



MARITIME
SYSTEMS

SHOCKWAVE

MARINE SUSPENSION SEATING

SHOCKWAVE WE'VE GOT YOUR BACK

VIMS

VESSEL IMPACT AND MOTION MONITORING SYSTEM



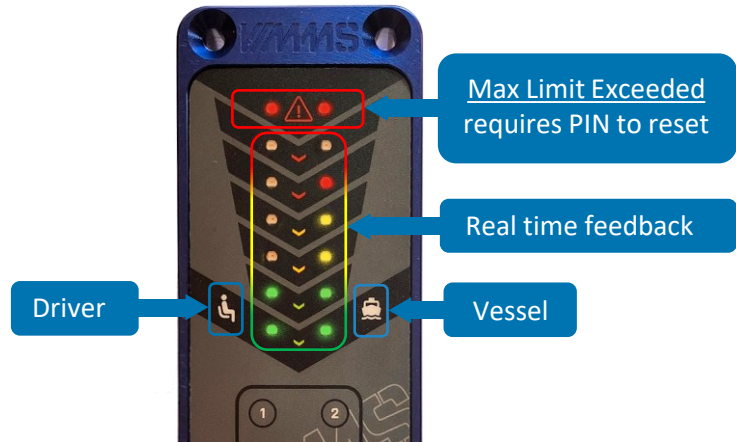
The Vessel Impact and Motion Monitoring System (VIMMS) is designed as a direct response to the maritime industry's requirement to monitor crew and vessel levels of shock and vibration during operations.

A complete vessel and crew health monitoring solution designed to aid operators and program managers in monitoring, managing and extending the health and well-being of both personnel and maritime assets. VIMMS is configured to support acceleration exposures to critical components and crew.



In partnership with





- ◆ Measures accelerations on vessel and crew with real time display of shock and vibrations.
- ◆ Feedback for driver to alter course or slow down to reduce WBV exposure to crew and passengers.
- ◆ Visual warning if threshold exceeded, requires supervisor PIN code to reset.
- ◆ Monitor crew wellbeing and review daily operations in the VIMMS Data Management Console.

SIMPLE IMPLEMENTATION

1

Fit IP67 VIMMS unit near helm position.
Fit sensors to deck and driver's seat.
VIMMS unit operates when boat is in use.

2

Feedback from Green - Amber - Red LEDs
Driver alerted to slow down or alter course.
Reduce the effects of Whole Body Vibration.

3

Raw data is filtered and automatically processed.
Data is presented on an intuitive Dashboard.
Data can be reviewed by either vessel, crew member or date.

4

Data can be selected and used as required.
Protocols include Impact Count, RMS and VDV.
Use to improve operations or for training.

CASE STUDIES

Safari Trip Injury

Following an accident by passenger with an undisclosed health issue, Torquay Watersports used data from VIMMS to prove to the authorities that the injury was not caused by the skippers actions.



©Torquay Watersports

US Coastguard

VIMMS is fitted as standard on the next generation of the US Coast Guard's Over The Horizon (OTH V) cutter boats. With 200 boats in production, these are the Coast Guard's first boats with a shock monitoring system.



©Inventech Marine Solutions



VVMS WBV

WHOLE BODY VIBRATION EXPOSURE MONITORING



Protect Your Crew – And Your Business

Merchant Shipping and Fishing Vessels (Control of Vibration at Work) Regulations 2007

Employers are legally required to assess and manage the whole-body vibration (WBV) exposure.

The regulations define two key thresholds:

- **Exposure Action Value:** The level at which employers must take action to reduce vibration exposure through practical and technical measures.
- **Exposure Limit Value:** The maximum allowable daily exposure that must not be exceeded under any circumstances.

Failure to comply with these legal duties can expose employers to significant risks, including:

- Legal action, enforcement notices, and potential prosecution
- Increased insurance premiums and civil liability claims
- Crew illness or injury, leading to lost productivity and reputational damage

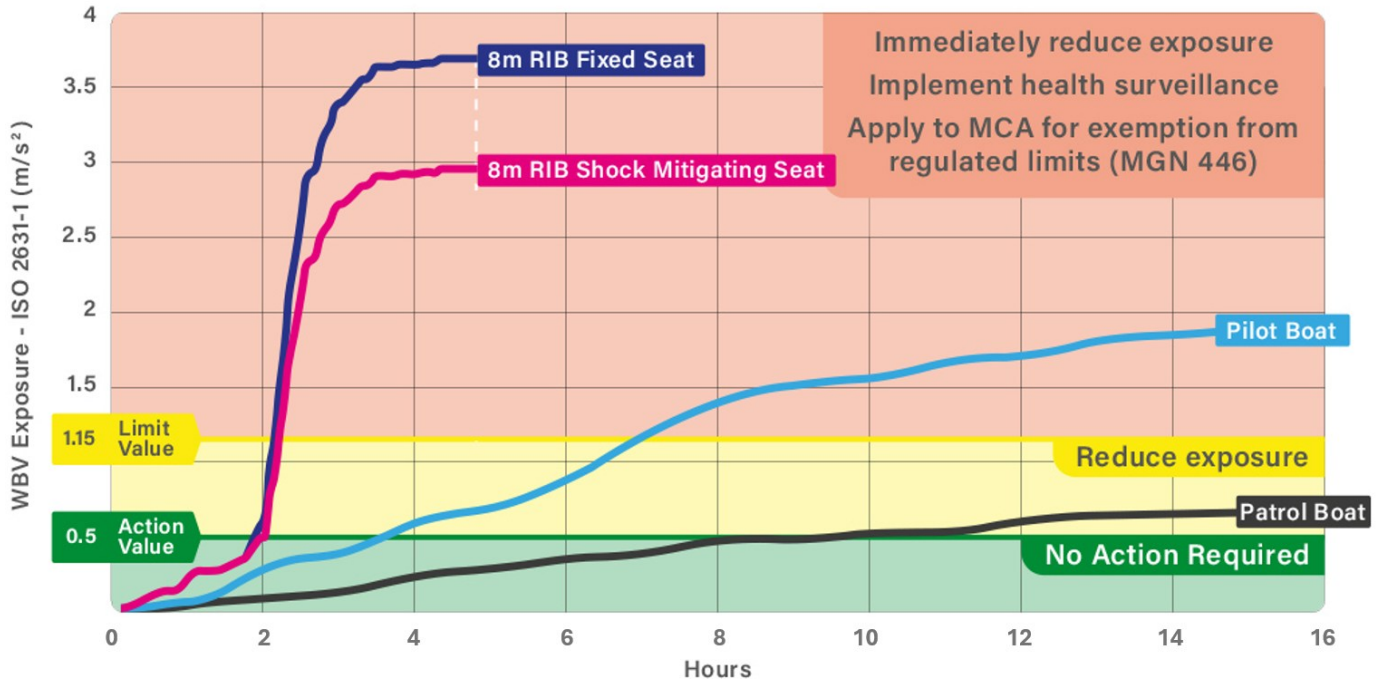
Employers must conduct regular risk assessments, implement control measures, provide crew training, and keep accurate records of vibration exposure.

