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Cognitive Effects in Combined Arms: A Case Study of the Division 2025

Five keys to implement information activities more effectively in the German-Dutch Army structures

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Five keys to implement information activities more effectively in the German-Dutch Army structures

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Introduction

The use of information technology and how it connects people around the world is defining the 21st century. It not only changes the way people live and communicate but also how they fight. The digital revolution, paired with rapid urbanisation, has led to a military operating environment[1] best described as a highly digitalised war amongst the people. [2] This omnipresence of information technology makes it necessary to more effectively integrate so-called information activities[3], which aim to change human behaviour, into military operations.

The digital revolution, paired with rapid urbanisation, has led to a military operating environment best described as a highly digitalised war amongst the people.

Traditionally, war is considered "an act of violence intended to compel our opponent to fulfil our will".[4] It is ultimately a tool used to change human behaviour. Recent developments in NATO doctrine on Strategic Communication and Information Operations therefore highlight the need to influence human decision-making and behaviour; in other words, the need to create cognitive effects. Most notably, NATO is adapting its capstone doctrine, AJP-01 Allied Joint Doctrine, which serves as the foundation for all NATO doctrine and the national doctrines of its 30 member states. It describes the timeless nature of conflict and puts behavioural change at the centre of NATO operations.

In the light of technological and doctrinal changes, this paper aims to provide practical advice on how to adapt military command structures to use communication capabilities and specialised staff as a tool to achieve this behavioural change. Since it is designed to be a bridge between recent developments in NATO doctrine and their implementation, it uses doctrine as its primary source. The paper is led by the assumption that higher level commands (strategic, operational, and tactical up to corps formations) are currently generally supplied equipped with specialised communication capabilities and staff (see Figure 1 for the levels of operations in the German-Dutch Army Structures).[5] Therefore, the focus lies instead on the lower tactical level (division and brigade staffs), where the ability to employ effective information activities is still considered to be underdeveloped.

To make this paper's findings more tangible and of immediate use, the German-Dutch Division 2025 project is used as a case study for a tactical formation. Project Division 2025 combines the German 10 Armoured Division and Dutch 13 Light Brigade to a combined high readiness force for collective defence by 2025. This paper's research question is thus: "Using Division 2025 as a case study, what actions should the Royal Netherlands Army and German Army take to implement information activities more effectively in their structures?" Although it aims to provide advice for Dutch and German land force military leaders, this paper's foundation in NATO doctrine also renders its findings applicable to other Allied land forces. It is important to note that the findings of this paper are not meant to generally enhance the importance of the

1 Operating environment: „A composite of the conditions, circumstances and influences that affect the employment of capabilities and bear on the decisions of the commander." (NATO, 'AJP 3.10, Allied Joint Doctrine for Information Operations' [Edition B Version 1], 2021, p. Lex-7)..

2 Rupert Smith, 'The Utility of Force', The Art of War in the Modern World, 2006..

3 Information Activities: "Activities performed by any capability or means, focused on creating cognitive effects." (NATO, 'AAP-6, NATO Glossary of Terms and Definitions', 2021, p. 68).

4 Carl von Clausewitz, On War. Volume I (Floating Press, 2010), p. 44.

5 The levels of operations are strategical, operational, and tactical. This paper defines a corps as a higher tactical level and brigade as a lower tactical level. For further information, refer to: NATO, 'AJP-01, NATO Allied Joint Doctrine [Edition F Version 1]', 2022, pp. 36-37.

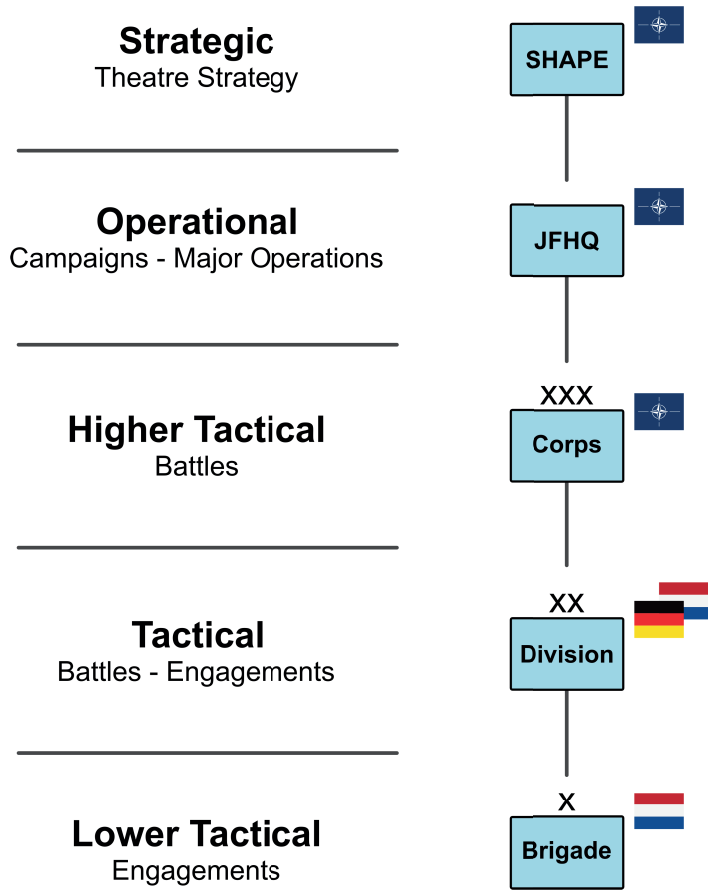

Figure 1: The levels of operations: strategic, operational, and tactical. The terms higher and lower tactical level are based on but not included in NATO doctrine. They are introduced to illustrate the need implement the five keys up until the Brigade level.

To understand the opportunities provided by information activities it is necessary to comprehend the changes in the strategic environment caused by the current confrontation between NATO and the Russian Federation.

division level in comparison to the corps level. The paper rather aims to synchronise Division 2025 with a possibly strengthened corps level.[6]

The first chapter of this paper will analyse the changes in the AJP-01 regarding the role of behaviour in NATO's conflict triangle, the continuum of competition, and deterrence. It will introduce NATO's new behaviour-centric approach as one of the four key tenets of doctrine. This chapter will lay the foundation to understand why NATO aims to influence human behaviour and decision-making by employing planned information activities.

The second chapter couples the newly introduced key tenets to an actual Dutch-German case study: project Division 2025. To understand the opportunities provided by information activities it is necessary to comprehend the changes in the strategic environment caused by the current confrontation between NATO and the Russian Federation. Thus, the second chapter will further analyse the results of NATO's 2022 Madrid Summit regarding its consequences for the binational German and Dutch army structures, in particular Division 2025.

The third chapter is divided into five sections each describing one key element relevant to the research question: combined arms, intelligence, targeting, Information Operations, and Strategic Communications. Each section will end with three take-aways for the Division 2025 case study. This paper's main argument can be formulated as: only if all five key elements are implemented within the command structures of Division 2025, will this formation and its staffs be able to effectively employ information activities.

6 Jack Watling and Sean MacFarland, 'The Future of the NATO Corps', RUSI Occasional Papers 14 (2021).

Chapter 1: The nature of conflict and NATO's behaviour-centric approach

Understanding the root causes and dynamics of conflict opens opportunities to treat the "disease" instead of the "symptoms".

This chapter introduces the recent changes in NATO's AJP-01 and analyses them in regard to the use of information activities as a military tool. The first section explains NATO's universal view on the nature of conflict: the conflict triangle and continuum of competition. From there, it analyses the central role of communication in NATO's deterrence efforts. The section closes with the newly developed four key tenets of NATO's joint operational doctrine focussing on the behaviour-centric approach.

The conflict triangle

The new AJP-01 introduces the conflict triangle, first developed by the sociologist and peace researcher Johan Galtung,[7] into the landscape of NATO doctrine (see Figure 2). Understanding the root causes and dynamics of conflict opens opportunities to treat the "disease" instead of the "symptoms". In this circular model, an actor's behaviour is based on his attitudes and beliefs. When two or more actors exhibit incompatible behaviour, this will lead to a clash. The outcome of the clash is dependent on the actors' choices and influences the future attitudes of both actors towards each other, leading to an ever-continuing cycle of clashes and attitude attenuation. Without de-escalation, the conflict cycle can evolve into an escalating spiral, leading to polarization, violence, and even total war.[8] It is important to understand that a conflict can have its starting point at any of the interrelated three elements: attitude, behaviour, or contradiction. Since conflict is fuelled by one actor's perception of the other, instead of by factual events, unintended behaviour (e.g., by subordinate formations) or accidental clashes are just as liable to initiate an escalating spiral as are intended actions. Influencing attitude and behaviour towards a desired outcome (effect) is therefore fundamental to attaining an advantage in conflict.

NATO identifies three de-escalating and preventive measures: "activities to deepen mutual contradictions, and crisis management to change behaviour."[9] These measures are part of

7 Johan Galtung, 'Violence, Peace, and Peace Research', Journal of Peace Research 6, no. 3 (1969): 167–91

8 NATO, 'AJP-01, NATO Allied Joint Doctrine [Edition F Version 1]', 2022, p. 4.

9 NATO, 'AJP-01', p. 4.

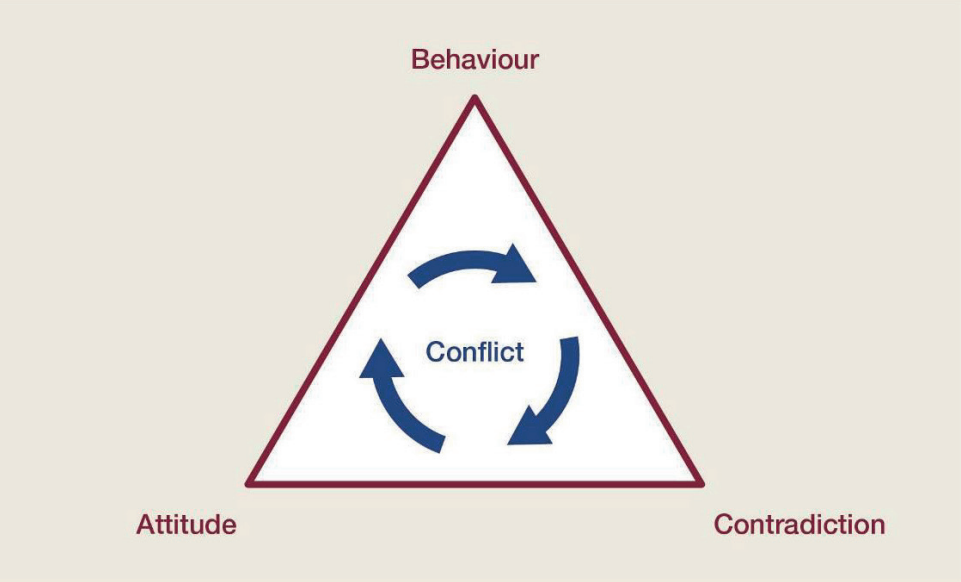

Figure 2: The conflict triangle depicts the root of conflict as the result of attitude and behaviour of actors resulting a contradiction between opposing actors ('AJP-01', p. 3).

Human attitude and behaviour are at the root of every conflict.

the family of information activities which are defined as "activities performed by any capability or means, focused on creating cognitive effects."[10] If effectively employed, these activities can change the relationship between two actors from one of competitive confrontation or armed conflict to that of a less competitive rivalry or even to one of cooperation. To visualize these inter-actor relations, NATO has introduced its continuum of competition, which will be discussed in the following section.

Three takeaways:

1. Human attitude and behaviour are at the root of every conflict.
2. Changing behaviour or the perception of it, changes the root cause and further development of a conflict.
3. Effective information activities change an opponent's behaviour and decrease unintended or accidental contradictions leading to the end of a conflict.

NATO's continuum of competition

The continuum of competition as depicted in Figure 3 is NATO's model for classifying all relations between different state and non-state actors. It views the world as being in a state of constant competition between actors seeking to protect or advance individual interests. As an example, NATO sees itself as an organisation that increases the cooperation between the member states (green space) to deter potential adversaries[11] (orange space) and collectively defend each other (red space). Rivalry (yellow space) is the competition of actors with incompatible interests that are still committed to the rules-based international order,[12] especially the Charter of the United Nations.

10 NATO, 'AAP-6', p. 68.

11 Adversary: "An actor whose intentions or interests are opposed to those of friendly parties and against which legal coercive political, military or civilian actions may be envisaged and conducted. They may have many different motivations and may be subject to a broad range of influences and are usually found in the confrontation zone of the continuum of competition." (NATO, 'AJP-01', p. 82).

