

Sensemaking on the bridge

- experiences from the SMACS research project

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Photo: Colourbox

SMACS – Sensemaking in Safety-critical Situations



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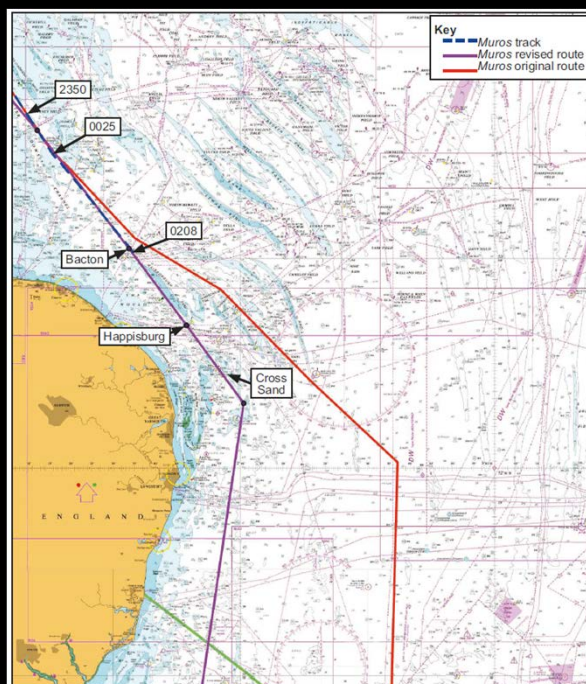
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Muros grounding



Photo: MAIB

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MAIB, 2017

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Image courtesy of Maris/Red Ensign Training/UK Hydrographic Office

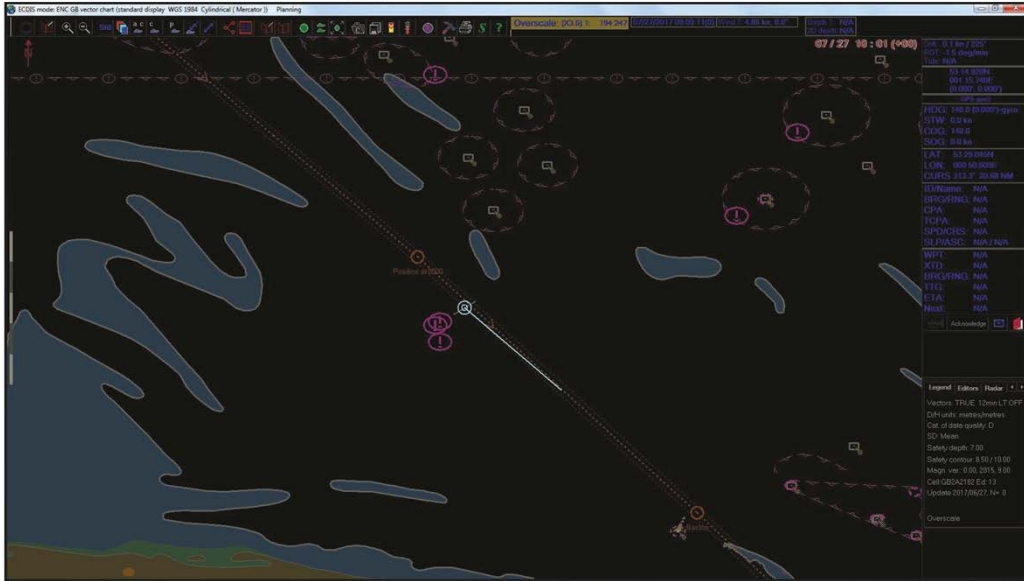


Figure 3: Reconstruction of ECDIS display at 0025

(MAIB, 2017)

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Image courtesy of Maris/Red Ensign Training/UK Hydrographic Office

