Norwegian Safety Investigation Authority

Issued April 2026

REPORT MARINE 2026/03

Marine accident involving a rental vessel north-east of Kråkenes Lighthouse in Vestland County, 4 May 2025

This report has been translated into English and published by the NSIA to facilitate access by international readers. As accurate as the translation might be, the original Norwegian text takes precedence as the report for reference.

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The Norwegian Safety Investigation Authority (NSIA) has produced this report exclusively for the purpose of improving safety at sea.

A safety investigation is conducted in order to determine the sequence of events and causal factors, study factors of importance for preventing marine accidents and improving safety at sea, and publish a report and any safety recommendations. It is not the NSIA's task to apportion blame or liability under criminal or civil law.

This report should not be used for purposes other than preventive maritime safety work.

Photo: Private

Legal authority for the Norwegian Safety Investigation Authority's activities is found in Section 473 of the Act of 24 June 1994 No' 39 (the Norwegian Maritime Code); cf. the Regulations of 11 January 2008 No 30 on public investigations of accidents and incidents under Section 473 of the Maritime Code.

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Notification of the incident

On Sunday 4 May 2025, the Norwegian Safety Investigation Authority (NSIA) became aware via the media that a rescue operation had been initiated, and three tourist anglers had been reported missing. A boat had been observed floating upside down northeast of Kråkenes Lighthouse in Sildegapet, on the boundary between the Kinn municipality and Stad municipality.

The NSIA initiated a safety investigation and travelled to Måløy on 5 May 2025 to conduct a technical examination of the vessel and interviews with involved parties.

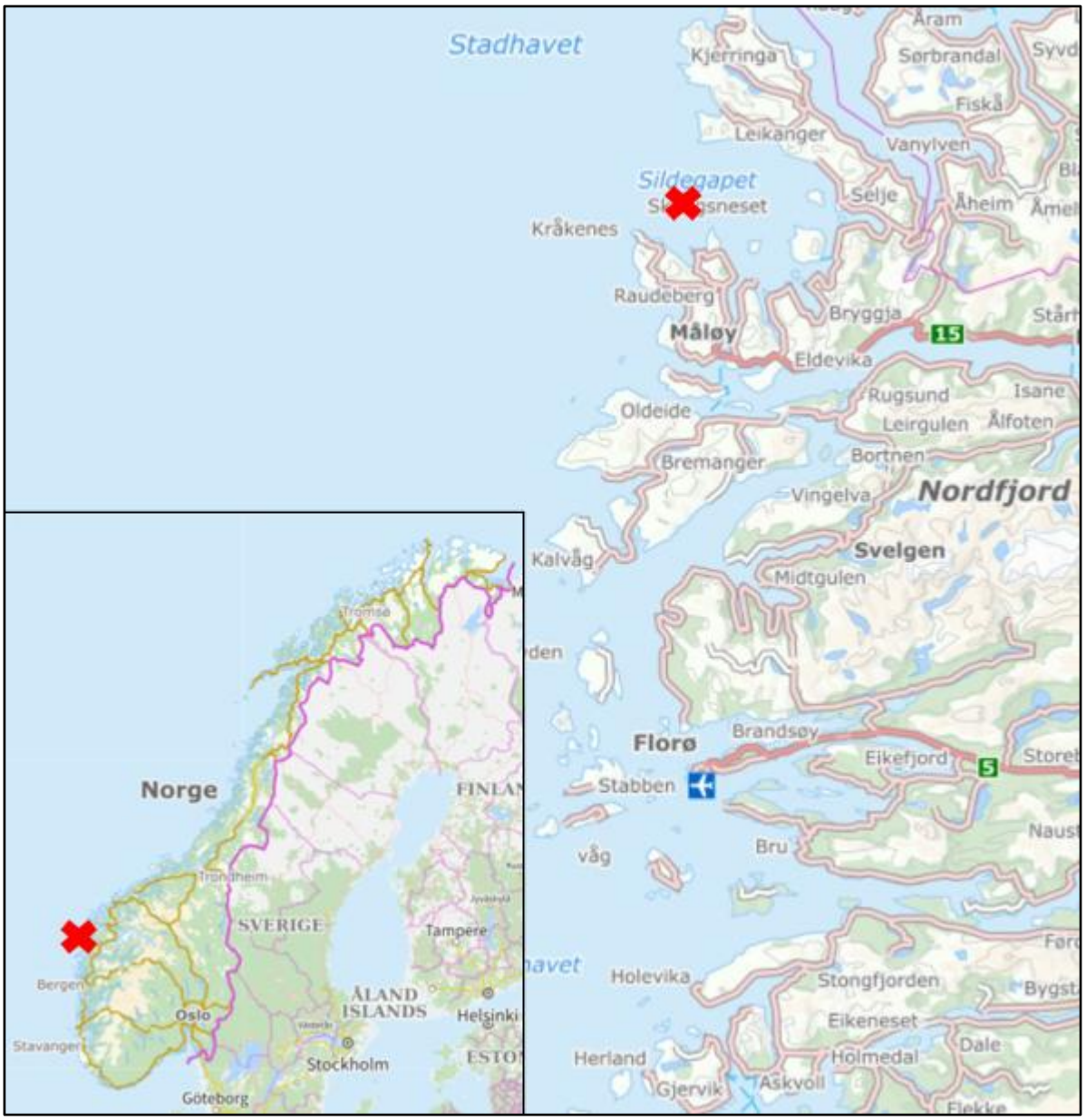

Figure 1: The red cross indicates where the accident occurred. Map: Kystinfo, Norwegian Coastal Administration / NSIA

Summary

On Sunday morning 4 May 2025, three tourist anglers departed in a rental vessel of type Dolmøy 230 Fisker to fish in Sildegapet north-east of Kråkenes Lighthouse. At 18:17, the Norwegian Society for Sea Rescue (RS) was notified by a private individual that a boat had been observed upside down near Kråkenes Lighthouse. The Joint Rescue Coordination Centre South Norway was alerted and a rescue operation was initiated. The first angler was found in the sea at 20:00 and transported by helicopter to hospital. Approximately two hours later, the second angler was found, while the third was not located until 8 May. All three anglers died as a result of the accident.

The investigation has shown that the most probable cause of the capsize was gradual flooding of the vessel in combination with the prevailing wind and sea conditions. Water most likely entered through the drain openings and over a step-through on the starboard side of the transom. From there, water progressed into the hold via a non-watertight hatch that lacked seals and a functioning locking mechanism. From the hold, water could then enter voids within the stiffeners and spaces between the inner liner and the outer hull.

Data from one angler's mobile phone and the onboard chart plotter indicate that the capsize occurred shortly before 12:00. The tourist anglers were unable to send a distress signal, and approximately eight hours elapsed from the time the vessel capsized until the first angler was found. With no means of alerting on board other than mobile phones, they were unable to notify others that they were in distress. The NSIA is of the opinion that the anglers would have had a greater probability of survival had an Emergency Position-Indicating Radio Beacon (EPIRB) been carried on board, or if they had used a Personal Locator Beacon (PLB).

The NSIA has reviewed accident statistics involving rental vessels from 2017 to 2025. During this period, there were eleven accidents involving fishing tourists who had rented vessels from rental enterprises, and 15 fatalities. On average, this corresponds to slightly more than one accident and just under two fatalities per year. The information showed that capsizing accidents dominate the statistics. Accidents involving rowing boats, kayaks and canoes are not included in these statistics.

There are no statutory requirements for lifesaving appliances for this vessel category beyond the mandatory use of lifejackets. The regulatory framework governing consumer services and the rental of recreational craft is administered by the Directorate for Civil Protection and Emergency Planning (DSB). In the 2021 report Safety in the Leasing of Recreational Craft, prepared by the Norwegian Maritime Authority (NMA) and DSB, it was recommended to establish a more comprehensive regulatory framework for the rental of recreational craft, including requirements for tracking and alerting systems on rental vessels.

The Norwegian Safety Investigation Authority recommends that the Ministry of Trade, Industry and Fisheries develop a sector-specific regulatory framework for rental enterprises and rental vessels, and that the Norwegian Maritime Authority be delegated supervisory authority pursuant to this framework. At the same time, DSB should continue to exercise its supervisory responsibilities under the Product Control Act and the Internal Control Regulations, which apply across all sectors and therefore also to consumer services such as boat rental.

In at least three cases, the Dolmøy 230 Fisker series has been involved in serious incidents involving flooding followed by capsize. In the two previous cases, users experienced flooding of the hold via a non-watertight flush hatch prior to capsize. A previous investigation conducted by NSIA into Viking 7 (Report Marine 2016/10) – a similar Dolmøy vessel – demonstrated that the boat type did not comply with relevant ISO standards and was vulnerable to water ingress via drain openings and the aft step on the starboard aft. The supervisory authority therefore required the manufacturer to recall and rectify the vessel type. The present investigation has shown that the accident vessel

had the same vulnerabilities identified in the Viking 7 accident. Vessel models with these weaknesses therefore represent a hazard. The NSIA recommends that the NMA implements necessary measures for Dolmøy 230 Fisker vessels from 2010 to 2016 that have not been rectified.

DSB is the supervisory authority for consumer services and the rental of recreational craft, and pursuant to the Product Control Act it may conduct inspections of rental enterprises. It also has the authority to suspend rental operations where consumer service safety requirements are not met. The NSIA considers that inspections targeting rental enterprises marketing Dolmøy 230 Fisker vessels could contribute to limiting further rental and use of this boat type. The NSIA recommends that DSB conducts inspections of rental enterprises that use Dolmøy 230 Fisker vessels, ensuring that boats not complying with ISO design standards are withdrawn from service.

About the investigation

Purpose and method

The purpose of this investigation has been to clarify what led to the capsize of the rental vessel, resulting in the deaths of three tourist anglers. The NSIA has also considered what can be done to improve safety and prevent similar incidents in future.

The accident and the circumstances surrounding it have been investigated and analysed in line with the NSIA's framework and analysis process for systematic safety investigations (the NSIA method[1]).

The investigating authority decides the scope of the investigation and how it is to be conducted. This may entail that matters potentially relevant to legal proceedings or insurance settlements are not examined in detail or addressed in the report. The report is not therefore suitable for purposes other than preventing maritime accidents and improving maritime safety and should not therefore be used for other purposes.

Sources of information

The factual information is based on:

- Interviews with parties involved
- Examination of the vessel
- Review of police documents
- Rescue operations log
- Information from the manufacturer
- Discussions with supervisory authorities

The investigation report

The first part of the report, 'Factual information', describes the sequence of events, related data and information gathered in connection with the accident, what the NSIA has investigated and related findings.

The second part, 'Analysis', contains the NSIA's assessment of the sequence of events and contributory factors based on factual information and completed investigations/examinations. Circumstances and factors found to be of little relevance to explaining and understanding the accident will not be discussed in detail.

The final part of the report contains the NSIA's conclusions and safety recommendations.

[1] *NSIA – Norwegian Safety Investigation Authority. See https://www.nsia.no/About-us/Methodology*

1. Factual information

1. Factual information

1.1 Sequence of events

On 29 April 2025, three German tourist anglers arrived at Skottneset Feriesenter in Stad municipality. They had rented a cabin and a Dolmøy 230 Fisker boat. One member of the group had previously visited the holiday centre in 2022 and had at that time also rented the same type of boat.

According to witnesses, they had gone out fishing with the boat every day from the day after their arrival.

On Sunday 4 May, data from the vessel's chart plotter showed that they departed the holiday centre for Silda at 07:37 (see figure 2).

Figure 2: The voyage from Skottneset Feriesenter to Silda. Map: © norgeskart.no

They arrived in Silda at approximately 08:00 and remained in the area for around 10 minutes before continuing to Oddeskallane in Sildegapet (see figure 3.)

Figure 3: The voyage from Skottneset Feriesenter to Sildegapet via Silda. Map: © norgeskart.no

Upon arrival at Oddeskallane, tracking data from the chart plotter showed several manoeuvres that suggest active fishing; the vessel drifted slowly with the wind and sea, after which the engine was engaged and the vessel was manoeuvred back upwind. This pattern was repeated several times (see figure 4.)

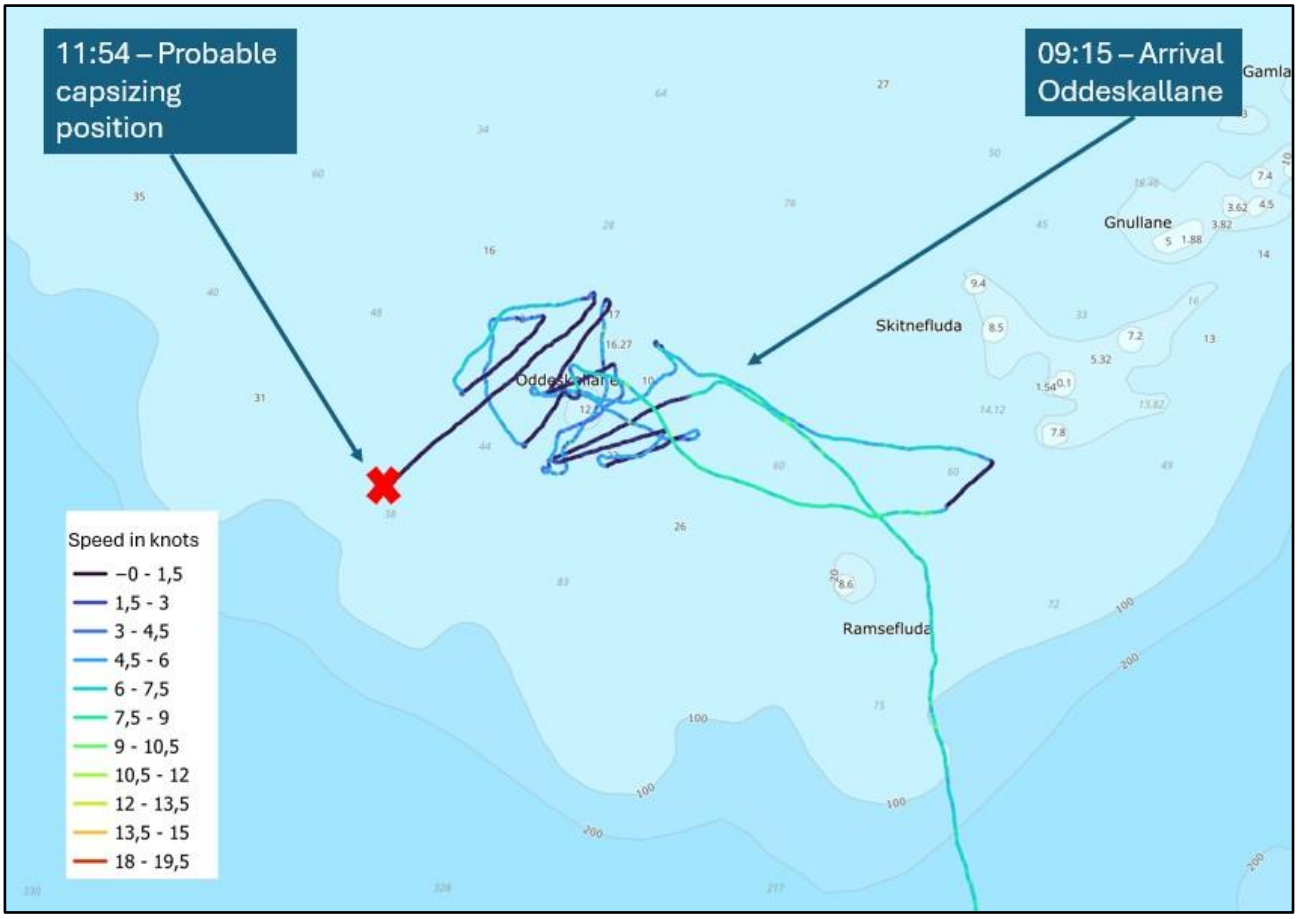

Figure 4: Drift tracks with speed indicator suggesting fishing activity in the area. Map: © norgeskart.no

The chart plotter switched off at approximately 11:54 and at 12:00, one of the angler's mobile phones lost contact with the base station.

