



LEARNING FROM EXPERIENCES OF THE NORTHGUIDER GROUNDING

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ABSTRACT



This article presents a case of learning from experience of the Northguider accident and implementing improvements in the emergency preparedness systems. The article starts with the description of the grounding and crisis management operation, and then proceeds by presenting the case of an emergency preparedness exercise that was based on the scenario of this incident.

In relation to the ISO 31000 standard, the Improvement principle is mentioned, and development of emergency preparedness exercises is suggested for continual learning and improvement.

Link to ISO 31000

The ISO 31000 standard specifies the guidelines for risk management principles. ISO 31000 is an important and useful tool for security risk professionals to develop risk management strategies. As International Organization for Standardization puts it, the long-term success of an organization relies on many things, from continually assessing and updating their offering to optimizing their processes. As if this weren't enough of a challenge, they also need to account for the unexpected in managing risk.

However, the security risk professionals need to extract and integrate the guidance which is most relevant to their organizations and improve risk management process and performance according to their experience.

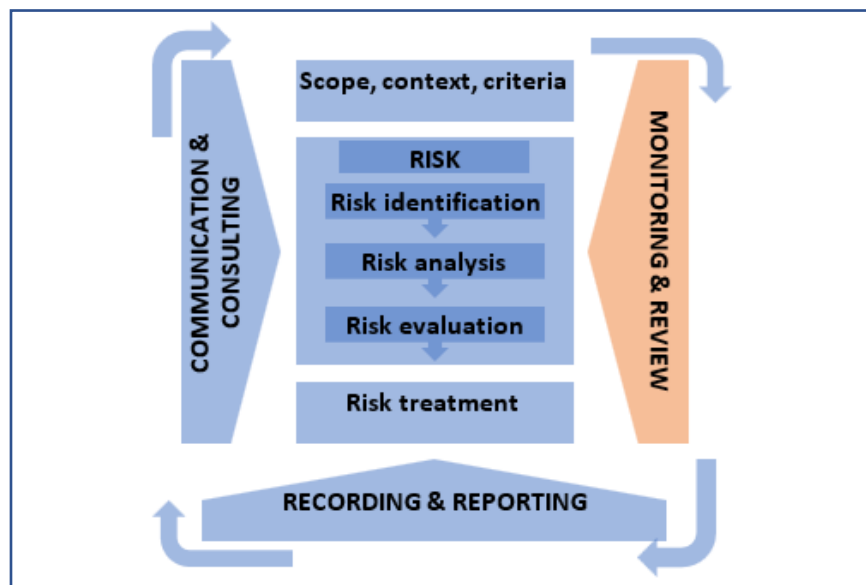


Figure 1. Risk management process according to ISO 31000:2018



The last principle in ISO 31000 is Continual Improvement. This principle confirms that the risk management arrangements should ensure continual improvement. Risk management is continually improved through learning and experience.

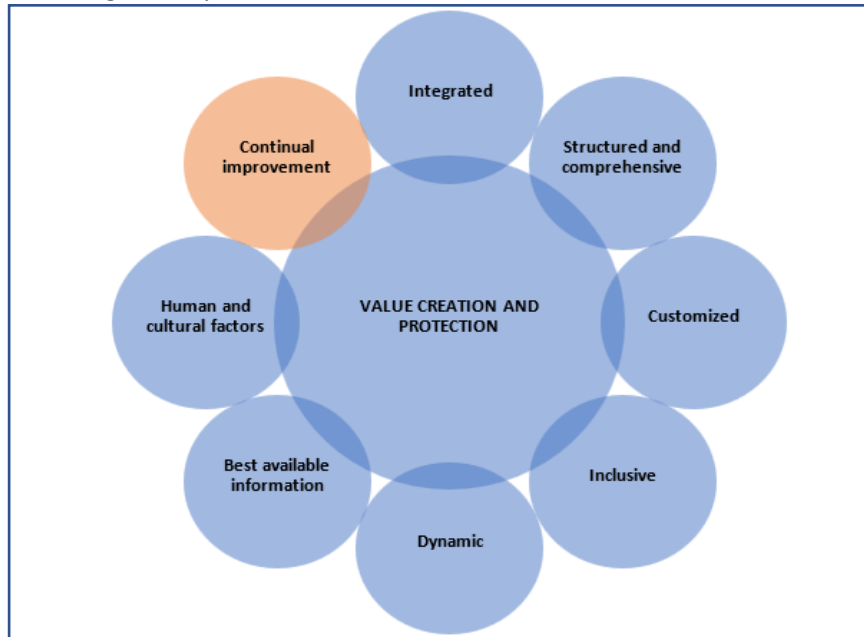


Figure 2. Risk management principles according to ISO 31000:2018

The ISO 31000 framework describes that organizations should evaluate own practices and existing processes for risk management. The last framework component is Improvement, which includes value of risk management, adapting the framework and integration of risk management activities according to organizational needs.

