

EXERCISE DUNKIN 23

Attendees: Grant Barrett, Swire Shipping, Christie Beeson, ASCO, Paul Birch, VOPAK, Wayne Bodkin, Darwin Port, Stave Crundwell, Swire Shipping, Captain Noreen Hennessy, Swire Shipping MV Kokopo Chief, Ian Niblock, Darwin Port, David Power, Darwin Port, Sam Spence, Qube Ports.

Apologies: Samantha Dulton, DAFF, Shane Hennessy, Aurizon.

Invited but did not attend: Linx, TOLL representing ABF.

Date: 11 October 2023. Exercise participants gathered at EAW Berth 3 from 09:20 onwards.

Scope:

This was an announced Man Overboard Exercise (MOB) involving primary EAW tenants at risk of a MOB incident involving a member of their respective employees. The following EAW tenants participated either as active responders or observers:

Darwin Port
Qube Ports
Vopak Darwin
ASCO Darwin
Swire Shipping

The Swire Shipping vessel M.V. Kokopo Chief was the subject vessel for the exercise and was berthed port side to at EAW berth 3. The exercise commenced shortly after the vessel had completed mooring after arrival alongside and the shore gangway had been placed on board.

The exercise response was limited to the on wharf and on water response and did not include Darwin Port activating its Emergency Crisis Management Plan. Any inputs that would normally have come from the Incident Control Centre were simulated by the exercise control team.

Observers remained a safe distance from the exercise and were provided with the opportunity for input from their respective observations during a post action review held at the conclusion of the exercise.

Environmental conditions

Tides		Weather	
WED 11 OCT		Wednesday 11 October	
HIGH	4:40 am 5.92 m	Winds	East to northeasterly below 10 knots becoming northerly 10 to 15 knots in the middle of the day then turning west to northwesterly below 10 knots in the late afternoon.
LOW	11:17 am 2.78 m	Seas	Below 0.5 metres.
HIGH	4:53 pm 5.63 m	Swell	Below 0.5 metres.
LOW	11:00 pm 2.54 m	Weather	Mostly sunny.

Exercise Control

The Exercise Controller was the Darwin Port GM Operations. He was present on the wharf during the exercise but did not play an active role in the response to the scenario.

Aim:

The exercise was aimed at identifying methods to secure and then safely recover an unconscious person from the water after they have fallen off EAW during the final stages of berthing of a ship.

Objectives:

1. To identify lifesaving equipment locations on EAW and to practice deployment of the equipment.
2. To identify hazards that hamper recovery of an unconscious person from the water.
3. To identify and discuss the different wharf construction methods between EAW Stage 1, Stage 2 and the DMSB and to identify and discuss the implications for the person in the water and their safe recovery.
4. To identify methods for safely recovering the person from the water and to practice the most viable option at the time.
5. Document lifesaving and recovery equipment and methods in a Safe Work Instruction for future use.

Exercise Communications

Exercise communication was by verbal face-to face exchanges augmented by VHF Radio and mobile phone communications.

Scenario

A member of the mooring gang assisting MV Kokopo Chief tripped and fell from the wharf face into the Harbour adjacent to the stern of the vessel. Arrival mooring had been completed and the shore gangway attached to the ship's rails.

Events Log

09:45 MV Kokopo Chief securely moored port side to in EAW berth 3.

09:50 Shore gangway positioned on the ship's rails aft.

09:51 MOB dummy dropped from wharf into the Harbour adjacent to the stern of the ship, 'for exercise man overboard' shouted three times and repeated by members of the ship's crew. The ship's crew immediately commenced preparing the ship's Fast Rescue Craft (FRC) for deployment using the stores crane.

09:53 The mooring gang assisted keeping a watch on the MOB dummy in the water. DP Pilot disembarked ship and was released to pilot another ship as scheduled. The SMMO adopted the role play for the pilot from this time forward.

09:54 Lifebuoy from vessel into water, port quarter. The lifebuoy line had become entangled so the ship's crew quickly attached a heaving line to the lifebuoy.

09:56 FRC davit swung out of the way.

09:58 Stores crane ready to lift FRC.

10:01 Ship's crew commenced hoisting FRC for launching.

10:02 Duty Harbour Control Officer (HCO) confirmed that pilot boat Osprey had ceased refuelling operations and was heading to EAW to render assistance; their ETA would be in ten minutes. Two other vessels, DSV Hammer and HMAS Albany, offered to assist upon hearing VHF communications.