Don't take the risk—ensure compliance to protect your crew, your vessel and your business.

Regulations call for monitoring of Whole Body Vibration to ensure that operators are working to best practice.



Results from Vessel Trials Demonstrating WBV Exposure During Daily Operations



If WBV exposure is above the action value, operators must take action.

VIMMS WBV monitors the Whole Body Vibration exposure of all employees, ensuring the operator meets their legal requirements and protects crew and assets from future risks.



- ◆ Individual ID cards wirelessly track crew
- ◆ Monitor individual Whole Body Vibration exposure across all boats
- ◆ Prevent chronic injury with preventative reaction to data
- ◆ Retrofittable to existing seats
- ◆ Seat displacement sensor to ensure correct setup for occupant weight



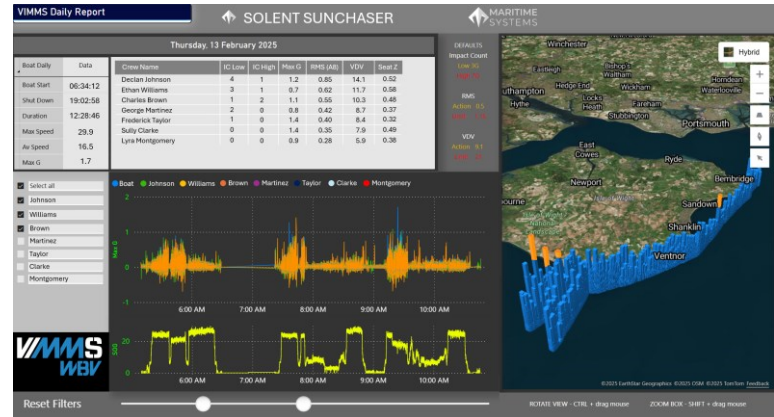
VMS PRO

DATA MANAGEMENT CONSOLE

Data is accessed through the VIMMS PRO console providing detailed information on daily operations, and the long term overview of the entire fleet. Key metrics make it simple to maintain operational oversight, maximising productivity and increasing wellbeing of staff.

With managers making data driven decisions and forecasting potential issues, VIMMS PRO increases safety and provides an organisation with a cost effective tool to increase their duty of care and meet regulatory targets.

Incorporating **Microsoft AI** technologies, the VIMMS PRO provides insight on the differences in performance across the fleet and promotes collaborative learning to reduce risk and increase efficiency.



Boat Data

Overview of key metrics

Crew Data

WBV Statistics

Zoom Bar

adjusts graphs and map

Graphs

Maximum G Speed

WBV Limits

Default ISO standards

3D Route

Displaying Maximum G

VIMMS Daily Report

Thursday, 13 February 2025

Boat Daily	Data
Boat Start	06:34:12
Shut Down	19:02:58
Duration	12:28:46
Max Speed	29.9
Av Speed	16.5
Max G	1.7

Crew Name	IC Low	IC High	Max G	RMS (A8)	VDV	Seat Z
Declan Johnson	4	1	1.2	0.85	14	0.52
Ethan Williams	3	1	0.7	0.62	11	0.58
Charles Brown	1	2	1.1	0.55	10	0.48
George Martinez	2	0	0.8	0.42	8	0.37
Frederick Taylor	1	0	1.4	0.40	8	0.32
Sully Clarke	0	0	1.4	0.35	7	0.49
Lyra Montgomery	0	0	0.9	0.28	5	0.38

DEFAULTS

Impact Count

Low 3G

High 7G

RMS

Action 0.5

Limit 1.15

VDV

Action 9.1

Limit 21

- Select all
- Johnson
- Williams
- Brown
- Martinez
- Taylor
- Clarke
- Montgomery

● Boat ● Johnson ● Williams ● Brown ● Martinez ● Taylor ● Clarke ● Montgomery

Reset Filters

ROTATE VIEW - CTRL + drag mouse

ZOOM BOX - SHIFT + drag mouse



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