



# Joint Non-Lethal Weapons Program

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Third Quarter Fiscal Year 2006

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## Service Non-Lethal Capability Sets

The USMC and the USA have numerous Non-Lethal Capability Sets (NLCS) worldwide in support of peacekeeping and civil support missions, and the National Guard used their NLCS in support of hurricane relief efforts in 2006. These sets are a packaged suite of non-lethal weapons ready for deployment and use. In light of recent events, non-lethal capabilities are also expected to play a role in the National Guard's efforts to guard the U.S. border.



The USAF also aided humanitarian efforts when it provided NLCS to Pacific Air Forces (PACAF)

tsunami relief teams in 2005, as well as to hurricane relief teams in 2006. The USAF has also procured NLCS in support of homeland defense and civil support missions.

Although the USN does not currently have an established NLCS, it is working to create force protection kits that will include basic and special equipment kits. These kits will be available for ships and mobile security detachments. The USN currently uses their 12-gauge and 40mm Joint Non-Lethal Warning Munitions to warn off approaching small boats in the vicinity of ports and ships.

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## Joint Integration Program Demonstrations and Meetings

The Joint Integration Program (JIP), sponsored by the Joint Non-Lethal Weapons Directorate (JNLWD) acquisition division, is a program that provides a joint Service approach to the research development, testing, and evaluation necessary for the optimization of the Non-Lethal Capability Set (NLCS), held two vendor demonstrations and voting principal meetings in the first half of 2006. The meetings allowed the Services to provide an update on the status of their non-lethal capabilities, discuss new JIP candidate submissions, and attend vendor demonstrations of various non-lethal capabilities.

### **JIP 06-1**

The 06-1 demonstration meeting was held on 19 January 2006 at MacDill Air Force Base, FL. In addition to the JIP voting principals, several VIPs from Central Command and Special Operations Command attended the morning demonstrations. The demonstrations showcased a riot control agent (RCA) firefighting/high pressure capability water delivery system, an anti-personnel firefighting breaching system, batons and marking rounds, a 40mm multi-grenade launcher, and light and acoustic demonstrations.

Voting principal meeting highlights included the U.S. Air Force's (USAF) approval and deployment of the Tiger Light, a combination flashlight and oleoresin capsicum (OC) dispenser. The Tiger Light will most likely be the next item included in the USAF Non-Lethal Capability Sets (NLCS). Additionally, the U.S. Army conducted an evaluation on various batons and Tiger Light, with the results showing that the users preferred the Tiger Light.



In other Service briefs, the U.S. Coast Guard (USCG) reported that it received a \$1M plus up for development and testing of a Boat Trap capability in support of small vessel stopping, and the U.S. Navy (USN) reported that it is working to create a maritime force protection NLCS that includes a basic kit and a special equipment kit. The NLCS will be available for ships and mobile security detachments.

There were seven FY07 JIP candidate submissions. Of the seven, five submissions were approved for the FY07 budget: the launch cup (with adapters for all DoD/USCG shotguns), acoustic hailing devices (AHD), a multi-sensory body shield evaluation, and the harmonization of joint testing requirements.

### **JIP 06-2**

The second JIP meeting was held 23-24 May 2006 in Arcadia, CA. The range event was held at the San Gabriel Valley Gun Club in Duarte, CA. All of the Services' voting principals participated, as did representatives from the Services, Border Patrol, the National Institute of Justice, the Inter-Service Non-lethal Individual Weapons Instructor Course, and the Joint Non-Lethal Weapons Directorate (JNLWD). Multi-sensory grenades, shields, roadblocks, 40mm and 12 gauge warning munitions, re-loadable 40mm training ammo, hailing devices, computer based non-lethal training, and human electro-muscular incapacitation (HEMI) devices were demonstrated. All of these products are emerging commercial off the shelf (COTS) or near COTS. The attendees were encouraged to use the products, either on the range or in the range classroom. After the range, all of the participants visited Aardvark, the NLCS integrator, for a tour and briefing on the integration of the NLCS. A representative from Penn State University also briefed its non-lethal course offering.

## **Joint Integration Program Demonstrations and Meetings (continued)**

The voting principal meeting was held the following day, and the Services were given an opportunity to provide updates on their respective NLCS. Highlights from the meeting prompted the U.S. Marine Corps (USMC) to consider breaking out riot control gear separately from other NLCS items. The USCG reported that its research and development center has awarded three shoulder launcher Running Gear Entanglement System (RGES) contracts and testing of the device is ongoing. Additionally, the USAF will provide an Inter-service Non-lethal Individual Weapons Instructor Course instructor starting in FY08, and a USAF NLCS was recently sent to the schoolhouse at Ft. Leonard Wood. Candidate submissions included a reusable training munition and a portable entanglement device, and the voting principals discussed whether funding would be provided to enable a greater number of vendors to attend the demonstrations. If interested in participating, contact the JNLWD through the Web site, with "attn JIP" in the e-mail subject line.



