Baltic Sea Region
Programme 2007–2013

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CHEMICAL MUNITIONS SEARCH & ASSESSMENT

Germany's Program on Underwater Munitions

… some aspects presented by T. Lang (FI)

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German Programme – Underwater Munitions

- 2009 Implementation of *ad hoc* Working Group „Munitions-contaminated sites in the sea“
- Under umbrella of the „Joint Federal-*Länder* Monitoring Programme for the Marine Environments of the North and Baltic Sea, BLMP“
- Task: to update and expand the report „Chemical Munitions in the Southern and Western Baltic Sea“ published in 1993 by the Federal Maritime and Hydrographic Agency (BSH)
- Addressing chemical and conventional munitions in German marine waters of the North and Baltic Seas

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German BLMP Report

Munitions in German Marine Waters – Stocktaking and Recommendations

(Effective 2011)

C. Böttcher, T. Knobloch, N.-P. Rühl, J. Sternheim, U. Wichert, J. Wöhler

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www.underwatermunitions.de

www.munition-im-meer.de

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Report - Munitions in German Waters of the North Sea and Baltic Sea

Dimension of the problem:

- Up to 1,6 Mio t munitions were dumped in German marine waters of the North and Baltic Seas
  - App. 5,000 t of sea dumped chemical munitions and
  - app. 300,000 t conventional in German part of the Baltic Sea
- 230,000 t chemical munitions dumped in the North and Baltic Seas (in total)
  - up to 65,000 t in the Baltic Sea (in total)
- It is not clear so far, how much of it is still remains in the sea

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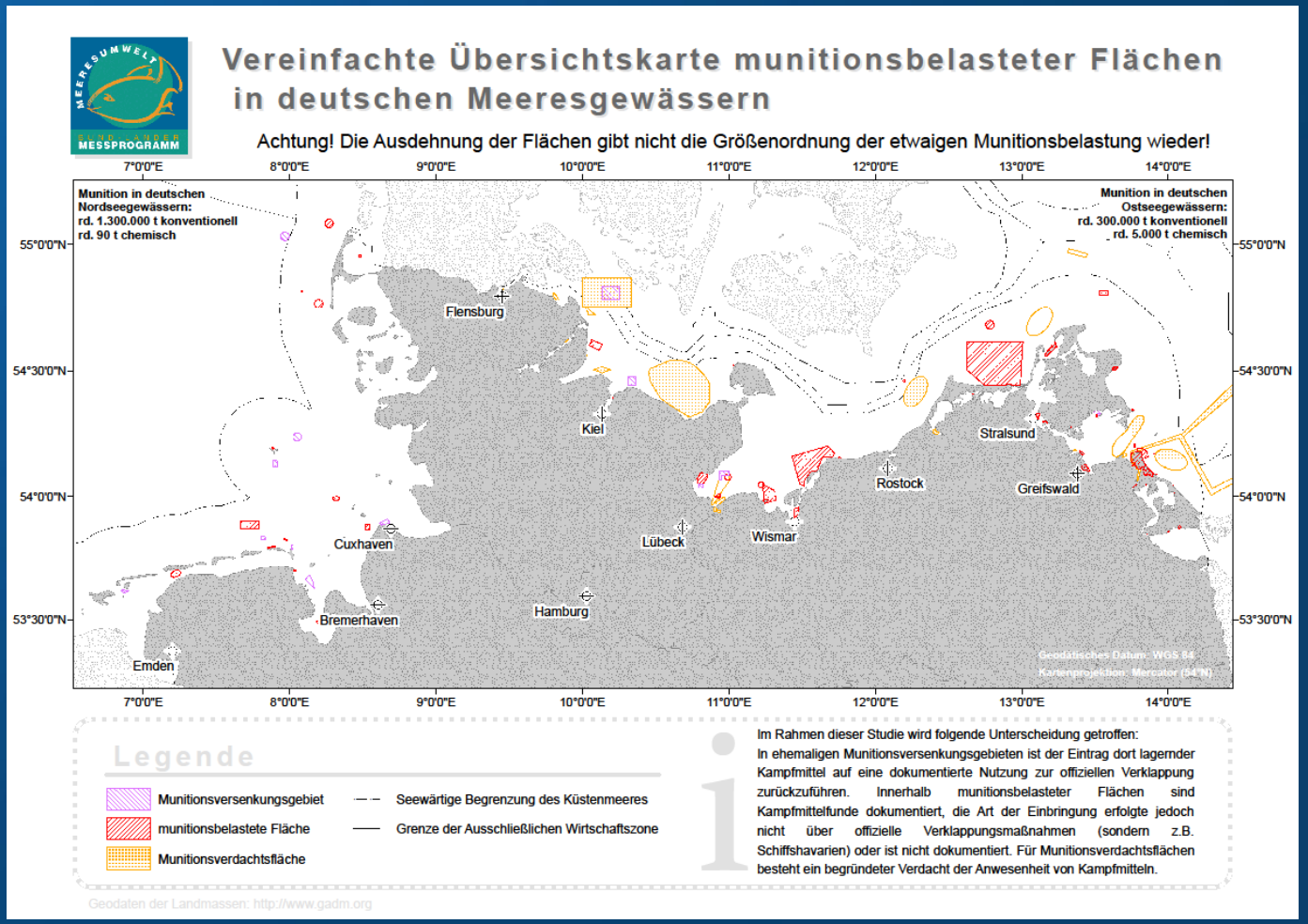
Assessment:

Areas in German waters of the North Sea and Baltic Sea known or suspected to be affected by munitions

Baltic Sea:

50 contaminated areas, 8 of which are dumpsites, and 21 suspected areas



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Incidents/accidents and hazards

- Compilations of cases in German waters have been made, but officially verified figures are not yet available
- In principal, hazards occur:

1) when munitions are retrieved intentionally (e.g. for research purposes) or unintentionally (e.g. by fishing with bottom trawls), possibly resulting in explosion or release of contents;
2) when munitions or released substances (e.g. white phosphorus) reach the shore by current and are subsequently handled inappropriately;
3) or when humans come into direct contact with the substances originating from warfare materials or with contaminated marine products (e.g. fish, shells, sea weed).

- Most cases occurred in the post WW II years up to 1960
- Since then, the number of cases decreased

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Assessment of the Situation:

- Warfare materials are latent sources of danger, that pose threats for activities in the marine area, for the environment and the coastal areas.
- Most components of conventional and chemical munitions are water-hazardous, ecotoxic and toxic to humans (CMR substances : carcino-genic, mutagenic and reprotoxic).
- But: no substantial, large-scale pollution of the environment has occurred due to warfare materials or their components so far, and probably none is to be expected.
- Based on present knowledge, threat to consumers in the form of possibly contaminated marine products (seafood) is highly unlikely.

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Overall Assessment:

- *For now, it is not discernible that a large-scale threat to the marine environment exists beyond the local area of munitions-contaminated areas, nor is any foreseeable in the future. In places, however, hazards exist for people involved in activities bringing them into direct contact with the sea floor of the North and Baltic Seas.*

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Recommendations:

- Historical and technical research (archives, survey, object identification)
- Monitoring and assessment of contaminated areas (environmental impacts, corrosion studies)
- Decision on the need for further action in case of immediate danger (taking into account ecological, economical and technical aspects)
- Handling (guidelines, rules of conduct, information leaflets)
- Reporting and documentation (create a central registration office

… Input from CHEMSEA

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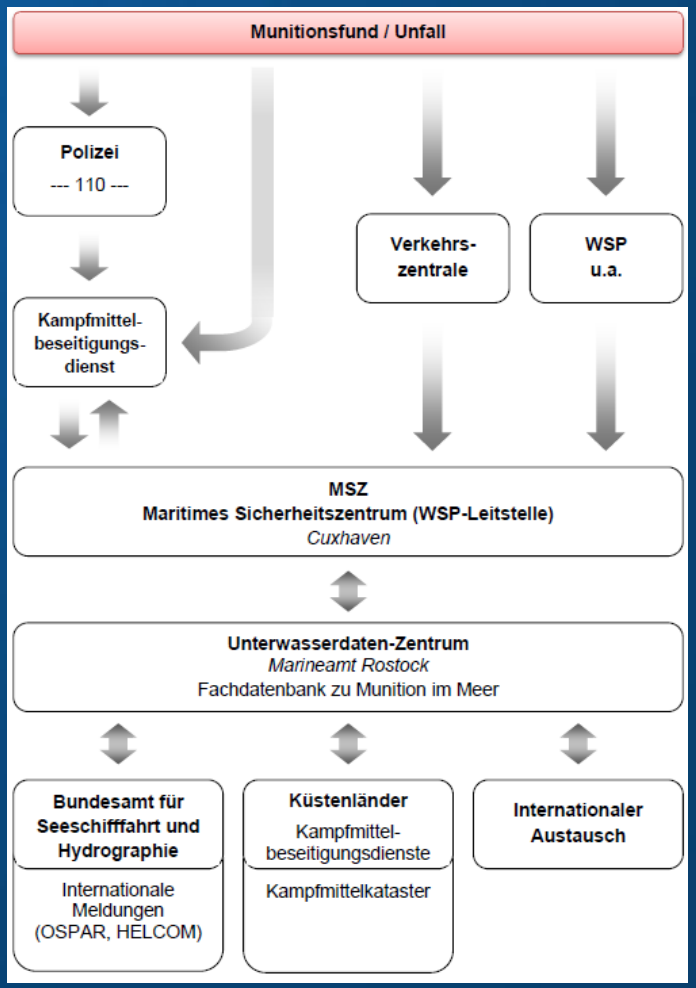
Reporting and documentation: central registration office

Web:

http://www.schleswig-holstein.de/UXO/EN/MunitionsEncountered/munitionsencountered_node.html



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Further information

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- **Update Report 2012 (in German language only): www.munition-im-meer.de**
- **www.underwatermunitions.de**