

April 10, 2013—The Hague, The Netherlands



## *Sea Dumped Chemical Weapons Side Event*

*During the 3<sup>rd</sup> Review Conference of the States Parties  
of the Chemical Weapons Convention (CWC)*

**Hosted by:**

The International Dialogues on Underwater Munitions (IDUM)

**In cooperation with:**

The Governments of the Republics of Lithuania and Poland;  
and

The International Scientific Advisory Board (ISAB) On Sea Dumped  
Chemical Weapons (SDW's)

PROGRAM



Rzeczpospolita Polska  
Ministerstwo  
Spraw Zagranicznych



URM

LIETUVOS RESPUBLIKOS  
UŽSIENIO REIKALŲ  
MINISTERIJA



**EUSBSR**  
EU STRATEGY  
FOR THE BALTIC  
SEA REGION



MINISTERSTWO  
ŚRODOWISKA



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# Welcome to the **Sea Dumped Chemical Weapons Side Event** during 3<sup>rd</sup> Review Conference of the States Parties of the Chemical Weapons Convention (CWC)

Dear delegates,

On behalf of The International Dialogues on Underwater Munitions (IDUM), In cooperation with The Governments of the Republics of Lithuania and Poland; and The International Scientific Advisory Board (ISAB) On Sea Dumped Chemical Weapons (SDW's) I would like to welcome everyone to the Sea Dumped Chemical Weapons Side Event during this Third Review Conference of States Parties of the Chemical Weapons Convention (CWC).

The international community along with IDUM is collecting and processing information on SDW's from dialogues, commissions, conferences, programs, seminars, working groups, workshops, research and the public domain. IDUM is building upon the repository of information with stake holders to formulate a global response to the United Nations Resolution on Sea Dumped Chemical Weapons titled "Cooperative measures to assess and increase awareness of environmental effects related to waste originating from chemical munitions dumped at sea". The Resolution was presented at the United Nations by the Lithuanian diplomatic community in 2010.

Our findings clearly demonstrates worldwide Off-the-shelf-technology does exist too efficiently, economically, environmentally and safely address all aspects of SDW's including their detection, handling, monitoring, recovery, and disposal. Science does support an environmentally friendly international response to clean-up underwater munitions on a global scale. To adequately address them we need to collectively via dialogues develop and implement international Policy, Standards and Procedures that's takes into consideration the present day situation of each stake holder.

A worldwide clean-up response could be viewed by stake holders and the public as leadership by the international community and a major investment into the future of our oceans for our children. This multilateral approach to clean-up has the ability to transfer skills and technologies with potential to create worldwide economic stimulus. We find ourselves at a pivotal time in history where we have an opportunity to act multilateral on SDW's that would have a lasting effect for years to come both economically and environmentally on our society including reducing the financial burden on our health care systems.

I hope each and every delegate will have an opportunity to contribute to the process. Further I welcome everyone to join us for our follow-up event in Sydney, Nova Scotia, Canada at Membertou's First Nations Trade and Convention Centre from May 20 to 24, 2013. Your participation in these events is necessary and valued to assist to determine the way forward on Sea Dumped Chemical Weapons. Thank you all for taken the time out of your busy schedules to be here today.

Sincerely,

Terrance P. Long CPSM. SSM. CD.  
Chairperson, Side Event,  
Third Review Conference, Organisation for the Prohibition of Chemical Weapons (OPCW)  
Chemical Weapons Convention (CWC)

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WELCOME



# General Assembly

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**Sixty-fifth session**  
**Second Committee**  
Agenda item 20  
**Sustainable development**

**Austria, Azerbaijan, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Ecuador, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Monaco, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Somalia, Spain, Sweden, Ukraine and United Kingdom of Great Britain and Northern Ireland: revised draft resolution**

**Cooperative measures to assess and increase awareness of environmental effects related to waste originating from chemical munitions dumped at sea**

*The General Assembly,*

*Recalling* the recommendations of the United Nations Conference on the Human Environment,<sup>1</sup> held in Stockholm in June 1972,

*Noting* relevant provisions of Agenda 21,<sup>2</sup> adopted at the United Nations Conference on Environment and Development in Rio de Janeiro, Brazil, in June 1992 and reaffirmed in the Plan of Implementation of the World Summit on Sustainable Development (“Johannesburg Plan of Implementation”),<sup>3</sup> adopted in Johannesburg, South Africa, in September 2002,

*Recalling* relevant international and regional instruments such as the United Nations Convention on the Law of the Sea,<sup>4</sup> the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter,<sup>5</sup> the Convention for the

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<sup>1</sup> See Report of the United Nations Conference on the Human Environment, Stockholm, 5-16 June 1972 (A/CONF.48/14/Rev.1).

<sup>2</sup> Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992, vol. I, Resolutions Adopted by the Conference (United Nations publication, Sales No. E.93.I.8 and corrigendum), resolution I, annex I.

<sup>3</sup> Report of the World Summit on Sustainable Development, Johannesburg, South Africa, 26 August-4 September 2002 (United Nations publication, Sales No. E.03 II.A. I and corrigendum), chap. I, resolution I, annex.

<sup>4</sup> United Nations, Treaty Series, vol. 1833, No. 31363.5 Ibid., vol. 1046, No. 15749.

Protection of the Marine Environment of the North-East Atlantic,<sup>6</sup> the Convention on the Protection of the Marine Environment of the Baltic Sea,<sup>7</sup> the Cartagena Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region<sup>8</sup> and the Lima Convention for the Protection of the Marine Environment and Coastal Area of the South-East Pacific,<sup>9</sup>

*Taking note* of the final report of the ad hoc Working Group on Dumped Chemical Munitions to the sixteenth meeting of the Helsinki Commission, and noting that the Helsinki Commission, at its ministerial meeting held in Moscow from 18 to 20 May 2010, agreed to establish the Helsinki Commission Expert Group to update and review the existing information on dumped chemical munitions in the Baltic Sea,

*Noting* that Member States, international and regional organizations and civil society have undertaken activities to discuss the issues related to waste originating from chemical munitions dumped at sea and to promote international cooperation and exchange of experience and practical knowledge,

*Noting also* the concerns about the potential long-term environmental effects related to waste originating from chemical munitions dumped at sea, including their potential impact on human health,

1. Notes the importance of raising awareness of the environmental effects related to waste originating from chemical munitions dumped at sea;
2. Invites Member States and international and regional organizations to keep under observation the issue of the environmental effects related to waste originating from chemical munitions dumped at sea, to cooperate and voluntarily share relevant information on this issue;
3. Invites the Secretary-General to seek the views of Member States and relevant regional and international organizations on issues related to the environmental effects of waste originating from chemical munitions dumped at sea, as well as on possible modalities for international cooperation to assess and increase awareness on this issue and to circulate such views to the General Assembly at its sixty-eighth session for further consideration.

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<sup>6</sup> Official Journal of the European Communities, L 104.

<sup>7</sup> United Nations, Treaty Series, vol. 2099, No. 36495.

<sup>8</sup> Ibid., vol. 1506, No. 25974.

<sup>9</sup> Ibid., vol. 1648, No. 28325.

# Welcome to the Side Event from the Chief Inspector of Environmental Protection in Poland, Co-Chairman, International Dialogue on Underwater Munitions (IDUM)

Finally IDUM has come to the Hague and is ready to share its vision, achievements and recipe how to manage the risk related to sea-dumped chemical weapons. There is no better occasion than the third Review Conference of the Chemical Weapons Convention and its global audience. Because we think globally and act locally by listening to local communities and subsequently protecting them from this threat. However, the door of the Convention is still closed. That's why we are gently knocking to it and bringing with us all necessary stakeholders and convincing arguments. The number of arguments is growing and growing including in first instance human rights, law of the sea, reliable inventory, imminent risk, available technology, state-of-the-art techniques, safe exploration of the sea bottom and many others. Just come to listen to us and knock together. We are sure that the member states of the OPCW will finally allow us to enter. Just because we want to cooperate on a voluntary basis and following the pilot projects among interested parties. Please open a little bit the door.

Sincerely,



Dr. Andrzej Jagusiewicz  
Co-Chairman, IDUM

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## Terrance P. Long

Chairperson, Sea Dumped Chemical Weapons Side Event, Founder, Chairman of the Board of Director and Chief Executive Officer (CEO), International Dialogues on Underwater Munitions (IDUM).

