



**REPUBLIC OF CYPRUS
MARINE ACCIDENT AND INCIDENT
INVESTIGATION COMMITTEE**

Investigation Report No: 4E/2018

Very Serious Marine Casualty

**Manoverboard fatality from “ELBTRADER”, in the Port of
Dublin - South Ireland, on 12/01/2018**



MAIC

Marine Accident and Incident Investigation Committee
Cyprus

Foreword

The sole objective of the safety investigation under the Marine Accidents and Incidents Investigation Law N. 94 (I)/2012, in investigating an accident, is to determine its causes and circumstances, with the aim of improving the safety of life at sea and the avoidance of accidents in the future.

It is not the purpose to apportion blame or liability.

Under Section 17-(2) of the Law N. 94 (I)/2012 a person is required to provide witness to investigators truthfully. If the contents of this statement were subsequently submitted as evidence in court proceedings, then this would contradict the principle that a person cannot be required to give evidence against themselves.

Therefore, the Marine Accidents and Incidents Investigation Committee, makes this report available to interested parties, on the strict understanding that, it will not be used in any court proceedings anywhere in the world.

This investigation was carried out as a joint investigation with (Portuguese Accident Investigation Authority) and (Ireland Accident Investigation Authority).

Contents

FOREWORD	I
LIST OF FIGURES	ERROR! BOOKMARK NOT DEFINED.
LIST OF ANNEXES.....	ERROR! BOOKMARK NOT DEFINED.
LIST OF ACRONYMS AND ABBREVIATIONS	ERROR! BOOKMARK NOT DEFINED.
1. SUMMARY OF THE MARINE CASUALTY	1
2. FACTUAL INFORMATION	3
2.1. ELB TRADER.....	3
2.1.1. <i>Ship Particulars</i>	<i>3</i>
2.1.2. <i>Voyage Particulars</i>	<i>4</i>
2.1.3. <i>Marine Casualty or Incident Information.....</i>	<i>4</i>
2.1.4. <i>Shore Involvement and Emergency Respons.....</i>	<i>4</i>
3. NARRATIVE	5
3.1. SEQUENCE OF EVENTS.....	5
4. ANALYSIS	11
5. CONCLUSIONS	20
6. RECOMMENDATIONS.....	21

List of Acronyms and Abbreviations

AB	Able Seaman
BAC	Blood Alcohol Content
C/E	Chief Engineer
C/O	Chief Officer
CoC	Certificate of Competency
GA	General Alarm
CPR	Cardio-Pulmonary-Resuscitation
DPA	Designated Person Ashore
DFT	Dublin Ferry Terminals
EOSP	End Of Sea Passage
ISM Code	International Management Code for the Safe Operation of Ships
Knots	Speed in nautical miles per hour
Lat.	Latitude
Long.	Longitude
LT	Local Time
m	Meter
MC	Management Company
MOB	Man-Over-Board
MT	Metric Ton
NM	Nautical Mile
OOW	Officer Of the Watch
OS	Ordinary Seaman
PSN	Position
RPM	Revolutions per Minute
SAR	Search And Rescue
2/O	Second Officer
SMC	ISM Safety Management Certificate
SMM	Safety Management Manual
SMS	Safety Management System
SOLAS	Safety of Life At Sea Convention
STCW95	International Convention on Standards of Training, Certification and Watch keeping for Seafarers 1978, as amended
S-VDR	Simplified -Voyage Data Recorder
VTS	Vessel Traffic Services
UTC	Universal Time Coordinated
VHF	Very High Frequency Radio
ZT	Zone Time

1. Summary

A fatality was investigated in which a visitor from another ship fell into the sea between the vessel and the berth when he attempted to jump over the bulwark instead of using the vessel's gangway.

In conducting its investigation, the Marine Accident Investigation Committee (MAIC), visited the ship in the port of Dublin, where, interviewed the crew members involved in the accident, reviewed events surrounding the accident and documents provided by the ship's management and performed analyses to determine the causal factors that contributed to the accident.

Accident Description

The M/V "ELBTRADER" departed from the port of Rotterdam, Netherlands on the 10th of January 2018 at 05:30 Hours LT. Destination Dublin (Ireland). Berthing on arrival in the port of Dublin at Dublin Ferry Terminals (DFT) Berth No.50 North, by starboard side alongside, on the 11th of January 2018 at 23:54 Hours LT (all fast). The weather was mild, slight winds, no fog, good visibility. Port Security Level 1.

On the 12/01/2018 at 02:30 Hours LT, the vessel was visited by the Master and the Chief Engineer of the M/V "SAMSKIP EXPRESS". At 05:42 Hours LT, when they were leaving the vessel, despite the vessel's watchman suggestion to use the gangway, both men jumped over the bulwark. The Chief Engineer fell into the water, within the gap between the vessel's starboard side hull and the quay. At 05:43 Hours LT, in the area where the Chief Engineer fell, crew members threw two Life-Rings into the water and ringed a "Monkey Ladder" and Life-Lines on the vessel's starboard bulwark. At 05:45 Hours LT, the General Alarm was sounded. Rescue Operation commenced. The emergency telephone number "112" was called for immediate assistance. Cargo Operations were suspended.

At 05:46 Hours LT, vessel's Rescue Team on Stand-By. At 05:49 Hours LT, the VTS Dublin was informed on VHF Channel 12 and was requested immediate assistance. At 06:00 Hours LT, Port / Coast Guard Rescue Team arrived on scene. Rescue Operation under control of Port / Coast Guard Rescue Team. At 06:20 Hours LT the Rescue Operation was completed. The Chief Engineer was transferred to Hospital ashore. Later, the Police informed the "SAMSKIP EXPRESS" command, that the Chief Engineer passed away. It was later confirmed by the Irish Coroner, (Hearing in the Coroner's Court, Dublin on 23/08/2018), that the cause of death was by drowning.

