Small Arms in NATO Transformation

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Chairman NATO AC225 Land Group 1
Dismounted Soldier Systems
Need to Transform

Need underlined by the attacks of 11 September 2001

• Only venue for strategic coordination of transatlantic partners.

• To be relevant it must continue to serve as the foundation of the allies security.

• It must be a principal international agent for stability and democratic reform throughout a wider area.

• Reform will impact NATO’s:
  • Tasks
  • Membership
  • Relationship with partners, other nations and organizations
  • Ability to conduct modern military operations across full spectrum of Alliance missions

Land Group 1 on Dismounted Soldier System
**NATO STRUCTURE**

**Military Structure**
- Units under NATO Command
- Units dedicated to NATO use.
- Army, Air Force, Navy.

**Civilian Structure**

Land Group 1 on Dismounted Soldier System
Military Transformation

- NATO Top priority
  - Streamline the command structure
  - Improve the development of military capabilities on focused critical areas.
  - Create a rapid NATO Response Force
Military Transformation

• NATO Top priority
  • Streamline the command structure
  • Improve the development of military capabilities
  
  • Create one operational strategic command
  • Allied Command Operations (ACO)- Castreau Belgium
    • Land Based Combined Joint Task Force
    • Sea Based Combined Joint Task Force
    • Limited standing Joint Headquarters
  
  • Create one functional strategic command
  • Allied Command Operations (ACT)- Norfolk VA
  • Drive transformation
  • Identify needs and future capabilities

Land Group 1 on Dismounted Soldier System
NATO Response Force (NRF)

Previous NATO Maritime and Air Forces were by nature highly mobile, Land based assets were not.

NRF = 25,000 Joint Multinational Troops
- Technology advanced
- Deployable within 5 days
- Sustainable for 30 days
- Trained and equipped to common standards
- Initial operational capability October 2004
- Fully operational October 2006
Civilian Transformation

Infantry Reorganization 2006

- Create Land Group 1 Dismounted Soldier Systems
  - Utilize recourses for Topical Group 1
- Disband Land Group 3 Close Combat Infantry
  - Small Arms weapons to Land Group 1
  - Canon weapons to Land Group 2
- Move SG/1 Ammunition Interchangeability from Land Group 3 to Land Group 1

- All small arms work is now under one group with a system perspective
Civilian Transformation

Council of National Armaments Directors

- Army Armaments Group
- Navy Armaments Group
- Air Force Armaments Group
- Research & Technology Organization
- Industrial Advisory Group

- Need a structure that is better aligned with the Allied Command Transformation to address their future needs.
- Focus
  - Capabilities based structure
  - Joint structure where appropriate.
# CNAD Implementation Plan

## Capability Management Framework

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<td>LCG1 Soldier</td>
<td>MCG1 Above Water Engagement</td>
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Transformation

Implications on Small Arms

• All small arms activities are now focused under Land Group 1

• Military transformation will result in identification of actual military needs.
  • More top down guidance
  • Long Term Capability requirements
  • Small Arms needs at the system level

• Civilian transformation to a capabilities based and joint structure
  • Major impacts to some current Land Groups
  • Minor impact to Land Group 1
  • Will become Land Capabilities Group 1 –Soldier
    • Increased responsibilities of training, TTPs etc
Land Group 1 Management

- **Chairman**
  - Vernon E. Shisler – USA

- **Deputy Chairman**
  - Koos Meijer – NLD

- **Rapporteur**
  - Maj Paul McNicholas – GBR

- **NATO Staff Support**
  - Hugues Briche – NATO

- **Land Group 1 US Delegation**
  - Ross Guckert - PEO Soldier – HOD
  - Pat Berger - TSM Soldier
Current Land Group 1 Structure

- **Soldier Capabilities & Assessment**
  - COL Eric Bellot des Minieres - FRA
- **Combat Clothing Individual Equipment & Protection**
  - Henk Reulinmk - NLD
- **C4I & Systems Architecture**
  - Rune Launsund – NOR
- **Weapons & Sensors**
  - Per Arvidsson - SWE
  - Mark Richter – USA
  - **US Delegate** – Kori Spiegel
- **SG/1 Ammunition**
  - COL Dirk Hemerlick – BEL
  - **US Delegate** – Sandy Geddes