Mr. Long a munitions expert and retired Canadian Military Engineer served in Canada, Asia, Africa and Europe specializing in Explosive Ordnance Disposal (EOD) completing EOD



programs at Canadian Forces School of Mechanical Engineering; Canadian Forces School of Aerospace and Ordnance Engineering; NATO Advance EOD British Army Kingdom and Northern Ireland; Hazardous Materials Technician Maritime Environmental Training Institute; Master's Program in Project Management, Saint Mary's University, Nova Scotia. Mr. Long served with United Nations Peacekeeping Forces

Middle East and United Nations Offices and Commission on Afghanistan. Mr. Long risk managed SDW's deep water projects for US Chemical, Conventional and Radiological Weapons; he received the Coin of The Deputy Assistant Undersecretary of the US Army for Health, Safety and Environment for Service of Excellences and General's Letter of Accreditation for EOD Post Blast Investigation. He appeared at United Nations Second Committee on Sea Dumped, Nov 2010 with Lithuanian Diplomats to provide an overview of the strategic, economic, environmental, and social aspects of the United Nations Resolution on Sea Dumped Chemical Munitions. He's written papers on underwater munitions including proving three commentaries and co-editor for two special editions of the Marine Technology Society Journal (MTSJ) on The Legacy of Underwater Munitions Worldwide: Policy and the Science of Assessment, Impacts and Potential Responses.

Appointments: EOD Centre Chief Canadian Forces Base Toronto; United Nations Development Program; Scientific Committee Polish Naval Academy Marine Safety & Security Year Book; International Scientific Advisory Board (ISAB) on Sea Dumped Chemical Weapons (SCW's) The Hague. He appeared at Commissions, Committees, Conventions and Senate Hearings SCW's: Canadian Senate Standing Committee on Fishery and Oceans; Canada-Nova Scotia Offshore Petroleum Board; Observer Helsinki Commission HELCOM - MUNI Ad Hoc Working Group on Sea Dumped Chemical Weapons Baltic Sea; OSPAR Commission for protection and conserving of North-East Atlantic Ocean; Organisation for the Prohibition of Chemical Weapons (OPCW) Chemical Weapons Convention (CWC) Open Forum; Key Note Speaker Germany Minimizing Risks for the Environment in Marine Ammunition Removal in the Baltic and North Sea (MIREMAR). Mr. Long is Associated Partner and Co-Director for Chemical Munitions Search & Assess (CHEMSEA) project for the Baltic Sea Region,

Founder and Chairman of IDUM and President of Wentworth Environmental Inc. (WEI).

## **Ambassador Krzysztof Paturej**

Ministry of Foreign Affairs, Poland; Chairperson of the 3rd Review Conference, Organization for the Prohibition of Chemical Weapons (O.P.C.W.), Chemical Weapons Convention (C.W.C.)

Mr Paturej is a career diplomat, experienced in issues relating to international security, disarmament and non-proliferation. He has participated in numerous conferences and meetings of international organisations and intergovernmental bodies on disarmament and non-proliferation as either a member or Head of the Polish Delegation.



Mr Paturej has dealt with the issues of multilateral chemical disarmament since the

period of the Chemical Weapons Convention's negotiation and during the Preparatory Commission to the OPCW. After the Chemical Weapons Convention entered into force on 29 April 1997, he was nominated the Representative of Poland to the OPCW. He has been involved with the work of the OPCW policy making organs serving as Chair of the Executive Council, the Committee of the Whole and the IX Session of the Conference of the States Parties to the CWC.

Mr Paturej received his Bachelor of Arts degree in International Relations from the Moscow State Institute of International Relations, Russia. He was granted a Masters of Arts degree in the same area of specialisation by the Polish Institute of International Affairs. Mr Paturej is married and is the father of three children.

## **Dr. Andrzej Jagusiewicz**

Chief Inspector of Environmental Protection in Poland, Co-Chairman, International Dialogue on Underwater Munitions (IDUM)

PhD in environmental engineering, economist and global/EU negotiator. His mission is spreading the synergetic and ecosystem-based approach to achieve good environmental status in terrestrial and marine ecosystems.



A graduate of the Environmental Engineering Department at the Warsaw University of Technology (1964),

Post-Graduate Foreign Trade Studies at the Warsaw School of Commerce (1971) and the Summer School of Renewable Energy Sources at the University of PARIS VII (1974). In 1976 he earned a doctoral degree in atmospheric pollution forecasting at the Wroclaw University of Technology. He speaks fluently English, French and Russian.

For 40 years of his professional career he has held responsible positions in government administration, United Nations organs, scientific institutions, business, the Polish Parliament and non-governmental organizations.

A co-founder of the industry constructing dust control facilities in Poland and the Institute of Environmental Protection. Almost half of his life he has worked abroad, among others, for Electricite et Gaz de France in Paris, the company PRAT-DANIEL S.A. also in Paris and the United Nations Economic Commission for Europe in Geneva.

A Polish representative in various negotiating and political bodies in the United Nations and the European Commission, among others, the CAFE Steering Committee, the Air Quality Committee and the Advisory Council of the Global Monitoring for Environment and Security (GMES) program, HELCOM Convention, the Executive Body of the UNECE Convention on Long-Range Transboundary Air Pollution (also its Vice-Chair) and the first ever Polish Marine Director. Presently the Vice-Chair of the Bureau of the Management Board of the European Environmental Agency serving for the second 3-year term.

Moreover, an expert of the United Nations

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and the European Commission (TAIEX), a member of the Scientific Committee of the French periodical "Pollution Atmospherique" and a university lecturer. The member of the Scientific /Programming Committee of the French journal "Pollution atmospherique" and the Polish review "AURA".

Numerous publications on various aspects of environmental protection in the era of globalization and regionalization, including the European integration in UN publications and foreign, mostly French and English periodicals, including the Marine Technology Journal.

A co-author of the book in English "Cleaning the Air" published in November 2004 by the United Nations and a co-editor and co-author of the publication released by the Monitoring Library entitled "The 25 years of the UNECE Convention on Long-Range Transboundary Air Pollution" and The Indicative Report on the State of the Environment in Poland vis a vis the Community Background both in Polish and English. He does not belong to any political party. Married, the father of a son and two daughters.

## Gediminas Varvuolis

Director of Cooperation and Security Policy Department, MFA, Lithuania

Gediminas Varvuolis entered the Ministry of Foreign Affairs in 1995 and started his career as Third secretary at the Western Europe Division. From 1998 to 2002 served at the Embassy of Lithuania in Paris as First Secretary for Political Affairs. After returning to the MFA in January 2002 joined the International Security Policy Department. In March 2003 he was appointed Head of Crisis Management and Operations Division and also worked briefly as Head of NATO division before leaving, in July 2005, to Brussels where he served for four years as Deputy Permanent Representative at the Lithuanian Delegation to NATO.

Since July 2009 he has been carrying out the function of Director of Transatlantic Cooperation and Security Policy Department at the Lithuanian Ministry of Foreign Affairs.

Graduated from Vilnius University in 1993 (Holds degree in History); From 1994 to 1995 studied international relations and post-soviet transition in Eastern Europe at the Institute of Political Sciences in Paris (Holds DEA - Diplôme d'études approfondies); Later attended various training courses (integrated PfP/OSCE training course at NATO defence College in Rome, international crisis management training course in Washington DC, etc.)

During his studies he published a few articles on bilateral and security policy aspects of Lithuanian foreign policy.

He is married to Rasa and has two children: a daughter Austėja and a son Simonas

## Prof. dr Stanislaw Witek

Chairman of International Scientific Advisory Board (ISAB) on Sea-Dumped Chemical Weapons (SDWs)

Full professor of organic technology and chemistry of biologically active compounds at the Department of Chemistry



Wroclaw University of Technology, Wroclaw, Poland. Also professor of chemical technology at the Military Institute of Engineering Technique, Wroclaw. Former professor of T.Kosciuszko Military University of Land Forces, Wroclaw (organic technology, chemical weapons 1993 – 2003) Chairman of International Scientific Advisory Board on Sea-Dumped Chemical Weapons. Scientific Advisor of the Ministry of

Foreign Affairs Republic of Poland. for chemical and biological weapons

Author of ca. 180 scientific papers published in international journals in the areas of organic synthesis and mechanism of activity of pesticides and other bioactive compounds and ca. 50 patents (also author of two technologies of pesticides production for Polish and East German industries). Author of technology of disposal of Adamsite (applied for utilization of Polish Adamsite deposit in Tarnow, Poland). Author of utilization technology of secondary wastes obtained by alkaline destruction of Lewisite; elaborated within a framework of Poland – Russian Federation Interstate Agreement and awarded by Prime Minister of Poland as the best technical project in 2005. Author of technology of utilization of rocket fuel oxidizer, applied for utilization of Polish deposit and also in Ukraine. Member of several scientific council in the past: Institute of Industrial Organic Chemistry, Warsaw Poland (1973-2004. also v-chairman for 3 years), Editorial Board of Journal of Environmental Science and Health, Canada (1985-96); Committee of Chemistry of the Polish Academy of Sciences (1973-76), Scientific Advisory Board of the Organization for the Prohibition of Chemical Weapons (OPCW) (1997-2003).



## Dr. Tobias Knobloch

Head of Science for IDUM Working Group Report

Dr. rer. nat. Tobias Knobloch was born in Hanover, Germany, on March 26, 1982. He studied biology and life science at the Leibniz University of



Hanover and earned his doctoral degree in 2010 in the field of organic chemistry, synthesizing novel bacterial antitumor agents by combining the flexibility of biosynthesis with methods from the toolbox of organic chemistry.

