

Marine Safety Investigation Report

VERY SERIOUS MARINE CASUALTY | October 2026

The **Bahamas**
Maritime Authority

Algoma Victory

Fall from height on 01 April 2026

What happened

A Bahamas registered bulk carrier was on a two day ballast voyage. In preparation for the next loading port, the deck crew had to wash the cargo holds, conveyor boom, and main deck area. The daily work plan and work at height permit were completed in the morning after a team meeting with the chief officer.

The bosun, who was the on deck supervisor, and the ordinary seafarer, opened the hatches of each cargo hold for ventilation and illumination. The able seafarers were responsible for conducting the cargo hold washing and an ordinary seafarer was tasked with washing the conveyor belt inside the cargo boom.

In the afternoon, the ordinary seafarer walked on top of the starboard hatch cover for cargo hold 4 to wash the starboard side of the boom. While walking on top of the hatch cover he fell through the gap between the hatch covers into the cargo hold.

Despite best efforts by the shipboard medical response, he did not survive the fall.

Why it happened

The assigned work was not carried out as planned throughout the day. It was expected that the ordinary seafarer would walk along the protected catwalk on the boom to carry out his assigned washing. This task was not included in the working at height permit.

The ordinary seafarer may have felt constrained by time due to the short voyage duration.

Before the incident, at least two crew members saw the ordinary seafarer walking on top of the cargo hold hatch cover arranging his hose to begin washing the starboard side of the boom. Neither crew member instructed or directed him to go back into the catwalk area, or implement additional safeguards.

The deck crew had a normalised practice of being on top of hatch covers when opened, despite the daily work plan stating "hatch cover to be washed in closed position". Fall prevention devices were available on board but not in use by the casualty at the time of occurrence.

What we can learn

Reliance on policy is not a suitable barrier if shipboard practices have to be adapted based on resource or time constraints. Practices that are conducted during special circumstances can unintentionally become normalised.

Managers and operators should ensure that their procedures as practiced by crew satisfies or exceeds their intended safety outcomes.

The pressures of turnaround time on short voyages may be self-imposed by crew based on practices and experiences that have carried on without correction or incident within an organisation.

Extract from The Bahamas Merchant Shipping (Marine Safety Investigations) Regulations, 2026

Regulation 4:

The purpose of a marine safety investigation is to prevent future events by establishing the facts of the marine casualty or marine incident and making safety, pollution prevention or emergency response recommendations as appropriate.

The purpose of a marine safety investigation shall not be to determine liability nor, except so far as is necessary to achieve its objective, to apportion blame.

The Bahamas Maritime Authority makes this report available on the strict understanding that it will not be used as evidence in any legal proceedings whose purpose is to attribute blame or apportion liability.

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Narrative

All times are local time (UTC-4)

On 31 March 2026, the Bahamas registered self-unloading bulk carrier Algoma Victory was discharging coal in Punta Catalina, Dominican Republic. Cargo discharge was completed at approximately 23:00 and the vessel departed at 00:30 on 01 April, underway to Puerto Drummond, Colombia which was less than two days sailing.

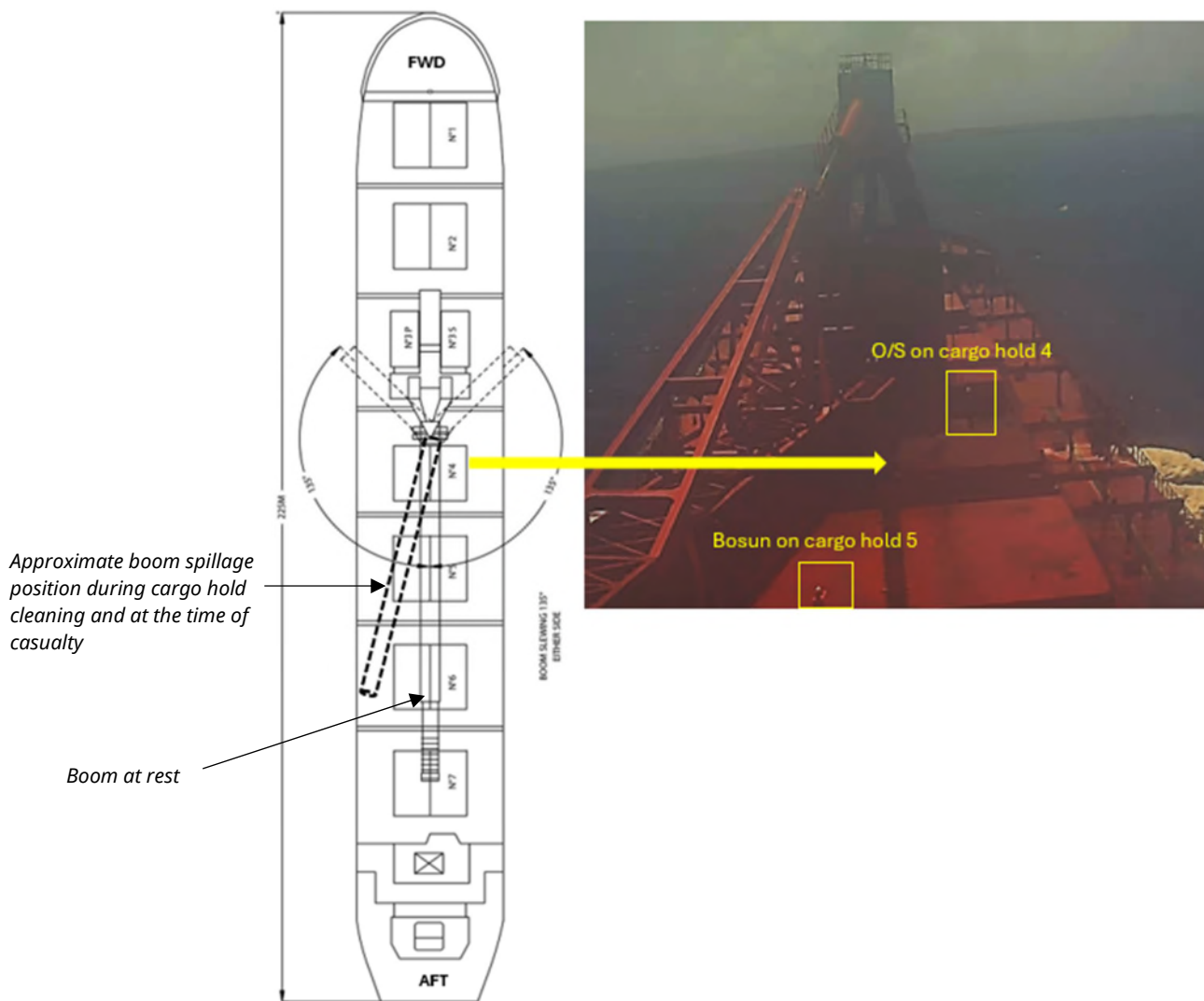
The scheduled work for the deck department on 01 April was to perform a routine washing of the cargo holds, conveyor boom, and main deck area prior to loading in the arrival port. The chief officer (C/O) had discussed this plan with the bosun after departure. At around 07:00, the bosun called the bridge to start the general service pump and began connecting hoses and opening hydrants on the main deck. The bosun and an ordinary seafarer (O/S) carried out the initial opening of the hatch covers to provide illumination for internal cargo hold cleaning.