## **Crowd Behavior Modeling and Simulation Conference**

The Joint Non-Lethal Weapons Program and the Air Force Research Laboratory (AFRL), Human Effects Directorate, hosted a Crowd Behavior Modeling and Simulation Conference in May, 2006 in Arlington, VA. The forum was an opportunity to foster a greater understanding of current and future research projects in crowd behavior. Highlights of the conference included modeling analysis and simulation, application of current research findings, and a panel discussion that allowed attendees to engage with those on the front line of crowd engagements.

The distinguished panel consisted of subject matter experts in domestic and international scenarios and included military and law enforcement personnel experienced with crowd tactics and procedures. The panel experts were familiar with missions requiring crowd management in scenarios as diverse as sporting events, public demonstrations, and riots in Northern Ireland.

Crowd management is one of the functional areas identified by the JNLWP within the categories of counter-personnel and counter-materiel capabilities. "Some non-lethal weapons are explicitly applicable as counter-personnel capabilities suitable for a single target or crowds," said Col David Karcher, Director of the Joint Non-Lethal Weapons Directorate. "These non-lethal weapons provide the commander flexible options, both in time and range, to answer the diverse and challenging missions facing our forces."



LtCol Mark Coast (USMC), who recently returned from a seven-month deployment in support of Operation Iraqi Freedom, was the keynote speaker. "There are ways to decipher the adversary by his shoes," he said. "Belligerents wear shoes rather than sandals for an easier getaway. An adversary can gain strength by blending into a crowd, causing a greater challenge to identify the non-compliant target." LtCol Coast shared several

## **Crowd Behavior Modeling (continued)**

additional thoughts with regard to employment of non-lethal weapons in crowd scenarios:

- The three-block war prevails today and reinforces that non-lethal weapons should never be applied in lieu of lethal force.
- Never issue an idle threat; be prepared to follow through with any proclamation made.
- Always have an egress plan, even when the mission calls for crowd interaction.
- Non-lethal weapons can help bridge the communication gap in certain cultures and scenarios; they serve as a non-verbal means to communicate your mission.
- Never allow a crowd to dictate your mission.
- Look for non-verbal cues that indicate an instigator amongst the crowd.
- Crowds are fluid groups of people; different cultural, hallmarks, geographic terrain, size, weather, and language help determine whether they disperse or swell.
- Never be your own worst enemy and engage with a non-lethal weapon at the wrong time; know the timing limitations between non-lethal and lethal force.

Throughout the conference, the most common talking-point was the need to identify individuals with their own agendas as early as possible to prevent a situation from escalating. Experts in this field agree that culture, context, and nature of the crowd, as well as tactical objectives all factor in the selection of the most appropriate non-lethal weapon. Generally speaking, the non-lethal options that provide the greatest stand-off range have been the most appealing because they allow officials to modify behavior without compromising their safety and that of any bystanders. However, the single biggest factor affecting the application of a less lethal option has nothing to do with the device itself, but its availability, according to Charles “Sid” Heal, Commander, Los Angeles Sheriff’s Department. “During the 1992 riots in Los Angeles,” he said, “we had many stingballs but they were stored at headquarters and not in the field. Consequently, they were, for all intents and purposes, unavailable. Late is the same as absent.”

Today’s warfighter is constantly shifting gears, and non-lethal weapons provide the flexibility that enables them to respond appropriately. “There is no non-lethal or lethal mission, there is only a mission,” said LtCol Coast.



## **JCIG/IPT Meeting Dates**

The next Joint Coordination and Integration Group (JCIG) meeting will be held on 15 August 2006. The purpose of the 0-6 level meeting will be to make recommendations on the JNLWP's funding for FY07. The next Flag Level Integrated Product Team (IPT) meeting will be held on 7 September 2006 at the Pentagon from 1300 to 1500. The purpose of this meeting will be for Service Flag Level officers to endorse the funding decisions and the future strategy of the JNLWP.

## **Welcome to the New IPT Members**

The JNLWD is pleased to welcome the new IPT members from the USN, USCG, USMC, and USA.



The new USN IPT Voting Principal is USMC Major General Thomas A. Benes. During his tour as Commanding Officer, Marine Aircraft Group-31 squadrons participated in combat operations in the Persian Gulf aboard Navy carriers and in Hungary for Operation Allied Force. Maj Gen Benes' other duties included a tour as Chief of Staff, Combined Forces Land Component Commander, Camp Doha, Kuwait, and participation in Operations Iraqi Freedom and Enduring Freedom.