12 Hans Kundnani, What Is the Liberal International Order? (JSTOR, 2017), pp. 1-2.

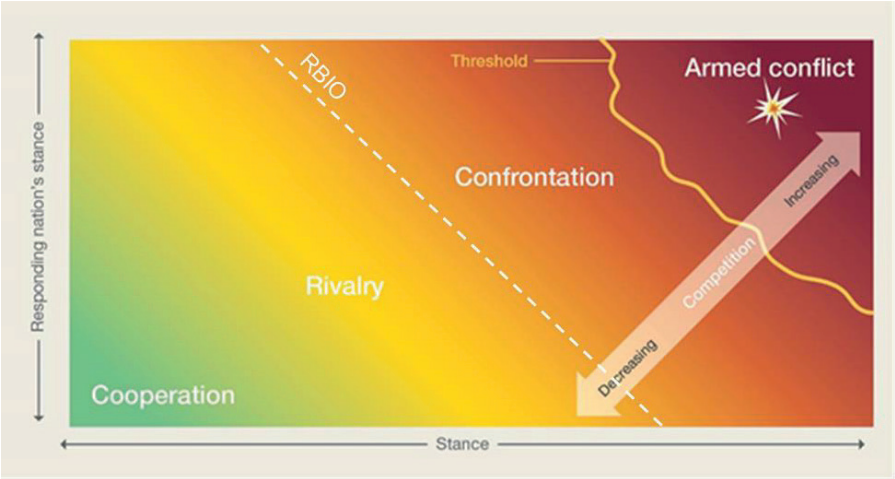

Figure 3: The continuum of competition and the threshold of armed conflict ('AJP-01', p. 7).

Given NATO's nature as a defensive alliance, all of NATO's activities, even full-scale warfare, are ultimately aimed at de-escalation.

To understand the role of information activities, the yellow line, called the threshold of armed conflict, is important. It marks the transitional zone between spaces of confrontation and armed conflict. It also marks the point of the conflict cycle where the de-escalating measures have initially (although not necessarily ultimately) failed. As the Dutch Handbook Tactical Operations explains: "There has always been an operational space between competition and armed conflict, which is known as the confrontation space. Actors conduct their activities in this space when trying to achieve their aims without breaching the threshold of armed conflict."[13] The confrontation space below the threshold of armed conflict is generally the space to which concepts like hybrid warfare[14] and grey-zone conflict[15] are applied. Given NATO's nature as a defensive alliance, all of NATO's activities, even full-scale warfare, are ultimately aimed at de-escalation (see conflict triangle). In consequence, effective information activities and behaviour change are crucial to achieve NATO's aims – especially during armed conflict and confrontation.

Three takeaways:

1. There has always been an operational space between rules-based rivalry and armed conflict. In the continuum of competition, this is called the confrontation space.
2. As a defensive alliance, NATO aims to de-escalate conflicts to a level in accordance with the rules-based international order.
3. Effective information activities aimed at influencing behaviour, especially in the armed conflict and confrontation space, are therefore a central piece in NATO's operations.

13 Royal Netherlands Army, 'Handbook Tactical Operations, LAND-CA-01 [Edition 1]', 2020, p. 1/10.

14 Hybrid Warfare: "Hybrid warfare marries conventional military operations, either sequentially or in parallel, to a range of other tactics largely built around psychological operations and information warfare. The goal is to target the opinion of publics in states waging war, both to reinforce the commitment of friendly publics and destroy the morale of adversaries." (Michael J Mazarr, 'Mastering the Gray Zone: Understanding a Changing Era of Conflict' (US Army War College Carlisle, 2015, p. 45).

15 Gray Zone Conflict: „A form of conflict that pursues political objectives through cohesive, integrated campaigns; employs mostly nonmilitary or non-kinetic tools; strives to remain under key escalatory or red line thresholds to avoid outright, conventional conflict; and moves gradually to its objectives rather than seeking conclusive results in a specific period of time." (Michael J Mazarr, 'Mastering the Gray Zone: Understanding a Changing Era of Conflict', 2015, p. 58).

NATO's deterrence and the threat by sub-threshold activities

NATO defines deterrence as "the convincing of a potential aggressor that the consequences of coercion or armed conflict would outweigh the potential gains. This requires the maintenance of a credible military capability and strategy with the clear political will to act." [16] The phrase "convincing of a potential aggressor" means to influence an adversary's behaviour by creating the perception that NATO will retaliate against an armed attack. Deterrence, in its very nature, can therefore serve as an example of a cognitive effect.

Recent NATO doctrine has expanded the traditional three C's of deterrence (capability, credibility, communication)[17] to five. The principles credibility, cognition, capability, competition, and communication must be conceived of "like a multiplication product: if any of the elements is set at zero there will be no deterrence." [18] The role of communication is central for deterrence since it "ensures that: audiences understand the capability and credibility of the Alliance's fighting power, audiences attribute malign activity correctly; and partners are reassured, whilst minimizing the risk of escalation by fuelling the conflict triangle through a misunderstanding."[19]

Deterrence, in its very nature, can therefore serve as an example of a cognitive effect.

Communication can only be effective if one creates situational understanding of an adversary's attitude and behaviour (see Section 1: The conflict triangle). This is the meaning of cognition, the second principle of deterrence. AJP-01 specifies that "conducting audience analysis with our partners allows the Alliance to understand hostile audiences' intent, the drivers of their behaviour, their thresholds and points of influence."[20] In terms of the continuum of competition, deterrence means that NATO crosses the threshold of armed conflict only as a last resort. In the best-case scenario, deterrence causes the level of competition to decrease and recede from the confrontation space to a level which is in accordance with the rules-based international order (rivalry space).

Confronted with the immense combined conventional and nuclear power of NATO, state actors have thus far refrained from any military actions leading to the invocation of Article 5 [21] of the NATO treaty. Since adversaries are deterred from openly attacking a NATO member, some will cohesively utilise other instruments of national power in a cohesive manner while staying just under the threshold of armed conflict. In NATO doctrine, such actions are called sub-threshold activities.[22] Although essentially illustrating the effectiveness of NATO's deterrence, these sub-threshold activities also highlight the newly emergent challenges for

16 NATO, 'AAP-6', p. 42.

17 Robert P Haffa Jr, 'The Future of Conventional Deterrence: Strategies for Great Power Competition', Strategic Studies Quarterly 12, no. 4 (2018): 94–115, p. 96-97.

18 NATO, 'AJP-01', p. 25.

19 NATO, 'AJP-01', p. 25.

20 NATO, 'AJP-01', p. 25.

21 Article 5: "The Parties agree that an armed attack against one or more of them in Europe or North America shall be considered an attack against them all and consequently they agree that, if such an armed attack occurs, each of them, in exercise of the right of individual or collective self-defence recognised by Article 51 of the Charter of the United Nations, will assist the Party or Parties so attacked by taking forthwith, individually and in concert with the other Parties, such action as it deems necessary, including the use of armed force, to restore and maintain the security of the North Atlantic area. [...]" '(North Atlantic Treaty', International Journal: Canada's Journal of Global Policy Analysis 4, no. 2 June 1949 pp. 156–58).

22 NATO, 'AJP-01', pp. 16-17.

NATO. "NATO's adversaries' experience gained through exploiting the cyberspace domain, electromagnetic spectrum and the cognitive dimension in recent conflicts has provided experience that sub-threshold is both a starting point and delivers an overall advantage in armed conflict."[23] NATO itself has now identified the need to be able to operate not only in the armed conflict space but across the entire continuum of competition: "NATO must have the capabilities to operate across the continuum of competition with the ability to impose proportional costs and deny benefits below the threshold of armed conflict when required."[24]

Three takeaways:

1. Deterrence is aimed at preventing armed conflict by understanding and influencing the opponents' behaviour.
2. NATO identifies cognition and communication as two of the five crucial principles of its deterrence.
3. Adversaries are conducting malign sub-threshold activities by exploiting the cyberspace domain, electromagnetic spectrum, and cognitive dimension. NATO has identified the need to also be able to conduct sub-threshold activities in order to impose proportional costs on and deny benefits to its adversaries.

Deterrence is aimed at preventing armed conflict by understanding and influencing the opponents' behaviour.

NATO's behaviour-centric approach

The new AJP-01 identifies four key doctrinal tenets that "apply across all levels of operations and in any situation that the military instrument is used."[25] The key tenets are the behaviour-centric approach, the manoeuvrist approach, the comprehensive approach[26] and mission command.[27] While the comprehensive approach and mission command are well-established terms, the other two key tenets are relatively new in military doctrine. According to AJP-01 "the behaviour-centric approach recognizes that people's attitude and behaviour are central to attaining the end state, and that the Alliance has to take account of a much broader audience than simply the 'enemy or adversary'. The behaviour-centric approach is about a comprehensive and persistent understanding of audiences and how they can affect our end state.[28]

This is closely linked to the insight gathered from the conflict triangle: every conflict is fundamentally based on human behaviour and can only be solved by a change in that behaviour. AJP-01 identifies three general categories of audiences for behaviour change – public, stakeholder and actor – depending on the ability of each to affect the end state (see Figure 4). When faced with hostile actors, NATO does not seek their annihilation, but rather applies the fourth key tenet—the manoeuvrist approach—which "represents an indirect approach that seeks to out-think and out-manoeuvre unsupportive or hostile actors (rivals, adversaries, and enemies), and discourage stakeholders to become unsupportive or hostile actors); it focuses

23 NATO, 'AJP-01', p. 17.

24 NATO, 'AJP-01', p. 70.

25 NATO, 'AJP-01', p. 1.

26 Comprehensive approach: "Combining all available political, military and civilian capabilities, in a concerted effort, to attain the desired end state." (NATO, 'AJP-01', p. LEX-4)

27 Mission command: "Mission command is the NATO command philosophy founded on centralized intent and decentralized execution that is particularly suitable for complex, dynamic and adversarial situations. [...] It empowers leaders at every level and is intended to generate agility and tempo. This enables a force to overcome an enemy in the most chaotic and demanding circumstances and unlocks everyone's potential to seize winning opportunities." (Royal Netherlands Army, 'Handbook Tactical Operations', p. 1/27).

28 NATO, 'AJP-01', p. 1.

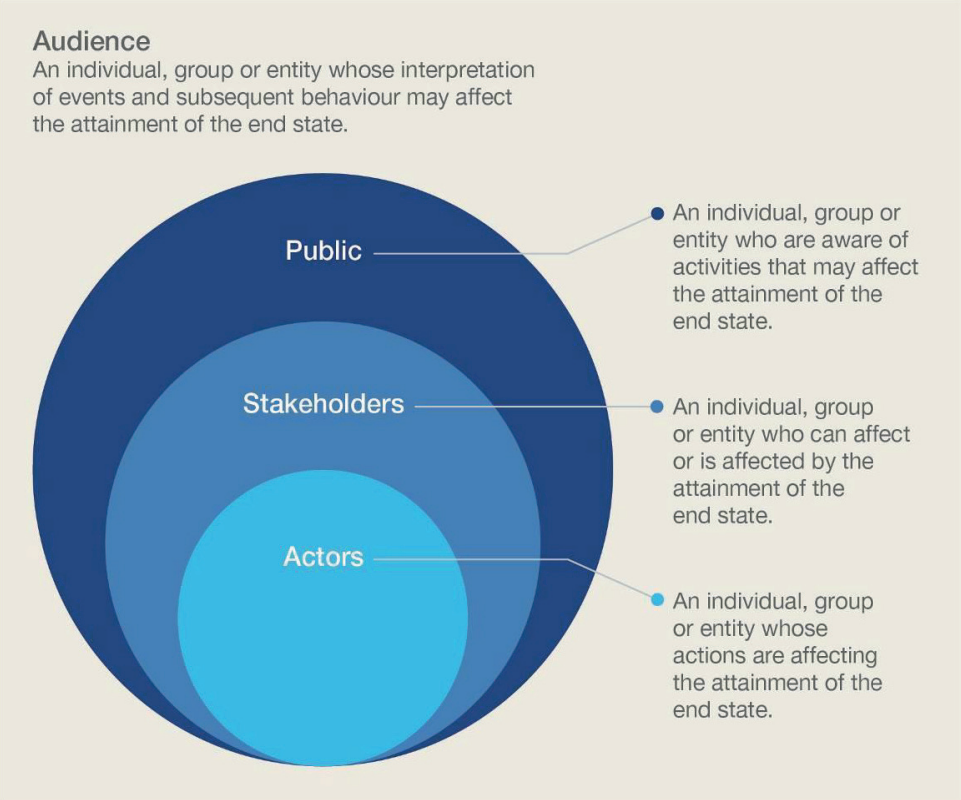

Figure 4: The three categories of an audience for behaviour change ('AJP-01', p. 2).

