



Bundesstelle für Seeunfalluntersuchung

Federal Bureau of Maritime Casualty Investigation

Bundesoberbehörde im Geschäftsbereich des Bundesministeriums

für Verkehr, Bau- und Wohnungswesen

## Investigation Report 179/02

**30. April 2003**

Very Serious Casualty:

**Collision MV "HENNY"**

**and**

**MV "OOCL CANADA"**

on 25.11.2002 in the River Elbe at buoy 116

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## 1. Summary of the maritime casualty

On 25 November 2002 at about 03:06 h CET the German container/feeder vessel MV HENNY travelling upstream along the River Elbe collided in the lower Elbe with the Chinese container vessel MV OOCL CANADA travelling downstream along the River Elbe. The scene of the collision was approx. 250 m downstream of buoy 116 and approx. 80 m north of the radar line.

MV HENNY collided with its port superstructure against the port side of the forecastle of OOCL CANADA. One crew member of MV HENNY was slightly injured in his cabin due to the outer wall being set in.

As a result of the collision there was a brief blackout on board MV HENNY, but it was possible to eliminate this immediately. After this MV HENNY continued its voyage to Hamburg.

As a result of the collision plating damage was sustained in the forecastle area on the port side on MV OOCL CANADA. After repairing an approx. 80 x 40 cm hole at the north-east roads, the vessel was able to continue its voyage to Montreal.

## 2. Scene of the casualty

Nature of the incident: Serious maritime casualty  
Date: 25.11.2002  
Location: River Elbe, off buoy 116, position 53°35.2' N 009°37.2'E

At the time of the casualty the visibility on the Elbe was 100 m.

It was rising tide, low water at Lühe was at 01.17 h and the next high water at Lühe was predicted for 06.40 h.

The wind was blowing from east-northeast at 3 to 4 bft.

The outgoing container vessel OOCL CANADA collided on the Elbe in the Lühe bend with the incoming feeder vessel HENNY when the latter suddenly sheered off to port in heavy fog and entered the course line of OOCL CANADA.

One person was slightly injured.



### 3. Vessel particulars and photos

#### 3.1 Vessel particulars "HENNY"

Name of vessel	MV HENNY
Operator	Reederei Schlüter 24768 Rendsburg
Port of registry	Hamburg
Nationality / Flag	Federal Republic of Germany
IMO Number	9143403
Ship's call letters	DKRZ
Type of vessel	Container vessel
Crew	10 persons
Classification	Germanischer Lloyd
Class	100 A5 E3 + MC E3 Aut
Year built	1997
Shipbuilding yard	Kröger Werft Rendsburg
Length overall	99.56 m
Length between perpendiculars	91.45 m
Width	16.90 m
Maximum draft	5.91 m
GRT	2986

Deadweight	4870 t
Main engine	MAN B & W
Engine rating	2940 kW
Speed	15.0 knots

The vessel is equipped with a right-hand adjustable propeller, a Becker's rudder and a bow thruster with 350 kW. It has 2 auxiliary diesels, each with 276 kW, and generators of 320 kVA each.



### 3.2. Vessel particulars "OOCL CANADA"

Name of vessel	OOCL CANADA
Operator	Warrender Ltd., Hong Kong
Port of registry	Hong Kong
Nationality / Flag	People's Republic of China
IMO Number	9112296
Ship's call letters	VRVB9
Type of vessel	Container vessel
Crew	21 persons and 1 pilot
Classification	Det Norske Veritas
Class	DNV 1 A1 Container Carrier ICE – 1A,W1,EO
Year built	1996
Shipbuilding yard	Samsung Heavy Industries, Koje, South Korea
Length overall	216.21 m
Length between perpendiculars	203.80 m
Width	32.20 m
Maximum draft	10.80 m
GRT	33,662
Deadweight	33,659
Main engine	Samsung B & W 6L 80 MC
Engine rating	17,521 kW
Speed	20.8 knots

The vessel is equipped with a right-hand adjustable propeller and a bow thruster of 1,650 kW. It has 3 diesel auxiliaries of 1500 kW each.



#### **4. Course of the voyage / course of the accident**

##### **4.1 Voyage of the vessels**

##### **4.1.1 MV HENNY**

The German feeder vessel MV HENNY was on a voyage from Helsinki to Hamburg via the Kiel Canal. After passing through the Kiel Canal, with the assistance of a pilot, MV HENNY left the North Lock in Brunsbüttel at about 01:06 h CET on 25 November 2002 and subsequently sailed upstream along the River Elbe.

In accordance with § 8 of the Elbe Pilot Regulations the vessel was exempted from the obligation to take a pilot on board on the River Elbe. MV HENNY was crewed with 10 persons, of whom the Master, the 1<sup>st</sup> Officer and the Chief Engineer were of German nationality.

MV HENNY had a forward draft of 5.30 m, an aft draft of 5.55 m and a middle draft of 5.43 m.

MV HENNY was proceeding along the Elbe shipping route under the command of the Master on watch, who was also operating the automatic pilot system that was switched on.



The navigation during the estuary passage was supported by the electronic sea chart (ECDIS).

The bridge was equipped in accordance with modern standards. According to the police investigations, during the passage both Racal Decca radar systems were in operation and switched to the 1.5 sm range, operating mode "head-up". In addition the two VHF sets were switched to Channel 60 and 68/16.

#### **4.1.2 Statement by the Master**

In his written statement of 27.1.2003 transmitted by a lawyer, the responsible Master says that the visibility was approx. 100 to 150 m with an easterly wind of force 1-2 bft. During the upstream passage along the River Elbe the vessel was using the automatic pilot and was switched over to manual operation when speed was reduced. There was also a Russian sailor on the bridge as lookout.

The two radar sets were in operation and the Master was observing them. The starboard radar set was switched to the 1.5 sm range "head-up" off-centre, so that a range of 2.5 sm ahead was being observed. The port set had been switched to the 3 sm range "head-up" since leaving Brunsbüttel, so that possible overtakers could be recognised in time.

According to his electronic chart the speed over ground at 03:03:30 was 13 kn.