10:05 FRC in the water and crew embarking via wharf ladder.

10:07 HCO confirms pilot boat Osprey ETA is three minutes.

10:11 Ship's crew prepare stretcher and move it onto wharf, pilot boat Osprey on site.

10:12 MOB dummy retrieved from the water into the FRC, Osprey standing off.

10:13 FRC and Osprey preparing to transfer MOB dummy.

10:14 Stretcher returned on board ship.

10:15 MOB dummy transferred to the after platform of Osprey and lifted onto the aft deck. HCO confirmed (notionally) that an ambulance will attend EAW to collect the MOB dummy and render first aid, ETA five minutes.

10:16 End of exercise called by GMO.

Recovery Phase

10:20 FRC crew returned to wharf.

10:21 Recovery of FRC commenced.

10:23 FRC recovered to its cradle.

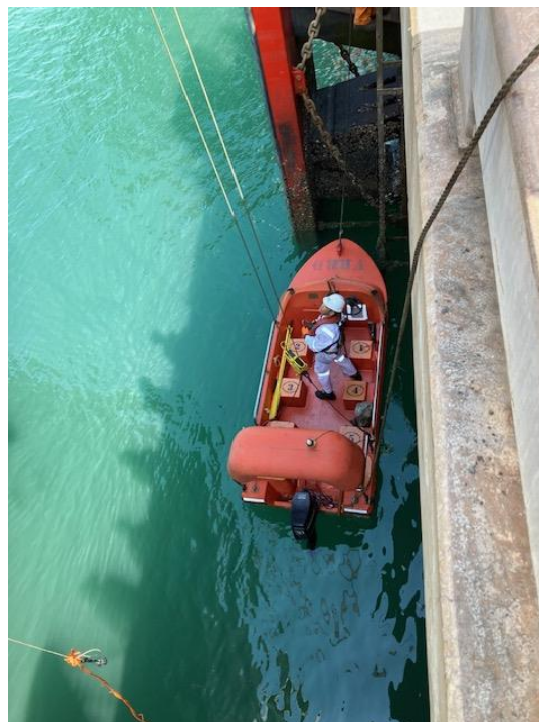
10:24 Unhook FRC from stores crane.

10:25 FRC davit swung back into place.

10:26 Stores crane stowed; Captain Noreen ashore to attend After Action Review.



Kokopo Chief crew members lifting their FRC for lowering into the harbour. Exercise observers watch on from a safe distance.



The FRC in the water with crew embarking via a wharf ladder.



The FRC team preparing to recover Dunkin.



Dunkin recovered to FRC and preparing to transfer to Osprey.



FRC approaching Osprey.



Dunkin being transferred to Osprey before a quick trip to Fort Hill Wharf for medical treatment.

After Action Review, Qube Meeting Room, commenced 10:30

Qube kindly offered the use of their EAW meeting room for the after-action review.

Participant	Things we did well	Things we could improve
David Power	<p>The ship's response was quick and effective.</p> <p>A spotter was deployed to watch the MOB.</p> <p>Verbal communications were easy within the ship's crew who were used to working with each other.</p> <p>The use of the FRC provided an effective recovery platform.</p> <p>The level of safety equipment used by the ship's crew was excellent.</p>	<p>Recovering to the wharf deck was not practical for numerous reasons; most notably the safety margin in the WWL for the stores crane was the biggest concern.</p>
Capt. Noreen Hennessy	<p>Ship's crew responded reasonably well.</p>	<p>Launching the FRC is dependent of wharf fender positions in relation to the ship, in this case the FRC was able to be launched.</p> <p>Wharf personnel should be better trained for a response of this type; everyone has a responsibility for safety.</p> <p>The ship's VHF radios do not have channel 10 available do to licencing constraints which made communication more difficult. *The Marine Pilot would normally remain on site to assist with communications but had another ship to pilot.</p> <p>Consider having a rescue horseshoe available to assist recovery of the MOB.</p>