At around 07:50, the C/O prepared the Job Safety Analysis and conducted a toolbox talk with the deck team members. Two able seafarers (A/B's) were to wash inside the cargo holds, the O/S was to wash the conveyor belt inside the cargo boom, tunnel technicians to wash in the tunnel area beneath the cargo holds, and the bosun was to wash the main deck while supervising the A/B's, O/S and tunnel technicians.

As the scheduled work was underway, the C/O made a round on deck to check the progress at around 10:00. He then went to his cabin to get rest. The deck crew took lunch at around 12:00 and the bosun asked them about their progress. The A/B's had completed cargo holds 1-4, and the O/S had completed washing the port side of the conveyor boom, with only the starboard side remaining after lunch.

Shortly after 13:00, the deck crew returned from lunch. The bosun was on the hatch cover of cargo hold 5, spraying the cover with a fire hose, while an A/B was inside the number 5 cargo hold washing the bulkheads. The O/S climbed on top of the hatch cover for cargo hold 4 and was handed a rubber hose from another A/B, the same hose he was using to wash the port side of the boom before lunch. The bosun briefly communicated with the O/S and climbed down from cargo hold 5 hatch cover to wash the main deck.

The A/B who handed the O/S the hose, opened the valve for the hydrant it was connected to, and proceeded to help the bosun with deck washing. Shortly afterwards, the tunnel technicians called on the radio to announce they were starting to wash the tunnel passageways, but found their hose pressure insufficient. The A/B who was assisting the bosun went to close unused hydrants that were running on deck, along with the hydrant supplying the O/S's hose.



General arrangement and boom orientation. CCTV snapshot before casualty

After closing the hydrants, the A/B noticed he could not see the O/S. He reported this to the bosun, who thought the O/S went to the restroom. The bosun approached cargo hold 4 near the gap between the hatch covers, looked inside and saw a reflector but could not determine any other characteristics of what he was looking at. The bosun went to the forward of cargo hold 4 and climbed on top of the hatch cover where he saw the O/S's rubber hose hanging down into the cargo hold.

The bosun left the top of the hatch cover for cargo hold 4 and climbed down the access hatch leading to a platform in the cargo hold where he confirmed the reflector was from the coverall of the O/S, who laid motionless inside the starboard side gate number 4. The bosun shouted towards the O/S but there was no reply. The bosun called the bridge on his radio to initiate the medical response and proceeded to the tunnel passage.

The second officer on the bridge called the C/O to inform him that the O/S fell in the cargo hold. The master came on the bridge after hearing the communication over his radio while in his cabin and took over the con. The second officer left the bridge to assist in rescue coordination and proceeded to the tunnel area with an automated external defibrillator.

At 14:15, the C/O, assisted by two tunnel technicians and the bosun, lifted the O/S from gate 4, over the partition to gate 5, and pulled him through gate 5 onto the deck in the tunnel area. The O/S's hard hat and one

of his boots remained in gate 4. The C/O began administering CPR on the deck in the tunnel area but there were no signs of consciousness. He also observed the casualty was bleeding from his right ear.



Bottom of cargo hold 4 (left) and gate 4 (right) after O/S was removed

At 14:25, the medical response team shifted the casualty via stretcher from the tunnel area into the engine control room, where CPR was continued and the automated external defibrillator was applied to his body. There was still no pulse detected. The master issued a distress signal for medical evacuation and altered the vessel's course back towards the Dominican Republic.

By 16:00 the casualty was moved from the engine control room to the ship's hospital. The master was on the phone with a doctor from Future Care¹, who was advising the ship's team throughout the medical response process.

At 16:35 the doctor from Future Care declared the O/S deceased.

¹ Future Care, through their company MedSea assists in providing medical advice and arrangements to respond correctly and efficiently to shipboard teams as required.

Vessel and Crew

Algoma Victory is a Bahamas flagged, Panamax size, self-discharging bulk carrier. It has seven cargo holds each fitted with side-rolling hatch covers and a cargo capacity of approximately 64,262m³. At the time of the casualty the vessel had 28 crew members of Indian nationality, including the O/S. The ship had more crew than its minimum safe manning document required.