MV PURPLE BEACH was running ahead of him at a distance of approx. 1 sm and a speed of 18 kn.

At about buoy 85 MV PURPLE BEACH reduced speed for the first time without any information about this being issued by the radar pilot.

He thereupon called MV PURPLE BEACH via Channel 68, but received no reply. At this time he was on a level with Rhinplate near Glückstadt, still being advised by Brunsbüttel radar, and he was informed that MV PURPLE BEACH would not hear him on Channel 68, but instead on the appropriate radar channel.

He received no reply on Channel 5 and irrespective of this he reduced his speed to approx. 12 – 13 kn over ground.

Roughly at the Dow Chemical Pier at Bützfleth he was informed by the radar advisers that MV PURPLE BEACH was reducing speed again, whereupon he also reduced speed.

After passing Bützfleth speed was picked up again and the distance between the vessels increased again.

The power cable crossing the river Elbe roughly at the position Hetlinger Schanze caused interference on his radar screen in the form of large white patches, so that no clear echo ahead could be seen. Moreover in this area he had to alter course from 165° to 128°.

After the interference had disappeared he noticed that the distance to PURPLE BEACH was only 0.75 sm, and then only 0.5 sm.

By reducing the pitch and switching to dead slow ahead he achieved a speed over ground of about 5 to 6 kn. It was not possible for him to order "reverse", since due to the flood tide there was a risk that the vessel would then run out of control and even broach to.

In order to avoid a collision with PURPLE BEACH he altered course to port so that he left the stern of PURPLE BEACH just on starboard with HENNY's stem.

He was then informed by the radar adviser that MV OOCL CANADA was proceeding down the River Elbe and was unable to take further evasive action to the north because of her draft of 9.80 m.

When he was able to make out MV OOCL CANADA on the radar screen, that had evidently been masked by MV PURPLE BEACH, he tried to move as far as possible into the south of the navigation channel with a hard-to-starboard manoeuvre and "full speed ahead" in order to avoid a collision.

As a result of the flood tide MV HENNY had moved so far into the middle of the navigation channel that as a result of the turn to starboard the port side of the bridge superstructure was caught by MV OOCL CANADA that suddenly appeared.

### **4.1.3 Statement by the Lookout**

The sailor assigned as lookout on the 0 – 4 watch stated on being questioned as a witness before the River Police on 25 November 2002 that he had been in the middle of the bridge during the passage along the river Elbe and had looked both ahead and on the vessel's radar. He had noticed a vessel on the radar screen ahead that was proceeding in the same direction. The master had thereupon altered course to port and reduced speed in order to avoid a collision. During the manoeuvre he had continued to observe the stern of the vessel sailing ahead with his binoculars. When he set down the binoculars shortly after that he saw the navigation lamps of an approaching vessel ahead, coming directly towards MV HENNY. The master had thereupon immediately altered course to starboard to evade. Shortly after this the collision had occurred.

#### **4.1.4 MV OOCL CANADA**

The Chinese container vessel MV OOCL CANADA had left the berth in Hamburg at 01:42 h CET on 25 November 2002 and was on a voyage from Hamburg to Montreal.

The vessel was under the command of the Master. The Second Officer, a sailor as helmsman, and the advising marine pilot were with him on the bridge.

The bridge of MV OOCL CANADA was equipped in accordance with regulations. Both radar sets – make: F NOR Control, Data Bridge – were also in operation and working North up, TM CD. The port radar set was being operated by the Second Officer, who was using it in the 3 sm range, while the starboard set was being used by the pilot in the 1.5 sm range. The four VHF sets on the bridge were witted to Channels 9, 16, 60 and 68.

#### **4.1.5 Statement by the Master**

In his statement as witness the Master said that they had passed the lighted buoy 122 at about 02:55 h CET and that the pilot had continuously received information about their position in the estuary. As they proceeded into a starboard bend downstream along the Elbe at Lühe, other vessels came towards them. The first vessel had been a motor coaster. Then they passed a larger vessel, to which he turned round as it ran past on the port side. At the same moment the radar control had called the pilot, whereupon the pilot had issued the order to alter course to starboard. Directly after this he had seen HENNY's forward top light very close to the port stem. Shortly after that there had been contact.

#### **4.1.6 Statement by the Second Officer**

The Second Officer conformed the Master's statement and further announced that after the larger vessel (PURPLE BEACH) had passed, he had suddenly seen a white light directly at the port stem. The pilot had ordered a course alteration to 320° while he ran to the port bridge wing. After the collision HENNY had passed on the port side. He thereupon ran back to the chart table to store the position at the GPS. The time displayed on the GPS had been 02:05:57 h UTC.

#### **4.1.7 Statement by the Pilot on board**

The advising sea pilot stated in his incident report that before leaving the port boundary at Tinsdal he had switched over to VHF Channel 60 (Radar Wedel). The visibility had suddenly become very poor and was approx. 200 m.

He also stated that after passing buoy 120 he had heard that the two vessels FINJA and PURPLE BEACH would be coming towards him. He knew looking ahead that these vessels would be passed in the Lühe bend. He therefore kept the course of MV OOCL CANADA north of the radar line, whose distances had been confirmed by the radar

adviser. While he observed the two echoes approaching him he had initiated the change of course early in order to remain well north of the radar line.

When he then suddenly heard that HENNY was being called on VHF with the message that she should come to starboard because MV OOCL CANADA was coming towards her and was precisely right ahead, the rudder was immediately ordered to starboard, whereupon the vessel had turned at once. At the same time a light had appeared on the port stem. Then he had heard a muffled blow on the bridge and the light on the port side had disappeared. The course headed of 335° had thereupon been altered to 315° again.

