

 *International Dialogue on Underwater Munitions*



**FIFTH INTERNATIONAL DIALOGUE ON UNDERWATER MUNITIONS  
(IDUM)**

**28-29 May, 2014**

**Hosted By**

**The International Dialogues on Underwater Munitions (IDUM)  
and  
the Chief Inspectorate of Environmental Protection, Poland**

**DRAFT AGENDA\***  
**NATO SPS MODUM**

<b>27 MAY 2014</b>		
	Location: St Mary's University, Halifax, NS, Canada	
<b>26 May 2014 0900 - 1700</b>	<b>NATO Science for Peace and Security (SPS) MODUM</b>	<b>CLOSED MEETING</b> Secunda Marine Boardroom
<b>27 MAY 0900 - 1300</b>	<b>NATO Science for Peace and Security (SPS) MODUM</b>	<b>CLOSED MEETING</b> Secunda Marine Boardroom
<b>27 May 1300 - 1600</b>	<b>PRE-REGISTRATION FOR 5<sup>TH</sup> IDUN</b>	Secunda Marine Boardroom
<b>27 May 1300 - 1600</b>	<b>NATO Science for Peace and Security (SPS) MODUM</b>	<b>OPEN MEETING</b> Secunda Marine Boardroom  Must Register Space is limited

<b>FIFTH INTERNATIONAL DIALOGUE ON UNDERWATER MUNITIONS</b>		
<b>28 MAY 2014</b>		
<b>28 MAY 0730 - 1200</b>	<b>OPENING REGISTRATION</b>	<b>FRONT LOBBY OF SCOTIABANK THEATER</b>
<b>DAY ONE 0830 - 0930</b>	<p><b>SESSION MODERATOR: Terrance P. Long</b></p> <p><b>WELCOMING REMARKS</b></p> <p><b>Mr. Terrance P. Long</b> Chairman, International Dialogue on Underwater Munitions &amp; International Technology Advisory Board (ITAB) on Sea Dumped Munitions (SDM)</p> <p><b>Mrs. Rita Kazragienė</b> Minister Counselor and Deputy Chief of Lithuanian Mission to the United Nations &amp; Lead Sponsor Country for United Nations Resolution Sea Dumped Chemical Munitions</p> <p><b>Mr. Jens Sternheim, Germany</b> Ministry of Energy, Agriculture the Environment and Rural Areas, Chairman of the cross administrative expert circle "Sea Dumped Munitions" (BLANO) Germany</p> <p><b>Dr. Andrzej Jagusiewicz</b> Chief Inspectorate of Environmental Protection Poland &amp; Co-Chairman, IDUM</p>	<b>Loyola Room</b>
<b>0930 - 1000</b>	<p><b>SESSION CHAIR: Terrance P. Long</b></p> <p><b>Mr. Geoffrey Carton, United States</b> Munitions Disposal Operations in US Waters CALIBRE Systems, Inc, USA</p>	<b>Scotiabank Theater</b>
<b>1000 - 1030</b>	<b>COFFEE BREAK &amp; NETWORKING – BOOTHS</b>	<b>Loyola Room</b>

