

CHIEFS OF TRANSFORMATION CONFERENCE: SYNDICATE SESSION 2

“Enhancing Interoperability”

Premise:

“Interoperability of our armed forces is fundamental to our success and an important added value of our Alliance.”

—Warsaw Summit Communiqué, 8-9 July 2016

Multinationality is central to the character of the Alliance. Our strengthened deterrence and defence posture is based on multinational combat formations, with multinationality applied at the strategic, operational and even tactical levels. Therefore, NATO interoperability – the ability to act together coherently, effectively and efficiently to achieve Allied objectives – is absolutely essential to the effectiveness in and beyond operations. Interoperability is a strategic imperative to alert, rapidly assemble, deploy, and command and control ready forces. NATO interoperability enables forces, units and/or systems to operate together, communicate with each other, and share common doctrine, procedures, infrastructure and bases. It also reduces duplication of effort, enables pooling of resources and produces synergies among the Allies.

Our changing and evolving environment required significant political, military and institutional adaptation from the Alliance that increased the multinationality of NATO’s tactical-level high readiness formations. In turn, this increased multinationality demands commensurate enhanced interoperability efforts. In order to improve the Alliance’s ability to deal with the threats and challenges posed by this evolving environment, the NATO Command Structure is adapting to become more robust, agile, and capable. This adaptation increases NATO Command Structure reliance on NATO force structure, which in turn increases the need for interoperability between them.

In addition, the digital age has spawned changes to the environment at increasingly faster rates. Technological developments are emerging more rapidly than ever before. Furthermore, the inclusion of the rest of humanity into the digital age will have profound economic and political consequences, empowering individuals, and accelerating productivity and innovation. Some of the most important changes in the future will come not from new technology, but from a larger number of people having access to something that already exists. With these technological and often disruptive advances will come new challenges to Alliance interoperability that will radically change how ready forces act together.

Aim: To operate at the speed of relevance, the Alliance must adapt quicker than ever before and as a result we will always be solving interoperability challenges. However, ad hoc interoperability workarounds, such as liaison teams or adapted communications systems, tend to dominate the solution space and typically cost additional money, time, or reduced capabilities. NATO requires a mind-set that demands a shift in culture. We must not see interoperable capabilities as an afterthought; we know that it is too late to consider interoperability *after* a crisis has been identified and the men and women of our Alliance forces are on the front line.

How ACT approaches these challenges: The ACT Interoperability Campaign continues to help Allies act together coherently, effectively, and efficiently to achieve tactical, operational, and strategic objectives. As a key element of the ACT warfare development agenda, interoperability is forward looking and enables forces, units and/or systems to operate together and share common doctrine and procedures. Finally, ACT interoperability efforts help reduce duplication, improve pooling of resources, and optimize synergies among Allies.

ACT works with NATO and nations to enhance interoperability along several lines of effort including: Understanding and shaping the future; Capability Development and Defence Planning; Experimentation and Demonstration; Doctrine and Concepts; Training, Exercises and Education, as well as Lessons Learned and Analytics. ACT leverages several tools to promote better interoperability including:

- Forecasting the future operating environment and by applying innovative thinking to determine the impact of emerging and disruptive technologies on future warfare
- Defence Planning to ensure interoperable capabilities to support future NATO missions.
- Doctrine to guide how Allied forces can act together today, and Concepts and that will improve how we act together in the future
- Education & training to prepare and train our people.
- Standards and STANAGS for common and repeated rules to promote and improve interoperability, and; Federated Mission Networking (FMN) that provides a roadmap of technical and procedural specifications for 'day zero' interoperability.
- Policies such as the C3 Interoperability Directive that describe how Allied forces will deliver interoperable C3 capabilities.
- Events such as TIDE Sprint to develop future concepts, requirements and specifications; the TIDE Hackathon to experiment with and understand the impact of disruptive technologies, and; CWIX as an interoperability event to test and verify C2 system to system interoperability.
- Identifying and monitoring lessons and best practices from exercises and missions.

How this Syndicate Session approached these challenges:

We focused on two areas – enhancing interoperability and measuring interoperability. During our first part of the breakout session, we explored how to enhance NATO interoperability. National perspectives to the following critical question were collected:

- What does NATO do well regarding interoperability?
- What does NATO not do well regarding interoperability?
- What does NATO not do, but should do, regarding interoperability?
- How does your nation capture interoperability lessons during Exercises?
- How does your nation consider interoperability challenges resulting from the growth of disruptive technologies such as Artificial Intelligence?

For the second part of the breakout session, we considered the difficult task of measuring NATO interoperability, we used the following questions:

- How does your nation identify interoperability challenges?
- How does your nation then assess the impact of interoperability challenges?
- How does your nation develop and manage interoperability gaps?

