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Danish Maritime Authority Ministry of Trade and Industry



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Case 199917560 File 01.40.02

Division for Investigation of Maritime Accidents/LJ

### CASUALTY REPORT

Passenger ship PRINS RICHARD Collision with break water 19 June 2001

A concerted investigation carried out by Division for Investigation of Maritime Accidents in co-operation with The Maritime Casualty Investigation Board of the Waterways and Shipping Directorate North, Kiel, Germany, in accordance with IMO Resolution A. 849 (20), adopted on 27 November 1997.

## 1. The Incident

Type of casualty:Collision with break waterLocation of casualty:Puttgarden, GermanyDate and time:June 19, 2001, 12.56 hrs.Injuries:Two passengers slightly injured

### 2. Summary

While entering Puttgarden on June 19, 2001, at 12.56 hours the car and train ferry PRINS RICHARD collided with the Eastern break water at a speed of 12.6 knots. Duty officers on the bridge were the Chief Officer and the 1<sup>st</sup> Officer.

Immediately after the collision the master took charge. The passengers and crew were informed and investigation of the extent of the damage to the ferry was initiated. No persons were seriously injured. The ferry's bulbous stem and two Azimuth-propellers were damaged but no leakage of the ship's hull and no pollution of environment occurred.

At 19.00 hours the ferry was afloat and at 20.00 hours she was berthed. On June 20 the ferry was taken to repair at a shipyard in Trawemünde where the damaged bulbous stem was removed and all necessary repairs to the hull and Azimuth-propellers carried out. On June 25 the ferry re-entered service.

The cause of the collision was that the duty officers, intending to manoeuvre the ferry into the port by manual steering control, could not disengage (deactivate) the auto-pilot and navigate the ship into the port and berth using their usual method. When realising it was impossible to disengage the autopilot the duty officers omitted using a so-called "Secondary Steering Control" which would overrule all other manoeuvring systems making it possible to manoeuvre the ferry safely into port or alternatively to steer into the port by use of the auto-pilot.

The reason why the auto-pilot could not be disengaged and thus the manual steering control could not be activated at the moment in question was that the change-over switches of the Control Station Transfer System on the ferrys' two bridges were in different positions.

Alterations of the ferry's manoeuvring system in 1998 implied (with nobody's knowledge) that the auto-pilot could not be disengaged and no alarm signal was given when the change-over switch of the Control Station Transfer System happened to be operated on the passive bridge and thus setting the switches into different positions.

# **3. Ship Particulars**

Name of Ship:	PRINS RICHARD
Home Port:	Rødbyhavn
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Control No:	A 474
Call Sign:	OZLB2
IMO No:	9144419
Type of Ship:	Passenger ship (car and train ferry)
Construction year:	1997
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Tonnage:	14621 gt
Length / breadth / draft:	129,07 m / 24,8 m / 5,8 m
Engine Power:	17600 kW
Crew:	49
Owner:	Scandlines Danmark
	Dampfærgevej 10
	2100 København Ø
Classification Society:	Lloyd's Register of Shipping

The content of this chapter is based upon information from the Master, Chief Officer, 1<sup>st</sup> Officer and the ship's owners, given to the Division for Investigation of Maritime Accidents of The Danish Maritime Authority and to the Maritime Casualty Investigation Board of the Waterways and Shipping Directorate North, Kiel, Germany:

The ferry PRINS RICHARD departed the port of Rødby, Denmark according to the timetable on June 19, 2001, at 12.15 hours, on passage to Puttgarden, Germany. On board were 453 passengers and 49 crewmembers.

Duty officers on bridge were the Chief Officer and 1<sup>st</sup> Officer. Both of them had taken over the watch at 12.00 hours.

The departure from Rødby proceeded normally with no malfunctions of steering and manoeuvring gears or of any navigational instruments.

At 12.18.03 hours, before the ship passed the break water heads, the "Track Pilot" (auto pilot function) was activated.

After the ship had passed the approach buoy at Rødby the 1<sup>st</sup> Officer took over the steering and manoeuvring of the ship, whereupon he was in charge of the navigation during the whole passage, and headed for Puttgarden.

