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Enhance Maritime Safety through technology

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Agenda

- Introduction

- Incident Driven

- A look at the North Sea

- Adding Dimensions – complexity
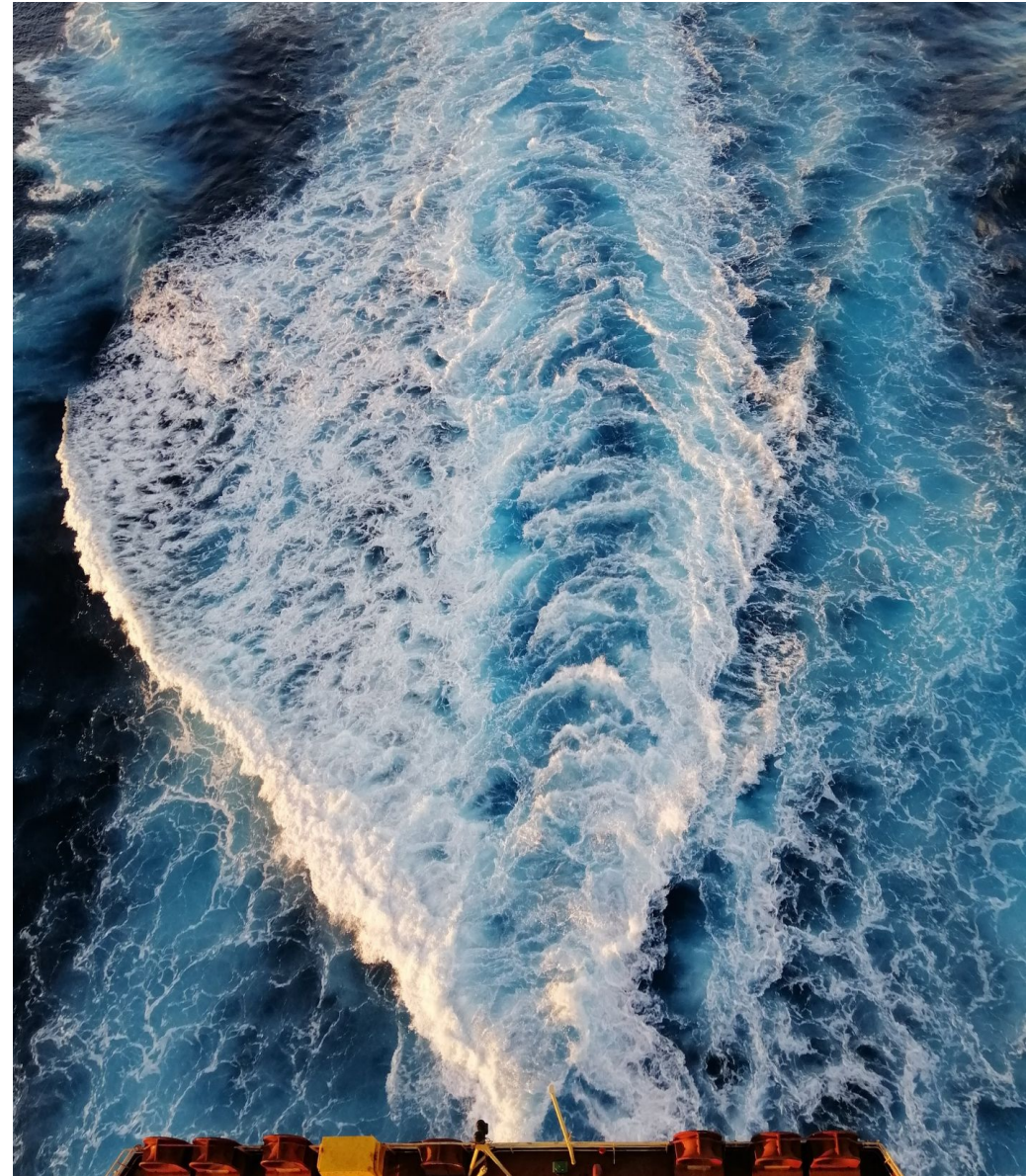
- Multi Dimensional VTS

- Some practical examples

Maritime Safety – Too often incident driven

↗ 1999 ERIKA incident (Britanny), followed by 2002 Prestige accident (Galicia)

↗ Host of EU/other legislation after that to protect coastal waters.

↗ Carriage requirements for AIS for vessels.....

↗ Only in 2008 Coastal AIS network along Dutch Coast operational

Closer Look at North Sea

↗ After the AIS network, we integrated at request of Coastguard all the existing sensors provided by Ports/Coastguard/Off shore Operators – 2 D Information

↗ From 2010 Multi-Lateration (ADS-B transponders) system integrated that provided location of helicopter on protection route's and zones (above 500ft) using off shore sensor network.

