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Military Activities

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3.5 Military Activities

3.5.1 Introduction

The military activities in the Wadden Sea Area and adjacent areas involve exercise and shooting ranges for ground forces and aircraft, testing areas for military equipment, low altitude flight and air target areas for military aircraft, and associated flights of aircraft and helicopters.

The main centre of the activities is situated in the western Dutch section of the Wadden Sea Area. The 1999 QSR stated that, in general, military activities and exercise areas have been reduced during the last decade in all of the area. Since then, no major new developments have been reported. In The Netherlands, the regulations for military activities are laid down in the 'Structuurschema Militaire Terreinen' which was adopted by Parliament in December 2004.

The PKB (Derde Nota Waddenzee, January 2007) contains the policy with regard to military activities for next ten years and several decisions have been taken to reduce effects on the environment. The general minimum flight height was raised from 300 to 450 m (with an exception for military helicopters and the approach of the shooting range Vliehoors) and the low-altitude flight route was closed. The cavalry range on Vlieland was closed in 2004, and the anti-aircraft artillery range at Den Helder was closed in 2005.

A map of the localities of the exercise areas and the activities in the Wadden Sea Area is in Figure 3.5.1

3.5.2 Military exercise areas

The Netherlands

There are two military exercise areas in The Netherlands, the "Vliehors" and the "Mokbaai". Both are partly within the PKB area.

Vliehors

In use since 1960, the "Vliehors" is a shooting range for NATO-military aircraft on a large sand-bank on the west side of the island of Vlieland, partly in the PKB area. Normally it is used on work days for firing guns and rockets and bomb dropping. Explosive bombs are only used outside the breeding season. Practices with bombs, rockets and gunning from fighter planes occur on average 180 days per year. On average, about 3,000 aircraft movements are registered annually. This activity is now being subject to an assessment of their possible effects on the natural values, required for the Nature Conservation Act licensing procedure.

The security zone of this shooting range is located north of the island off the coast in the Wadden Sea Area. The danger zone, which prima-

rily stretches out into the Wadden Sea (to a width of 12 km), has a total surface area of 105 km². The target area, including the standing points for shooting, covers a surface area of 1.5 km².

In order to limit disturbance, the dropping of explosive bombs is excluded in the period from 15 April to 1 September. Furthermore, the flight route has been situated off the coast to limit the disturbance of the neighboring island Texel.

Mokbaai

The "Mokbaai" has been an amphibious exercise ground since 1917, with a military barrack and 100 persons permanently stationed. Annually, about 50 exercises involving zodiaks, landing crafts and helicopters of the naval forces are executed, confined to work days. By planning the exercises, the breeding and moulting periods of birds are taken into account. During the exercises, specific nature-respecting rules of conduct have to be followed.

Both areas have been assessed to qualify according to the Natura 2000 criteria and have been assigned accordingly. Currently, in the light of the development of the required management plans for Natura 2000 areas, investigations are ongoing to make detailed inventories of all the activities, including the possible significant effects on the natural values. Preliminary results as well as former investigations indicate that there are reasons to believe, especially at the Mokbaai, that the presence of the military zone might even have a positive effect upon the natural values. There is no impact on the overall integrity of the area.

Based on the investigations referred to above, and bearing in mind that the actually used exercise-area in the 'Mokbaai' only concerns a very small area of the nominated property, which also holds true for the 'Vliehors', consultations have started with the Ministry of Defense in The Netherlands to explore the possibilities to zone the area in time and space to reflect the activity within the Wadden Sea.