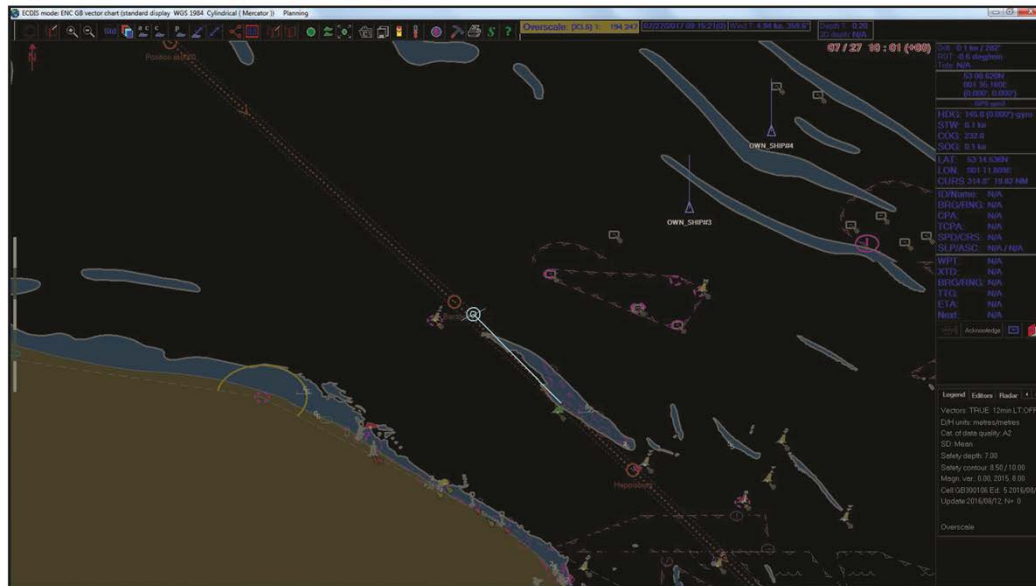
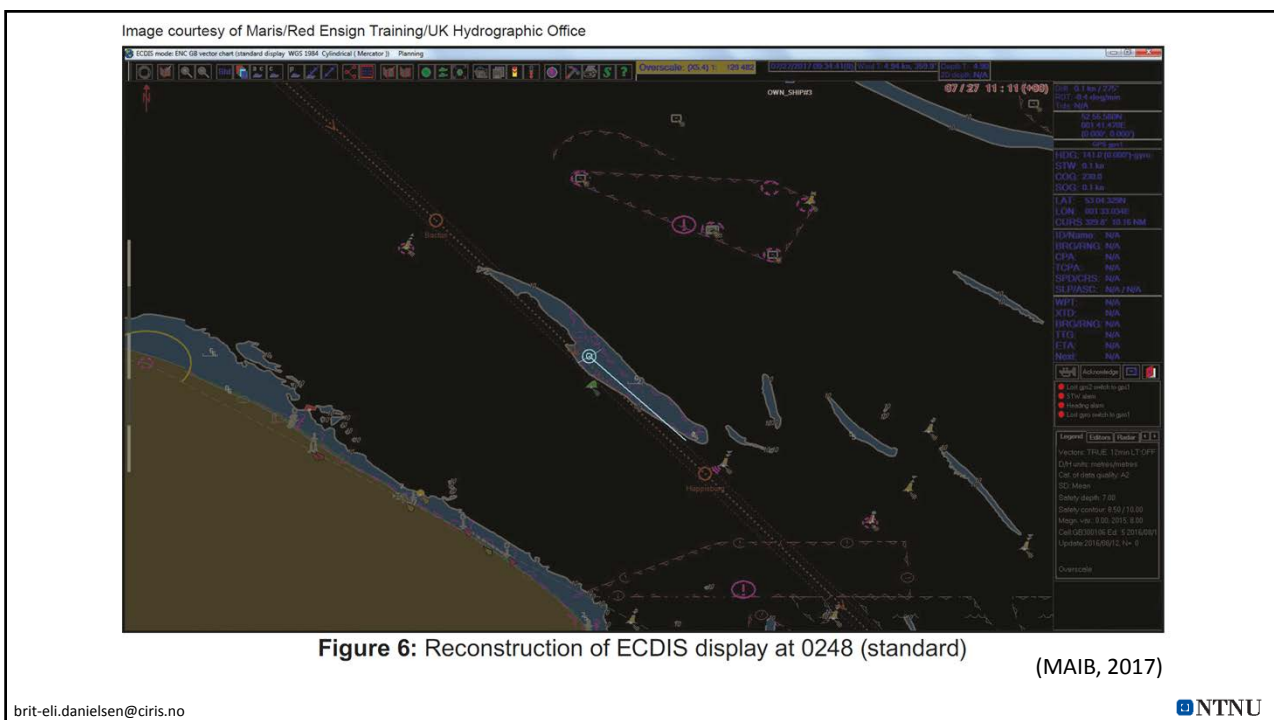
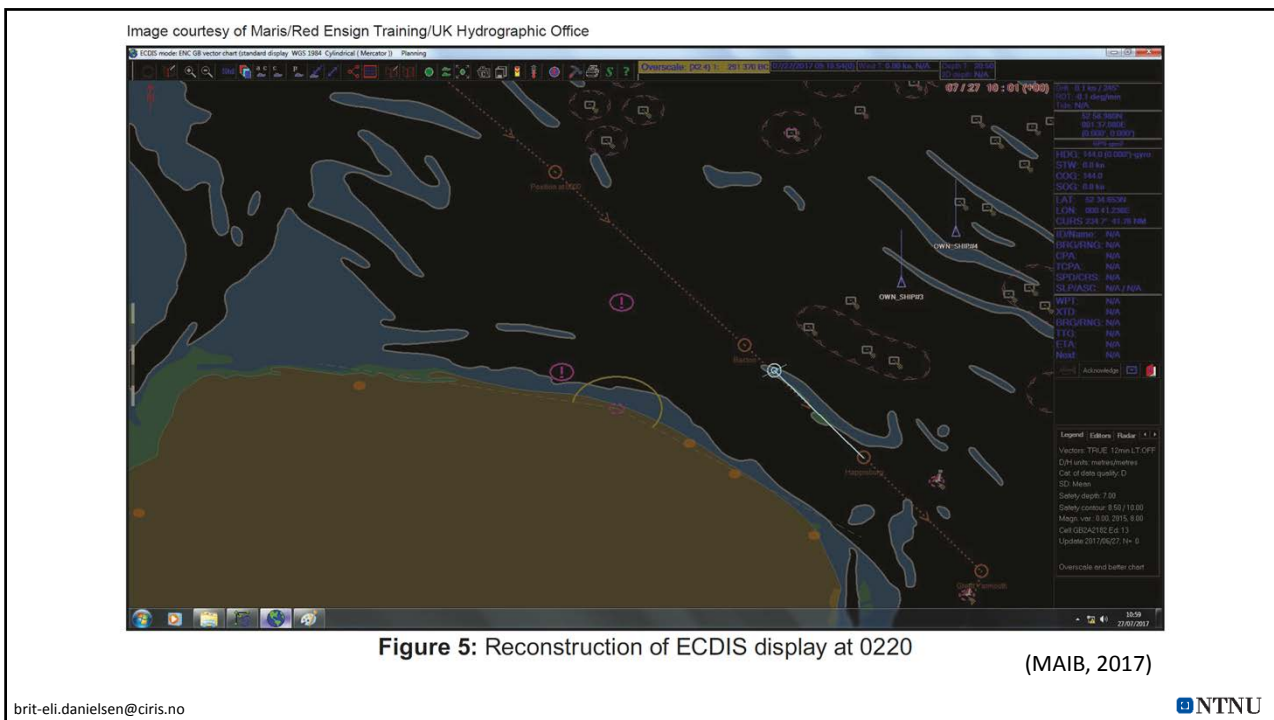