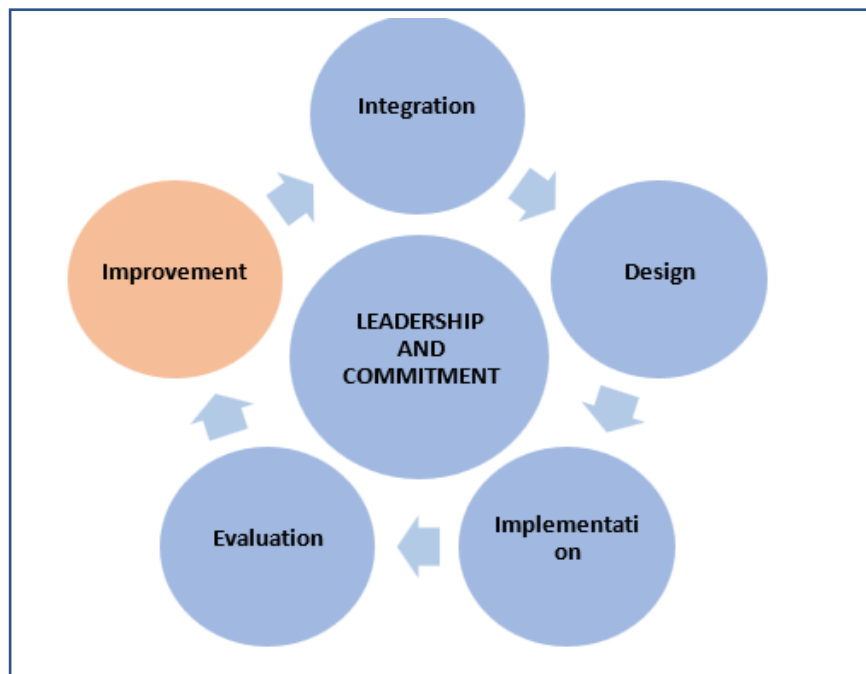


Figure 3 Risk management framework according to ISO 31000

Organization should continually improve and strengthen its framework for risk management through learning and review of experiences.



1. Introduction

The article describes the case of the Northguider grounding, which was a very complex search and rescue and marine environmental response operation. The scenario was later utilized in emergency preparedness exercises for improvements of the risk and crisis management systems in the Arctic. One such exercise is presented in this case study, as best practice example, to learn from experience of own emergencies and from others.

2. Case

During the Christmas season, December 28, 2018, the Norwegian trawler Northguider was fishing for shrimp in the Svalbard archipelago with a crew of 14 persons. At approx. 13:00 hrs it ran aground in the narrow northern part of the Hinlopen Strait. There were no other ships in the area. The Northguider sent out a mayday via its emergency beacon and MF/HF radio. The Northguider did not receive any response to the distress signal, but the message was intercepted by the Norwegian Coastguard Vessel "Barentshav", which was located near the island Bjørnøya. The Barentshav sailed towards Hinlopen but had to turn back due to ice conditions.

After several hours, the entire crew was rescued by 2 helicopters from the Governor of Svalbard in a very tough rescue operation in bad weather. Lifting in Arctic conditions is a challenge in itself, but this operation was at the limit of what is possible in -20 degrees Celsius temperature, darkness and strong winds.

