

## **Review:**

During embarkation of two Pilots on to the bulkcarrier DEEP SEA from the Pilotvessel SKAWPILOT I on 26 November 2009, the backpack of the second embarking Pilot was caught between the steps of the pilotlaunch's embarkation arrangement, while the Pilot was climbing the DEEP SEA pilotladder. The Pilot was torn off the pilotladder and into the sea between the bulkcarrier and the pilotlaunch.

Thanks to a quick response from the two-men crew of the pilotlaunch, the Pilot was picked up by the pilotvessel after approximately five minutes, using the pilotlaunch's "Man-over-board"-equipment.

The Pilot was conscious during the whole sequence of events. Apart from the effects of the cold, he was uninjured.

## **Conclusion:**

### **Immediate causes:**

Unsafe acts:

- The Pilot was torn off the pilotladder due to his backpack, which was carried on the Pilot's back, being caught by the steps of the pilotlaunch's embarkation arrangement.
- It is the opinion of the investigation division, that the fact that the Pilot was using only a thermal protection jacket, but did not use his thermal protection trousers, meant that the equipment used would not have ensured the Pilot's survival for an hour as prescribed. The use of both thermal protection jacket and thermal protection trousers would have reduced the risk of hypothermia severely, thereby extending the time available to rescue the Pilot.

Unsafe surroundings:

- It is the opinion of the investigation division, that the position and design of the pilotlaunch's embarkation arrangement was the cause to the Pilot's backpack being caught between the steps, thereby tearing the Pilot off the pilotladder.

### **Contributory causes:**

Involved persons:

During the whole sequence of events, the Pilot was conscious, and was able to assist the rescue by actively marking his own position in the water.

## The safety system

It is the opinion of the investigation division, that the training of SKAWPILOT I's crew, their knowledge of the vessel and the equipment used was of decisive importance to the successful outcome of the rescue and the short amount of time the Pilot was in the water before he was safely back on board the pilotlaunch.

The pilot used a selfinflating lifevest. However, apparently the lifevest did not inflate automatically as it should. It was possible to inflate the lifevest manually by pulling the release-cord. It has not been ascertained whether the reason for the vest not selfinflating was because of the Pilot pulling the release-cord before the lifevest could register being in the water, or if the missing automatic release was caused by other factors.

It is the opinion of the investigation division, that the lack of maintenance and updates to the Fartøjshåndbogen – the main guidance publication regarding procedures etc within DANPILOT – through a long periode of time, has caused local- and private practies being used instead of the prescribed procedures in the Fartøjshåndbogen.

## Preventive measures

In connection with the consultation procedure, DANPILOT has informed that the following preventive measures has been established as a consequence of the incident:

- It has been announced in the organisation, that the carrying of backpacks etc. on the back is not allowed during embarkation or disembarkation of vessels.
- A committee that will find and recommend live saving equipment and thermal protection gear to the safety organisation has been established.
- A list of new life saving equipment already approved by the safety organisation has been prepared and released. A new thermal protection jacket with an integrated life saving vest as been introduced.
- A new introductory video regarding the risks of using backpacks etc. has been prepared and introduced in the organisation.
- It has been clarified within the organisation, that only the on-line version of the 'Fartøjshåndbogen' is updated and therefore the only valid version.

## **Recommendations**

In order to maintain a good safety culture within the organisation, it is important that the management sends out signals emphasizing that safety must always be the first priority.

- DANPILOT is recommended to immediately inform the organisation about the status of the current 'Fartøjshåndbog', and to speed up the revision process in the safety organisation of procedures and guidelines.

In connection with the consultation process, DANPILOT has informed the following: "DANPILOT has emphasized to the organisation, that the hardcopy-version of the 'Fartøjshåndbogen' now on the pilotstations is no longer valid, and that the only valid version is the on-line version, which is updated and therefore always up-to-date and valid.

Among other things, the 'Fartøjshåndbogen' contains instructions and procedures relating to the transfer of Pilots to and from vessels. These instructions are to be followed. In connection with the actual incidence, and a subsequent incidence on 18 January 2010 in The Sound, in which another Pilot fell in the water but was rescued, the investigation division has information, that one or more procedures and instructions were not followed.

The Pilot can risk his own life, and can put the crew of the pilotlaunch in a very difficult and unfortunate situation, if these procedures and instructions are not followed.

- DANPILOT is recommended to address this issue in the safety organisation, ensuring that both the crew of the pilotlaunches and the Pilots takes responsibility for the agreed procedures being followed.
- DANPILOT is recommended to consider whether the embarkation arrangement of the SKAWPILOT I is the optimal arrangement.

In his report immediately following the incident, the Pilot has stated, that he believed the fact the SKAWPILOT I was crewed by two crewmen instead of only one (which is the normal on most other pilotlaunches during normal conditions), was a decisive factor in the succesful rescue.

From one of its contact persons, the investigation division has received information that under certain unfavorable conditions, it will be very diffucult to rescue a Pilot fallen over board if the pilotlaunch is crewed by only one crewmember.

The equipment used to rescue persons in the water by the crew of the pilotlaunches has been demonstrated to the investigation division. In the demonstration a "Man-over-board"-dummy was rescued without problems. The demonstration took place in favorable conditions, and the pilotlaunch and the equipment was operated by one crewmember. During a subsequent incidence on 18 January 2010 off Helsingør in The Sound, a Pilot fell over board from a defect combination-arrangement. During this incidence the Pilot was rescued under favorable conditions with a one-man crew in the pilotlaunch.

However, it cannot be ruled out, that a two-men crew instead of a one-man crew in the pilotlaunch, in certain situations will be decisive for a succesful rescue of a person fallen over board. The nvestigation division believes that pilotlaunch crew and Pilots that regularly conducts exercises will be the best suited to decide in which situation an extra crew-member is needed in the pilotlaunch.

- DANPILOT is recommended to address this issue in the safety organisation, ensuring that both the crew of the pilotlaunch and the Pilot during a given transfer to or from a vessel, is comfortable that – should the Pilot fall over board - a safe and succesful rescue is possible.