

HSE CONFERENCE 2026

MARINE SAFETY RISK MANAGEMENT AND ASSURANCE



PRESENTATION OVERVIEW

This presentation will discuss the practical application of meaningful **Marine Safety Risk Management and Assurance** in an operationally mature sector with high standards, where high-potential incidents still occur, focussing on: -

- 500m Zone Operational Risks
- Collision Incidents and Lessons Learned
- Human Factors in Marine Operations
- Strengthening Vessel–Installation Interaction & Assurance
- Revised OEUK Collision Avoidance Guidelines – Practical Application

500m ZONE OPERATIONAL RISKS

- Section 3 of HSWA places a duty on employers to conduct their undertaking in such a way as to ensure, so far as is reasonably practicable, that other persons who may be affected by that undertaking are not exposed to risks to their health and safety.
- For attendant vessels, this means the vessel should be operated in a way that reduces, so far as is reasonably practicable, the risk of collision with an installation.
- HSE's expectation is that potential human failures should be addressed by the risk management systems implemented to meet this duty. Measures should be taken to address the factors that increase the likelihood of human failures (Performance Influencing Factors) and, to detect and correct these before adverse consequences occur.
- This is consistent with the requirements of international maritime conventions – notably SOLAS (Safety of Life at Sea) Convention Chapter V, Regulation 15.

*Risk of collision with offshore installations from attendant vessels
Health and Safety Executive - Safety Notice, ED01-2025, March 2025*

The consequences of a ship/installation collision reaching its full potential... Mumbai High 2005.



INCIDENTS AND LESSONS LEARNED

We have experienced a number of relatively high-profile collision incidents, all in the public domain, which have led us to challenge beyond traditional technical assurance and technical skills across our client base: -

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Owner of ship that crashed into Rough platform hit with improvement notice

July 20th 2023, 7:00 am 3 min read

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Hamish Penman

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Oil rig collision captain was 'emotionally distressed'

10 February 2016



CASE STUDY 1 – NORTH SEA COLLISION 2016

In 2016 a collision incident occurred in the North Sea UKCS as follows: -

- A large modern PSV completed pre-entry checks
- Permission to enter the 500m zone
- The Master had recently received upsetting personal news via email
- Vessel's bow thrusters were deselected by a junior officer
- The Master was unaware of the junior officer deselected the bow thrusters
- The Vessel did not stop at the set-up position
- When alongside the Installation she began to get out of position
- The Master tried to arrest the loss of position but did not have full awareness of the propulsion status
- Heavy contact was made between the vessel and Installation
- Serious damage to the vessel's bridge, monkey island, mast and Installation topsides
- Installation shutdown, down-manned and both vessel and Installation operator served with an Improvement Notice



HUMAN FACTORS IN MARINE OPERATIONS

The collision involving an 'emotionally distressed' Master highlighted the following: -

- The vessel and crew had undergone the highest level of technical assurance
- Their track record was excellent
- Company procedures and checklists were fit for purpose

So why did the incident occur...

- An over-reliance on the vessel to do the right thing and they did not
- Lack of oversight on the part of the offshore installation staff
- Lack of awareness of correct protocols on the part of the Installation staff
- Lack of intervention on the part of the Installation staff

These shortfalls were all addressed and weeks later a vessel was given permission to enter the 500m zone and did so... but was at the wrong Installation!

