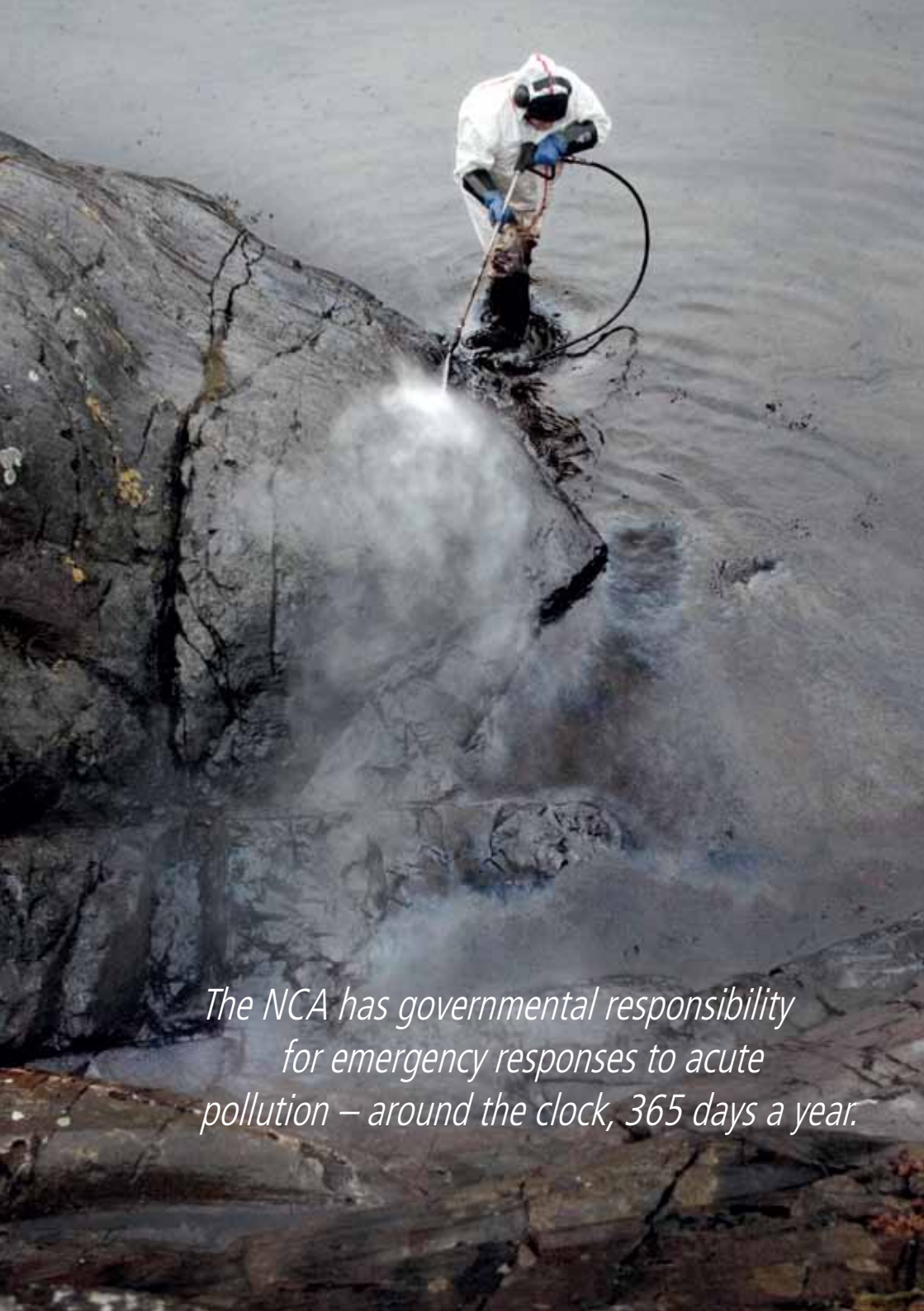




KYSTVERKET
NORWEGIAN COASTAL ADMINISTRATION

Preventing Acute Pollution



*The NCA has governmental responsibility
for emergency responses to acute
pollution – around the clock, 365 days a year.*

The Norwegian Coastal Administration (NCA) is a government agency under the Ministry of Transport and Communications with responsibility for safeguarding and developing the coast for everyone.

