Marine Safety Investigation Report

VERY SERIOUS MARINE CASUALTY | **June 2025**

Master Ru
Capsize of vessel on 11 July 2024

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.

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What happened

On 11 July 2024, the Tanzania (Zanzibar) flagged passenger/ro-ro vessel, Master Ru, was carrying a cargo of bulk aggregate and construction equipment through the territorial seas of The Bahamas. After encountering a heavy squall, water became trapped on deck as the aggregate cargo blocked scuppers and drains, frustrating efforts to use portable pumps to de-water the deck. The vessel became unstable, capsized and sank.

Four of the eight persons onboard were rescued from a liferaft, the remaining four persons are missing, presumed dead.

Why it happened

The vessel was not suitable for the carriage of bulk aggregate and no steps had been made to contain the cargo, protect it from water ingress or mitigate the risk of blocked scuppers.

The heavy squall was forecasted but the passage plan was not adapted to reflect this information. Regardless, the options to seek shelter were limited, the vessel having started the voyage with one of its two engines disabled.

The vessel had been operating on one engine for an extended period. There was no evidence of any effective oversight from the vessel's flag State and the vessel was not in Class.

Master Ru did not have a safety management system in place and crew were not aware of any cargo handling procedures. The vessel did not have visible load lines and the crew were not provided with stability information.

What we can learn

Crew on board vessels that operate without flag State oversight and without being in Class are at an increased risk of danger.

Carriage of cargoes on unsuitable vessels increases the risk during operation of the vessel. Carriage and stowage requirements mandated for specific cargo types should not be adapted without assessing the risk.

Port State Control is an essential measure for ensuring the safety of vessels. It is only effective if vessels that are high risk can be targeted for inspections. States should ensure Port State Control Officers have adequate resources and systems to target vessels effectively.

Narrative

All times in this report are local time (UTC -4)

On 9 July 2024, the Tanzania (Zanzibar) flagged passenger/ro-ro vessel, Master Ru, was alongside at Ocean Cay, Bimini, The Bahamas, loading a cargo of construction related material - aggregate in bulk, scaffolding and a dumper truck. At around 11:00 it departed for Rock Sound, Eleuthera, with one of its two engines unavailable. Onboard were seven crew and one passenger - the driver of the dumper truck.

On 10 July at around 20:00, the mate handed over the bridge watch to the master and went to his cabin to rest. He received a call from another crew member at around 21:00, informing him that the vessel had encountered a heavy squall and there was water on deck. During the heavy rain, some of the bulk aggregate cargo on deck shifted. Upon looking outside his cabin window, the mate could see the vessel was retaining water on deck.

The wet cargo clogged scuppers and drains, reducing the vessel's ability to free excess water from deck. As well as the shifting cargo and excess weight from the trapped water, free surface effect adversely impacted stability and Master Ru began to develop a significant list to starboard.

The mate went outside to assist three other crewmembers who were setting up portable pumps in order to dewater the deck. However, the pumps were not sufficient and consistently became clogged with sand from the cargo.

State of cargo on deck during attempts to pump

The mate then went to the bridge to discuss the situation with the master, who wanted to exhaust all measures before abandoning ship. The mate stated: "there is nothing we can do, the vessel is gone". He then left the bridge in order to retrieve a lifejacket from his cabin.

Upon returning to the bridge, the master agreed the vessel was beyond saving and issued the verbal order to abandon ship. At this time, the chief cook was also on the bridge with two life jackets donned.

The captain left the bridge to go to an unknown location. The mate then left the bridge and proceeded to the main deck via the port side stairs. The chief engineer was at the port side engine room entrance door, holding onto it, in order to keep his balance. He told the mate “engine stopped” to which the mate stated there was nothing to be done about the engine, get a life jacket and be ready to abandon ship.

When the mate made it forward of the superstructure on the port side only himself, the AB, and a handyman were present. Another crew member, the son of the captain, was seen running up to the bridge from the main deck.

There was at least one metre of water accumulated on the starboard side of the vessel, increasing the list and bringing the Master Ru close to a state of deck edge immersion.

Water on deck, increasing starboard list

Moments later, the vessel began to capsize, the crew members on deck jumped into the water with their lifejackets donned, eventually seeing the dumper truck driver also in the water with them.

Master Ru capsized to starboard and sank in an estimated 1066m of water at an approximate position of 25° 19.2’N 78° 00.1' W in the early hours of 11 July 2024.

No distress call was made by the crew but the vessel’s EPIRB floated free, activated and alerted search and rescue responders.

Search and rescue

The search and rescue (SAR) efforts were coordinated between the Royal Bahamas Defence Force (RBDF), Bahamas Air and Sea Rescue Association (BASRA), United States Coast Guard (USCG) and local boaters.

The crew spent at least one hour in the water, with their lifejackets donned and in search of additional items afloat to aid their buoyancy. The mate found a flashlight floating and was able to identify an inflated life raft which they successfully boarded.

Local boaters originating from Chub Cay, Berry Islands saw a flare[1] and made their way to the position of the crew, recovering them from the life raft onto their vessel. Around this time, SAR assets began arriving on scene and searching for the missing crew members.

The four crew members eventually boarded a USCG vessel and were transported to Morgans Bluff, Andros, where they received care and began preparations for repatriation.

RBDF, BASRA, and USCG coordinated search and rescue efforts over the course of the next two days and the search was officially suspended on 12 July 2024[2]. The captain, his son, chief engineer and chief cook were not found.

Approximate locations during SAR operations (Google Earth)

1. The EPIRB From the Master RU activated at 25° 19.2'N 78° 00.1' W prompting SAR Responders towards the scene.

2. The USCG reported spotting the second life raft at position 25° 18' N 78° 03' W.

[1] Launched by the mate, soon after boarding the liferaft
[2] RBDF press release Tribune Report July 15 2024

3 Chub Cay port, origin of local boaters who were first on scene

4 Morgans Bluff, Andros where survivors were taken ashore to eventually be brought to Nassau, Bahamas and repatriated

Vessel and crew

Master Ru was a passenger roll-on/roll-off vessel, built for the Greek domestic market in 1974. It had a bow ramp and a continuous main deck for the carriage of cars and trucks and was equipped with two main engines at 960 HP each.

Master Ru in 2022 (Marine Traffic)

Master Ru had traded in and around The Bahamas under a number of names, flags and operators since 2006:

Vessel Name	Owner/Managers/Operators	Flag	Timeframe
Xanthoula V	Vassiliou Brothers	Greece	1974-2006
Duchess of Topsail	Topsail Shipping/Abaco Shipping Two	Honduras	2006-2013
Meyers Sesostris	Meyer's Panama Shipping Group Incorporated	Panama	2013-2016
Miranda Jet	Vicus Holding Incorporated	Panama/Venezuela[3]	2016-2019
Miranda Jet	Kazia International Incorporated	Panama	2019-2023
Master Ru	Mosko Group Ltd/Incredible Bulk Ltd	Tanzania (Zanzibar)	2023- time of casualty

[3] Records indicate Vessel either dual flagged, or registered for a brief time with Venezuelan Flag before going back to Panama Flag during this timeframe.