1.2 Search and rescue

At 18:17, the Norwegian Society for Sea Rescue (RS) was notified by a private individual that a boat had been observed upside down near Kråkenes Lighthouse. RS notified the Joint Rescue Coordination Centre Southern Norway (JRCC-S) at 18:22.

JRCC-S initiated a search and rescue operation, and RS Kristian Gerhard Jebsen (RS KG Jebsen), located in Måløy, proceeded towards the reported position at approximately 18:35.

At approximately 19:05, RS KG Jebsen reached the casualty vessel. No persons were observed, but an inflatable lifejacket was seen secured to the bathing ladder. A fish container was also observed floating in the area. RS Simrad Buholmen, which departed Måløy at approximately 19:20, proceeded towards the site in order to assist in the search. At about the same time, a rescue helicopter from Florø was requisitioned from JRCC, and shortly thereafter a rescue helicopter from Ørland also joined the search. The workboat Frøy Stadt was later requested to proceed to the casualty, along with several other vessels in the area.

At 19:38, the lessor contacted JRCC and reported that a rental boat with three tourists was missing.

At approximately 20:00, the rescue helicopter reported the discovery of a person in the sea. The individual had his head above water and was wearing a lifejacket. He was also holding a lifejacket in his arms. He was airlifted by helicopter to Haukland Hospital. He was subsequently pronounced deceased.

At that time, an extensive search operation involving multiple resources was ongoing in the area to locate the two remaining missing persons (see Figure 5, Figure 6 and Figure 7).

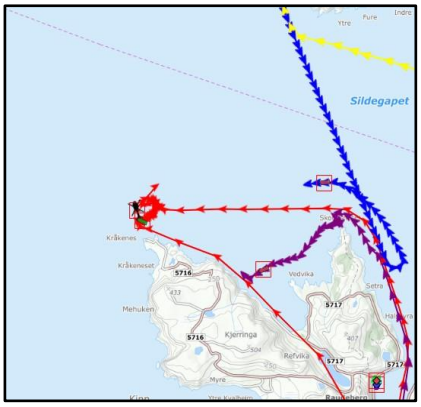

Figure 5: Overview of the rescue operation up until 20:00. Map: Norwegian Coastal Administration AIS

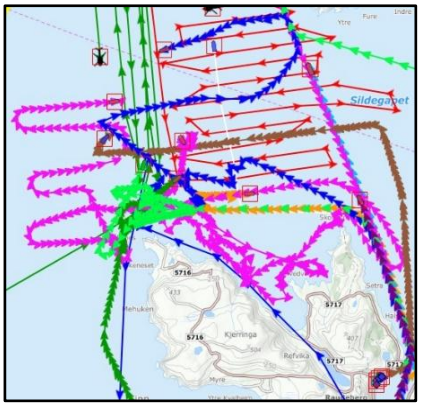

Figure 6: Overview of the rescue operation up until 22:00. Map: Norwegian Coastal Administration AIS

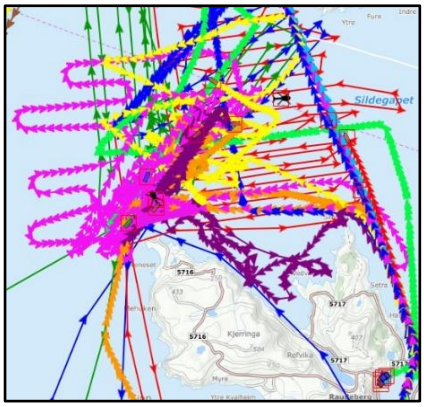

Figure 7: Overview of the rescue operation up until 00:00. Map: Norwegian Coastal Administration AIS

At 21:17, the workboat Frøy Stadt took the vessel under tow. Frøy Stadt eventually managed to right the capsized vessel using a crane and slings, and they could then see that there was no one on board. They observed no visible damage to the vessel. Attempts were made to keep the vessel upright but, due to significant water ingress and a series of swells, the vessel capsized again. It was therefore towed upside down to Frøy's workshop in Kinn municipality. At some point during the tow, the wheelhouse detached from the vessel.

At 22:05, RS Simrad Buholmen reported to JRCC that a person had been located in the water. The individual was not wearing a lifejacket and was face down in the water. He was winched into the Ørland rescue helicopter and was quickly confirmed deceased. The person was transported to hospital in Florø.

On Monday 5 May at approximately 00:18, the search and rescue (SAR) operation transitioned to a search for presumed deceased (SEAO), following medical advice. The police then assumed responsibility for the continued search, which lasted for several days. The police organised sea searches, shoreline searches and the use of drones.

On Thursday 8 May 2025 at 19:17, the police operations centre received a report of a deceased person in the sea at Refsvika. The individual was face down and without a lifejacket. The Norwegian Society for Sea Rescue was contacted to bring the person ashore. It was later confirmed that this was the third angler, who was deceased.

1.3 Weather and sea conditions

1.3.1 WEATHER FORECAST

Weather forecast issued by the Norwegian Meteorological Institute (MET) at 06:00 on Saturday 3 May for Vestlandet and Trøndelag, valid from Sunday 4 May 00:00 to 24:00 for Sogn og Fjordane (Vågsøy is located in the north-west of Sogn og Fjordane):

> *North and north-westerly fresh breeze (8.0–10.7 m/s), northerly near-gale force (13.9–17.1 m/s) at times in exposed areas, decreasing to fresh breeze in exposed areas during the evening. Overnight into Sunday, occasional sleet and snow showers in Nordfjord; otherwise mostly dry with prolonged sunny periods.*

Updated Sunday 4 May at 06:00 and valid from Sunday 4 May 07:00 to 24:00:

> *North and north-easterly fresh breeze (8.0–10.7 m/s), occasionally strong breeze (10.8–13.8 m/s) in exposed areas, transient near gale in the south late afternoon, decreasing in the evening. Mostly dry with prolonged sunny periods.*

1.3.2 WEATHER OBSERVATIONS

On Sunday 4 May, at the time of the accident, measurements at Kråkenes weather station indicated wind of 10.4 m/s from the north-east, with gusts up to 14.9 m/s. Kråkenes weather station is located approximately 3.5 nautical miles (approx. 6.5 km) south-west of Oddeskallane. See Table 1 for wind measurements on the day of the accident.

Table 1: Observed wind at Kråkenes weather station on 4 May at about the time of the accident. Source: MET

Name of station	Time (local time)	Mean wind speed (m/s)	Highest mean wind speed (m/s)	Wind direction (degrees)	Peak gusts (m/s)
Kråkenes	10–11	10.5	11.8	44	15.8
	11–12	10.4	12.2	38	14.9
	12–13	10.7	11.9	33	14.1

One of the tourist anglers sent a photo to a family member approximately one-and-a-half hours before the accident. The image shows the weather conditions at that time (see Figure 8).

Figure 8: Photo sent from one of the anglers to a family member at 10:24 on the day of the accident. Photo: Private

1.3.3 WAVE FORECAST

On Sunday 4 May, during the period when the accident occurred, the wave forecast indicated a significant wave height of approximately 2.1 metres, with the possibility of waves up to 4 metres. The waves were from the north-north-west. See Table 2 for the wave forecast on the day of the accident.

Table 2: The wave forecast for 4 May for the area around Oddeskallane. Source: NORCE

Area	Time (local time)	Significant wave height (Hs)(metre)	Maximum wave height (Hmax)(meter)	Wave period (Tp)(seconds)	Wave direction (degrees)
Oddeskallane	06:00	2.4	4.6	7.6	338
	09:00	2.3	4.5	7.6	339
	12:00	2.1	4.0	8.3	339

1.4 Description of the waters

The accident occurred at Oddeskallane ca. 3.1 nautical miles north-northeast of Kråkenes Lighthouse in Sildegapet, Stad municipality. Oddeskallane is a shoal with depths of 10–20 metres. In Den norske los (The Norwegian Pilot Guide), the area is marked “Caution – Dangerous waves”.

1.5 Vessel

The Dolmøy 230 Fisker is a 23-foot recreational utility boat designed for coastal sport fishing and light commercial use. The boat type is widely used in the rental market along the Norwegian coast and has a CE category C for coastal waters. Category C corresponds to mean wind speeds up to 13.8 m/s and significant wave heights up to 2 metres.

The vessel had a deck layout consisting of a foredeck, a wheelhouse open at the aft end and an aft deck. The vessel's length was 6.90 metres with a beam of approximately 2.45 metres. The vessel was built and delivered to another rental centre in 2015. In 2022/2023, a new 115 hp Suzuki outboard engine was installed.

Figure 9: Dolmøy 230 Fisker. Photo: Dolmøy Gjestebrygge and NSIA (Report Marine 2016/10)

1.6 Medical and health information

1.6.1 FINDINGS AND POST-MORTEM EXAMINATIONS

Three people died as a result of the accident. One of the men was in his late 60s and two were in their early 70s.

The first person was found wearing a lifejacket at approximately 20:00 the day of the incident but was pronounced deceased the following day at hospital. The second was found without a lifejacket two hours later and was pronounced deceased the same day. The third person was found deceased four days later, without a lifejacket.

Autopsies were conducted on the three deceased. The reports concluded that drowning was the likely cause of death, but that hypothermia had probably contributed to the fatalities.

1.6.2 SURVIVABILITY

Water conducts heat more rapidly than air, so cooling occurs more quickly in water than on land. Survival time in water depends on several factors, including water temperature, buoyancy aids, immersion suits, body composition, clothing, age, movement and other variables[2]. Regardless of these factors and their time dependency, the progression of cooling can generally be divided into four phases.

1. Cold water shock

The body reacts to cold and sudden temperature change in this short initial phase. Among other things, the reaction may include constriction of major blood vessels. The body also releases significant amounts of stress hormones (adrenaline and cortisol) as part of a fight-or-flight response. These important response mechanisms can place strain on the heart, which must work harder to maintain blood circulation. Older individuals and those at increased risk of cardiovascular disease are particularly vulnerable to cardiac arrest or myocardial infarction in this phase. In addition, the gasp reflex may lead to drowning due to seawater or anything else entering the airways. This phase lasts only minutes.

2. Cold incapacitation

The outer layers of the body cool first. In response to perceived heat loss, the body reduces blood flow to the extremities, such as arms and legs, in order to preserve its core temperature. This impairs swimming ability, and drowning may also occur in this phase if a buoyancy aid is not worn. This phase also lasts a short time – typically a few tens of minutes.

3. Hypothermia

Hypothermia is defined as a core body temperature below 35°C[3]. With a buoyancy aid that keeps the head above water, survival may continue beyond the onset of hypothermia. Hypothermia is divided into stages: mild (35–33°C), moderate (33–28°C), severe (28–20°C) and profound (<20°C). Severity depends on several of the aforementioned factors. This phase may last hours. A study by the UK National Immersion Incident Survey (UKNIIS) shows that few individuals have ever survived more than three hours in water temperatures approaching 4°C.

4. Post-rescue collapse

Even after surviving the previous three cooling phases, reduced consciousness and cardiac arrest may occur following rescue. This depends on several factors during the rescue phase and may affect the body's ability to recover[4]. For example, water pressure on the body helps prevent blood pooling in the legs; this pressure is removed upon rescue. A horizontal body position may reduce strain on the heart and is desirable when rescuing potentially hypothermic casualties. However, caution must be balanced against the need for rapid evacuation.

Using some kind of buoyancy aid is therefore crucial, particularly one that keeps the head above water and ensures a clear airway. Survival may continue for a considerable time after swimming ability has been lost, and even after consciousness begins to diminish. Figure 10 provides an overview of the cooling phases.

[2] Tipton et al. Survival time and search time in water: Past present and future (Journal of Thermal Biology, 2022).
[3] The Norwegian National Advisory Unit on Trauma, Professional Guidelines for the Management of Accidental Hypothermia (2019).
[4] The Norwegian National Advisory Unit on Trauma (NKT). Professional Guidelines for the Management of Accidental Hypothermia (2019).

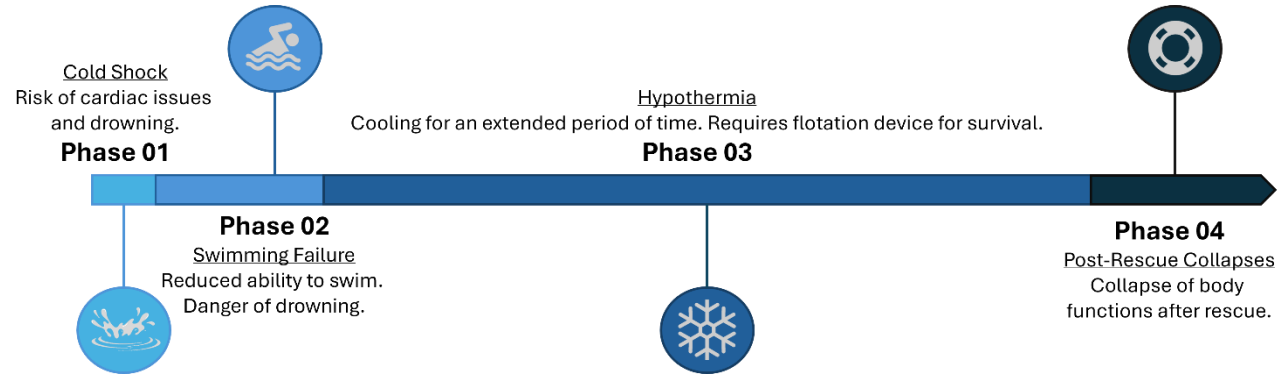

Figure 10: Four phases of cooling during immersion. Illustration: NSIA

1.7 Examination of the vessel

1.7.1 INTRODUCTION

The vessel was transported to the NSIA for examination. The boat sustained extensive damage, largely attributable to the salvage operation. The wheelhouse was lost following several attempts to tow the vessel and lift it onto the deck of the salvage vessel Frøy Stadt.

