



Independent Technical Reviews

Non-Lethal Weapons Research and Technology Development

Industry Day

22 June 2012

Alicia Owsiak

Deputy Technology Division Chief

<http://jnlwp.defense.gov>



Background

- Independent review of Government-developed research and technology development plans and products is valuable in ensuring investments are worthwhile:
 - Technically feasible
 - Technically sound
 - Efficient
 - Effective
 - Not redundant
- The JNLWP often seeks facilitators and subject matter experts to organize, conduct, contribute to and report on technical reviews of JNLWP research and technology development plans and products.



Technical Objectives

- Utilize subject matter expert feedback to validate and/or guide research and technology development plans
- Review research and technology development products with respect to:
 - Technology effectiveness / applicability
 - Technical performance specs vs. requirements
 - Threat assessment analyses
 - System trade-off analyses
 - Data completeness / statistical significance
 - Methodology (risk of injury; effectiveness)
 - Model suitability / accuracy
 - Manufacturability
 - Systems engineering/integration
- Document and implement (as resources permit) subject matter expert findings



Relevant Work

- Human Effects Advisory Panel (HEAP)
 - Independent, 3rd party non-biased, blue-ribbon panel that conducts technical assessments of the DoD's non-lethal human effects research plans
 - Penn State University
 - Focus:
 - Identify recognized and credentialed non-biased personnel from industry, academia, and government agencies with relevant expertise
 - Facilitate panel meetings
 - Draft HEAP report based on panelist input
 - Example of recent HEAP topic:
 - Human Electromuscular Incapacitation Risk of Significant Injury Methodology



Relevant Work

- Technology Effectiveness Advisory Panel (TEAP)
 - Independent, 3rd party non-biased, blue-ribbon panel that conducts technical assessments of the counter-material or counter-personnel effectiveness of developmental non-lethal technologies.
 - Penn State University
 - Focus:
 - Identify recognized and credentialed non-biased personnel with the requisite system effectiveness testing expertise and/or system effectiveness evaluation expertise
 - Facilitate panel meetings
 - Draft TEAP report based on panelist input
 - Example of recent TEAP topic:
 - Laser Induced Plasma Effects



Research & Development Tasks

General types of tasks required for independent technical reviews:

- Conduct HEAPs and TEAPs
- Prepare paper study reviews of research and technology development plans and products
- Evaluate the technical effectiveness of a given system/stimuli in a particular mission
 - Modeling & simulation tools
- Assess technology manufacturability



Capabilities

General capabilities and expertise that may be required to execute planned independent technical review tasks:

- Engineers/scientists with a broad set of expertise spanning non-lethal technologies from blunt impact to directed energy
- Facilities and equipment to facilitate panel meetings
- Tools to conduct modeling & simulation-based technology effectiveness assessments
- Technical writers



Questions?

Please submit questions by 29 June 2012:

wesley.burgei@usmc.mil

and

alicia.owsiak@usmc.mil