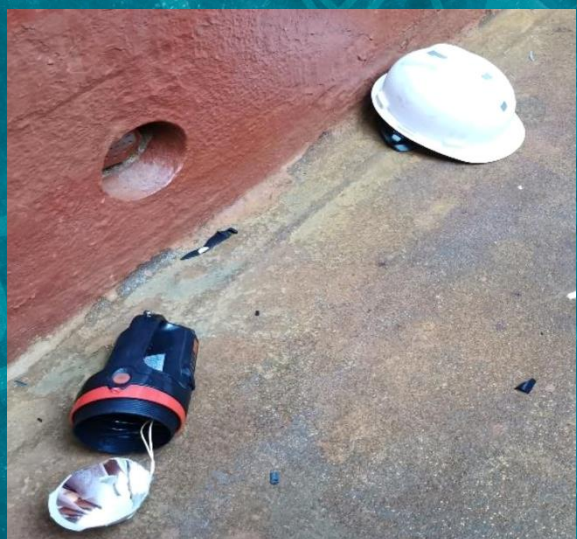


Marine Safety Investigation Report

into a fatal fall onboard Star Planet
04 June 2021

The Bahamas
Maritime Authority



The Bahamas conducts marine safety or other investigations on ships flying the flag of the Commonwealth of the Bahamas in accordance with the obligations set forth in International Conventions to which The Bahamas is a Party. In accordance with the IMO Casualty Investigation Code, mandated by the International Convention for the Safety of Life at Sea (SOLAS) Regulation XI-1/6, investigations have the objective of preventing marine casualties and marine incidents in the future and do not seek to apportion blame or determine liability.

It should be noted that the Bahamas Merchant Shipping Act, Para 170 (2) requires officers of a ship involved in an accident to answer an Inspector's questions fully and truly. If the contents of a report were subsequently submitted as evidence in court proceedings relating to an accident this could offend the principle that a person cannot be required to give evidence against themselves. The Bahamas Maritime Authority makes this report available to any interested individuals, organizations, agencies or States on the strict understanding that it will not be used as evidence in any legal proceedings anywhere in the world. You must re-use it accurately and not in a misleading context. Any material used must contain the title of the source publication and where we have identified any third-party copyright material you will need to obtain permission from the copyright holders concerned.

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1. Summary

What happened

On 04 June 2021, the Bahamas registered bulk carrier, Star Planet, was on passage through the Australian Bight, bound for Adelaide to load grain. In the afternoon, with the vessel rolling with an amplitude of around five degrees, the chief officer entered hold 7. The chief officer was alone in the hold, the hatches were closed and the only light source was the portable torch he was carrying. Whilst ascending the hold’s vertical ladder, he slipped and fell approximately 9m to the tank top.

He was discovered by a member of the crew shortly afterwards and the medical first aid team mobilised to provide care, following medical advice from ashore, but the chief officer died approximately an hour after the fall.

Why it happened

The ladder had no fall protection and the chief officer was not wearing a harness or other fall protection device. Aside from the ladder design, the enclosed, dark, environment and vessel’s movement increased the risk of a fall.

The vessel’s safety management system included a requirement on the use of a climbing harness when climbing vertical ladders. However, the policy was not effectively communicated or enforced.

What can we learn

There are numerous instances of seafarers falling from height to their death but risk perception remains low. This casualty shares many of the common factors found in fatal falls within the maritime industry; the industry may benefit from a switch of focus from controls on “working at height” to identification and management of risk of falls from height.

2. Factual Information

Star Planet

Vessel Type	Bulk Carrier	Flag	Bahamas		
Owner	Planet Shipping Corporation	Manager	Charterwell Maritime S.A.		
Classification Society	Nippon Kaiji Kyokai	Gross/Net Tonnage	40,042 / 25,318		
Built	Sasebo, Japan, 2005	Propulsion	Single propeller		
IMO No.	Callsign	Length overall	Breadth	Depth	
9316036	C6AN8	218.84m	32.2m	19.8m	
Last BMA Inspection			Last PSC Inspection		
Singapore, 30 July 2020. No deficiencies.			Dammam, 19 January 2021. No deficiencies.		



Star Planet (Source: Charterwell Maritime)

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Rank/Role on board	Master	Chief officer
Qualification	Master II/2	Chief Mate II/2
Certification Authority	Greece	Turkey
Nationality	Greek	Turkish
Age	35	38
Time in rank	6 months	5 years
Time with Company	17 years	3 years

The chief officer was the vessel’s safety officer and had been onboard for six months at the time of the casualty.

Environmental Conditions¹

Wind Direction	Wind Force	Wave Height	Swell Height	Precipitation / Sky	Light Conditions
Westerly	5	2.5-3m	3-3.5m	Clear	Artificial and limited

Voyage Details

Departure Port	Kwinana, Western Australia	Arrival Port	Adelaide, South Australia
Time of departure	22:00, 01 June 2021	Estimated time of arrival	05 June 2021
Voyage duration	4 days	Voyage distance	Approximately 1350 nm
Cargo	In ballast	POB	20
Stage of passage	Deep sea	Traffic density	Light

¹ The vessel was provided with daily forecast updates and routing advice from a weather routing service. At the time of the casualty, the environmental conditions correlated with the forecast and the vessel was following the recommended (direct) route.