In report 2016/10[5], the NSIA examined a similar vessel (Viking 7), which was manufactured one year prior to the accident vessel. The boat type had therefore already been thoroughly examined. The focus of the present investigation was consequently to assess which design changes had been implemented following the findings after the accident involving Viking 7. A summary of the investigation concerning Viking 7 is provided in section 1.11.1.

1.7.2 ELECTRONIC EVIDENCE

The vessel's chart plotter was powered by a battery located in a dedicated box on the working deck. The battery was not on board at the time of the recovery. Stripped cables indicate that the battery was lost when the vessel capsized. The chart plotter was active with a track line, and the voyage could therefore be reconstructed. The chart plotter also recorded seawater temperature, which was approximately 8°C during the period when the vessel most likely capsized at 11:54.

1.7.3 BILGE PUMP

Capacity tests conducted by the NSIA showed that the electric bilge pump installed on board had a capacity of 2,362 litres per hour. The manufacturer's stated capacity was 3,028 litres per hour. The bilge pump was fitted with a manual switch and had no water detection system in the hold or automatic bilging. The bilge pump switch was found in the 'on' position, but it cannot be ruled out that the switch was moved during the salvage operation.

1.7.4 ENGINE DATA

Data was retrieved from the outboard engine, but the information did not clarify whether the engine had been intentionally shut down or had stopped as a result of the capsize. The fuel-water separator on the engine showed no signs of water in the petrol.

[5] *Marine accident report – Viking 7, LG8351, capsized northwest of Mehamn 6 July 2014 | NSIA*

1.7.5 FLUSH HATCH TO THE HOLD

A large flush hatch leading down to the hold was installed on the open aft deck. A fuel tank and the bilge pump were installed in the hold.

Figure 11: Flush hatch in the open position. Photo: NSIA

Figure 12: Flush hatch in the closed position. Photo: NSIA

The flush hatch lacked sealing aft and along the sides (see Figure 11). The locking mechanism on the toggle latches was not functioning, and it was not possible to secure the flush hatch as intended (see Figure 12). The NSIA has been informed that prior to the accident there were deficiencies in the hatch seals and that one of the toggle latches was broken. A replacement toggle latch had been ordered to replace to broken one.

There were drainage channels around the flush hatch that were designed to lead water out through the drain openings in the transom (see Figure 13 and Figure 14).

Figure 13: Drainage channels around the hatch coaming. Photo: NSIA

Figure 14: Drainage channels that lead the water out through the drain openings. Photo: NSIA

The hatch coaming had a height of approximately 35 mm above the bottom of the drainage channel and 20 mm below the level of the aft deck.

1.7.6 DRAINAGE FROM THE WHEELHOUSE

The deck in the wheelhouse was recessed relative to the aft deck, with a depth of approximately 35 cm below the wheelhouse sill. The sill was approximately 11 cm high.

Water entering the recessed well in the wheelhouse drained directly into the hold (see Figure 15 and Figure 16).

Figure 15: Drainage holes from the deck in the wheelhouse. Photo: NSIA

Figure 16: Penetration from the drain in the wheelhouse and into the hold. Photo: NSIA

Water entering the wheelhouse therefore had to be pumped out using the bilge pump in the hold. The supply hose had a significantly smaller diameter than the penetration in the stiffener, with the result that water in the hold could flow forward and accumulate beneath the inner liner and within the stiffeners. The opening was located 32 mm above the lowest point in the hold. Water that accumulated beneath the inner liner could therefore not be pumped out, as this area was deeper than the hold (see Figure 17).

Figure 17: The drainage pipe ran from the wheelhouse and through to the hold, beneath the inner liner. Water could enter via the penetration from the hold, as the area beneath the inner liner was deeper than the floor of the hold. Photo: NSIA

1.7.7 THE VOID BETWEEN THE OUTER HULL AND THE INNER LINER

Most of the voids between the hull and the inner liner were filled with foam, (see Figure 18).

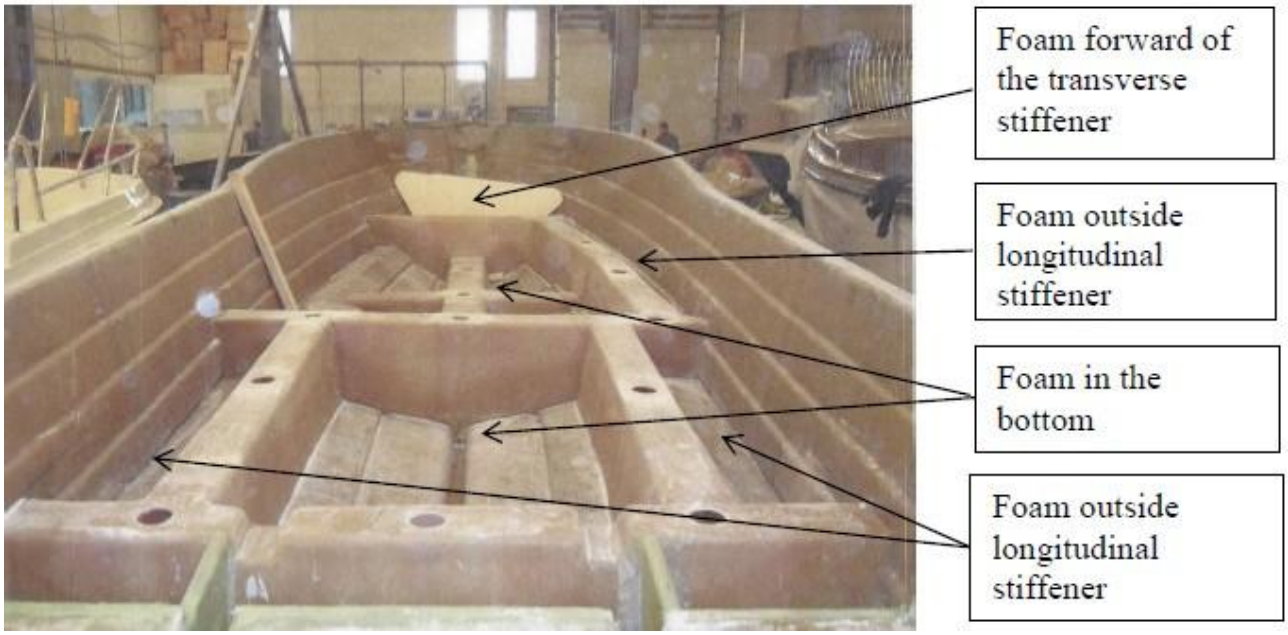

Figure 18: The image shows foam-filled areas of the hull. Source: NSIA (Report Marine 2016/10)

A comparison between the accident vessel and Viking 7 shows that they were foam-filled in the same areas, and the boats appeared nearly identical.

The NSIA conducted a practical test by filling the hold with water to observe how water migrated within the vessel between the hold and the areas beneath the inner liner, in voids and stiffeners. The test was conducted on land with the vessel positioned on a boat trailer. When the hold was filled to the unsealed penetration shown in Figure 16, there was approximately 73 litres of water in the hold. The water then distributed throughout the bottom of the hull and into the stiffeners. At a filling volume of approximately 290 litres, the water levels in the hold and beneath the inner liner had equalised, and the water level had reached the top of the penetration. When approximately 595 litres of water had been added, water began to emerge from the drain in the wheelhouse. At that time, the water level in the hold was 16.8 cm above the deck plate. This corresponded to approximately 383 litres in the hold and 212 litres beneath the inner liner in voids and stiffeners. Until water emerged through the drain in the wheelhouse, the accumulation would only have been observable by looking into the hold, as the other flooded areas remained concealed.

The results of the test roughly corresponded with the calculations performed in the investigation report concerning Viking 7 and demonstrated that the vessels had been foamed in a similar manner in stiffeners and voids.

1.7.8 DRAIN OPENINGS ON THE TRANSOM

The drain openings with hinged shutters were intended to allow water from the aft deck to drain out, while preventing water from entering the deck. The drain openings were hinged at the top.

The design of the drain openings had been somewhat modified following the accident involving Viking 7 in 2014. The accident vessel featured external flaps (see Figure 19), whereas the drain openings on Viking 7 were positioned further inside the drainage channel (see Figure 20).

Figure 19: Port side drain opening on the accident vessel. Photo: NSIA

Figure 20: Port side drain opening from the Viking 7 investigation. Photo: NSIA

1.7.9 BOARDING STEP ON THE STARBOARD SIDE OF THE TRANSOM

On the transom, the freeboard height was lower on the starboard side due to an integrated boarding step. The height from the deck was approximately 12.5 cm (see Figure 21 and Figure 22). This is discussed further in section 1.11.1.1 concerning the dialogue between the manufacturer and the Norwegian Maritime Authority (NMA).

Figure 21: Transom and recessed boarding step on the starboard side. Photo: NSIA

Figure 22: Recessed step on the starboard aft side, 12.5 cm above the deck. Photo: NSIA

A few days before the accident, one of the tourist anglers sent a video to a family member showing waves washing over the aft deck above the step-through on the starboard side of the transom. The water drained out via the drainage channel surrounding the hold coaming. The video also showed that the aft toggle latch on the hatch was missing. The forward latch was not visible in the video, and it is therefore unclear whether it was missing or whether the locking mechanism was engaged.

1.7.10 TESTING OF A SIMILAR DOLMØY VESSEL

In October 2025, the NSIA chartered a vessel almost identical to the accident vessel for testing in open waters. The significant wave height was approximately 0.5 metres and the wind speed approximately 7 m/s.

The vessel was a 2012 model, and the owner had recently received an upgrade package from the manufacturer. The upgrade consisted of a raised plexiglass sill intended to be screwed onto the starboard side to increase freeboard height (see Figure 23). In the accompanying letter, the manufacturer referred to a supplier's part number for a sealing strip for the hold hatch (see Figure 24). A recommendation for an automatic bilge pump, including part number, was also provided.

Figure 23: Plexiglas plate to increase the freeboard. Photo: NSIA

Figure 24: New hatch seal in the flush hatch. Photo: NSIA

The drain openings had the same design as those on the accident vessel and were externally mounted aft of the drainage channels from the aft deck. The drain openings remained closed by gravity when the vessel was stationary and when the vessel was making sternway through the water (, see Figure 25).

Figure 25: Port drain opening in closed position. Photo: NSIA

Figure 26: Port drain opening in open position as a result of aft trim in a wave trough. Photo: NSIA

The NSIA's testing focused on assessing the drainage design during fishing operations. The vessel was therefore left stationary in the water to simulate a fishing situation. After a short time, the vessel naturally positioned its stern towards the wind and sea. The sea conditions caused the stern to be pressed down into the water while in wave troughs, causing the drain openings to open and allowing water to ingress onto the aft deck (see Figure 26 and Figure 27).

Figure 27: Image from the aft deck showing how the drainage channel around the main hatch merges with the aft drainage channels. The red circle shows water entering the deck through the starboard drain opening in sea conditions with a significant wave height of approximately 0.5 metres. Photo and illustration: NSIA

The test illustrated the importance of a watertight hatch seal and properly secured toggle hatch latches to prevent flooding of the hold via the drain openings during fishing operations.

On several occasions, sea spray also reached the sheet of plexiglass serving as a raised freeboard on the starboard aft side. The plexiglass was not sealed around the edges and was only a few millimetres thick. Cracking in the plexiglass was also observed.

1.8 The rental company

1.8.1 GENERAL INFORMATION

Skottneset Feriesenter is located in Flatraket in Stad municipality. The business offers cabin and boat rental to fishing tourists. At the time of the accident, the company had 14–15 boats for hire. Two of these were of the Dolmøy Fisker 230 series, one built in 2012 and one in 2015. Their customers primarily consisted of foreign fishing tourists.

1.8.2 EQUIPMENT AND PROCEDURES RELATED TO VESSEL RENTAL

The company stated that instruction was provided on board before a lessee used the vessel for the first time. This induction included a review of equipment such as the chart plotter, echo sounder, navigation lights and location of the anchor. In addition, the engine was started and the operation of the bilge pump was demonstrated.

No tracking device was installed on any of the vessels, nor was this required.

It was further stated that the lessor inspected the vessels every evening, using a checklist that included checking oil levels, coolant, belts, bilge pumps, etc. No issues relating to water ingress had been identified during inspections of the vessel that capsized.

Before the vessel could be used, the designated skipper was required to sign a contract. This included requirements concerning responsibility and use, such as a maximum of four persons on board and a total load not exceeding 500 kg. The contract specified that skippers born after 1980 were required to hold a minimum boating licence qualification and present it to the lessor. As the three tourists were born before 1980, they were not subject to this requirement.

The company had also demarcated a geographical operational limit on a chart, which was presented to renters. The rental vessels were not to operate west of the line indicated in Figure 28.