During the passage the PRINS RICHARD gave way for an eastbound ship, and following that the ship headed between the approach buoys 5 and 6 at Puttgarden where she met a German ferry outward bound.

As the PRINS RICHARD was passing with a speed of 14 - 15 knots between the buoys farthest out, the ship headed for the eastern break water head, and because of a slight eastward deviation due to the influence of wind and current, the  $1^{st}$  Officer steered a little to starboard. At that time, when passing buoys 5 and 6 (approx. 8 minutes from the berth), the Chief Officer rose from his chair, ready to take over the manoeuvring.

The Chief Officer said (in Danish): *"I'll take the steering"* and pushed the button "In Command" (also known as the "4-Arrows Switch") in order to deactivate the "Track Pilot" and thus the manoeuvring was supposed to shift into manual mode. (This was the ordinary procedure).

However, the 1<sup>st</sup> Officer immediately observed that the "4-Arrows Switch" was not lit, thus the Track Pilot was still active. He told that to the Chief Officer.

The Chief Officer immediately recognised this observation and pressed the "4-Arrows Switch" again, with no effect. He did so repeatedly, also while shifting the manoeuvring mode between "Individual Mode" and "Tandem Mode" in an attempt to get the shifting from "Track Pilot" mode into manual mode effective – still with no effective outcome.

They then tried to shift the manoeuvring mode into "Micro Pilot" on the 1<sup>st</sup> Officer's side as well as on the Chief Officer's, in an attempt to deactivate the Track Pilot. This had no effect either. The Track Pilot remained active.

According to the Chief Officer there was no longer enough time and distance to operate the ship on Track Pilot when they found out that they could not deactivate the Track Pilot.

Since it was not possible to turn the Azimuth propellers by turning their individual manoeuvring handles, the Chief Officer then stopped all Azimuth propellers (reduced their revolutions to 0). He then turned the manoeuvring handles into transversal positions to obtain maximum brake effect in case that the Track Pilot should become deactivated. This, however, did not happen, but by then the "Touch Alarm" of the system sounded, as it was supposed to.

At 12.56 the ship collided with the Eastern break water at a speed of 12.6 knots.

The Master was in his cabin where he felt a deceleration of the ship, over 30 - 40 meters, and then the collision. He ran to the bridge and asked what had happened.

The Chief Officer and the  $1^{st}$  Officer answered, in Danish, roughly like this: "We do not know – it was impossible to get it off Track Pilot!"

The Master noticed that the Track Pilot was still active and tried to deactivate it too, but he could not. There are 3 ways of manually steering, but none of them were available when the Track Pilot was active.

The Chief Officer closed all watertight doors and the Master concentrated on ensuring the safety of the passengers and the ship and to form an immediate general view of the situation.

All other officers (navigators) on the ship came to the bridge immediately.

No alarms were sounding.

It was still impossible to deactivate the Track Pilot. Then the bridge control was transferred to the other bridge (the so-called "North Bridge" or the "Bridge Aft") and then again to "South Bridge". Only then did they succeed in deactivating the Track Pilot.

The Master called the chief engineer who reported that there had been no damage in the engine room.

The Master and the Chief Officer stayed on the bridge while the other officers went through the ship, searching for any damage.

Within 3 minutes of the time of the collision, information was given to the passengers via the ship's public address system. The passengers remained fairly calm.

Shortly after, the Master went to the passengers' compartment, the "Café Nord", where he directly informed the passengers about the incident and the situation. The passengers' reactions were positive, in the respect that they reacted calmly and in-control.

All car drivers were called upon, following which every car on board the ship was searched for any possible damage.

The Master and all of the other officers kept each other informed continuously. The Master requested a tug, at 19.00 hours the PRINS RICHARD was afloat, and at 20.00 hours the ship was berthed.

# 5. Additional Information

#### Wind:

NW (300°) 6 – 7 Bft.

#### The Master's watch:

Duty officers on bridge from 06.00 till 12.00 hours were the Master and a 1<sup>st</sup> Officer. During their watch, there were no malfunctions of any steering and manoeuvring gear or navigation instruments.

There are always two navigators on duty on the bridge when the ship is sailing. However the Master is not always on bridge during the ship's call of Puttgarden and Rødby. When the Master is off duty on the bridge the Chief Officer is on duty on the bridge.