Trilateral Policy and Management

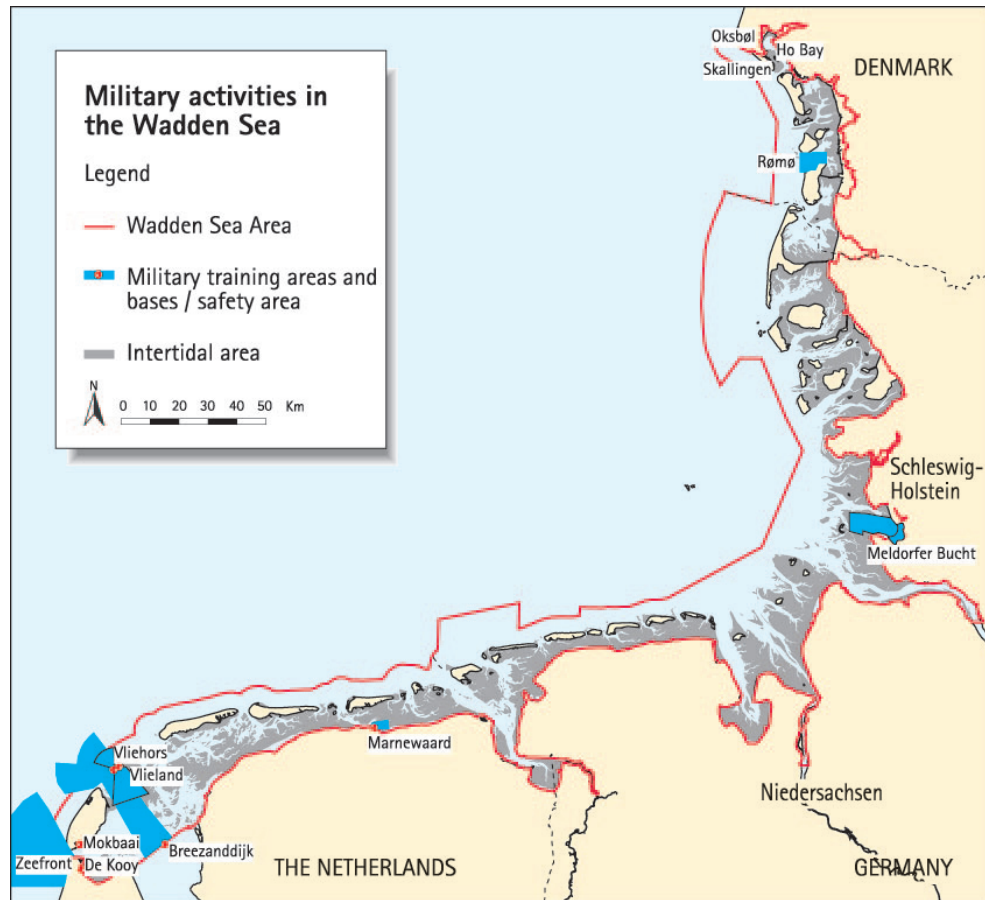
WSP 9.1.21 Disturbance caused by military activities has been, or will be, reduced and the possibilities for further concentrating and/or phasing out military activities will be regularly examined.

WSP 9.1.22 The negative effects of low altitude flight routes of military aircraft have been, or will be, reduced by reducing the number of flights and the maximum speed.

WSP 9.1.23 Action to minimize disturbance caused by military air traffic in the Wadden Sea area will be taken on a coordinated basis.

WSP 9.1.24 High priority will be given to the assignment of redundant shooting ranges as nature protection areas.

Figure 3.5.1:
Military activities in the
Wadden Sea Area.



Areas partly inside or adjacent to the Wadden Sea Area

Zeefront consists of relatively small shooting exercise ranges near Den Helder outside the Wadden Sea Area. Part of the security zone is located within the Wadden Sea Area.

Breezanddijk is a test shooting range in the IJsselmeer from a position on the Afsluitdijk, used about to a maximum of 85 days per year. The activity does not take place inside the Wadden Sea Area and only limited noise disturbance results from the tests.

The location on **Vleiland** has been used for tank firing. In order to limit the disturbance, the shooting period was confined to 1 September to 15 April. The security zone is situated south of the island. In 2003, the location was used for 13 weeks in total. Since May 2004, the shooting range has been out of order. Since 2005, there has been no firing at the location, but the shooting range is not officially abandoned.

Marnewaard is a shooting range for machine guns situated directly adjacent to the Wadden Sea Area northeast of the embanked Lauwersmeer and encompasses an area of 2,500 ha. The security

zone is situated in the Wadden Sea Area. The shooting range is used to a maximum of 42 days per year (14 weeks per year, three day per week).

