



WORKSHOP 2

PORTS AND TERMINALS

Discussion Panel



Dennis Kelly

Rob Williams



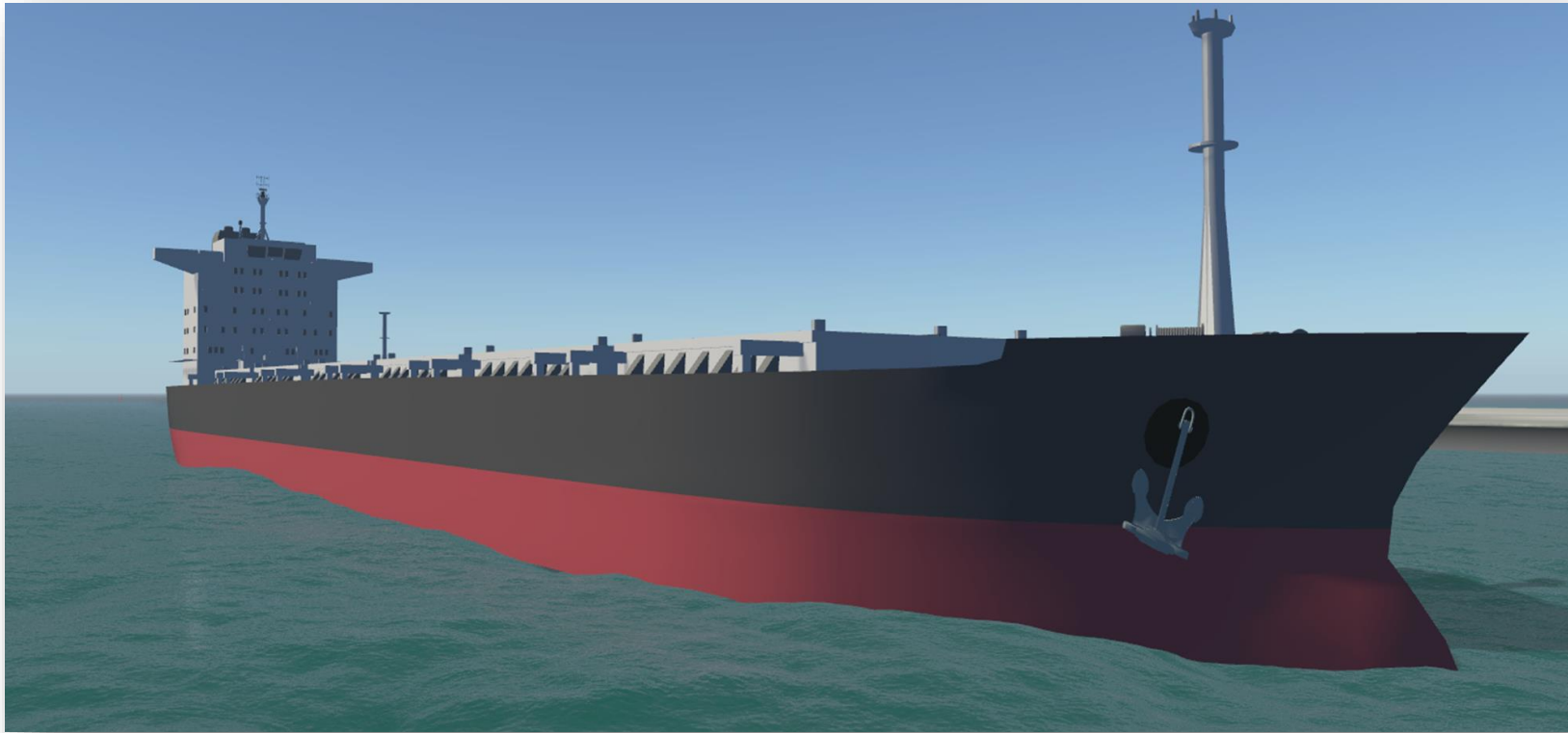
Dan Green



Suzanne Byrne



Matthew Wilmshurst



Destination	-	Stormont Wharf, Port of Belfast
Vessel Name	-	COAL CARRIER MAX
LOA	-	225.0 metres
Breadth	-	32.5 metres
Gross Tonnage	-	40,000 tonnes
Deadweight	-	76,500 tonnes
Cargo	-	30,000 tonnes of coal
P&I Information	-	East of England

Setting the scene

“COAL CARRIER MAX” approach
to the Port of Belfast



vessel entry to
port channel





What happened next?

