Navigating through a Sea of Data - Challenges for Secure and Efficient Reinforcement and Military Mobility in Europe/NATO

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Programme Overview

In 2018, NATO decided to establish two new Joint Commands in the wake of the NATO Command Structure adaptation. The first is the Joint Support Enabling Command (JSEC), located in the centre of Europe, with the far-reaching task of ensuring the unhindered and swift movement of troops and the protection in the Joint Rear Area which basically comprises the territory of all NATO nations in Europe.

At the same time, the European Union intensified its efforts to ease the movement of military goods and personnel by reducing red tape; some say this Action Plan on Military Mobility creates a "Military Schengen".

In a 360-degree approach, both activities face a number of challenges, from regulatory questions, to the control of movements to monitoring security and safety threats. It comes down to situational awareness in the Rear Area and improving resilience in general. This also includes the proper functioning of critical infrastructure in all nations affected, in particular, in the communication and transport sector.

The goal of this conference is to explore areas of concern and possibilities for better cooperation with partners from all domains, and to learn how international industry is managing similar challenges today. Technology and solutions for handling and securing the vast amount of diverse information and data involved, e.g. through artificial intelligence, is at the core of military mobility.

Imminent advancements in technologies driven by digitisation, such as cloud services and 5G will also have an impact on the scope of JSEC's work.

NATO is also focusing on improving its own logistical capabilities through the Enablement Plan for SACEUR's Area of Responsibility, notably by adjusting legislation and procedures, enhancing command and control, increasing transport and sustainment capabilities and upgrading infrastructure. In this context, NATO decided on the establishment of two new commands, the Joint Force Command (JFC) in Norfolk and the Joint Support and Enabling Command (JSEC) in Ulm.

The task of securing the safety, security and functionality in the rear area(s) has been assigned to JSEC. Simultaneously, JFC Norfolk was created to ensure safety, security and functionality regarding the (sea)lines of communication.

JSEC's primary task is to ensure Freedom of Operation and Sustainment in the Rear Area (RA). It supports the Nations, relevant NATO entities, and other stakeholders in their planning, execution and coordination of Security, Force Protection (FP) and Area Damage Control (ADC). Achieving security of the RA requires establishing unity of coordination and unity of effort among the Nations and the relevant forces in the RA, to include combat forces transiting and operating in the RA. Demand for freedom of movement may further increase if national mobilisation is happening simultaneously.

Strategic Pretext

Keynotes

Panel 1: Strategic Context: The Rear Area's Contribution to Deterrence

Panel 1 should to identify the changing strategic environment in Europe (including the latest changes to the US forces stationing), and consider the strategic background for JSEC's tasks. During this panel we will discuss a modern definition of NATO's deterrence policy and the rear area's relevance to it. It is the rear area when it comes to stabilise resilience against complex threat levels or disruptions of social life which might be unavoidable in times of war. How can we improve preparedness on the political, societal, and functional levels?

Key questions to be discussed:

- The decision process which lead to the Enablement Plan for SACEUR's Area of Responsibility and the implementation of two new operational commands (JSEC and Joint Forces Command Norfolk).
- 360 degree view on the rear area (Where is the battle zone?) and RSOM (Reception, Staging and Onward Movement).
- What does freedom of operation and sustainment mean.
- Psychological impact of a stable and controlled rear area.
- Deficiencies from a strategic standpoint.
- Auspices on NATO's and the nations' implementations of the strategic guidance.
- The EU's role.

Part A: The Secure Rear Area - what it's all about? Exemplary challenges to be discussed...

Session 1 - Cybersecurity/Critical Infrastructure

Securing the safety, security and functionality in the rear area(s) - besides military owned installations - is a task highly related to national or transnational critical infrastructure of different categories and different ownership in a variety of countries. This situation is magnified by legal framework, different technical standards and non-homogenous responsibilities. Just to highlight one dimension of this task, the relevance of cyber security and secure communications for both, the Armed Forces and the critical infrastructure sectors, are in the focus of this session.

Panel 2: Comprehensive Situational Awareness on Cyber Security in the Rear Area – the Importance of gaining and maintaining

National prerogatives, diversity in standards, policies and means, and legal as well as factual separation between civil and military cyber security responsibilities multiply the challenges in the field of cybersecurity and secure communications. This comes into focus in the pre-war period of increasing tensions.

Key questions to be discussed:

- Can a situational picture on the cyber security situation in the entire rear area be achieved and updated with high responsiveness, even the more a comprehensive awareness of developing threats, with sufficient granularity and prediction quality which is necessary for planning and conducting military operations safely?
- Are there options for providing additional input from the trans-national level, or is aggregation of national information the only viable way?
- Who is the coordinating body in Europe (either EU, NATO or else)?
- Are there tools and policies for sophisticated information sharing in place or are they to be developed?
- What are appropriate technological solutions?

