

Review from the Division for Investigation of Maritime Accidents

## **ATLANTIC / ARNGAST – Collision in the DW route east of Langeland, Denmark, 4 August 2005**

### **Ship's data**

ATLANTIC, IMO No. 9135676, is a 39017 GT bulk carrier built in 1996 with a DWT of 73565 and a length overall of 224.89 m. The flag State is Marshall Islands and the homeport is Majuro. The owner is Lasal Enterprises S.A., Marshall Islands.



*ATLANTIC - Picture by the Investigation Division*

ARNGAST, IMO No. 5387740, is a 833 GT general cargo vessel built in 1958 with a DWT of 1030 and a length overall of 61.14 m. The flag State is Germany and the homeport Stralsund.



*ARNGAST – Picture by the Investigation Division*

## Sequence of events

### ATLANTIC

*The following sequence of events is based on the Investigation Division's visit on board on 4 August during which statements were obtained from the master, the 3<sup>rd</sup> officer and the pilot.*

ATLANTIC has a crew of 19 among which the master, the chief officer, the 2<sup>nd</sup> officer and the 3<sup>rd</sup> officer. The officers on board are Indian citizens. The other crew members are Philippine citizens. There is a 4 on 8 off OOW schedule as follows:

00-04 and 12-16: 2<sup>nd</sup> officer.

04-08 and 16-20: Chief officer.

08-12 and 20-24: 3<sup>rd</sup> officer.

The master holds a Master 1<sup>st</sup> degree certificate. He last passed the Danish waters about two years ago.

The 3<sup>rd</sup> officer holds a 2<sup>nd</sup> Mate certificate. He has served as a mate since 1999 and he signed on ATLANTIC on 17 July in Flushing.

ATLANTIC departed Ventspils on the 3<sup>rd</sup> August at 0030 with a full load of fertilizers for China. The departure draught was 13.7 m.

The passage through the eastern Baltic Sea was uneventful. All equipment was operating.

Off Bornholm, two Danish pilots boarded the vessel for pilotage through the Danish waters until the Skaw.

In the morning of the 4<sup>th</sup> August at about 0400 the master came on the bridge and he remained on the bridge throughout until the collision. On the bridge were also the chief officer, as OOW, the pilot and a helmsman. The chief engineer, the 2<sup>nd</sup> engineer and the electrical officer manned the engine room. The engines were ready for manoeuvres at all times. At that time the vessel was entering the DW route east of Gedser. The vessel exhibited normal navigational lights and also lights for a deep draught vessel.

The 3<sup>rd</sup> officer came on the bridge at about 0750 and relieved the chief officer as OOW.

At 1030, just before turning north in the DW route east of Langeland, ARNGAST was plotted on the AIS coming from the Kiel Canal and heading towards Kalundborg. At that time ATLANTIC's steering was changed to hand steering and the speed was 12 knots. The pilot was operating the ARPA radar. The BA chart No. 2597 was in use.

It was clear weather with a southwesterly wind, 3-4 m/sec., and a very good visibility. The lights for a deep draught vessel had been changed to the day signal.

At 1038 ATLANTIC passed buoy DW 58 close on her starboard side and the course was subsequently changed to starboard to 003°. ARNGAST was closing in on port side.

At 1045, when the distance between the vessels was about two miles, ATLANTIC was called by ARNGAST on VHF, channel 16, and asked about their intentions. ATLANTIC replied that it was a deep draught vessel and that ARNGAST should keep out of the way. The pilot handled the communication.

At 1048 the master took over the con and at the same time the pilot informed ARNGAST that if he did not go to port they would collide.

At 1049 the master ordered hard a starboard rudder.

At 1050 the bow of ARNGAST hit the port side of ATLANTIC abreast the No 6 hatch at an angle of about 90°. The bow then slid down the side of ATLANTIC.

The collision took place in position 54°43.2' N - 010°46.9' E.

No signals were sounded by any of the vessels.

At 1051 hard a port rudder was ordered to bring the vessel back in the DW route.

Between 1052 and 1054 the engine power was gradually reduced to dead slow ahead.

At 1053 the pilot contacted ARNGAST and it was established that the vessel was damaged in the bow above the waterline and that all crew were safe.

At 1104 ATLANTIC lost steerage, so speed was regained and the passage resumed.

At 1105 the pilot informed the Admiral Danish Fleet about the collision.

