

The JWC's operational-level exercises are the ideal venue to develop the military resilience concept. They merge the political and military strategical aspects from above with the civil and military tactical-level implications from below.



Photo by Torbjørn Kjosvold, Norwegian Armed Forces

The Future of NATO's

RESILIENCE

Concepts and Wargaming

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Resilience and civil preparedness were important aspects of national defence during the Cold War period. Post-1989, there was a reduced focus on resilience, but this started to change as Russia grew increasingly aggressive. Disruptive events included the Estonia 2007 cyber attacks, the 2008 Russo-Georgian War, and the Russian annexation of Crimea in 2014, evolving into Russia's unprovoked invasion of Ukraine in 2022. All these events inevitably led to a sharper focus on — and a new framing of — resilience by NATO.¹





The Layered Resilience Concept considers military and civil resilience necessary to support the military instrument of power.



Resilience was prominently mentioned in 2014 in Article 23 of NATO's Wales Summit Declaration. After the North Atlantic Council convened in 2016, NATO underlined the importance of resilience in Article 73 of the Warsaw Summit Communiqué. Alliance leaders agreed on seven baseline requirements for resilience. In 2018, the Brussels Summit Declaration addressed enhancing NATO resilience in support of strengthening the Alliance's deterrence and defence posture. In the 2019 London Declaration, the NATO heads of state and government agreed to continue to increase resilience.

At the 2020 GLOBSEC Bratislava Global Security Forum, Secretary General Jens Stoltenberg contextualized and emphasized the future of Alliance resilience: "In fact, resilience is in NATO's DNA... Article 3 of the Washington Treaty places a duty on Allies to become more resilient. When the treaty was written, the concern was an armed attack from the Soviet Union. Today, we face a far broader range of challenges. That is why boosting resilience is a key task for the future."

The Allied leaders agreed in the 2021 Brussels Summit Communiqué and then in 2022 in the Madrid Summit Declaration to enhance resilience. These communiqués and declarations can be seen to form a body of evidence, not only of the evolving nature of resilience within the Alliance, but also of the importance of resilience to Allies. Finally, Headquarters Supreme Allied Commander Transformation (HQ SACT) has responded

with the development of the Layered Resilience Concept as one of the lines of delivery under the Layered Resilience Warfare Development Imperative, agreed by chiefs of defence as one of their priorities from the NATO Warfighting Capstone Concept (NWCC) outputs.

The aim of this article is to inform about some of the developments in the Layered Resilience Concept by looking at some working descriptions, providing information on the role of resilience in transformation, highlighting a possible relationship with wargaming and concluding with some options for action.

Above, clockwise
 Exercise ARCTIC BOLT 2022, photo by Synne Nilsson, Norwegian Armed Forces; medical tents during JOINT VIKING 2023, photo by Torbjørn Kjosvold, Norwegian Armed Forces; U.S. Army tank transporter tractors, photo by NATO. An illustration of the smart city concept, Shutterstock



Civil Resilience

To enhance resilience by civil preparedness and boost NATO's resilience to the full spectrum of threats, the Allied leaders agreed seven baseline requirements for national resilience. These are guidelines to continue developing countries' individual and NATO's collective capacity to resist any form of attack. Member states can measure their level of preparedness against these requirements.

1. **Assured continuity of government and critical government services:** for instance the ability to make decisions, communicate them and enforce them in a crisis;
2. **Resilient energy supplies:** backup plans and power grids, internally and across borders;
3. **Ability to deal effectively with uncontrolled movement of people,** and to de-conflict these movements from NATO's military deployments;
4. **Resilient food and water resources:** ensuring these supplies are safe from disruption or sabotage;
5. **Ability to deal with mass casualties and disruptive health crises:** ensuring that civilian health systems can cope and that sufficient medical supplies are stocked and secure;
6. **Resilient civil communications systems:** ensuring that telecommunications and cyber networks function even under crisis conditions, with sufficient backup capacity. This requirement was updated in November 2019 by NATO defence ministers, who stressed the need for reliable communications systems including 5G, robust options to restore these systems, priority access to national authorities in times of crisis, and the thorough assessments of all risks to communications systems;
7. **Resilient transport systems:** ensuring that NATO forces can move across Alliance territory rapidly and that civilian services can rely on transportation networks even in a crisis.

These requirements reflect the three core functions of continuity of government, essential services to the population and civil support to

the military, which must be maintained even under the most demanding circumstances. They are all connected, which means: if one area is affected, another may suffer as a result.

Military Resilience

NATO's military resilience is developed as a layer of the broader Alliance resilience in order to create better understanding and to acknowledge and highlight the interdependency of the military instrument of power and the civil resilience layer. The HQ SACT-developed working definition of military resilience from the read-ahead package of the Bucharest Layered Resilience Seminar in October 2022 is as follows: "A resilient NATO military instrument of power, or simply military resilience, supports the deterrence and defence of the Alliance through its ability to anticipate, prepare for, and adapt to threats and hazards and to withstand, respond and recover rapidly from strategic shocks."