## 4.2 Recording of the audio and traffic documentation

### 4.2.1 Audio documentation VHF Channel 21, Hetlingen Radar (HR)

Uhrzeit (MEZ)	Sprechender	Text
02:50:00 02:50:20 02:51:00	HR	HJOERDIS (HJ) 50 m nördlich der Radarlinie , jetzt parallel, Finja (F) die 111 umrundet, Purple Beach (PB) 50 südlich, 109 voll Steuerbord voraus, HJ 100 m nördlich, parallel, F 50 m südlich und die PB, Holger, 50 m südlich, 109 achteraus.
02:51:10	HENNY	Hetlingen Radar, Henny, Kanal 21
02:51:30 02:52:30	HR	Ja die HENNY aufgefasst. Sie stehen 200 m südlich und haben die Tonne 107 eben an Steuerbord. HJ jetzt 50 m nördlich, ganz leicht südliche Tendenz, Gegenkommer ist beim Bauhof Wedel, F 50 m südlich, PB 50 südlich 500 m bis zum Schnittpunkt und die HENNY 180 m südlich, hat die 107 achteraus.
02:52:50	PB	Heiner, wie groß ist der, der noch entgegenkommt beim Bauhof Wedel?
	HR	Moment
02:53:20	HR	Holger, OOCL CANADA mit 9,80 m, 216 m Länge hat jetzt Hamburger Yachthafen quer. Du stehst ...
02:53:30 02:53:40 02:53:50	PB HR	OK, dann bleib ich dahinter, erst mal, näh. Bleibst dahinter und 111 wird umrundet und die HENNY am Südtonnenstrich, 180 m südlich, HJ auf der Radarlinie, 1000 m bis zum Schnittpunkt, Adolf, umschalten, auf 60 geht's weiter.
	HJ	Heiner, ich danke, komme nachher gut nach Hause.
02:54:00 02:54:10	HR HR	Tschüß. F 50 m südlich, PB bleibt dahinter auf der Linie, HENNY leicht Steuerbord, 109 voraus, 180 südlich.
02:55:10	HR	Holger, der Vordermann läuft 9 Knoten.
02:55:20	PB	Ja, ich bin auf ganz langsam.
02:55:40	HR	Die F 50 südlich, passiert die 113, PB Backbord-Seite Linie, 700

02:55:50		dahinter HENNY am Südtonnenstrich.
02:58:00	HR	So, die F, äh, sie können da ein bisschen in die Süd kommen, da kommt ein großes Schiff von achtern auf.
02:58:10	HR	F von Hetlingen Radar
02:58:20	F	F kommt nach Süden
	HR	Nach Steuerbord, näh.
02:58:30	F	Ja, richtig, nach Steuerbord.
02:58:40	HR	So, Holger, Backbord-Seite Linie.
02:59:10	HR	HENNY 50 südlich, parallel. So, F, dann schalten sie mal um auf Wedel Radar, 60, da geht's weiter.
02:59:20	F	Ja; F schaltet um nach 60, Wedel Radar. Ich bedanke mich für die gute Beratung, noch gute Wache.
02:59:30	HR	Ja, tschüß, und Holger, auch umschalten 60, gute Reise.
	PB	Ja, alles klar.
03:01:10	HR	HENNY passiert die 113 und steht 50 m südlich.
03:02:30	HR	So, die HENNY, sind 50m südlich, leicht parallel und dann bitte umschalten, auf Kanal 60 geht's weiter, Wedel Radar.
03:02:40		
03:02:50	HENNY	HENNY bedankt sich, ich hab´mal eine Frage, ca. 0,3 Meilen vor mir ist das die PB?
03:02:50	HR	Ja
	HENNY	Hat der stark reduziert?
	HR	Ja
	HENNY	Ja, Danke schön.
03:09:00	OOCL CANADA	Hetlingen Radar, moin, OOCL CANADA .
	HR	Ja, OOCL CANADA wird gehört von Hetlingen Radar.
	OOCL CANADA	Herr ( <i>Nachname</i> ), sag mal, der Kümo, der da eben mit mir kollidiert ist, das war die HENNY, näh?
	HR	HENNY richtig.
	OOCL CANADA	Ja, ok, danke.
03:09:10	HR	Der schoss da plötzlich in die Nord.
03:09:30	HR	Herr ( <i>Nachname</i> ), Sie stehen da 50 m nördlich der Radarlinie und passieren die 114



#### 4.2.2 Table of estuary occupation

Table of Estuary Channels Estuary 1 - Status: 25.11.2002, 3:00 h

Ch	Call letters	Name	L	BR	T	BH	K	L	B	R	POS / W	G	H	REE
E6	OJHI	HJOERDIS	119	181	65	HBG	2	P		-	645 /E	146		
C4	VRVB9	OOCL CANADA	216	322	98	SEE	2	L		+	645 /E	124		
K5	DFQI	FINJA	64	102	30	HBG	2	O		-	648 /E	81		
F4	ELXL5	PURPLE BEACH	192	267	78	HBG	2	P		-	648 /E	95		
D7	DKRZ	HENNY	98	169	56	HBG	2	H		-	649 /E	158		
S5	V2CA	WESTEREMS	80	127	48	HBG	2	H		-	671 /E	97		
S6	DIMF	INGRID	117	181	74	HBG	2	O		-	677 /E	178		
I5	MXSE6	LYKES INNOVATOR	196	322	105	SEE	2	L		+	680 /E	138		
M6	DEGW	ARION	30	88	44	HBG	1	P		-	687 /E	79		
O4	LXJC	JACOBA-H	99	122	26	BRU	2	P		+	688 /E	93		

#### 4.2.3 Table of recording data, Radar Station Hetlingen

Table of recording data

Traffic Centre:  
Radar station:

Brunsbüttel  
Hetlingen

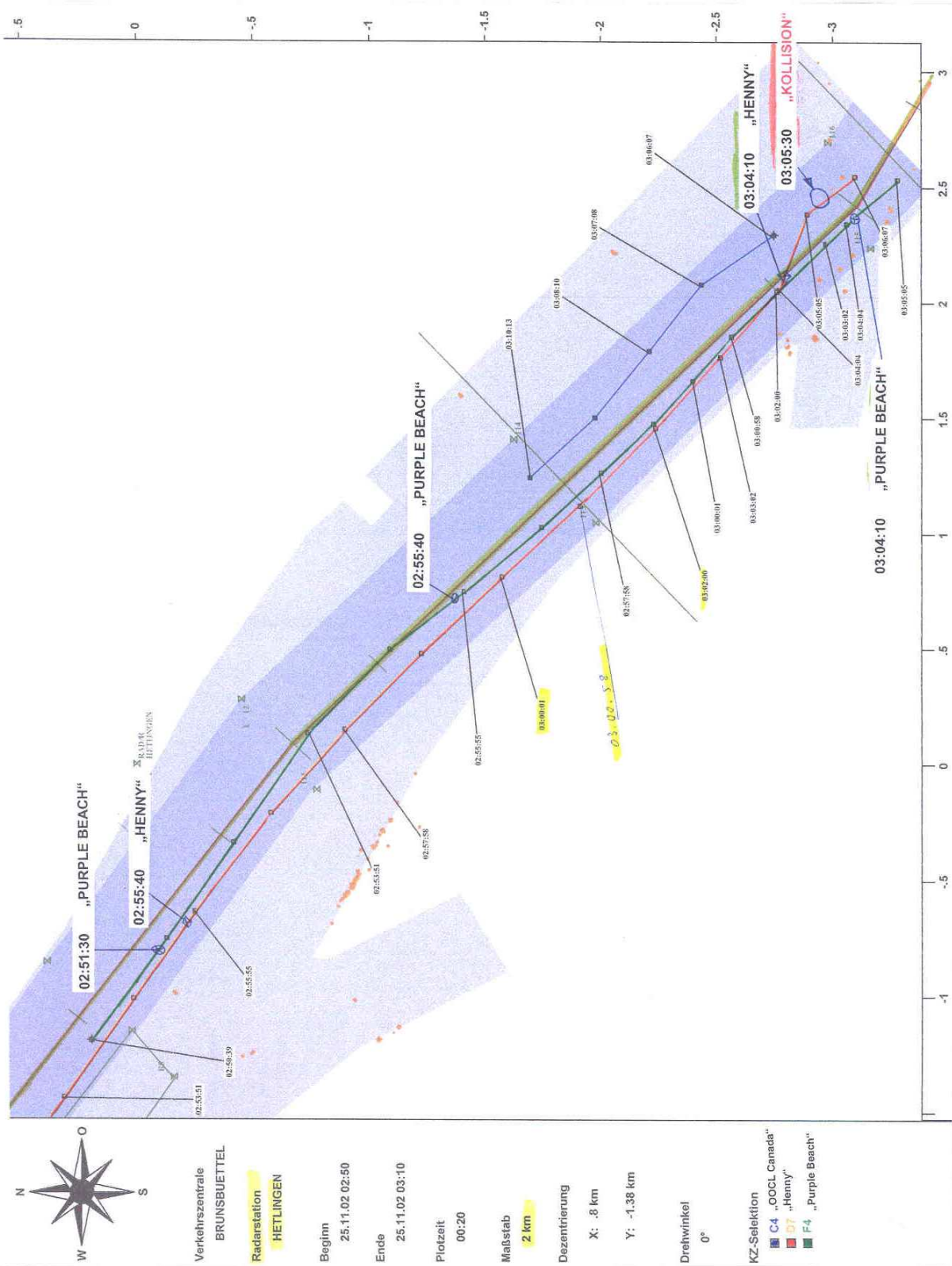
Date	Time	KZ		X(km)		Y(km)	Course(°)	Speed (kn)	Name
25.11.2002	02:50:39	D7	-	2,6331	+	1,2383	137	15.2	
		F4		1,1932	+	0,1962	124	17.1	
25.11.2002	02:51:44	D7	-	2,2459	+	0,9095	129	15.3	
		F4	-	0,7531	-	0,1273	127	16.1	
25.11.2002	02:52:46	D7	-	1,8641	+	0,6125	128	15.5	
		F4	-	0,3368	-	0,4163	123	16.3	
25.11.2002	02:53:51	D7	-	1,4398	+	0,3155	125	15.8	"Henny"
		F4	+	0,1352	-	0,7345	126	16.9	"Purple Beach"
25.11.2002	02:54:57	D7	-	1,0129	+	0,0159	125	15.8	
		F4	+	0,4985	-	1,0872	136	14.9	
25.11.2002	02:55:55	D7	-	0,6364	-	0,2493	125	15.7	
		F4	+	0,7504	-	1,4080	142	13.9	
25.11.2002	02:57:00	D7	-	0,2095	-	0,5754	128	16.7	
		F4	+	1,0288	-	1,7448	138	13.0	
25.11.2002	02:57:58	D7	+	0,1511	-	0,8936	130	16.1	
		F4	+	1,2648	-	2,0020	137	11.9	
25.11.2002	02:58:59	D7	+	0,4799	-	1,2224	136	15.0	
		F4	+	1,4770	-	2,2300	136	9.6	

## Table of recording data

Traffic Centre:                      Brunsbüttel  
 Radar station:                      Hetlingen

Date	Time	KZ		X(km)	Y(km)	Course(°)	Speed (kn)	Name
25.11.2002	03:00:01	D7	+	0,8141	- 1,5724	137	15.4	
		F4	+	1,6626	- 2,3997	132	8.3	
25.11.2002	03:00:58	D7	+	1,1216	- 1,9118	137	15.5	
		F4	+	1,8562	- 2,5668	132	8.6	
25.11.2002	03:02:00	D7	+	1,4584	- 2,2380	133	14.9	
		F4	+	2,0524	- 2,7630	134	9.4	
25.11.2002	03:03:02	D7	+	1,7660	- 2,5191	132	13.1	"Henny"
		F4	+	2,2619	- 2,9725	134	8.9	"Purple Beach"
25.11.2002	03:04:04	D7	+	2,0603	- 2,7710	128	12.3	
		F4	+	2,3467	- 3,0627	137	5.3	
25.11.2002	03:05:05	D7	+	2,3891	- 2,8930	111	11.2	
		F4	+	2,5376	- 3,2801	139	9.6	
25.11.2002	03:06:07	D7	+	2,5509	- 3,0971	164	7.6	
		F4	+	2,2990	- 2,7498	326	12.4	
25.11.2002	03:07:08	C4	+	2,0815	- 2,4369	322	11.9	
25.11.2002	03:08:10	C4	+	1,7925	- 2,2115	308	11.7	