Incredible Bulk Ltd managed and operated Master Ru until two months prior to the casualty. On 07 May 2024, Incredible Bulk Ltd crew disembarked the Master Ru and new crew, sourced by Mosko Group Ltd, took over operation of the vessel.

The vessel was registered with the Bahamas Port Department for domestic trade for 2023. Registration was not renewed for 2024. Master Ru was not registered with a classification society since at least 2021.

There were seven crew members on board (all Honduran) and one truck driver (Haitian). The crew had the following qualifications[4]:

Rank	Qualification
Captain	International Master license
Chief Engineer	International Chief Engineer license
Chief Mate	Captain license
Chief Cook	Pastry man license
Deckhand 1	Busboy license
Deckhand 2	Utility cleaner license
Assistant (Captain's son)	None

Crew qualifications

The master and chief engineer were familiar with the vessel having sailed on board previously and the remainder of the crew had been on board for the two months since the "new" operator took control.

Master Ru's last Port State Control inspection was at Puerto Plata on 01 December 2021[5]. In the report, 11 deficiencies were identified in the categories of Certificates & Documentation, Structural Condition, Water/Weathertight condition, Radio Communication, Safety of Navigation and Life Saving Appliances.

Flag state, classification society and Port Department inspection reports were not provided despite repeated requests.

Weather

The Bahamas Department of Meteorology issues marine forecasts, notices, alerts and warnings across the four regions of The Bahamas: Northern, Northwest, Central and Southeast. Master Ru's passage was from the Northern to Northwest region of The Bahamas. The marine forecast for Northwest Bahamas issued at 06:00 on 09 July 2024 was:

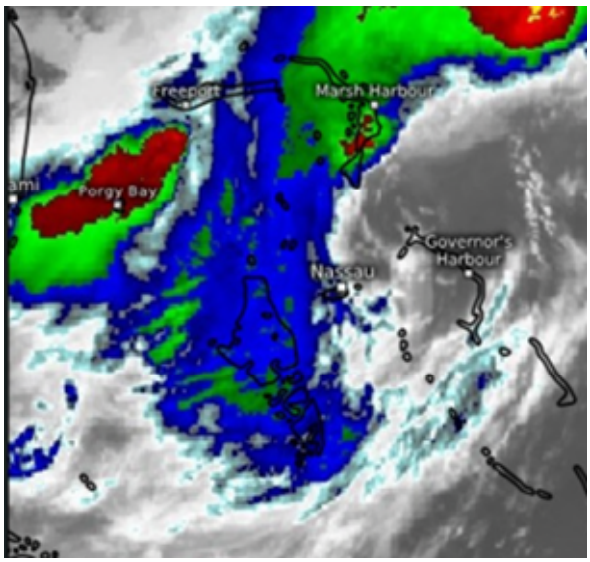
> **WEATHER**: Hot and humid today with isolated showers and thunderstorms mainly in the Extreme Northern islands. Very warm and humid tonight with a few showers and possible thunderstorms.
> **ADVISORY**: Expect gusty winds and higher seas in or near heavy showers and thunderstorms.
> **WINDS**: East to Southeast at 10 to 15 knots, falling light and variable at times.
> **SEAS**: 2 to 4 feet over the ocean

[4] Information provided by Marina Mercante Republica De Honduras. The Bahamas does not recognise Certificates of Competency issued by Honduras as per BMA MN013
[5] As Miranda Jet, under ownership of Kazia International Inc and flagged in Panama

The Extreme Northwest Bahamas public forecast contained a thunderstorm warning:

> **Thunderstorm Warning**: Be prepared for sudden thunderstorms, which may include heavy rain, lightning, and strong winds. Seek shelter immediately when a storm approaches.

A satellite image of the Northern and Northwest region at 06:20 on 09 July 2024 is shown below:



Satellite image 06:20 Tuesday 09 July 2024 (Bahamas MET Department)

A series of forecasts, warnings and notices were issued from the time of departure until the time of the casualty, which are expanded upon in Appendix 1.

Legislation and guidance

As a registered 879 GT passenger/ro-ro vessel, Master Ru was subjected to International conventions and regulations in order to ensure its safety, operational efficiency and protection of the environment. This included but is not limited to:

The International Convention for the Safety of Life at Sea, 1974 (SOLAS) which specifies minimum standards for the construction, equipment and operation of ships, compatible with their safety. Flag States are responsible for ensuring that ships under their flag comply with its requirements, and a number of certificates are prescribed in the Convention as proof that this has been done.

The International Safety Management (ISM) Code provides an international standard for the safe management of operation of ships and for pollution prevention. The ISM Code requires shipping companies to implement and maintain a Safety Management System (SMS).

The International Maritime Solid Bulk Cargoes (IMSBC) Code is mandatory for vessels carrying solid bulk cargoes[6]. This Code aims to facilitate the safe stowage and shipment of solid bulk cargoes by providing information on the dangers associated with the shipment of certain types of solid bulk cargoes and instructions on the procedures to be adopted when the shipment of solid bulk cargoes is contemplated.

In The Bahamas, domestic commercial shipping is regulated by the Port Department through the application of the Boat Registration Act (1961, as amended) and the Boat Registration Rules (1961, as amended). The Boat Registration Act applies to every type of vessel not exceeding 500 gross tons used for trade or hire within Bahamian territorial waters. These vessels are required to be registered with The Bahamas Port Department[7].

As well as setting out requirements for owners and process for the licencing of masters, the Boat Registration Act requires the Port Department to ensure that prior to registration, a boat is fit and proper to be registered, and after registration an inspection is conducted annually.

Port State Control (PSC) allows Contracting Governments to inspect ships of other Contracting States if there are clear grounds for believing that the ship and its equipment do not substantially comply with the requirements of applicable international standards. There are nine regional agreements on PSC, one of which is the Caribbean Memorandum of Understanding (CMoU). The Bahamas has been a member of the CMoU since 1997.

