

Serious marine casualty

June 2023

**Marine casualty
Safety Investigation
Law 4033/2011 as amended
and applies**
(summary extract of art. 1.b,
4.1.a & 4.1.b)

The conduct of Safety Investigations into marine casualties or incidents is independent from criminal, discipline, administrative or civil proceedings whose purpose is to apportion blame or determine liability. The sole objective of the conduct of a safety investigation is to ascertain the circumstances that caused the marine accident or incident through analysis, to draw useful conclusions and lessons learned that may lead, if necessary, to safety recommendations or proposals addressed to parties or stakeholders involved in order to take remedial actions, aiming to prevent or avoid future marine accidents.

Points of Interest

- This Interim Report has been prepared by virtue of art. 16.2 Law 4033/2011, as applies (art. 14.2 Directive 2009/18/EC) as the full investigation report will not be published within 12 months of the marine accident date.
- The Interim Report has been published for the sole purposes of the safety investigation process with no litigation in mind and should be inadmissible to any judicial or other proceedings (administrative, disciplinary, criminal or civil) whose purpose is to attribute or apportion blame or liability.
- The Interim Report only aims to present a concise summary of the events occurred on the 13th of March 2021 that led to a serious marine casualty.
- The Interim Report does not constitute legal advice in any way and should not be construed as such.

HBMCI conducts the safety investigation of issued marine casualty as the leading Investigation State, with Marine Safety Investigation Unit of Malta (MSIU) and Marine Safety Investigations Department of Liberia as Substantial Interested States. The content of this Interim Report is based on currently available information and data collected and analyzed during the safety investigation process into captioned marine casualty. The completion of the procedure as defined in relevant legislation may reveal or identify new information, data or evidence and consequently cause changes or amendments in data provided by this Interim Report. All times quoted are local times (It) unless otherwise stated.

M/V KIVELI

KIVELI is a 22115 gross tonnage Bulk Carrier built in 1983 in Brazil. On 07 March 2021, at approximately 09:52, departed from Casablanca Morocco, with a crew complement of 24 seafarers, laden with 36.100 MT of fertilizer, heading to Varna, Bulgaria. At the time of the collision she was navigating approximately 9,5 nm NW off Kythira Island, keeping a course close to 075°, steaming at 11.7 knots and steering was in autopilot.

M/V AFINA I

AFINA I is a 8887 gross tonnage Bulk Carrier built in 2010 in China. On 09 March 2021, at approximately 17:15, departed from Novorossiysk Russia with a crew complement of 18 seafarers, laden with 12.069 M.T of iron briquettes, heading to Bilbao, Spain. Before the collision she had exited Elafonisos Strait at Kithira sea and was navigating in autopilot with course close to 250° and speed 11.9 knots.

Marine Accident Synopsis

At the time of the casualty OOW duties on both vessels were performed by the Chief Officers, who were assigned the 0400-0800, 1600-2000 navigational watch. During the interview process, it was reported that the OOW of KIVELI was alone on the bridge and on AFINA I a lookout AB was also posted on the bridge. However, the presence of the lookout AB on the bridge of AFINA I could not be confirmed by the analysis of the VDR data and audio.

KIVELI was navigating with the ECDIS in operation as well as the X-Band Radar/ARPA which was set at 6nm Range. Also, CPA/TCPA alarms were utilized and set to 0.5 nm/12 minutes respectively. AFINA I was navigating with the S-Band and X-Band Radars/ARPA in operation, both set at 6 nm range, while the CPA/TCPA alarms were not utilized.

At **05:39:30** the traffic at the casualty area consisted of a cluster of five vessels heading westbound and a cluster of three vessels that was navigating eastbound. AFINA I was the fourth of the westbound vessels following C/V COSCO SHIPPING SAGITTARIOUS, M/V ELAZIZ and M/V CAPE NATALIE and followed by RoRo OLYMPOS SEAWAYS. KIVELI was the second of the eastbound vessels, followed by C/V NORDAUTUMN and having C/V AS CARELIA at her starboard bow. **At that time** AFINA I was steaming with SOG:11,9 knots and COG:250,1° and the OOW acquired two targets, M/V KIVELI which was at a distance of approximately 8,5 nm and was due to a starboard to starboard passage with CPA/TCPA of approximately 0.23nm/22min and C/V AS CARELIA which was at a distance of approximately 6nm and was due to a port to port passage with CPA/TCPA of approximately 0.92nm/12min (Fig. 1).

At **05:47:47**, KIVELI was steaming with SOG:11,7 knots and COG:075,4° and the OOW acquired three targets, CAPE NATALIE which was at a distance of approximately 3 nm and was due to pass by her Starboard side with CPA/TCPA of approximately 0.52nm/7min, AFINA I which was at a distance of approximately 5,3 nm and was due to pass by her Starboard side with CPA/TCPA of approximately 0.64nm/14,5min and the OLYMPOS SEAWAYS which was overtaking AFINA I and was at a distance of approximately 6,4 nm and was due to pass by her Port side with CPA/TCPA of approximately 0.93nm/12min (Fig. 2)

At **05:47:57** CPA alarm for CAPE NATALIE was activated on KIVELI's ARPA, as CAPE NATALIE had altered her course 6° to starboard and the CPA reduced to less than 0,5nm. However, at 05:50 CAPE NATALIE had altered her course to Port for a clear passage from KIVELI's Starboard side and the CPA/TCPA alarm was canceled.

At **05:49**, while KIVELI was steaming with SOG:11,6 knots and COG:075,6° the alarm for AFINA I was activated on KIVELI's ARPA, as CPA/TCPA were reduced to 0,23nm/11,8min. At that time AFINA I was at a distance of 4,7nm (Fig.3).