### 4.2.4. Plot print of the radar station Hetlingen Radar



#### 4.2.5 Audio documentation VHF – Channel 60 Wedel (WR)

02:50:40	Lotse WR	Canada Bb.-Seite Linie 123 quer.
02:52:50	Lotse WR	Canada Bb.-Seite Lee und ebenfalls Bauhof Wedel quer.
02:54:10	Lotse Hjoerdis (Hj)	Wedel Radar schön guten Morgen, hier ist Hj.
	WR	Ja, hier ist Torsten, ja ich hab Dich aufgefasst Stb.-Seite hier an der Linie 600 m Steven Schnittpunkt. Gegenkommer OOCL Canada Bb.-Seite Linie passiert gleich die 122.
02:54:30	Hjoerdis	Ja, Torsten, alles gut verstanden.
	WR	OK.
02:54:55		Hj. Steven Schnittpunkt 300 m auf der Linie.
02:55:10		Canada Bb.-Seite Linie, 122 wurde passiert.
02:55:30		Hj. Steven am Schnittpunkt.
02:56:20	WR	Canada Bb.-Seite Linie Steven Schnittpunkt 1000. Hj. Bb.-Seite 40 m südl. parallel laufend.
02:57:20	WR	Canada Bb.-Seite 30 m nördl. Steven Schnittpunkt 500 m.
02:58:00	WR	Hj. Bb.-Seite 120 m südl. und die 117 wird passiert.
02:58:20	WR	OOCL Canada Bb. 100 m nördl. 200 m Steven Schnittpunkt.
02:58:40	WR	Canada Steven jetzt 100 m nördl. vom Schnittpunkt.
02:59:10	WR	Canada ganzes Schiff 100 m Bb.-Seite 100 m nördl. vom Schnittpunkt.
02:59:30	WR	Hj. Bb.-Seite 140 m südl. Steven Schnittpunkt 115°, 700 m.
02:59:40	F	Wedel Radar von der Finja. Die Finja meldet sich an zur Radarberatung.
02:59:50	WR	Morgen Herr Kpt. ( <i>Nachname</i> ), Ja, Finja, ich hab Sie aufgefasst. Sie stehen mit der Bb.-Seite 50 südl. haben noch 800 m bis zum Schnittpunkt bei der 115. Gegenkommer ist die Canada, steht 100 m nördl. parallel laufend.
03:00:00		Hj. 140 südl. Schnittpunkt.
03:00:10		104° 350 m.
03:00:20	PB	Wedel Radar, Purple Beach.
	WR	Ja, Purple Beach?
03:00:30	PB	Ja, ich hör hier mit.
	WR	Ja Holger, ich hab Dich hier noch nicht. Der kommt gerade rein.
03:00:40	PB	Ich bleib hinter der Finja und bin jetzt auch mit der Fahrt runter.
	WR	Ja. Hj. 100 m Steven, wird den Schnittpunkt 100 m südl. passieren.
03:01:00	WR	Canada Bb.- Seite 50 nördl. 118 quer. F Bb.-Seite 50 südl. und noch 450 m bis zum Schnittpunkt.
03:01:10		
03:01:40	WR	PB, Sie stehen dort auf der Radarlinie, haben noch 600 m Steven Schnittpunkt. Ihnen kommt die OOCL Canada entgegen, der steht 50 nördl. und hat die 118 passiert.
03:02:00	WR	Hj., Adolf, Du stehst mit der Bb.-Seite 100 m südl. und hast die 119 passiert. Canada elbabwärtsfahrend 50 Bb.-Seite, 50 m nördl., entgegen kommt die Finja, steht 100 m südl. 100 m bis zum Schnittpunkt.
03:02:40	WR	Purple Beach auf der RL und noch 400 m bis zum Schnittpunkt.
03:03:30	WR	Finja, Sie stehen 130 m südl., aber es geht gut so, Purple Beach auf der RL und noch 100 m bis zum Schnittpunkt. OOCL Canada

03:04:00		Bb.-Seite 80 m nördl. und noch 300 m bis zum Passieren der 116.
03:04:10	WR	PB Steven jetzt im Schnittpunkt.
03:04:40	WR	Henny, Sie müssen an die Süd kommen.
	Henny	Ja, ich komme wieder zurück wenn, die PB hat so stark reduziert hier.
03:04:50	WR	Ja, die OOCL Canada kommt Ihnen da entgegen. Den haben Sie genau recht voraus.
	WR	OOCL Canada.
03:05:00	WR	OOCL Canada, Bernd, diese Henny du, die soll in die Süd kommen.
03:05:10	OOCL Canada	Ich seh das du. Ich hau noch mal rüber noch mal.
03:05:20	WR	Ich kann Euch nicht mehr beraten, da ist mir ein Echo jetzt hier.
	OOCL Canada	Also, das geht gerade klar hier.
03:05:30	OOCL Canada	Gerammt. Wir sind zusammengestoßen.
	WR	Ja, mit einem Echo hier.
03:05:40	OOCL Canada	(unverständlich) ..... ist nördl, und wie weit steh' ich nördl.?
03:05:50	WR	Du stehst jetzt 150 m nördl.
03:06:10	WR	OOCL Canada 150 m nördl.
	OOCL Canada	Ja, 130 hab ich notiert. Habt Ihr ihn nicht am Band gehabt oder hat er nicht geantwortet, oder was war los?
03:06:40	WR	Der hatte sich hier noch gar nicht gemeldet, näh.
	OOCL Canada	(unverständlich) .....
	WR	Ja.
	OOCL Canada	. Ich weiß nicht, hat es sich schon gemeldet bei Dir?
	Henny	Haben Black-out hier.
	OOCL Canada	Dann soll der NvD mal gleich aufnehmen hier. Uhrzeit festlegen. Ihr habt das ja alles auf Band.
03:06:50	WR	Ja.
03:07:10	WR	Finja, Sie stehen da am Südtonnenstrich, und haben noch 200 m bis zur 117. PB 120 m südl., und Henny, Sie stehen dort 100 m nördlich
03:07:40	OOCL Canada	Du, Torsten, sagst den NvD bescheid, wir gehen nach Brunsbüttel. Wir ankern da, wahrscheinlich NO-Reede und wollen die Polizei bitte haben.
	WR	OK.
03:08:20	WR	Henny, sind Sie noch auf Empfang?
	Henny	Ja, die Henny ist auf Empfang hier.
03:08:30	WR	Sie stehen da 100 m nördlich
	Henny	Ja, ich hatte z. Zt. Black-out hier, aber Maschine dreht und ich versuche wieder auf Kurs zu kommen.
	Hj.	Wedel Radar Hj. hier, Torsten, ich schalte um, Tschüß.
	WR	Ja, Tschüß.
	OOCL Canada	Canada, ich geh' mal auf einen anderen Kanal.
03:08:40	WR	Ja, geh' mal auf Hetlingen.
	OOCL Canada	Ja, Hetlingen, ich switch um, bis nachher.
	WR	OK, ich hab den informiert.
03:09:00	WR	Finja, Sie stehen da am Südtonnenstrich, Südtonnenstrich.
03:09:20	WR	Purple Beach, Sie stehen dort 150 m südl. und passieren die 117.
03:09:40	WR	Henny, Sie stehen jetzt 150 m nördl.. Henny fahren Sie da noch oder ankern Sie, oder was machen Sie da?

