine AIS transponder providing remote control and direct situational awareness right in the palm of the user. The WatchMate App on the mobile device becomes the interface for managing alarms and remote control of a Vesper Marine AIS transponder and as an extended display screen for the XB-8000.

### AIS Data for Navigation Software

Third party apps and software (examples include iSailor, iNavX, iRegatta, DroidAIS, Sail Tracker and SailGrib) also display AIS data. many come with preconfigured set-up for Vesper Marine *smartAIS* transponders. If not, simply enter the *smartAIS* transponder IP address 192.168.15.1 and Port number 39150 to begin receiving data from a Vesper Marine transponder equipped with WiFi.

Please refer to [www.vespermarine.com](http://www.vespermarine.com) for more information on the AIS data integration capabilities provided from leading third party sailing apps.

# WATCHMATE APP ADVANTAGES

## Complete Monitoring and Control

View and update vessel information, monitor transponder and GPS status, display all AIS-equipped vessels within range on the easy to view 'radar' plotting screen.

## Instant Target Acquisition

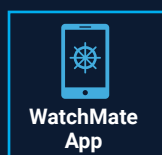
Other apps may exhibit significant delays before AIS targets appear. The WatchMate App takes advantage of unique capabilities inside each Vesper Marine AIS transponder, allowing it to display targets instantly when the app is opened.

## Manage Alarm Settings

Set collision avoidance alarms such as Closest Point of Approach (CPA) Alarm and Guard Alarm individually or together. The CPA Alarm sounds if a vessel will get too close in the future if you both continue as you are while the Guard Alarm alerts you if a vessel comes within a specified distance of your boat.

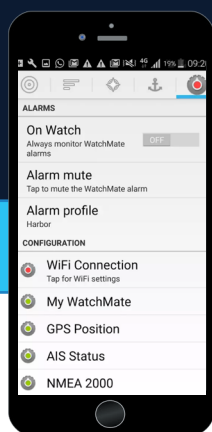
## Activate Anchor Watch

Control the Anchor Watch function at the windlass or from anywhere onboard. Monitor vessel position relative to the anchor location and receive alarms on phones, tablets and watches in a bunk or anywhere else on board.

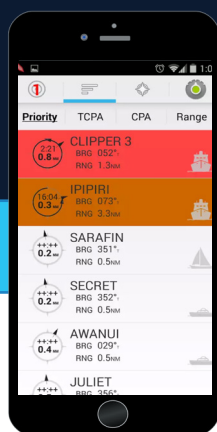


The WatchMate App connects seamlessly with a Watchmate Vision<sup>2</sup> or XB-8000 AIS Transponder. The app allows viewing of AIS targets on mobile devices, however the real power is remote control as the app configures and controls the AIS transponder.

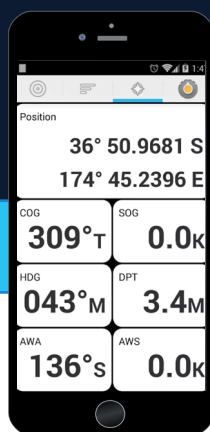
- View AIS Targets received by the Vesper Marine AIS transponder.
- Setup and manage collision prevention alarm profiles.
- Manage MOB alarms.
- Control and view Anchor Watch alarm.
- View the AIS transponder's own GPS Position, Course and Speed.
- Check the operational status of the vessel's AIS transponder.
- Remote control of AIS transponder settings.
- Switch easily between Silent Mode and Normal Transmitting mode.
- Configure the Vessel's AIS data (MMSI, Call Sign, Vessel Type, Vessel Size)
- Perform firmware updates.



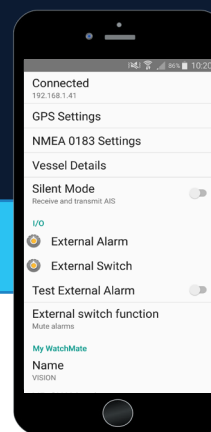
**Alarm Manager** has a menu of profiles. Profiles adjust the alerts and alarms for surrounding vessels by configuring and selecting Anchor, Harbor, Coastal and Offshore modes.



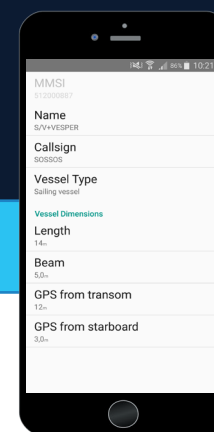
**Target Priority** lists the AIS targets including Bearing, Range, Speed Over Ground, Closest Point of Approach and Time to Closest Point of Approach.



**My Vessel** provides current AIS data. latitude, longitude, Course over Ground, Speed over Ground, Heading, Depth, Wind and more.



**Silent Mode** allows AIS transmission to be turned off (but continues to receive AIS signals). Commonly used at anchor when there is no need to broadcast AIS data.



**Vessel Details** configures your vessel data including MMSI, Name, Call Sign, Type and GPS Antenna Position.

# AWARD WINNING PRODUCTS 2017-18

Dedicated to marine safety solutions since 2007, Vesper Marine focuses on developing AIS solutions from the ground up. We have launched many innovative products in AIS transponder technology that have delighted customers the world over. Over the years our products have been internationally recognized, winning awards for innovation and excellence. Every Vesper Marine product is designed for performance, reliability and ease of use.

In 2017, we launched the world's first transponder App for smartwatches called *deckWatch*. The App was awarded the NMMA Innovation Award and was nominated for the prestigious DAME Award. In the same year, we also introduced *smartAIS* technology, which received the Pittman Innovation Award 2018 while the WatchMate XB-8000 *smartAIS* transponder won Gear of the Year 2017 from Practical Sailor as well as the Vancouver International Boat Show "Best in Show" Award 2018.

As we continue our focus on marine safety solutions, we look forward to introducing many more innovative products that will redefine your boating experience.

