

Costa Concordia Grounding

A reconstruction based on recorded AIS data



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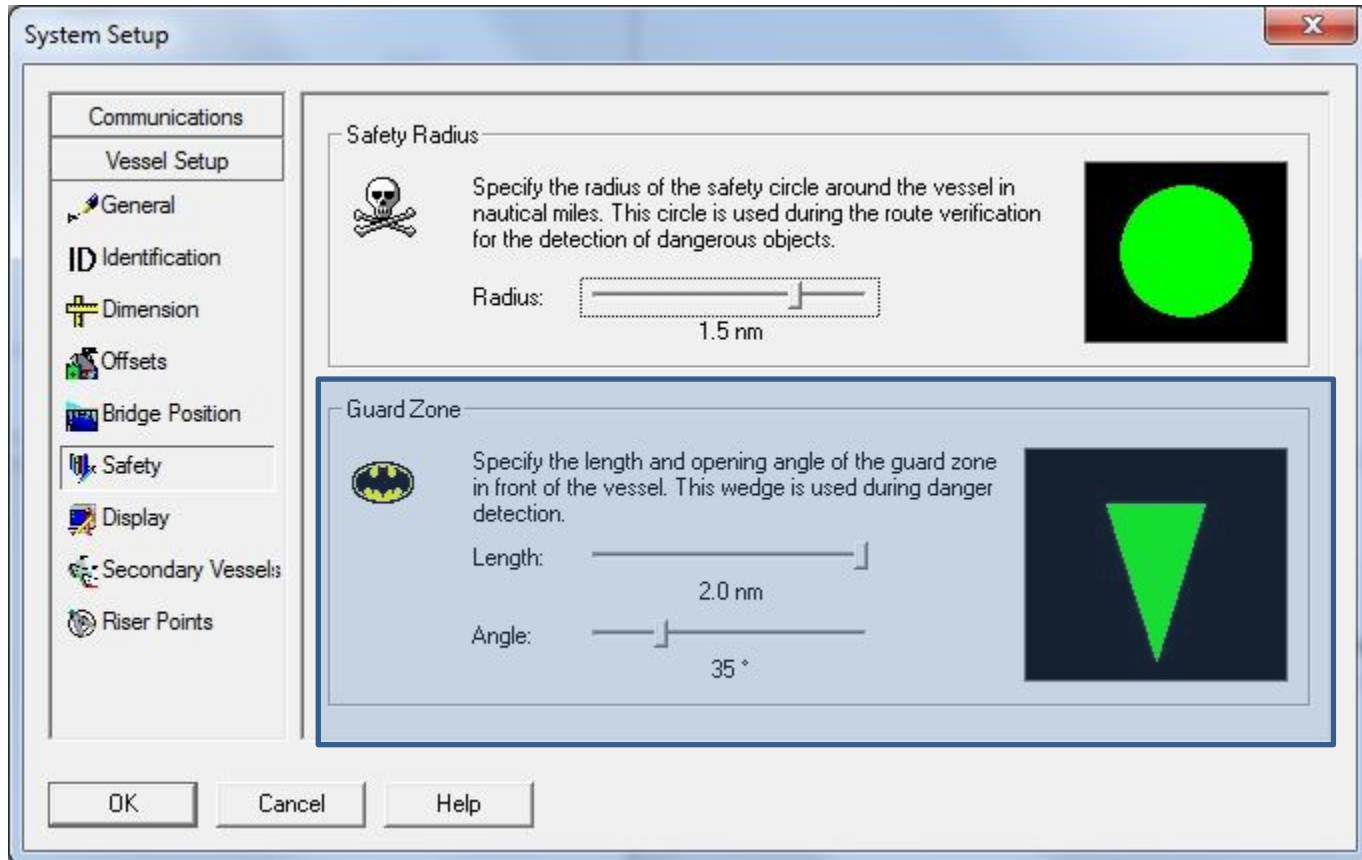