What sort of quay crane damage are we looking at?



Q1: Can you rank these examples of crane damage in order of severity? (least to most)

1.



2.



3.



4.











Local Surveyor

Initial Photographs

Local surveyors initial pictures of crane damage



Local surveyors initial pictures of crane damage



Crane repairs

Options

Relocation of the crane away from the berth



Transport crane back to manufacturer



Localised temporary bracing and repair



Club's priority?

Terminal's priority?

Q2: From the terminal's perspective, what is your main priority at this stage?

1. Security
2. Starting Repairs
3. Joint attendance/ inspection
4. Arresting the vessel
5. Guinness!

Damage to the edge of the quay?

Q3: Which of these examples of vessel contacts with a quay structure could be considered the worst?

1.



2.



3.



4.



What sort of quay structure damage?



What sort of quay structure damage?



What sort of quay structure damage?

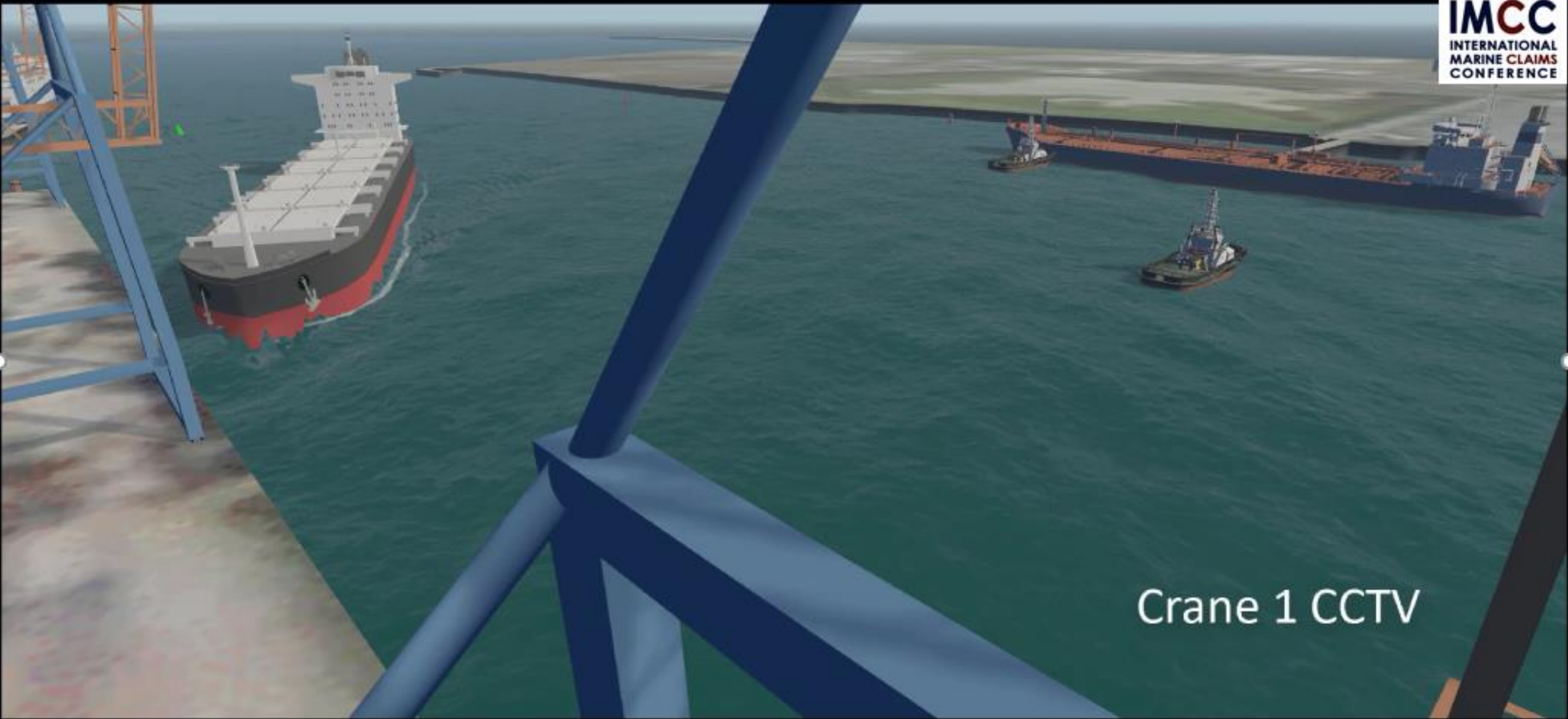


What sort of quay structure damage?



Crane CCTV

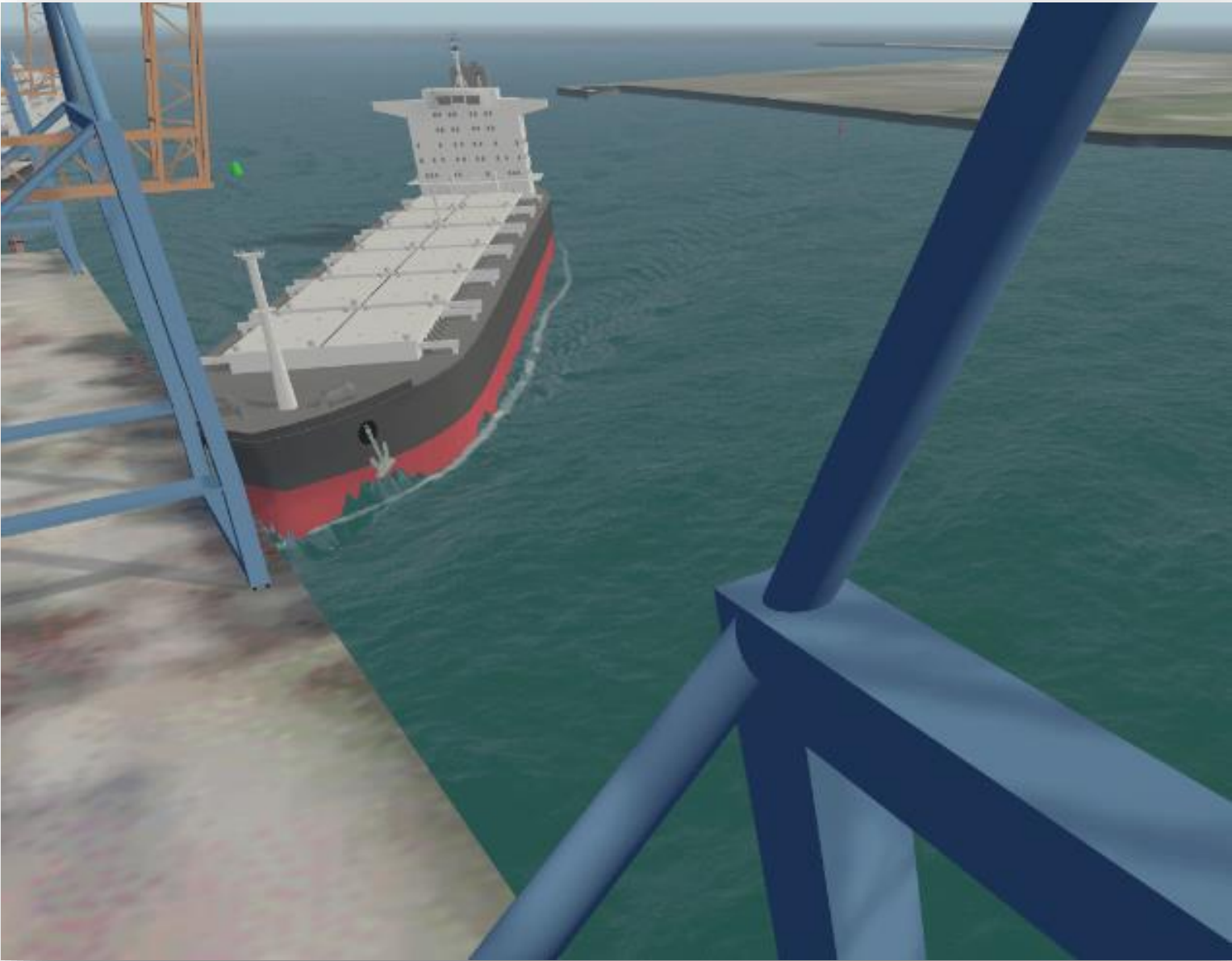
Video from Crane No. 1 and No. 3 at Belfast
Container Terminal