The NCA aims to provide safe travel and efficient navigation and effective national preparedness for acute pollution.

The NCA has governmental responsibility for emergency responses to acute pollution – around the clock, 365 days a year.

The task of the NCA emergency response organisation is to prevent and identify acute pollution, and ensure that the polluter responsible takes appropriate action when acute pollution occurs. If the polluter cannot take the necessary measures, the NCA may take action on behalf of the polluter.

Preventative measures

Measures to prevent accidents happening are a cornerstone of Norwegian oil emergency preparedness. Many of the preventative measures aimed at maritime traffic are effectuated by other units within the NCA.

Important preventative measures:

- The NCA's continuous emergency response services
- Expansion of territorial waters to 12 nautical miles (since 2004)
- Coordinated monitoring of maritime traffic by the NCA Vessel Traffic centres
- Development, use and maintenance of the AIS (Automatic Identification System) for vessels with dangerous cargo.
- Emergency towing vessels
- Mandatory fairways and recommended shipping lanes about 30 nautical miles off the coast of Troms, Finnmark and Western Norway
- Coordinated aerial and satellite surveillance in coastal and marine areas
- Deployment of equipment and procedures for offloading in case of shipwrecks
- Mapping and quality assurance of ports of refuge

Further information at: www.kystverket.no





Preventing Acute Pollution

Anyone conducting activities that may cause acute pollution must ensure the necessary preparedness to prevent, detect, stop, remove and limit the impact of any pollution. The preparedness must be in reasonable proportion to the probability of acute pollution and the extent of the damage and inconvenience that may be caused. The Norwegian response is divided into public and private oil emergency preparedness. Public preparedness is further divided into central and local government sections. The NCA is responsible for coordinating these contingency plans.

This is done by:

- coordinating and training private and local and central government emergency resources in a national emergency response system.
- further developing state preparedness through courses and exercises, and the development of new equipment and new methods complying with comprehensive national and international agreements on notification and assistance as well as being a driving force in international efforts in the field of acute pollution ensuring that any person, company or local council responsible for pollution takes action in accordance with their obligations placing requirements on those responsible for acute pollution investing in and maintaining emergency resources linked to state depots and vessels with a role in the emergency response system maintaining an overview of shipwrecks and taking any necessary action to reduce environmental risk
- Ensuring emergency towing vessels capability



Private emergency preparedness

The Norwegian Pollution Control Act specifies that any potential polluter should pay both for its own preparedness and for the implementation of damage control measures for pollution arising from its activities.

The polluter is also financially liable to take measures and provide compensation for damage to the environment and to property.

About 70 land-based industrial companies, including refineries and tank facilities, have been notified of particular emergency response requirements by the Norwegian Environment Agency and have established contingency plans. Oil companies operating on the Norwegian continental shelf have their own emergency requirements based on the Health, Safety and Environment (HSE) regulations for the petroleum industry. In the case of petroleum activities on the Norwegian continental shelf, the responsibility for preparedness and action lies with the individual operating company. All operating companies are members of the Norwegian Clean Seas Association for Operating Companies (NOFO) which provides companies with material and technical personnel.

Any company which has established private contingency plans is also obliged to contribute to any national or local government actions.

