

## **Section 5**

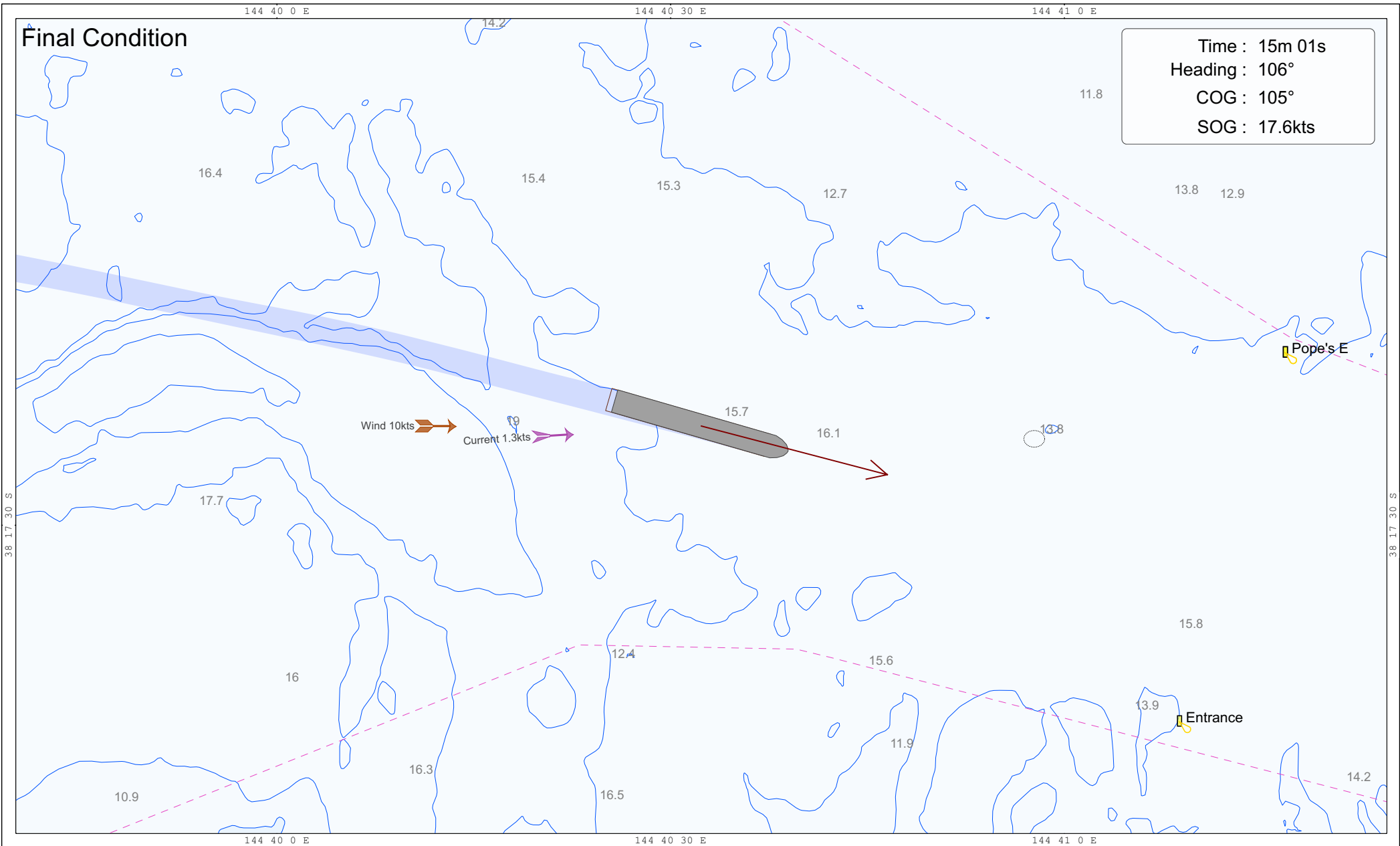
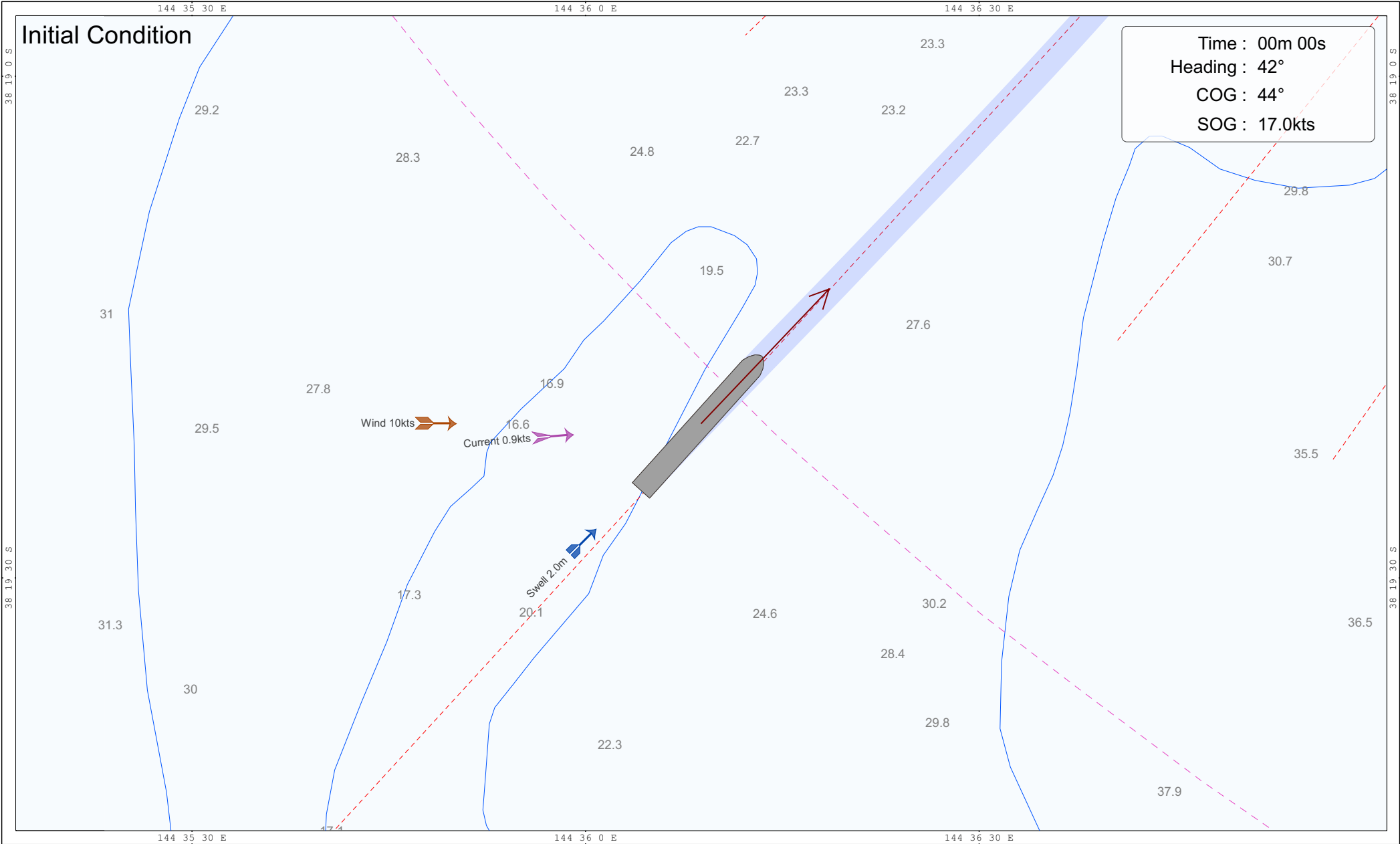
### **Run Plots**

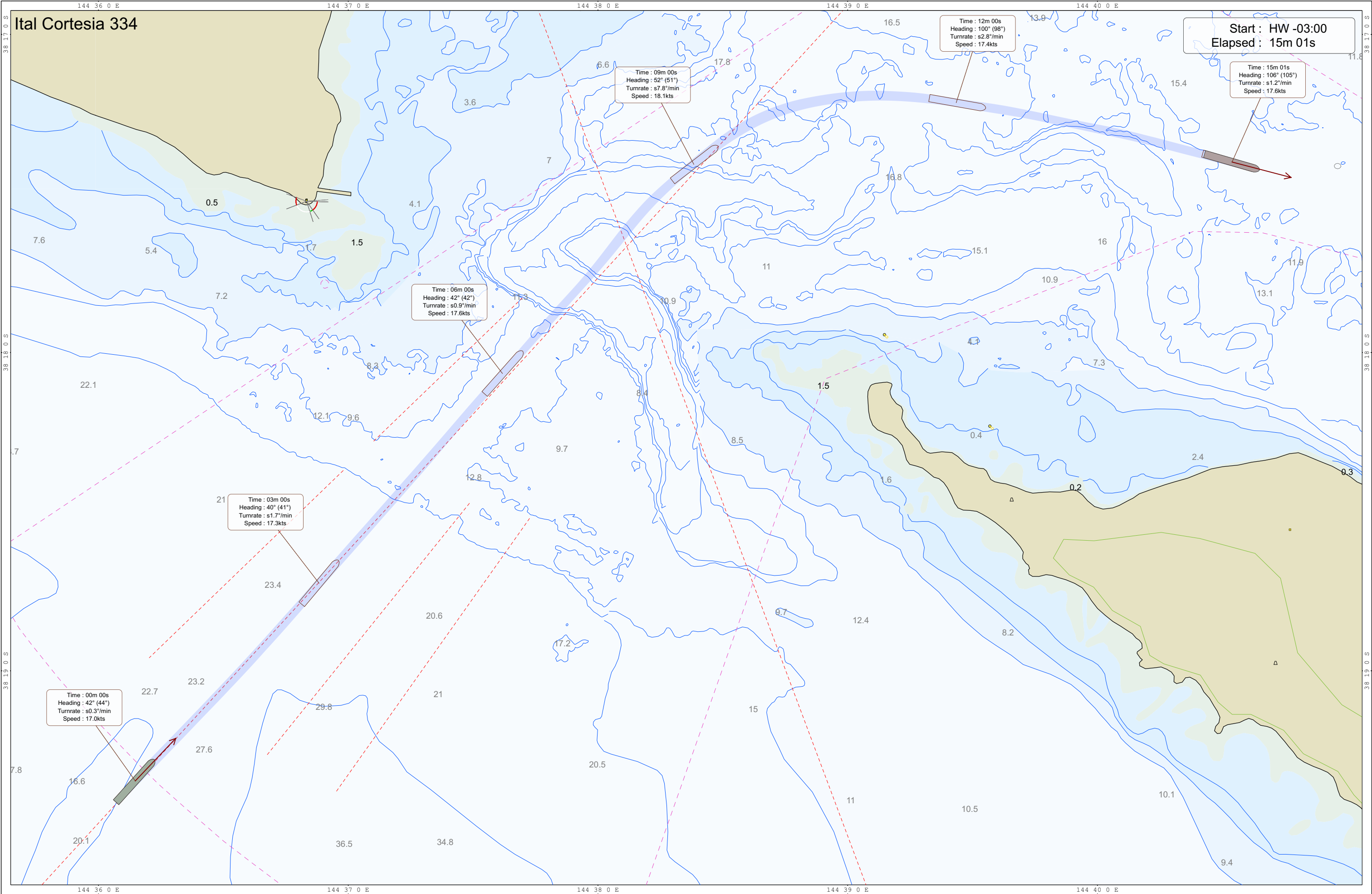
**DAY 1**

**21 November 2016**

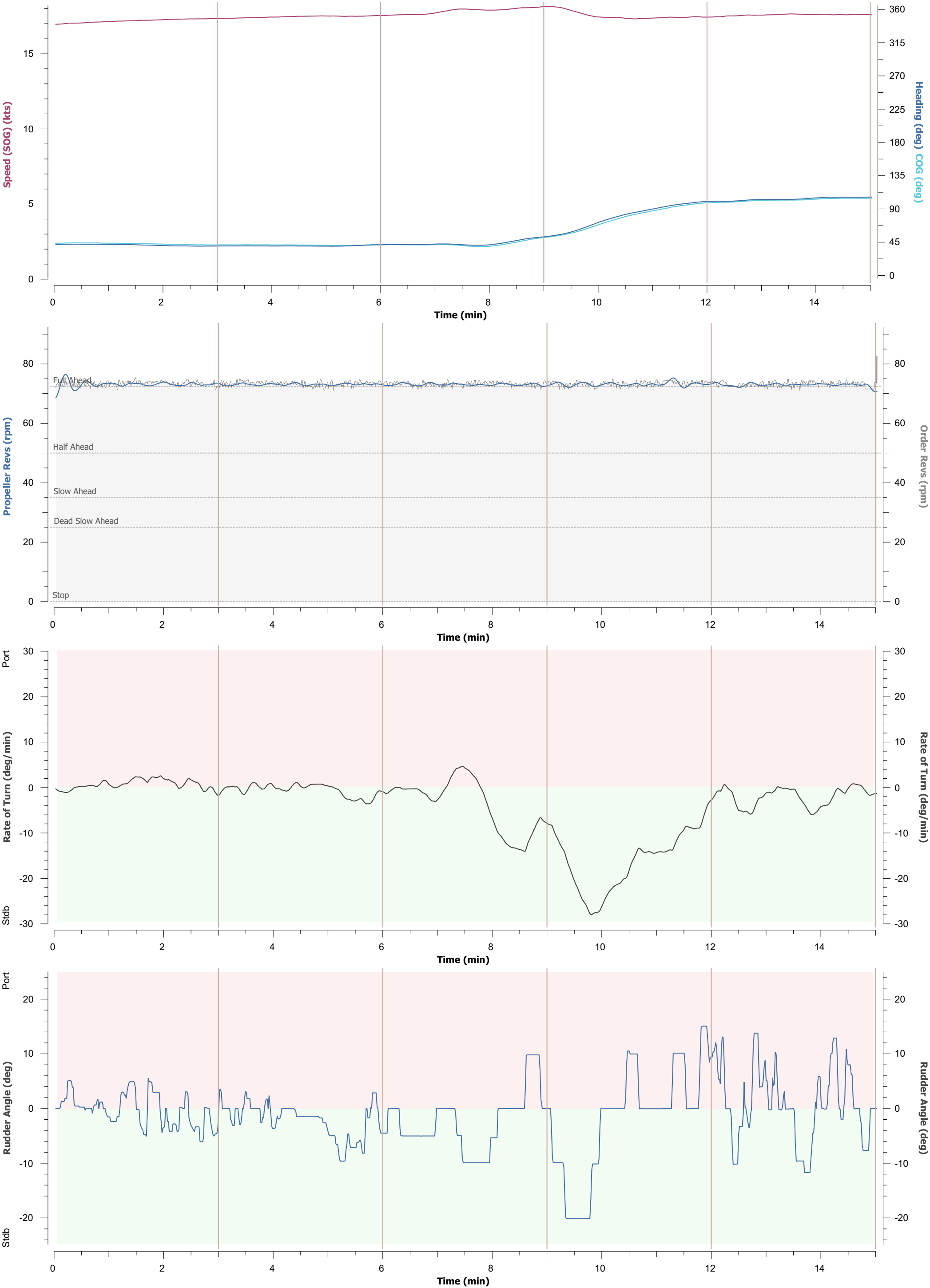
Details		Comments
Model : CO334LDA	Area : melbourne	Ital Cortesia 334 Inbound from Sea.Wind: W x 10kts. Swell: SW x 2.0m @ 10s. Tide: HW -03:00. Current: 2.5 knots Flood. Standard Model Familiarisation Run
Model Name : Ital Cortesia 334	Wind : 10kts from 270°	
Dimension : 334m x 42.8m x 12.5m	Swell : 2.0m from 225°	
Displacement : 117,663 tonnes	Current : 1.9kts to 17°	
	Tide : 1.58m (HW -03:00)	Standard arrival. Behaved as expected.

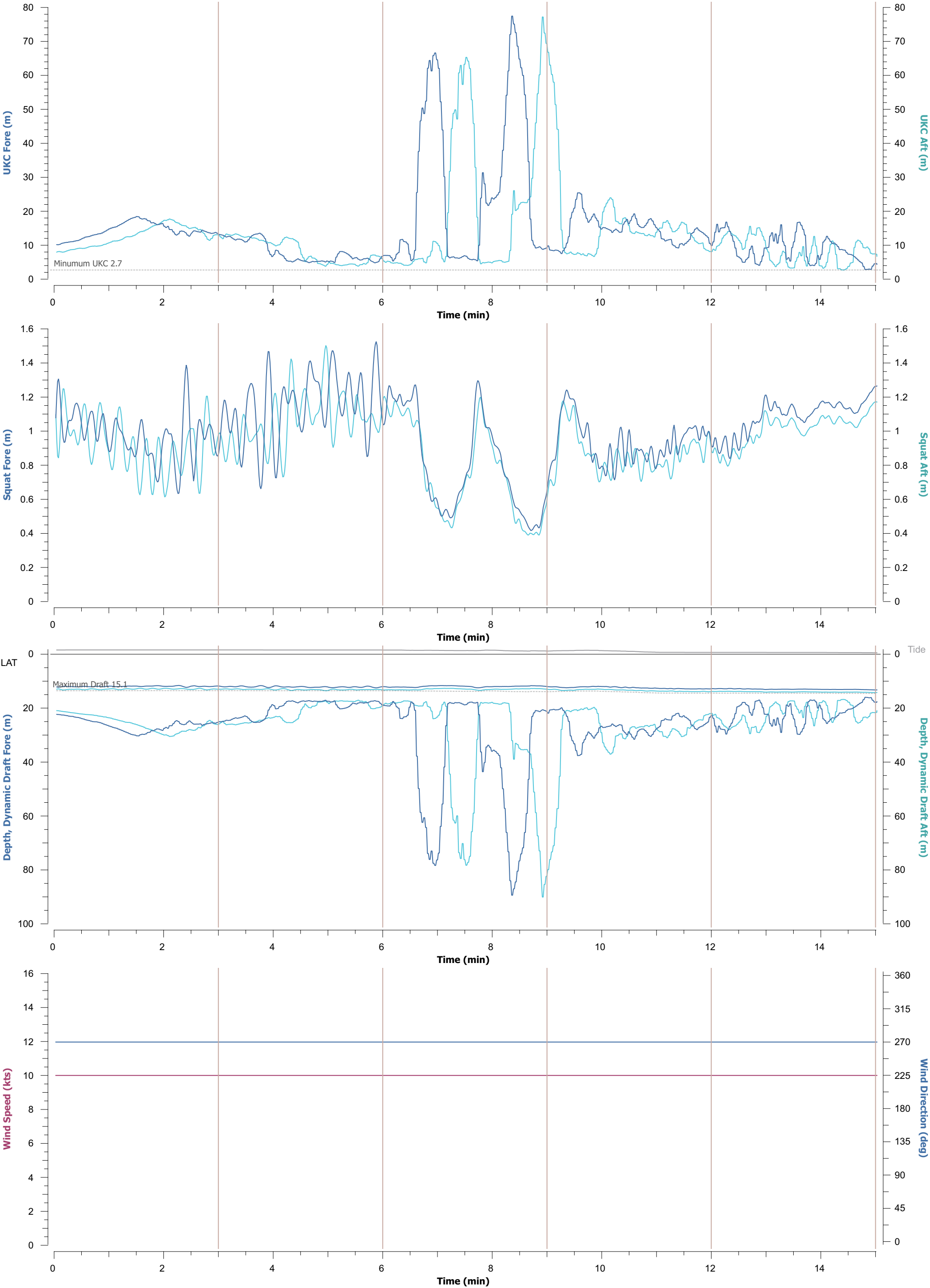
\* Wind, Swell & Current max effect during run, Tide at Reference Port

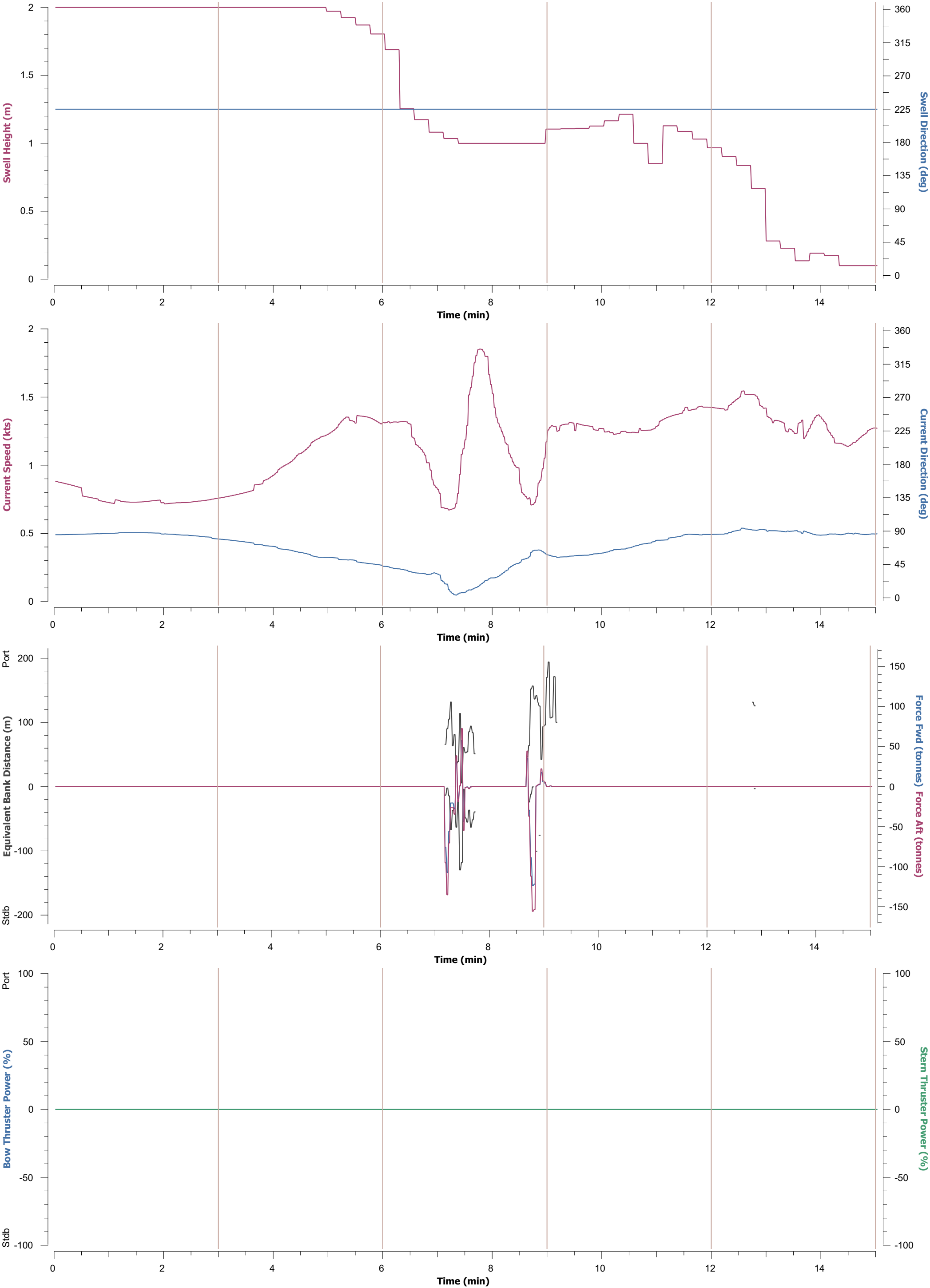






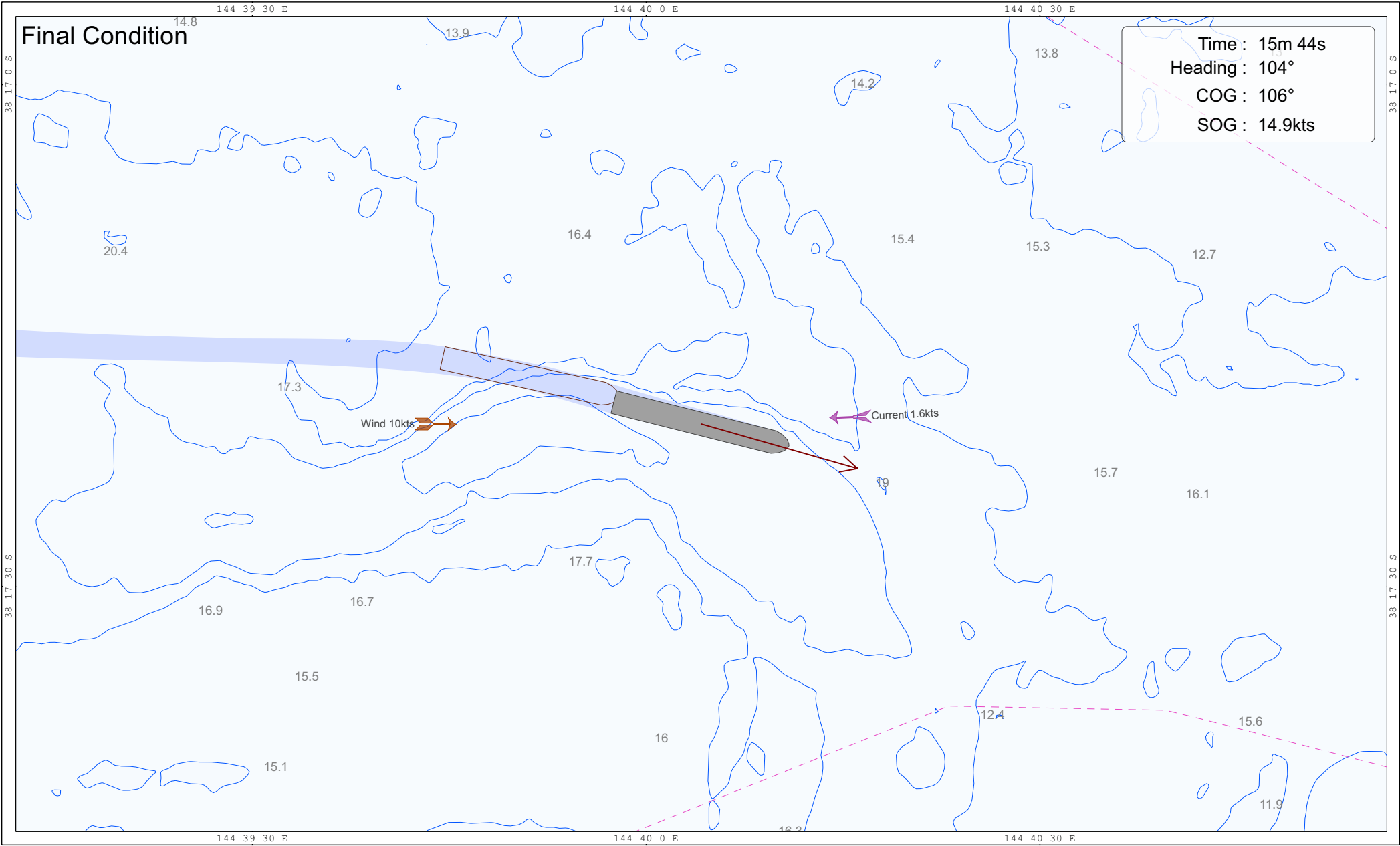
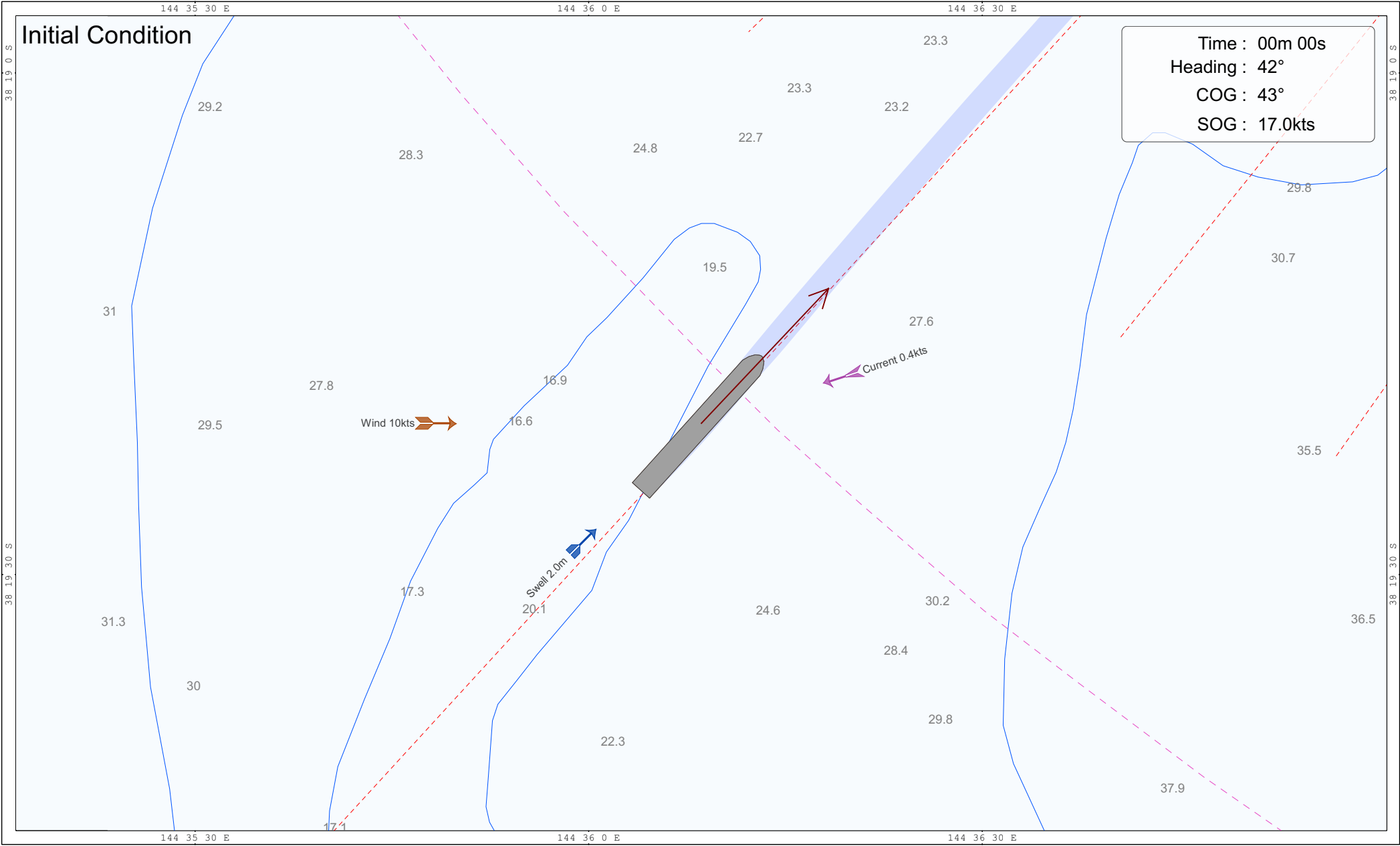


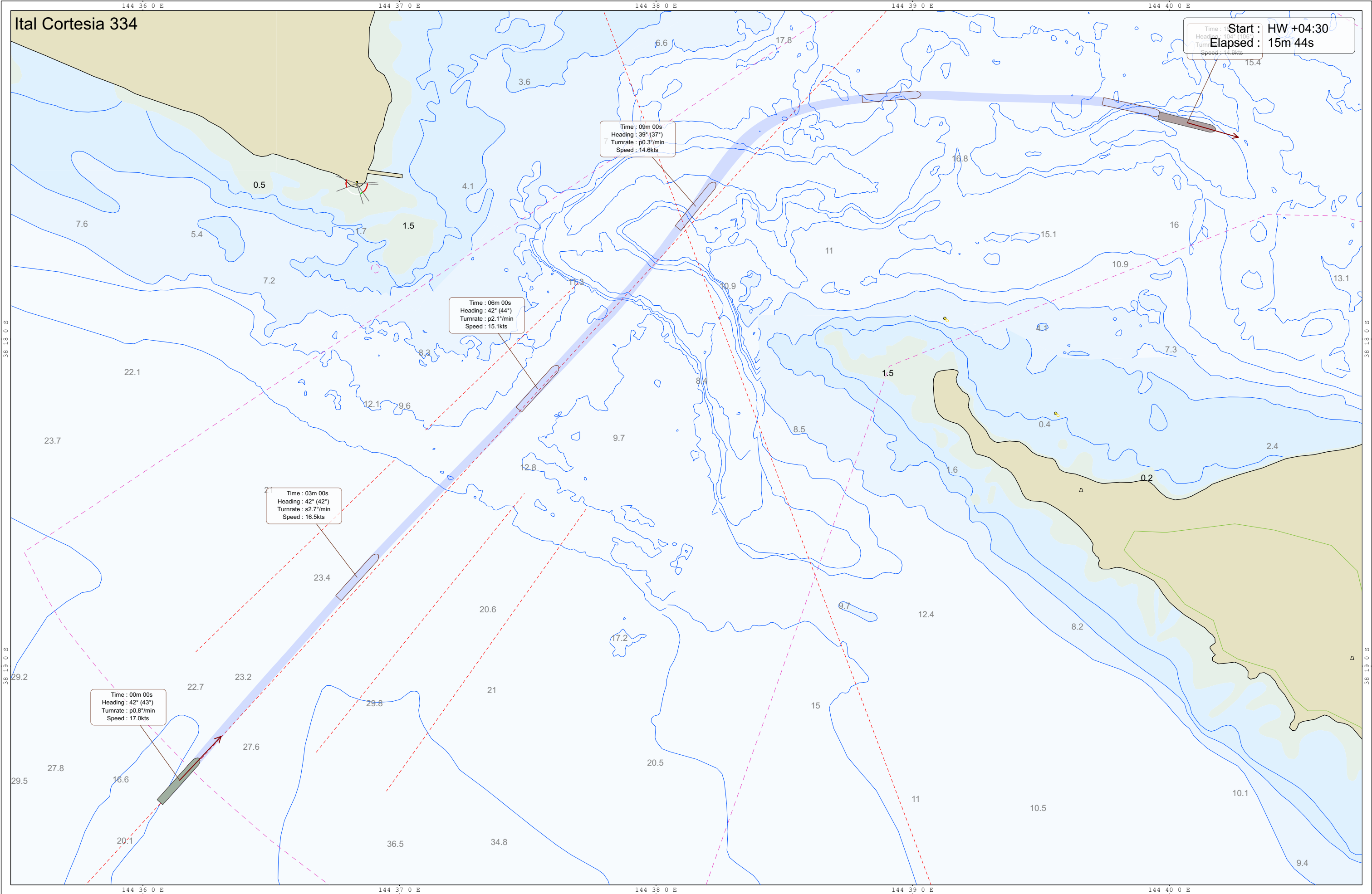


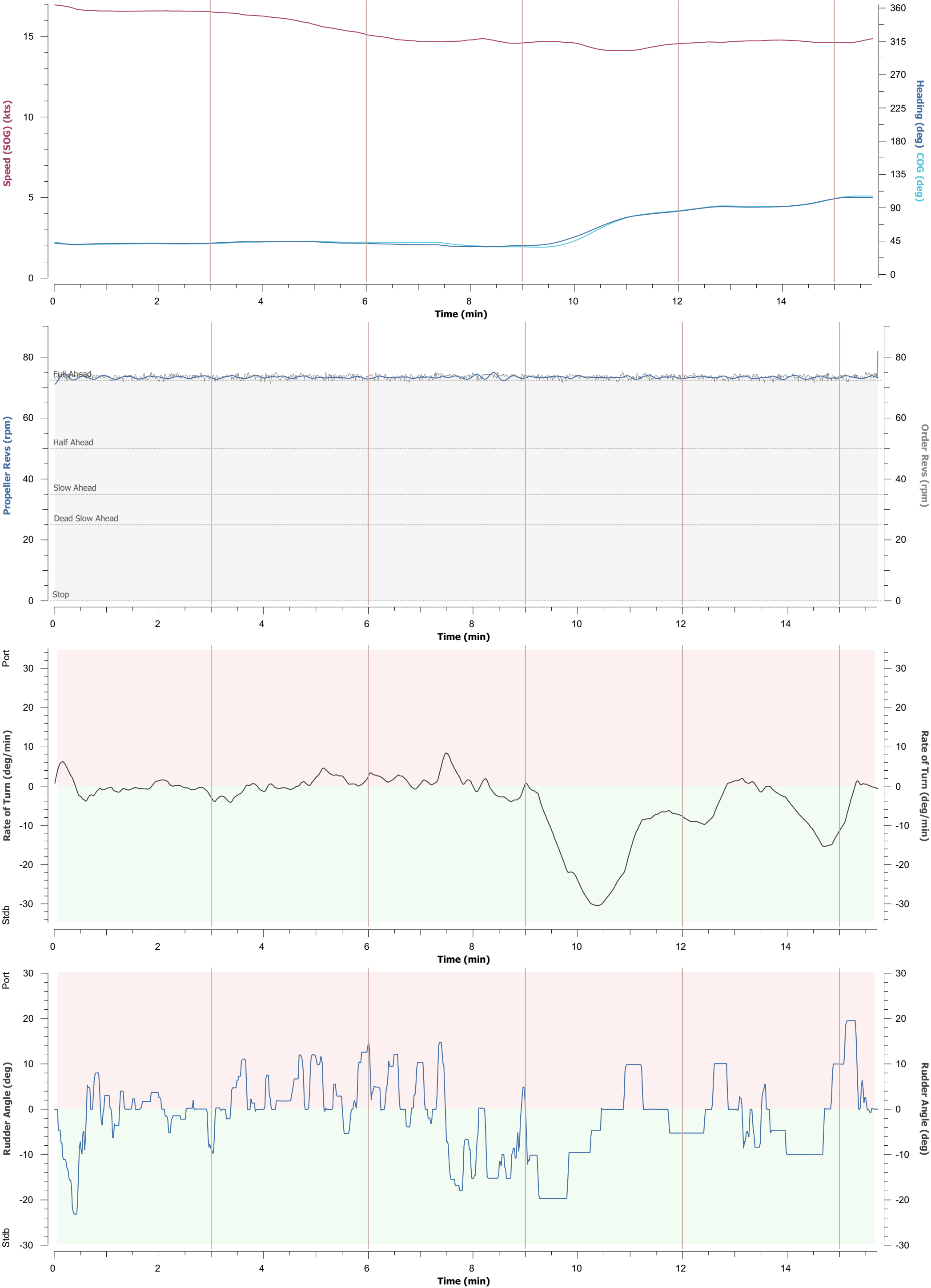


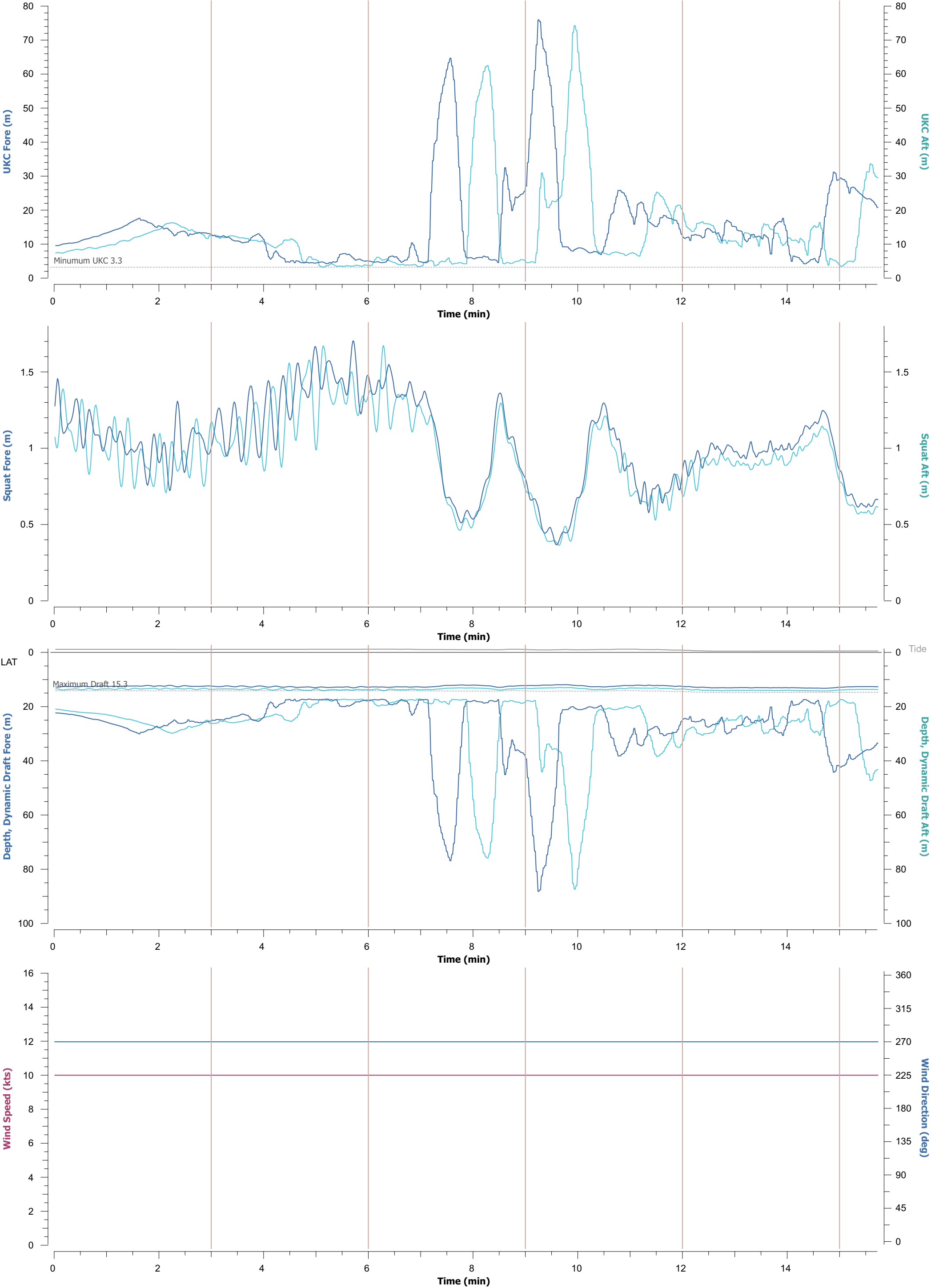
Details		Comments
Model : CO334LDA	Area : melbourne	Ital Cortesia 334 Inbound from Sea. Wind: W x 10kts. Swell: SW x 2.0m @ 10s. Tide: HW +04:30. Current: 2.5 knots Ebb. Standard Model Familiarisation Run
Model Name : Ital Cortesia 334	Wind : 10kts from 270°	
Dimension : 334m x 42.8m x 12.5m	Swell : 2.0m from 225°	
Displacement : 117,663 tonnes	Current : 2.7kts to 220°	
	Tide : 1.14m (HW +04:30)	
		Standard arrival as expected.

