

Marine Technology Society

Conference on Underwater Intervention

UI 2007

January 30 – February 1, 2007
New Orleans, Louisiana, USA

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571
www.proceedings.com

ISBN: 978-1-60560-041-3

Some format issues inherent in the e-media version may also appear in this print version.

Marine Technology Society
Conference on Underwater Intervention
2007

TABLE OF CONTENTS

A Portable Cooling System for Contaminated Water Diving.....	1
<i>M L Nuckols, J A Henkener</i>	
OSHA Update: Commercial Diving Directives, Part 1 –	6
<i>Steve Butler</i>	
Enriched Air Nitro - practical applications for the working diver	9
<i>Omaha Greene</i>	
Lateral Inspection on the Panama Canal.....	16
<i>Jeff Byars, Tom Glebas</i>	
Offshore Platform Inspections using Small Inspection Class ROVs	20
<i>Steve Van Meter, Mark Gleason</i>	
Submarine Rescue.....	26
<i>John Mortenson, John Howard</i>	
MTS Overview of Submersible Activity in 2006	32
<i>Charles Kohnen</i>	
The Current Hurricane Era, Including a 2006 Review and a 2007 Preview	34
<i>Chris Hebert</i>	
Data Management System for Offshore Platforms and Pipelines using Web-based GIS	43
<i>Wael Bakr</i>	
Superior Diver Thermal Protection Using Aerogel Super-Insulation Fabrics	44
<i>M L Nuckols, J A Henkener</i>	
Engineer-Diver Program, Why we need it.....	51
<i>Rogelio Morales</i>	
Saturation Dive Systems for the 21st Century.....	54
<i>Graeme Clark</i>	
Detailed Hull Inspection with MicroROVs.....	80
<i>Steve Van Meter, Hank Dufrene</i>	
The Use of ROV's in Natural Resource Education	83
<i>Mark Gleason</i>	
Rock Cutting with the T750 Super Trencher	87
<i>Allan Spencer, Joe Machin, Eric Jackson</i>	
ROV Work Skid for Remediation of Hydrates in flowlines.....	94
<i>Steven Barrow</i>	
Fuzzy Control of Underwater Robot Manipulators	101
<i>S.R. Pandian, V. Tinnium, F. Petry, N. Sakagami</i>	
Underwater Construction Inspection Route 123 Bridge over	107
<i>William J. Castle</i>	

Beesley's Point Bridge Company	109
<i>William J. Castle</i>	
Biodegradable, Environmentally Safe Lubricants for Underwater Applications	111
<i>Mark Miller</i>	
Thank you for your Support.....	113
<i>Sarah Howse, Renee Hodder</i>	
The MATE Technical Internship Program: Providing employers with future employees and students with real world workplace experiences	118
<i>Lani Clough</i>	
MATE ROV Competition's Ocean Expo Brings Employers Face-to-Face with Potential Employees	121
<i>Jill Zande</i>	
AQUARIUS: A New Era for the world's only Undersea Laboratory	123
<i>Karen Kohanowich</i>	
Evolution of a Deep Ocean Exploration ROV.....	125
<i>Justin Manley</i>	
ROV Intervention Interfaces.....	130
<i>Donald Faulds</i>	
ROVs and Education.....	134
<i>Chris Olstad, Tom Glebas</i>	
Fabric Formwork and Pipeline Stabilization and Support	138
<i>Pat Jeffries, John Hoard</i>	
Methods of Marine Pile Repair and Rehabilitation	140
<i>Bart Cariello, Bobby Carlson</i>	
Fabricated Pipeline Repair Fittings.....	144
<i>Jennifer Williams, Donny Seals</i>	
Marine Towed Array (MTA) System suitable for underwater unexploded ordinance (UXO) Surveying.....	147
<i>Chet Bassini</i>	
Condition Surveys of Underwater Infrastructure During Full Plant Operations Providing 2-D and 3-D Representation	158
<i>Robert Clarke, Jason Gillham</i>	
Sonar Selection and Mitigation of Underwater Threats.....	164
<i>William A. McCullough</i>	
Constant Differential Accumulators for ROVs.....	172
<i>Benton Baugh</i>	
Underwater Port Security	177
<i>Scott Bentley</i>	
HCMR's Submerged Operations with the S/M "THETIS and ROVs"	181
<i>Spyros Volonakis</i>	
Scientific Applications of industrial ROVs in the Deep Waters of the Gulf of Mexico	189
<i>Tanya Ribakoff, Mark Benfield, Terry Rooney</i>	
ROVs for Restricted Access Hydrographic Surveys.....	195
<i>Jeff Snyder, Matthew Cook</i>	

ABS Classification and IMO Diving System Safety Certificate for Diving Systems	204
<i>Ravi Tanwar</i>	
Submersible Surface Stability Analysis	208
<i>Lin Li</i>	
DP ROV Fact or Fiction	211
<i>Ian Florence, David Wright</i>	
Vision in Turbid Water	220
<i>Edward O. Belcher</i>	
ASUSV - Advanced System for Underwater Stereoscopic Vision	225
<i>Rogelio Morales, Demian Pereira</i>	
Prototype of a Stereoscopic Vision System to Improve the Image Quality in Turbid Waters During Underwater Inspection	229
<i>R. Morales, D. Pereira</i>	
Spilled Oil Chasing Autonomous Buoy System	231
<i>H. Senga, N. Kato, R. Ma, A. Ito, T. Miyagawa, M. Yoshie, I. Fjita, H. Omori</i>	
The Sea Wolf - Performance and Perspectives of a new AUV	242
<i>Willi Hornfeld</i>	
Pipeline Inspection - Latest Results from the ALISTAR 3000 Trials	248
<i>T. Copros, D. Scourzic</i>	
Advances in Atmospheric Diving Technology	257
<i>Derek White</i>	
An Integrated Marine Gradiometer Array System (MGA) for Detection and Location of UXO in Littoral to Deep Marine and Freshwater Environments	261
<i>Richard L. Funk</i>	
Underwater Port Security - Jamaica	267
<i>David Francis</i>	
HULS Fest - US Navy Benchmark	271
<i>Marcus Kolb</i>	
New horizons for the DeepWorker 2000	274
<i>James Pearl</i>	
Reconstruction of Manned Submersibles PS 1201	276
<i>Robert Wicklund</i>	
Author Index	