International Symposium on Interaction of the Effects of Munitions with Structures

2007

Mark D. Adley, U.S. Army Engineer Research and Development Center	The Mechanics of Thin Slab Perforation	NATO
Moshe Arad, Israel Military Industries	Numerical Simulation of Effects Following Explosive Burst within a Structure	
Juan C. Archilla, Applied Research Associates, Inc.	Multihit Cratering and Enhanced Penetration	NATO
Werner Arnold, MBDA-TDW Gesellschaft für verteidigungstechnische Wirksysteme mbH	Blast Pressure Loading and Damage Assessment of Containers	NATO
Serdar Astarlioglu, Center for Infrastructure Protection and Physical Security	A Comprehensive Software Suite for Rapid Analysis of Structural Response to Weapons Effects	
Jeffrey Averett, U.S. Army Engineer Research and Development Center	Experiments to Investigate the Effects of Material Properties on Projectile Deceleration	
Wade Babcock, Naval Surface Warfare Center	Simulation of Blast Mitigating Panels Subjected to Underwater Explosion Loading using the Fully Coupled DYSMAS Hydrocode	
Joseph D. Baum, Science Applications International Corporation	Cellular Tower Response to Blast Loading	NATO
L.V. Benningfield, Applied Research Associates, Inc.	A Comparison of CHEETAH Predicted Energies with Experimental Data from Moderately Sized Cased Explosives	
Bryan Bewick, Air Force Research Laboratory	Analytical Response of Prefabricated Concrete Panels for Blast	
Bryan Bewick, Air Force Research Laboratory	Resistance of Aluminum Arch Shelters to Blast Loading	
Hartmut Bielke, Wehrtechnische Dienststelle für Waffen und Munition	Overview of Ladeburg Phase II Project	NATO
Joseph Bishop, Sandia National Laboratories	A Computational Methodology for Simulating the Pervasive Failure of Materials and Structures under Extreme Loading Conditions	
Joseph Bishop, Sandia National Laboratories	An Overview of the New CTH-Presto Coupling for Modeling Blast Effects on Structures	
Pascal Blanchette, 1 Engineering Support Unit	Strength of Structural Arch Rib in Lightweight Relocatable Shelters Subjected to Blast Loads	
Joseph Blasko, Center for Infrastructure Protection and Physcial Security	Computationally Efficient Pressure-Impulse Diagrams for Structural Analysis and Assessment	
Albrecht Bongartz, IABG	Aerosol Detection and Weather Recording in Blast Experiments	NATO
Jody Borgers, Netherlands Defence Academy	The European Union's Strategy for the Protection of Public Structures against Terrorist Explosive Devices: A Review	
Mary Brown, Applied Research Associates, Inc.	Increasing the Robustness of SHAMRC	

William T. Brown, Applied Research Associates, Inc.	Multi-scale/Multi-Phenomena Modeling and Simulation of Taggant Performance	
Robert Browning, University of Alabama at Birmingham	Resistance of Slender Precast Concrete Wall Panels to Blast Loads	
Dan Brubaker, Air Force Research Laboratory	Overview and Objectives of the Phase-1 Ladeburg Replica Tests	NATO
Uli Burger, University of Ingolstadt	Further Development on Lightweight Protective Structures with Chain Mail towards Projectile, Debris and Blast Threats	
Eric Buzaud, Centre d'Etudes de Gramat	Simulation of the Three Dimensional Impact of a Deformable Projectile on a Geomaterial Target using Two Dimensional Multimodal Fourier Analysis	
Balz Georg Cavelti, Heierli Consulting Engineers Ltd.	Joint Swiss/U.S. Blast Door Study	
Vincent P. Chiarito, U.S. Army Engineer Research and Development Center	Design of a Surrogate Container for Measuring Blast Pressure and Reaction Forces	NATO
Hyung-Jin Choi, Karagozian and Case	Cumulative Error Due to Integration Procedure in Progressive Collapse Analysis	
Hyung-Jin Choi, Karagozian and Case	Nonlinear Modal Analysis for the Severely Damaged Structure due to Blast Loading	
Thomas F. Curry, Northrup Grumman Information Technology	Sequential Designed Experiment Yields Concrete Debris Models for Penetrating Fragments	