Narrative

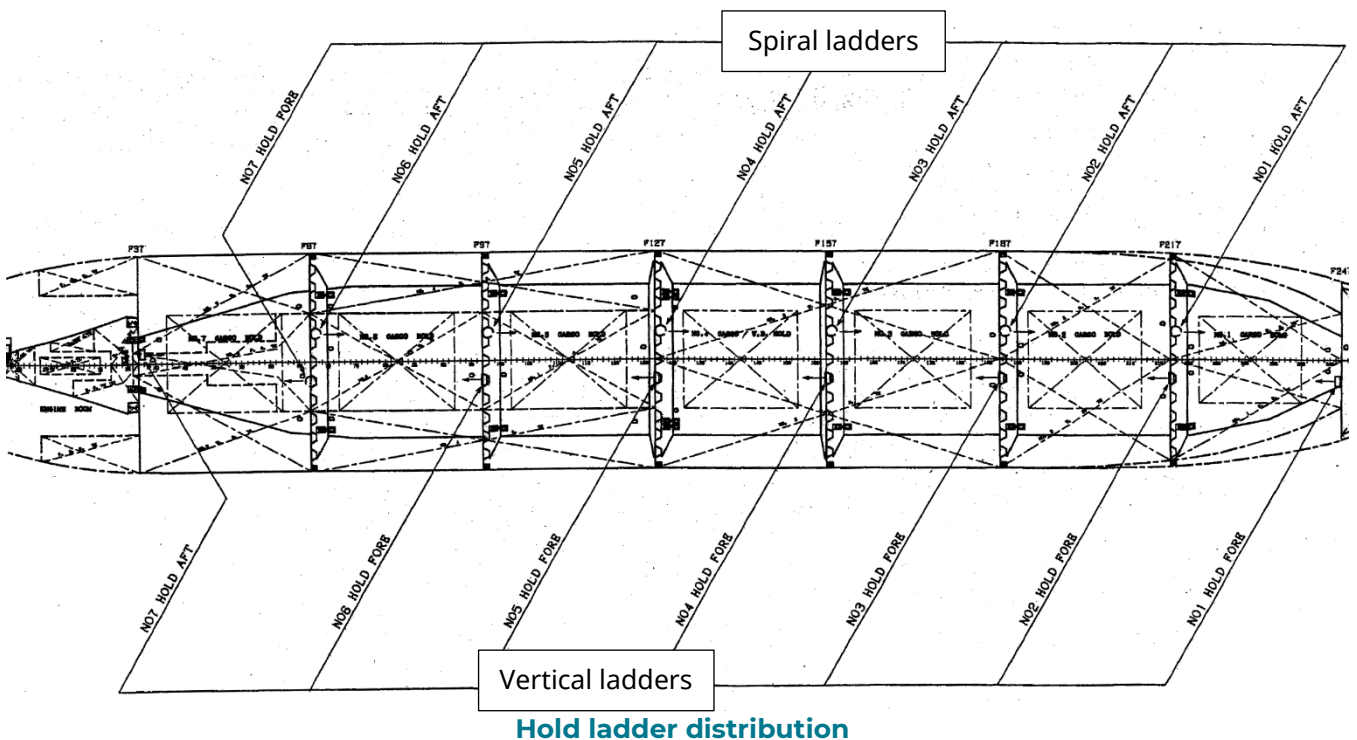
All times used in this report are UTC + 8 unless otherwise stated.

Whilst discharging a cargo of soya beans at Tianjin, China, on 15 May 2021, Star Planet was subject of a hold survey², as part of a process to ensure the vessel was prepared to carry its next cargo – grain to be loaded at Adelaide. After initial feedback, the master was instructed to prepare the holds and update surveyors daily on work completed and progress made against a checklist (see appendix 2).

Preparatory work in the holds, removing traces of previous cargo, washing, de-scaling and applying fresh paint, was completed on passage. This was initially with the hatches open and then with the hatches closed when the rolling motions of the vessel meant that the chain operated hatches could not be operated safely.

On 31 May 2021, Star Planet arrived at anchor at Kwinana, Australia, for a pre-hold inspection. After an introductory meeting with the master, the marine surveyor, who had surveyed the vessel on its previous call to Australia six months earlier, started the inspection of the holds forward, accompanied by the vessel’s chief officer.

The holds were fitted with a vertical ladder and a spiral ladder, located on the centreline, at opposite ends of each hold. With the holds’ hatches open, the survey was completed entering down the forward ladder and leaving via the aft ladder. Distribution of the ladders meant that both types were used to descend and ascend.



The survey was completed without incident and an itemised list of required remedial work was provided to the master (see appendix 3). The vessel spent the next 1½ days at anchor, continuing to prepare the holds and completing essential maintenance, before sailing for Adelaide on the evening of 01 June 2021.

On 03 June 2021, the daily log of tasks indicated that work was ongoing but nearing completion.

² Hold condition survey conducted at the request, and on behalf, of the charterer

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Cargo Hold No .1	TOUCH UP PAINTING OF FORE & AFT LADDERS TOUCH UP PAINTING OF FORE & AFT CARGO HOLD ENTRANCES SWEEPING TANK TOP. DUE TO ROLLING WE CONTINUED WORKING UNDER CLOSED HATCH COVERS.
Cargo Hold No .2	TOUCH UP PAINTING OF FORE & AFT LADDERS TOUCH UP PAINTING OF FORE & AFT CARGO HOLD ENTRANCES SWEEPING TANK TOP.
Cargo Hold No .3	TOUCH UP PAINTING OF FORE & AFT LADDERS TOUCH UP PAINTING OF FORE & AFT CARGO HOLD ENTRANCES SWEEPING TANK TOP.
Cargo Hold No .4	TOUCH UP PAINTING OF FORE & AFT LADDERS TOUCH UP PAINTING OF FORE & AFT CARGO HOLD ENTRANCES SWEEPING TANK TOP. NOT POSSIBLE TO TAKE PHOTO - FRESH PAINT, WILL BE SENT TOMORROW.
Cargo Hold No .5	TOUCH UP PAINTING OF FORE & AFT LADDERS TOUCH UP PAINTING OF FORE & AFT CARGO HOLD ENTRANCES SWEEPING TANK TOP. NOT POSSIBLE TO TAKE PHOTO - FRESH PAINT, WILL BE SENT TOMORROW.
Cargo Hold No .6	TOUCH UP PAINTING OF FORE & AFT LADDERS TOUCH UP PAINTING OF FORE & AFT CARGO HOLD ENTRANCES SWEEPING TANK TOP. NOT POSSIBLE TO TAKE PHOTO - FRESH PAINT, WILL BE SENT TOMORROW.
Cargo Hold No .7	TOUCH UP PAINTING OF FORE & AFT LADDERS TOUCH UP PAINTING OF FORE & AFT CARGO HOLD ENTRANCES SWEEPING TANK TOP. NOT POSSIBLE TO TAKE PHOTO - FRESH PAINT, WILL BE SENT TOMORROW.

Hold cleaning progress report, 03 June 2021

On 4 June 2021, the vessel was rolling with an amplitude of around five degrees – too much to open the chain-driven hatches. At 13:45 the chief officer was seen entering hold 7 via the forward (spiral) ladder. Five minutes later, he was found by a member of the crew on the tank top, conscious but clearly injured, in the vicinity of the aft (vertical) ladder. Evidence suggests he had fallen approximately 9m.



Hold 7: vertical (aft) ladder

The alarm was raised, the vessel's course was adjusted to reduce rolling and the hatches for hold 7 were opened. The medical first aid team attempted to comfort and stabilise the victim, who was conscious. A medical evacuation was requested but the vessel was informed it was out of operational range of any assets: medical advice was provided from ashore and care given by the crew, including cardio-pulmonary resuscitation, but the chief officer did not survive.

