

THE COMMONWEALTH OF THE BAHAMAS

M.v SEAHERO IMO NUMBER: 9315642 Official Number: 7000820



Report of the marine safety investigation into the disappearance of a crew member off the coast of Angola, Gulf of Guinea on 18th May 2018

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. You must re-use it accurately and not in a misleading context. Any material used must contain the title of the source publication and where we have identified any third party copyright material you will need to obtain permission from the copyright holders concerned.

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1 GLOSSARY OF ABBREVIATIONS AND ACRONYMS

AB	Able Body Seaman
BMA	Bahamas Maritime Authority
CCTV	Closed-Circuit Television
DCS	Digital Selective Calling
DPA	Designated Person Ashore
ECDIS	Electronic Chart Display Information System
JRCC	Joint Rescue Coordination Centre
Kts	Nautical miles per hour
NM	Nautical mile
MF	Medium Frequency
MRCC	Maritime Rescue Coordination Centre
STCW	International Convention on Standards of Training, Certification and Watchkeeping for Seafarers
UTC	Universal Time Coordinated
VHF	Very High Frequency

All times noted in the report are given in the style of the standard 24-hour clock without additional annotation and as local time in Angola which was UTC +1.

SUMMARY

- 2.1 This investigation has been carried out in accordance with the International Maritime Organisation's Casualty Investigation Code (Resolution MSC.255(84)), as required by Regulation IX-1/6 of the International Convention on the Safety of Life at Sea, for the purpose of identifying any safety improvements which may need to be made to prevent such incidents in the future.
- 2.2 This marine safety investigation report concerns the missing Electro Technical Officer who disappeared while the vessel was transiting the South Atlantic between Bonny, Nigeria and Durban, South Africa on 18 May 2018.
- 2.3 The voyage plan from Nigeria was to sail south outside the territorial waters of Gabon, Angola and Namibia through the waters of the Gulf of Guinea, rounding Cape Town, South Africa and proceeding north easterly to arrive off the coast of Durban in the Indian Ocean on 24 May 2018. The vessel departed Bonny, Nigeria on 15 May with an approximate distance to cover of 3500nm in nine days in order to arrive in vicinity of Durban by 24 May, at an average speed of 16kts.
- 2.4 On Saturday 19 May, the Master was informed that the Electro Technical Officer could not be located on board. In accordance with Company procedures the Master initiated an internal search of the entire vessel and determined that with a high degree of probability, the Electro Technical Officer may have disappeared over board.
- 2.5 External communications with regional Maritime Rescue Coordination Centres were initiated as well as the establishment of the Thenamaris Emergency Response Team in Kavouri Athens, Greece to assist the Master and ultimately determine the location of the Electro Technical Officer.
- 2.6 Over the course of the next three days, the Master initiated an extensive search starting in position from the last known sighting of the Electro Technical Officer until MRCC Cape Town agreed that the probability of finding the Electro Technical Officer, at this stage was extremely unlikely.
- 2.7 The vessel resumed its transit to Durban, having been unable to locate the Electro Technical Officer, and on arrival local authorities conducted a preliminary investigation, no further enquiries or recommendations were made.

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THE BAHAMAS MARITIME AUTHORITY

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3 DETAILS OF INVOLVED VESSEL(s) AND OTHER MATTERS

- 3.1 M.v. Seahero is a purpose-built Very large Crude Carrier registered in Nassau, Bahamas and managed by Thenamaris Ships Management Inc.
- 3.2 The principle details as at 19 May 2018 were as follows:

•	Official Number	7000820
•	IMO Number	9315642
•	Call Sign	C6CB3
•	Length Overall	332 meters
•	Breadth	58.04 meters
•	Draught	22.48 meters
•	Gross Tonnage	157,844 tonnes
•	Net Tonnage	108,567 tonnes
•	Dead Weight Tonnage	306,507 tonnes

- 3.3 The vessel is powered by a single WNSD 7RTA84T-D conventional fixed pitch propulsion system with three Wartsila 8L20 diesel generators and one MAN D2866 LE203 emergency generator.
- 3.4 M.v. Seahero was built in July 2006 by Daewoo Shipbuilding and Marine Engineering Co., Ltd. in Gyeongnam, South Korea. The vessel was first registered under the Bahamas flag in 2015 and was entered with DNV GL Classification Society. The vessel complied with all applicable statutory and international requirements and certification.
- 3.5 The vessel was subject to a Bahamas Maritime Authority Annual Inspection on 15 December 2017 in Angra dos Reis, Brazil with no deficiencies or observations. The last

Port State Control Inspection was carried out by the United States Coast Guard in San Diego, USA on 03 May 2016 with no deficiencies or observations.