### **ARNGAST**

*The following sequence of events is based on the Investigation Division's visit on board in Marstal on 5 August during which statements were obtained from the master and the chief officer.*

ARNGAST has a crew of 5, the master, the chief officer and 3 ABs. The master, who is also the owner of the vessel, is a German citizen and holds a Deep Sea Master licence. He has sailed nearly 25 years as a Master, the last 8 years in ARNGAST, which very often passes this area. The chief officer is also a German

citizen and holds a licence as Chief Mate – unlimited. He had just signed on the ship.

ARNGAST departed Bremen on 3 August bound for Kalundborg in ballast. The forward draught was 1.2m and the aft draught 2.4 m. The vessel passed through the Kiel Kanal and during the passage, which took about 8 hours, the master navigated the vessel.

As ARNGAST left the Kiel Kanal at Holtenau at 0800 hours on 4 August the chief officer took over as OOW. He was instructed to call the master before the arrival of Langlandsbaelt. Because the chief officer was new on board an AB was also on the bridge as look-out.

A passage plan for the voyage was loaded into the electronic chart.

It was fine weather with good visibility and a slight sea. Two daylight radars were operated, one, an ARPA, on 6 miles and the other on 3 miles.

At 1040 when ARNGAST was south of Langeland, at a normal service speed of approximately 11 knots, the chief officer called the master, who came on the bridge. Shortly after the master left again to pick up some papers from his cabin and to go to the toilet.

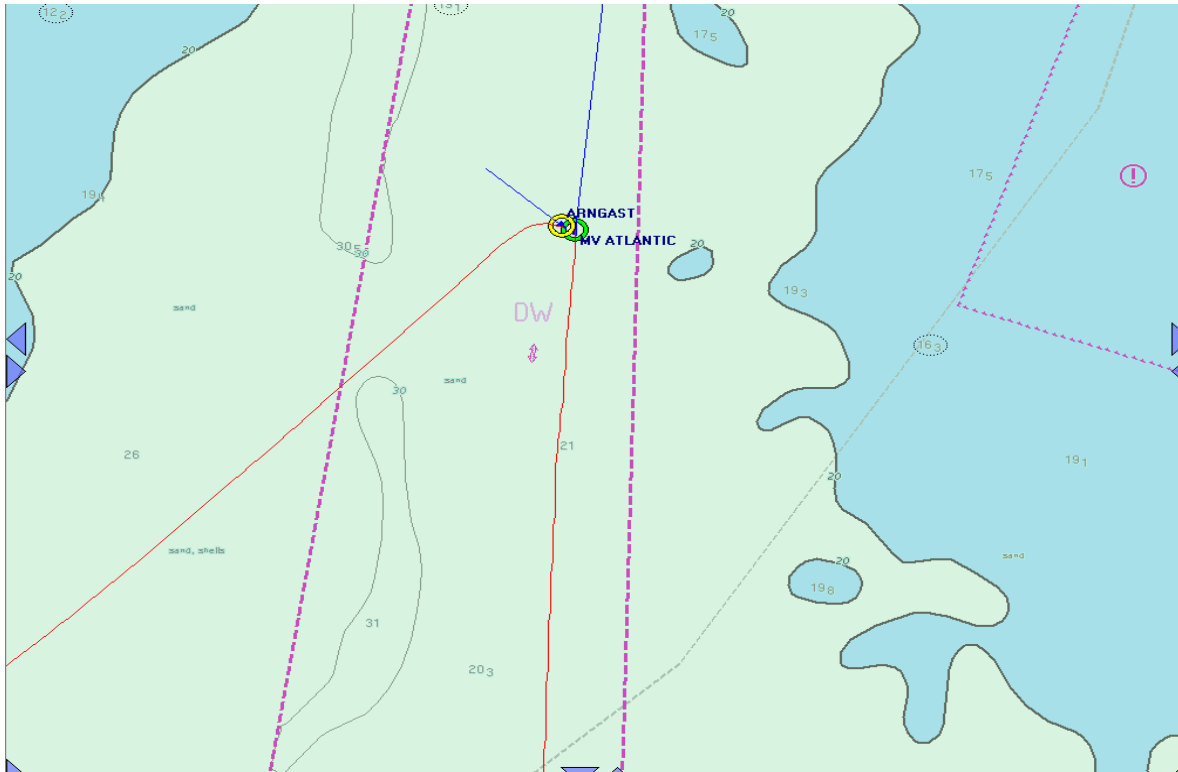
The chief officer observed ATLANTIC on the ARPA radar. At first the two vessels navigated on parallel courses. Then ATLANTIC changed course to port. The chief officer felt that the situation became critical and he called the master by the ship's alarm.