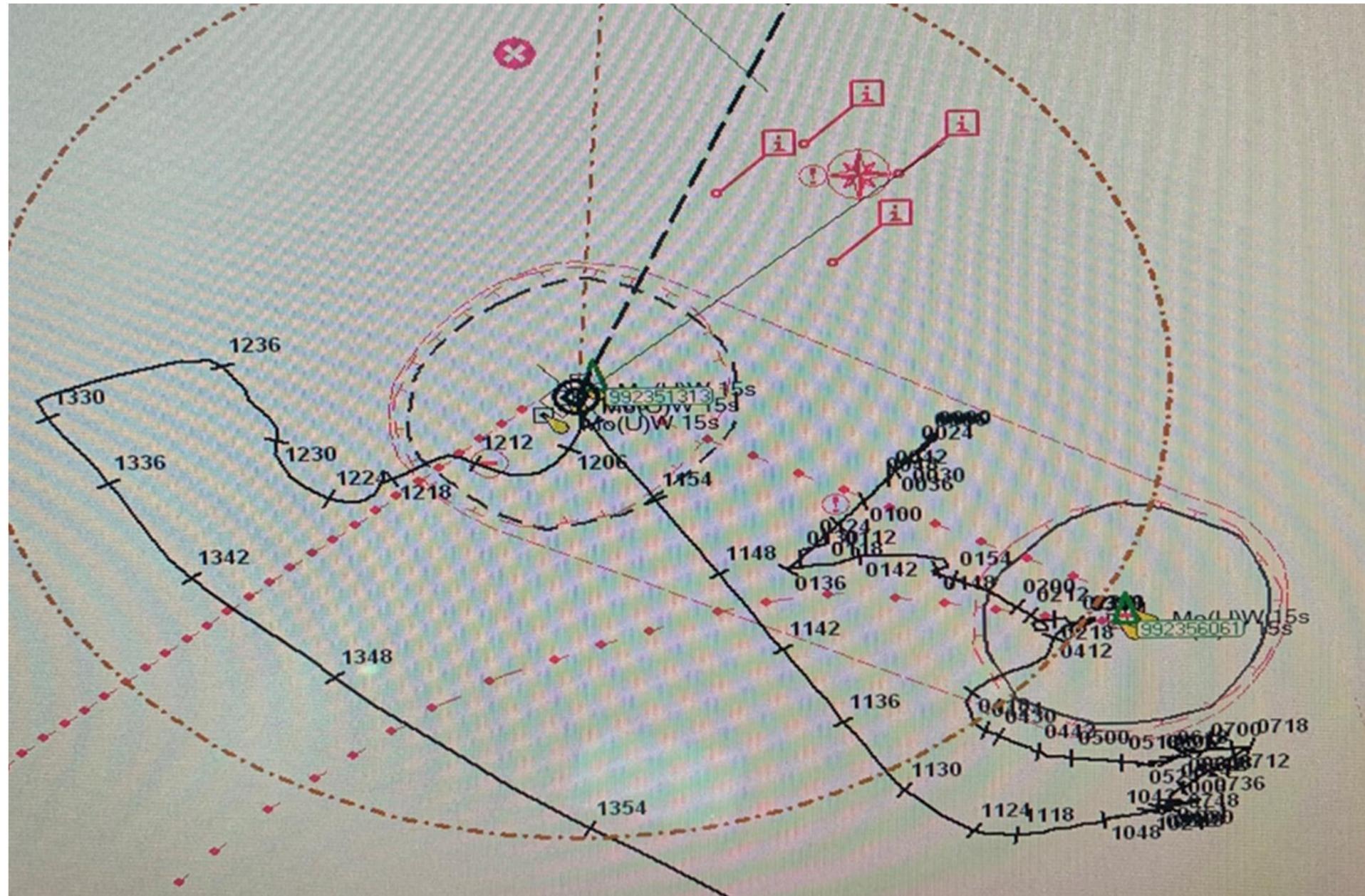
CASE STUDY 2 – NORTH SEA COLLISION 2023

In 2023 a collision incident occurred in the North Sea UKCS as follows: -

- A large modern PSV completed cargo at 1 of 2 Installations just over 1nm apart.
- The vessel was asked to move off and remain in the field.
- The vessel was positioning a 'safe' distance away in 'Green DP' mode (heading controlled but not in a fixed position)
- The Officer On Watch (2nd Mate) was sat at the bridge computer reading emails.
- Environmental conditions / tidal current changed and the vessel began drifting toward the neighbouring Installation over 1nm away.
- The neighbouring Installation was in a blind spot created by the stairs to the monkey island when sat at the bridge computer.
- The vessel eventually collided with the neighbouring Installation 40 minutes later drifting at a speed of 2.2 knots.
- The field ERRV responsible for monitoring all traffic did not intervene at any point.
- The Installation control room was unaware of the vessel's presence until it collided, having silenced nuisance REWS alarms.