Public emergency preparedness

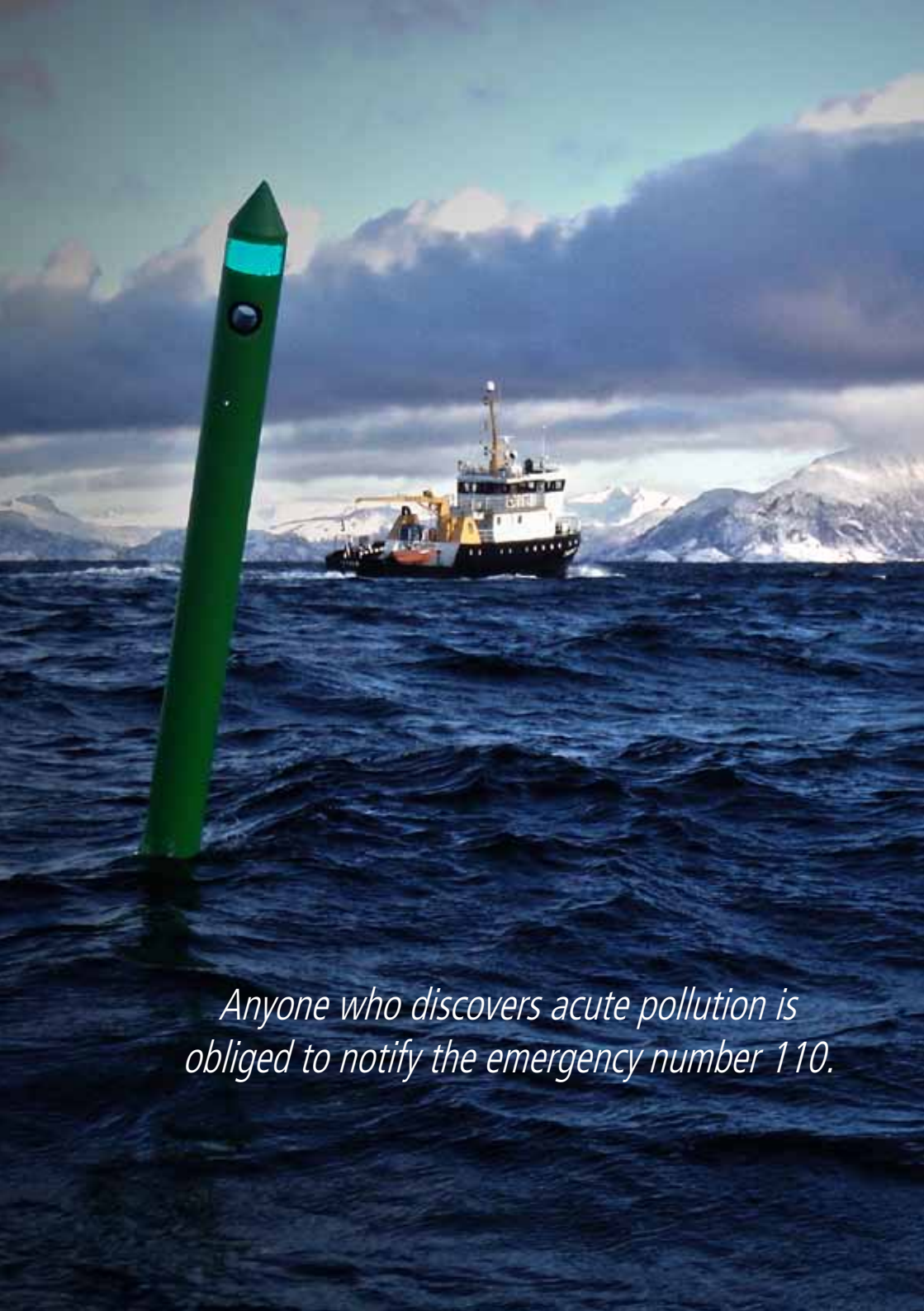
Local government preparedness

Local councils have a responsibility for emergency preparedness and action in minor cases of acute pollution within their borders, which are not covered by private contingency plans and where the polluter is unable to take action. This responsibility also applies where the polluter is unknown. Examples of this are: overturned tank lorries, discharges from underground tanks or oil spills from an unknown source in a port.

Local authorities cooperate on preparedness through 32 inter-council preparedness regions, headed by inter-council committees for acute pollution (IUA) covering all Norwegian local authorities.