Previous relevant cases

Sherice M (2018) Bahamas
A Bahamas flagged domestic general cargo vessel suffered a fire in the galley which could not be controlled, leading to extensive damage of the vessel. The investigation resulted in recommendations to adopt Caribbean Safety Codes and other measures to ensure that domestic trading vessels meet the relevant minimum regional standards.
See: www.bahamasmaritime.com/wp-content/uploads/2020/10/BMA-Investigation-Report-Fire-onboard-the-Sherice-M.pdf

Tropic Breeze v Utopia IV (2021) USA
A US flagged yacht collided with a Belize flagged tanker in the Northeast Providence Channel, 20 miles northwest of Nassau, Bahamas. The collision resulted in the total loss of Tropic Breeze and material damage to Utopia IV. The investigation highlighted that Tropic Breeze underwent a Port State control exam two weeks prior to the collision, with no deficiencies reported despite not having a functioning AIS.
See: www.ntsb.gov/investigations/AccidentReports/Reports/MIR2229.pdf

Islander III (2023) Bahamas
A Bahamian domestic ferry began shipping seas over the bow eventually compromising the vessel's watertight integrity, ultimately resulting in its sinking. The investigation resulted in recommendations to the Ministry of Energy and Transport to adopt an effective regulatory framework for domestic vessels to operate within.
See: www.bahamasmaritime.com/wp-content/uploads/2024/12/Islander-III-Report-finalised.pdf

[6] Solid bulk cargo means any cargo, other than liquid or gas, consisting of a combination of particles, granules or any larger pieces of material generally uniform in composition, which is loaded directly into the cargo spaces of a ship without any intermediate form of containment.
[7] New Providence Port Authority is the name used in legislation

Analysis

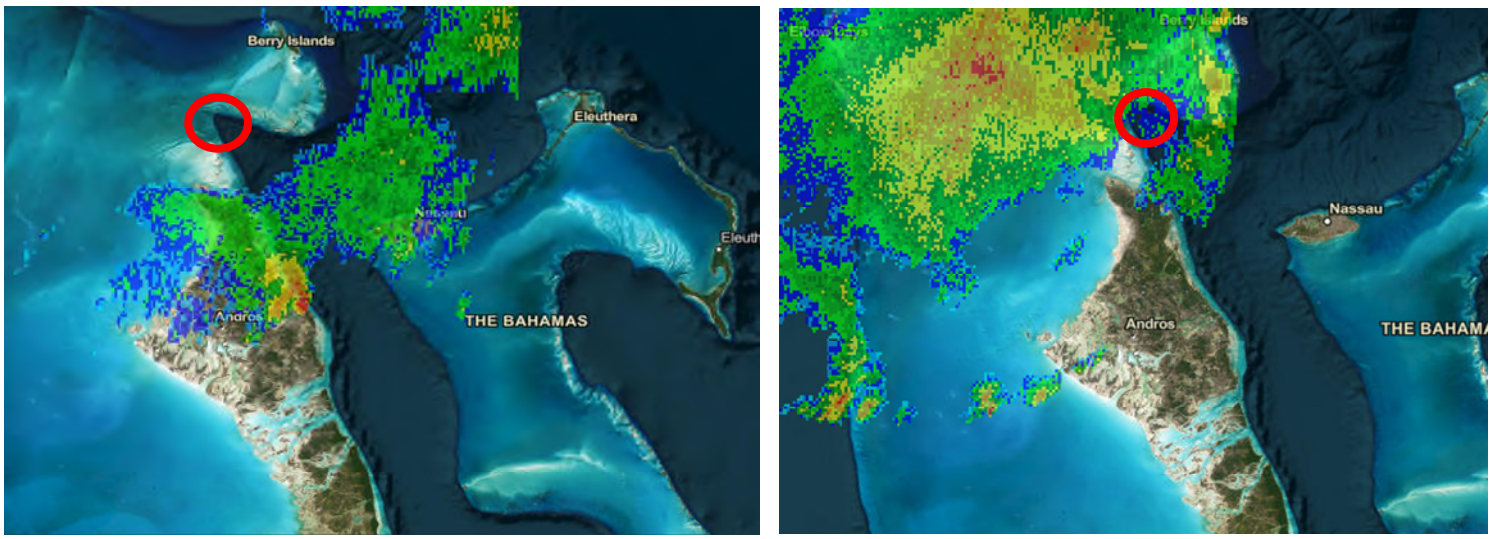
The purpose of the analysis is to determine the contributory causes and circumstances of the casualty as a basis for making recommendations to prevent similar casualties occurring in the future.

The vessel's flag State, Tanzania (Zanzibar), did not respond to repeated requests for information. Statutory certificates, stability information and inspection history was not available at the time of this report. The absence of a formalised management also meant copies of required documentation were not made available by the vessel's operators.

Weather Risk

Master Ru sailed from Bimini in fair weather but there were thunderstorms forecasted. Over the next 36 hours, forecasts from The Bahamas Department of Meteorology indicated increasing likelihood of strong to severe thunderstorms with associated heavy showers on Master Ru's planned passage. Severe weather warnings were issued from the evening of 10 July onwards (see Appendix 1). The surviving crew were not aware of the warnings – it was not a part of the bridge routine to seek out this information and means to receive it onboard was limited.

When handing over his watch at around 20:00, the mate stated the weather was clear and calm but an intense storm had developed on their planned route and was moving towards them.



Approximate position of Master Ru at 20:00 and at the time of the casualty

As they were not aware of the weather warnings, Master Ru did not attempt to seek shelter or deviate to avoid the worst of the weather. Regardless, the effectiveness of any attempt at deviation would have been minimal due to the limited manoeuvrability of the vessel.

Master Ru - condition

Master Ru had at least one other recent casualty in The Bahamas. On 07 February 2024, while moored at Curling Dock, Nassau when its mooring arrangements broke during adverse weather, causing it to drift and ground.

Master Ru aground on 07 February 2024 at 0942, preparing to be towed by tug

The vessel was successfully salvaged but suffered significant damage to the underwater hull, propellor(s) and shaft. A series of repairs were completed by Sands Marine & Salvage Services as shown in Appendix 2.

The repairs were not verified by a Classification Society or flag surveyor, nor was Master Ru resubmitted for inspection to The Bahamas Port Department in accordance with Part II Paragraph 6 (2) of the Boat Registration Act. Verification was limited to a “sea trial” with oversight by the chief engineer and shoreside support from members of Incredible Bulk Ltd, to which they concluded the vessel was safe to operate.

Shortly after repairs were affected to the underwater hull , propellor(s) and shaft, Master Ru starboard main engine developed a fault and became non-operational. The engine remained unavailable for the five months preceding the casualty, an issue known to Incredible Bulk Ltd and Mosko Group Ltd. The unavailability of the engine restricted the speed of the vessel to 1-4 knots depending on sea state and cargo loaded. A spare turbocharger and additional main engine components had been ordered for the starboard main engine (see Appendix 3). However, the casualty occurred before the starboard main engine could be repaired.

Due to the lack of power, Master Ru experienced difficulties in manoeuvring. CCTV footage shows the vessel, in sheltered waters, unable to safely berth or hold position and had to be towed into position for mooring.