Crane 1 CCTV

Coffee Break

Vessel contact with Crane No. 2

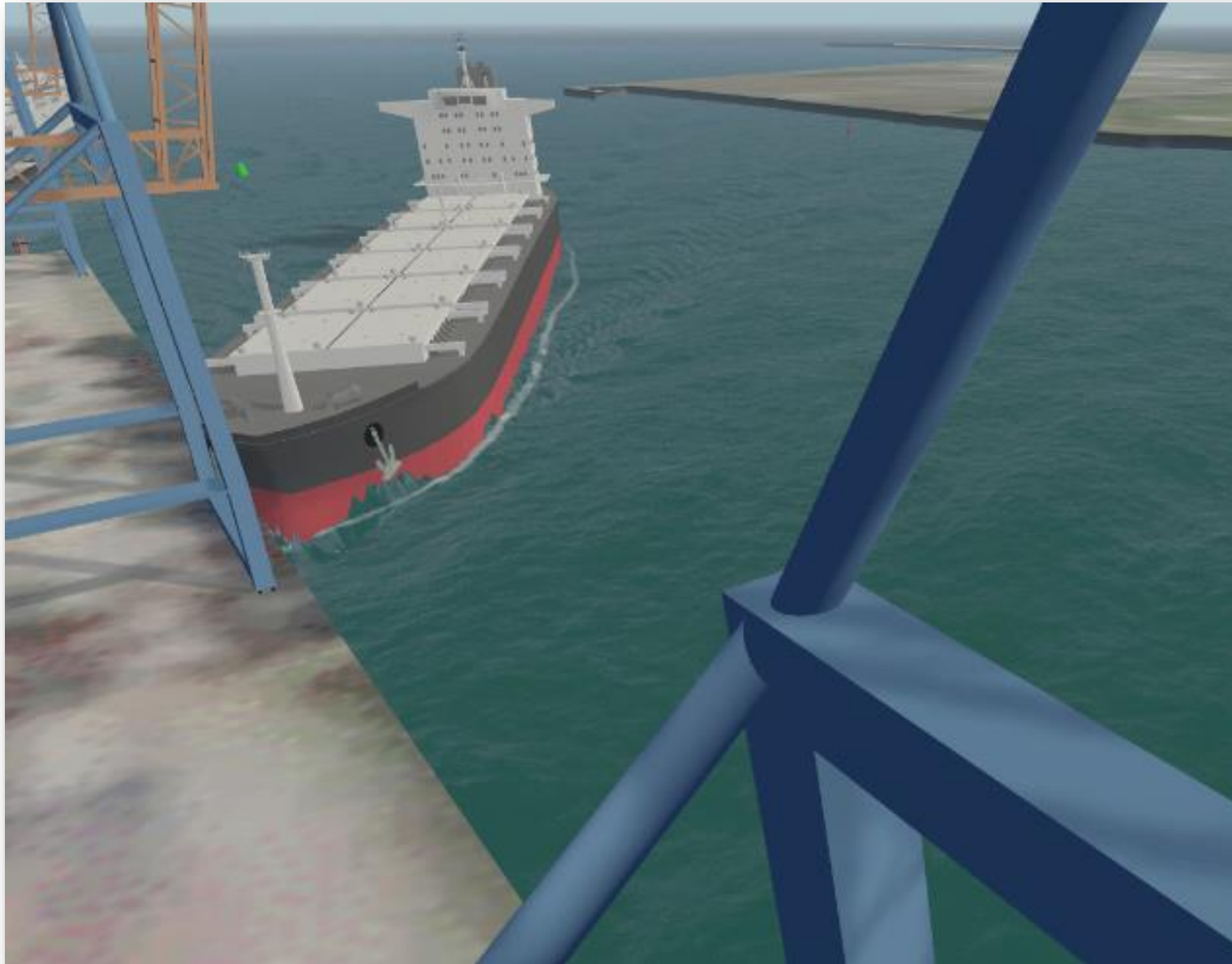


Below quay deck damage

Quay deck damage that we can see



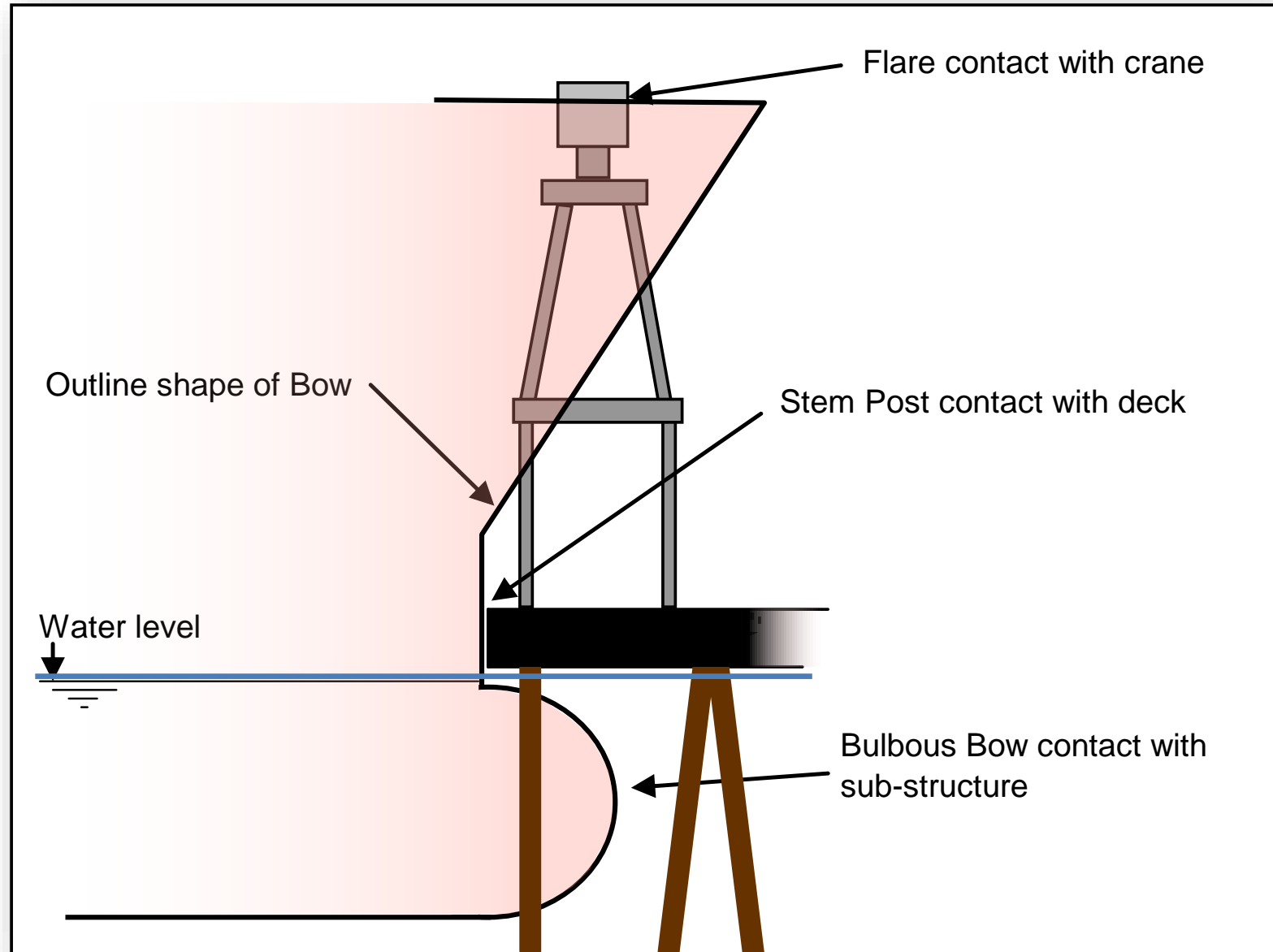
Angle of vessel approach



What else may be damaged?



What else may be damaged?



What else may be damaged?



Q4: What damage might we find when we look underneath the quay?

- 1) Which damage do you think was caused by the vessel?
- 2) Which damage is a “ticking timebomb”?
- 3) Which damage has been caused by a previous contact?



1.



3.



Survey under the deck and above water – vessel damage?



Survey under the deck and above water – corrosion