#### Manoeuvring gear and modes, etc.:

The ship is propelled by 4 Azimuth propellers and there are several different modes in which the ship can be steered and manoeuvred.

#### Manual steering and manoeuvring in "Individual Mode" and "Tandem Mode"

On the manoeuvre desk on the bridge there is a handle for each Azimuth propeller by which the Azimuth propellers can be set into any Azimuth position and their propeller revolutions be regulated. This can be done for each Azimuth propeller individually (**Aqua Pilot Individual Mode**). The Azimuth propellers can also be controlled two at a time (**Aqua Pilot Tandem Mode**).

In Aqua Pilot Tandem Mode the Azimuth propellers fore are coupled together, as are the Azimuth propellers aft. When, for instance in Aqua Pilot Tandem Mode, any Azimuth propeller's handle is used to regulate either the Azimuth position or the propeller revolutions, the opposite handle and thus the opposite Azimuth propeller will follow synchronously.

The Azimuth propellers fore can be controlled in Aqua Pilot Tandem Mode while the Azimuth propellers aft are controlled in Aqua Pilot Individual Mode, and vice versa.

No acoustic signal will sound when shifting between the modes mentioned, but the shifting will automatically be recorded on the ship's event log.

<u>Automatic steering, "Track Pilot"</u> The ship's auto pilot system is called **"Track Pilot"**.

When the Track Pilot is active the setting and adjustment of the steered course is transferred into a joystick on the port or the starboard radar set and the Azimuth propeller revolutions are regulated by the above mentioned handles – either in Individual Mode or in Tandem Mode.

The Track Pilot is activated by use of a push button switch **"Track Pilot ON"** and deactivated by use of another push button Switch called the **"4 - Arrows Switch"**.

Control lamps by each handle, indicating that the control of the Azimuth propellers is transferred from Track Pilot into manual control, will light. No acoustic signal will sound when the Track Pilot is activated or deactivated, but the shifting will automatically be recorded on the ship's event log. It shows on the radar screen when the Track Pilot is active. The Track Pilot status is shown on the radar screen either as a "set course XXX" or as "TRACK PILOT OFF".

The ship can be steered by setting the helm on the Track Pilot, but for harbour manoeuvres it is considered to work too slowly.

#### "Fix-angled Azimuth propeller"

When Track Pilot is activated and the Azimuth propeller's handles are in Individual Mode, the two Azimuth propellers in front will automatically angle 7 - 9 degrees outwards in order to improve the working economy of the Azimuth propellers.

The automatics, making the Azimuth propellers go into the above-mentioned pre-set Azimuth position when the Track Pilot is activated, was installed into the Aqua Master programme in 1998. Before this alteration in 1998 it was possible to manoeuvre the two Azimuth propellers manually in front, even if the Track Pilot was active.

### Joystick manoeuvring, "Aqua Master Micropilot"

Two combined steering/manoeuvring joystick sets are situated in front of the manoeuvre desk (one in port and one in starboard side). This system is called **"Aqua Master Micropilot"**. Only one joystick set can be activated at a time.

When the Aqua Master Micropilot set is activated, the Azimuth propellers' revolutions are regulated manually by the joystick set.

The Aqua Master Micropilot system was not in use during the passage referred to in this report.

#### Automatic speed control "Speed Pilot"

Furthermore, the ship is equipped with a system to keep a certain speed or ETA. This system is called **"Speed pilot."** This system was not in use during the passage referred to in this report.

#### "Secondary Steering Control"

If any of the above-mentioned manoeuvring systems should fail, a secondary manual steering system, based on 24 Volt DC, can be used to change the direction (but not the revolutions) of the Azimuth propellers. This system is called **"Secondary Steering Control"**.

The Secondary Steering Control has, for each Azimuth propeller, a tableau with push buttons for the control of the Azimuth propeller. They are situated in the centre of the manoeuvre desk – between the handles for the Azimuth propellers. When the Secondary Steering Control is used, all other manoeuvre systems are overruled.

#### Transfer of control from bridge to bridge, "Control Station Transfer System"

When transferring the control from bridge to bridge a rotary switch "**Control Aft/Fore**" should be operated on the bridge to be transferred from and a beep-alarm will sound. On the other bridge, where the control should be transferred into, a similar beep-alarm will sound until the rotary switch and the 4-Arrows Switch on that bridge have been operated.