Gianluca Cusatis, Rensselaer Polytechnic Institute	Lattice Discrete Particle Model (LDPM): Formulation, Calibration, and Validation	
James Davidson, University of Alabama at Birmingham	Blast Response of Stay-in-Place Polymer Formwork Walls	NATO
Hans Dirlewanger, Bundeswehr Technical Center for Protective and Special Technologies	Passive Protection Concepts for Container-Based Working and Living Areas in Field Camps	
Andreas Dörr, Ernst-Mach-Institut	Risk Analysis for Forward Operation Bases Rocket Artillery Mortar (RAFOF-RAM)	
John Q. Ehrgott, Jr., U.S. Army Engineer Research and Development Center	Ground Shock Loading on Heavily-Reinforced Concrete Slabs	NATO
Khaled El-Domiaty, Baker Engineering and Risk Consultants, Inc.	Research and Development of Cost-Effective Glazing Retrofit Catching Systems	
Andreas Evelt, Wehrtechnische Dienststelle für Waffen und Munition	First Motion Measurement at Test 2b and 2d Series on Testpad 1 and 2k Series on Testpad 3	NATO
Walker Lee Evey, Design-Build Institute of America	Acquisition, Design & Blast Effects -- A Final Exam	
Reuben Eytan, Eytan Building Design Ltd.	Post 9/11 Practical Experience in the Anti-Terrorist Protective Design using the SEPHRA Risk Analysis	
Rickard Forsén, FOI Defence & Security	Physical Protection against VBIED Threats	
Andreas Frank, U.S. Army Engineer Research and Development Center	Simulation of the Mechanical Response of an Inert Payload during Projectile Penetration	NATO
Scott M. Frank, Applied Research Associates, Inc.	Fast Running Model for Arbitrary Room Airblast	
Norbert Gebbeken, University of the German Armed Forces Munich	Design of Massive Buildings with Hybrid Construction against Missiles	
Norbert Gebbeken, University of the German Armed Forces Munich	Simulations of Projectile Impact on Concrete Structures	
James Gran, SRI International	Experimental Observations of Breach Phenomenology in Embedded Detonations	
Stefan Greulich, NUMERICS-GmbH	Engineering and Numerical Tools for the Analysis of Penetration and Fragmentation	

Geir Arne Grønsten, Norwegian Defence Estates Agency	Debris Launch Velocity from Overloaded Concrete Cubicles	
Andreas Heckersbruch, Armed Forces Office Germany	Physical Protection of Facilities during Bundeswehr Operations Abroad	
John Hoemann, University of Missouri-Columbia	Experimental Evaluation of Structural Composites for Blast and Fragmentation Resistant Design	
David Hogg, Air Force Research Laboratory	The Effects of Blast on Filled Components	NATO
F. G. Hulton	The Concept of Effective Mass	
Chen-Wei Hung, National Defense University	A Parametric Research of Explosion Simulation for Reinforced Concrete Slab Subjected to a Rectangular Explosive	
Roger Ilamni, Navy Surface Warfare Center	Simulations of Small Concrete Panels Subjected to Underwater Explosion using a Fully-Coupled Hydrocode	
J. Karns, Myersh Houghton & Partners, Inc.	Blast Response and Post-Blast Capacity of Varied Steel Frame Components	
Kibong Kim, Applied Research Associates, Inc.	Performance of Small Cased and Bare Non-Ideal Charges	
Thomas Kisters, Fraunhofer Institut für Kurzzeitdynmaik	Instrumentation for Assessing Blast Effects on Containers	NATO
Tyler Krahn, Purdue University	A Simple Method for Determining the Forces Exerted on a Structural Element by an Impacting Liquid Body	
Theodor Krauthammer, University of Florida	Progressive Collapse of Multi-Story Steel Buildings	
Peter Kummer, Bienz, Kummer & Partner Ltd.	Behaviour of Brick Walls under Low Velocity Debris Impact: Final Results from Test Series 1 to 3	
Helge Langberg, Norwegian Defence Estates Agency	Protective Structures for Military Camps in Out-of-Area Operations	NATO
C.K. Binky Lee, Weidlinger Associates Inc.	A Parametric Study of the Effects of JWL Coefficients on the Blast Loads from a Dilute Explosive	