The need to change human behaviour now lies at the heart of NATO doctrine.

on degrading their will to contest." The current Allied Joint Doctrine for Land Operations AJP 3.2 highlights that: "the contemporary manoeuvrist approach is behaviour-centric. In the contest of wills and cohesion between the Alliance and its enemy, effective operations target all the audiences to change perceptions, beliefs and behaviour to dismantle support for the enemy and extinguish its will and cohesion."[29]

Three takeaways:

1. Human behaviour is a central part of the four key tenets laid out by AJP-01. As such, the need to change human behaviour now lies at the heart of NATO doctrine.
2. The behaviour-centric approach, just as much as the well-established concept of mission command, applies across all levels of operations and in any situation in which a military apparatus is engaged.
3. Whenever it is faced with unsupportive or hostile actors, NATO uses force foremost to degrade the actors' will to contest. This is essentially a cognitive effect aimed at changing their behaviour.

29 NATO, 'AJP-3.2, NATO Allied Joint Doctrine for Land Operations [Edition B Version 1]', 2022, p. 40.

Chapter 2: Division 2025 and its strategic environment

This chapter introduces the case study offered by Division 2025. The first section uses the current confrontation between the Russian Federation and NATO to discuss the strategic environment that led to project Division 2025. It starts with a brief introduction of NATO's 2022 Madrid summit and the resulting new Force Model for Europe's defence. Special attention is given to the consequences of the summit for the German and Dutch Army structures. In the second section the land forces cornerstone of Germany's commitment to the new Force Model will be introduced: the 10 Armoured Division. It will explain the Division 2025 project and point out its relevance to the Royal Netherlands Army — in particular, its 13 Light Brigade.

The reclassification of Russia, from potential strategic partner to singularly significant and direct threat, marks a distinct shift in NATO's strategic perceptions.

NATO's Strategic Concept and Force Model

The Russian invasion of Ukraine on the 24th of February 2022 has been a turning point for many NATO countries, including Germany, in their perception of the Russian Federation. At the 2022 Madrid Summit, the North Atlantic Council (NAC) adopted a new Strategic Concept, which defined the Russian Federation as "the most significant and direct threat to Allies' security and to peace and stability in the Euro-Atlantic area."[30] At the 2022 Madrid Summit, the North Atlantic Council (NAC) adopted a new Strategic Concept, which defined the Russian Federation as "the most significant and direct threat to Allies' security and to peace and stability in the Euro-Atlantic area."[31] The reclassification of Russia, from potential strategic partner[32] to singularly significant and direct threat, marks a distinct shift in NATO's strategic perceptions. On the continuum of competition, this has moved Russia out of the rivalry space and into the confrontation space (see Figure 3). This makes Russia an adversary actor "against which legal coercive political, military or civilian actions may be envisaged and conducted." (see definition of adversary in Chapter 1: NATO's continuum of competition). To

30 www.bundesregierung.de/breg-en/news/policy-statement-by-olaf-scholz-chancellor-of-the-federal-republic-of-germany-and-member-of-the-german-bundestag-27-february-2022-in-berlin-2008378.

31 NATO, '2022 Strategic Concept', 2022, p. 4.

32 "NATO-Russia cooperation is of strategic importance as it contributes to creating a common space of peace, stability and security. NATO poses no threat to Russia. On the contrary: we want to see a true strategic partnership between NATO and Russia, and we will act accordingly, with the expectation of reciprocity from Russia ." (NATO, 'Strategic Concept, Active Engagement, Modern Defence', 2010, p. 29).

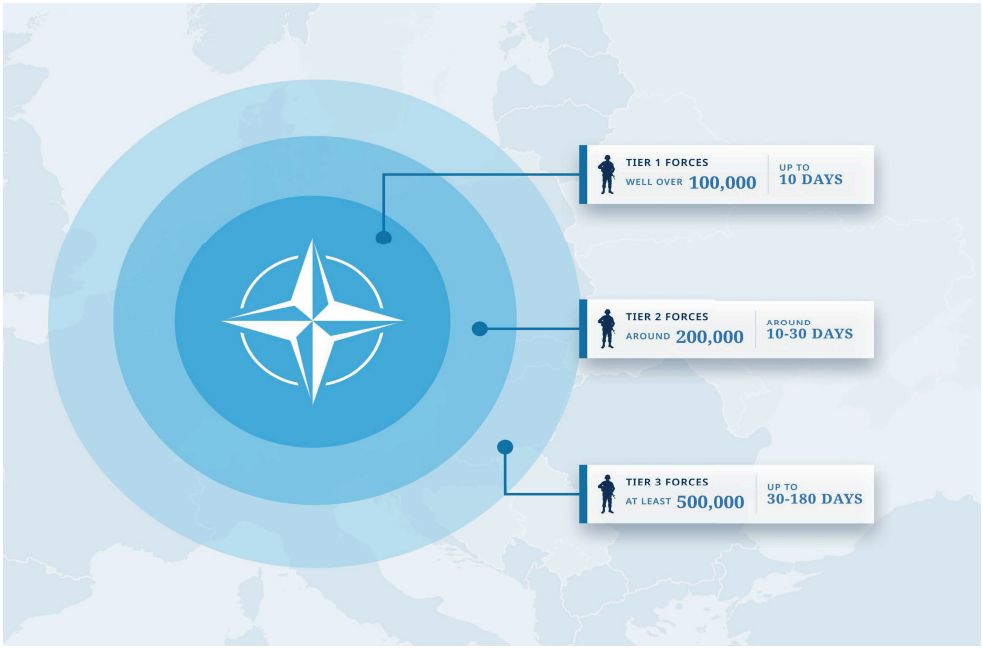

Figure 5: The new NATO Force Model with Tier 1-3. Each box contains the name of the tier (e.g., Tier 1), the number of soldiers that NATO intends to designate to it (e.g., 100.000) and the Notice to Move (e.g., up to 10 days). 'Notice to Move' describes the time a unit needs between notification and the start of movement to the designated area of responsibility (www.nato.int/nato_static_fl2014/assets/pdf/2022/6/pdf/220629-infographic-new-nato-force-model.pdf).

With its new Strategic Concept NATO has refocused its efforts from crisis management and cooperative security to its initial core task: collective defence.

face this re-emergent threat, with its new Strategic Concept NATO has refocused its efforts from crisis management and cooperative security to its initial core task: collective defence.[33]

Consequently, the 2022 Madrid Summit introduced a new NATO Force Model. It will leverage a three-tiered system of readiness degrees to form the backbone of NATO's defence planning for Europe, as depicted in Figure 5.[34] Similar to NATO's defence plans during the Cold War, these forces will be pre-assigned to specific areas of responsibility and will frequently conduct exercises to defend against any Russian attacks.[35]

NATO intends to deter and defend with "robust in-place, multi-domain, combat ready forces, enhanced command and control arrangements, prepositioned ammunition and equipment and improved capacity and infrastructure to rapidly reinforce any Ally, including at short or no notice."[36] While this seems to describe a force posture similar to the one prevalent during the Cold War,[37] technological developments since the 1980s have fundamentally changed the character of war and will, according to the NATO warfighting capstone concept, continue to do so in the future. [38] This is reflected by NATO's above mentioned multi-domain approach that includes the cyber domain and information activities.[39] So, while the new Force Model

33 NATO, 'AJP-01', pp. 20-23.

34 Tomas Valasek, 'NATO's Political and Security Adaption in Response to Russia's War: Assessing the New Strategic Concept and Implementation of the Madrid Summit Decisions', 22 October 2022, p. 6.

35 Justyna Gotkowska and Jacek Tarocinski, 'NATO after Madrid: How Much Deterrence and Defence on the Eastern Flank?', Number 462, OSW Commentary, 5 July 2022, pp. 4-6.

36 NATO, 'NATO 2022 Strategic Concept', p. 6.

37 John S. Duffield, Power Rules: The Evolution of NATO's Conventional Force Posture (Stanford, Calif: Stanford University Press, 1995), pp. 194-232.

38 Tim Sweijs, The NATO Warfighting Capstone Concept: Key Insights from the Global Expert Symposium Summer 2020 (Hague Centre for Strategic Studies, 2020), pp. 6-10.

39 NATO, 'AJP-01', pp. 97-102.

is a major step forward for successful collective defence, the German and Dutch forces — instead of merely duplicating their Cold War model — should spearhead the use of 21st century technology not only for arms procurement but also for behaviour analysis, behaviour change and organisational adaptation.

Three takeaways:

1. Since the new Strategic Concept, the Russian Federation has changed its place in the continuum of competition from the rivalry space to the confrontation space. This makes it an adversary actor "against which legal coercive political, military or civilian actions may be envisaged and conducted."
2. Given the central role of behaviour change in military operations, the capability to orchestrate information activities to achieve cognitive effects should be part of the new NATO Force Model.
3. Military formations in the new Force Model need to be combat ready and will be on a Notice to Move. This means that all staff and capabilities must be an integral, trained and fully interoperable part of these formations.

The German and Dutch forces should spearhead the use of 21st century technology not only for arms procurement but also for behaviour analysis, behaviour change and organisational adaptation.

Division 2025 and the Dutch 13 Light Brigade

The 10 Armoured Division is the key land component of Germany's commitment to NATO's new Force Model and discussion are being held to determine as to what extent it will be integrated into NATO contingency plans for the defence of Eastern Europe. Christened Division 2025, the process of fully equipping this division with personnel and material by 2025 will be the main effort of the German land forces in the coming years. Presumably part of Tier 2 of the new Force Model (see Figure 5), the division needs to be ready to move within 10-30 days.[40]

Germany offers the option for countries (particularly Central and Eastern European countries) to subordinate their combat brigades or enabling units to German divisions. This option is the central part of Germanys Framework Nation Concept, which was designed to foster NATO defence cooperation in Europe.[41] Step by step the Netherlands has decided to almost entirely integrate its land forces into the German Army's command structure: the Dutch 11 Airmobile Brigade was integrated into the German Rapid Forces Division in 2014; the Dutch 43 Mechanised Brigade has been integrated into the 1 Armoured Division since 2016; and according to recent announcements, the integration of the final Dutch Brigade (the 13 Light Brigade) into the 10 Armoured Division is being reviewed.[42] The nations' commitment to this process was further formalized with the signing of a common army vision in November 2022.[43] As part of 10 Armoured Division, it is likely that the 13 Light Brigade will be the land

40 www.schwaebische.de/ueberregional/politik_artikel,-nachholen-was-in-den-letzten-jahren-versaeumt-wurde-_arid,11534127.html.

41 Sean Monaghan and Ed Arnold, 'Indispensable: NATO's Framework Nations Concept beyond Madrid', CSIS Briefs (Center for Strategic and International Studies, 2022); Eva Hagstrom Frisell and Emma Sjokvist, 'Military Cooperation Around Framework Nations: A European Solution to the Problem of Limited Defence Capabilities' (Swedish Defence Research Agency, 2019); Rainer L. Glatz and Martin Zapfe, 'Ambitious Framework Nation: Germany in NATO', Stiftung Wissenschaft Und Politik (SWP) (blog), 2017.

42 Ministerie van Defensie, 'Kamerbrief over defensiesamenwerking met de Duitse krijgsmacht, BS2022014984', 7 July 2022, p. 1.

43 Bundeswehr, and Royal Netherlands Army. 'Vision on German/Netherlands Army Cooperation', 28 November 2022.

component of the Dutch commitment to the new Force Model. The 13 Light Brigade being an integral part of Project Division 2025 is the premise on which further discussion in this paper is built upon.

Considering the new Force Model, the time-consuming process of forming multinational task forces "tailored to the mission" will be replaced by "organise as you fight" formations like Division 2025. This will include not only four combat brigades, but also many enabling capabilities, like artillery, reconnaissance, signals, and engineer battalions. This also applies to the capabilities which are specialised in cognitive effects: Military Public Affairs (Mil PA),[44] Civil-Military Cooperation (CIMIC)[45] and Psychological Operations (PsyOps).[46] Current NATO requirements include at least one PsyOps and one CIMIC company-sized element for the division level.[47] After three decades of budget cuts obfuscated by cost-saving measures such as pooling & sharing,[48] the new Force Model will almost certainly lay bare an underlying dearth of enabling capabilities in all areas.[49] Given the scarcity of resources, German and Dutch armed forces should closely coordinate their efforts, when fully equipping 10 Armoured Division and 13 Light Brigade.

Considering the new Force Model, the time-consuming process of forming multinational task forces "tailored to the mission" will be replaced by "organise as you fight" formations like Division 2025.