Algoma Victory at anchorage 03 April 2026

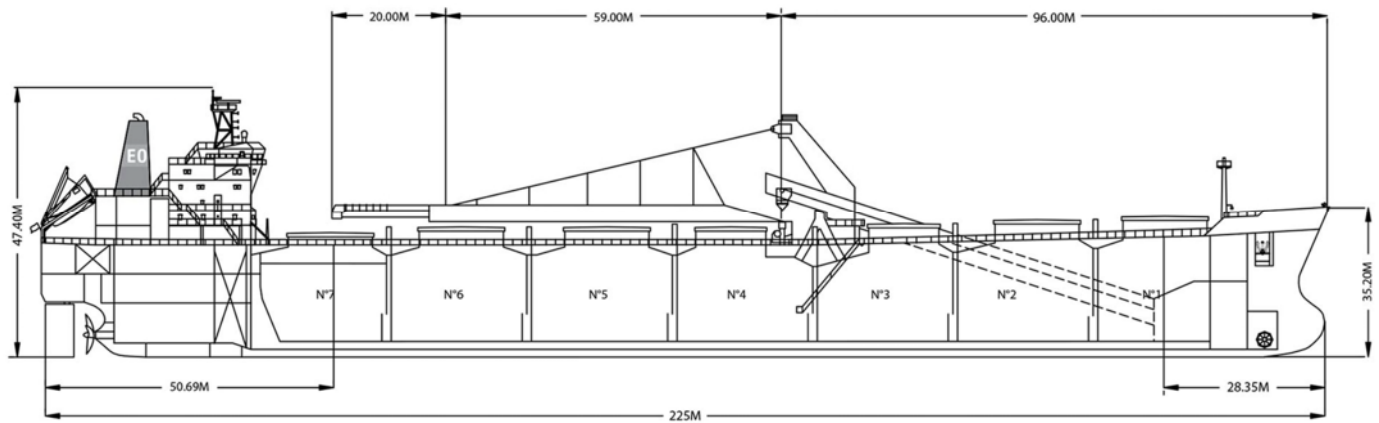
The self-discharging mechanisms consist of a shuttle-type conveyor system and telescopic self-discharge boom which can discharge approximately up to 6,000 tonnes per hour. The vessel's cargo holds are fitted with two conveyor belts that run along the length of cargo spaces through a tunnel area. There are two transfer conveyors fitted that allow the cargo to flow towards the centre from the port and starboard side conveyor belts. This then allows transfer to the inclined belt to the vessel's boom.

There is also a hydraulically actuated gate system fitted along the bottom of the cargo holds, which are opened and closed as required for the flow of cargo onto the conveyor belts. The conveyor belt speed can be adjusted as required for desired discharge rates.

The telescopic self-discharge boom's base is between cargo holds 3 and 4. When not in use, the boom is at rest along the centreline of the vessel, covering cargo holds 4 through 6 and a portion of cargo hold 3. The boom can slew up to a maximum of 135 degrees to port or starboard side from rest.

One of the operational positions of the boom is the spillage position which is a configuration of the boom where any cargo spillage can be intentionally directed, contained or controlled.

At the time of the casualty, the boom was in a spillage position. The boom fitted conveyor belt was retracted and the boom was at an angle allowing it to be completely clear of cargo holds 6 and 7, mostly clear of cargo hold 5, and partially clear of cargo hold 4 while hold washing was ongoing.



General arrangement of Algoma Victory

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's Maritime & Coastguard Agency "Code of Safe Working Practices for Merchant Seafarers".

As part of their Safety Management System, V-Ships has an HSSEQ manual with a section on safety management and control of work for cargo vessels, last updated March 2026. The document provides shipboard managers guidance on job safety planning, risk assessments and the permit to work system.

The International Maritime Organization Guidelines on Fatigue (Circular MSC.1/Circ.1598) highlights fatigue as a hazard because it may affect a seafarer's ability to do their job effectively and safely. It states that "Effectively dealing with fatigue in the maritime environment requires a comprehensive and holistic approach that recognizes ship design, and the roles and responsibilities of all stakeholders in the mitigation and management of fatigue. An effective fatigue management strategy begins with determining operational workload requirements and matching onboard manning levels and onshore support resources, combined with efficient management of workload and hours of work and rest on board the ship. There is no one-system approach to addressing fatigue, but there are certain principles that should be addressed in order to gain the knowledge and the understanding to manage this human element issue."

The International Maritime Organization's Principles of Minimum Safe Manning (Resolution A.1047(27)) provides for an assessment of the tasks, duties and responsibilities of the ship's complement to ensure that manning levels are adequate at all times to meet all conditions and requirements including meeting peak workload situations and emergency conditions.

Previous similar cases

Seacon Oslo (2025) Singapore

While underway, crew on board the Singapore registered bulk carrier were conducting preloading maintenance in cargo holds which required cleaning and painting. While conducting inspections to check the status of the work, the chief officer climbed down the booby hatch in a cargo hold to the elevated inspection walkway and fell through an open grating to the bottom of the cargo hold. He did not survive the fall.

See: https://isomer-user-content.by.gov.sg/287/021e030b-0f02-4341-8339-161ea32fad2f/FR_CAS.216%20Fatal%20injury%20of%20chief%20officer%20onboard%20bulk%20carrier%20Seacon%20Oslo%20at%20sea%20on%2028%20October%202.pdf

M/V Eurostar (2024) Liberia

While underway in the Gulf of Thailand, crew on board the Liberian registered bulk carrier M/V Eurostar were cleaning two cargo holds. Part of the job required washing down hatch coamings to remove remnants of cargo and thus working from height. After a meeting and issuance of permits, the deck crew began their work and an able seafarer fell into the gap of cargo hold number 2. He did not survive the fall. The investigation found that although the victim had another crew member accompanying him as part of a buddy system, he instructed the crew member to conduct another task, who later returned and saw the victim in the cargo hold. The victim was also wearing a safety harness but did not have a backup safety line fitted. He likely fell into the cargo hold when trying to adjust the position of his safety line.

GISIS Reference: C1000918

Asteris (2024) Marshall Islands

While underway in the South China Sea, crew on board the Marshall Islands registered bulk carrier Asteris had scheduled work of washing the cargo holds. Part of the job required an able seafarer to work inside the cargo hold from height. The required permits were completed along with a toolbox talk. The able seafarer climbed down the forward access ladder for cargo hold number 4 wearing a safety belt with a single lifeline but fell to the top of the cargo hold. He did not survive the fall.

