



**Bundesstelle für Seeunfalluntersuchung**  
**Federal Bureau of Maritime Casualty Investigation**  
Federal Higher Authority subordinated to the Federal Ministry  
of Transport and Digital Infrastructure

## **Interim Investigation Report**

**Very Serious Marine Casualty 452/19**

**Accident with subsequent loss of life  
on board the SAJIR  
in the roadstead off Ningbo (China)  
on 19 December 2019**

18 December 2020

Pursuant to the second sentence of Article 28(1) of the Law to improve safety of shipping by investigating marine casualties and other incidents (Maritime Safety Investigation Law – SUG) in conjunction with the second sentence of Article 14(2) of Directive 2009/18/EC of the European Parliament and of the Council of 23 April 2009 establishing the fundamental principles governing the investigation of accidents in the maritime transport sector, the Federal Bureau of Maritime Casualty Investigation (BSU) publishes an interim investigation report within a period of 12 months of a very serious or serious marine casualty if it is not possible to complete the corresponding investigation report within that period.

This interim investigation report should not be used in court proceedings or proceedings of the Maritime Board. Reference is made to Article 34(4) SUG.

The German text shall prevail in the interpretation of this interim investigation report.

Issued by:  
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# 1 FACTUAL INFORMATION

## 1.1 Photograph



Figure 1: Container ship SAJIR

## 1.2 Ship particulars

Name of ship:	SAJIR
Type of ship:	Container ship
Flag:	Federal Republic of Germany
Port of registry:	Hamburg
IMO number:	9708784
Call sign:	DIGO2
Owner (according to Equasis):	NF Shipping Maritime 3 Ltd.
Shipping company:	Hapag-Lloyd AG
Year built:	2014
Shipyard:	Hyundai Heavy Industries Co., Ltd (South Korea)
Classification society:	DNV GL
Length overall:	368.52 m
Breadth overall:	51 m
Draught (max.):	15.50 m
Gross tonnage:	153,148
Deadweight:	149,360 t
TEU:	14,500
Engine rating:	54,900 kW
Main engine:	1 Hyundai MAN B&W 9S90ME-C10 nine-cylinder two-stroke diesel engine
(Service) Speed:	21 kts
Hull material:	Steel
Hull design:	Double hull

Minimum safe manning: 17  
 Miscellaneous: 10 sister ships

### 1.3 Voyage particulars

Port of departure: Ningbo (China)  
 Port of call: Ningbo (China)  
 Type of voyage: Merchant shipping/  
 international  
 Cargo information: Unladen  
 Manning: 27  
 Draught at time of accident:  $D_f = 4.90 \text{ m}$ ,  $D_a = 7.70 \text{ m}$   
 Pilot on board: No  
 Number of passengers: None

### 1.4 Marine casualty or incident information

Type of marine casualty: Very serious marine casualty – crew member fell from a height into the cargo hold with subsequent loss of life  
 Date, time: 19/12/2019, 1700  
 Location: Xiashimen (roadstead off Ningbo)  
 Latitude/Longitude:  $\phi 29^\circ 44.4'N \lambda 122^\circ 31.5'E$   
 Ship operation and voyage segment: At anchor in the roadstead  
 Place on board: Cargo hold 9  
 Human factors: Yes  
 Consequences: Death of a crew member