- 3.6 The missing crew member is a 39-year-old Bulgarian national who at the time of his disappearance was the only Electro Technical Officer on board and held a valid Certificate of Competence, issued on 20 October 2016 and valid until 19 October 2021. He was duly qualified in accordance with the provisions of Regulations III/6¹ of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978 as amended and issued by Bulgarian Maritime Administration on behalf of the Republic of Bulgaria and endorsed by the Commonwealth of the Bahamas on 23 May 2018 and duly recognized in accordance with the provisions of Regulation I/10 of the STCW 1978 convention.
- 3.7 The Electro Technical Officer served onboard vessels managed by Thenamaris (Ships Management) since April 2013. In August 2017 he signed off the vessel Seavoyager in Singapore and did not sail again until the 04 May 2018 for this contract on board the Seahero.
- 3.8 A seafarer medical fitness certificate was issued on 03 February 2018 and valid until 03 February 2020, in accordance with the provisions of Regulation I/9 of the International Convention on Standards of Training, Certification and Watchkeeping, 1978 as amended and Regulation 1.2 of the Maritime Labour Convention 2006, declaring the Electro Technical Officer medically fit with no restrictions.

¹ III/6 of International Convention on STCW 1978 refers to the Mandatory minimum requirements for certification of Electro-Technical Officers

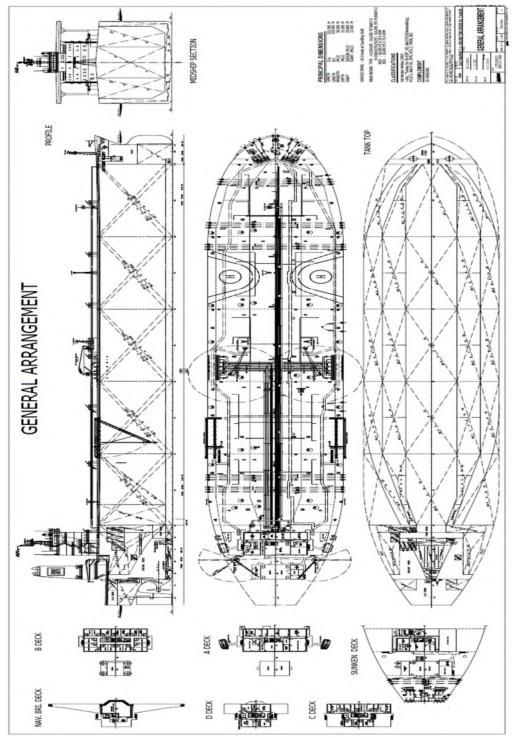


Figure 1: General Arrangement Plan of Seahero

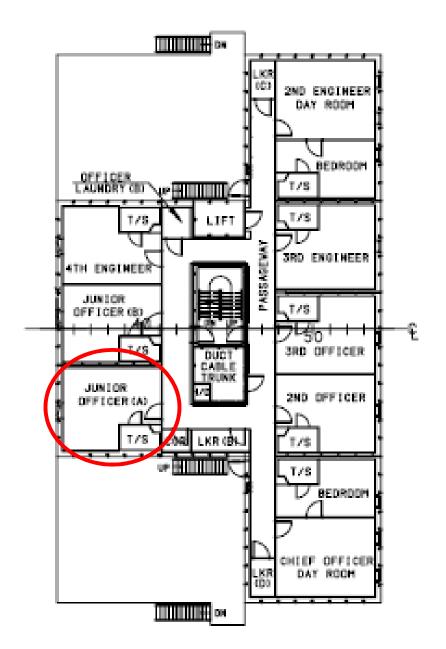


Figure 2: General Arrangement Plan of C deck, indicating Electro Technical Officer's cabin (circled in red)