Master Ru attempting to come alongside (bow to dock)

Master Ru being towed into position after crossing channel buoy under its own power

The last recorded AIS ping from Master Ru before the casualty was at 10:37 on 10 July which indicated the vessel had a speed of only 2 knots. Master Ru was approximately 30NM away from any potential port of shelter at that time.

Master Ru - use

At the time of the casualty Master Ru was being used to transport solid bulk aggregate cargo and construction equipment on deck. While some of the equipment and cargo was placed underneath the vessel's superstructure, this did not mitigate the risks associated with carriage of these cargoes.

CCTV Footage showing loading operations at Curling Dock on 01 July 2024

The image represents the three cargoes onboard the Master Ru:

1 - Sand

2 - Limestone rocks

3 - Example of dumper truck on board Master Ru during casualty

In the IMSBC Code, sand is a Category C cargo - it is not likely to liquefy or have chemical hazards but can still be hazardous. Sand grains have air pockets between them when dry, which is replaced with water once the sand becomes wet. Sand only requires a small amount of water to be added for the water to act as a bond between the grains of sand. These bonds significantly reduce the friction and effort required for sand to move, or shift. Above a certain threshold of added water, these same bonds will coalesce and become added mass, thus increasing density of the sand. Sand therefore has the following weather precautions in the IMSBC Code:

> Weather precautions –
>
> This cargo shall be kept as dry as practicable before loading, during loading and during voyage. This cargo shall not be loaded during precipitation. During loading of this cargo all non-working hatches of the cargo spaces to which this cargo is loaded, or to be loaded, shall be closed.

Master Ru loaded bulk aggregate cargo regardless of weather conditions, and had no measures to contain the cargo or protect it from water ingress once on deck.

Master Ru continuing to be loaded while raining

Limestone has no special requirements for weather or stowage. However, the IMSBC Code highlights that bilge wells and drains need to be covered to prevent ingress of cargo from blocking them. Crew were not aware of this requirement and this was not carried out.

An example of applicable information as required by the IMSBC Code for Bulk Cargo Shipping Name (BCSN) is provided in Appendix 4. This list highlights why certain information for solid bulk cargo are required due to risks of transporting certain cargo types.

Master Ru also did not have adequately marked Load Lines or draught marks. The crew made estimations based on the waterline level to the hull to determine when the vessel was sufficiently loaded. There were no means to assess the vessel's stability available to the crew and, as such, no assessment of stability was conducted.

Port and Starboard side of Master RU with no prominent Load Line or draught marks

Video footage recorded during the casualty shows sand and limestone rocks had shifted. Aside from also blocking the scuppers and drains on deck, the shifted cargo added additional weight with the accumulating rainfall to the starboard side of the vessel.

The crew tried to use portable pumps with attached hoses to dewater the deck, resulting in the pumps becoming impaired due to the amount of sediment inside the water on deck. The crew were not familiar with, and did not attempt to use the equipped bilge pumps on board.

Eventually – with shifted cargo and accumulated water on deck, the vessel's freeboard reduced and the list resulted in the main deck meeting the waterline, resulting in deck edge immersion and the vessel ultimately capsizing.

Master Ru starboard side, moments before capsizing – approaching a state of deck edge immersion

The aggregate cargo carried by the Master Ru fell under the provisions of the IMSBC Code. However, the vessel was not designed for such cargoes and no measures were taken to mitigate the risk the cargoes posed.

The vessel's operator provided no Safety Management System, cargo handling procedures or stability information for the vessel to the crew. The crew were not aware of the potential risk of cargo shifting, or the heightened risk of water becoming trapped on deck.

The established practices in combination with adverse weather, lack of propulsion, bulk aggregate cargo shifting and becoming wet - thus aiding in clogging scuppers, all compounded into a scenario where the crew did not have adequate resources to rectify the situation.

Regulatory Regime

Master Ru was flagged with Tanzania (Zanzibar). Despite repeated requests, Tanzania (Zanzibar) has not provided any evidence of Master Ru being inspected in line with the provisions of SOLAS and other international instruments. Master Ru's beneficial owner and de facto operator was Mosko Group Ltd. Despite requests, Mosko Group Ltd has not provided any evidence of the vessel's compliance with international instruments or the existence of a Safety Management System in line with the requirements of the ISM Code.

With no Classification Society and in the absence of effective oversight from its flag State, the only control that might be affected is by the coastal State(s) to which a vessel calls.

Master Ru was carrying cargo between Bahamian ports. Whilst it was not a "boat" as defined by the Boat Registration Act[8], in practice The Bahamas Port Department registers vessels exceeding 500 GT if their trade is exclusively within Bahamian waters, provided the vessel has statutory provisions covered by a flag State and Classification Society. Whilst Master Ru was not registered with the Port Department at the time of the casualty, it was in 2023.

Under the Boat Registration Act, one of the requirements for registering a vessel with the Port Department is a vessel safety inspection by Port Department surveyor to confirm the vessel is fit and proper. Surveys are completed using a Vessel Safety Inspection checklist, shown in Appendix 5.

The items covered in the checklist are based on specific equipment, systems or logs being present. There is also a conditional rating of good, average and poor – with no metric to indicate what condition the equipment must be in to constitute a rating. Ratings are therefore assigned at the discretion of the attending Port Department Inspector.

The checklist is not compatible with the requirements of SOLAS, ISM Code, or IMSBC Code – amongst other statutory conventions applicable to an internationally trading Passenger/Ro-ro vessel over 500GT.

Regardless of the potential effectiveness of the vessel safety inspection, the vessel was operating in The Bahamas without valid registration from the Port Department. One voyage was undertaken under the management of Incredible Bulk Ltd in January and at least nine voyages (see Appendix 6) whilst under the "new" management of Mosko Group Ltd, after the vessel sustained damage in the grounding and the loss of one engine.

Registration with the Port Department was therefore unable to provide effective control of the safe operation of Master Ru. As such, the final available means of compliance verification was Port State Control.

[8] "boat" means every description of vessel used in navigation however propelled not exceeding 500 tons gross tonnage;

As part of the Caribbean Memorandum of Understanding on port State Control (CMoU), The Bahamas commits to a target to inspect 15% of ships calling at its ports. These PSC inspections are to be carried out in accordance with the CMoU Port State Control Officer Manual, including guidance on targeting. Section 1.5 of the PSC Inspection Process provides a targeting matrix to enable categorisation of vessels as high, medium or low risk.

Using available information, Master Ru's risk factor was calculated at four times the criteria of mandatory inspection as per the ship risk profile calculator provided by the CMoU. The vessel's risk profile does not include any factors related to flag[9].