Dr. Knobloch has worked in the field of sea-dumped munitions at the German Federal Maritime and Hydrographic Agency (Bundesamt fuer Seeschifffahrt und Hydrographie – “a partner to maritime shipping and a supporter of environmental conservation efforts and maritime uses”). He is a member of the coordinating editorial board of the German national cross-administrative working group on munitions in German marine waters and co-author of the study “Munitions in German Marine Water – Stocktaking and Recommendations (Effective 2011)”. In addition, he is co-author and co-developer of the continually growing lighthouse project [www.underwatermunitions.de](http://www.underwatermunitions.de) / [www.munition-im-meer.de](http://www.munition-im-meer.de).

Dr. Knobloch leads the German delegation to the Baltic Marine Protection Commission’s (Helsinki Commission – HELCOM) ad hoc Expert Group to update and review the existing information on dumped chemical munitions in the Baltic Sea (HELCOM MUNI). He is also co-author and -editor of the HELCOM MUNI outcome report currently under preparation.

## Jacek Beldowski, PhD.

Graduated in Marine Biology at the University of Gdańsk in 1998, and continued as PhD student in the Institute of Oceanology PAS, Sopot, Poland. Defended PhD thesis dealing with mercury biogeochemistry in the Baltic Sea in 2004, and since then employed as a researcher in IOPAS. In 2006 – 2008 employed as a PostDoc in the Institute for Baltic Sea Research, Warnemuende, Germany, dealing with Climate Change and Carbon

Cycle Issues. Participated in several EU Projects dealing with Environmental Hazards and Climate



Change (BASYS, BEEP, CARBOOCEAN, EUR-Oceans). In years 2008-2010 coordinated Polish National Project concerning Heavy Metals Pollution in the Baltic. Since 2011 coordinator of the EU Project Chemical Munitions Search & Assessment (CHEMSEA). Co-

chairman of the HELCOM ad hoc expert group on dumped chemical munition (HELCOM MUNI), and co-author of HELCOM MUNI report.

Author of several dozens of scientific publications dealing with environmental hazards, chief scientist of over 40 research cruises and acting expert on chemical munitions for the Chief Inspectorate of Environment Protection, Poland.

## Mr. Jens Sternheim

Ministry of Energy, Agriculture, the Environment and Rural Areas of Schleswig-Holstein

Jens Sternheim has reached nearly 40 years of



employment with the public administration of the Federal State of Schleswig-Holstein, North of Germany. During his service he gained experience in several leading positions, including project management and supervising a state agency.

The professional occupation regarding questions of UXO und DMM started in 2005, when he was commissioned as officer in charge of the State EOD and bomb disposal service. From that year on Sternheim was in several positions responsible for dumped munitions. Jens Sternheim designed the German road map to find good solutions with respect to the wide spectrum of concern induced by sea dumped munitions and its traditional way to be disposed of. Communication, designed as long distance dialogue and transparency of almost all available information are two main pillars of his plan. Therefore the internet sites [www.underwatermunitions.de](http://www.underwatermunitions.de) were established and

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are maintained by his unit.

Jens Sternheim is the chairman of the German cross administrative expert working group “Underwater Munitions” which serves as coordination body in the Federal Republic of Germany and supporting activities in all States by sharing knowledge and exchanging information about incidents with munitions immediately. The annually published update report about “Munitions in German Marine Waters - Stocktaking and Recommendations” is another important product of the working group.

## Myrna Pagan

*Artist, activist, community spokesperson for health, environment and demilitarization*

Puerto Rican by birth, raised in the USA. After years of travel Myrna chose to settle in Vieques to live the dream of an idyll in Paradise. The idyll was short lived and the awakening continues in the reality of island life in an environment contaminated by military activities with conventional and non conventional weapons.



Myrna has called Vieques home since the 1970s. Married with Charles Connelly they have raised five children in Barrio Esperanza on the Southern shore of the island. Together they published

The Vieques Times for nearly twenty years. During the USN occupation of the island TVT, a bi-lingual newspaper, served as a voice for the people in their quest to receive services from the central government in Puerto Rico and became instrumental in alerting the citizenry to the danger and abuses propugated in the name of defense which were contributing to health problems, contaminating the environment and limiting economic development.

Pagan was a founding member and first President of the Vieques Conservation and Historical Trust (VCHT), Founder of TAINA a community development project devoted to the arts, founding member of the Committee for the Rescue and Development of Vieques (CPRDV). She is an artist activist with a Master of Fine Arts and a lifetime dedicated to the health and well being of the island. She has travelled extensively to share the Vieques story and garner support for the solution of the crisis lived by the inhabitants as a result of the military presence and live bombing, and the disaster of all the chemical toxics which are still here awaiting proper removal which continue to contaminate air, land, sea and most important ... the people who have been treated as collateral damage and with little respect for their human rights and dignity.

## John Arthur Eaves Jr

John Arthur Eaves Jr. is an attorney who practices law with the Eaves Law Firm in Jackson, Mississippi. Since beginning his practice of law, Eaves, in addition to representing clients from all across the southern part of the United States, has represented clients from countries as diverse as England, Canada, Germany, the Ukraine, Mexico, Italy, Thailand, Venezuela, Columbia and the Dominican Republic.



Eaves also is very involved in the political arena, running for the U.S. Congress and as the Democratic nominee for Governor in Mississippi in 2007.

Born in 1966 in Jackson, Mississippi, to John Arthur Eaves, Sr., and Patricia Lovorn Eaves, Eaves is a graduate of Clinton High School, the University of Mississippi and the University of Mississippi Law School.

As an attorney, Eaves has been involved in cases from Cavalese, Italy – where he represented five German families and a Polish family after a U.S. Marine jet severed a cable car line at a ski resort in northern Italy and sent it plunging to the earth, killing 20 people – to Vieques, Puerto Rico, where he’s representing over 7,100 residents suffering from over 30 diseases as a result of environmental contamination from more than 60 years of the island being used as a bombing range by the U.S. Navy. Ongoing cases also include his representation of U.S. soldiers suffering from complications as a result of the initial Gulf War.

Eaves has also represented Ukrainian families who lost loved ones when a ship sank approximately 100 miles from where the Titanic sunk; Ukrainians against the U.S. tobacco companies; Venezuelan residents injured during an AT&T explosion and individuals involved in plane crashes involving American Airlines.

Whether in his home state of Mississippi or Cavalese, Vieques or the Ukraine, Eaves’ mission is simple: To increase the value of life and ensure life is respected in our economic system.

Eaves is married to his beautiful wife, Angel Eaves. They are the parents of four boys – John Arthur Eaves III, Brady, Sterling and Christian, and a beautiful new daughter, Ava.

## Michael Verhoven

Born 1951 in Düsseldorf. PR-/ Media-consultant, translator / interpreter, language-consultant, Counseling. Since 1983 resident in Milano. Collaboration with US-Law Firm John A. Eaves since the cable-car-accident in Cavalese (Italy) in 1989; assistance of the German parents of the tragedy's victims. Since January 2012 head of the European office of Law Firm John A. Eaves.



European office of Law Firm John A. Eaves.

## Adrian van Riel

CEO of Riel Explosive Advice & Services Europe Ltd (REASeuro)



Adrian van Riel is born in 1962 in Riel, The Netherlands and was raised in a small enterprise. He has over 32 years of experience in the field of ammunition technician and EOD/IEDD related operations. He is married and has a son of 24 and a daughter of 20 years of age.

He started his career with the Royal Netherlands Army (RNLA) as a conscript in 1980 at the Ammunition Renovation Company as a soldier ammunition technician. Later he became, as a Non Commissioned Officer (NCO), Team commander Ammunition technician in the renovation branch of the RNLA. After this period he became EOD and IED operator at the RNLA- Explosive Ordnance Disposal unit. Within this unit he was involved in all operations in the field of IEDD, EOD and UXO search and clearance, including disposal activities.

He promoted to the ranks of officer in the RNLA and became ammunition technician and IED and EOD officer.

In that period he was involved as Head of planning for the Dutch Defense force in the NATO-EOD Working Party. This included all NATO EOD related topics, including the Partners for Peace program (PfP-EOD program). He was

also appointed as commander of the Search and Clearance group, responsible for all Search and Clearance operations in The Netherlands. He has also served as Special Staff Officer and Officer EOD / IED-operations in missions abroad.

After 18 years of Service to her Majesty he left the RNLA.

In 1998 he founded REASeuro, a private and commercial concern involved in explosive ordnance clearance operations, specialized in all EOD- and IED-related items of conventional and improvised explosives.

REASeuro provides advice, education, training and execution of projects related to Explosive Remnants of War (ERW) and has it's own Competence Centre which is qualified to certify all specialists in The Netherlands.

Furthermore REASeuro is certified as Safety Checks for Contractors two stars level, ISO9001 for UXO-clearance operations and for the WSCS-OCE, the Dutch national regulations on UXO-clearance operations.

