

JALLC Analysis on Russia's war against Ukraine:

- **Bi-SC Strategic Considerations**
- **Operational and Tactical level Observations**

Key Issues and Trends

KEY ISSUES & TRENDS **7 THEMES**
21 ISSUES

- 1 MDO**
Read about some of the real challenges being faced with regard to Integrated Air and Missile Defence, as well as some proposed recommendations
- 2 SPACE & CYBER**
Space & Cyber are the two new domains and are critical to NATO being able to do MDO. Find out what's being learned from these fields.
- 3 EW & AUTONOMOUS SYSTEMS**
Russia's war against Ukraine has highlighted the importance of Electronic Warfare and Autonomous systems. Read up on the latest challenges and what NATO is learning from the war.
- 4 MARITIME CAPABILITIES & NAUTICAL VIGILANCE**
Maritime capabilities are critical enablers for the success of the Alliance maritime objectives. Key lessons show where things could be improved.
- 5 CE INTEROPERABILITY & TARGETING**
Targeting, Intelligence, Surveillance, and Reconnaissance, and Communications Information Systems interoperability are critical for the operationalization of MDO. Read these important lessons that will need to be considered.
- 6 LOGISTICS SUPPORT SERVICES**
This report contains key lessons on logistics, fuel supply, prepositioning, etc. If you are involved or interested in logistics and support services, we recommend reading these lessons for awareness.
- 7 STRATEGIC COMMUNICATIONS**
Activities relating to Strategic Communications, Defence Planning, and cooperation have generated lessons relating to topics such as countering narratives and engaging Allies better. An interesting collection of valuable information.



NLLP Analysis Newsletter

NATO LL Conference 2026

NEW Rapid Response Reports

Welcome to the latest edition of the newsletter dedicated to sharing lessons from the war in Ukraine. As a product of the Joint Analysis and Lessons Learned (LL) Centre (JALLC), this newsletter aims to provide readers with a comprehensive overview of the latest relevant insights and initiatives related to LL from Russia's war against Ukraine.

In this edition, we highlight some of the JALLC's work from 2025, including reports covering the tactical, operational, and strategic level observations from the war. We also take a look back at the plans for the NATO LL Conference this year as well as new type of JALLC Analysis in 2026: Rapid Response Reports.

Drone Adaptations and Innovation in Russia's war against Ukraine

The 2025 edition of the JALLC's annual magazine boasts a wealth of interesting Lessons Learned and analysis articles, including one on drone adaptations and innovations. Across continents and conflicts, uncrewed systems have moved from improvisation to daily practice. They are no longer experimental gadgets but integrated features of modern warfare, shaping tactics for state militaries and non-state groups alike.

In this article some of the latest innovations in drone warfare that are being identified in the context of Learning Lessons from Russia's war against Ukraine are highlighted. The article looks at the Air, Maritime, and Land domains, focusing on how both Russia and Ukraine have been developing drone warfare.



You can download a copy of the full edition of The Explorer [here](#) or by scanning the QR code



JALLC Analysis on Russia's war against Ukraine

2025 was another packed year for the JALLC, reporting on topics across a broad set of topics and type of analysis conducted, with multiple JALLC analysis products contributing to NATO's understanding of lessons being learned from Russia's war against Ukraine. All of the JALLC's analysis reports and other products can be downloaded from the NATO Information Portal and/or the JALLC Analysis Community of Interest in the classified version of the NATO LL Portal. Below we set out some of the highlights from 2025.



Bi-SC Strategic Considerations from Russia's war against Ukraine 2025

This annual report is developed by NATO's two Strategic Commands (Allied Command Transformation (ACT) and Allied Command Operations (ACO)) and is intended to inform the Military Committee on observations that can contribute to Strategic Level considerations. Topics include the Shifting Geopolitical Landscape, Diplomatic-Military Interplay, and Building Wartime Capacity and Resilience into the Defence Industrial Base for Deterrence. The report sets out the situation, offers discussion on the topic and presents the potential implications for NATO. This year the JALLC took on a greater role in developing this report in light of its robust analysis capability and reputation for rigorous quality.



Operational and Tactical level Observations from Russia's war against Ukraine 2025

This is the third annual iteration of this report produced for the Joint Force Training Centre (JFTC) aimed at providing analysis of real world lessons from Russia's war against Ukraine that can be incorporated into NATO force training. Topics include: Manoeuvre, Fires, Command and Control (C2), Uncrewed Systems, and Multi-Domain Operations (MDO). The report finds that both Russia and Ukraine have continued to adapt, innovate, and evolve both tactically and technologically. Ukrainian forces have been particularly effective in exploiting emerging and disruptive technologies, while 2025 saw significant Russian improvements in logistics, firepower, and electronic warfare.



