



International Symposium on Interaction of the Effects of Munitions with Structures

2005

Blast Effects	
Stephen Akers, Richard Weed, Denis Rickman, Kent Danielson	Explosive Wall Breaching: Experimental and Numerical Results
Mrs Carol Lovegrove, Mr Craig Hoing	Effect of large scale explosions on British style housing and commercial buildings
Peter Neuwald and Heinz Reichenbach	Explosively Driven Combustion of Shock-Dispersed Flake Aluminum Performance as Function of Chamber Length-to-Diameter Ratio
Maj. Z. Savir, Cap. O. Abada, Academic Officer A. Schenker and A. Brill	Blast Effects on Multi Layered Protective Windows

Computational Analysis	
Darren L. Rice, Joseph D. Baum, Daniele Pelessone, and Rainald Löhner	Coupled CFD/CSD/DPM Modeling of Wall Response to Blast Loading
N. Gebbeken, S.Greulich, A. Pietzsch, F. Landmann	The Engineering-Tool Xplosim To Determine The Effects Of Explosive Loadings On Reinforced And Fibre Reinforced Concrete Structures
George M. Lloyd, Timothy Hasselman, Wije Walthugula, David Bogosian	Issues in the Development of and Quantification of Modeling Uncertainty in a Physics-based Nonlinear Network Model for a Blast-effects Classification Problem
James L. O'Daniel, Stanley C. Woodson, James L. Davis, and Russell J. Norris	Numerical Analysis of Steel Stud Blast Wall Design
X. Ma, Q. Zou, D. Z. Zhang, and W. B. Van der Heyden;	Application Of A Flip-MPM-MFM Method for Simulating Weapon-Target Interaction
Theodor Krauthammer	Dynamic Structural Analysis Suite - DSAS
Shalva Marjanishvili, Sharon Gallant	Analysis of Reinforced Concrete Columns for Air-blast Loads
Chad McArthur, P.E.	Evaluation of LS-DYNA's *MAT_LAMINATED_GLASS Constitutive Model for Blast Applications
Colin Morison	A review of the Single Degree of Freedom method for dynamic response of reinforced concrete structures
G. Wije Walthugala and Timothy K. Hasselman	ARCWall-LP: Load Parameter Based Fast Running Model For Predicting Reinforced Concrete Wall Response To Cased Weapons
M.T. Edel, A. Sari, and J.W. Wesevich	Finite Element Analysis Modeling Considerations of Crimped Metal Wall Panels Subjected to Blast Loads
Greg Fairlie, Jon Glanville, Ian Barnes, Craig Hoing, Paul Norman	Fully Coupled Simulation of Explosive Store House Response to Internal Detonations

<u>Shalva Marjanishvili</u> ,	A Model for Progressive Collapse Analysis
<u>T. A. Rose</u> , P. D. Smith and S. A. Forth	Development Of An Adaptive Mesh Cfd Code For High Explosive Blast Simulation
<u>A. ROUQUAND</u> , C. PONTIROLI	A model for geologic materials (rock, soil and concrete), presentation and validation for a large range of dynamic loads
<u>P. D. Smith</u> , T. A. Rose and M. Brittle	Analysis Of A Generic Cityscape Using An Adaptive Mesh Cfd Code
<u>Ivo Häring</u> , Caroline Kranzer, Markus Romani	Generalized Single Degree of Freedom Description of Generic Failure Modes Due to Blast*
<u>J-M. Sibeaud</u> , T. Lacaze	PLEIADES/I : The Vulnerability/Lethality Software in Use at the Ceg for Conventional Air To Ground Warfare
<u>Scott M. Frank</u> Robert A. Frank, Dr. Stephane S. Pageau, Dr. Ali Amini	Improved Methodology for Air Blast in an Urban Environment

Special Topics	
<u>N. Gebbeken</u> , LTC A. Heckersbruch, G. Dittrich	Transfer of The Dahscwe Manual Using European Building Codes – Current Situation and Challenges
<u>I. Mangerig</u> , <u>O. Zapfe</u>	Fire Impact after Bombing Events
<u>Kurt M. Bucher</u> , Leo Jundt and Balz Cavelti,	A Simple Procedure to Evaluate the Resistance of Swiss Army Shelters against Weapon Effects
<u>E. Buzaud</u> , P. Baillis, M. Brun	Concrete penetration modelling - A simplified method to predict the failure of the bomb casing
<u>Bengt Vretblad</u> , Göran Svedbjörk	How Safe is a 95% Fragment Design? The Swedish Design Concept for Fragments
<u>Weerheijm</u> , J. and Verolme, E.K.	Safety assessment for personnel within Defence infrastructure

