# MIREMAR: Minimizing Risks for the Environment in Marine Ammunition Removal in the Baltic and North Sea

NABU, GRD, GSM: Conference Neumünster, Germany, 16. - 18. November 2010

#### MIREMAR: Tuesday, 16th November 2010

#### REGISTRATION | INTRODUCTION 8.00 **REGISTRATION** TIME TITLE **AUTHORS** Monika Krivickaite, Walther-Legal Aspects of Conventional Schücking-Institute for 9.00 and Chemical warfare dumped International Law, Kiel / in the sea Germany: Gunnar Möller, COM Mine The More we know, the Warfare Data Center (C Worse it gets – on the 9.30 Situation of Conventional MWDC), 4th Naval Warfare Ammunition in the Baltic Sea Flottilla, Berga / Sweden **COFFEE BREAK** 10.00 - 10.30 TOPIC I: DETONATION OF CONVENTIONAL AMMUNITION TIME **AUTHORS** TITLE Impact of Underwater Sven Koschinski, Marine 10.30 **Detonations on Marine** Zoologist, Nehmten / Germany Vertebrates Removal of Conventional Jens Sternheim, State Office Ammunition in WW II for Civil Protection and 10.50 Ammunition Dump Site Disaster Control, Kiel / "Heidkate" (Kiel Bight) – *Germany* **Progress and Mitigation** Tanja Grießmann, Institute of Bubble curtains as a protective Structural Analysis, University measure for marine animals in 11.10 of Hannover / Germany theory and practice Edgar Schmidtke, WTD71 -Damping of Shock Waves Research Department for from Sea Mine Blasts to Underwater Acoustics and 11.30 protect Marine Mammals -Marine Geophysics, Results from Bubble Curtain Eckernförde / Germany Trials in Heidkate 2008 - 2010 Tiina Salonen, Environmental Nord Stream's environmental

Manager Finland, Nord-

mitigation & monitoring

11.50

12.10	Stream AG, Zug / Switzerland  Will Meurer, Royal Netherlands Navy, Diving and Ordnance Disposal Group René Dekeling, Defense Materiel Organisation & Department of Transportation, Public Works and Water Management, The Hague / The Netherlands	An overview of disposal of ammunition in the Dutch section of the North Sea: present practice and development of safety measures	
WEL	COME ADDRESSES   DISCU	SSION	
12.30	Heike Finke, Nature and Biodiversity Conservation Union (NABU), Berlin		
12.45	Volker Dornquast, State Secretary for the Interior Schleswig-Holstein, Kiel		
13.00 – 14.30	LUNCH BREAK		
14.30	DISCUSSION TOPIC I		
	TOPIC II: DETECTION		
TIME	AUTHORS	TITLE	
14.50	Luigi Alcaro, Institute for Environmental Protection and Research (ISPRA), Rome /Italy	Electro-Acoustical Survey of Mean Apulian Harbours (Italy) to Find Dumped Ammunitions: a Proposal of New Methodology	
15.10	Thomas Wever, Federal Office of Defense Technology and Procurement, Koblenz / Germany	Sediment Information in North and Baltic Seas – Relevant for Ammunition Detection	
15.30	Uwe Wichert, State Office for Civil Protection and Disaster Control, Kiel / Germany	Problems in Locating Historic Dumping Sites – Examples from the Baltic Sea	
15.50	COFFEE BREAK		
TOPIC III: DISPERSION OF CRITICAL SUBSTANCES, SEDIMENT			
TIME	AUTHORS	TITLE	
16.20	Frederic Francken, MUMM, Royal Belgian Institute of Natural Sciences, Brussels / Belgium	Dispersion of Critical Substances from Dumped Ammunition in Marine Sediments on	

	(Co-authors: Kevin Ruddick and Patrick Roose)	Paardenmarktsite, Belgium
16.40	N.N.	Ecotoxicology of Substances from Dumped Ammunition
17.00 - 17.30	Patrick McLaren, GeoSea Consulting, Brentwood Bay / Canada	Minimizing Risk by Understanding Your Environment: or "Why Use STA® (Sediment Trend Analysis)?" – a Case Study from the Lac Saint Pierre Experimental Firing Range, Quebec

## MIREMAR: Wednesday, 17th November 2010

## PRESS CONFERENCE | TOPIC IV: RECOVERY OF CONVENTIONAL AMMUNITION

	PRESS CONFERENCE	
9.30 - 10.00	Press Officer Kathrin Klinkusch, NABU, Berlin	
TIME	AUTHORS	TITLE
8.30	Christel Meert, Royal Military Academy, Dept of Chemistry, Brussels / Belgium (Co-author: Francis Kerckhof)	Analysis of a Munition-like Item Retrieved from the North Sea
8.50	Franz Eder, ANT AG, Lübeck / Germany	Recovery of conventional Marine Ammunition using Salvage Robots and Water Abrasive Suspension Jet Cutting (See also: Practical Demonstration on 3rd Day of the Conference)
9.10	Frank Bargmann, Séché global solutions / UTM GmbH, Lübeck / Germany	Recovery and Safe Transport of Chemical and Conventional Marine Ammunition Using Salvage Robots and Explosion Proof Reactors
9.30	Fritz Pfeiffer, Office for	Photolytic Treatment of