Conclusions

Direct Cause:

Inadequate Real-Time Risk Assessment: The Master and C/E of the "SAMSKIP EXPRESS" failed to adequately evaluate the risk associated with the jump over the bulwark and this faulty evaluation led to inappropriate decision-making and subsequent fall of the C/E in the gap between the ship and the quay.

Root Cause

Both ships leadership safety attitudes were the root cause of the accident.

Contributing Cause(s):

Due to the post mortem exam report was not available at the time of writing of the report, it could not be established, whether alcohol intoxication, could have been considered as a contributing factor to the accident.

The environmental conditions (Tide) in conjunction with cargo operations were a contributing factor to the accident.

A Work-Around Violation by hoisting up 3-4m and under-controlling the gangway was a contributing factor to the accident.

Inadequate supervision was a contributing factor to the accident.

A routine violation, not using the appropriate equipment for ship access by the visitors, was a contributing factor to the accident.

Wrong choice of action through false sense of security, was a contributing factor to the accident.

Lack of assertiveness by the Gangway Watchman was a contributing factor to the accident.

Recommendations

“ELBTRADER”

The Management Company of the “ELBTRADER”, by way of a fleet circular or other means, to stress the need to its crews for:

- Proper safety attitude.
- Proper assertiveness.
- Proper supervision.
- Proper gangway controlling.
- Using always the appropriate equipment (gangway) for ship access.

(Within 3 months)

“SAMSKIP EXPRESS”

The Management Company of the “SAMSKIP EXPRESS”, by way of a fleet circular or other means, to stress the need to its crews for:

- Using always the appropriate equipment (gangway) for ship access.
- Proper safety attitude.

(Within 3 months)

2. Factual Information

2.1. ELB TRADER



The “ELBTRADER”

2.1.1. Ship Particulars

Name of ship: **ELB TRADER**
IMO number: **9388534**
Call sign: **5BKJ4**
MMSI number: **212937000**
Flag State: **Cyprus**
Type of ship: **Container**
Gross tonnage: **8246**
Length overall: **139.00m**
Breadth overall: **22.39m**
Classification society: **DNV-GL**
Registered shipowner: **Contarga LTD Dublin**
Ship's company: **USC Barnkrug GmbH & Co KG**
Year of build: **2008**
Deadweight: **11174**
Hull material: **Steel**
Hull construction: **Single Hull**
Propulsion type: **Diesel**
Type of bunkers: **Marine Diesel**
Number of crew on ship's certificate: **11**

2.1.2. Voyage Particulars

Port of departure: **Rotterdam-Netherlands**
Port of call: **Dublin-Ireland**
Type of voyage: **International**
Cargo information: **Containers weighing 7,200MT**
Manning: **12**
Number of passengers: **0**

2.1.3 Marine Casualty or Incident Information

Type of marine casualty/incident:	Very Serious Marine Casualty
Date/Time:	12/01/2016 @ 05:00 Hours LT
Location:	Port of Dublin (Ireland)
Position (Latitude/Longitude) :	Lat. : 53° 21'N – Long. : 006°16'W
External and Internal Environment:	Sea State: Calm rippled, Wind: Light air, Night, Weather: Clear, Visibility: Very good
Ship operation and Voyage segment:	Cargo Operations
Human Factors:	Yes / Man-Over-Board
Consequences:	Death: 1

2.1.4. Shore authority involvement and emergency response

1. At 05:49 Hours LT, VTS Dublin was informed on VHF Channel 12. Asked for immediate assistance.
2. At 06:00 Hours LT, Port/Coast Guard Rescue Team arrived on scene.
3. At 06:00 Hours LT, Rescue Operation under control of Port/Coast Guard Rescue Team.
4. At 06:20 Hours LT, Rescue Operation completed. Chief Engineer was recovered dead.

3. Narrative

3.1. Sequence of Events

1. The Cyprus flag containership “ELBTRADER” departed from the port of Rotterdam, Netherlands on the 10th of January 2018 at 05:30 Hrs LT. She was loaded with containers weighing about 7,200MT. Draft Forward=7.30m, Draft Aft=7.40m. Destination Dublin, South Ireland.
2. On the 11th of January 2018 at around 23:00 Hrs LT the “ELBTRADER” arrived at Dublin approaches. End Of Sea Passage (EOSP).
3. At 23:54 Hrs LT: All fast starboard (stbd) side alongside Port of Dublin, Berth No.50 North. Port Security Level 1.
4. The Captain received a call from the Captain of the containership “SAMSKIP EXPRESS” which was moored bow to bow with the “ELBTRADER”. The Captain of the “SAMSKIP EXPRESS” invited him to visit his ship.

(The two Captains when at sea, used to speak over the VHF radio. They were not from the same place. The nationality of the Captain of the “SAMSKIP EXPRESS” is Ukrainian. The nationality of the Captain of the “ELBTRADER” is Lithuanian. They were communicating in the Russian language).