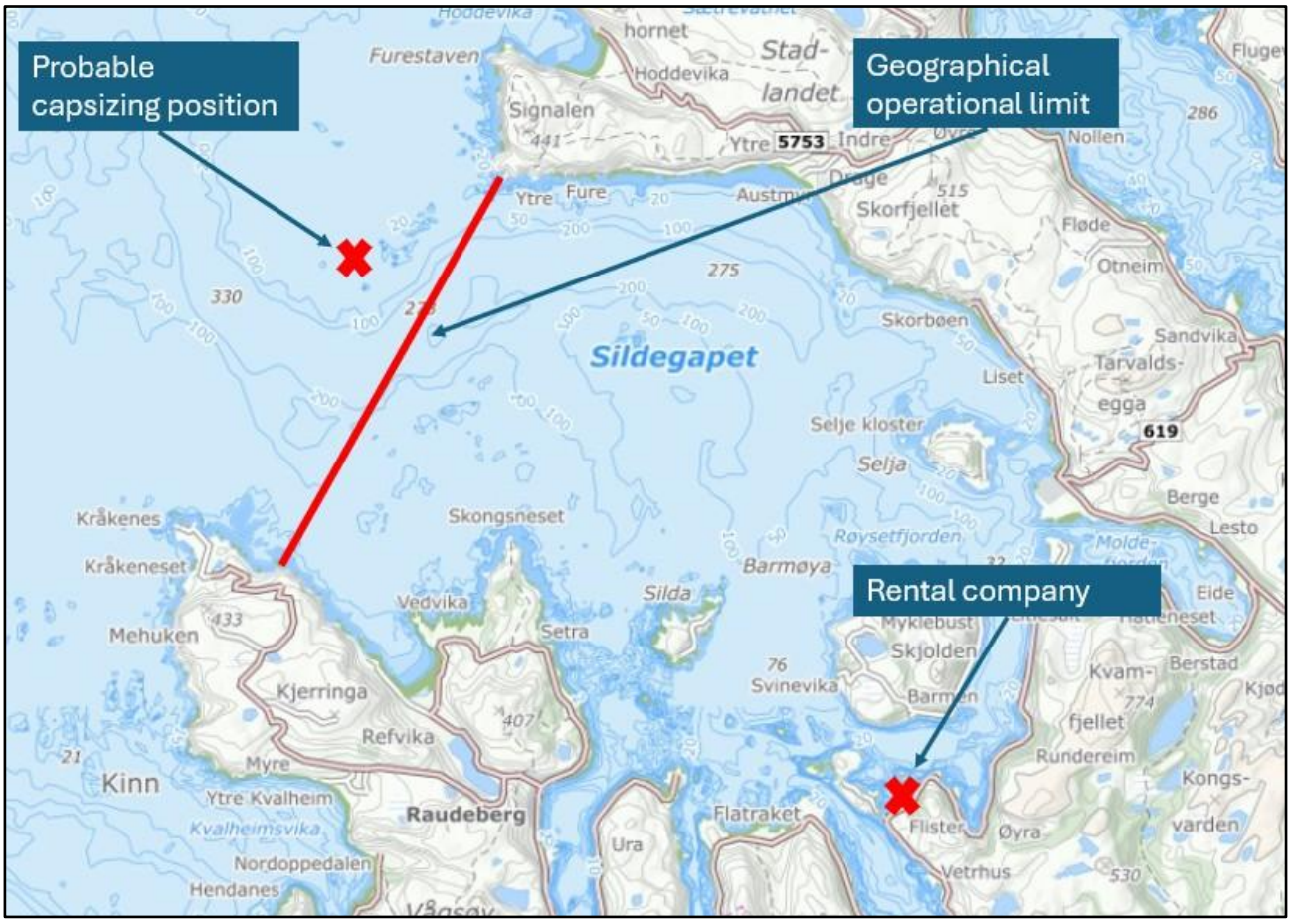

Figure 28: Location of the rental company, the position where the vessel likely capsized and geographical operational limit provided by the rental company. Map: Kystinfo. Norwegian Coastal Administration / NSIA

A review of the chart plotter track showed that the anglers had fished outside the geographical operational boundary on 30 April, 3 May and 4 May. On 1 and 2 May, they remained inside the boundary.

1.8.3 ALERTING SYSTEMS AND SAFETY EQUIPMENT

Renters were instructed to telephone the rental company in the event of engine problems.

Fishing tourists were informed that lifejackets could be collected from a storage room ashore. The lifejackets offered were non-inflatable. According to the rental centre, most fishing tourists brought their own lifejackets or flotation suits. In this case, it cannot be confirmed whether all the tourists had brought their own lifejackets. However, two inflatable lifejackets and one non-inflatable lifejacket were found floating near the capsized vessel, which may indicate a combination of privately owned and rental lifejackets. According to the contract, wearing a lifejacket or flotation suit on board was mandatory.

1.9 Regulatory framework

The regulations of relevance to this incident are described in the sections below.

1.9.1 THE ACT RELATING TO THE CONTROL OF PRODUCTS AND CONSUMER SERVICES (PRODUCT CONTROL ACT)

Act of 11 June 1976 No 79 on the control of products and consumer services aims to prevent products and services from causing damage to health. The Act also applies to consumer services such as leisure boat rental. Under section 3, enterprise offering consumer services shall exercise due care and take reasonable steps to prevent the consumer service from causing damage to health, including providing necessary safety information. Under section 6b, there is a duty to notify the authorities upon knowledge of dangerous products, etc.

The Directorate for Civil Protection and Emergency Preparedness (DSB) administers the Product Control Act and is responsible for supervision of rental enterprises. Sanctions resulting from an inspection of a rental enterprise may include suspension of boat rental services and/or coercive fines to ensure compliance with the enterprises obligations under laws, regulations and resolutions.

1.9.2 REGULATIONS RELATING TO SYSTEMATIC HEALTH, ENVIRONMENT AND SAFETY ACTIVITIES IN ENTERPRISES (INTERNAL CONTROL REGULATIONS)

Regulations of 6 December 1996 No 1127 on systematic health, environmental and safety activities in enterprises (the Internal Control Regulations) require enterprises to establish and document internal controls to ensure compliance with HSE regulations. According to section 5, an enterprise must, inter alia, establish goals, organisation and responsibilities, identify hazards and assess risk, implement routines (including for emergency preparedness and deviations), provide the necessary training and information, and document the work.

1.9.3 REGULATIONS ON THE PRODUCTION AND PLACING ON THE MARKET OF RECREATIONAL CRAFT AND PERSONAL WATERCRAFT ETC.

Regulations of 15 January 2016 No 35 on the Production and Placing on the Market of Recreational Craft etc. sets requirements for the design and manufacture of recreational craft and implement Norway's obligation to comply with the Recreational Craft Directive (Directive 2013/53/EU). Section 4 of the regulations describes essential requirements, including that products shall not endanger the health and safety of persons. The first paragraph (b) states that the essential requirements set out in Annex 1 must be met, and the second paragraph specifies that products shall be presumed to be in compliance if they are in conformity with the national standards implementing harmonised standards. Recreational craft must bear a CE marking (section 7), and the manufacturer must ensure products are designed and manufactured in accordance with the requirements of the regulations (section 9). Section 17 of the regulations refers to design and production where the manufacturer can choose which modules to use according to the various design categories (see Figure 29).

<table>
<tr><th rowspan="2">Category of construction</th><th colspan="3">Selection of Module</th></tr>
<tr><th colspan="2">Boat length equal to or above 2.5 m up to 12 m</th><th>Boat length equal to or above 12 m up to 24 m</th></tr>
<tr><td>A</td><td colspan="2" rowspan="2">A1 or
B + C or B + D or
B + E or B + F or
G or H</td><td rowspan="3">B + C or
B + D or
B + E or
B + F or
G or H</td></tr>
<tr><td>B</td></tr>
<tr><td rowspan="2">C</td><td>When the boat meets harmonized standards for stability and buoyancy (appendix 1, part A, no. 3.2 and 3.3)</td><td>A or A1 or B + C or B + D or B + E or B + F or G or H</td></tr>
<tr><td>When the boat meets harmonized standards for stability and buoyancy (appendix 1, part A, no. 3.2 and 3.3)</td><td>A1 or B + C or B + D or B + E or B + F or G or H</td></tr>
<tr><td>D</td><td colspan="3">A or A1 or B + C or B + D or B + E or B + F or G or H</td></tr>
</table>

Figure 29: Alternative modules depending on the vessel's design category. Source: Regulations Section 17

If, for example, module A is chosen for a design category C vessel with a hull length between 2.5 and 12 metres, there is no requirement for third-party inspection, and production is only subject to the manufacturer's internal control.

Under Annex I, Category C recreational craft and personal watercraft are designed for wind force up to and including Beaufort 6 and significant wave heights up to 2 metres (see Figure 30).

Category of construction	*Windforce (Beaufort scale)*	*Significant wave height (H 1/3, meter)*
A	above 8	above 4
B	up to 8	up to 4
C	up to 6	up to 2
D	up to 4	up to 0,3

Figure 30: Design categories for recreational craft and personal watercraft. Source: Regulations Appendix 1

Section 31 of the regulations describes the procedure for dealing with products presenting a risk. Where the NMA has sufficient reason to believe that a product presents a danger to the health or safety of persons, to property or to the environment, they shall carry out an evaluation of the product in relation to the requirements laid down in these regulations. The affected economic operators or private importers must cooperate with the NMA. The second paragraph states that if the product does not comply with the requirements, the NMA shall, following an evaluation, without delay require the relevant economic operator to take corrective action, to withdraw the product from the market, or to recall it within a reasonable period, commensurate with the nature of the risk, as the NMA may prescribe. The third paragraph states that where the NMA finds that a

product imported by a private importer does not comply with the requirements, the private importer shall be informed without delay of the appropriate corrective action to be taken. Commensurate with the nature of the risk, suspension of the use of the product may be required. The fourth paragraph states that the NMA shall ensure that the measures mentioned in the second and third paragraphs are taken with a view to prohibiting or restricting availability, or to withdrawing or recalling the product. These measures must be proportionate to the purpose and state the exact grounds on which they are based.

Where the relevant economic operator does not take adequate corrective action within a given deadline, the NMA shall take the necessary measures to prohibit or restrict the availability of the product, to withdraw the product or to recall it. An important premise in the seventh paragraph concerns market providers that do not take adequate action. The NMA's interpretation of this is that their authority to issue formal decisions is limited to actions directed exclusively at the economic operator, and not at end-users such as renters of rental enterprises or private individuals.

The eighth paragraph states that if the private importer does not take adequate corrective action, the NMA shall take the necessary measures to prohibit the product from being taken into use, or prohibit or restrict the use of the product. In this case as well, the NMA interprets the regulations as exclusively concerning decisions directed at the importer, and not at end-users such as those renting at rental companies or private individuals.

1.9.4 HARMONISED STANDARD (ISO 12217-1)

Pursuant to Section 4, second paragraph, of the Regulations Relating to the Production and Placing on the Market of Recreational Craft and Personal Watercraft, the essential requirements and conformity of the regulations are presumed to be in compliance if they are in conformity with the national standards implementing harmonised standards.

The standard specifies that openings in the hull that may lead to water ingress, including scuppers and similar drainage devices, are regulated through harmonised ISO standards that are used to document the safety and stability of recreational craft. ISO 12217-1 requires that openings which may function as downflooding openings must either be located at a sufficient height above the waterline or be designed such that water cannot ingress under the loading or heel conditions included in the testing requirements. Testing is performed in calm water and includes unfavourable cargo and crew positions. Openings that can be reached by water during these tests are considered downflooding points.

For openings located low in the hull, the standard requires that measures be taken to ensure that water does not penetrate the vessel, such as non-return valves or equivalent solutions. If it cannot be documented that the chosen solution is watertight, compliance is not achieved. Clause 6.1.1.6(h) provides an exception to minimum downflooding height where drainage channels are fitted with non-return valves, provided that the non-return function operates under intended conditions and sea states.

1.10 Supervision of rental enterprises and recreational craft

1.10.1 THE NORWEGIAN MARITIME AUTHORITY (NMA)

The NMA is responsible for regulations governing the design, production and the bringing to market of recreational craft, including CE marking and technical documentation pursuant to the Recreational Craft Act and the Regulations on the Production and Placing on the Market of Recreational Craft and Personal Watercraft. Its role is limited to the vessel as a product and does not extend to enterprises that rent out recreational craft.

Supervision therefore covers manufacturers, importers and distributors, but not users or rental operators. The NMA may conduct inspections to ensure that recreational craft that are placed on the market or made available on the market fulfil the requirements regarding the Declaration of Conformity, design, stability and safety equipment. Once a vessel has been placed on the market, DSB normally holds further supervisory authority where the vessel is used in rental operations as a consumer service for private individuals.

The NMA lacks the legal mandate to conduct on-site inspections of rental companies or private rental operators. The NMA is also unable to mandate operational measures; however, it may provide expert opinions on technical matters or offer professional assistance if requested by the DSB or the police. In practice, this means that the NMA only supervises the product's legality and conformity and not how or by whom the vessel is made available.

1.10.2 DIRECTORATE FOR CIVIL PROTECTION AND EMERGENCY PLANNING (DSB)

1.10.2.1 Introduction

The DSB is the technical and supervisory authority for products and consumer services. The consumer service of boat rentals and its associated products are regulated by the Act relating to the control of products and consumer services (the Product Control Act) and the Regulations relating to systematic health, environmental and safety activities in enterprises (the Internal Control Regulations). Life jackets used in service are regulated by the regulation relating to personal protective equipment. Vessels used in such services are regulated by the Norwegian Maritime Authority's regulatory framework.

Supervision of products and consumer services are conducted pursuant to sections 5 and 8 of the Product Control Act. The purpose of the Product Control Act is to prevent a consumer service or product from causing damage to health, cf. section 1.

The term 'consumer services' means services offered to natural persons for purposes mainly outside the sphere of commercial and professional activities, cf. section 2a fifth paragraph of the Product Control Act. Any person that owns or manages an enterprise offering consumer services, or that carries out work in such an enterprise, shall exercise due care and take reasonable steps to prevent the consumer service from causing damage to health, cf. section 3 of the Product Control Act.

Anyone who owns or manages an enterprise that offers consumer services and knows or should know that a product they have made available to users presents an unacceptable risk shall immediately notify the supervisory authorities of this, cf. section 6 b of the Product Control Act.

Supervision is one of the Directorate's most important preventive measures and is intended to ensure that legislation and key guidelines are complied with, and that the entities subject to supervision work systematically with safety, vulnerability and risk. Supervision of consumer services will, among other things, assess whether the enterprise works systematically with HSE and whether internal control contributes to ensuring the safety of the users of the company's services.

The DSB has the legal authority under the Product Control Act to implement sanctions and measures if products or consumer services pose a risk of damage to health. This may include, among other things, banning the product from being placed on the market, coercive fines, prohibiting the offering of a consumer service, as well as criminal liability in the event of wilful or negligent violations of the Product Control Act.

1.10.2.2 Supervision of rental enterprises

DSB conducted inspections of rental enterprises in 2011 and 2025.

In 2011, DSB conducted inspections of nine enterprises. According to the report on 'The consumer service of boat rentals[6]', the findings from the inspections included, among others:

> *A total of 23 non-conformities were identified across the 9 boat rental providers. Most of the non-conformities were linked to little or no knowledge of current regulations, as well as the requirement to report dangerous products and consumer services. The enterprises were unable to present written procedures or other documentation for key elements of their systematic safety work (internal control) related to the service.*

Four inspections of rental enterprises were conducted in autumn 2025. The results of these inspections revealed non-conformities in various areas at all enterprises. The non-conformities included deficiencies in procedures for identifying dangers and assessing overall risk. In addition, several enterprises had deficient systematic monitoring and review of their internal controls to ensure they functioned effectively with regards to the safety of the consumer service.