03:09:50	Henny	Ja, ich kann die Maschine nicht kontrollieren. Ich warte, dass mal ein Kommando kommt von unten. Aber Maschine läuft noch. Wir versuchen ihn auf Kurs zu kriegen.
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#### 4.2.6 Table of recording data, Radar Station Wedel

Table of recording data

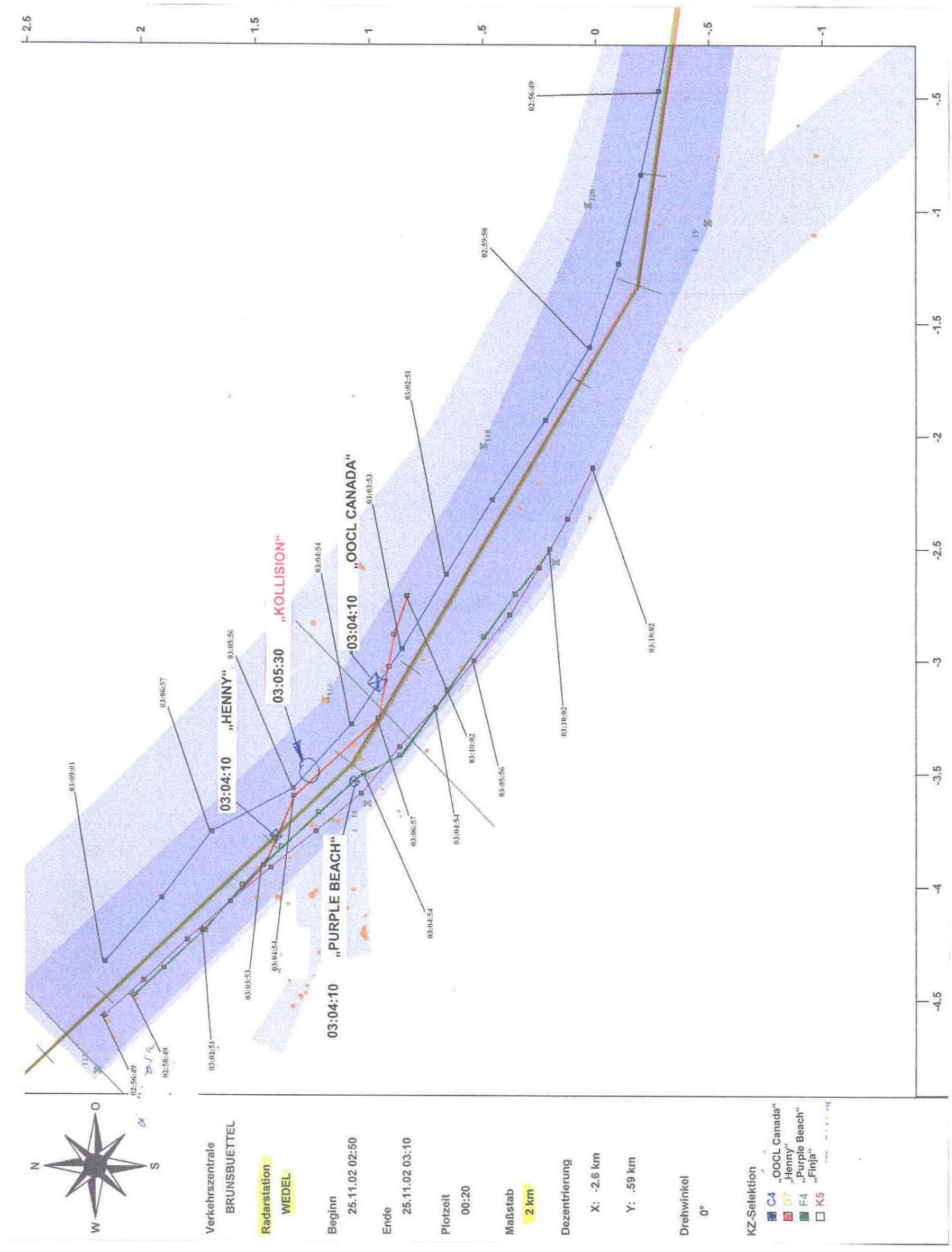
Traffic Centre:  
Radar station:

Brunsbüttel  
Wedel

Date	Time	KZ	X(km)	Y(km)	Course(°)	Speed (kn)	Name
25.11.2002	02:59:50	F4	- 4,3699	+ 1,9092	136	10.7	
		K5	- 4,0756	+ 1,6149	139	8.0	
		C4	- 1,6122	+ 0,0265	291	12.4	
25.11.2002	03:00:48	K5	- 3,9244	+ 1,4372	141	8.0	
		F4	- 4,2029	+ 1,7262	134	8.5	
		C4	- 1,9357	+ 0,2227	302	13.2	
25.11.2002	03:01:49	F4	- 4,0013	+ 1,5618	130	8.2	
		K5	- 3,7672	+ 1,2383	139	8.1	
		C4	- 2,2884	+ 0,4587	305	13.9	
25.11.2002	03:02:51	D7	- 4,2029	+ 1,7368	134	13.6	"Henny"
		F4	- 3,8316	+ 1,3921	133	7.5	"Purple Beach"
		K5	- 3,5956	+ 1,0394	138	8.3	"Finja"
		C4	- 2,6198	+ 0,6629	301	12.4	"OOCL Canada"
25.11.2002	03:03:53	D7	- 3,9138	+ 1,4690	131	12.3	
		F4	- 3,6778	+ 1,2277	138	7.6	
		K5	- 3,3888	+ 0,8697	133	8.1	
		C4	- 2,9539	+ 0,8591	302	12.5	
25.11.2002	03:04:54	D7	- 3,6062	+ 1,3364	108	11.9	
		F4	- 3,5055	+ 1,0288	140	8.1	
		K5	- 3,2138	+ 0,7106	131	8.1	
		C4	- 3,2880	+ 1,0819	304	12.7	
25.11.2002	03:05:56	C4	- 3,5718	+ 1,3391	315	11.6	
		F4	- 3,4259	+ 0,8697	149	6.0	
		K5	- 3,0070	+ 0,5409	128	8.5	

#### **4.2.7 Plot Print of the radar station Wedel**

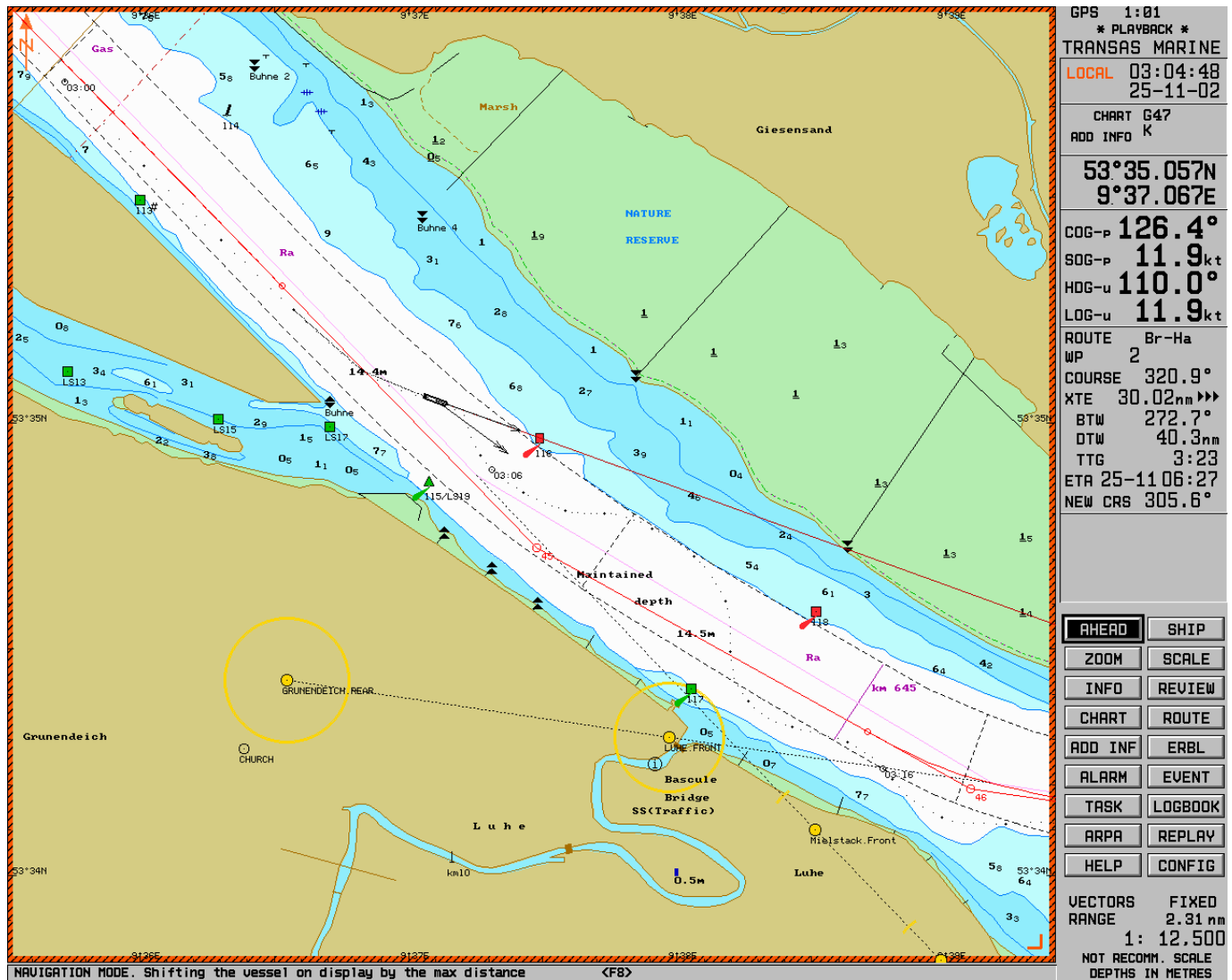




#### 4.2.8. Audio documentation VHF - Channel 68 Brunsbüttel Elbe Traffic (VTSC BB)

03:04:00	VTSC	Henny, Brunsbüttel Elbe Traffic, achten Sie auf den Entgegenkommer bitte
03:04:10	Henny	Purple Beach Henny
03:04:20	VTSC	Henny, achten Sie auf den Entgegenkommer, hier ist Brunsbüttel Elbe Traffic. Das ist „OOCL Canada“. Der hat 9,80 m Tiefgang, der geht nicht weit in die Nord
03:07:00.	VTSC	Henny Brunsbüttel Elbe Traffic
03:07:20	Henny	Die Henny Brunsbüttel Elbe Traffic
	VTSC	Henny Brunsbüttel Elbe Traffic. Wie schaut das den bei Ihnen aus?
	Henny	(unverständlich).. wir hatten Kollision hier.
	VTSC	Ja, das hab ich wohl mit gekriegt. Äh, Ja OK schauen sie mal was da los ist und melden sie dann wie das weiter geht.
03:10:10	WS 20	Die Henny mal kommen für die WS 20