Criteria	Points
Any type of ship older than 20 years	5
More than 10 deficiencies within the last 2 inspections	5
Number of detentions within last 4 inspections	1
Period since last inspection more than 24 months	5
ISM Deficiency within last 3 years	3
Passenger ship without valid CoC from the USCG	1
Note: Ships with target value of 5 or more should be inspected.	**Toal: 20**

Master Ru's ship risk profile calculation (CMOU Rev.9)

Port State control in The Bahamas is conducted by The Bahamas Maritime Authority (BMA). At the time of casualty, The BMA employed two Port State Control Officers (PSCO's) for The Bahamas, only one of which was based in country.

In 2023, The Bahamas did not report fulfilment of its obligation to inspect 15% of ships calling at Bahamian port facilities. Nevertheless, the inspections are based on verifiable information – Master Ru was calling at non-ISPS facilities and its movement within The Bahamas was not known to PSCO's. The BMA does not have a system for monitoring vessel movements within The Bahamas and CMoU intelligence sharing capabilities are limited.

As such, Master Ru was not targeted by PSC during its period of operations in The Bahamas.

Conclusions

- The Tanzania (Zanzibar) flagged passenger/ro-ro vessel, Master Ru, capsized and sank in the North West Providence Channel, The Bahamas, after water became trapped on deck. Four of the eight persons onboard were rescued from a liferaft, the remaining four persons are missing, presumed dead.
- Water became trapped on deck during a heavy squall after the aggregate cargo that was loaded on deck blocked scuppers and drains and frustrated efforts to use portable pumps to de-water the deck.
- The vessel was not suitable for the carriage of bulk aggregate and no steps had been made to contain the cargo, protect it from water ingress or mitigate the risk of blocked scuppers.
- The heavy squall suffered was forecasted but the passage plan was not adapted to reflect this information. In any event, the vessel's options to seek shelter were limited, having started the voyage with one of its two engines disabled and able to make less than four knots in calm seas.
- The vessel had been operating on one engine for an extended period and repairs following a grounding five months before the casualty (including to stern tube, rudders and welding below the waterline) had not been approved by any third party.

[9] In 2024 Tanzania was on the Paris MoU's Black list and was considered very high risk. CMoU does not maintain a White, Grey and Black (WGB) List.

- Master Ru did not have a safety management system in place and crew were not aware of any cargo handling procedures. The vessel did not have visible load lines and the crew were not provided with stability information.
- There is no evidence of any effective oversight from the vessel's flag State and the vessel was not in Class. The vessel was being used to carry cargo between ports within The Bahamas but its registration with The Bahamas Port Department lapsed on 31 December 2023.
- Using the Caribbean MoU's ship risk profile calculator, Master Ru was a high risk vessel but The Bahamas PSCO's were not aware of the vessel or its trading pattern. The vessel had not been inspected by any port State control authority since 2021.

Action taken

Not as a result of this casualty but in an effort to prevent similar occurrences and improve active monitoring, the **Bahamas Port Department**:

- Have developed and are testing a vessel monitoring portal to ensure compliance with vessels trading domestically within Bahamian territorial seas.
- Proceeded to digitise registration records in order to enhance verification of vessels not registered for successive years but continue trading.
- Have mandated as of 01 March 2024 that all commercial vessels operating domestically provide records of valid crew training, surveys conducted within last twelve months and history of drydocking and boat maintenance records.

Recommendations

Tanzania (Zanzibar) did not engage in the marine safety investigation or provide any evidence, despite repeated requests. The investigation found no evidence of Master Ru being inspected in line with the provisions of SOLAS and other international instruments. Therefore, it is recommended that:

The International Maritime Organization (IMO):

- Engage with Tanzania (Zanzibar) in accordance with its obligations as a Flag State as outlined in the IMO Instruments Implementation Code (III Code) and take into consideration the findings of this report in Tanzania's next member state audit.

Zanzibar Maritime Authority:

- Adopts policies through national legislation and guidance, which will assist in the implementation and enforcement of the requirements of all safety conventions and protocols to which they, as flag State are party to.

The investigation found that the 879 GT Master Ru was "registered" with the Port Department in 2023. The Boat Registration Act (1961, as amended) has no provisions for vessels exceeding 500 tons gross tonnage. As a result, the Port Department policies and procedures are not suitable for vessels above that limit. Therefore, it is recommended that:

The Bahamas Ministry of Energy and Transport:

- Adopts an effective regulatory framework to address the gap between "boats" and vessels exceeding 500 GT plying for hire within Bahamian territorial waters.

The investigation also found that Master Ru movements within The Bahamas was not known to Port State Control Officers. The Bahamas Maritime Authority does not have a system for monitoring vessel movements within The Bahamas and CMoU intelligence sharing capabilities are limited. Therefore, it is recommended that:

The BMA:

- Implements a strategy that enables it to effectively identify, target and inspect foreign flagged vessels calling at Bahamian ports.

Mosko Group Ltd did not engage in the marine safety investigation or provide any evidence, despite repeated requests. The investigation found no evidence of the vessel's compliance with international instruments or the existence of a Safety Management System in line with the requirements of the ISM Code. Therefore, it is recommended that:

Mosko Group Ltd:

- Determines and implements the resources required to operate convention size vessels in line with requirements. Including but not limited to: implementation of a safety management system, systems for the safe carriage of cargo, application of the principles for minimum safe manning, operational readiness, maintenance and inspection of machinery and equipment, and safety of navigation.

Vessel particulars	
Vessel name	Master Ru
Vessel type	Passenger Ro/Ro
Flag / IMO number	Tanzania (Zanzibar) / 7350521
Registered owner	Vicus Holding Incorporated/Mosko Group Ltd
Manager	Mosko Group Ltd
Classification Society	Unclassed
Built	Ambelaki, Greece, 1974
Length / breadth / moulded depth	66.0m/13.5m/3.30m
Gross / net tonnage	879/528
Engines	Two SKL Motoren 8VDS26/20AL-1 Diesel Engines @ 960 HP Each (1920 HP Total)
Authorised cargo	Vehicles

Voyage Particulars	
Departure port	North Cat Cay/Ocean Cay
Arrival port	Rock Sound, Eleuthera
Distance / duration	172 nautical miles / 2½ days
Cargo information	Aggregate, industrial truck
Crew / passengers	7 crew, 1 passenger

Marine Casualty Information	
Severity of casualty	Very Serious Marine Casualty
Date / time	11 July 2024
Geographical location	25° 19'N 78° 00.1' W
Injuries / fatalities	4 fatalities
Damage / environmental impact	Total loss
Ship operation	On passage
Stage of passage	Underway
External environment	Night. Thunderstorm / heavy rain.

