



TACOM
*Mobility and Firepower
for America's Army*



NATO Soldier System Program

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**CONSEIL DE L'ATLANTIQUE NORD
NORTH ATLANTIC COUNCIL**

Responsible Organization:

**Topical Group 1 On Soldier System
Interoperability**

Chairman: Vernon E. Shisler TACOM-ARDEC

U.S. Head of Delegation: Col Ted Johnson PM Soldier

TRADOC Rep: Mike Tyron TSM Soldier



CONSEIL DE L'ATLANTIQUE NORD NORTH ATLANTIC COUNCIL

Mission:

- *Plan and execute the effort in NATO*
- *Coordinate the national programs*
- *Assure interoperability on the future Coalition battlefield*



Overview of the Soldier System

The Soldier System Concept

A System is:
“ Integration of
everything the soldier

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

For enhanced individual and collective (small unit) capability within their national command control structure.”



Introduction

The Need



Update activities of LG.3 / WG.3

Nations focusing on different factors



Introduction

Interoperability ?

Cognitive interoperability

Swivel chair interoperability

Partial interoperability

Integration

Compatibility

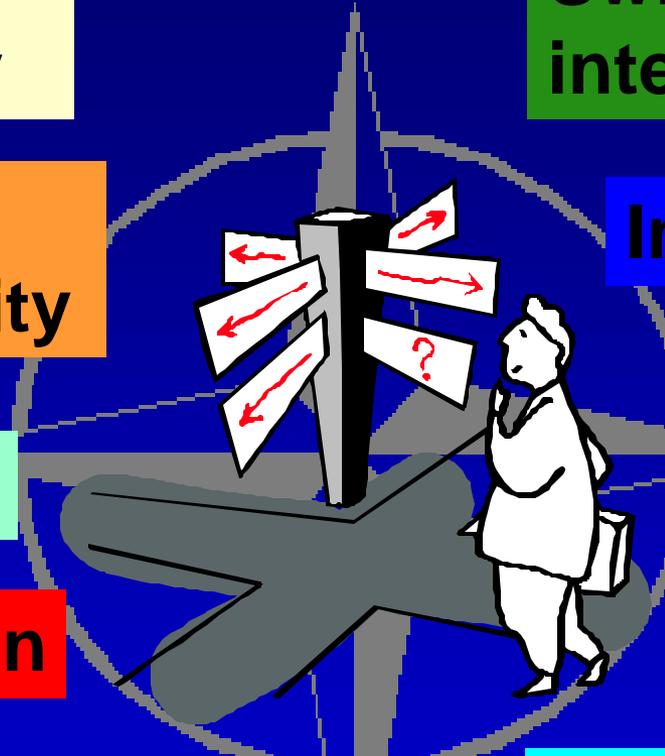
No interoperability

Confederation

Commonality

Interchangeability

Technical interoperability



Introduction

Areas of Interest

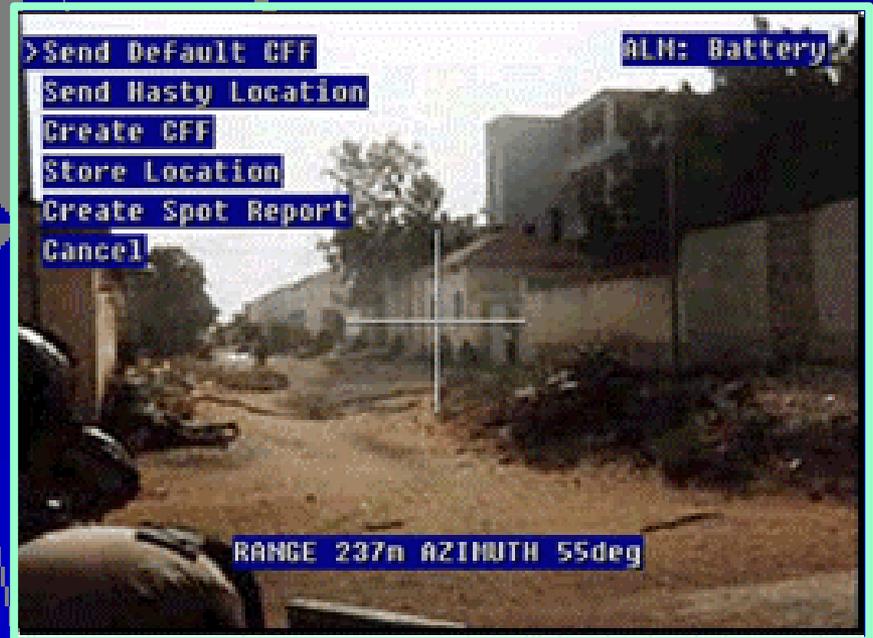
- **Doctrine**
- **Organization**
- **Mission**
- **Technology**



Introduction

Interoperability

“The ability of systems, units or forces to provide services to and accept services from other systems, units or forces and to use the services so exchanged to enable them to operate effectively together.”