Germany

Meldorf Bucht

The Meldorf Bucht location in Germany has been a ballistic testing site for new weapons of the German Ministry of Defence since the early 1980s. **However, over the last ten years the range has been used on average on 0.5 days per year only.** In several years there were no tests at all. Tests are undertaken from platforms on the seawall outside the nominated property and the target area stretches into the nominated property in the Meldorf Bucht. **If tests are carried out, timing is tuned with the national park administration to avoid, as far as possible, sensitive times and disturbances of birds and mammals. Strictly no tests are undertaken during the moulting season for shelduck, which gather in the region in large flocks. Prior to any tests, helicopters fly over the area, to ensure that the security zone is safe. The remains of the projectiles are recovered from the Wadden Sea also by use of helicopters.**

An impact assessment study conducted in 2001 has shown that the overall impact on birds, seals and macrobenthos was very small. Disturbances of birds due to the helicopter flights have since then been further minimized. Thus in combination with the very low frequency of testing activities it can be stated that the testing site has no negative effects on the biological values and the integrity of the Meldorfer Bucht area.

Denmark

Rømø

The northern part of the island of Rømø is a shooting range for NATO-military aircraft for gun and rocket shooting at low altitudes. The security zone covers the northern part of the island and part of the tidal inlet between Mandø and Rømø. A larger area is restricted for air traffic during exercise time. The activities are primarily carried out during summer but, normally, not in July.

Ho Bay, Skallingen and Oksbøl

Ground forces are allowed to carry out landing exercise operations in the Ho Bay and at the coast of Skallingen north of the 55°38' latitude. The large exercise and shooting range Oksbøl is located north of the Wadden Sea Area. In connection with exercises on the exercise and shooting range, flights are undertaken on 1-2 days in August to September in the northern Danish Wadden Sea Area in flight corridors.

3.5.3 Other military activities

Other military activities concern the air traffic and associated traffic connected with the use of the exercise areas. In the Dutch Wadden Sea Area, helicopters are, e.g., used as stand-by during exercises on the locations. Specific helicopter routes have been designated to limit the disturbance, for example, off the coast of the islands and the minimum flight altitude is 500-600 feet under normal weather conditions.

In the Dutch Wadden Sea, the recently adopted management plan ('Structuurschema Militaire Terreinen') entails the ultimate closing of the low-altitude-flight route (which crosses area between the island of Schiermonnikoog and Ameland, see Figure 2.7.1), an increase of the minimum flight altitude of military aircraft over the Wadden Sea to 300-400 m and a shift of the approach corridor to the shooting range Vliehors from the Wadden Sea to the open North Sea (Interwad, 2008).

In Germany, the minimum flying-altitude for military aircraft was changed in 2002. For major parts of the German Wadden Sea, due to its status as national park, military aircraft must

adhere to a minimum flying altitude of 3,000 feet (915 m) for jet aircraft and 2,000 feet (610 m) for all other aircraft, including helicopters, unless specific operations or weather conditions dictate otherwise.

The Leybucht, the Außenweser and the Jade, including the Jadebusen, belong to a low altitude flying-area with a minimum flying-altitude of 500 feet (152 m).

There are several military airports in the vicinity of the Wadden Sea Area (De Kooy and Leeuwarden in The Netherlands; Jever, Wittmund, Nordholz, Eggebek/Tarp and Kropp in Germany; Skrydstrup, Denmark) but there is no direct relationship with the use of the Area.

3.5.4 Abandoned exercise areas

In addition to the reductions indicated above, three exercise areas have been abandoned:

- Den Helder/Lutjewaard shooting exercise range in the Conservation Area;
- Noordvaarder on the island of Terschelling since 1 July 1995; the exercises have been transferred to the Vliehors; the former exercise area has been cleaned of ammunition remainders; the designation of the area as a nature reserve will be considered in the framework of the overall conservation regime of the islands;
- Königshafen exercise area on the island of Sylt has been abandoned since October 1992; the exercise area was situated outside the Conservation Area.