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NARRATIVE OF EVENTS

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- 4.1 The vessel sailed from Sao Tome on 04 May 2018 and proceeded to Brass, Nigeria arriving 09 May to load a cargo of crude oil. On completion of partial loading, the vessel sailed on 12 May bound for Bonny, Nigeria arriving that same day. The vessel completed loading crude oil and sailed on 15 May 2018 on a southerly course with the intention of arriving in vicinity of Durban, South Africa on 24 May 2018.
- 4.2 The Electro Technical Officer embarked the vessel for his first contract on board the Seahero having previously provided his services in the capacity of Electro Technical Officer onboard other vessels managed by Thenamaris (Ships Management) Inc. Having travelled from Bulgaria, under instructions from the local manning agent, appointed by Thenamaris (Ships Management) Inc. in the latter's capacity as manager of Seahero and on behalf of said vessel's owning company on 02 May 2018, he arrived in the city of Sao Tome, African Republic of Sao Tome on 03 May and embarked the Seahero on 04 May 2018.
- 4.3 Due to the existing threat of piracy and armed robbery in the region of the west coast of Africa the vessel on departure from Sao Tome had rigged razor wire around the entire upper deck connected to the guard rails as a self-protective measure in accordance with the vessel's security procedures (see figure 3). Once the Master deemed the threat no longer existed taking into account the vessel's geographic location, the razor wire was dismantled by the evening of 17 May.



Figure 3: Starboard side razor wire in place as a self-protective measure against threat of unauthorised boarding

- 4.4 On 18 May 2018 the Electro Technical Officer attended the Engine Safety Committee meeting which occurred weekly or as required by the Chief Engineer. Approximately 30 minutes later the Bosun visually sighted the Electro Technical Officer walking along the starboard side sunken deck passage which leads to the emergency generator compartment. Although not known at the time, this was the last known sighting of the Electro Technical Officer.
- 4.5 At 0745 on 19 May a scheduled tool box meeting commenced. The 2nd Engineer noticed that the Electro Technical Officer was not present and therefore attempted to call the Electro Technical Officer in his cabin to establish his whereabouts. Upon completion of the meeting, the 2nd Engineer reported to the Master and Chief Officer that the Electro Technical Officer did not attend the tool box meeting and did not answer the phone. The Master, Chief Officer and Chief Engineer proceeded to the Electro Technical Officer's cabin and found the cabin unlocked and empty.
- 4.6 The Master then used the public address (PA) system requesting the Electro Technical Officer to call or report to the bridge, no response was received. At this point, 0810, the Master initiated a vessel search in accordance Company procedures and the International Ship Protection and Security (ISPS) Code commencing Security Level 3 checklist which covers procedures for searching for stowaways.

- 4.7 By 1005 the deck and engine team reported that the Electro Technical Officer was not found anywhere on the vessel. The Master then gathered the entire crew on the bridge in order to determine who was the last person to see the Electro Technical Officer. The Bosun advised that the Electro Technical Officer was last seen at 1630 the afternoon before (18 May). This then provided the Master with a datum of the last known location, in position 13° 14S 009° 54E, approximately 140nm to the north of the vessel's current location.
- 4.8 The Master contacted the dedicated telephone number of the Emergency Response Team of Thenamaris Ships Management Inc. to advise them of the situation.
- 4.9 At 1042 while the vessel was in position 17° 20S 010° 47E the vessel altered to a northerly course and commenced search operations in accordance with the man overboard checklist. At this point PAN PAN² VHF broadcasts were issued hourly on Channel 16³.
- 4.10 At 1130 multiple attempts were made to establish communication with MRCC Angola and MRCC Namibia via telephone, email, VHF, MF/HF (2182 and 4124 kHz) but no response or acknowledgment was received.
- 4.11 At 1209 the Master informed the Charterers as per the notification requirements outlined with the voyage instructions.
- 4.12 A follow-up report was submitted at 1300 to Thenamaris Ships Management Inc. Emergency Team along with further attempts to establish communications with MRCC Angola.
- 4.13 At 1400 while continuing on a northerly and reciprocal course the Master continued to call MRCC Angola by all available means but was unsuccessful. Additionally, the Master decided to inform MRCC Cape Town, Namibia Search and Rescue and JRCC Piraeus via email. Meanwhile the DPA contacted the Bahamas Maritime Authority Investigations Department informing them of the missing Electro Technical Officer. Concurrently the crew continued to search all void spaces and ballast tanks.
- 4.14 By 1530, MRCC Cape Town advised that they forwarded the initial reports to MRCC Angola and requested MRCC Angola to assume coordination of the incident. MRCC