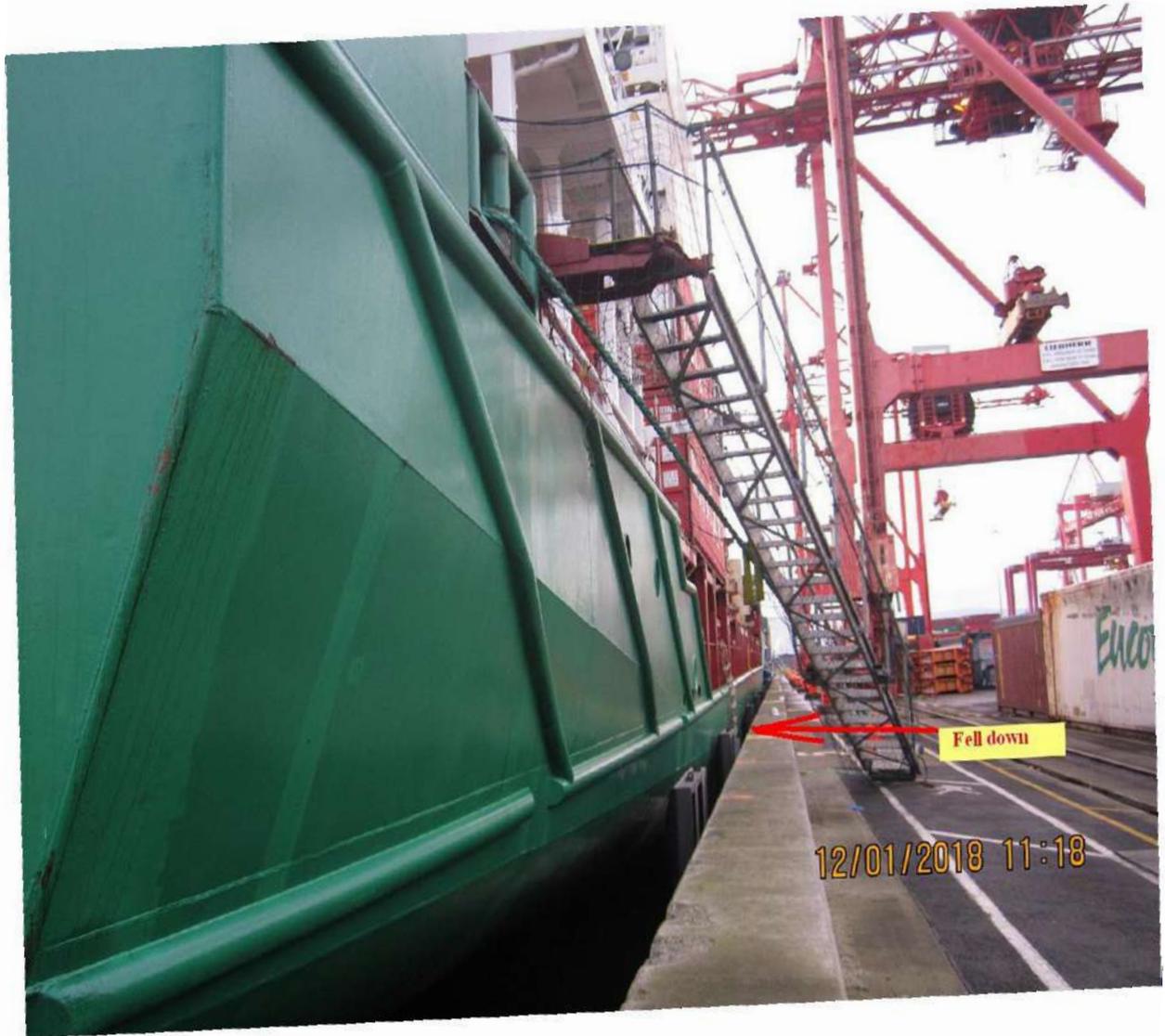
5. The Captain of the “ELBTRADER” informed the Second Officer (2/O), that he will go to the “SAMSKIP EXPRESS” to visit his friends. In about 2-3 minutes he left from the Bridge. He went to his cabin and changed clothes to visit the “SAMSKIP EXPRESS”.
6. The 2/O remained on the Bridge. He was on duty as Officer-Of-The-Watch (OOW), from 00:00 – 06:00. During his watch, he was occupied with:
 - paper work (filling up the Deck Log-Book, the Bell-Book, the GMDSS Log-Book, the Arrival Report, the EOSP Report, the Voyage Report, preparing the charts for the next voyage). He also updated the AIS status.
 - supervision of discharging operation from the Bridge.
7. When the Captain left from the vessel, the Ordinary Seaman (OS) / Gangway Watchman, informed the 2/O on the VHF, that the Captain went ashore.
8. The Captain of the “ELBTRADER” went to the “SAMSKIP EXPRESS”. When he arrived, was told by the Gangway Watchman (of the “SAMSKIP EXPRESS”), that the Captain (of the “SAMSKIP EXPRESS”) was in the Chief Engineer’s (C/E) cabin, so he went there. They had been socializing and discussing topics of common interest.
9. On 12/01/2018 at 00:20 Hrs LT, commenced discharging of containers from the “ELBTRADER”.

