



Bundesstelle für Seeunfalluntersuchung
Federal Bureau of Maritime Casualty Investigation
Bundesoberbehörde im Geschäftsbereich des Bundesministeriums
für Verkehr, Bau- und Wohnungswesen

Summary

Investigation Report 183/02

2 June 2003

Very serious casualty:

Sinking of the Fishing Vessel “IRKA” – Ort 6

on 28 November 2002 nearby Fehmarn

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1 Summary of the maritime casualty

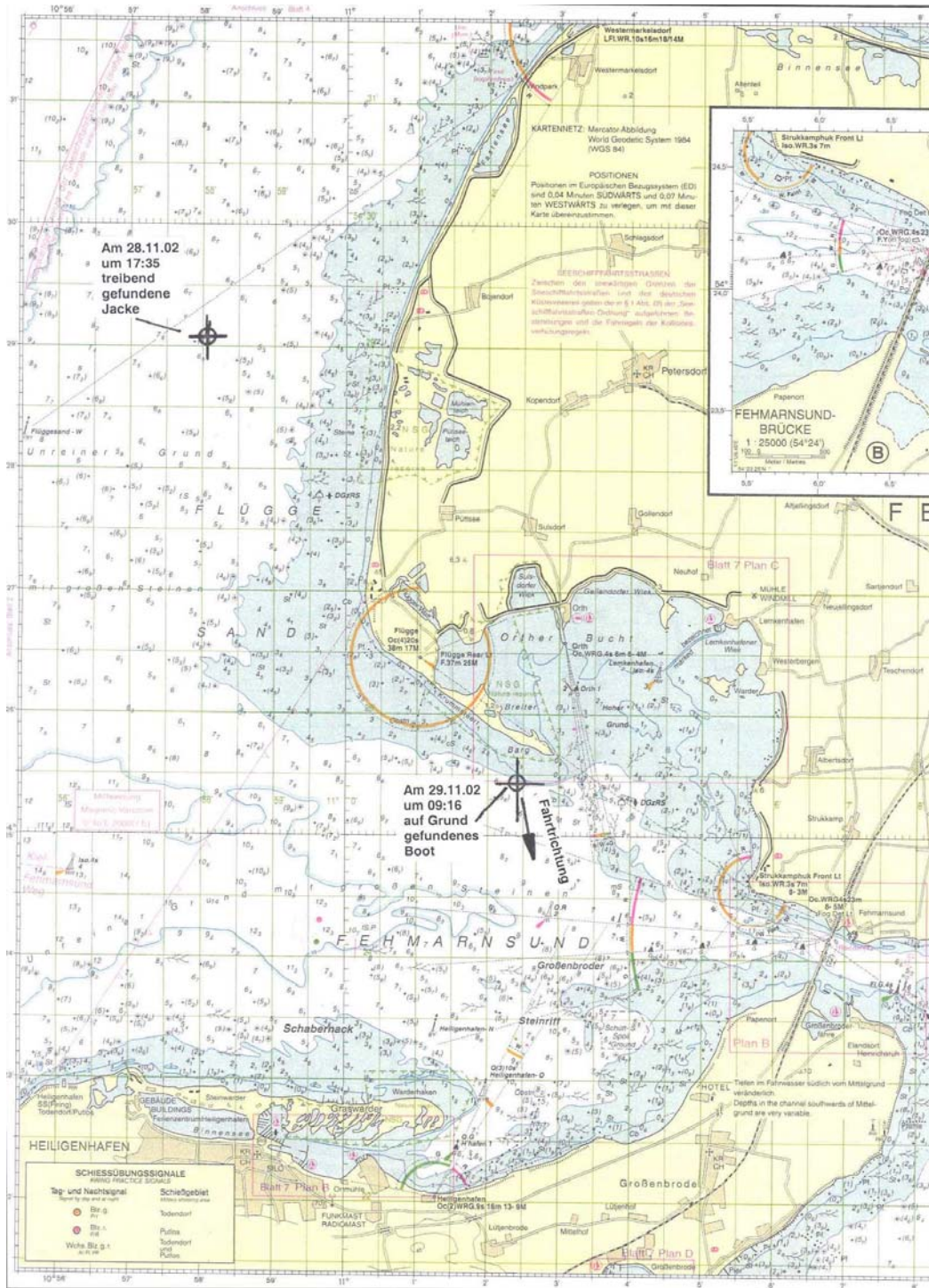
On 28 November 2002 at about 15.35 h MRCC Bremen launched the search measure for the missing fishing vessel "ORT 6". The vessel was crewed by the owner, a small fisher from Grossenbrode. On 29 November 2002 at about 09.16 h a boat was discovered on the bottom of the sea approx. 0.4 sm south of the land tip of the nature conservation zone Krummsteert and police divers were able to identify the boat as the fishing boat being searched for. The fisher was not to be found.

