



Non Lethal Capabilities Update

NDIA Joint Armaments Forum & Exhibition Unconventional and Emerging Armaments Section

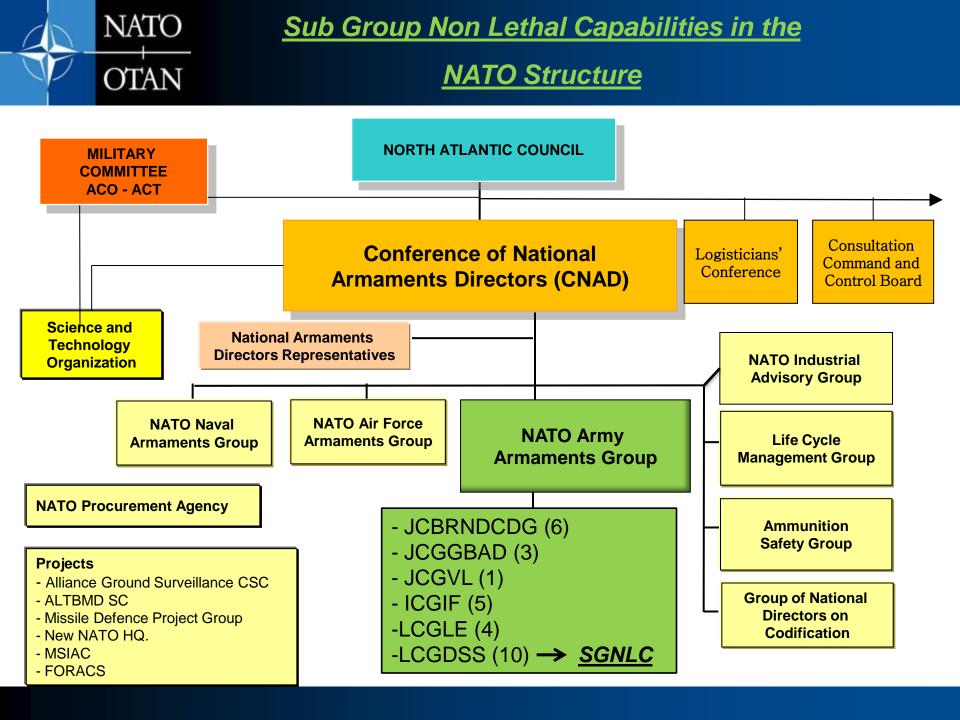
May 14, 2014

Approved for public release; distribution is unlimited.



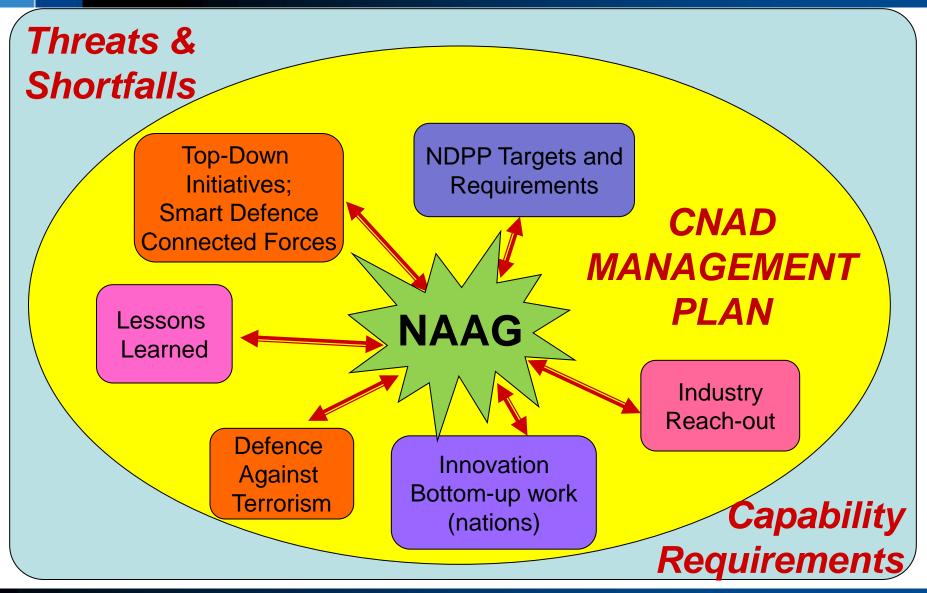


- Non Lethal Capabilities within NATO
- NATO Process and Interactions
- Non Lethal Capabilities Focus Areas