State preparedness

The state, represented by the NCA, has responsibility for emergency preparedness and action in major incidents of acute pollution not covered by private or local government contingency plans. In practice this applies to responses to oil spills from ships and shipwrecks or unknown sources. This also implies that if the known polluter responsible is unable to take action, the NCA can if necessary take on the responsibility for action.



Anyone who discovers acute pollution is obliged to notify the emergency number 110.

Notification of acute pollution

Anyone who discovers acute pollution is obliged to notify the emergency number 110.

Every year the NCA receives about 1300-1400 reports of acute pollution or a risk of acute pollution. The NCA is available around the clock to respond to such notifications - and identifies, evaluates, advises, and if necessary imposes measures to limit the damage.

For vessels at sea, the nearest coastal radio station or the Joint Rescue Coordination Centre (HRS) should be alerted. Offshore operations should alert the HRS and/or the Petroleum Safety Authority. There are also other special notification procedures, such as from aircraft.

Once the 110 emergency line, coastal radio station, etc. has been notified, the NCA emergency response services will also be alerted. The NCA will be able to monitor the situation, place requirements on the polluter, give advice or take action, depending on the nature and scope of the incident.

State responses to acute pollution

Upon notification of a major acute pollution incident, the NCA emergency response services will mobilise emergency personnel and equipment.

In the case of oil pollution, the mobilisation will take place in collaboration with the affected region/local authority or the polluter, in accordance with the NCA emergency plan for acute pollution. In the case of chemical accidents, other resources may also be involved.

Stages of the response:



An emergency response action may last from a few days to several months and will involve much personnel and material resources. Oil spill response actions can involve considerable resources and expense.



What are the priorities when an accident occurs?

In responding to acute pollution, the measures chosen give priority to

- 1) life
- 2) health
- 3) environment
- 4) commercial interests.

After life and health, the environment should be given priority during any response. The properties of the substances discharged determine how the contaminants spread in the environment and what damage they can inflict on exposed environmental resources. The damage can range from acute toxicity for living organisms to more long-term effects such as impaired reproduction and changes in genetic material.

Experience from Norway and abroad has shown that serious oil spills that occur close to land will in most cases lead to oil-polluted beaches. It is therefore important to have measures in place to prevent the oil spreading further with tides and currents. In beach operations the most environmentally friendly cleaning methods must be used to prevent further damage.





Factors affecting the situation and how to solve it

The events that cause acute pollution are rarely exactly the same. How an oil spill response can best be implemented must be evaluated on a case to case basis. Although Norway is one of the world's leading countries in emergency preparedness for acute pollution incidents, there are still limits as to what can be achieved.

An oil spill response action is affected by factors such as:

- Amount of spilt oil
- Type of pollution
- Vulnerability of local environment
- Temperature
- Light conditions
- Topography
- Infrastructure
- Accessibility of polluted areas

For oil spills at sea, the following factors are also important:

- Response time and availability of vessels
- Sea conditions (e.g. wave height and currents)
- Wind speed and direction
- Current speed and direction
- Physical properties of the oil
- Distance to equipment depot
- Access to equipment and personnel
- Tidal conditions
- Distance to shore

Under extreme weather conditions, the material will become less effective

Wind and waves reduce the ability of an oil spill response to collect and remove oil from the sea. For this reason, effective damage limitation at sea can only be expected on about 60% of days in a year.

Experience from state response actions shows that it is rarely possible to remove more than 10-15 percent of an oil spill at sea. The rest evaporates, mixes with the water, decays or is removed when it reaches land.

Accidents involving spills of chemicals other than oil can be quite different. Many hazardous substances will blend with the water, while others will float on the surface

The choice of method to limit damage to people and the environment is carefully considered, and the choice of measures will vary with each individual case.



*NCA surveillance aircraft patrol
the Norwegian coast for 600-800
hours a year*

Resources

The NCA personnel have experience from both national and international pollution actions. Experience and expertise are the core of NCA preparedness, together with access to their own and others' emergency resources.