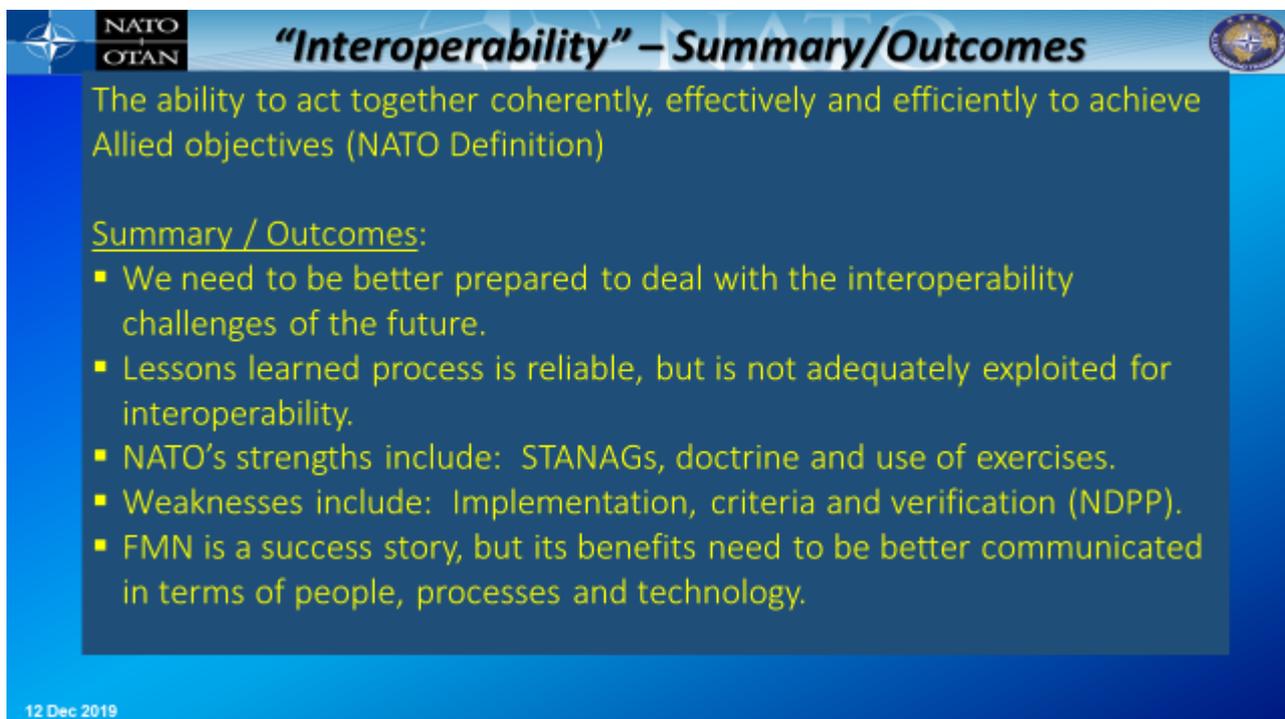
Syndicate Discussion Main Points:

- NATO needs to be better prepared to deal with the interoperability challenges of the future.
- The lessons learned process is reliable, but is not adequately exploited for interoperability.
- One of NATO's strengths is its doctrine and use of exercises to exchange ideas and baseline common operational practices.
- The Federated Mission Network is a success story, but its benefits need to be better communicated.
- NATO must have better cooperation with the COEs.

Syndicate Actionable Items:

- NATO should better engage strategic leaders on interoperability
- NATO must accelerate the development and enforce the implementation of Standard NATO Agreements (STANAGs)
- NATO should be better at engaging strategic leaders on interoperability (top-down approach)
- Interoperability lessons learned must be captured, shared and implemented
- NATO ACT must find a common framework for interoperability to define structures and remain relevant.

Syndicate Closing Plenary Slides



The ability to act together coherently, effectively and efficiently to achieve Allied objectives (NATO Definition)

Summary / Outcomes:

- We need to be better prepared to deal with the interoperability challenges of the future.
- Lessons learned process is reliable, but is not adequately exploited for interoperability.
- NATO's strengths include: STANAGs, doctrine and use of exercises.
- Weaknesses include: Implementation, criteria and verification (NDPP).
- FMN is a success story, but its benefits need to be better communicated in terms of people, processes and technology.

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- NATO should be better at engaging strategic leaders on interoperability (top down).
- NATO must accelerate the development of, and enforce/verify the implementation of STANAGs.
- Interoperability lessons learned must be captured, shared and implemented.
- FMN must be promoted as the vehicle to achieve interoperability.