Three takeaways for Division 2025:

1. 10 Armoured Division and 13 Light Brigade will be on a Notice to Move of 10-30 days. This means that all staff and capabilities must be an integral, trained and fully interoperable part of the division.
2. Apart from also being a NATO requirement, specialised staff, and capabilities need to be an integral part in all elements of Division 2025 to implement the behaviour-centric approach into the division's operations (see Chapter 1: The nature of conflict and NATO's behaviour-centric approach).
3. All information activities conducted by 10 Armoured Division as well its Brigades (including 13 Light Brigade) need to be deconflicted and aligned in order to avoid undesired cognitive effects and create desired cognitive effects.

44 NATO military public affairs: "The function responsible for promoting NATO's military aims and objectives to audiences to enhance awareness and understanding of military aspects of the Alliance. Note(s): This includes planning and conducting external and internal communications, and community relations." (NATO, 'AAP-6', p. 89).

45 Civil-Military Cooperation: "A joint function comprising a set of capabilities integral to supporting the achievement of mission objectives and enabling NATO commands to participate effectively in a broad spectrum of civil-military interaction with diverse non-military actors." (NATO, 'AAP-6', p. 26).

46 Psychological Operations: "Planned activities using methods of communication and other means directed at approved audiences in order to influence perceptions, attitudes and behaviour, affecting the achievement of political and military objectives." (NATO, 'AAP-6', p. 105).

47 Nikolaus Carstens, 'Für Eine Glaubhafte Abschreckung Braucht Es Mindestens Eine Einsatzbereite Division', 29 May 2022, www.dbwv.de/aktuelle-themen/blickpunkt/beitrag/fuer-eine-glaubhafte-abschreckung-braucht-es-mindestens-eine-einsatzbereite-division.

48 Christian Mölling, 'Pooling and Sharing in the EU and NATO: European Defence Needs Political Commitment Rather than Technocratic Solutions' (SWP Comments, 2012), pp. 1-2.

49 Rainer Meyer zum Felde, 'Deutsche Verteidigungspolitik – Versäumnisse Und Nicht Eingehaltene Versprechen', SIRIUS – Zeitschrift Für Strategische Analysen 4, no. 3 (25 September 2020): pp. 315-32.

Chapter 3: Five key elements to integrate information activities

Combined arms could be compared to a philharmonic orchestra; it is neither the individual violin nor the family of string instruments that makes Beethoven's Symphony No.9 a masterpiece, but the combination of all instruments playing in harmony.

As shown in Chapter 1, the four key tenets of doctrine, including the behaviour-centric approach, provide the new conceptual framework which guides military staffs to plan all military activities including information activities. However, this paper aims to provide tangible advice on how especially information activities can be employed in practise by discussing their necessary preconditions. This chapter identifies five keys to a more effective implementation of information activities as a military instrument: combined arms, intelligence, targeting, Information Operations and Strategic Communication. These key elements differ in scope and nature. While combined arms is a military principle and a mindset, intelligence and targeting are established military processes. Finally, Information Operations and Strategic Communications are specialised staff functions for cognitive effects within a military staff. All five will be needed to effectively integrate information activities into the existing military processes.

Key 1: Combined arms

The omnipresence of information technology in the 21st century's operating environment creates the need to integrate information activities more effectively into the battle-proven combined arms approach. A 'combined arms mindset' provides the basis for integrating and synchronizing specialised capabilities like CIMIC, PsyOps and Mil PA with all other well-established military capabilities ranging from light infantry to rocket artillery.

What is combined arms?

The concept of combined arms refers to the "synchronised or simultaneous application of several arms to achieve an effect on the enemy that is greater than if each arm were used against the enemy in sequence".[50] One could compare it to a philharmonic orchestra; it is neither the individual violin nor the family of string instruments that makes Beethoven's Symphony No.9 a masterpiece, but rather the combination of all instruments playing in harmony. Following the analogy, the families of military "instruments", or arms, are "conducted

50 NATO, 'AAP-6', p. 28.

by a military staff to create the "music" of synchronised military actions which finally have effects on different audiences."[51]

In the years since the development of combined arms, the world — and with it, the operating environment — has undergone radical changes. Military commanders now face a battlefield that has evolved to a complex engagement space[52] with a new virtual dimension[53] in which globally interconnected actors communicate in a matter of seconds (see Figure 6). While the physical dimension[54] has certainly not lost its relevance, the new AJP-01 acknowledges that changing behaviour in the cognitive dimension[55] has direct and decisive effect in the virtual and physical dimension as well. The three dimensions can therefore not be seen as separate entities but in fact are closely connected and interwoven. Looking at the rapid rate of technological change observed in the previous decades, the dimensions will likely become even more interconnected. The concept of combined arms, however, is timeless — as long as the arms keep up with the times.

Combined arms and information activities

Particularly for land forces it is important to understand that information activities are not merely limited to specialised capabilities.

Information activities are aimed at cognitive effects and therefore behavioural change, directly impacting the course of a conflict (see Chapter 1: The nature of conflict and NATO's behaviour-centric approach). The Allied Joint Doctrine for Land Operations stresses the importance of cognitive effects. "Successful planning, execution and assessment of land operations depends on understanding the population and on assessing the effects, both immediate and long term, of our actions on audiences".[56] This is especially relevant when looking at Division 2025 and its core task of deterrence and forward defence in Eastern Europe.

Particularly for land forces it is important to understand that information activities are not merely limited to specialised capabilities; an artillery strike, for instance, is usually also an information activity. Somewhat counterintuitively, an artillery strike is not confined to the physical dimension but also affects the virtual and cognitive dimension (see Figure 6). When intended to make the enemy withdraw from its position rather than destroy him, for example, the artillery is used to create a cognitive effect on the enemy's mind. The thought of "I must withdraw, or I will die" leads to the desired behaviour. In this regard, the non-lethal fire[57] of artillery (and every other effector) is an instrument for behavioural change. AJP 3.2 underlines this by stating that: "Fires refers to the use of weapons to create a physical, virtual, or cognitive

51 Andreas Marlow and Wilson C. Blythe, 'Multi-Domain Warfighting in NATO', Military Review, 2022, pp. 2-3.

52 Engagement space: "The engagement space is the part of the operating environment where actions and activities are planned and conducted. When capabilities from operating domains are assigned to an operation, they are applied in an engagement space, which always incorporates the information environment, electromagnetic and acoustic spectra and is applied at all levels of operations across the continuum of competition." (NATO, 'AJP 3.10', p. 10).

53 Virtual dimension: "The virtual dimension relates to the consequences of activity on the storage, content and transmission of analogue and digital data and information, and all supporting communication and information systems and processes." (NATO, 'AJP-01', p. 96).

54 Physical dimension: "The physical dimension relates to consequences on the audiences, the sub- surface, surface, airspace and space areas where all physical activities take place, and where audiences live, including all physical objects and infrastructure that support them." (NATO, 'AJP-01', p. 96).

55 Cognitive dimension: "The cognitive dimension relates to the consequences on the audiences' perceptions, beliefs, interests, aims, decisions and behaviours. It encompasses all forms of interaction between them (such as economic and political)." (NATO, 'AJP-01', p. 96).

56 NATO, 'AJP-3.2', p. 2.

57 Non-lethal fire: "Fire that does not primarily seek the physical destruction of an intended target and is delivered to impair, disrupt, delay or neutralize the performance of enemy operational forces, functions and facilities." (NATO, 'AAP-6', p. 91).

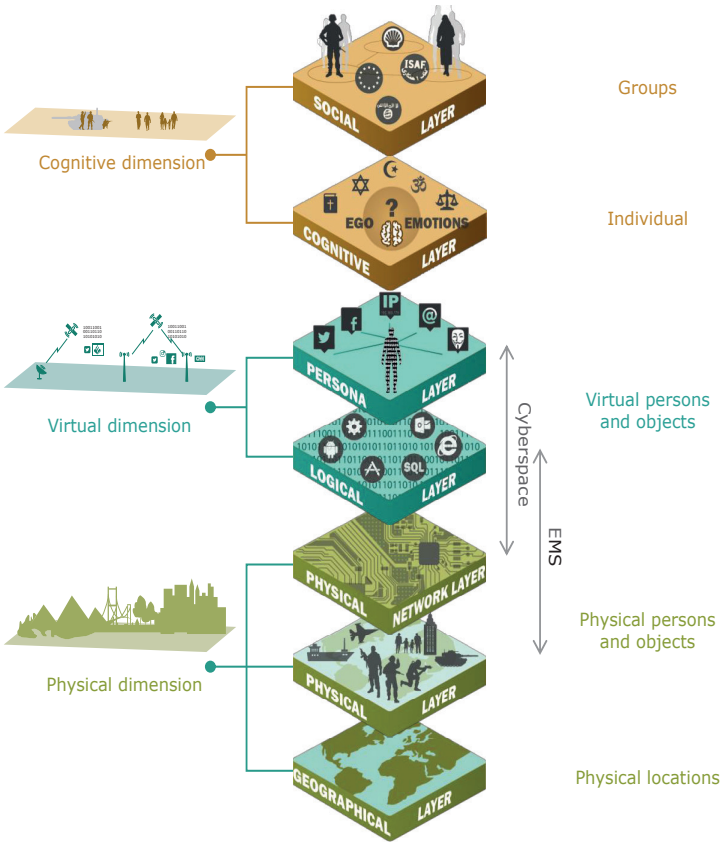

Figure 6: The effect dimensions split into layers and entities ('Handbook Tactical Operations', p. 1/24).

The engagement space of a division is likely to contain host nation authorities, non-state actors, and a large variety of media entities.

effect on a target. Fires provide the commander with the ability to affect the physical component of adversary fighting power, impacting their understanding and moral component and, consequently, influencing their will to fight".[58] This shows that within combined arms, the desired effect determines the instrument to be used—not the other way around. The method of thinking in terms of effects instead of capabilities is therefore called the effect-centric approach.[59]

To understand the role of information activities within the effect-centric approach, it is important to understand that physical effects and cognitive effects serve the same purpose. As an example: a military objective could be formulated as "enemy forces must not cross the bridge". To achieve this objective a physical effect like "enemy forces are destroyed before crossing the bridge" can be envisioned. But the same objective can also be reached with a cognitive effect like "enemy forces decide not to cross the bridge". From a purely military perspective, neither of the two induces a "superior" effect: the relevant criterion is which effect is most suited to reach the desired objective (see the manoeuvrist approach in Chapter 1).

This is merely a theoretical example. The modern operating environment, however, does not exist in the sanitary vacuum of a military exercise area. The engagement space of a division is likely to contain host nation authorities, non-state actors, and a large variety of media entities. The potential presence of thousands of civilians (including displaced persons) interconnected by social media must be considered as well. These interconnected non-combatants

58 NATO, 'AJP-3.2', p. 51.

59 Royal Netherlands Army, 'Handbook Tactical Operations', p. 1/22.

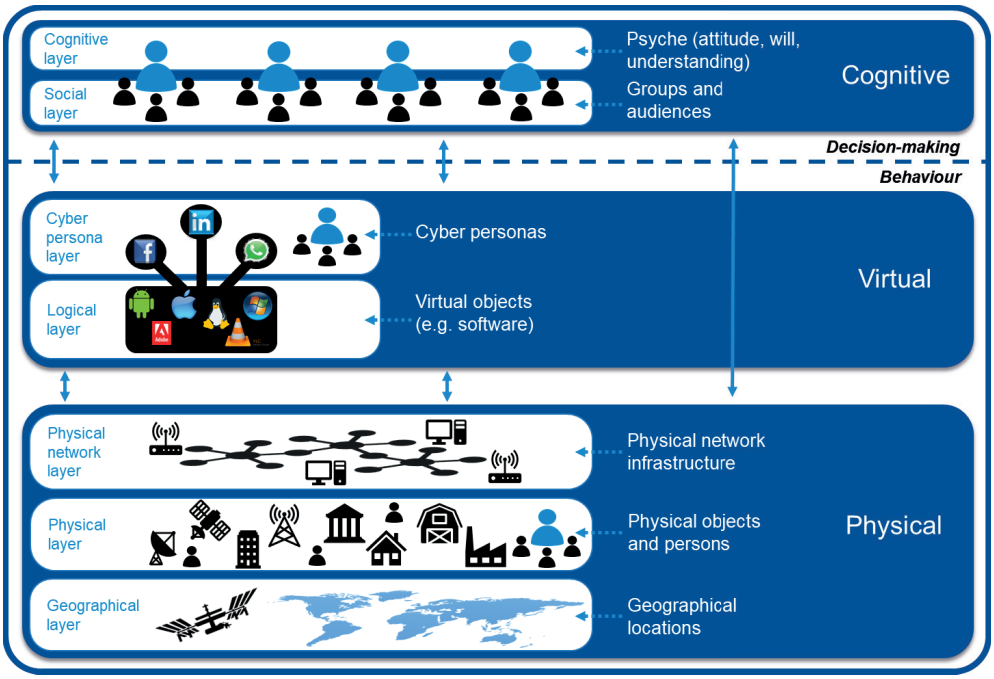

Figure 7: A schematic overview of the information environment. It is connected to each of the effect dimensions ('AJP-10', p.8).