A reconstruction based on recorded AIS data



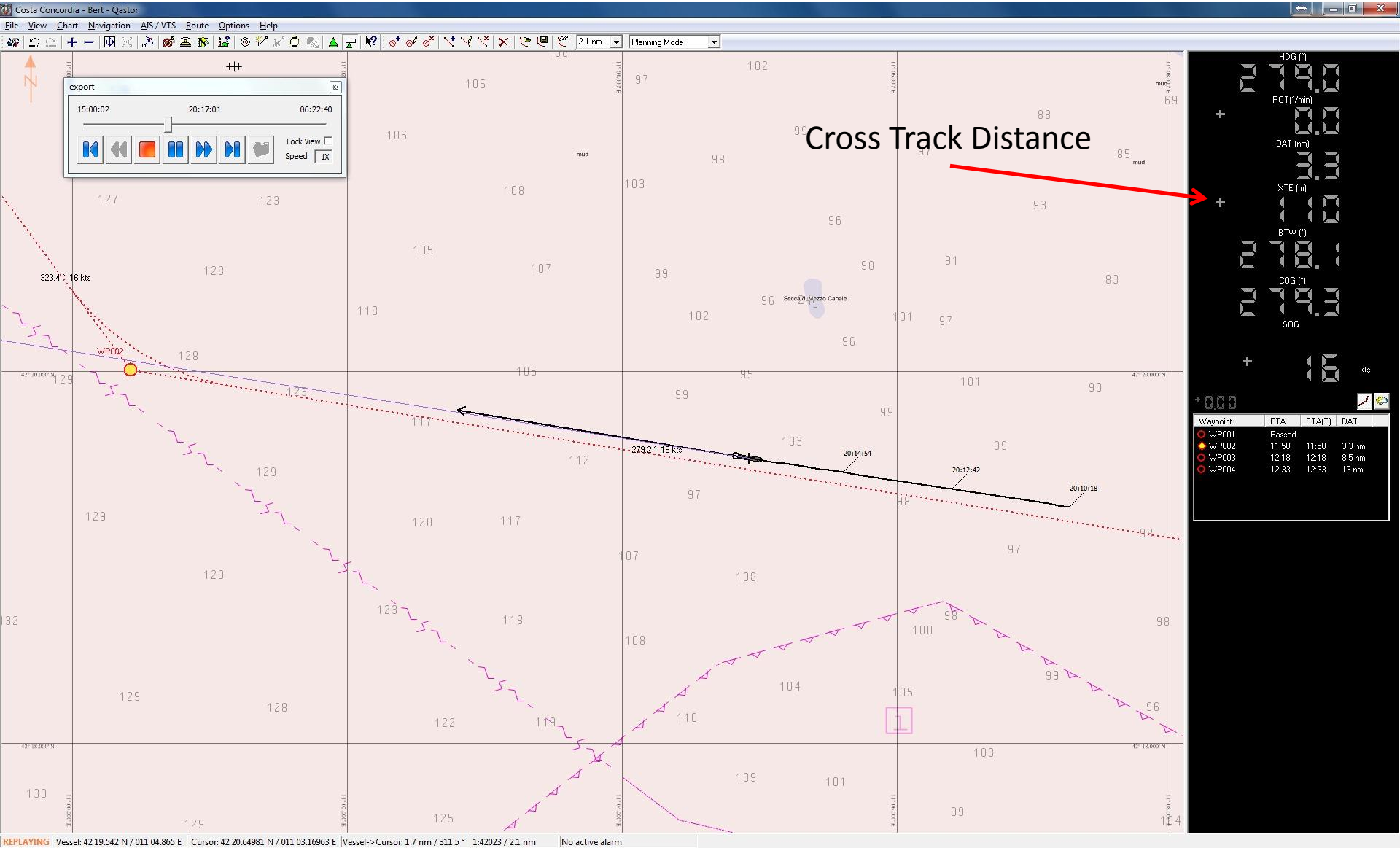
Qastor System Setup

Defining a "Forward Looking" Guard Zone



Defining Routes and Waypoints

Activate Cross Track Distance Alert



Defining Cross Track Limits

Costa Concordia - Bert - Qastor

File View Chart Navigation AIS/VTS Route Options Help

7.4 nm Planning Mode

export

15:00:02 20:17:41 06:22:40

Lock View

Speed 1X

The chart plotter displays a route with waypoints WP001 through WP004. A red hatched area indicates the defined cross-track limits. The background shows a detailed chart with depth contours and geographical features.

Waypoint	ETA	ETA(T)	DAT
WP001	Passed		
WP002	11:58	11:58	3.1 nm
WP003	12:18	12:18	8.3 nm
WP004	12:33	12:33	12 nm