Richard J. Lee, Navy Surface Warfare Center	Assessment of Post Detonation Aluminum Combustion Efficiency -- Pressed Versus Cast-Cured Explosives	
Vincent Luk, Sandia National Laboratories	Dynamic Characterization and Penetration Analysis of Fine Aggregate Cementitious Material	
Joke Luyten, TNO Defense, Security and Safety	Resistance of a Blast Loaded Prestressed Masonry Walls	
E. Mataradze, Mining Institute	Issues of Localization of Effects of Accidental and Terrorist Explosions in Underground Structures	
Eric Mestreau, Science Applications International Corporation	Comparison of Experimental Data and High-Performance Computing (HPC) Simulation Results for the Detonation of a Weapon within a Multi-Room Hardened Structure	
Arturo Montalva, Hinman Consulting Engineers, Inc.	Analysis of Steel Columns for Air-Blast Loads	
Arturo Montalva, Hinman Consulting Engineers, Inc.	Effects of Forcible Removal of Elements in Progressive Collapse Analysis	
Colin Morison, TPS	The Measurement of PVB Properties at High Strain Rates, and Their Application in the Design of Laminated Glass under Bomb Blast	
Josef Mueller, Fraunhofer-Institute for Molecular Biology and Applied Ecology	Release of Component Filling Materials in Blast Experiments	NATO
Charles E. Needham, Applied Research Associates, Inc.	High Velocity Impact Generated Air Blast #20	
X. Nie, Purdue University	Impact Fracture and Fragmentation of Glasses under Combined Compression/Shear Loading	

Alan Ohrt, Air Force Research Laboratory	Internal Airblast Environments Produced by Cased Munitions with Different Explosive Fills	NATO
David Ornai, Ben Gurion University of the Negev	Response of Earth Covered RC Structures with Prestressed Elements to Explosive Loading	
Charles Oswald, Protection Engineering Consultants	Incorporation of BICADS Injury Prediction Methodology into VAPO	
Charles Oswald, Protection Engineering Consultants	Incorporation of SBEDS Single-Degree-of-Freedom Analysis Methodology into VAPO	
Photios Papados, ERDC-GSL	Eliminating Deeply Buried Targets using Segmented Hypervelocity Impacts	
Sharon Peles, Israel Military Industries	Armor Design for Blast Loading using Numerical Simulation	
Daniele Pelessone, ES3	Application of the Lattice Discrete Particle Model (LDPM) to Simulate the Effect of Munitions on Reinforced Concrete Structures	
Marc Percher, Hinman Consulting Engineers, Inc.	Air-Blast Testing and Performance Evaluation of Double Façade Curtainwall Systems	
Tobias Pontius, Bundeswehr Technical Center for Protective and Special Technologies	Numerical Simulation Investigations with 107 and 122 mm Artillery Rockets on Sand & Concrete Walls	
Marnix P.M. Rhijnsburger, TNO Defense, Security and Safety	Results of Close-in Effects of Enhanced Blast Weapons, Numerical Simulation of Blast and Response of Field Structures	
Darren Rice, George Mason University	Comparison of Coarse and Fine Mesh 3-D Euler Predictions for Blast Loads on Realistic Building Configurations	
René Richter, Bundeswehr Technical Center for Protective and Special Technologies (WTD 52)	Field Camp Access Areas	
Werner Riedel, Fraunhofer Ernst-Mach-Instititute for High-Speed Dynamics	Numerical Simulation of Mortar Strength Measurements at Highest Strain Rates	
Robert Ripley, Martec Ltd.	Explosive Dispersal of Metal Particles in Urban Street Structures	
Dave Ritzel, Dyn-FX Consulting Ltd.	Phenomenology of Near-Field Loading from Thermobaric Blast	
Markus Romani, Fraunhofer Ernst-Mach-Instititute for High-Speed Dynamics	Structural Behavior of Asymmetric Strengthened Masonry with Internal CFRP- Strips Loaded by Blast	
Hani Salim, University of Missouri-Columbia	Blast-Retrofit of Gravity Infill Walls using Ductile Thin Sheets	
Zvi Savir, IDF Directorate Committee of Protective Structures Research and Development	Dynamic Behavior of High Strength Concrete Panels Subjected to Blast Loads	