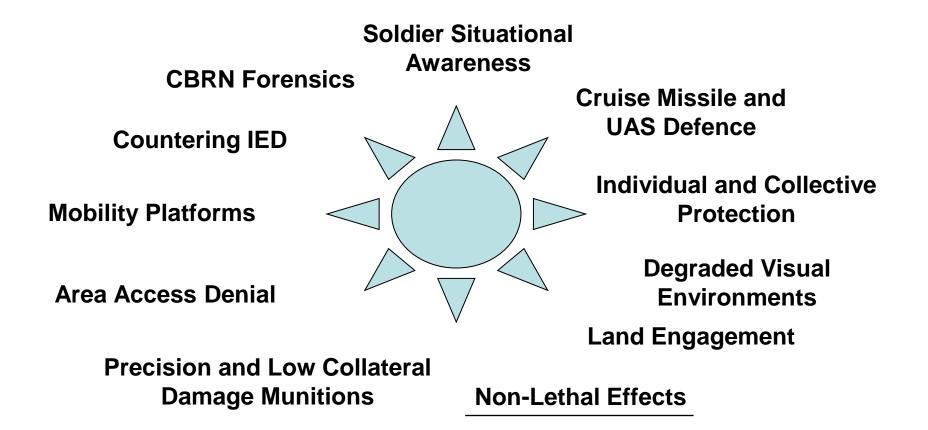


OTAN NAAG POW SOURCES

NATO







NAAG WORK METHODS & PRODUCTS

STANDARDS (+/- 150 STANAG/STANREC(s) COORDINATED REQUIREMENT DOCUMENTS TRIAL, DEMO REPORTS NAAG-SPONSORED INDUSTRIAL S&T PUBLICATIONS

DECISION SHEETS DOCUMENTS

Formal Meetings

Informal Teams

NATO

OTAN

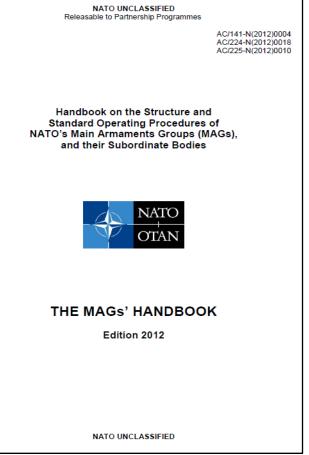
- Documentation, Publications
 - Web Portal/Internet
- Liaison, Cross Fertilization with other

Bodies/Organizations/Military Commands

- Workshops/Seminars
- **Trials/Demonstrations/Exhibits**
 - Use of NIAG, STO



NATO Main Armament Group's Handbook – 2012



- Foster exchange of Information
 - Promote technical Standardization, Interoperability and Integration
 - Identify and promote Technical advancements
 - Plan/direct/coordinate subordinate groups
 - Liaise with all relevant organizations
 - Within NATO
 - Outside EU, NGOs, Industry, etc



Land Capability Group Dismounted Soldier Systems Sub Group on Non-Lethal Capabilities

Terms of Reference

✤ Focal point for all activities related to Non-Lethal Capabilities (NLC) in the NAAG.

Responsible for NLC across the full spectrum of military operations and operating environments.

✤Joint and three-service focus within Nations and CNAD.

Supports all NATO Essential Operation Capabilities (EOC), in particular
"Force Protection" and
"Effective Engagement".



Near Term Objectives

- NATO Strategy "Smart Defense"
- Active Engagement
- Building Capability Through Multinational Approaches
- Connected Forces Initiatives
- Even more Interoperability
- Lessons from Current Operations

NATO NATO Non Lethal Capabilities Progression OTAN

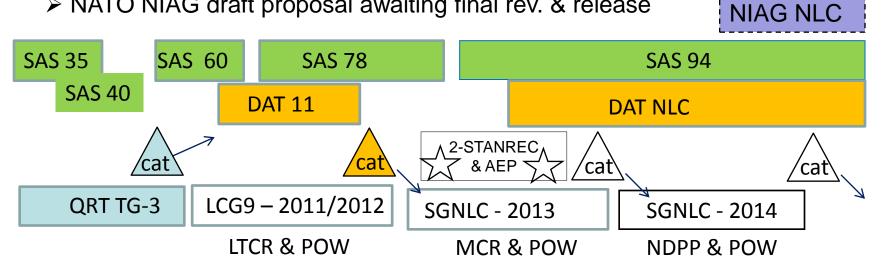
NATO Non Lethal Capabilities initiated under a Quick Reaction Team. transitioned to Topical Group 3