Appendices

Appendix 1 – Expanded weather details on 10 July 2024

18:00

Warning: MARINERS IN THE NORTHWEST BAHAMAS SHOULD REMAIN VIGILANT DUE TO THE POTENTIAL OF WATERSPOUT AND FUNNEL CLOUD ACTIVITY

General Situation: A TROUGH OF LOW PRESSURE JUST NORTH OF THE BAHAMAS AIDED BY A MID TO UPPER LEVEL LOW EAST OF THE AREA WILL SUPPORT SHOWERS AND THUNDERSTORMS ACROSS THE NORTHWEST BAHAMAS...MEANWHILE, A BROAD RIDGE OF HIGH PRESSURE COUPLED WITH SOME SAHARAN DUST WILL PROMOTE MOSTLY STABLE, HOT AND HAZY CONDITIONS ACROSS THE REMAINDER OF THE ISLANDS.

AREA: NORTHWEST BAHAMAS ADVISORY: GUSTY WINDS AND HIGHER SEAS CAN BE EXPECTED IN SHOWERS AND THUNDERSTORMS.

WINDS: SOUTHEAST TO SOUTH AT 10 TO 15 KNOTS FALLING LIGHT AND VARIABLE AT TIMES.

SEAS: 2 TO 4 FEET OVER OPEN WATERS.

WEATHER: SCATTERED SHOWERS AND ISOLATED THUNDERSTORMS...SOME SHOWERS WILL BE LOCALLY HEAVY AND THUNDERSTORMS STRONG TO SEVERE AT TIMES

18:45

Severe warning for North Andros, North Eleuthera and New Providence along with adjacent waters: AT 6:40 PM, LIGHTNING DETECTION, RADAR, AND SATELLITE IMAGERY DEPICTED SHOWERS WITH EMBEDDED THUNDERSTORMS MOVING SOUTHWARD TOWARDS AND ACROSS THE WARNING AREAS.

THESE SHOWERS AND THUNDERSTORMS ARE ASSOCIATED WITH A TROUGH OF LOW PRESSURE JUST NORTH OR THE BAHAMAS. SOME OF THESE SHOWERS WILL BE LOCALLY HEAVY AND THUNDERSTORMS STRONG TO SEVERE AT TIMES CAUSING STRONG GUSTY WINDS, DANGEROUS LIGHTNING, HEAVY DOWNPOURS, HAIL, AND POSSIBLE WATERSPOUT OR TORNADIC ACTIVITY.

LOCALIZED FLOODING IS ALSO POSSIBLE DURING THE PASSAGE OF THESE STORMS. BOATERS IN THE WARNING AREAS SHOULD SEEK SAFE HARBOUR. RESIDENTS IN THE WARNING AREAS SHOULD REMAIN INDOORS AND AWAY FROM WINDOWS WHEN CONDITIONS WORSEN. RESIDENTS SHOULD NOT SEEK SHELTER UNDER TREES OR IN WATER AS THESE CAN BECOME LIGHTNING CONDUCTORS.

22:05

> **Severe weather warning**: A SEVERE THUNDERSTORM WARNING IS IN EFFECT FOR GRAND BAHAMA, BIMINI ALONG WITH THEIR ADJACENT WATERS.
>
> AT 10:00 PM, LIGHTNING DETECTION, RADAR, AND SATELLITE IMAGERY DEPICTED SHOWERS WITH EMBEDDED THUNDERSTORMS MOVING SOUTHWARD TOWARDS AND ACROSS THE WARNING AREAS. THESE SHOWERS AND THUNDERSTORMS ARE ASSOCIATED WITH A TROUGH OF LOW PRESSURE JUST NORTH OF THE BAHAMAS.
>
> SOME OF THESE SHOWERS WILL BE LOCALLY HEAVY AND THUNDERSTORMS STRONG TO SEVERE AT TIMES CAUSING STRONG GUSTY WINDS, DANGEROUS LIGHTNING, HEAVY DOWNPOURS, HAIL, AND POSSIBLE WATERSPOUT OR TORNADIC ACTIVITY. LOCALIZED FLOODING IS ALSO POSSIBLE DURING THE PASSAGE OF THESE STORMS.
>
> BOATERS IN THE WARNING AREAS SHOULD SEEK SAFE HARBOUR. RESIDENTS IN THE WARNING AREAS SHOULD REMAIN INDOORS AND AWAY FROM WINDOWS WHEN CONDITIONS WORSEN. RESIDENTS SHOULD NOT SEEK SHELTER UNDER TREES OR IN WATER AS THESE CAN BECOME LIGHTNING CONDUCTORS.

06:00 on 10 July the three day Bahamas marine forecast issued contained a special warning:

> Mariners should also remain vigilant due to the possibility of waterspout activity and funnel cloud formation. A layer of Saharan dust will remain over the Northwest and portions of the Central Bahamas today. As a result, persons with allergies and respiratory ailments should take the necessary precautions to safeguard their health.

Additionally, for the Northwest Bahamas:

> WEATHER: In the extreme Northwest Bahamas, isolated to widely scattered showers and isolated thunderstorms. In the remainder of the Northwest Bahamas, chance of a few isolated showers and thunderstorms. Isolated showers and thunderstorms possible into tonight.
>
> ADVISORY: Some showers or thunderstorms may be strong to severe at times. Expect gusty winds and higher seas in or near moderate to heavy showers and thunderstorms. Some flash-flooding is possible in flood prone and other low-lying areas.
>
> WINDS: Southeast to Southwest at 10-15 knots, falling light and variable at times and shifting north to northeasterly by tonight.
>
> SEAS: 3 feet or less nearshore and up to 4 feet in offshore waters.

Appendix 2 –Receipt from Sands Marine & Salvage Services

Sands Marine & Salvage Services

Vista Marina, West Bay Street
Nassau, New Providence
SP-62473 BS
ar@sandsmarineservices.com
www.sandsmarinservices.com
[redacted]

VAT Invoice

BILL TO
[redacted]
Master R U

INVOICE	981
DATE	03/27/2024
TERMS	Due on receipt
DUE DATE	03/27/2024

DATE	SERVICE	DESCRIPTION	QTY	RATE	AMOUNT
03/25/2024	Services	Removing Master R U from grounding on beach. Service include as of 3.27.24: -Repairing rudders for reinstall -Divers patching of bottom -Divers continue patching while welders welding -Removal of loose keel through underwater cutting -Cutting of shaft tube to make right for prop to fit. -Crew working above ground during welders -Replacing rudders -Equipment rental of pumps and hoses	[redacted]		

Appendix 3 – Receipt for spare turbocharger

ALFAZ Marine
Supplier Of Marine Engine & Spare Parts

PLOT NO 74 STREET NO 8,KUMBHARVADA,MADHIYA ROAD,BHAVNAGAR -364006 GUJARAT,INDIA
[redacted]
EMAIL = info@alfazmarine.com
Web = www.alfazmarine.com