\* Wind, Swell & Current max effect during run, Tide at Reference Port

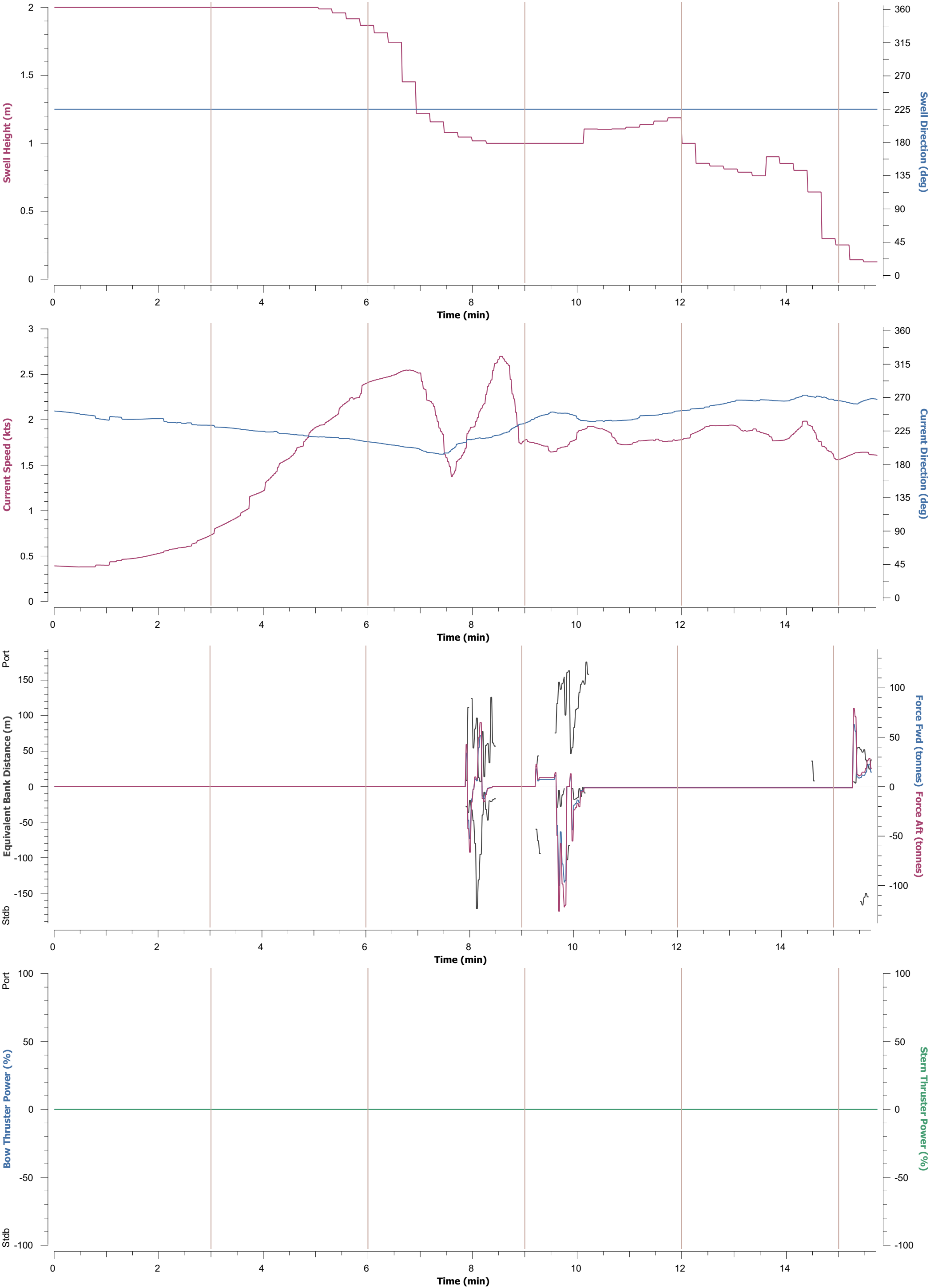






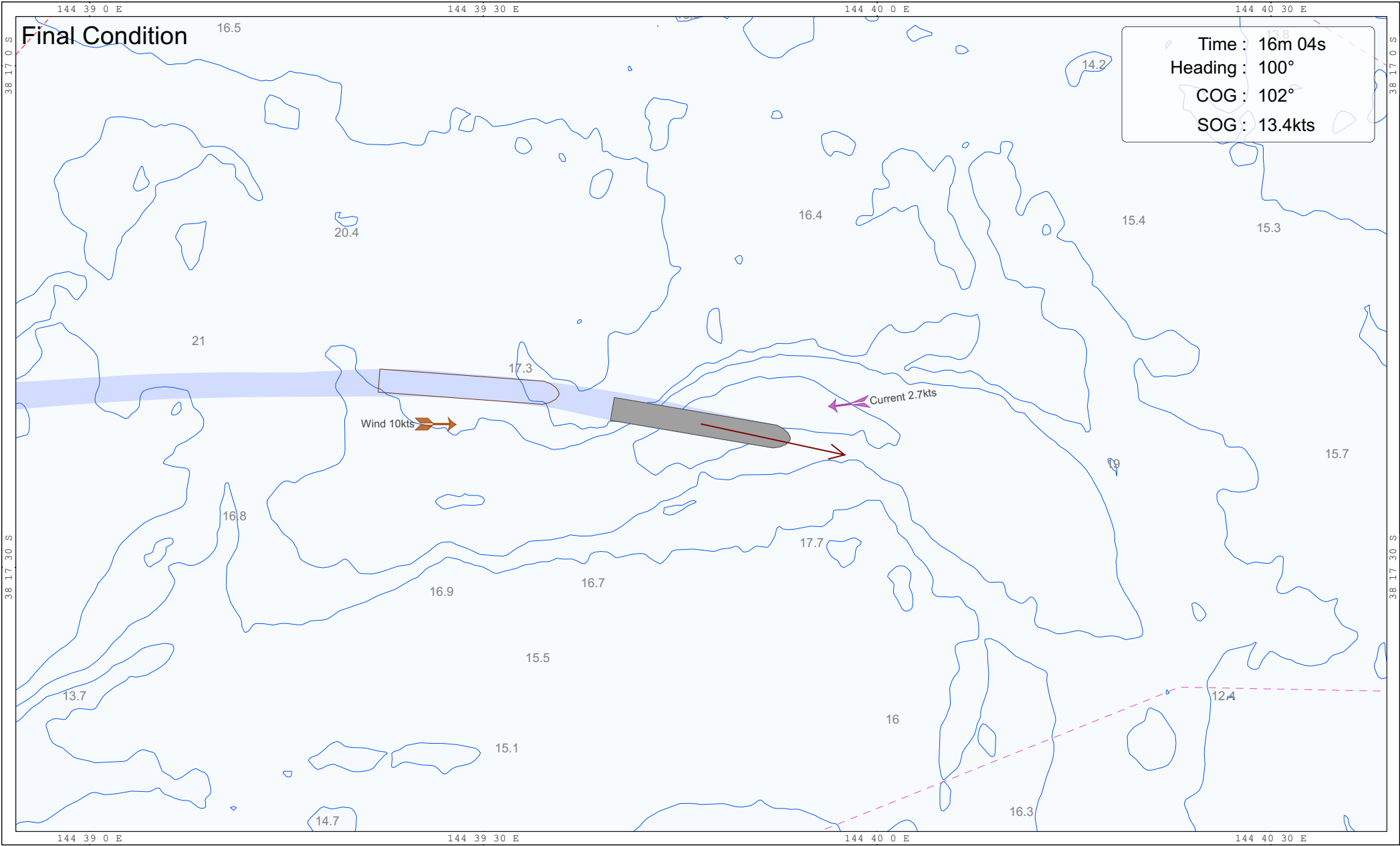
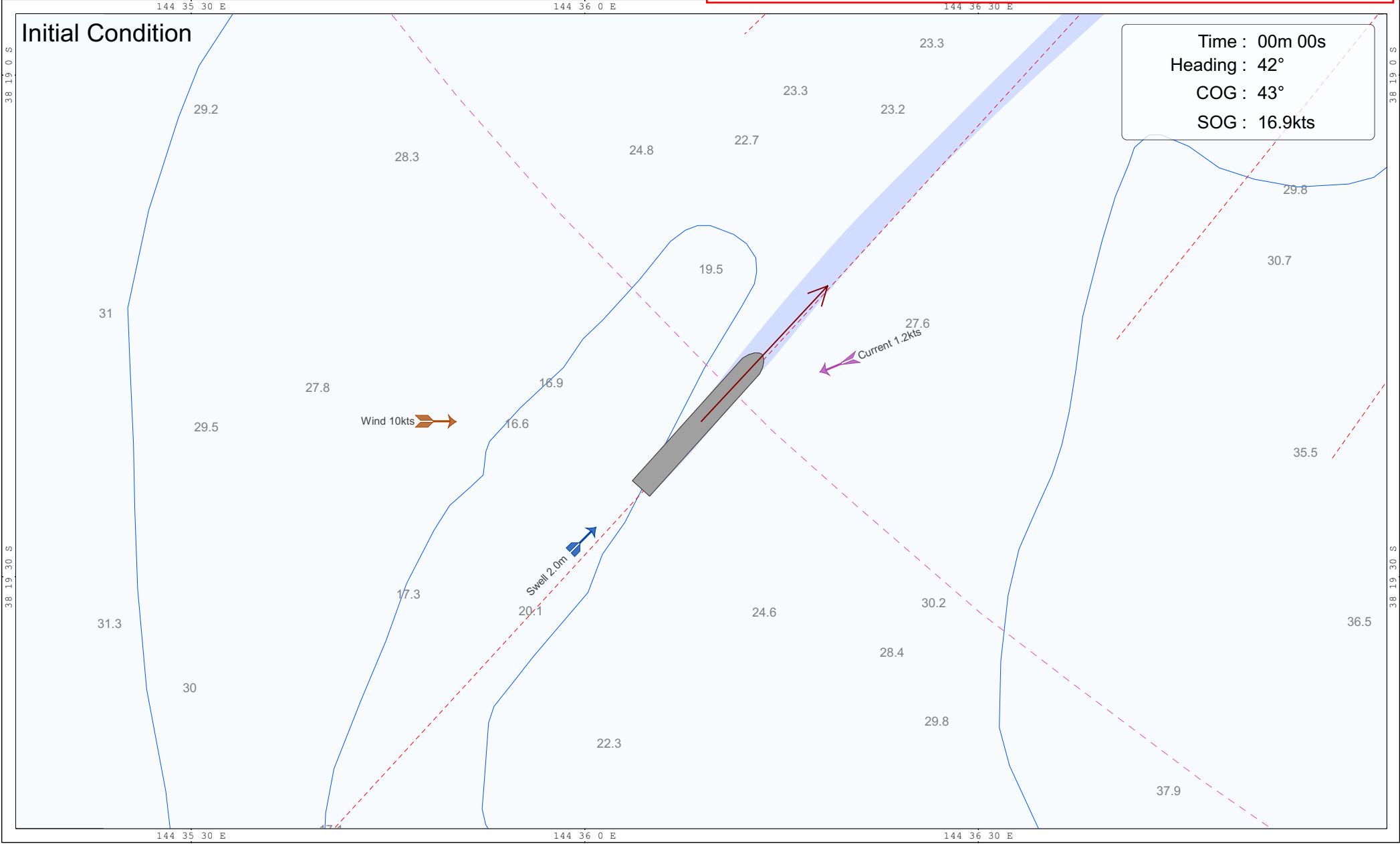


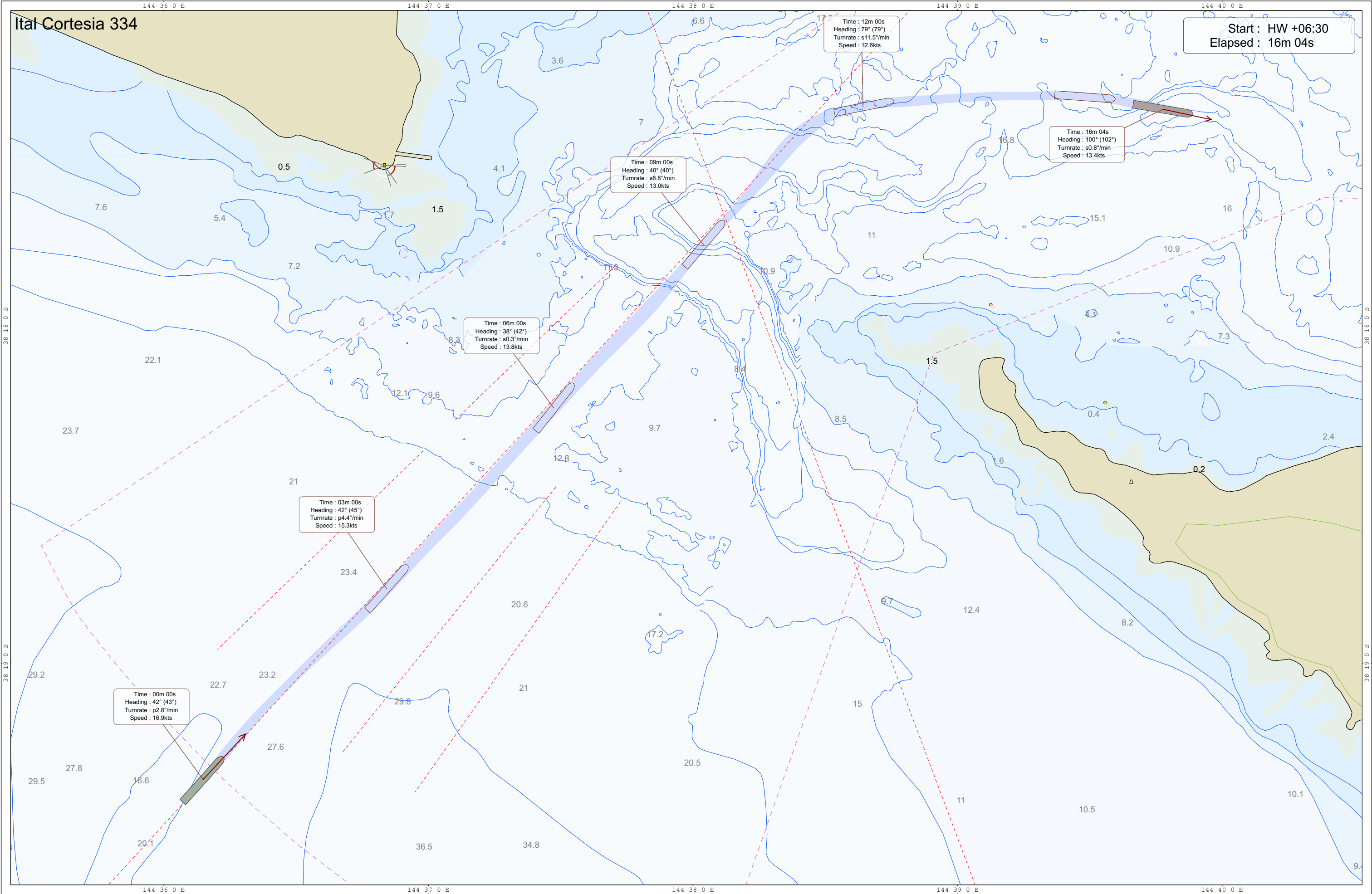


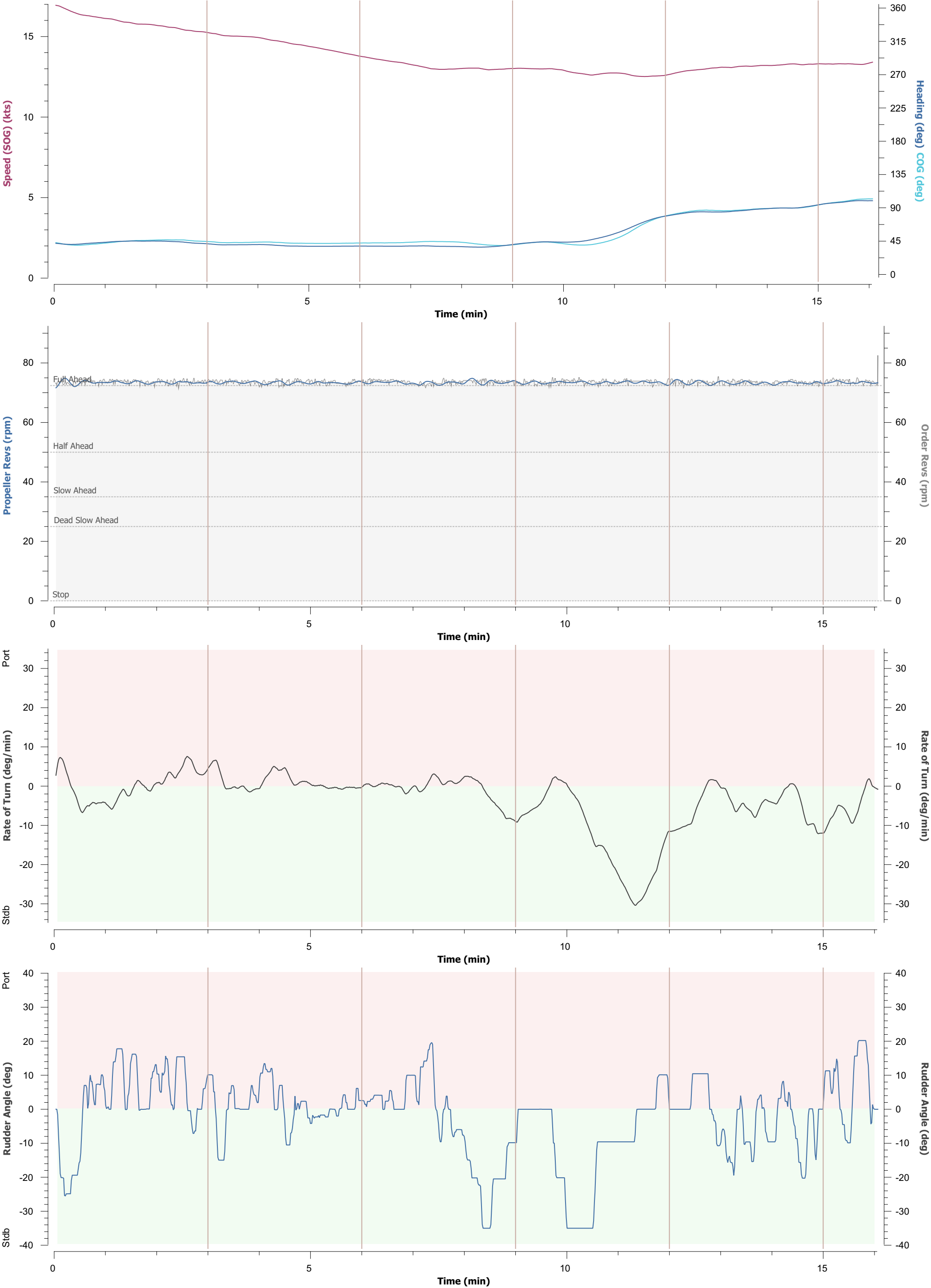


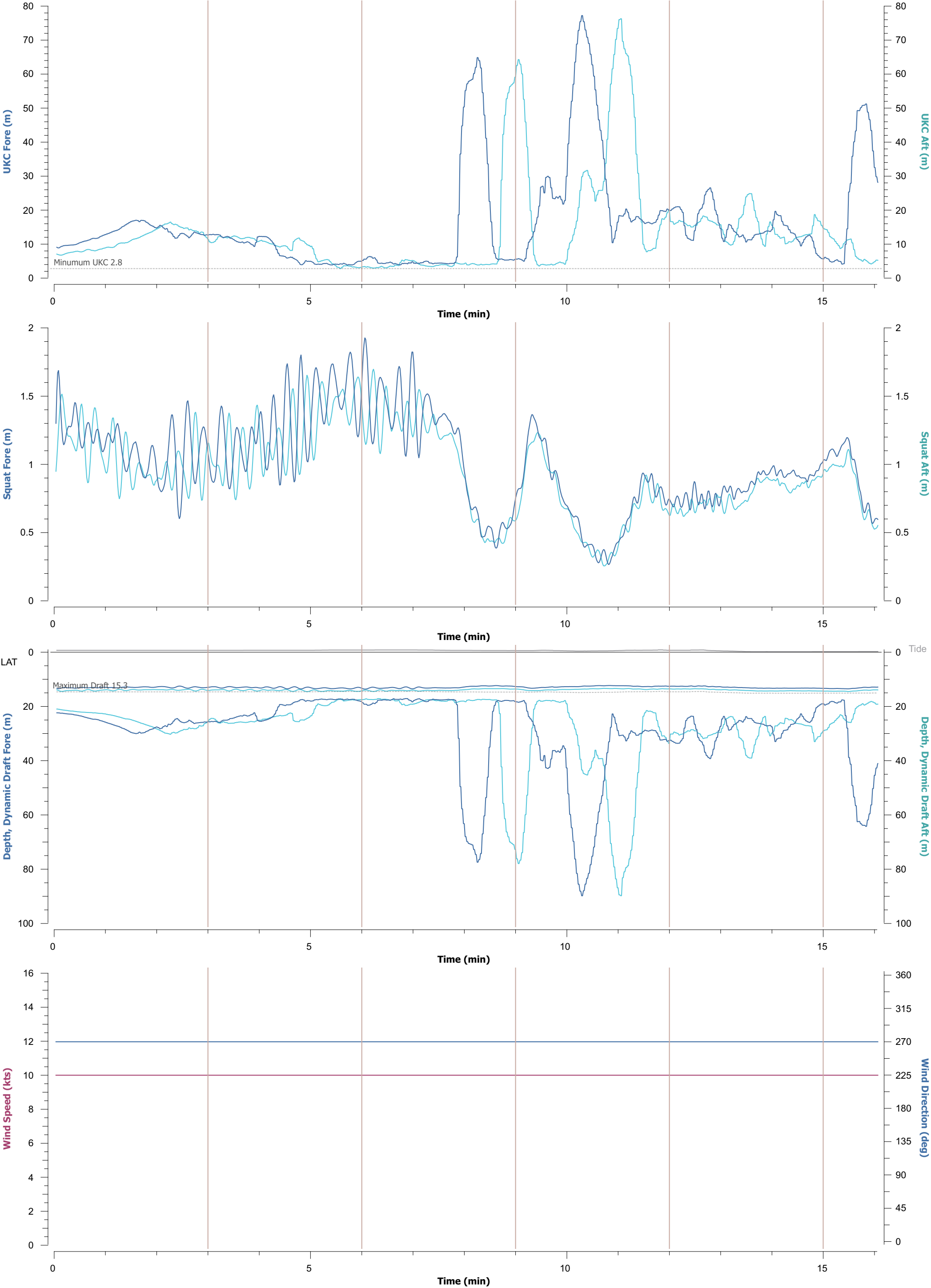


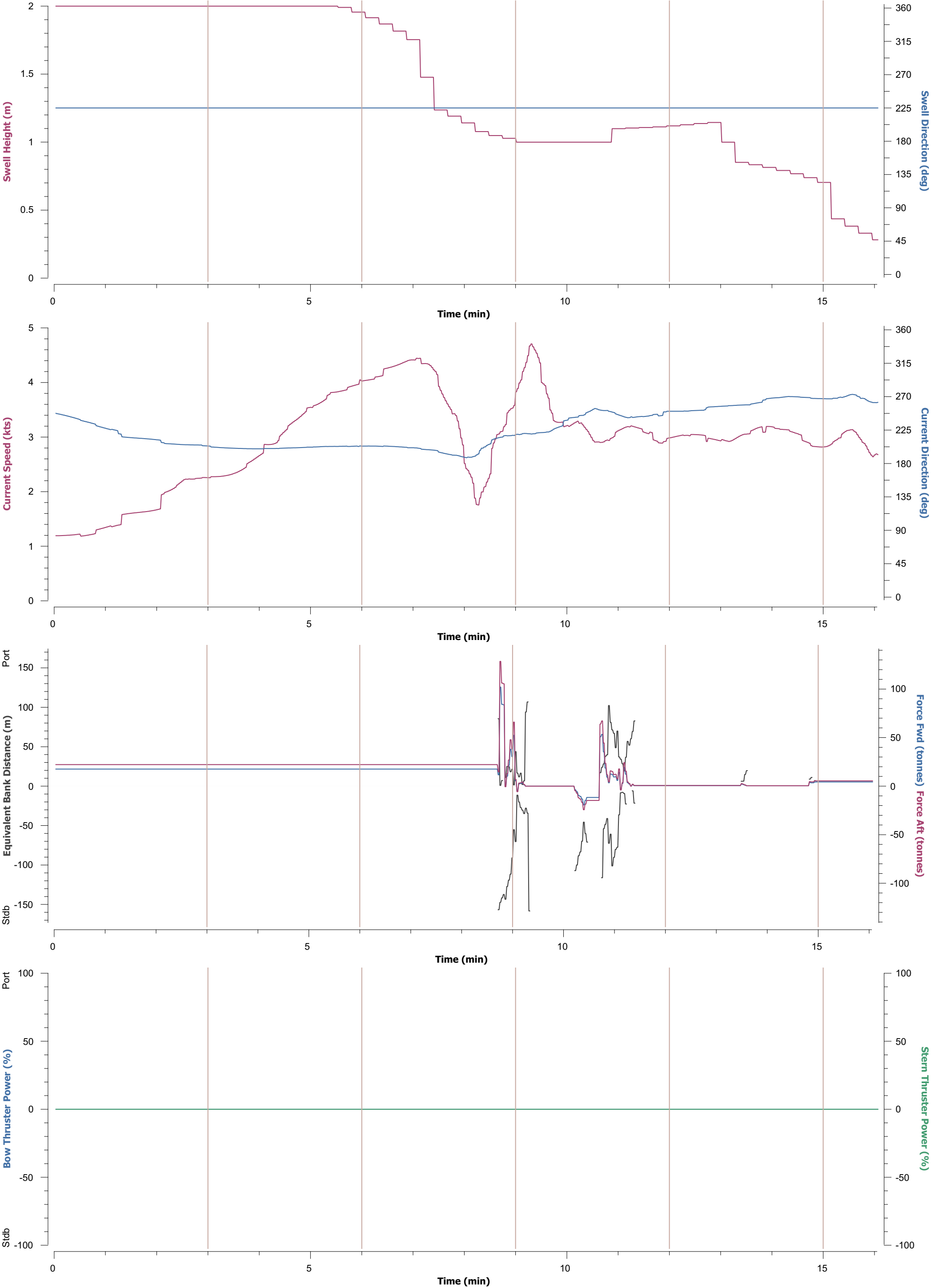
Details		Comments
Model : CO334LDA	Area : melbourne	Ital Cortesia 334 Inbound from Sea. Wind: W x 10kts. Swell: SW x 2.0m @ 10s. Tide: HW +06:30. Current: 4.0 knots Ebb. Standard Model Familiarisation Run
Model Name : Ital Cortesia 334	Wind : 10kts from 270°	
Dimension : 334m x 42.8m x 12.5m	Swell : 2.0m from 225°	
Displacement : 117,663 tonnes	Current : 4.7kts to 220°	
	Tide : 0.68m (HW +06:30)	
* Wind, Swell & Current max effect during run, Tide at Reference Port		Vessel slow to respond to hard over helm. Would not be conducted in reality. Matter would be made much worse on a slower vessel constrained by draft and DUKC.







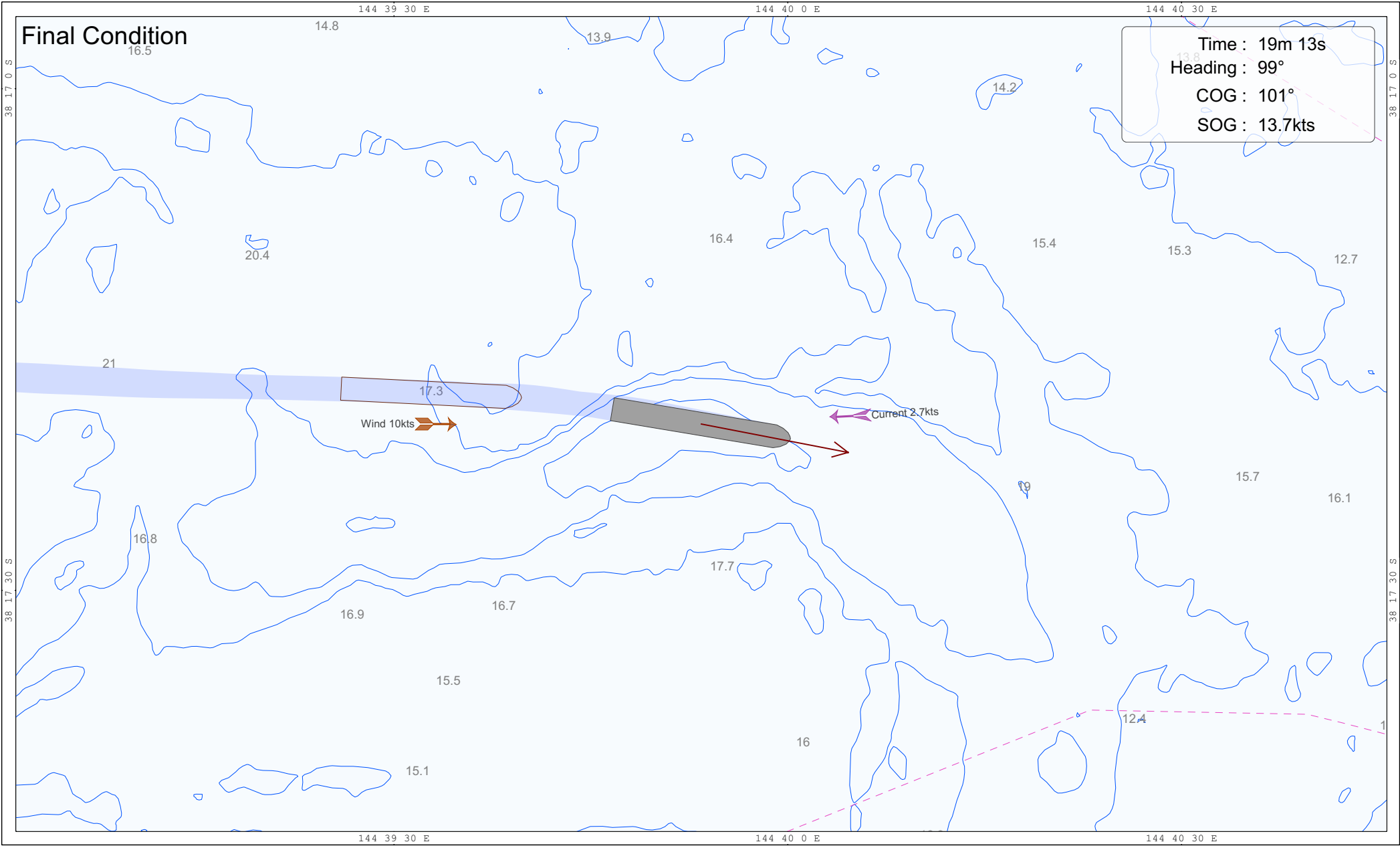
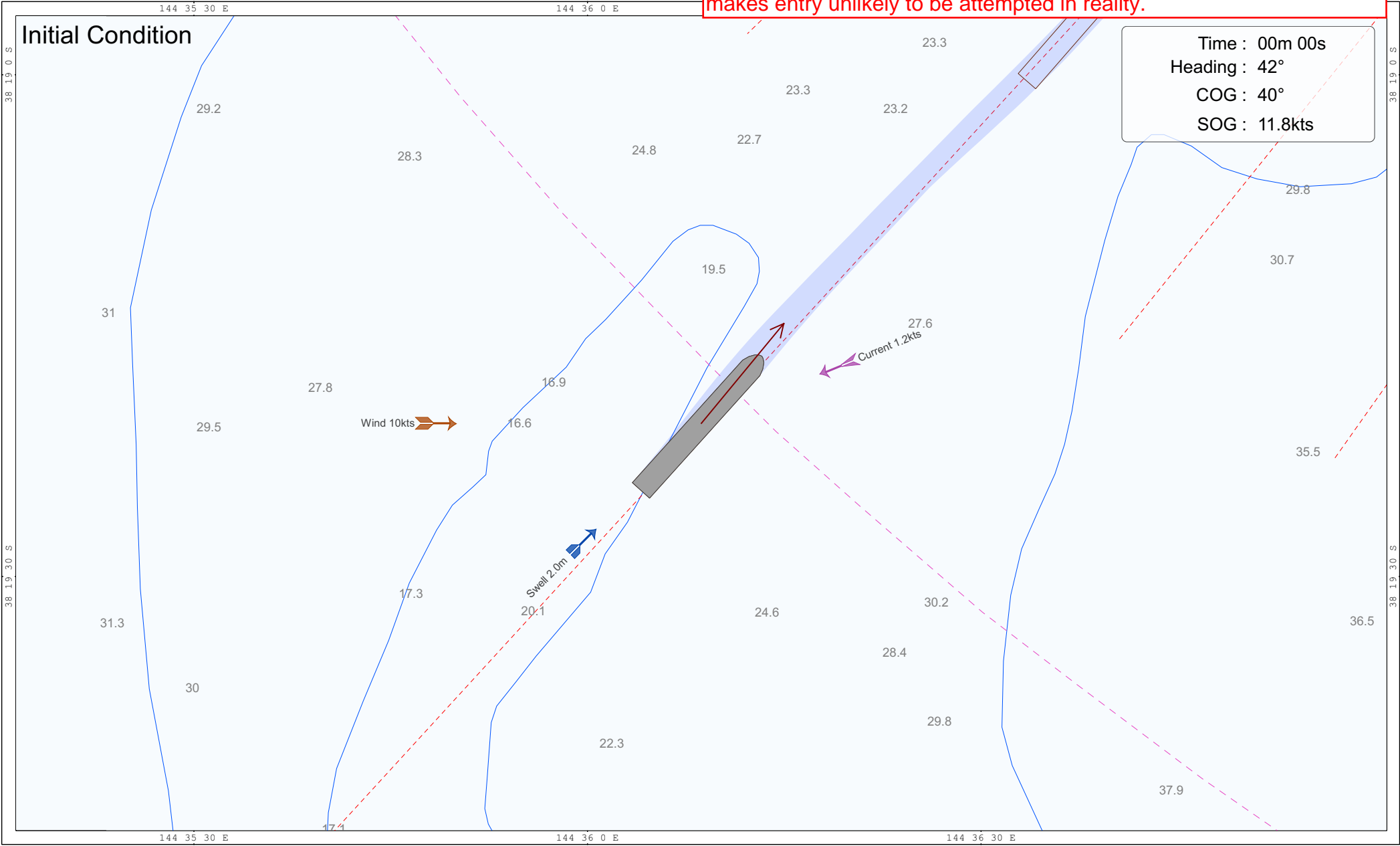




Details		Comments
Model : CO334LDA	Area : melbourne	Ital Cortesia 334 Inbound from Sea. Wind: W x 10kts. Swell: SW x 2.0m @ 10s. Tide: HW +06:30. Current: 4.0 knots Ebb. Standard Model Vessel speed restricted to 13 knots (Half Ahead) to simulate vessel constrained by DUKC
Model Name : Ital Cortesia 334	Wind : 10kts from 270°	
Dimension : 334m x 42.8m x 12.5m	Swell : 2.0m from 225°	
Displacement : 117,663 tonnes	Current : 4.5kts to 199°	
	Tide : 0.68m (HW +06:30)	

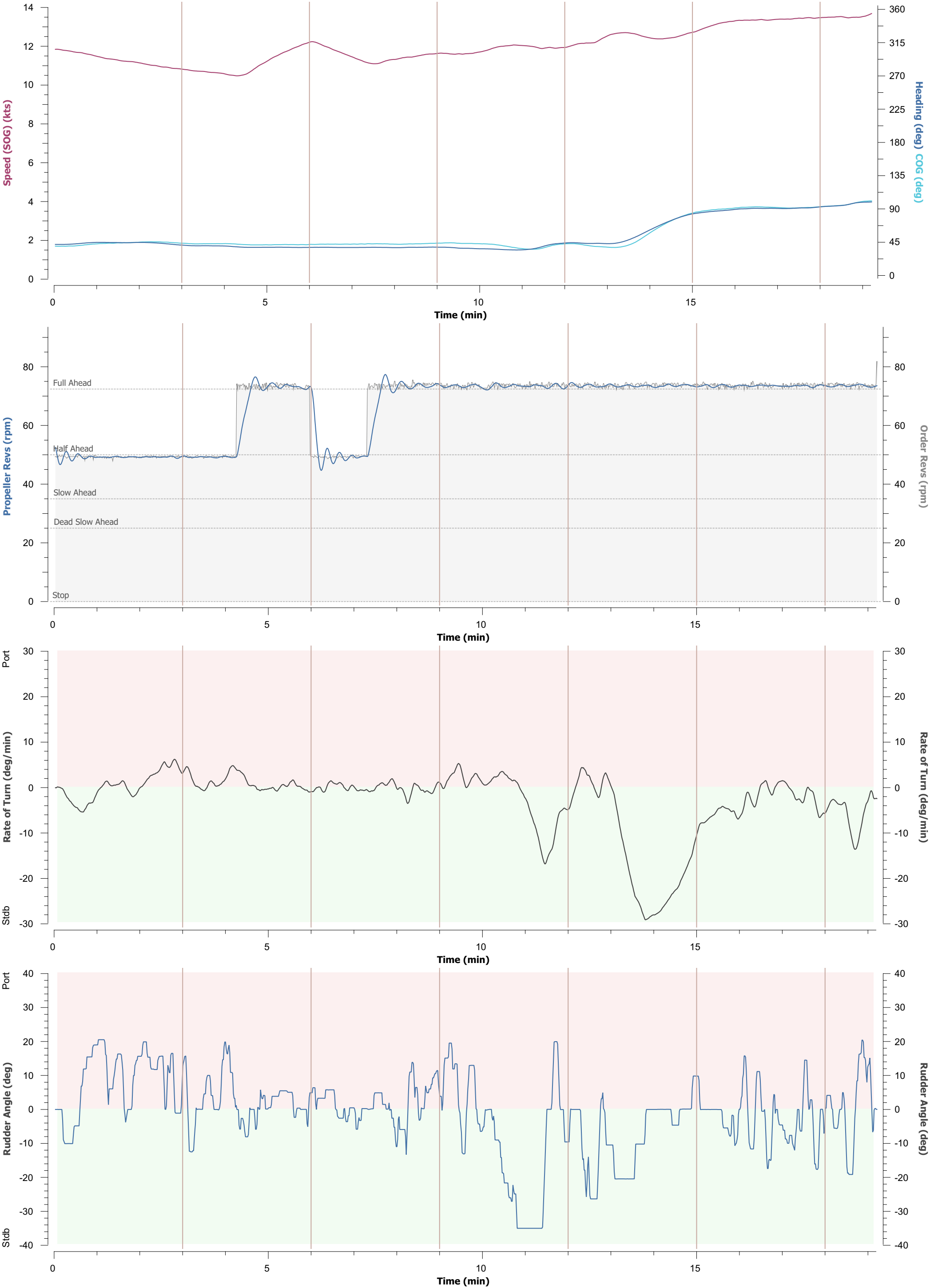
\* Wind, Swell & Current max effect during run, Tide at Reference Port

Engine kicked to Full Ahead to initiate rotation, without increasing speed.  
Many variables with regard to vessel manoeuvrability and reliability makes entry unlikely to be attempted in reality.

