

Red Funnel RA-TEMP-000039 - Navigation in Cowes Harbour and Approaches

Safe Job Analysis

✓ Navigation In Cowes Harbour and Approaches

Risk Assessment Template (Where, What and Who)

Ship Name	Office	IMO No	
Area	Ferry Operation	Status	Accepted
Date of Report	2017-04-25 13:18	Valid From	2018-04-25 13:15
		Valid To	2019-04-25 13:15
Report No	RA-TEMP-000039	Revision No	0
Created by	██████████		
Description	<p>The risk assessment has been performed to ensure safety of navigation of Raptor Class Ferries whilst navigating within the limits of Port of Southampton and Cowes Harbour. The proposed control measures also ensure that risk to other fixed and floating objects and marine environment, within the operating area are minimised to as low as reasonably practicable.</p> <p>All bridge Officer will hold a minimum of an OOW ticket - and will also have completed Red Funnels own in house training</p> <p>At least one Officer will hold a PEC for Cowes - and comply with the standards required</p> <p>Compliance with all international and local regulations at all times</p> <p>Continuous monitoring of Local VHF channel 69 for traffic updates</p> <p>All to be fully up to date with Red Funnel navigational emergency drill training</p>		

Documentation

Documentation

Mitigation of Risk	Qualified crew members with PEC's Regular training as per the drill matrix Crew to remain current with LNTM
Documentation / Summary	Raptor Operating and Training Manual - Operations 14.0 Shipboard Operations Navigation Passage Plans
Are existing/new controls in place?	Yes

Name	Rank	Signature
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Member Crew

Scenario	Description	Hazards	Existing Controls	Assessment	New Controls	New Assessment
Mechanical Failure	The possibility of the vessel having a mechanical failure while navigating in the Cowes Harbour.	Mechanical failure causing the vessel to make contact with another vessel or stationary object.	Prior to arrival in Cowes Harbour, the bridge team should ensure that all mechanical equipment is in good working order. The engines should be in sync and astern propulsion should be tested before committing the vessel in the harbour. Crew should be up to date with emergency drills with regard to emergency steering and manoeuvring without sync.	5	None.	5

Scenario	Description	Hazards	Existing Controls	Assessment	New Controls	New Assessment
Grounding / Collision	The vessel running aground or coming into contact with another vessel or stationary object.	Grounding / collision causing extensive damage to the vessel, other vessels or stationary objects.	<p>Qualified crew members with PEC's</p> <p>The bridge team should complete the RFG64 form pre-arrival checklist.</p> <p>They should discuss the tide, weather and traffic density. An agreed approach should be understood by all the crew members prior to entry. Extra care should be exercised 2.5 hours before HW to 1 hour after HW Southampton.</p> <p>A VHF call is to be made to 'All vessels in Cowes Harbour' on VHF channel 69 stating the vessels arrival and intentions. A good listening watch should be kept during the transit.</p> <p>Use should be made of the Radar sets and ECDIS including the sets on the starboard bridge wing.</p> <p>Lookouts are to be posted on E deck before passing between no 1 and 2 buoys and communications established.</p> <p>Anchors should be ready to let go under the masters instruction if the vessel was to loose power while transiting in the harbour.</p> <p>Safe speed should be applied to the prevailing conditions. Speed should not exceed 6 knots through the water while in the harbour.</p>	5	None.	5

Scenario	Description	Hazards	Existing Controls	Assessment	New Controls	New Assessment
			The bridge team are to remain current with the Cowes LNTM. Any collisions or grounding should be reported as soon as possible.			
Restricted Visibility	Passage on the approach and navigating through the Harbour	Collision Grounding	Bridge resource management training. Both forward and aft radar sets to be manned. A helmsman to remain on the bridge during the transit. Positive communications between the bridge team and the lookouts. The correct sound signals to be made. Lookouts to report if hearing the sound signals of another vessel. Lookouts posted in ample time prior to entrance through the Harbour. The correct navigation lights to be displayed. When approaching the berth a call to the shore team requesting the strobe light to be switched on.	5	None.	5

Scenario	Description	Hazards	Existing Controls	Assessment	New Controls	New Assessment
Damage Caused During Manoeuvring	Significant damage caused to the berth and/or ship during berthing at the East Cowes Terminal.	Damage to the ship or terminal during berthing Operations at the East Cowes.	The bridge team to take in account the state of the wind speed and direction. They should also be aware of the tide. Particular caution should be exercised during the last 3 hours of the Ebb tide as the rate can reach up to 4 knots. Crew should consider the power setting when approaching the berth ensuring they have adequate power to deal with the elements.	3	None.	3

Red Funnel 20-02a Raptor safety training / assessment form for C/O (Part 2)
manoeuvring, steering and propulsion system training