>NATO supports

NATO's Research & Organization (RTO), Systems Analysis & Studies Panel support to develop common, interoperability and standardization addressing Non Lethal Capabilities

> NATO's Emerging Security Concerns (ESC) Defense Against Terrorism initiates DAT 11 on Non Lethal Capabilities with focus on TRL 7-9 for ISAF

NATO NIAG draft proposal awaiting final rev. & release



NATO NLC Interoperability Recent Activities

Updated

Non Lethal Catalogue

20				nini R Z	*) 18 * (11	ii - K - h+ -		en) (fritten find		A	Han In	at Crit Basel		utitian * 27 GR		
Channa A 1	80.		•	-	Fort Sc. P.		74	Narset	- Pa.	itedar %	States		Cett	Litting		
	-				20.00	10							0			_
	MIX	à	Å.	-	Printer.	Secondary .	Teasugase	Passag Targe	Talant	LOGAL C		Producer Woden	ALCONTRACT	Samary Apasars	-	10
	×	×	Τ	Т	0		40en (S	31-60	ann acht	Properties Individuals		AAGES/48 mm RuteGrive-5 CS 30-85 m				Т
		×			0*	1	40mrc8	45.90	area larget	Proporties individuals	AL!!	ARDES / All rain RUISE-OPER-J CS XOIN #				T
	è		Τ	Т	09	1	40mm Sporge Granade		beau sola	Propertale relyticate	ALT	ADSES/43 mm Impuis/Organ				Т
	÷			Τ	ੱ		S2.7mm Rubber Lube:		free period	Population	407	Konstration Nations Antoinet				Τ
			1	T	o"		field Departed		accurde.	Populari	ALT	Berthart				T
		×	1	T	9		CS Dispersor	- u	area la Qui	Vopelas rovices	447	SWOUT				Т
		×	1		0		Calcur Onpersier	0	ana jarjat	Incogectaria individuale	ALT	THERAPT				Т
		×		T	02		CS Dispenser Phthespay -	5.10	848.36.Dig	Popular obviore	ALT	Det.Test Freibetessekadhe saetlacie/USJ				T
_							Early, retraction	1	peird terant	In capacitais individuals						-
_			-1	1			CS hand granade	25-50		incapectate relythese	55.	ALSZTEX	1200-14-053-0049			- 10
			×	•	0		Hand Gran Fleith & Earls	20-50	No. of the sea	Properties retritues	8E.	190	YEO			Т
_			_	_	0*		CE Chan Rife STU	190,208	weeterget	1-110-5-1984	. 951.	HECHPINY	1336.13.116.3583			_
_		×	_		0		40 mm CS He pres	86.150 5-36	area larged	Proportele relyticate	881.	Mermetal SCO / C5 35-P TRO	780			1
_		_	_	-	0		Aller Service and Aller	500	persianal.	Incepacible individuals		180	160			-
11.6	aister.	2.58	tin	1	00		14,071 1997 5 1991	1	. CO.K.M.	PORCHART CONTRACT	- Mi-			VIE CE CE VAN	10 M	nim





Defence Against Terrorism Program of Work #11 Non-Lethal Capability

DAT 11 Catalogue

Version – 29 January 2011



High TRL 7-9 for ISAF

STANREC 4729 & AEP 74 Performance of Non-Lethal Land vehicle Arresting Device

Completed



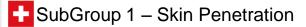
Captured vehicle (by vehicle arresting net)