On 10 April 2003 at about 07.00 h a corpse was found in the water in the Lübeck Bay on the beach of Niendorf, Baltic Sea, during beach cleaning work. The forensic examination revealed that the corpse was that of the missing fisherman.

2 Scene of the casualty

Nature of the incident : Very serious casualty

Date : 28 November 2002, approx. 02.58 h



3 Vessel particulars and vessel history

3.1 Vessel particulars “ORT 6”

Name of vessel	IRKA
Port of registry	Orth auf Fehmarn
Nationality/Flag	German
Fisheries call signal	ORT 6 ex LAB 11
International call letters	DF 5139
Type of vessel	Small fishing vessel, open craft
Crew	1 person
Classification/Authorisation	See-Berufsgenossenschaft (German Mariners' Association)
Sailing Permit Certificate	Part-time professional fishing in max. 1 sm distance from the coast. Valid until 18 November 2003
Year built	1983
Building yard	E. Bredgaard in Nystedt – Denmark
Construction material	GRP
Type designation	Danjolle 18.5 feet
Length over all	5.98 m
Width over all	2.30 m
Height	1.02 m
Minimum freeboard	0.45 m
Engine rating	18 kW
Propeller	Fixed propeller
Steering system	Hydraulic with check-back
Miscellaneous	The vessel has a fish well and is equipped for net fishing



3.2 Vessel history

The vessel was purchased in 1985 from the former owner in Denmark as an open boat without superstructures and with a 10 HP outboard engine. Later the wheelhouse, a built-in engine, a hydraulic net winch and two automatic electric bilge pumps were installed. The former owner had used the vessel for approx. 10 years without any problems until the vessel was sold to its present owner on 23 November 1998. The vessel was inspected regularly by the See-BG (German Mariners' Association).

4 Course of voyage/course of casualty

The Fishing Vessel "IRKA", crewed by the 47-year-old Master and Owner, left the port of Orth to lift up nets at approx. 21.30 h on 27 November 2002. The Master reported this in a short message sent (SMS) by mobile phone to a friend.

Between 24.00 h and 00.20 h the Master telephoned his son and reported that he was now lifting the nets. At about 07.00 h on 28 November 2002 the Master could no longer be reached by telephone, although he always left his mobile telephone switched on.

At about 15.30 h on 28 November 2002 the fisherman's sons reported the Fishing Vessel "IRKA" as missing to the WSP (Water Police) Heiligenhafen.