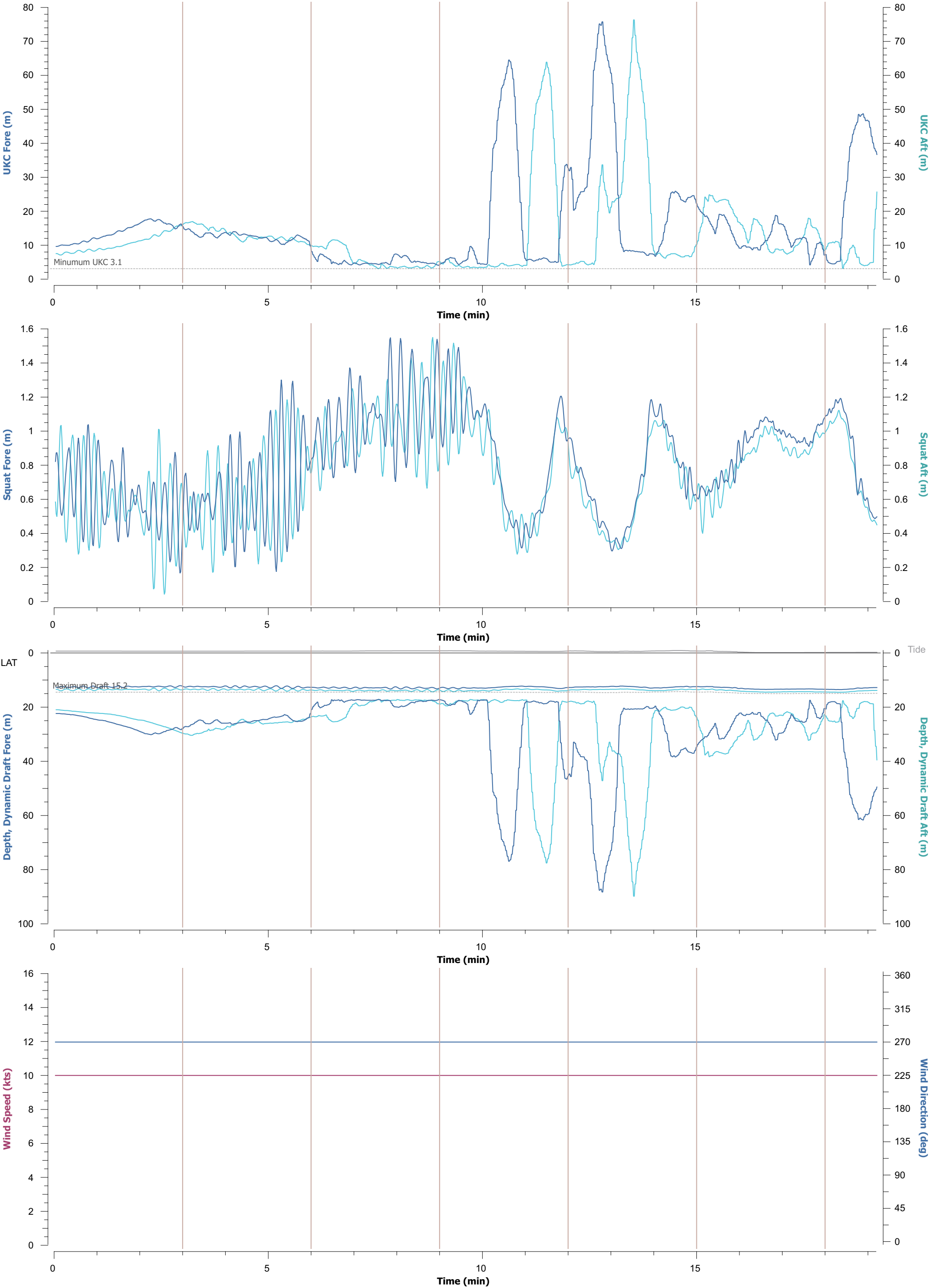


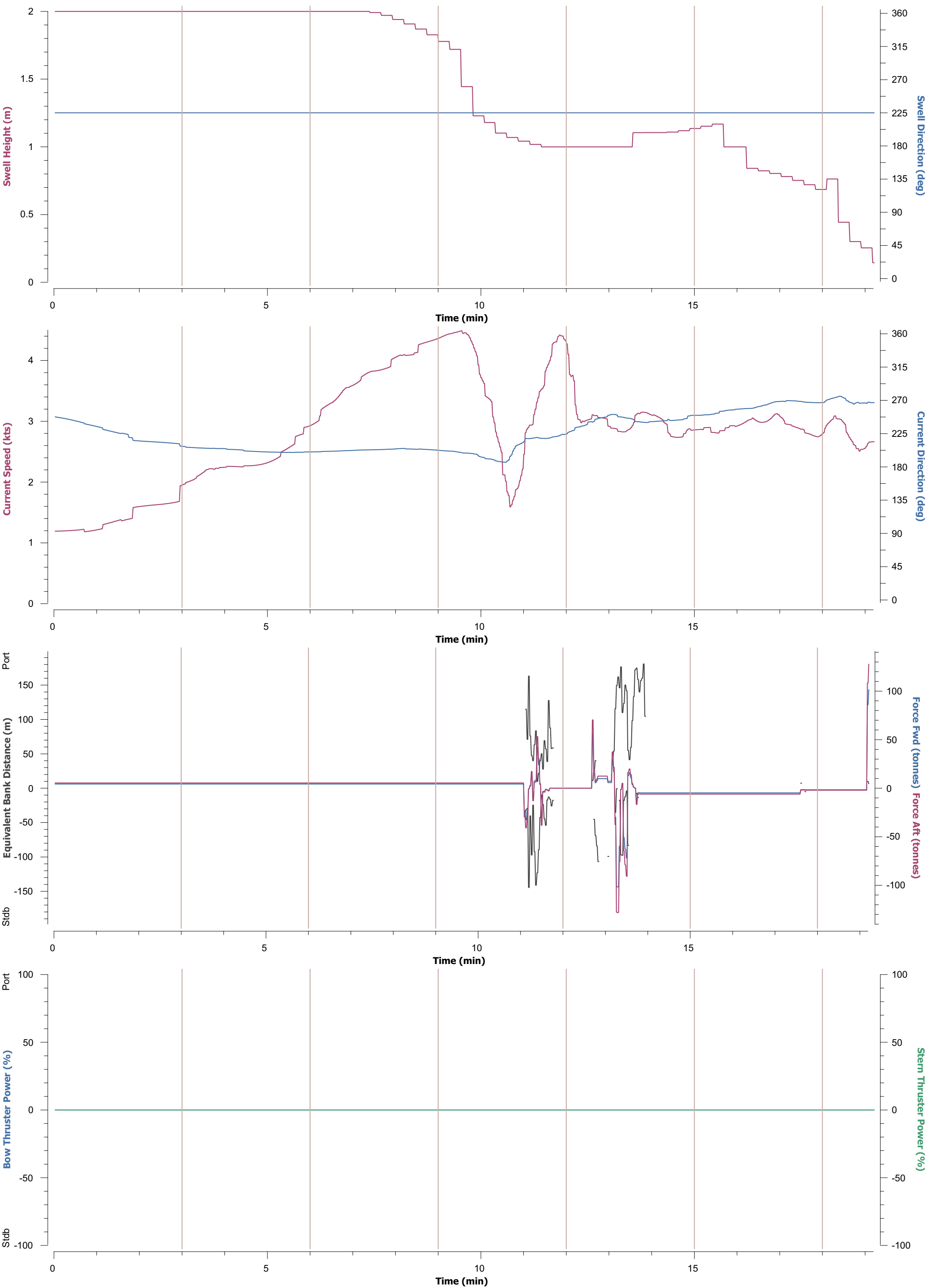




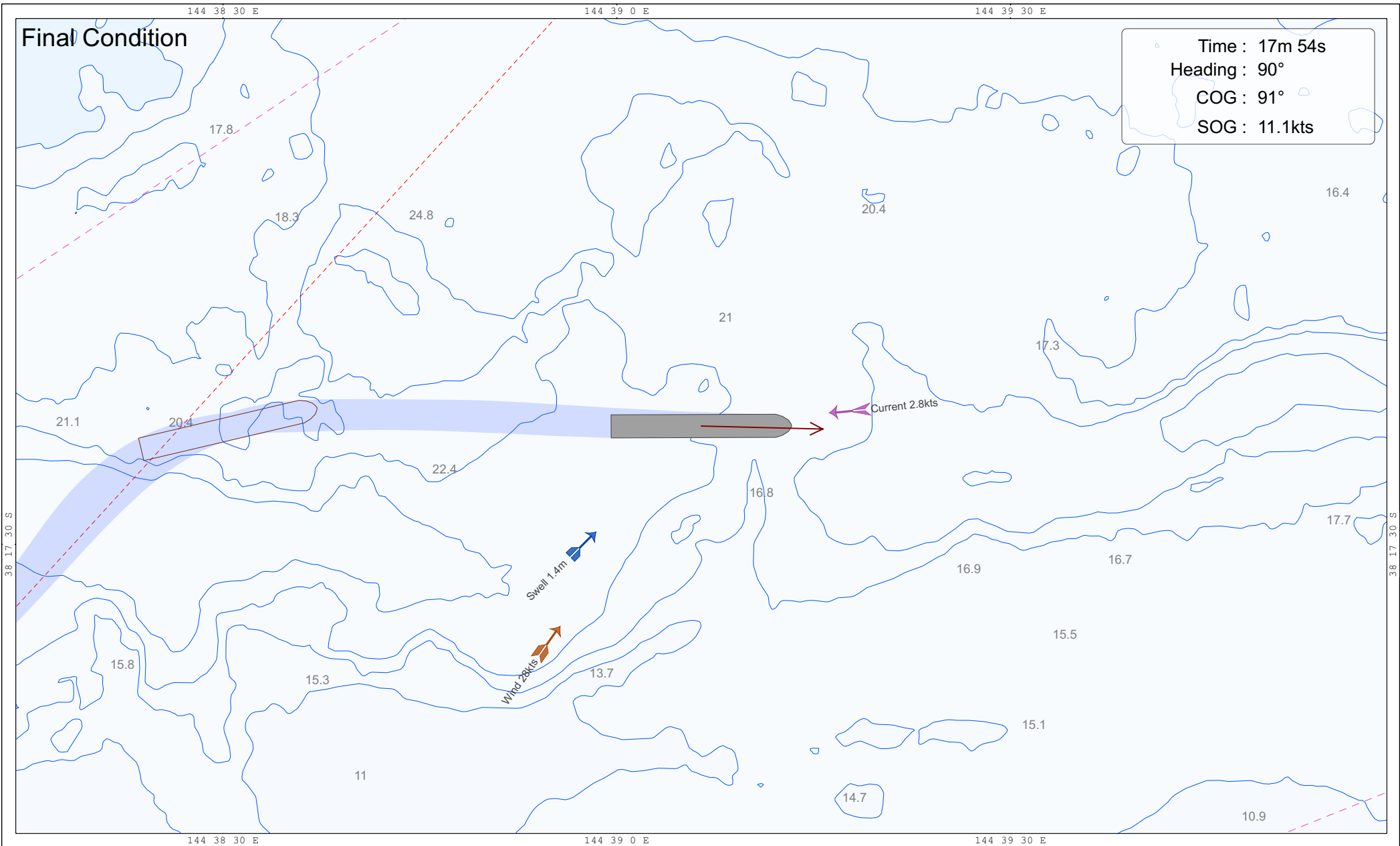
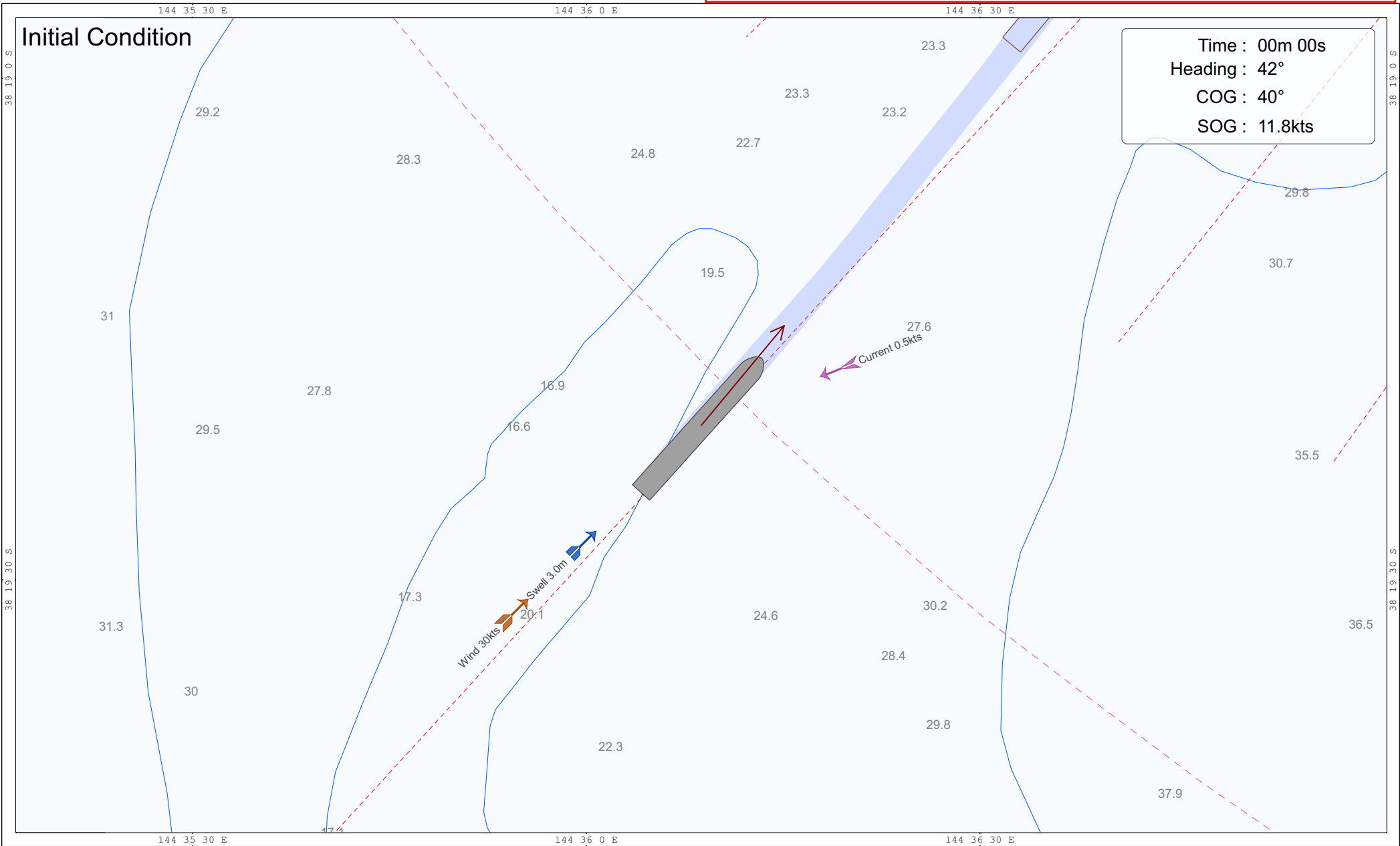




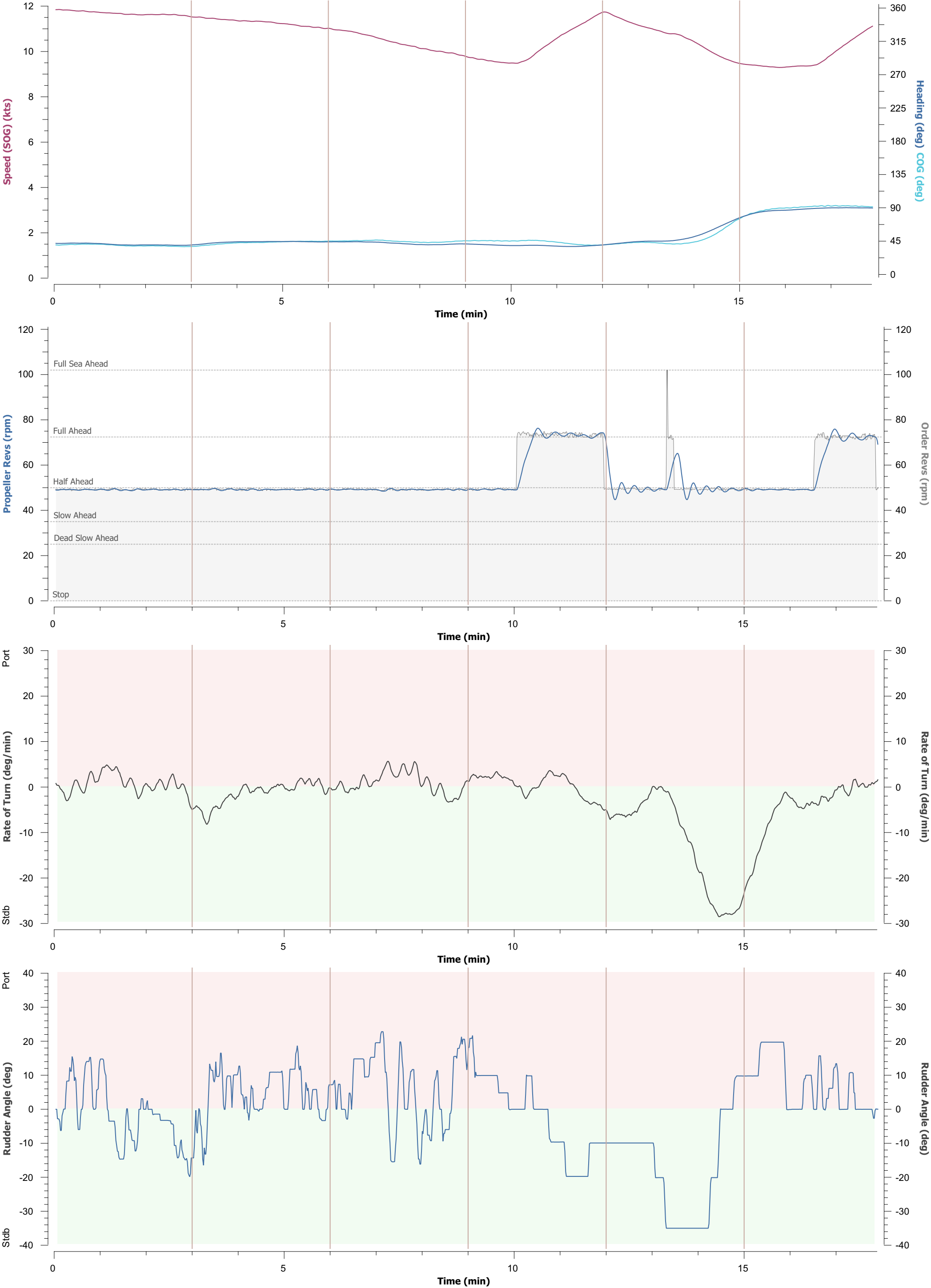


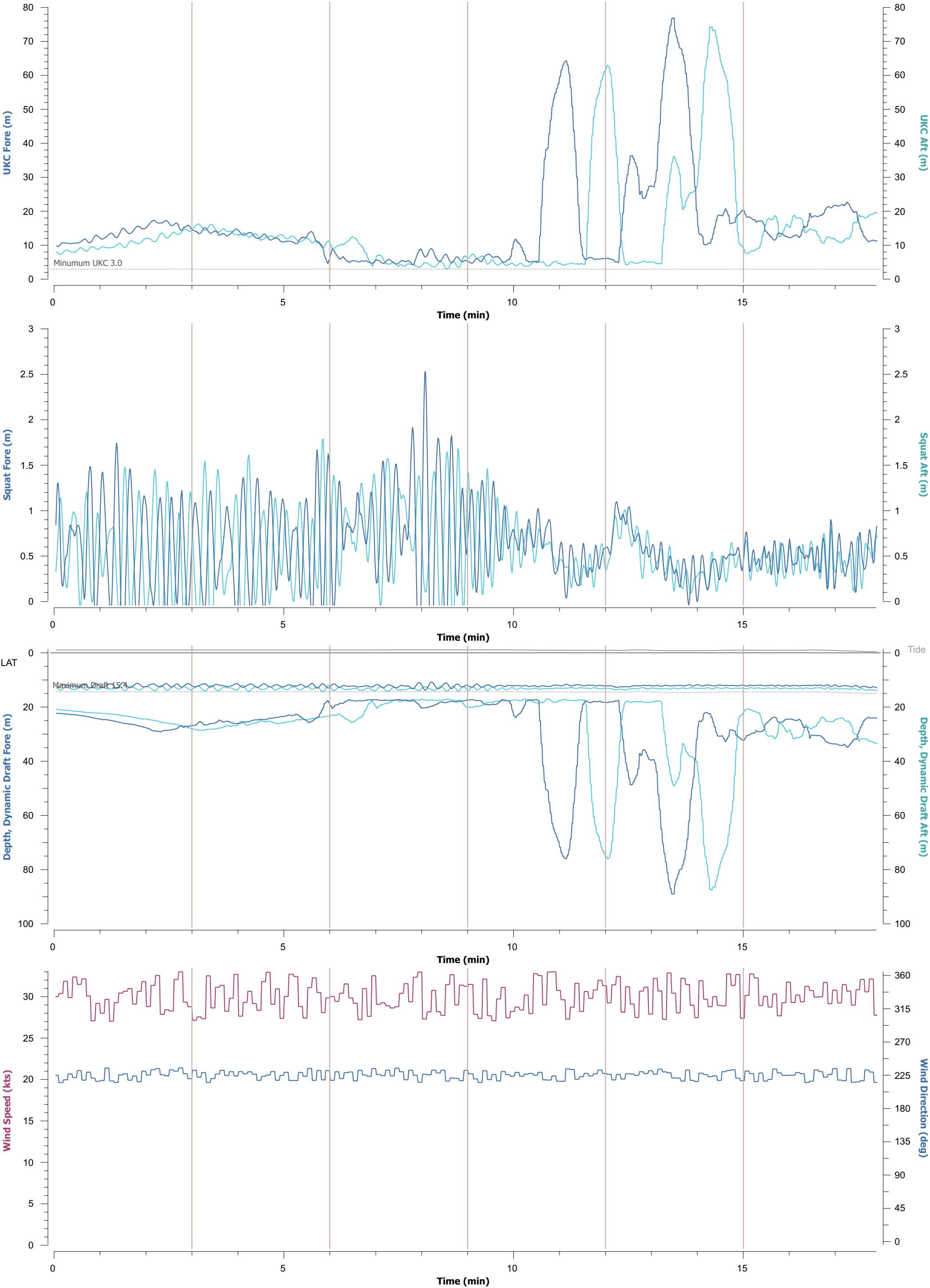


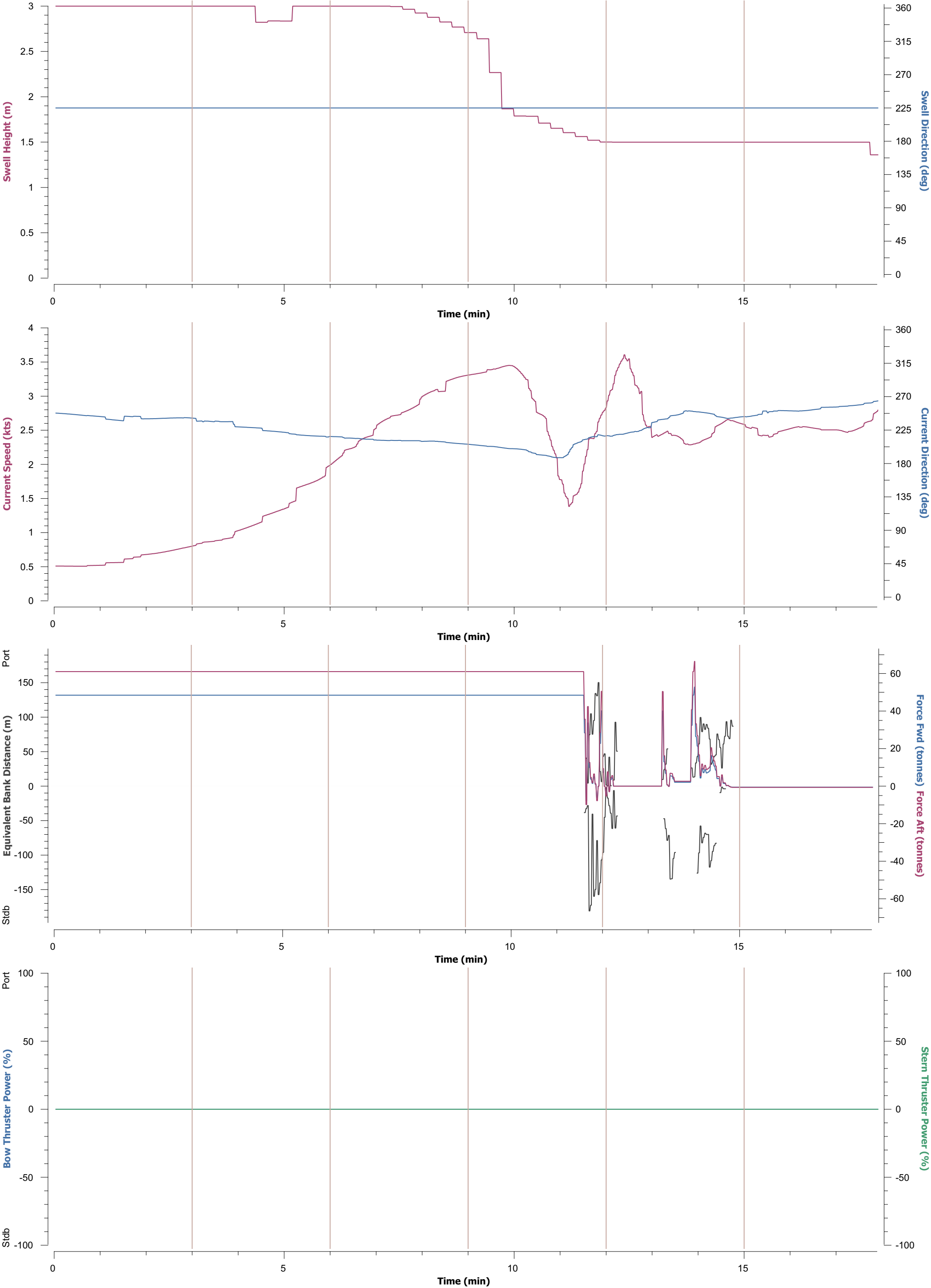
Details		Comments
Model : CO334LDA	Area : melbourne	Ital Cortesia 334 Inbound from Sea. Wind: SW x 30kts. Swell: SW x 3.0m @ 12s. Tide: HW +04:50. Current: 3.0 knots Ebb. Standard Model Vessel speed restricted to 13 knots (Half Ahead) to simulate vessel constrained by DUKC <div>Engine kicked from Half to Full Ahead a couple of times to start rotation. Doable, but took considerable effort. Marginal.</div>
Model Name : Ital Cortesia 334	Wind : 33kts from 235°	
Dimension : 334m x 42.8m x 12.5m	Swell : 3.0m from 225°	
Displacement : 117,663 tonnes	Current : 3.6kts to 220°	
	Tide : 1.06m (HW +04:50)	
* Wind, Swell & Current max effect during run, Tide at Reference Port		





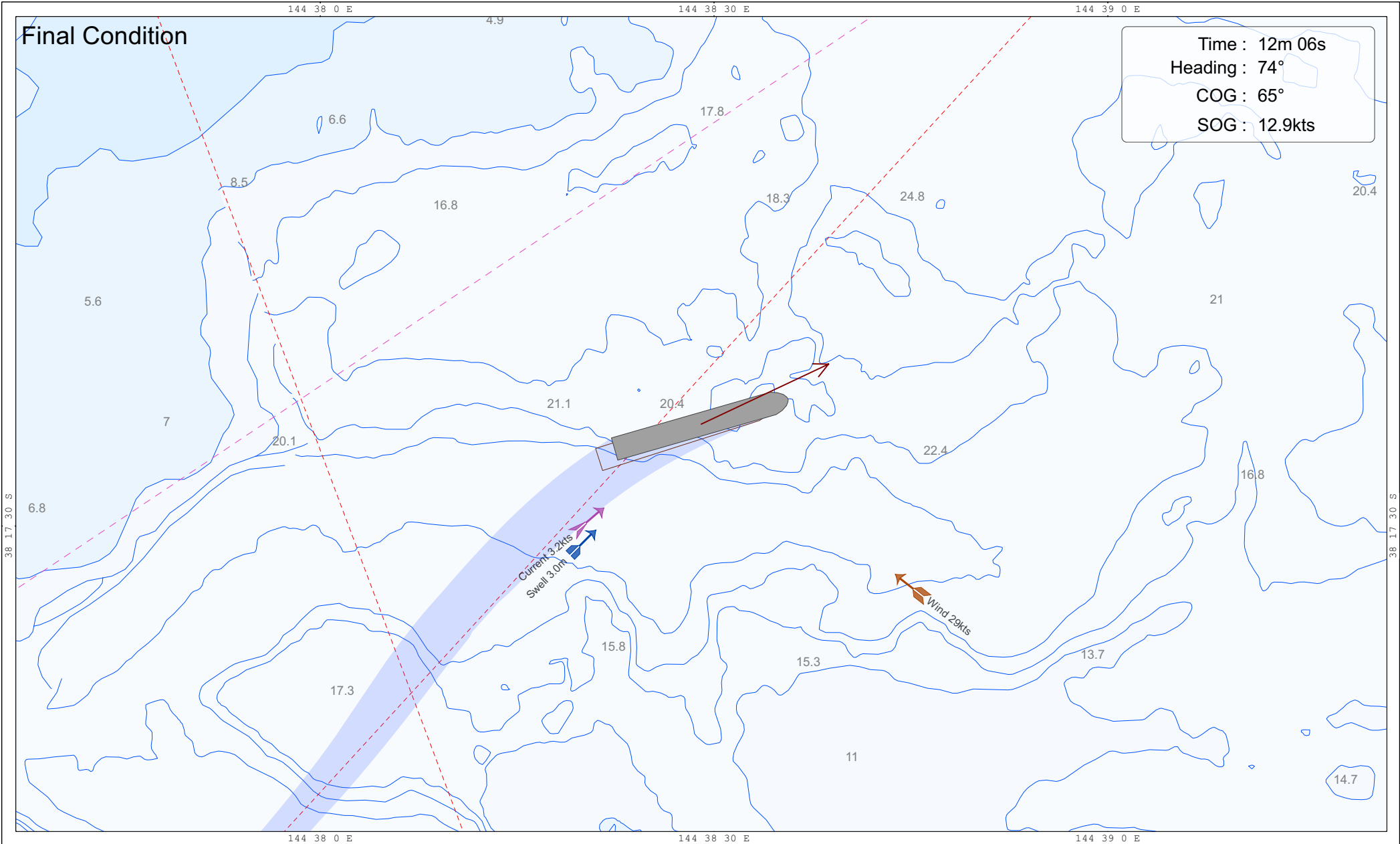
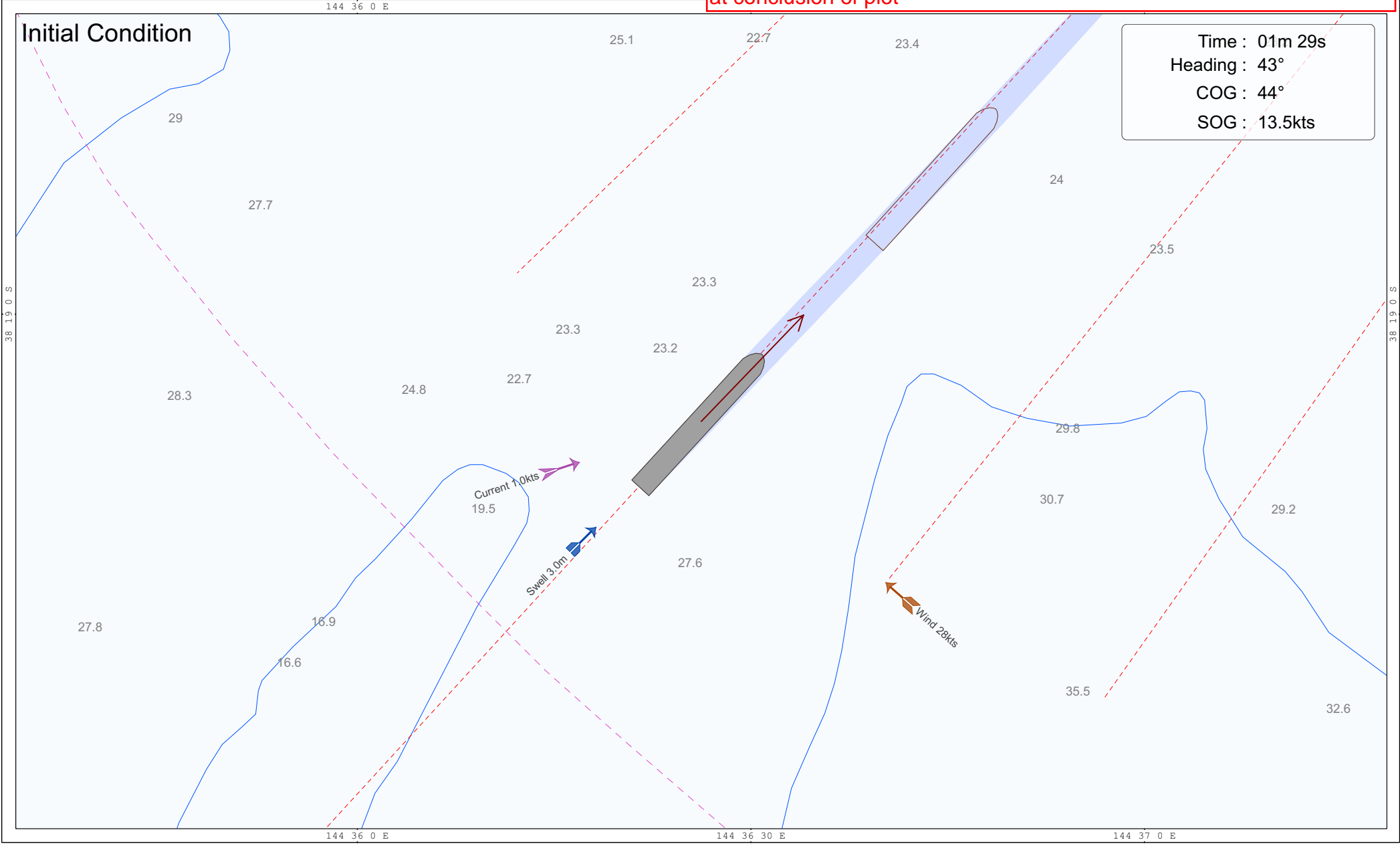




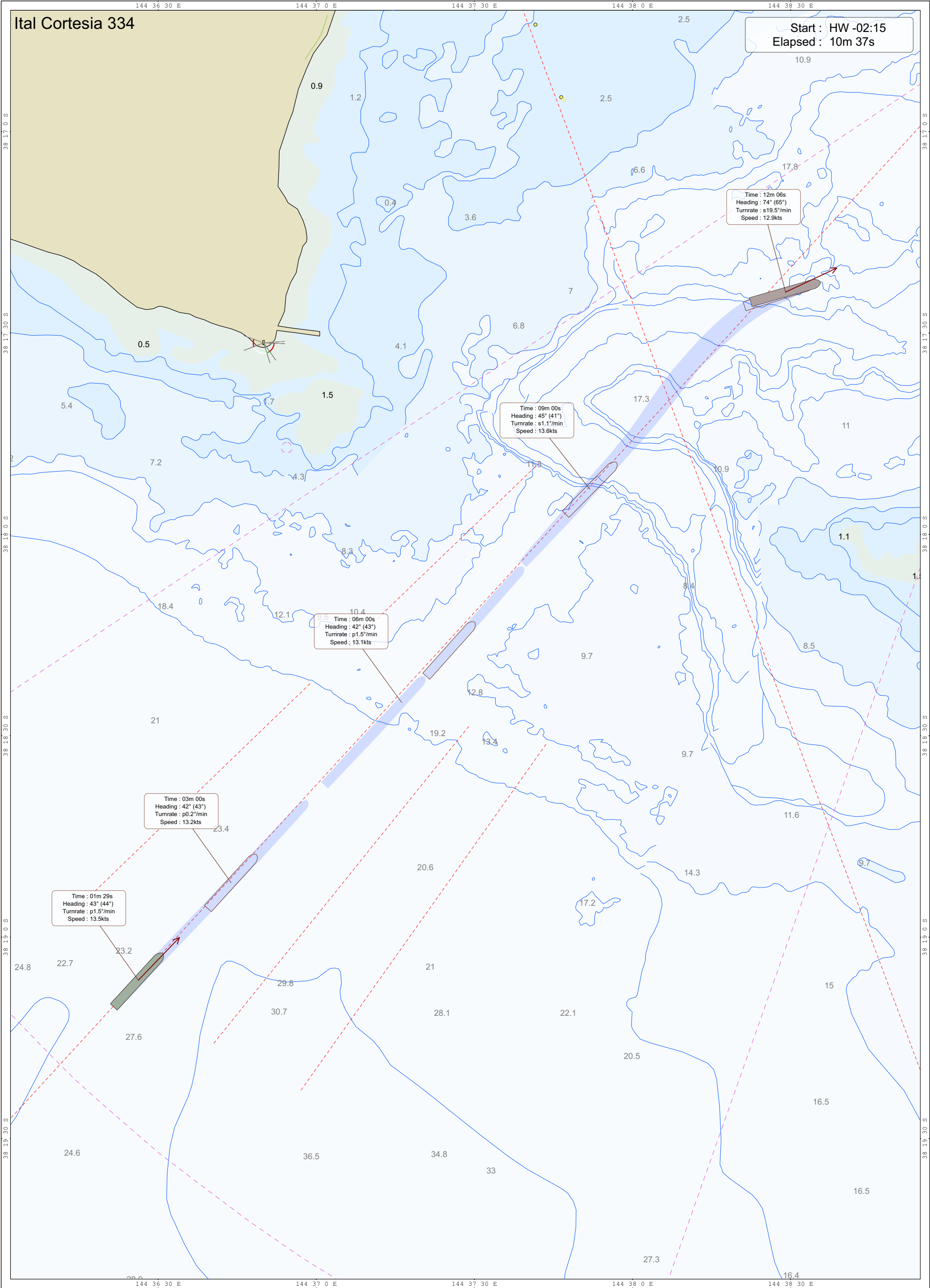


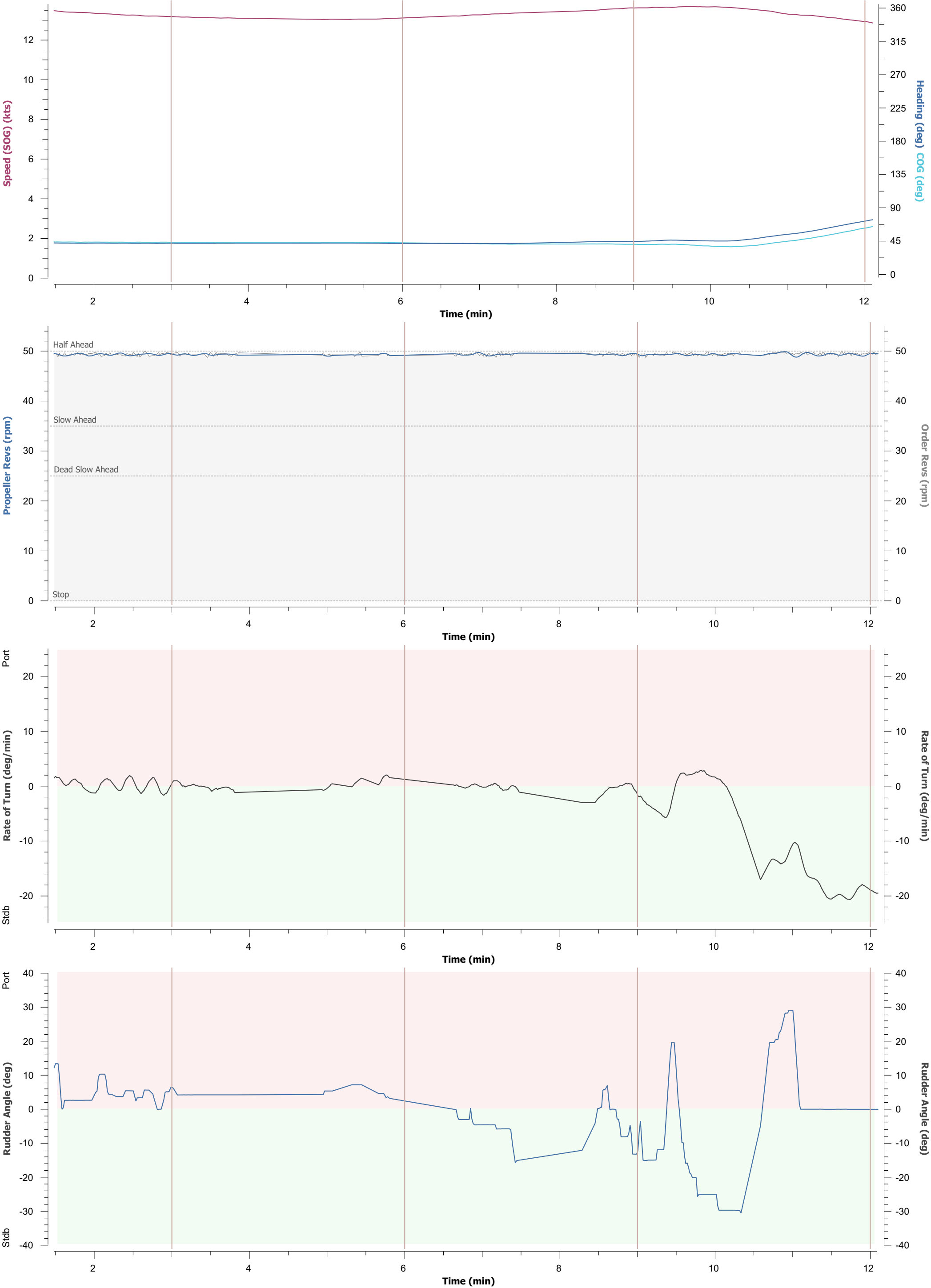


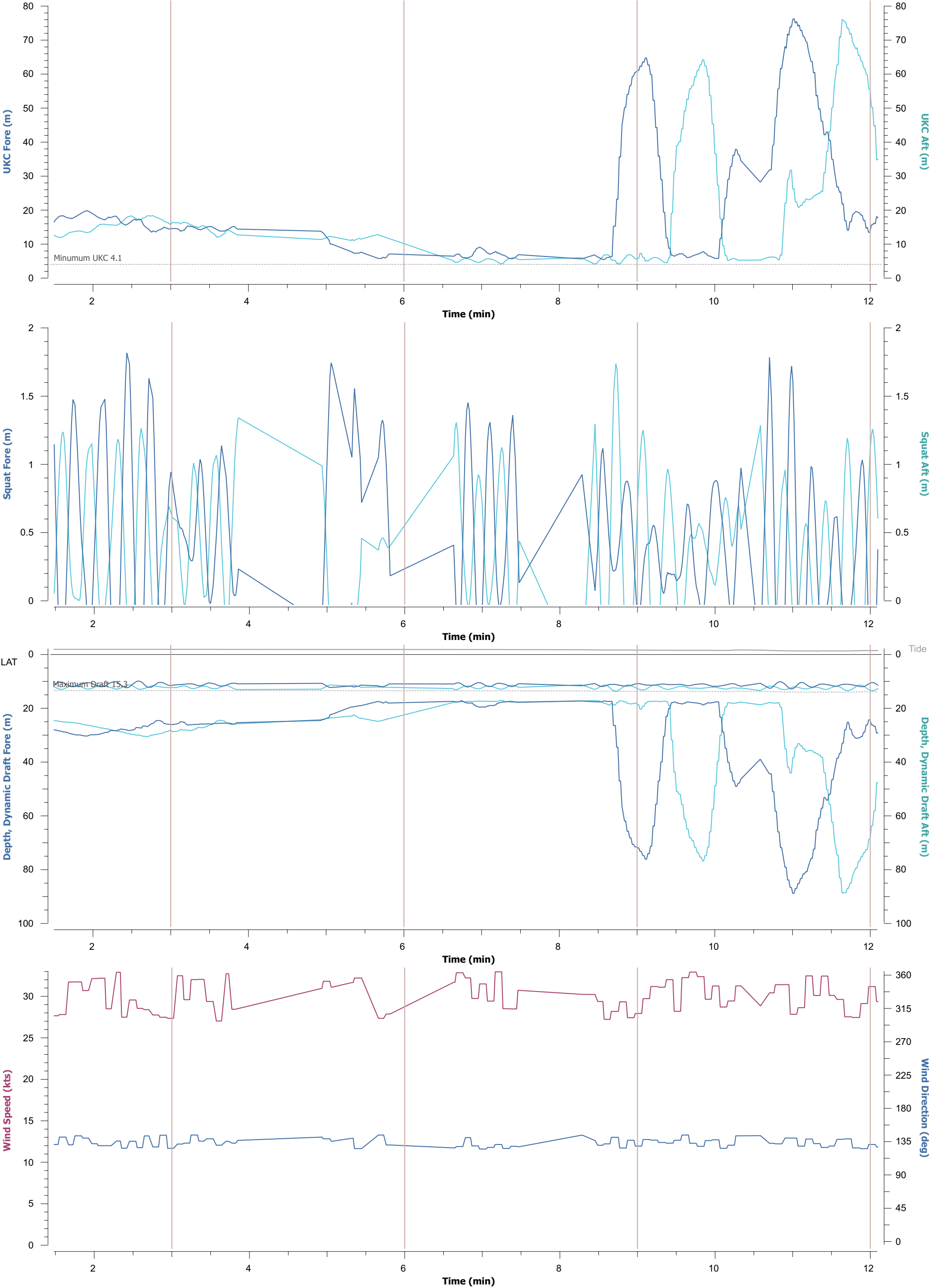
Details		Comments
Model : CO334LDA	Area : melbourne	Ital Cortesia 334 Inbound from Sea. Wind: SE x 30kts. Swell: SW x 3.0m @ 12s. Tide: HW -02:15. Current: 4.0 knots Flood. Standard Model Vessel speed restricted to 13 knots (Half Ahead) to simulate vessel constrained by DUKC <div>Nothing untoward. Swell effect continued further into Bay than normal, reducing ability to counter rotation. Plot curtailed due to plotter server failure. Chartlet of entire run included at conclusion of plot</div>
Model Name : Ital Cortesia 334	Wind : 33kts from 131°	
Dimension : 334m x 42.8m x 12.5m	Swell : 3.0m from 225°	
Displacement : 117,663 tonnes	Current : 4.3kts to 15°	
	Tide : 1.91m (HW -02:15)	
* Wind, Swell & Current max effect during run, Tide at Reference Port		

