



**The Bahamas
Maritime Authority**

THE COMMONWEALTH OF THE BAHAMAS

M.V MARINE STARS

IMO NUMBER: 9330109

OFFICIAL NUMBER: 8001842



**Report of the marine safety investigation into the death of
the Captain of the m.v. Marine Stars on the 26th March
2017, South of the Mozambique Channel**

M.v. Marine Stars – Marine Safety Investigation Report

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

It should be noted that the Bahamas Merchant Shipping Act, Para 170 (2) requires officers of a ship involved in an accident to answer an Inspector's questions fully and truly. If the contents of a report were subsequently submitted as evidence in court proceedings relating to an accident this could offend the principle that individuals cannot be required to give evidence against themselves. The Bahamas Maritime Authority makes this report available to any interested individuals, organizations, agencies or States on the strict understanding that it will not be used as evidence in any legal proceedings anywhere in the world.

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1 GLOSSARY OF ABBREVIATIONS AND ACRONYMS

AB	Able Seaman
ANI	Approved nautical inspector
BMA	Bahamas Maritime Authority
B&W	Burmeister & Wain
COC	Certificate of Competency
COE	Certificate of Endorsement
CRA	Certificate of Receipt of Application
DOC	Document of Compliance
EMP	Enhanced Monitoring Programme
ETA	Estimated Time of Arrival
Inc.	Incorporated
ISM	International Safety Management Code
kW	Kilowatt
MAN	Maschinenfabrik
m	Metres
MLC	Maritime Labour Convention
NKK	Nippon Kaiji Kyokai
MSMD	Minimum Safe Manning Document
m/t	Metric Tons (Tonne)
PSC	Port State control
RCA	Root Cause Analysis
S.A	Societe Anonyme (Anonymous Company)
SMC	Safety Management Certificate
SOLAS	International Convention for the Safety of Life at Sea
STCW	International Convention for the Standards of training, certification and watchkeeping
STCW	Standards of Training, Certification and Watchkeeping

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SWL Safe working load
UTC Universal co-ordinated time

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SUMMARY

- 2.1 This report concerns the death at sea of the Captain of the Bahamas flagged bulk carrier Marine Stars which was on a loaded voyage from Durban, South Africa to Kandla, India. The vessel had departed on the 22nd March 2017 having loaded a cargo of 49,905 tonnes of coal in Beira and Maputo, Mozambique. The expected time of arrival off the port of Kandla was midday on the 10th April 2017.
- 2.2 The voyage plan from Durban was to sail north east to a point south of Madagascar after which the vessel's course would be adjusted to a north north east heading intended to bring the vessel off Kandla by sailing east of the Seychelles Islands. This longer sea route was considered a better alternative than the slightly shorter route up the Mozambique channel in order to avoid the High Risk Area¹ and the additional war risk premium.
- 2.3 On the 26th March 2017 at around 0900 (UTC-2) the vessel's Chief Officer was called by the Deck Cadet, who informed him that the Captain was lying unconscious in his bed.
- 2.4 After preliminary observations made by the Chief Officer during which the Captain partially regained consciousness, the Chief Officer with the assistance of the Company's Superintendent on board at the time contacted the Owners of the vessel and the Company's doctor to obtain medical advice and assistance. During the exchanges, it was decided that the vessel was to deviate to the nearest port which happened to be port EHOALA to the South of Madagascar. The vessel's course was adjusted and EHOALA was expected to be reached around 0800 UTC on the 27th March 2017.
- 2.5 Throughout the day, the vessel's Chief Officer who had taken effective command of the vessel organised systematic shifts of all available hands to standby and give as much comfort to the Captain possible. Despite the efforts of the crew and Officers, the Captain died from a myocardial infarction at 1900 UTC on the 26th March 2017.

¹ The High Risk Area (HRA) is an area within the United Kingdom Maritime Trade Operations (UKMTO) designated Voluntary Reporting Area where it is considered there is a high risk of piracy and within which self-protective measures are most likely to be required.

