

Human Effects and NLW Acceptability



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Non-Lethal Defense V Symposium
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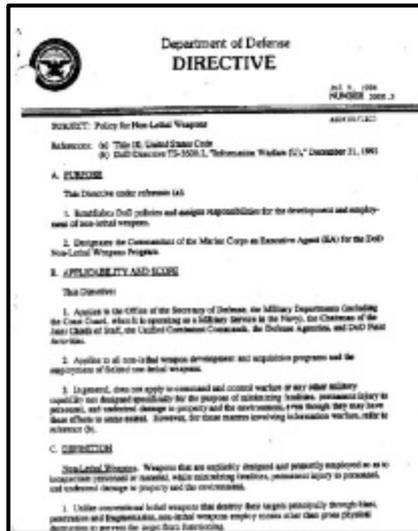
Purpose

- *Discuss* Human Effects characterization as the basis for NLW Acceptability
- *Provide* update on DoD NLW Human Effects process development
- *Highlight* the efforts of the JNLW Acceptability Advisory Team
- *Share* thoughts for Industry

The Guidance

DoD Directive 3000.3 Policy for Non-Lethal Weapons

*“Ensure that..NLW...satisfy the general requirements of technical feasibility, operational utility, and policy **acceptability**...”*



JNLWP Master Plan Goal 5: NLW Acceptability

*“Gain and maintain NLW **acceptability** in public, international and military communities.”*



The Challenge

- Introducing new capabilities into the commander's kit-bag that have non-traditional battlefield effects:
 - e.g., painful heating sensations; nausea





Human Effects

- For counter personnel NLW capabilities accurate and concise human effects information is critical for:
 - Determining target effects
 - Evaluating weapon effectiveness
 - Legal reviews
 - Policy decisions
 - Establishing user confidence





The end objective is pretty simple...



A user describing a lethal weapon:

“The M16A2 has a sustained rate of fire of 12-15 rounds per minute with a maximum effective range of 550 meters for a point target and 800 meters for an area target...”

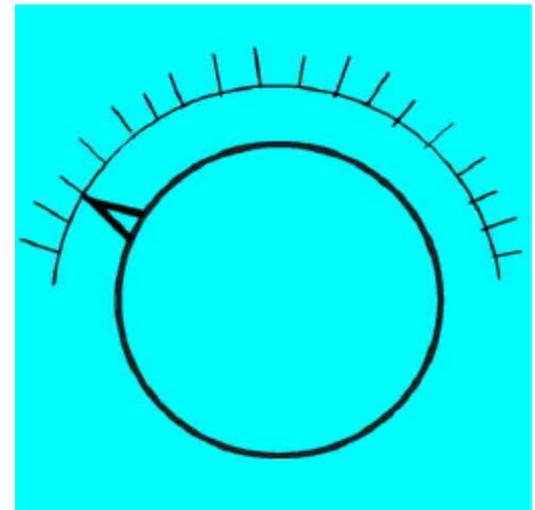


Bottom line: A user describing a non-lethal weapon must be able to do so with the same degree of confidence.



The NLW Dilemma

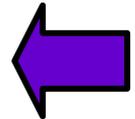
- Limited Data
 - As compared to lethal weapons that have 40-50 years of good animal data, modeling, and experience
 - NL weapons have very little data on their effects
- Limited Resources
 - Funding does not support unlimited research
 - Specific expertise in NL human effects is limited
 - DoD weapons PMs traditionally have no training in the life sciences
- New Parameters
 - Target Response
 - Variations among human population





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The First Step: Defining a Process for NLW Program Managers

In FY00 a **Human Effects Process Action Team (HEPAT)** was formed to determine the way ahead for NLW human effects characterization:

- All Service Surgeon General and All Service Acquisition Executive Offices participated





HEPAT Recommendations

- Establish a **Human Effects Review Board (HERB)**
 - Independent review
- Establish a **Human Effects Center of Excellence (HECOE)**
 - A “one stop shop” for NLW human effects information
- Establish a **Risk Assessment** approach for characterizing NLWs