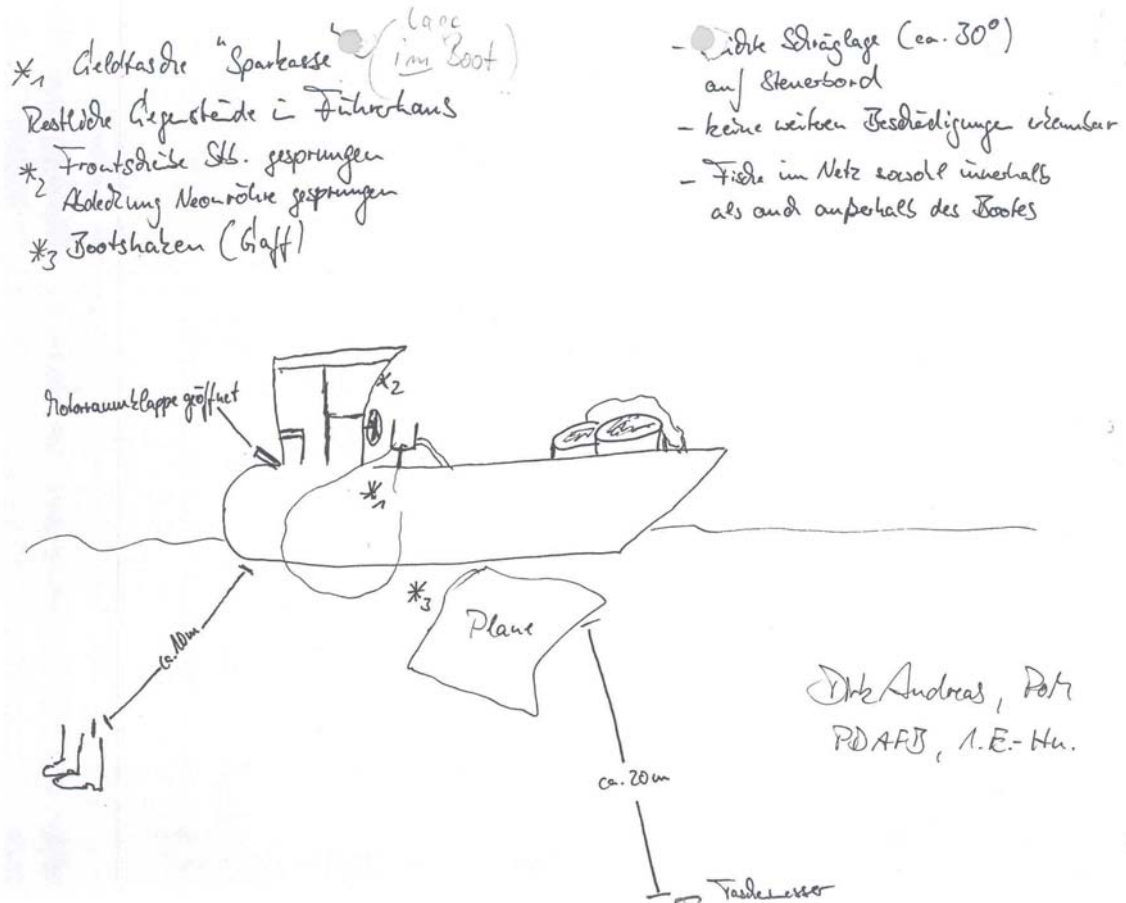
At 15.35 h search measures were launched via MRCC Bremen and at 17.35 h the fisherman's red oilskin jacket was found drifting in the water at about position 54° 29.08'N and 010° 58.04'E, approx. 6 sm from the place where the vessel was later found. At 21.00 h the search was given up due to darkness.

At about 09.16 h on 29 November 2002 the lifeboat "Heiligenhafen" found a sunken vessel in a water depth of approx. 6 m at position 54° 25.39'N and 011° 02.35'E.

At about 10.35 h the crew of the SAR helicopter confirmed that a fishing vessel was lying on the ground at the exact position 54° 25.41'N and 011° 02.43'E.

At 12.28 h a police diver inspected the wreck and identified it as the missed Fishing Vessel "IRKA". The missing fisherman was not found. The vessel was lying on the bottom with its stem facing Heiligenhafen (SSE) in a position slanting slightly to starboard. A fishing net with fish in the net was hanging partly on deck and partly outboard on the starboard side. No damage to the wreck could be found. The only wheelhouse door on the starboard side was missing. The engine compartment flap at the aft edge of the wheelhouse was open. A pair of rubber boots and a fishing knife were found near the wreck.

Diver's sketch :



- * Wallet marked "Sparkasse" (= savings bank) was lying in the boat
- Other items in the wheelhouse
- * windscreen starboard cracked
- Cover of neon tube cracked
- * Boat hook (gaff)

Slightly sloping position (approx. 30°) to starboard
No further damage evident
Fish in net both inside and outside the boat

Engine compartment flap open

Plane = tarpaulin

Taschenmesser = pocket knife

Dirk Andreas, Police Officer

5 Salvage

The vessel was salvaged by the sons on 3 December 2002 with the assistance of fishing colleagues and friends under the supervision of the Water Police Heiligenhafen, towed to Heiligenhafen, and taken on land there.



6 Summary of the investigation

The investigations of the Water Police Heiligenhafen, the BSU (Federal Bureau of Maritime Casualty Investigation) and the expert opinions commissioned have not come to any conclusion regarding the causes that led to the sinking of the Fishing Vessel "IRKA".

6.1 Weather conditions

According to an expertise by DWD (German Meteorological Service) of 19 March 2003:

south-east wind, on average force 3 to 4 bft. On the basis of the "jet effect" in the open part of Fehmarn Sound on average 5 bft. Individual gusts of 6 to 7 bft. at about midnight.