² Internationally recognised distress call that is used as a preface in VHF radio transmissions, used in situations to indicate when the safety of a person or vessel is in serious jeopardy, but no immediate danger exists.

³ VHF Channel 16 (156.8MHz) is a marine VHF Radio frequency designated as an international distress frequency, primarily intended for distress, urgent and safety priority voice transmissions.

Cape Town advised that no acknowledgement was received, and the vessel should continue to conduct a search of the area.

- 4.15 At 1618 the JRCC Piraeus submitted a notification to MRCC Cape Town, Angola, Varna and RCC Bahamas.
- 4.16 MRCC Cape Town advised that they requested the Coastal Maritime Radio to upgrade the broadcast from PAN PAN to Mayday⁴ for vessels transiting the coast of Angola to keep a sharp lookout for the Man Overboard. They also advised that Seahero should continue to search until sunset and then stand down.
- 4.17 At 1655 the Master sealed the Electro Technical Officer's cabin in order to preserve any evidence for the purpose of conducting any investigation that may be required by local authorities or flag State.
- 4.18 At 1825 the Master informed MRCC Cape Town that the vessel has stood down from search activity due to insufficient light but that it intends to resume the search at first light until the vessel has reached the position of the last known sighting.
- 4.19 On 20 May at 0500 the vessel was in position 15° 28S 010° 16E and resumed search operations towards the last known position and resuming VHF broadcasts hourly.
- 4.20 By 1636 the vessel was in position 13° 14S 009° 50E, the approximate last know position of the Electro Technical Officer. MRCC Cape Town were informed and acknowledged the progress of the search. Approximately two hours later the vessel ceased the search due to insufficient light but continued to broadcast PAN PAN on VHF Channel 16.
- 4.21 The following morning on 21 May at 0612 the vessel resumed search operations in the vicinity of 13° 22S 009° 51E proceeding south east covering the same ground sailed the day before.
- 4.22 Later that day at 1540 a further update was provided to Cape Town MRCC who acknowledged receipt. By 1830 the vessel was in position 15° 58S 010° 15E and the Master decided to conclude the search operations and proceed to Durban, South Africa. MRCC Cape Town were once again informed, and they thanked the Master for conducting a thorough search of the area.

⁴ Internationally recognised distress call that is used as a preface in VHF radio transmissions, used in situations to indicate when there is an immediate danger of loss of life or the vessel itself.

4.23 On 27 May 2018 the vessel arrived in vicinity of Durban, South Africa where the vessel was met by local authorities, South Africa Maritime Safety Authority who boarded the vessel on 29 May 2018 for the purpose of their investigation.

ANALYSIS AND DISCUSSION

5.1 **Conduct and effectiveness of search**

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- 5.1.1 The Master initiated a thorough internal search of the vessel to include all compartments. The compartments on board were divided up between the Officers in accordance with the Fleet Instruction Manual section 12.2.7, those compartments where access was unrestricted were searched first and those compartments which were locked, with restricted access were searched next. The internal search took approximately 3 hours after which the Master ordered all void spaces and ballast tanks to be searched. On completion of the search the Master was satisfied that the Electro Technical Officer was not on board the vessel.
- 5.1.2 The vessel altered course and sailed on a reciprocal course in an attempt to sail over the same ground whilst maintaining a good lookout by all available means in accordance with Emergency Preparedness and Training Manual sections 4.12 and 4.13. Additional lookouts where posted on the bridge to aid visual identification of a man in the water.
- 5.1.3 The weather was not favourable for a Man Overboard search despite relatively good visibility, with a moderate southerly wind of 11-21kts, small to moderate waves, numerous whitecaps and some spray, it could be considered extremely difficult to sight an object the size of an adult human in the water, even at relatively close range. As a perspective, the image taken below was taken on 28 May 2018 with a strong breeze between 16-20kts with numerous white caps visible in the foreground. At night the moon provided limited light while at 50% illumination. The current experienced in that region was set to the north west between 0.5 and 1.5kts and was taken into consideration when searching the area, in particular to the north of the datum which was used a reference point of the last known sighting.