CASE STUDY 2 – NORTH SEA COLLISION 2023



HUMAN FACTORS IN MARINE OPERATIONS

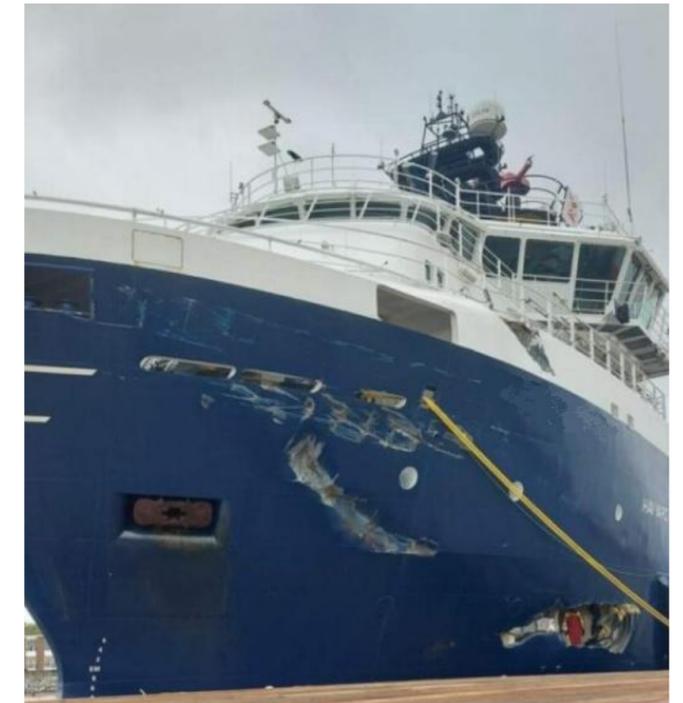
The collision involving a ‘distracted’ watchkeeper highlighted the following: -

- The vessel was fit for purpose and crew were technically competent
- Good awareness of correct protocols on the part of the Installation staff
- Communications and instructions were clear
- The vessel’s whereabouts (not in the 500m Zone) was agreed

So why did the incident occur...

- An over-reliance on the vessel to do the right thing and they did not
- Lack of oversight on the part of the offshore installation staff and support vessels
- Lack of intervention on the part of the Installation staff and support vessels