See: www.register-iri.com/wp-content/uploads/Republic-of-the-Marshall-Islands-Office-of-the-Maritime-Administrator-ASTERIS-Casualty-Investigation-Report.pdf

Curacao Pearl (2022) Bahamas

While at anchorage in Freetown, Sierra Leone, the Bahamas registered general cargo vessel required preparations for the vessel's next cargo. Part of the preparations required the chief officer and bosun to conduct hose tests on the hatch covers. After a short break with only two hatch covers remaining, the bosun continued alone while the chief officer was carrying out another task. The bosun was later discovered motionless on the tank top of the cargo hold. The cause of the fall could not be conclusively determined, however, the investigation highlights the circumstances of the fall, the shipboard approach to mitigating risks of falling from height and the crew's response to the casualty as lessons to be learned.

See: www.bahamasmaritime.com/wp-content/uploads/2023/03/BMA-Curacao-Pearl-report-final.pdf

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.

The O/S had a valid medical certificate and was deemed fit for work. His medical declaration disclosed no pre-existing medical conditions or prescribed medication.

Mechanics of fall

As the O/S began “boom washing” while on top of the hatch cover for cargo hold 4, he walked from the forward of the starboard hatch cover towards the aft. For the first few meters, the gap between the hatch covers was guarded by the frame of the boom. However, as he walked aft, he became completely exposed to the approximate 0.86m wide opening of cargo hold number 4, making him vulnerable to a fall.

The O/S began washing and walking towards the boom for at least two reasons. The first was to compensate for the slightly lower water pressure on his hose, as more hydrants were being opened for cleaning on deck and in the tunnel area.²

The second reason was due to the boom being in the spillage position (parked at an angle). Walking aft in a straight line with respect to the vessel’s orientation would mean increasing the distance between himself and the conveyor belt on the boom.

With the combination of these two factors, the more the O/S walked aft on top of the hatch cover while spraying the boom, the more he compensated for the increasing distance between himself and the boom by taking a few steps towards the boom, and ultimately into the gap between the hatch covers.



CCTV capture of O/S washing boom (left) and closer look of area of fall (right)

Additionally, there was nothing in place to contrast the cargo hold hatch covers from the cargo hold alignment markers fitted. These markers are raised (12.7mm) and directly on the edge of the hatch covers. Their colour is nearly identical to the hatch covers for the cargo holds (same colour, just faded).

² There were no records for the fire main pressure at the time of casualty. During recreation it was approximately 8 bar.

As there were no physical barriers in place preventing any personnel from walking near the side-rolling cargo hold gaps when open, markings or signage may have proven useful as an additional deterrent or warning if a scenario requires being on the cargo hold hatch covers when open.

It is likely the O/S either tripped on the hose he was using, or on the cargo hold marker. Ultimately, he eventually got closer than anticipated, and fell approximately 20m to his death into cargo hold 4 through an unguarded and unmarked opening.

Planning and Control

The Control of Work section of the safety management system (SMS) for V-Ships states that working at height applies “to anyone working in a location where there is a risk of falling” and that working at height covers “working alongside an open hatch or other openings in a ship’s structure”.

The routine for the planned deck work as explained by the C/O and bosun was to open the cargo hold hatch covers for ventilation and illumination, wash inside the cargo holds, wash the conveyor belt fitted in the boom, close the cargo holds, and wash the cargo hold covers and main deck area.

The daily work plan outlined these tasks, identifying the A/B’s as the individuals responsible for entering the cargo holds and the O/S responsible only for “boom washing”.

The bosun was also the responsible person for all tasks on deck. He had oversight of the cargo hold and boom washing while also expected to wash down the main deck with another A/B.

HSSEQ 47 – DAILY WORK PLAN

VESSEL: 17. V. ALGOMA VICTORY				DATE: 01/04/2026					
DESCRIPTION AND LOCATION OF JOB	TIME AND DURATION	PPE TO BE HELD	PERSONS INVOLVED	TOOLBOX TALK REQUIRED?	WORK PERMIT REQUIRED?	SIMOPS ACTIVITIES IDENTIFIED	RISK ASSESSMENT AND SIMOPS	LOCK OUT - TAG OUT	PERSON RESPONSIBLE FOR TASK / SUPERVISING (NAME / RANK)
DECK									
Acc. washing on Daily Basis	0600-0700	AS Piv PPE Matrix	AB	yes	-	Identify the activities and risks introduced. JSA should describe the mitigation and control.	PROPS 1 & 2 To 62 WORK	-	BOSUN
Boom washing	0800-1200	AS Piv PPE Matrix	OS	yes	-		SAFETY MARKINGS 1 CREW STANDBY	-	BOSUN
Cargo hold washing	0800-1700	AS Piv PPE Matrix	A/B'S	yes	yes		SAFETY MARKINGS 1 CREW STANDBY	-	BOSUN
Deck washing	1300-1700	AS Piv PPE Matrix	A/B'S/BOSUN	yes	-		PROPS 1 & 2 To 62 WORK	-	BOSUN
						Hatch cover to be washed in closed position,			
						Entry inside cargo hold not to be done without informing Bridge			
ENGINE									

Daily work plan used on morning of casualty

In the accompanying work at height permit to supplement the daily work plan, the bosun and three A/B’s were signatories. The C/O expected that the O/S would walk along the fitted catwalks on either side of the boom, thus being protected by the guard rails and have access to wash the conveyor belt, which was his assigned task.

The O/S and washing of the cargo boom was not considered in the working at height permit, though the task satisfied the requirements as defined in V-Ships’ SMS manual. No additional safeguards were in place for the O/S’s task.

HSSEQ 14 – WORKING AT HEIGHT PERMIT

Enter initials to confirm compliance. If not applicable, enter N/A

'Working at Height' means any type of work where a fall would (or could) result in injury. This could be above deck; working beside or near an opening; working overside or near ship's side; working on gangway or lifeboat and; at height working in a tank.