3 DETAILS OF INVOLVED VESSEL AND OTHER MATTERS

3.1 The Marine Stars is a Supramax Bulk Carrier owned by Marine Projects Inc., a company incorporated in Monrovia, Liberia. The effective control of the vessel however is vested in Aegeus Shipping S.A, a company operating from Greece and which caters for the technical and commercial management of the vessel. The vessel has been registered in the port of Nassau, Bahamas since 2010. The principal details as at 26th March 2017 are as follows:

Call Sign	C6YW4
Official No.	8001842
IMO No.	9330109
Built	2006, Yangzhou, China
Gross Tonnage	31,261 tonnes
Net Tonnage	18,291 tonnes
Classification Society	NKK
Registered Length	183.05 metres
Breadth	32.26 metres
Depth	17.20 metres
Summer Draft	12.49 metres
Summer Displacement	63,708 tonnes
Total Volumetric Cargo Capacity	65,751 m ³ Bulk, 64,332 m ³ Bale
Cargo Gear	4 x 30 tonne SWL Cranes
Propulsion	1 x 9480 kW STX MAN B&W

3.2 The Officers and crew were provided to Aegeus Shipping by InterOrient Maritime Enterprises Inc. manning agency based in the Philippines. The ship's complement on departure from Durban consisted of the Captain, 8 Deck and Engineering Officers including a Deck Cadet and 12 Ratings, all nationals of the Philippines and one Engineering Superintendent from Greece.

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- 3.3 The Captain (48 years of age) of the vessel held an unlimited Master Mariner Certificate at the management level (II/2)² required by the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW) issued by the Republic of the Philippines on 06th January 2015 and endorsed by the Commonwealth of the Bahamas on the 09th May 2016 and was duly recognized in accordance with the provisions of Regulation I/10 of the STCW 1978 convention. At the time of his passing he had been on board for 10 months.
- 3.4 All crew carried the appropriate documentation as required by the STCW Convention. All document holders had the necessary endorsements provided by the Commonwealth of the Bahamas and complied with the vessel's safe manning document.
- 3.5 The vessel's trading certificates were verified and found to have valid dates of expiry and within the range allowable for undertaking the periodical surveys. The vessel's last special survey was completed in March 2016 and most Statutory surveys were completed in parallel with the vessel's Class Certificate due to expire in March 2021, pending periodical inspections, as appropriate.
- 3.6 Owing to the subject under consideration, the following certificates were thought to be of greater relevance and are detailed hereunder.
- i. The Safety Management Certificate (SMC) whose expiry date is 3rd March 2021 and is based on an audit held on 28th February 2016
 - ii. The Document of Compliance (DOC) whose expiry date is 8th April 2018 and is based on an audit held on 9th April 2013
 - iii. The Maritime Labour Certificate (MLC) whose expiry date is 26th July 2018 and is based on an inspection held on 27th July 2013
- 3.7 At the time of the incident the vessel complied with all statutory and international requirements and certification.
- 3.8 It was verified by the BMA approved nautical inspector (ANI) that all the crew were in compliance with the statutory hours of rest requirements³.

² Specification of minimum standard of competence for Masters and Chief Mates on ships of 500 gross tonnage or more.

³ Required by the International Convention of Standards of Training, Certification and Watchkeeping for Seafarers 1978 as amended (STCW) and the Maritime Labour Convention, 2006 (MLC 2006)

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NARRATIVE OF EVENTS

- 4.1 All times noted in this report are given in the style of the standard 24-hour clock without additional annotations. The vessel time used on board at the time of the incident was Universal Coordinated Time (UTC) -2.
- 4.2 At 2324 on the 22nd March 2017 the Marine Stars started a voyage from Durban anchorage and was bound for Kandla, India with an expected estimated time of arrival (ETA) of noon on the 10th April 2017. The vessel had previously loaded a cargo of 49,905 m/t of coal in the port of Durban.
- 4.3 The course of the vessel was set to bring the vessel South of Madagascar after which it would be adjusted to follow a rhumb⁴ line course to Kandla, passing the Seychelles archipelago to the east.
- 4.4 The condition of the sea and swell at the start of the voyage and during the first 48 hours of sailing was moderate, but wind and waves gradually increased to force 5/6⁵ and by Sunday 26th March 2017 the vessel was rolling and pitching in a moderate to heavy swell.
- 4.5 It is custom on this particular vessel to treat a Sunday at sea as a holiday and consequently only those Officers and ratings employed in navigational and engineering watches carry out their duties as any other day at sea.
- 4.6 On the morning of the 26th March 2017 around 0745, a Deck Cadet, who happened to be the nephew of the Captain was also off duty for the day and went to the Captain's cabin which consisted of an en-suite bedroom and an adjacent office equipped amongst other things with a television and the Captain's own personal computer.
- 4.7 The reason for the Deck Cadet's visit was mainly to accompany the Captain to breakfast after which they would both return to the Captain's office to watch movies on his personal computer.
- 4.8 The Deck Cadet reported that upon his arrival at the Captain's cabin, he saw him seated on the settee reading the Bible. At that moment, the Deck Cadet recalled that nothing in the Captain's appearance indicated any form of discomfort. In fact, it was the Captain himself who determined the moment they would go down to the dining room for breakfast at approximately 0800.