Adrian van Riel is professionally involved in all aspects in relation to management, supervision, advice, instruction, training and EOD/IEDD-expert for all Explosive Ordnance Search and Disposal activities incl. demining activities and underwater weapons and ammunition. He has knowledge and experience with all EOD-subjects (incl. mine related information) such as for surface, air, sub-surface, underwater weapons and ammunition, improvised, NBC and conventional explosives for modern and post-modern ammunition as well as First and Second World War ammunition.

He has reached the levels of Master degree as NCO-EOD and as Officer-EOD and received education and training from the RNLA-EOD, TNO, Cranfield University and in NATO alliance within Belgium, Germany, the UK and the Unites States of America.

He is also member of the Dutch Association for the study of Ammunition and Ballistics, the Association for the historical collection EOD and member of the Officers corps for Technical Services.

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## Dipl. Biol. Sven Koschinski

Sven Koschinski is an expert for underwater sound and marine mammals. He has earned his master's degree in biology at Christian-Albrechts-University Kiel (Germany).



His research interest is focused on aspects of underwater sound related to marine mammals. For German environmental NGOs such as Nature and Biodiversity Conservation Union (NABU) he organized a symposium in Kiel on alternative methods to detonating unexploded ordnance in the North and Baltic Seas and the International Conference on Minimizing Risks for the

Environment in Marine Ammunition Removal in the Baltic and North Sea (MIREMAR) in Neumuenster. His articles on underwater noise pollution from munitions clearance and disposal and possible effects on marine vertebrates have been published in international scientific journals and as contributions to international nature conservation panels such as CMS/ASCOBANS or the IWC. He participated in the adhoc working group HELCOM MUNI as an external expert.

## Joseph Kiyoshi Asahina

*Chief of Technology, Nuclear and CWD Division, Kobe Steel, LTD.*

Ph.D in Environment Science on "Development of Controlled Detonation Chamber System of Chemical Weapons and Study on Its Effect to the Environment", Yokohama National University.



Master's and Bachelor's degree, Mechanical Engineering, Osaka University.

Dr. Asahina engaged in the main Japanese CWD projects including Lake Kussyaro Project as a project manager, Samukawa Project and Port Kanda Project for

oversight of technical aspect.

He established the CWD business in Kobe Steel, based on his long experience in design, construction and operation of nuclear plants, especially in system design and safety analysis since 1968, and is the inventor and one of the developers of the detonation chamber system of chemical weapons named DAVINCH.

He is a member of the Subcommittee on Safe Destruction Technology of ACW and OCW, of the Science Council of Japan, and a member of the Special Working Group of American Society of Mechanical Engineers (ASME) Sec VIII div 3, code case 2564 on Impulsively Loaded Vessel.

## Bart Van der Speeten, ADEDE

Vice President (VP) Europe for the IDUM

Mr. Speeten is the Vice President (VP) Europe for the International Dialogues on Underwater Munitions (IDUM). As VP Europe, Mr. Speeten is responsible for the day-to-day



operations in the European region for IDUM. This includes the North-East Atlantic Ocean and the Baltic Sea where major sea dumping of both chemical and conventional munitions took place. Mr. Speeten is IDUM's Assistance Co-Director for the CHEMSEA (search and assessment of Chemical Munitions) Program in the Baltic Sea. His responsibilities in the program include the planning, development and implementation of all intrusive and non-intrusive ROV

(Remotely Operated Vehicle) and Autonomous Underwater Vehicles (AUV) operations.

In 2000, after getting a degree in "Prevention & Environment", Mr. Speeten retired early from the Navy to start the first Belgian private demining company, ADEDE. ADEDE is an internationally recognized munitions response company that specializes in military munitions response programs (MMRP) worldwide. Under Mr. Speeten's leadership, ADEDE is now a leading company in the fields of: Subsea services; ROV operations; AUV surveying; demining and detection of explosive remnants of war (Marine and Terrestrial); ordnance and explosive waste contracting; bomb and explosives experts; destruction of fireworks and pyrotechnics; and dealing with and prevention of terrorist actions and (Battlefield) archeology.

Mr. Speeten's military career started in 1987, honourably serving the Belgian Navy for 14 years with distinction. Throughout his military career, his focus was on military munitions response programs including environmental aspects and how they relate to munitions constituents. From 1989 till 2000, he participated on several minesweeping operations worldwide, including NATO missions and international operations. During the Persian Gulf operations for the liberation of Kuwait he participated in the neutralization of 117 sea mines. He was the first diver since WWII to neutralize a moored sea mine in a live minefield. He was honored with a medal for this achievement.

In between several missions on board of a mine hunter, he was affiliated as a diver-deminer in an operational shore unit, performing EOD-missions on land (explosive ordnance disposal) and diving missions (hull inspection, film, judicial inquiry and ammunition). He was in charge of testing new equipment and teaching new demining techniques. He was responsible for the layout and training of Navy directives regarding bomb threats and banditry for the entire fleet.

Mr. Speeten currently holds several national and international certificates: International Mine Action Standards (IMAS) level

4, superior EOD (B), underwater demining (B), advanced underwater training (FR), EOD & Improved Explosive Device Disposal (IEDD) United Kingdom and Northern Ireland (UK), ammunition technician (B), firefighting, international dive master, UHF and navigation.

### Dr. Paul F. Walker

Green Cross International (GCI)

Paul Walker is the International Director of the Environmental Security and Sustainability (ESS)



Program for Green Cross International (GCI) and manages the Washington DC office for GCI and its US national affiliate, Global Green USA. The ESS Program is an international effort to facilitate and advocate the safe and sound demilitarization, nonproliferation, and

remediation of nuclear, chemical, biological, and conventional weapons stockpiles.

Walker has worked, spoken, and published widely in the related areas of international security, threat reduction, non-proliferation, weapons demilitarization, and environmental security for over three decades and took part in the first on-site inspection by US officials of the Russian chemical weapons stockpile at Shchuch'ye in the Kurgan Oblast in 1994. Since that time he has worked closely with the Organization for the Prohibition of Chemical Weapons (OPCW), US and Russian officials, the US Cooperative Threat Reduction (CTR) Program, the G-8 Global Partnership, and other multilateral regimes to help foster cooperative, timely, and safe elimination of nuclear, chemical, and biological weapons and related systems. He is coordinator of the CWC Coalition, a global network of NGOs supporting the Chemical Weapons Convention, and is vice-chair of the International Scientific Advisory Board (ISAB) on Sea-Dumped Chemical Weapons.

Walker holds a Ph.D. from M.I.T. in international security studies, an M.A. from Johns Hopkins School for Advanced International Studies (SAIS), and is a Vietnam-era US Army veteran.

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**Sea Dumped Chemical Weapons Side Event** during the Third Review Conference of the States Parties of the Chemical Weapons Convention (CWC)

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**SEA DUMPED CHEMICAL WEAPONS SIDE EVENT**

CHEMICAL WEAPONS REVIEW CONFERENCE, THE HAGUE

10 APRIL 2013, Headquarters, OPCW, Johan de Wittlaan 32, 2517 JR, The Hague, The Netherlands (leper and Ooms Rooms)

<b>TIME</b>	<b>ACTIVITY</b>	
13:00 to 13:25	<p><b>Keynote Statement</b> Mr. Terrance P. Long CPSM. SSM. CD, Canada Chairman, IDUM, Side Event Chairperson</p> <p><i>“A Time for Action”</i> Dr. Andrzej Jagusiewicz, Head of Polish Delegation, Chief Inspector of Environment Protection, Polish Representative to Helsinki Commission &amp; the Polish Marine Director</p> <p><i>“Working in the Contents of the UN Resolution”</i> Gediminas Varvuolis, Director of Cooperation and Security Policy Department, MFA, Lithuania,</p> <p><i>“Prospective on Sea Dumped Chemical Weapons” (TBC)</i> Professor Stanislaw Witek, Poland Chairman, International Scientific Advisory Board (ISAB) on Sea Dumped Chemical Weapons (SDW's)</p>	leper Room
13:25 to 14:20	<p><b>Presenters</b></p> <p><i>“Overview of the IDUM Working Groups on Policy, Science and Technology”</i> Dr. Tobias Knobloch, Germany, Co-Chair, IDUM Science Working Group</p> <p><i>HELCOM MUNI Report (Ad Hoc Working Group on SDW's)</i> Dr. Jacek Beldowski, Institute of Oceanology PAS, Poland</p> <p><i>“Local perspective and global activities of the Land of Schleswig-Holstein in German Marine Waters”</i> Jens Sternheim, Germany, Ministry of Energy, Agriculture, the Environment and Rural Areas of Schleswig-Holstein</p> <p><i>Living with the Risk of Sea Dumped Munitions Constituents</i> Mrs. Myrna Pagan, Vieques, Puerto Rico, John Eaves, USA, &amp; Michael Verhoven, Italy</p> <p><i>Opportunity for Worldwide Economic Stimulus with Ecological Benefit</i> Adrian van Riel, The Netherlands, Dipl. Biol. Sven Koschinski, Germany</p> <p><i>“Japan's Experience in the Disposal of Sea Dumped Munitions”</i> Asahina Kiyoshi, Japan. KOBELCO</p> <p><i>“The Need To Clean, A Pilot Project For The Baltic Sea”</i> Mr. Bart Van der Speeten, Belgium Vice President, IDUM, Europe</p>	leper Room
14:20 to 14:30	<b>Questions from Delegates</b>	leper Room
14:30 to 15:00	<b>Reception and Network Event</b>	leper Room
15:00 to 16:00	<b>Bilateral Meeting with Stakeholders</b> Moderator: Terrance P. Long	Ooms Room

# Nova Scotia, Canada

## May 20-24, 2013

### *Call For Papers*

Plan to attend the follow-up meeting in  
Nova Scotia.