Figure 4: View from bridge taken on 27 May 2018

- 5.1.4 The search plan implemented was based upon the last known sighting of the Electro Technical Officer on board, taking into account the time and distance travelled since the last known sighting. The Master formulated a plan to sail on a reciprocal course to the known position of the vessel at 1630 on 18 May 2018. This position was approximately 140nm to the north and at an average speed of 14kts would take nearly 10 hours to arrive. Although it could not be certain when the Electro Technical Officer went missing, all man overboard procedures where implemented immediately, with the exception of those relating to the immediate recovery of a man in visual range.
- 5.1.5 The following screen shots taken from the ECDIS playback show the vessel's route over the course of the three days between 19 and 21 May. The vessel's transit north and south along the previous track, maintaining a holding position during the hours of sunset and sunrise before continuing the search at first light. On average, the vessel covered approximately 80nm per day scouring the Gulf of Guinea for the missing Electro Technical Officer.



Figure 5: ECDIS screenshot of location of the vessel during the various stages of search; clockwise from top left: 0950(UTC+1) 19 May 2018, 1901(UTC+1) 19 May 2018, 0435(UTC+1) 20 May 2018 and 1637(UTC+1) 21 May 2018.

5.2 **External Communication and Assistance**

- 5.2.1 In accordance with the relevant sections of the Emergency Preparedness & Training Manual pertaining to external communications, the vessel notified MRCC Angola and MRCC Namibia via satellite phone, medium frequency (MF) and Digital Selective Calling (DSC) but did not receive a response. The only MRCC station to respond to the vessel was MRCC Cape Town who relayed the May Day message and maintained two-way communication via satellite phone throughout the search operation.
- 5.2.2 Despite multiple efforts by the vessel, MRCC Cape Town and JRCC Piraeus were the only coordination centres to acknowledge receipt with the vessel. MRCC Angola was the only search and rescue capable organisation within 200nm however as they did not respond to a request for assistance, no assistance was rendered to the vessel.

5.2.3 The vessel continued every hour to transmit on VHF Chanel 16 notifying all ships in the area that a search was taking place for a missing seafarer. Unfortunately, Seahero was the only vessel in the region and therefore the only vessel conducting a search.

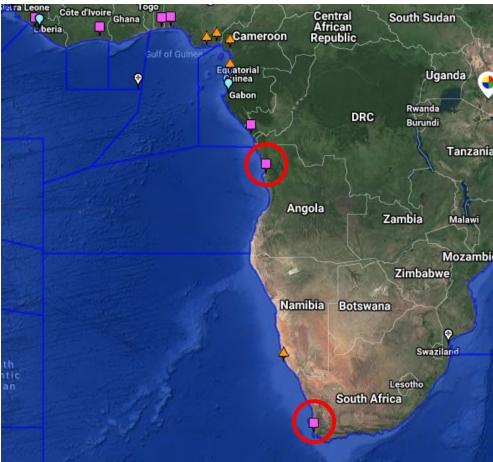


Figure 6: Location of MRCC Angola (top red circle) and MRCC Cape Town (bottom red circle)

5.3 **Human Element**

- 5.3.1 The Electro Technical Officer underwent familiarisation training on board in accordance with the Fleet Instruction Manual. Under the Safety and Quality Support System the following checklists were completed:
 - 1. Safety Familiarisation Check List
 - 2. Safety Training Check List
 - 3. Shipboard Familiarisation Check List