**RAPTOR SAFETY TRAINING / ASSESSMENT FORM
FOR CHIEF OFFICER (PART 2) (RFG20-02a)
MANOEUVRING, STEERING AND PROPULSION SYSTEM TRAINING**

A Chief Officer shall be closely supervised by a Master until he/she is found competent in the following tasks:

Name of Chief Officer				
S.No.	Description	Date Training completed	Assessed by	
			Date	Name/Signature
1	Understanding of Voith Schneider Propulsion System (VSP)			
2	Contents of steering and propulsion system section in the Raptor Operating and Training Manual			
3	Effect of wind on the vessel and critical wind speed and directions at various stages of the voyage.			
4	General understanding of tidal regime in Southampton waters			
5	General understanding of tidal regime in Cowes fairway and its approaches			
6	At Master's discretion, perform supervised berthing in Southampton			
7	At Master's discretion, perform supervised undocking in Southampton until found competent by a Master			
8	At Master's discretion, perform supervised berthing in Southampton in strong wind conditions until found competent by a Master			
9	At Master's discretion, perform supervised undocking in Southampton in strong wind conditions until found competent by a Master			
10	Effect of Cowes breakwater and tidal stream on vessel's behaviour in Cowes fairway until found competent by a Master			
11	At Master's discretion, supervised manoeuvrings in Cowes fairway and its approaches during spring West-going tidal stream (vessel inbound to Cowes) until found competent by a Master			
12	At Master's discretion, supervised manoeuvrings in Cowes fairway and its approaches during spring East-going tidal stream (vessel inbound to Cowes) until found competent by a Master			
13	At Master's discretion, supervised manoeuvrings in Cowes fairway and its approaches during spring West-going tidal until found competent by a Master stream (vessel outbound from Cowes) until found competent by a Master			
14	At Master's discretion, supervised manoeuvrings in Cowes fairway and its approaches during spring East-going tidal stream (vessel outbound from Cowes) until found competent by a Master			
15	At Master's discretion, perform supervised berthing operations in East Cowes in spring Ebb tide until found competent by a Master			
16	At Master's discretion, perform supervised berthing operations in East Cowes in spring flood tide until found competent by a Master			
17	At Master's discretion, perform supervised undocking operations in East Cowes in spring flood tide until found competent by a Master			
18	At Master's discretion, perform supervised manoeuvring and berthing operations in Cowes (inbound) in strong wind conditions tide until found competent by a Master			
19	At Master's discretion, perform supervised manoeuvring and berthing operations in Cowes (outbound) in strong wind conditions tide until found competent by a Master			
Master _____			Signature _____	
_____			Date _____	
			Head of Ferry Operations (for office use only)	

Note: On the completion of safety training, the original form must be signed & returned to the Head of Ferry Operations.

Cowes Harbour Commission General Direction 3.18.1 (T)

COWES HARBOUR COMMISSION GENERAL DIRECTION 3.18.1 (T)

Under

The COWES HARBOUR REVISION ORDER 2012.

PART 3 Harbour Regulation Section 12. Para 7b.

RESTRICTED VISIBILITY (less than 0.1nm).

Vessels 48 metres and above, LOA, should not navigate in the Inner Fairway or River Medina, if visibility is one cable (0.1nm) or less.

If Masters / Pilots deviate from this Direction then they shall justify and record the reasons. Any deviation from this Direction should be based on the result of a dynamic risk assessment, taking into account all considerations and any special circumstances that support the Master's / Pilot's decision.

████████████████████

Cowes Harbour Master.

20th October, 2018

Cowes Harbour Commission Risk Assessment - Navigating in Cowes during
periods of restricted visibility

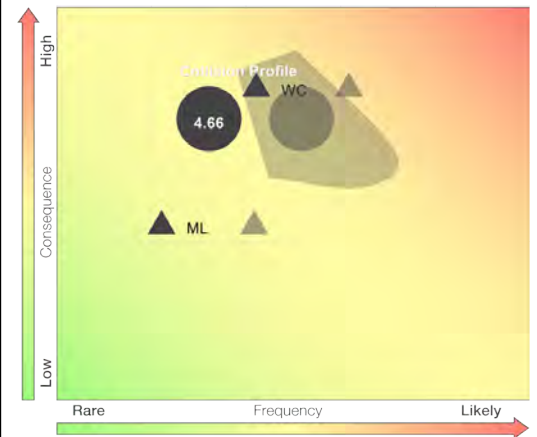
Navigating in restricted visibility is a challenge in itself, but when you consider the tidal regime, limited space for manoeuvrability, narrow channels, and fixed structures in Cowes, it becomes an even greater risk.