10. At about 02:00 Hrs LT, the 2/O who was still on the Bridge, asked on the VHF the OS (00-06) / Gangway Watchman, if the Captain returned to the vessel. The Gangway Watchman answered that he did not return. After that, the 2/O continued supervision of discharging from the Bridge and doing paper work.
11. At around 02:30 Hrs LT, the OS (00-06) / Gangway Watchman reported on the VHF: "Captain with his two friends on board" The 2/O said "OK". The 2/O did not see them when they got onboard. He did not see where in the ship they had gone. He did not know who they were.
12. The 2/O was on the Bridge until around 03:30 Hrs LT. At about 03:30 Hrs LT, the 2/O left from the Bridge.
13. He checked each deck, the Air Condition Room, the Emergency Generator Room and the Engine Room. He finished at 05:00 Hrs LT, and went in the Cargo Office (located at the Main Deck level), where he checked the labels of safety equipment. He finished in about 15-20 minutes and then went again on the Bridge, to check if everything is OK. After a few minutes he called the AB on watch and asked him if everything is OK. The AB on watch said that everything is OK. Then, at 05:40Hrs LT, he started filling-up the Log-Book (i.e. 20 minutes before the end of his watch).
14. The relieving OS (6-12) / Gangway Watchman, was readied some time before 6 o'clock, and when he got out from the stbd side aft accommodation door, saw the two visitors on the poop deck stbd side. He understood that the two visitors were waiting. He did not hear their conversation with the OS (00-06) / Gangway Watchman.
15. The gangway was hoisted about 3-4 metres over the quay (by the OS (00-06) / Gangway Watchman). Therefore, in order to prepare the gangway for the visitors to leave from the vessel, the OS (00-06) / Gangway Watchman told the relieving OS/ (6-12) / Gangway Watchman, to go on the quay to pull the gangway (with a rope which was attached at the lower platform of the gangway), in order to place it properly on the ground.
16. The OS (06-12) / Gangway Watchman, proceeded on the poop deck, stepped down via the stbd stairway to the Main Deck and climbed over the bulwark to the quay. (The bulwark was at the same level with the quay edge). At the same time, the OS (00-06) / Gangway Watchman was lowering the gangway, with the gangway's winch control.
17. When the OS (6-12) / Gangway Watchman proceeded to climb over the bulwark to the quay, the two visitors were still waiting at the Poop Deck, near the gangway's upper platform. Nevertheless, while he was proceeding, they stepped down via the stbd stairway to the Main Deck and at about 05:42 Hrs LT, they attempted to jump over the vessel's stbd bulwark to the quay. On jumping over the bulwark, one of them fell overboard, in the gap between the vessel and the quay (vessel's area of bay 32 stbd). The OS (6-12) / Gangway Watchman who was on the berth near the gangway's lower platform, did not see them when they jumped over the stbd bulwark.

18. While the OS (6-12) / Gangway Watchman was pulling the gangway's lower platform, heard someone shouting. He was the Captain of the "SAMSKIP EXPRESS". He did not understand what he was saying because it was not English.
19. The OS (6-12) / Gangway Watchman said to the OS (00-06) / Gangway Watchman "Man-Over-Board" (MOB) and then returned onboard the ship by climbing over the stbd bulwark.
20. At 05:43 Hrs LT, the AB (06-12) / Watch, reported to the 2/O on VHF that there was MOB (in Russian language). He was shouting like was in panic. The 2/O immediately went to the port side Bridge Wing. He couldn't understand what was happening. He thought that the AB (00-06) / Watch, may have fallen overboard, therefore he checked the seaside which was the port side (the vessel was moored stbd side alongside). He couldn't imagine that someone may have fallen at stbd side i.e. between the ship and the quay. He checked the port side and also aft. When he checked and didn't see anything, returned in the Bridge and asked the AB (6-12) / Watch "Where?" (in Russian). The AB (6-12) / Watch told him at stbd side, between the vessel and the quay.
21. The 2/O as soon as he got the information that the MOB was between the vessel and the quay, rushed to the Main Deck. After a few seconds the 2/O was on Main Deck in the area of bay 32 stbd side. Two Life-Rings were already in the water. The Captain of the "SAMSKIP EXPRESS" was sitting on the quay holding by his hand the ship's rail and shouting for help. The C/E's head was in the water. The OS (00 – 06) / Gangway Watchman was bringing a Monkey Ladder.
22. The 2/O ran to the Accommodation. He crossed the AB (6-12) / Watch and saw him bringing heaving lines. He went in the Cargo Office from where he called the Captain by the internal telephone. When he called him, said: "Captain we have MOB". The Captain asked "what??" and the 2/O repeated: "Captain we have Man-Over-Board". The Captain asked: "where??" The 2/O said "stbd side, between vessel and quay". The Captain ordered him to activate the General Alarm (GA). The 2/O said "OK" and ran upstairs to the Bridge. After a few seconds the 2/O was on the Bridge, together with the Captain. The 2/O activated the GA. While he was raising the GA, he started calling Ambulance at "112". From "112" asked the 2/O: "Do you need Ambulance?" The 2/O said "This is M/V ELBTRADER" we require Ambulance, we have MOB". From "112" asked "what is your location". The 2/O answered "Ferry Port, Aleksandra Road". The "112" asked: "what is your Terminal?" The 2/O said "Terminal 50 North". Then, from "112" said "OK, Ambulance is underway". In the meantime, the Captain called on VHF Ch.12 the Dublin Vessel Traffic Service (VTS), and requested immediate assistance.
23. The 2/O when finished conversation with '112', switched off the GA, took a Life-Jacket from the Bridge and rushed to the Main Deck. Few seconds later, he was at the scene of the accident. He saw that there were two Life - Rings in the water, and a Monkey Ladder was rigged over the stbd bulwark, near bay 32. The Captain of the "SAMSKIP EXPRESS" was in the water secured by Life-Line, without Life-Jacket, trying to save the Chief Engineer. (At that time, the 2/O didn't know that they were the Captain and the Chief Engineer of the "SAMSKIP EXPRESS". He knew that they were the Captain's friends).

The 2/O ordered the Bosun to prepare the Rescue Boat, and he put his Life-Jacket and entered into the sea via the Monkey Ladder. The Chief Officer (CO) followed him on the Monkey Ladder. The Captain of the “SAMSKIP EXPRESS” (who in the meantime went down to save his C/E), was keeping with his one hand the C/E and with the other hand the Monkey Ladder. The 2/O was on the Monkey Ladder keeping with his one hand the Captain of the “SAMSKIP EXPRESS” (from his jacket shoulder), and above the 2/O was the C/O keeping the 2/O.