**"The cherry on top is the fact that the new Vesper Marine *deckWatch* app puts *smartAIS* alarms on an Android Wear 2.0 watch.**

**The secret sauce is that alarms will be loudly sounded by the transponder itself even if the mobile device is entirely shut down."**

SAIL MAGAZINE





## deckWatch App



National Marine Manufacturer's Association (NMMA) Innovation Award in the Safety Equipment Category - 2017 at the International Boatbuilders Exhibition (IBEX), Tampa



Nominee at the world's most prestigious and largest marine competition, the DAME Design Awards in the Lifesaving and Safety Equipment Category - 2017 at METSTRADE, Amsterdam



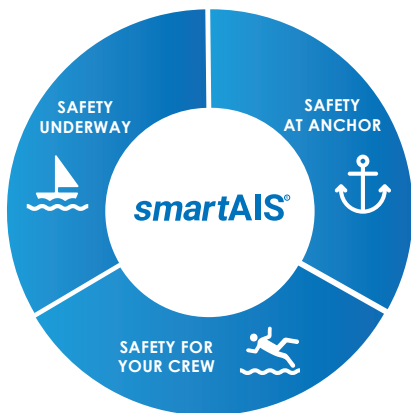
Practical Sailor Editors Choice - Gear of the Year 2017. The magazine is highly regarded by serious sailors and DIY boat owners for its unbiased evaluations of sailing products and related services.



Best in Show : Electronics Award at the Vancouver International Boat Show 2018, Canada's largest consumer boat show, showcasing the latest innovations in the recreational boating market.



## WatchMate XB-8000



## smartAIS technology



SAIL Magazine's Pittman Innovation Award 2018. The Award recognizes outstanding new products created by the sailing industry. The innovative distinction of smartAIS technology is its extendability to Android Wear 2 smartwatches in addition to smartphones and tablets.



# smartAIS<sup>®</sup>

It could save your life

## New WATCHMATE VISION<sup>2</sup>

### WORLD'S FIRST TOUCHSCREEN *smartAIS* TRANSPONDER

PACKED WITH THE LATEST, MOST ADVANCED FEATURES



**BRIGHT, EASY TO USE  
COLOR TOUCHSCREEN**

Introducing WatchMate Vision<sup>2</sup> with a highly responsive, easy to use capacitive touchscreen, bright display, stylish looks, increased WiFi connectivity and lots more.

Powered with *smartAIS* technology, Vision<sup>2</sup> has safety features that can save lives. Get proactive alerts when you have potential collision situations, if your anchor drags or if there's a man overboard situation.

With its intuitive and easy to use touch screen, scroll through the menu, zoom in and out, see vessel details and navigation data, change alarm settings and more with the most gentle of touches.

Remote control your transponder from anywhere on board with your smartphone, tablet or smartwatch using WiFi. The Vision<sup>2</sup> enables you to connect up to eight devices simultaneously for greater flexibility.

The Vision<sup>2</sup> has a stylish black bezel front panel with glossy black side panels, designed to complement every helm and Nav station.



**HIGH SPEED WIFI  
ACCESS**



**STYLISH NEW LOOK**

## smartAIS technology



### SAFETY UNDERWAY

**Collision prevention**

Continuously determine crossing situations, receive collision alarms with full vessel information for critical action.



### SAFETY AT ANCHOR

**Anchor Watch**

Sleep soundly, knowing you'll be alerted if your anchor is dragging



### SAFETY FOR YOUR CREW

**Man Overboard**

Be alerted when your crew activate an AIS MOB device and see their current location for easy retrieval.



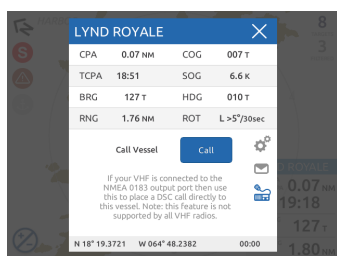
## INTERACTIVE USER FRIENDLY SCREEN



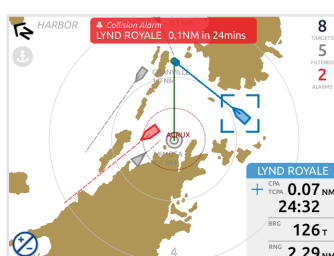
The bright 5.7 inch color touchscreen has a radar plotting display with worldwide coastal outlines for better situational awareness. The screen magnifier allows you to select targets without losing position context and scale. The screen has excellent optical clarity over a

wide viewing angle and can be viewed using polarized glasses.

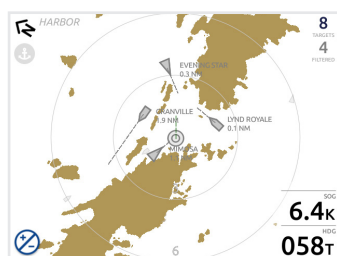
## PACKED WITH ADVANCED SAFETY FEATURES



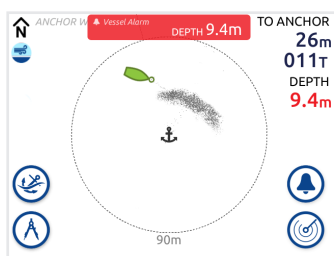
**DSC calls:** Place calls directly to a vessel by touching it on the screen. (Works with ICOM VHF radios)



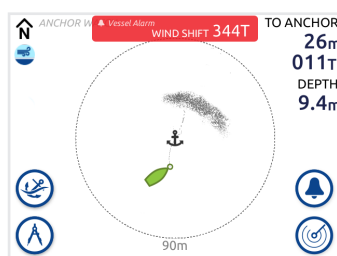
**Alarm banner:** Highlights the most critical alarm while also sounding an audible alarm.



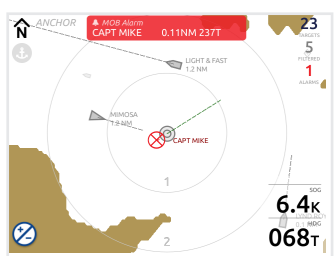
**Intelligent target filtering:** Reduces screen clutter showing only those vessels with a collision risk.



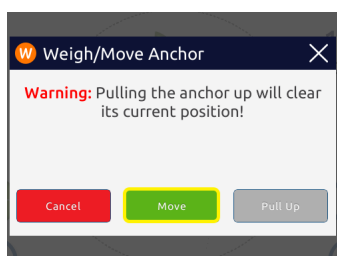
**Depth alarm at anchor:** Warns you if the water depth falls below a certain level.



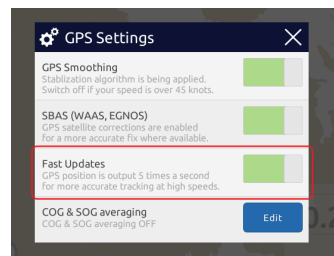
**Wind alarms at anchor:** Get alerted with change in wind direction or wind speed.