The widespread employment of uncrewed systems and the decisive role of the electromagnetic spectrum have reshaped the battlefield: mass-produced, low-cost drones now provide Intelligence, Surveillance, and Reconnaissance (ISR), strike, and mine-laying capabilities at scale, challenging traditional cost-benefit assumptions, while pervasive electronic warfare has created a highly contested electromagnetic spectrum that limits air dominance and exposes the fragility of conventional communications.

The report highlights the accelerating technical arms race within the conflict and underscore the need for NATO deterrence and defence training to incorporate the evolving realities of modern warfare as has been observed throughout Ukraine.

Analyse | Learn | Improve

Key Issues and Trends from Lessons Learned and Multi-Domain Exercises

NATO identifies nearly a thousand lessons per year via the NATO LL Portal from operations, missions, exercises, and other activities. Collectively, these reflect current challenges being faced across NATO. Each year, the JALLC produces a Key Issues and Trends report, aimed at informing Key Leaders and Decision-Makers and to support the elevation of identified issues and trends to the political-military level.

The 2025 edition of this report also considers lessons from Multi-Domain Exercises conducted in 2024 with the aim to inform the Collective Training & Exercises directive. The report covers 21 issues across 7 themes (see right), many of which relate (in)directly to Russia's war against Ukraine.

You can download a copy of the report via the NATO Information Portal and/or the JALLC Analysis Community of Interest in the classified NATO LL Portal.

Key Issues and Trends from Lessons Learned Products published in 2023-25 and Multi-Domain Exercises in 2024.

The NATO LL Portal Analysis Newsletter



(NU) This NATO Lessons Learned (LL) Portal (NLLP) newsletter, produced by the Joint Analysis and Lessons Learned Centre (JALLC), provides an overview of the NLLP items submitted and/or staffed within the period of 01 January – 31 August 2025, focusing on those NLLP items deemed relevant from an LL perspective to the two Strategic Commands (B-SC) priorities for JALLC analysis in 2025. This newsletter aims to facilitate the exploitation of the valuable LL information contained within the NLLP by all NATO staff to ensure NATO continues to be a learning organization, and to inform on the status/health of the NATO LL Process.

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- Latest Highlights
 - NLLP Activity, At a Glance
 - Content Overview
 - Lessons relating to the B-SC
 - Exercise Issues
 - NATO LL Process, Submissions & Staffing
 - References

LATEST HIGHLIGHTS

(NU) Key themes during the reporting period include the importance of integrating the experiences of the Space and Air domain in the activation of the DDA FOPs and the importance to adequately resource, not only the SRWC, but also the Components providing support to SHAPE. Additionally, several NLLP items show that synchronizing the decision-making cycles of all Components is paramount to achieve adequate effects. Moreover, NLLP items illustrate the importance of having faster pace coordination and response to adversarial action within the Peace-time, Crisis, Conflict (PCC) continuum. Also, NLLP items highlight how to ensure a holistic approach to the NATO Targeting Enterprise as well as achieve effective Joint Effects within an Multi-Domain environment. Furthermore, a theme during the reporting period focuses on the importance of simultaneous enablement and sustainment of forces across multiple Joint Operations Areas (JOA).


(NU) Finally, several NLLP items relate to Ausubocus Training, reflecting that the current exercise planning process for the STEADFAST exercise series is excessively long, particularly for the earlier stages of the exercises. Options to be considered are to systematically streamline, or reduce, the exercise planning process.


(NU) During the reporting period the lessons came from NATO entities: the majority from Allied Air Command (AIRCOM), Allied Maritime Command (MARCOM), Joint Force Command Naples (JFCNP) and Joint Force Command Bizoum (JFCBZ).


(NU) The lessons mainly resulted from Exercises STEADFAST DUEL 2024 (STDU24), STEADFAST DEFERENCE 2024 (STDC24), STEADFAST DEFERENCE 2025 (STDC25), STEADFAST JUPITER 2023 (STJU23), and RAMSTEIN FLAG 2025 (RAF25).