NATO Multi National Approach Tier II effort highlight

2 of 5 Chapters submitted

STANREC 4744 & AEP 94 Non Lethal Kinetic Energy Methodology

Blunt Trauma Experts



SubGroup 2 – Head Impact

SubGroup 3 – Chest Impact

SubGroup 4 – Abdomen Impact

SubGroup 5 – Accuracy



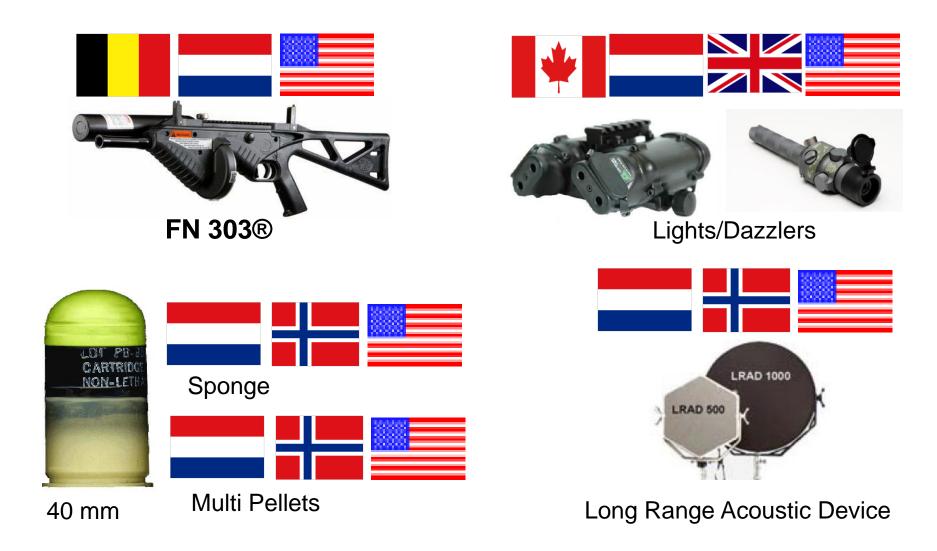
•Leveraging US JNLWD Advanced Total Body Model



Additional Experts from
Soldier CCIEP Group



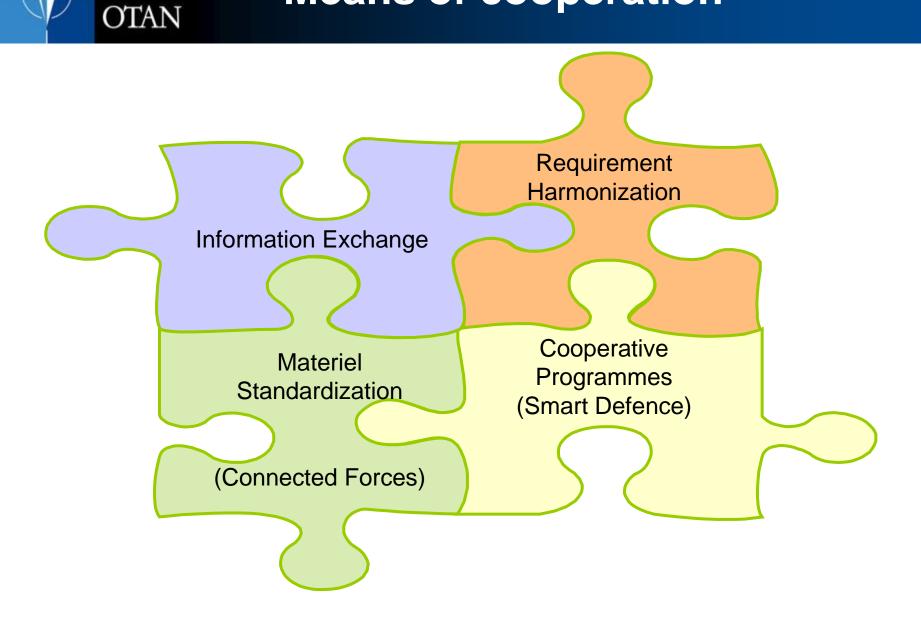
Examples of Non Lethal Multi National Approaches



Approved for public release; distribution is unlimited.

Means of cooperation

NATO





NATO Non Lethal Capabilities

THANKS FOR YOUR ATTENTION!

Approved for public release; distribution is unlimited.

Name: John H. Edwards

Phone Number: (973) 724-3794

Organization Representing: NATO Army Armaments Group, Land Capability Group Dismounted Soldier System, Sub Group on Non Lethal Capabilities

Parent Organization: US Army Armament Research, Development and Engineering Center ATTN: RDAR-EIJ, Picatinny Arsenal, NJ 07806

Email: john.h.edwards7.civ@mail.mil