24. The 2/O pulled the Captain of the “SAMSKIP EXPRESS” and lifted him up. Then the Captain of the “SAMSKIP EXPRESS” was able with the assistance of the C/O to climb the Monkey Ladder and go on the Main Deck. Then the 2/O went into the water (between the ship and the quay) and tried to keep the C/E’s head over the sea surface. AB (6-12) / Watch gave him a rope in order to pass it under the C/E’s armpits for pulling him up. He tried, but it was very difficult. After 2-3 efforts without success, he started going up to the Main Deck.
25. At the same time the Port/Coast Guard Rescue Team arrived on scene. One Port/Coast Guard Rescue Team member replaced the 2/O and went down via the Monkey Ladder. The Port/Coast Guard Rescue Team dropped a line, two of them jumped into the water, one of them was on deck. The two in the water put the line around the body of the C/E and the one on the deck heaved him up on the deck. The Port/Coast Guard Rescue Team applied First-Aid / Resuscitation to the C/E. After providing Resuscitation for a few minutes without success, the Port/Coast Guard Rescue Team put the C/E on a stretcher and transferred him to the Ambulance.
26. At 06:20 Rescue Operation completed. Later, the Police informed the “SAMSKIP EXPRESS” command, that the Chief Engineer passed away. It was later confirmed by the Irish Coroner, (Hearing in the Coroner’s Court, Dublin on 23/08/2018), that the cause of death was by drowning.



Vessels aft stbd side. Gangway's Upper and Lower Platform. Monkey Ladder at the point of fall.

Before the accident, the gangway was hoisted up. It was hanging 3-4m over the quay. The two visitors were waiting for a while, at the Poop Deck, near the gangway's upper platform.

At about 05:42 Hrs LT, they attempted to jump over the vessel's stbd bulwark to the quay. On jumping over the bulwark, one of them, fell overboard, in the gap between the vessel and the quay.



Fall down place indicated by arrow. A rope attached on the gangway's lower platform can be pulled for gangway's positioning on the quay.

4. Analysis

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

The following analysis is based on crew statements taken by MAIC Investigator when visited the ship in the port of Dublin, documents provided by the ship's management, and the Ireland's Coroner's report.

4.1. The Crew

4.1.1 The Chief Engineer of "SAMSKIP EXPRESS"

Certification

The C/E of "SAMSKIP EXPRESS", was licensed and qualified in accordance with the requirements of the International Convention on Standards of Training, Certification and Watch keeping (STCW) Convention as amended. He was holder of a Certificate of Competency as Chief Engineer / STCW-95 III/2 issued by Ukraine.

A lack of certification was not a contributory factor to the accident.

Physiological, Psychological, Psychosocial Condition

The C/E of "SAMSKIP EXPRESS", was born in Ukraine, on 31/03/1959. His height was 1.80m and his body weight was 72 Kg. His general appearance was normal. He was holder of medical certificate for service at sea. He was certificated as fit for duty as a Chief Engineer. His medical certificate was issued on 03/05/2017, with expiration date 03/05/2018 by the Medical Centre "Medexpress" in Ukraine.

There was no evidence to suggest that the physical, physiological, psychological, or psychosocial condition of the Chief Engineer of "SAMSKIP EXPRESS" was such that could have contributed to the accident. He was physically and mentally fit.

Alcohol impairment

At the time of writing this report, the Ireland's Coroner post mortem examination report had not yet been issued. Therefore, it cannot be stated whether the C/E was under the influence of alcohol. Nevertheless, the Master of the "ELBTRADER" stated that when the Master and the C/E of the "SAMSKIP EXPRESS" were in his cabin, he offered some drinks and snacks.

Due to the post mortem exam report was not available at the time of writing of the report, it could not be established, whether alcohol intoxication, could have been considered as a contributing factor to the accident.

Fatigue

Prior and on the day of the accident, the recorded hours of Work/Rest of the of the C/E of the “SAMSKIP EXPRESS” were in accordance with the requirements of MLC, 2006 and STCW 78 as amended.

Fatigue of the C/E of the “SAMSKIP EXPRESS” was not considered a contributory factor to the accident.

4.1.2 The Crew of “ELBTRADER”

Training and Certification

The “ELBTRADER” was manned with crew licensed, qualified and medically fit in accordance with the requirements of the International Convention on Standards of Training Certification and Watchkeeping (STCW) Convention as amended.

A lack of training and certification was not a contributory factor to the accident.

Manning level

At the time of the incident, the “ELBTRADER” was manned in excess of the Minimum Safe Manning Document (MSMD). The “ELBTRADER” had a crew of 12, whilst the MSMD requires 11.

A lack of manpower was not a contributory factor to the accident.

Alcohol Impairment

No alcohol tests of the “ELBTRADER” crew had been carried out after the incident.

Alcohol impairment of the crew of the “ELBTRADER”, was not considered a contributory factor to the accident.

Fatigue

Prior and on the day of the accident, the recorded hours of Work/Rest of the crew of the “ELBTRADER”, were in accordance with the requirements of MLC, 2006 and STCW 78 as amended.

Fatigue of the crew of the “ELBTRADER was not considered a contributory factor to the accident.

Organization on board

Shipboard Working Arrangements when vessel in port:

The scheduled daily work hours of the C/O, the 2/O, the two ABs and the two OSs, are on a 6 hour On / 6 hour Off rotation.

- Officer of the Watch (OOW) duties perform the C/O and the 2/O on a 6 hour On / 6 hour Off rotation.