The 2019 NATO Military Strategy defines the military instrument of power as "the primary instrument for the Alliance. It contributes to the achievement of the Alliance's political objectives in coordination with the Alliance's other instruments of power, across the entire network of partners and internation-

al organizations, through a whole-of government approach that recognizes the relevance, and often the precedence of other instruments of power in advancing Alliance interests. This approach combines diplomatic, information, military and economic (DIME) instruments based on principles such as civilian-military interaction, coherence of actions, and cooperation with external actors as appropriate."

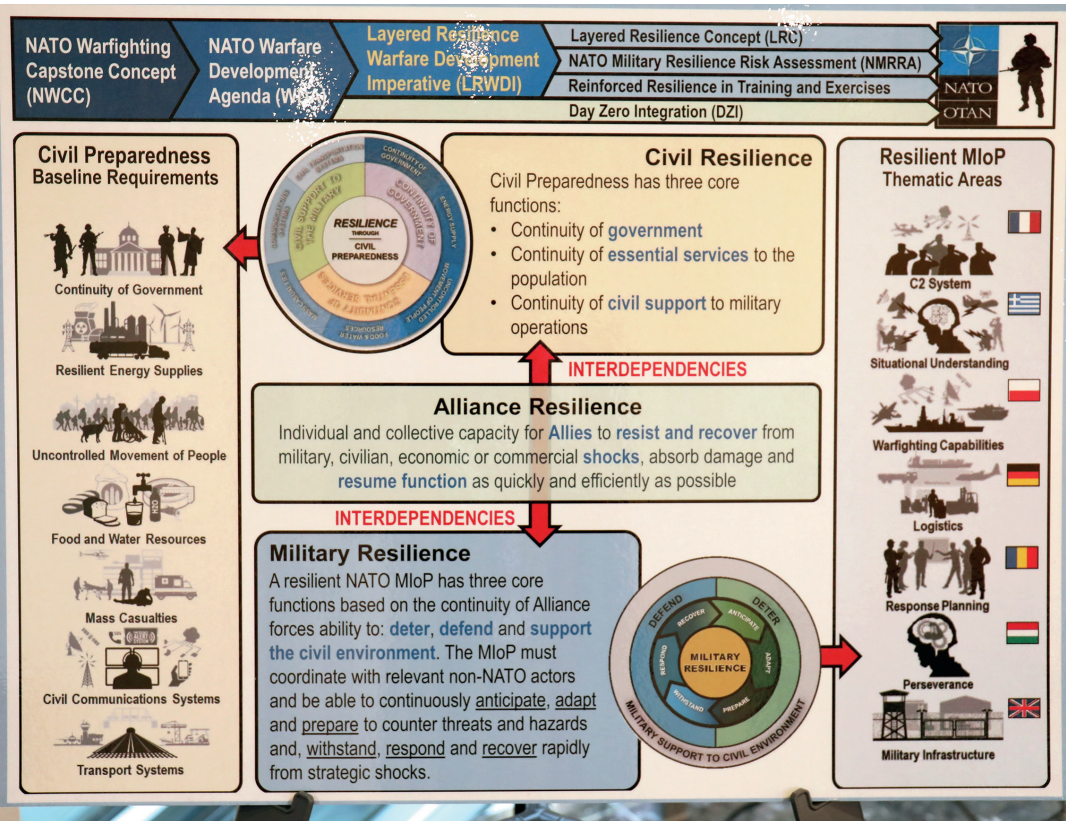
In the working definition, the ability is further explained by military resilience tasks in different phases of conflict. The distinction is made between resilience as a process and the resulting military resilient capabilities.

Military Resilience Concept

The Layered Resilience Concept considers military and civil resilience as two layers necessary to support the military instrument of power and explains these two mutually reinforcing layers. The key focus of the concept is military resilience and its overall aim is to increase understanding of military resilience and

Below
The author, Lieutenant Colonel Jeroen van Mill (left) speaking with Vice Admiral Guy Robinson OBE, HQ SACT Chief of Staff, at the NATO Resilience Symposium, April 26, 2023. Photo by JWC PAO





Above
NATO's Layered Resilience Concept. Photo by JWC PAO

its interdependencies with civil resilience. This will strengthen NATO's ability to withstand, recover and adapt from strategic shock.

Due to the complexity and scale that resilience represents, the Layered Resilience Concept offers a thematic framework of seven military resilience areas. Each of these areas is being addressed through a thematic working group, each led by an Allied nation:

1. Command and Control (C2) System (France)
2. Warfighting Capability (Poland)
3. Situational Understanding (Greece)
4. Logistics/Deployability of Forces (Germany)
5. Response Planning (Romania)
6. Military Infrastructure (United Kingdom)
7. Perseverance (Hungary)

With support from stakeholders and subject matter experts from all relevant fields, these thematic working groups will undertake a deep-dive to develop subordinate conceptual work that informs the overall concept development. This thematic approach allows for effective consideration of existing cross-cutting work within the Alliance and for a more systematic approach in identifying potential risks, vulnerabilities and critical shortfalls that need to be addressed in future military instrument of power development.