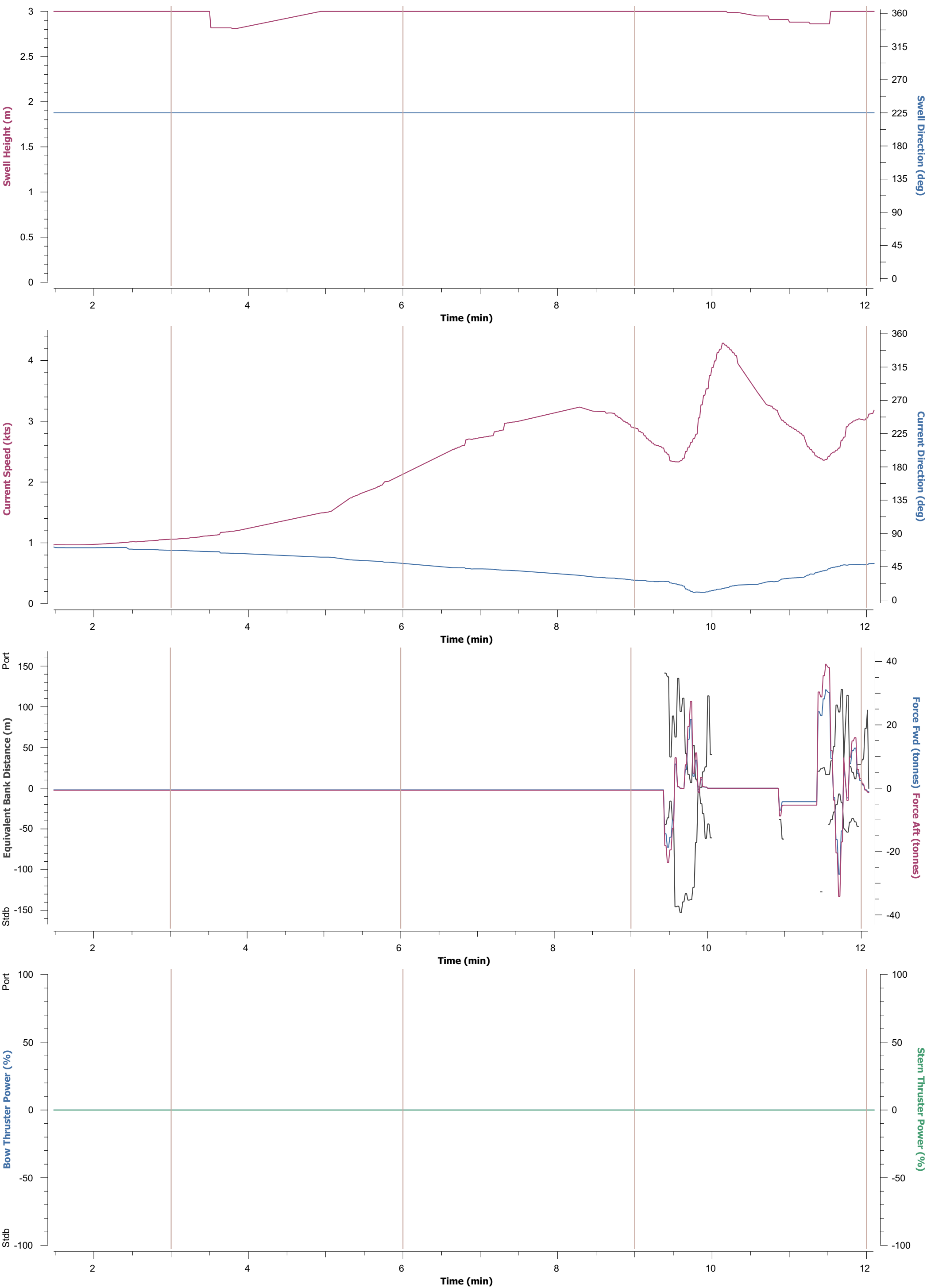




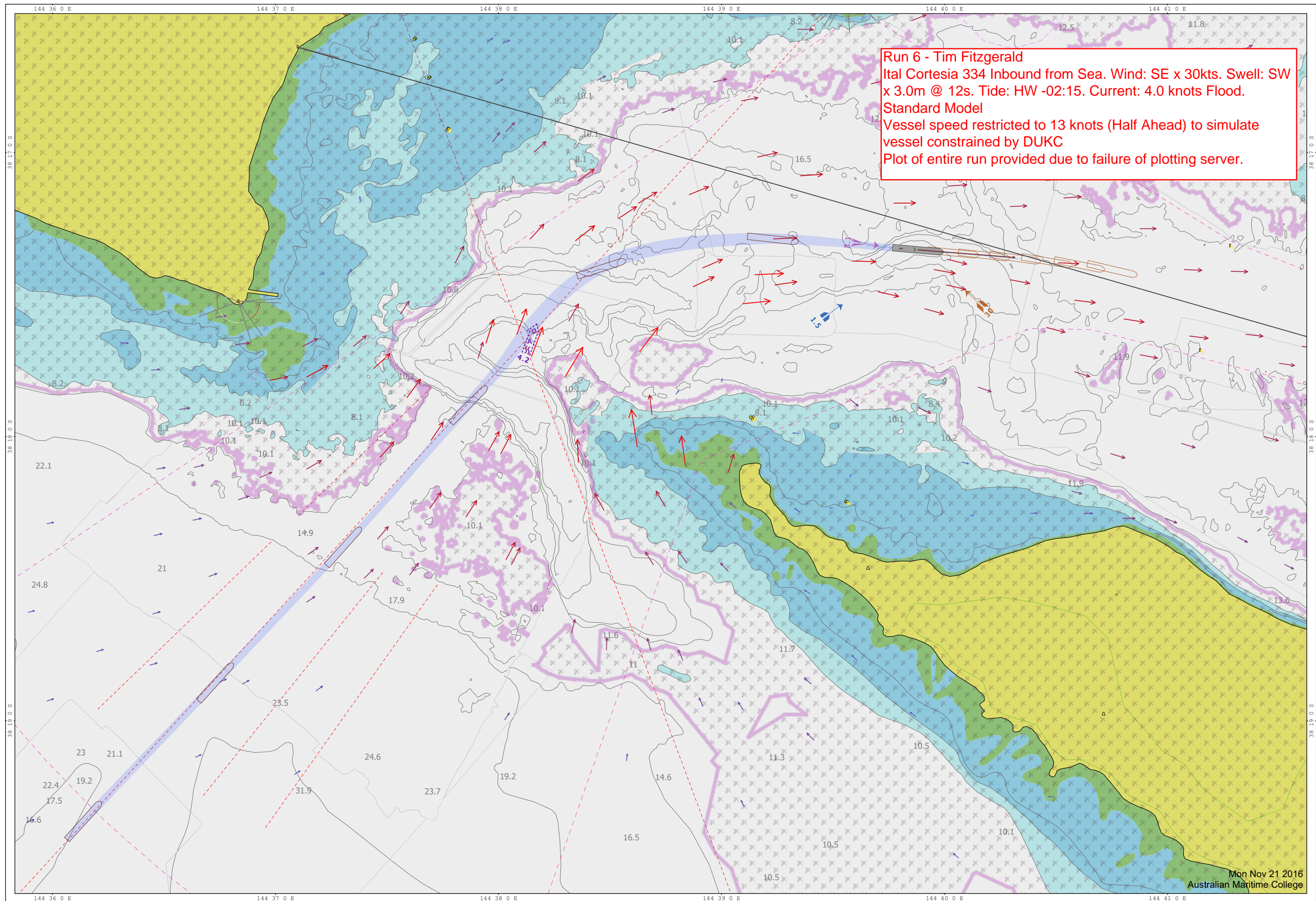








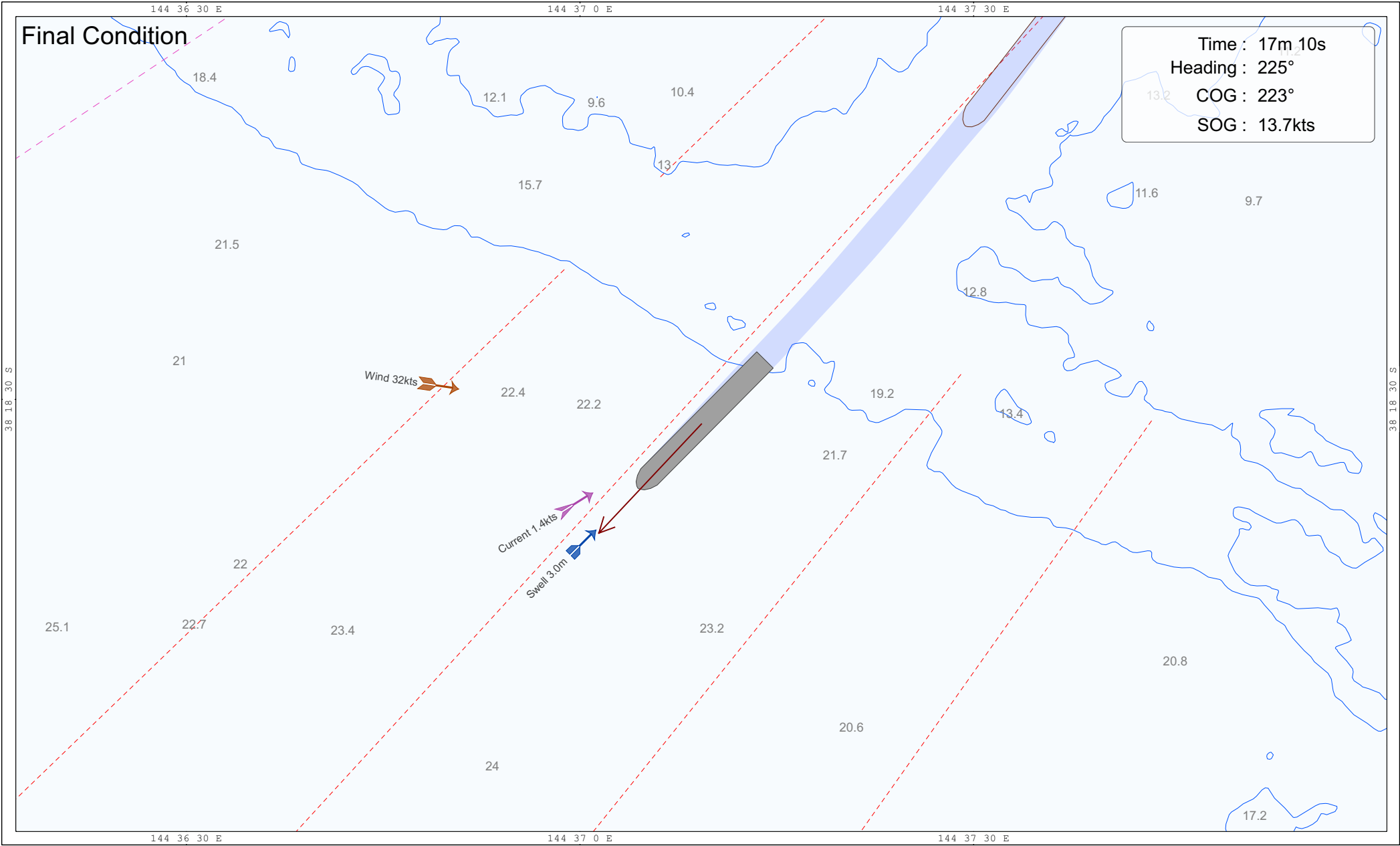
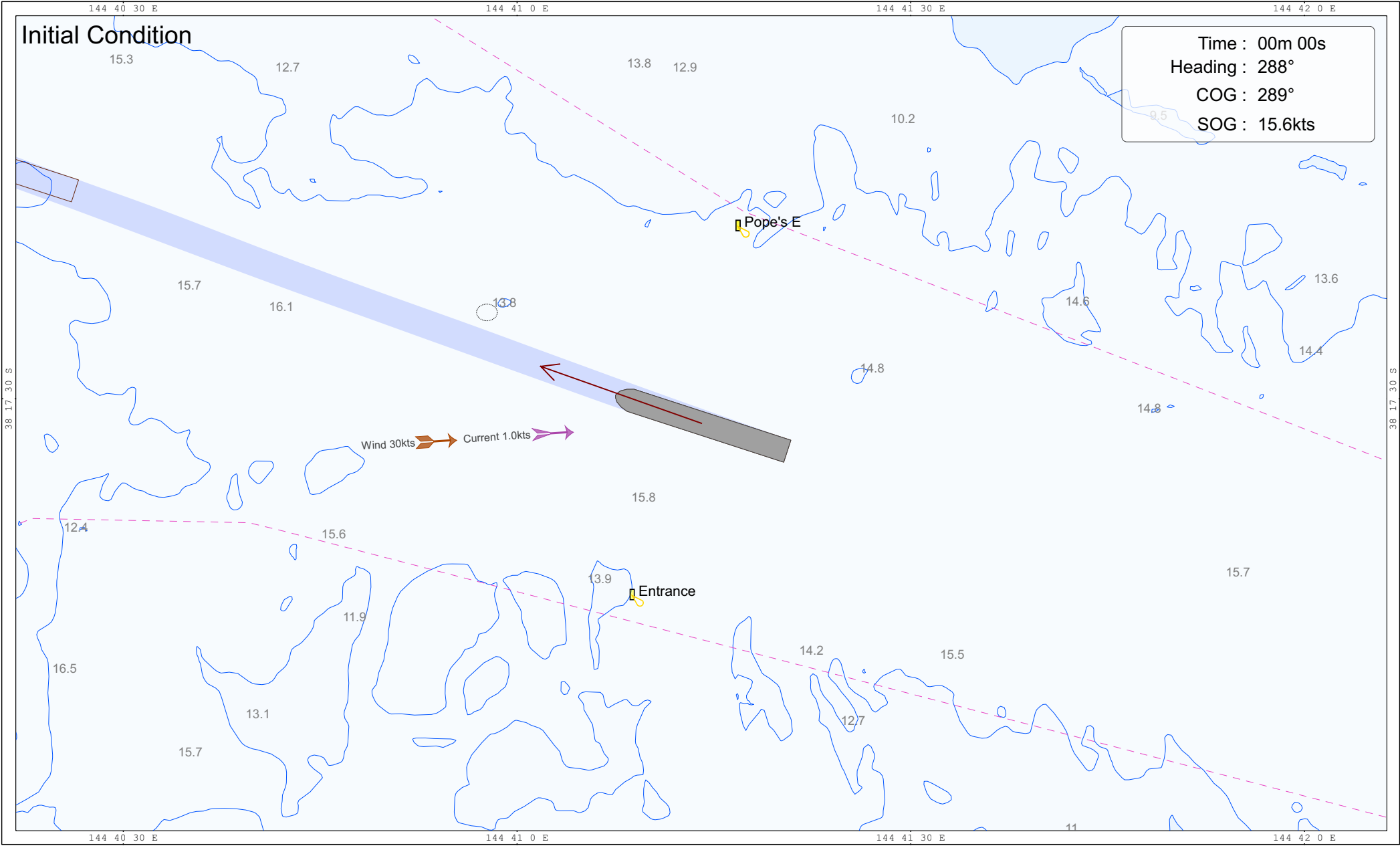




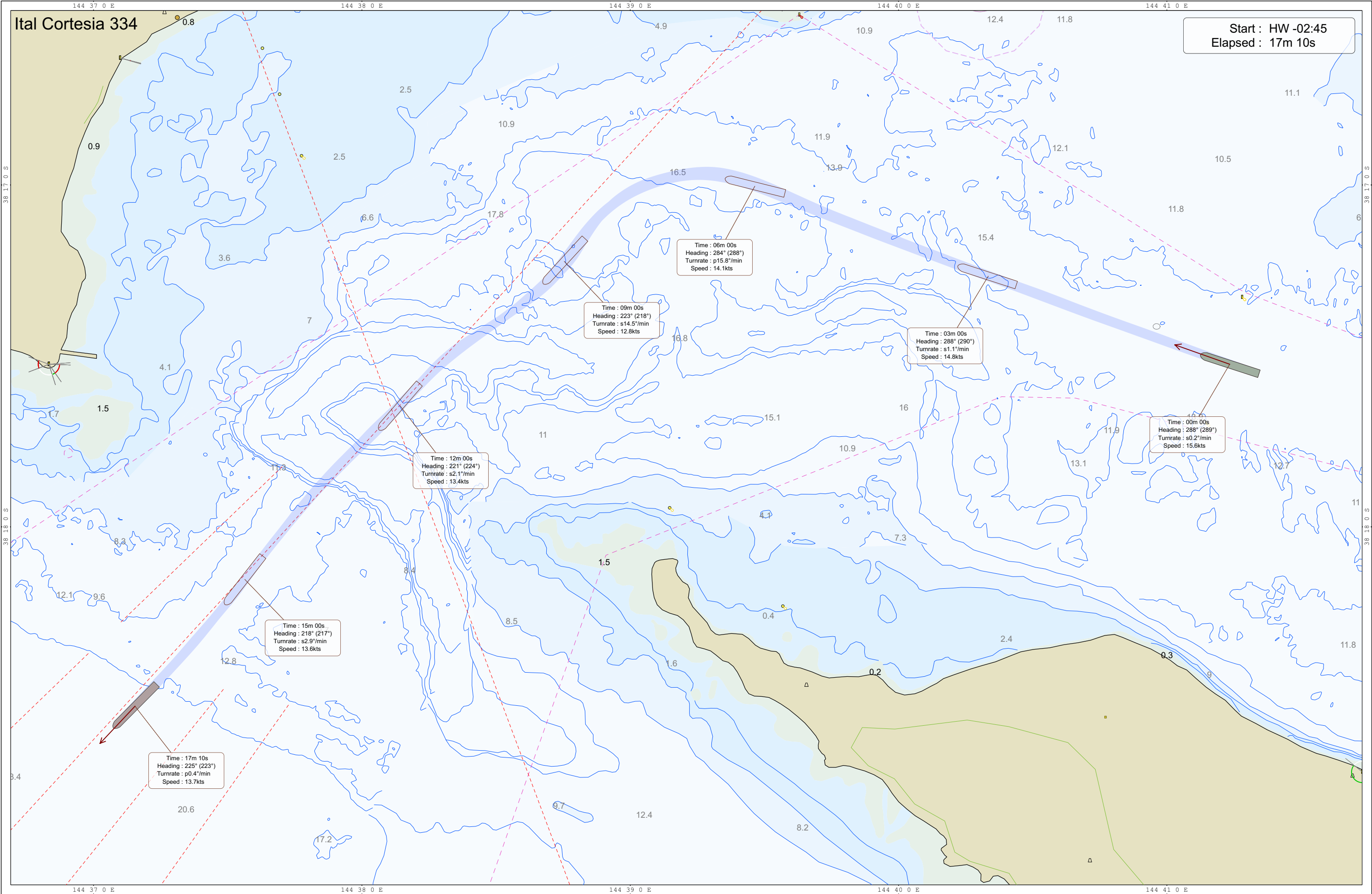
Run 6 - Tim Fitzgerald  
Ital Cortesia 334 Inbound from Sea. Wind: SE x 30kts. Swell: SW  
x 3.0m @ 12s. Tide: HW -02:15. Current: 4.0 knots Flood.  
Standard Model  
Vessel speed restricted to 13 knots (Half Ahead) to simulate  
vessel constrained by DUKC  
Plot of entire run provided due to failure of plotting server.

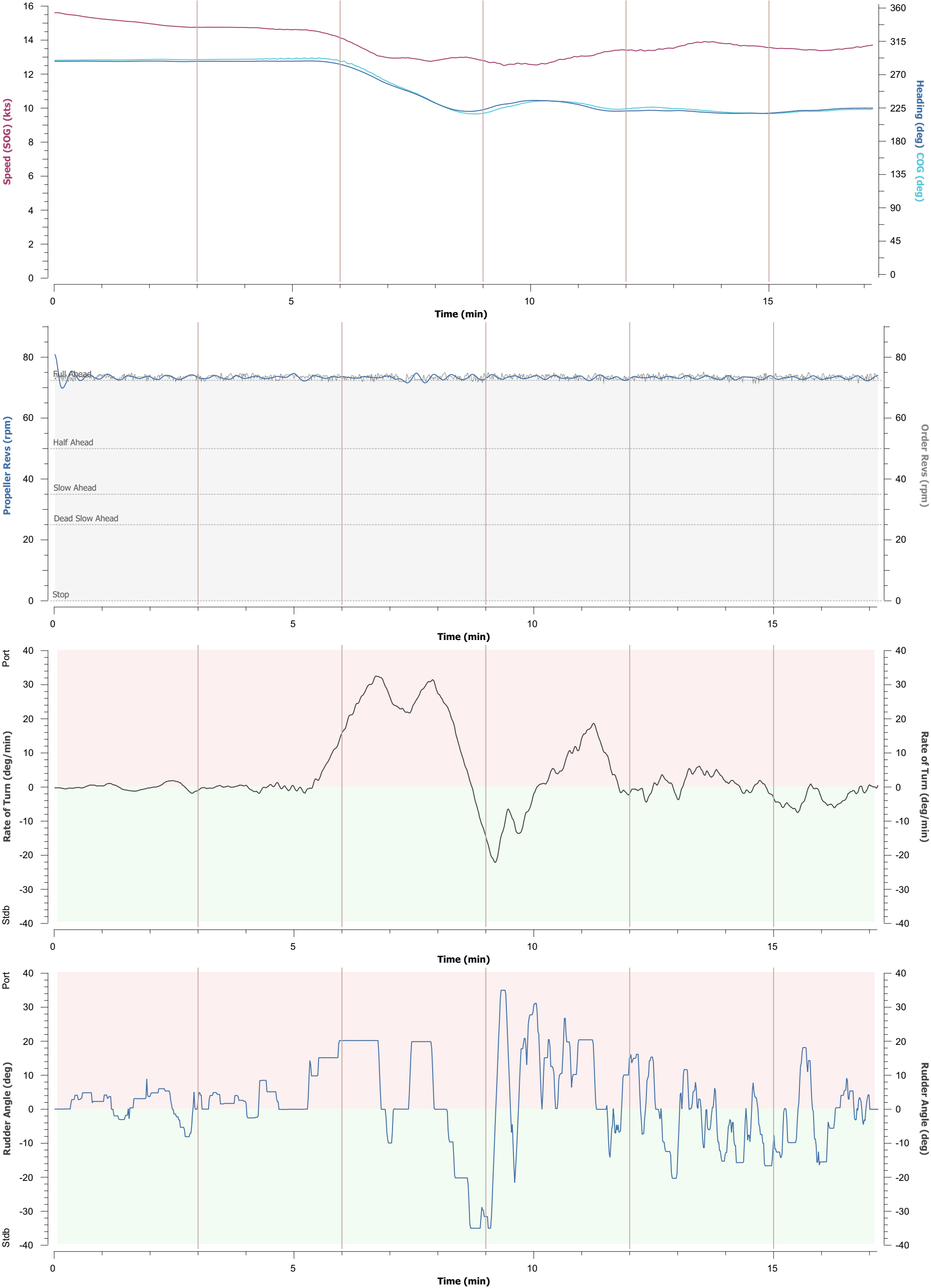
Details		Comments
Model : CO334LDA	Area : melbourne	Ital Cortesia 334 Outbound from Popes Eye. Wind: W x 30kts. Swell: SW x 3.0m @ 12s. Tide: HW -02:45. Current: 3.0 knots Flood. Standard Model
Model Name : Ital Cortesia 334	Wind : 33kts from 274°	
Dimension : 334m x 42.8m x 12.5m	Swell : 3.0m from 225°	
Displacement : 117,663 tonnes	Current : 3.1kts to 15°	
	Tide : 0.49m (HW -02:45)	
		Blind sector in simulator masked critical reference point for turn. Hard over helm required at times. Achievable.

\* Wind, Swell & Current max effect during run, Tide at Reference Port

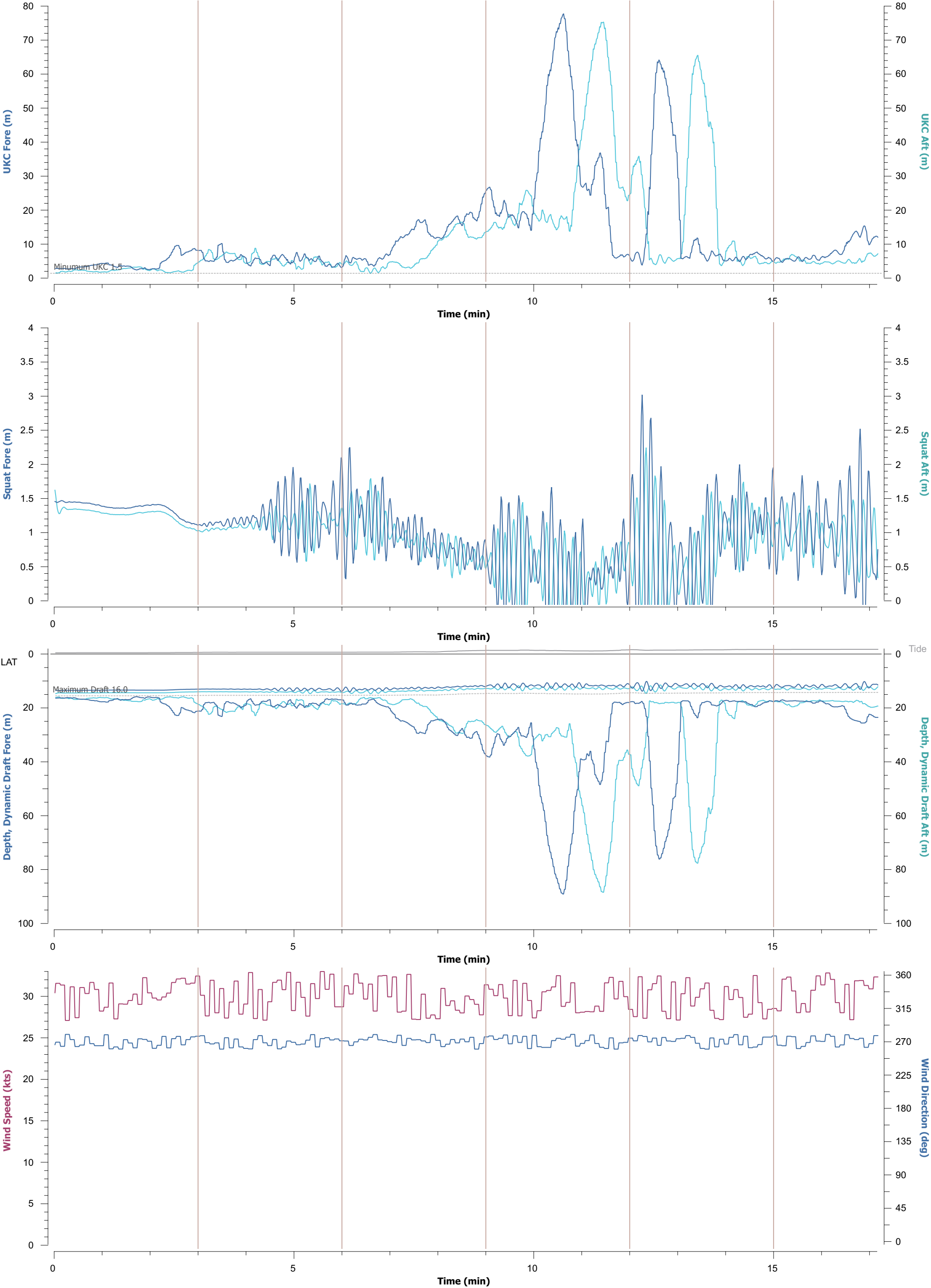


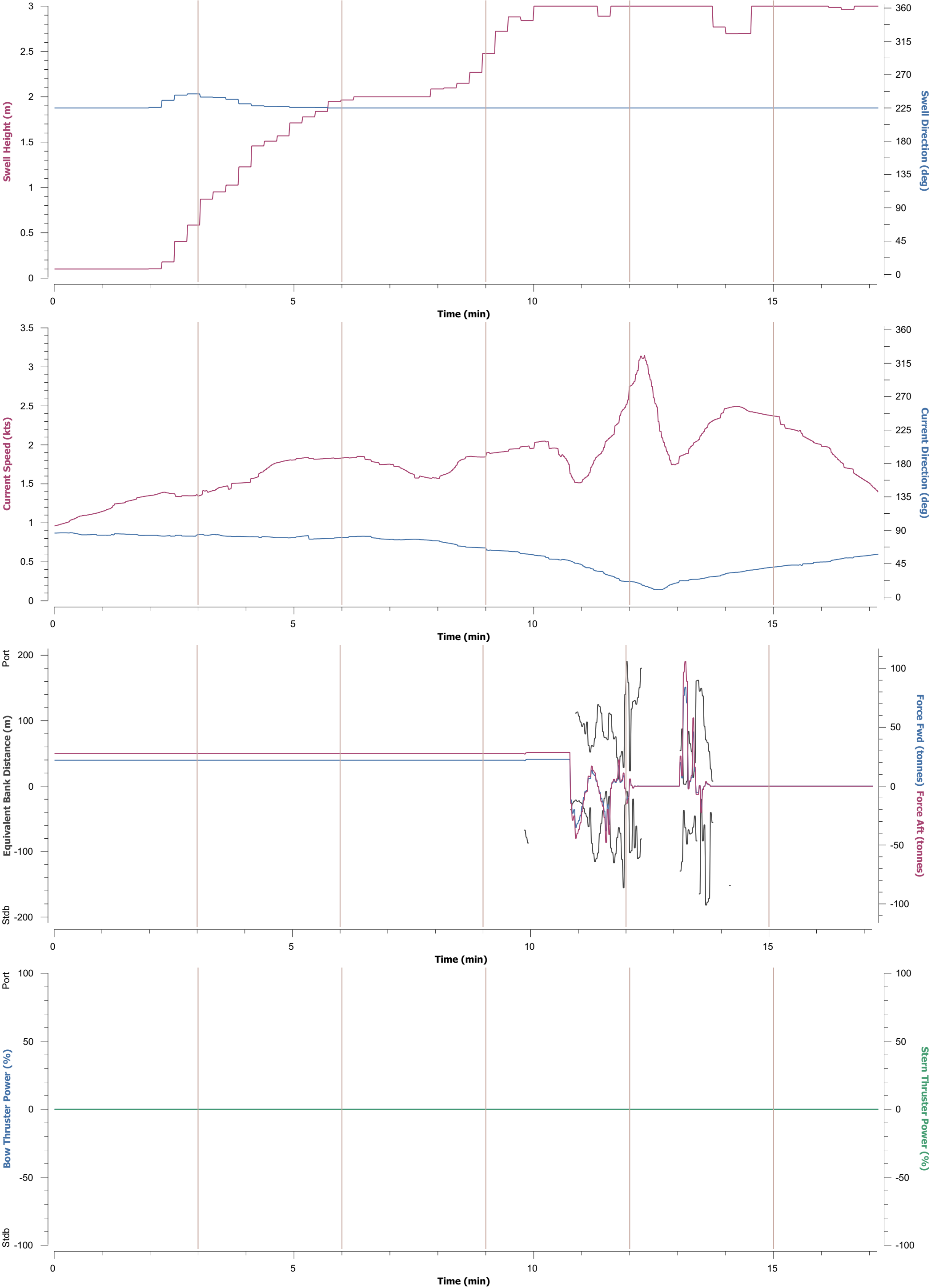






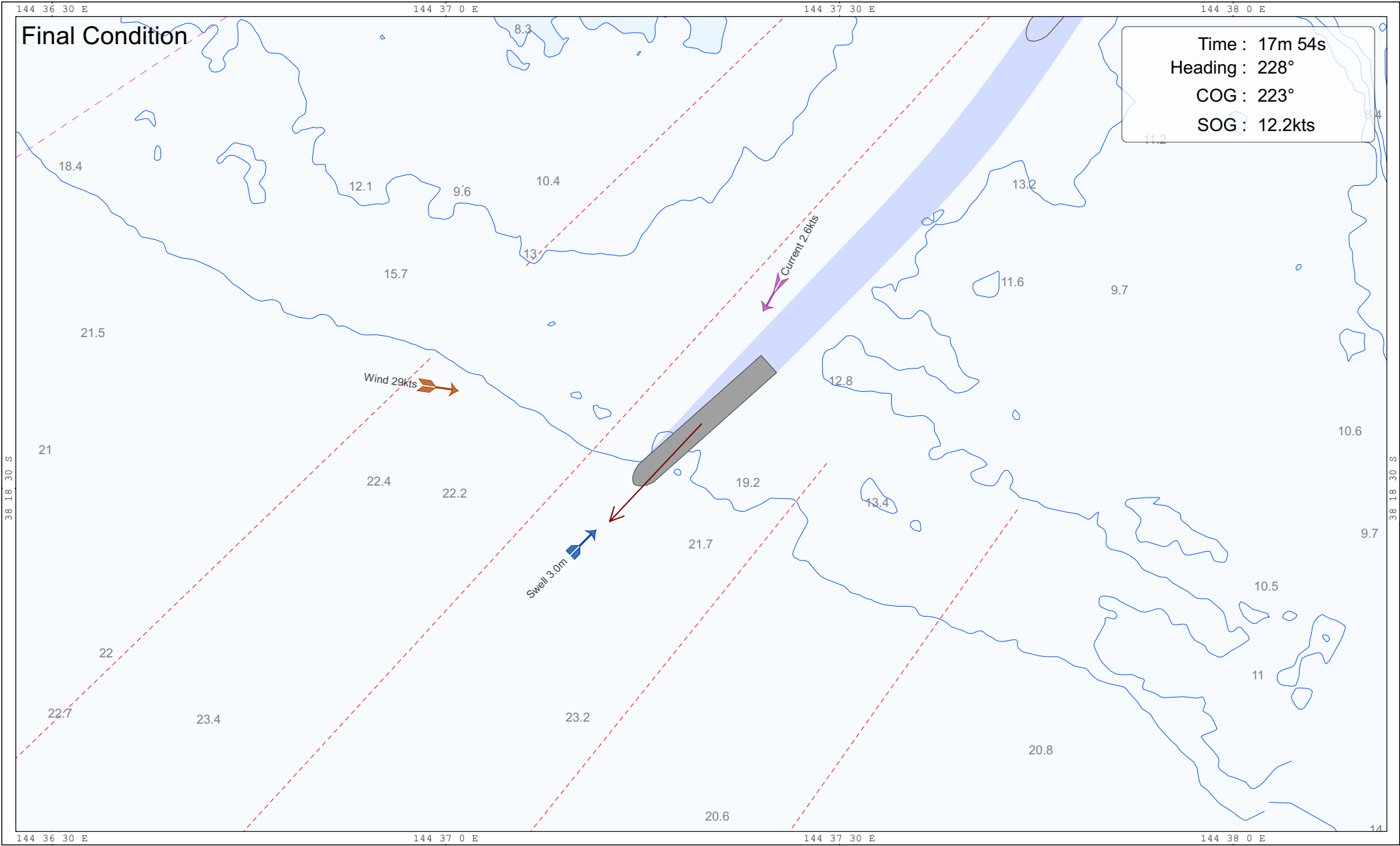
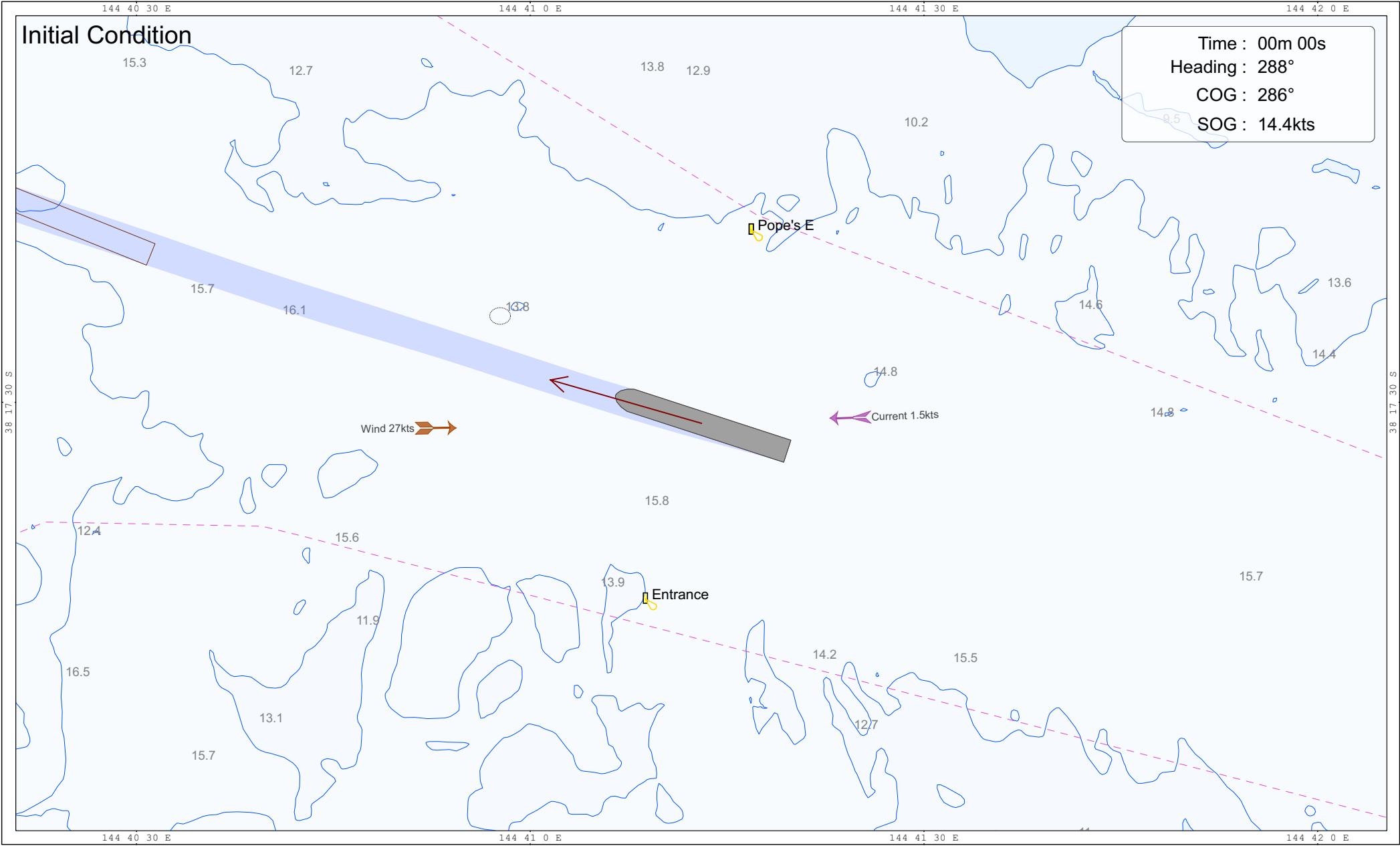


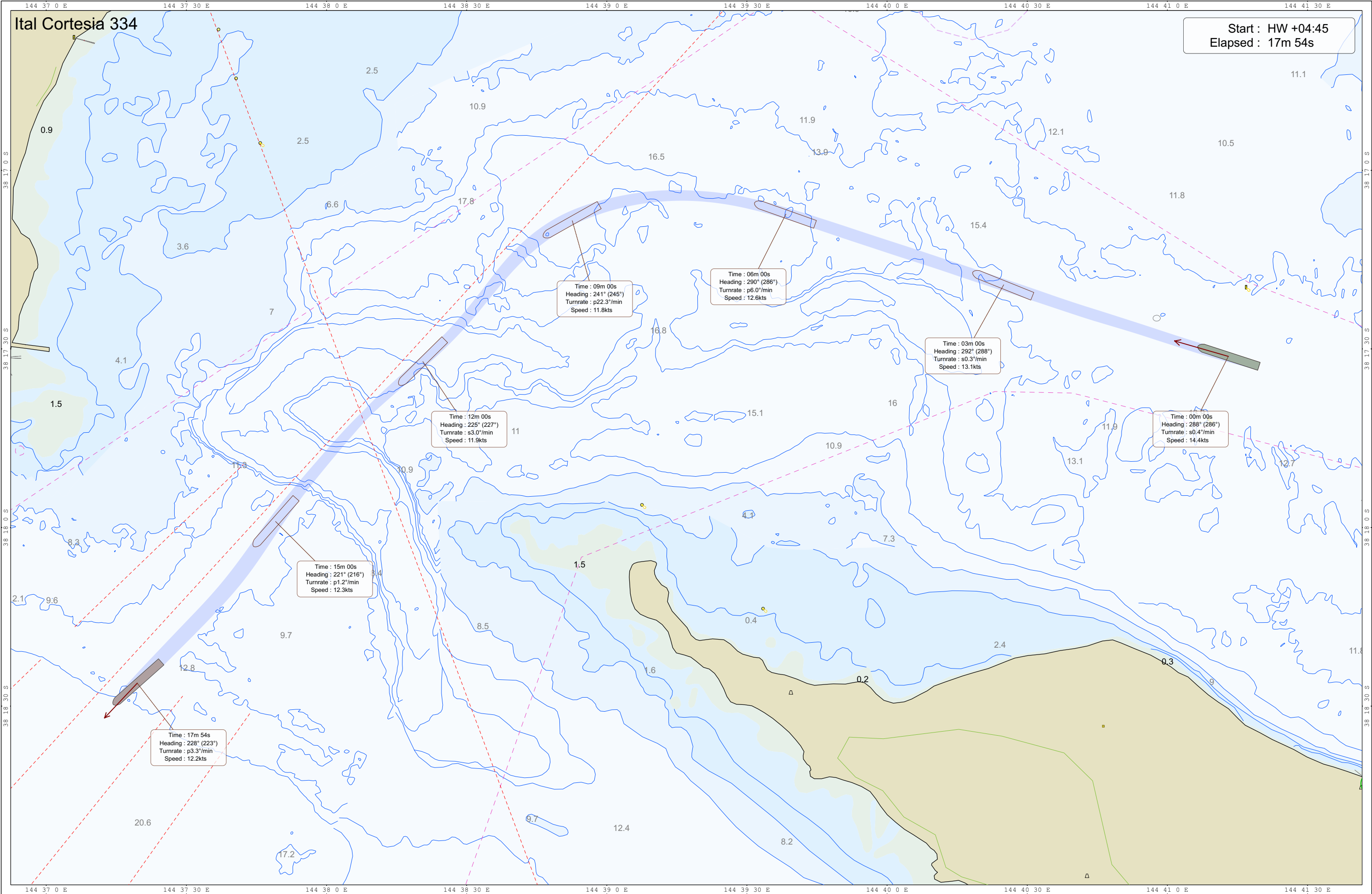


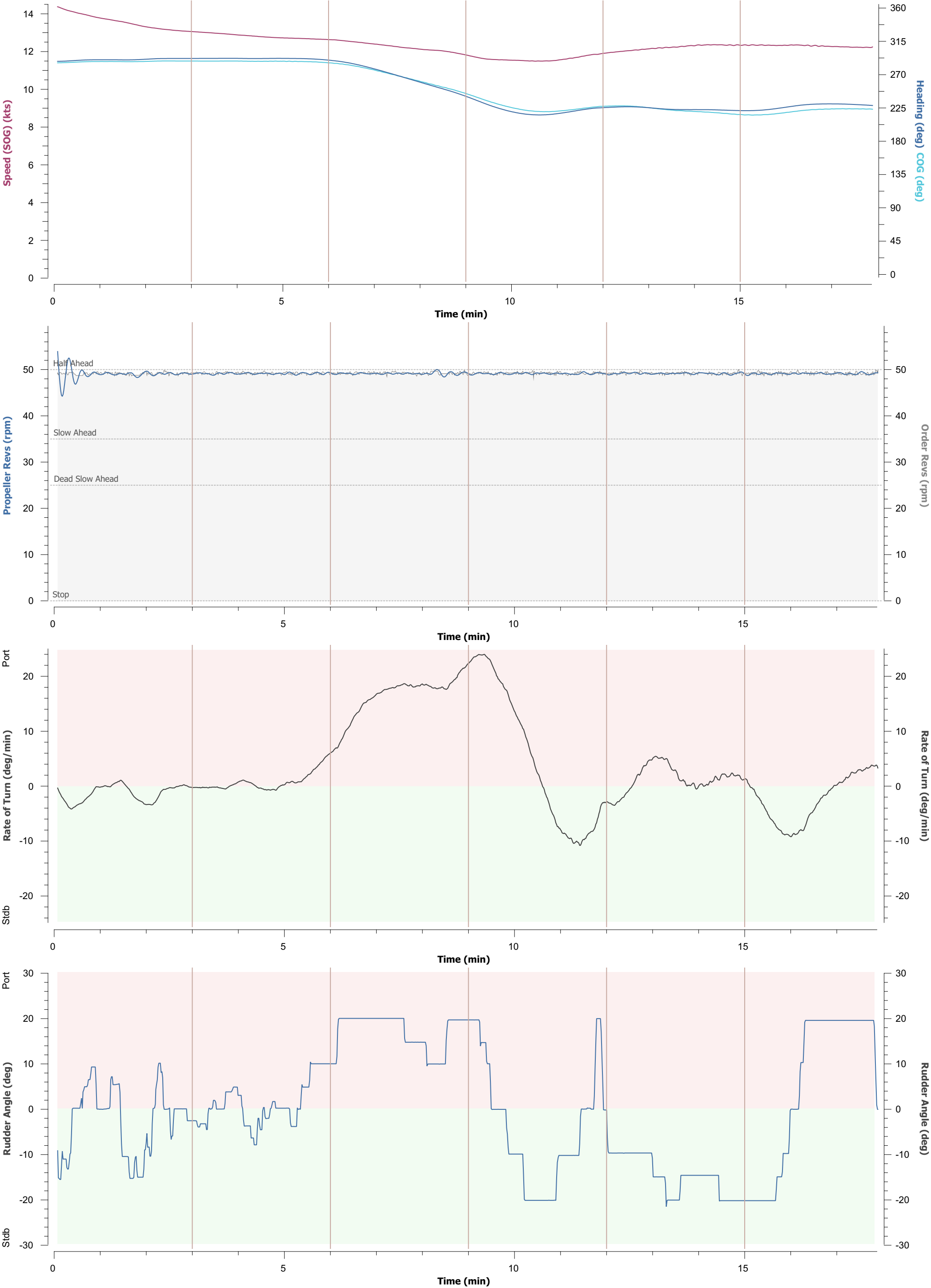


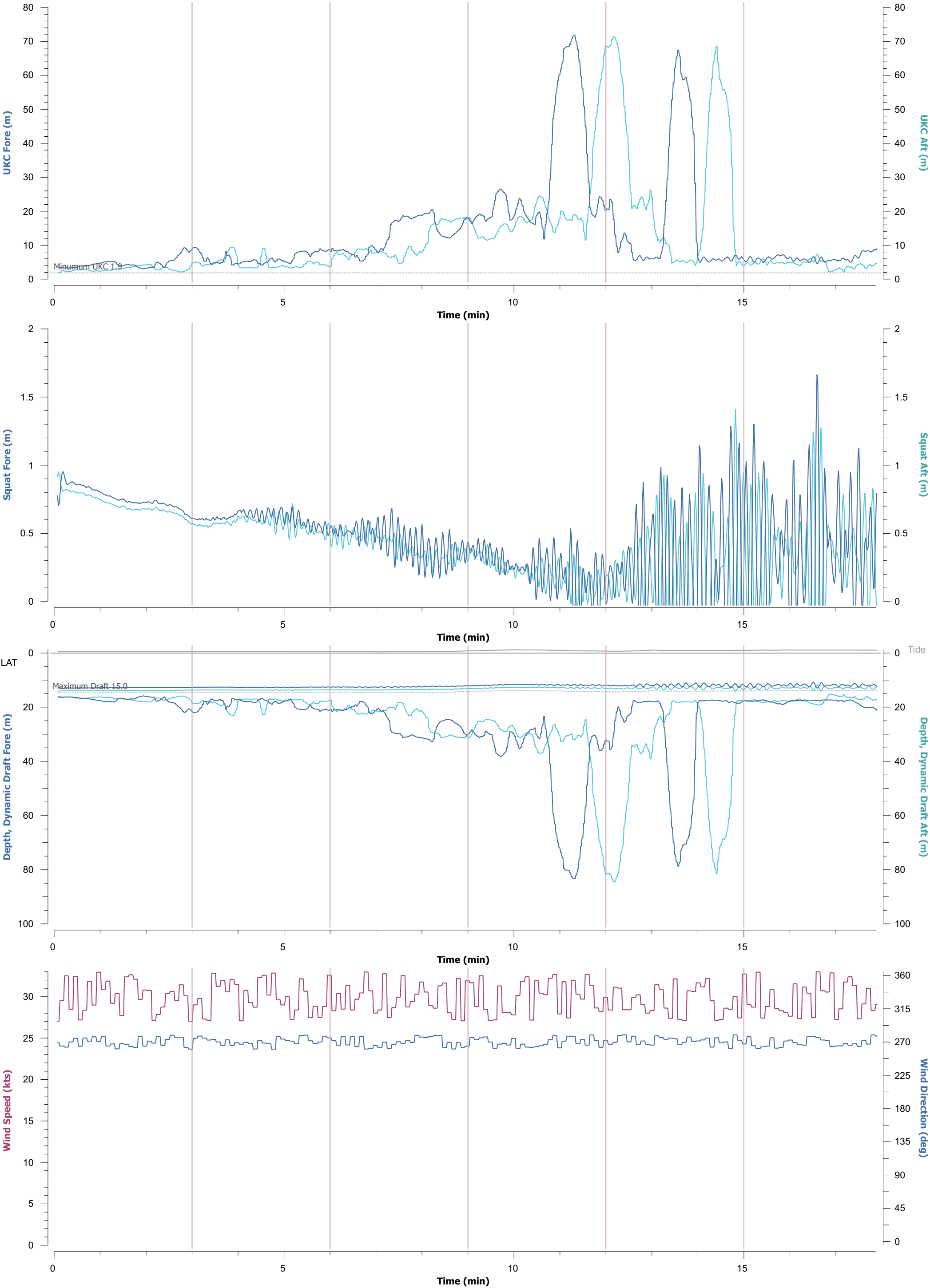
Details		Comments
Model : CO334LDA	Area : melbourne	Ital Cortesia 334 Outbound from Popes Eye. Wind: W x 30kts. Swell: SW x 3.0m @ 12s. Tide: HW +04:45. Current: 3.0 knots Ebb. Standard Model Vessel speed restricted to 13 knots (Half Ahead) to simulate vessel constrained by DUKC
Model Name : Ital Cortesia 334	Wind : 33kts from 276°	
Dimension : 334m x 42.8m x 12.5m	Swell : 3.0m from 225°	
Displacement : 117,663 tonnes	Current : 3.6kts to 219°	
	Tide : 0.50m (HW +04:45)	Passage hampered by limited view astern. Otherwise standard departure.