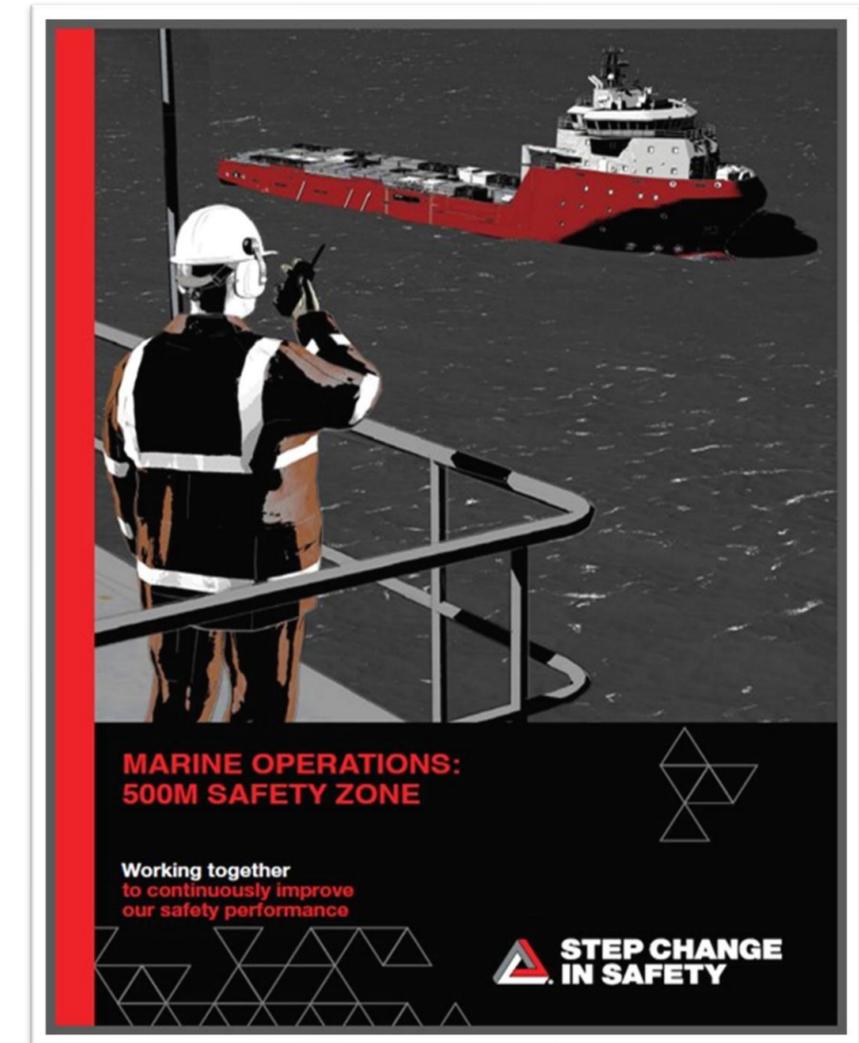
Other safeguards regarding in field collision avoidance monitoring practices were silenced or ignored due to overfamiliarity, complacency, assumptions and nuisance alarms!



STRENGTHENING VESSEL-INSTALLATION INTERACTION, AWARENESS & ASSURANCE

The number of relatively high-profile collision incidents, have led to numerous improvements across the Industry: -

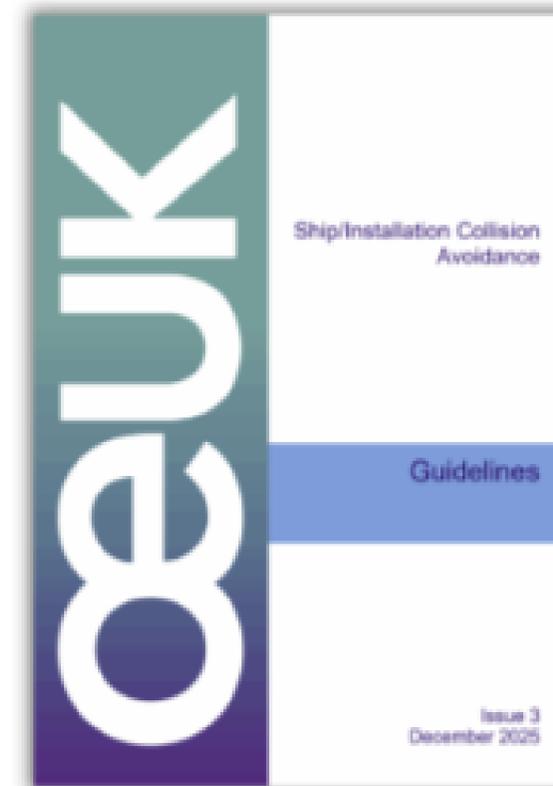
- Guidance on 500m Zone Operations published by SCiS & MSF
- Joined Up Thinking Video produced by SCiS & MSF to raise awareness
- Safe Offshore Marine Operations (SOMO) Training for Offshore Workers (New OPITO standard)
- HSE Safety Alert highlighting:
 - Watchkeepers are being distracted
 - Situational awareness is not being maintained
 - Insufficient communication
- Updated OEUK Ship / Installation Collision Avoidance Guidelines