Waypoint: ETA ETA(T) DAT

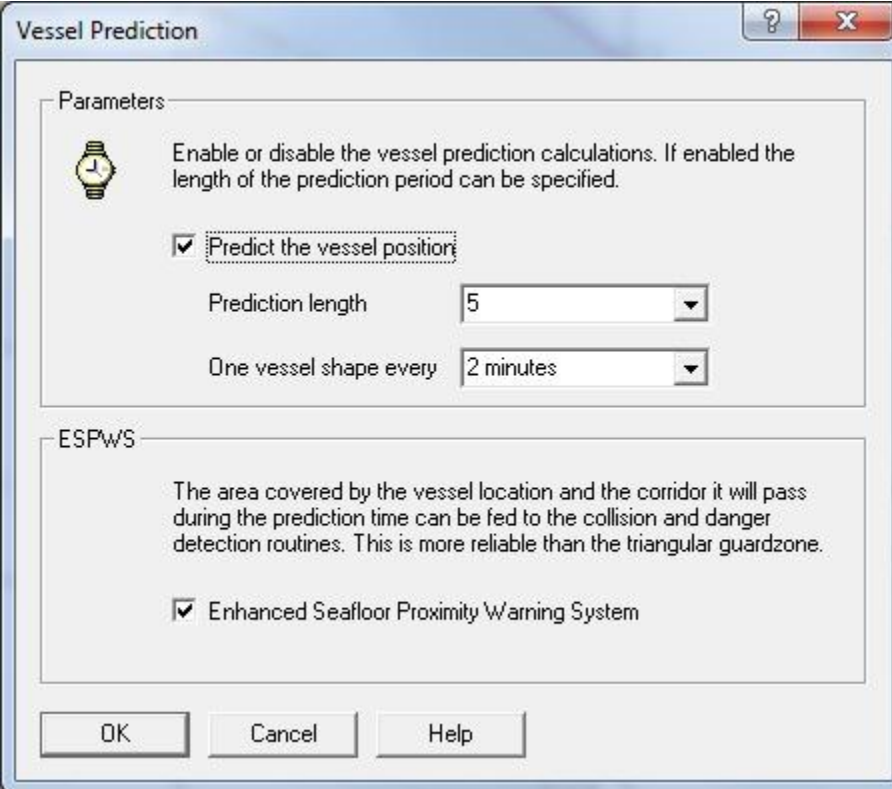
Waypoint: Passed 11:58 11:58 3.1 nm

Waypoint: 12:18 12:18 8.3 nm

Waypoint: 12:33 12:33 12 nm

REPLAYING Vessel: 42 19.567 N / 011 04.628 E | Cursor: 42 23.08399 N / 011 03.49348 E | Vessel: - Cursor: 3.6 nm / 346.6 * | 1:148792 / 7.4 nm | No active alarm

Path Prediction and ESPWS (Grounding Alert) “Where will the vessel sail in 8 minutes?”



The image shows a software dialog box titled "Vessel Prediction". It has a standard Windows-style title bar with a question mark icon and a close button (X). The dialog is divided into two main sections: "Parameters" and "ESPWS".

Parameters:

- There is a clock icon and a text box that says: "Enable or disable the vessel prediction calculations. If enabled the length of the prediction period can be specified."
- A checked checkbox labeled "Predict the vessel position".
- A "Prediction length" dropdown menu set to "5".
- A "One vessel shape every" dropdown menu set to "2 minutes".

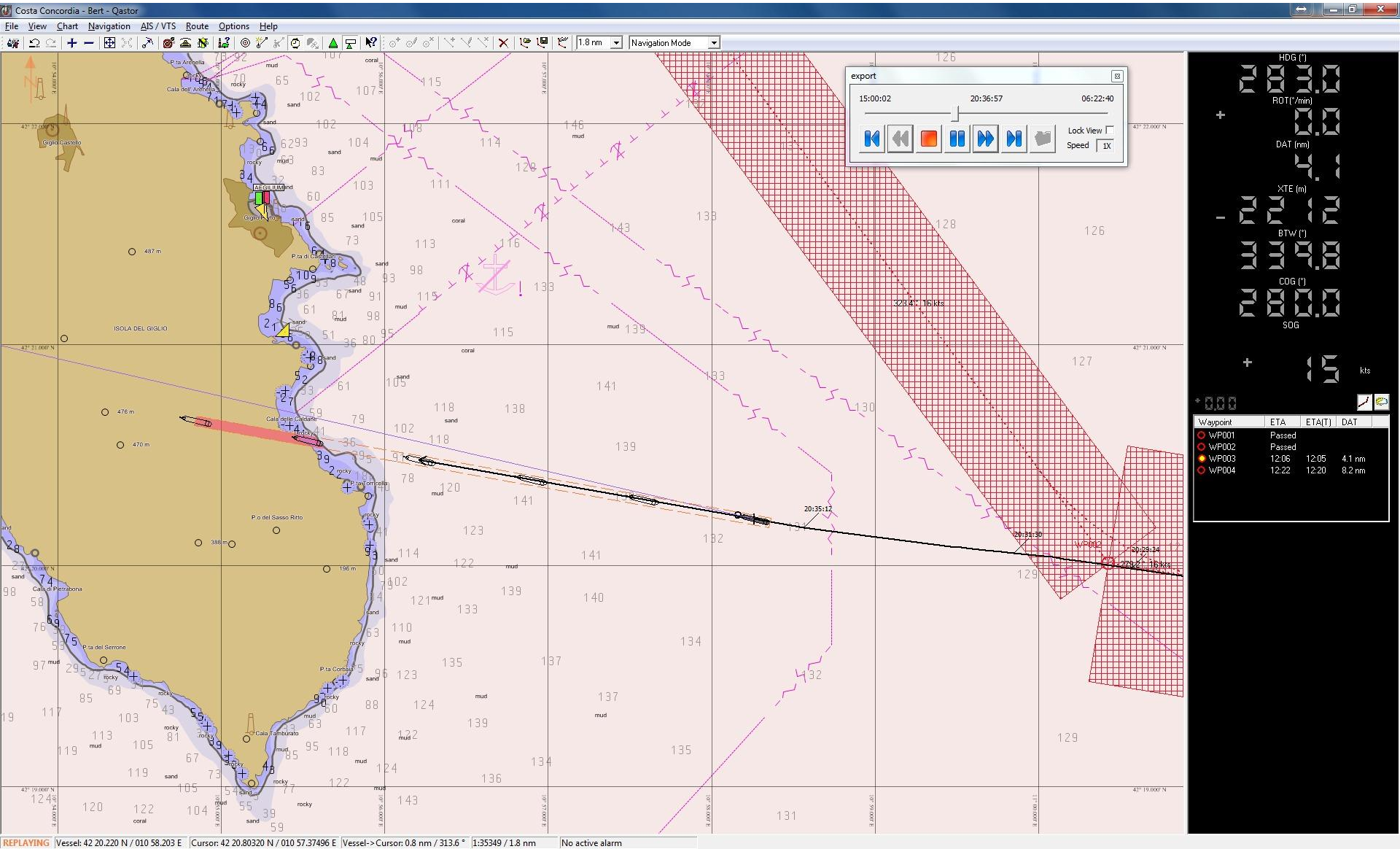
ESPWS:

- A text box that says: "The area covered by the vessel location and the corridor it will pass during the prediction time can be fed to the collision and danger detection routines. This is more reliable than the triangular guardzone."
- A checked checkbox labeled "Enhanced Seafloor Proximity Warning System".

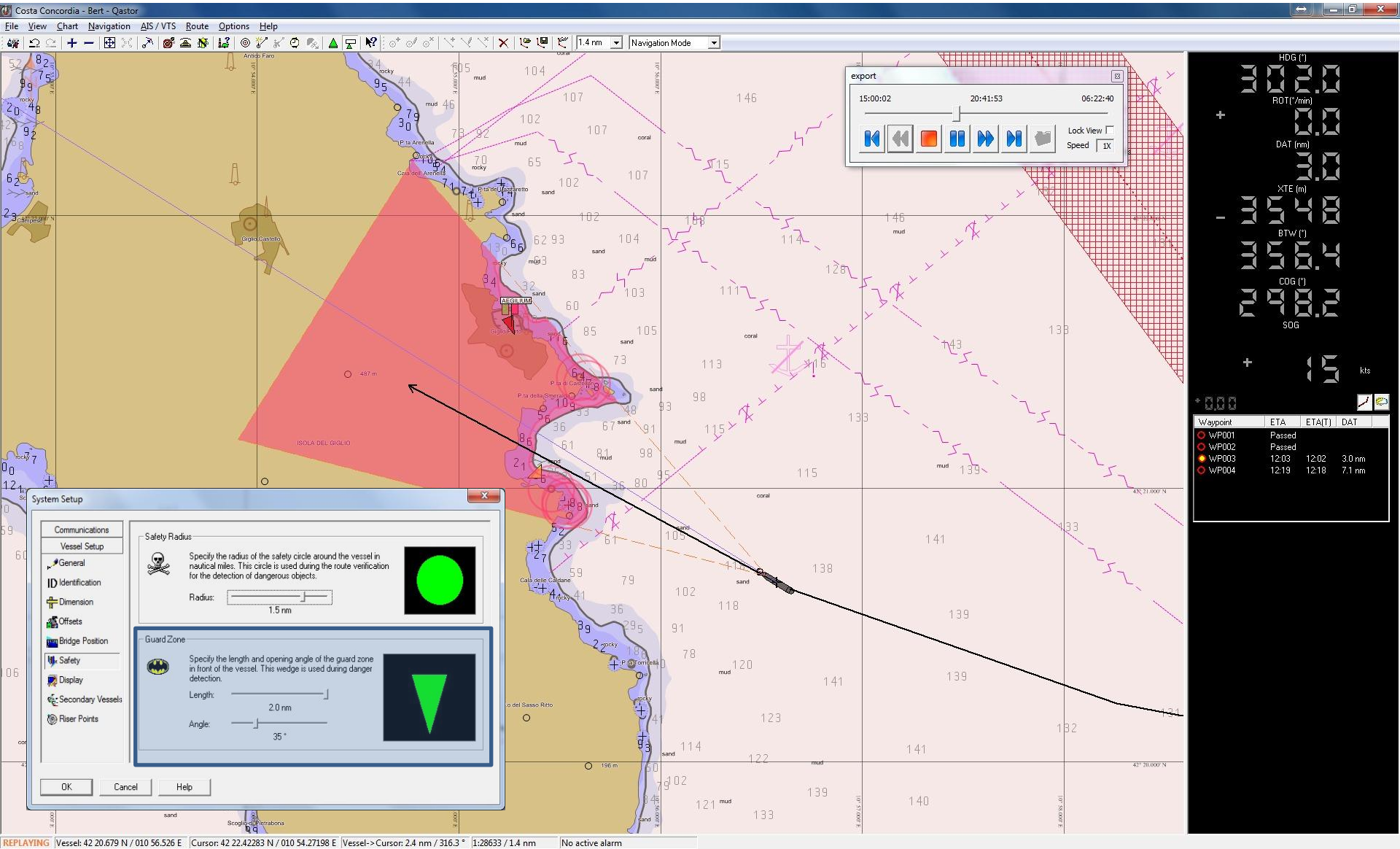
At the bottom of the dialog are three buttons: "OK", "Cancel", and "Help".