#### **4.3. Print of electronic sea chart from on board MV „Henny“**



## 5. Summary of damage/photos of damage

The damage on board MV "HENNY" is evident from the attached photos. The port bridge wing and the mechanic's cabin below were largely destroyed. One person was jammed in

this cabin and injured. The free-fall lifeboat with associated ramp was heavily damaged. Deformation over all decks. A period in the yard was necessary.



.The damage to the forecastle at the front of MV "OOCL CANADA" is evident from the photos. The forecastle bulwark was set in approx. 20 m on port. There is a hole in the shell

plating of approx. 40 x 80 cm at a height of about 8 – 10 m above the water line. The forward port wavebreaker is damaged.



## 6.0 Analysis

MV HENNY was proceeding along the Elbe shipping route at visibilities of about 100 m with a maximum speed of 15 – 16 knots. In view of the fog MV HENNY had reported to the shore radar advisers and was included in the information loop by the advising sea pilot.

HENNY was being steered by automatic pilot that was being operated by the Master. The Master was operating the radio sets and observing the two radar sets.

According to the records in the ship's logbooks and his report, the Master had sufficient rest periods before starting his watch.

Despite frequent notifications by the advising se pilot at Hetlingen Radar, the vessel's command of MV HENNY did not notice in time or did not take into account that PURPLE BEACH travelling ahead had reduced her speed since 02:53:51 because of the traffic situation.

HENNY only reduced speed slightly as of 03:02:00 and at 03:02:50, after the Master had been requested to switch over to VHF Channel 60, he asked whether the vessel in front that was about 0.3 sm ahead had reduced speed heavily. HENNY thereupon altered course approx. 20° to port at 03:04:04. The Master carried out this manoeuvre without agreeing it with the advising pilot from Hetlingen Radar or Wedel Radar and without first obtaining sufficient information about the traffic situation. At this time the speed according to the radar plots of the estuary headquarters was still 12.3 knots and according to HENNY's ECDIS chart on board 11.9 knots over ground.

At 03:04:00 after passing through the radar line from south to north HENNY was called on VHF Channel 68 by Brunsbüttel Elbe Traffic and warned of the approaching vessel. Although MV HENNY had not reported for advisory assistance to the shore radar advisers at Radar Station Wedel on VHF Channel 60, she was requested

by the radar pilot there at 03:04:40 to come south (to the right-hand side of the navigation channel). MV HENNY confirmed this request.

At 03:07:20 HENNY reported to the Brunsbüttel Traffic Headquarters on VHF Channel 68 and reported the collision.

MV OOCL CANADA had to keep close to the radar line in the middle of the navigation channel because of her draft of 9.80 m. Despite a well-manned bridge HENNY's manoeuvre could not be foreseen. Evasion to starboard to avoid the collision was not effective in the time remaining so that a collision was suffered at about 03:05:30 approx. 80 m north of the radar line.

In accordance with the IMO Casualty Database Res. A.849 (20) this is a very serious casualty attributable to human error. All the technical systems on board and on shore were operating soundly. A black-out on board MV HENNY only occurred as a consequence of the casualty.

Isolated false echoes occur on the radar screen in the area of the HV cable at Hetlingen. They come in the form of either a small string of pearls or a white patch of the size of a smallish ship's echo moving crossways to the navigation channel in the HV cable line. It has not been known to date that *"interference in the form of large patches were noticed so that no clear echo ahead could be seen"*, as the Master of HENNY wrote in his statement.

The course of the casualty was determined from the investigations of the Federal Bureau of Maritime Casualty Investigation on board MV HENNY and at the Traffic Headquarters Brunsbüttel, the investigations of the River Police (WSPK 1 Hamburg) and statements by witnesses.



## 7.0 Recommendations

The command of MV HENNY did not navigate carefully enough during the voyage under fog conditions. The speed of travel was not adjusted to the prevailing traffic and weather conditions and the display on the radar sets was not evaluated adequately.

The vessel's command should have considered whether it was sufficient for safe management of a vessel in the estuary during fog for the Master on watch duty to operate all the important navigational equipment (radar, automatic pilot, VHF) alone.

The shore radar guidance was altogether correct and in no way relevant to the casualty.

However, the Federal Bureau of Maritime Casualty Investigation considers it necessary that in accordance with the recommendations pursuant to § 2 Para. 1 No. 24 of the German "Seeschiffahrts-Strassen-Ordnung" and the Radio Regulations

- 1. indications be given within the framework of advice to shipping from the Traffic Headquarters by sea pilots in accordance with § 23 Para. 1 of the Law governing Sea Pilots, issued also at times of reduced visibility, that depending on requirements such advice should contain not only the positions and passing times, but also speed reductions ascertained and thus dangerous close quarters situations with vessels, taking into account the defective display of speed indication and course vector on the radar screen at sudden and rapid changes of speed- resp. course alterations,*
- 2. calls to vessels by the Traffic Headquarters or by pilots on board the vessels from vessel to vessel should contain the names of the relevant vessels to make it easier for foreign-language ship's commands and vessels without pilots on board to participate actively in the radar advice, and to make it possible to reconstruct the radio traffic recorded better afterwards within the scope of securing evidence.*

The investigation was conducted in conformity with the law to improve safety of shipping by investigating maritime casualties and other incidents (Marine 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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