PROFORMA INVOICE

EXPORTER: **ALFAZ MARINE** PLOT NO. 74, STREET NO 8, KUMBHARVADA MADHIYA ROAD BHAVNAGAR 364001 GUJARAT INDIA **PHONE: +919426665025** **GST NO: 24CIMPM2361J1Z3**	INV NO & DATE N/A 14.02.2024	Exporter's ref E-MAIL
	Buyer's ref. No. & Date	
CONSIGNEE: **MV Máster Ru** Incredible Bulk Freight Ltd 28 Marigold Farm Rd Nassau, Bahamas [redacted]	BUYER OTHER THAN CONSIGNEE	
Carriage by: Sea, Air or Multimodal Transport AIR	Place of receipt by pre-carrier BHAVNAGAR Port of loading AHMEDABAD	Terms of Delivery & Payment. 100% ADVANCED PREPAYMENT Airport Delivery ONCE WE RECEIVED YOUR PAYMENT WE NEED 4 DAYS Time To Prepare
Port of Discharge BAHAMAS	Final destination BAHAMAS	Country of origin of goods INDIA
		Country of final Destination BAHAMAS

Marks & nos. Container No	No. & Kind of pkgs	Description of goods	PCS/SET	Rate USD	Amount USD
	1	OLD & USED MACHINERY PARTS VTR200 Complete turbocharger	1 PCS	[redacted]	[redacted]
[redacted]			TOTAL		[redacted]

IEC No. 2416912682
PAN NO. CIMPM2361J
Net Weight :
Gross Weight:
Declaration
We declare that this invoice shows the actual price of the goods

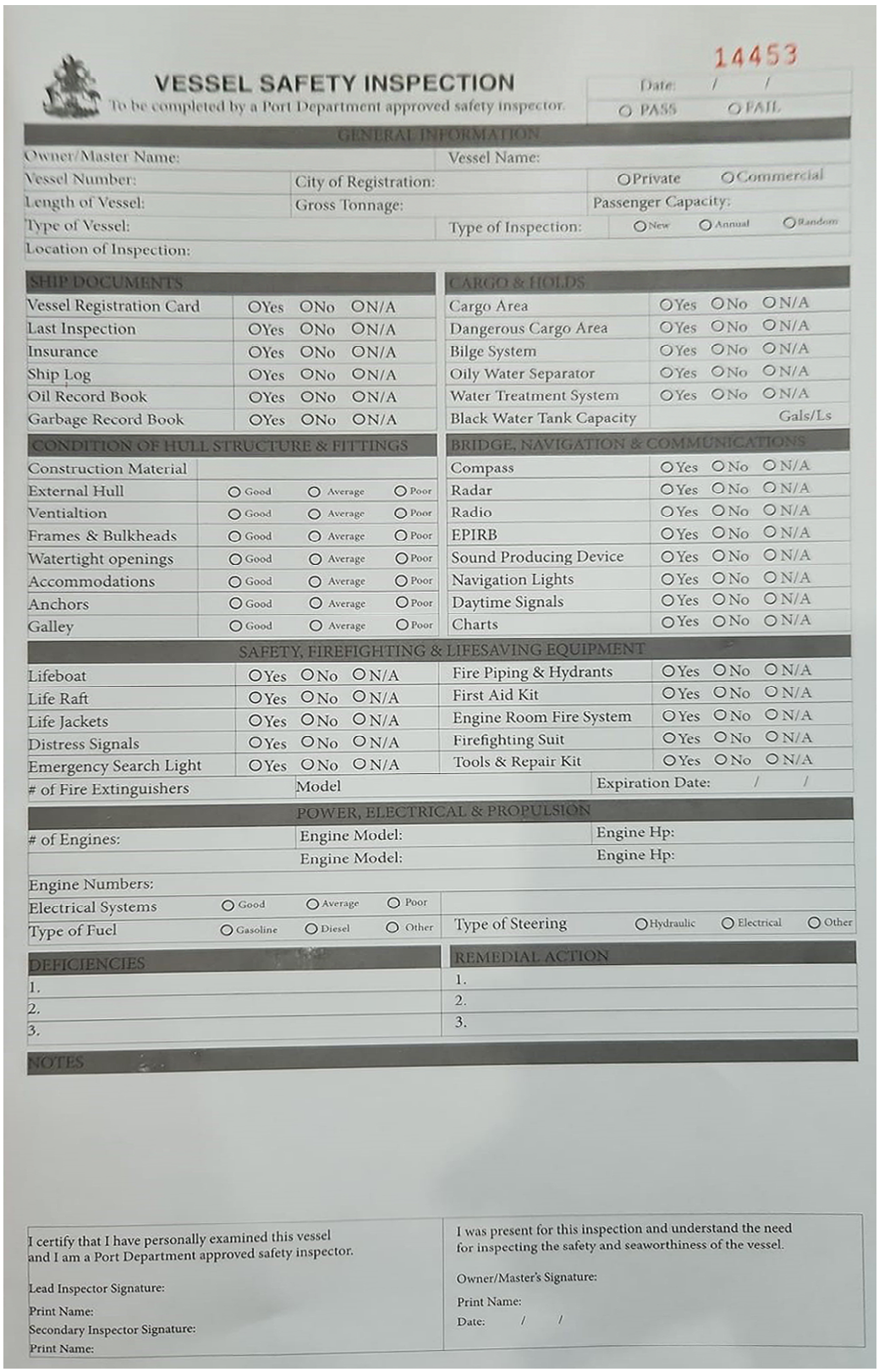
ALFAZ MARINE INDIA

ALFAZ MARINE
ALFAZ MARINE
[redacted]
PROPRIETOR

Appendix 4 – IMSBC Code 4.2.3 Form for cargo information for solid bulk cargoes

<table>
<tr><td colspan="2">BCSN</td></tr>
<tr><td>Shipper</td><td>Transport document number</td></tr>
<tr><td>Consignee</td><td>Carrier</td></tr>
<tr><td>Name/means of transport
Port/place of departure</td><td rowspan="2">Instructions or other matters</td></tr>
<tr><td>Port/place of destination</td></tr>
<tr><td>General description of the cargo
(Type of material/particle size)</td><td>Gross mass (kg/tonnes)</td></tr>
<tr><td colspan="2">Specifications of bulk cargo, if applicable:
Stowage factor:
Bulk density (as required by SOLASregulation XII/10):
Angle of repose, if applicable:
Trimming procedures:
Chemical properties if potential hazard*:
* e.g., class and UN No. and/or MHB hazard(s)</td></tr>
<tr><td>Group of the cargo
□ Group A and B
□ Group A
□ Group B
□ Group C</td><td>Transportable moisture limit
For group A and B and group A cargoes
Moisture content at shipment
For group A and B and group A cargoes</td></tr>
<tr><td>Classification relating to MARPOL Annex V
□ harmful to the marine environment
□ not harmful to the marine environment
Relevant special properties of the cargo
(e.g., highly soluble in water)</td><td>Additional certificate(s)*
□ Certificate of moisture content and transportable moisture limit
□ Weathering certificate
□ Exemption certificate
□ Other (specify)
* If required</td></tr>
<tr><td>DECLARATION
I hereby declare that the consignment is fully and accurately described and that the given test results and other specifications are correct to the best of my knowledge and belief and can be considered as representative for the cargo to be loaded.</td><td>Name/status, company/organization of signatory
Place and date
Signature on behalf of shipper</td></tr>
</table>