Path Prediction

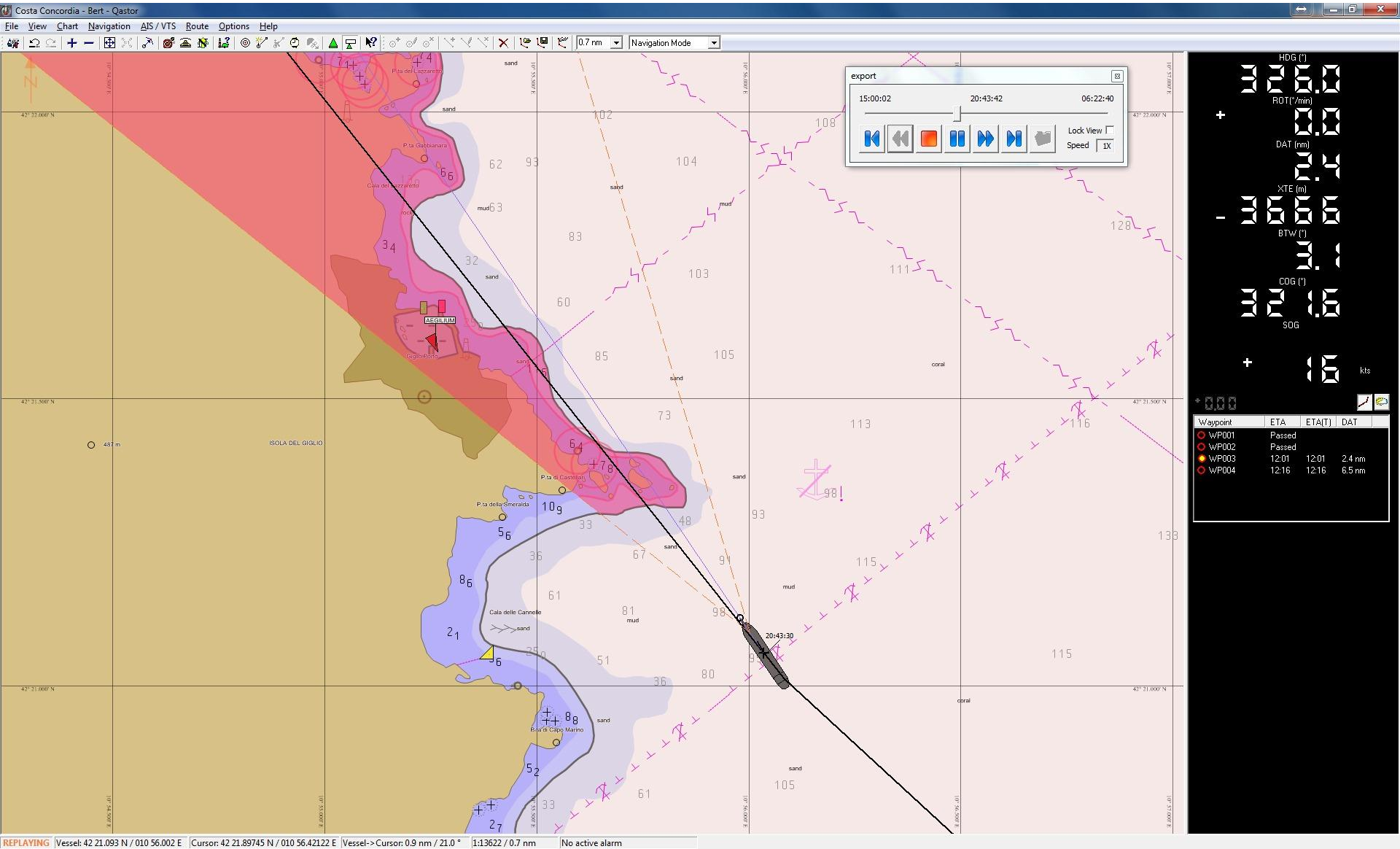
“Where will the vessel sail in 2, 4, 6, 8 and 10 minutes?”