The way military operations are perceived by the public has considerable repercussions on their success.

are protected by international humanitarian law. Therefore, they can only be very limited targets for physical effects. Engaging them is nonetheless crucial to a mission's success: "Civilians keep distance from the bridge so the artillery can destroy it" is a cognitive effect which combines the protection of civilians and support of the military objective. Without specialised capabilities and expertise within their staff, a tactical commander has limited choices: either accept civilian casualties by striking the bridge or allow the enemy to cross the river. While choosing to strike might win one battle, it might not be the way to win the war.[60]

The Allied Joint Doctrine for Land Operations highlights the impact of this new operating environment: "Commanders do not therefore merely conduct operations in a confined area of operations, but also in a global information environment without boundaries. The way military operations are perceived by the public has considerable repercussions on their success. The objective-driven handling of public perception is an integral, and sometimes decisive, element of the planning and conduct of operations." [61] This simplified case is meant to serve as an example of how information activities could be integrated into combined arms at the tactical level. In terms of its immediate effect in the physical dimension (for example on enemy forces), information activities might never outrank traditional effectors like artillery, but they can broaden the range of legitimate targets by making previously unavailable actors and stake-holders — such as civilians, key leaders, and media – targets for cognitive effects.

The physical, virtual, and cognitive effect dimensions should hence not be seen as separate entities, but as a common engagement space connected by the information environment (see Figure 7). It can be seen as a circular process: a cognitive decision-making process is followed by a physical action which in turn leads to a new cognitive decision-making-process. Effects in the cognitive dimension are inseparable from effects in the virtual and cognitive dimension and the other way around. A military formation (regardless of whether it is a company or a corps) can therefore only be successful if all effect dimensions are considered in its military

60 Luke Condra et al., 'The Effect of Civilian Casualties in Afghanistan and Iraq' (Cambridge, MA: National Bureau of Economic Research, July 2010), pp. 32-34.

61 NATO, 'AJP-3.2, Allied Joint Doctrine for Land Operations', p. 3.

planning process.[62] Returning to the definition of combined arms: when the orchestra of combined arms synchronizes all capabilities in all dimensions it will achieve an effect on an audience that is greater than if each capability were used against it in sequence.

Three takeaways for Division 2025:

1. The orchestrated use of information activities and "kinetic activities" can achieve an effect greater than if each were employed alone.
2. A tactical commander with specialised capabilities and specialized staff at his disposal can actively exploit the cognitive dimension.
3. Outfitting the division's toolbox with specialised capabilities allows for more possible courses of action. This allows the tactical commander to leverage information activities to exert proportional force or influence in all parts of the continuum of competition against any audience.

The orchestrated use of information activities and "kinetic activities" can achieve an effect greater than if each were employed alone.

Key 2: Intelligence

This section starts by introducing the tried-and-tested process of intelligence and its connection to combined arms. Then, it points out the added value of incorporating information environment analysts into the existing intelligence apparatus before deriving relevant takeaways for Division 2025.

What is intelligence?

The better an organisation understands the environment in which it operates, the better it will be able to achieve its objectives. In a military organization intelligence[63] is the primary source for understanding the operating environment.[64] It identifies threats and points out opportunities for exploitation, such as a potential target. All activities that lead to situational awareness and contribute to the understanding of the operating environment are therefore part of the intelligence process. In contrast to that, all activities that lead to mission accomplishment are part of the targeting process (see Key 3: Targeting).[65]

The intelligence process commonly starts with the intelligence preparation of the operating environment (IPOE), a process conducted in the G-2 environment cell [66] of a military staff. The IPOE combines and analyses information from all dimensions. "It supports the targeting process as part of the planning process and during the execution of the operation by providing intelligence and information about potential targets (in the broadest sense), and it supplies the intelligence required to be able to determine the effects that particular actions have generated (such as a battle damage assessment and a measurement of effectiveness)."

62 NATO, 'APP-28, Tactical Planning for Land Forces [Edition A Version 1]', 2019.

63 Intelligence: "The product resulting from the directed collection and processing of information regarding the environment and the capabilities and intentions of actors, in order to identify threats and offer opportunities for exploitation by decision-makers." (NATO, 'AAP-6', p. 69)

64 NATO, 'AJP-2, Allied Joint Doctrine for Intelligence, Counter-Intelligence and Security', 2020.

65 Royal Netherlands Army, 'Handbook Tactical Operations', p. 2/18.

66 AJP-3 describes a generic staff structure. On operational level the functional areas are abbreviated with the capital letter J and on tactical level with G. J-1 Personnel and administration, J-2 Intelligence, J-3 Operations, J-4 Logistics, J-5 Plans, J-6 Communication and information systems, J-7 Training, J-8 Budget and Finance, J-9 Civil-Military Cooperation. For a visualized generic staff structure see Figure 14 (NATO, 'AJP 3 Allied Joint Doctrine for the Conduct of Operations [Edition C Version 1]', pp. A/1 – A/9).

[67] After the initial IPOE, the intelligence cycle obtains and assembles information and converts it to intelligence which provides constant input for the planning and targeting process.

Intelligence and information activities

Intelligence is merely a process; it requires sensors capable of collecting the information necessary to feed its internal mechanisms. While sensors are designed to gather information, effectors are designed to achieve effects. An unarmed surveillance drone, for instance, is an intelligence asset and therefore a specialised sensor. When armed, however, the drone becomes not only a sensor but also an effector. In this manner, the capabilities CIMIC, PsyOps and Mil PA, are like an armed drone. While they are not specialised intelligence assets, they do operate as both effectors and sensors. Two examples are as follows:

- A Tactical PsyOps Team gathers information about its target audience (sensor) before it influences them via engagements, loudspeakers, or dissemination of PsyOps products (effector).[68]
- A Mil PA cell monitors social media accounts and news feeds (sensor) before it distributes its own content via digital engagement (effector). NATO, 'NATO Public Affairs Handbook', 2020, pp. 149-69. [69]

While sensors are designed to gather information, effectors are designed to achieve effects.

So far CIMIC, PsyOps and Mil PA are not natural parts of the intelligence process. In practice, there are two main obstacles to fully leveraging these capabilities as sensors. Firstly, they are less dependent on intelligence than other effectors by virtue of their dual use as both sensor and effector. So, they can maintain a sensor to effector loop without the involvement of any third party (although additional intelligence input still sharply increases their effectiveness). It can also be argued that the capabilities specialised in information activities were forced to develop this dual role since, in the past, the intelligence process did not supply them with the information they needed. This is connected to the second and most important obstacle to integration faced by these capabilities: the G-2 environment cells on the division and brigade level are usually not equipped with specialised information environment analysts.

Without specialists who understand the information environment, there is a great risk that these specialised capabilities are not effectively incorporated into the intelligence collection plan. This has three consequences: Firstly, CIMIC, PsyOps and Mil PA will continue to be poorly used sensors within the intelligence process. Secondly, the actual intelligence assets will not be tasked with gathering the specific information needed by these capabilities, rendering them less effective. Thirdly, all capabilities, be they light infantry or rocket artillery will produce effects in the physical, virtual, and cognitive dimension based on military planning that lacks sufficient situational awareness and understanding of the information environment in which they operate.

Operating blindly in the information environment thereby increases the risk of unintended side effects which are mitigating or even counteracting the intended effect, thus risking the overall mission. The Allied Joint Doctrine for Land Operations states that "Commanders must understand the informational aspects of the land environment: how it can influence the audience,

67 Royal Netherlands Army, 'Handbook Tactical Operations', p. 2/20.

68 NATO, 'AJP-3.10.1, Allied Joint Doctrine for Psychological Operations [Edition B Version 1]', 2014, p. 3/5.

69 NATO, 'NATO Public Affairs Handbook', 2020, pp. 149-69.

Without specialists who understand the information environment, there is a great risk that these specialised capabilities are not effectively incorporated into the intelligence collection plan.

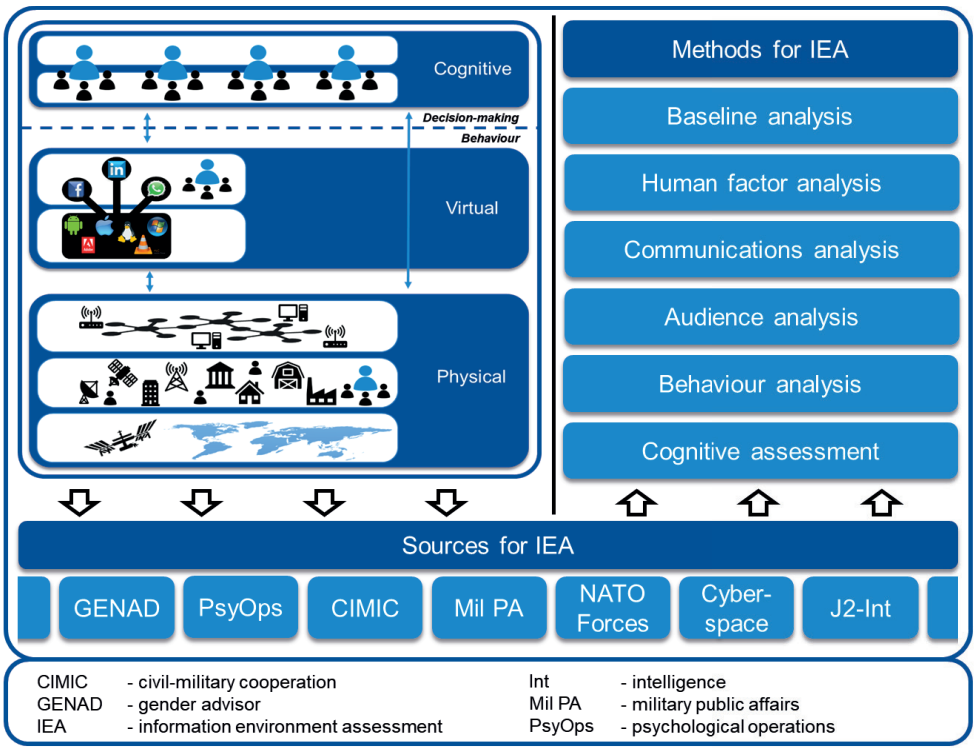

Figure 8: The new information environment assessment (IEA) integrates the information environment and specialised capabilities into the intelligence process at NATO operational level commands. It is up to the individual member states whether they want to implement it in their national chain of command ('AJP-10', p. 41).

and how, as a resource of the land force, it supports the integration of actions. As a means of influence, they must understand what information is relevant and to whom, how it is received, and how it might influence people's decision-making and behaviours."[70] Closing this gap in the G-2 intelligence cell by adding information environment analysts could be a very efficient way to create a (much) bigger leverage effect on the tactical level.

NATO has addressed this need by establishing an information environment assessment (IEA) in its new AJP-10 Strategic Communication (see Figure 8). During the intelligence process the IEA is fused with the IPOE to create a comprehensive understanding of the operating environment (CUOE).[71] This process however will only be introduced at the operational level (i.e., at NATO headquarters). Individual member states, however, are encouraged to adapt these NATO processes rather than develop their own national procedures for the tactical level.

Three takeaways for Division 2025:

1. Without information environment assessment (IEA), the division and brigades cannot have full situational awareness and understanding. Every part of the operating environment needs to be analysed to provide the tactical commander with a comprehensive picture.
2. Capabilities such as CIMIC, PsyOps and Mil PA can only add their full potential as sensors when fully integrated into the intelligence process, including at the division and brigade levels.
3. The lack of specialised information environment analysts in the G-2 environment cell represents a missed opportunity. With specialised expertise and an IEA at tactical levels, the integration of specialised capabilities, addition of extra sensor capacity, and completion of the situational picture of the division and its brigades can be achieved.