The outcomes of the Side Event and the follow-up meeting in Nova Scotia will be considered in our response to the United Nations Resolution “Cooperative measures to assess and increase awareness of environmental effects related to waste originating from chemical munitions dumped at sea”

I welcome everyone to join us for our follow-up event in Sydney, Nova Scotia, Canada at Membertou’s First Nations Trade and Convention Centre from May 20 to 24, 2013.

Your participation in these events is necessary and valued to assist to determine the way forward on Sea Dumped Chemical Weapons.

For more information:

<http://www.underwatermunitions.org>

<http://www.membertoutcc.com>

<http://www.cbisland.com>

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## **Keynote Address Promoting the Development of a Practical Platform of Voluntary Cooperation**

*Mr. Terrance P. Long CPSM. SSM. CD, Canada, Chairman, IDUM*

The issue of sea dumped chemical weapons is one of global dimension that requires multi-stakeholder cooperation. For more than 100 years man has globally discarded munitions into our oceans, seas, and lakes as a cheap means of disposal. This cheap means of disposal was carried out by many Navies of the world up until the 1970's when countries began to understand that worldwide dumping of munitions was a mistake. Our generation is left with a "Legacy of Underwater Munitions" that, if left abandoned, has the potential to destroy fish stocks, threaten our security, and impact our human health. For many decades to come, Sea Dumped Chemical Weapons (SDW's) will continue to contaminate our environment unless we take action.

We have learned that off-the-shelf technologies developed by the oil and gas industry and the military's unmanned system programs does exist to detect, investigate and remediate most underwater munitions sites today. And there is a "Need To Clean" based on the potential negative economic, human, and environmental impacts on our health care systems, fish stocks, and security-related concerns. SDW's are no longer "out of sight, out of mind." Abandonment by the international community is no longer an option. Public awareness education programs for SDW's are on the rise on a global scale including the willingness to cooperate among stake holders. The aim of this paper is to promote the development of a practical platform of voluntary cooperation among all the relevant parties involved in the issues of sea dumped chemical weapons.

## **Key thoughts for the participants of the IDUM side-event during the Review Conference of the CWC, the Hague 10 th Of April 2013**

*Dr. Andrzej Jagusiewicz, Head of Polish Delegation, Chief Inspector of Environment Protection, Polish Representative to Helsinki Commission & the Polish Marine Director*

- Who we are? The most open and democratic community who care about the DChWs at global level and address the local victims;
- Road to the Hague: Halifax, Vilnius, Honolulu, Helsinki, Sopot, Puerto Rico, Gdynia....and many others;
- Our rationale: fight for full respect of the law of the sea and for the human rights following "the polluter pays principle" and fully taking into account the safe exploration of the sea bottom;
- Our arguments: science (ISAB), inventory, risk assessment, technology.....need for action (Cullebra, Ustka);
- Minimal expectations: pilot projects, voluntary cooperation "think globally act locally";
- Time to knock to OPCW and open the door of the CWC and involve further UNGA;

## **Working in the context of the UN Resolution**

*Mr. Gediminas Varvuolis, Director, Transatlantic Cooperation and Security Policy Department*

In 2010, under Lithuania's initiative, the United Nations General Assembly at its 65th session adopted by consensus the resolution 65/149 "Cooperative measures to assess and increase awareness of environmental effects related to waste originating from chemical munitions dumped at sea". This has been achieved with a very good cooperation among all UN Member States and remarkable input by the scientific community and the civil society, including the International Scientific Advisory Board on Sea-Dumped Chemical Weapons and the International Dialogue on Underwater Munitions. The core objective of the resolution is to encourage states, international and regional organizations to keep under observation this global issue and voluntarily share relevant information, strengthen international efforts in raising awareness in order to create a safer, cleaner and sustainable environment for all of us. The resolution also invites the UN Secretary-General to seek the views of UN Member States, relevant regional and international organizations on matters related to the environmental effects of waste originating from chemical munitions dumped at sea. These views will be circulated to the General Assembly at its sixty-eighth session in 2013.

Drawing from various international meetings, seminars and workshops Lithuania has elaborated a reporting module in order to facilitate submission of focused information on implementation of the Resolution to the UN Secretariat in 2013. This reporting module was distributed through national delegations at the UN in New York. The module was taken as a basis for the subsequent UN questionnaire on issues of the environmental effects relating to waste originating from chemical munitions dumped at sea. The questionnaire was transmitted by UN Secretariat to all UN Member States and relevant regional and international organizations.

Lithuania seeks that the greatest possible number of UN Member States and NGOs submit their respective views to the UN Secretariat.

Lithuania is looking forward to the UN Secretary General report and will start working on the draft resolution which Lithuania plans to submit to the next UN General Assembly (Second Committee) in the autumn

## **"Better today than tomorrow" – An overview of the insights elaborated by the IDUM Working Groups on Policy, Science and Technology**

*Dr. Tobias Knobloch, Germany, Co-Chair of IDUM Working Group on Science*

Wars, demilitarization activities, military and defense-related testing and practice have exposed many areas around the world to warfare materials. Most notably, following World War II, munitions, and most prominently chemical warfare materials, have been dumped at sea to meet the task of a quick disposal of superfluous warfare materials, thereby additionally burdening



e.g. the seabed and waters of the North Sea, the Skagerrak and the Baltic Sea with the legacy of the war. Regarding the increasing economic interest in the resources of the seas and the recently emerging field of offshore installation construction, e.g. for energy generation (i.a. windfarms), the novel usages of the seas confront the usages of the past. Consequently, the existence of munitions in our seas is a problem that concerns society as a whole.

In late September 2012 experts from around the globe met in San Juan, Puerto Rico, for the 4th International Dialogue on Underwater Munitions in early October. With a view on the resolution A/RES/65/149 unanimously adopted by the United Nations General Assembly in December 2010, experts for policy, science and technology discussed the current state and future needs of the respective branches in three dedicated IDUM Working Groups. The elaborated results were subsequently presented to the decision makers, experts and interest groups attending IDUM 4.

The insights collated by the experts of the three IDUM Working Groups shared several points of contact and most notably coincided in two findings: No branch will be able to address the problem of sea-dumped munitions on its own, and while Science is constantly advancing and Technology has significantly benefited from the efforts following the Chemical Weapons Convention, the need for gaining the attention of policy makers and embarking on a systematic approach towards a solution of this problem mostly hidden beneath the waves of the sea is evident. A systematic approach can answer the questions of “Where to start” and “How”, but for the question of “When” a single reasonable answer was identified: Better today than tomorrow.

### **HELCOM MUNI Report (Ad Hoc Working Group on SDW's)**

*Dr. Jacek Beldowski*

The continuously increasing scientific knowledge and information resulting from past and presently ongoing activities in the Helsinki Convention Area has made it necessary to update the 1994/95 reports of the ad hoc working group on dumped chemical munitions in the Baltic Sea (HELCOM CHEMU). The Report was elaborated by the ad hoc Expert Group to Update and Review the Existing Information on Dumped Chemical Munitions in the Baltic Sea (HELCOM MUNI) and represents a logical fulfillment of the recommendations given in the

HELCOM CHEMU reports. The formerly drawn conclusions and recommendations needed to be re-adjusted in order to adequately reflect the current state of knowledge.

The report summarizes current knowledge about the location, state, and environmental threat posed by dumped chemical munitions. It includes information about degradation products of chemical warfare agents, the effect they might have on marine organisms, and the impact on sea users – fishermen, seafood consumers and marine entrepreneurs.

Conclusions of report encompassed a need for further investigations, information dissemination to Baltic Sea stakeholders and management options for the problem.

### **Local perspective and global activities of the Land of Schleswig-Holstein in German Marine Waters Wanted: A coalition of the “willing and acting authorities” on the national level**

*Jens Sternheim, Germany, Ministry of Energy, Agriculture, the Environment and Rural Areas of Schleswig-Holstein*

Both World Wars took place nearly all over Europe. The impact of the past war can easily be recognized almost every day somewhere in Europe. But the small and very northern German state of Schleswig-Holstein suffers from the shadows of WW II up to knower days more than others. Geographical located between the North and the Baltic Sea. Recently conducted studies in Archives had revealed long forgotten historic documents: The dumping of up to 1,200 tons of CW in the inner Flensburg inlet by the German Military under Nazi-administration at the end of World War II.