- 4. Familiarisation on Duties
- 5. Pre-Embarkation Safety Declaration
- 6. On-board Internet Usage Policy
- 7. Social Media Policy
- 5.3.2 No observations were made by the Chief Officer or Master when reviewing the checklists on checking for completeness and understanding.
- 5.3.3 All crew were entitled to a phone card which allows individuals to call external to the vessel from the privacy of their cabin or by use of the phone within the communal crew space. The calling card system is maintained by the 3rd Officer who keeps a record of those individuals who have purchased a calling card. The vessel does not keep a record of the calls made, only who has purchased a card. The Electro Technical Officer purchased one calling card on 17 May 2018.
- 5.3.4 The communications service provider was requested to provide the date and time of the last telephone call made by the Electro Technical Officer so as to assist in refining the search area however the communication service provider confirmed that no call was made after his last sighting on board.
- 5.3.5 The Electro Technical Officer would have also had access to the internet, however, it is not known how frequently the internet was accessed as internet usage is not monitored on board.
- 5.3.6 In accordance with the International Labour Organisation concerning hours of work and rest, it is confirmed that the Electro Technical Officer did not exceed the maximum permissible hours of work during any 24-hour period whilst on board for the 15-day period. Therefore, it is considered highly unlikely based on the evidence provided that the Electro Technical Officer was fatigued in any way leading up to his disappearance.
- 5.3.7 The Electro Technical Officer had spent the majority of his sea going career on board another vessel, the m.v. Seavoyager which is a Suezmax oil tanker. He was also familiar with the Suezmax oil tanker m.v. Seatriumph where he undertook one contract between March 2015 and July 2015, both vessels are managed by Thenamaris (Ships Management) Inc. The Master had worked with the Electro Technical Officer previously on board the Seatriumph between March 2015 and July 2015 and July 2015 and July 2015 and had made a point of referring to his work within his Seamans Book stating "*Good Performance*". The Electro Technical Officer was asked whether he would like to extend his contract on board. He was initially assigned to the vessel as a short-term relief for a period of one month. When asked by the Master whether he would like to extend to a full four months he accepted without delay. The Master spoke very highly of his work ethic and was pleased to have him serve on board the Seahero.

5.3.8 On board any Thenamaris Ships Management Inc. managed vessel, including Seahero, the crew have the right and access to the onboard complaint procedure. The aim of the complaint procedure is to provide a discreet and anonymous reporting system whereby any complaint can be treated fairly and without recourse to the reporting individual. A box is provided for any submissions which is accessed only by the Master. The Master confirmed that there were no complaints received between 04 May and 19 May 2018.



Figure 7: Onboard complaints box and instructions for use displayed alongside

CONCLUSIONS

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- 6.1 The investigation was not able to determine the location of the Electro Technical Officer who was last seen on board at 1630 on 18 May 2018. As the vessel has no external CCTV, it cannot be confirmed categorically what time or from which location on deck he disappeared.
- 6.2 A comprehensive search on board was conducted by the crew. Additionally, the Electro Technical Officer's cabin and personal possessions were searched, recorded and sealed providing no indication of intent or actions taken prior to his disappearance.
- 6.3 The vessel implemented man overboard procedures once it was determined that the Electro Technical Officer was not on board the vessel. The search conducted went above and beyond that recommended by MRCC Cape Town, who based their recommendation on the vast expanse of water and the lack of information regarding the time of disappearance. The Master, Officers and crew made every effort to find the individual, extending the search a further two days in order to increase the possibility of a successful recovery.
- 6.4 Despite multiple requests for assistance from the nearest Maritime Rescue Coordination Centre in Angola, no acknowledgment or support was provided. MRCC Cape Town remained in communication with the vessel throughout the operation but were unable to render an available asset to aid the search due to the distance between the search area and location of available assets.

RECOMMENDATIONS

Recommendation to the Operator

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7.1 No recommendations have been made to the Operator.

Recommendations to Search and Rescue Coordination Centre, Angola

7.2 It is recommended that the Maritime Rescue Coordination Centre of Angola investigate the reliability and operational effectiveness of the centre in order to provide reassurance to the maritime community operating in the region of the availability of this vital resource.

ACTIONS TAKEN

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No actions have been requested of Thenamaris Ships Management Inc.