\* Wind, Swell & Current max effect during run, Tide at Reference Port

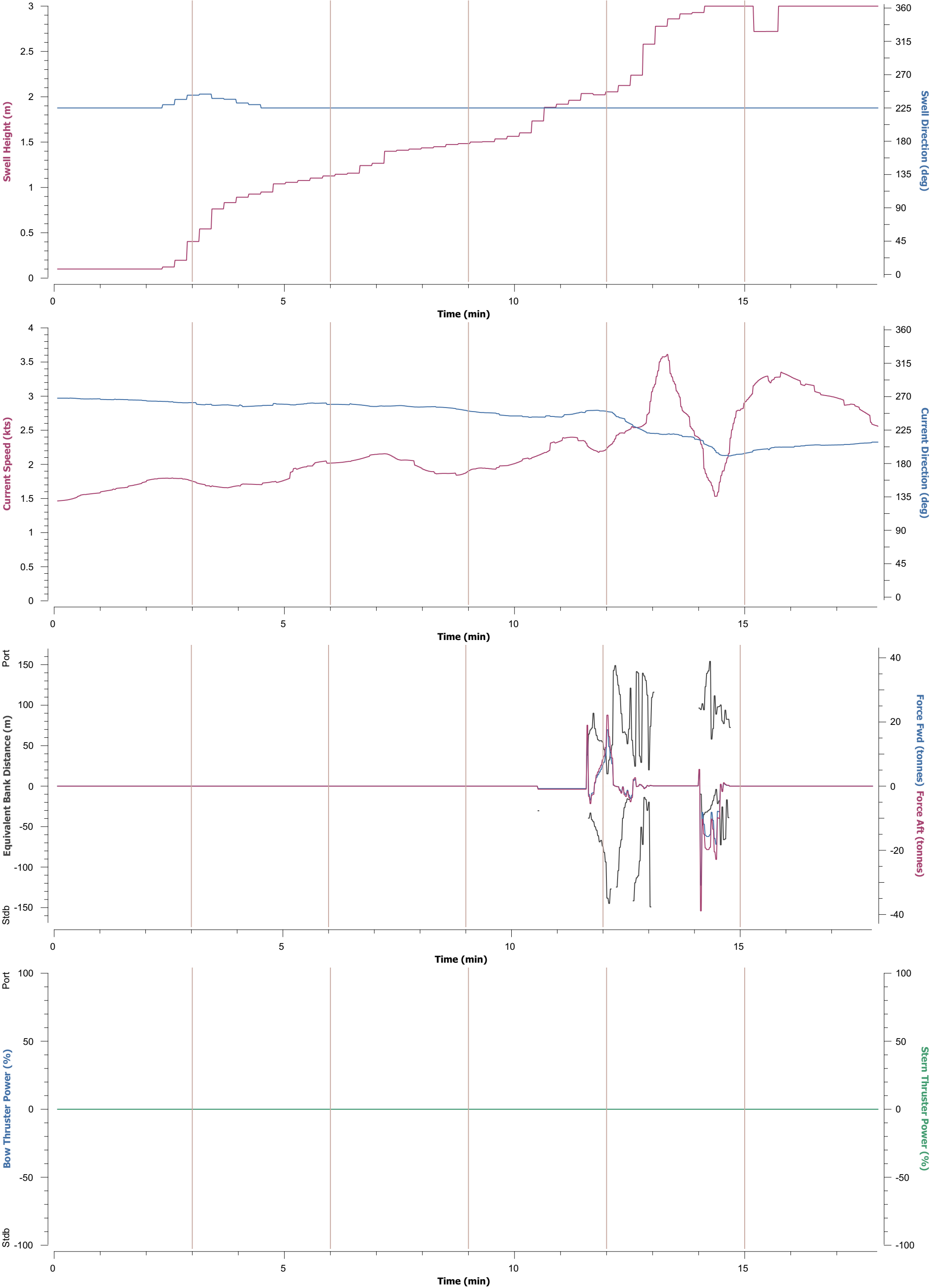








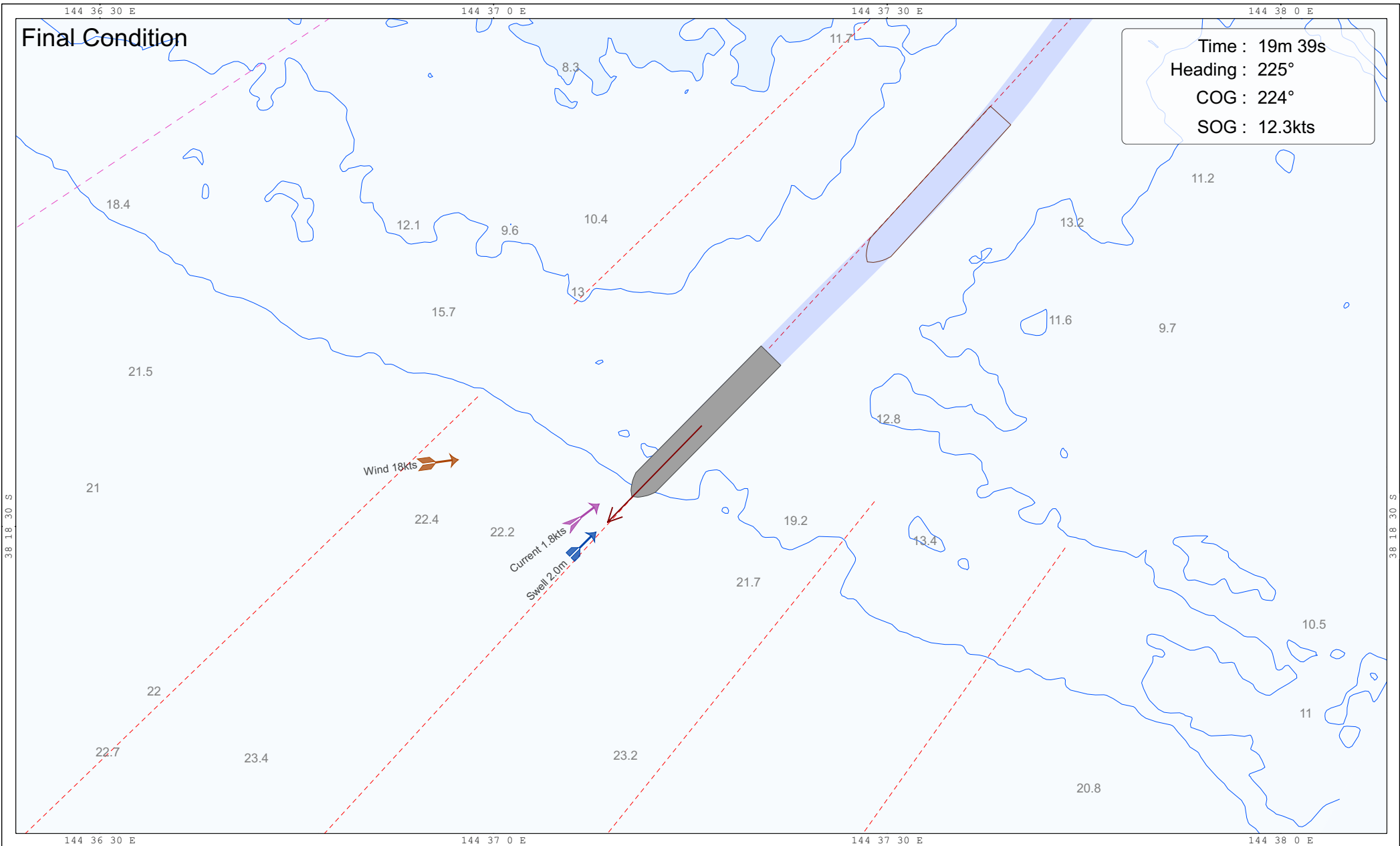
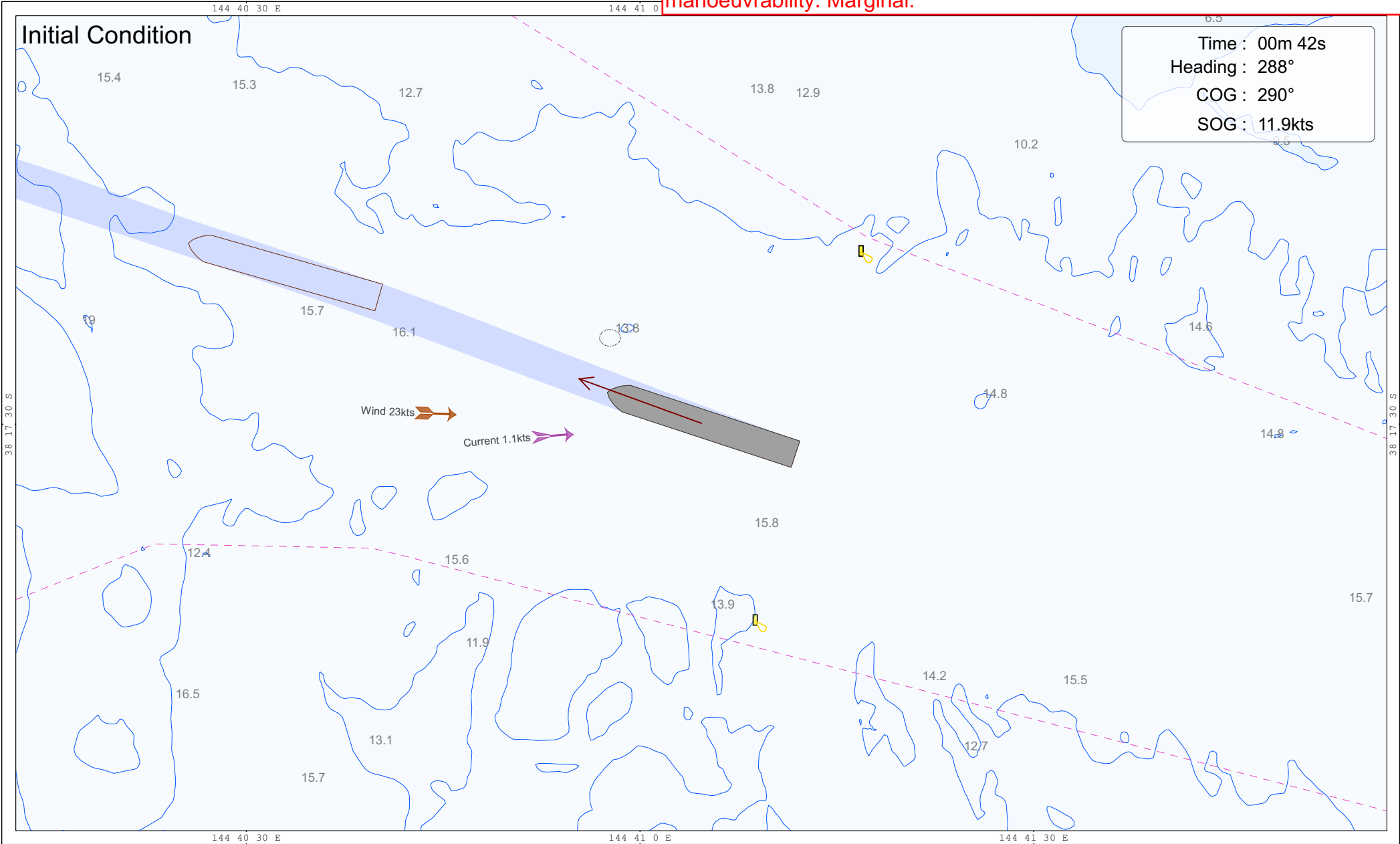


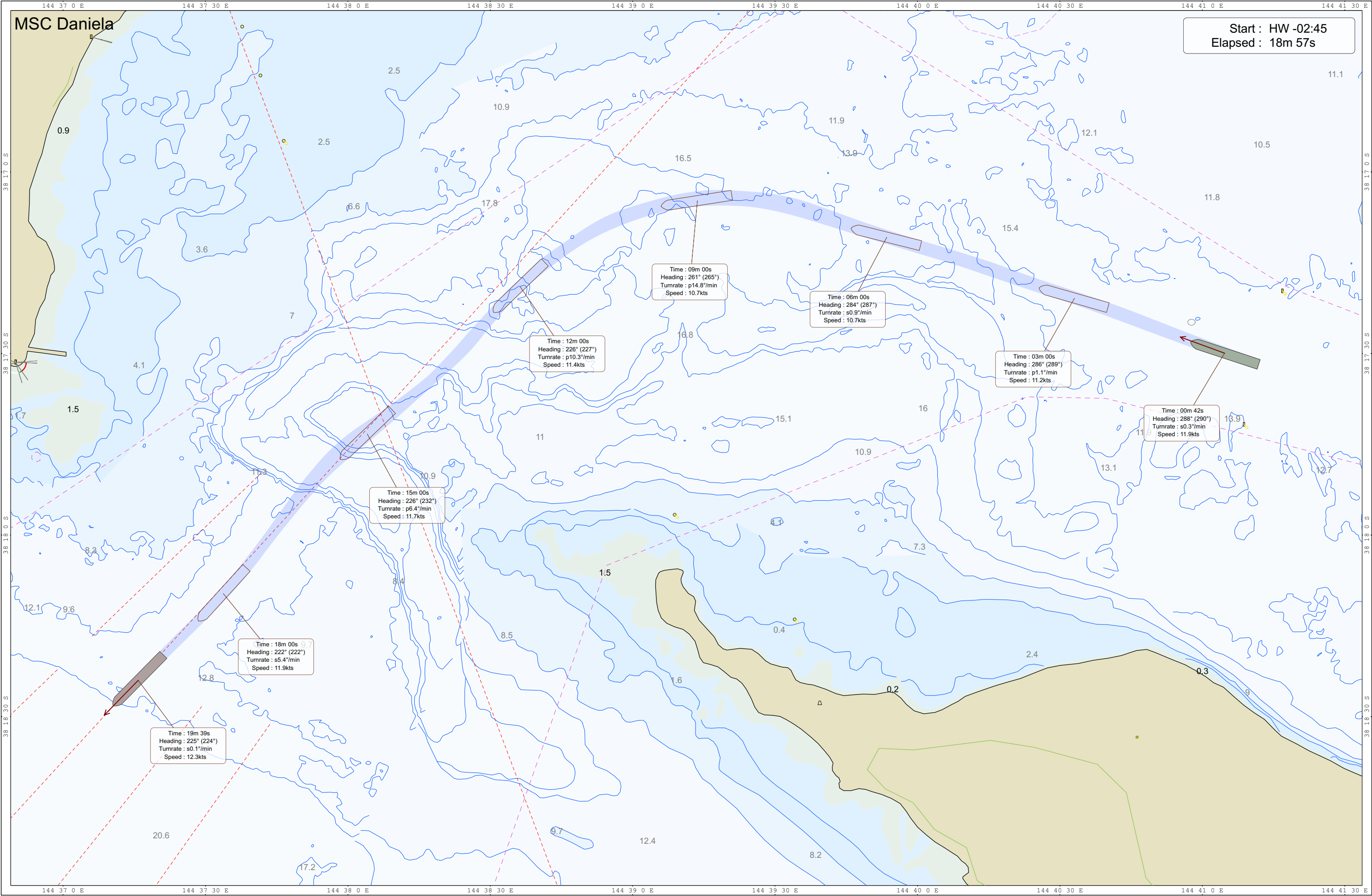


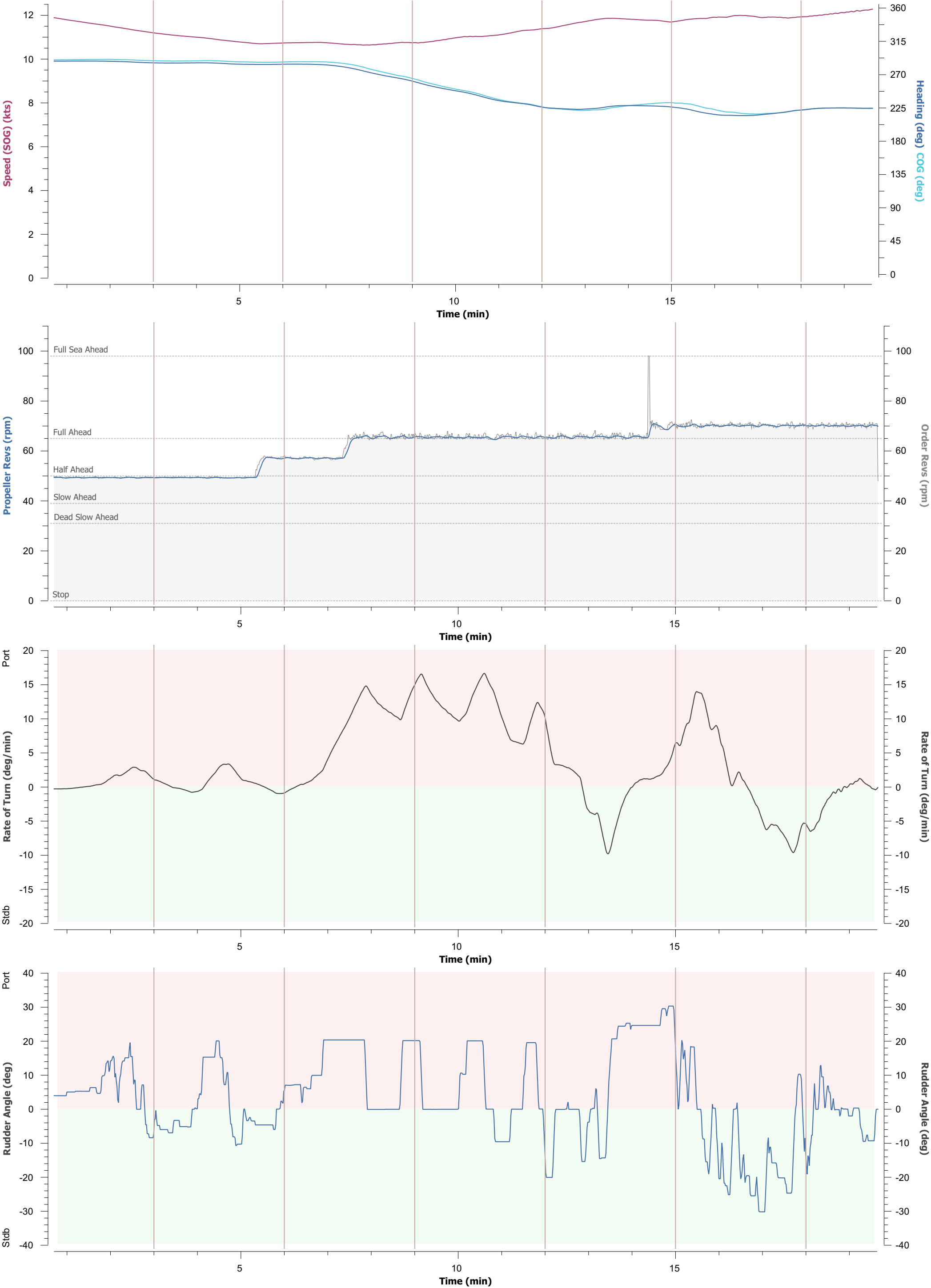


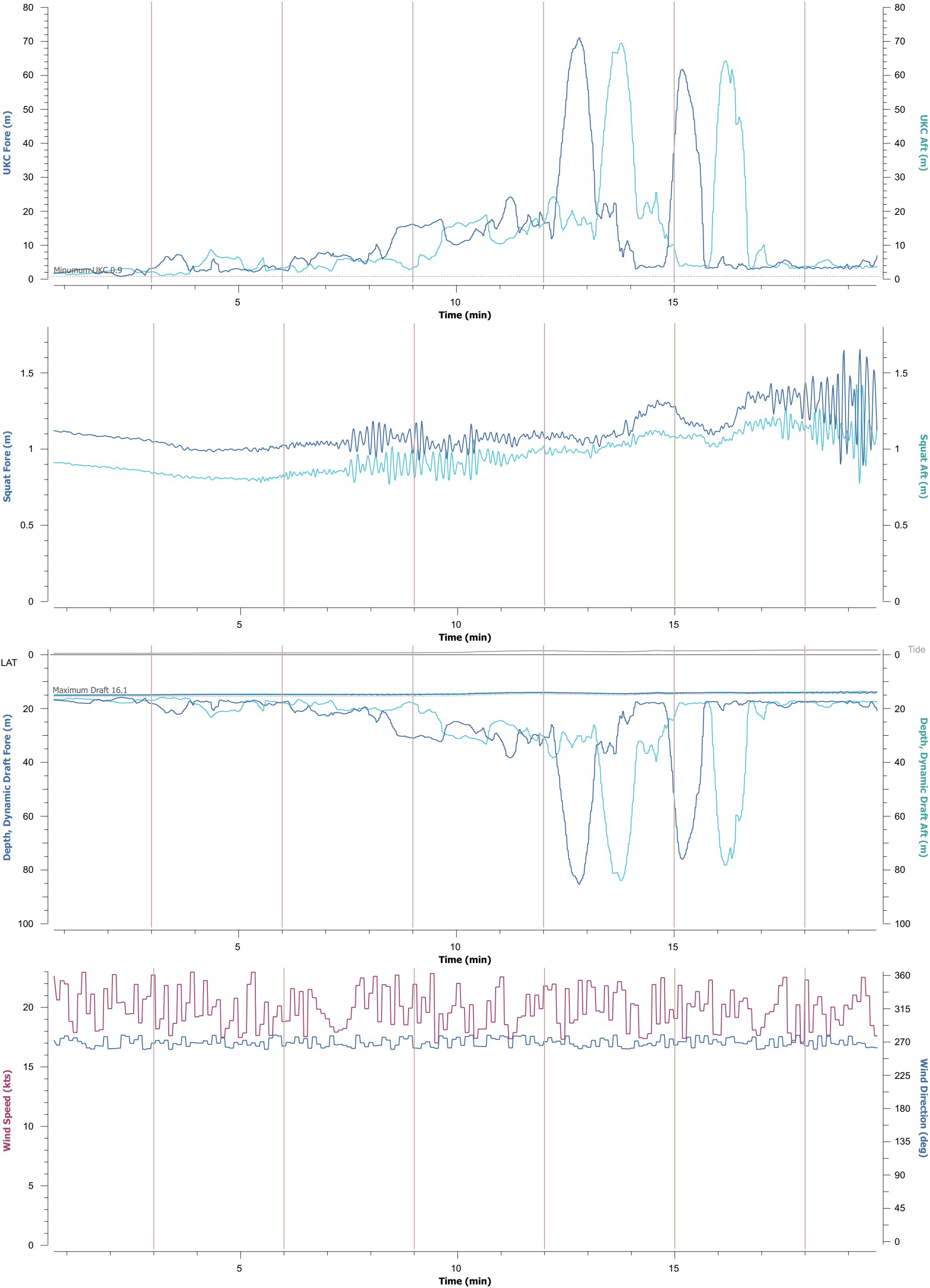
Details		Comments
Model : CT364L	Area : melbourne	MSC Daniela Outbound from Popes Eye. Wind: W x 20kts. Swell: SW x 2.0m @ 10s.Tide: HW -02:45. Current: 3.0 knots Flood. Standard Model Vessel speed restricted to 13 knots (Half Ahead) as vessel constrained by DUKC. (14.5m draft) <div>Vessel appears very tender, heeling considerably when turning and exposed to wind. Very heavy. 30 degrees of helm used, with engine speed increased to improve manoeuvrability. Marginal.</div>
Model Name : MSC Daniela	Wind : 23kts from 269°	
Dimension : 366.1m x 51.2m x 14.5m	Swell : 2.0m from 225°	
Displacement : 183,969 tonnes	Current : 3.4kts to 14°	
	Tide : 0.50m (HW -02:45)	

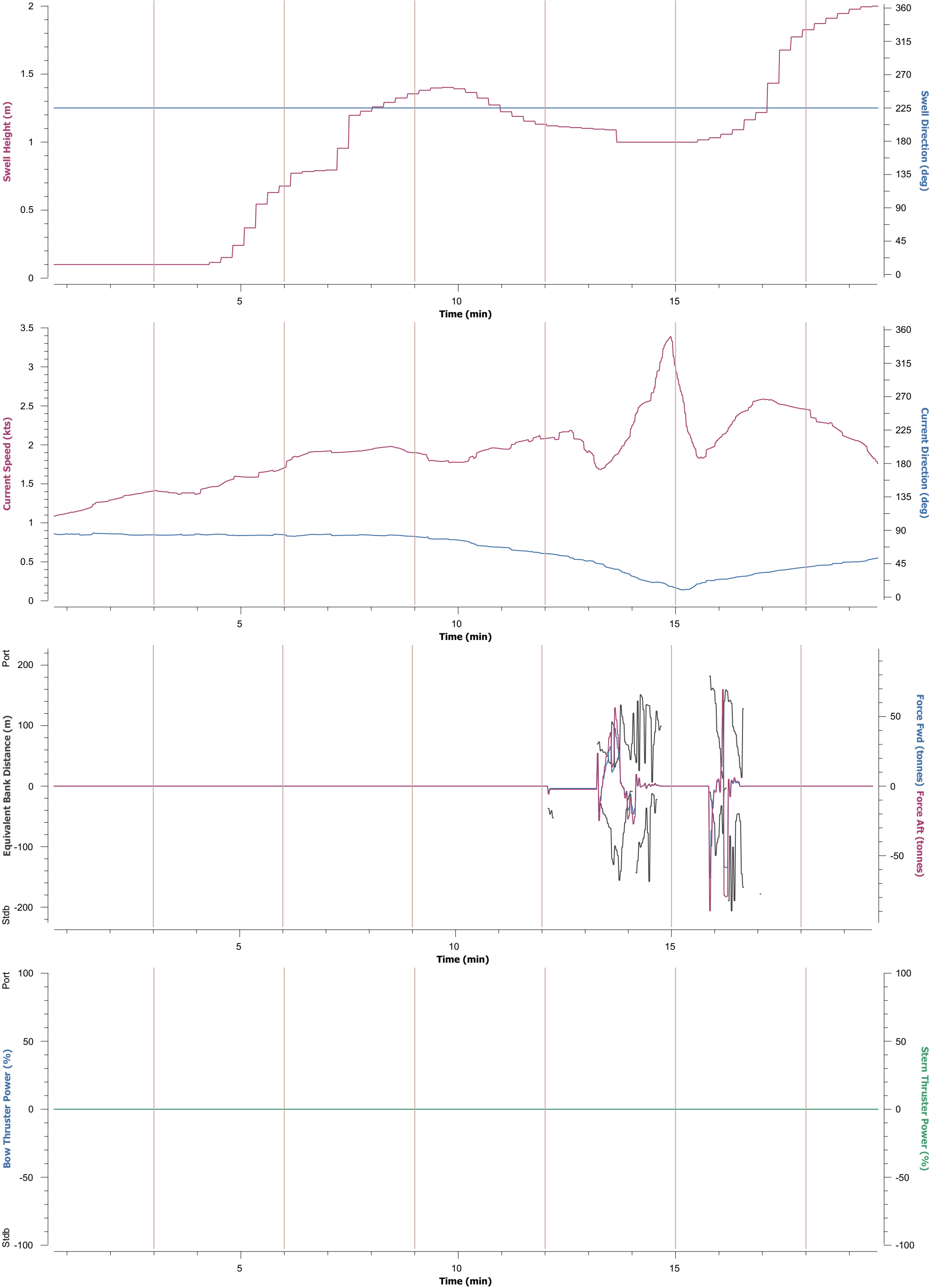
\* Wind, Swell & Current max effect during run, Tide at Reference Port





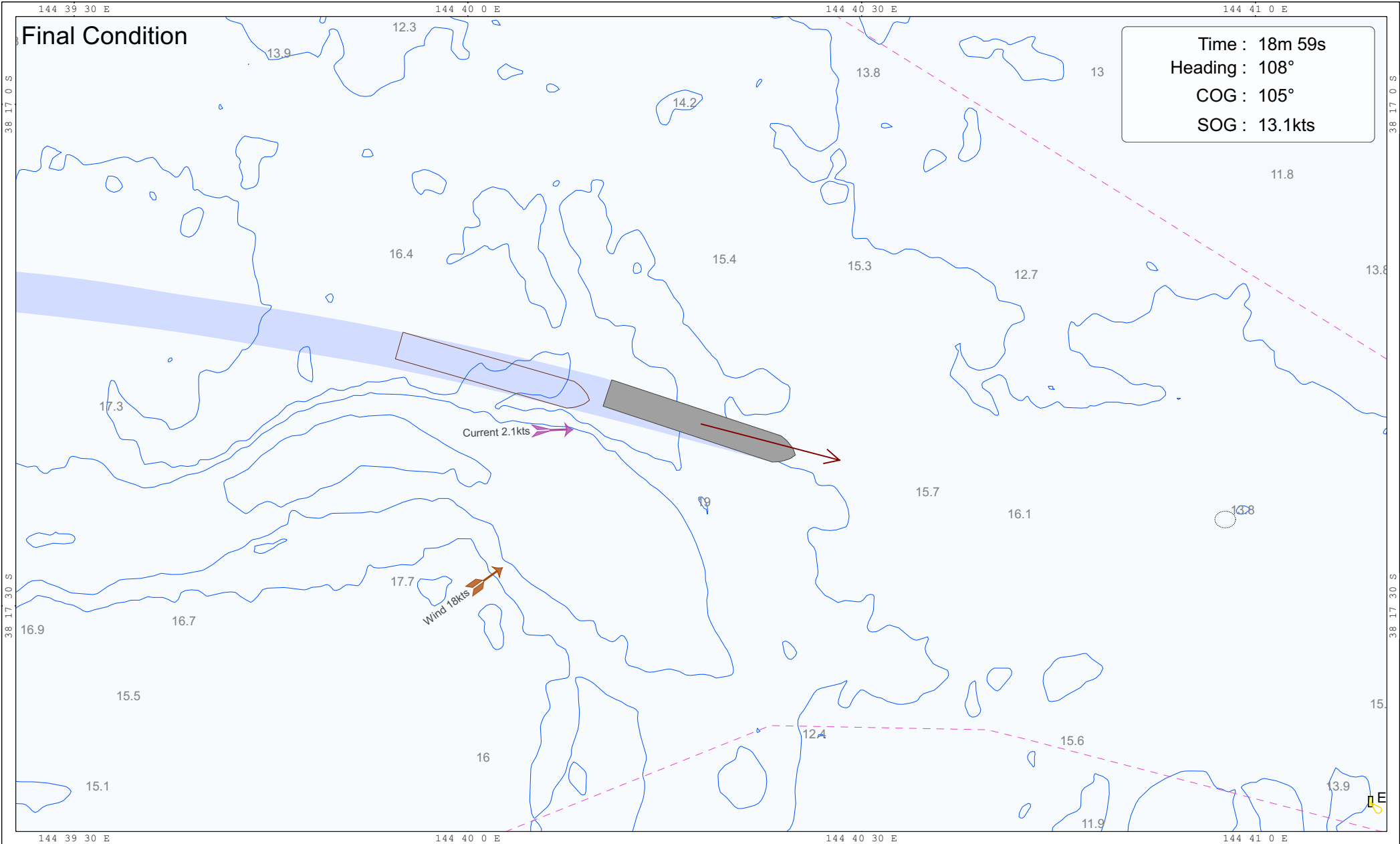
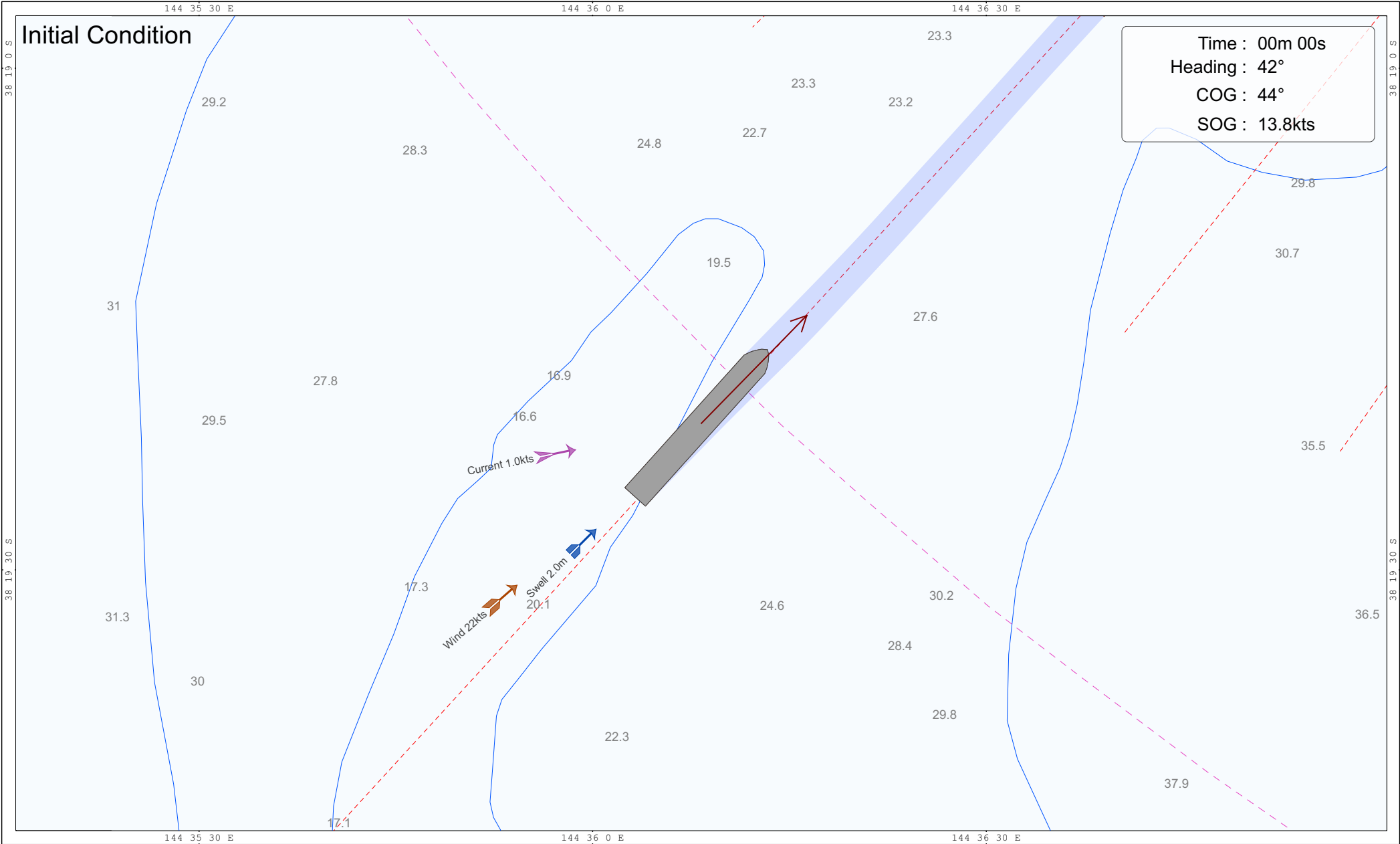




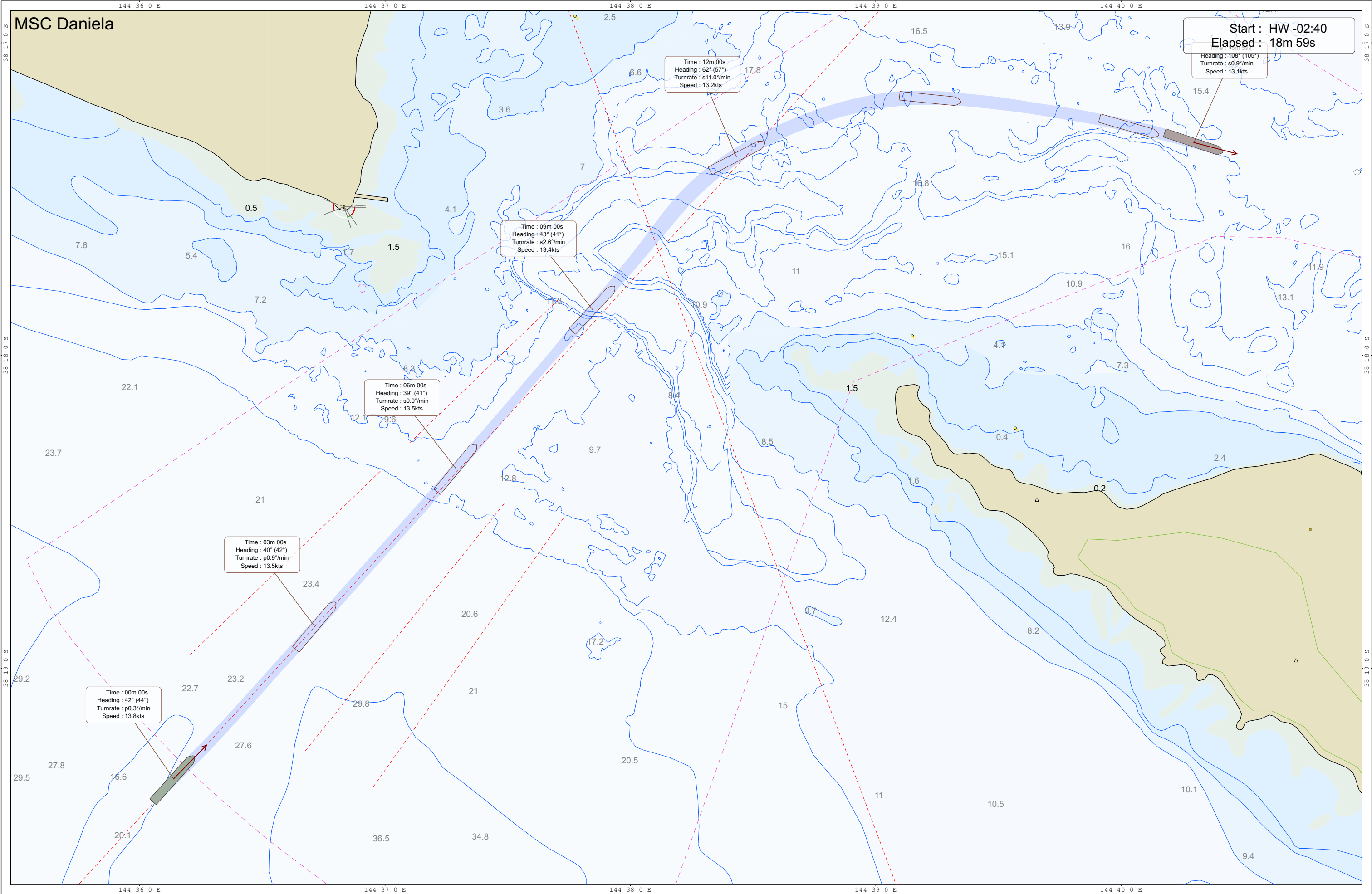


Details		Comments
Model : CT364L	Area : melbourne	MSC Daniela Inbound from Sea. Wind: SW x 20kts. Swell: SW x 2.0m @ 10s.Tide: HW -02:40. Current: 3.0 knots Flood. Standard Model Vessel speed restricted to 13 knots (Half Ahead) as vessel constrained by DUKC. (14.5m draft)
Model Name : MSC Daniela	Wind : 23kts from 217°	
Dimension : 366.1m x 51.2m x 14.5m	Swell : 2.0m from 225°	
Displacement : 183,969 tonnes	Current : 3.1kts to 18°	
	Tide : 1.73m (HW -02:40)	Vessel sluggish to respond. Manoeuvre still achievable.