**MOB labelling:** In case of an MOB, view the name of your crew member instead of a string of MMSI numbers.



**Anchor Move:** After setting your anchor position, you can finetune its position for greater accuracy.



**5Hz GPS update rate:** Transmits position information faster for better resolution

## TECHNICAL DATA

SIZE	172mm wide x 130mm high x 60mm depth (6 7/8" x 5 1/8" x 2 3/8")
LCD TOUCH PANEL	145mm (5 11/16") VGA color TFT capacitive touch
POWER SUPPLY	10-32 VDC 2A max, 6W nominal
ENVIRONMENTAL	Waterproof (IPx7)
OPERATING TEMPERATURE	-25°C to +55°C (-13°F to 131°F)
STORAGE TEMPERATURE	-25°C to +80°C (-13°F to 176°F)
NUMBER OF RECEIVERS	2 AIS, 1 DSC (timeshared)
NUMBER OF TRANSMITTERS	1 AIS
RECEIVE FREQUENCY RANGE	156.025 – 162.025 MHz
TRANSMIT FREQUENCY RANGE	161.500 – 162.025 MHz
AIS SENSITIVITY	-113 dBm < 20% PER
POWER OUTPUT	33 dBm (2W)
GPS SENSITIVITY	-159dBm tracking & navigation -142dBm acquisition
GPS DIFFERENTIAL SUPPORT	SBAS: WAAS, EGNOS, MSAS, GAGAN
GPS NAVIGATION RATE	Selectable 1Hz or 5Hz with magnetic variation included in output
SERIAL DATA	1 USB port (isolated), 1 NMEA input (isolated RS422), 1 NMEA output (RS422)
NMEA 2000 GATEWAY	Converts selected instrument PGN's to and from 0183, WiFi and USB
USB CONNECTOR	Mini USB (USB 2.0)
NMEA 2000 CONNECTOR	NMEA 2000 Micro-C male. Requires female drop cable (not included)
WIRELESS	802.11 b/g/n in Access Point or Client Mode, 10 dBm
ACCESS POINT SECURITY	WPA2 Personal
CLIENT MODE SECURITY	None, WPA & WPA2 Personal

## EASY INSTALLATION

- Waterproof, rated IPx7 (submersible to 1m for 30 minutes)
- Built-in GPS antenna does not require an external GPS antenna for most installations
- Optional external GPS antenna when a view of the sky is not available
- Fully NMEA 2000 certified for compatibility
- Interface with any devices over NMEA 0183, NMEA 2000, WiFi and USB
- Galvanically isolated ports to prevent high current damage to your transponder and connected equipment
- World-wide two year warranty



Available on the App Store

GET IT ON Google play

Incorporates Vesper Marine patented AIS technology.



# smartAIS®

It could save your life

## WATCHMATE XB-8000 smartAIS TRANSPONDER



BUILT-IN COLLISION PREVENTION, ANCHOR WATCH AND MOB ALARMS

### DEDICATED ALARMS AND WIFI

The full-featured Class B *smartAIS* transponder from Vesper Marine has all the *smartAIS* functions of Collision Prevention, Anchor Watch and Man Overboard (MOB) Alarms actively keeping your vessel and crew safe.

It can be viewed on any tablet, smartphone, PC or Mac over WiFi or USB, but is continuously watching and alerting you even when your screen is off. Integrate it with your network of chart plotters, MFD's and NMEA instruments. All your navigation instrument data from NMEA 2000 or NMEA 0183 along with GPS and AIS is available on your mobile devices or PC for alarm management and critical action, giving you complete control of every situation.

- Sounds its own dedicated external alarm for anchor drag, man overboard or collision avoidance. Mount the external silence switch anywhere on-board.
- NMEA 2000 / 0183, WiFi and waterproof USB
- Fast 5Hz GPS update rate provides greater detail and higher resolution plotting
- Can be put in Silent Mode (receive-only)
- Includes 50 channel GPS with WAAS/EGNOS and powerful external GPS antenna
- Free WatchMate App for iPhone / iPad / Android providing interactive remote control
- Free *deckWatch* App for Android Wear 2 smart watches providing navigation data and alarms right on your wrist.
- Wide variety of compatible 3rd party apps for Windows, Mac, iPhone, iPad and Android.

*WatchMate* XB-8000 is the winner of Practical Sailor's Gear of the Year 2017 and the Vancouver Boatshow "Best in Show".

## smartAIS technology



### SAFETY UNDERWAY

#### Collision prevention

Continuously determine crossing situations, receive collision alarms with full vessel information for critical action.



### SAFETY AT ANCHOR

#### Anchor Watch

Sleep soundly, knowing you'll be alerted if your anchor is dragging



### SAFETY FOR YOUR CREW

#### Man Overboard

Be alerted when your crew activate an AIS MOB device and see their current location for easy retrieval.

## CONNECT - AS EASY AS IT GETS



## NMEA GATEWAY, WIFI AND GPS

WatchMate XB-8000 translates NMEA 2000 instrument data such as heading, wind, depth, speed, log, and temperature. This allows you to view this data, along with GPS and AIS information, simultaneously on up to five WiFi devices (tablets, smart phones, computers) as well as computers via USB or plotters using NMEA 0183. For more than five mobile devices or to combine with on-board internet the XB-8000 can wirelessly connect to other WiFi routers.

## ROBUST AND RELIABLE

- Fully waterproof, rated IPx7 (submersible to 1m for 30 minutes)
- Wide operating temperature range
- Galvanic isolated NMEA and USB connections prevent ground loops and damage to connected devices
- Self diagnosis status lights to indicate functioning AIS, GPS and antenna
- World-wide two year warranty



FC

Canada

CE

PATENTED

PATENTED

PATENTED

PATENTED

PATENTED

Available on the App Store

GET IT ON Google play

Incorporates Vesper Marine patented AIS technology.