The Control Station Transfer System, of the design then, gave no alarm when the rotary change-over switches were put into different positions in that succession, as done by the Chief Officer before departure Rødby.

I.e. the alarm would only sound when operating the rotary change-over switch on the active bridge and <u>not</u> when operating the switch on the passive bridge.

The system has now been altered in such a way that an alarm will sound when the change-over switches are put into different positions regardless of the succession the switches be operated.

The new alarm system consists of two alarms: One for operating the change-over switches in the correct succession (i.e. first on the active bridge and next on the passive bridge). And another with a divergent sound for operating the change-over switches in the wrong succession in which the transfer incidentally will not be effected.

Even though it is no rule, it is common practice upon handing over the watch that the relieved officer operates the change-over switch on the active bridge - and the relieving officer operates the change-over switch on the passive bridge (to become the active bridge).

#### Event Log

The Norcontrol Automation **"Event Log"** records the activating and deactivating of certain functions of the manoeuvre system. However, the Event Log does not record any unsuccessful attempts of activating or deactivating (like the Chief Officer's attempt to deactivate the Track Pilot, leading to the incident referred to in this report).

#### Black Box

All data concerning the navigation of the ship and vocal recordings from the bridge are recorded in a so-called **"Black Box"**. Data from the Black Box are available for the investigating divisions.

#### ISM:

The ship was ISM-certified in 1997. According to the ship's SMS-manual, document 8.1.12, "Failure of equipment and manoeuvring" alternative systems should be started.

#### Standing orders:

Upon approach

Before entering the port, check:

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- Speed Pilot and Track Pilot to be deactivated
- necessary generator sets to be in service
- navigational equipment to be ready
- *manoeuvre gear to be in the determined mode (should be checked by a course and speed change on the Azimuth propellers)*
- entering permission to be given

The bow visor should be opened at the earliest when passing the long break water.

When the ship is moored the inner bow port should be opened and the Aqua Masters stopped according to instructions.

The standing orders concerning the ship's approach to port give no exact instructions, in distance or time, for the duty officer to deactivate the Track Pilot (and/or Speed Pilot). This, according to the Master, depends on the weather and traffic.

#### **Turning of Azimuth propellers:**

The turning speed for the Azimuth propellers is 9° per second, 40 seconds for a full 360° turn.

#### Changing the watch at 12.00 hours:

The Master was on duty on the bridge during the ferry's passage from Puttgarden and arrival at the port of Rødby where changing the watch before the passage, referred to in this report, took place.

The Chief Officer came to the North Bridge shortly before the ferry's arrival at the port of Rødby to take over the watch from the Master, as usual.

During handing over the watch the Master transferred, as usual, the control from the North Bridge (aft) into the South Bridge (fore) by operating the rotary change-over switch concerned on the North Bridge. By this an acoustic alarm sounded. This was normal.

The Master then went to the South Bridge and without the Chief Officer's knowledge he operated the corresponding rotary change-over switch on that bridge to accept the transfer from the North Bridge into the South Bridge. By this the South Bridge became active and ready for manoeuvring and the acoustic alarm stopped sounding as it was supposed to.

When, shortly after, the Chief Officer came to the stairway for the South Bridge, he noticed that no acoustic alarm was sounding, as he had expected it to. He had passed from the North Bridge to the South Bridge by a route different from the Master's route and thus he did not know that the Master had already accepted on the South Bridge and thus stopped the acoustic alarm. The Chief Officer therefore assumed that the Master had not transferred from the North Bridge into the South Bridge at all and therefore he went back to the North Bridge and operated the change-over switch to do so.

When operating the change-over switch on the North Bridge the Chief Officer noticed that the acoustic alarm did not begin sounding as it was supposed to. He found out by viewing the change-over switch that in fact it had been operated already and was set to transfer into South Bridge control. He then realised that the Master had completed the transfer of control from the North Bridge into the South Bridge and this was the reason why he had not heard the acoustic alarm when he came to the stairway for the South Bridge previously.