Host Country Keynote Speech

Keynote: Presentation of "Jack Voltaic's 2.0" findings and discussion of its applicability to the European theatre

Panel 3: How Technology can contribute to Situational Awareness on relevant features in the Rear Area's (such as Critical Infrastructure)

One task of this panel, following on the lessons identified from Jack Voltaic, will be to acknowledge and identify the role of (civil) critical infrastructure for military operations. If so, existing information systems, networks, tools, across NATO and EU, both military and commercial, are lacking interoperability and frictionless exchange of data. New information systems and joint networks are slow in approaching (OpNet).

Key questions to be discussed:

- How can interoperability of communication systems and data exchange be improved across nations and sectors in the short term? What are the main obstacles?
- How can readiness be improved, e.g. by pre-setting basic data?
- How can artificial intelligence help?
- How to incorporate commercial data/information that is not government owned in order to improve operations?

Keynote: For the sake of readiness: a "deep dive" into future OpNet Communication Systems

PART B: Military Mobility - the big "enabler"

The collective security and defence of the NATO and EU Member States and their ability to intervene in crises is fundamentally dependent on the ability to move allied troops and civilian crisis management personnel, material and equipment across each other's territory and outside of the EU freely and rapidly.

Session 2 – Inter-sectoral and International Cooperation

Keynote

Panel 4: NATO's needs and requirements

Military mobility must be improved for NATO's rapid reinforcement capabilities, which would enhance our collective security and potentially increase the European countries contribution to international security and stability. A substantial number of obstacles, being physical, legal or regulatory, often make movements difficult by imposing significant delays, thus threatening to undermine their purpose, especially in crisis situations. Sharing information is a crucial requirement for successful cooperation and coordination. The panelists should discuss the progress achieved so far and the areas of concern or future focus with regard to improving this crucial capability as well as the expectations on an enhanced NATO-EU cooperation.

Key questions to be discussed:

- How can we clear the obstacles regarding the exchange of classified and unclassified information between the Nations and EU and NATO?
- How can NATO leverage the European Union PESCO (Permanent Structured Cooperation) project on "Military Mobility"?
- Despite of the rich legal framework governing the EU Common Security and Defence Policy (CSDP), several of the Lisbon Treaty's related provisions have been or remain underused or unused. Are there sufficient regulations available to support JSEC's mission to provide freedom of movement?

Panel 5: EU's contribution and aspirations – is it enough?

Military mobility is a central strategic tool enabling the EU to ensure its security and defence interests effectively and in a complementary manner with other organisations such as NATO and should not be limited only to the removal of physical, legal and infrastructural obstacles. Military mobility enhances Europe's preparedness and defence posture in the face of potential adversaries and crisis situations while helping to achieve

the EU's level of ambition in defence and security policy, including political, operational and industrial strategic autonomy. While military mobility has recently gained a substantial level of attention from all relevant parties, European military exercises, carried out under the auspices of NATO in recent years, have shown the huge importance of suitable transport infrastructure for the success of military objectives. The panel should discuss the progress achieved so far and the areas of concern or future focus with regard to improving this crucial capability.

Key questions to be discussed:

- What is the status and the perspective of the European Union's PESCO (Permanent Structured Cooperation) project on "Military Mobility"?
- Are there sufficient regulations available to provide freedom of movement with perhaps the ultimate goal of a "Military Schengen"?
- How is the funding?
- Are there platforms for exchange of information on situational awareness of main movement corridors/standard supply routes/ key geographical areas?
- Does the concept of military mobility include additional "stress factors" like the simultaneous mobilization of forces?
- Are there thoughts on a public-private partnerships and the contracting of service providers at a larger scale?

Session 3 – How to move forward?

The EU started the Military Mobility Project in 2016, NATO established JSEC in 2018 in order to take on these challenges. How can technology support these efforts? What are the views of the leaders? Keynotes and a panel will give auspices into the foreseeable future.

Panel 6: Technology-based solutions for mastering the sea of data

International commercial enterprises in the transportation sector may experience similar challenges, although under peacetime conditions. It would be worth considering experiences from that sector as well as technology available for managing logistical challenges and maintaining situational awareness despite having to rely on unstructured or incomplete data sets. The quickly progressing digitisation in the transport sector adds new opportunities and also challenges when integrating (military) elements and specialised equipment designed decades ago. The panel should discuss the evolving technological landscape and its impact on military mobility.

Key questions to be discussed:

- How do enterprises today and tomorrow manage to overcome obstacles as described and maintain situational awareness in a (less) complex environment?

- What architectural design promises success?
- What are the technological options which come with increasing digitalisation?
- How to employ legacy information systems? Recommendations to the future design of military mobility?
- Can there be new models of contracting (framework solutions) of RSOM (Reception Staging Onward Movement of troops and Material)?
- How to improve reliability of data?

Closing Keynote