↗ Netherlands Coastguard has all the input available in case of emergency.

↗ RWS (Ministry of Infrastructure and Water) in the Netherlands. RWS, an existing Tidalis customer, aims to establish a Digital North Sea concept by integrating Coast Watch, offshore surveillance, and connected ports.
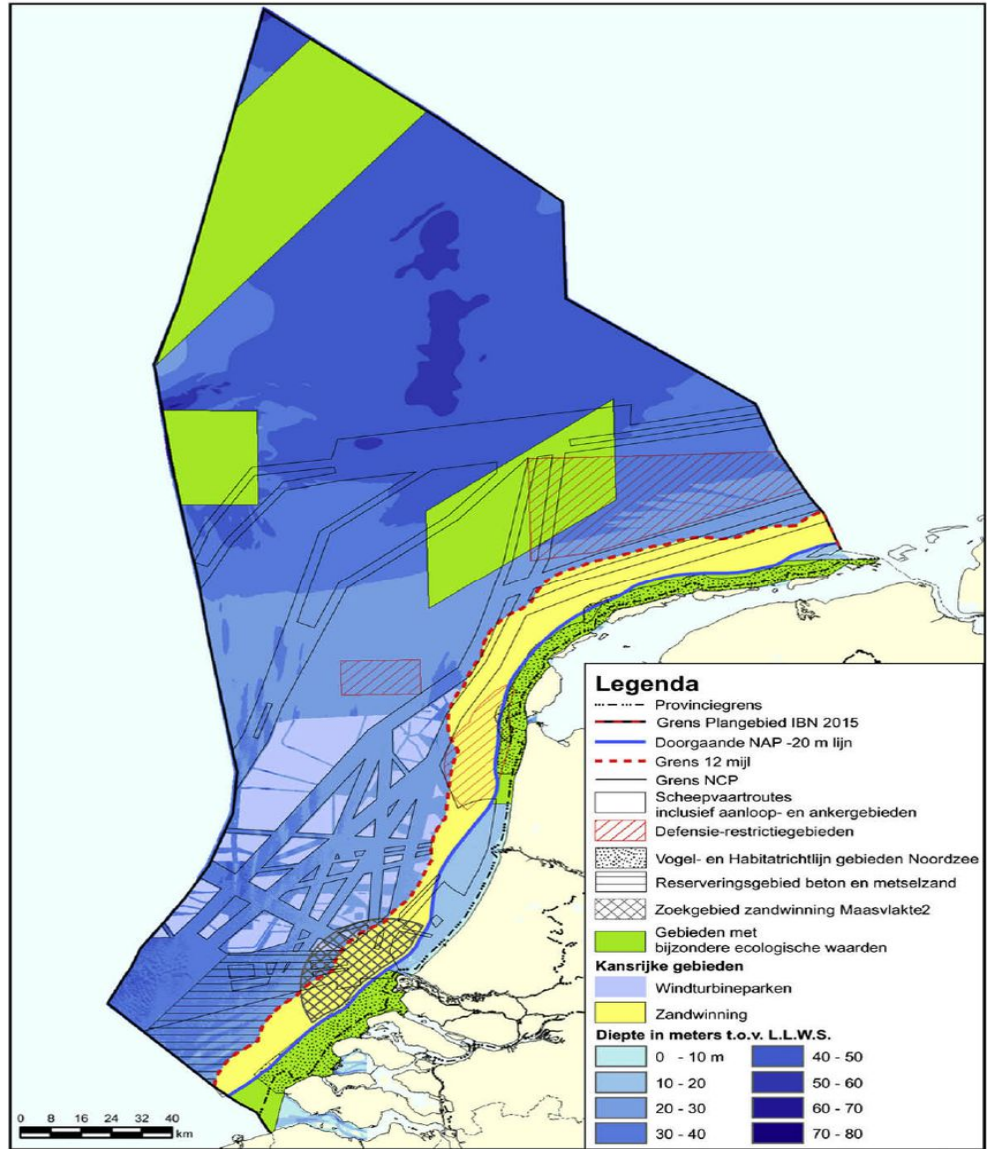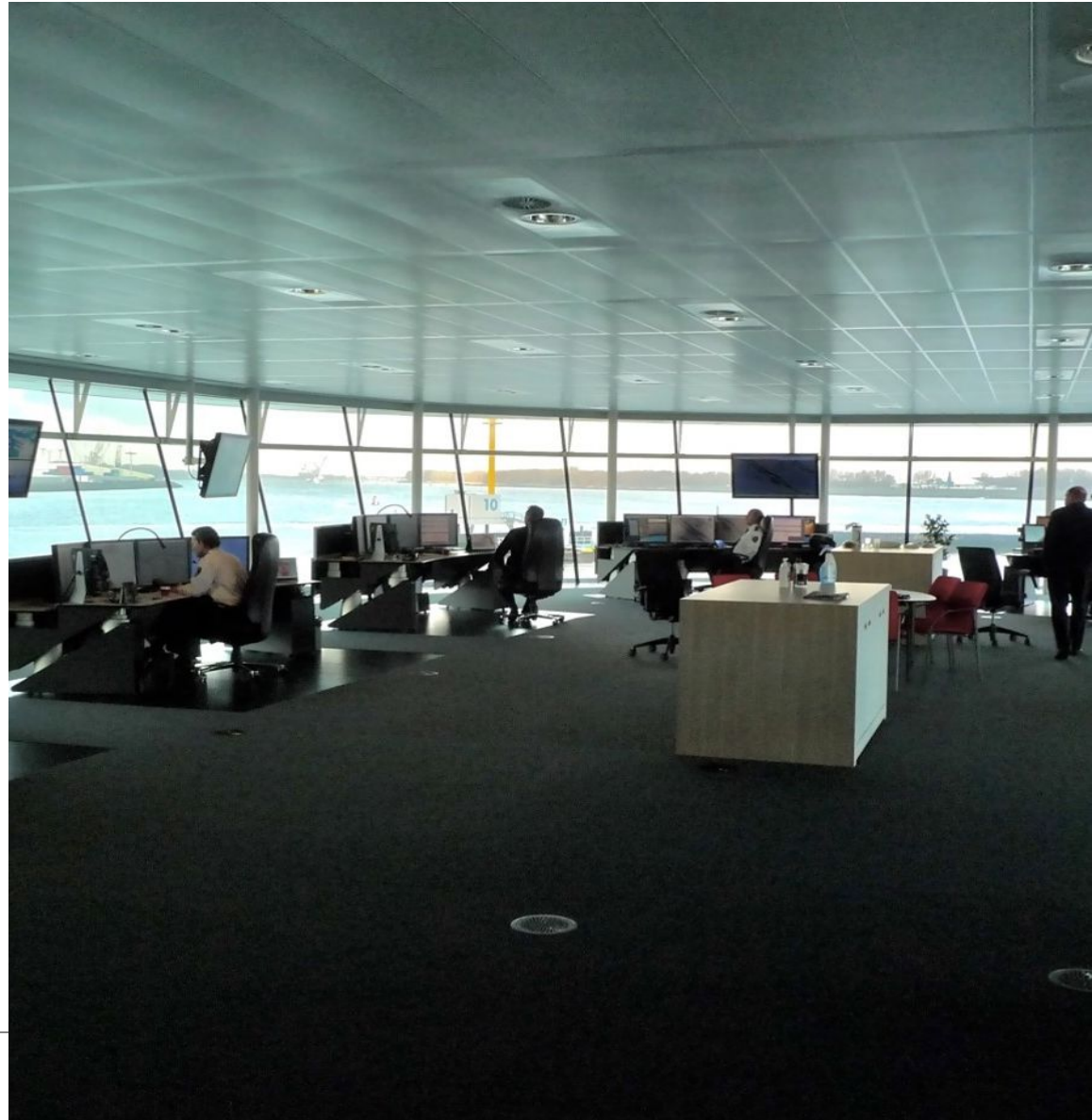