Aerial surveillance

NCA surveillance aircraft patrol the Norwegian coast for 600-800 hours a year, in cooperation with the coastguard services and NOFO. Remote sensing equipment in the aircraft enables the detection of illegal discharges and the calculation of the amount of pollution. During responses, aerial surveillance is used actively to detect and identify the extent of the pollution and thus where the response efforts should be concentrated.

Satellite surveillance

The NCA also uses satellite services to detect possible pollution at sea. If the satellite images show signs of pollution, the NCA may send out a surveillance aircraft or a vessel to verify the satellite observation and if necessary take action to identify those responsible for the spill. Such observations will normally apply to illegal discharges. Monitoring of illegal discharges takes place in cooperation with the police and the Norwegian Maritime Authority.

Oil spill response equipment

On land: Equipment depot

The NCA has 16 oil spill response depots along the coast of Norway and Svalbard. The depots have a staff of ten and a supervisor.

The geographical location of the depots and the type and amount of equipment stored is based on the NCA environmental and contingency analysis from 2011. The analysis indicates the likelihood and consequences of acute pollution on various stretches of the coast

At sea: Vessels

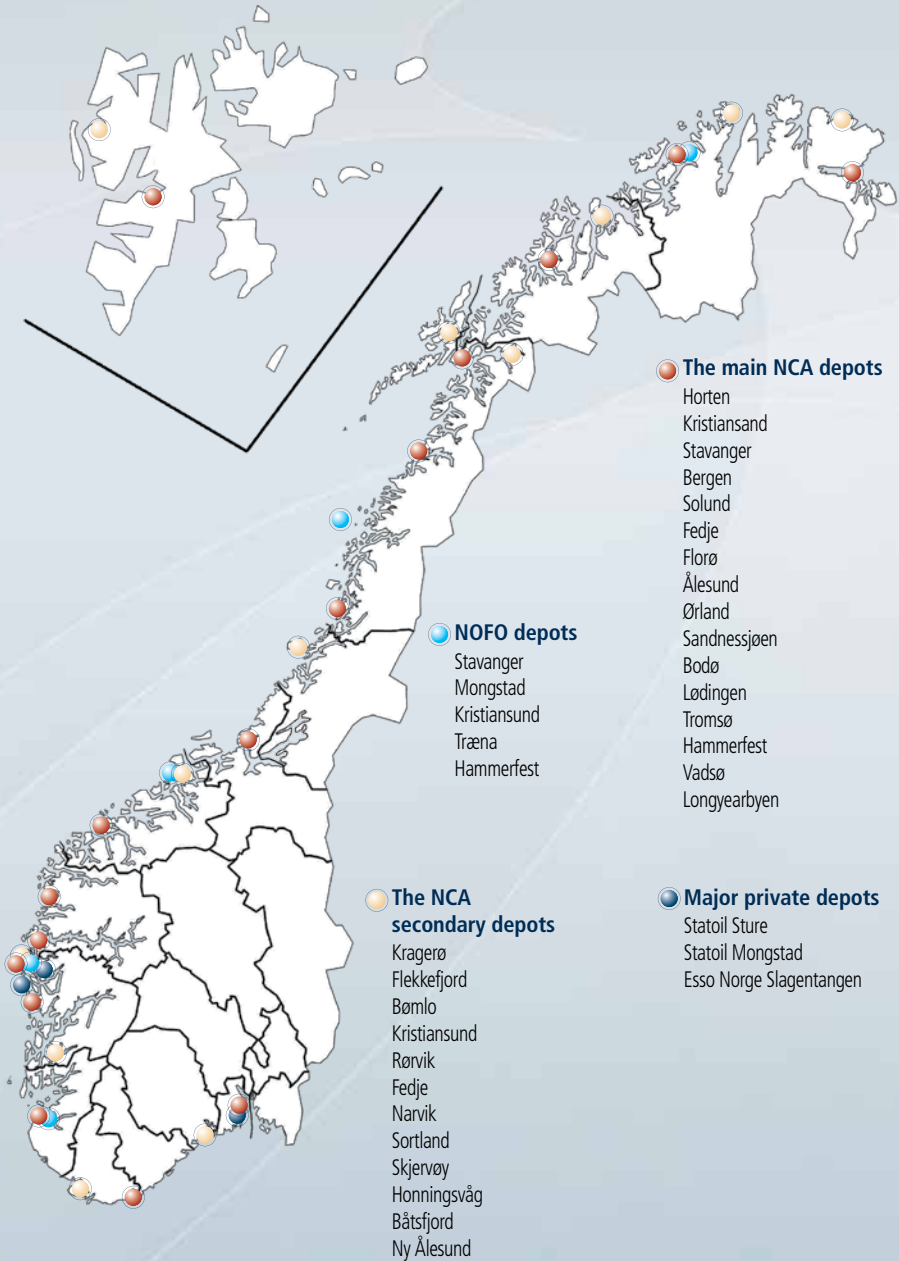
The NCA has 6 specialised oil spill response vessels and has deployed oil spill response equipment on 11 coastguard vessels. The crew of these vessels has been trained in the use of the equipment in the event of an oil spill response operation.