## TECHNICAL DATA

SIZE	200mm wide x 130mm high x 60mm depth (7 7/8" x 5 1/8" x 2 3/8")
POWER SUPPLY	10-32 VDC 2A max, 3W nominal
ENVIRONMENTAL	Waterproof (IPx7)
OPERATING TEMPERATURE	-25°C to +55°C (-13°F to 131°F)
STORAGE TEMPERATURE	-25°C to +80°C (-13°F to 176°F)
NUMBER OF RECEIVERS	2 AIS, 1 DSC (timeshared)
NUMBER OF TRANSMITTERS	1 AIS
RECEIVE FREQUENCY RANGE	156.025 – 162.025 MHz
TRANSMIT FREQUENCY RANGE	161.500 – 162.025 MHz
AIS SENSITIVITY	-113 dBm < 20% PER
POWER OUTPUT	33 dBm (2W)
GPS SENSITIVITY	-159dBm tracking & navigation -142dBm acquisition
GPS DIFFERENTIAL SUPPORT	SBAS: WAAS, EGNOS, MSAS, GAGAN
GPS NAVIGATION RATE	Selectable 1Hz or 5Hz with magnetic variation included in output
SERIAL DATA	1 USB port (isolated), 1 NMEA input (isolated RS422), 1 NMEA output (RS422)
NMEA 2000 GATEWAY	Converts selected instrument PGN's to and from 0183, WiFi and USB
USB CONNECTOR	Mini USB (USB 2.0)
NMEA 2000 CONNECTOR	NMEA 2000 Micro-C male. Requires female drop cable (not included)
WIRELESS	802.11 b/g in Access Point or Client Mode
ACCESS POINT SECURITY	WPA2 Personal
CLIENT MODE SECURITY	None, WPA & WPA2 Personal

## EASY INSTALLATION

- Compact low profile unit can be placed in any orientation
- All cable connection points are contained within the footprint of the unit
- External GPS antenna is included with small cable connector facilitating easy routing through holes and conduits
- Standard VHF antenna connection does not require special cables or connectors
- Fully NMEA 2000 certified for compatibility
- Interface with any devices over NMEA 0183, NMEA 2000, WiFi and USB
- Convenient remote configuration and troubleshooting via smart phone/tablet using WiFi



External Alarm and stainless steel Alarm Cancel Switch Included.



**ALWAYS  
ON**

**ALWAYS  
VISIBLE**

**ALWAYS  
WATCHING**

# WATCHMATE 850

## HIGH PERFORMANCE CLASS B AIS TRANSPONDER

STANDALONE TRANSPONDER WITH INTEGRATED SCREEN AND GPS ANTENNA

### EASY TO INSTALL, EASY TO USE

Engineered for ease of install and use, yet packed with comprehensive functionality, the WatchMate 850 is perfect when you want AIS that is robust, reliable and intuitive.

The built-in GPS antenna eliminates the need for another GPS antenna in most installations allowing you to just connect power, plug in a VHF antenna and your complete AIS system is installed. Or you can share an existing connection to an antenna using our unique AIS splitter with 'gain not loss', and connect via NMEA 0183 or USB to show AIS data on your existing chart plotter or computer.

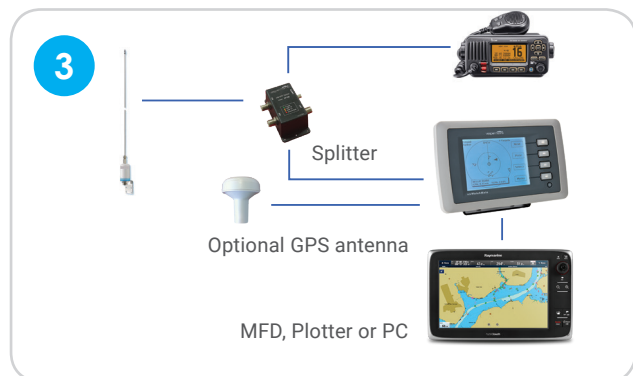
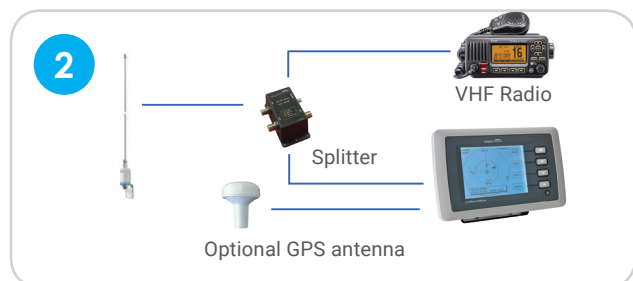
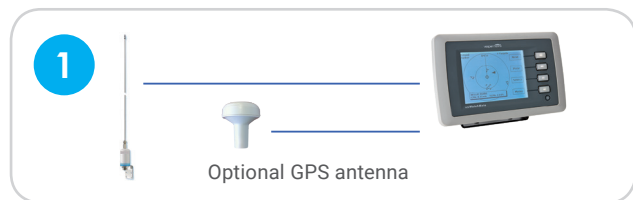
The unique target filtering function reduces clutter in busy locations by taking advantage of a collision avoidance display option which shows only those vessels on a collision course along with a graphical view of their crossing situation.

Sophisticated alarm management eliminates false collision warning alarms that plague chart plotters and other AIS displays.

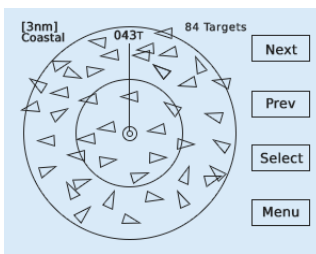
Super-low power consumption allows you to leave the WatchMate 850 switched on at all times.

The high resolution backlit LCD screen is so intuitive that most users can operate "out of the box" without reading the manual. Large, backlit buttons make operation easy and the WatchMate 850 responds with lightning fast performance.

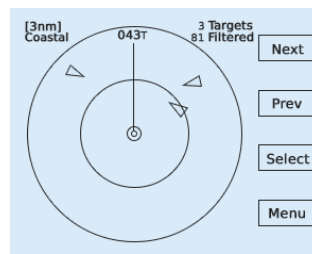
### STANDALONE OR INTEGRATE



## ADJUSTABLE FILTERS



Show icons for every vessel



Filtered to only show collision risks

Intelligent filtering enables you to de-clutter your display. The WatchMate 850 automatically calculates the closest point of approach (CPA) and time until CPA (TCPA). You can filter target vessels by range, speed, CPA or TCPA.

You can customize these settings for different situations – Harbor, Coastal, Offshore and Anchor, making it easy to alter your display and alarms with one button.

Vessels and alarms are presented in priority order, making it easy to identify critical hazards.