Previous contact and existing damage



Previous contact and existing damage



Joint Dive Survey

Under water inspection photographs

Q5: What damage might we find when we look under water?

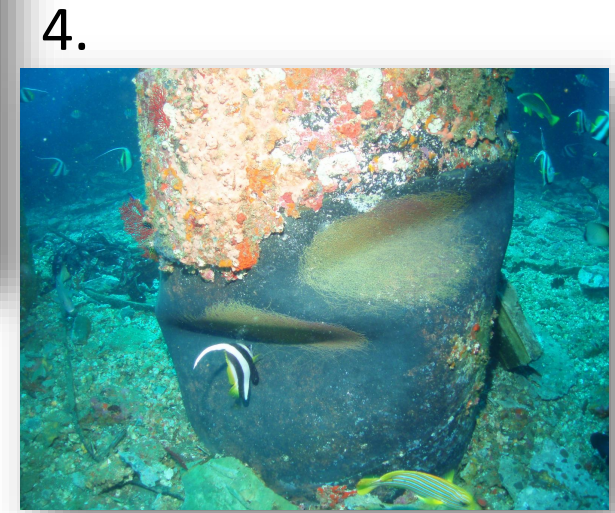
- 1) Which pile exhibits signs of contact damage?
- 2) Which pile exhibits load path overstress damage?
- 3) Which pile is a “ticking time bomb”?



1.



3.



Contact damage



Pile buckling and overstress



Ticking time bomb and hidden damage



Let's have a closer look at the "bird nest pile" below water



Dive survey down the pile



Anything other information

Eye witness accounts

Eye witness account



Quantum & Schedule

Vessel calls to Belfast

Historical and realtime AIS monitoring

MOTIVATION D
SOG: 0.0 Knts
HDG: 218.0°
COG: 0.1°
ROT: 0.0°

ENDURANCE
SOG: 0.1 Knts
HDG: 220.0°
COG: 289.6°
ROT: 0.0°

BRENT
SOG: 0.0 Knts
HDG: 137.0°
COG: 167.0°
ROT: 0.0°

BRITISH NIMBUS
SOG: 0.0 Knts
HDG: 216.0°
COG: 133.3°
ROT: -0.1°

SVITZER SURREY
SOG: 0.0 Knts
HDG: 291.0°
ROT: 0.0°

by Number 17

bn Number 18

What other vessel saw.

Video from all other CCTV in
the area at the time



In summary ...

Discussion Panel



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Dan Green



Suzanne Byrne



Matthew Wilmshurst