Rear Admiral Wayne Justice, Director of Operations Policy, is the new USCG IPT Voting Principal. RADM Justice oversees the development of doctrine and policy guidance for all Coast Guard forces, enabling them to effectively and efficiently accomplish operational maritime missions in the areas of search and rescue, law enforcement, defense operations, and incident management. RADM Justice graduated with a Bachelor of Science degree in Management from the Coast Guard Academy in 1977 and received a Masters in Human Resource Management with honors from Nova University during his Operations Center tour in 1983. He graduated from the Naval War College with a Masters in Strategic Studies in 1996.

The new USMC IPT Voting Principal is Brigadier General Thomas Conant, who is presently serving as the Director of the Capabilities Development Directorate, Marine Corps Combat Development Command. Brigadier General Conant has participated in various operations overseas to include the evacuation of Liberia (Operation Sharp Edge), contingency operations in Haiti (Operation Support Democracy), and peacekeeping operations in Somalia (Operation Restore Hope and UNOSOM).



The USA's new IPT Voting Principal is Brigadier General Pete Palmer, who is returning from his tour as Assistant Division Commander, 1st Infantry Division, United States Army Europe and Seventh Army.

## Non-Lethal Weapons in Joint Urban Operations

The explosive growth of the world's major urban centers, changes in enemy strategies, and the Global War on Terrorism have made the urban battle space increasingly decisive and virtually unavoidable. The requirement in urban battle to generate precise, overwhelming engagement effects while minimizing civilian casualties and destruction of infrastructure calls for the carefully balanced and correct choice of weapons. This drives the demand for non-lethal weapons and capabilities. Warfighters need organic and extended range NLWs and capabilities to apply appropriate force levels across the Range of Military Operations (ROMO).

NLWs can be used on their own or in conjunction with lethal systems to enhance the effectiveness and efficiency of lethal engagements in military operations. The Joint Urban Operations Office (JUOO) NLW team contributes to the development and fielding of NLW systems to meet the Joint Force Commander's requirements. The team seeks to advance the concept of non-lethal capabilities as viable and complementary to lethal fires across the ROMO in the urban fight.



This mission is accomplished through the following objectives:

- An aggressive program of initiatives to enhance the commander's awareness of and confidence in NLW and their capabilities.
- Development of seamless and integrated urban operations capabilities to stop vehicles, clear facilities/structures, and deal with crowds in and outside of buildings.
- New innovative approaches to integrating NLW in joint urban operations through Joint Concept Development and Experimentation.

The combined efforts of the JUOO and the Joint Non-Lethal Weapons Directorate will deliver needed results to arm warfighters with the flexibility of lethal and non-lethal weapon systems whose reversible and scalable effects can successfully engage our most determined urban adversaries while limiting unintended consequences to personnel, infrastructure, and the environment.



## Conference Investigates the Future of HEMI

The Joint Non-Lethal Weapons Program hosted a Human Electro-Muscular Incapacitation (HEMI) conference in April 2006 to provide industry, subject matter experts, and Service representatives an opportunity to review current state and future plans for HEMI systems in support of Department of Defense missions. The conference covered topics such as current legal, treaty, and policy issues.

“Warfighters are becoming more knowledgeable about HEMI systems and their employment capabilities but want greater range and duration of effect,” said Col David Karcher, Joint Non-Lethal Weapons Director. The range for current HEMI systems is less than typical rock throwing range.

The overriding consensus by the conference participants is that HEMI devices have been shown to be generally safe and effective. “Once you are exposed to a HEMI device you know it,” said LTC Raymond Smith, Deputy Director of the Joint Non-Lethal Weapons Directorate. “The temporary incapacitation gives you time to re-evaluate your intent and whether or not to become compliant. Not only does the technology work but it’s convincing.” A few peer reviewed publications about this technology have been published, but to help clarify the information in the public domain, more independent health effects studies will be required along with increased data collated about ‘successful’ HEMI employments.

To help pave the road ahead for HEMI constituents, three separate working groups were organized during the conference. Each group focused on one aspect: policy, requirements and hardware development, or bio-effects. This allowed the working groups an opportunity to identify the issues associated to each area and narrow down concrete tasks that would advance each area toward further integration of HEMI systems into the warfighter's arsenal. A similar conference focusing on HEMI technologies is planned for FY07.

### UP COMING EVENTS:

- ◆ Joint Coordination & Integration Group Meeting - 15 August 2006 @ American Systems, Dumfries, VA.
- ◆ JNLWD Training Day - 30 August 2006 @ American Systems, Dumfries VA.
- ◆ JNLWD Demonstration Day - 31 August 2006 @ Quantico Marine Base, Quantico VA.
- ◆ JNLWP Integrated Product Team Meeting - 7 Sept 2006 @ Pentagon
- ◆ USN NLW/C Integrated Concept Team Meeting (CFFC N8/N3AT) 13 - 15 Sept 2006 @ Norfolk, VA.

For more information about these events contact the Webmaster: <https://www.jnlwp.com>