KEY ISSUES & TRENDS


7 THEMES 21 ISSUES


- 1 IAMD**



Read about some of the real challenges being faced with regard to Integrated Air and Missile Defence, as well as some proposed recommendations
- 2 SPACE & CYBER**


Space & Cyber are the two new domains and are critical to NATO being able to do MDO. Find out what's being learned from these fields.
- 3 EW & AUTONOMOUS SYSTEMS**


Russia's war against Ukraine has highlighted the importance of Electronic Warfare and Autonomous systems. Read up on the latest challenges and what NATO is learning from the war.
- 4 MARITIME POSTURE & PEACETIME VIGILANCE**


Maritime capabilities are critical enablers for the success of the Alliance maritime objectives. Key lessons show where things could be improved.
- 5 CIS INTEROPERABILITY, ISR, TARGETING**


Targeting, Intelligence, Surveillance, and Reconnaissance, and Communications Information Systems interoperability are critical for the operationalization of MDO. Read these important lessons that will need to be considered.
- 6 LOGISTICS, THEATRE ENABLEMENT & SUPPORT SERVICES**


This report contains key lessons on logistics, fuel supply, prepositioning, etc. If you are involved or interested in logistics and support services, we recommend reading these lessons for awareness.
- 7 STRATCOM DEFENCE PLANNING & COOPERATION**


Activities relating to Strategic Communications, Defence Planning, and cooperation have generated lessons relating to topics such as countering narratives and engaging Allies better. An interesting collection of valuable information.

The latest edition of the NATO LL Portal Content Newsletter (see right) contains the latest highlights from an overview of the NLLP items covering 01 January to 31 August of 2025. Key themes include the importance of integrating the experiences of the Space and Air domain in the activation of the DDA Family of Plans, the need for faster-pace coordination and response to adversaries' action within the Peace-time, Conflict and Crisis continuum, and ensuring a holistic approach to the achieving Joint Effects in a Multi-Domain environment.

This edition also features a new overview of JALLC Analysis Products published during the reporting period and include JALLC reports on Information Sharing for Allied Air and Space Operations, the Military Contribution to Human Security, and relating to Exercise STEADFAST DAGGER 2026. The Newsletter also features a statistical overview of submissions and staffing of NLLP items and useful links and

references to specific documents and NLLP items. It's a highly useful and relevant reference document, not just for those working in the Lessons Learned field, but for anyone in NATO working on a specific topic that needs to know what "Lessons are out there."

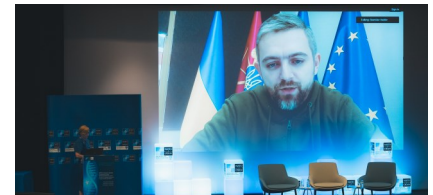
The NATO LL Conference 2026

2026 is a NATO LL Conference (NLLC) year. Every two years, the JALLC hosts this event on behalf of Supreme Allied Commander Transformation, bringing together the LL Community from across NATO, Nations, and Partners. The NLLC is always well-received and the 2024 edition was no exception. With live interventions via video link with Ukraine's Deputy Minister of Defence (see picture right), a video key note address from Assistance Secretary General for Operations, and various presentations and interaction via live and recorded hologram with HQ Supreme Allied Commander Transformation staff in the US.

The 2026 edition is still very much in its infancy, but plans are developing to host the event in the fall (likely in September) in Lisbon, taking advantage of the city's facilities, hospitality, and good weather. It's also the home of the JALLC and where the event has taken place for over two decades in various formats. Even the COVID 19 Pandemic couldn't stop the NLLC, when the JALLC converted its small HQ into a TV studio and hosted a fully online version.



The current proposals for the theme centre around LL of course, but potentially focusing on the Deterrence and Defence context for 2026. As soon as the details can be determined, "save the date" invitations will be issued and we will be well on our way to the next best edition of this prestigious event. Scan the QR code (or click [here](#)) to watch video highlights from the 2024 edition of the NLLC.



JALLC Analysis Innovation - Rapid Response Reports

The type analysis carried out in the context of a JALLC Analysis project will vary depending on the customer's needs including the type of data to be collected and analysed (just NATO LL Portal content, or also open sources research, in depth interviews, etc.) the timeframe, and the topic. Currently the JALLC offers three types of analysis: NATO LL Portal Content Analysis, Key Issue (Short Term) Analysis, In Depth (Joint) Analysis. Typically JALLC Analysis can take between six weeks and nine months to complete, depending on the factors explained above. However, given the growing need for NATO's Command Structure to respond more quickly to emerging threats, timely lessons-based analysis is critical to capture effective practise and identify improvements. To close this gap, the JALLC is developing a new type of Analysis in 2026: Rapid Response Reports.

The intent for these new fast-paced reports, is to ensure that they can be delivered within weeks, without compromising the JALLC's rigorous drive for evidence based analysis and high quality standards. The first of these studies is expected to be conducted later this year with a planned review of the new capability to be undertaken at the end of 2026.

Interested in how you could get JALLC Analysis support. Head over to our website under Activities and then Analysis, to find out more.