Appendix 5 – Port department vessel safety inspection checklist



14453

VESSEL SAFETY INSPECTION

To be completed by a Port Department approved safety inspector.

Date: / /
○ PASS ○ FAIL

GENERAL INFORMATION

Owner/Master Name:		Vessel Name:	
Vessel Number:	City of Registration:	○ Private	○ Commercial
Length of Vessel:	Gross Tonnage:	Passenger Capacity:	
Type of Vessel:		Type of Inspection:	○ New ○ Annual ○ Random
Location of Inspection:			

SHIP DOCUMENTS

Vessel Registration Card	○ Yes	○ No	○ N/A
Last Inspection	○ Yes	○ No	○ N/A
Insurance	○ Yes	○ No	○ N/A
Ship Log	○ Yes	○ No	○ N/A
Oil Record Book	○ Yes	○ No	○ N/A
Garbage Record Book	○ Yes	○ No	○ N/A

CARGO & HOLDS

Cargo Area	○ Yes	○ No	○ N/A
Dangerous Cargo Area	○ Yes	○ No	○ N/A
Bilge System	○ Yes	○ No	○ N/A
Oily Water Separator	○ Yes	○ No	○ N/A
Water Treatment System	○ Yes	○ No	○ N/A
Black Water Tank Capacity			Gals/Ls

CONDITION OF HULL STRUCTURE & FITTINGS

Construction Material			
External Hull	○ Good	○ Average	○ Poor
Ventialtion	○ Good	○ Average	○ Poor
Frames & Bulkheads	○ Good	○ Average	○ Poor
Watertight openings	○ Good	○ Average	○ Poor
Accommodations	○ Good	○ Average	○ Poor
Anchors	○ Good	○ Average	○ Poor
Galley	○ Good	○ Average	○ Poor

BRIDGE, NAVIGATION & COMMUNICATIONS

Compass	○ Yes	○ No	○ N/A
Radar	○ Yes	○ No	○ N/A
Radio	○ Yes	○ No	○ N/A
EPIRB	○ Yes	○ No	○ N/A
Sound Producing Device	○ Yes	○ No	○ N/A
Navigation Lights	○ Yes	○ No	○ N/A
Daytime Signals	○ Yes	○ No	○ N/A
Charts	○ Yes	○ No	○ N/A

SAFETY, FIREFIGHTING & LIFESAVING EQUIPMENT

Lifeboat	○ Yes	○ No	○ N/A	Fire Piping & Hydrants	○ Yes	○ No	○ N/A
Life Raft	○ Yes	○ No	○ N/A	First Aid Kit	○ Yes	○ No	○ N/A
Life Jackets	○ Yes	○ No	○ N/A	Engine Room Fire System	○ Yes	○ No	○ N/A
Distress Signals	○ Yes	○ No	○ N/A	Firefighting Suit	○ Yes	○ No	○ N/A
Emergency Search Light	○ Yes	○ No	○ N/A	Tools & Repair Kit	○ Yes	○ No	○ N/A
# of Fire Extinguishers		Model		Expiration Date:	/	/	

POWER, ELECTRICAL & PROPULSION

# of Engines:		Engine Model:		Engine Hp:			
		Engine Model:		Engine Hp:			
Engine Numbers:							
Electrical Systems	○ Good	○ Average	○ Poor				
Type of Fuel	○ Gasoline	○ Diesel	○ Other	Type of Steering	○ Hydraulic	○ Electrical	○ Other

DEFICIENCIES	REMEDIAL ACTION
1.	1.
2.	2.
3.	3.

NOTES

I certify that I have personally examined this vessel and I am a Port Department approved safety inspector.

Lead Inspector Signature:

Print Name:

Secondary Inspector Signature:

Print Name:

I was present for this inspection and understand the need for inspecting the safety and seaworthiness of the vessel.

Owner/Master's Signature:

Print Name:

Date: / /

Appendix 6 –Master Ru AIS data (from LLI Seasearcher)

Date	Time	Position	Action
01 Jan 24	09:27	25° 4’ 57”N / 77° 22’ 11”W	Alongside Curling Dock, Nassau
05 Jan 24	17:44	25° 0’ 27” N 77° 35’ 3” W	Departing Nassau
06 Jan 24	16:52	24° 35’ 18”N / 76 ° 52’ 48” W	Arriving Normans Cay, Exuma
07 May 24	18:00	25° 4’ 57”N / 77° 22’ 11”W	Alongside Curling Dock, Nassau
07 May 24	19:36	25° 7’ 43” N/ 77° 22’ 9” W	Departing Nassau
09 May 24	11:55	26° 40’ 49” N / 77 ° 8’ 16” W	Alongside Great Guana Cay, Abaco
10 May 24	23:07	26° 33’ 59” N/ 77° 0’ 57” W	Alongside Marsh Harbour, Abaco
17 May 24	18:17	26° 33’ 59” N/ 77° 0’ 57” W	Alongside Marsh Harbour, Abaco
17 June 24	18:41	25° 4’ 57”N / 77° 22’ 11”W	Alongside Curling Dock, Nassau
01 July 24	17:51	25° 5’ 28” N/ 77° 21’ 34” W	Departing Nassau
04 July 24	08:02	24° 35’ 25” N/ 77° 48’ 49” W	Alongside Normans Cay, Exuma
05 July 24	06:03	25° 5’ 16”N/ 77° 22’ 47”W	Arriving Nassau
06 July 24	05:49	25° 33’ 26” N/ 77° 22’ 10” W	Departing Nassau
09 July 24	11:27	25° 30’ 49” N / 79° 17’ 13” W	Arriving Ocean Cay
09 July 24	12:55	25 ° 34’ 58” N/ 79 ° 18’ 54” W	Departing Ocean Cay
10 July 24	10:37	25 ° 36’ 18” N 78 ° 27’ 18” W	En route to Rock Sound, Eleuthera