

Appendix A – Safety alert, collision between the frigate 'KNM Helge Ingstad' and the tanker 'Sola TS' on 8 November 2018, outside the Sture terminal in Hjeltefjorden in Hordaland County

In connection with the ongoing investigation into the collision between the frigate 'KNM Helge Ingstad' and the oil tanker 'Sola TS' on 8 November 2018 outside the Sture terminal in Hjeltefjorden in Hordaland County, the Accident Investigation Board Norway (AIBN) has identified some safety-critical issues that require immediate attention. Note that the AIBN is in an early phase of the investigation and that the circumstances will be subject to further investigation.

The AIBN has found safety critical issues relating to the vessel's watertight compartments. This must be assumed to also apply to the other four Nansen-class frigates. It cannot be excluded that the same applies to vessels of a similar design delivered by Navantia, or that the design concept continues to be used for similar vessel models. The AIBN assumes that its findings are not in conformity with the required damage stability standard for the Nansen-class frigates.

To start with, flooding occurred in three watertight compartments on board 'KNM Helge Ingstad': the aft generator room, the orlob deck's crew quarters and the stores room. There was some uncertainty as to whether the steering engine room, the aftmost compartment, was also filling up with water. Based on this damage, the crew, supported by the vessel's stability documents, assessed the vessel as having 'poor stability' status, but that it could be kept afloat. If more compartments were flooded, the status would be assessed as 'vessel lost' on account of further loss of stability.

Next, the crew found that water from the aft generator room was running into the gear room via the hollow propeller shafts and that the gear room was filling up fast. From the gear room, the water then ran into and was flooding the aft and fore engine rooms via the stuffing boxes in the bulkheads. This meant that the flooding became substantially more extensive than indicated by the original damage. Based on the flooding of the gear room, it was decided to prepare for evacuation.

The AIBN considers the vessel's lack of watertight integrity to be a safety issue relating to Nansen-class frigates and therefore issues the following two safety alerts.

Interim safety recommendation MARINE No. 2018/01

The Accident Investigation Board Norway recommends that the Norwegian Defence Material Agency, in cooperation with the Norwegian Navy and the Norwegian Armed Forces Material Safety Authority (NAFMSA), conduct investigations into the issues identified during the initial investigation and implement measures as necessary to address safety.

Interim safety recommendation MARINE No. 2018/02

The Accident Investigation Board Norway recommends that Navantia, the vessel's designer, conduct investigations into the issues identified during this initial investigation and to ascertain whether this is also an issue relating to other vessels. Furthermore, that Navantia issue a notification to relevant shipbuilding yards, owners and operators, advising on necessary measures to address safety.