⁴ The path of a ship that maintains a fixed compass direction, shown on a map as a line crossing all meridians at the same angle.

⁵ Beaufort scale of wind force general specifications for observations on board ships (open sea): Large waves begin to form; the white foam crests are more extensive everywhere; probably some spray (wave height 3-4m).

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- 4.9 The breakfast period was reported uneventful, but in hindsight the Deck Cadet recalled that the Captain had not eaten much and more importantly had mentioned that he was not feeling very well and had decided to return to his cabin.
- 4.10 He was followed a few minutes later by the Deck Cadet who, upon entering the Captain's office saw him seated on the settee and using his laptop. The Deck Cadet believes that it was approximately 0830 when they started to watch a movie on the laptop.
- 4.11 Less than 5 minutes later the Captain reiterated his earlier complaint that he was not feeling well and he decided to go to his bedroom for a rest. The Deck Cadet continued watching the movie in the office adjoining the bedroom.
- 4.12 At about 0900 the Deck Cadet heard a thud coming from the Captain's bedroom followed shortly by a cry for help. He rushed inside the Captain's bedroom and found him lying on the floor beside the bed. With a lot of difficulty, he managed to pull the nearly collapsed Captain into his bed before running down to the Chief Officer's cabin for assistance.
- 4.13 The events which followed and which ended with the passing of the Captain at 2100 on the 26th March 2017 are as described in the report drawn up by the Chief Officer on the same date.
- 4.14 The original plan to sail for the port of EHOALA in time to obtain professional medical assistance having been thwarted by the early demise of the Captain, the vessel was ordered to deviate to Mauritius owing to logistical difficulties associated with the landing of the Captain's body at Madagascar.
- 4.15 When the decision was taken to head to Mauritius, the Captain's body was wrapped in a bedsheet, placed on a stretcher and transferred to one of the cold rooms of the vessel.
- 4.16 The Marine Stars arrived off Port Louis, Mauritius at 1000 on the 30th March 2017. Apart from the officials from Health, Immigration and Customs authorities who boarded to conduct the usual clearing-in of the vessel, the vessel was also boarded by Officers of different departments of the Mauritius Police Force, namely those from the Port Police, the Central Criminal Investigation Department and the Scene of Crime Office.
- 4.17 A Bahamas Maritime Authority approved nautical inspector boarded the vessel and began interviewing key personnel onboard in order to establish the facts surrounding the death of the Captain. Those interviewed included the Chief Officer (now Captain), Deck cadet, 2nd Officer (now Chief Officer), Bosun and Engineer Superintendent. On completion of the interviews it was determined that no variance of any significance could be determined from the Officers and crew point of view. All descriptions of the succeeding events were found to be in conformity with the Chief Officer's report provided immediately after boarding.

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ANALYSIS AND DISCUSSION

- 5.1 The Captain joined the vessel on the 18th May 2016. In accordance with Maritime Labour Convention (MLC) he underwent a full medical examination⁶ prior to his engagement and was issued with a medical certificate issued on 03rd May 2016 valid through 03rd May 2018.
- 5.2 The Captain had ten (10) months' experience in command as indicated within his Seaman's book. According to the Officers onboard, the atmosphere on board was very much '*business as usual*' with no significant event affecting the state of mind or physical condition of the Captain. The Company confirmed that they had no cause for concern regarding the Captain's health or professional ability.
- 5.3 In the preceding two years, the vessel underwent two flag State inspections and most recently two Port State Control (PSC) inspections between October 2016 and February 2017. On the 14th October 2016, the vessel was inspected by South African Maritime Safety Authority in Richards Bay and during the course of that inspection the port State control inspector identified 21 deficiencies of which 3 were recorded as Code 18⁷ non-detainable deficiencies. A further PSC inspection occurred in Mombasa, Kenya on the 16th February 2017. Three deficiencies were identified resulting in the vessel being detained, one of which remains outstanding under MLC section 4.14 Regulation 2.2⁸. Due to the vessel being detained twice within a 24 month period the vessel was immediately placed on the Enhanced Monitoring Programme (EMP)⁹ by the Bahamas Maritime Authority.
- 5.4 With the Marine Stars now on EMP the vessel is subject to Bahamas 'special' inspections within one (1) month of being placed on the programme, and at three (3) month intervals thereafter. The vessel was inspected on the 21st January 2017 by an approved nautical inspector, on completion of the inspection a report was provided which summarised the overall condition of the vessel as follows: "*...a lack of professionalism in general observed on board*"; in total eight (8) deficiencies were identified.
- 5.5 On notification to the Bahamas Maritime Authority of the second detention the vessel operators were advised on the 24th February to conduct the following prior to departure from the next port:
- i. Additional ISM/SMC audit to the extent of Initial Audit with Classification Society.
 - ii. Additional MLC verification with Classification Society.