Penetration Effects	
<u>Robin Cork</u> ,	Research Into The Penetration And Defeat Of Hard Targets By Kep Munitions.
<u>Carl Elfving</u>	Model For Penetration Of Shaped Charge Warheads In Protective Coverings
<u>Peter O. Kummer</u>	Penetration and Perforation of Brick Walls by Debris
<u>Robert A. Phillabaum II</u> , <u>Stephen J. Schraml</u> , <u>Richard L. Summers</u> , & Brett R. Sorensen	Consideration of Nose Shape for Thin-Walled Projectiles Penetrating Double Reinforced Concrete
<u>Leonard E Schwer</u> , Kurt Hacker & Kenneth Poe	Perforation of Metal Plates: Laboratory Experiments and Numerical Simulations

Protective Design	
<u>Darius Aibara</u> ,	The Blast Enhancement of the British Consulate General, Istanbul
<u>Ch. Bludau</u> , M. Keuser, A. Kustermann, K.-Ch. Thienel	Resistance of high strength concrete panels against projectile impact and blast - Influence of the aggregate and the panel thickness
<u>U. Burger</u>	A new concept for bullet protection and debris containment with modern chain mail and hybrids with plastic/metallic resins
<u>Rolf M.M. van Wees</u> , Frank Landmann,	Test of a modular ammunition magazine as acceptor in a 5 tonne mass explosion
<u>J.G. Wang</u> , Z.L. Wang, S. Anand	Attenuation of blast-induced stress-waves in perforated civil defense layer

<u>Arie Boimel</u>	Blast resistant layers to protect roofs against direct hit of light artillery
Michael Steyerer, <u>Hans Dirlewanger</u>	Partition Wall Concept for the Field Storage of Ammunition
Dr.-Ing. <u>Andrea Kustermann</u> , Prof. Dr.-Ing. Karl-Christian Thienel Dipl.-Ing. Christian Bludau, Prof. Dr.-Ing. Manfred Keuser Prof. Dr.-Ing. Rupprecht Zimbelmann (i.R.)	Protection elements made of High Strength Fiber Reinforced Concrete (HSFRC) as single and multi layer constructions
Hollice Stone, <u>Marc Percher</u> ,	Blast Resistant Windows and Firefighter Forcible Entry and Emergency Escape
<u>Andreas Doerr</u> , Dr. Ivo Häring, Dieter Ruebarsch,	Explosives Safety Quantitative Risk Assessment Germany ESQRA-GE
<u>Charles .J. Oswald</u> , Ph.D., P.E. Dale .T. Nebuda, P.E.	Development of Component Explosive Damage Assessment Workbook (Cedaw)
<u>David C. Smith</u>	Glazing Materials For Blast Resistance
<u>Craig Starr</u> and Theodor Krauthammer	Effects of Dynamic Pressure Loading on Light Frame Structures
<u>David Stevens</u> , Capt. Robert Moriarty, Aldo McKay, Maj. Steven Brukwicki,	Counter mobility Evaluation of Vehicle Barriers for DOD Use
Lim, H.S. and <u>Weerheijm, J.</u>	Break-Up of Concrete Roof Slabs under Internal Explosion
<u>Rickard Forsén</u> and Johan Magnusson	Rapidly Deployable Field Fortifications
<u>Meike Gallenmüller</u> , Klaus Thoma, Christoph Mayrhofer	A new energy absorbing material protecting against blast loading
<u>Markus Romani</u> , Christoph Mayrhofer, Klaus Thoma	Study of Masonry Retrofit for Blast Loading with CFRP Strips
<u>Eric Hansen</u> , John Mould, Howard Levine	Response of Reinforced Concrete Columns to Near Contact Charges
<u>F.G.Hulton</u> QinetiQ	The Protection of Camps against Rocket and Mortar Fire: Concepts and Trials
<u>Auli Lastunen</u> , Jyrki Ronkainen	A Study of Blast Valve Behavior When Subject to Low Pressure Region Loads

Structural Response	
Tian Boon Soh, <u>Theodor Krauthammer</u>	Load-Impulse Diagrams For Reinforced Concrete Beams Based On Numerical Method
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Piak Hoon, <u>Ng</u> , Theodor Krauthammer	Pressure-Impulse Diagrams For Reinforced Concrete Slabs

Temporary Structures	
<u>Dietmar Carl</u> ,	Numerical Simulation of a double wall structure under blast load
<u>S.O. Christensen</u> , S. Skudal and H. Langberg	Blast Vulnerability of Personnel in a Container Based Observation Post
<u>John Fowler</u> , Robert Ripley and Kevin Scherbatiuk	Collective Protection Entrance Design for Blast Mitigation