70 NATO, 'AJP-3.2', p. 47.

71 NATO, 'AJP-10, Allied Joint Doctrine for Strategic Communications, [Edition A Version 1]', 2022, pp. 39-41.

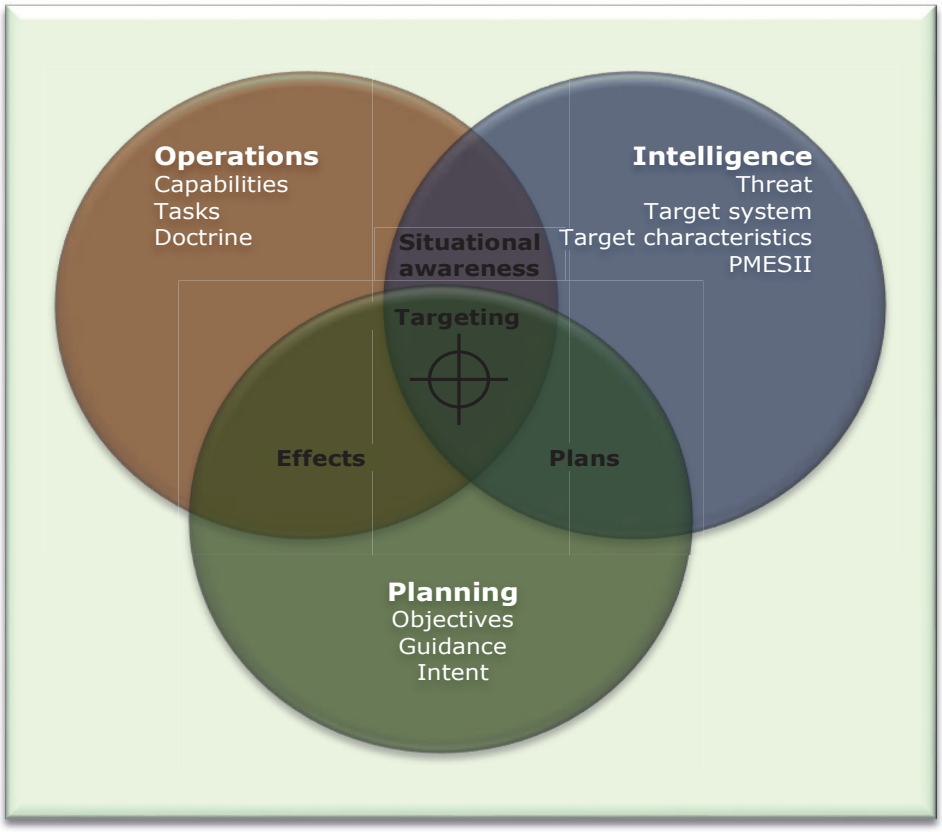

Figure 9: Targeting as the link between situational awareness, plans and effects ('Handbook Tactical Operations', p. 2/24).

The joint targeting process integrates capabilities from all military services (such as army, air force and navy) including capabilities specialised in cognitive effects.

Key 3: Targeting

This section starts by introducing the military targeting process and showing its interconnection with the intelligence process. It explains why targeting is usually not found on division level or lower and elaborates why this should be changed in order to include information activities and their specialised capabilities more effectively.

What is targeting?

Intelligence is the analysis of collected information. One possible output of the intelligence process is the identification of potential targets. Targeting then is the continuing process that connects these targets to desired effects. Targeting also designates the capability (effector) most suited for achieving the intended effect on the target. In other words: "targeting is the process of selecting and prioritising targets and matching the appropriate response to them, taking into account operational requirements and capabilities." [72] Moreover, the targeting

72 Royal Netherlands Army, 'Handbook Tactical Operations', p. 2/23.

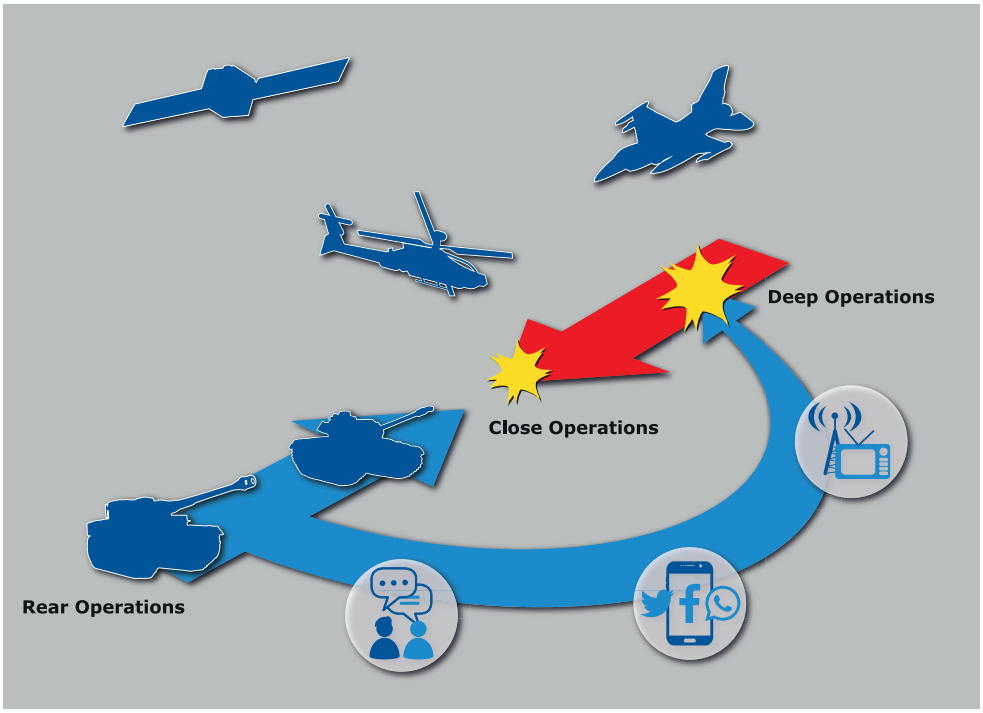

Figure 10: Information activities in support of rear and deep operations.

This paper calls for the integration of specialised staff and capabilities, in order to plan and conduct information activities at a low tactical level.

process is designed to achieve effects in the rear[73] operations and deep[74] operations in an effecient way (see figure 10).

Targeting is a common process at the operational level, such as in a NATO Joint Force Headquarters (JFHQ). Here, it is called the joint targeting process, meaning that it integrates capabilities from all military services (such as army, air force and navy) including capabilities specialised in cognitive effects. Although always being an inherent part for the operational level joint doctrine,[75] targeting has only been included at a lower command level by some countries (like the Netherlands). At this lower level, it is called the land tactical targeting process and consists of the D3A-methodology: decide, detect, deliver, and assess (see Handbook Tactical Operations for a detailed explanation).[76]

The land tactical targeting process has several characteristics that make it especially suited for the integration of CIMIC, PsyOps and Mil PA into divisions and brigades. First, it is a multinational NATO standard and battle-proven procedure. Second, the procedure is well integrated into the military decision-making, planning and intelligence processes (as depicted in Figure 9). Third, by linking sensors, targets, and effectors, targeting represents the central process in

73 Rear operations: "Rear operations establish and maintain friendly forces to generate freedom of action for deep and close operations. All forces have a rear area. They include many administrative and logistic activities, protection of critical assets and infrastructure and real estate management. They may require stability activities to maintain or gain consent of a host nation and the range of offensive and defensive activities through combined arms manoeuvre." (NATO,'AJP-3.2', p. 63).

74 Deep operations: "Deep operations are conducted at long range and often over a protracted timescale, against an adversary's forces or resources not currently engaged in the close battle. They may comprise intelligence gathering or fires, manoeuvre and information activities, aimed at targeting key vulnerabilities (the will, cohesion or capabilities of an adversary). Deep operations are usually conducted at the corps or divisional level, often supported by other components to shape the close operations of subordinate forces. Deep operations conducted by land forces are distinguished by their sustainment and communication requirements, and by their significant potential to dislocate an adversary, if conducted at speed and with sufficient force." (NATO, 'AJP-3.2', pp. 62-63).

75 NATO, 'AJP-3.9, NATO Allied Joint Doctrine for Joint Targeting [Edition B, Version 1]', 2021.

76 Royal Netherlands Army, 'Handbook Tactical Operations', pp. 2/23-2/26.

the systematic achievement of effects in all three effect dimensions. It explicitly encompasses "kinetic" and "non-kinetic" capabilities which focus on cognitive effects.[77]

Since this paper calls for the integration of staff and capabilities, in order to plan and conduct information activities at a low tactical level, it is important to understand why targeting is not yet common practice at that level. First, targeting is a time-consuming process if it is executed in all details. This makes it unsuitable for operations conducted by the main body (combat and combat support) of a formation already in direct contact with the enemy (so called close operations[78]). Second, many kinetic effectors used in traditional targeting are either from a different military service (such as submarine-launched cruise missiles) or in short supply within the land forces (such as rocket artillery). Therefore, the use of these effectors is planned at operational or higher tactical levels. Since traditional effectors used for targeting such as combat aircraft and armed drones are scarce at the low tactical level, a low-level targeting process at Divison and Brigade level has often been seen as unnecessary. When in need of such specific effectors, they can request them from higher commands.

Some information activities, like loudspeaker broadcasts, cell phone push-messages, in-person conversations and pre-planned social media posts, can lead to an immediate change of human behaviour.

If a brigade identifies an important target within its area of responsibility, it can be added to a high priority target list (HPTL) or high value target list (HVTL) that then fuels the targeting process on operational level. Supporting the joint targeting process, however, is not the same as implementing a structural land tactical targeting process. A lower tactical level command should be enabled to conduct a simplified land tactical targeting process. The results of this process will fuel the joint targeting process as well as efficiently link the brigade's sensors and effectors to targets. Therefore, a brigade or division benefits from the strengths of this process within its own area of responsibility, regardless of whether some identified targets are suitable for the higher level's HPTL or HVTL as well. Especially when integrating information activities into combined arms, the need for targeting — and, moreover, the chances provided by the targeting process — arise.

Targeting and information activities

It is important to note that some traditional effectors, like tube artillery (howitzers), can usually be found on a low tactical level. To understand why the integration of information activities requires the targeting process and tube artillery does not, it is necessary to explore the similarities and differences between the two. Tube artillery is meant to support combat forces in contact with the enemy via indirect fire. Therefore, the sensor to effector loop may take mere minutes to complete, whereas the same loop can take hours, days, or weeks in the case of the targeting process. To conclude, while artillery support is generally used for close operations, the targeting process is used to plan rear and deep operations (see Figure 10).

So how long does the sensor to effector loop take for a capability like CIMIC, PsyOps or Mil PA? Some information activities, like a CIMIC project or a microtargeting social media

77 Paul A. L. Ducheine, 'Non-Kinetic Capabilities: Complementing the Kinetic Prevalence to Targeting', in Targeting: The Challenges of Modern Warfare, ed. Paul A.L. Ducheine, Michael N. Schmitt, and Frans P.B. Osinga (The Hague: T.M.C. Asser Press, 2016), pp. 201-30.

78 Rear operations: "Rear operations establish and maintain friendly forces to generate freedom of action for deep and close operations. All forces have a rear area. They include many administrative and logistic activities, protection of critical assets and infrastructure and real estate management. They may require stability activities to maintain or gain consent of a host nation and the range of offensive and defensive activities through combined arms manoeuvre." (NATO,'AJP-3.2', p. 63).

campaign[79] require time to implement. Therefore, they generally have a longer sensor to effector loop. Additionally, it might take some time until the cognitive effect is achieved. This time needed between the execution of the activity and the achievement of the effect is called the time to effect. [80] Some information activities, like loudspeaker broadcasts, cell phone push-messages, in-person conversations[81] and pre-planned social media posts, can lead to an immediate change of human behaviour. They have a very short or even instant time to effect. Looking ahead in time, further advance in information technology and automatization will prospectively make the planning of all information activities a much faster process, generally shortening the sensor to effector loop and time to effect for information activities.

"Non-kinetic effectors" differ from "kinetic effectors" not only regarding the sensor to effector loop but also in their primary focus on the cognitive dimension. Their expertise on influencing human behaviour permits a tailored and well-planned effect on the conflict triangle. Together, this enables a targeting board to always find the effector best suited for a specific target or, in the best case, even synchronize their activities (see Key 1: Combined arms).

Capabilities like CIMIC, PsyOps and Mil PA are most suited for use against audiences in rear operations and deep operations.

So what is the added value of information activities for a low-level tactical formation? Generally, direct contact with enemy forces (close operations) calls for a "kinetic" activity with a short sensor to effector loop and time to effect. Put bluntly, soldiers on the ground will prefer a swift artillery strike over a well-planned social media campaign. Capabilities like CIMIC, PsyOps and Mil PA are therefore generally less suited for use against enemy forces during close operations. They are most suited for use against audiences in rear operations and deep operations. This assessment does not preclude the possibility of exploiting combat losses in close operations in order to degrade the enemy's morale and persuade him to surrender (see manoeuvrist approach in Chapter 1). Additionally, as earlier described in the section Key 1: Combined arms, a brigade must influence the behaviour of different audiences and stakeholders in order to achieve its objectives, including during close operations (e.g., civilians between the frontlines, refugee treks, or prisoners of war). To quickly handle such situations, CIMIC, PsyOps and Mil PA possess specialised tactical teams with a short time to effect (Tactical CIMIC Teams, Tactical PsyOps Teams, Combat Camera Teams).