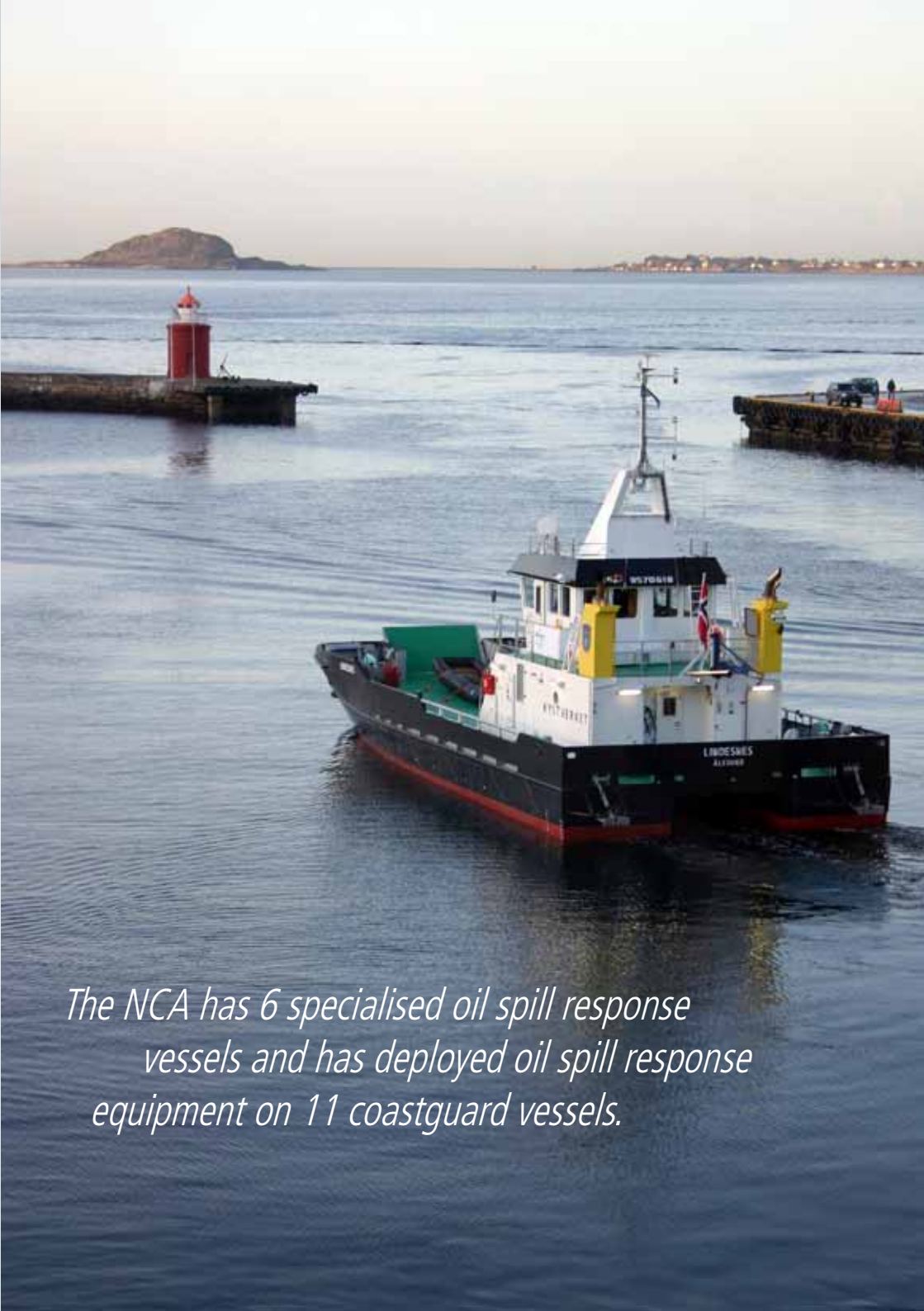
The NCA also has contracts with 35 smaller vessels linked to the depots. These are private vessels which will assist the NCA in an oil spill response. These boats do not have oil spill response equipment on board, but will use the depot equipment in any response.