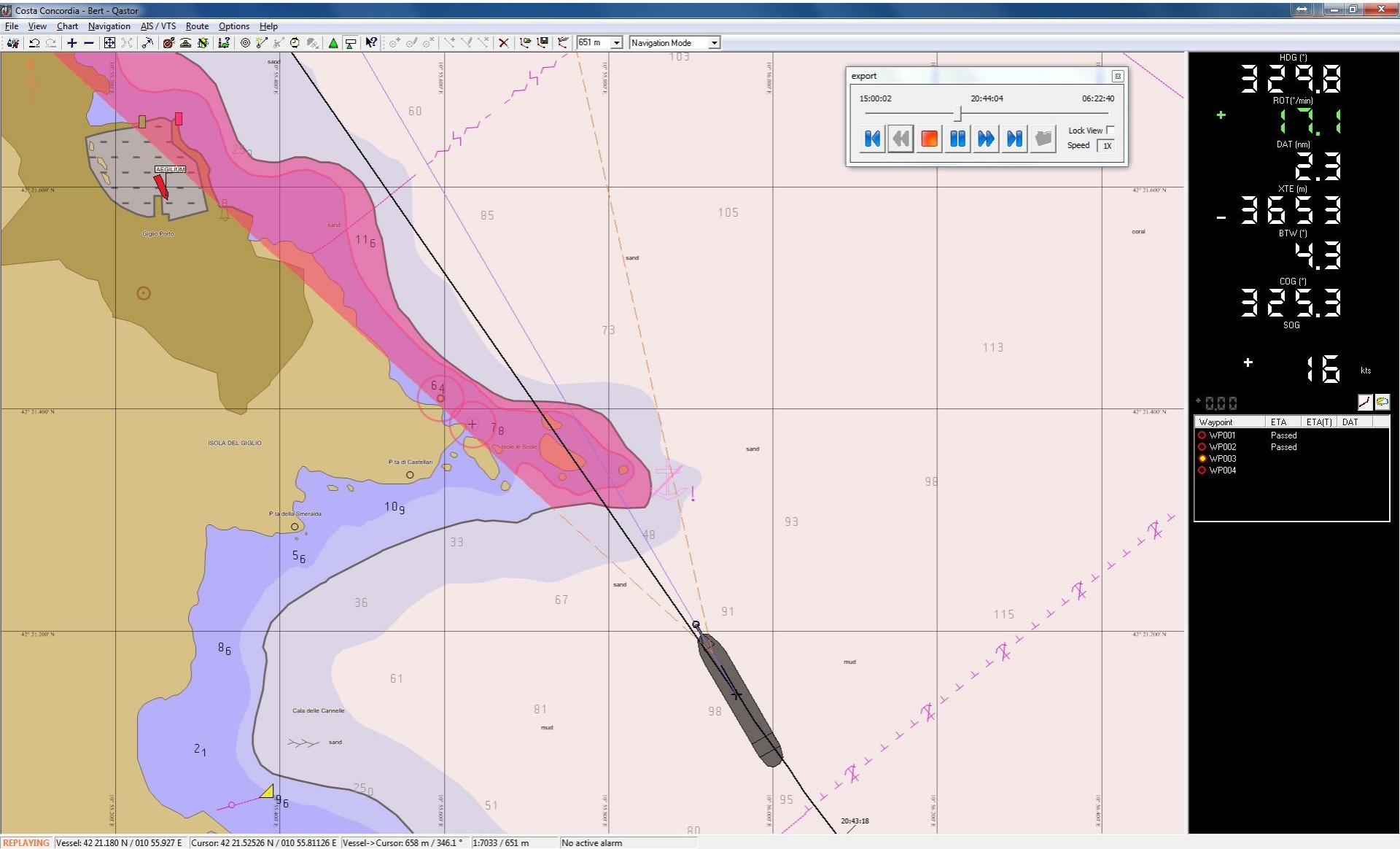
Grounding Avoidance



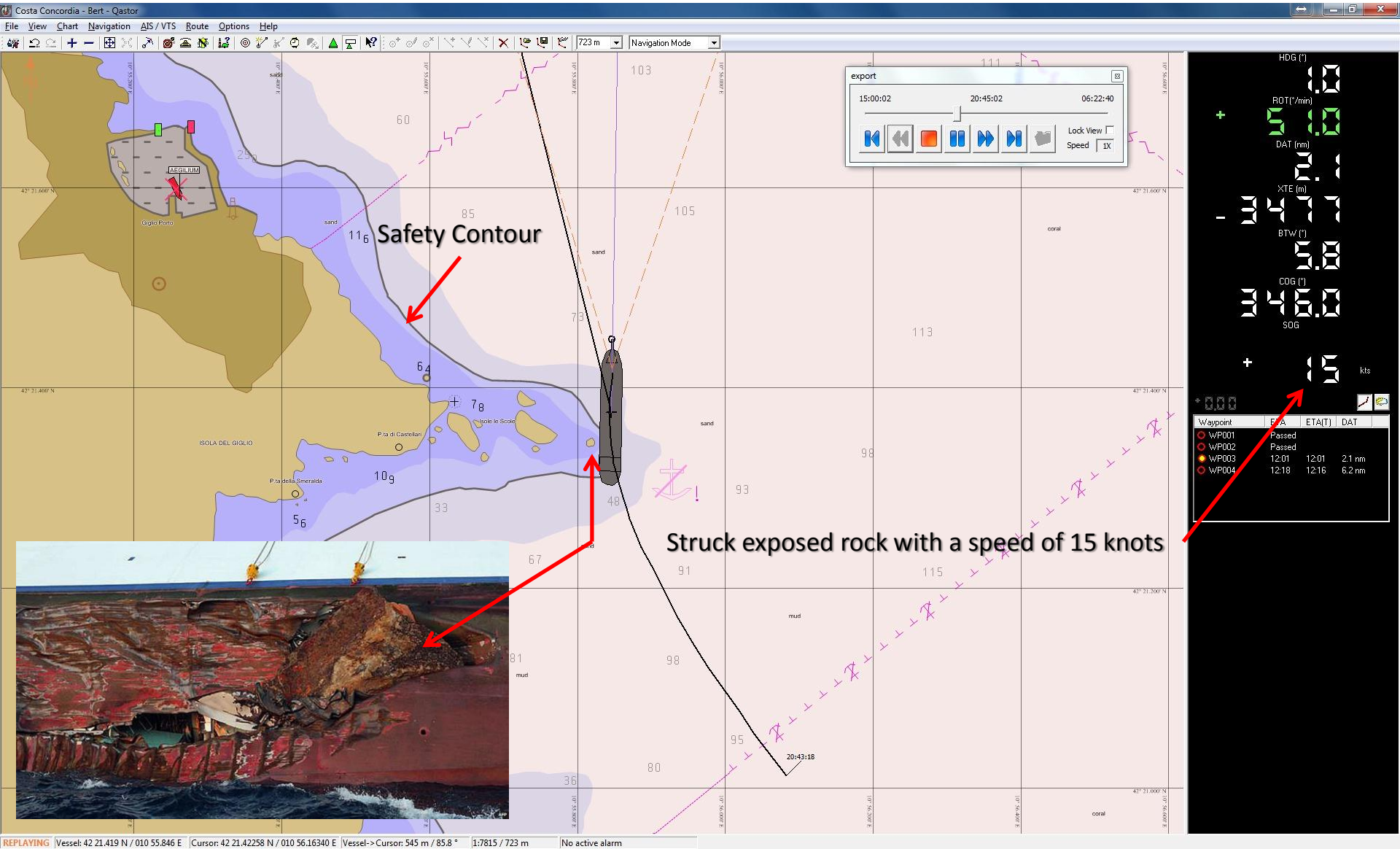
Grounding Avoidance

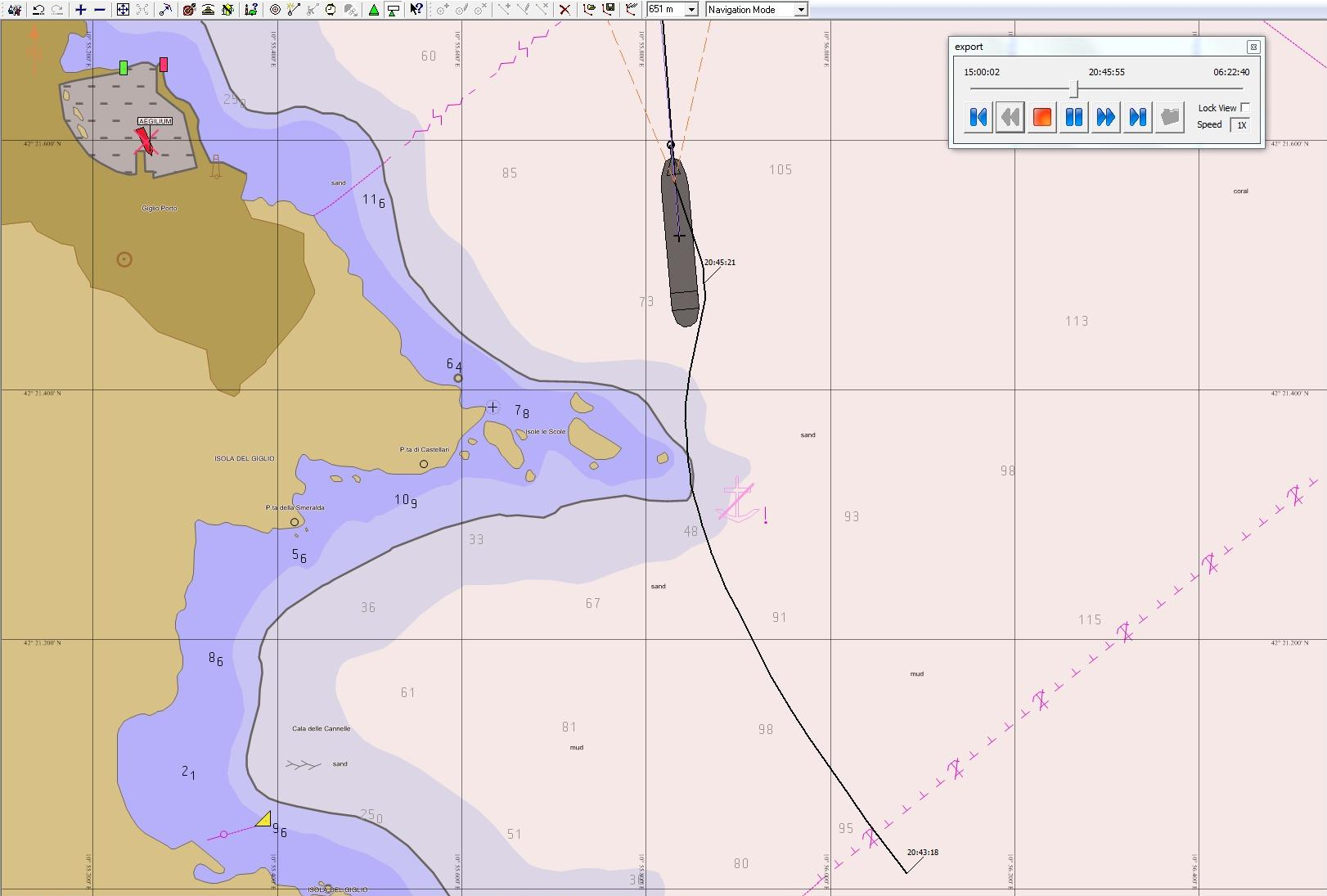


Grounding Avoidance



Vessel Draught and Depth Safety Depth Contour





export

15:00:02 20:45:55 06:22:40

Navigation controls: back, forward, stop, play, pause, lock view, speed 1X