The Chief Officer then went to the South Bridge and found that everything seemed to be quite normal. The South Bridge was active and ready for manoeuvring. However he was not aware that he actually had left the change-over switch on the North Bridge in a position different from the original position set by the Master. It was now set to request or "call" for North Bridge control. But this did not make the North Bridge to become active because the bridge control had already been transferred into the South Bridge. Furthermore – because of the design then – no acoustic alarm was sounding when the change-over switch on the passive bridge was operated.

It has since been established that the Track Pilot, once activated, could <u>not</u> be deactivated because of the different positions of the rotary change-over switches, which was not normal.

The system responded as it had been designed to, but later investigations have proven that the design of electronics to be flawed. The Track Pilot generally worked as intended, thus the navigator had no way of realising while using the Track Pilot that it could not be deactivated. He only realised this when the situation presented itself. This was caused by the alterations of the system in 1998 but it was not common knowledge for any navigators.

The manufacturer, Rolls-Royce, have found upon inspection that circumstances were as described above.

Signal engineers of Banestyrelsen (The Danish National Railways Agency) who have acted as consultants to the Danish Maritime Authority in the investigation, have concluded from system diagrams that the error mentioned could occur.

#### The owners' preventive measures:

- Simulator to be delivered by December 4, 2001. Decision to purchase simulator reached in the year 2000.
- Bridge procedures and instructions to be reassessed.
- Simplification of equipment to be considered.
- 2 weeks after the incident the fix-angled Azimuth propeller system was dismantled and within one month the Control Station Transfer System (shifting control from bridge to bridge) was altered, not only on this ferry but also on 3 other ferries with similar installations.

#### Chief Officer and 1<sup>st</sup> Officer:

The Chief Officer and 1<sup>st</sup> Officer have examined and pondered the data recorded by the Maritime Event Recorder collectively.

- The activatings and deactivatings of Individual Mode and Tandem Mode indicate that the revolutions of the Azimuth propellers have been adjusted. I.e., it is possible to shift between Individual Mode and Tandem Mode, even when the ship is on Track Pilot. This is in no way unusual.
- The Maritime Event Recorder indicates that the Track Pilot has been activated and deactivated several times after the collision. This is inconsistent with the fact that the Track Pilot was in fact not deactivated until several minutes after the collision (approximately 21 minutes, according to the Event Recorder).
- Any use of the Track Pilot while sailing through the harbour towards the berth would not have been relevant as the Chief Officer had reduced the revolutions of the Azimuth propellers to 0 and thus they could not be used for steering.

The Secondary Steering Control:

- The Secondary Steering Control can be used to turn the Azimuth propellers while the number of revolutions is set manually using the levers. This system has only been used by the Chief Officer and 1<sup>st</sup> Officer during safety drills while docking once every four weeks. They have never used or practised using the Secondary Steering Control in actual situations manoeuvring the vessel. The Secondary Steering Control overrules all other methods of manoeuvring. This, in fact, was not common knowledge among all navigators of the ship.
- The Chief Officer and 1<sup>st</sup> Officer focused their attention on deactivating the Track Pilot rather than making different attempts to manoeuvre the ship because the situation had simply never arisen before. And since neither of them had used the Secondary Steering Control except in drills, they were completely oblivious to it. Therefore, they assumed at first that they had acted inexpediently.

### Alterations upon "Fix-angled Azimuth propeller":

The alteration of the Aqua Master programme in 1998, making the Azimuth propellers go into the above-mentioned pre-set Azimuth position when activating the Track Pilot, which resulted that the Track Pilot could not be deactivated in case of different positions of the rotary change-over switches, was not - and should not be - subject to approval by Danish Maritime Authority nor the classification society.

# 6. Comments made by the Investigating Parties

The Chief Officer and the 1<sup>st</sup> Officer did not know that the rotary change-over switch on the North Bridge was set to request or "call" the control to this bridge while the control in fact had been transferred over to the "South Bridge". This would imply that the Track Pilot could not be deactivated. The Investigating Parties believe that it was serious lacking of safety that no alarm would be activated in situations like this.