<p><b>1030 - 1200</b></p>	<p style="text-align: center;"><b>SESSION CONTINUES</b></p> <p style="text-align: center;"><b>Mr. Jens Sternheim, Germany</b>  <i>Local perspective and global activities of the Land of Schleswig-Holstein in German Marine Waters</i>  Ministry of Energy, Agriculture the Environment and Rural Areas, Chairman of the cross administrative expert circle "Sea Dumped Munitions" (BLANO)  Germany</p> <p style="text-align: center;"><b>Mr. Uwe Wichert, Germany</b>  Retired Navy Mine Warfare Officer,  <i>Historical Research and new findings</i></p> <p style="text-align: center;"><b>Mr. Jim Barton, United States</b>  Underwater Ordnance Recovery (UOR)  <i>Sovereign Indemnification and Sea Dumped Munitions: Unleashing Science and Technology Through the power of shared Interested</i></p> <p style="text-align: center;"><b>Mr. Sean Scrivens P. Geo, United States</b>  Vice President, Aqua survey Inc.  <i>What role should airborne gradiometers play in marine UXO surveys</i></p>	<p><b>Scotiabank Theater</b></p>
<p><b>1200 - 1300</b></p>	<p style="text-align: center;"><b>LUNCH: Guest Speaker</b></p> <p style="text-align: center;"><b>Dr. Thomas Stock, Germany</b>  <i>Introduction to the ITAB and the Global Role for SDM's</i>  Co-Chair International Technology Advisory Board (ITAB) on Sea Dumped Munitions (SDM's)</p> <p style="text-align: center;"><b>Dr. Andrzej Jagusiewicz</b>  Chief Inspectorate of Environmental Protection Poland  Co-Chairman, IDUM  <i>Poland's UMBRELLA Munitions Project on Dumped Munitions</i></p>	<p><b>Lunch Sponsor</b></p> <p><b>Chief Inspectorate of Environment Protection, Poland</b></p> <p><b>Loyola Room</b></p>
<p><b>1300 - 1400</b></p>	<p style="text-align: center;"><b>SESSION CHAIR: Dr. Andrzej Jagusiewicz</b></p> <p style="text-align: center;"><b>Mr. Terrance P. Long, Canada</b>  Co-Director, NATO Science for Peace and Security  <i>NATO Monitoring the threat of dumped munitions in the Baltic Sea (MODUM)</i></p> <p style="text-align: center;"><b>Professor Kela Weber, Canada, Royal Military Collage (RMC)</b>  <i>Capacity Building Plan for Underwater Munitions Research in Canada</i>  John McCallum<sup>1,2</sup>, Iris Koch<sup>1</sup>, Terrance Long<sup>3,*</sup>, Kela Weber<sup>1</sup>  <sup>*1</sup> Environmental Sciences Group, Department of Chemistry and Chemical Engineering, Royal Military College of Canada, <sup>2</sup> Ammunition Group, Department of Chemistry and Chemical Engineering, Royal Military College of Canada, <sup>3</sup> Wentworth Environmental Inc., Leitches Creek, Canada</p> <p style="text-align: center;"><b>Dr. Jacek Beldowski, Poland</b>  Search and Assessment of Chemical Weapons in the Baltic Sea (CHEMSEA)  <i>Findings and Next Steps</i>  OPAS</p>	<p><b>Scotiabank Theater</b></p>