HDG (°) 000.0

RDT (°/min) 25.0

DAT (nm) 1.9

XTE (m) 333.0

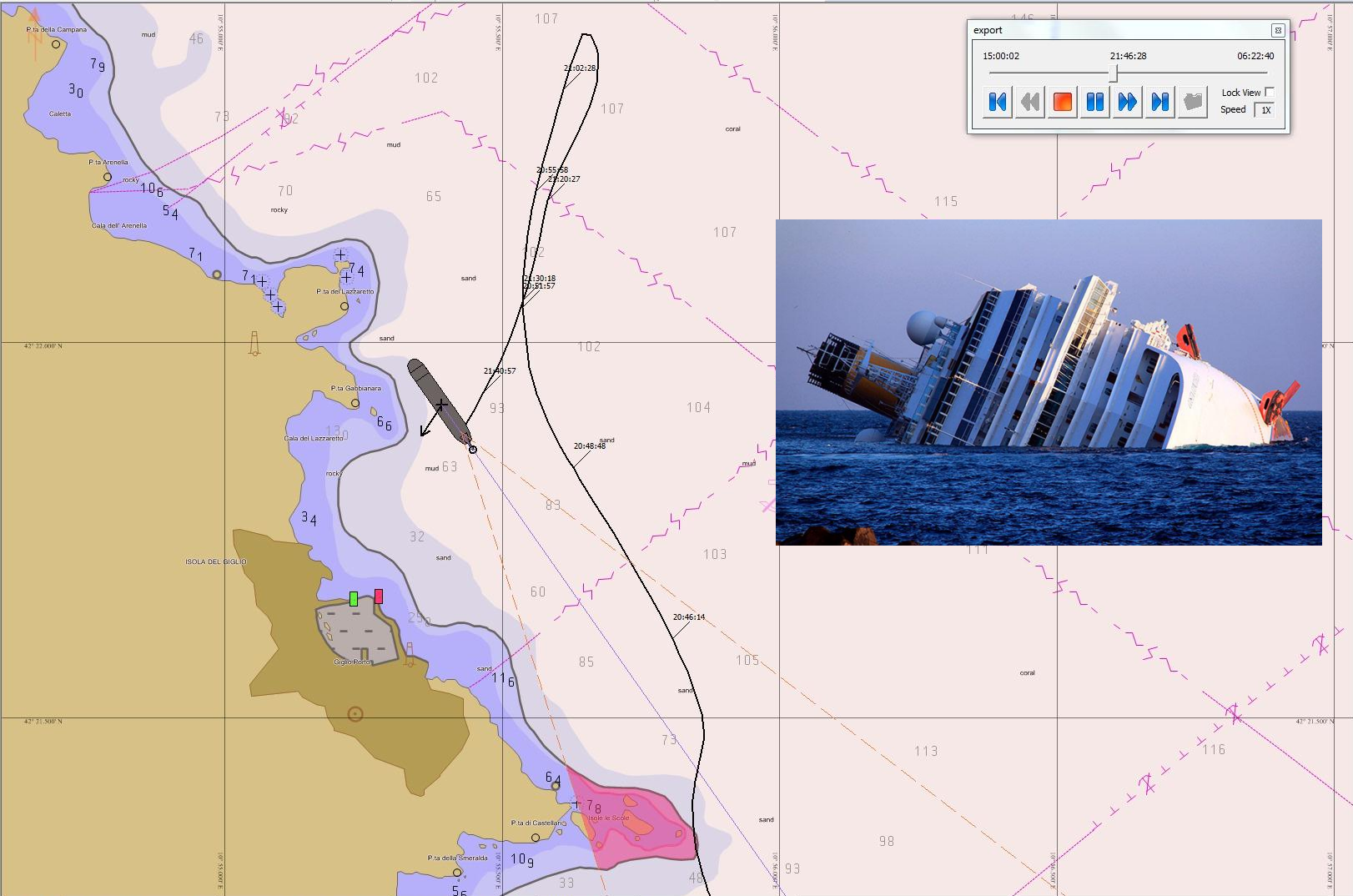
BTW (°) 0.5

COG (°) 355.6

SOG 0.2 kts

+ [Icons]

Waypoint	ETA	ETA(T)	DAT
WP001	Passed		
WP002	Passed		
WP003	12:08	12:01	1.9 nm
WP004	12:38	12:17	6.1 nm



export

15:00:02 21:46:28 06:22:40

Navigation controls: back, forward, stop, play, pause, lock view, speed 1X



HDG (°) 145.0

ROT (°/min) 0.0

DAT (nm) 1.5

XTE (m) -343.1

BTW (°) 12.4

COG (°) 213.1

SOG 0.5 kts

Navigation icons: zoom in, zoom out, home, etc.

Waypoint	ETA	ETA(T)	DAT
WP001	Passed		
WP002	Passed		
WP003	15:01	12:02	1.5 nm
WP004	23:27	12:18	5.6 nm