- Watchkeeping duties on Deck, perform two ABs on a 6 hour On / 6 hour Off rotation.
- Gangway Watch duties perform two OSs on a 6 hour On / 6 hour Off rotation.

Therefore, one AB and one OS are on watch with the Second Officer (00-06) - (12-18) and one AB and one OS are on watch with the C/O (06-12) - (18-24).

4.2 The Ship

The “ELB TRADER” at the time of the accident, was classed with DNV-GL, and had valid certificates including ISM and ISPS certificates. The maintenance records indicated that she was maintained in accordance with existing regulations and approved procedures.

Accommodation ladder

The International Convention for the Safety of Life at Sea, (SOLAS), Chapter II-1, Regulation 3-9, Means of embarkation on and disembarkation from ships, require that a safe means of embarkation and disembarkation be provided to ships for use in port and during port related activities. It is the responsibility of the ship’s Master, to ensure that the means of access complies with the regulations. One such means of access is an accommodation ladder, securely attached to the ship to prevent overturning. Access between the ladder and the ship’s deck is via a platform, guarded by handrails and handholds.

The “ELBTRADER” was equipped with a common type of accommodation ladder (see photos above). This type of ladder is stowed on the ship’s deck by raising it to the horizontal position. The ladder then folds inwards into the vertical position and is secured in this position. When rigged, the accommodation ladder extends over and clear of the ship’s side and down to the quay. The angle of the accommodation ladder is controlled via a deck-mounted winch and wire rope attached approximately one-quarter of its length from its lower platform. The ladder is hinged at the upper end from a fixed or revolving platform, which is secured to the ship and supported to keep it horizontal when in use. The lower end platform is hinged and can be positioned at various angles and locked in place. Depending on the ship’s draft, the lower platform might not be parallel to the water’s surface unless it has been adjusted. The ladder is suspended on the wire rope when deployed and its lower end is free to move to adjust for the ship’s movement. This potential for movement makes accommodation ladders an unstable platform, which can easily shift due to the ship’s movement or a person moving on the ladder. This instability is greater when the ladder is not firmly resting on a quay.

When stowed, the accommodation ladder side rails lay flat along the ladder. During deployment one or more crew walk out onto the upper platform and along the ladder to manually raise, adjust and secure the side rails, ropes and safety nets.

When a ship is alongside a quay, the accommodation ladder is rigged and the lower end is securely landed on the quay. It is then a safe means of access to and from the ship.

A safe means of embarkation and disembarkation were provided, fit for purpose, complying with SOLAS regulation 5, the IMO Guideline MSC.1/Circ.1331 and were properly maintained. Gangways and accommodation ladders were considered as lifting equipment and were tested and recorded as such. According to SMM-Company Forms / Maintenance Plan / Deck Department (Doc. No.:CF 02-07, Page 3 of 4, Ed.4):

Gangways (complying with IMO Guideline MSC.1/Circ.1331 and A&B Info Letter 004/2010)		
Inspection of Gangways, Undersides Stanchions, Guard Ropes, Safety Nets, Fall Wires	Monthly Entry in Log Book	30/01/2018
Greasing of Moving Parts and Greasing Points as applicable	Monthly	19/01/2018
Change of Fall Wires as applicable	Five Yearly	19/03/2019 – 26/03/2019

There was no evidence of any defect or malfunction of the ship including its gangway, that could have contributed to the accident.

4.3 The Environment

External environment:

The weather conditions at the time of the accident were mild and the visibility was good. Sea State: Calm rippled, Wind: Light air, Night, Clear Weather. Vibrations may have been caused by the lowering-sitting / raising-hoisting of containers. There was no evidence, of a sudden and unexpected extreme vibration which could have affected the actions of the C/E. There was no evidence of any sudden movements of the vessel which could have caused the C/E slipping and falling when jumped over the stbd side bulwark.

Tides at North Wall, Dublin, during vessel's stay in the port were as follows:

Thursday 11/01/2018 High Water: Time 19:50 Tide Height 3.59
FALLING TIDE - Tidal Range: 3.59m – 1.32m = 2.27m
Friday 12/01/2018 Low Water: Time 01:44 Tide Height 1.32
RISING TIDE - Tidal Range: 3.58 – 1.32 = 2.26m.
For 3.30 hours, (At 05:15 when the accident occurred (05:15-01:44=3.31), Tide rises 1.20m.
Friday 12/01/2018 High Water: Time 08:25 Tide Height 3.58

On Thursday 11/01/2018 the High-Water Time was at 19:50. The Tide's Height was 3.59m. The tide was falling until Friday 12/01/2018, when the Low Water's Time was at 01:44. The Tide's Height at Low Water was 1.32m. Therefore, the Tidal Range was $3.59\text{m} - 1.32\text{m} = 2.27\text{m}$.

