



# *Non-Lethal Human Effects Fact Sheet*



<http://jnlwp.defense.gov>

## **Why Human Effects Testing?**

Non-lethal weapons are designed and primarily employed to incapacitate personnel or materiel immediately, minimizing fatalities, significant injuries to personnel, and undesired collateral damage. Part of the development process for any new non-lethal weapon is characterization of the target human effects, both from the standpoint of the effectiveness of the system as well as the risks. The Department of Defense guidance for this process is found in DoD Instruction 3200.19, *Non-Lethal Weapons (NLW) Human Effects Characterization*, which is available at <http://www.dtic.mil/whs/directives/corres/pdf/320019p.pdf>.

This process ensures the development and fielding of non-lethal weapons capabilities that meet the escalation-of-force needs of warfighters and enable confidence in the effectiveness and understanding of the risks. Human effects knowledge can support operational commanders by informing the development of non-lethal weapons tactics, techniques, procedures and training.

## **Human Effects Office**

The Joint Non-Lethal Weapons Directorate Human Effects office is responsible for the DoD processes and guidance on the human effects characterization process. The office manages a portfolio of Science and Technology and Research and Development projects to facilitate the development, acquisition and fielding of non-lethal weapons. The portfolio is used to develop an understanding of dose-response relationships and create models, surrogates and test targets. These are accomplished to support existing capability needs and DoD component development efforts. In addition, the office provides subject matter expertise to assist DoD component combat and materiel developers and program managers with requirements development, as well as research, test and evaluation planning and execution.

All Joint Non-Lethal Weapons Program-sponsored research is conducted in accordance with federal regulations and Department of Defense policy.

When commercial off-the-shelf non-lethal weapon technologies are considered for non-lethal mission application, human effects assessments are conducted to identify the technology's anticipated physiological responses and risk of significant injury to the target, bystander, and operator. This includes understanding any possible collateral effects with the use of the non-lethal weapon.

## **Independent Review Boards**

The JNLWP Human Effects Review Board independently reviews non-lethal human effects research and analyses associated with specific non-lethal weapon systems or technologies. The Human Effects Review Board consists of representatives from the Offices of the Services' Surgeons General, the Medical Officer of the Marine Corps, and the Services' Safety Officers and is chaired by the Joint Non-Lethal Weapons Directorate Human Effects Officer. The board provides non-lethal weapon program managers and milestone decision authorities with an independent assessment of human effects characterizations and plans.

Human Effects Independent Research Assessments are another form of peer review, supporting the JNLWP. Assessments may be conducted with non-governmental scientists and subject matter experts from academia, the medical community, and civilian law enforcement. They provide a technical assessment of specific non-lethal human effects topics and their conclusions and recommendations help address technical challenges, shape research plans and/or risk mitigation by non-lethal weapons program managers.