Wave heights from 1 m in periods of 3 s on average. Individual wave heights can occasionally reach twice the height of the characteristic wave height.

Visibility was good.

6.2 Condition of vessel

The working deck has no water ports at deck height. Water reaches the bilge area via the scuppers and can be pumped off from there.

A manual drainage pump was installed aft and two electric draining pumps in the keel area. The manual draining pump and one electric bilge pump were not operable.

No damage and leaks were ascertained in the outboard passages (sea-water cooling line, fresh water cooling line and wet exhaust line).

In 1.5 hours approx. 0.5 litre water runs into the bilge through slight leaks at the gland.

It is evident from the position of the main engine drive lever that the transmission was engaged and set at slow ahead.

No rescue facilities such as lifejacket, life belt, signal ammunition could be found.

6.3 Time of sinking

The time of sinking was 28 November 2003 between 00.20 h and 07.00 h. Between 00.50 h and 01.50 h a customs patrol car crew from Grossenbrode saw a fishery vessel in the said area of the accident from the shore. The battery operated clock on board Fishing Vessel "IRKA" stopped at 02.58 h. This was probably the time the vessel sank.

6.4 Third-party influence

No external damage indicating signs of fouling or striking of a possible casualty or collision were found on the hull, deck or superstructure of the vessel. The nets did not show any signs of abnormal damage indicating third-party influence.

The wheelhouse door was no longer present and has still not been found to date. The hinges and opening hook on the starboard side of the wheelhouse were sound and intact. An inspection of the vessel after the salvage operation revealed that it is technically possible to lift the wheelhouse door up out of the hinges in its open position. The wheelhouse door is made of wood and it is possible that after the vessel sank the door floated away without external influence.

Flooding of the vessel due to the influence of a high head sea or stern sea is not plausible. Due to the closeness to the shore, which was only three cable-lengths away, and the shallow depth of approx. 6 m it is improbable that there was any large vessel in the vicinity to generate corresponding waves. Enquiries made of the German Navy and the Federal Border Police revealed that none of their vessels were operating in the Fehmarn Sound area at the time in question.

The condition of the corpse found in the water did not provide any indication of the action of force.

6.5 Capsizing due to net lifting

The wreck was lying in water approx. 6 m deep when found. At this place the bottom of the sea is mainly sandy with only a few small stones. There are no relatively large objects in which a fishing net could catch.

The vessel is equipped with a hydraulic net lift on the starboard side. This net lift has a hydraulic load coupling that releases the net in the event of overload. No net was found on the net roller and due to the net lift being mounted slightly off-midships the small lever arm and the load coupling additionally fitted cannot alone have led to the vessel capsizing while lifting the net coupled with the net catching somewhere.

According to the diver's report nets were stowed in tubs in the fore ship area and one net was lying partly inside and partly outside the vessel. There were no indications that this net had been outside the vessel already before it sank. The net might have floated up after the capsizing.

The main engine was engaged and set at slow ahead. It was not possible to clarify with certainty whether the vessel sank while lifting the nets or on the voyage from or to the fishing grounds.

6.6 Load test

After the salvage operation and subsequent survey on shore the vessel was returned to the water and subjected to a load test. The vessel was loaded at the front with four containers filled with nets and one person on board. When the person weighing approx. 110 kg moved to the side, the freeboard changed by 40 mm. In the midships area there was a remaining freeboard of about 500 mm. With the aid of the measured freeboard heights at the outer shell and the “freeboard” of the fish well it was determined that water first makes its way into the vessel via the deck coaming. The height of the fish well coaming edge and the freeboard heights on deck are sufficiently dimensioned.

Capsizing due to loading and a one-sided load with one person as the sole cause is improbable.

Sources

The Investigation Report is based on the maritime casualty investigations of the Water Police Heiligenhafen, the expert opinion from the meteorological service Deutscher Wetterdienst Hamburg, the expert opinion by the master boat-builder Bootsbaumeister Hubert Krämer Lübeck-Travemünde, and the investigations and interviews conducted by the Federal Bureau of Maritime Casualty Investigation.

The investigation was conducted in conformity with the law to improve safety of shipping by investigating marine casualties and other incidents (Maritime Safety Investigation Law - SUG) of 24 June 2002. According to this the sole objective of the investigation is to prevent future accidents and malfunctions. The investigation does not serve to ascertain fault, liability or claims.

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