	Environmental Geology & Security Research, Marburg / Germany	Explosives using Sunlight, a possible Solution for Heidkate Ammunition Dump?
9.50	Erika Brandenburg, Concurrent Technologies Corp. Jacksonville / USA	Parameters for Selecting a Munitions Recovery Technology
10.10	COFFEE BREAK	
TO	PIC V: CHEMICAL WARFA	ARE
10.50	John Hart, Chemical and Biological Security Project, Arms Control and Non- proliferation Programme SIPRI Solna /Sweden	Introduction to Historic, Technological, Political and Environmental Aspects of Chemical Warfare
11.20	Jonathan Mills, OPCW, The Hague, The Netherlands	Sea-dumped Chemical Weapons and the CWC (working title)
11.50	Thomas Stock, Dynasafe Germany GmbH, Mülheim / Germany	Destruction of Old Chemical Weapons – Technologies under Application
12.10	Vadim T. Paka, Atlantic Branch, P. P. Shirshov Institute of Oceanology, Russian Academy of Sciences, Kaliningrad, Russia	Clean-up of the Bornholm CW Dumpsite: Towards the Optimum Decision
12.30	Luigi Alcaro, Institute for Environmental Protection and Research (ISPRA), Rome /Italy	Environmental Effects of Chemical Ammunitions Dumped in the Southern Adriatic Sea (Italy)
12.50	LUNCH BREAK	
14.20	Margo Edwards, School of Ocean and Earth Science and Technology, University of Hawaii, Honolulu, Hawaii / USA  (Co-authors: Roy Wilkens, Christopher Kelley, Eric DeCarlo, Kathryn Macdonald, Sonia Garcia, Michael Van Woerkom, Zachary Payne, Vilma Dupra, Matt Rosete, Miya Cox, Stacey Fineran, Weixi Zheng, J. C. King and	Locating and Evaluating Sea Disposed Munitions - Examples from the Hawaii Undersea Military Munitions Assessment (HUMMA) Project

Geoff Carton)

14.40	DISCUSSION	
15.10	COFFEE BREAK	
ТО	PIC VI: POLITICAL DIMEN	NSION
TIME	AUTHORS	TITLE
15.40	Terrance P. Long (keynote speaker), Chairman of the International Dialogues on Underwater Munitions, USA	An International Approach to Underwater Munitions
16.20	Sebastian Unger, OSPAR Commission, London / UK	Conventional and chemical Munitions in the North-East Atlantic – the Approach of the OSPAR Commission
16.40	Minna Pyhälä, HELCOM, Helsinki / Finland	Conventional and chemical Munitions in the Baltic Sea – the Approach of the Helsinki Commission (HELCOM)
17.00	Kim Detloff, Nature and Biodiversity Conservation Union NABU, Berlin/Germany	Marine Ammunition in the Sight of NGOs
17.20	GENERAL DISCUSSION	

\_

### MIREMAR: Thursday, 18th November 2010

#### DEMONSTRATIONS / WORKSHOPS / EXCURSION

9.00 - PRACTICAL DEMONSTRATIONS (outside of the conference building)

- Water Abrasive Suspension (WAS) cutting (ANT Applied New Technology AG, Lübeck/Germany)
- Salvage Robots and Explosion Proof Reactors (Séché global solutions / UTM GmbH, Lübeck/Germany)

#### 10.00 - WORKSHOPS

Databases

- Funding of joint projects
- Combination of Technical Solutions, from Detection to Removal
- Nature conservation and ammunition
- Mitigation of Shock Waves from Detonations
- Chemical DMM Still a WMD Threat?

16.00 Presentation of workshop results

10.15 - 13.45 and 12.15 - 15.45 EXCURSION

Excursion to Explosive Ordnance Disposal "Groß Nordsee" near Kiel Canal (max. 40 participants each; add € 10 'extra fee')

17.00 END OF CONFERENCE

\_\_\_\_\_\_

#### **OBJECTIVES**

Large quantities of conventional ammunition (explosives) and chemical warfare have been deployed or dumped into Baltic and North Seas during and after World Wars I and II. It is still unclear what risks they pose to humans and the environment. The aim of the conference is to give an overview of the situation and actual developments in treatment of underwater unexploded ordnance. Identification of best practice and best available technique is a central objective of the conference. Workshops on the third day may help to establish a network of actors in order to initiate research, development or trials of new technologies.

#### **CO-OPERATING PARTNERS**



State Office for Civil Protection and Disaster Control, Schleswig-Holstein



Marine Services, UXB International, Canada



International Dialogue on Underwater

#### Munitions, Canada

# FINANCIAL SUPPORT: If you wish to become a sponsor of the conference please contact sponsoring@miremar.de