The Investigating Parties believe that the watch change at 12.00 went on in an inaccurate way. The Master operated the rotary change-over switches both on the "North Bridge" and on the "South Bridge" without the Chief Officer knowing. The watch change was furthermore inaccurate in a sense that the Chief Officer did not check the rotary change-over switch efficiently and thereby he had not made certain that all manoeuvre functions were available on the "South Bridge".

The Investigation Investigating Parties find it inappropriate that the Chief Officer and the 1<sup>st</sup> Officer did not manoeuvre the Secondary Steering Control when they found out that they could not deactivate the Track Pilot.

The Investigation Investigating Parties find it inappropriate that they on board the ship had very little knowledge concerning the Secondary Steering Control. The Chief Officer and the 1<sup>st</sup> Officer did not even consider to use the "Secondary Steering Control", but instead they unsuccessfully continued to deactivate the Track Pilot.

The Investigating Parties wonder why the Chief Officer and the 1<sup>st</sup> Officer did not communicate when they found out that they could not deactivate the Track Pilot and the situation was critical. It seems as if the officers in question were inflexible in their course of action. If they had communicated immediately after, they may have come to think about the "Secondary Steering Control". They knew the system but it did not seem to be an obvious solution for them.

## 7. Conclusion

The causes of the accident were:

1. When entering the harbour the manual steering control could not be activated because the rotary change-over switches of the Control Station Transfer System of the North Bridge and the South Bridge were not in the same position.

It was found that the system had these faults:

An alarm was not provided in case of the above mentioned difference of switch positions. Whenever the switch positions thus differed it was not possible on the activated bridge to shift from Track Pilot into manual steering control.

- 2. The Chief Officer put the rotary change-over switch on the North Bridge which was already passive into the wrong position without checking that position when leaving the bridge.
- 3. There was no orderly transfer of the watch from the Master to the Chief Officer, and so the Chief Officer was not informed that the Master had already activated the South Bridge.
- 4. The Chief Officer omitted to check in due time prior to entering the harbour whether the manual steering control was in working order.
- 5. The Chief Officer omitted to use the independent Secondary Steering Control after it was established that a shift from Track Pilot into manual steering control was not possible.
- 6. The Chief Officer omitted to drop anchor as an emergency measure.

The way of acting according to numbers 1) to 6) was incorrect.

Sailing with the bulkhead doors (watertight bulkheads) beneath the car deck open was incorrect, but not a cause of the accident.

### 8. Recommendations

- 1. It is recommended to ensure that the manoeuvring system cannot be influenced by manipulations on the bridge not activated.
- 2. It is recommended that it be ensured that an alarm is given whenever the bridge activation switches are not in the same position.
- 3. It is recommended to intensify the training of nautical officers as regards the use of steering control systems.
- 4. It is recommended that during emergency training more attention should be paid to the communication between the officers of the watch on the bridge.
- 5. It is recommended that the standing orders should be put into concrete terms, and should explicitly comprise the Secondary Steering Control.

Lars H. Jacobsen Skibsinspektør Opklaringsenheden Søfartsstyrelsen Jochen Hinz Seeamt Kiel Hindenburgufer 247, 24106 Kiel

#### Additional recommendations of Seeamt Kiel

6. It is recommended that immediately after an emergency becomes known an local RCC (Rescue Coordination Centre) is set up to coordinate all rescue services and authorities, and to act as information centre for the vessel, the owners, and others. The authorities in charge should ensure that they can permanently be reached.

It is also recommended to regard during the regular emergency exercises especially that the emergency plans are applied.

7. It is recommended to thus improve the Performance Standards for Shipborne Voyage Data Recorder on the basis of the IMO Resolution A861 (20) that the technical shipboard data logging systems record the intended and actual data of all controls connected with the steering of the vessel (e.g. manual or automatic steering control modes, bridge activation). Reasons:

The causes as related to the systems fault which was found (cf. No 1 of the Safety Recommendations) could be analysed only by means of the officers' testimonies. The recorded data of the VDR ("Black Box") did not allow any statement about the switching operation which was not performed by the system. With SOLAS Ch. V coming into force on 1.7.2002, though, the status of the autopilot, too, must be recorded. Nevertheless this SOLAS requirement would not have helped to find the systems fault since the VDR is not required to record the intended and actual data of the bridge activation switching. These data, however, are indispensible for an exhaustive investigation of the causes in case testimonies following a casualty should not be available (death, or refusal to give evidence).