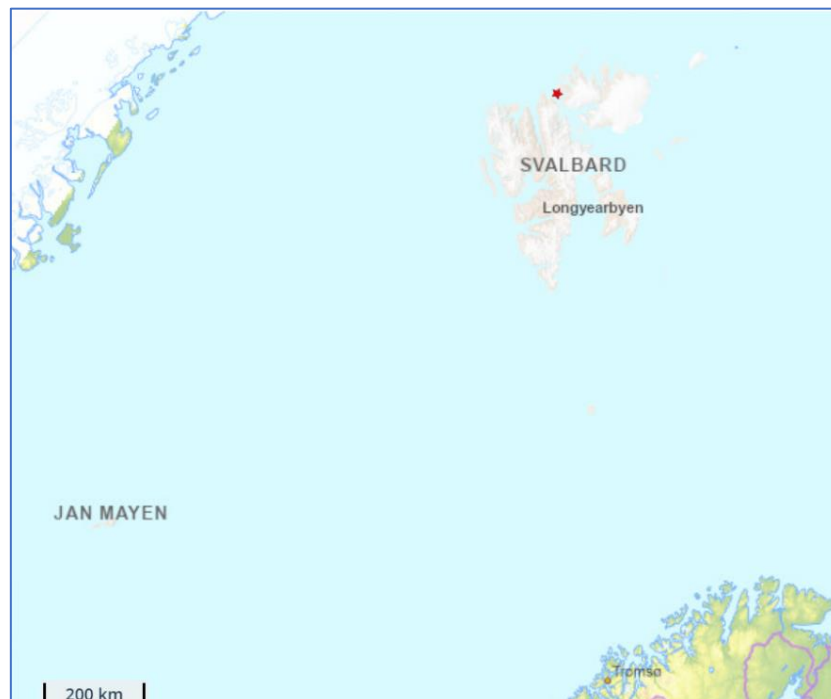


Figure 4. Location of the Northguider grounding

After the SAR operation had been completed, the Norwegian Coastal Administration took over the responsibility for the response. Due to ice conditions, it was decided that the Norwegian Coastguard



vessel Svalbard could assess the situation for further work. The ship was of ice class and was able to handle multi-year ice. On 9 January 2019 emergency unloading of the bunker fuel was started to reduce the enormous environmental consequences in case the trawler should begin to leak.

In February 2019, the Northguider was emptied of all fuel and environmentally hazardous substances. From August to October 2019, a contracted professional salvor made an attempt to raise and tow the ship without success. Because of the ice situation, the harsh climate and remote position, the salvor had to postpone the salvage operation to the summer season of 2020. By September 2020 eventually, the ship was scrapped on the spot and removed.