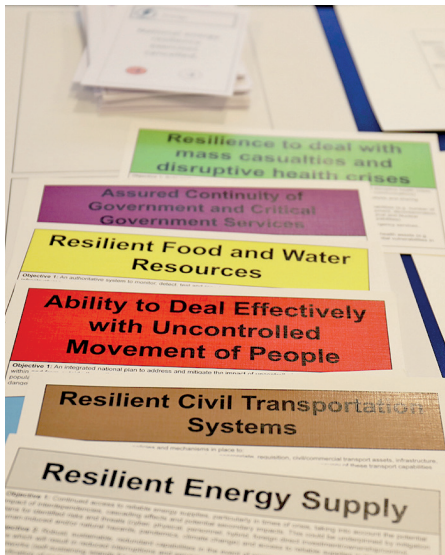
Resilience in Transformation

With many different definitions of resilience and many perspectives, resilience can be regarded as a fuzzy concept with multiple meanings.² The diversity of meanings and perceptions imposes epistemological and methodological challenges and makes it difficult to operationalize military resilience. An important instrument for the operationalization in NATO transformation is the NATO Concept Development and Experimentation

(CD&E) process. As described in the NATO CD&E Handbook, in the development of the military resilience concept via this CD&E process, the venue of operational-level exercises can provide an opportunity for development. The operational level is the ideal venue because it merges the political and military strategic aspects from above with the civil and military tactical-level implications from below.

As the Alliance's provider of complex command post exercises at the operational and strategic levels, the Joint Warfare Centre (JWC) is uniquely positioned at the confluence of these processes to meld stimuli and present complex resilience challenges to NATO's training audiences. The resilience community of interest is represented by key stakeholders during operational-level exercises, among them the military training audiences, nations, and non-governmental and governmental organizations. On the one hand, operational-level exercises integrate civil and military resilience in military processes at the operational level and on the other hand, they create more resilient capacity at this level.





Above
A close-up of the JWC's resilience-themed WISE AEGIS wargame. Photo by JWC PAO

Resilience in Wargaming

Wargaming is an effective tool to build an environment before, during or after an exercise to create a different context in which to explore aspects that could not be explored in the main phases of an exercise. The safe-to-fail environment exists because of the potential to constrain the nature of the wargame: It is accepted as a further level of abstraction from that of an exercise. It is designed to explore specific issues, and so failures within the wargaming context do not imply the failure of an operation. It also provides the possibility of supposing a more extreme case of national civil resilience breakdown, with nations likely permitting a level of degradation beyond what they would normally expect in an exercise, accepting that the wargame is there to explore a generalized possible future.

Wargaming is increasingly recognized as a potentially powerful tool both to shed light on existing problems and in support of concept development to solve a future capability gap.

Options for Action

To conclude, enhanced resilience will remain a key focus for NATO, and this is a capability that must be understood and managed at multiple levels: political-strategic, military-strategic, operational and, in the case of military resilience, tactical. In addition, stakeholders require flows of information between all these

levels and from lower tactical levels. The Alliance will address this important area by developing, implementing and operationalizing the Layered Resilience Concept with an initial emphasis on military resilience.

The JWC's operational-level exercises are the most important venue to transform the theoretical concepts into applied capabilities, with support from all stakeholders and subject matter experts — including academia and industry — and in line with practitioners' perspectives, to create a more resilient military instrument of power. Resilience is more than merely a vague buzzword in the line of flexibility, adaptability and resilience. Both resilience, as a vital concept for the Alliance, and resilience wargaming, as a valuable tool for exploring and training it, are here to stay. †

REFERENCES

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- 2 Disaster Resilience Integrated Framework for Transformation (DRIFT): A new approach to theorising and operationalising resilience. *World Development*, 123, 104587. <https://doi.org/https://doi.org/10.1016/j.world-dev.2019.06.011>. Manyena, B., Machingura, F., & O'Keefe, P. (2019).

There are different factors influencing the bidirectional discourse about transformation via exercises. One perspective is in favour of creating a steeper learning curve and thus more training effect by creating a safe-to-fail-training environment. The scenario opposing forces (OPFOR), for example, are often in favour of an approach that sees the training audience going beyond the point of failure.

However, the other perspective holds that an exercise is to show potential adversaries that NATO is ready to defend every inch (territory), byte (virtual) and neuron (cognitive), so training audiences cannot fail. Failure can never be an exercise aim because an exercise is about achieving training objectives to ensure units have the necessary certifications. Exercises necessarily take place in a secret environment, making them less accessible to industry and academia. The impact of civil degradation on military operations is generally slow, and thus very hard to integrate into the script for an exercise's 10-day execution window.

Compared to exercises, wargames with specific objectives could be a better venue to create safe-to-fail environments and thus facilitate transformation. A wargame can be designed for a specific aim, in line with the available time as well as human and financial resources — and unlike an exercise, without impact on other training objectives.



Lieutenant Colonel van Mill (middle) during a meeting with Transformation Delivery Division staff in preparation for Exercise STEADFAST JACKAL 2023. Photo by JWC PAO