Post-casualty

The vessel arrived and anchored at Adelaide in the evening of 5 June 2021, with berthing scheduled for 19 days later. Local authorities removed the chief officer's body and, whilst at anchor, several parties conducted inspections and interviews. During the course of the scene examination conducted by third parties, it was determined through the course of this marine safety investigation that fall protection equipment was not used when accessing the vertical ladder.

At the request of the vessel's managers, the Bahamas Maritime Authority issued an exemption to sail without a chief officer on 5 June, valid until 31 July 2021. The vessel operated short-handed until 2 August 2021, when a replacement chief officer joined the vessel after it diverted to Sri Lanka.

Safety management system

The vessel's safety management system included a safety manual and company-generated generic "Detailed Risk Assessments". The safety manual followed guidance included in International Labour Organization's Code of Practice "Accident prevention on board ship at sea and in port". It included the following on access to holds:

- Safe atmosphere inside the cargo hold has to be ensured, through atmosphere testing and proper ventilation as applicable
- Rope ladders should not be used to access holds
- Secure the access hatch cover before entering the cargo hold
- Use the "Australian ladder³" as cargo hold main access (if fitted)
- When using vertical, unprotected ladders over 2 m high a harness should be worn
- When any ladders, handgrips, footholds or cleats are found to be unsafe, access should be prevented through warning notices prohibiting access should be posted at every approach until repairs have been carried out
- Defects are corrected as soon as practicable. Any welding or replacement of rungs, ladders or cleats should be inspected and tested by a competent officer before use to ensure that it has been properly carried out

For working aloft and over the side, the text is directly from "Accident prevention on board ship at sea and in port":

Consideration should be given to a permit-to-work system for work aloft or over the side depending on the nature of the work. A form for working aloft should take account of the particular nature of the operation.

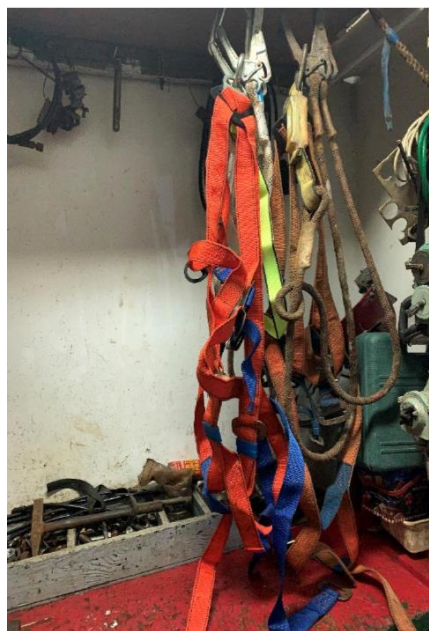
There were two generic risk assessments applicable to work in cargo holds: D-06 Cargo Hold Entry and D-07 Working in Cargo Holds (full documents included in appendix 1). D-06 identified hazards and risk control measures for unknown atmosphere and falling from vertical ladder, that echo the requirements of the safety manual:

³ Commonly referred to as a spiral ladder

2	Unknown atmosphere	Test cargo hold atmosphere content at various levels, for oxygen, flammable gas, fumigants & toxic gas, prior entry
6	Fall from cargo hold access ladders	Cargo hold main access is the access fitted with the “Australian ladder”. Access with vertical ladder as emergency exit
7	Fall from cargo hold vertical access ladder (height > 2m)	Whenever a vertical ladders of height > 2 m has to be used, a safety harness should be worn by the seaman who uses it

Extracts from “Detailed Risk Assessment” D-06

The vessel carried two full-body harnesses and two twin-leg lanyards fitted with scaffold hooks. There was no record of training in their use.



Harnesses and hooks, kept in the deck workshop

Legislation and guidance

The Bahamas Maritime Authority’s Marine Notice 36: Management of Occupational Health & Safety describes the general duties of employers and employees in relation to health and safety, in line with Merchant Shipping (Health and Safety – General Duties) Regulations 1984.

Marine Notice 36 does not provide specific guidance on working safely onboard ships but states that the shipowner shall comply fully with the International Labour Organization’s Code of Practice “Accident prevention on board ship at sea and in port” or other recognised Codes of Practice including the United Kingdom Maritime & Coastguard Agency “Code of Safe Working Practices for Merchant Seafarers”.

Previous similar casualties (global merchant fleet)

Excluding loss of persons overboard, the Bahamas Maritime Authority has recorded ten instances of work-related fatalities as a result of a fall in the last ten years. In the same period, there were 200 reported falls that resulted in injury, including twelve that occurred in almost identical circumstances to this casualty and resulted in serious injuries. Across the global merchant fleet, there have been numerous seafarers killed or seriously injured in similar circumstances, on various vessel types:

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Tropical Star, 2019 ([BMA](#))

Bosun sustained fatal injuries after falling whilst descending a crane's external ladder. The ladder was identified as for use as an emergency exit only but provided the fastest access to the crane cab, so was regularly used.

Favorita, 2013 ([AIBN](#))

Motorman sustained fatal head injuries after falling from a ladder during cargo hold cleaning operations. The victim had been attached to a safety line whilst working at height but removed it when about one metre above the tank top .

Polska Walczaca, 2010 ([ATSB](#))

Fitter sustained fatal injuries after falling from a cargo holds vertical ladder platform whilst repairing a section of its hand railing. No fall protection was in use or identified by any risk assessment of the task.

Ville de Mars, 2009 ([MAIB](#))

Chief officer sustained fatal injuries after falling from a vertical ladder whilst conducting a tank inspection. There were several issues with the approach to tank entry, including a failure to identify the risk of falling.

Oceanic Angel, 2007 ([ATSB](#))

AB sustained fatal injuries after falling from a vertical ladder whilst exiting a cargo hold after hold cleaning operations. The hold was also fitted with a spiral ladder. Fatigue and the impact of cleaning chemicals on grip may have also been factors.

Common factors in these, and other similar cases, include failure to recognise exposure to the hazard of falling; a lack of safe systems of work or, where those systems exist, a failure to ensure they are followed; inadequate provision of appropriate safety equipment.



3. Analysis

The purpose of the analysis is to determine the contributory causes and circumstances of the casualty as a basis for making recommendations to prevent similar casualties occurring in the future.

Hold preparation and survey

In order to load grain in Australia, the Department of Agriculture Water Resources' hold cleanliness requirements must be met – the presence of a small amount of a previous cargo can mean the Certificate of Fitness to Load Grain is withheld, resulting in the vessel being rejected or delayed. As such, hold cleaning and preparation is a lengthy process and it is common for cargo surveyors to provide advice and conduct pre-inspection surveys well before the load port.

