NORTH ATLANTIC TREATY ORGANIZATION
ORGANISATION DU TRAITE DE L’ATLANTIC NORD
AC/225 Land Capability Group 1
Dismounted Soldier

Vernon E. Shisler
Chairman
NATO Army Armaments Group

AC/225 Army Armaments Group

LCG/1 Dismounted Soldier
- SG/1 Ammunition Interoperability
- SG/2 Accuracy, & Ballistics
- SG/3 Physical Protection
- SG/4 Detect/ID/Monitoring
- SG/5 Hazard Mgt
- SG/6 Rad/Nuc Defence
- SG/7 Challenge

LCG/2 Combat Manoeuvre
- SG/1 Ammunition Interoperability
- SG/2 Weapons & Sensors
- SG/3 C4I/Architecture
- SG/4 CCIEP
- SG/5 SCAG

LCG/3 Fire Support
- SG/2 Accuracy, & Ballistics

LCG/4 Ground Based Air Defence
- SG SIBCRA
- SG Physical Protection
- SG Detect/ID/Monitoring
- SG Hazard Mgt
- SG Rad/Nuc Defence
- SG Challenge

JCG Joint CBRN Defence
- SG SIBCRA
- SG Physical Protection
- SG Detect/ID/Monitoring
- SG Hazard Mgt
- SG Rad/Nuc Defence
- SG Challenge

LCG/6 STANOC & Electronic Warfare
- SG SIBCRA
- SG Physical Protection
- SG Detect/ID/Monitoring
- SG Hazard Mgt
- SG Rad/Nuc Defence
- SG Challenge

LCG/7 Battlefield Mobility & Support

LCG/8 Tactical Air Mobility & Support

TG/3 Military Operations in Urban Terrain (MOUT)

Land Capability Group 1 on Dismounted Soldier
LCG/1 and Sub-groups

LCG/1
On Dismounted Soldier Systems

SG/1
On Ammunition Interchangeability

C4I & Systems Architecture Group

Combat Clothing
Individual Equipment & Protection Group

Soldier Capability Analysis Group

Weapons & Sensors Group

Land Capability Group 1 on Dismounted Soldier
Land Capability Group 1 Management

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

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

- **NATO Staff Support**
  - Marie-Claire Mortier – NATO

- **Land Group 1 US Delegation**
  - COL Richard Hansen – PM Soldier Warrior – HOD
  - Mark Richter - MARCORSYSCOM
Current LCG/1 Sub – Group Structure

- **Soldier Capabilities & Analysis**
  - LtCol Mike Bodner – CAN Chairman

- **Combat Clothing Individual Equipment & Protection**
  - Henk Reulink – NLD Chairman
  - Dan Fitzgerald – USA Deputy

- **C4I & Systems Architecture**
  - Rune Launsund – NOR

- **Weapons & Sensors**
  - Mark Richter – USA Co-Chairman
  - Per Arvidson – SWE Co-Chairman
  - **US Delegate** – Kori Spiegel

- **SG/1 Ammunition**
  - COL Dirk Hemerlick – BEL Chairman
  - John Allen – GBR Superintendent ERTC
  - Dominic Pellegrino – USA Superintendent NRTC
  - **US Delegate** – Sandy Geddes

Key USA Small Arms Players

Land Capability Group 1 on Dismounted Soldier
Specific Work of LCG 1

Soldier Capability and Analysis Team

- Serve as oversight and provide operational direction to LCG/1
- Develop Operational Scenarios of coalition interoperability at the dismounted individual level
- Provide rationale for work
- CAN has assumed Chair
- Completed 3 Dismounted Coalition Scenarios
  Approved by ACT Feb 2007
- Completed an Overarching Definition and Capabilities document
  Approved March 2007
Specific Work of LCG 1

Combat Clothing Individual Equipment and Protection Team

- Group is addressing LTCR MF/12/6 Integrated Personal Protection (one of the CNAD top 15)
- Ballistic Test Methods for Personal Armour Materials
- Updating Laser eye Protection

Approved March 2007
Specific Work of LCG 1

C4I / Systems Architecture Team

- 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 LCG 1

C4I / Systems Architecture Team (cont)

➢ “Electrical Connectivity Standards for Dismounted Soldier Systems”
  Approved March 2007

➢ “Information exchange data definitions & inter-process communications protocols between dismounted soldier battlefield management systems”
  Approved March 2007

➢ “Connectivity Standards for soldier battle management systems”
  Approved March 2007

Tomorrow’s Infantry Warrior - Solutions

Deutsch Warrior Programs Connectors

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 connectors allow units 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 LCG 1

Weapons & Sensors Team

- RTO Study initiated to address issues associated with:
  - Weapons interfaces
  - Human Factors & analysis
  - Electrical Power

- Firing tests conducted at Quantico May 05, May 06

- Deliver a Technical Report by Dec 2008

- Effort will form basis for future work

- Coordinating future national weapon studies, taking proactive approach to future programs like US LSAT
Specific Work of LCG 1

Sub Group 1 Ammunition Interchangeability

- Qualify NATO Ammunition designs
- Certify NATO Interchangeability
- Operate NATO Regional Test Centers
- Certify National Test Centers
- This year
  - Qualified 4 new 5.56mm ammunition designs
  - Qualified 4 new 7.62mm ammunition designs
  - Conducted production tests on 14 approved designs
  - Revised the list of NATO nominated weapons
  - Completed a draft STANAG and MOPI for 30mm
  - Two national test centers certified for selected calibers
Specific Work of LCG 1

Work with Industry NIAG SG102
(21 companies from 11 nations)

- NATO Industrial Advisory Group (NIAG)
- Study Title: Integration of C4I on Soldier Systems
- Budget Estimate: €300,000
- Completed March 2007

Scope of Work: Study soldier interoperability issues, focus on data modeling and distribution.
Specific Work of LCG 1

Work with Industry SG103
(18 companies from 8 nations)

- NATO Industrial Advisory Group (NIAG)
- Study Title: Interoperability for the soldier Systems
- Budget Estimate: €150,000
- Completed April 2007

Scope of Work: Study soldier interoperability issues, focus on lower level interoperability -modules and connectors.

Studies allowed for industry participation and validated the technical approach being taken.
LCG/1 is the lead for NLW in the NAAG

Significant high level interest in NATO.

LCG/1 requested higher level guidance on what should be accomplished.

NAAG Established a Quick Reaction Team (QRT) to discuss and define a potential Program of Work by June 2007.

Future work will likely be assigned to LCG/1

Will likely require an additional separate sub Team
Recent High Level Activity

- NATO Summit Riga
  Latvia 28-29 Nov 2006

- Provided a display of LCG/1 activities and equipment at Riga Exposition

- Soldiers and equipment from: FRA, DEU, ITA, NLD, GBR, USA
Riga Summit

Land Capability Group 1 on Dismounted Soldier
Riga Summit

Land Capability Group 1 on Dismounted Soldier
Summary

- NATO / NAAG has restructured to a capability based focus to better align with the ACT.
- LGC/1 is a large group with significant responsibility
- All small arms and dismounted responsibility belongs to LCG/1