Opportunities Areas for Interoperability

- C4I
- Lethality
- Mobility
- Survivability
- Sustainability



Opportunities Requirement areas for Interoperability

Lethality



- Ammunition
- Sight Mounts
- Connectors
- Sensor Codes
- Multi-Function Laser
- Night Vision



Opportunities

Requirement areas for Interoperability

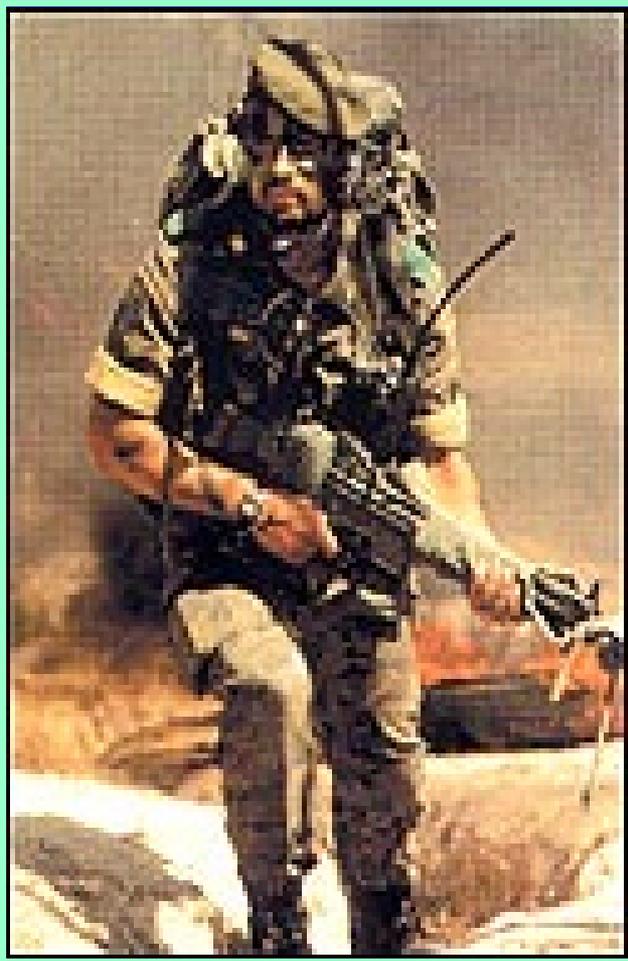
C4I

- Threat/Friendly Data&Information
- Military Symbols
- Standard Report Formats
- Level of filtering
- Communication
- Display



Opportunities

Requirement areas for Interoperability



Sustainability

- Soldier System Interface
- Power Sources
- Reduce of Energy consumption
- Embedded Training
- Spare Parts
- Automated Repair



Opportunities

Requirement areas for Interoperability

Survivability

- Security
- Day/Night Optics
- CIDDS
- Stealth technique
- Environmental Protection



Opportunities

Requirement areas for Interoperability

Mobility



- GPS
- Relational GPS
- Digital
Compass
- Air Drop-able
- Urban zone effects



Influences Trend

Downsizing

- **Shed certain responsibilities and reduce capability**
- **“Getting more with less”**
- **Increase reliance on alliance partners**



Summary

Principles

- The needs of the operational military commander **must be** the main driver of interoperability solutions and investments
- A high degree of interoperability is needed to provide **the flexibility** required for missions



Summary

Principles

- Interoperability must be **balanced** with other national activities
- Assess interoperability in relation with ongoing multinational training and testing activities
- Interoperability requires **international framework and guidance**
- Interoperability needs a will to **understanding and to co-operation**