Star Planet's initial hold survey, conducted at Tianjin, was completed whilst cargo was still being discharged, meaning access to the holds was limited, but empty holds were accessed where possible. In Kwinana, every hold was inspected, including every ladder. During these surveys, neither the surveyor nor the chief officer, who was accompanying, wore a harness.



Surveyors' photographs taken during Tianjin and Kwinana surveys

Despite the two weeks of cleaning completed prior to arrival at Kwinana, the surveyor identified further preparatory work to be completed on the main deck and in every hold, including (in particular) for Hold 7:

HOLD 7

- Cargo residues noted on order deck frames to be removed.
- All access ladders landing platform supports to be checked and grain residues to be removed.
- Tank top to be given a final sweeping after attending to other areas.

Extract from Kwinana hold inspection report, 31 May 2021

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Progress updates sent by the vessel to cargo surveyors⁴ in the days leading up to the casualty included photographs detailing the vertical ladders in holds 1-3. These photos indicate that inspections were conducted regardless of whether the holds' hatches were open or shut and that a full body harness was likely not used when inspecting the vertical ladders as indicated in the pictures shown below.



Progress updates on vertical ladder cleaning - no harness thigh strap visible

The progress update sent on 03 June 2021 (the day before the casualty) stated that the ladders in holds 4-7 had been painted that day⁵ and, due to the fresh paint, photos would be sent the following day:

Cargo Hold No .4	TOUCH UP PAINTING OF FORE & AFT LADDERS TOUCH UP PAINTING OF FORE & AFT CARGO HOLD ENTRANCES SWEEPING TANK TOP. NOT POSSIBLE TO TAKE PHOTO - FRESH PAINT, WILL BE SENT TOMORROW.
Cargo Hold No .5	TOUCH UP PAINTING OF FORE & AFT LADDERS TOUCH UP PAINTING OF FORE & AFT CARGO HOLD ENTRANCES SWEEPING TANK TOP. NOT POSSIBLE TO TAKE PHOTO - FRESH PAINT, WILL BE SENT TOMORROW.
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Cargo Hold No .7	TOUCH UP PAINTING OF FORE & AFT LADDERS TOUCH UP PAINTING OF FORE & AFT CARGO HOLD ENTRANCES SWEEPING TANK TOP. NOT POSSIBLE TO TAKE PHOTO - FRESH PAINT, WILL BE SENT TOMORROW.

Extract from hold cleaning progress report, 03 June 2021

There is no record⁶ that indicates the Chief Officer was in possession of a camera or notebook when he fell. However, considering the ongoing preparation work, it is likely that he was in the hold to conduct an inspection.

Hold access and lighting

The cargo holds were accessed via booby hatches on the main deck. All booby hatches were secured using external dogs: to exit via a different ladder than used to enter, the exit hatch must be undogged in advance.

⁴ The vessel's charterer and Company's dry cargo department also received the daily update.

⁵ Painting was being conducted in the upper part of the hold access / void space and crew were not exposed to risk of falling from height.

⁶ Not logged as part of the post-casualty scene examination or present on the Police evidence log.

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Booby hatches for the vertical and spiral ladders were similarly marked “no entry without authorisation of master / chief officer” (or words to that effect), as well as the need to ventilate before entry. Hatches to the spiral ladders could be identified as such but there was nothing to indicate that vertical ladders should be used for emergency escape only. Similarly, there was nothing to indicate restrictions on use of the vertical ladders in the holds.



Hold 7 booby hatches

The design of the spiral ladders incorporates an unprotected vertical⁷ ladder as the lowermost section. This extends to a height of over five metres above the tank top.



Spiral and vertical ladders in hold 7

The holds were not fitted with any means of lighting and, at the time of the fall, the only potential source of light was the portable torch carried⁸ by the chief officer. Carriage and use of the torch may have increased the difficulty of climbing a vertical ladder.

⁷ The bottom section of some ladders have a longitudinal rake to allow for the shape of the lower stool.

⁸ The torch was of the type that could be fitted with a shoulder strap. This was not attached when scene examination was conducted and it is unclear if it detached as a result of the fall. It is unknown if the torch was working at the time of the fall due to damage sustained.

Rescue efforts

The crew member that discovered the chief officer had entered the hold looking for him as he hadn't responded to a radio call. He entered using the vertical ladder, using a torch to look from the highest platform. Once he saw him, he left to call the bridge and get help. He re-entered, using the spiral ladder, shortly afterwards and was followed by the master and medical team.

Whilst there is nothing to indicate that the atmosphere was dangerous, at no point was the atmosphere tested to confirm it was safe. The assumption that the hold was safe to enter may have been informed by the extended entries to the holds for cleaning / preparation, that various hatch covers had been open on at least 10 of the last 18 days and in the knowledge that the holds were being continuously ventilated to reduce moisture levels. Nevertheless, the enclosed space rescue training and education the crew had received was not sufficient to highlight a potential risk before placing themselves in the way of potential harm.

Regardless of the above, the crew did their utmost to care for the chief officer, including an extended period of cardio-pulmonary resuscitation after his vital signs faded.

Hazard identification

The ISM Code requires that the safety management objectives of the Company should, amongst other things, assess the risks associated with all identified hazards in respect of its ships, personnel and the environment, and establish appropriate safeguards.

The "Detailed Risk Assessments" forming part of the Star Planet's safety management system were company-generated generic documents. This type of risk assessment is useful to ensure that a safety management system includes appropriate policies, procedures and work instructions, but they cannot identify all hazards that might be encountered onboard individual ships or for every task.

The cargo hold entry risk assessment did not, for example, identify the ship-specific hazard of the vertical ladder forming part of the spiral ladder or the lack of fixed lighting within the holds but did identify hazards associated with refrigerated holds (not applicable to this vessel).

Similarly, the hazards identified for working in cargo holds work was limited to hazards associated with cargo work so did not identify any risks associated with the vessel moving in a seaway, the impact of cargo hatches being shut or the particular hazards associated with hold preparation and cleaning.

Risk control measures for falling from height were limited, exhibited through the infrequent use of harnesses when using the vertical ladders, this was a control that was either not effectively communicated or enforced.

Safe manning

The Bahamas Maritime Authority (BMA) issued an exemption to sail without a chief officer, valid for 57 days, on 05 June, the day after the casualty. After an extended wait for a berth, cargo was loaded and the vessel sailed from Adelaide, without a chief officer, on 28 June - 23 days later. The remaining crew were short-handed for a total of 60 days. During this period the second officer and third officer covered all bridge and cargo watches (6 hours on / 6 hours off) as well as their other duties, resulting in documented breaches of hours of rest requirements (see appendix 4).