REVISED OEUK COLLISION AVOIDANCE GUIDELINES

OEUK have recently reviewed and published their Ship / Installation Collision Avoidance Guidelines. The main changes and implications are aligned with the HSE Safety Alert as follows: -

- Simplification of document overall (80+ pages reduced to 30+)
- More structured approach on causes, factors affecting probability and consequences
- Clearer expectations on:
 - Identifying risk and setting performance standards
 - Mitigating strategies and vessel proximity
 - Methods of detection, performance and verification
 - Incident response and reporting
 - Auditing and verification
 - Continuous Improvement
 - Competence
- Focus on the human element



WHAT CAN YOU DO ABOUT IT?

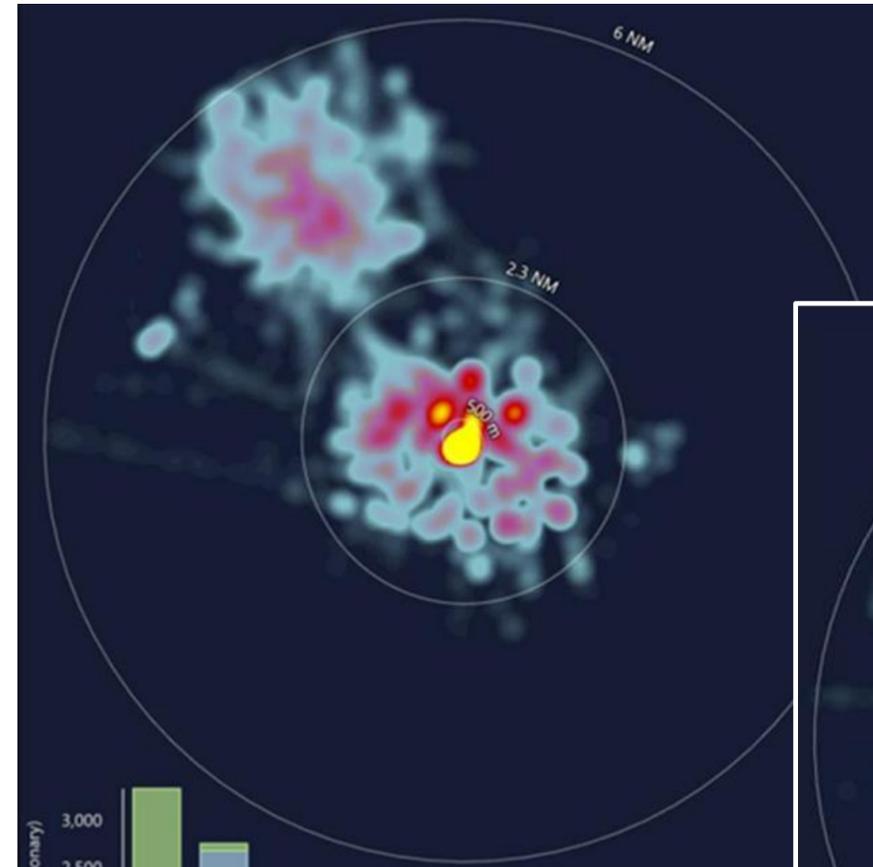
Set obvious boundaries and clear expectations for vessel waiting on instructions.

Engage with vessel crew and installation personnel to raise awareness.

