Soldier System in NATO

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The soldier from 1915 till 2005
The soldier today
Soldier’s spectrum of operations

**Domestic Support**
- Disaster Relief
- Civil Support

**Peace Operations**
- Peace Building/Making
- Military to Military Contacts
- Arms Control
- Nation Assistance
- Peace Keeping
- Security Assistance

**Limited Conflict**
- Raids
- Strikes
- Insurgency & Counterinsurgency

**Nuclear War**
- Strategic Weapons
- Tactical Weapons

**Regional Conventional Conflict**

**Combating Terrorism**

**Sanctions Enforcement**

**Environmental Operations**

**Humanitarian Assistance**

**Show of Force**

**NEO**

**Counter Drug**
Soldier´s in joint operations
NATO activities on Soldier Modernisation till now

- 1993 - 1994 Prefeasibility study Soldier Modernisation
- 1994 - 2000 LG/3/WG/3 on Soldier Modernisation
- 2000 - 2005 NAAG/TG/1 on Soldier System Interoperability
Integration of everything the soldier

- **Wears**
- **Carries**
- **Consumes**

for enhanced individual and collective (small unit) capability within their national command control structure.
The final solution will be a compromise between the five capability areas:

- C4I
- Lethality
- Mobility
- Survivability
- Sustainability

and must have a relation with:

- Education
- Training
The Complexity of Soldier System Interoperability

Integrate “each” into a Soldier System

- Night Vision
- Protective Eyewear
- Radio
- Computer
- Ballistic Protection
- Load Carrying
- Weapon System
- Gas Mask
- Environmental Clothing
Integrated Operating System

- Modular design
- Mission tailor-able
- Links the individual soldier to the Digitized Battlefield
- Increased survivability
- Opportunity for interoperability
What kind of system is the soldier?

LVSRHMLSFWS

Light, Very Short Range, High Mobility,
Low Speed, Flexible Weapon System
Soldier 2000 Demonstration

Bergen op Zoom
The Netherlands June 2000

- For Senior NATO Officials and Military
- Presentations
- Static Displays
- Live Firing Exercises
- Tactical Demonstrations
Mission TG/1

Ensure interoperability between future national soldier systems
Participating Nations

- The Netherlands
- Norway
- Portugal
- Spain
- Turkey
- United Kingdom
- United States
- Czech Republic
- Slovakia
- Romania
- Belgium
- Canada
- Denmark
- France
- Greece
- Germany
- Italy
- Hungary
- Lithuania
- Slovenia
- Austria
- Azerbaijan
- Sweden
- Switzerland
- Ireland
- Ukraine
- Finland
- Croatia
- Australia
Take C4I efforts to the individual level

- To facilitate the exchange of information across force boundaries and in mixed force operations at soldier to soldier level
- Defining map related symbology
  - Specifying a NATO format for identifying data (building on standard NATO symbols)
  - Creating a NATO data exchange software library
  - Generating STANAG for information interoperability
C4I demo Rome Oct 03

Exchange of data to provide a Common Operational Picture
C4I demo German Infantry School
Oct 04

Focus on individual positional Information
TG/1 has drafted a STANAG to provide the ability to share power on the battlefield

TG/1 approved it at the Fall meeting 04

NATO staffing in process
Combat Identification

- LG/6 has completed and approved a NATO Staff Requirement
- Agreement on laser frequency
- STANAG is under construction
Integration

Modularity and interoperability are essential elements of each soldier system.

Essential elements to attain this are the standardization of connectors and electrical signals.
Expert teams TG/1

- C4I
- Power
- Architecture
- Weapon Systems
- Head Born Systems
- Combat Clothing Individual Equipment and Protection (CCIEP)
Expert team Weapon System

- Not a developer
- Creating interoperability between the different small arms in use now or in the future
- Standardisation connecting and power sources
- Starting NATO/RTO study
In 2003 an industrial initiative led to the Soldier System Standardisation Industrial Working Group.

The aim of this group is:

- to address interoperability issues and seek harmonization of interface standards
- to provide support to the NATO and governmental initiatives on soldier modernisation
Industry Partners are

- EADS Dornier (GE)
- Marconi Selena Comm SpA (IT)
- Thales Defence Ltd (UK)
- TNO (NL)
- Thales Comm (NO)
- General Dynamics (USA)
- Sagem (FR)
Summary

- TG/1 is the lead multinational body in the area the soldier system
- TG/1 will work together with industry to implement the ultimate goal: interoperability at soldiers level
- TG/1 will be renamed LG/1 Dismounted Soldier Systems and will cover all the components of the soldier system
“When the smoke cleared away, it was the man with the sword, or the crossbow, or the rifle who settles the final issue on the battlefield”

George C. Marshall