⁶ Issued by American Outpatient Clinic; Accreditation No. 13-04D-14-MF-2

⁷ Deficiency action Code 18 requires rectification within 3 months from the date of issuance.

⁸ Maritime Labour Convention Regulation 2.2 – Payment of wages

⁹ In accordance with BMA Bulletin 120 and 136; vessels that demonstrate consistent non-compliance with the international Conventions or Bahamas national requirements (in this particular instance) will be placed on the Enhanced Monitoring Programme.

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- ii. Root Cause Analysis (RCA) for each identified deficiency from the recent detention to be submitted to the BMA for review.
- iv. Bahamas EMP inspection.

A follow-up email was sent from the BMA Inspections and Surveys department on the 23rd March 2017 requesting an update on the progress of the above points. No update was received as to the progress of the requested requirements until the 27th March 2017, a day after the Captain had passed.

It could be considered likely that the period between the 16th February 2017 and the 26th March the Captain and Officers onboard would have experienced a degree of additional burden generated whilst rectifying the identified deficiencies. Over the course of the interviews there was no indication from any of the Officers or crew that the Captain had expressed, or appeared concerned with the additional pressure imposed.

- 5.6 The Superintendent's interview revealed that the Captain had taken an analgesic named BIOFLU¹⁰. It was not determined during the course of the investigation who administered the drug or whether the drug was provided from the Captain's personal supply of medication. The Company medical practitioner stated that this drug is a very popular drug among Filipino crew. The Superintendent who was in fact the sole interlocutor on behalf of the Owner's Company doctor was told by the latter that the medicine was "*absolutely not appropriate*" given the symptoms observed.
- 5.7 In accordance with the International Medical Guide for Ships¹¹, BIOFLU is not a recognised drug listed on the inventory stocked within the medical chest.
- 5.8 The medicine chest inspection certificate was inspected on the 21st January 2017 and identified as having expired on the 30th August 2016¹². The vessel was required to rectify this deficiency by the 21st February 2017 however it was verified that this deficiency had not been rectified as of the 30th March 2017. Nevertheless, no policy existed onboard governing the administering of drugs, particularly those not contained within the medical chest.

¹⁰ This medicine is used for the relief of clogged nose, runny nose, postnasal drip, itchy and watery eyes, sneezing, headache, body aches and fever associated with flu, common cold, allergic rhinitis, sinusitis and other minor respiratory tract infections (Source: UNILAB)

¹¹ The International Medical Guide for Ships (3rd Edition). World Health Organisation.

¹² In accordance with Bulletin 148 the medicine chest must be inspected at intervals not exceeding 12 months.

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CONCLUSIONS

- 6.1 Considering the analysis and discussion the evidence gathered through the course of the investigation into the death of the Captain cannot be attributed to an event directly in connection with the operation of the vessel.
- 6.2 The autopsy conducted by Chief Police Medical Officer in the Republic of Mauritius determined that the cause of death was natural causes, namely a Myocardial Infarction and not the result of any self-prescribed medication.
- 6.3 The number of outstanding deficiencies requiring rectification as determined from Port State Control and flag State inspections is likely to have amplified the Captain's workload and possibly increased the level of anxiety experienced whilst the vessel was under a greater degree of scrutiny.

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RECOMMENDATIONS

- 7.1 It is recommended that the medicine chest and its contents are verified in date and a medicine chest inspection certificate issued without delay.
- 7.2 The Safety Management System should be re-evaluated to ensure the medicine chest remains in date annually and the procedure for administering drugs onboard to be implemented.

No further recommendations were determined necessary pertaining to this tragic event resulting in the death of the Captain.

LIST OF APPENDICES

I. Photographs

Appendix I: Photographs



Figure 1: Captain's bedroom



Figure 2: Captain's office