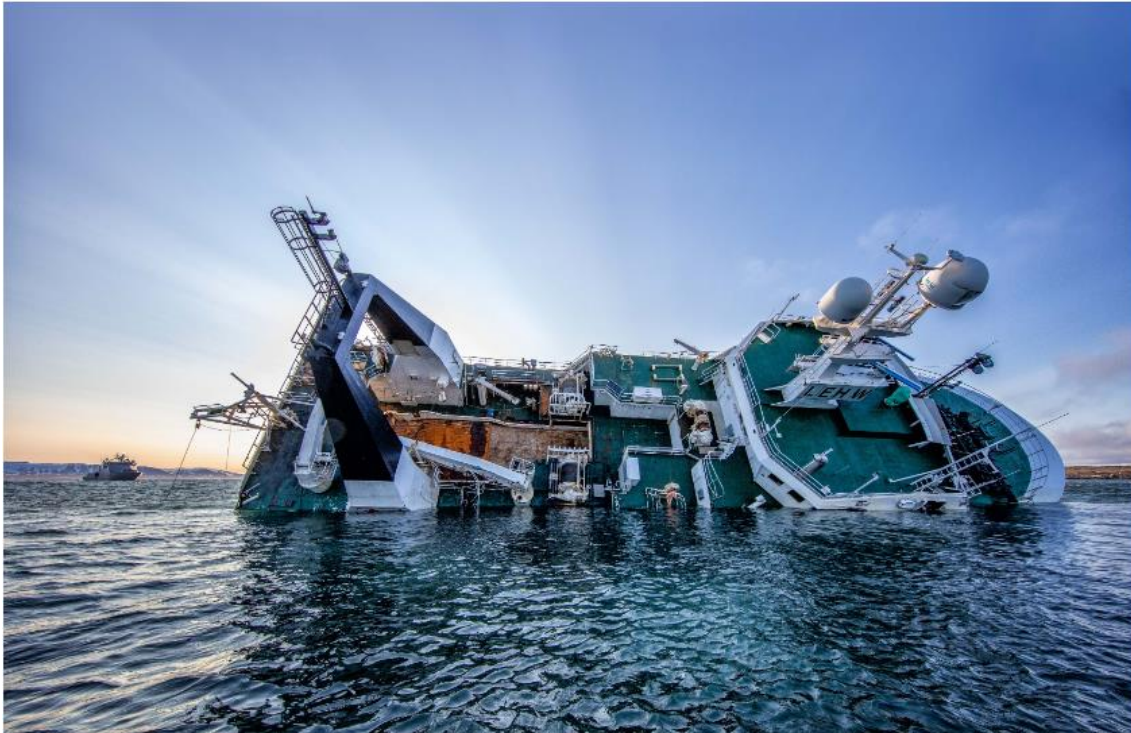


Figure 5. Northguider, photo: Håkon Kjølmoen

Remoteness, limited infrastructure and harsh climatic conditions are challenging for maritime activity in the Arctic (Kruke & Auestad, 2021). Emergency response management operations often involve a wide range of actors with specialized tasks and roles related to information sharing, decision-making, and front-end personal command (Bigley & Roberts, 2001). The on-scene command of response operations relies on managers and the systems that are behind them, such as procedures, protocols, formal structures etc. In volatile and complex environments, coordination is less dependent on the pre-planned design than on the current skills, solving emerging tasks and challenges (Andreassen et al., 2020).

The case showed that it is important to pre-plan the roles and responsibilities for both SAR and marine environmental response incidents. This ensures that the key contacts of local, regional, and national authorities collaborate well at the time of the incident. Besides, the initial assessment is vital, the necessary measures must already be taken during the SAR phase.

In November 2021, the table-top exercise “Oil in Ice” took place under the auspices of ARCSAR, the Arctic and North Atlantic Security and Emergency Preparedness Network, which was a large EU-funded innovation project. The exercise was facilitated by Nord University’s NORDLAB, the emergency preparedness management laboratory (ARCSAR, 2022). The main purpose of the Oil in Ice 2021 tabletop



exercise was to discuss how oil spill preparedness and response is organized in the case of a large-scale operation in the Svalbard region, as well as to identify lessons from other locations and agencies in the Arctic and North Atlantic regions.



Figure 6. ARCSAR exercise Oil in Ice, photo: Center for Crisis Management and Collaboration, photo: Center for Crisis Management and Collaboration – Nordlab

The scenario for this exercise was based on the Northguider grounding case, with the virtual difference that the spill actually happened. The situation in the Svalbard area is quite challenging, as there are multiple actors from the SAR and marine environmental response sectors who need to collaborate to handle the incident. This includes marine environmental response, the rescue operation, and securing the vessel and the environment.

To learn and discuss potentially necessary improvements the training audience was divided into three groups: the main training audience – those who would be involved in case if there were oil spill; the secondary training audience – the parallel organizations in other Arctic countries, and observers – all other relevant or interested stakeholders. The exercise contributed to deeper understanding of the needs for skills, assessment systems and competences to deal with Arctic marine environmental incidents.

3. Best practices

There is a written joint handover procedure between Joint Rescue Coordination Center and Norwegian Coastal Administration in Norway. However, it is important to understand how to use the procedure and continually improve the systems. This exercise was an important contribution to sharing knowledge and experience on how a serious incident and subsequent oil pollution can be handled under extreme circumstances in the Arctic (Kystverket, 2021). This exercise contributed to the improvements,



understanding of relevant procedures, and assessment of new risks and new competences needed to deal with Arctic incidents.

The scenario was based on the real case, so the realism during tabletop- and game exercise provided valuable opportunities for demonstrating relevance of the risks and challenges to various groups of stakeholders. Advanced tabletop exercises like these require good pedagogical planning with a focus on different backgrounds and needs of the various participants. The most important is to facilitate the learning of each individual and organization involved and exchanging ideas on how to deal with a complex event in demanding conditions (Elvegård & Andreassen, 2022).

As the ISO 31000 suggests, crisis or risk management is continually improved through learning and experience. Both framework component and one of the principles focus on continuous improvement of the systems, learning, and updating the routines and competence. Emergency preparedness exercises serve as a particularly effective learning method for assessing enhanced knowledge, facilitating learning and implementing knowledge in organizations (Andreassen et al., 2024). Exercises contribute to enhancing security risk management capabilities, building trust and collaboration between involved stakeholders (Elvegård et al., 2024). By creating conversational spaces, team members can reflect on their collective experiences and discuss potential response actions. For more recommendations for the development of study and training programmes, particularly on various exercise methods, see Chapter 5 of the SECUREU project report “Recommendations for higher education institutions teaching security risk management” (Neimane et al., 2024).

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