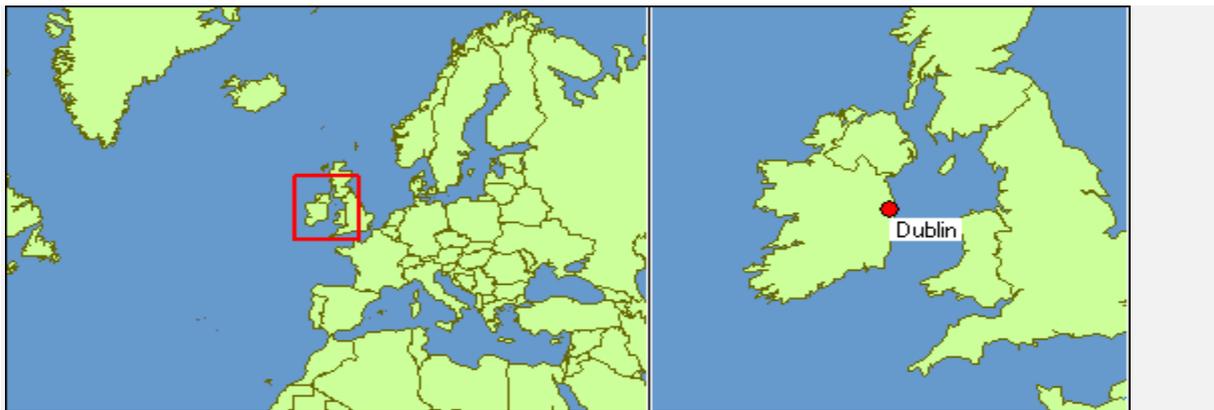
Then, the tide was rising until Friday 12/01/2018, when the High Water was at Time 08:25. The Tide's Height was 3.58m. Therefore, the Tidal Range was $3.58 - 1.32 = 2.26\text{m}$.

During the time period from 01:44 until 08:25 (= 6.41hours), the Tide rises 2.26m. For 3.30 hours, (At 05:15 when the accident occurred (05:15-01:44=3.31), rises 1.20m.

The range of the tide was approximately one foot per hour. It was occurring in conjunction with the change in draft and trim, caused by cargo operations.

Continuous monitoring and necessary adjustments should and could had been made by the OS / Gangway Watchman. He could adjust the gangway every half an hour, without needing assistance from the AB on watch. Nevertheless, he opted to hoist the gangway 3-4m over the berth. When the need arose to lower it, the AB of the watch was required to go to the berth to heave the gangway's rope which was fixed on the lower platform, in order to properly place the gangway on the berth.

The environmental conditions (Tide) in conjunction with cargo operations were a contributing factor to the accident.



Location: Republic of Ireland, UK/Eire, Latitude: $53^{\circ} 20' 56 \text{ N}$ – Longitude: $6^{\circ} 13' 49 \text{ W}$

The port of Dublin, located on the Irish east coast, is the main port of the Republic of Ireland. Located in the heart of Dublin City, at the hub of the national road and rail network Dublin Port is a key strategic access point for Ireland and in particular the Dublin area.

Dublin Port handles almost 50% of the Ireland's trade, two thirds of all containerised trade and is the largest of the three base ports on the island of Ireland, the others being Belfast and Cork. Dublin Port also handles over 1.76 million tourists through the ferry companies operating at the port and through the cruise vessels calling to the port.



Port of Dublin, Dublin Ferry Terminals (DFT) Berth No.50 North.

4.4 Safety Management

Ship's Safety Management Manual

According to the ship's Safety Management Manual (SMM), Section 7. Shipboard Operations / 7.2.1 Gangway/3.2 Gangway Duty:

Quote

The Gangway Duty has to

- Control the access to the ship according to the rules in ISPS Code and Ship Security Plan
- Keep the visitor logbook updated
- Inform the duty officer via VHF about any incidents
- Constantly watch the gangway, the motion of the ship, the change of tides, etc. and call duty officer whenever a change of gangway position seems necessary.

Unquote

ILO code of practice

The (Ratification) Law of the Republic of Cyprus for the Maritime Labour Convention 2006 (Law of 2012 1 Law 6(III)/2012), refers to the ILO Code of Practice “Accident prevention on board ship at sea and in port”.

According to the ILO code of practice “Accident prevention on board ship at sea and in port” Chapter 8. Safe access to ship:

Means of access to ship

- There should be a safe means of access between any ship and any quay.
- Access should generally be by an accommodation ladder or gangway which is appropriate to the deck layout, size, shape and maximum freeboard of the ship.
- All access arrangements should be supervised at all times, either by seafarers or by shore personnel, particularly in ports which have large tidal ranges.
- The accommodation ladder or gangway should be so constructed that ordinary changes in the ship's draught or height above the quay can be easily accommodated.
- Access equipment should be placed in position promptly after the ship has been secured and remain in position while the ship is secured.
- Seafarers should use only the appropriate equipment for ship access.

Comments:

According to the ILO Code of Practice, the means of access should be inspected to ensure that it is safe to use after rigging. There should be further checks to ensure that adjustments are made when necessary due to tidal movements or change of draft, trim and freeboard. Guard ropes, chains, etc. should be kept taut at all times and stanchions should be rigidly secured.

Also, according to the ship's SMM, the Gangway Duty i.e. the OS Gangway Watchman, should: Constantly watch the gangway, the motion of the ship, the change of tides, etc. and call the Duty Officer whenever a change of gangway position seems necessary.

The Gangway Duty, by hoisting up 3-4m and by under-controlling the gangway, violated the above-mentioned requirements. He performed a Work-Around Violation, i.e., the consequences and risks of violating the correct procedure was determined by him, to be the best course of action.

A Work-Around Violation by hoisting up 3-4m and under-controlling the gangway was a contributing factor to the accident.

Neither specific instructions had been given to him regarding the rigging and grounding on the quay nor anything relevant was written in the Book “Special Standing Orders from the Master/Chief Engineer”. Instead, the following specific instructions had been written in the said Book after the accident (on the 13/01/2018) by the Master: “Instruct and control deck watchman at port gangway must always be properly rigged and grounded on the quay. Gangway must be permanently attended.

Do not allow anybody pass the ship over board, if watchman necessary go for lashing cargo, Duty Off. must substitute him. Keep watch on Ch.75. c/c No F07.210 to be completed.”

Therefore, it is concluded that the violation was condoned by his supervisors/ship management. Consequently, inadequate supervision was also a contributing factor to the incident.

