

Investigation Report 343/04

15. July 2005

very serious marine casualty:

Collision between MV RITHI BHUM and MV EASTERN CHALLENGER with subsequent foundering of MV EASTERN CHALLENGER on 14 November 2004 in the South China Sea / Taiwan Strait

1 Summary of the marine casualty

The general cargo ship EASTERN CHALLENGER left KUALA, Vietnam on 11 November 2004 at 11:10 h¹. It was carrying a cargo of 6100 mt ilmenite ore and was on the way to Omahama, Japan.

The container ship RITHI BHUM left Hong Kong at 18:30 h on 13 November 2004 and was making for Shanghai.

On both vessels the second nautical officers took over the bridge watch at 00:00 h on 14 November. The radar sets of both vessels were in operation, and visibility and weather were good.

According to the voyage planning EASTERN CHALLENGER was steering a course of 065° since passing the last waypoint at 18:00 h on 13 November at a speed of 10.2 kn. The voyage plan of RITHI BHUM provided for a change of course from 076° to 063° at the waypoint at 01:30 h. She was proceeding at a speed of 21.5 kn and had already picked up and plotted EASTERN CHALLENGER running ahead on its radar screen. At about 01:54 h, at a distance of 3.5 nm aft, RITHI BHUM was also detected on the radar set of EASTERN CHALLENGER. On the basis of the AIS² data transmitted, RITHI BHUM was recognised with its vessel name, made out on an approximately parallel course at a speed of 22 kn. RITHI BHUM was assessed as a vessel overtaking on the starboard side.

At about 01:58 h RITHI BHUM carried out an evasion manoeuvre to starboard for another vessel. After passing the vessel RITHI BHUM turned back to port and at about 02:04 h was proceeding on the course of 057° at an unchanged speed of 21.5 kn.

About ten minutes later the bulbous bow of RITHI BHUM collided with the starboard stern of EASTERN CHALLENGER.

As a result of the strong flooding after the collision the crew of EASTERN CHALLENGER left the vessel. RITHI BHUM had sustained heavy damage to the bulbous bow and in its fore ship area. However, it succeeded in manoeuvring back to the scene of the collision and picking up the crew of EASTERN CHALLENGER. After this, RITHI BHUM returned to Hong Kong and EASTERN CHALLENGER sank later about nine nautical miles northnorthwest of the collision location.

(Remark: The Federal Bureau has not received any reports about damages other than those caused by the collision. Also no further information have been provided as to how EASTERN CHALLENGER got to the foundering position after the collision. According to the available results of the investigations of Marine Department Hong Kong and Korean Maritime Safety Tribunal it is only stated that „The „Eastern Challenger“ later sank completely in the area“ and „... and she (EASTERN CHALLENGER) sank in 24hrs“ respectively. The aim of the investigation of the Federal Bureau is not to ascertain liability or claims. In this respect the present report is limited to identify the circumstances leading to the collision.)

¹ All times in this report relate to local time = UTC + 8h

² Automatic Identification System

2 Recommendations

2.1 Voyage Data Recorder

2.1.1 Reliability

The Federal Bureau of Maritime Casualty Investigation recommends the manufacturer of the voyage data recorder to evaluate the technical inadequacies of the device that occurred in close co-operation with the Federal Maritime and Hydrographic Agency responsible for type approvals for vessels sailing under German flag and to secure the complete functionality of the system and the required quality of the data to be recorded in accordance with the performance standard of the IMO and the European standard. Furthermore the possibility of a suitable notification to the vessel's command of inadequacies within the device should be reviewed, and if appropriate implemented into practice. This applies especially with regard to the lack of sensor data mandatory for recording.

(Remark: In the statements to the draft of this report the manufacturer of the voyage data recorder and of the responsible operator of the vessel according to 3.1 ISM Code informed about steps already taken for implementation of this recommendation. Regarding the suitable notification about inadequacies within the device the manufacturer explained it would be workable from a technical point of view. It would require a modification of the system, however, to implement „alarm suppression functions“ necessary to not initiate an alarm, e.g. in case a radar is switched of intentionally)

Die Federal Bureau of Maritime Casualty Investigation recommends to the Federal Maritime and Hydrographic Agency as responsible body that the reproduction quality of the audio data to be recorded in sea operation should be checked more intensively as regards blasting and interference when the system is examined prior to use on board.

(Remark: In the statement to the draft of this report the Federal Maritime and Hydrographic Agency already notified about the implementation of this recommendation. The technical difficulties of the implementation were pointed out, however, as the performance standard of IMO accepts the recording of all bridge microphones on only one audio track.)

The Federal Bureau of Maritime Casualty Investigation requests the Federal Ministry for Transport, Building and Housing to suggest in the relevant IMO bodies to modify the VDR performance standard to require a separate audio track for every microphone.

2.1.2 AIS Information

The Federal Bureau of Maritime Casualty Investigation requests the Federal Ministry for Transport, Building and Housing to suggest in the relevant IMO bodies that additional recording of AIS information be mandatory in the voyage data recorder.

2.2 Lookout

The Federal Bureau of Maritime Casualty Investigation recommends that the vessel operator according to 3.1 ISM Code of RITHI BHUM should effectively implement the observation of the international regulations regarding the assignment of a lookout on the bridge as is already described in its safety management system manual and should check that this is observed.

2.3 Manoeuvres for avoiding collisions

The Federal Bureau of Maritime Casualty Investigation recommends that the vessel operators/responsible operators in accordance with 3.1 ISM Code of the two vessels involved, remind the captains and the nautical officers of the watch of the provisions of the Collision Avoidance Regulations to determine if risk of collision exists and to take action to avoid collision, both as give-way and as stand-on vessel as appropriate, and sustainable work towards compliance of those provisions.

2.4 Training

The Federal Bureau of Maritime Casualty Investigation recommends that the responsible operator in accordance with 3.1. ISM Code of RITHI BHUM should provide type-specific instruction and familiarisation with voyage data recorders, electronic charts and automatic identification systems for the bridge crews of its vessels.

In particular special attention should be paid to the possibility of using the interfaces between AIS, radar and electronic chart in order to be able to display the information in a more user-friendly way in future.