1.11 Previous accidents involving the Dolmøy 230 Fisker

1.11.1 CAPSIZE 6 JULY 2014 (VIKING 7)

The NSIA investigated an accident involving the rental vessel Viking 7[7], a Dolmøy 230 Fisker, which took on water and capsized during a fishing trip northwest of Mehamn on 6 July 2014. Five tourist anglers and one guide were onboard. One of the anglers died following the accident and another was hospitalised with cardiac arrhythmia as a result of hypothermia. The others were physically unharmed.

The NSIA concluded that the accident was probably triggered by water ingress through two drainage openings in the transom, via drainage channels and a non-watertight hatch in the deck, filling unfoamed voids between the outer hull and the inner liner. This resulted in loss of buoyancy and stability and subsequent capsize.

The vessel was marketed and placed on the market as a recreational craft and was required to comply with relevant ISO standards and Norwegian regulations. The investigation found that the drainage openings did not meet ISO minimum freeboard requirements for downflooding points, that the arrangement for detecting and removing water ingress did not function as intended, and that the vessel's intact stability would not have met the ISO requirements. No inspections of the vessel or the manufacturer had been conducted prior to the accident, and the NSIA assessed the standards as not being user-friendly, noting that more active supervision could have functioned as an additional barrier.

After the Viking 7 accident, the NSIA issued four safety recommendations. The recommendations were mainly aimed at the manufacturer, but also at the Norwegian Maritime Authority as the supervisory authority.

The manufacturer was advised to implement measures to ensure that the vessel type complied with the requirements of the ISO 12217 standard regarding minimum freeboard at filling openings, and to improve the arrangement for detection and removal of water in the bilge. Furthermore, it

[6] *DSB: Consumer service of boat rental, 2012*
[7] *Marine report 2016/10*

was recommended to consider measures to improve the vessel's stability or to reduce the maximum number of persons on board if the stability requirements could not be fully met.

The NMA was issued a recommendation concerning the prioritisation of supervision regarding the production and placement on the market of recreational craft. The NSIA pointed out that weak follow-up of the manufacturer had contributed to non-conformities with current regulations not being detected prior to the accident.

The overall purpose of the recommendations was to improve the safety of this vessel type and to strengthen the authority's control of compliance with requirements for design and stability.

1.11.1.1 The authority's follow-up of the manufacturer after the Viking 7 accident

The report on the Viking 7 accident was published on 14 July 2016. On 2 August 2016, the NMA issued a notice of prohibition of import and sale to the manufacturer. Grounds for the prohibition were based on a lack of documentation that the Dolmøy 230 Fisker model complied with the requirements of the Regulations on the Production and Sale of Recreational Craft and Personal Watercraft, etc.

On 16 August 2016, the NMA issued a formal decision to prohibit the import and sale of the Dolmøy 230 Fisker. The decision was based on a lack of technical documentation regarding stability and buoyancy, deficiencies in the owner's manual, and defects in the Declaration of Conformity.

On 3 February 2017, the NMA sent a letter of information to the manufacturer stating that parts of the documentation requirements that formed the basis for the import and sales ban had been met. It also emerged that the manufacturer had made a number of changes to previous models, which would also be implemented for boats produced from 2017 onwards. The relevant changes to be implemented were as follows:

- *The step on the starboard side aft is to be raised so that the downflooding height on the starboard side is equal to that on the port side.*
- *The drain openings for rainwater drainage have a new design with a reduced cross-section and reduced water ingress.*
- *The hatch seal on the large hatch beneath the main deck floor has been improved with a new type of seal and installation is subject to extra quality assurance before delivery to the customer.*
- *An independent bilge pump and bilge water alarm to be installed, ensuring that significant amounts of accumulated water do not remain undetected.*
- *The sealing from the port side motor well is to be continued. This is a modification implemented previously (and is therefore not an issue on the latest models) and ensures that the risk of water ingress is reduced.*

The letter of information stated that before the NMA could lift the import and sales ban, the manufacturer had to rectify further issues indicated in the decision dated 16 August 2016.

In the dialogue between the manufacturer and the NMA on 17 January 2017, it emerged that the step-through on the starboard side of the transom had been raised for testing purposes using a plywood sheet. The NMA specified that a permanent solution had to be found to replace the plywood sheet, noting that an agreement to this effect had been reached previously.

In the NMA's letter dated 15 February 2017, a formal decision was made to lift the import and sales ban. It was concluded that the technical corrections described in the briefing letter dated

3 February 2017 constituted a satisfactory solution, in addition to the updated documentation, Declaration of Conformity, and owner's manual. The documentation received by the NSIA did not specify the solution chosen by the manufacturer to achieve a reduced cross-section and reduced water ingress for the drain openings. However, the documentation indicated that the NMA considered the drainage openings in the transom to be downflooding openings. It is therefore unclear how the NMA verified the new design with a reduced cross-section, and how it was ensured that the drainage openings satisfied the requirements for minimum freeboard for downflooding openings.

The decisions were primarily directed at vessels intended for the market that had been sold but not yet produced.

In a telephone meeting between the manufacturer and the NMA on 23 January 2017, the NMA addressed the issue concerning previously produced vessels. In the NMA's view, the manufacturer was responsible for ensuring that all vessels already sold satisfied the new requirements, given that they had been placed on the market in breach of current regulations. Documentation proving that the existing vessels had been modified had to be submitted to the NMA.

In emails dated 20 and 24 April 2017, the NMA reiterated the obligation to modify all existing vessels and requested documentation regarding the total number of vessels sold. The manufacturer replied on 24 April 2017 that a total of 132 boats had been produced by the end of 2016, with the distribution of 105 vessels in the period 2010–2014 and 27 vessels in the period 2015–2016. The manufacturer also confirmed that all vessels produced in 2015 and 2016 were modified in accordance with the new changes. The manufacturer further confirmed that the process of contacting owners of vessels produced prior to 2015 was well underway. In the same dialogue, it was specified that the sill on the starboard side on the transom had to be a heightened and a permanent solution moulded into the structure, rather than just a screwed-on plywood plate. This permanent modification was also mandatory for all vessels sold before 2016.

In the following months, there was dialogue between the manufacturer and the NMA indicating that the manufacturer believed that vessels produced prior to 2016 already complied with regulations and that modifications were therefore not necessary.

On 1 October 2020, NMA announced that they would conduct an audit of the manufacturer.

On 6 May 2021, the NMA notified the manufacturer of their intent to issue a recall for all produced vessels, unless the manufacturer submitted the requested documentation. The defects related to the manufacturer's failure to recall the vessels, and lack of design in accordance with the regulations.

On 22 July 2021, the NMA issued a decision against the manufacturer, ordering them to ensure that all vessels they had produced were immediately withdrawn from the market. This meant that all advertising and sales of vessels were to cease until the NMA had received and approved sufficient technical documentation for the produced vessels.

The NMA revoked the formal decision against the manufacturer on 29 September 2022 for all boat models. The basis for the decision was that the NMA had received sufficient documentation, and that the formal deficiencies referred to in the decision dated 23 July 2021 had been adequately corrected.

The NSIA has reviewed a significant amount of correspondence between the NMA and the manufacturer from the period 2014–2021. The issues relating to downflooding points and drain openings do not appear to be fully resolved, neither for new nor existing vessels. It also remains unclear how many existing vessels from 2016 and earlier were actually modified. The manufacturer

sent confirmation that the drain openings had been given a reduced cross-section intended to reduce water ingress, but this is undocumented. The intended appearance and practical functionality of the solution were not apparent from the correspondence between the NMA and the manufacturer.

1.11.2 CAPSIZE 4 SEPTEMBER 2015

On Friday 4 September 2015, a craft with five fishing tourists on board capsized near Anda lighthouse. The craft, which was of the type Dolmøy 230 Fisker, was hired from Andøy Fjordfiske A/S. The craft was out fishing accompanied by a buddy boat.

Before departure, the bilge pump had been used to empty the craft of water. After three hours at sea without registering anything out of the ordinary, the fishing tourists suddenly realised that the boat was taking in water. Two of the tourists were positioned near the stern, two were at the bow and the fifth was standing next to the wheelhouse on the starboard side. They activated the bilge pump and also started bailing waters out of the craft. They soon realised that it was to no avail, however, and called for help. The boat continued to take in water. When the boat was almost swamped in water, they managed to inflate and launch a raft, and two of the tourists managed to board the raft before the boat rolled over to port and capsized. The other three jumped into the sea and held onto the raft. They observed the buddy boat approaching. It took 16 minutes from the time that they called for help until they were picked up by the buddy boat. According to the tourists, they weighed 75 kg each, on average, while the total weight of their fishing gear was 15 kg. There was no fish or other equipment on board when the craft capsized. The total weight on board is thus estimated at approximately 390 kg, in addition to the engine, fuel, and the inflatable raft.

The NSIA did not initiate an investigation into the accident. Based on the information received by the NSIA, however, it seems clear that there are similarities between the accidents on 4 May 2025, 4 September 2015 and the accident involving the Viking 7 on 6 July 2014.

1.12 The Norwegian Maritime Authority's follow-up following the accident on 4 May 2025

Following the accident, the NMA published circular SM 5-2025[8] on 10 July 2025 regarding the Dolmøy 230 Fisker recreational craft. This can be summarised as follows:

The NMA stated that the model had previously been subject to an import and sales ban (26 August 2016) due to non-conformities in documentation (stability/buoyancy, owner's manual, and Declaration of Conformity). The ban was later lifted for vessels manufactured from 2017 onwards, following updated specifications and documentation.

For vessels produced in 2016 or earlier, the following modifications were required:

- Raising the step from the starboard bathing platform so that the downflooding height is equal on both sides
- Installation of drain openings with hinged shutters and reduced cross-section
- Improved hatch sealing on the main deck hatch
- A bilge pump and bilge water alarm must be installed and function independently of each other.

[8] *Repeated fatal accidents involving the Dolmøy 230 Fisker recreational craft: Possible failure in stability and drainage – Norwegian Maritime Authority*

The NMA had previously been in contact with the manufacturer, who had reported that the following improvements had been carried out on vessels manufactured in 2016 and earlier:

- securing of penetrations through the motor well
- corrected manufacturer's plate (6 persons and maximum load in line with documentation)
- removal of any pot haulers (not included in the stability calculations)
- Remediation of conduits to prevent migration of fuel vapours to the steering console on boats with movable consoles.

The circular noted that although information and repair kits were sent to owners in 2017, there was no confirmation that the remediation had been carried out. Owners of vessels manufactured in 2016 or earlier were therefore asked to verify that the changes had been made.

The vessel model was also registered as a dangerous product on farligeprodukter.no[9], the joint website of the Norwegian product authorities for consumers and market participants.

1.13 Additional information

1.13.1 PREVIOUS ACCIDENTS INVOLVING OTHER TYPES OF RENTAL VESSELS

The NSIA has requested information from the NMA regarding the number of fatal accidents involving vessels leased from a rental enterprise. The NSIA has received an overview for the years 2017–2025. Accidents involving rowing boats, kayaks and canoes are not included in the statistics below.

The information showed that there have been eleven accidents in total involving fishing tourists who had leased a vessel from a rental enterprise. These accidents resulted in a total of fifteen fatalities. On average, this corresponds to slightly more than one accident and just under two fatalities per year. The number of accidents involving fishing tourists and the number of fatalities among fishing tourists per year are shown in Figure 31.

[9] *Dolmøy 230 Fisker (manufactured 2016 or earlier)*

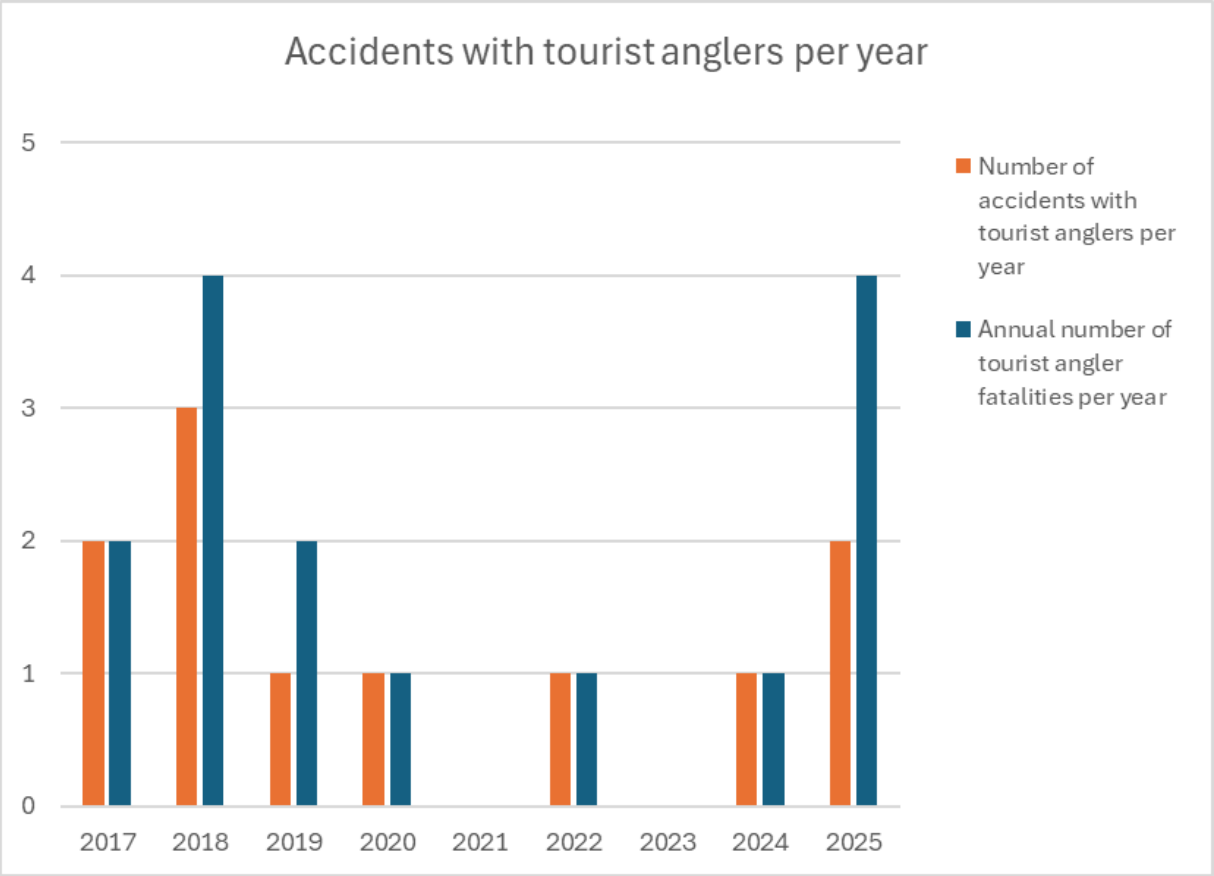

Figure 31: Accidents involving tourist anglers per year. Source: Norwegian Maritime Authority. Graph: NSIA

The information showed that capsizing accidents dominate the statistics (see Figure 32). The three accidents that were categorised as occupational accidents were man-overboard incidents.