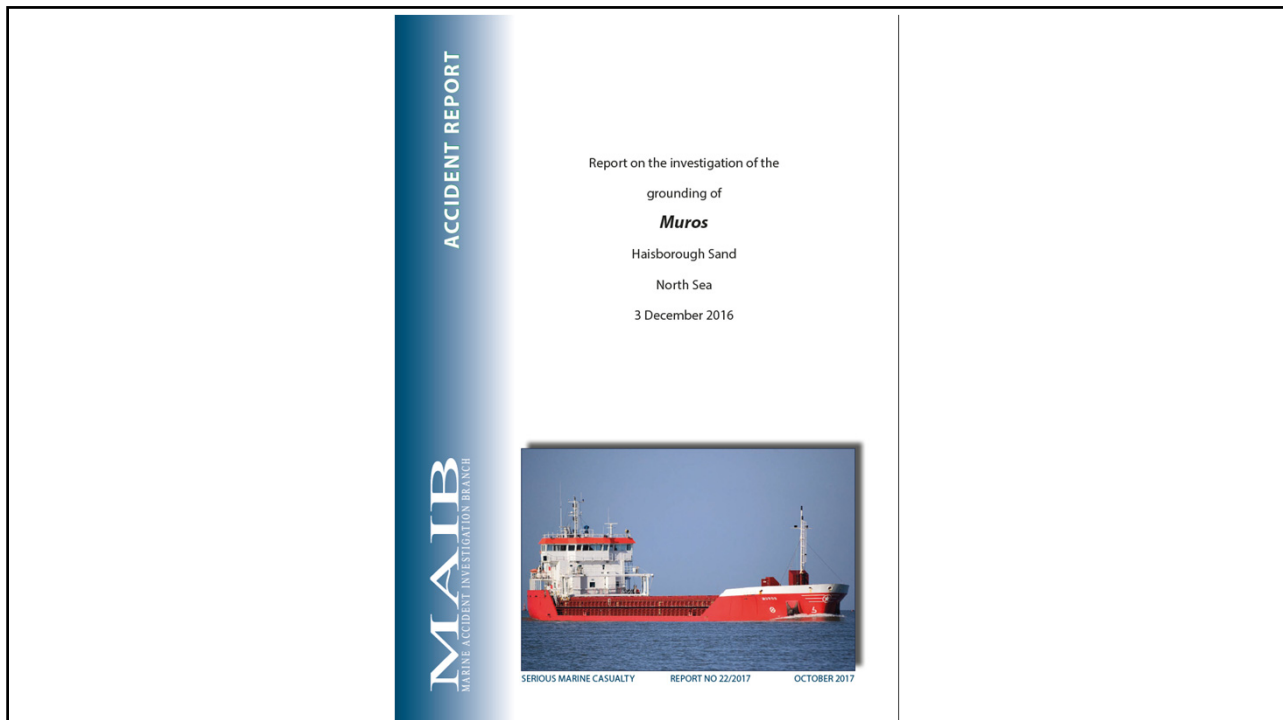
Figure 4: Reconstruction of ECDIS display at 0208