Roland Scheeff, Armed Forces Office Germany	Innovative Concepts, Systems and Materials for the Construction of Military Installations in Missions Abroad	
Leonard E. Schwer, Schwer Engineering & Consulting Services	ASME Guide for Verification and Validation in Computational Solid Mechanics	
Chong Chiang Seah, Defence Science & Technology Agency	An Analytical Approach to Predicting the Penetration and Perforation of Geological Targets	
Craig Sheffield, Applied Research Associates, Inc.	Progressive Collapse Resistance of Wood Stud Structure to Blast Loads	
Craig Sheffield, Applied Research Associates, Inc.	Response of a Wood Stud Structure to Blast Loads	
Jim Sheridan, Defence Science & Technology Laboratory	A Collaborative Study to Determine the Strengths and Weaknesses of V/L Codes for a Standardised Fixed Target Set	NATO

Yanchao Shi, University of Western Australia	Numerical Studies of Bond Slip Effect on RC Column Response under Blast Loading	
Fred Shirley, U.S. Army Corps of Engineers	Thermal Measurements in an Explosive Environment	NATO
Ron Shope, Applied Research Associates, Inc.	Comparisons of an Alternative Pressure-Impulse (P-I) Formulation with Experimental and Finite Element Results	
James S. Shore, U.S. Army Engineer Research and Development Center	Charlie Joachim Memorial Session Dedication	NATO
Jean-Marc Sibeaud, DGA	Pleiades/I: The Vulnerability/Lethality Software in Use at the CEG for Conventional Air to Ground Warfare--An Update	
Mete Sozen, Purdue University	Exact Analyses of Approximate Models	
Craig Starr, University of Florida	Wood Wall Panels under Impact-Induced Pressure Loads	
Ernest Staubs, Air Force Research Laboratory	Computer Vulnerability: Computer Network Response to Blast from Internal Detonations	NATO
David Stevens, Protection Engineering Consultants	Dynamic and Nonlinear Load Increase Factors for Collapse Design and Analysis	
Michel Sturtzer, ISL	Investigations on the Effects of Metallized Explosives on Structures using a Ballistic Pendulum	
Geoffrey Tan, DSO National Laboratories	Perforation Behaviour of Projectiles Impacting Concrete at 30° Obliquity	
James Tancreto, LJT & Associates, Inc.	Response of Tilt-Up Reinforced Concrete and Unreinforced Masonry to Blast Loads	
John Turnbull, QinetiQ	Dynamic Testing of Protective Structures under Mortar and Rocket Fire	
Martijn van der Voort, TNO Defence, Security and Safety	The Development and Application of the KLOTZ Group Software	
J.C.A.M. van Doormaal, TNO Defence, Security and Safety	Hazard of Glazing Due to Blast Loading	
Dave Vaughan, Weidlinger Associates Inc.	Development of Fast Running Tools for the Prediction of Progressive Collapse	
David Watts, Air Force Research Laboratory	Response of Desktop Computer Workstations to Blast Pressure Loads Produced by Cased Munitions	NATO
Jaap Weerheijm, TNO Defence, Security and Safety	Damage and Residual Strength Prediction for Blast Loaded RC Panels	
Angus Williams, QinetiQ	Operational Physical Protection Measures for Large Aircraft under Threat from Indirect Fire Weapon Attack	
Daniel Williams, University of Texas at Austin	Blast-Resistant Highway Bridges: Characterization of Blast Loads on Bridge Columns	
En-Hua Yang, University of Michigan	Impact Resistance of Engineered Cementitious Composites	
David Z. Yankelevsky, Technion-Israel Institute of Technology	Underground Explosions near a Buried Rigid Wall	
Hyun Chang Yim, Center for Infrastructure Protection and Physical Security	An Innovative Approach for Simulating Steel Moment Connections under Blast and Progressive Collapse Loads	
Duan Zhang, Los Alamos National Laboratory	Simulation of Large Deformation of Materials using Multiphase Flow Methods	
X. Zhou, School of Civil & Resource Engineering	Effect of Interfacial Transaction Zone on Tensile Behaviour of Concrete at High Strain Rates	