Entry to Australia for crew joining merchant ships has been subject to significant restrictions during SARS-CoV-2 pandemic. At the time of the casualty, crew changes were permitted, subject to joining crew

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obtaining an appropriate entry visa and a maritime crew visa⁹. In South Australia, all arrivals were subject to a mandatory 14-day Federal quarantine. Local authorities would not grant an exemption to perform quarantine onboard the vessel.

In Indonesia, where cargo was discharged, crew changes were permitted subject to visa restrictions. However, local lockdowns and a last minute change in requirements regarding vaccine certification thwarted the Company's attempts to embark crew. Crew change was not attempted at Singapore, where the vessel bunkered on 26/27 July after advice that the Maritime and Port Authority required 21 days' notice. Safe minimum manning was not resumed until the vessel embarked crew via a land based-isolation centre whilst in transit off Galle, Sri Lanka.

The restrictions on crew change were well known to the BMA's Seafarers and Manning Department with the ongoing pandemic resulting in a significant spike in exemption requests. However, no evidence was requested to support the Company's requested exemption duration and no assessment was made on the impact of the vessel sailing short-handed for an extended period of time.

Notwithstanding the above, the vessel was without a chief officer for three days beyond the expiry of the exemption certificate. The BMA's Seafarers and Manning Department's procedure for issuing exemption certificates does not incorporate a process to ensure safe manning is restored within the exemption period.



⁹ Processing time advised as: 75% of applications within 9 days, 90% of applications within 21 days

4. Conclusions

- This casualty shares many of the common factors found in fatal falls within the maritime industry.
 - The chief officer was climbing a cargo hold’s vertical ladder when he fell approximately nine metres to the tank top. At the time of the casualty, the vessel was rolling with an amplitude of around five degrees, the hatches were shut and the only light source was the portable torch he was carrying. He was not wearing a climbing harness.
 - The “Detailed Risk Assessments” forming part of the safety management system were company-generated generic documents so did not fully identify all ship- or task-specific hazards associated with cargo hold preparation.
 - The safety manual identified the holds’ vertical ladders as an “emergency exit only” and risk assessments required the use of a climbing harness when using them to climb higher than two metres. However, the policy was not effectively communicated or enforced.
 - On discovery of the casualty, the crew reacted quickly to provide first aid.
 - Efforts to restore minimum manning were frustrated by local and global restrictions on the movement of seafarers.
 - Having been issued an exemption to sail without a chief officer, the vessel operated short-handed for 60 days. This resulted in documented breaches of hours of rest requirements.
-

5. Lessons to be learned

- There are numerous instances of seafarers falling from height to their death but risk perception remains low.
- A consistent and exhaustive definition of working at height may lead to more effective hazard identification and mitigation measures but talking to seafarers about work in terms of likelihood and potential outcomes of falls from height may be a more successful strategy.
- Company-wide, generic risk assessments are useful to ensure that the safety management system includes appropriate policies, procedures and work instructions, but they cannot identify all the hazards on a specific ship or for each task.
- Vessel-specific risk assessments, dealing with routine and low-risk tasks, should be conducted on each vessel by those involved in the work and be supplemented by task-specific risk assessments for high-risk jobs that are not routine, such as cargo hold preparation.
- These task-specific risk assessments should be completed by a competent person who understands the full scope of the work and should involve seafarers who will be completing the task.
- Talking through the risk assessment's hazards and barriers with the seafarers involved, as part of a toolbox talk, reinforces what precautions need to be taken to complete the job safely.

6. Actions taken

Charterwell S.A. has:

- Conducted a hazard identification and review of risk assessments and procedures for working at height in cargo holds. Outcomes include identification of additional hazards and control measures for cargo hold entry, working aloft and over the side, use of portable ladders and bosun’s chairs.
- Additional control measures include minimum lighting requirements, restriction of entry in “bad” weather, additional signage regarding the use of vertical ladders and a ban on lone working.

The Bahamas is currently updating its maritime legislation:

- It is envisaged that specific requirements to ensure that suitable control measures to mitigate the hazards involving risk of fall from height will be adopted in the revised Bahamas Merchant Shipping legislation. Target date for completion of this specific issue is before the end of 2022.
-

7. Recommendations

Charterwell S.A. is recommended to:

- Review its risk assessment process to ensure that all generic risks of falling are identified, assessed and mitigated. This should include, but not be limited to, implementation of fall protection measures for access to cargo holds where ladder design increases a risk of falling from height.
- Consider adding task-based risk assessments to its safety management system.
- Ensure adequate provision of fall protection equipment and training in its use.
- Work with crews to ensure fall hazards can be clearly identified and the potential outcomes of a fall are understood.

The Bahamas Maritime Authority is recommended to:

- Consider incorporating a formalised impact assessment into its processes for issuing exemption certificates.
- Continue to work with member States through the auspices of IMO sub-committee on Implementation of IMO Instruments (III) to address occupational accidents (falls from height), draw conclusions and make recommendations. This report will be provided to the Chair of the Casualty Analysis Correspondence Group in addition to fulfilling the Bahamas statutory reporting obligation within Global Integrated Shipping Information System platform.

IMO Member States:

- Should abide by IMO Resolution MSC.473(ES.2) which urges Member States and relevant national authorities to designate seafarers as "key workers" providing an essential service, in order to facilitate safe and unhindered movement for embarking or disembarking a vessel and consider legal possibilities for accepting internationally recognized documentation carried by seafarers as evidence of their status as "key workers" for the purpose of their travel and movement for crew change.
 - Should further follow the Industry Recommended Framework of Protocols for ensuring safe ship crew change and travel, as contained in MSC.1-Circ. 1636.
-

8. Glossary and Definitions

AB	Able-bodied seafarer
BMA	Bahamas Maritime Authority
Booby hatch	Access hatch for vertical entry, on a raised frame above the deck.
Company	Owner of the ship or any other organization or person such as the Manager, or the Bareboat Charterer, who has assumed the responsibility for operation of the ship from the Shipowner and who on assuming such responsibility has agreed to take over all the duties and responsibility imposed by the Code (ISM Code, section 1.1.2)
Dog	Term used to describe clips which keep a hatch cover secured in place
Hazard	A source of potential injury, harm or damage.
IMO	International Maritime Organization
ISM Code	International management Code for the safe operation of ships and for pollution prevention
m	Metre. Unit of measurement: 1 metre = 1000mm
Risk	Risk is a product of the <u>likelihood</u> that harm or damage may occur, considered against the potential <u>severity</u> of the harm or damage.