3.5.5 Historical ammunition dumping sites

Since the end of the First World War, dumping of conventional and chemical weapons at sea was a fairly common international practice and has been reportedly carried out in every ocean. The sea disposal of the huge no-longer-required ammunition stocks was regarded as efficient and – from a security related point of view – as unproblematic.

In the years immediately following the Second World War, there was extensive sea dumping of ammunition, especially in the North and Baltic Sea (OSPAR, 2005).

Trends indicate that the biggest part of conventional ammunition were dumped in the German coastal waters within the 12-nautical-miles zone, while the two biggest dumping sites for chemical weapons are located in the Skagerrak and the Bornholm Basin (OSPAR, 2005).

In Lower Saxony, a first systematic study about dumping sites and possible risk potentials of

dumped ammunition for humans and environment started in 1990 (Rapsch and Fischer, 2000).

Extensive reviewing of papers and documents in archives showed that, according to British sources, a total of 750,000 to 1.5 million tons of conventional ammunition was dumped over the side along the German North Sea coast. About 75% of the total amount was dumped at the Lower Saxonian coast. Chemical weapons were also dumped in low quantities at the German North Sea coast (e.g. mustard bombs in the Jade and tabun shells near Helgoland) whereby definite information about actual hazards are not available up to now (Rapsch and Fischer, 2000; Liebezeit, 2002).

The 1990s survey at the Lower Saxon coast showed that the sediment loading with ammunition varied between the investigated sites from <1 t/km² to about 500 t/km². It was estimated that today a total of about 10,000 tons of ammunition is still to be found on these dumping grounds (Rapsch and Fischer, 2000).

The total amount is higher because two specific Lower Saxonian dumping grounds (in the Jade and in front of Wangerooge, on which up to 1 million tons of ammunition was dumped) and all dumping grounds along the coast of Schleswig-Holstein were not investigated. A recent study revealed that there is still at least 400,000 tons and up to 1.3 million tons of conventional ammunition and at least 90 tons of chemical weapons in the German Bight (Nehring, 2005).

Information about the occurrence of ammunition in the Dutch and Danish Wadden Sea are scarce.

3.5.6 Summary

Several exercise areas have been abandoned in the early 1990s. Since then, the activities at the existing sites in all three countries have been reduced and the cooperation of nature conservation and military authorities has been extended in order to minimize the negative effects on the Wadden Sea Area.

The possible impacts of dumped ammunition along the North Sea coast on the Wadden Sea Area cannot be assessed yet.

References

- Liebezeit, G., 2002. **Dumping and re-occurrence of ammunition on the German North Sea coast.** . In: Missiaen, T. and Henriët, J.-P. (Eds.), *Chemical munition dump sites in coastal environments*. Belgian Ministry of Social Affairs, Public Health and the Environment: 13-25.
- Nehring, S., 2005. *Rüstungsaltslasten in den deutschen Küstengewässern – Handlungsempfehlungen zur erfolgreichen Umsetzung der Europäischen-Wasserrahmenrichtlinie*. Rostock. *Meeresbiolog. Beitr.* 14: 109-123.
- Nehring, S., 2008. *Pulverfass Nordsee – Statistik über Unfälle mit versenkter Munition (Teil 2)*. *Waterkant* 1/2008: 5-9.
- Nehring, S. and Koch, M., 2006. *Gefahr aus der Tiefe – Die Mythenbildung um die Munition im Meer*. *Waterkant* 4/2006: 21-25.
- OSPAR, 2005. *Overview of past dumping at sea of chemical weapons and munitions in the OSPAR maritime area – revised*. OSPAR Commission, Biodiversity Series, pp. 13.
- Rapsch, H.-J. and Fischer, U., 2000. *Munition im Fischernetz*. Isensee Verlag, Oldenburg, pp. 80.
- Interwad 2008
http://www.interwad.nl/Militaire_activiteiten.1841.0.html
<http://www.interwad.nl/Beleid.669.0.html#c1229>