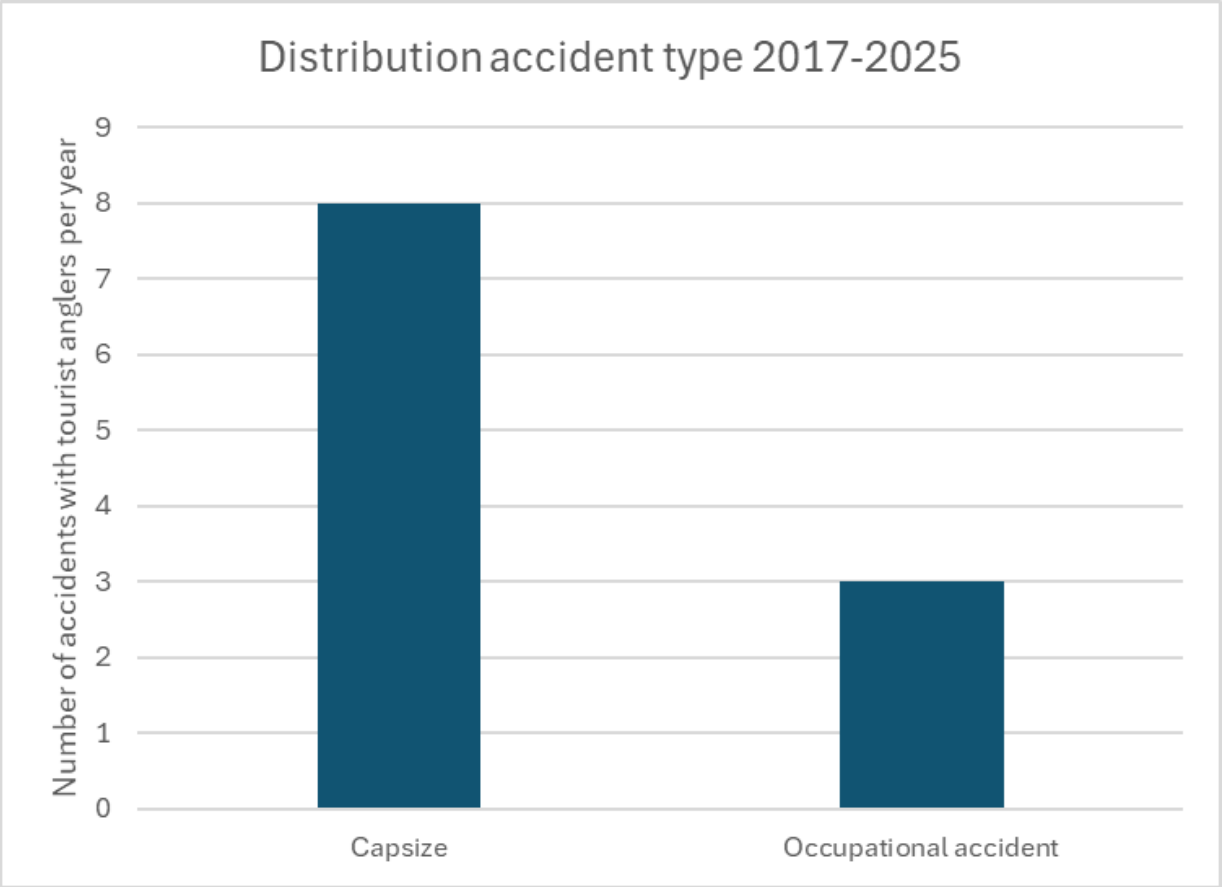

Figure 32: Overview of accidents by type. Source: Norwegian Maritime Authority. Graph: NSIA

Furthermore, the statistics showed that all the fishing tourists who perished during this period were foreign nationals (see Figure 33).

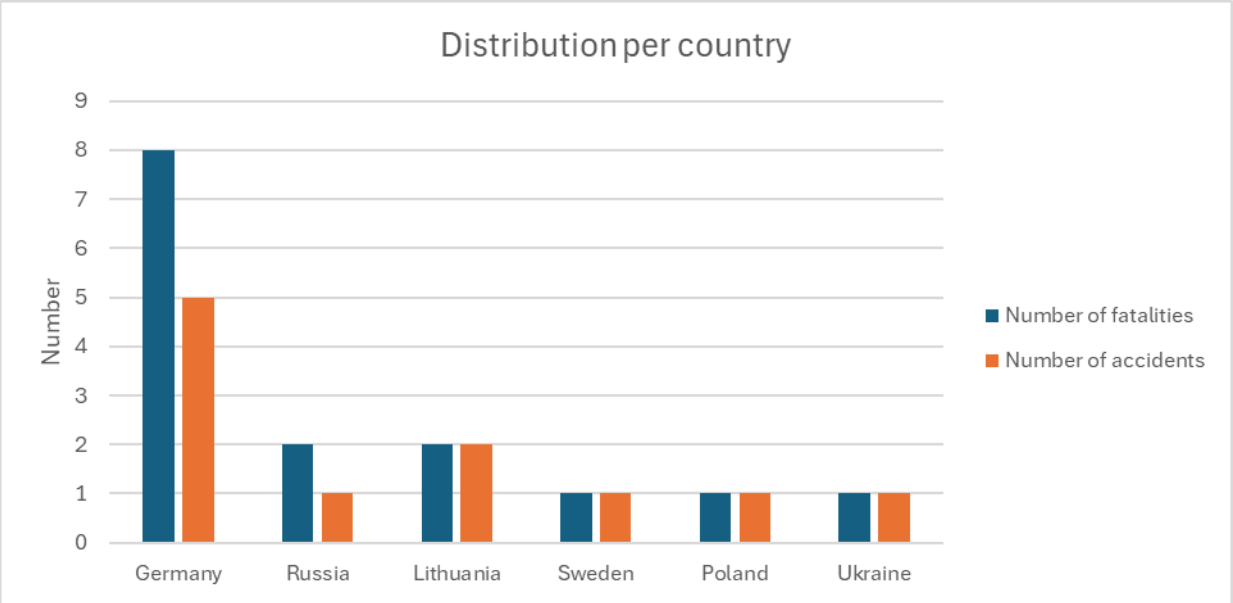

Figure 33: Number of tourist angler fatalities by country in the period 2017–2025. Source: Norwegian Maritime Authority. Graph: NSIA

1.13.2 SAFETY IN THE LEASING OF RECREATIONAL CRAFT IN NORWAY

In a letter of assignment dated 7 October 2019, the Ministry of Trade, Industry and Fisheries (NFD) tasked the NMA with assessing whether the rental of recreational craft is regulated in a manner that ensures the safety of renters is adequately safeguarded. The NMA was to assess whether

there was a need to impose additional requirements on the lessor, the operator, the vessel and the equipment. Based on this, the 'Report on Safety in the Leasing of Recreational Craft in Norway (2021)[10]' was prepared (in Norwegian).

The report shows that the leasing of recreational craft was not subject to comprehensive regulation or supervision to any great extent. The market consists of both professional rental enterprises and private providers who lease vessels via digital platforms. There is no comprehensive overview of the vessels used for rental, and no unified system exists for registration, liability or safety oversight.

The report found that the current division of responsibilities between DSB and the NMA does not ensure comprehensive, ongoing oversight of rental enterprises. The DSB holds supervisory authority pursuant to the Product Control Act and the Internal Control Regulations, while the NMA administers the technical product requirements for recreational craft. At present, the NMA does not have the authority to conduct inspections of rental vessels.

The working group proposed ten requirements to strengthen safety in the rental of recreational boats:

- Requirements for technical standards and maintenance of vessels
- Establishment of formal supervision of the rental enterprises
- Registration of rental enterprises and marking of rental vessels
- Requirements for communication and tracking equipment
- Competency requirements for those renting
- Requirements for internal control and safety management for lessors
- Requirements for minimum equipment on board
- Competency requirements for rental company personnel
- Requirements for liability insurance
- Measures for promoting safety awareness targeted at renters

The report concluded that the current regulations did not adequately safeguard the safety of those renting recreational craft. The recommendation called for a clearer division of authority between the DSB and the NMA, as well as an assessment of a new and more comprehensive regulatory framework specifically governing the commercial rental of recreational craft.

1.13.3 MEASURES TARGETING RENTAL VESSELS IN THE NATIONAL ACTION PLAN FOR MARITIME SAFETY 2025–2029

The National Action Plan[11] (in Norwegian) for maritime safety describes several challenges related to the hire of recreational craft. The action plan significant variation in how rental operators conduct safety inductions with renters, and a lack of common guidelines for such information. It is also highlighted that many rental enterprises overestimate users' skills and competence, which can lead to increased risk when handling weather conditions, navigation, and emergency situations.

Furthermore, it is emphasised that equipment and the level of maintenance on rental vessels vary significantly. A lack of standardisation and control may result in vessels that are unsafe being leased. One third of operators have not conducted risk mapping of their operations, and a lack of

[10] https://www.sdir.no/siteassets/publikasjoner-som-pdf/utredning-til-nettside---sikkerhet-ved-utleie-av-fritidsfartoy-i-norge.pdf
[11] Launch of National Action Plan for Maritime Safety – Norwegian Maritime Authority

knowledge regarding current regulations has been identified. Only half of the operators are familiar with the specific regulations pertaining to leasing recreational craft, despite the fact that most are aware of the general requirements for usage.

As a measure, the DSB and the Norwegian Maritime Authority (NMA) will conduct joint, industry-targeted inspections of providers of rental vessels. This is intended to help identify risk factors, improve guidance, and raise standards across operators. The plan also provides for a better structured dialogue between authorities and rental operators regarding equipment, regulations and safety procedures.

The action plan also refers to the NMA's report from 2021 (see chapter 1.13.2). The NMA will conduct further assessments of these proposals and work towards the implementation of selected measures during the planning period.

1.14 Measures implemented

No measures have been identified as having been implemented as a result of the accident, beyond the Norwegian Maritime Authority issuing a circular and classifying the Dolmøy 230 Fisker vessel type as a dangerous product on farligeprodukter.no.

2. Analysis

2. Analysis

2.1 Introduction

This accident occurred in connection with tourist fishing from a rental boat. Every year since 2017, an average of two people have died in connection with tourist fishing in Norway. In 2022, the Storting adopted a vision zero policy for the number of fatalities and serious injuries at sea. The NMA, together with various stakeholders, has developed measures that have resulted in an action plan to achieve this goal. The action plan addresses rental vessels as a specific focus area, with measures targeting enterprises that rent out vessels, with a particular focus on safety in the use of recreational crafts for rental.

The analysis starts by assessing the sequence of events and the immediate causes. Next, the vessel's design, rental enterprises and alerting systems to emergency services are assessed. In conclusion, the supervisory authorities are discussed, with a focus on tourist anglers.

2.2 Sequence of events

The fishing tourists were on their fifth day of fishing when the accident occurred. For the first two days, they fished in the area around Oddeskallane and the next two days in calmer waters. On the day of the accident, they were fishing again near Oddeskallane, and the chart plotter's track showed that they were alternating between motoring against the wind and then allowing the vessel to drift with the tide and wind to fish. This pattern was repeated many times within the same geographical area.

Tracks from the vessel's chart plotter showed that they had drifted with the wind and weather for approximately 33 minutes when the chart plotter switched itself off at 11:54. The NSIA considers it probable that the vessel capsized the same time the chart plotter turned off, as the battery supplying power to the plotter was kept in a box that was not strapped to the deck, and that the battery most likely fell out during the capsize. At 12:00, one of the anglers' mobile phone also lost contact with the base station, which further supports the conclusion that the accident occurred around this time.

The final part of the track line, before the capsize, differed from the previous track lines showing earlier fishing operations; the last one was significantly longer in length. The bilge pump was activated on the switch panel, which may indicate that the anglers discovered there was water in the boat. The wave conditions on the day of the accident were estimated to be beyond the limit of the boat's design category, with a significant wave height of 2.1–2.3 metres. The wind speed was 10.7 m/s. The photo taken on the day of the accident does not, however, show typical wind-driven waves with characteristic whitecaps. The calculated wave height may therefore have reflected swells in the area. Steep, wind-generated waves have the greatest significance for water ingress into a vessel, though their precise size remains unknown.

The waves and wind likely contributed to both water ingress and capsizing. The impact of the wave height and how water ingress contributed to the capsize is examined in detail in chapter 2.4 on vessel design.

Prior to the capsizing, the anglers were positioned outside the operational limit defined by the rental company, and had also been there on two previous occasions during the same week. As the rental company did not have tracking on the vessel, they were unable to monitor the tourists and instruct them to remain inside the designated operating zone. Operational limit and tracking are further discussed in chapter 2.6.

2.3 The survival aspect

The tourist anglers had brought their own inflatable lifejackets, but only one of them was found wearing a lifejacket. Although the anglers carried mobile phones, their failure to call for help suggests the vessel capsized very quickly. Since they failed to send a distress signal, there was a significant delay in launching the rescue effort.

A rescue operation was only initiated after a person happened to observe a capsized vessel at 18:17. This was more than six hours after the chart plotter had stopped functioning and the capsize likely occurred.

There are numerous factors that have a bearing on an individual's chances of survival in water. They include the water temperature, sea conditions, clothing, the use of buoyancy aids, state of health and the time spent in the water. The cold water, at approximately 8 degrees, caused the victims' body temperature to drop quickly, leading to a high risk of hypothermia. The cold water may have immediately caused cold shock upon capsizing, which in combination with waves, increased the risk of water inhalation. Had they survived the initial phase, the chances of survival would have been significantly greater with the use of a lifejackets and had they been able to send a distress signal immediately. However, as they never managed to signal for help, the probability of survival was low, as no one knew they were in distress. The lack of alerting options and requirements for alerting systems on rental vessels are further discussed in chapter 2.6.3.

2.4 The vessel's design

2.4.1 INTRODUCTION

The boat series Dolmøy 230 Fisker has been involved in several serious incidents, and flooding followed by capsizing has occurred in at least three cases. In the two previous incidents, users experienced gradual flooding between the outer hull and the inner liner via the hold and a non-watertight flush hatch, prior to the vessel capsizing.

A previous investigation (Report Marine 2016/10) of a similar Dolmøy vessel has shown that the boat type is highly vulnerable to water ingress. The accident vessel exhibited the same vulnerabilities as identified in the Viking 7 accident, and tests conducted by the NSIA on a similar vessel have also confirmed this.