#### Jochen Hinz

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### 9. Enclosures:

Amt Fehmarn (i.e. Fehmarn local government) Der Amtsvorsteher (i.e. head of the local government)

1. Note:

Records of the meeting regarding the accident of the ferry "Prins Richard" off Puttgarden ferry harbour on 19. 6. 2001

#### Participants: see attached list

The meeting began on 28.6.2001, 9.00 hrs, in the conference room of the Amt Fehmarn and was held to discuss in detail the ferry accident and in future to prevent coordination problems.

The meeting began with a welcome by the Amtsvorsteher Herr**estructure** and with showing an amateur video recording commented by the head of the Ordnungsamt (i.e. office for public order), Herr**estructure** 

Herr**control** of Scandlines AG reports about the accident proper, the emergency alarms starting at 13.02 hrs and the subsequent measures such as e.g. the immediate closure of the harbour etc.

Furthermore the IMS-Representative, Herr (section) explains that only the automatic answering machine could be reached when telephoning the alarm to the Amt Fehmarn as local port authority at about 13.02 hrs.

Further attempts to alarm the Amt Fehmarn as local port authority between 13.40 and 13.50 hrs were unsuccessful due to their lunch break.

Frau head of the department of emergency services/ disaster control of the Kreisverwaltung Ostholstein (i.e. district government Ostholstein), is alarmed at 13.04 hrs by the police.

At about 13.08 hrs the Wasserschutzpolizei (i.e waterways police) receives a message that 452 persons are on board and that the ferry does not leak.

At 13.40 hrs two tugs are called for by the owners in order to salvage "Prins Richard".

The head organiser of the emergency services, Herr receives the alarm at about 13.11 hrs and arrives on scene at 13.30 hrs.

Herr **former** too, complains about lack of information.

At about 13.40 he is informed that no injured persons are on board.

Herr **and the second se** 

The emergency staff of the Scandlines shipping company decides that the passengers remain on board in order to prevent a spreading of chaos.

Also, the ferry harbour remains closed until further notice.

At about 14.10 hrs the first-aid doctor **construction** is on the scene. One injured person is reported, who is taken off by the rescue cruiser "John T. Essberger", transferred to an ambulance in Puttgarden harbour and brought to the hospital of Oldenburg in Holstein.

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At 15.40 hrs the decision is taken at a briefing in the GEO-vehicle to reduce the number of on-scene-vehicles to the minimum of one since there is no danger of oil pollution nor more injured persons.

Hr. **Example 1** of the Danish emergency management arrives at 17.00 hrs on board a fishing vessel. First, formalities are resolved and at about 17.30 the salvage is begun.

It takes 1,5 hours to tow "Prins Richard" off.

At 19.00 hrs "Prins Richard" is relieved from her embarrassing situation.

"Prins Richard" enters Puttgarden ferry harbour at about 19.30 after an other ferry having been dispatched.

Herr **and the second se** 

Once again Herr **Security** stresses that the Amt Fehmarn as port authority has not been available, and suggests that an emergency telephone number be set up.

Herr **service** of the Wasserschutzpolizei Puttgarden comments that information was received only sparsely from the shipping company.

After berthing it transpires that two lorries were pushed together the separating of which by the drivers is possible, and done.

First-aid doctor **entropy** remarks that a satisfactory radio contact to the paramedic on board the "Prins Richard" cannot be established.

Thus there is no possibility for a radio-assisted coordination of the rescue activities on the vessel. To board the ferry via a hatch requires climbing 3 metres. A pilot ladder or a similar aid is not lowered.

because the rescue boat "Emil Zimmermann" bringing him alongside heaves down by waves all of a sudden.

Once on board he encounters curious tourists.

There is no shielding of the patient. By loudspeaker announcement an interpreter is sought. There are 450 passengers on board, some of whom are chronically ill.

Dr. **Simp** remarks that on account of what he has told a chaos could have developped in case of more persons with severe injuries.

A comprehensive psychological care, too, is thus not possible.