Testing	
<u>Frank Dosquet</u> , Oliver Nies, Christoph Lammers	Threat Analysis and Test Methodology for Protection of Infrastructure Systems Based on the Impact on Personnel
Col. Uzi Buchbinder, Lt.Col. Gabriel Soria, Maj. Benny Brosh, <u>Reuben Eytan</u>	The Israeli Home Front Command Long Term Program of Full Scale Explosive Tests on Structures
<u>Charles .J. Oswald</u> , Ph.D., P.E.1 Dale .T. Nebuda, P.E.2 David Holgado3 Manuel Diaz, Ph.D., P.E.4	Shock Tube Testing on Reinforced Masonry Walls
<u>Dirk Plante</u> and Michael Ortelli, Leo W. Stockham, Paul W. Graham and Gayle E. Albritton	Minimizing The Effects Of Scaled Weapons On Reusable Steel Test Structures And Instrumentation Supports
Col. Uzi Buchbinder, Lt.Col. Gabriel Soria, Maj. Benny Brosh, Reuben Eytan	The Israeli Home Front Command Full Scale Explosive Tests On Structures - Sealed Blast Windows
Aleksey V. Pichugin, <u>Andrew Tyas</u> ,	Practical measurements of air blast overpressure using miniature fibre optic sensors
Dr. J. Weerheijm <u>I. Vegt</u> , Msc R.R Pedersen, Msc. Prof. Dr. L.J. Sluys	An integrated experimental and computational study to the rate effect of concrete in tension
Col. Uzi Buchbinder, Lt.Col. Gabriel Soria, Maj. Benny Brosh, Reuben Eytan	The Israeli Home Front Command Full Scale Explosive Tests on Structures - Retrofit of Existing Masonry Walls
Col. Uzi Buchbinder, Lt.Col. Gabriel Soria, Maj. Benny Brosh, Reuben Eytan	The Israeli Home Front Command Full Scale Explosive Tests on Structures - The Maya Durisol Protective Walls
Col. Uzi Buchbinder, Lt.Col. Gabriel Soria, Maj. Benny Brosh, Reuben Eytan	The Israeli Home Front Command Full Scale Explosive Tests on Structures - Blast Shock Effects on Wall and Ceiling Finishes
<u>Eric Mestreau</u> , Joseph D. Baum, Chuck Charman	Blast Damage Assessment to a Modern Steel Structure

NATO		
<u>David Bogosian</u> and Yongjiang Shi, Ph.D.	Analysis of Reinforced Concrete Columns Subjected to Combined Airblast, Fragment, and Gravity Loads	NATO
<u>Mary Brown</u> , Drew Malechuk, Rob Miller, Charles Needham	Using SHAMRC to investigate Embedded Munitions	NATO
<u>David R. Coltharp</u>	Application of Engineering Models to Antiterrorism (AT) Risk Assessment and Planning using the Joint Antiterrorism Guide (JAT Guide)	NATO
<u>John E. Crawford</u> and Shengrui Lan	Design and Testing of Combined Blast and Anti-Ram Barriers	NATO
<u>John E. Crawford</u> , Joseph M. Magallanes, and Kenneth B. Morrill	Vulnerability of Steel Framing Systems	NATO
<u>Jay Ehrgott</u> , Donald Cargile and Jon Windham	Crater and Damage Effects to Burster Slabs with Varied End Constraints Subject to Standoff Detonations	NATO

<u>Jeff W. Fisher</u> , Robert J. Dinan, James S. Davidson	Blast Response of Concrete Walls With Stay-in-Place Pvc Forms	NATO
<u>James K. Gran</u> , Bruce C. Patterson	Small-Scale Tests Of Blast Doors With Large Explosive Charges Outside A Tunnel	NATO
<u>Kenneth B. Morrill</u> , John E. Crawford	Analytic Modeling and Retrofit Design for Reinforced Concrete Columns Subjected to Near-Contact Satchel Charges	NATO
<u>Denis D. Rickman</u>	Results of Baseline Experiments: Breaching of Reinforced Concrete Walls with C-4	NATO
<u>Dr. Stephen A. Rinehart</u> , Dr. Robert J. Dinan, Mr. Jeff W. Fisher,	Full-Scale Design, Testing and Analysis of Reinforced Blast Resistant Windows	NATO
<u>Dr Jim Sheridan</u> , Maj Bob Sheldon	Ground Truth Assessment of Air Launched Weapons Effectiveness	NATO
<u>Elizabeth Trawinski</u> , Michael I. Hammons, Robert J. Dinan,	Blast Response Of Air Force Expeditionary Structures To Explosive Loading	NATO
<u>Jon Windham</u> , Donald Cargile, and Tracey Waddell	Magneto Inductive-Remote Activation Munitions System: COLD FIRE Concepts	NATO