Vessel:	Algoma Victory	Position:		Date:	01-04-24	Permit No:	01/26
Job Location:	CARGO HOLD 1 TO 7						
Nature of Job:	WASHING / CLEANING OF CARGO HOLD						
PERMIT VALIDITY – 12 Hours Maximum (Date/Time)	From:	01-04-26 / 0800 LT	To:	01-04-26 / 1700 LT			
Other Permits Required (✓ box)	Enclosed space?	NA	Hotwork?	NA	Energy Isolation?	NA	

STAFF			
Officer Responsible for Work	CHIEF OFFICER	3*	AB
Team Leader	BOSUN /	4*	
Persons doing work 1*	AB	5*	
Persons doing work 2*	AB	6*	

*Enter name above – Sign in corresponding box in Signature Section

Job Safety Analysis – CONFIRM (JSA must be completed before this Permit)	
ENTER ShipSure JSA No. 6266	Job Safety Analysis reviewed, satisfactory and all identified controls in place
CONFIRM (Initial or N/A)	
All persons involved competent for work?	Portable ladders secured properly? NA
Weather conditions OK / forecast checked?	Adequate securing points available and sound
Safety Harness's checked and condition satisfactory?	Communication method agreed by all parties?
Equipment in Vicinity Locked-Out/Tagged-Out? NA	Officer on Watch and/or Duty Engineer advised
Working equipment e.g. stages, bosun's chairs in satisfactory condition NA	Safety Net rigged if possible NA
IF WORKING OVERSIDE	
Buooyancy Aids checked and satisfactory NA	Anchors stowed and lashed NA
Rescue Boat been swung out? (where appropriate) NA	Overboard discharges shut? NA
COMPLETE IF ENCLOSED SPACE: (If enclosed space atmosphere checks of space entered in Enclosed Space Permit)	
Entry permit completed & safe for entry NA	
PERMIT SIGNATURES (Sign in numbered box as per STAFF section)	
Officer Responsible CHIEF OFFICER 1*	3*
Team Leader BOSUN 2*	4*
PRIOR STARTING	
Toolbox talk held with all involved in task. Final check made of work area and satisfactory. Correct PPE equipment being used.	
Team Leader CHIEF OFFICER	Date / Time 01-04-26 / 0800
PERMIT AUTHORISED	
Master	Date / Time 01-04-26 / 0800
ON COMPLETION	
Confirm work completed. All persons and equipment/tools clear of work area. All persons involved advised permit has ended. Confirm permit closed.	
Team Leader	Date / Time

Working at height permit completed in conjunction with daily work plan

After meeting with the C/O, the bosun and O/S opened all cargo hold hatch covers to an approximate 0.75-1m gap. The team of A/B's began their washing forward in cargo hold number 1 and worked their way aft towards cargo hold number 7. The O/S was washing the conveyor belt from inside the catwalk of the port side boom as expected.

Before proceeding to take his rest, the C/O walked on deck shortly before 10:00 and observed the work being carried out as planned. He noted the O/S was inside the catwalk area but could not confirm if he was wearing a safety harness. No other deck crew could confirm if they saw the O/S wearing a harness throughout the working day. He was not wearing a harness when recovered.

The deck crew had two breaks, the first between 10:00-10:30 and lunch between 12:00-13:00. By lunch time, the internal washing of cargo holds 1 through 4 was completed, along with the port side washing of the boom. After lunch, the bosun and A/B's were completing cargo holds 5 through 7 and the O/S was preparing to wash the starboard side of the boom.

Deviation from plan

To carry out the starboard side boom washing, the O/S walked on the starboard side hatch cover of cargo hold number 4, which was still opened, as opposed to the protected catwalk area of the boom.



Catwalk (highlighted in yellow) fitted on boom conveyor (starboard side)

When the O/S climbed on top of cargo hold number 4, the bosun was on top of cargo hold number 5, washing the hatch cover of the cargo hold while an A/B was washing inside the cargo hold. The bosun was wearing a harness, but it was not fixed to a strong point. Review of CCTV determined that during his time on the hatch cover for cargo hold 5, the bosun kept his distance from the gap between the hatch covers.

While on the hatch cover for cargo hold 5, the bosun saw, and spoke with the O/S briefly, who was still arranging the hose on top of the hatch cover for cargo hold 4. The bosun climbed down from the hatch cover to begin deck washing. Another A/B handed the O/S a rubber hose, which he would soon use to wash the starboard side of the boom. The A/B then turned on the hydrant for the O/S and went to assist the bosun with deck washing.

The O/S was not wearing any fall prevention equipment. He was wearing his coverall, rain boots, a hard hat, goggles and gloves. There were no barriers in place preventing anyone from falling into the cargo hold. As per the daily work plan and working at height permit, nobody was authorised to be on top of the cargo hold hatch covers while opened.

The bosun nor the A/B offered any correction to the O/S while he was walking on top of the hatch cover for the cargo hold without fall prevention equipment, or while the cargo hold hatch covers were still opened, indicating this may have been a normal practice or, in any event, seen as an acceptable risk in the interest of time considering their busy schedule.

It is possible that in attempting to get closer to the boom, the O/S had a loss of situational awareness. Whether this was impacted by water spray impairing his line of sight, or the false sense of protection from the boom acting as a barrier for the gap between the hatch covers, could not be determined.

Notwithstanding the deviation from the daily work plan, the lack of contrast on the main deck in combination with potential fatigue may have had an impact on the O/S tripping and falling into the cargo hold.

Implications of fatigue

The updated Guidelines on fatigue (MSC.1/Circ. 1598) were developed to assist industry stakeholders in better understanding ways to mitigate and manage the risks of fatigue. The Guidelines provide information on the causes and consequences of fatigue, the risks it poses to the safety and health of seafarers, operational safety, security and protection of the marine environment.

The Guidelines define fatigue as:

A state of physical and/or mental impairment resulting from factors such as inadequate sleep, extended wakefulness, work/rest requirements out of sync with circadian rhythms and physical, mental or emotional exertion that can impair alertness and the ability to safely operate a ship or perform safety-related duties.

Fatigue is caused by various factors but primarily due to lack of sleep, poor quality of sleep or rest, working or sleeping out of sync with circadian rhythm, prolonged periods of being awake, stress and excessive workload which can be either mental or physical exertion. People are typically poor judges of their own fatigue.