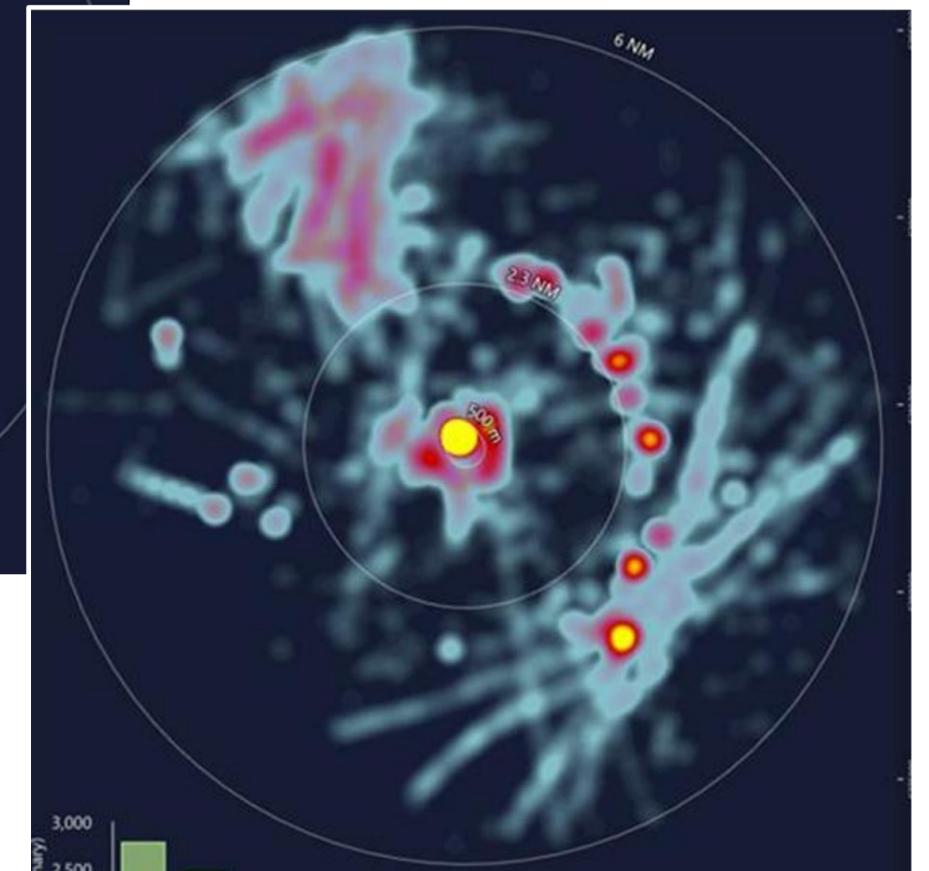
Provide focused training to Installation staff (SOMO) and vessel crews (BRM).

Undertake assurance voyages that focus on human factors and real-world operations.

Audit collision risk management systems with onshore management, offshore personnel, and supporting vessels.



Before



After

WHAT CAN YOU DO ABOUT IT?