These new findings and the upcoming and increasing new economic usage of the seafloor in the North and the Baltic Sea make it obvious: Schleswig-Holstein has to find solutions to deal with the present problem of CW in coastal waters. Without searching for historic or present responsibility the State Government of Schleswig-Holstein tries to form a “coalition of willing authorities” on State and Federal level, NGO and external Experts, to solve the problem - a problem of concern for the society as a hole - for a safe future.

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## **Living with the Risk of Sea Dumped Munitions Constituents**

*Mrs. Myrna Pagan, Vieques, Puerto Rico*

On the first of May 2013 Vieques celebrates the tenth anniversary of the closing of the US Navy Base Camp Garcia. For more than six decades the tiny inhabited island served as a target for bombing, for testing of conventional and non conventional weapons, as a venue for NATO countries to practice and test weapons, and was advertised by the USNavy in a website called "One Stop Shopping" which extolled the virtues of perfect year round weather and no oversight for military use. But in 1999 an errant bomb dropped by a still unidentified Navy pilot struck the observation tower in the impact area and killed a civilian guard called David Sanes, a native security guard, and the effects of David's death resonated and became a force which catapulted Vieques to the world stage when brave community members invaded the Navy's impact area and set themselves up as human shields and forced the Navy, which was now under observation, to stop the bombing, NI UNA BOMBA MAS- AND- FUERA LA MARINA. Getting the Navy out of Vieques was a pacific feat ... not one shot fired... but thousands were arrested as thousands have been poisoned. Unity, passion and sacrifice gave the people the strength to reclaim their tranquility and dignity.

But as we say in Vieques the struggle continues because after 10 years the people are sick, the land and sea are sick, and the economy as well. Federal and local governments have not honored their responsibility to the 10,000 American citizens who have suffered the effects of the lethal compounds used by the Navy. Clean up efforts of the declared Superfund Site are slow with a tendency to declare contaminated areas as off limits rather than to restore. There has been no removal by the polluters of marine uxo and suspected nuclear waste. A new economy based on tourism proudly touts the island as Paradise and pollution doesn't enter the equation.

This March two important declarations have steeled our reserve and commitment to environmental clean up and to the defense of the human rights and well being of Viequenses and our global family. The famous federal Agency for Toxic Substance and Disease Registry (the infamous ATSDR) has admitted to a health crisis in Vieques but finds no nexus to the military practises: polluted lagoons, contaminated waters and shorelines, dying coral reefs, decimated fish stocks and a sick community with 31% more cancer, and alarming rates of other catastrophic diseases are our noxious reality. The response of the US Supreme Court to the lawsuit filed by 7,000 sick Viequenses in their claim for a thorough decontamination and remediation, and adequate medical attentions and facilities was a final determination... Case Dismissed. No Justice, no accountability in a decision that bows to the military and the continued abuse of civilian victims.

The Vieques story resonates around the globe and exemplifies the pattern of irresponsibility, crass destruction of our environment, poisoning of communities and trampling the human right to good health in a safe environment. We must act now to remove the decay that covers our world and work

on what has been spoiled. Once the decay is removed a new strength will be born and we will be equipped to create a better world based on human rights and a healthy environment. It is our moral responsibility and our only hope.

## **"The Interforce-Polygons in Sardinia – Past and Present Use, Toxic Waste-Dumps, Decontamination, Health-Care-Projects and Financial Assistance"**

*Michael Verhoven, Italy*

For about 50 years, several areas in Sardinia are used for weapons testing and the destruction of old weapons. Of those so-called "Polygons", Salto di Quirra is the largest in Europe.

The Sardinian Polygons are used for exercises, war maneuvers and testing of weaponry by the Italian army, by Nato troops and by military from various countries including Israel, Libya, and Canada. The polygons are also rented out to private companies that produce weapons.

The "income" resulting from this rent-out is 1,2 million € a day, a flow of money that does not arrive in Sardinia but stops at the MoD of Italy.

There is no industrial activity in the areas close to the Polygons, pollution comes exclusively from the effects of explosions and fires on armor and pipelines, from the disposal old weapons including chemical weapons, and from tests of fire artillery, rockets, drones, and laser guided precision bombs. Usually, missiles and weapons are shot from the mountainous zones to the small islands in the sea.

Since the 1980s, there have been reports of a sharp increase of tumors in people who live and work in or near the contaminated areas as well as in military personnel. Moreover, genetic malformations in infants and animals were reported leading to a phenomenon soon to be known as "The Quirra-Syndrom".

Military zones belong to the Italian state but local communities are allowed to use them, so shepherds go there with their cows and sheep. Thorium has been found in these zones and the food chain is contaminated.

The local population suffers the effects of the pollution and contamination of the land, of underground rivers, of the air and of the sea. Fishermen who cannot fish anymore have received a small compensation for unemployment.

In 1999 the Italian Government promised to compensate the Region of Sardinia with about 14 million € for 5 years time but only the first payments arrived. Only last year, other 13 million € were provided to be shared by the communities. But the costs for decontamination, for the time being, have to be financed by the Region.

In 2011, a compliant for serious homicide and environmental disaster was filed requesting to stop all military and industrial activities in the Interforce Polygon Salto di Quirra. In July 2013 the court will decide if there will be a trial.

Since 1980, tons of munitions are exploded in open air contaminating the soil and the rivers running through the

Quirra-region and ending up in the sea. In an area of 2000 m<sup>2</sup> there is no longer any vegetation. But high levels of lead in the water and on the beaches. Thorium 232, cadmium and radio tracers, asbestos, white phosphorus and other dangerous substances and carcinogenic agents have been found. Of the people working in the Polygons or living nearby, 1,200 cases of cancer, amongst them 140 soldiers have been reported. Also iron, lead, tungsten, and copper in the tissues of citizens and sheep have been detected. No official data of sea pollution exist, but it has been revealed that fish that swim longer distances are less contaminated than fish that remain in the same place.

**Human Factors Solutions: Munitions underwater..... the fish can miss them Opportunity for Worldwide Economic Stimulus**

*Adrian van Riel, CEO of Riel Explosive Advice & Services Europe Ltd (REASeuro)*

**Nature and magnitude of munitions underwater (the problem)**

The nature of munitions underwater has to do with the worldwide presence of ammunition. Our world economy runs on the weapon and ammunition industry. Based on this we can imagine the magnitude of munitions underwater as we know that all reasonably developed countries, from WWII till the 1980's in the Cold war period, have dumped all overstock and obsolete stockpile's of ammunition in water. This was at that time the most safe and accepted disposal method all over the world. All governments with stockpiles of ammunition have dealt with this topic in the same manner. This was also the method of disposal for chemical warfare ammunitions. So most governments have used this disposal technique over decades to dump their stockpiles in our waterways, lakes and marine environment till approximately 30 miles from the coastlines on relative water depths of approx. 30 to 40 meters. Besides that most governments have allocated areas in water as shooting ranges and training grounds. In these areas also a vast amount of UXO will be encountered.

**Our ECO-system and the risks.....**

We know already for many years that the materials used in ammunition are toxic and bad for the health of humans. This is also known for the environment, our ECO-system. We know already what the toxic levels are for the

environment. Many, many, many, studies have been done already in the past, which haven proven that the materials used in ammunition are toxic and have past into our ECO-system. That this is the case is also proven with most recent research and only proves what is already known. If we take into account that ammunition is made of the highest quality materials we can understand that the body's of the ammunition have a relative long lifetime. But underwater they will corrode. This process is going on for decades and from most ammunition the condition will only get worse. This means that the longer we wait with the clean up the bigger the risk gets to remove them. This has to do with the fact that the body's corrode and the chemicals and explosives mainly get more sensitive and that the detonators also corrode and will become more instable. Besides that the chemicals used in ammunition will after corrosion of the body's get even more part of our ECO-system and will appear in our food chain in a way that it will influence our health.

So, the longer we wait the worse the situation gets and it will not vanish by itself.

**Are military to blame....??**

These operations were mainly executed by military units, but ordered by their governments. The dumping sites and shooting ranges were vast areas for over 60 miles in radius were dumping and/or shooting was done on very regular bases. In most areas we are talking about megaton's of UXO still present. Here we can also include barrels with chemicals and complete ships with ammunition sunk etc.

The military are mainly seen as the polluter, but military only operate under the strict regulations and orders of our governments. Besides military don't make their own cars, tanks, weapons nor ammunition. These are all industrial activities and cannot and will not be a task for the military. So also the clean up off the dumpsites will not be a military task. Here we have to integrate all techniques already available at the market and work on a design and construct bases. The civil engineering industry has a lot of experience with these types of projects and are capable to do the physical clean up according to the present standards for Safety, Health and Environment (SHE)

**Human Factors Solutions.....Economic stimulus**

The Human created the problem and the Human will solve the problem like we always will do.