Appendices

Appendix 1 - Detailed Risk Assessments

CHARTERWELL MARITIME S.A.

DETAILED RISK ASSESSMENT

RISK-02
July 2010

Ship's Name:			Current Assessment date:				Record Number: D-06		
Work Activity Being Assessed: Cargo hold entry			Last Assessment date: 01.05.2010						
Hazard Analysis of the Intended Work Activity									
Hazard No	Description of Identified Hazard	Existing Control Measures to protect personnel from harm	Severity of harm			Hazard No.	Likelihood of harm	Severity of harm	Risk Factor
			Slight Harm	Moderate Harm	Extreme Harm				
1	Cargo hazards (oxygen depletion, toxic gas emission, flammability, fumigation gas etc)	Refer to IBC code, cargo MSDS, MFAG to find out precautions needed & emergency response required against cargo hazards	Very Low Risk	Very Low Risk	High Risk	1	VU	MH	VLR
2	Unknown atmosphere	Test cargo hold atmosphere content at various levels, for oxygen, flammable gas, fumigants & toxic gas, prior entry	Very Low Risk	Medium Risk	Very High Risk	2	VU	MH	VLR
3	Entry into cargo hold with unsafe or unknown atmosphere	"Enclose entry space permit". Enter with SCABA. Follow enclosed entry procedure. Prepare for to recover any casualty	Low Risk	High Risk	Very High Risk	3	VU	MH	VLR
4	Unsafe atmosphere	Ventilate cargo hold, keep hatch covers open for considerable amount of time, enter only after satisfactory air test results	Low Risk	Very High Risk	Very High Risk	4	VU	MH	VLR
5	Access hatch cover drop on personnel using the access	Access hatch covers of both cargo hold accesses should be secured open & the securing means should be inspected				5	VU	MH	VLR
6	Fall from cargo hold access ladders	Cargo hold main access is the access fitted with the "Australian ladder". Access with vertical ladder as emergency exit				6	L	MH	HR
7	Fall from cargo hold vertical access ladder (height > 2m)	Whenever a vertical ladders of height > 2 m has to be used, a safety harness should be worn by the seaman who uses it				7	VU	MH	VLR
8	Head injury by tools and materials	Tolls & materials should be lowered to & hoisted from the hold with a basket and a line. Use tool belt for personal tools				8	VU	MH	VLR
9	Head injury by tools fallen off a tool belt	A second person can use the ladder only after the first one has completely left it				9	VU	MH	VLR
10	Pneumonia (entry to refrigerated cargo holds)	Wear heavy weather jacket				10	VU	MH	VLR
To assess the Risk Factor arising from hazard									
1. Select the likelihood which most applies to the hazard									
2. Select the severity of harm which most applies to the hazard									
3. Cross refer to above risk estimator table to determine the level of Risk									
4. If the risk factor is medium or above (yellow, orange or red) additional control measures should be implemented and recorded below									
Additional Control Measures to reduce the Risk of Harm									
Hazard No	Further Risk Control Measures					Remedial Action Date	Review Date		
1									
2									
3									
4									
5									
6	Wear safety shoes, helmet, leather gloves					Before work done	Next SMS review		
7									
8									
9									
10									
Approvals & Signatures									
Name & Signature of Safety Officer:									
Name & Signature of Master:									
Name & Signature of Office Representative (as applicable):									
Additional Comments:									
Assessment Review Date:									

CHARTERWELL MARITIME S.A.

DETAILED RISK ASSESSMENT

RISK-02
July 2010

Ship's Name:			Current Assessment date:				Record Number: D-07		
Work Activity Being Assessed: Working in cargo holds			Last Assessment date: 20.01.2021						
Hazard Analysis of the Intended Work Activity									
Hazard No	Description of Identified Hazard	Existing Control Measures to protect personnel from harm	Severity of harm			Hazard No.	Likelihood of harm	Severity of harm	Risk Factor
			Slight Harm	Moderate Harm	Extreme Harm				
1	Cargo operations	Cargo operations should have stopped or suspended, prior entry. Stevedores, duty officer, & crane operator must be informed	Very Low Risk	Very Low Risk	High Risk	1	VU	MH	VLR
2	Response to accident	Communications should be established between the work team supervisor, the deck duty officer & the duty engineer	Very Low Risk	Medium Risk	Very High Risk	2	VU	MH	VLR
3	Accidental commencement of cargo operations	Inform the duty officer prior entry to cargo hold and before commencement of any work, in order to obtain permission	Low Risk	High Risk	Very High Risk	3	L	MH	HR
4	"Quick sand" effect when walking on grain cargo in bulk	When movement on the surface of grain cargo is necessary, spreading boards should be used	Low Risk	Very High Risk	Very High Risk	4	VU	MH	VLR
5	Head injury from falling objects	Stay clear from the area directly under hatch cover coamings when is not necessary				5	L	MH	HR
6	Pollution	Cargo residues should be bagged and hoisted up by line and afterwards treated as garbage (MARPOL V)				6	VU	MH	VLR
7	Injury by bilge well suction	When cleaning bilge grids & wells, suction pumps should not operate. Stay clear of bilge wells when pump is activated. Additionally, the heavy bilge covers must be lifted by two personnel in order to avoid injuries				7	L	MH	HR
8	Cargo stack collapse	If work is to be performed on or near a tall stack of cargo, ensure that it is safe to do so. Rig safety nets as / if appropriate				8	VU	MH	VLR
9	Slip & fall & foot injury by protruding nails when walking on loosely stowed dunnage	Loosely stowed dunnage should not be walked upon. If this is unavoidable, walk with care & avoid any protruding nails				9	VU	MH	VLR
10	Dust & spray inhalation during cargo hold sweeping & washing					10	L	MH	HR
To assess the Risk Factor arising from hazard									
1. Select the likelihood which most applies to the hazard									
2. Select the severity of harm which most applies to the hazard									
3. Cross refer to above risk estimator table to determine the level of Risk									
4. If the risk factor is medium or above (yellow, orange or red) additional control measures should be implemented and recorded below									
Additional Control Measures to reduce the Risk of Harm									
Hazard No	Further Risk Control Measures					Remedial Action Date	Review Date		
1									
2									
3	Wear high visibility vest					Before work done			
4									
5	Wear safety helmet, leather gloves					Before work done			
6									
7	Wear rubber boots					Before work done			
8									
9									
10	Wear dust mask, goggles					Before work done			
Approvals & Signatures									
Name & Signature of Safety Officer:									
Name & Signature of Master:									
Additional Comments:									