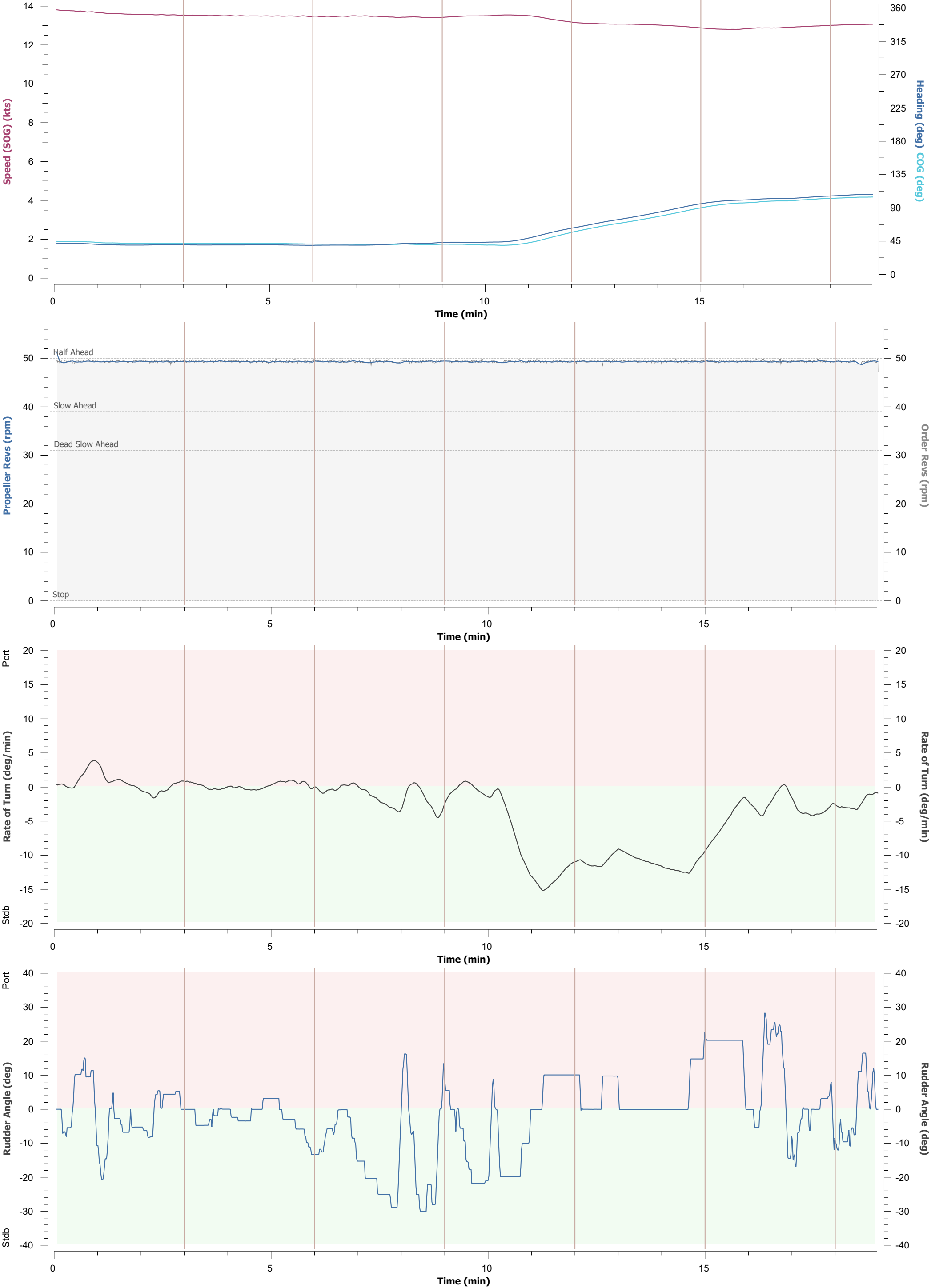
\* Wind, Swell & Current max effect during run, Tide at Reference Port

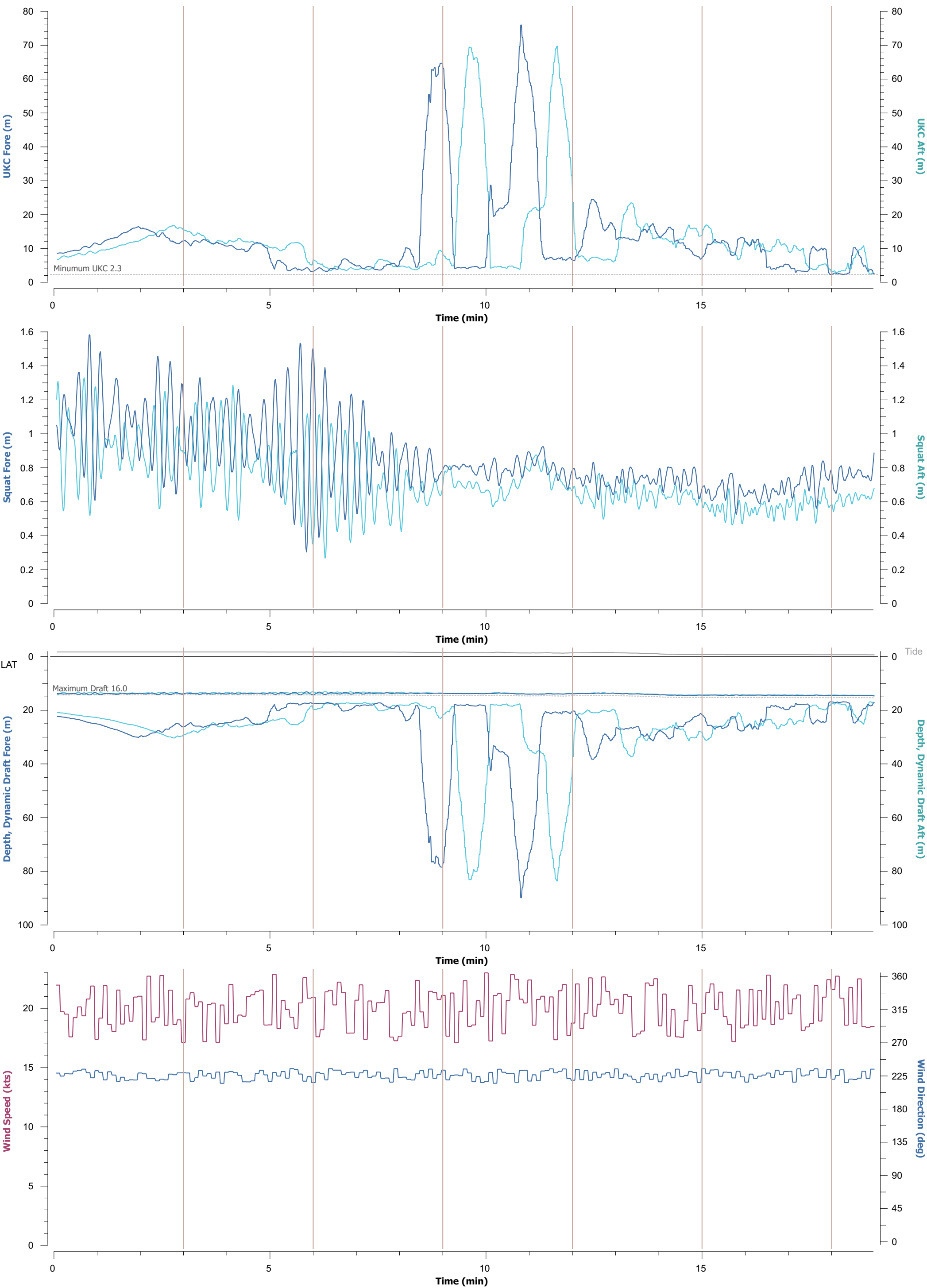


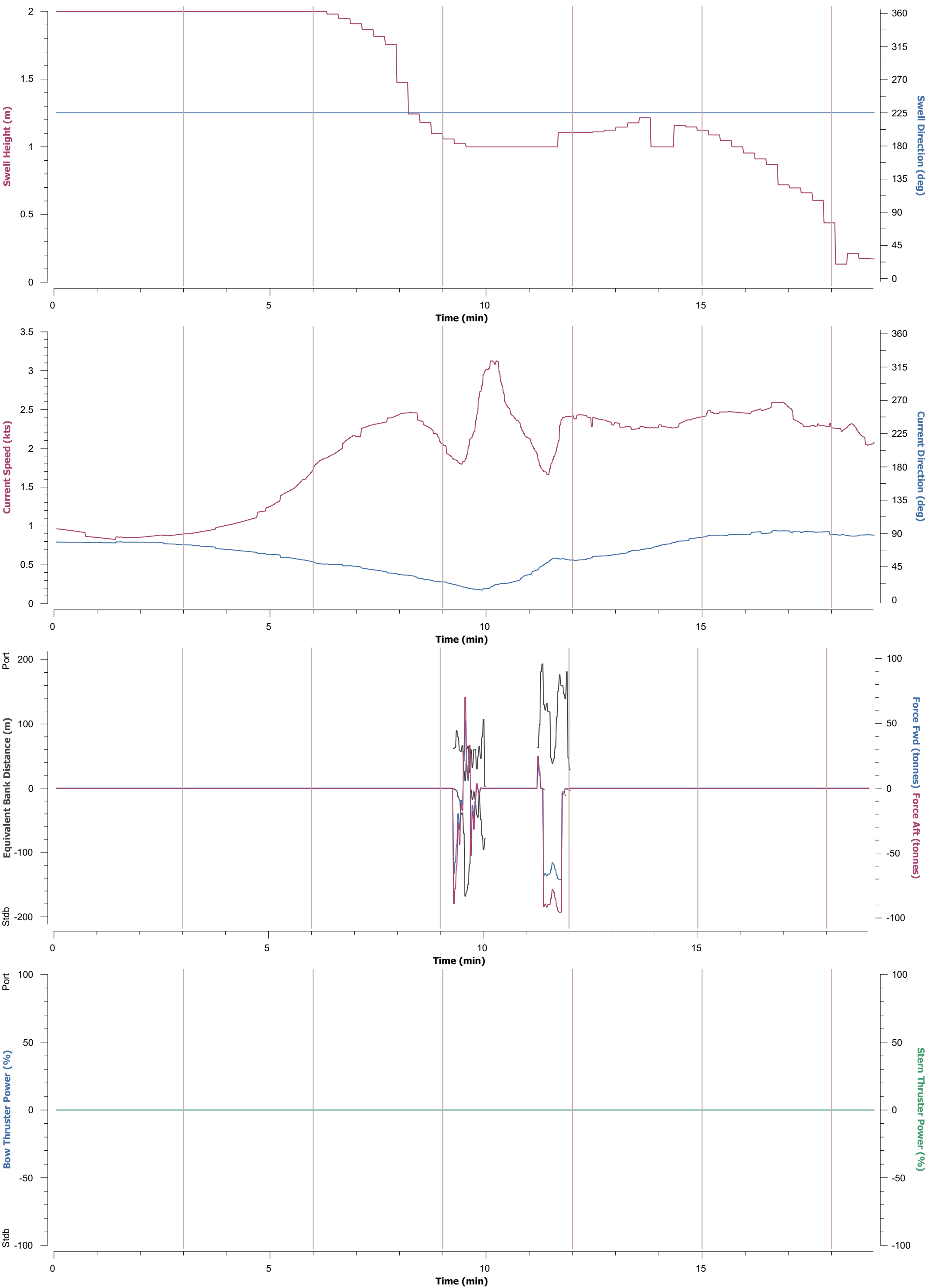






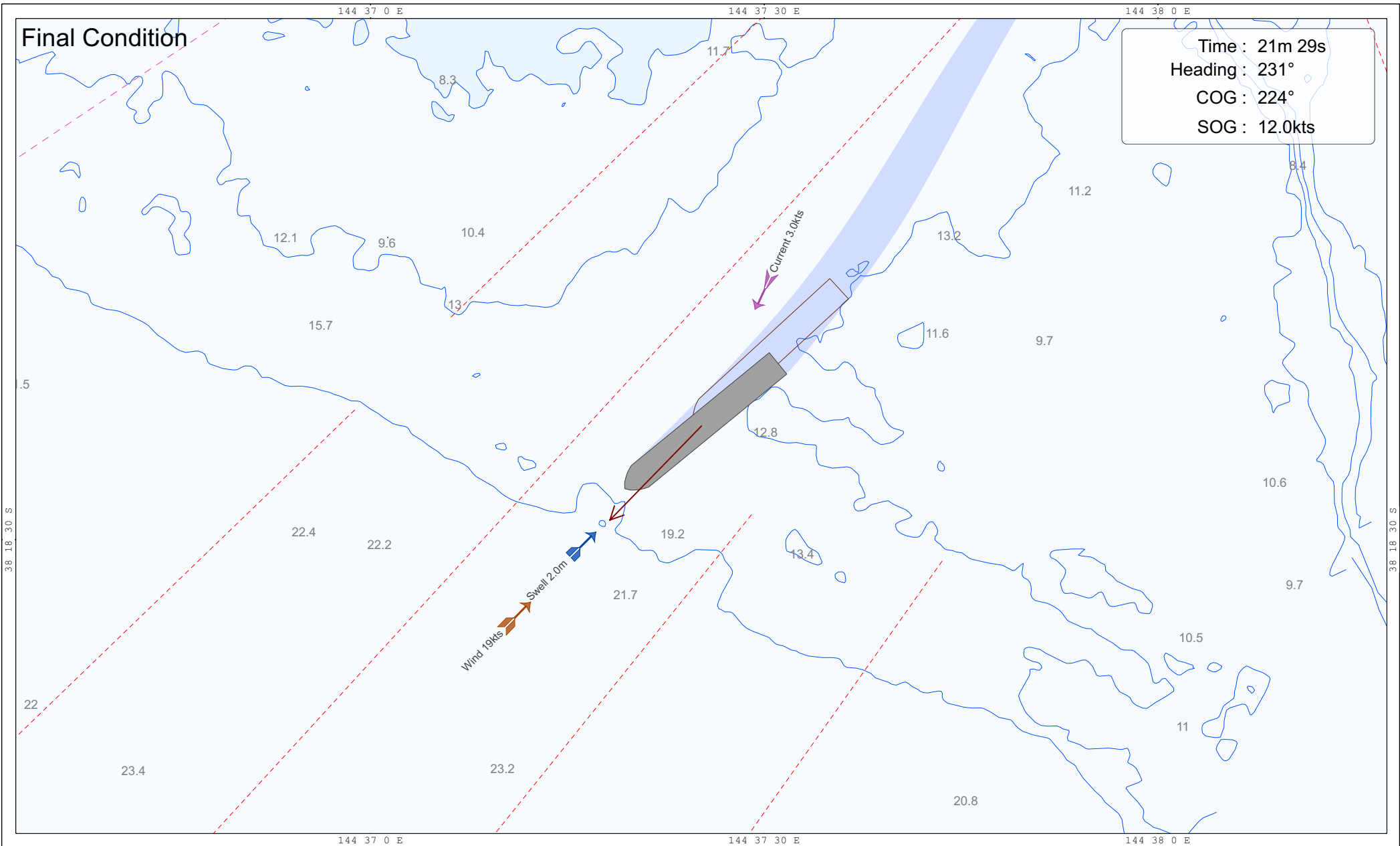
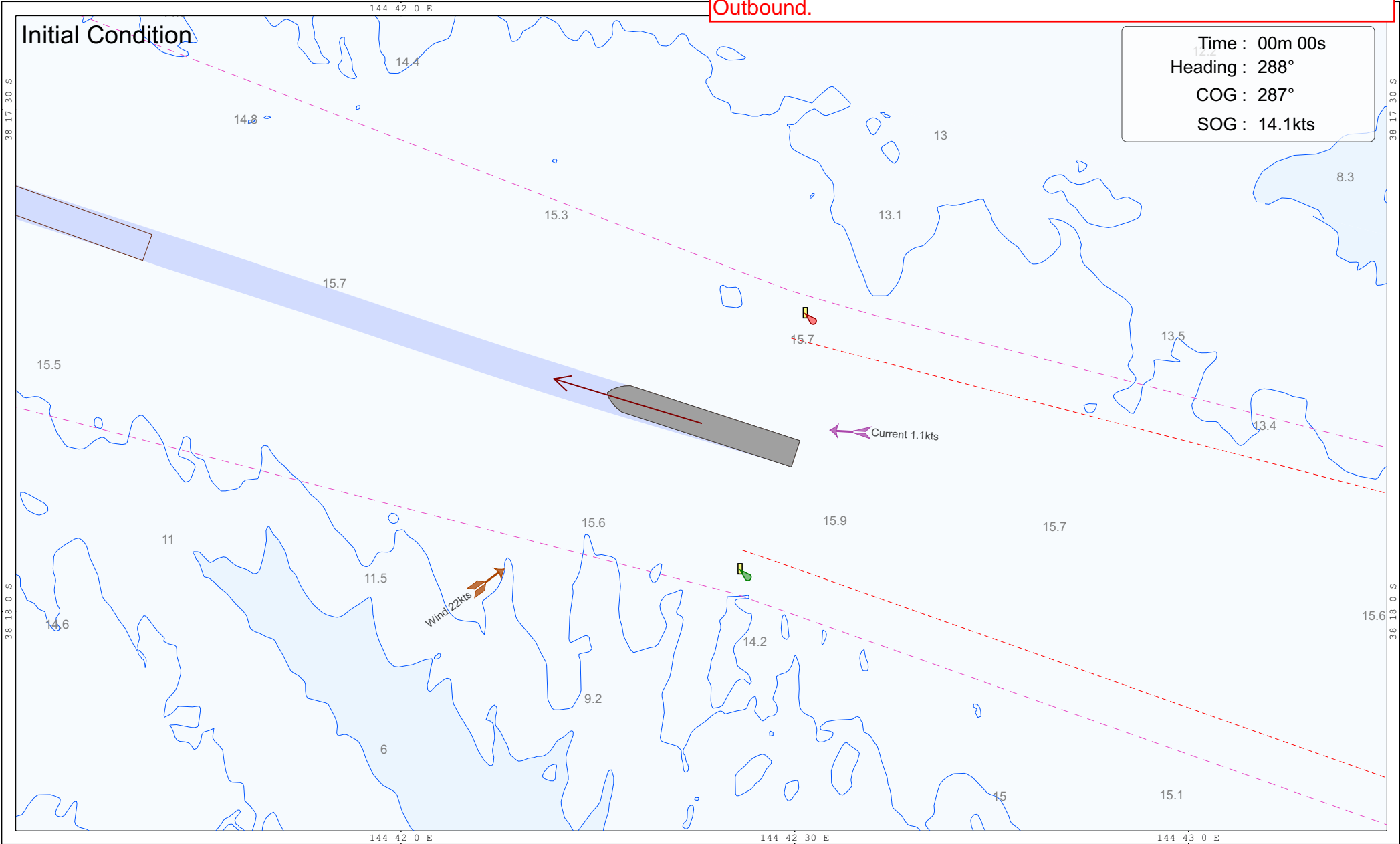


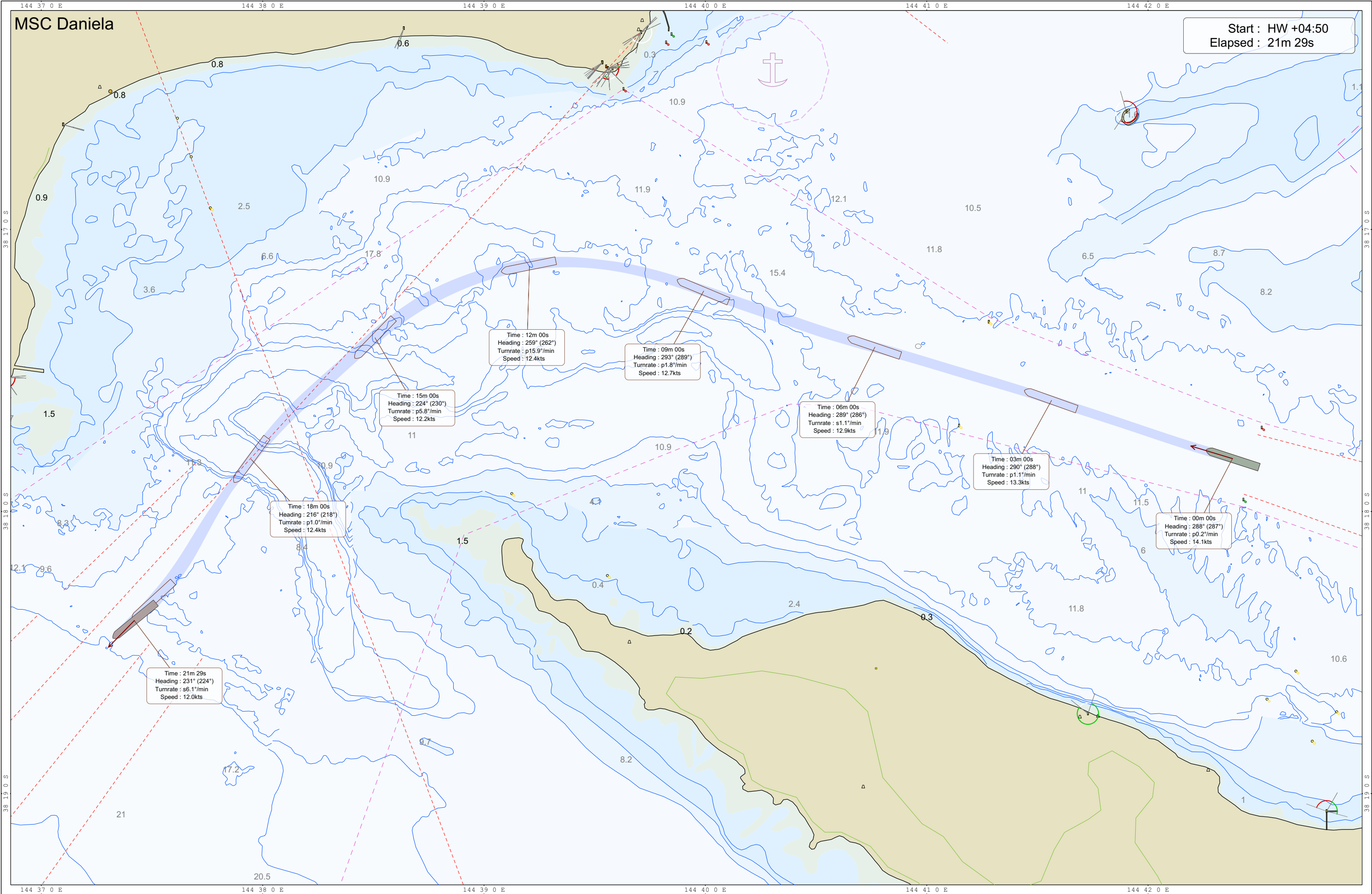


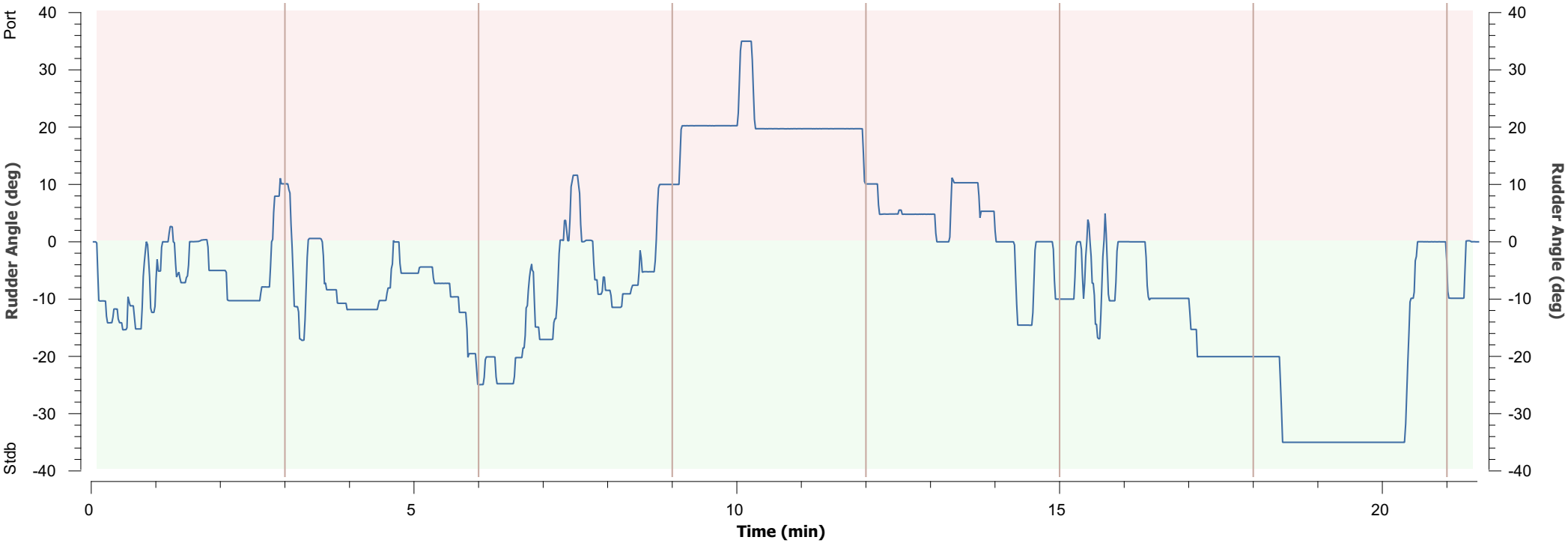
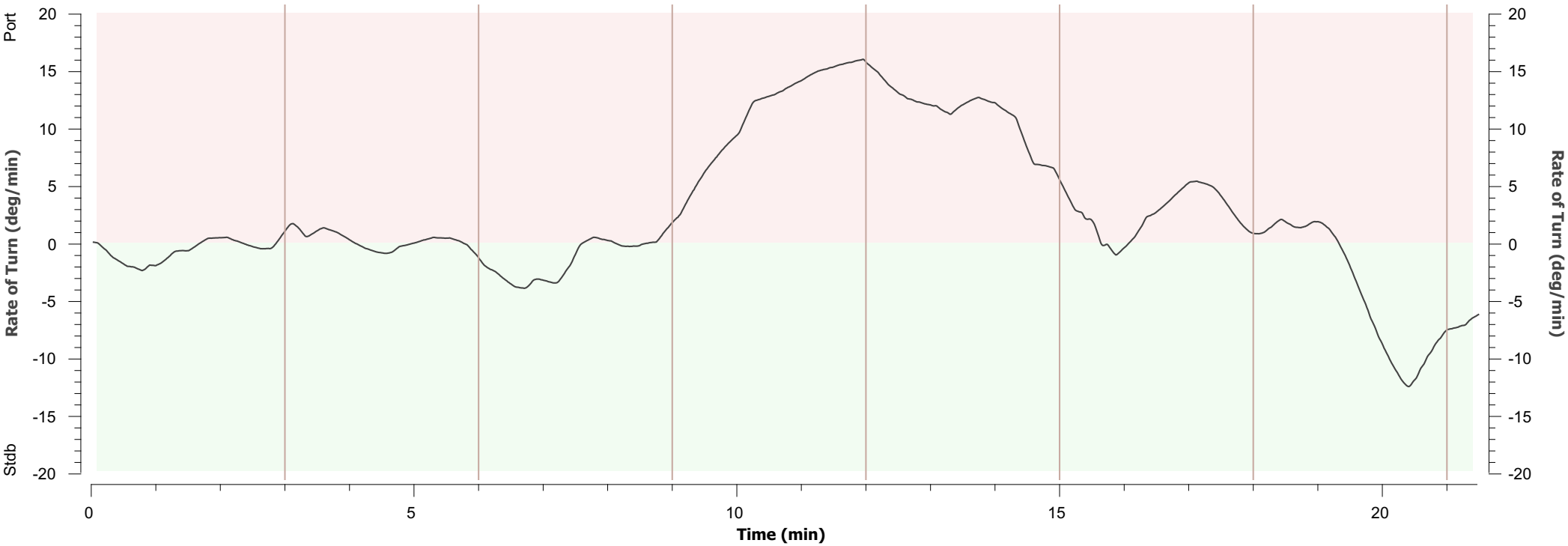
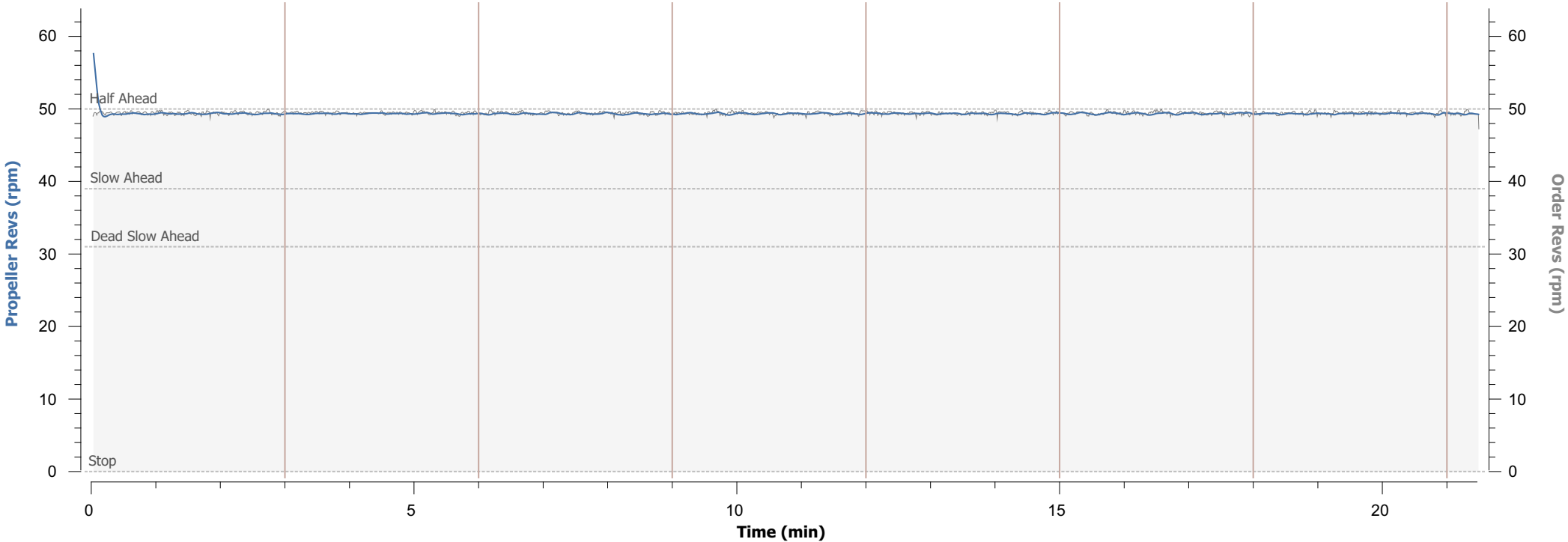
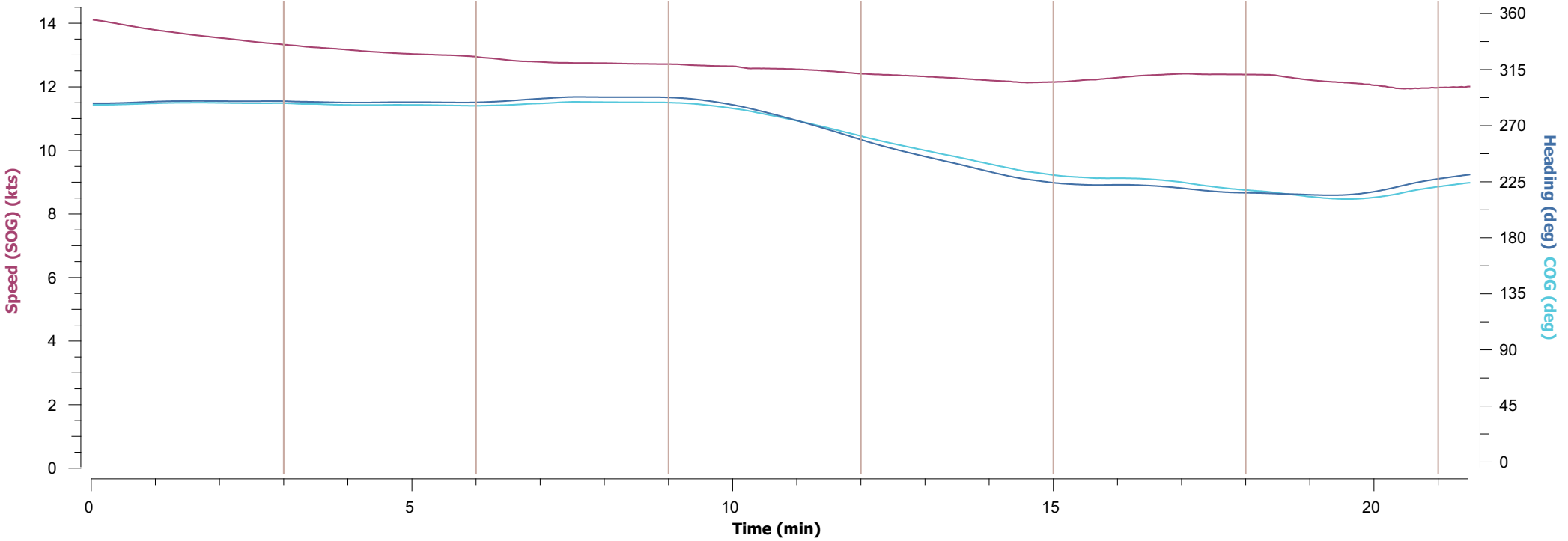


Details			Comments
Model : CT364L	Area : melbourne	MSC Daniela Outbound from Popes Eye. Wind: SW x 20kts. Swell: SW x 2.0m @ 10s.Tide: HW +04:50. Current: 3.0 knots Ebb. Standard Model	
Model Name : MSC Daniela	Wind : 23kts from 235°	Vessel speed restricted to 13 knots (Half Ahead) as vessel constrained by DUKC. (14.5m draft)	
Dimension : 366.1m x 51.2m x 14.5m	Swell : 2.0m from 225°	<div>Significant shallow water effect hampered vessel manoeuvrability at this draft. Indicates that Ebb Tide not practicable for this vessel, either Inbound or Outbound.</div>	
Displacement : 183,969 tonnes	Current : 3.7kts to 221°		
	Tide : 0.53m (HW +04:50)		

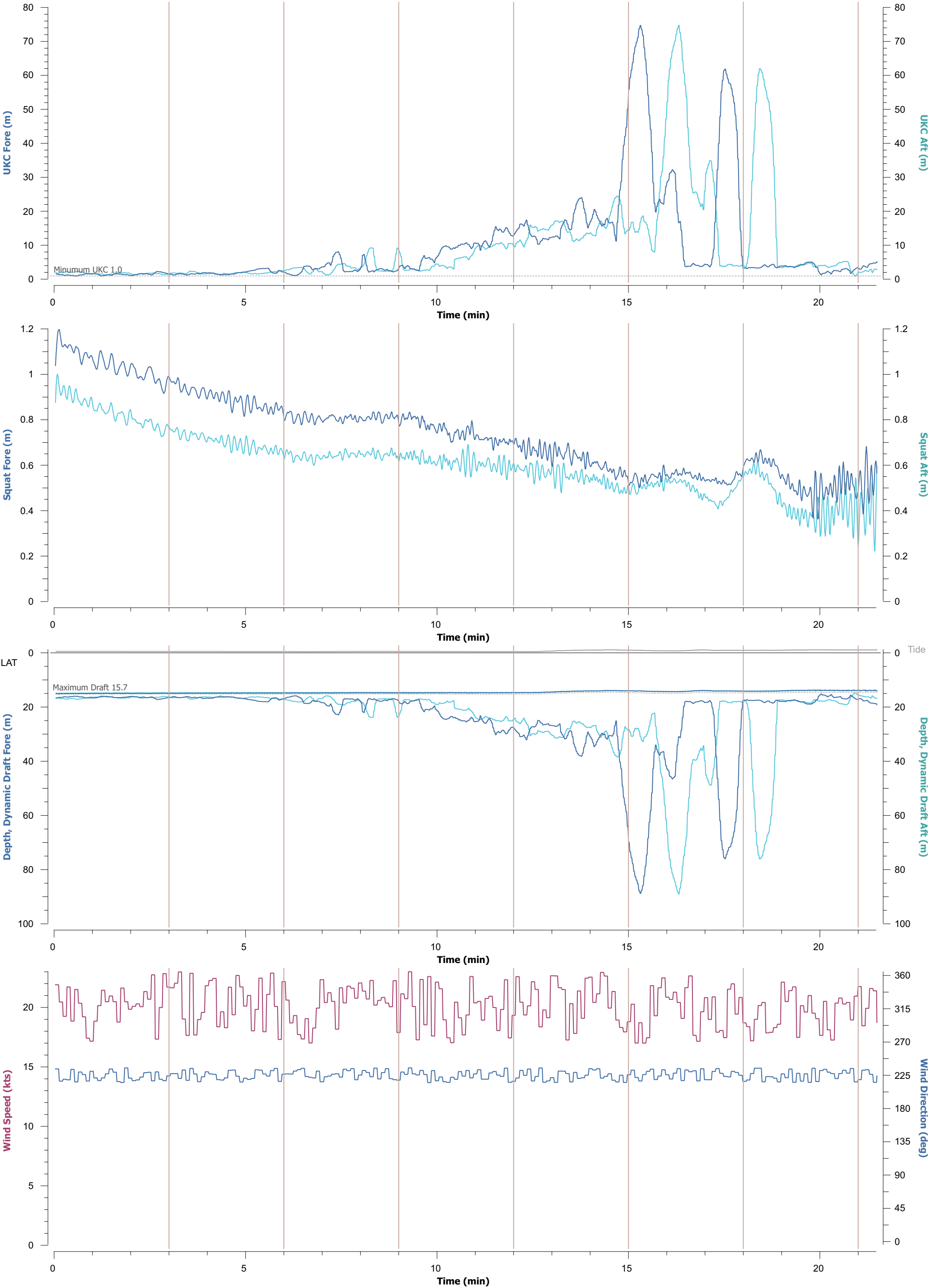
\* Wind, Swell & Current max effect during run, Tide at Reference Port

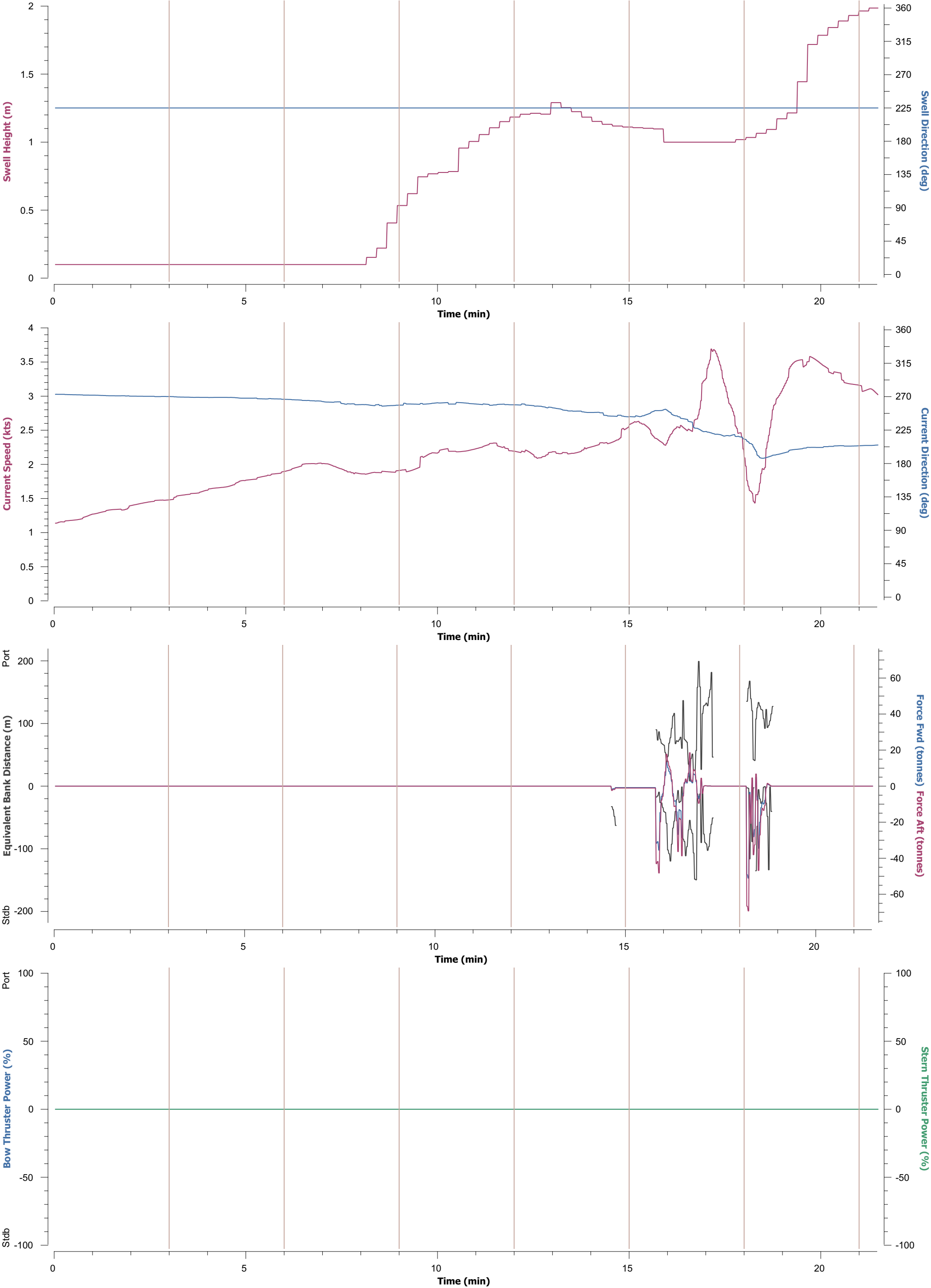






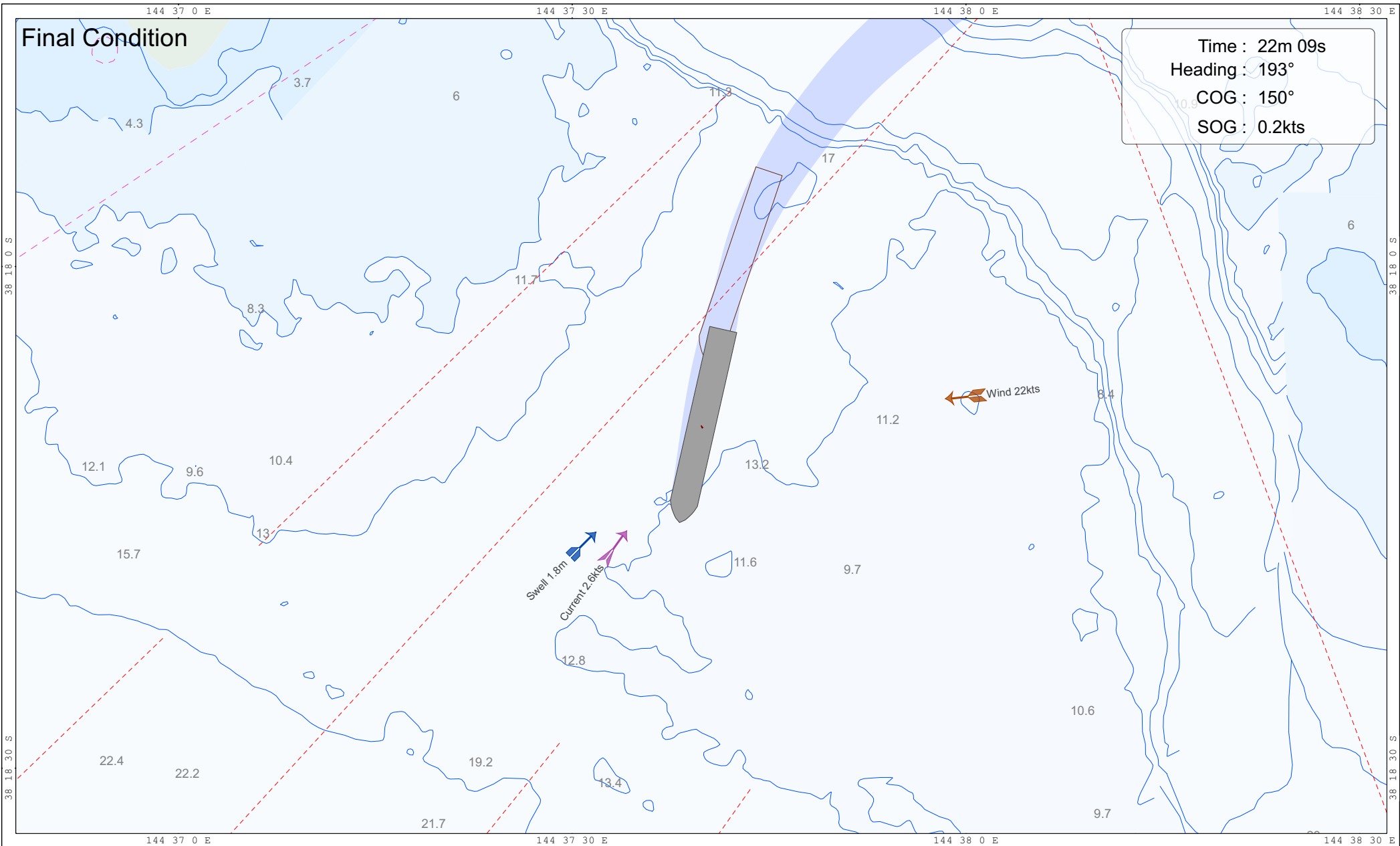
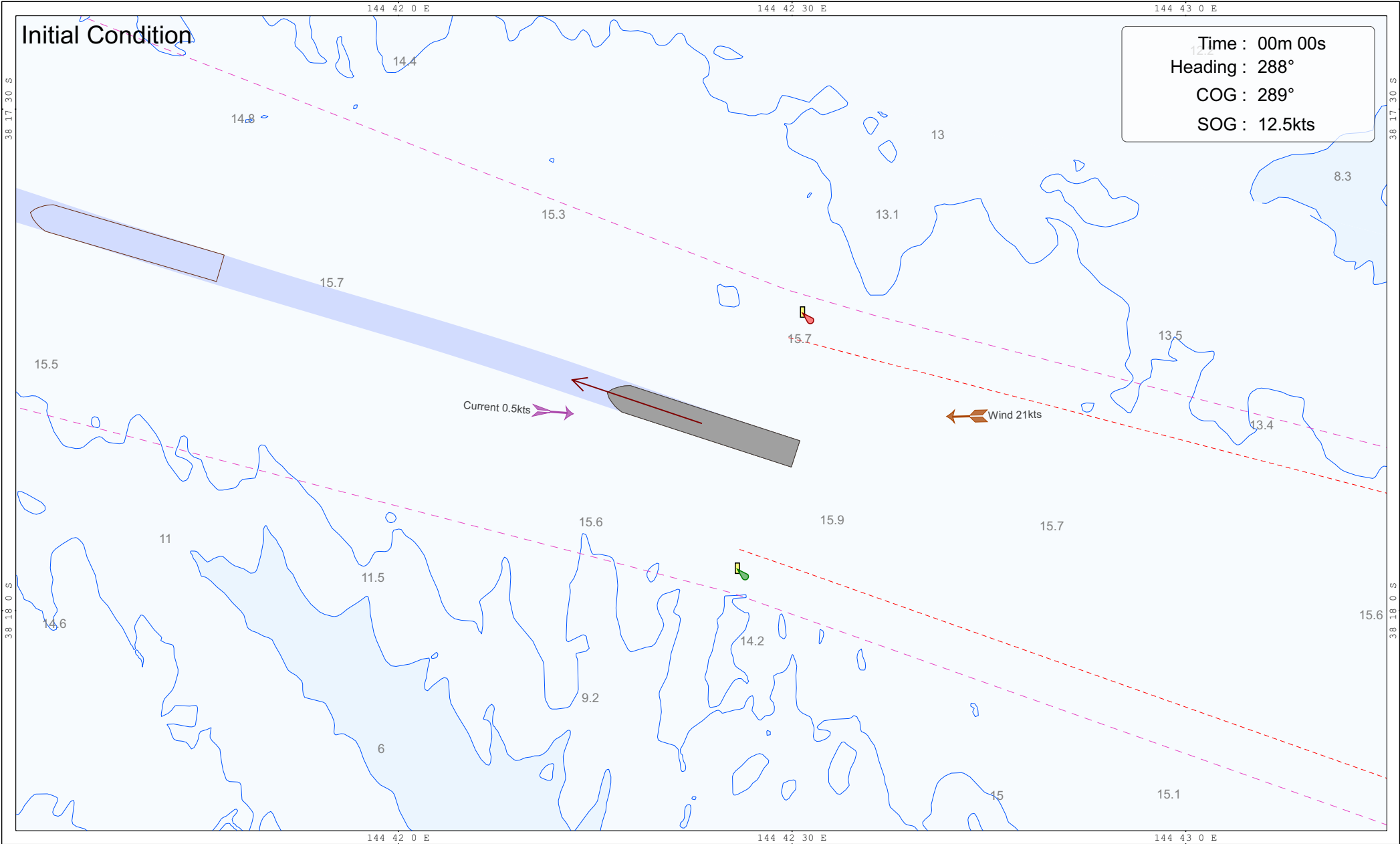