Participant	Things we did well	Things we could improve
Sam Spence		<p>The mooring crew were not well briefed about the exercise</p> <p>Availability of life rings was an issue; suggestion to put brackets on gangways to have life rings readily available was considered a great idea.</p> <p>Could have used a crane or reach stacker to assist recovery to wharf deck is a crane driver had been available; which they normally would be.</p> <p>Lack of best use of wharf resources needs to change.</p> <p>An anchor point next to wharf ladders would assist keeping people using them safe by providing an anchoring point for safety lines.</p>
Steve Crundwell	<p>Thanks to all participants and to DP for coordinating the exercise</p> <p>The learnings from this exercise can be used to drive future safety initiatives.</p> <p>The ship's response was great.</p> <p>Two other ships offering to help was also great.</p>	<p>Wharf crew lack of response was concerning and regular exercises would be beneficial.</p> <p>Keep all communications in English on the ship and ashore to assist common understanding of what is being communicated.</p>
Christie Beeson	<p>I am sure the mooring gang would have reacted differently if it had been a real-life incident involving a member of their team.</p>	<p>Having a double anchor point at the wharf ladders allows for two people's safety lines.</p> <p>Lighting below the wharf deck would be an issue for an incident at night.</p>
Grant Barret	<p>The ship's crew responded well under pressure</p> <p>Once the pressure was off, the recovery phase was well organised.</p>	
Paul Birch	<p>The ship's crew ability to think on their feet was advantageous.</p>	

Participant	Things we did well	Things we could improve
Wayne Bodkin		<p>The Land Side Officer should have returned to site once the exercise commenced; not sure why this did not occur.</p> <p>Emergency services ambulance would be better sent to Fort Hill Wharf where patient transfer is easier.</p> <p>Need a better MOB dummy, heavier and with stiffened limbs.</p> <p><u>Retrospective comments:</u></p> <p>LSO did not attend exercise site because they were not contacted about the emergency.</p> <p>As the 24/7 first responder for DP, contacting the Landside Officer should happen immediately, this ensures CCTV is deployed to assist capture activities for evidence or fact checking.</p> <p>The Landside Officer would attend the emergency and escalating the incident to emergency services and internally as required.</p>

Objectives Evaluation:

1. To identify lifesaving equipment locations on EAW and to practice deployment of the equipment. Lifesaving equipment deployed by the ship. Life rings were available on the wharf at the BLB, and on the Ship Loader gallery. Stakeholder should familiarise themselves with the life saving equipment available on the wharf.
2. To identify hazards that hamper recovery of an unconscious person from the water. The height of the wharf deck above the water level makes recovery more challenging when linked to Darwin’s often large tidal range. Strong tidal streams move anyone in the water quickly. The weather can be a hindrance, strong ESE winds in Dry season and strong WNW winds and afternoon storms in the Wet season.
3. To identify and discuss the different wharf construction methods between EAW stage 1, stage 2 and the DMSB and to identify and discuss the implications for the person in the water and their safe recovery. Stage 1 of EAW; 0 to 490 metres is a sheet pile construction which restricts a floating object from moving under the wharf deck. The balance of EAW is a pile construction allowing a floating object to move under the wharf deck, and potentially to

the rock wall at the rear of the wharf. DMSB is a sheet piled construction which restricts a floating object to the sheet piled face.

4. To identify methods for safely recovering the person from the water and to practice the most viable option at the time. A range of recovery options were discussed at the After-Action Review; use of a man cage and crane or reach stacker, use of the pilot boat’s aft recovery platform, use of the DP maintenance punt or the option to have a dedicated Fast Rescue Craft available on the wharf. The best option on the day was the use of the ship’s FRC for the initial recovery.
5. Document lifesaving and recovery equipment and methods in a Safe Work Instruction for future use. This to be completed once follow up action points have been agreed.

Follow Up Actions

Action	Initiator	By Date
Purchase life rings and install brackets on gangways. Develop a procedure to ensure life rings available at each gangway.	Qube	TBA
Install securing rings at each EAW ladder.	Darwin Port	31 March 2024
Develop a plan of EAW showing the location of all safety and firefighting equipment.	Darwin Port	31 December 2023
Familiarise employees with location of safety and firefighting equipment	All stakeholders	31 December 2023
Assemble a kit with a light, rescue harness (horseshoe) and heaving line for man overboard deployment when necessary.	Qube	TBA
Assemble a kit with a light, rescue harness (horseshoe) and heaving line for man overboard deployment when necessary. To be carried in the Landside Operation Ute in a grab bag.	Darwin Port	31 March 2024