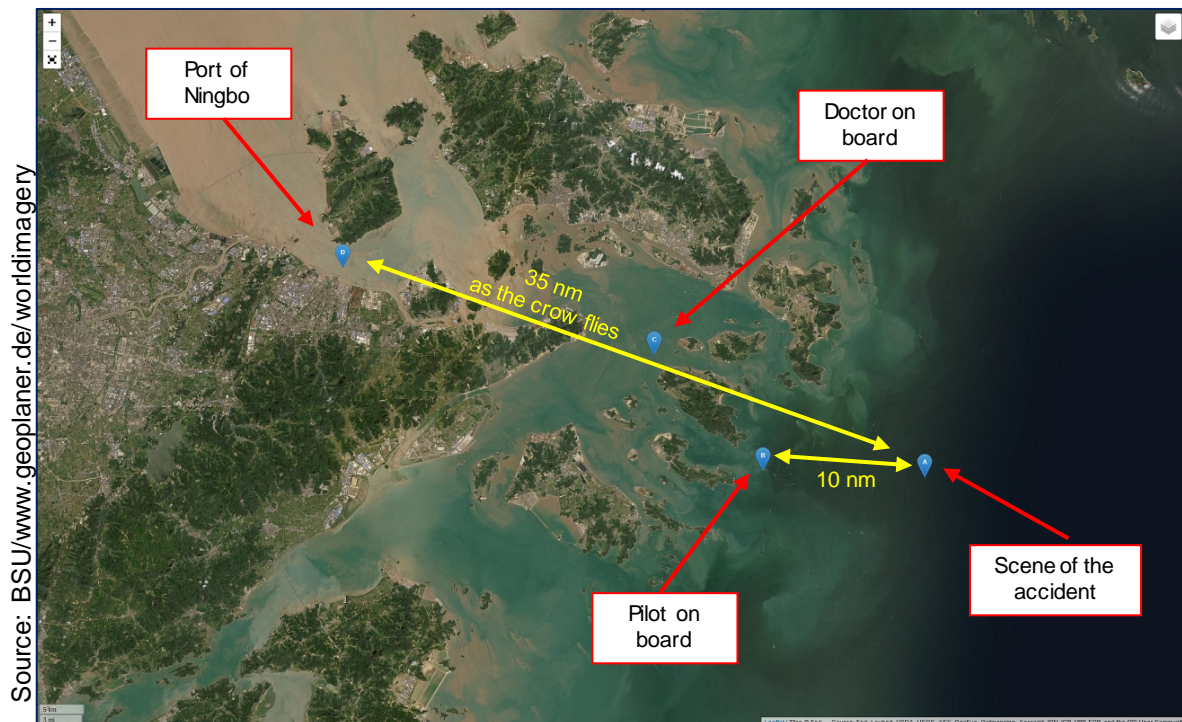


Figure 2: Scene of the accident and distances

## 1.5 Shore authority involvement and emergency response

Agencies involved:	TMAS Germany/Medico Cuxhaven, MRCC <sup>1</sup> Bremen, MRCC Beijing, Vessel Traffic Service Ningbo, shipping agent in Ningbo, ship to transfer emergency doctor, BG Verkehr (Prevention Division). <sup>2</sup>
Resources used:	Equipment for illuminating the scene of the accident. Lines and spinal board <sup>3</sup> to recover and transport the fallen crew member from the cargo hold to the ship's sick bay. <i>Inter alia</i> , an oxygen mask, oxygen, morphine and defibrillator in the ship's sick bay. Satphone and VHF marine radio (working channels) for requesting the emergency doctor and medical consultation, in particular.
Actions taken:	The crew took charge of first aid at the scene of the accident, transport to the ship's sick bay and emergency care until death with the support of TMAS Germany/Medico Cuxhaven. A doctor established the death officially.

A number of crew members took up the offer of professional care and treatment as a precaution against post-traumatic stress disorder.

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<sup>1</sup> MRCC: Maritime Rescue Coordination Centre.

<sup>2</sup> BG Verkehr: German Social Accident Insurance Institution for Commercial Transport, Postal Logistics and Telecommunication.

<sup>3</sup> The spinal board (also referred to as a *Miller Board* or *backboard*, depending on manufacturer) is an aid for rescuing people who have had an accident with possible spinal injury.

## 2 SUMMARY

On 19 December 2019, the container ship SAJIR was at anchor in ballast in the roadstead about 10 nm off the pilot transfer position at Ningbo (China).

A bosun and two deck ratings inspected the empty cargo holds and removed any objects that could cause an obstruction when loading containers. At about 1700<sup>4</sup>, the bosun was in cargo hold 9 and fell some 8 m from the enclosure of part of the engine room onto the floor of the cargo hold, suffering life-threatening injuries due to the impact.

Despite the proximity to an international port, the crew had to conduct the ensuing emergency management largely without external support. It immediately administered first aid at the scene of the accident, provided transport from the scene of the accident to the ship's sick bay under difficult conditions and took charge of emergency care with the support of the telemedical maritime assistance service in Cuxhaven (TMAS Germany/Medico Cuxhaven). Despite the best possible medical care on board, the bosun succumbed to his serious injuries at around 2040.

The emergency doctor arrived on board at 2140 some 4.5 hours after the master had made a corresponding request without undue delay but could only record the time of death.

The BSU began its investigation at the earliest possible moment and has largely completed it.

The fall from a height was caused by an unsecured access point to an unlit cargo hold. However, as with comparable ships, a risk of falling from a height does prevail there for reasons of ship design.

It was not possible to establish why the bosun entered this cargo hold without appropriate personal protective equipment despite his professional experience. The fatal occupational accident was made all the more tragic by the fact that inspecting the cargo hold would not have been absolutely necessary.

It was not possible to establish why the emergency doctor arrived on board so late. Responsibility for medical care therefore remained with the master and attending crew members until the death of the bosun.

The crew benefited from the ship's well-equipped sick bay, the master and deck officers' excellent medical training, as well as the medical advice provided by TMAS Germany/Medico Cuxhaven. In particular, the defibrillator facilitated the emergency medical care administered by the officers working in the ship's sick bay.

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<sup>4</sup> All times shown in this report are UTC + 8 hours and correspond to local mean time in Ningbo.

The ship's operator analysed the accident. As a result, all areas of the SAJIR and other ships in the fleet where a comparable risk of falling from a height prevailed and no markings or barriers previously existed were secured accordingly.

A comparable fatal accident has already occurred within the BSU's area of responsibility once before in 2014. The BSU concluded at the time that such accidents could not be ruled out completely<sup>5</sup>.

In the current investigation the following aspects are still being considered:

- reduction of comparable hazards on every ship if possible;
- support for the ship's command of any ship flying the flag of the Federal Republic of Germany when an emergency report is made via MRCC Bremen;
- dissemination of experience with the medical equipment, in particular with regard to the rescue basket, the defibrillator and the German *Medizinisches Handbuch See* [manual on medical care at sea];
- further development of the international minimum standards for qualifying masters and officers in medical care, and
- regular information to ship operators and crews on events focusing on the prevention of post-traumatic stress disorder.

The investigation report containing an analysis, conclusions and safety recommendations is currently being prepared. Interested parties will be given the opportunity to comment before publication.

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<sup>5</sup> See Investigation Report 272/14 on the fatal accident on board the MAERSK SURABAYA on 1 September 2014 off Shanghai. Published 28 August 2015.