<p><b>1400 - 1500</b></p>	<p style="text-align: center;"><b>SESSION CHAIR: Jens Sternheim</b></p> <p style="text-align: center;"><b>Dr. Stephen Billings, Australia,</b> Physics Black Tusk Geophysics <i>A novel high temperature tensor gradiometer system for effective mapping and characterization of underwater munitions</i></p> <p style="text-align: center;">Stephen Billings, Shane Keenan, David Clark &amp; Keith Leslie, Commonwealth Scientific &amp; Industrial Research Org, Australia.</p> <p style="text-align: center;"><b>Mr. Jim Kirk, United States</b> Ocean Server <i>Unmanned Underwater Vehicles for detecting and mapping of underwater munitions</i></p> <p style="text-align: center;"><b>Darren Mortimer &amp; Nick Valleau,</b> Geosoft Inc <i>Marine Geophysics - Simplifying Seabed Site Investigation with Magnetic Data</i></p>	<p style="text-align: center;"><b>Scotiabank Theater</b></p>
<p><b>1500 - 1530</b></p>	<p style="text-align: center;"><b>COFFEE - NETWORKING – BOOTHS</b></p>	<p style="text-align: center;"><b>Loyola Room</b></p>
<p><b>1530 - 1700</b></p>	<p style="text-align: center;"><b>SESSION CHAIR: Mrs. Rita Kazragienė</b></p> <p style="text-align: center;"><b>Dr Thomas Lang, Germany</b> <i>Ecological effects of chemical warfare agents in the Baltic Sea: results of the CHEMSEA project</i></p> <p style="text-align: center;">T. Lang<sup>*1</sup>, N. Fricke<sup>1</sup>, M. Faber<sup>1</sup>, M. Brenner<sup>2</sup>, K. Lehtonen<sup>3</sup>, R. Turja<sup>3</sup>, J. Baršienė<sup>4</sup>, L. Kotwicki<sup>5</sup>, J. Beldowski<sup>5</sup></p> <p style="text-align: center;"><sup>1</sup>Thünen Institute of Fisheries Ecology, Cuxhaven, Germany, <sup>2</sup>Alfred Wegener Institute Helmholtz Centre for Polar and Marine Research, Bremerhaven, Germany, <sup>3</sup>Finnish Environment Institute, Helsinki, Finland, <sup>4</sup>Institute of Ecology of Nature Research Centre, Vilnius, Lithuania, <sup>5</sup>Institute of Oceanology Polish Academy of Sciences, Sopot, Poland</p> <p style="text-align: center;"><b>Professor Paula Vanninen, Finland</b> <i>CWA biomarker analysis in CHEMSEA project</i></p> <p style="text-align: center;">Finnish Institute for Verification of the Chemical Weapons Convention Department of Chemistry (VERIFIN)</p> <p style="text-align: center;"><b>Dr. Martin Söderström, Finland</b> <i>ENVIRONMENTAL CWA ANALYSIS IN CHEMSEA PROJECT</i></p> <p style="text-align: center;">Martin Söderström<sup>*1</sup>, Annette Pettersson<sup>1</sup>, Maaret Karjalainen<sup>1</sup>, Olli Kostiainen<sup>1</sup>, Ullastiina Hakala<sup>1</sup>, Terhi Taure<sup>1</sup>, Matti Kuula<sup>1</sup>, Jenny Rattfelt Nyholm<sup>2</sup>, Johanna Qvarnström<sup>2</sup>, Anders Östin Yvonne Nygren<sup>2</sup>, Anders Östin<sup>2</sup>, Stanisław Popiel<sup>3</sup>, Jakub Nawata<sup>3</sup>, Marta Szubska<sup>4</sup>, Jacek Beldowski<sup>4</sup>, Galina Garnaga<sup>5</sup>, Paula Vanninen<sup>1</sup></p> <p style="text-align: center;"><sup>1</sup>VERIFIN, Department of Chemistry, University of Helsinki, Finland, <sup>2</sup>Swedish Defence Agency, Sweden, <sup>3</sup>Military University of Technology, Poland, <sup>4</sup>Institute of Oceanology of the Polish Academy of Sciences, Poland, <sup>5</sup>Environmental Protection Agency, Lithuania</p> <p style="text-align: center;"><b>Dr. Anders Östin, Sweden</b> <i>“Development of a GCMS method for the analysis of mustard gas degradation products in sediments for use in provisional on board laboratory with first responder equipment”</i> Swedish Defence Research Agency Scientist CBRN Defence and Security, FOI</p>	<p style="text-align: center;"><b>Scotiabank Theater</b></p>

	<p align="center"><b>Professor J Barsiene, Lithuania</b>  <i>Genotoxicity and cytotoxicity responses in fish from chemical munitions zones of the Baltic Sea</i>  J. Baršienė<sup>1*</sup>, L. Butrimavičienė<sup>1</sup>, A. Rybakovas<sup>1</sup>, W. Grygiel<sup>2</sup>, T. Lang<sup>3</sup>, A. Michailovas<sup>1</sup>, R. Valskienė<sup>1</sup>, M. Stankevičiūtė<sup>1</sup>, J. Greičiūnaitė<sup>1</sup>, P. Eiva<sup>1</sup>  <sup>1</sup>Institute of Ecology of Nature Research Centre, Vilnius, Lithuania  <sup>2</sup>National Marine Fisheries Research Institute, Gdynia, Poland  <sup>3</sup>vTI Institute of Fisheries Ecology, Cuxhaven, Germany</p>	
<b>28 MAY 1800 - 2000</b>	<b>NETWORKING RECEPTION</b>	<b>Marriott Courtyard Downtown Halifax Water Front</b>