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Adding Dimensions and complexity- safety concerns

↗ Port of Antwerp – First port operating 6 autonomous drones. (Beyond Visual LOS)

↗ Potential topic here in Singapore for the Next Generation VTMS. More complex environment!

↗ Other dimensions can be added in the future like(underwater/MASS)- Assuming cooperative craft use some form of transponder. That is a safety requirement!

↗ Increased information exchange using 5G/SATCOM/AIS 2.0 (VDES) – All helping better JIT

Multi Dimensional VTMS

↗ More optimized arrival planning and route planning (JIT arrival)

↗ Better communication and transparency between stakeholders is a must

↗ Shared Situational Awareness.

↗ Less confusing messages on VHF > Silent VTS

↗ More attention for e-navigation including additional carriage Requirements for vessels? When?

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Some practical examples of increasing safety

As a contribution to the maritime pilot community Tidalis have set up a free-to-use Safety Observation Tool.

Through this web portal, pilots can take note of any issues that they encounter that can affect the safety of the pilot, the ship's crew and the ship itself.

The next pilot can then use this information to his or her advantage to make their job safer. For example reporting a vessel that uses unsafe method of embarkation or equipment

AND BY

Using a life vest with AIS – SART!

Do not forget the basics!

↗ Technology vs. the Human Factor

↗ Incidents usually have a very complex cause –court cases provide good insight!

↗ Look outside! GPS can still be easily disturbed and many systems depend on it

↗ Singapore May 10 2020 - YouTube

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Thank you