Fatigue can be categorised into five general factors: seafarer-specific, management, ship-specific, environmental and operational factors. A combination of some of these factors may have had an impact on the O/S at the time of the casualty.

Seafarer-specific factors include but is not limited to the quantity, quality and continuity of sleep, circadian rhythms, psychological and emotional well-being, stress, work schedules and workload.

Management factors relate to how ships are managed and operated. Including but not limited to organisational factors such as manning policies, levels and retention, shift schedules, breaks and voyage or scheduling factors such as frequency and duration of port calls, time between ports, availability of shore leave and workload while in port and at sea.

Environmental specific factors may contribute to the onset of fatigue and impact both sleep quantity and quality. These factors include noise and vibration, light, ship motion, temperature and humidity, and ventilation/air exchange. All excessively hot and cold conditions will make an individual feel less alert and generally more fatigued.

Workload refers to the type and intensity of tasks performed and fatigue can occur when workload is very high or very low. Tasks that require high physical and mental workload may lead to fatigue. Low workload consists of tasks that are considered monotonous, which can result in loss of interest and boredom. An example of this can be continuous spraying of a hose over a prolonged period.

From 23 February 2026 up until 01 April 2026 (date of casualty) the vessel loaded and discharged between two ports: Puerto Drummond, Colombia (loading port) and Punta Catalina, Dominican Republic (discharging port). On average, the voyage between the ports was less than three days duration. The port stays for the loading port was always under 48 hours and the port stays for the discharge port always less than 72 hours.

Review of rest hours and the ship's operation indicate that on arrival and departure days, inclusive of time in port, the O/S (and other personnel) worked a 6-on-6-off rotation with compensatory rest provided when the vessel was at sea. The casualty occurred the day after two days on sixes, with the final working period extended to allow for departure. On the day of the casualty he had started work early that morning and it was shortly before his scheduled compensatory rest period.³

³ This assumes consistent compensatory rest based on rest hours for the month of March.

Date	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	NRM	OVT	TOT	Rest	Comments
1							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	1.0	9.5	10.5	13.5	Reported from Drill No. 1009 Rescue Boat / Man Overboard Drill between 01 Mar 2026 11:00 and 01 Mar 2026 12:00.
2							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	9.0	2.5	11.5	12.5	
3							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	7.0	0.0	7.0	17.0	CARGO WATCH/DEPARTURE PUNTA CATALINA COMPENSATORY REST GIVEN 03-MAR-2026 -1600 TO 04-MAR-2026-0600
4							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	8.0	2.5	10.5	13.5	Reported from Drill No. 1017 Helicopter Operations between 04 Mar 2026 11:00 and 04 Mar 2026 11:30. Reported from Drill No. 1018 Tank Overflow between 04 Mar 2026 11:30 and 04 Mar 2026 12:00.
5							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	8.0	2.5	10.5	13.5	
6	■						■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	11.0	2.0	13.0	11.0	
7							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	0.5	8.0	8.5	15.5	Reported from Drill No. 1069 Emergency Escape Drill between 07 Mar 2026 10:30 and 07 Mar 2026 11:00.
8			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	0.0	11.0	11.0	13.0	
9							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	6.0	5.5	11.5	12.5	
10							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	7.0	1.5	8.5	15.5	
11							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	8.0	2.5	10.5	13.5	
12							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	10.0	2.5	12.5	11.5	
13							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	8.0	0.0	8.0	16.0	CARGO WATCH IN TUNNEL/DEPARTURE PUNTA CATALINA. COMPENSATORY REST HOUR GIVEN 13-MAR-2026 1700 TO 14-MAR-2026 0600
14							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	0.0	10.5	10.5	13.5	
15							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	0.0	10.5	10.5	13.5	
16							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	7.0	2.5	9.5	14.5	
17	■	■	■	■																					7.0	3.5	10.5	13.5	Reported from Drill No. 1007 Enclosed Space Drill between 17 Mar 2026 13:00 and 17 Mar 2026 13:30. Reported from Drill No. 1001 Abandon Ship Drill - Monthly between 17 Mar 2026 13:30 and 17 Mar 2026 14:00. Reported from Drill No. 1030 Spill Drill B
18							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	8.0	1.5	9.5	14.5	
19							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	14.0	0.0	14.0	10.0	CARGO WATCH IN TUNNEL / COMPENSATORY REST HOUR GIVEN 1200-1800 LT
20							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	12.0	0.0	12.0	12.0	
21							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	0.0	12.0	12.0	12.0	
22							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	0.0	8.0	8.0	16.0	CARGO WATCH IN TUNNEL / DEPARTURE PUNTA CATALINA / COMPENSATORY REST HOUR GIVEN 22-MAR-2026 -1700 TO 23-MAR-2026 -0600 LT
23							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	8.0	2.5	10.5	13.5	
24							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	8.0	3.0	11.0	13.0	
25							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	4.0	3.5	9.5	14.5	
26	■						■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	7.0	2.5	9.5	14.5	Reported from Drill No. 1027 Power Failure / Blackout Recovery between 26 Mar 2026 15:30 and 26 Mar 2026 16:00.
27							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	8.0	2.5	10.5	13.5	Reported from Drill No. 1001 Abandon Ship Drill - Monthly between 27 Mar 2026 13:00 and 27 Mar 2026 13:30. Reported from Drill No. 1003 Fire Drill - Monthly between 27 Mar 2026 13:30 and 27 Mar 2026 14:00. Reported from Drill No. 1007 Enclosed Space
28							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	0.0	10.5	10.5	13.5	
29							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	0.0	10.5	10.5	13.5	
30							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	8.0	4.0	12.0	12.0	
31							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	8.0	4.0	12.0	12.0	
Legend																									Total				
																									184.5	141.5	326.0	418.0	

O/S's rest hours for March 2026

Not all sleep has the same quality or provides the same recuperative benefits. The effectiveness of sleep depends on its quantity, quality and continuity. It is generally recommended that on average a person obtains 7-8 hours of quality sleep per 24-hour period which is very difficult when frequently being subjected to a 6-on-6-off rotation. The more fragmented the sleep cycle, the less restorative sleep becomes, which if prolonged can impact performance and decision making.