2.4.2 WATER INGRESS THROUGH THE DRAIN OPENINGS AND LOW STEP-THROUGH ON THE STARBOARD SIDE OF THE TRANSOM

The drain openings with hinged shutters were the vessel's lowest downflooding points and did not comply with the ISO standard requirements for minimum freeboard for downflooding openings. The drain openings were designed to drain water from the deck while simultaneously preventing backflow from the sea. However, testing conducted by the NSIA on a vessel fitted with identical hinged drain openings in a significant wave height of 0.5 metres has shown that substantial quantities of water could penetrate through the drain openings and onto the aft deck. This occurred primarily when the vessel was stationary and drifting, in order to simulate a typical fishing operation. Under the same sea conditions, water was also observed splashing over the low step-trough on the starboard side of the transom. On the test vessel, a single sheet of plexiglass of limited thickness was installed, making water easy to observe.

On the day of the accident, sea conditions were considerably rougher while the anglers were drifting while fishing. It is likely that water entered via the drain openings and over the low step-through on the starboard side of the transom and subsequently found its way into the hold through the non-watertight flush hatch.

2.4.3 WATER INGRESS THROUGH THE HOLD HATCH

The flush hatch on the aft deck, together with its associated hatch seals and toggles, was intended to be watertight, thereby preventing deck water from entering the hold.

In several vessels examined by the NSIA, it was found that the hatch seals were worn, missing, unevenly fitted, or lacked sufficient compression against the sealing surface. This allowed water to pass the seal and drain into the hold, even when only limited amounts of water were present on the aft deck. The minimal height difference between the drainage channel and the hatch coaming further enabled water to flow into the hold.

In the accident vessel, three of the four hatch seals were missing, one of the locking toggles was inoperative, and it is unclear whether the other locking toggle was functional, as both locking toggles were missing when the vessel was recovered. The flush hatch therefore most likely rested loosely on the coaming, secured only by it being hinged on one side. When water washed onto the deck via the drain openings and the step-through on the starboard side of the transom during fishing, there was a high probability that water also entered the hold through the non-watertight hatch.

Inside the hold, a drainage pipe from the wheelhouse passed through an unsealed penetration located 32 mm above the bottom of the hold. This penetration had a significantly larger diameter than the drainage pipe itself. Water entering the hold via the non-watertight flush hatch could therefore flow into the penetration and into a void within the stiffener (see Figure 34). From there, water could continue further beneath the inner liner and into stiffeners that were not foam-filled. Water in these areas could not be drained or removed by the bilge pump installed in the hold.

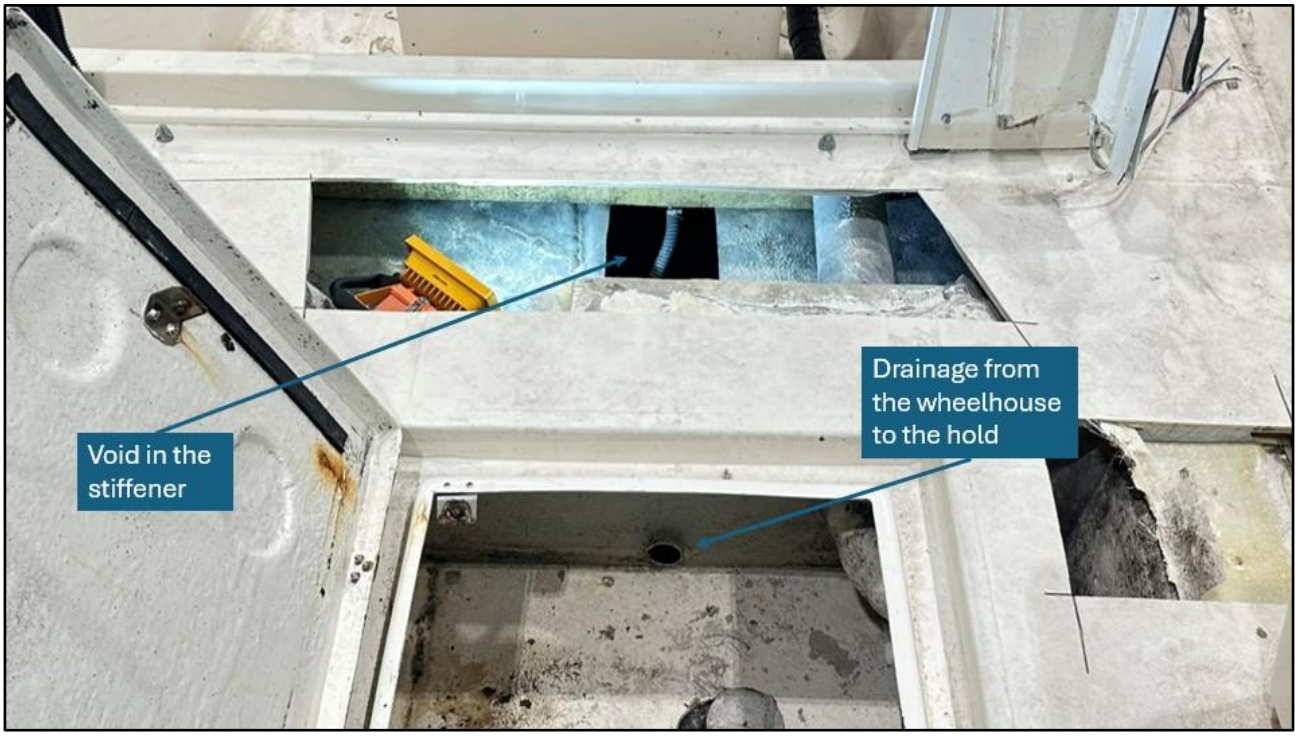

Figure 34: The image shows the penetration in the drainage from the wheelhouse to the hold and the void in the stiffener. Water from the hold could flow unhindered forward in the vessel if the water level exceeded 32 mm. The NSIA has cut a hole in the deck to show drainage and voids in the stiffener. Photo: NSIA

These quantities of water would not have been easy for the anglers to detect unless they inspected the hold directly. Even then, the visible water level might have appeared limited, as water would drain further beneath the inner liner and into stiffeners because of the unsealed penetration near the bottom of the hold.

The NSIA's practical test to observe water distribution beneath the inner liner involved filling the hold with water. The test showed that at a total volume of approximately 595 litres, around 383 litres remained in the hold while 212 litres accumulated in stiffeners and other voids. Over time, significant quantities of water could therefore accumulate beneath the inner liner and within structural voids without being detected. Such volumes negatively affect stability, as the water can move rapidly within the voids in the vessel. Seawater ingress would also have increased the vessel's draught, reduced freeboard, and produced an aft trim. This, in turn, would allow even more water to enter via the drain openings and over the step-through on the starboard side of the transom.

Although the anglers were operating in wave heights somewhat above the criterion for this vessel group, the NSIA's investigation has shown that water could enter the deck at significantly lower wave heights (~0.5 m) when the vessel is drifting in the water with its stern towards the weather. This demonstrates a clear design vulnerability to gradual flooding, even in relatively calm conditions.

The accident boat was fitted with an electric bilge pump in the hold, with a manual on/off switch. However, it provided no high-water alarm to alert the anglers to rising water levels in the hold. Gradual flooding could therefore continue over time while the vessel's draught increased and freeboard decreased. It remains unclear whether, or at what stage, the anglers detected water ingress. As no high-water alarm or automatic bilge pump was installed that could be heard or observed in operation, excessive time may have elapsed before the flooding in the hold was discovered.

Due to the design vulnerabilities allowing gradual flooding between the outer hull and the inner liner, persons on board had limited opportunity to recognise when the situation became critical for stability. Capsizing could therefore occur suddenly and without warning. In this incident, gradual flooding of the vessel, combined with wind and sea conditions, most likely led to capsize. The NSIA has not established whether any cargo was carried on deck, but this may also have affected stability and contributed to the capsize.

2.4.4 SUMMARY OF THE VESSEL'S VULNERABILITIES

Preventing water ingress is essential. The investigation indicates that water most likely entered via the drain openings and over the low step-through on the starboard side of the transom, passed through the non-watertight flush hatch and into the hold. The drain openings and low step-through on the transom did not comply with regulatory requirements.

The drainage design must therefore be modified to prevent water ingress, and the step-through on the transom must be raised using a permanent and robust solution. A Plexiglas plate, such as the one shown on the test vessel, is a vulnerable solution that can easily fail. A crack had already been observed in the plate only days after installation. Such a solution was also not in accordance with what had been agreed between the manufacturer and the NMA, where the prerequisite had been that a closed transom to be moulded in as a permanent solution to ensure equal downflooding height on both starboard and port sides.

There is also a significant vulnerability arising from the extremely low sill between the drainage channels and the hatch coaming. If hatch seals are not intact or locking toggles are non-functional, there is no effective barrier preventing deck water from penetrating into the hold and subsequently passing beneath the inner liner and into stiffeners via the unsealed penetration in the hold. The NSIA considers it essential that vessel owners ensure watertight hatch seals and that toggles are functional to prevent water ingress. At the same time, the design does not sufficiently account for the possibility that a flush hatch may become defective for various reasons. The consequence of

such a non-watertight hatch is that the vessel's hold may flood, with water flowing into inner liners and stiffeners, where water cannot be detected or pumped out.

In this case, a design category and a module were used during the production of the vessel that did not require third-party inspection. Responsibility therefore rested with the manufacturer to ensure compliance with design requirements. This investigation has shown that vessels produced without the involvement of a supervisory body place high demands on the manufacturer's internal quality control. In this instance, internal control was insufficient, as the vessels did not comply with the applicable design requirements.

2.5 Follow-up of the NSIA recommendations after the Viking 7 accident

Following the Viking 7 accident, the NMA engaged in extensive dialogue with the manufacturer and conducted several audits. Among other things, several design changes were required for this vessel type.

Of the safety recommendations issued by the Norwegian Safety Investigation Authority after the Viking 7 accident, the NSIA finds no evidence that the measures implemented by the manufacturer have made the vessel more resistant to water ingress.

The NSIA's examination of the accident vessel has shown that the vessel was identical to Viking 7, except that the drain openings hinged shutters had been relocated from inside the drainage channel to an external position. Examinations conducted by NSIA demonstrated that water ingress still occurred through the drain openings with this revised design.

The Norwegian Maritime Authority (NMA) had previously required the manufacturer to implement necessary modifications to all existing models built between 2010 and 2016 incorporating the weaknesses they had identified. The NMA received confirmation that changes were being implemented, including a reduced cross-section of the drain openings and raising of the starboard step, and that this had been completed for the 2015 and 2016 models. On this basis, the import and sales ban was lifted.

However, according to NSIA's findings, none of the existing vessels from 2016 or earlier have reduced drain opening cross-sections. The only documented modification is the relocation of the drain openings hinged shutters. During the investigation, the NSIA has observed several vessels produced before 2016 that have not been modified in accordance with the requirements mandated by the NMA following the Viking 7 accident. The investigation also revealed that the manufacturer had supplied sheets of Plexiglas as an alternative to a raised sill on the transom, despite the NMA's earlier clarification that a permanently moulded solution was required.

Modification of the vessels was a condition for CE marking. Consequently, vessels for private use and commercial rental that do not comply with ISO standards remain in operation. This means that there are several vessels with the same vulnerabilities, and a similar accident could therefore happen again. The NSIA is of the opinion that not enough has been done to prevent water from entering the boat via drain openings and the low step-through on the starboard side of the transom, flowing down through the flush hatch to the hold, and then down between the outer hull and the inner liner. The vessel models with these weaknesses constitute a danger.

The Norwegian Safety Investigation Authority is of the opinion that the Norwegian Maritime Authority lifted the previous import and sales ban against the manufacturer on the basis of information provided by the manufacturer that was incorrect, namely that earlier models had been modified with a raised sill on the starboard side and that the drain openings had been given a new design with a reduced cross-section. The NSIA is of the opinion that both the previous solution for

the drain openings with an internal flap, and the new design with an external flap, are to be considered as downflooding points. In the NSIA's view, a reduced cross-section alone will not mean that the openings are no longer to be considered downflooding points. It is therefore unclear, both in the correspondence to the manufacturer and in the safety notice, what the NMA believes the manufacturer must do to satisfy the ISO requirements on this point.

The NSIA therefore recommends that the Norwegian Maritime Authority implement measures to ensure that all Dolmøy 230 Fisker vessels placed on the market comply with the applicable ISO standards for freeboard and stability.

The Norwegian Maritime Authority has already registered Dolmøy 230 Fisker as a dangerous product[12], but has confirmed that they do not have the authority to prevent private individuals or rental enterprises from using the vessel. DSB is the supervisory authority for rental enterprises and may, pursuant to the Product Control Act, conduct inspections of such enterprises. It also has the authority to suspend rental operations where consumer service safety requirements are not met. The NSIA considers that inspections targeting rental enterprises marketing Dolmøy 230 Fisker vessels could contribute to limiting further rental and use of this boat type.

The NSIA therefore recommends that DSB conducts inspections of rental enterprises that use Dolmøy 230 Fisker vessels, ensuring that boats not complying with ISO design standards are withdrawn from service.

2.6 Tracking and alerting systems for vessels used in rental operations

2.6.1 INTRODUCTION

There is currently no specific legislation regulating safety, technical condition, or training obligations for rental enterprises. The principal framework consists of the Internal Control Regulation and the Product Control Act. There is also no requirement for such enterprises to register in a central register or notify supervisory authorities when commencing operations.

2.6.2 TRACKING AND OPERATIONAL LIMIT

Although the lessor in this accident had defined a geographical operating area, the investigation has shown that the anglers had operated outside this area on two occasions earlier during the same week. The NSIA considers that the rental company's geographic operating limit was reasonable, as its purpose was to shield anglers from heading out towards open sea areas. The rental company had no tracking systems on board the boat to be able to identify that the vessel was operating within the defined operating area, and therefore could not assist the anglers or correct them in accordance with their defined operating limit. There is no regulatory requirement for such equipment.

Without tracking capability, tourists lacking knowledge of the vessel or local waters may operate independently without corrective intervention from the rental company. There may be a number of reasons why the anglers went beyond the rental company's geographical operating limit, but if a tracking system had been required on board, the rental company could have instructed them to withdraw from the area and towards more sheltered waters. The NSIA believes that the fact that the anglers were outside the operational area was not a decisive factor in the accident, as water ingress, as tested by the NSIA, can also occur in more sheltered waters. If the vessel had been tracked, there would also have been a greater likelihood that the rental company could have

[12] *Dolmøy 230 Fisker (manufactured 2016 or earlier)*

detected that the vessel was in trouble, and would also have had information about its location. This, in turn, could have initiated a rescue operation much faster and considerably increased the probability of survival.