## EASY INSTALLATION

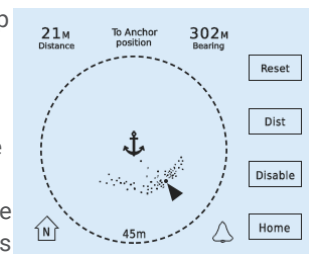
- Built-in GPS antenna does not require an external GPS antenna for most installations
- Optional external GPS antenna when a view of the sky is not available
- Connect to chart plotters with NMEA 0183 and computers with opto-isolated USB
- Standard VHF antenna connection does not require special cables or connectors
- Ultra low power consumption

## ROBUST AND RELIABLE

- Fully waterproof, rated IPx7 (submersible to 1m for 30 minutes)
- Rugged construction and easy to use buttons made for the marine environment
- Galvanic isolated NMEA and USB connections prevent ground loops and damage to connected devices
- Self diagnosis ensures AIS, GPS and antenna system are functioning properly
- World-wide two year warranty

## ANCHOR WATCH

Press a button when you drop the anchor. The WatchMate 850 continuously shows the range and bearing to your anchor. Your position relative to the anchor is displayed over time so you can visualize your swing. The alarm sounds if your position moves outside the selected range. Automatically corrects for errors caused by the GPS antenna position on-board your vessel (using heading input).



## TECHNICAL DATA

SIZE	208mm wide x 135mm high x 76mm depth (8 3/16" x 5 5/16" x 3")
LCD PANEL	125mm (5") FSTN 320x240 LED backlight
POWER SUPPLY	10-32 VDC 2A max, 3W nominal
ENVIRONMENTAL	Waterproof (IPx7)
OPERATING TEMPERATURE	-25°C to +55°C (-13°F to 131°F)
STORAGE TEMPERATURE	-25°C to +80°C (-13°F to 176°F)
NUMBER OF RECEIVERS	2 AIS, 1 DSC (timeshared)
NUMBER OF TRANSMITTERS	1 AIS
RECEIVE FREQUENCY RANGE	156.025 – 162.025 MHz
TRANSMIT FREQUENCY RANGE	161.500 – 162.025 MHz
AIS SENSITIVITY	-113 dBm < 20% PER
POWER OUTPUT	33 dBm (2W)
GPS SENSITIVITY	-159dBm tracking & navigation -142dBm acquisition
GPS DIFFERENTIAL SUPPORT	SBAS: WAAS, EGNOS, MSAS, GAGAN
SERIAL DATA	1 USB port (isolated), 1 NMEA input (isolated RS422), 1 NMEA output (RS422)
BAUD RATE	4800 or 38400. AIS output requires 38400 baud
USB CONNECTOR	Mini USB (USB 2.0)
GPS ANTENNA CONNECTOR	TNC
VHF ANTENNA REQUIRED	50 ohm, max 2:1 VSWR @ 162MHz, PL-259 connector
EXTERNAL ALARM MAXIMUM	150mA @ VDC
AIS MESSAGES	Displays all class A and class B position reports, voyage data, static data, aids to navigation, SAR aircraft, SART, MOB, meteorological/hydrographic and safety messages



Incorporates Vesper Marine patented AIS technology.



**ALWAYS  
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**ALWAYS  
VISIBLE**

**ALWAYS  
WATCHING**

# WATCHMATE XB-6000

## HIGH PERFORMANCE CLASS B AIS TRANSPONDER

**BUILT-IN GPS ANTENNA AND NMEA 2000 GATEWAY**

### UNLIKE ANY OTHER AIS

This high performance Class B AIS with built-in NMEA 2000 gateway and internal GPS, XB-6000 integrates AIS, GPS and NMEA information so that you can see your safety and navigation on any AIS-capable chart plotter or MFD. Or use your PC and Mac for easy computer navigation. Easily integrate AIS to your existing marine electronics and convert NMEA 2000 & 0183 instrument data to USB, facilitating 3rd party navigation software.

- NMEA 2000 / 0183 and waterproof USB
- Compatible with all NMEA 2000 certified chart plotters and MFD's
- The only AIS transponder that can be used as a GPS source for NMEA 2000
- Fast 5Hz GPS update rate provides greater detail and higher resolution plotting
- Can be put in Silent Mode (receive-only)
- Includes 50 channel GPS with WAAS/EGNOS and powerful external GPS antenna
- Built-in internal GPS antenna allows for easy installation when the XB-6000 has a view of the sky. Perfect for small vessels
- Galvanic isolated USB and NMEA ports protects the transponder and your other equipment against damage and installation problems

### EASY PLUG AND PLAY



The only AIS transponder with fast 5Hz GPS navigation rate. Use the XB-6000 as your primary GPS source for your NMEA 2000 and NMEA 0183 equipment.

## NMEA 2000 TO 0183 GATEWAY

The XB-6000 translates NMEA 2000 instrument data such as heading, wind, depth, speed, log, water temperature and more. This allows you to view this data, along with GPS and AIS information, simultaneously on all AIS-capable chart plotters, multi-function displays and computer software.

Works seamlessly with Garmin, Raymarine, Simrad, B&G, Lowrance and others.

The built-in internal GPS antenna means there is no need for multiple external GPS antennas in many installations. You can even use the XB-6000 as your primary GPS source for all chart plotters and multi-function displays.

## ROBUST AND RELIABLE

- Fully waterproof, rated IPx7 (submersible to 1m for 30 minutes)
- Wide operating temperature range
- Galvanic isolated NMEA and USB connections prevent ground loops and damage to connected devices
- Self diagnosis status lights to indicate functioning AIS, GPS and antenna
- World-wide two year warranty

## FAST AND EASY INSTALLATION

- Compact low profile unit can be placed in any orientation
- All cable connection points are contained within the footprint of the unit
- External GPS antenna is included with small cable connector facilitating easy routing through holes and conduits
- Standard VHF antenna connection does not require special cables or connectors
- Fully NMEA 2000 certified for compatibility
- Interface with any devices over NMEA 0183, NMEA 2000 and USB
- Convenient configuration and troubleshooting via free PC and MAC software
- Solve common antenna issues using built-in VSWR meter



Incorporates Vesper Marine patented AIS technology.