Three takeaways for Division 2025:

1. "Non-kinetic" effectors are different in their characteristics from traditional "kinetic" effectors. This allows the targeting board to choose from a broad pool of capabilities the most suitable effector for a specific target.
2. Information activities focus on influencing human behaviour. This makes possible a direct desired effect on the conflict triangle. Combined with an integrated planning and targeting process on brigade, division, and operational level, this will lead to synchronized activities and effects in all three dimensions.
3. Targeting can be an integrating process to enhance the cohesion between the 10 Armoured Division, its brigades, and higher-level formations (e.g., corps and NATO JFHQ). It is the easiest and most promising way to integrate information activities into combined arms.

79 Peter Warren Singer and Emerson T Brooking, LikeWar: The Weaponization of Social Media (Eamon Dolan Books, 2018).

80 Bundeswehr, 'Einsatzgrundsätze Operative Kommunikation, C2-160/0-0-4725', 2021, p. 14.

81 NATO, 'Engagement Handbook', 2017.

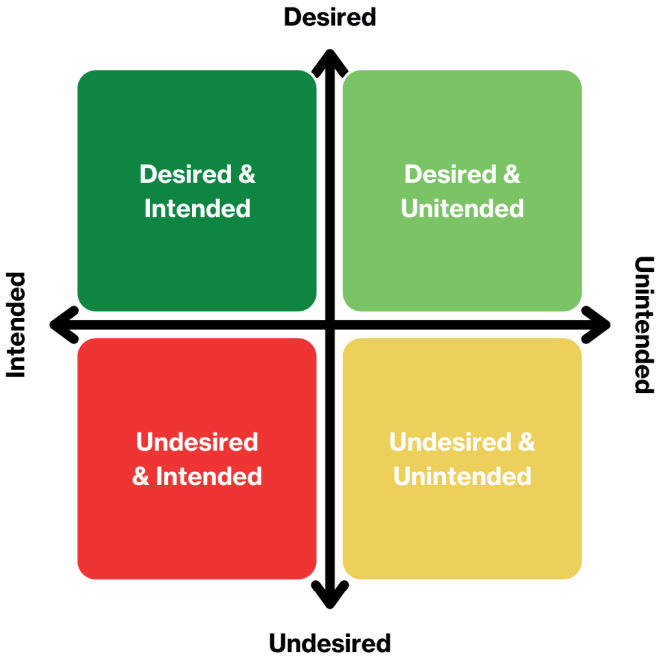

Figure 11: The matrix depicts effects along the axes desired & intended. The Info Ops staff function aims to coordinate all activities the information environment to create desired & intended effects and prevent undesired of any sort.

Info Ops is a staff function that aims to coordinate all activities and effects affecting the information environment.

Key 4: Information Operations

This section introduces the staff function Information Operations (Info Ops) and shows the link between it and the targeting process. It also discusses how each can benefit from the other, leading to combined arms. Complementing the three effect dimensions introduced at the beginning of this chapter (see Figure 6), this section also introduces two additional ways in which effects can be divided: along the axes of "desired-undesired" and "intended-unintended." The included effect matrix is a derivation of, and visualisation based on (but not included in) NATO doctrine. Together with the effect dimensions and its seven layers, it is meant to make the role of the Info Ops staff function tangible in its relevance to the 10 Armoured Division and its brigades.

What is Information Operations?

At the beginning of this chapter, we saw how effects in the information environment do not necessarily only result from actions by specialised capabilities; they result from any military action for example, an artillery strike. Info Ops is a staff function that aims to coordinate all activities and effects affecting the information environment. Special focus is laid on the cognitive dimension of the information environment. Info Ops is defined as "a staff function to analyze, plan, assess and integrate information activities to create desired effects on the will, understanding and capability of adversaries, potential adversaries and audiences in support of mission objectives." [82] Info Ops therefore solely refers to a staff function and should not be understood as an operation focused on information activities or achieving effects in the information environment.

82 NATO, 'AJP-3.10', p. 14.

To understand the benefit of Info Ops including on the low tactical level it helps to further examine the role of effects in military operations. Aside from being distinguished between physical, virtual, or cognitive, effects can also be divided into the four categories along two axes, desired and intended, as depicted in Figure 11. According to this matrix, effects can be either desired or non-desired (depending on whether they are beneficial to the mission) and either intended or unintended (depending on whether or not the effect is the result of a planned military action or not). The colours in Figure 11 are meant to attach a value to each of the combinations: green combinations are considered to be in the interest of a military organisation, while red combinations are considered to be against the military's interest. This also means that actions can have a "desired & intended" effect in one dimension (e.g., physical dimension) while at the same time having an "undesired & unintended" side-effect in another dimension (e.g., cognitive dimension).

At first glance, the existence of an "undesired & intended" quadrant might seem odd. In fact, this combination should not be possible if a rational military decision-making process is consciously followed. Nevertheless, actions contradicting military success are found frequently within military operations. Soldiers and military commanders are not machines driven by rational decisions, but rather human beings susceptible to psychological reactions driven by emotion, group processes, social status, or risk aversion.[83] It is important to realise that almost every military action will lead to effects in the information environment. This, however, must not lead to the conclusion that doing nothing at all (risk aversion) or ignoring the information environment will save an organisation from undesired effects. It will rather lead to a long list of unintended, undesired, and conflicting effects.

It is important to realise that almost every military action will lead to effects in the information environment.

Information Operations and information activities

To create "desired & intended" effects — and to prevent undesired effects of any sort — requires some entity that coordinates all activities related to the information environment. For NATO operations, Info Ops takes on this role. PsyOps and Mil Pa, combined under the new name of communication capabilities[84], are the two capabilities which always need to be planned and integrated by Info Ops. Since any action or capability can lead to effects in the information environment several other specific capabilities are also more frequently planned, integrated, and assessed by Info Ops.This includes CIMIC, electronic warfare (EW)[85] , cyberspace operations[86] , operations security[87] , deception[88] , emerging and disruptive technologies[89] , and physical destruction. [90] The capability "physical destruction" should be

83 R. J. Knighton, 'The Psychology of Risk and Its Role in Military Decision- Making', Defence Studies 4, no. 3 (2004): 309-34.

84 NATO, 'AJP-3.10', p. 16.

85 Electronic warfare: "Military action that exploits electromagnetic energy to provide situational awareness and create offensive and defensive effects." (NATO, 'AAP-6', p. 47).

86 Cyberspace operation: "Actions in or through cyberspace intended to preserve own and friendly freedom of action in cyberspace and/or to create effects to achieve military objectives." (NATO, 'AAP-6', p. 37).

87 Operations security: "All measures taken to give a military operation or exercise appropriate security, using passive or active means, to deny an adversary knowledge of the essential elements of friendly information or indicators thereof." (NATO, 'AAP-6', p. 96).

88 Deception: "Deliberate measures to mislead targeted decision-makers into behaving in a manner advantageous to the commander's intent." (NATO, 'AAP-6', p. 39).

89 Emerging technology: "A technology driven by a recent scientific discovery or nascent technological development, that is expected to mature in the next 20 years and whose ultimate effects on defence, security and/or enterprise functions are yet uncertain." (NATO, 'AAP-6', p. 48).

90 NATO, 'AJP-3.10', pp. 16-19.

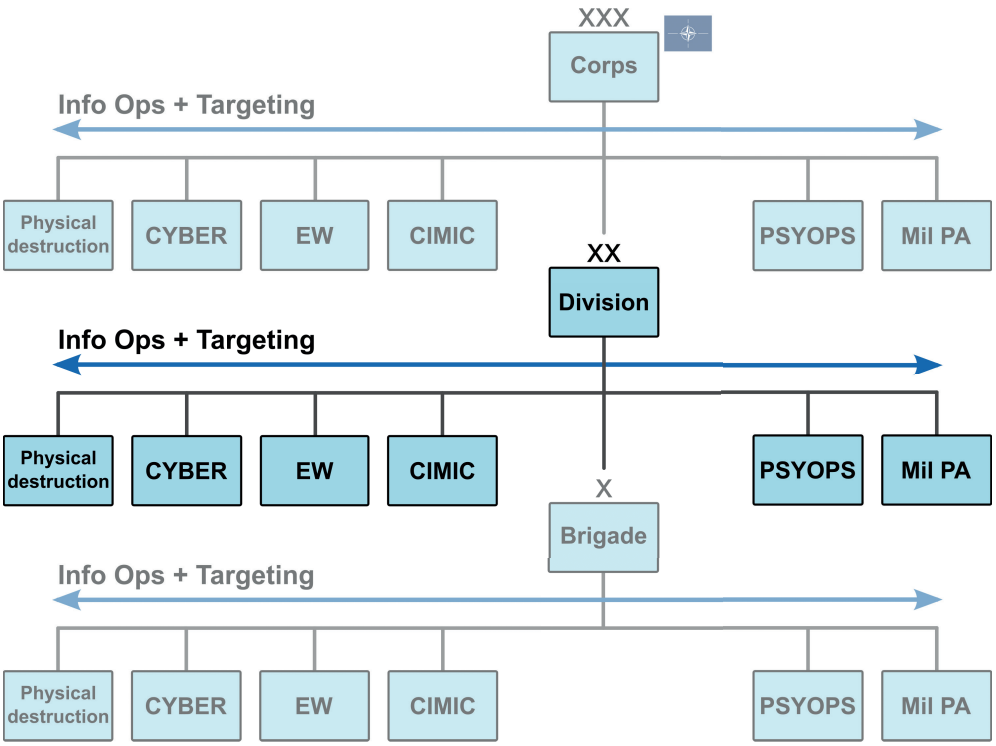

Figure 12: Info Ops coordinates information activities horizontally on each command level, thus adding the cognitive dimension to the intelligence, planning and targeting process.

The common practice of attaching tailored-to-the-mission Info Ops personnel to a staff only after the activation of contingency plans will be insufficient in the future.

understood as the link to cognitive effects created by combat forces and all "kinetic" effectors in the targeting process. The new AJP 3.10 clarifies this link between Info Ops and targeting: "Through the joint targeting process, using a myriad of delivery means, physical or virtual dimensions could be targeted for a specified cognitive effect and therefore be an information activity. Target sets will be identified through the IEA and submitted through the joint targeting process by Info Ops to create cognitive effects."[91]

The Info Ops staff function can be found on strategic, operational, and tactical level. Usually, it is not found lower than brigade level since this is the lowest level capable of the integrating processes of intelligence and targeting. Figure 12 visualises the possible use of Info Ops in the German-Dutch army structures. Each level of command would utilise its Info Ops cell to coordinate all effects in the information environment on its respective level horizontally (the vertical coordination will be explained in Key 5: Strategic Communications).

It is important to note that a lack of specialised Info Ops personnel will not lead to a lack of effects in the information environment; indeed, such a scenario will almost certainly lead to a litany of unintended, undesired, and conflicting effects. Furthermore, the common practice of attaching tailored-to-the-mission Info Ops personnel to a staff only after the activation of contingency plans will be insufficient in the future. Since NATO's new Force model intends to provide "organise as you fight" formations, their staffs need to work and exercised together regularly. Only permanent personnel can integrate Info Ops and with it the information environment and cognitive dimension into the Standard Operating Procedures of their staff (see Key 2: Intelligence and Key 3: Targeting). This pre-deployment preparation will ensure that the staff functions like a well-oiled machine from day one.

91 NATO, 'AJP-3.10', p. 18.

A litany of unintended, undesired, and conflicting effects in the information environment can become a weakness for Division 2025.

Regarding the number of Info Ops personnel needed on a given tactical staff, it is only possible to offer preliminary guidelines. A single Info Ops officer trying to provide input to the intelligence, planning and targeting process all at once might be able to reach a level of deconfliction in the information environment .[92] In order to fully incorporate NATO's behaviour-centric approach, designated personnel should be supporting the G-2 environment cell, G-3 current cell and G-5 plans cell. With specialised staff fuelling the processes of intelligence and targeting, information activities can reach full operational integration[93] and prove their value as a part of combined arms.

Three takeaways for Division 2025:

1. A litany of unintended, undesired, and conflicting effects in the information environment can become a weakness for Division 2025. Coordinated and synchronized actions will; however, achieve an effect that is greater than if each capability were used independently (see definition of combined arms in Key 1: Combined arms).
2. The absolute minimum level of ambition should be the deconfliction of all information activities on each level (e.g., brigade and division). This paper provides the arguments for setting the level of ambition to full operational integration and combined arms in all three effect dimensions.
3. Setting a different level of ambition between Germany and the Netherlands will likely lead to inefficiency and difficulties since the 13 Light Brigade and 10 Armoured Division would thus not be aligned in their processes.

Key 5: Strategic Communications

The key to StratCom is understanding the new role of narratives in NATO.