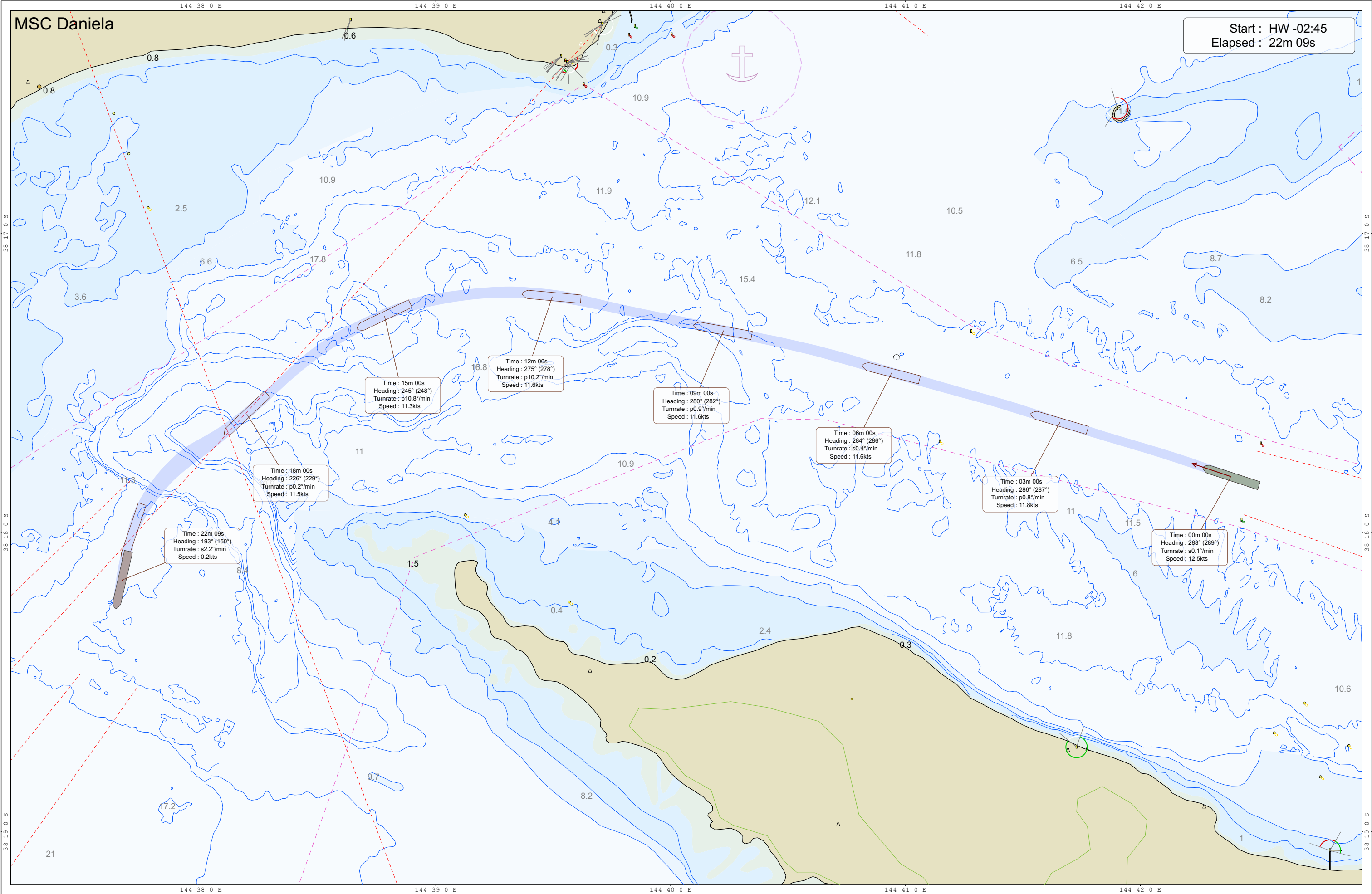


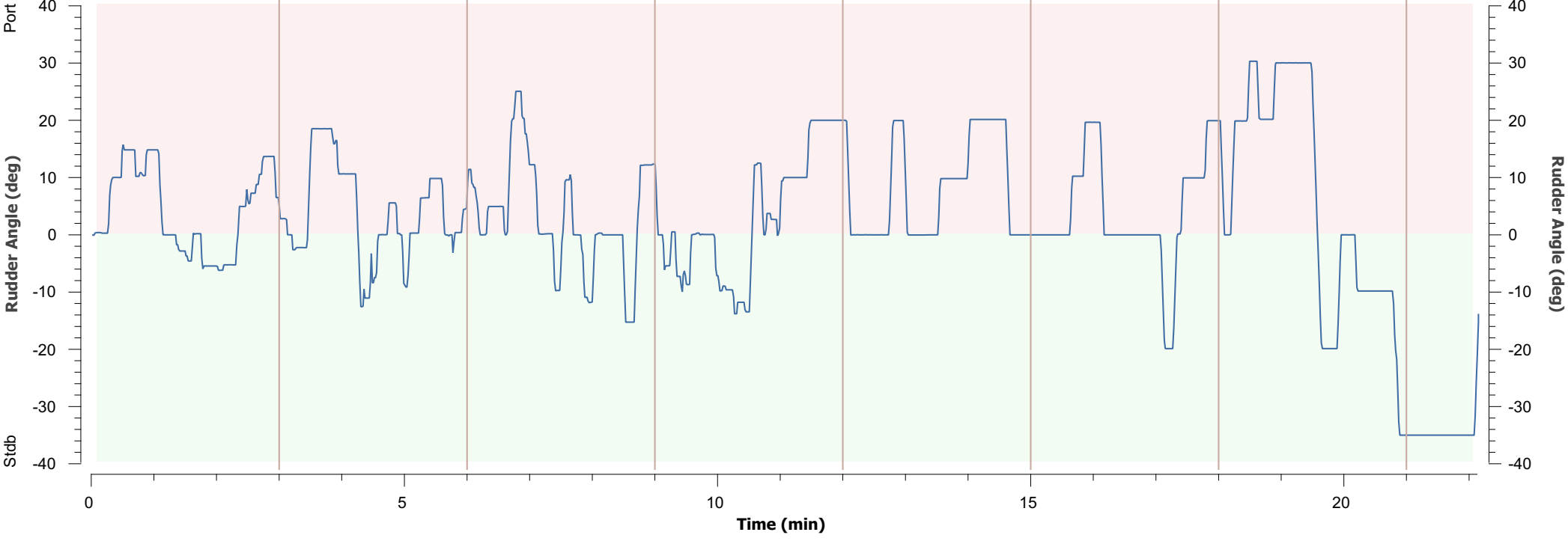
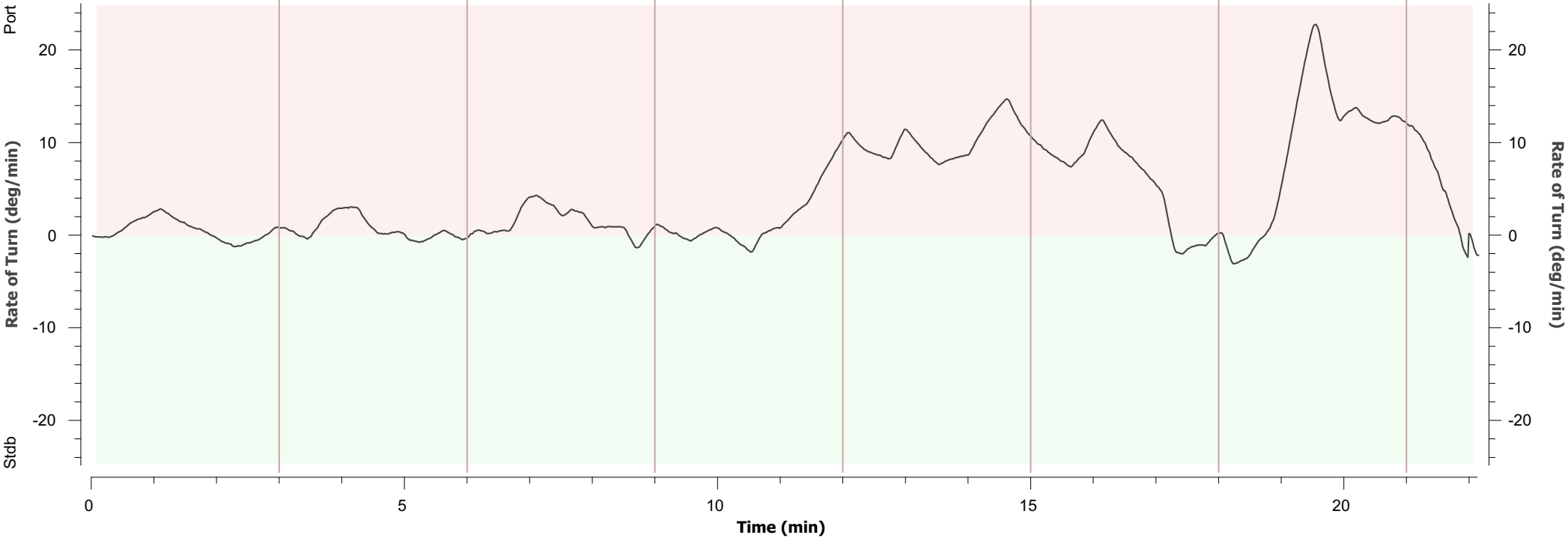
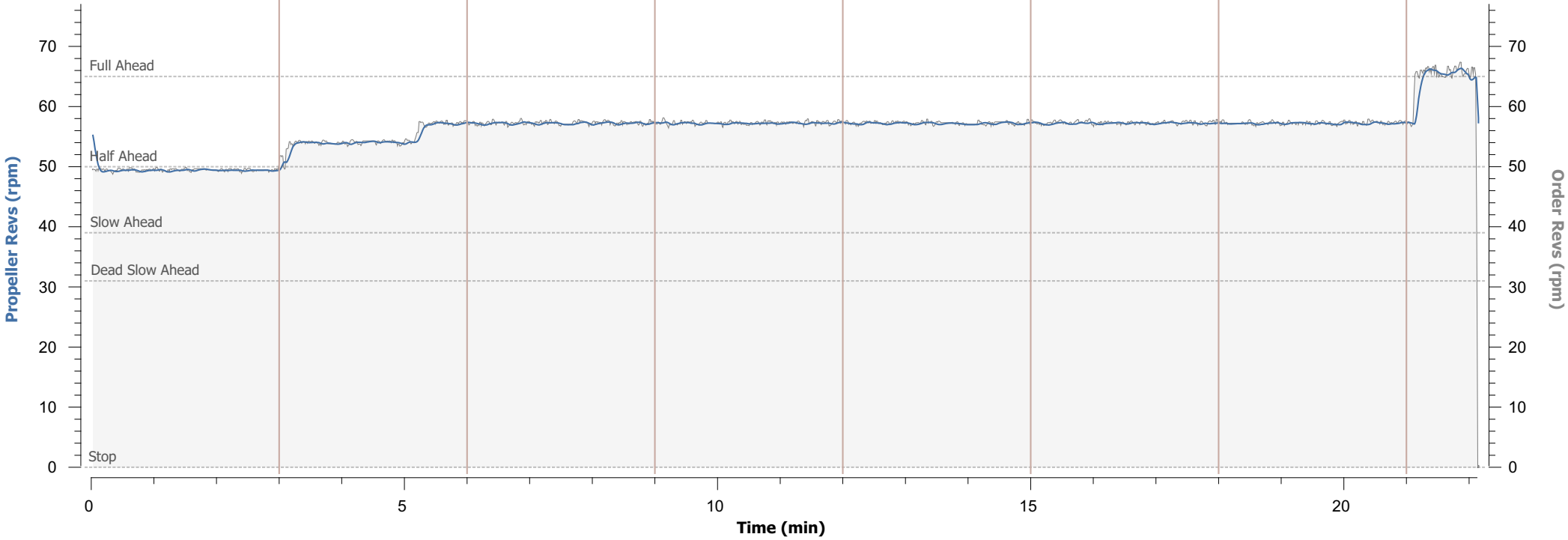
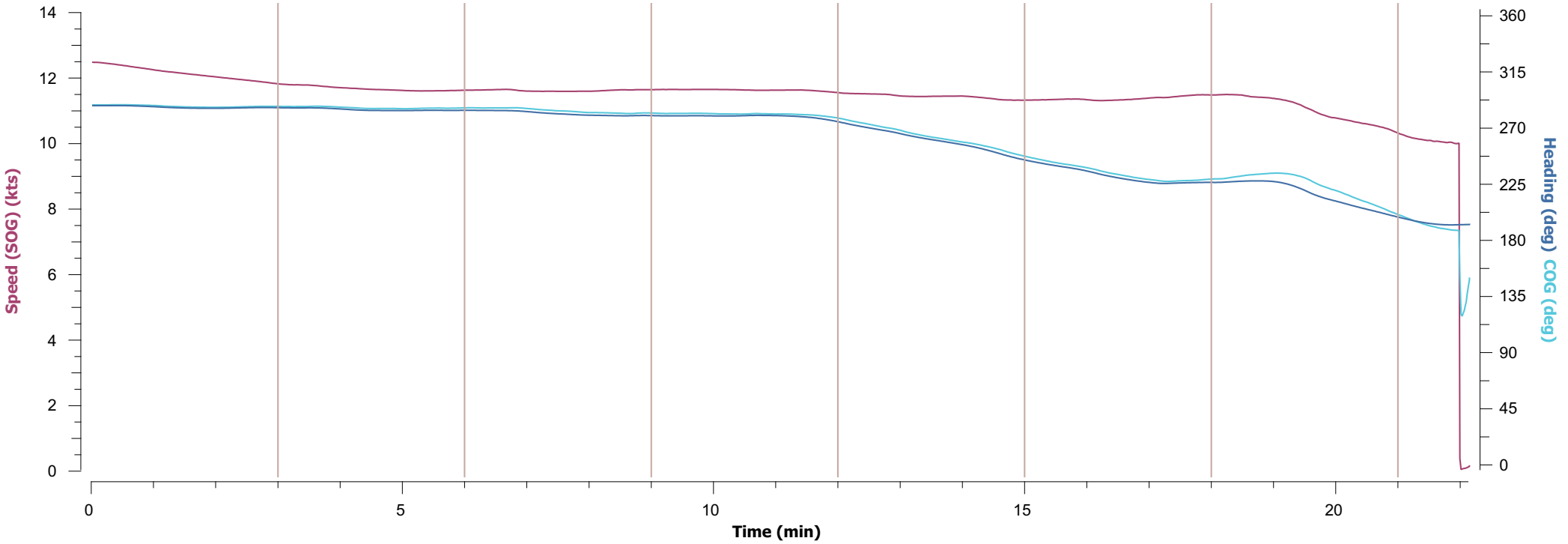


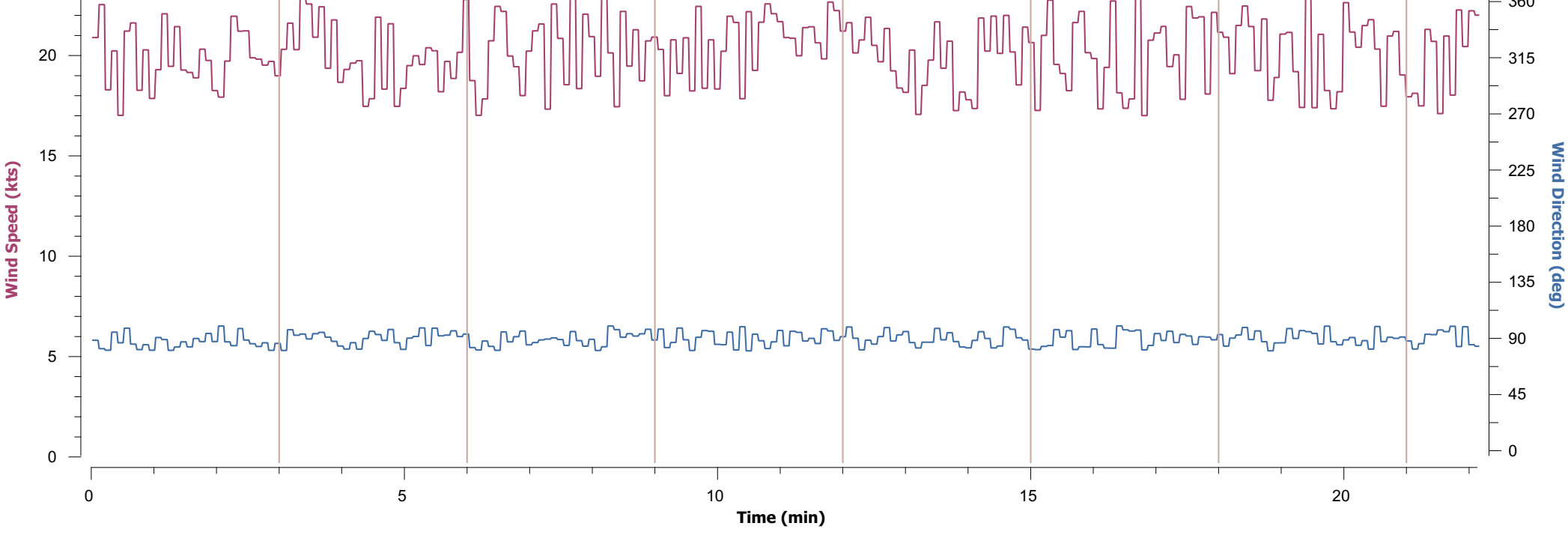
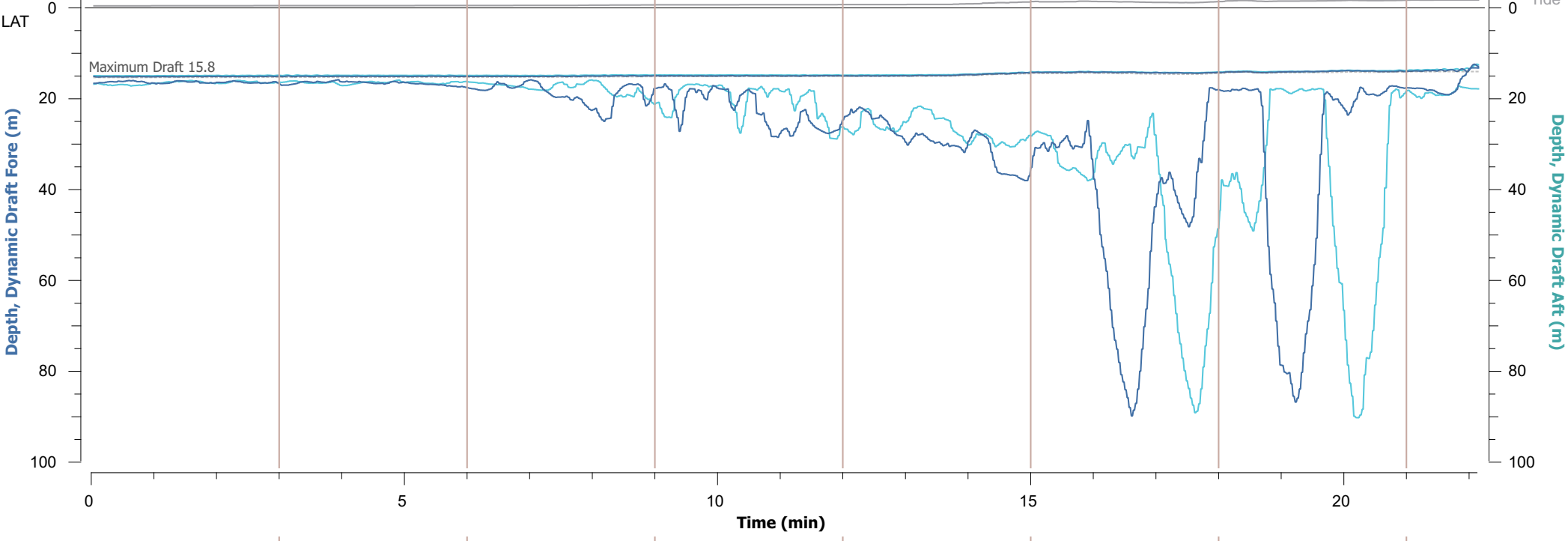
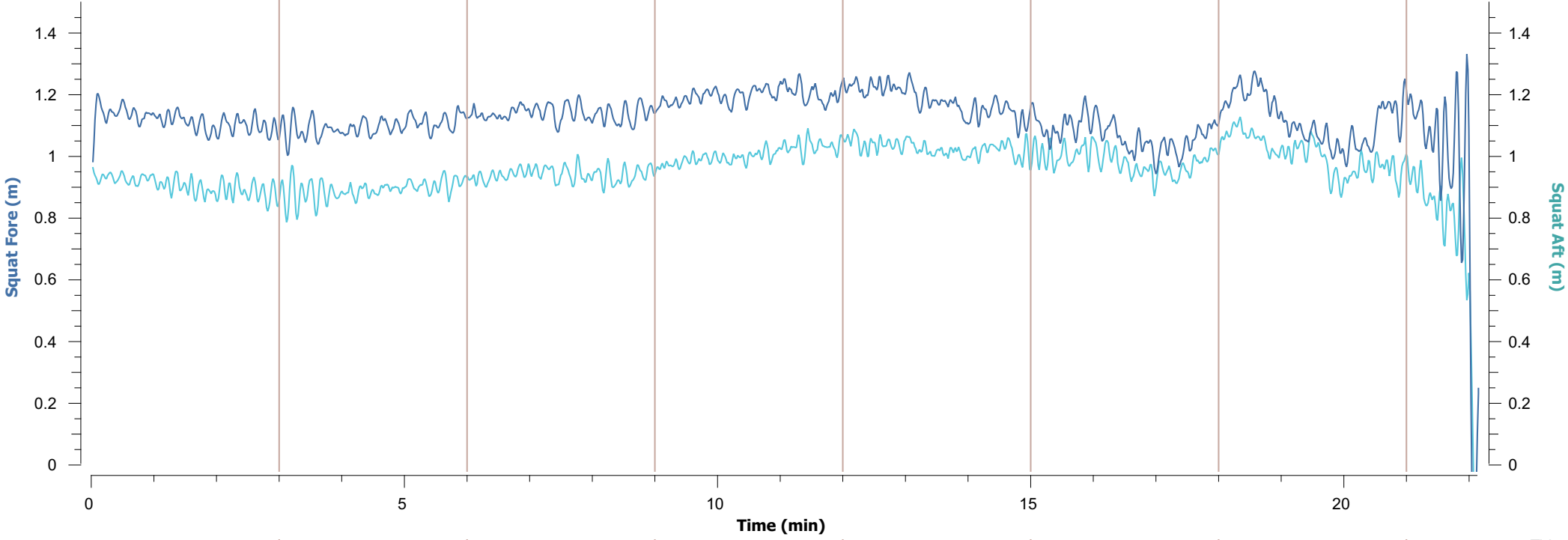
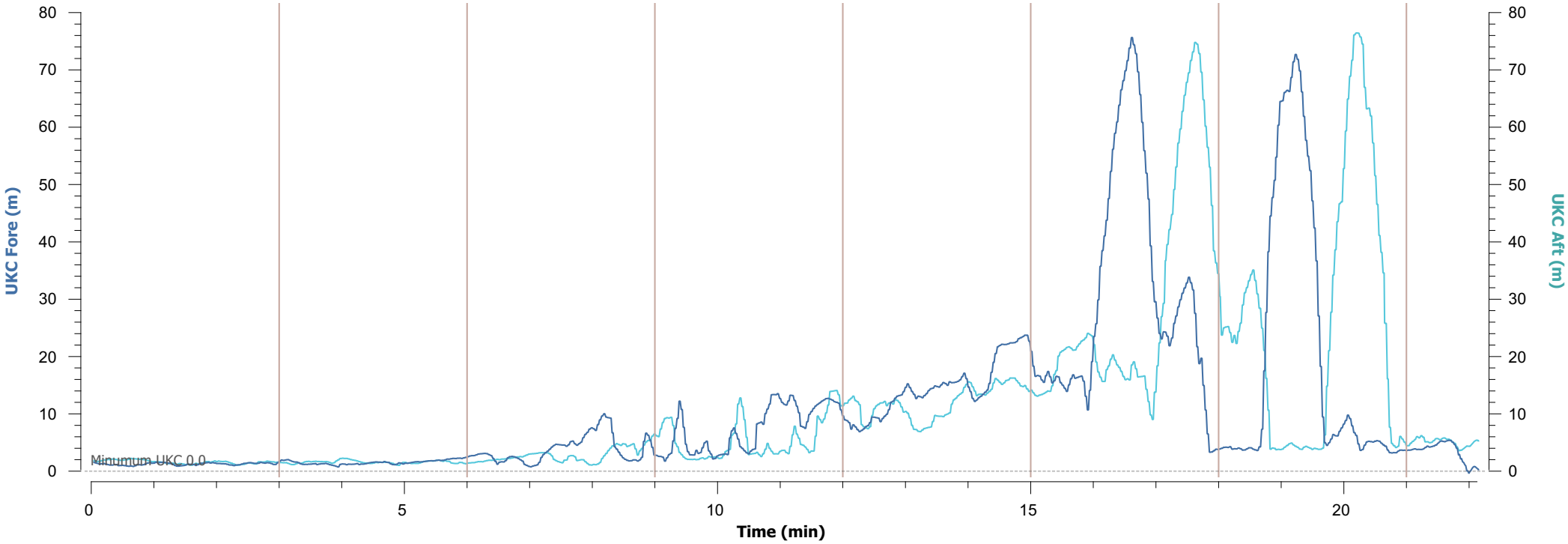
Details		Comments
Model : CT364L	Area : melbourne	MSC Daniela Outbound from Popes Eye. Wind: E x 20kts. Swell: SW x 2.0m @ 10s.Tide: HW -02:45. Current: 3.0 knots Flood. Standard Model Vessel speed restricted to 13 knots (Half Ahead) as vessel constrained by DUKC. (14.5m draft) <div>Combination of wind on port quarter and reduced manoeuvrability due to shallow water effect meant port rotation couldn't be checked and vessel grounded on eastern bank of Great Ship Channel.</div>
Model Name : MSC Daniela	Wind : 23kts from 96°	
Dimension : 366.1m x 51.2m x 14.5m	Swell : 1.8m from 225°	
Displacement : 183,969 tonnes	Current : 3.3kts to 16°	
	Tide : 0.45m (HW -02:45)	

\* Wind, Swell & Current max effect during run, Tide at Reference Port

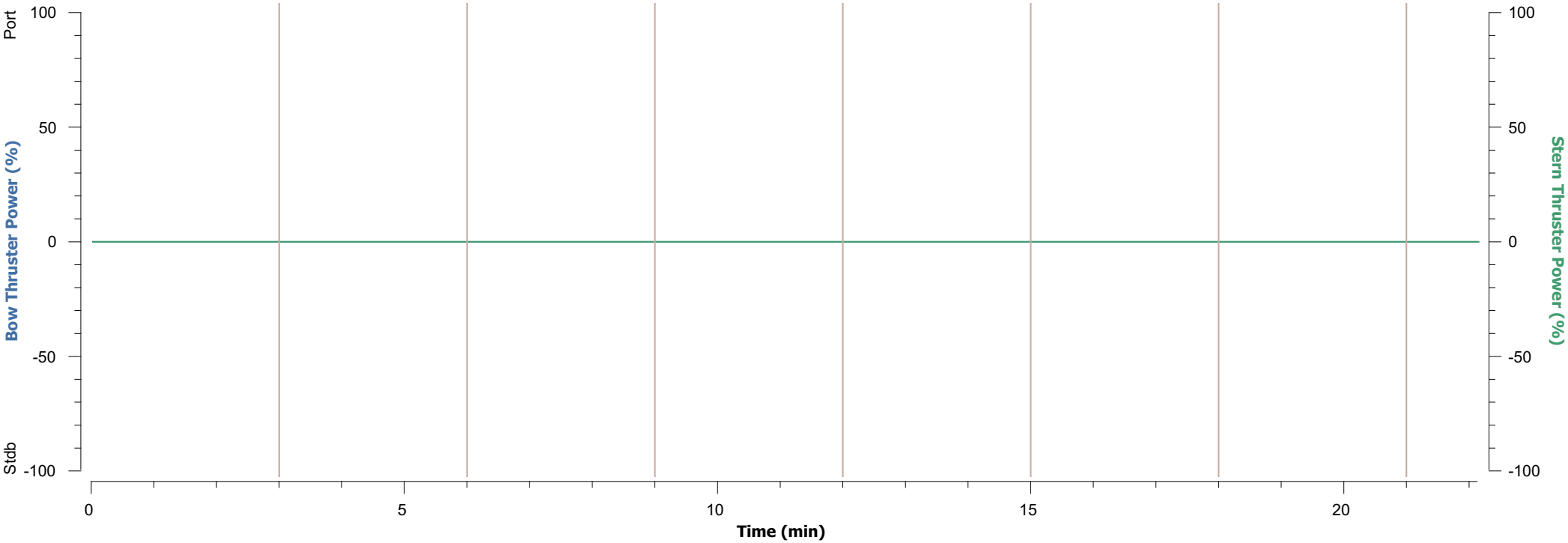
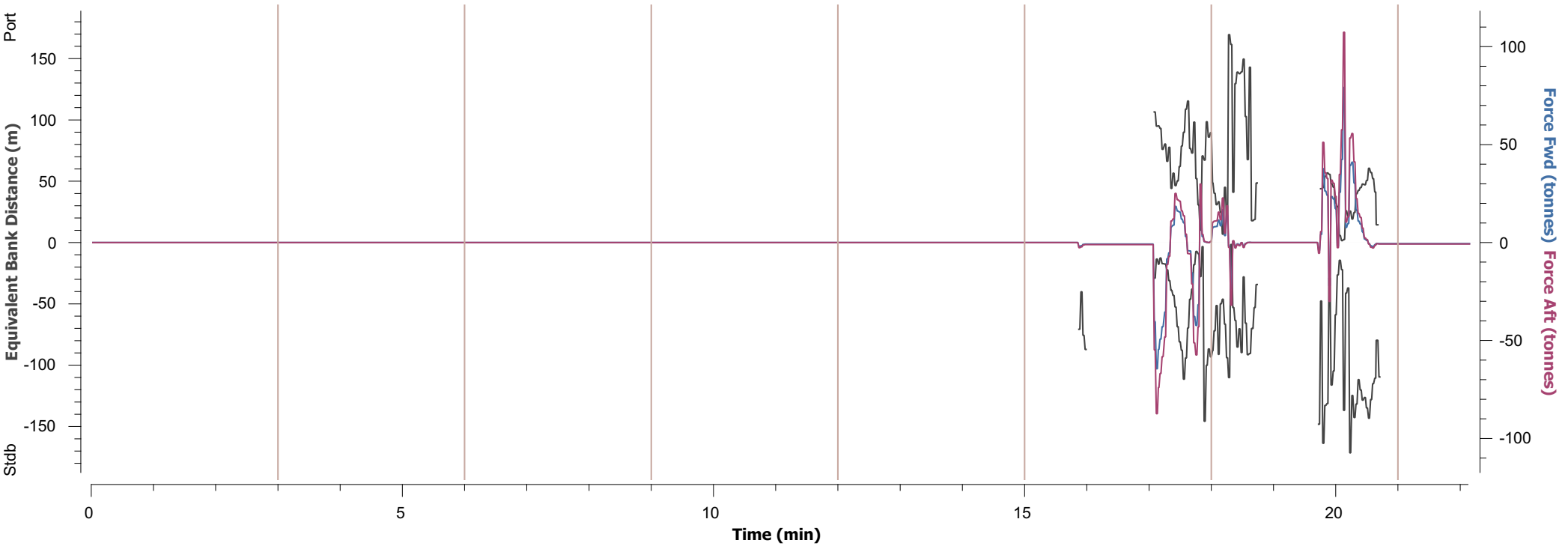
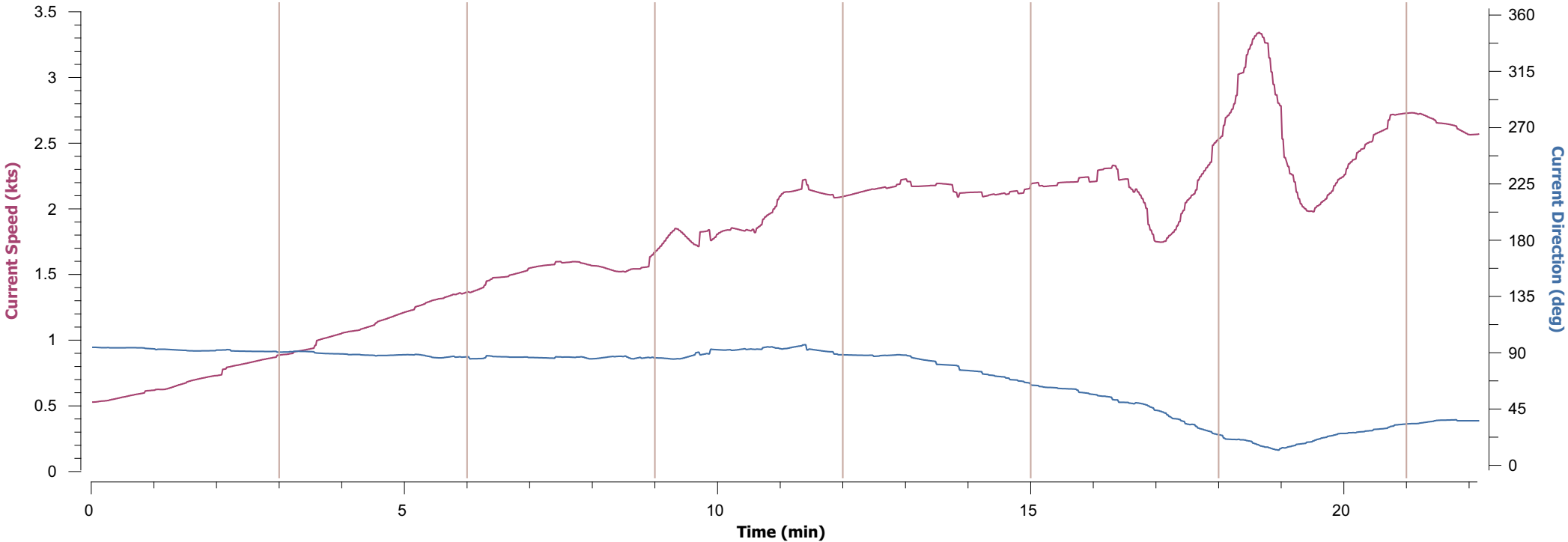
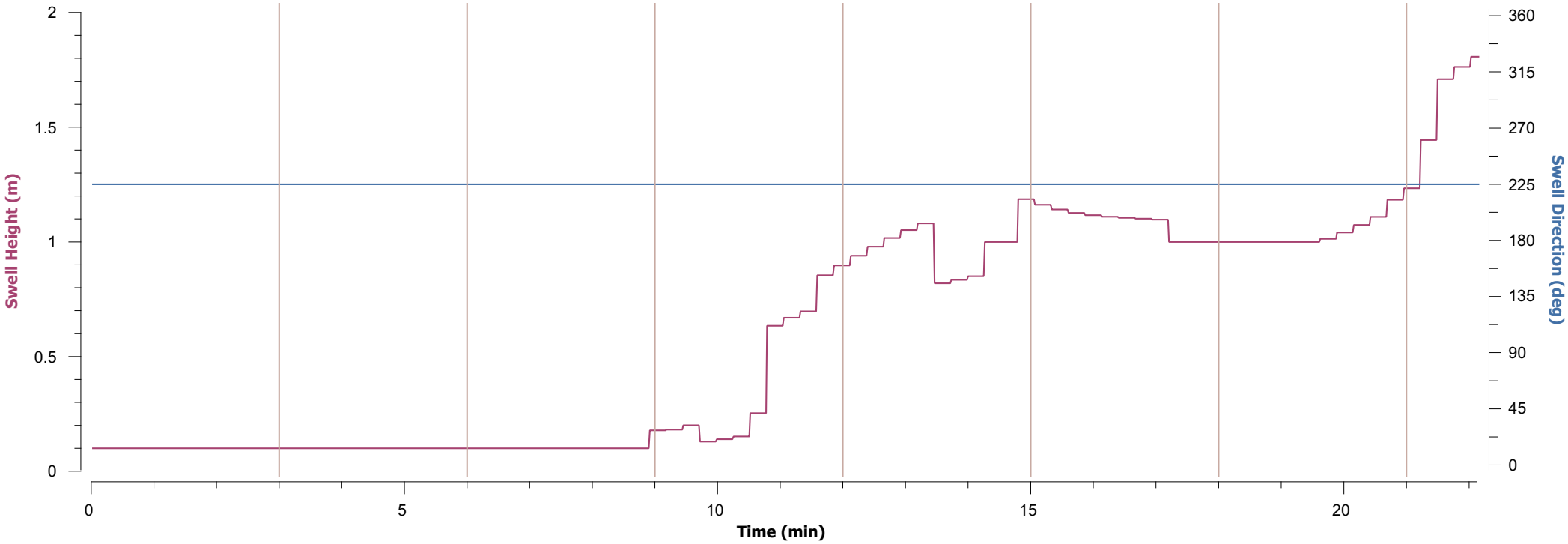