29 MAY 2014		
	<b>Location: Bedford Basin &amp; St Mary's University</b>	
<b>DAY TWO 0800 - 1000</b>	<b>TECHNOLOGY DEMONSTRATION</b>  <b>Ocean Server Unmanned Underwater Vehicle IVER III AUV</b>  <b>CEIA – Deep Water (Fresh/Salt) Compact Metal Detector (CMD-DW)</b>	<b>Transport from Downtown Halifax to Bedford Basin</b>
<b>1000 - 1030</b>	<b>COFFEE – NETWORKING – DEMO</b>	<b>Bedford Basin</b>
<b>1030 - 1100</b>	<b>TECHNOLOGY DEMONSTRATION</b>  <b>Return to St Mary's</b>	<b>Bedford Basin</b>
<b>1100 - 1200</b>	<p align="center"><b>SESSION CHAIR: Dr. Thomas Stock, Germany</b></p> <p align="center"><b>Mr. Bob Olds, United States,</b>  Business Manager, U.S. Navy Marine Mammal Program for the Detection of Sea Dumped Munitions</p> <p align="center"><b>Professor Paula Vanninen, Finland</b>  <i>ANALYSIS OF CHEMICAL WARFARE AGENT RELATED CHEMICALS IN TISSUE SAMPLES WITHIN THE CHEMSEA PROJECT</i>  Paula Vanninen<sup>1*</sup>, Maaret Karjalainen<sup>1</sup>, Mia Halme<sup>1</sup>, Annette Pettersson<sup>1</sup>, Terhi Taure<sup>1</sup>, Raisa Turja<sup>2</sup>, Kari Lehtonen<sup>2</sup>, Matthias Brenner<sup>3</sup>, Nicole Höher<sup>3</sup>, Nicolai Fricke<sup>4</sup>, Thomas Lang<sup>4</sup>, Johanna Qvarnström<sup>5</sup>, Jenny Rattfelt Nyholm<sup>5</sup>, Rune Berglind<sup>5</sup>  <sup>1</sup>VERIFIN, Department of Chemistry, University of Helsinki, Finland; <sup>2</sup>Finnish Environmental Institute, Finland; <sup>3</sup>Alfred Wegener Institute, Germany; <sup>4</sup>Johann Heinrich von Thünen Institute, Germany; <sup>5</sup>Swedish Defence Agency, Sweden</p> <p align="center"><b>Dr. Harry D. Craig, United States</b>  U.S. Environmental Protection Agency Region 10  <i>Development of a Laboratory Analytical Method for Analysis of Conventional Munitions Compounds in Marine Tissue</i></p>	<b>Scotiabank Theater</b>

1200 - 1300	<b>LUNCH</b>	Return St Mary's Loyola Room
1300 - 1400	<p style="text-align: center;"><b>SESSION CHAIR: Professor Kela Weber,</b></p> <p style="text-align: center;"><b>Ms. Margo Edwards, Hawaii</b> <i>HUMMA 2012: Techniques and Results of a Deep Water Munitions Assessment, University of Hawaii (UH), Woods Hole Oceanographic Institution and Environet</i></p> <p style="text-align: center;"><b>Andres Cardenas-Valencia, United States</b> <i>SRI International, Marine and Space Sensing Group</i> <i>Underwater Mass Spectrometer</i></p>	Scotiabank Theater
1400 - 1500	<p style="text-align: center;"><b>SESSION CHAIR: Dr. Jacek Beldowski, Poland</b> <b>OPAS</b></p> <p style="text-align: center;"><b>Mr. John E. Herbert, United States</b> Leidos, MEC Project Manager   Engineering Solutions Group   UXO &amp; UW-UXO Division <i>Environmentally Friendly and Safe Demilitarization of Underwater Ordnance</i></p> <p style="text-align: center;"><b>Mr. Ayumu Kuriyama, Japan</b> <i>Completion of Port Kanda project -The outline and lessons learned</i> CWD Project Department Nuclear &amp; CWD Division Kobe Steel Ltd.,</p> <p style="text-align: center;"><b>Dr. Thomas Stock, Germany</b> Dynasafe, <i>Dynasafe Solutions for the Destruction of OCW</i></p>	Scotiabank Theater
1500 - 1530	<b>COFFEE NETWORKING BOOTHS</b>	Loyola Room
1530 - 1630	<p style="text-align: center;"><b>Introduction to the International Technology Advisory (ITAB) on Sea Dumped Weapons (SDW's)</b> <i>An open panel discussion on topics related to policy, science, technology, and responses for underwater munitions (chemical, conventional, radiological and biological). Each panelists will provide a 3 minute statement</i></p> <p style="text-align: center;"><b>Mr. Terrance P. Long, Canada</b> Chairman, International Dialogue on Underwater Munitions, ITAB <i>Expectations of the ITAB</i></p> <p style="text-align: center;"><b>Dr. Andrzej Jagusiewicz, Poland</b> Chief Inspectorate of Environmental Protection Poland, ITAB <i>The role for governments and international bodies to eradicate sea dumped munitions</i></p> <p style="text-align: center;"><b>Dr. Thomas Stock, Germany</b> Co-Chair ITAB <i>The Continuous Challenge from Old Chemical Weapons</i></p> <p style="text-align: center;"><b>Professor J Barsiene, Lithuania</b> Institute of Ecology of Nature Research Centre, Vilnius, Lithuania <i>Science consideration for the future</i></p>	Scotiabank Theater