## TECHNICAL DATA

SIZE	200mm wide x 130mm high x 60mm depth (7 7/8" x 5 1/8" x 2 3/8")
POWER SUPPLY	10-32 VDC 2A max, 2.5W nominal
ENVIRONMENTAL	Watertight (IPx7)
OPERATING TEMPERATURE	-25°C to +55°C (-13°F to 131°F)
STORAGE TEMPERATURE	-25°C to +80°C (-13°F to 176°F)
NUMBER OF RECEIVERS	2 AIS, 1 DSC (timeshared)
NUMBER OF TRANSMITTERS	1 AIS
RECEIVE FREQUENCY RANGE	156.025 – 162.025 MHz
TRANSMIT FREQUENCY RANGE	161.500 – 162.025 MHz
AIS SENSITIVITY	-113 dBm < 20% PER
POWER OUTPUT	33 dBm (2W)
GPS SENSITIVITY	-159dBm tracking & navigation -142dBm acquisition
GPS DIFFERENTIAL SUPPORT	SBAS: WAAS, EGNOS, MSAS, GAGAN
GPS NAVIGATION RATE	Selectable 1Hz or 5Hz with magnetic variation included in output
SERIAL DATA	1 USB port (isolated), 1 NMEA input (isolated RS422), 1 NMEA output RS422)
NMEA 2000 GATEWAY	Converts selected instrument PGN's to 0183 and USB
USB CONNECTOR	Mini USB (USB 2.0)
NMEA 2000 CONNECTOR	NMEA 2000 Micro-C male. Requires female drop cable (not included)
POWER/DATA CONNECTOR	10 pin circular. Includes 2m cable with molded waterproof locking plug
VHF ANTENNA REQUIRED	50 ohm, max 2:1 VSWR @ 162 MHz. PL-259 connector

# TRANSPONDER COMPARISON



	WatchMate 850 TRANSPONDER	WatchMate Vision <sup>2</sup> TRANSPONDER	WatchMate XB-8000 TRANSPONDER	WatchMate XB-6000 TRANSPONDER
Exclusive <i>smartAIS</i> technology: Safety Underway, Safety at Anchor, Safety for your Crew	X	✓	✓	X
Easy to use customizable alarm controls helps eliminate false alarms	✓	✓	✓	X
Built-in alarm plus external alarm/buzzer/indicator control	✓	✓	External Collision, MOB and Anchor Watch alarms included	X
Collision alarm with multi profile (Anchor, Harbor, Coastal, Offshore)	✓	✓	✓	X
Alarms for AIS portable Man Over Board devices	✓	✓	✓	Using chart plotters, MFD's and computer software
Anchor Watch alarm	✓	✓	✓	X
Can connect wirelessly to other devices using WiFi (5 users)	X	✓	✓	X
Controls transponder, silent mode and other safety features remotely via iPhone/iPad and Android apps	X	✓	✓	X
Use with standard applications such as iNavX, SEAiQ, iSailor, etc. on iPads and Android tablets	X	✓	✓	X
Easy interfacing to all chart plotters, MFD's and computers supporting AIS	✓	✓	✓	✓
High performance 50 channel built-in GPS receiver	✓	✓	✓	✓
High speed 5Hz GPS navigation rate	X	✓	✓	✓
Can be used as primary GPS on a NMEA 2000 network	X	✓	✓	✓
Internal GPS antenna eliminates need for external antenna when mounted with a view of the sky	✓	✓	Includes external antenna	Has internal and includes external antenna
Bi-directional NMEA 0183 to WiFi gateway	X	✓	✓	X
Bi-directional NMEA 2000 to WiFi gateway	X	✓	✓	X
Bi-directional NMEA 2000 to NMEA 0183 and USB gateway	X	✓	✓	✓



## Universal Compatibility

**Fully compatible** with all AIS capable MFDs and plotters.

**No MFD upgrade required** if the MFD is not AIS capable. Use a dedicated self-contained display or tablet via WiFi.

**Use a tablet** with a wide variety of apps to view navigation and instrument data from your NMEA network.



## Easy Installations

**Simple configuration** – designed for fast and efficient install.

**No PC needed** – use the WatchMate App via WiFi (Vision<sup>2</sup> and XB-8000) or the on-screen interface (Vision<sup>2</sup> and 850) to setup.

**Robust & safe** – waterproof (IPx7) with fully isolated interfaces.



## Leading Support

**Diagnostics via your phone** – use a smart-phone or tablet via WiFi for diagnostics and troubleshooting.

**Antenna troubleshooting** – tools for identifying difficult to find antenna problems.

**AIS expertise** – nobody knows AIS like Vesper Marine. Customers rate Vesper Marine technical support as the best in the world.






	WatchMate 850 TRANSPONDER	WatchMate Vision <sup>2</sup> TRANSPONDER	WatchMate XB-8000 TRANSPONDER	WatchMate XB-6000 TRANSPONDER
Ability to connect to computers via waterproof USB	✓	✓	✓	✓
Galvanic isolated USB protects computer and AIS from damage	✓	✓	✓	✓
Waterproof, can be externally mounted	✓	✓	✓	✓
Full receive of all Class A and B AIS data and transmission of Class B AIS data	✓	✓	✓	✓
Internal high-performance parallel two channel AIS receiver and transmitter	✓	✓	✓	✓
Self diagnosis to provide warnings if AIS, GPS or antenna are not functioning	✓	✓	✓	✓
Transponder can be put into Silent Mode (receive only)	✓	✓	✓	✓
Fully certified NMEA 2000	✗	✓	✓	✓
Customize and filter targets when operating in busy areas	✓	✓	✗	✗
Computes & prioritizes targets by CPA, TCPA, bearing, range etc	✓	✓	Using our free iOS and Android apps	Using chart plotters, MFD's and computer software
Shows your own GPS position, course, speed and heading	✓	✓	Provides GPS info to all connected devices	Provides GPS info to all connected devices
Graphically depicts future crossing situations	✓	✓	Using our free iOS and Android apps	N/A
Heading-up/North-up display	✓	✓	Using our free iOS and Android apps	Using chart plotters, MFD's and computer software
Displays magnetic bearings and Aids to navigation marks	✓	✓	Using our free iOS and Android apps	Using chart plotters, MFD's and computer software
Identify friends or vessels in your fleet with a special icon	✓	✓	✗	✗
VHF radio DSC calling by selecting a target on the screen (requires compatible VHF radio)	✓	✓	✗	✗
Unique VHF 'in use' indicator (when used with Vesper Marine VHF/AIS splitter)	✓	✓	N/A	N/A
Display worldwide coastlines	✗	✓	N/A	N/A
High resolution color capacitive touchscreen	✗	✓	N/A	N/A
Viewable screen in daylight & wearing polarized sunglasses	✓	✓	N/A	N/A
Includes mounting bracket or can be installed flush in a pane	✓	✓	N/A	N/A
Super low power consumption	Excellent, 3W	Good, 6W	V Good, 4W	Excellent, 2.5W



# SHARED AIS/VHF ANTENNA

VA159 HIGH PERFORMANCE AIS AND VHF ANTENNA

## SHARED AIS/VHF ANTENNA

The VA159 is a shared AIS/VHF antenna, specially designed by Vesper Marine for both AIS and VHF. In the past, one had to choose an AIS-tuned antenna that was optimized for AIS frequencies but had lower performance for VHF radio, or choose an antenna that was designed for VHF radio communications but not optimal for AIS.