While fatigue could not be assessed to be a leading contributory factor, the rest hour schedules, along with rotations in port and at sea demonstrates a normalcy in operations to provide compensatory rest when the vessel was on shorter voyages. This meant crew were expected to work shifts that contribute to fatigue and could expect compensatory rest as a "reward". This practice is conducted across the global merchant fleet whereas it should only be the case during emergency, drill, inspection windows and other operations outside the control of the ship's crew and operators.

The deck crew appeared pressured to try and complete their tasks quicker, making deviation from safety more likely, given the time constraints. It is difficult to reduce crew's exposure to fatigue when work and rest practices that directly contribute to fatigue are normalised, and not due to special circumstances.

While the O/S (and other crew members) were able to record statutory minimum quantities of rest for the week, many of the days worked did not meet the minimum requirements. The O/S often worked incredibly long days and his rest periods were frequently interrupted. Working a 6-on-6-off watch pattern does not allow

for an uninterrupted six hour rest period and it has been well established that even an uninterrupted 6-on-6-off does not allow for enough continuous hours of rest to be restorative.

The BMA requires companies to apply for a Minimum Safe Manning Document (MSMD) proposing the appropriate level of manning required for the ship considering international guidelines. The BMA's safe manning requirements are outlined in Marine Notice 018.

Paragraph 15.2-15.3 of Marine Notice 018 states:

15.2 A new MSMD is to be issued when: there is a change of ship's name, or there is a change of trading area as documented on the MSMD, or change of Managers, or any other changes/alterations to the ship, its crew, construction, machinery, equipment, operation, maintenance, or management that affects the manning level required to continue safe operations compliant with the Conventions and this Marine Notice.

15.3 Notwithstanding the provisions of STCW A-VIII/1.9, if there is a need for regular exceptions from the weekly rest period, the Company shall undertake an assessment of the manning level in order to determine if the manning level onboard is sufficient in order to comply with the hours of rest requirements taking into consideration the contents of this Marine Notice. The outcome of this assessment shall be documented with a copy maintained onboard and if the assessment is negative, the necessary application shall be submitted to the BMA to review the safe manning level.

BMA's MSMD application process provides an option to propose a manning scale for multiple conditions, such as a common trading area which may be a longer voyage, or an occasional trading area which may be a shorter voyage. The application also allows disclosure of how many persons are required for hold/tank cleanings and operating mooring equipment.

Required personnel may change based on the voyage condition but can be overlooked when a vessel is considered manned in excess of its minimum safe manning requirements. The excess can contribute to making some aspects of the ship operation safer, such as dedicated personnel to oversee self-discharging mechanisms. However, when voyage conditions change for an extended period of time, an assessment should be carried out to ensure all crew are having the risks of their fatigue managed.

An industry trend not being addressed

The 2022 report of Lessons Learned and Safety Issues Identified from the Analysis of Marine Safety Investigation Reports submitted to the IMO's sub-committee on Implementation of IMO Instruments (III 8/4) included the Correspondence Group's analysis of occupational accidents - falls from height. The analysis considered seventy marine safety investigation reports involving falls from height, occurring between 2016-2021.

More than 90% of the falls analysed occurred onboard bulk carriers, container ships, tankers, and general cargo ships. The analysis identified a number of common safety issues:

- the procedures in ship managers' safety management systems for working from height or over the side are not always effectively implemented and are not always achieving their intended purpose
- tasks that involve the risk of falling from height are not always considered as "working from/at height" so that no control measures to avoid falls or minimize their consequences are implemented
- personal protective equipment intended to reduce risk of falling from height or over the side, is not being used, or may not be the most appropriate for the planned work
- onboard safety training does not appear to be achieving its intended purpose

- onboard management supervision and control of seafarers performing shipboard tasks that require working from height or over the side is ineffective.

Amongst other recommendations, the Correspondence Group recommended the IMO develop Guidelines addressing the risk of falls from height. A proposal for which was approved by the Maritime Safety Committee 110 in 2025. The task of development of the guidelines was passed to the Sub-Committee on Human Element, Training and Watchkeeping on the understanding that due to other work commitments (namely review of the STCW Code) the work would not be started until after 2027, with four sessions needed to complete the work.

There is no expectation of an industry-wide guidance until after 2031. In the meantime, falls continue to claim the lives of ships' crews. There have been at least 20⁴ reported deaths across the global merchant fleet as a result of ship's crew falling from height since the Analysis of Marine Safety Investigation Reports submitted to III/8. Half of these have occurred on bulk carriers.

The victims were 12 crew/ratings and 8 officers. In almost all of the cases, the victims were conducting work that was planned either near a risk of falling, or being at height and then falling due to deviation of plan, procedures or other factors.

	GISIS REFERENCE	VESSEL NAME	IMO NUMBER	FLAG	VESSEL TYPE	YEAR	VICTIM
1	C1001018	Seacon Oslo	9980435	Singapore	Bulk carrier	2025	C/O
2	C1001007	Apollon	9646663	Liberia	Bulk carrier	2025	ETO
3	C1000981	Golden Sunny Hana	9808857	Republic Of Korea	Tanker (chemical)	2025	C/O
4	C1000929	Ocean Lion	9296248	Liberia	Bulk carrier	2025	BOSUN
5	C1000854	Prisma	9461805	Marshall Islands	Bulk carrier	2025	BOSUN
6	C1000881	Cielo Dei Maronti	9808352	Liberia	Bulk carrier	2024	C/E
7	C1000503	Sunny Freesia	9856048	Hong Kong, China	Container	2024	COOK
8	C1000748	Maersk Tangier	9726451	Denmark	Tanker (oil)	2024	C/O
9	C1000800	Asteris	9384796	Marshall Islands	Bulk carrier	2024	A/B
10	C1000918	Eurostar	9546203	Liberia	Bulk carrier	2024	A/B
11	C1000820	Aal Kobe	9498444	Liberia	General cargo	2023	A/B
12	C1000015	Ocean Gemstone	9445239	Hong Kong, China	General cargo	2023	C/E
13	C1000403	Heng Yu 6	9517032	China	Tanker (chemical)	2023	BOSUN
14	C1000012	Zhen Zhu Hai	9738088	Hong Kong, China	Bulk carrier	2023	PURSER
15	C1000442	Jonathan Star	8223311	Panama	Refrigerated cargo	2023	MASTER
16	C1000010	Tiger East	9619842	Hong Kong, China	Bulk carrier	2022	A/B
17	C1000066	Curacao Pearl	8308147	Bahamas	General cargo	2022	BOSUN
18	C1000124	Glory Challenger	9675042	Singapore	General cargo	2022	CARPENTER
19	C1000085	Great Century	9796999	Hong Kong, China	Bulk carrier	2022	BOSUN
20	C1000238	Olma	8004806	Honduras	General cargo	2022	C/O