Dr. sums up the points to be criticized:

- 1. inadequate radio link on board, and from ship to shore, respectively
- 2. laborious and dangerous boarding from ship to ship
- 3. no shielding of patients against curious onlookers
- 4. no interpreter

After an exhaustive discussion between Herr and and Dr. The the unanimous opinion was that helicopters are better suited for transferring rescue personnel to the ship, especially in case of many injured persons. Herr from the Deutsche Gesellschaft zu Rettung Schiffbrüchiger (i.e. German Society for Saving Life at Sea, German Lifeboat Institution) and Herr from the Bundesgrenzschutzamt See Neustadt (BGS) (i.e. Federal border police office (maritime) Neustadt) added that SAR helicopters and a BGS helicopter were ready for take-off or had already headed for Puttgarden airspace, respectively.

Herr **entropy** refers to drills rescueing injured persons from vessels which are held regularly. He states, however, that mainly information and communication are the weak points.

Dr. **Constitution** refers in this context to the deficiencies of getting rescue personnel to the injured. A long distance in between several lorries and climbing up 3-4 decks has to be covered with rescue equipment weighing 30-40 kg.

In addition, this turns out later not to have been the shortest way.

Herr **The stresses** that all ships are fitted with a "pick up- area" according to the regulations.

Dr. **Example**, spokesman of the chief first-aid doctors, asked whether medical aid had been requested. Herr **Example** head organizer, answers that he was informed about one injured person at about 13.40 hrs.

Herr **(Example)** from ASB (presumably the Arbeiter-Samariter-Bund (= worker samaritarian federation) is meant; annotation by the translator) criticizes the late information about the exact number of passengers.

Furthermore it may be necessary that several rescue teams on board have to be coordinated. There is a backlog as regards the cooperation between ASB and Scandlines.

The Kreiswehrführer Herr **Constant** (i.e. district head of fire brigades) encounters three on-scenecommands: one OSC of Scandlines on the mole, one of the Wasserschutzpolizei (VW van at the harbour basin), and the GEO-vehicle.

He criticizes that there is no coordination. Scandlines and the emergency services must improve their cooperation.

At 13.06 hrs the alarm by the rescue coordination centre is perceived on the "Berlin".

Aboard this vessel is Captain and of the Deutsche Gesellschaft zu Rettung Schiffbrüchiger.

He remarks that the master of a vessel in distress is obliged to proceed according to the emergency plan.

Apart from the "Berlin" the rescue boat "Emil Zimmermann" (transport of first-aid doctor and rescue personnel) and the rescue cruiser "John T. Essberger" (transport of injured persons) were on the scene.

Dr. Compliments the DGzRS (i.e. the Deutsche Gesellschaft zu Rettung Schiffbrüchiger) for their help.

Captain the stresses that alarm plans must be adhered to so as to insure that all organisations are informed.

Pilot ladders should be available even when not obligatory.

Captain **Captain** asked why the ferry did not berth without delay and why an other ferry was preferred. Herr **Captain** replied that he had assumed that the visor could not be opened.

Drame says that the ferry did thus unnecessarily stay at sea for 35 minutes and that elderly infirm persons had to wait even longer.

Herr **Static** contradicts and points out that manoeuvrability and absence of leaks had to be checked first.

Captain **Captain** Captain **Captain** for the long time of seven hours passengers had to remain on board and asks whether their names have been registered.

Herr **control** declares that he was confirmed on the day of the accident that the persons had not been registered.

Dr. **Constant** asks for the legal basis for initiatives of the emergency services in case of no assistance being asked for by the master or the owners.

Herr **Second** asks Herr **General** whether the Federal Administration thinks about stationing a tug in the Baltic. Herr **General** refers to a press release by the federal minister of transport **General** in the beginning of June 2001 informing about a common RCC, the so-called "Havariekommando", and the stationing of emergency salvage tugs. For further details he refers to the written press release given to Herr **Example** before the meeting began. It is attached to these records.

When asked by Herr **Example** the Kreis Ostholstein offers to send the Amt Fehmarn a plan stating the number of injured persons up to which the SEG or the Katastrophenschutz (i.e. disaster control), respectively, are engaged.

The Amtsvorsteher returns thanks and closes the meeting at 11.30 hrs.

By order:

(secretary)

2. To be filed.

Translation by Gerd Schröder, WSD Nord, Kiel, 26.11.2001