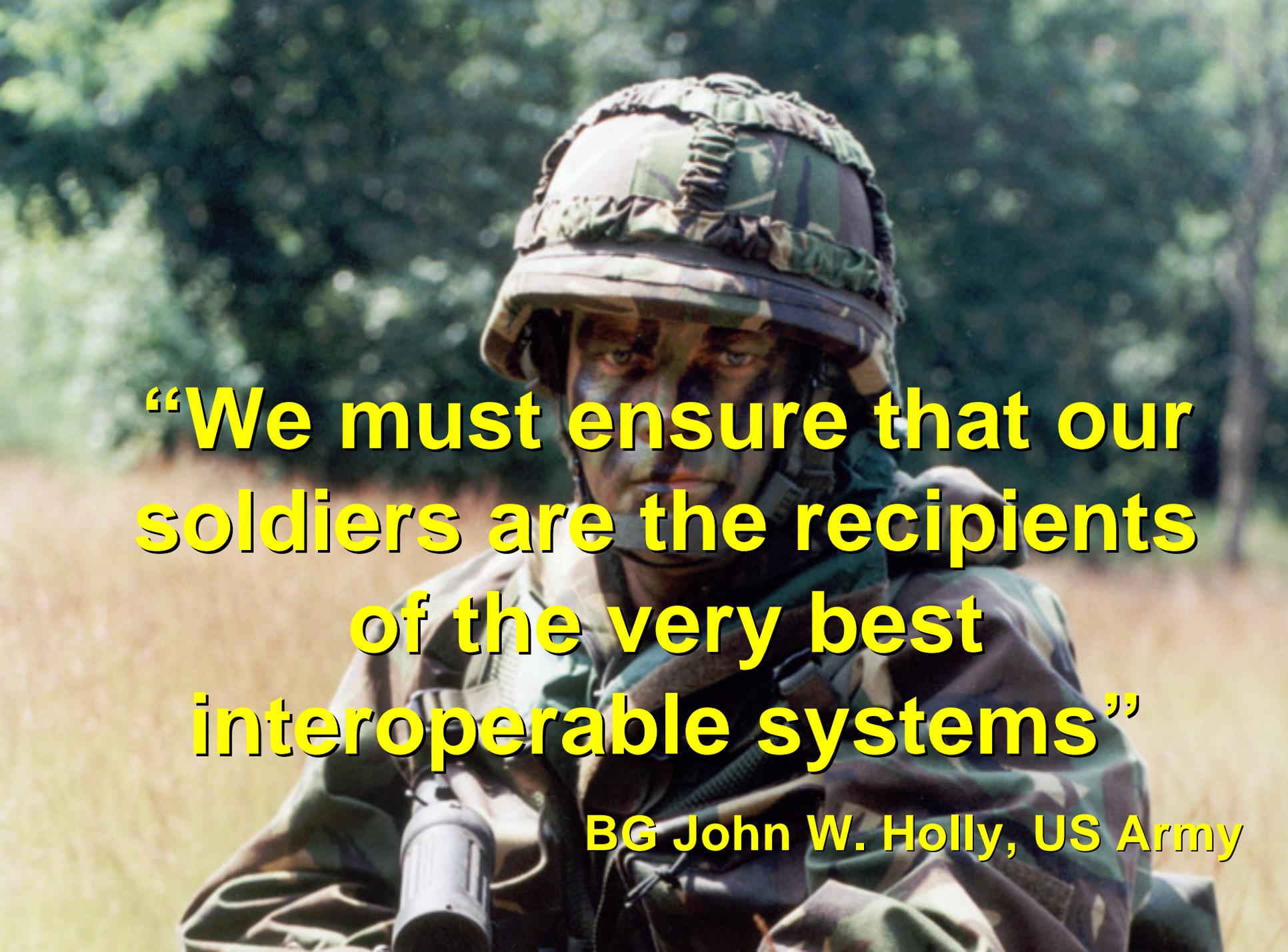


Summary

The aim of TG/1

- NATO has established TG/1 to provide the framework, guidance and cooperation necessary to **ensure interoperability** between future national soldier systems



A close-up photograph of a soldier in full combat gear, including a camouflage helmet and uniform. The soldier is looking directly at the camera with a serious expression. A rifle is visible in the lower-left foreground. The background is a blurred outdoor setting with green trees and a field of tall grass.

**“We must ensure that our
soldiers are the recipients
of the very best
interoperable systems”**

BG John W. Holly, US Army