**Ad Hoc Team Teams**
- **Power**
  - Jason Reigner - USA
- **Head Borne Systems**
  - Dr. Wouter Lotens - NLD

Land Group 1 on Dismounted Soldier System
Current Land Group 1 Directives

- Long Term Capability Requirements from the Allied Command Transformation
  - MF12/1 Non-Lethal Weapons & Low-Collateral Damage Precision Guided Munitions
  - MF12/3 Individual level NATO Network Enabled Capability
  - MF12/6 Integrated Personal Protection
  - MF12/9 Control of Crowds in Urban Areas
Specific Work of Land Group 1

Network Enabled Capability

- Develop the ability to exchange tactical map information and individual soldier positional information at the soldier level

- Demonstrations:
  - Rome Oct 2003
  - German Infantry School Oct 2004
  - French Infantry School Oct 2005
Specific Work of Land Group 1 (cont)

**Plugs & Connectors**

- Phased approach
- First Priority: the ability to share battlefield power of draw power from national power grid
- Agree on common plugs and connectors
- Establish connections in infantry vehicles and helicopters.

**Deutsch Warrior Programs Connectors**

**Tomorrow’s Infantry Warrior - Solutions**

- Composite connector with metallisation
- Lanyard push-pull locking system
- Sealing conductor gasket
- Easy mounting (no tools)
- Connector sealed when mated and unmated
- Lanyard push pull locking system
- Dead face protection system
- More than 5000 mating mates and de-mates already tested
- Quick release and push pull connectors already developed for Soldier systems programs
- Sealed connector rear ends to avoid water ingress when being cleaned
- Contact will accept multiple wire sizes 28 to 22 AWG
- Fully tested to meet the needs of our military customers
- Colour coding is possible

**Mighty Mouse 80 series connectors for Soldier Systems**

- Connector mating of up to 5000 mates and de-mates already tested
- Quick release and push pull connectors already developed for Soldier systems programs
- Sealed connector rear ends to avoid water ingress when being cleaned
- Contact will accept multiple wire sizes 28 to 22 AWG
- Fully tested to meet the needs of our military customers
- Colour coding is possible
Specific Work of Land Group 1 (cont)

Other Work

- Ability to share battlefield power at individual level
- Identify and standardize common components and modules
- Combat clothing individual equipment and protection.
- Develop scenarios and rationale for interoperability work
Specific Work of Land Group 1 (cont)

**Small Arms Work**

- Certify Ammunition as “NATO Interchangeable”
- Authorize the application of the NATO symbol of interchangeability
- Operate the
  - European Regional Test Center (Pendine GBR)
  - North American Regional Test Center (Lake City AAP USA)
- Maintain Test procedures and standards
- Conduct surveillance tests to assure maintained interchangeability
- Certify national test centers
Specific Work of Land Group 1 (cont)

**Small Arms Work**

- Investigating interoperability between the different weapons attachments
- Standardization connecting and power sources
Specific Work of Land Group 1 (cont)

**Small Arms Work**

- What are the interface issues with other soldier equipment
- NATO RTO Study under the Systems Concepts & Integration Panel
- Deliver a Technical Report by Dec 2008 addressing issues of:
  - Weapons interfaces
  - Human Factors & analysis
  - Electrical Power
- Firing tests conducted at Quantico May 05, May 06
Specific Work of Land Group 1 (cont)

**Small Arms Work**

- Non Lethal Systems
- NATO NL Capabilities Set
- Develop an effects based capabilities list
- Agree Non lethal terms and definitions.
- Addressing impacts of future national programs
Specific Work of Land Group 1 (cont)

Work with Industry

- NATO Industrial Advisory Group (NIAG)
- Study Title: Integration of C4I on Soldier Systems
- Budget Estimate: €300,000
- Duration April 06-March 07
- First meeting 30 March 06

Purpose: A pre-feasibility study for an autonomous, covert system to: draw information from a central Common Operating Picture for dismounted systems….facilitate automatic transfer of intelligence, target information etc
Specific Work of Land Group 1 (cont)

Work with Industry

- NATO Industrial Advisory Group (NIAG)
- Study Title: Interoperability for the soldier Systems
- Budget Estimate: €150,000
- Duration April 06-April 07
- First meeting 31 March 06

Purpose: To study the issues and potential standards associated with interoperability of various soldier system components. Identify potential standards…technical benefits and shortcomings …
NATO is undergoing a rapid transformation

Land Group 1 will become Land Capability Group 1 next year.

All small arms and dismounted operations are in one place

Allied Command Transformation is engine for change.