2.6.3 ALERTING THE EMERGENCY SERVICES

With no means of alerting on board other than mobile phones, the anglers were unable to send a distress call, and it took around eight hours from the time it is likely that the vessel capsized until the first angler was found.

In addition to rapidly signalling distress, an important prerequisite for survival after an incident is that the position of those in distress is known. The NSIA is of the opinion that the anglers would have had a greater probability of survival had an Emergency Position-Indicating Radio Beacon (EPIRB) been carried on board, or if they had used a Personal Locator Beacon (PLB). This would have given the rescue resources significantly better conditions for localising those in distress in a fast and efficient manner.

The NSIA is of the opinion that vessels leased for commercial purposes must, as a minimum, have systems that enable those in distress to report that they are in an emergency situation. This applies particularly to rental vessels used for fishing tourism, as these actively frequent near-shore areas. The systems must be adapted to the various emergency situations that fishing tourists may encounter.

2.6.4 REQUIREMENTS FOR TRACKING AND ALERTING SYSTEMS FOR VESSELS USED IN RENTAL OPERATIONS

There are currently no regulatory requirements for lifesaving appliances or tracking systems for this category of vessels when used in rental operations, beyond the requirement to wear a lifejacket. The Report on Safety in the Leasing of Recreational Craft in Norway proposes, inter alia, to introduce requirements for both tracking and alerting systems for rental vessels. In this accident, for example, an emergency position-indicating radio beacon capable of alerting the emergency services directly would rapidly have provided information about the position of the persons in distress. This would have constituted a more reliable means of alerting than a mobile telephone that had fallen into the sea. A tracking device would also have enabled the rental company to monitor the position of the anglers and instruct them to proceed into more sheltered waters.

The regulatory framework governing the rental of recreational craft is currently generic and to a limited extent adapted to the risks associated with commercial rental operations. The NSIA considers that there is a need for a more targeted and sector-specific regulatory framework that clearly regulates safety management, technical requirements and equipment, including tracking and alerting systems. This is particularly important as users often lack experience with boats, local waters or Norwegian alerting procedures.

The current framework does not impose requirements for tracking or alerting equipment; however, the accidents investigated in 2025 demonstrate that such measures may be critical for saving lives. The NSIA therefore considers that requirements for tracking and alerting systems should be included in a new regulatory framework for rental enterprises offering recreational craft.

The NSIA recommends that the Ministry of Trade, Industry and Fisheries assigns the Norwegian Maritime Authority the task of developing a regulatory framework that includes requirements for tracking and alerting systems for rental enterprises and rental vessels.

2.7 Supervisory authorities

2.7.1 REGULATORY MEASURES TARGETING MANUFACTURERS

The investigation has shown that NMA's enforcement measures against the use of dangerous products are limited to decisions directed at market providers, and do not extend to rental enterprises or private individuals. Measures relating to rental enterprises are discussed further in section 2.7.2.

Where manufacturers have placed vessels on the market that have not been produced in accordance with applicable regulations, the NMA may require the manufacturer to rectify defects, withdraw the product from the market or recall the product. These measures are directed at manufacturers and presuppose compliance with decisions issued by the NMA. If a manufacturer chooses not to comply with such a decision, or if the company has ceased trading or entered bankruptcy, it has emerged that neither the NMA nor the DSB may implement further measures relating to end users to prevent the use of vessels defined by the authorities as dangerous products. This means that there is no regulatory framework enabling the supervisory authority to impose a prohibition of use directly on end users of dangerous products. Consequently, products that pose a risk to life and health may remain in operation. At present, several vessels of the type Dolmøy 230 Fisker that do not comply with ISO requirements and are vulnerable to water ingress remain in operation, both in private ownership and within rental enterprises. The risk of a similar accident therefore remains.

2.7.2 AUTHORITY STRUCTURE FOR RENTAL ENTERPRISES

In 2021, the Norwegian Maritime Authority and the DSB conducted a joint review of regulatory requirements and the exercise of authority in relation to the leasing of recreational craft. The review identified significant variations in how safety is managed and documented that many enterprises lack both risk assessments, maintenance plans and systematic follow-up of rental vessels. Furthermore, the review concluded that the current regulatory framework does not sufficiently regulate rental enterprises involving recreational craft.

The review recommended that a new regulatory framework should be developed for rental enterprises operating recreational craft, including requirements for, inter alia, registration of rental vessels, documented safety management systems, technical minimum standards and requirements for safety equipment such as tracking and alerting systems. Such a regulatory framework should be administered by the Norwegian Maritime Authority, which possesses the maritime and technical expertise required for sector-specific supervision.

The establishment of a new regulatory framework would not affect the Directorate for Civil Protection and Emergency Preparedness' existing supervisory responsibilities under the Product Control Act and the Internal Control Regulations. DSB's supervision applies across all sectors and would continue to encompass boat rental activities as a consumer service.

The NSIA therefore considers that rental enterprises operating recreational craft should be regulated through a sector-specific regulatory framework issued by the Ministry of Trade, Industry and Fisheries and administered by the Norwegian Maritime Authority, while DSB continues its supervision under the Product Control Act and the Internal Control Regulations. This entails a parallel supervisory structure, where each authority exercises supervision within its respective legal mandate.

The Norwegian Safety Investigation Authority recommends that the Ministry of Trade, Industry and Fisheries establishes a sector-specific regulatory framework for rental enterprises operating recreational craft and delegates supervisory authority under this framework to the Norwegian

Maritime Authority. DSB's supervision under the Product Control Act and the Internal Control Regulations should be continued unchanged and exercised in parallel with the Norwegian Maritime Authority's sector-specific supervision.

3. Conclusion

3. Conclusion

The investigation has established the following:

- The capsize most likely occurred as a result of gradual flooding of the vessel in combination with the prevailing wind and sea conditions. Water most likely entered through the drain openings and over a low step-through on the starboard side of the transom. From there, water progressed into the hold via a non-watertight hatch that lacked seals and a functioning locking mechanism. From the hold, water could then enter voids within the stiffeners and spaces between the inner liner and the outer hull.
- The electric bilge pump, fitted with a manual switch, was found in the activated position. This may indicate that the anglers at some stage detected water ingress and attempted to pump out water before the vessel capsized.
- Although the anglers were operating in wave heights somewhat above the design criterion for this vessel category, the NSIA's examinations have shown that water ingress onto the deck could occur at significantly lower wave heights (ca. 0.5 m) when the vessel is stationary with its stern towards the weather, as in a typical fishing situation. This demonstrates a clear design vulnerability to gradual flooding, even in relatively calm conditions.
- NSIA investigated a capsizing accident in 2014 involving a similar Dolmøy 230 Fisker (Viking 7). Following that report, the NMA engaged in extensive dialogue with the manufacturer regarding improvements to both new and existing vessels of this type. The present investigation has shown that, apart from a minor change in the position of the drain opening flaps, none of the required modifications had been implemented on the accident vessel. The drain openings were the vessel's lowest downflooding points and did not comply with the ISO standard requirements for minimum freeboard for downflooding openings. The vessel was therefore vulnerable to flooding.
- The investigation has shown that the modifications required by the NMA following the Viking 7 accident, which the manufacturer confirmed had been implemented on the 2015 and 2016 models, had not in fact been carried out as intended. This means that there are several vessels with the same vulnerabilities, and a similar accident could therefore happen again.
- If a manufacturer chooses not to comply with a formal decision, or if the company has ceased trading or entered bankruptcy, neither the NMA nor DSB may implement further measures against end users to prevent the use of boats defined by the authorities as dangerous products. This means that there is no regulatory framework enabling the supervisory authority to impose a prohibition of use directly on end users of dangerous products. Consequently, products that pose a risk to life and health may remain in operation. At present, several vessels of the type Dolmøy 230 Fisker that do not comply with ISO requirements and are vulnerable to water ingress remain in operation, both in private ownership and within rental enterprises. The risk of a similar accident therefore remains.
- The rental company informed the anglers that the vessel was not to be used outside a defined geographical limit, and a chart indicating this operational limit was presented. However, the chart plotter track showed that the anglers had operated outside this operational limit on three of the five days, including the day of the accident. There is no regulatory requirement for tracking devices on rental vessels. The NSIA considers that such a requirement could contribute to corrective behaviour by anglers operating outside the rental operator's defined limit.
- The anglers did not issue a distress alert, and the capsized vessel was observed by chance approximately six hours after it most likely capsized. There is no requirement for alerting equipment on rental vessels. An emergency position-indicating radio beacon could have

enabled the rescue services to initiate search and rescue operations earlier, thereby increasing the probability of survival.

- The NSIA considers that there is a lack of regulations specifically directed at rental enterprises and the safety measures required to conduct safe rental operations.
- Supervision of rental enterprises is currently carried out by the Directorate for Civil Protection and Emergency Preparedness (DSB) pursuant to the Product Control Act and the Internal Control Regulations. The NSIA considers that safety within rental enterprises would be strengthened through the establishment of a sector-specific regulatory framework issued by the Ministry of Trade, Industry and Fisheries and administered by the Norwegian Maritime Authority. Such a regulatory framework should include requirements applicable both to the enterprise and to the vessels used as part of the service. At the same time, DSB would continue its supervision pursuant to the Product Control Act and the Internal Control Regulations, which apply across all sectors and therefore also to boat rental activities. The overall supervisory structure would thus consist of two parallel authorities exercising supervision within their respective legal mandates.

4. Safety recommendations

4. Safety recommendations

The Norwegian Safety Investigation Authority submits the following safety recommendations[13] for the purpose of improving safety at sea:

Safety recommendation MARINE No 2026/01T

On Sunday 4 May 2025, three tourist anglers were fishing in a rented Dolmøy 230 Fisker 2015 model in Sildegapet, north of Måløy, when the vessel capsized and all three perished.

The investigation has shown that the vessel had not been modified in accordance with requirements set forth by the NMA following an accident in 2014 with a similar vessel, and which the manufacturer confirmed had been implemented on the 2015 and 2016 models. The vessel models with these weaknesses constitute a danger. The NSIA therefore believes that the Norwegian Maritime Authority revoked the previous import and sales ban against the manufacturer on faulty grounds, as it was taken for granted that earlier models had been modified with a raised sill on the starboard side and that the drain openings had been redesigned with a reduced cross-section. The NSIA is of the opinion that both the previous solution for the drain openings with an internal flap, and the new design with an external flap, are to be considered as downflooding points. Furthermore, the NSIA is of the opinion that a reduced cross-section of the drain openings, as proposed by the NMA, will not alone result in the openings no longer being considered downflooding points. It is therefore unclear, both in the correspondence to the manufacturer and in the safety notice, what the NMA believes the manufacturer must do to satisfy the ISO requirements on this point.

The NSIA recommends that the Norwegian Maritime Authority implement measures to ensure that all Dolmøy 230 Fisker vessels placed on the market comply with the applicable ISO standards for freeboard and stability.

[13] The investigation report is submitted to the Ministry of Trade, Industry and Fisheries, which will take the necessary steps to ensure that due consideration is given to the safety recommendation.

Safety recommendation MARINE No 2026/02T

On Sunday 4 May 2025, three tourist anglers were fishing in a rented Dolmøy 230 Fisker 2015 model in Sildegapet, north of Måløy, when the vessel capsized and all three perished.

The investigation has shown that the vessel did not comply with ISO standards and that the vessel has significant vulnerabilities with regard to water ingress. Based on the NSIA's preliminary findings in this investigation, the NMA registered the Dolmøy 230 Fisker as a dangerous product. The NMA does not itself have the authority to prevent private individuals or rental enterprises from using the vessel. DSB is the supervisory authority for rental enterprises and may, pursuant to the Product Control Act, conduct inspections of such enterprises. It also has the authority to suspend rental operations where consumer service safety requirements are not met. The NSIA considers that inspections targeting rental enterprises marketing Dolmøy 230 Fisker vessels could contribute to limiting further rental and use of this boat type.

The NSIA recommends that DSB conducts inspections of rental enterprises that use Dolmøy 230 Fisker vessels, ensuring that boats not complying with ISO design standards are withdrawn from service.

Safety recommendation MARINE No 2026/03T

On Sunday 4 May 2025, three tourist anglers were fishing in a rented Dolmøy 230 Fisker 2015 model in Sildegapet, north of Måløy, when the vessel capsized and all three perished.

In 2021, the NMA and the DSB conducted a joint review of regulatory requirements and the exercise of authority in relation to the rental of recreational craft. The review concluded that the current internal control regime is insufficient to ensure safe operations in an industry where users often lack experience with boats and the sea. The review further recommended the establishment of a clear supervisory and inspection structure, with the NMA designated as the competent authority for rental vessels.

The NSIA considers that responsibility for supervision and enforcement should be assigned to the NMA, which already possesses the necessary maritime and technical expertise. Such an allocation of responsibility would ensure better coordination between regulatory frameworks for recreational craft used in commercial enterprises, whether operated with or without a hired skipper on board.

The Norwegian Safety Investigation Authority recommends that the Ministry of Trade, Industry and Fisheries establishes a regulatory framework for rental enterprises operating recreational craft and grants the Norwegian Maritime Authority authority to conduct supervision pursuant to this framework.

Safety recommendation MARINE No 2026/04T

On Sunday 4 May 2025, three tourist anglers were fishing in a rented Dolmøy 230 Fisker 2015 model in Sildegapet, north of Måløy, when the vessel capsized and all three perished.

The anglers were unable to send a distress signal, and approximately eight hours elapsed from the time the vessel likely capsized until the first angler was found. With no means of alerting on board other than mobile phones, they were unable to notify others that they were in distress.

In this accident, for example, an emergency position-indicating radio beacon capable of alerting the emergency services directly would rapidly have provided information about the position of the persons in distress. This would have constituted a more reliable means of alerting than a mobile telephone that had fallen into the sea. If the vessel had been tracked, there would also have been a greater likelihood that the rental company could have detected that the vessel was in trouble, and would also have had information about its location. The current regulations governing rental enterprises is generic and not specifically adapted to the rental of vessels. The NSIA considers that there is a lack of regulations specifically directed at rental enterprises and the safety measures required to conduct safe rental operations. This is particularly important given that those who rent boats are not always familiar with the vessel, the waters, the weather conditions or the Norwegian emergency alerting system. The regulations should include requirements for both tracking and alerting systems. Two rental-related accidents investigated by NSIA in 2025 have demonstrated that these are critical safety measures for saving lives.

The NSIA recommends that the Ministry of Trade, Industry and Fisheries assigns the Norwegian Maritime Authority the task of developing a regulatory framework that includes requirements for tracking and alerting systems for rental enterprises and rental vessels.

Norwegian Safety Investigation Authority
Lillestrøm, 28 April 2026