Appendix 2 - Hold cleaning progress checklist

M.V. SHIP NAME		Date of Report:-						
		Cargo Hold No.1	Cargo Hold No.2	Cargo Hold No.3	Cargo Hold No.4	Cargo Hold No.5	Cargo Hold No.6	Cargo Hold No.7
Dry Cleaning / Sweeping/ Blowing of Upper sections of the hold	Upper sections / underside of Decks frames Forward	Pending	Pending	Pending	Pending	Pending	Pending	Pending
	Upper sections / underside of Decks frames Aft	Pending	Pending	Pending	Pending	Pending	Pending	Pending
	Underside of deck / Hopper Portside	Pending	Pending	Pending	Pending	Pending	Pending	Pending
	Underside of deck / Hopper Starboardside	Pending	Pending	Pending	Pending	Pending	Pending	Pending
	Frames/ Corrugated Bulkhead / Pipe supports/ manhole covers Forward Bulkhead	Pending	Pending	Pending	Pending	Pending	Pending	Pending
	Frames/ Corrugated Bulkhead / Pipe supports / manhole covers Aft Bulkhead	Pending	Pending	Pending	Pending	Pending	Pending	Pending
	Frames/ Pipe supports/ ladders / manhole covers Port side	Pending	Pending	Pending	Pending	Pending	Pending	Pending
	Frames/ Pipe supports/ ladders / manhole covers Starboard side	Pending	Pending	Pending	Pending	Pending	Pending	Pending
	Ladders Forward	Pending	Pending	Pending	Pending	Pending	Pending	Pending
	Ladders Aft	Pending	Pending	Pending	Pending	Pending	Pending	Pending
	Removal of Remaining Cargo residues from the Hold	Pending	Pending	Pending	Pending	Pending	Pending	Pending
	Use of Cleaning chemicals // Application of Chemicals	Forward Bulkhead (5mtrs and above // Upper section)	Pending	Pending	Pending	Pending	Pending	Pending
Aft Bulkhead (5mtrs and above // Upper section)		Pending	Pending	Pending	Pending	Pending	Pending	Pending
Port side (5mtrs and above // Upper section)		Pending	Pending	Pending	Pending	Pending	Pending	Pending
Starboardside (5mtrs and above // Upper section)		Pending	Pending	Pending	Pending	Pending	Pending	Pending
Forward Bulkhead (Tank top upto 5mtrs // Lower section)		Pending	Pending	Pending	Pending	Pending	Pending	Pending
Aft Bulkhead (Tank top upto 5mtrs // Lower section)		Pending	Pending	Pending	Pending	Pending	Pending	Pending
Port side (Tank top upto 5mtrs // Lower section)		Pending	Pending	Pending	Pending	Pending	Pending	Pending
Starboardside (Tank top upto 5mtrs // Lower section)		Pending	Pending	Pending	Pending	Pending	Pending	Pending
Seawater Wash	Hold Bulkheads (Forward/Aft/ Port / Starboard)	Pending	Pending	Pending	Pending	Pending	Pending	Pending
	Hatch covers	Pending	Pending	Pending	Pending	Pending	Pending	Pending
	Hatch comings	Pending	Pending	Pending	Pending	Pending	Pending	Pending
	Void spaces if any// Ladder access area	Pending	Pending	Pending	Pending	Pending	Pending	Pending
Fresh Water Rinsing:-	Hatch covers	Pending	Pending	Pending	Pending	Pending	Pending	Pending
	Hatch comings	Pending	Pending	Pending	Pending	Pending	Pending	Pending
	Void spaces if any// Ladder access area	Pending	Pending	Pending	Pending	Pending	Pending	Pending
Cleaning of Hold Bilges	Demucking of Hold bilges and cleaning dry	Pending	Pending	Pending	Pending	Pending	Pending	Pending
	Sealing of Hold bilge cover (Burlap and masking tape)	Pending	Pending	Pending	Pending	Pending	Pending	Pending
	Removal of Remaining Cargo residues from the Hold	Pending	Pending	Pending	Pending	Pending	Pending	Pending
Removal of loose scales, loose paint and Atmospheric rust from tank tops	Upper sections / underside of Decks frames Forward	Pending	Pending	Pending	Pending	Pending	Pending	Pending
	Upper sections / underside of Decks frames Aft	Pending	Pending	Pending	Pending	Pending	Pending	Pending
	Underside of deck / Hopper Portside	Pending	Pending	Pending	Pending	Pending	Pending	Pending
	Underside of deck / Hopper Starboardside	Pending	Pending	Pending	Pending	Pending	Pending	Pending
	Frames/ Corrugated Bulkhead / Pipe supports/ manhole covers Forward Bulkhead	Pending	Pending	Pending	Pending	Pending	Pending	Pending
	Frames/ Corrugated Bulkhead / Pipe supports / manhole covers Aft Bulkhead	Pending	Pending	Pending	Pending	Pending	Pending	Pending
	Frames/ Pipe supports/ ladders / manhole covers Port side	Pending	Pending	Pending	Pending	Pending	Pending	Pending
	Frames/ Pipe supports/ ladders / manhole covers Starboard side	Pending	Pending	Pending	Pending	Pending	Pending	Pending
	Ladders Forward	Pending	Pending	Pending	Pending	Pending	Pending	Pending
	Ladders Aft	Pending	Pending	Pending	Pending	Pending	Pending	Pending
	Removal of scale & Loose rust from <i>underside</i> of Hatch cover	Pending	Pending	Pending	Pending	Pending	Pending	Pending
Removal of scale & Loose rust from <i>Inside</i> of Hatch Cover	Pending	Pending	Pending	Pending	Pending	Pending	Pending	

Star Planet – Marine Safety Investigation Report

ROB (QTY)	Fresh Water		MT	
	Cleaning Chemicals		LTR	KGS

Concerns / Remarks:-

**** Kindly place Photos of the Holds in Next Sheet**

Cargo Hold No .1	
Cargo Hold No .2	
Cargo Hold No .3	
Cargo Hold No .4	
Cargo Hold No .5	
Cargo Hold No .6	
Cargo Hold No .7	

Appendix 3 – Hold inspection report (Kwinana)



Date: 31 May 2021

Ref: J021590

To,

The Master, M.V. STAR PLANET Voy.002B

At: Gage Roads, Fremantle

Previous cargoes: (1) Soya Beans (2) Barley (3) Sugar

Dear Sir,

In addition to routine hold cleaning procedure, please follow the following recommendations, before the vessel's cargo holds can be accepted to load a cargo of: GRAIN

VESSEL IN GENERAL

- Cargo holds 1, 2, 3, 4, 5, 6 and 7 inspected along with Chief Mate following rectifications required.

