

Michael B. Tegtmeier

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Employment

United States Army Research Laboratory,
Weapons and Materials Research Directorate, 2016–present.

United States Army Research Laboratory,
WIAMan Engineering Office, 2012–2016.

United States Army Research Laboratory,
Survivability/Lethality Analysis Directorate, 2005–2012

University of Delaware,
Research Assistant, 2001–2005

United States Air Force,
Reserves, 2000–2005

United States Air Force,
Active Duty, 1991–2000

Education

BS Computer Science, University of Delaware, 2005.

Research

Research Interests: Human tolerance to under-body blast (UBB) loading, shock physics signal and data analysis including software development, high-fidelity data-acquisition and metrology in the UBB, anthropomorphic test device (ATD) design, evaluation, and employment for the UBB environment.

Peer-reviewed Publications

1. Kerry A Danelson et al. “Comparison of ATD to PMHS Response in the Under-Body Blast Environment.” In: *Stapp Car Crash Journal* 59 (2015), pp. 445–520 John Paul Stapp Award, Best Paper
2. Ben Breech, Mike Tegtmeier, and Lori Pollock. “Integrating influence mechanisms into impact analysis for increased precision”. In: *Software Maintenance, 2006. ICSM’06. 22nd IEEE International Conference on.* IEEE. Sept. 2006, pp. 55–65. DOI: 10.1109/ICSM.2006.33
3. Ben Breech, Mike Tegtmeier, and Lori Pollock. “An attack simulator for systematically testing program-based security mechanisms”. In: *Software Reliability Engineering, 2006. ISSRE ’06. 17th International Symposium on.* IEEE Computer Society, Nov. 2006. DOI: 10.1109/ISSRE.2006.12
4. Ben Breech, Mike Tegtmeier, and Lori Pollock. “A comparison of online and dynamic impact analysis algorithms”. In: *Software Maintenance and Reengineering, 2005. CSMR 2005. Ninth European Conference on.* IEEE. Mar. 2005, pp. 143–152. DOI: 10.1109/CSMR.2005.1

Department of Defense Publications

1. Michael Tegtmeier. *WIAMan Technology Demonstrator Sensor Codes Conforming to International Organization for Standardization/Technical Standard (ISO/TS) 13499*. Tech. rep. ARL-TR-7619. US Army Research Laboratory, Mar. 2016
2. Christopher P Hoppel et al. *Workshop on Numerical Analysis of Human and Surrogate Response to Accelerative Loading*. Tech. rep. DTIC Document, 2014
3. Michael Tegtmeier et al. *Exploitation of a Generic Hull for Under-body Blast Injury Methodology Development*. Customer Report. U.S. Army Research Laboratory, July 2012

Workshop Publications and Non-proceedings Posters

1. Kerry A Danelson et al. “A Case Review Method to Determine Injury Mechanisms from In-Theater Attacks”. In: *Military Health System Research Symposium*. Kissimmee, FL, Aug. 2017

Invited Presentations

1. “Experimental Simulation of the Under-Body Blast Environment: Structure and ATD Response Considerations”, 2014 Virginia Tech - Wake Forest Advanced Technologies and New Frontiers in Military Injuries, Brain Injuries & Biomechanics Symposium
2. “Under-body Blast Test and Injury Assessment Methodology”, 2012 Virginia Tech - Wake Forest Advanced Technologies and New Frontiers in Biomechanics Symposium
3. “The WIAMan Development Program: Objectives and Rationale”, 2011 7th Annual Injury Biomechanics Symposium at Ohio State University
4. Bernstein S, Tegtmeier M., “Initial Characterization of Occupant Exposure during a Generic Underbelly Blast Event,”

Other Presentations

1. “Experimental Simulation of the UnderBody Blast Environment”, *Keynote* Workshop on Numerical Analysis of Human and Surrogate Response to Accelerative Loading (2014)
2. “Generic Hull 2 Test Results and Current Limitations of Injury Assessment Criteria and Methodology Using ATDs in LFT&E”, Army Technical Assessment Board (2012)
3. “WIAMan Baseline Environment (WBE): Loading Environment”, Netherlands Organization for Applied Scientific Research (TNO) and UK Defence Science and Technology Laboratory (2012)
4. “Joint Live-Fire Ground Systems Generic Hull 2 Test”, Netherlands Organization for Applied Scientific Research (TNO) and UK Defence Science and Technology Laboratory (2012)
5. “WIAMan Baseline Environment (WBE) and Current Limitations of Injury Assessment Criteria and Methodology Using ATDs in LFT&E”, Imperial Collage of London (2012)
6. “Overview of the Generic Hull Test Sponsored by Joint Live Fire (JLF) - Ground Systems”, Presentation to Hon. Michael Gilmore, DOT&E, Richard Sayre, Deputy DOT&E; Dr. Marilyn Freeman, DASA-RT; MG Dellarocco, CG ATEC; MG Gilman, CG MRMCMC; Dr. Paul Tanenbaum, Director SLAD; Dr. Frasier Glenn, Director, MRMCMC; Mr. Brian Simmons, Executive Technical Director, AEC; and COL Renta, Commander USAARL (2011)

Scientific Software

“SLAD Analysis of Manikin Data (AMANDA)”, ARL-SLAD primary signal analysis and assessment software for assessing injuries as measured by ATDs in Live Fire Test and Evaluation (Title 10, United States Code §2366)

Awards

National Defense Industrial Association (NDIA), Army Civilian Tester of the Year for 2012
Department of the Army Commendation, Special Act Award, 2011

Professional Activities

Associate Editor, SAE International Journal of Transportation Safety
Member SAE International
Member Society of American Military Engineers

Miscellaneous

Programming Languages: C/C++, Java, Matlab, L^AT_EX
Security Clearance: US Secret

Last updated: June 14, 2017