On VHF someone in ATLANTIC told ARNGAST to change course to starboard and proceed astern of ATLANTIC. The chief officer took the wheel and tried to change course to starboard.

The master heard the alarm in his cabin and ran to the bridge. When he arrived on the bridge the chief officer told him, that the other ship had asked him to turn to starboard.

The master saw the black hull of ATLANTIC and that a collision was imminent. He changed to full astern, by which the vessel turned to starboard. Immediately after ARNGAST's bow hit the port side of ATLANTIC at an angle of approximately 70°.

## AIS information



*Extract of the AIS plot from the Royal Danish Administration of Navigation and Hydrography's display system.*

According to the AIS plot the collision took place at 1050 hours in position 54°43,2' N - 010°46,7' E.

Also according to the AIS plot the distance between the ships was 2 miles when ATLANTIC at 1038 changed course to starboard to follow the DW route.

At 1047, when ARNGAST called ATLANTIC on VHF, the distance between the ships was 0.6 mile and both ships were on unaltered course and speed.

## Damages and subsequent events

ATLANTIC suffered only minor above water damages, crumbling of the rail in port side. ARNGAST suffered above water damages in the bow. There was no pollution observed and no personal injuries.

Both vessels were ordered to anchor by the Admiral Danish Fleet and were detained by the Danish Maritime Authority.

Following surveys by the classification societies ATLANTIC was released the same day at 1840 and allowed to continue its voyage, and ARNGAST was

allowed to sail to Marstal for repairs. The repairs were finalized and ARNGAST was released on 24 August.

## **Communication on VHF Channel 16**

*The following information is based on the Investigation Division's listening at the VHF communication between the two vessels stored by Lyngby Radio.*

ATLANTIC – AL  
ARNGAST – AG

### *Before the collision*

10.47.00

AG : AL how do you read me.

AL (pilot): Loud and clear.

AG : What is your intention.

10.47.20

AL (pilot): First of all you can see I am a deep draught vessel in a deep draught route so you have to give way.

AG : O, I am sorry.

AL (pilot): Thank you very much.

10.47.30

AG : That now we will continue so you can pass on the aft.

AL (pilot): I am not in position to manoeuvre any where so you will have to come more to port and then slow down and pass astern of me.

10.48.14

AL (pilot): AG could you please tell what your intentions are.

10.48.30

AL (pilot): AG AG this is deep draught vessel AL. I want you to come to port now otherwise we will have a collision.

### *After the collision*

10.51.50

AG : AL – AG

10.54.20

AL (pilot): AG this is AL calling at 16.

AG : Yes AL this is AG. How do you read me.

AL (pilot): Loud and clear please come to channel 06.

AG : One minute the captain will come one minute I go to 06.

AG : I am on 06 now.

AL (pilot) : 06 OK.

10.54.45

AG : Stand by the captain will come.

## **Conclusions**

During the above-mentioned sequence of events ARNGAST was the give-way vessel in accordance with Rule 15 in the Collision Regulations.

ARNGAST failed to keep out of the way of ATLANTIC in accordance with Rule 15.

ATLANTIC was a “vessel constrained by her draught”, which according to the definitions in Rule 3, h, in the Collision Regulations means “a power-driven vessel, which because of her draught in relation to the available depth and width of navigable water, is severely restricted in her ability to deviate from the course she is following “, and the ATLANTIC exhibited a cylinder in accordance with Rule 28.

ATLANTIC was navigating in a DW route, which “must be avoided by ships capable of navigating outside the DW route”.

ARNGAST failed to avoid impeding the safe passage of ATLANTIC, as a vessel constrained by her draught, cf. Rule 18, (d) (i) and navigating in a DW route.

There was no other traffic in the area that could impede ARNGAST from manoeuvring.

The chief officer in ARNGAST, as OOW, apparently misunderstood the VHF request from ATLANTIC to turn to port and to slow down, and in stead turned to starboard shortly before the collision.

Although ATLANTIC was aware of ARNGAST’s unaltered course and speed and that they were approaching each other, ATLANTIC made no contact to ARNGAST prior to ARNGAST’s VHF call at 1047, when the distance between the vessels was 0.6 miles, and ATLANTIC did not give the sound signal prescribed in Rule 34 (d) in the Collision Regulations.

21 September 2005

The Division for Investigation of Maritime Accidents