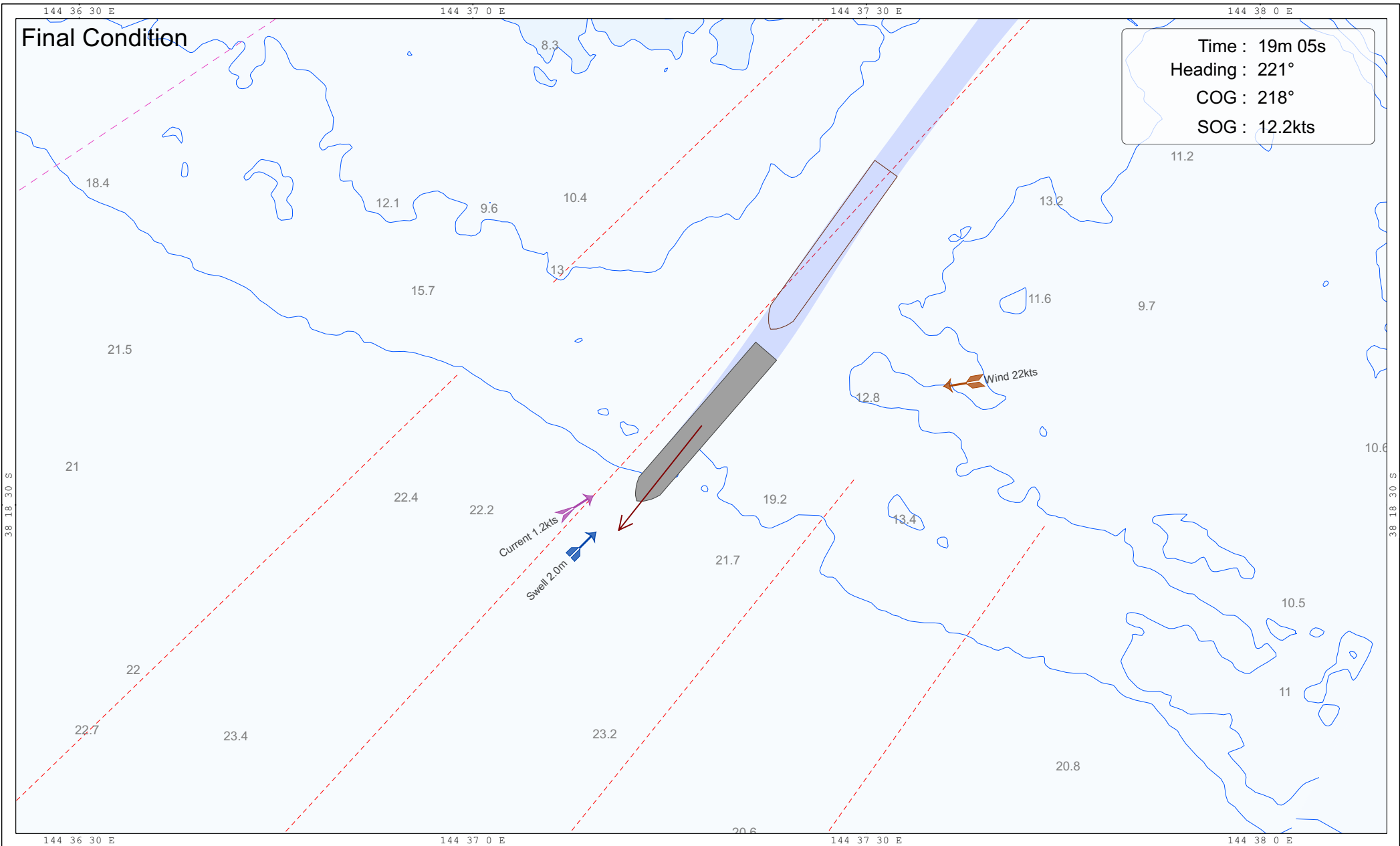
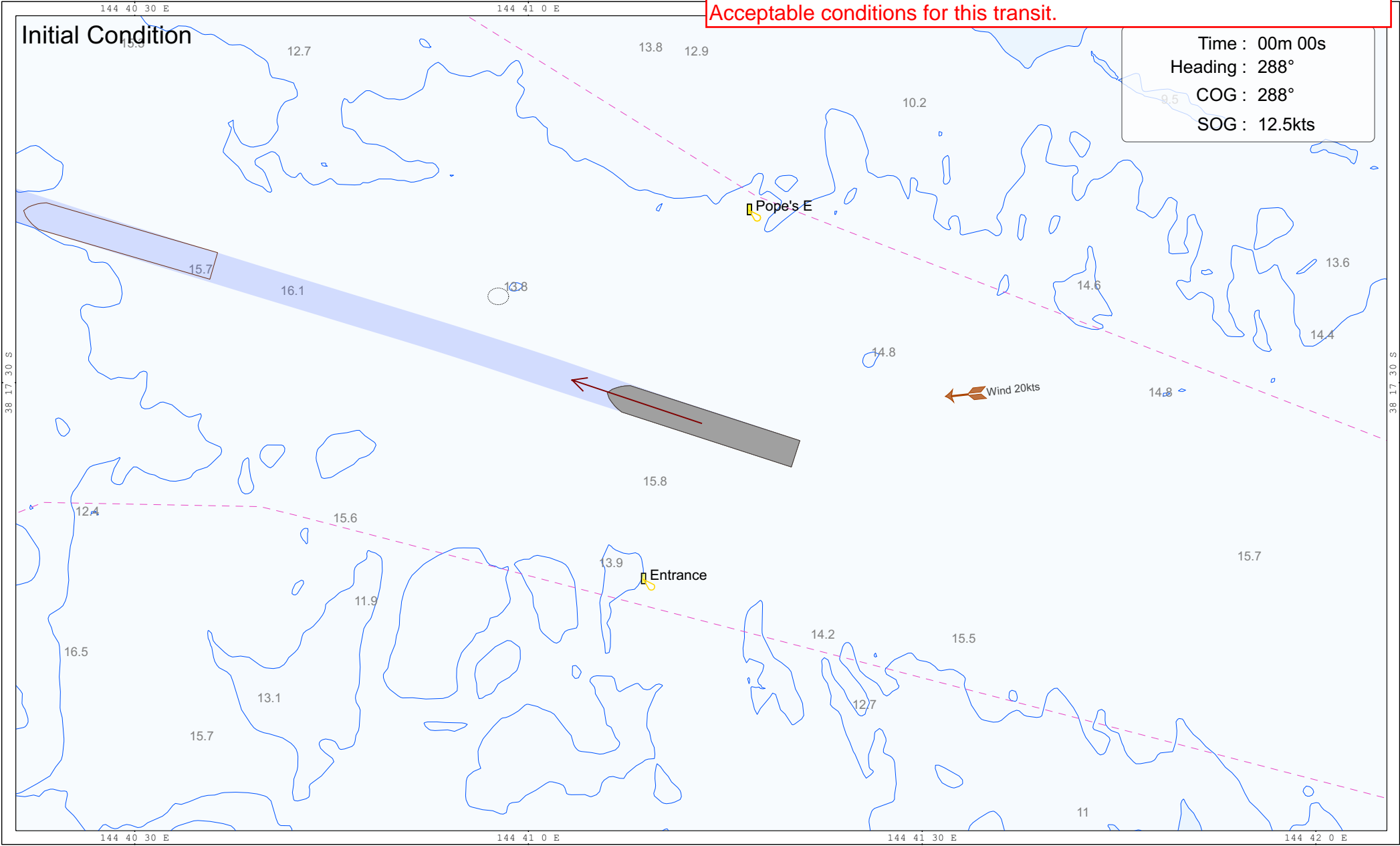


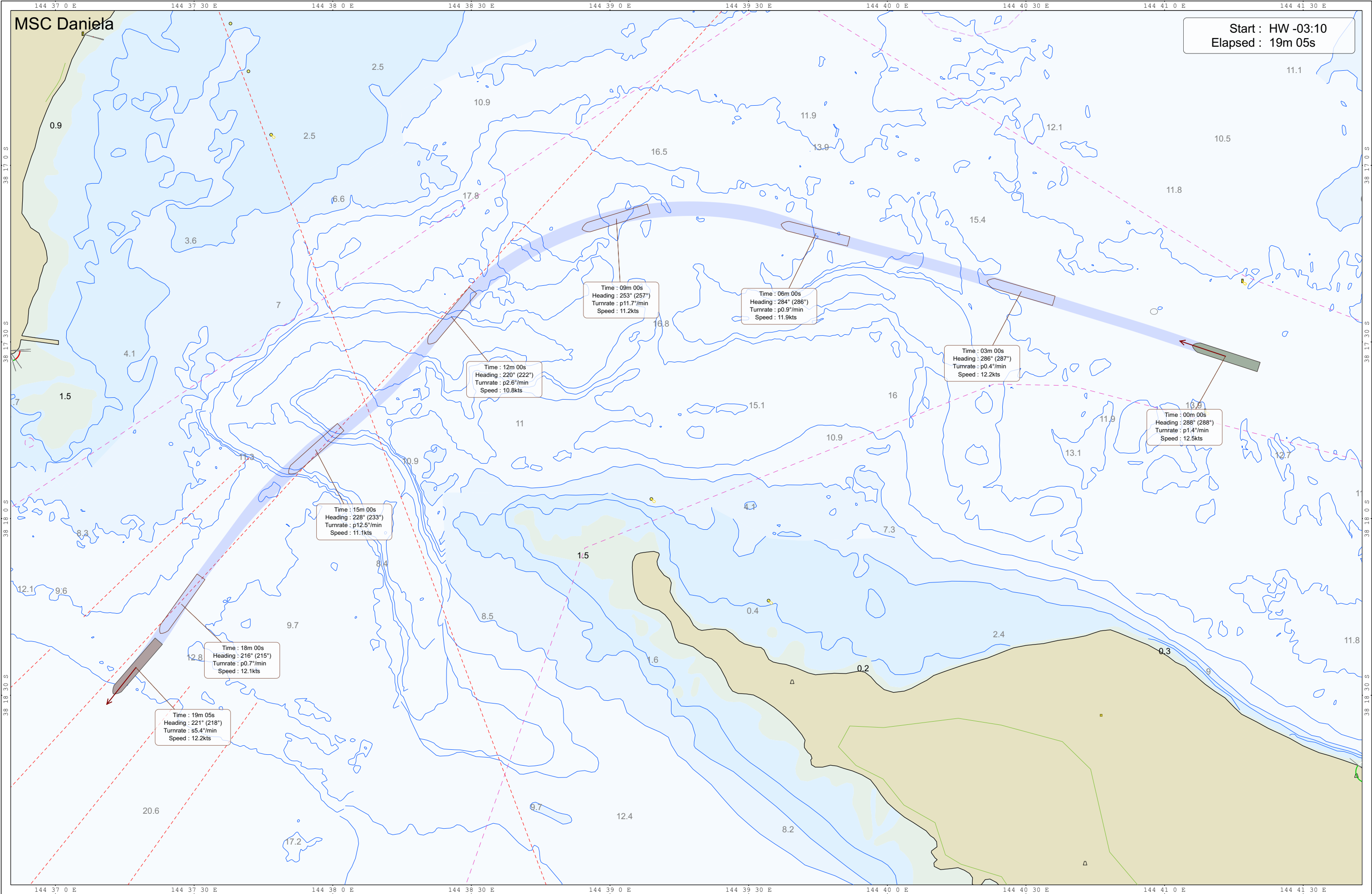


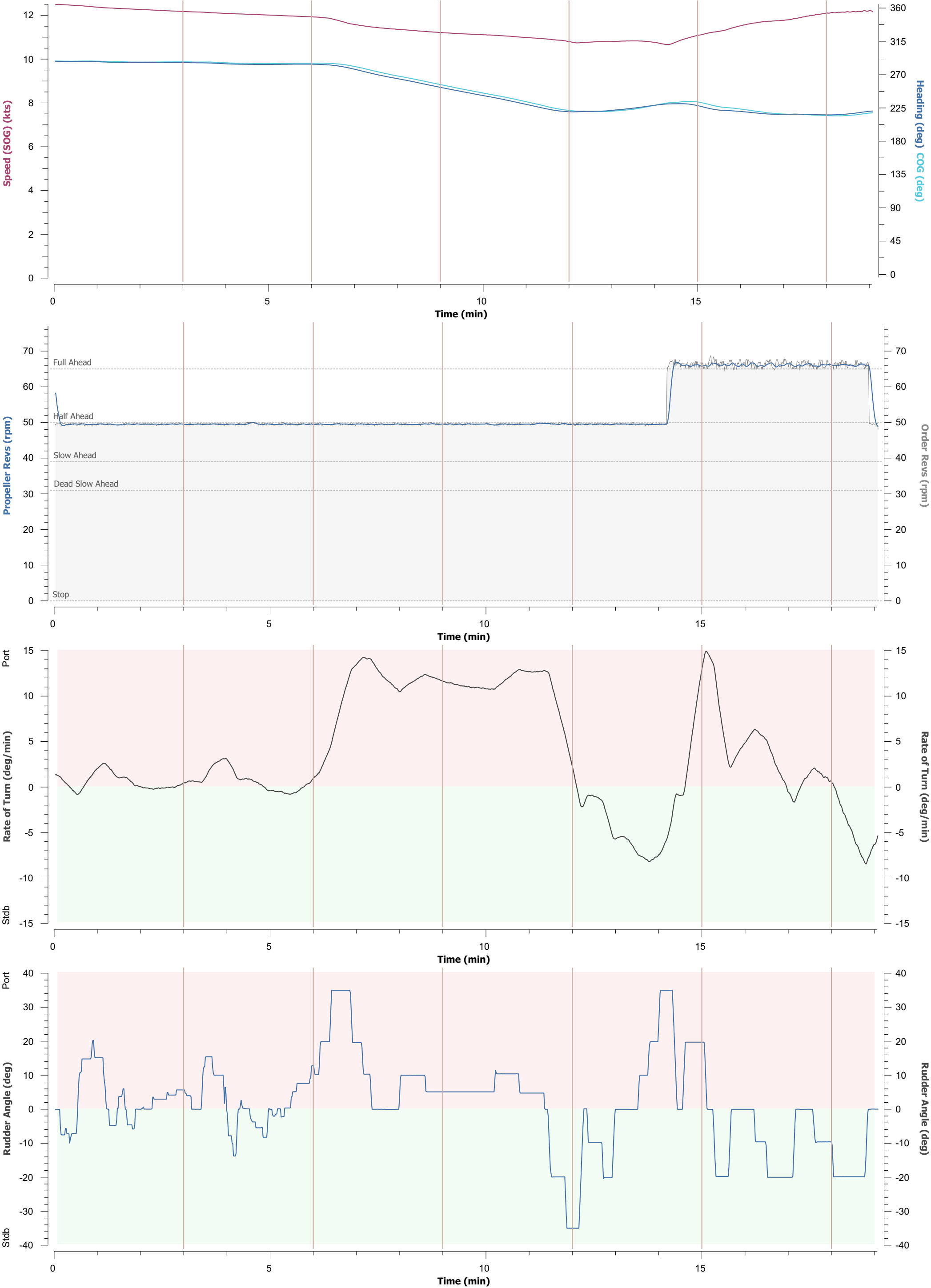


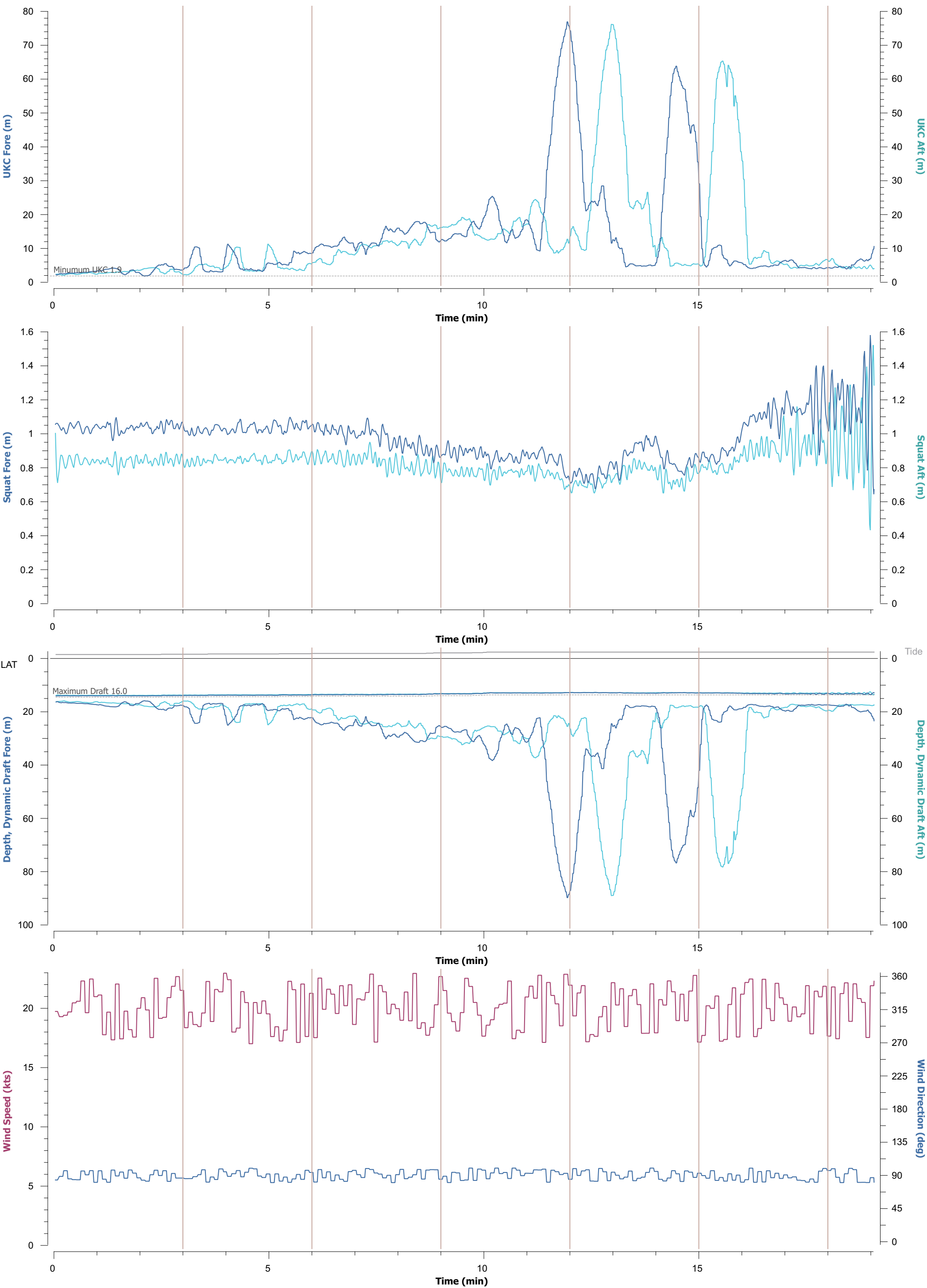
Details		Comments
Model : CT364L	Area : melbourne	MSC Daniela Outbound from Popes Eye. Wind: E x 20kts. Swell: SW x 2.0m @ 10s.Tide: Manually increased by 1.0m to replicate shallower draft. Current: 1.5 knots Flood. Standard Model Vessel speed restricted to 13 knots (Half Ahead) as vessel constrained by DUKC.
Model Name : MSC Daniela	Wind : 23kts from 95°	
Dimension : 366.1m x 51.2m x 14.5m	Swell : 2.0m from 225°	
Displacement : 183,969 tonnes	Current : 1.8kts to 15°	
	Tide : 1.50m (HW -03:10)	

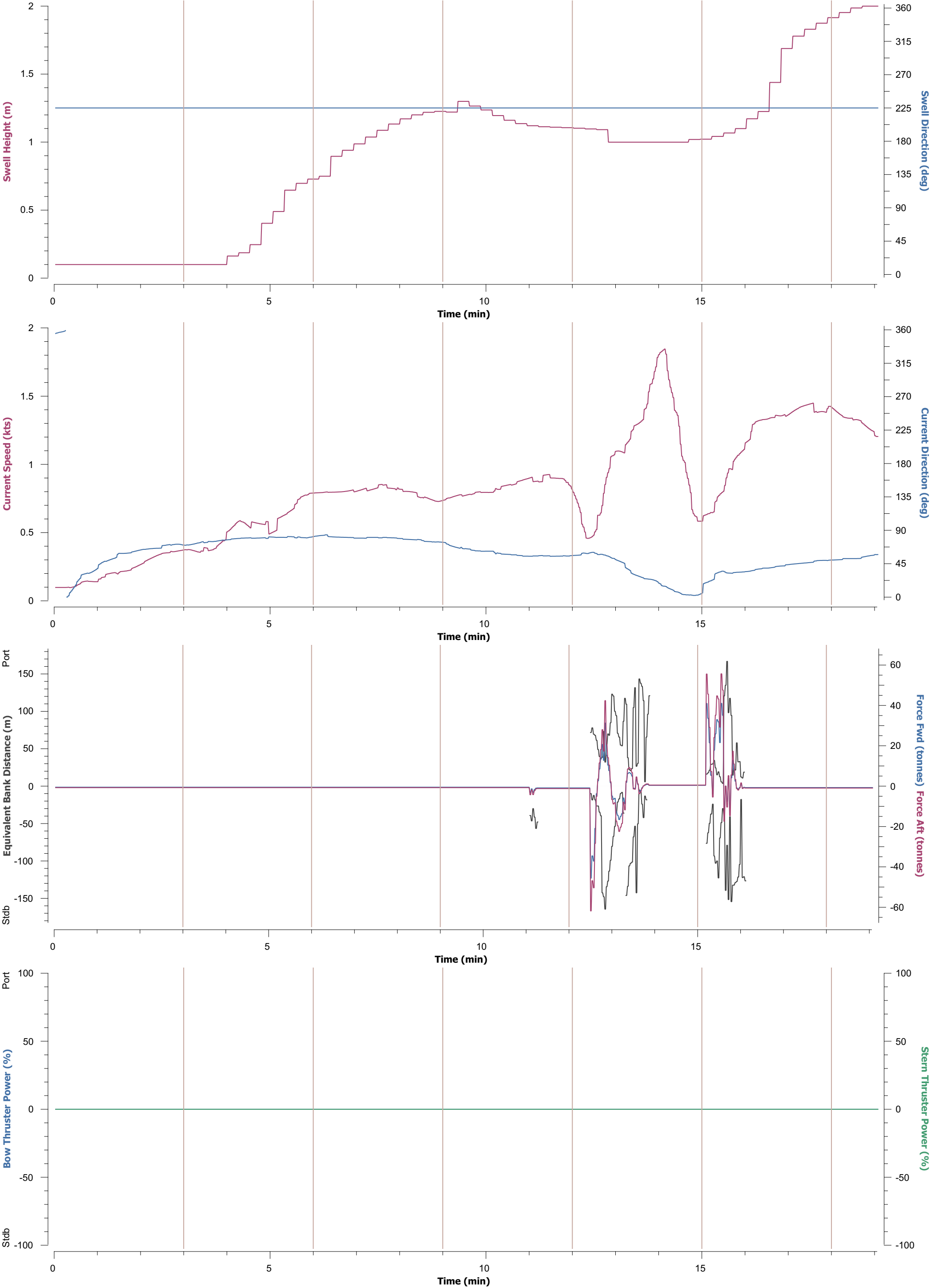
\* Wind, Swell & Current max effect during run, Tide at Reference Port







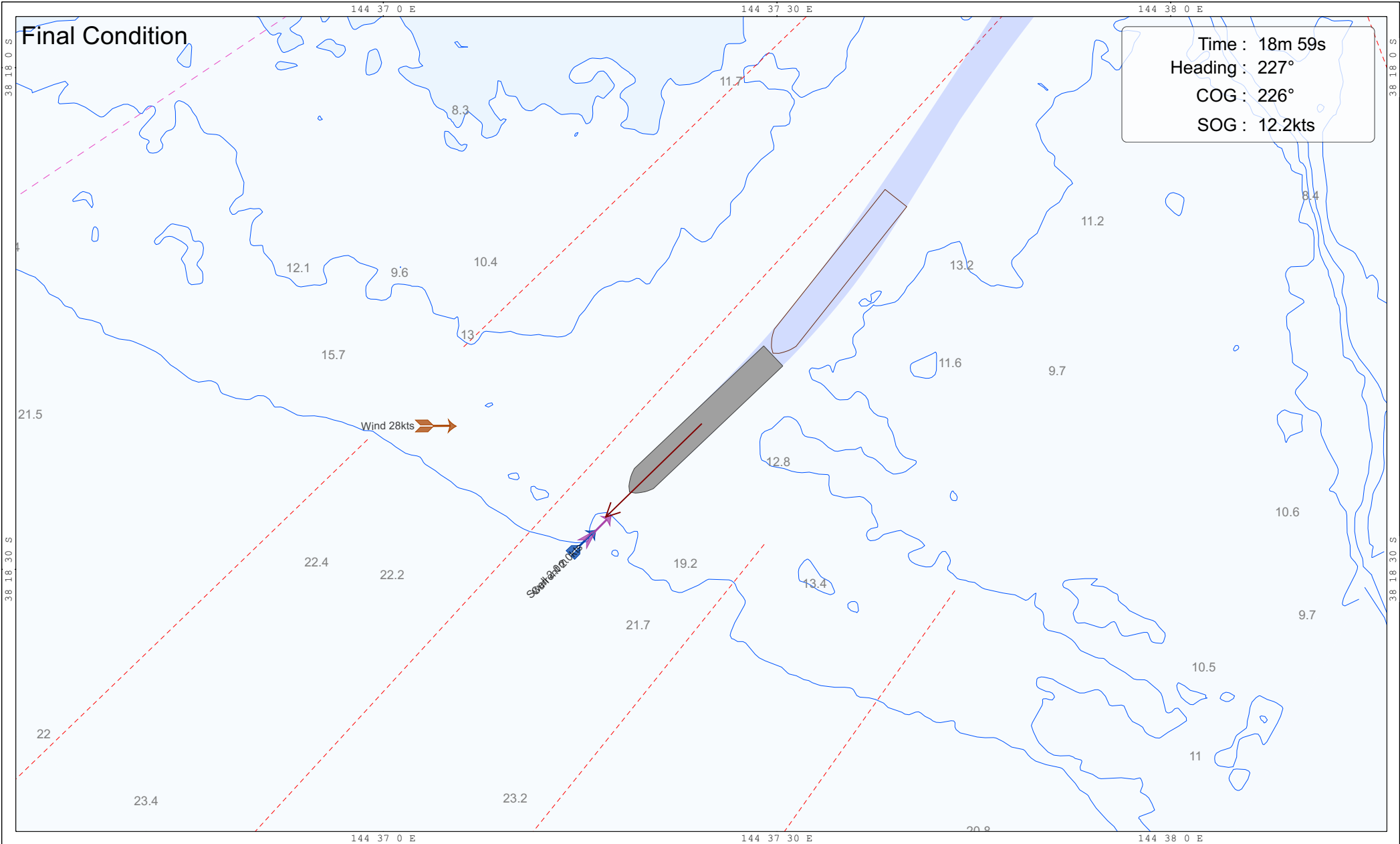
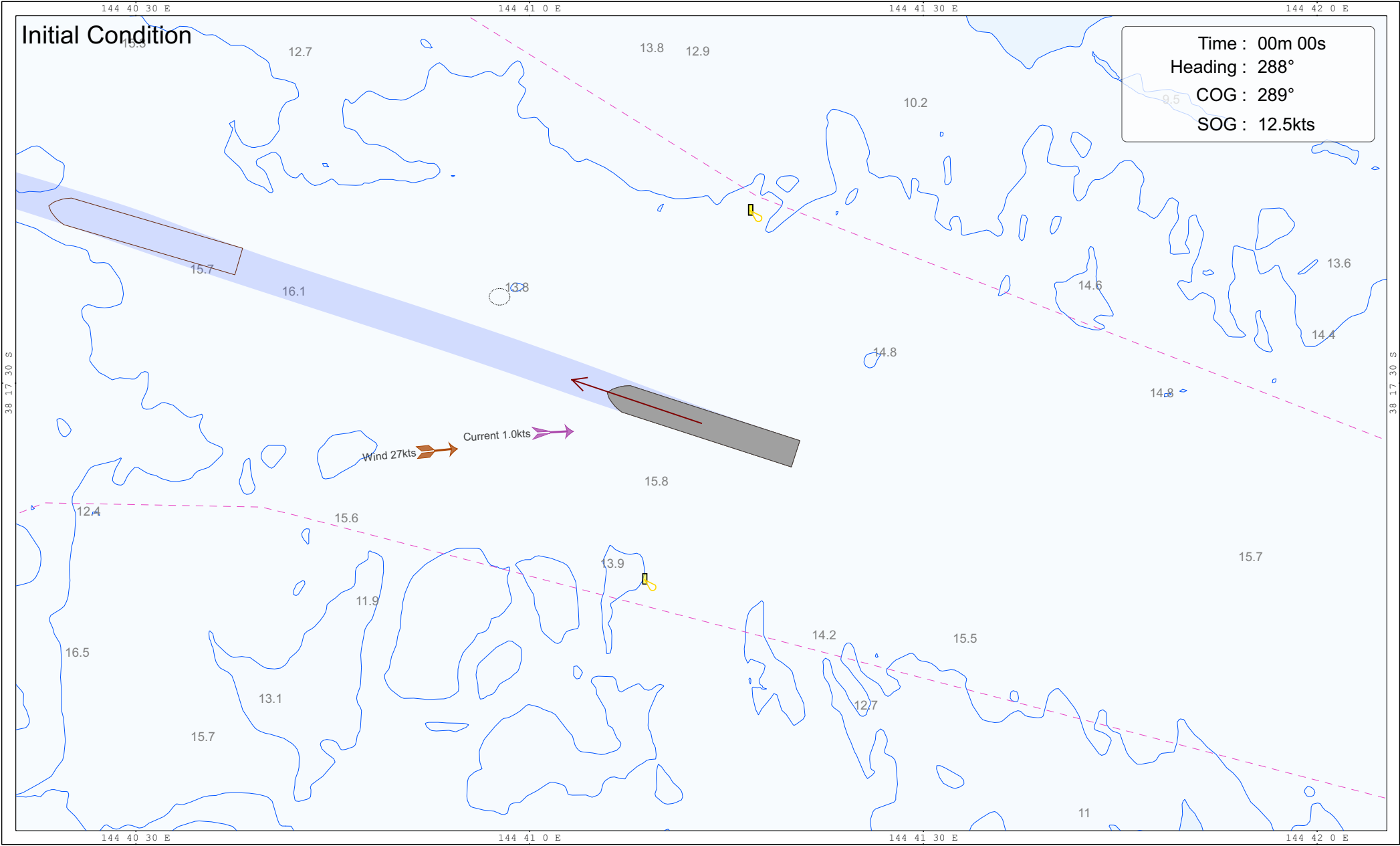


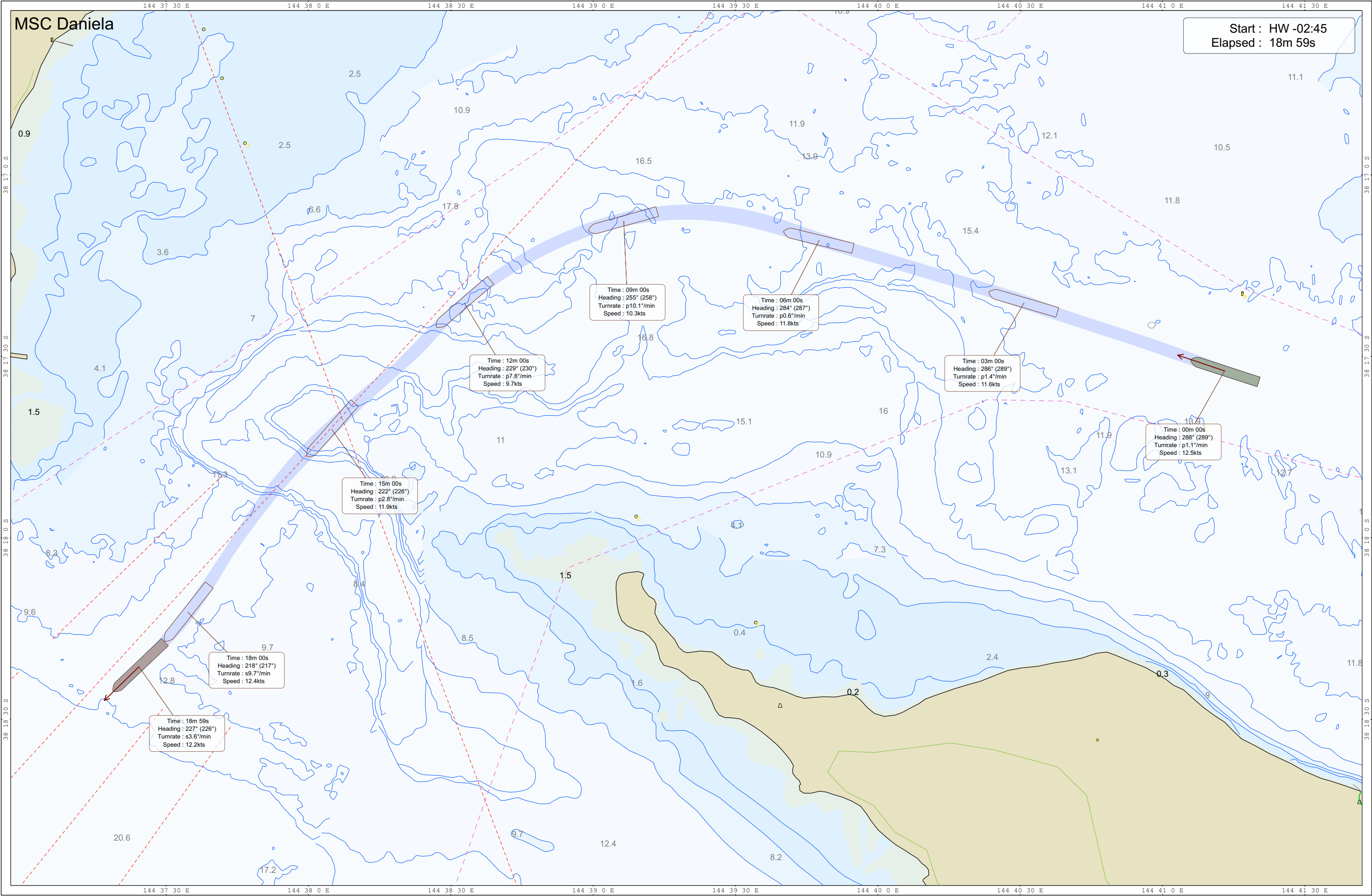


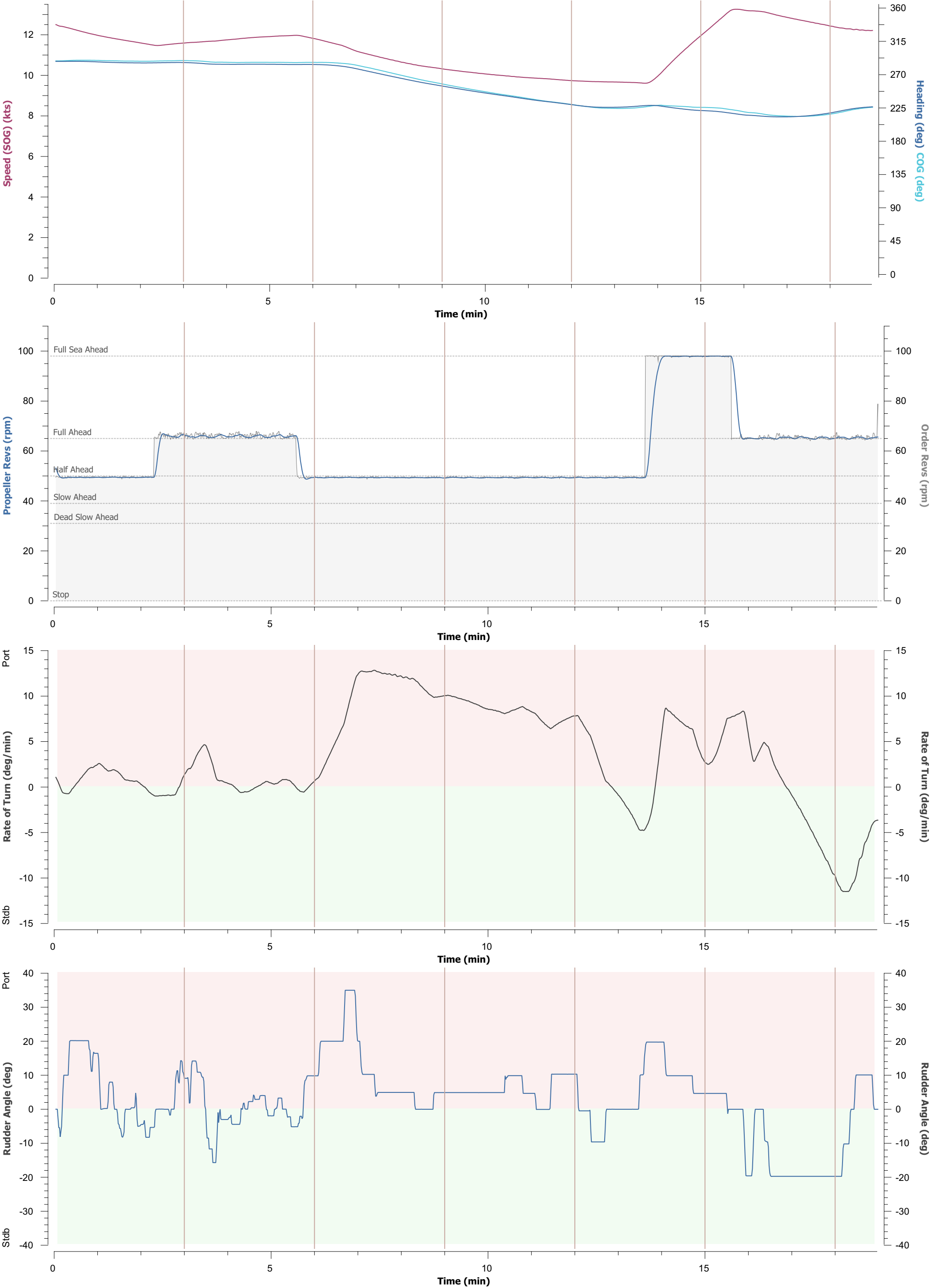


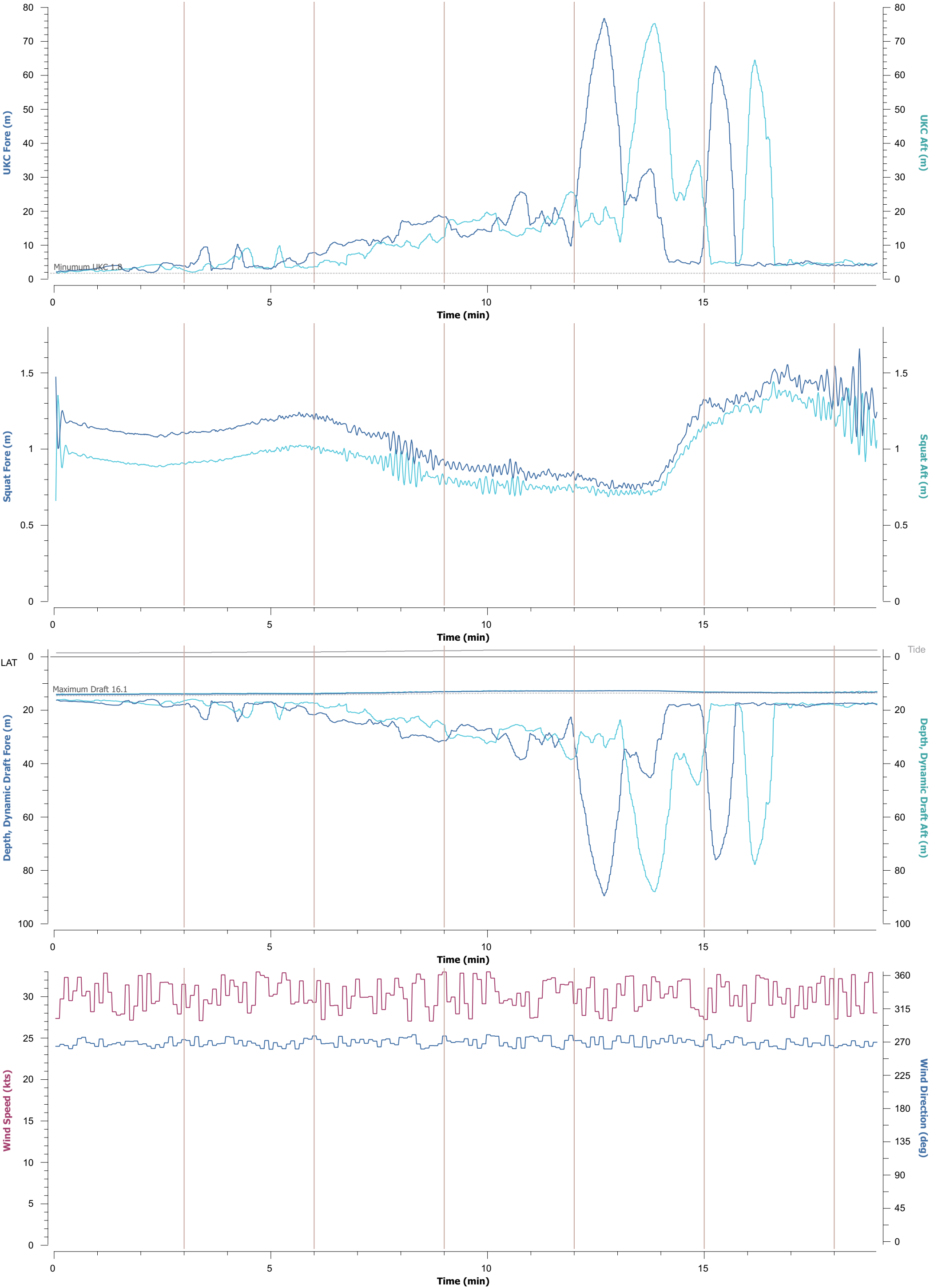
Details		Comments
Model : CT364L	Area : melbourne	MSC Daniela Outbound from Popes Eye. Wind: W x 30kts. Swell: SW x 2.0m @ 10s.Tide: Manually increased by 1.0m to replicate shallower draft. Current: 3.0 knots Flood. Standard Model Vessel speed restricted to 13 knots (Half Ahead) as vessel constrained by DUKC. <div>Big difference with increase in Under Keel Clearance. Hard over helm only used to commence rotation. Manageable in these conditions.</div>
Model Name : MSC Daniela	Wind : 33kts from 280°	
Dimension : 366.1m x 51.2m x 14.5m	Swell : 2.0m from 225°	
Displacement : 183,969 tonnes	Current : 3.3kts to 17°	
	Tide : 1.50m (HW -02:45)	

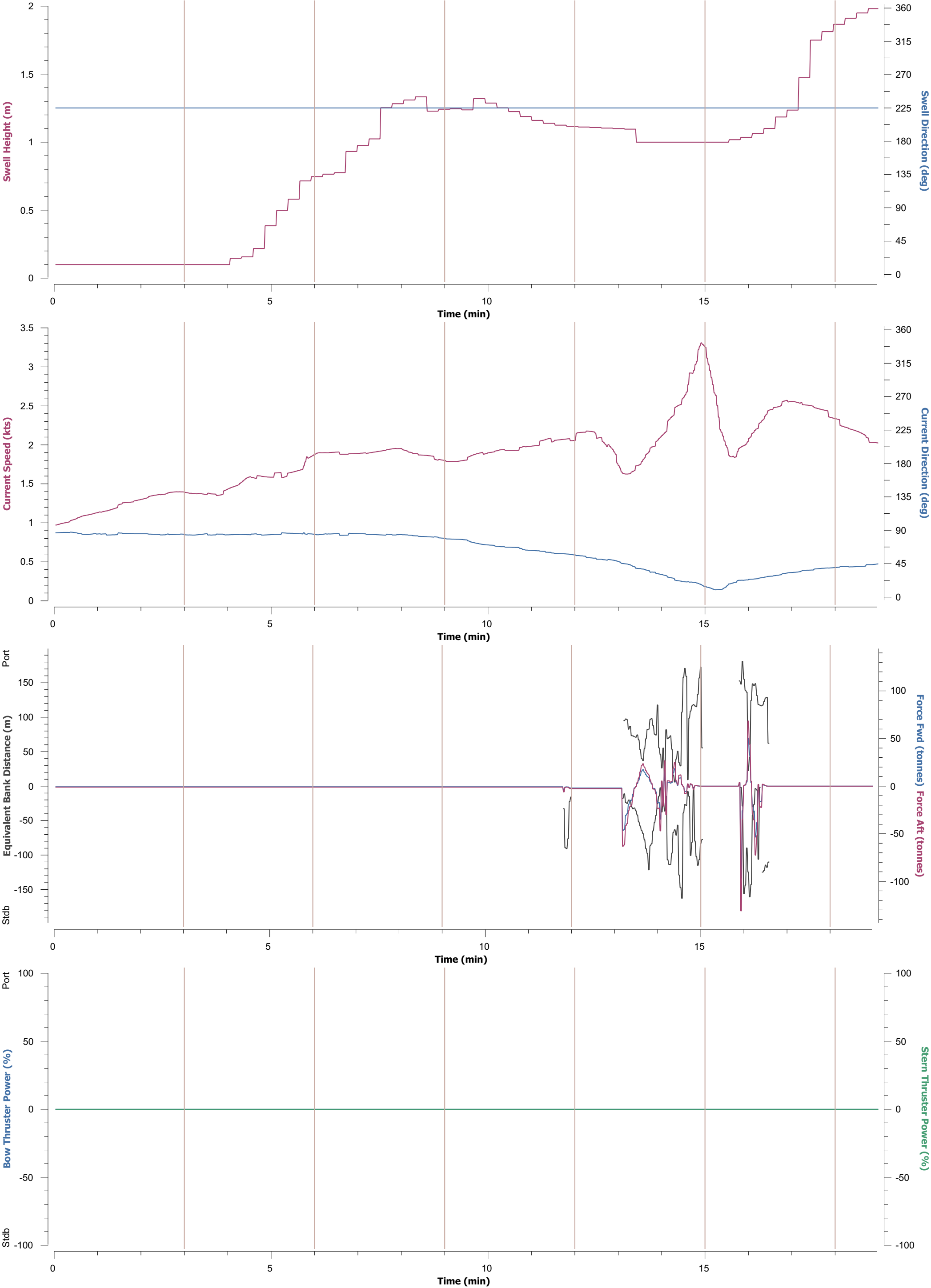
\* Wind, Swell & Current max effect during run, Tide at Reference Port











Details		Comments
Model : CT364L	Area : melbourne	MSC Daniela Outbound from Popes Eye. Wind: W x 30kts. Swell: SW x 2.0m @ 10s.Tide: Manually increased by 1.0m to replicate shallower draft. Current: 1.5 knots Ebb. Standard Model Vessel speed restricted to 13 knots (Half Ahead) as vessel constrained by DUKC. <div>Standard transit. Behaved as expected. Vessel responded to helm much better.</div>
Model Name : MSC Daniela	Wind : 33kts from 265°	
Dimension : 366.1m x 51.2m x 14.5m	Swell : 2.0m from 225°	
Displacement : 183,969 tonnes	Current : 1.8kts to 221°	
	Tide : 0.60m (HW +04:00)	

\* Wind, Swell & Current max effect during run, Tide at Reference Port