At **05:55:57** KIVELI had cleared the starboard to starboard passage with CAPE NATALIE. Shortly before that time, the OOW of AFINA I had also acquired the target of NORDAUTUMN that was approximately 2.1nm abaft KIVELI's stern and was steaming eastbound with almost the same course with KIVELI.

At **05:56:20**, the distance between KIVELI and AFINA I was approximately 1,9nm and according to their navigational data they were due to a starboard to starboard passage with CPA/TCPA of approximately 0,27nm/5min. At that time the OOW of AFINA I started altering the course to starboard.

At **05:59:37** AFINA I OOW called KIVELI on VHF Ch. 16, by saying two times: "KIVELI, KIVELI, AFINA I". However, he did not receive any reply. **At that time** the distance of the two vessels was approximately 0,75nm. The OOW of KIVELI noticed the alteration of AFINA I course and at **05:59:40** disengaged the autopilot and put the rudder hard to port.

At **05:59:46** the AFINA OOW called KIVELI one more time on VHF Ch. 16, by saying "KIVELI, KIVELI, AFINA I". Seconds later, at approximately **06:00**, KIVELI's OOW replied: "I am altering my course to port now, I am altering my course to port now" and AFINA I OOW replied "No port side, no port side - Ok, ok, port side, port side." As KIVELI continued turning to port and AFINA I to starboard, at approximately **06:01** the two vessels collided at position Lat: 36° 22.346'N, Long: 022° 42.373' E. As a result of the collision the bow of KIVELI penetrated the port side of AFINA I at Cargo Hold No.4. KIVELI's bow sustained damages and her forepeak tank was flooded. Respectively, AFINA I sustained damages to Cargo Hold No.4, as well as to port side No.3 and No.4 Top Side and Double Bottom ballast tanks, which were flooded. No injuries or sea pollution was reported. Both vessels remained collided at the casualty area, until further assessment was carried out. On 14 March 2021 they were towed to Vatika anchorage, Neapolis and on 28 March 2021 they were safely separated. Later on they were towed to Perama Shipyard in Piraeus for repairs.

Investigation

The analysis of the evidence and information identified contributing factors related to compliance with COLREGs; Lookout; Bridge Resource Management (BRM); situational awareness and others as will be analyzed in the final investigation report.

Final safety Investigation Report

The analysis of the casualty is ongoing and the draft safety Investigation report is under preparation. When finalized it will be circulated to the involved and interested parties for consultation.



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FACTUAL INFORMATION

SHIPS PARTICULARS

Name	KIVELI
Flag	LIBERIA
IMO	8204731
Ship's type	BULK CARRIER
LOA	193.84 m
Gross Tonnage	22115 tons
Engine / Power	Sulzer/10625 KW at 105rpm
Construction	Steel
Year of built/shipyard	1983/EMAQ S.A –Brazil

Name	AFINA I
Flag	MALTA
IMO	9585015
Ship's type	BULK CARRIER
LOA	138,6m
Year of built / Shipyard	2010/ Zhoushan Penglai—China
Engine / Power	Wartsila /4050 KW at 600rpm
Construction	Steel

MARINE CASUALTY

Date & time	13/03/2021 at 06:01 LT
Type of marine casualty	serious marine casualty
Weather & environmental conditions	Clear-Visibility Good, West Wind 5-6 bf, Daylight
Location of casualty	Lat: 36° 22. 346'N / Long: 022° 42.373' E.
Damages to ships	KIVELI: bow, and forepeak tank / AFINA I: cargo hold No.4, TS and DBBT No.3 and 4.
Fatalities / injuries / pollution	None/None/None

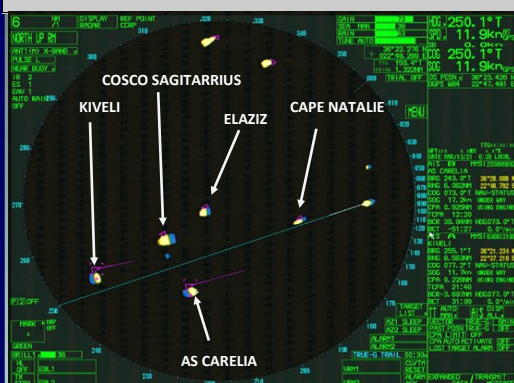


Figure 1: AFINA I ARPA Screen at 05:39.

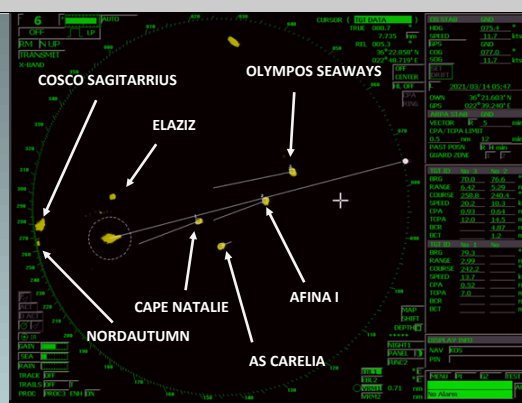


Figure 2: KIVELI ARPA Screen at 05:47.

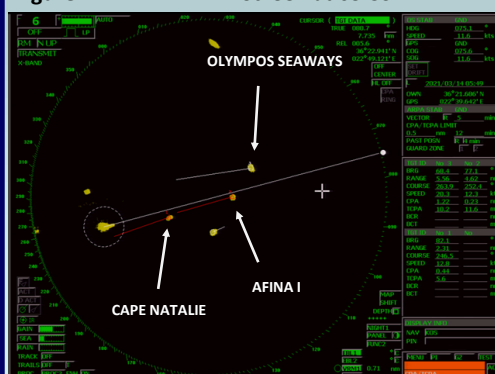


Figure 3: KIVELI ARPA Screen at 05:49.



Figure 4: The point of collision