This shared antenna, used along with the SP160 antenna splitter, has two key features that solve this dilemma:

- Wide bandwidth of 6 MHz means it will cover 3 MHz above and below the center point
- 159 MHz center frequency gives excellent performance for both VHF radio (156 MHz) and AIS (162 MHz)

The result is an antenna with superior performance over other designs. It has less than 1.5:1 VSWR at 156 MHz all the way up to 162 MHz. With other VHF or AIS antennas you get low VSWR only at one end of the frequency band, not both.

## FEATURES

- Specially designed 1.0m (3ft) 316 stainless steel antenna
- Replaceable stainless steel whip if it gets lost or damaged
- Designed and optimized specifically for sharing between VHF radio and AIS transponder
- Includes SO239 socket and 316 stainless steel mounting bracket
- Perfect for masthead or installations where the L-bracket is used
- Detachable cable allows for any length to be used.



## CONNECTION WITH SP160 SPLITTER



## TECHNICAL DATA

SIZE	1.0m
FREQUENCY	156 -162 MHz
HOUSING	ABS
WHIP	Stainless Steel
ANTENNA TYPE	Half Wave
GAIN	3dBi
VSWR 156-162 MHz	<1.5:1
DC METER READING	Open Circuit

**ALWAYS  
ON**

**ALWAYS  
VISIBLE**

**ALWAYS  
WATCHING**

# DEDICATED AIS ANTENNA

VA162 HIGH PERFORMANCE AIS ANTENNA



## DEDICATED AIS ANTENNA

This dedicated AIS antenna is specially tuned to work at the higher frequency required for maximum performance of AIS systems. It is perfect for installations where the lowest possible windage is a requirement. Although termed a 'masthead' antenna, it is also suitable for mounting anywhere with the L-bracket. Mounting locations include along solar panels, bimini sides, on an arch, above a radar or at the upper edge of a cabin top.

## FEATURES

- Specially designed 1.0m (3ft) 316 stainless steel antenna
- Replaceable stainless steel whip if it gets lost or damaged
- Designed and optimized specifically for AIS
- Includes SO239 socket and 316 stainless steel mounting bracket
- Perfect for masthead or installations where the L-bracket is used
- Easily adapted to any installation configuration
- Detachable cable allows for any length to be used
- Robust mechanical design for performance in all weather conditions

## INSTALLED LOCATION



## TECHNICAL DATA

SIZE	1.0m
FREQUENCY	161-163 MHz
HOUSING	ABS
WHIP	Stainless Steel
ANTENNA TYPE	Half Wave
GAIN	3dBi
VSWR at 162 MHz	1.2:1
DC METER READING	Open Circuit



**ALWAYS  
ON**

**ALWAYS  
VISIBLE**

**ALWAYS  
WATCHING**

# AIS VHF SPLITTER

HIGH PERFORMANCE SPLITTER FOR AIS, VHF AND AM/FM

## A SPLITTER WITH GAIN, NOT LOSS

A built-in low noise amplifier makes the Vesper Marine antenna splitter uniquely able to improve AIS reception and range by providing signal gain.

Unlike other splitters, there is now no need to compromise on performance when utilizing the convenience of an existing antenna and cabling to install an AIS receiver or transponder.

Ideal for use with low power AIS man overboard devices.














## TECHNICAL DATA

RF PERFORMANCE	Frequency Range 156MHz to 163MHz
OPERATING TEMPERATURE	-25°C to +55°C (-13°F to 131°F)
OVERALL SIZE (INCL CONNECTORS)	135mm Long x 107 Wide x 56 Deep (5 5/16" x 4 13/64" x 2 13/64")
VHF / AIS CONNECTORS	S0239 (requires PL259 plug)
AM / FM CONNECTORS	BNC, optional cable available BNC to Motorola plug
POWER SUPPLY	10 - 32 VDC, <0.8W nominal
AIS RECEIVE GAIN	12dB
INSERTION LOSS	VHF RX <1.5dB / VHF TX <1dB / AIS TX <1dB
AIS SENSITIVITY, WITH VESPER MARINE TRANSPONDERS	-119 dBm, 6dB improvement


## ENSURING OPTIMAL PERFORMANCE

- Provides amplification to the AIS signal resulting in much higher AIS sensitivity, improving AIS receive range
- 4 convenient status LED's (power, VHF transmit, AIS transmit, antenna quality)
- VHF Fail-safe. VHF radio always has priority and can always transmit even if the power to the splitter fails
- The unique antenna quality LED indicates a problem with the antenna, cable or installation
- Waterproof, high quality durable construction made specifically for marine use
- VHF-in-use indicator appears on the screen of the WatchMate 850 and WatchMate Vision<sup>2</sup> whenever the VHF radio is being used. This indicates when AIS traffic is delayed due to antenna use by the VHF radio
- Provides AM/FM radio connection. An optional cable with a standard "Motorola plug" is available to make installation easy. Plugs directly into almost all automotive or marine head units
- No adapters or special patch cords needed for VHF and AIS. Uses standard PL-259 patch cables (Two 2m - 6.5' patch cables included)
- 12/24 volts with very low power consumption

