Interoperability and Standardization within NATO

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New Environment

- New Threats
- Article 5 / Non-Article 5
- New Forms of Conflict
- New Security-Political Actors
- New Tasks and Operations
- Increased Speed of Technical Innovation
- Ongoing Transformation
New Threats

- Multiple, suicide attacks against soft civilian targets -- maximum casualties
- Increased chance of terrorist act involving chemical, biological, radiological or nuclear weapons
- Nationalistic Demands
Article 5

Defined Region with National Forces in their designated Areas of Responsibility

High Intensity Warfare

Concentration of (Heavy) Forces

Relatively lower challenges for Interoperability and Standardization

Army Corps as National Entities
Non-Article 5

NATO in lead with Participants from PfP and other Nations

Global, but size of Area of Operations is limited

Troops dispersed and “light”
Multinational Mix down to Unit Level

Considerably higher challenges for Interoperability and Standardization
Interoperability is:

“Is the ability to operate in synergy in the execution of assigned tasks”
Cold War

Mission

Air

Navy

Land

Interoperability
Partnership for Peace (PfP)

Interoperability

Mission
Interoperability

Mission
NO CAPABILITY WITHOUT INTEROPERABILITY
NATO Standardization is defined as:

“The development and implementation of concepts, doctrines, procedures, and designs to achieve and maintain the required levels of compatibility, interchangeability or commonality in the operational, procedural, material, technical and administrative fields to attain INTEROPERABILITY.”
Levels of Standardization

**Compatibility:**
“The suitability of products, processes or services for use together under specific conditions to fulfil relevant requirements without causing unacceptable interactions.”

**Interchangeability:**
“The ability of one product, process or service to be used in place of another to fulfil the same requirements.”

**Commonality:**
“The state achieved when the same doctrine, procedure or equipment are used.”
Aim of NATO Standardization

Enhance operational effectiveness through Interoperability among Alliance forces, and between NATO forces and forces of Partners and other nations
Mission of the NATO Standardization Organization (NSO)

Is to harmonize and coordinate Alliance Standardization efforts with the aim of enhancing Interoperability and enable Alliance Forces to train, exercise and operate effectively together, and when appropriate, with Forces of Partners and other nations, in the execution of assigned missions and tasks.
Standardization in NATO

NAC

NCS

NCSREPS

NSA

NSSG

NATO Standardization Staff Group

TC’s

SCEPC

SNLC

NADC

MC

NSO

CNAD

NC3B

Civil

Operational

support

report

chair

Materiel / C 3

SCs
Mission

Initiates, coordinates, supports and administers

- Standardization and Interoperability policy for the Alliance under the authority of the NATO Committee for Standardization
- Operational Standardization and Terminology under the authority of the Military Committee
- Acts as the focal point of liaison with civil Standardization Organizations
What is a STANAG and an AP?

**NATO STANDARDIZATION AGREEMENT (STANAGs)**

“The record of an agreement among several or all member nations to adopt like or similar military equipment, ammunition, supplies, stores as well as operational, logistic and administrative procedures”.

**ALLIED PUBLICATION (APs)**

“An AP is an official NATO standardization document which some or all NATO nations agree to use as a common implementing document and which is distributed down to user level”.

Director’s office
Top-Down
• initiated when the Strategic Commands identify **Military Standardization Requirements** (MSR)
  • part of the Force Proposals for nations participating in the Force Planning Process

⇒ **longer and slower**

Bottom-Up
• initiated by reporting **standardization needs and/or deficiencies by Nations or NATO commands**
  • followed by **Standardization Proposals** (SPs), formulated by NATO Working Groups,
  • validated by the appropriate Authority who has to confirm the SP before the development of STANAG/AP starts.

⇒ **react in short time to shortfalls/ interoperability gaps**
Integration through Interoperability

**PURPOSE**

**J\O\UNITNESS**

**CAPABILITY**
**ORIENTATION**

**INTEROPERABILITY**

**STANAGs**
**APs**

**STANDARDIZATION**

**Materiel**
**Operational**
**Administrative**

**COMMONALITY**
**INTERCHANGEABILITY**
**COMPATIBILITY**
Remarks

- Contribution to the Comprehensive Political Guidance (CPG)
- NATO Interoperability Process
- Development of NATO Standards within substructure (Meetings, Working Groups) consisting of subject matter Experts of Nations
- Use of civilian Standards whenever possible
- Close cooperation with other standardization bodies (NAMSA, MSHT, …)
- Voluntary to nations
- Use of NATO agreed Terminology