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Now we know that for all problems it is required to know the impact and time and money involved to clean up. To get aware of the magnitude of the problem it is clear that vast amounts of ammunition of all different types and nature including vast amounts of chemical warfare ammunition is in our marine environment all over the world. We know that these pose an immediate threat to our ECO-system and our food chain. We know that they are mainly in areas which we now need for our economical development, such as fishing grounds, pipelines, oilrigs, windmill parks, recreation, etc. etc.

We know we have to work on our priorities and that the clean up cannot be done in one decade. But if we are not gaining enough knowledge about the proper remediation now, we will also lose precious time. Time which to my opinion already runs short, because the magnitude of this problem is bigger than global warming and way closer to inflict us harder at shorter notice.

The clean up of areas can be done by the industry, which will give it a big boost in economical perspective and in the same time we will create a better world for the next generation. In the meantime we should also work on a better solution with the industry to take care ammunition gets a "cradle to grave" lifetime which is acceptable to our present standards. This will also help the industry and keeps the blame of the military, which are only a political instrument.

We have proven in the recent past that the clean up of ammunition is very well feasible if addressed correctly within the parameters of any civil engineering project and that the cost mainly stay within a range of 5 to 10 percent of the total project cost. In this way the best head start can be made in this industry. I invite you to see the changes and not the threats.

Thanks for your attention.

### **The Old Mine And The Sea: Munitions Cleanup as Opportunity for Worldwide Economic Stimulus with Ecological Benefit**

*Dipl. Biol. Sven Koschinski, Germany*

There is hardly any sea or marine region without legacy munitions introduced into the marine environment of our blue planet. A variety of threats result from discarded munitions. Usually dangerous marine munitions are either blown up in place or abandoned. In the Baltic and North Seas as examples of regions where large quantities of munitions have been dumped after World War II problems become evident today. There is a need to clean these munitions contaminated waters.

Detonating a mine, bomb or torpedo is not a smart idea. The shock wave of the detonations have the potential to seriously harm and injure marine vertebrates such as mammals, birds, reptiles and fish even at great distance. To date there is no mitigation method protective of these animals. Further, detonations represent no complete combustions of energetic components. Particles of highly toxic substances are dispersed into the environment. Any detonation interferes with

international obligations to protect the environment. We need to clean and not to destroy our natural treasures.

Abandoning old munitions in the Sea is also a bad idea. The shells corrode sooner or later releasing their sinister and disastrous constituents. It is a myth that chemical and conventional munitions kept in the Sea are not dangerous to marine life and humans. Acting responsible means to remediate these point source polluters. Keeping munitions under water mainly had the purpose to keep them hidden under a blanket of secrets because the public could demand costly remediation. But doing nothing for so many years has a much higher price. The integrity of marine ecosystems which is a precondition for sustainable use of the oceans' valuable resources demands for cleaning the sea floor from poisonous old munitions. Munitions manufacturers could be taxed for this mission for the whole society. Today's munitions are tomorrow's point source polluters.

It is a myth that chemical munitions pose no threat for humans as long as they are in the Sea. This may be true for only a few substances which are hydrolyzed and dissolved by sea water. Others are persistent, meaning that they are not getting less dangerous for the next generations to come. Deriving our knowledge only from chemical weapons in the deep oxygen depleted Baltic Sea basins which lack higher life forms means ignoring the fact that there are also chemical munitions dumps in shallow coastal or deep and oxygen rich areas where uptake by shellfish, fish and other seafood resources and transfer through the food chain is likely. Some dumping areas are in reach of fishermen who drag their nets along the seabed and of tourists who might entangle a chemical grenade with the anchor line of their sail boat. And this also means that they are in reach of terrorists. I see an urgent need to clean these areas.

Our children collecting carcinogenic and mutagenic munitions constituents on the beach is surely not what we want to see. If no cleanup happens and corrosion proceeds, this may become daily life. In summer 2012 a 6-year old boy was contaminated by TNT and hexyl, a sinister mixture designed to kill life, at a famous German Baltic Sea tourist resort with a known former munitions dump in its marine backyard which is today still kept under wraps, even after so many years.

This incident shows that having healthy Seas without toxic munitions dumps is a prerequisite for all kinds of economic activity related to the sea such as fisheries, renewable energy use, tourism and shipping. A cleanup can be a worldwide economic stimulus. And the benefit from this is longer lasting than of any economic growth program. We must say yes to a cleanup. Our past, our present and our future lies in the Sea.

Dear ambassadors, I urge you to initiate a cleanup of our Seas in order to give future generations a chance to use the marine treasures without any harm and hazard for their physical health.

**Japan's Experience in the Disposal of Sea Dumped Chemical Munitions**

*Joseph K Asahina, Kobe Steel, Japan*

Japan has a coastline of 30,000 km or 1.5 times longer than that of the United States. Port Kanda is one of the important hub ports in the southern part of Japan. During dredging operation in 2000, chemical weapons were found. There had been no human casualties or environmental problems reported in the area. The clean-up project was decided because economical effect was big to get bigger ships to come in and go out from the port safely.

The project included but not limited to high efficiency magnetometer detection of chemical weapons, uncovering, recovering of them by divers, transportation and destruction of recovered chemical weapons. As of the end of 2012, 3,000 chemical bombs were destroyed by DAVINCH detonation process under OPCW inspection and it is high tide to finish the long operation. The successful operation without any accident depends entirely upon positive collaboration of Port Kanda authority, local government, local industries and fisherman's unions.

The speaker wants to explain the outline of the operation, lessons learned and some idea of how to promote the future potential clean-up projects under consensus of many stake holders.

**The Need To Clean: A Pilot Project For The Baltic Sea**

*Mr. Bart Van der Speeten, Belgium  
Vice President, IDUM, Europe*

Bart Van der Speeten will introduce a feasibility study about the environmental friendly disposal of ammunition offshore the Baltic sea by means of an AUV (Autonomous Underwater Vehicle) and a working class ROV (Remotely Operated Vehicle). In the Baltic Sea there are numerous offshore MEC dumpsites, including conventional and chemical ammunitions. Most of these ammunitions have been dumped shortly after the second World War and dumping lasted till recent years; both Russian and allied ammunitions types are present. Corrosion by seawater of the ammunition shells continued for decades and sooner or later shall result in destabilization of the ammunition's fuze system or releasing its content - i. e. explosive and even chemical agents such as phosgene, lewisite and mustard gas - to the subsea environment. At the time offshore dumping of overstock munitions was considered to be a long term solution, but nowadays one

realizes that this "long term" solution will not be safe forever. One day a definitive, safe solution for offshore dumping sites will be imposed. Based on historical research to select an suitable test site and making use of modern submarine technology that is widely use in the offshore oil & gas sector such as AUV and ROV, the proposal reflects on an extended method statement for an environmental friendly disposal of offshore ammunition. Special attention will be appointed to risk assessment and potential bottlenecks. In the proposal a budget estimation for the operations will be presented as well.

**Perspectives on Sea-Dumped Chemical Weapons**

*Dr. Paul F. Walker*

Professor Stanislaw Witek and Dr. Paul F. Walker, chair and vice-chair respectively of the International Scientific Advisory Board (ISAB) on Sea-Dumped Chemical Weapons, will briefly describe the importance of addressing the 20th century legacies of sea-dumped chemical weapons, the environmental and public health implications of sea-dumped munitions, and the role of the International Scientific Advisory Board. They will also note the potential role of the Organization for the Prohibition of Chemical Weapons (OPCW) in evaluating and inspecting dumped and buried ("non-stockpile"), old and abandoned chemical weapons

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**Sea Dumped Chemical Weapons Side Event** during the Third Review Conference of the States Parties of the Chemical Weapons Convention (CWC)

April 10 2013

The Hague

ABSTRACTS

# In Cooperation With:



## URM

LIETUVOS RESPUBLIKOS  
UŽSIENIO REIKALŲ  
MINISTERIJA

### MISSION:

Lithuanian Ministry of Foreign Affairs is the central institution of the Republic of Lithuania implementing Lithuania's foreign policy and co-ordinating activities of other public institutions in the foreign policy field.

Lithuania's aims and objectives in international organisations form an integral part of general foreign policy and long-term state development strategy goals, i.e. promoting Euro-Atlantic co-operation in the region and abroad, becoming an efficient member of the European Union and NATO, strengthening Lithuania's profile in the world and disseminating values of democracy, tolerance and dialogue.

## Ministerstwo Środowiska



MINISTERSTWO  
ŚRODOWISKA

### MISSION:

Ministry of the Environment, through its input into national policies, fosters the environment both domestically and globally, and ensures the long-term, sustainable national development with respect of natural heritage and human rights to meet the needs of both the present and the future generations.

### VISION:

Ministry of the Environment, as the state-of-the-art, professional institution which enjoys social trust, provides for rational management of natural resources and environmental education of the general public, and is open to cooperate in the field of the environment.