(MAIB, 2017)

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«The ECDIS on board *Muros* had not been used as expected by the regulators or equipment manufacturers.»
(MAIB, 2017)

Priscilla (MAIB 12/2019)

CMA CGM Vasco de Gama (MAIB 23/2017)

Lysblink Seaways (MAIB 25/2015)

Commodore Clipper (MAIB 18/2015)

Vectis Eagle (MAIB 15/2015)

Ovit (MAIB 24/2014)

Navigator Scorpio (MAIB 30/2014)

CSL Thames (MAIB 2/2012)

RMS Queen Mary 2 (MAIB 28/2011)

Pride of Canterbury (MAIB 2/2009)

CFL Performer (MAIB 21/2008)



Photo: MAIB/RNLi

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Data collection ongoing



Three passenger ships



Two offshore supply vessels



Observations onboard ships and in simulator



Interviewed with 18 officers
Equinor Captain Forum: Group discussions with experienced bridge personnel



Interviewed maritime equipment manufacturer and DP instructors



Accident investigation reports

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Photo: Brit-Eli Danielsen

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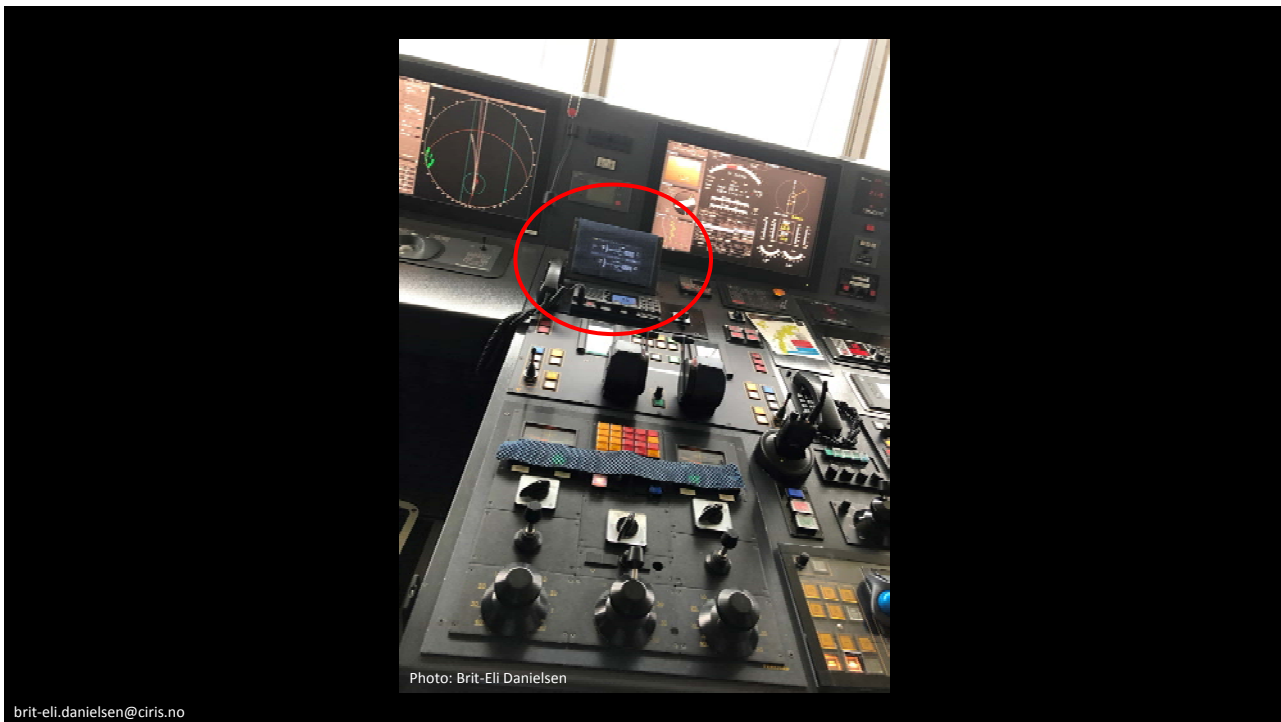
Photo: Brit-Eli Danielsen