Table with data from IMO GISIS on fall from height casualties

⁴ InterManager's analysis on fall accidents on board ships (III 12/INF.18) found that 51 fall accidents were reported in 2024, 38 in 2025 and up to 12 in 2026 by 1 May 2026 - over 100 reported fall accidents in two and a half years.

Most of the common safety areas requiring attention identified from these marine safety investigation reports align with those of the III 8/4 analysis. This indicates that for at least the last decade, the same issues have claimed the lives of seafarers with no intention of immediate intervention from the IMO.

Conclusions

An ordinary seaman fell from height while walking on top of the starboard side hatch cover for cargo hold 4 when washing down the conveyor boom. He was wearing personal protective equipment to protect from wet surfaces and debris, but he was not wearing fall prevention equipment. The hatch covers were opened and were unmarked and unguarded.

The daily work plan was prepared by the chief officer. It was not imagined that the ordinary seafarer would leave the protection of the boom's catwalk to complete the task. As such, the ordinary seafarer was not included in the working at height permit required by the safety management system.

Despite procedural controls, walking on the open hatch covers was normal. When the ordinary seafarer deviated from the imagined work plan, at least two other more experienced crew members interacted with him, neither highlighted the risk or otherwise challenged the practice. The on deck supervisor was also on top of an unmarked and unguarded hatch cover. While he was wearing a harness, it was not connected to anything and therefore offered no protection.

While fatigue could not be assessed to be a leading contributory factor, the rest hour schedules, along with rotations in port and at sea demonstrates a normalcy in operations to provide compensatory rest when the vessel was on shorter voyages. This meant crew were expected to work shifts that contribute to fatigue and could expect compensatory rest as a "reward". This practice is conducted across the global merchant fleet whereas it should only be the case during emergency, drill, inspection windows and other operations outside the control of the ship's crew and operators.

Actions taken

As a result of the casualty **V-Ships** has:

- Conducted a safety stand-down with all crew members to review procedures for cargo hold cleaning, fall prevention, permit to work controls and supervision arrangements
- Developed a specific risk assessment for cargo boom washing to be used during JSA process
- Conducted a fleet wide campaign to increase awareness by highlighting the critical danger of falls from height during routine maintenance and operational tasks on cargo hold hatch covers inclusive of:
 - o Access point signage warning
 - o Visual boundary lines and fall risk indicators
- Begun developing a campaign aimed to:
 - o Enhance the process of fall from height hazard identification
 - o Increase awareness of risks of working at height
 - o Enhanced training on using fall protection equipment

The Bahamas Maritime Authority has:

- Committed to conduct a concentrated inspection campaign aimed at addressing the hazards associated with falls from height across the Bahamas Fleet.

Recommendations

The investigation has highlighted that the global merchant fleet suffered at least 20 reported crew deaths as a result of ship's crew falling from height within the last four years. Despite this, there is no expectation of IMO developed guidelines addressing the risk of falls from heights until after 2031. Therefore it is recommended that the **Bahamas Maritime Authority**:

- Continue to work with member States through the auspices of the IMO sub-committee on Implementation of IMO Instruments (III) to address occupational accidents (falls from height), draw conclusions and make recommendations (Star Planet 2021 & Curacao Pearl 2022).
- Review the effectiveness of its Recognised Organisation's external ISM audits to address apparent failures to mitigate risks associated with falls from height (Curacao Pearl 2022).

The investigation found that while the vessel was manned in excess of its Minimum Safe Manning Document requirements, crew members were at risk of fatigue arising from the vessel's operating pattern. This risk, combined with workload, time pressure, normalisation of unsafe practices, and deviation from the planned method of work, increased the likelihood of the casualty's exposure to the hazard. Therefore it is recommended that **V-Ships**:

- Conduct an assessment on the risks of fatigue throughout its fleet taking into consideration IMO's Guidelines on Fatigue (MSC.1/Circ.1598) and other industry established studies.

Vessel particulars

Vessel name	Algoma Victory
Vessel type	Bulk Carrier
Flag / IMO number	Bahamas / 9138109
Registered owner	Algoma Shipping Ltd.
Manager	V. Ships USA LLC (Boston)
Classification Society	Class NK
Built	2000
Length / breadth / moulded depth	215m / 32m / 19.5m
Gross / net tonnage	41,428 / 19,161
Minimum safe manning	15
Authorised cargo	Bulk cargo

Voyage Particulars

Departure port	Punta Catalina, Dominican Republic
Arrival port	Puerto Drummond, Colombia
Distance / duration	Approx. 480 NM / 2 days
Cargo information	In ballast
Crew	28 (including victim)

Marine Casualty Information

Severity of casualty	Very Serious Marine Casualty
Date / time	01 April 2026 / 13:50
Geographical location	15° 43.01'N 071° 41.32'W
Place onboard	Cargo hold 4, starboard side
Injuries / fatalities	1 fatality
Damage / environmental impact	N/A
Ship operation	Underway
Stage of passage	Deep sea
External environment	Daylight, clear visibility. Wind: Easterly force 5, low swell.