Inadequate supervision was a contributing factor to the accident.

➤ Seafarers should use only the appropriate equipment for ship access.

When suitable access equipment is provided from the ship, any person boarding or leaving the ship shall use only that equipment. The Master and C/E of the “SAMSKIP EXPRESS” should have made use of the ship’s gangway. They committed the same violation twice, when they boarded the ship and when they were leaving. The same violation had been committed twice by the Master of the “ELBTRADER”, when he left from his ship and again when he returned together with the Master and C/E of the “SAMSKIP EXPRESS” (according to the statement of the 2/O of the “ELBTRADER”). The fact that the Master of the “ELBTRADER” as well as the AB (6-12) committed the same violation, constitutes a routine/widespread violation that was not routinely disciplined and that it was condoned by the ship’s management (the Master). The violation was not based on a risk assessment for the specific situation. Therefore, it was a contributing factor to the accident, a Routine Violation, i.e. intentionally, deliberately and willfully they disregarded the normal procedure to use only the gangway (appropriate equipment for ship access), by following an unofficial procedure (to jump over the bulwark) that was considered by them, as the best course of action.

A routine violation, not using the appropriate equipment for ship access by the visitors, was a contributing factor to the accident.

The Master and C/E of the “SAMSKIP EXPRESS” have been waiting at the Poop Deck, near the gangway’s upper platform for a while, until the OS Gangway Watchman lower the gangway (with the winch control) which was hoisted 3-4m over the quay. In the meantime, the OS (06-12) / Gangway Watchman, proceeded on the poop deck, stepped down the stbd stairway to the Main Deck and climbed over the bulwark to the quay. Nevertheless, while he was proceeding, they (The Master and C/E of the “SAMSKIP EXPRESS”) stepped down the stbd stairway to the Main Deck and then attempted to jump over the vessel’s stbd bulwark to the quay. On jumping over the bulwark, one of them fell overboard, in the gap between the vessel and the quay. Through false sense of security, the Master and C/E of the “SAMSKIP EXPRESS” selected the wrong course of action. The action chosen, was not based on risk assessment for the specific situation, but on a false sense of security. Therefore, wrong choice of action was a contributing factor to the accident.

Wrong choice of action through false sense of security, was a contributing factor to the accident.

After they have made the wrong choice of action, the Master and C/E of the “SAMSKIP EXPRESS” failed to adequately evaluate the risk associated with the jump over the

bulwark (Inadequate Real-Time Risk Assessment). This faulty evaluation led to subsequent fall of the C/E in the gap between the ship and the quay, which resulted in his drowning.

Inadequate Real-Time Risk Assessment was the immediate cause of the accident.

Assertiveness by the Gangway Watchman: The low rank tiny Filipino Gangway Watchman, failed to show persistence vis-a-vis the high rank Master and Chief Engineer of the “SAMSKIP EXPRESS” to wait until lowering and appropriate placement of the gangway.

Lack of Assertiveness by the Gangway Watchman was a contributing factor to the accident.

The Master of the “ELBTRADER” as well as the AB (6-12) jumped over the bulwark. The Master and Chief Engineer of the “SAMSKIP EXPRESS” committed the same violation, first time when they boarded the vessel with the Master of the “ELBTRADER” and then when they were leaving. This routine/widespread violation was condoned by the “ELBTRADER” management (the Master of the “ELBTRADER”). It was also condoned by the “SAMSKIP EXPRESS” management (The Master and Chief Engineer of the “SAMSKIP EXPRESS”).

Attitudes of ship’s leadership, set ship / organizational values (culture) that allow unsafe acts. Therefore, both ships leadership safety attitudes were the root cause of the accident.

Both ships leadership safety attitudes were the root cause of the accident.

5. Conclusions

Direct Cause:

(The immediate events or conditions that caused the accident)

Inadequate Real-Time Risk Assessment: The Master and C/E of the “SAMSKIP EXPRESS” failed to adequately evaluate the risk associated with the jump over the bulwark and this faulty evaluation led to inappropriate decision-making and subsequent fall of the C/E in the gap between the ship and the quay, which resulted in his death by drowning.

Root Cause:

(The causal factor(s) that, if corrected, would prevent recurrence of the accident)

Both ships leadership safety attitudes were the root cause of the accident.

Contributing Cause(s):

(An event or condition that collectively with other causes increases the likelihood of an accident but that individually did not cause the accident)

Due to the post mortem exam report was not available at the time of writing of the report, it could not be established, whether alcohol intoxication, could have been considered as a contributing factor to the accident.

The environmental conditions (Tide) in conjunction with cargo operations were a contributing factor to the accident.

A Work-Around Violation by hoisting up 3-4m and under-controlling the gangway was a contributing factor to the accident.

Inadequate supervision was a contributing factor to the accident.

A routine violation, not using the appropriate equipment for ship access by the visitors, was a contributing factor to the accident.

Wrong choice of action through false sense of security, was a contributing factor to the accident.

Lack of assertiveness by the Gangway Watchman was a contributing factor to the accident.

6. Recommendations

“ELBTRADER”

The Management Company of the “ELBTRADER”, by way of a fleet circular or other means, to stress the need to its crews for:

- Proper safety attitude.
- Proper assertiveness.
- Proper supervision.
- Proper gangway controlling.
- Using always the appropriate equipment (gangway) for ship access.

(Within 3 months)

“SAMSKIP EXPRESS”

The Management Company of the “SAMSKIP EXPRESS”, by way of a fleet circular or other means, to stress the need to its crews for:

- Using always the appropriate equipment (gangway) for ship access.
- Proper safety attitude.

(Within 3 months)