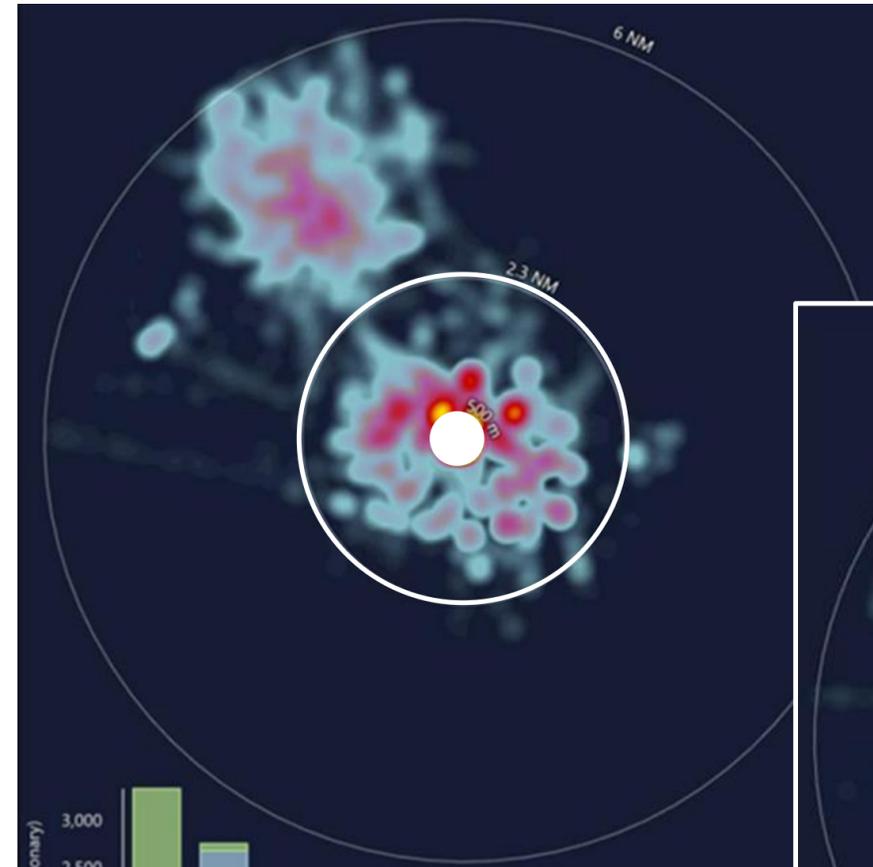
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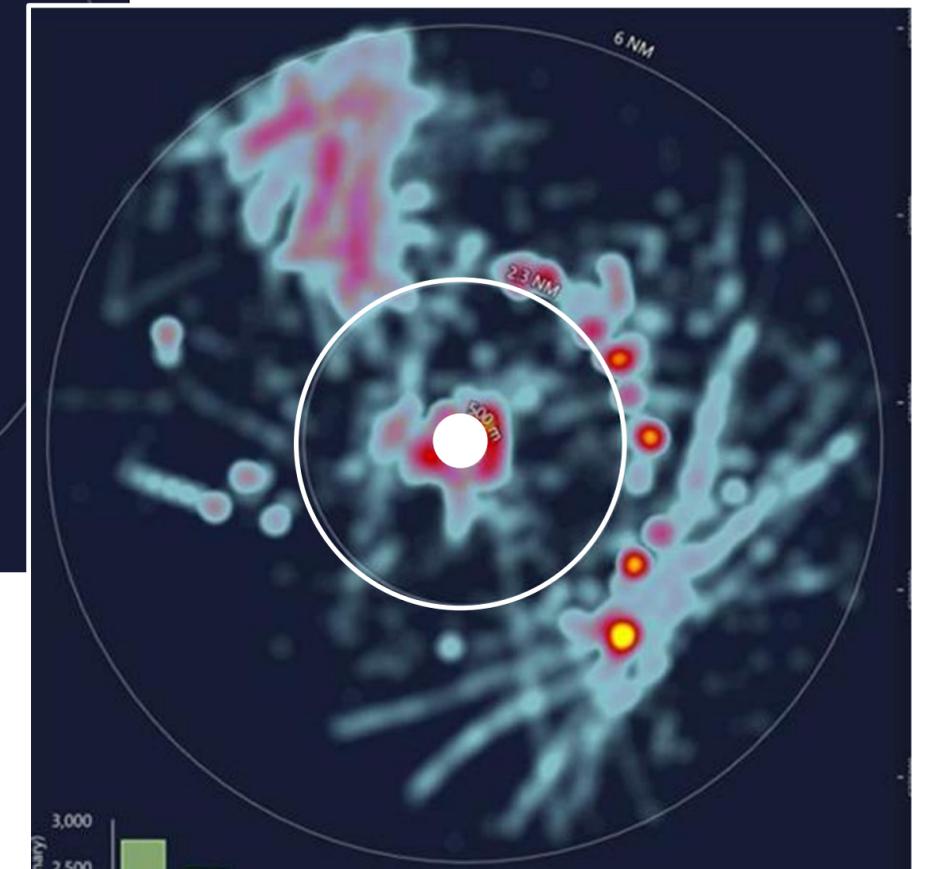
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Before



After

CLOSING REMARKS

Effective risk management and assurance should consider the following: -

- On average, there are 5 collisions a year offshore in the UK
- We all make mistakes
- If in doubt challenge it
- There are no 'new' incidents!



If we do what we've always done, we'll get what we always got.....



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