Human Effects Review Board

- **Independent Review:**
 - Provide Program Managers and Milestone Decision Authorities with a *measure of risk* and *recommended actions to reduce the risk*
- Human Effects Review Board Membership
 - Chaired by JNLWD Health Effects Officer
 - One individual representing each service's Surgeon General to include The Medical Officer USMC
- 4 NLW acquisition programs reviewed to date



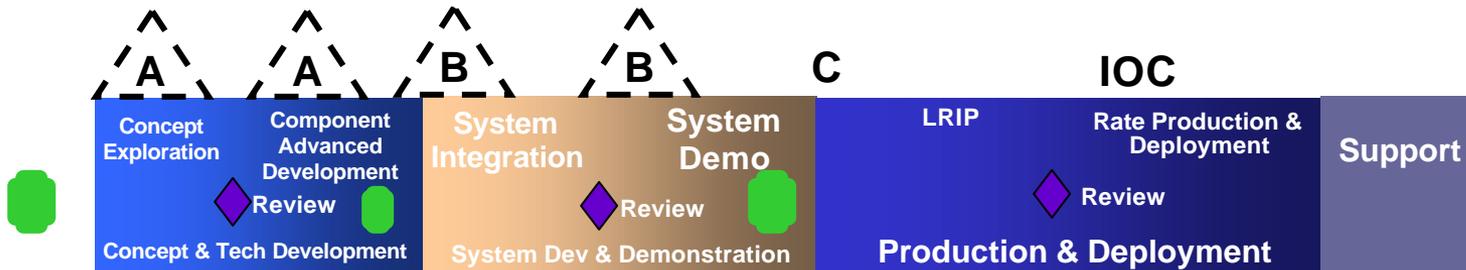


Human Effects and Systems Acquisition

Human Effects Review Board

Enumeration of risks

Recommendations to reduce or better characterize risks



Next step: Incorporation into appropriate acquisition regulations

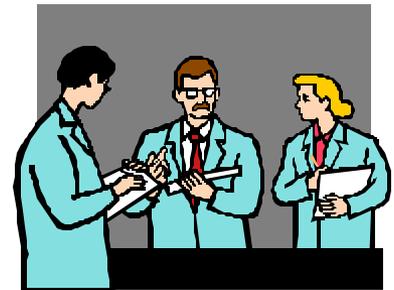


Independent Review x 2



- The JNLWD has also established a *non-government Human Effects Advisory Panel*
 - Convened at the discretion of the JNLWP
 - Coordinated through the Marine Corps Research University at Penn State University
 - Experts from around the country look at specific technologies or topics of interest

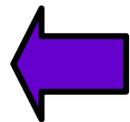
The HEAP provides a crucial, second opinion, that will support NLW acceptability





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NLW Acceptability: Pulling it all together

- An Acceptability Advisory Team has been formed to provide advice and recommendations to the Joint NLW Integrated Product Team
- The AAT brings together representatives from Policy, Legal, Public Affairs, and Security with the JNLWD and technology developers



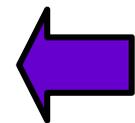
Acceptability Advisory Team

- As technologies, human effects data, and concept of operations mature, the AAT will provide advice and recommendations to the JNLW IPT on:
 - Policy
 - Is existing policy sufficient?
 - Is new policy needed?
 - Public Affairs
 - How best to balance the desire to inform and educate with security?



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Thoughts for Industry

- Human Effects Characterization is not just important...
 - It's CRITICAL
- Industry concepts for non-lethal counter-personnel capabilities must include projected *effects* and *effectiveness*
- Watch for the JNLWP solicitation for FY03 Technology Investment Projects:
 - More information will be posted on the JNLWD website in the near future:
 - <http://www.jnlwd.usmc.mil>

Summary



- Human effects characterization is the basis for NLW acceptability
- Our goals are to:
 - Ensure human effects are based on sound scientific principals
 - Use an independent review process
 - Educate and inform, within bounds of security, advances in NLW technology

Result ...Acceptability *and* User's Confidence