In 2014, the emergency towing vessel program consists of four vessels that patrol their respective areas along the Norwegian coast. These are private vessels used by the NCA. The primary task of the tugs is to prevent vessels drifting ashore.



Equipment depots for oil spill response equipment





The NCA has 6 specialised oil spill response vessels and has deployed oil spill response equipment on 11 coastguard vessels.



Collaboration

The NCA regularly exchanges experiences and knowledge with national and international partners, and has signed a number of formal cooperation agreements. These involve a commitment to provide mutual assistance in terms of knowledge and materials as needed.

National collaboration partners:

The Norwegian Armed Forces, the Petroleum Safety Authority, the Norwegian Maritime Authority, the Directorate of Fisheries, the Governor of Svalbard, the Norwegian Directorate for Civil Protection and Emergency Planning, the Norwegian Institute of Marine Research, the Norwegian Polar Institute, the Norwegian Environment Agency, the Norwegian Food Safety Authority, the National Institute of Nutrition and Seafood Research (NIFES), NOFO and the Norwegian Oil and Gas Association.

Special coordination agreements have also been signed with three major oil facilities: Slagentangen, Sture and Mongstad. The NCA and several fire departments also cooperate in terms of assistance for chemical accidents at sea through the so-called RITS forces (rescue efforts at sea).

International collaboration

A response to acute pollution may be so extensive that international assistance is needed. Other countries may ask for Norwegian assistance or Norway may request assistance from abroad. Norway has signed several international agreements to ensure that requests for assistance are carried out promptly. Annual meetings and exercises are an important part of the international effort and the NCA takes part in a number of meetings to follow up these agreements.

Examples of international agreements and cooperation forums are the Copenhagen Agreement, the Bonn Agreement, EMSA and the European Commission's Emergency Response Coordination Centre (ERCC), the Norway-Russia Cooperation, the NORBRIT Agreement, cooperation through the Arctic Council, the IMO (the UN international maritime organisation) and the Norwegian Development Agency NORAD.



The address of the NCA Emergency Response Department is:
Centre for Marine Environment and Safety, Moloveien 7, 3187 Horten, Norway

Notification of acute pollution incidents: Emergency number 110

Vessels notify via VTS centres or coastal radio stations.

Petroleum operations notify via the Joint Rescue Coordination Centre (HRS) or the Petroleum Safety Authority (Ptil).

Aircraft notify via the Air Traffic Services.

The coastal radio, the HRS, Ptil and the Air Traffic Services notify the NCA.

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