	<p><b>Professor Kela Weber, Canada,</b> Royal Military Collage (RMC), ITAB <i>The need for regional and international cooperation on sea dumped munitions</i></p> <p><b>Dr. Jacek Beldowski, Poland</b> OPAS, ITAB <i>The role for science to ensure environment friendly recovery and disposal of sea dumped munitions</i></p> <p><b>Dr Asahina Kiyoshi, Japan</b> KOBELCO, ITAB <i>Evolving from underwater detonations to environmental friendly disposal options</i></p> <p><b>Dr. Stephen Billings, Australia,</b> Physics Black Tusk Geophysics, ITAB <i>The future of underwater detection technologies</i></p> <p><b>Mr. Uwe Wichert, Germany</b> Retired Navy Mine Warfare Officer, ITAB <i>The need to improve and understand the value of historical research</i></p>	
<b>1630 – 1700</b>	<p><b>CLOSING REMARKS</b></p> <p><b>Mr. Terrance P. Long</b> Chairman, International Dialogue on Underwater Munitions</p> <p><b>Dr. Andrzej Jagusiewicz</b> Chief Inspectorate of Environmental Protection Poland</p>	<b>Loyola Room</b>

<b>ECONOMIC SUMMIT AGENDA</b> <b>30 MAY 2014</b>		
	Location: St Mary's University, Halifax, NS, Canada	
<b>0900 - 0930</b>	<b>REGISTRATION</b>	<b>Secunda Marine Boardroom</b>
<b>0930 – 1030</b>	<p><b>OPENING PLENARY SESSION</b></p> <p><b>Mr. Terrance P. Long</b> Chairman, International Dialogue on Underwater Munitions &amp; International Technology Advisory Board (ITAB) on Sea Dumped Munitions (SDM)</p> <p><b>Dr. Andrzej Jagusiewicz</b> Chief Inspectorate of Environmental Protection Poland &amp; Co-Chairman, IDUM</p> <p><b>Mr. Jens Sternheim, Germany</b> Ministry of Energy, Agriculture the Environment and Rural Areas, Chairman of the cross administrative expert circle "Sea Dumped Munitions" (BLANO) Germany</p> <p><b>Shannon Chambers, Halifax</b> Area Account Manager Atlantic Canada Opportunities Agency (ACOA)</p>	<b>Secunda Marine Boardroom</b>
<b>1130 - 1200</b>	<b>Delegates break-off into Working Groups on Science, Policy and Technology and Responses</b>	<b>Secunda Marine Boardroom</b>
<b>1200 - 1300</b>	<b>LUNCH</b>	<b>St Mary</b>

1300- 1330	Working Groups Continues	Secunda Marine Boardroom
1330 – 1400	Results of Working Groups	Secunda Marine Boardroom
1415 - 1500	<p style="text-align: center;"><b>Final Remarks and Closing</b></p> <p style="text-align: center;"><b>Mr. Terrance P. Long</b> Chairman, International Dialogue on Underwater Munitions&amp; International Technology Advisory Board (ITAB) on Sea Dumped Munitions (SDM)</p> <p style="text-align: center;"><b>Dr. Andrzej Jagusiewicz</b> Chief Inspectorate of Environmental Protection Poland &amp; Co-Chairman, IDUM</p> <p style="text-align: center;"><b>Mr. Jens Sternheim, Germany</b> Ministry of Energy, Agriculture the Environment and Rural Areas, Chairman of the cross administrative expert circle “Sea Dumped Munitions” (BLANO) Germany</p>	Secunda Marine Boardroom