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Photo: Brit-Eli Danielsen

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«this probably functioned very well in the office»

«we don't want design on a bridge, it should be functional!»



Photo: Brit-Eli Danielsen

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Development process

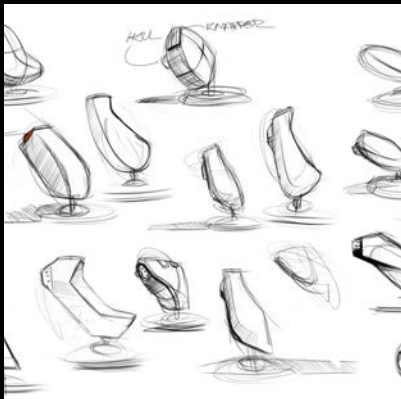


Photo: Frøy B. Bjørneseth



“a very user-friendly system”

“none of us would like to go back to working with a conventional bridge with all the buttons on the consoles”

Unified Bridge Main Challenges

Time = cost

Regulations

Maritime marked

Crew concerns



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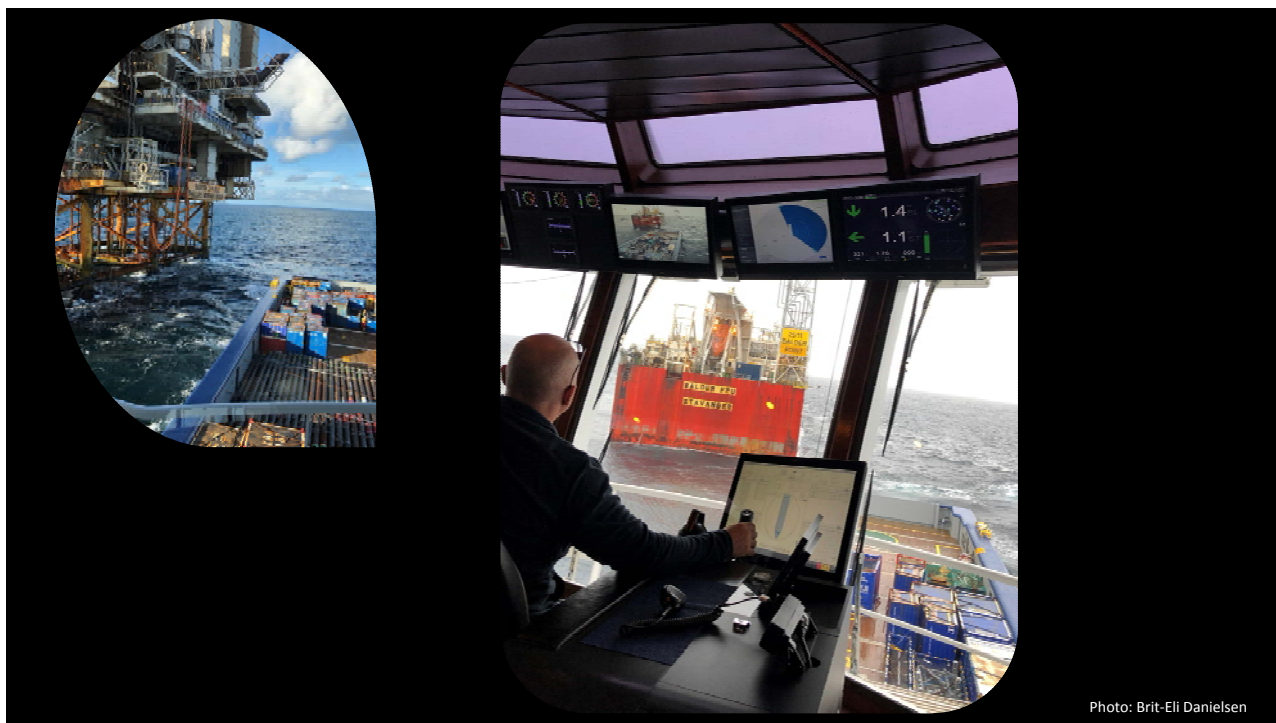


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