HOLD 1

- Loose rust noted on the upper hoppers and needs to be removed.
- Loose rust loose paint noted on the under deck and needs to be removed.
- Forward bulkhead noted with grain residues and needs to be removed.
- Cargo residues noted on under deck frames to be removed.
- All access ladders landing platform supports to be checked and grain residues to be removed.
- Tank top to be given a final sweeping after attending to other areas.

HOLD 2

- Loose rust noted u bolts of side pipes and needs to be removed.
- All access ladders landing platform supports to be checked and grain residues to be removed.

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(644-CRC-TM-F-003)

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Page 1 of 3



- Tank top to be given a final sweeping after attending to other areas.

HOLD 3

- Loose rust noted on the upper hoppers and needs to be removed.
- Loose rust noted u bolts of side pipes and needs to be removed.
- All access ladders landing platform supports to be checked and grain residues to be removed.
- Tank top to be given a final sweeping after attending to other areas.

HOLD 4

- Loose rust noted on the under deck and needs to be removed.
- All access ladders landing platform supports to be checked and grain residues to be removed.
- Tank top to be given a final sweeping after attending to other areas.

HOLD 5

- Loose rust noted on the under deck and needs to be removed.
- Loose rust noted u bolts of side pipes and needs to be removed.
- All access ladders landing platform supports to be checked and grain residues to be removed.
- Tank top to be given a final sweeping after attending to other areas.

HOLD 6

- Loose rust noted on the under deck and needs to be removed.
- All access ladders landing platform supports to be checked and grain residues to be removed.
- Tank top to be given a final sweeping after attending to other areas.



HOLD 7

- Cargo residues noted on order deck frames to be removed.
- All access ladders landing platform supports to be checked and grain residues to be removed.
- Tank top to be given a final sweeping after attending to other areas.

MAIN DECK AND CROSS DECKS

- All hatch cleats to be checked and all previous grain residues to be removed.
- All deck stores to be re-checked for grain residues.
- All mooring ropes to be checked closely and any grain residues noted to be removed.

RECOMMENDATIONS

- All above pointed out areas to be rectified.

NOTE:

- This document is issued upon inspection of visible and accessible areas of cargo holds.
- This document is not a certificate and does not relieve you of your duty to eliminate contaminants!

[Redacted]
[Redacted]
AmSpec CR Cox
[Redacted]

[Signature]
For Vessel (Master)
STAR PLANET
RAISAU - 22/11/2022

NATA Authorised Signatory
AmSpec CR Cox

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www.amspecgroup.com | marine.australia@amspecgroup.com

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Appendix 4 – Watchkeeper post-casualty hours of rest records

STAR PLANET MO number: 0216036 Position / rank: 2ND OFFICER Watchkeeper: Yes No Flag of ship: BAHAMAS Service Start: 03/03/2021 Rule: STCW 10

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RECORD OF HOURS OF WORK / REST

INDEXES: Periods of Work at Sea Proposed Periods of Work 24 Hours Exception 7 Days Exception Hours in Compliance Hours out of Compliance Future Hours out of Compliance Hours out of Compliance (OPA 90)

Date	00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Hours of work in 24-hour period	Hours of rest in 24-hour period	Actual Overtime in 24-hour period	Hours of rest as applicable in any 24-hour period	Hours of rest as applicable in any 7-days period	Comments
Fri 1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	12.0	12.0	4.0	10.5	90.0	
Sat 2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	12.0	12.0	4.0	12.0	90.0	
Sun 3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	12.0	12.0	12.0	12.0	90.0	
Mon 4	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	12.0	12.0	12.0	12.0	90.0	
Tue 5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	12.0	12.0	4.0	10.5	91.0	
Wed 6	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	13.5	10.5	5.5	10.5	91.0	drills
Thu 7	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	13.5	10.5	5.5	10.5	91.0	drills
Fri 8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	12.0	12.0	4.0	10.5	91.0	
Sat 9	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	12.0	12.0	4.0	12.0	91.0	ARR OWANDAN
Sun 10	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	12.0	12.0	12.0	12.0	91.0	
Mon 11	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	12.0	12.0	4.0	12.0	91.0	
Tue 12	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	12.0	12.0	4.0	12.0	91.0	
Wed 13	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	12.0	12.0	4.0	12.0	91.0	
Thu 14	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	12.0	12.0	4.0	12.0	91.0	
Fri 15	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	12.0	12.0	4.0	12.0	91.0	
Sat 16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	12.0	12.0	4.0	12.0	91.0	DEPARTURE OWANDAN
Sun 17	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	12.0	12.0	4.0	12.0	91.0	
Mon 18	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	14.0	10.0	14.0	10.0	91.0	DRILLS
Tue 19	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	12.5	11.5	12.5	10.0	91.0	MEETING
Wed 20	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	12.0	12.0	4.0	11.5	91.0	
Thu 21	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	12.0	12.0	4.0	12.0	91.0	
Fri 22	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	12.0	12.0	4.0	12.0	91.0	
Sat 23	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	12.0	12.0	4.0	11.0	91.0	
Sun 24	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	13.0	11.0	13.0	11.0	92.0	
Mon 25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	12.0	12.0	12.0	11.0	92.0	
Tue 26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	12.0	12.0	4.0	12.0	92.5	
Wed 27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	12.0	12.0	4.0	12.0	93.0	arr singapore
Thu 28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	12.0	12.0	4.0	12.0	93.0	
Fri 29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	12.0	12.0	4.0	12.0	93.0	
Sat 30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	12.0	12.0	4.0	12.0	93.0	
Sat 31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	12.0	12.0	12.0	12.0	94.0	

Total Hours of Work/Rest/Actual OverTime: 379.0 / 315.0 / 203.0
Fixed OverTime: 0.0
Extra OverTime: 203.0

The following national laws, regulations and/or collective agreement governing limitations in working hours or minimum rest periods apply to this ship: MLC 2008/STCW 2010/CBA
ILO Maritime Labour Convention, 2006 and with any applicable collective agreement registered or authorized in accordance with that convention, with the STCW 1978 Convention, as amended.

I agree that this record is an accurate reflection of the hours of work or rest of the seafarer concerned.

Name of master or person authorized by master to sign this record: _____
Signature of master or authorized person: _____
Signature of seafarer: _____
A copy of this record is to be given to the seafarer. This form is subject to examination and endorsement in accordance with the regulations established by: _____ (name of competent authority)