Rzeczpospolita Polska  
Ministerstwo  
Spraw Zagranicznych

In March 2012, the Council of Ministers adopted the Polish Foreign Policy Priorities for 2012-2016 – the first multiannual strategy of Polish foreign and European policy since 1989, and a key document which seeks to clarify the goals of our diplomacy. The Priorities contribute to the coordination of international activities conducted by Poland's public administration. Furthermore, they present citizens with a vision of Polish foreign policy and depict the key tasks facing our diplomacy in the perspective of 2016.

The annual Polish Foreign Policy Guidelines, another document shaping our external activities, reflect the priorities of our diplomacy in an operational manner. The Guidelines are adopted each year by the Council of Ministers at the request of the Minister of Foreign Affairs. The document is classified and considered as an indication of the international cooperation efforts of other ministries.

## Główny Inspektorat Ochrony Środowiska



The origins of the work of the Inspection for Environmental Protection date back to September 1980, when pursuant to the new Act on environmental protection and development the Council of Ministers issued an ordinance on the National Inspection for Environmental Protection. These legal acts constituted the foundation for the work of the inspection and implemented a uniform system serving to control compliance with environmental protection regulations and examine the state of the environment across the country.



**EUSBSR**  
EU STRATEGY  
FOR THE BALTIC  
SEA REGION

The European Union Strategy for the Baltic Sea Region (EUSBSR) is the first macro-regional strategy in Europe. It aims at reinforcing cooperation within this large region in order to face several challenges by working together as well as promoting a more balanced development in the area. The Strategy also contributes to major EU policies and reinforces the integration within the area.

The EU Baltic Sea Region counts 85 million inhabitants (17 percent of EU population) and eight countries (Sweden, Denmark, Estonia, Finland, Germany, Latvia, Lithuania and Poland) which share common features and challenges. Hence there is a clear need for joining forces and working in cooperation. Against this background, the Strategy intends to increase the levels of environmental sustainability, prosperity, accessibility and attractiveness and safety and security.

## Sponsors



Kobe Steel, Ltd. is one of Japan's leading steelmakers, as well as a major supplier of aluminum and copper products. Other business segments consist of wholesale power supply, machinery, construction machinery, real estate, and electronic materials and other businesses.

The Kobe Steel Group is comprised of numerous consolidated and equity-valued companies in Japan, the Americas, Asia and Europe.

KOBELCO is the corporate logo mark and brand name of the Kobe Steel Group. Behind the KOBELCO mark is Kobe Steel's commitment to excellence and quality.



**ADEDE**  
SEARCH & RECOVERY

ADEDE is a Belgium based survey and demining company that has over 10 years of experience. The core business of ADEDE is to detect and to approach objects which are buried.

The objects of interest may include all kind of iron objects (like cables, pipelines, UXOs, anchors, wrecks, etc.) but foundations and other underground structures (buried ditches, caves, voids) can be revealed as well.

For underwater projects ADEDE can provide professional diving teams and has experience with the deployment of a ROV.

For the excavation of archaeological remains ADEDE can dispose of a team of experienced archaeologists.



The Dynasafe Group is an international organisation specialising in the removal and management of UXO (unexploded ordnance), CBRNe (Chemical, Biological, Radiological, Nuclear, explosives) and other hazardous materials.

Dynasafe has over twenty years of experience operating in regions affected by land mines, unexploded ordnance or terrorist activity. We have the expertise to deliver disposal and protection systems as one integrated solution. Our products make your world a safer place.

The Dynasafe Group is a world leader in CBRNe risk mitigation with proven international experience. We operate in three primary areas:

- Area Clearance - UXO/demining on land and under water.
- Demilitarisation - conventional/chemical munitions destruction.
- Protection - EOD systems, bomb disposal and explosion protection.

Dynasafe is the only organisation capable of surveying, locating, clearing, containing, transporting and disposing of CBRNe material.

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Sterling Global is dedicated to providing solutions - and benefits - to our clients. Unexploded ordnance; security; logistics; communications - all these and more are problems faced by our commercial and government customers in the United States and around the world. They are problems that Sterling Global Operations has the expertise and experience to provide solutions for.

Sterling Global Operations, Inc., is the world's preeminent conventional weapons destruction company. Our work covers all facets of mine action, demining, explosive remnants of war clearance and ammunition, physical security and stockpile management.

Our company provides total solutions for managing the emerging threats of conventional weapons proliferation, including aging munitions stockpiles and battle area clearance around the world.

#### Munitions Response

- Helping to end the threat of death and injury to civilians from landmines through our capabilities and technology; our work supports the U.S. Humanitarian Mine Action Program and countries implementing the Ottawa Landmines Treaty banning anti-personnel landmines.
- Assisting Montenegro, Bosnia and other nations to comply with the Convention on Cluster Munitions by eliminating the thousands of cluster munitions that continue to threaten civilian lives; the treaty requires destruction of stockpiles of the weapons within eight years and clearance of affected areas within 10 years.
- Reclaiming and converting land made dangerous by conflict and military operations into safe, useable land returned to local communities for economic redevelopment.
- Remediating sites located in the United States as well as outside the U.S. to address the environmental challenges associated with Formerly Used Defense Sites (FUDS), Base Realignment and Closure (BRAC) sites and military installations. Our environmental response includes investigations, removal and remedial action that address the safety, human health or environmental risks presented by Unexploded Ordnance (UXO), Discarded Military Munitions (DMM) and Munitions Constituents (MC).



Riel Explosive Advice & Services Europe Ltd (REASeuro) is a private and independent company founded in Tilburg, The Netherlands, in 1998.

It is a commercial concern involved in explosive ordnance clearance operations (including humanitarian demining, EOD, IEDD and EOR), advice, project management, quality assurance (QA), education, training and certification, mine detection dogs (MDD), explosive detection dogs (EDD), diving activities and research and development projects.

REASeuro employs fully EOD-qualified personnel, which have a broad experience in the field of EOD, IEDD, QA, underwater weapons and ammunition and landmine clearing operations. All these qualifications are met by every EOD-expert we have available. This experience is gained in The Netherlands and during international operations.

Most of the EOD, demining and QA-experts have 15 years experience and more and are working in the field of EOD (including demining) and IEDD on a daily basis.

Our EOD-experts also provide services as advisors, supervisors and instructors in the Netherlands, where quality assurance meets the highest standards. The training of our junior personnel is also in EOD, QA, IEDD and landmine clearing. Besides the standards in The Netherlands also NATO and UN-standards are used and met in our extensive education and training programs, as well for our own personnel as for our clients.

The experience of our EOD-experts is in the field of :

- Conventional explosives (land, air and underwater explosives);
- NBC explosives;
- Improvised explosives;
- WW I, WW II, post modern and modern explosives;

Most of our contractors are governmental bodies, privatized governmental bodies, provincial and local governmental bodies, civil construction companies, harbour authorities and other waterway authorities, railroad companies and the police.

Our list of international clients includes various national governments, United Nations bodies, the European Union, World Bank and the International Trust Fund as well as commercial companies and (local) authorities (references on request). For these clients we have been engaged for the purpose of quality assurance, training and the execution of mine clearance and bush clearance activities and UXO-



clearance operations. We have our own demining machines, dogs, deminers and managers as well as specialized personnel.

We have an enviable safety record within the industry that we attribute to our commitment to the use of only highly skilled and experienced staff, all of whom are accredited. We have cleared more than 80 million square meters without a single accident and our standard of clearance is 100 percent.

Our international operations had been centered on the continent of Africa in the first years where REASeuro undertook many large and important infrastructure projects particularly in Mozambique and Angola. The African involvement is continuing, but the company also made a commitment to South Eastern Europe.

Within our motto “Your safety, our concern” we feel privileged to support our clients.

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## Wentworth Environmental Inc



Wentworth Environmental Inc. (WEI) is a Canadian owned and operated Munitions Response (MR) company. The technical background for our staff includes expertise in Engineering, Quality Assurance (QCP), Risk Mitigation, Working Dogs, Munitions and Explosives of Concern (MEC), Project Management, and Mine Action programs.

Wentworth offers a wide range of marine services for Underwater Military Munitions Response Programs (UMMRP). Our response to UMMRP programs includes a combination of the latest technologies in Autonomous Underwater Vehicles (AUVs) and Remote Operated Vehicle (ROV) for Detailed Investigation (DI) and Area Wide Assessment (AWA). Our company’s approach to Marine Surveys is to provide the “Tool Box” approach whereas we reach into the Tool Box that day to provide the precise tool for the job.

For Area Wide Assessments we employ IVER 2 AUV with utilizing high-resolution Klein 3500 side scan sonar, multi beam, MAG for sub-bottom profiling of objects cover in slit and muds, 3D bathymetry, HD video and still pictures for the mapping of marine attributes such as fauna.

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**EUSBSR**  
EU STRATEGY  
FOR THE BALTIC  
SEA REGION



**ADEDE**  
SEARCH & RECOVERY



*Wentworth Environmental*

*Making the world a cleaner place for a brighter future*



*International Dialogue on Underwater Munitions*