Incident Category - Collision

Risk Score		
Baseline	Inherent	Residual
5.75	5.75	4.66

Input Criteria	
Most Likely	Worst Credible
Frequency Less than once in 100 years 3	Less than once in 10 years 4
Environment Minor Tier 1 Pollution 2	Moderate Tier 2 Pollution 3
People Minor Injuries 2	Major injury or Fatality 4
Property Moderate Damage less than £25000 3	Catastrophic Damage more than £100000 5
Stakeholders Local Publicity or Minor Disruption 2	National Publicity or Major Disruption 4

**Areas -Inner Harbour;
Outer Harbour;**



Most Likely Outcome	Worst Credible Outcome
Vessels collide with each other / a fixed object / run aground	two fully laden passenger ferries collide causing loss of life

Causes
Hazard-Specific Dense Fog in and around Cowes harbour
Generic Environmental: Weather Mechanical: Machinery Failure People: Human Error

Recorded Risk Management Systems			
System	Risk Control Category	Residual Frequency %	Residual Consequence %
Bathymetric Survey & Hydrographic Policy	Procedure	0%	0%
Pilotage Training	General & Local Directions	10%	0%
Advice to Master	Procedure	10%	0%
Pilotage and PEC holders	General & Local Directions	10%	0%
Additional Lit Red Lateral Marks 2A and 4A with radar reflectors, laid to reduce the distance between port hand marks to 1 cable.	Physical	35%	0%
Cargo vessels avoid peak cross current and peak traffic density	Procedure	30%	0%
Inner Fairway straightened and widened between the breakwater and No 4 beacon	Physical	30%	0%
Passing of commercial vessels >30m not permitted in the Inner fairway during periods of cross current	General & Local Directions	30%	0%
Red Funnel Company Instructions, Restricted Visibility	Procedure	10%	0%
Breakwater Navigation Lights Fitted	Physical	20%	0%
Reporting for commercial vessels greater than 30m	General & Local Directions	0%	0%
Navigation Safety Policy	General & Local Directions	0%	0%
Master Pilot Exchange	General & Local Directions	10%	0%

Cowes Harbour Commission Risk Assessment - Shepards Marina - Vessels rafting on
outside pontoons

CHC - RISK ASSESSMENT

Operational Area		CHC	
Location		Shepards Marina	
HAZARDS, TASKS OR JOBS COVERED BY THIS ASSESSMENT			
Vessels rafting on outside pontoons			
MAX NO. OF PEOPLE EXPOSED - Employees		0	Public/Contractors 600
Frequency	Yearly	Duration of exposure	10Hr
		Number of occasions	10
HAZARDS:			
1	Fire on board any of boats in raft		
2	Impact to rafts from passing recreational vessels		
3	Impact to rafts from passing commercial vessels		
4	Parting of moorings (bollards / cleats / lines) leading to vessel breakout		
5	Impact injuries from falling between boats whilst traversing across boats		
6	Injury from falling into water (Incl. hypothermia / drowning) from traversing across boats		
7			
8			
INITIAL RISK ASSESSMENT			
HAZARD SEVERITY		LIKELIHOOD OF OCCURRENCE	
	5 Very High	5 Very Likely	Risk Rating 20 HIGH RISK Situation requires a quick reaction. Consider ceasing task until improvements are made
	4 High	4 Likely	
	3 Moderate	3 Quite Possible	
	2 Slight	2 Possible	
	1 Nil	1 Unlikely	
	5	4	
CONTROLS IN PLACE TO REDUCE THE RISK :			
1	Fire extinguishers on pontoons.		
	Fire emergency plan in place and highlighted to customers.		
	Emergency drills to be carried out regularly.		
2	Limit size of rafts to 6boats or max 20m.		
3	Limit size of rafts to 6boats or max 20m.		
	Commercial vessels over 30m to be escorted in fairway (LNTM)		
	Vesels over 30m not to pass in Inner fairway in periods of restricted visibility.		
4	Extra lines to be rigged for full rafts		
5	Advice to crews in rafts issued by BM's		
6	Advice to crews in rafts issued by BM's		
RESIDUAL RISK ASSESSMENT			
HAZARD SEVERITY		LIKELIHOOD OF OCCURRENCE	
	5 Very High	5 Very Likely	Risk Rating 10 MEDIUM RISK to be review with a view to reducing the risk where practicable
	4 High	4 Likely	
	3 Moderate	3 Quite Possible	
	2 Slight	2 Possible	
	1 Nil	1 Unlikely	
	5	2	

FURTHER ACTION REQUIRED :	
1	
2	
3	
4	

ACTION BY :			
	Name	Proposed Action	Target Date/Period
1			
2			
3			
4			

Further details

Fire extinguishers to be maintained in line with Wight Fire / manufacturer instructions

Emergency drills to be completed and recorded as per the drill matrix.

Only use outside berths / rafts when inside full.

Extra lines to be rigged once raft is complete.

Ensure BM's inform skippers of risks of walking across boats.

VERIFIED		First Assessed	Review Date
		02/05/2015	02/05/2019
		Assessed By	Current
			07/05/2018