## CORE PRODUCT RANGE

<b>Vision<sup>2</sup> smartAIS</b>		<b>WatchMate Vision<sup>2</sup></b> color touchscreen class B AIS with NMEA 2000, USB, WiFi and built-in GPS antenna. <a href="http://www.vespermarine.com/watchmate-vision2.html">www.vespermarine.com/watchmate-vision2.html</a>
<b>XB-8000 smartAIS</b>		<b>WatchMate XB-8000</b> class B AIS with NMEA 2000, USB, WiFi and built-in GPS antenna. (incl. external GPS antenna) <a href="http://www.vespermarine.com/xb8000-ais-transponder.html">www.vespermarine.com/xb8000-ais-transponder.html</a>
<b>XB-6000</b>		<b>WatchMate XB-6000</b> class B AIS with NMEA 2000 gateway and built-in GPS antenna. (incl. external GPS antenna) <a href="http://www.vespermarine.com/xb6000-ais-transponder.html">www.vespermarine.com/xb6000-ais-transponder.html</a>
<b>WMX850</b>		<b>WatchMate 850</b> Greyscale class B AIS with USB and built-in GPS antenna. Ultra low power consumption, easy to use. <a href="http://www.vespermarine.com/ais-watchmate-tx.html">www.vespermarine.com/ais-watchmate-tx.html</a>
<b>SP160</b>		<b>AIS / VHF / FM Splitter</b> – unique ultra low loss design with 12dB AIS amplifier gain and antenna VSWR indicator. <a href="http://www.vespermarine.com/antenna-splitter-sp160.html">www.vespermarine.com/antenna-splitter-sp160.html</a>
<b>VA159</b>		<b>Shared VHF / AIS Antenna</b> specially designed for for both AIS and VHF when used with the SP160 Splitter. <a href="http://www.vespermarine.com/shared-ais-antenna.htm">www.vespermarine.com/shared-ais-antenna.htm</a>
<b>VA162</b>		<b>Dedicated AIS Antenna</b> – ideal for mast head or L-bracket mounting. Stainless steel. Optimized for AIS. <a href="http://www.vespermarine.com/masthead-ais-antenna.html">www.vespermarine.com/masthead-ais-antenna.html</a>
<b>GPA901</b> For Vision <sup>2</sup> only		<b>External GPS Antenna</b> for WatchMate Vision <sup>2</sup> . Used when Vision <sup>2</sup> is mounted without view of the sky. <a href="http://www.vespermarine.com/external-gps-antenna-vision.html">www.vespermarine.com/external-gps-antenna-vision.html</a>
<b>GPA861</b> For 860 only		<b>External GPS Antenna</b> for WatchMate 850. Used when WMX850 is mounted without view of the sky. <a href="http://www.vespermarine.com/external-gps-antenna.html">www.vespermarine.com/external-gps-antenna.html</a>
<b>039914</b> For XB-8000/ XB-6000/ Vision <sup>2</sup> only		<b>External GPS 10m Antenna Extension Cable Kit</b> Extends the 10m (33ft) cable that is included with all GPS antennas by an additional 10m. <a href="http://www.vespermarine.com/gps-antenna-cable-extension-kit.html">www.vespermarine.com/gps-antenna-cable-extension-kit.html</a>
<b>041005</b>		<b>External Alarm</b> for WatchMate 850 and Vision <sup>2</sup> Very loud with adjustable volume vane. Pulsed or continuous tone. Included with XB-8000. <a href="http://www.vespermarine.com/external-buzzer-alarm.html">www.vespermarine.com/external-buzzer-alarm.html</a>
<b>039307</b>		<b>Waterproof Locking USB Cable</b> (5m /16ft). Used with all transponders. It will not fall out of the transponder due to locking ring. Rated IPx7 (at transponder end). <a href="http://www.vespermarine.com/waterproof-usb-cable.html">www.vespermarine.com/waterproof-usb-cable.html</a>
<b>039425</b>		<b>PL259 Patch Cable for SP160</b> (2m /6½ft). Used between the splitter and VHF radio or between the splitter and AIS transponder. Two are included with SP160 Splitter. <a href="http://www.vespermarine.com/splitter-patch-cable.html">www.vespermarine.com/splitter-patch-cable.html</a>
<b>039310</b>		<b>AM/FM Cable for SP160</b> allows marine stereo to also share the same antenna as AIS and VHF <a href="http://www.vespermarine.com/am-fm-patch-cable.html">www.vespermarine.com/am-fm-patch-cable.html</a>

Specialized AIS antennas, mounts and accessories are also available. Contact your Vesper Marine dealer for further details.



## INNOVATIVE APPLICATIONS OF AIS TECHNOLOGY - VOLVO OCEAN RACE

Volvo Ocean Race employs Vesper Marine AIS technology to make races safer. Vesper Marine's Virtual AIS system is used to mark the course perimeter in In-Port Races held at host cities across the globe.

Volvo Ocean Race, one of sailing's biggest events and the ultimate human adventure, has selected Vesper Marine's AIS system for the In-Port Races of the Volvo Ocean Race.

Vesper Marine's Virtual AIS system is used to mark the course perimeter for In-Port races. Establishing a virtual perimeter around the course, the Virtual AIS stations broadcast information to spectator and race official boats using AIS frequencies – painting the course on their navigation systems. As a result, spectator and official vessels can quickly and easily see their own positions relative to the course boundaries on their navigation displays, to ensure they are safely outside the course at all times.

Competitors in the Volvo Ocean Race travel 45,000 nautical miles around the world, touching six continents and stopping in 12 landmark cities. The In-Port Races are short, action-packed events used as tie-breakers in the final points tally. Scheduled in

the Host Cities, they are a huge spectator draw, from sailing enthusiasts to the local population – as each of the Host Cities has a rich sailing tradition.

The virtual marks can be configured remotely to change with conditions and can also be easily moved to each host city using the same hardware and cloud based software.

Vesper Marine is proud to be associated with the Volvo Ocean Race.

**vesper**  
**smartAIS**<sup>®</sup>  
OFFICIAL SUPPLIER

**VOLVO**  
**OCEAN**  
**RACE**  
●●●●●●  
ROUND THE WORLD



**“We are always on the lookout for innovative solutions to make our race safer and more efficient.**

**This exciting new partnership established with Vesper Marine will allow fans around the world to enjoy the In-Port Races from one of the best spectator seats in the house – on the water.”**

**GONZALO INFANTE  
RACE CONTROL MANAGER  
VOLVO OCEAN RACE**



**Making races safer - 2013 and 2017 America's Cup**

vesper

ALWAYS  
ON  
ALWAYS  
VISIBLE  
ALWAYS  
WATCHING



vesper  
smartAIS®

OFFICIAL SUPPLIER

VOLVO  
OCEAN  
RACE

ROUND THE WORLD



**THIS IS A FANTASTIC PIECE OF KIT. THE MENUS ARE SIMPLE AND EASY TO USE. EVEN WHILE IN A HEAVY SEAWAY, IT'S INCREDIBLY SMART ABOUT CONSERVING POWER AND BEST OF ALL IT HAS THE SMARTEST ALARMS I'VE EVER SEEN ON AN AIS DEVICE.**

*Daniel Collins, USA*

**THE WATCHMATE VISION IS A TRULY MAGNIFICENT INSTRUMENT WITH INTELLIGENT IN-BUILT SOFTWARE. ONE MAY COMPARE ITS FEATURES TO SOME SORT OF 'ABS FOR A CAR'. NOTHING LESS! IT PROVED TO BE A TRUE 'ANTI-COLLISION' DEVICE. I CONSIDER MYSELF A HAPPY OWNER AND FOR THE RECORD, I HAVE NEVER GIVEN SUCH FEEDBACK TO ANYONE YET.**

*Arie Vermeiden, France*

vesper

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