The previous sections concluded that the entities creating effects in the information environment are not limited to specialised capabilities like CIMIC, PsyOps or Mil Pa (see the artillery example in Key 1: Combined arms). Furthermore, it was shown that effects can be achieved in the physical, virtual, and cognitive dimension and that it is the responsibility of a military staff to strive for "desired & intended" effects and avoid "undesired & unintended" effects. Having introduced the staff function of Info Ops in the previous section, this section now introduces a second staff function, called Strategic Communications (StratCom). The section starts by defining StratCom and discussing the new concept of narratives in NATO doctrine. Then, it shows the link between StratCom and Info Ops by explaining the new functional area J-10 StratCom. While this functional area is only found on operational level thus far, this section will argue for the implementation of the J-10 StratCom functional area at the tactical level, thus making it a new G-10 StratCom in the divisions and brigades.

What is Strategic Communications?

StratCom in NATO military context is defined as "the integration of communication capabilities and the information staff function with other military activities, in order to understand and shape the information environment, in support of NATO aims and objectives".[94] The key

92 Deconflicted: "Forces operate in the same operational area in pursuit of a common goal but with limited interaction due to prohibitive technical, procedural and human barriers" (NATO, 'AJP-01', p. 75).

93 Integrated: "Forces operate together effectively without technical, procedural or human barriers; it is characterized by common networks, capabilities, procedures and language." (NATO, 'AJP-01', p. 75).

94 NATO, 'AJP-10', p. 1.

to StratCom is understanding the new role of narratives in NATO. A narrative is defined as "a spoken or written account of events and information arranged in a logical sequence to influence the behaviour of a target audience."[95] In other words, a narrative communicates NATO's key messages woven into a storyline. It forms the basis of all military activities starting from the strategic level up to the individual soldier.

Narratives are closely linked to the image of the strategic corporal, first introduced in 1999 by US Marine Corps General Charles Krulak.[96] He identified that military actions — resulting in an effect in the information environment— are practiced by personnel from the 5-star general to the corporal. He concluded that every single soldier is therefore an ambassador for the armed forces. The Allied Joint Doctrine for Land Operations affirms that "Land Force's interactions with populations and key actors can either negatively or positively affect the perceived legitimacy of a military commitment or campaign, thereby affecting the strategic narrative and the enduring attainment of strategic objectives." [97] Narratives are thus intended to mitigate the risk of counterproductive military actions and empower the corporal just like the general to act and communicate independently, thus maximizing mission command.

A narrative communicates NATO's key messages woven into a storyline. It forms the basis of all military activities starting from the strategic level up to the individual soldier.

NATO's core narrative is rooted in the North Atlantic Treaty, which defines it as "a democratic, multinational alliance uniting across borders to guard, with courage and competence, against threats to our homes." [98] All subsequent narratives are derived from this institutional narrative. Strategic narratives are developed at Supreme Headquarters Allied Powers Europe (SHAPE) while micro narratives are developed on the operational and tactical level to align all activities regarding their effect in the cognitive dimension.

StratCom staff therefore "translates" the narrative to each command level until, ultimately, each company commander tells his soldiers what their mission is and why (to what effect) they are to carry it out. The rationale is thus: while planned information activities certainly have an effect, eventually the presence, posture and profile[99] and all actions of the force will ultimately generate the decisive effect on the perception of NATO. The new Allied Joint Doctrine for Land Operations[100] acknowledges this need for an alignment: "Land operations that are conducted in isolation of the strategic narrative, increase the risk of audiences' misperception of NATO actions, which can degrade the credibility and legitimacy of NATO's operations." It concludes that "Land operations must be designed so that actions, images and words send consistent messages to the intended audience and support the strategic narrative and messaging."[101]

So far, NATO has not only implemented the concept of narrative-led execution as part of the behaviour-centric approach (see Chapter 1: The nature of conflict and NATO's behaviour-centric approach) but has also made significant adjustments in its staff structures. With the soon-to-be ratified AJP 10-Strategic Communications, NATO will implement a new joint functional

95 NATO, 'AJP-10', pp. 16-17.

96 Charles C. Krulak, 'The Strategic Corporal: Leadership in the Three Block War': (Defense Technical Information Center, 1999).

97 NATO, 'AJP-3.2', p. 2.

98 NATO, 'AJP-10', p. 17.

99 Presence, posture, profile: "The mere presence of a force may have a significant and varying effect on perceptions of audiences. The force's presence, posture and profile (PPP), and that of its leadership, conveys a message to local audiences directly and global ones through modern communications technology. Info Ops staff will advise on how aspects of PPP will impact on the information environment." (NATO, 'AJP 3.10', pp. 21-22).

100 NATO, 'AJP-3.2', p. 3.

101 NATO, 'AJP-3.2', p. 3.

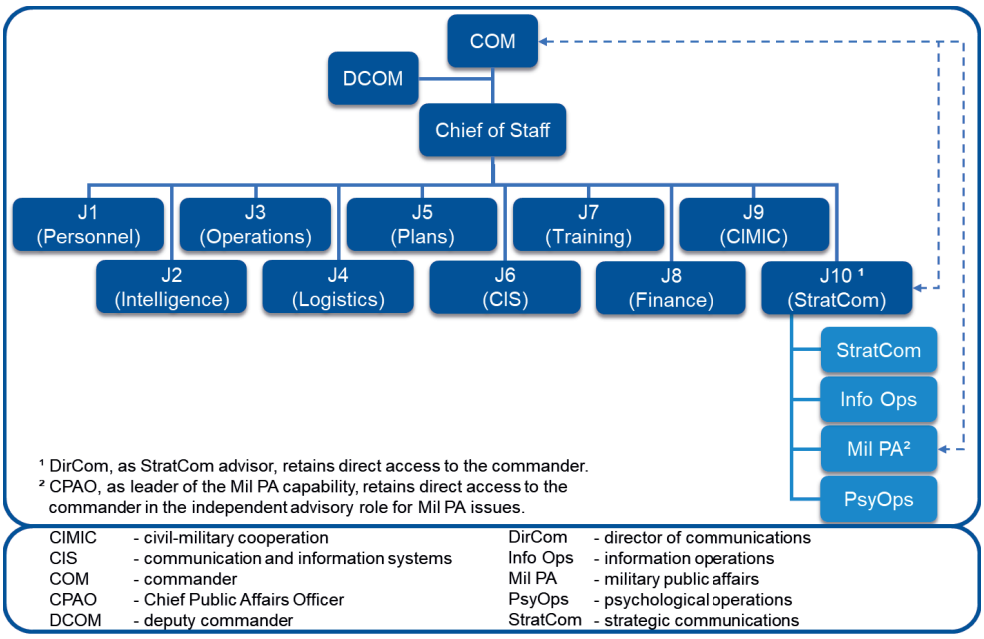

Figure 13: A generic staff on operational level after implementing the staff structure according to AJP-10. StratCom, Info Ops, Mil PA and PsyOps staff personnel is combined under the umbrella of the new joint functional area J-10 StratCom ('AJP-10', p. 20).

Land operations must be designed so that actions, images and words send consistent messages to the intended audience and support the strategic narrative and messaging.

area: J-10 StratCom.[102] This joint functional area will be implemented in all NATO commands at operational level and will be responsible for the communication capabilities (PsyOps and Mil PA), the information environment and particular the cognitive dimension. To further align all effects in the information environment, J-10 StratCom will incorporate and streamline the formerly "independent" staff functions of Info Ops, Mil PA and PsyOps (see Figure 13).

Strategic Communications and information activities

After StratCom has "translated" the strategic narrative into a micro narrative, it will be supported with a more detailed StratCom framework. This framework contains additional guidance of particular value not only to the communication capabilities of PsyOps and Mil PA, but to all capabilities that are tasked to perform information activities (including for example the artillery).

So, while the established Info Ops staff function deconflicts and coordinates all information activities on one specific command level horizontally, the J-10 StratCom functional area will coordinate all information activities within the entire command structure vertically (as depicted in Figure 14). This makes StratCom the overarching coordinating element for all effects in the information environment. The new AJP-10 thereby envisions a functional StratCom chain from the low tactical level up to the strategic level. "Implemented correctly, StratCom ensures that all NATO activity – irrespective of whether conducted in peace, crisis or conflict – is planned and executed with consideration for its effects (desired or undesired) across all domains of the operating environment. Furthermore, it ensures that the broad narratives and messages across these strategic areas and efforts are aligned and complementary."[103]

102 NATO, 'AJP-10', pp. 47-48.
103 NATO, 'AJP-10', p. 4.

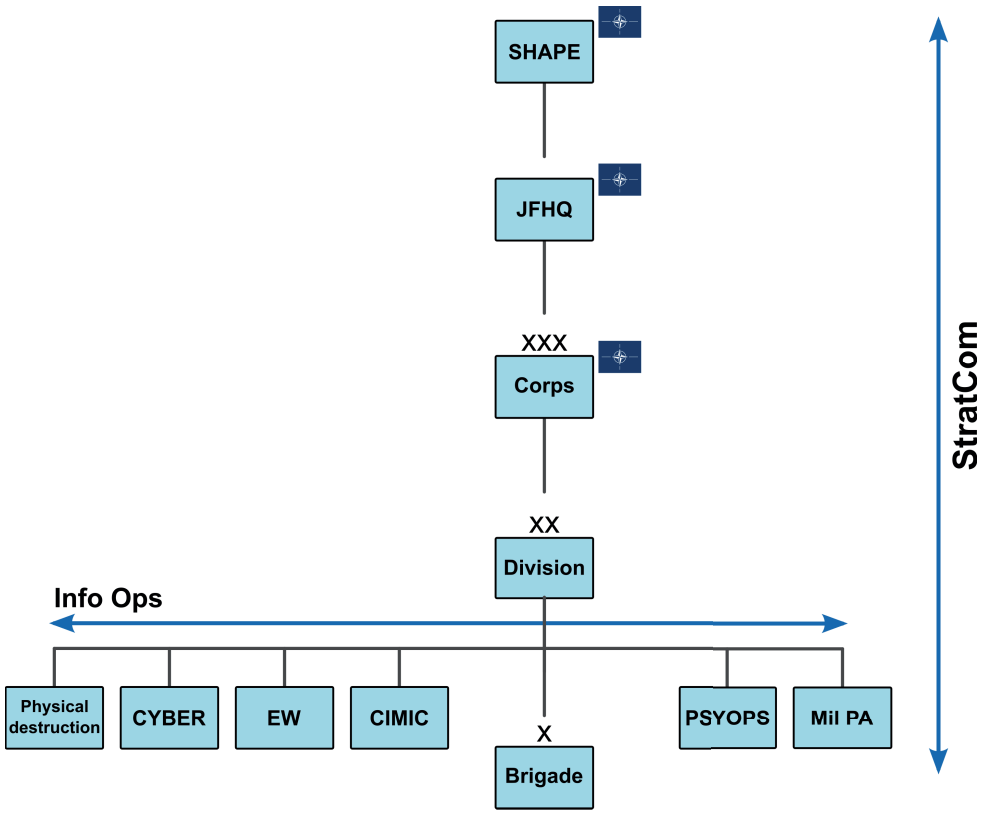

Figure 14: Info Ops coordinates information activities horizontally, while StratCom coordinates information activities vertically between the different levels of command.

StratCom streamlines all effects in the information environment, reaching from the strategic level down to the tactical level and including all information activities by any capability.

This shows that contrary to what its name might imply, StratCom is not limited to the strategic level. Quite the opposite is true: StratCom streamlines all effects in the information environment, reaching from the strategic level down to the tactical level and including all information activities by any capability (via the horizontal coordination by Info Ops). In this way, StratCom and Info Ops share numerous similarities with targeting (see Key 3: Targeting). Like targeting they "link the tactical actions to strategic end state via operational objectives by engagement of prioritised targets."[104] This is because they are all effect-centric processes, which makes them not only interoperable but also supportive of each other.

Strategic Communications in the German-Dutch Army structures

So far, the implementation of the functional area J-10 StratCom is only planned for NATO JFHQs and higher (for a generic J-10 branch see Figure 15). The decision to implement a G-10 StratCom at national commands rests with the individual member states. However, the AJP-10 also states that national headquarters when committed to NATO operations have to conduct their operations according to the guidelines, processes, and staff structures of the new AJP-10.[105]

104 NATO, 'AJP-3.9', p. 1/1.

105 "Each headquarters is uniquely structured to meet the national direction and guidance of their framework nation and the NATO role they are fulfilling. However, when committed to NATO operations, each headquarters will adapt its organization to operate in line with the doctrine set out in this publication and efficiently embed themselves within the NATO force structure headquarters staff functions and processes." (NATO, 'AJP-10', p. 30).

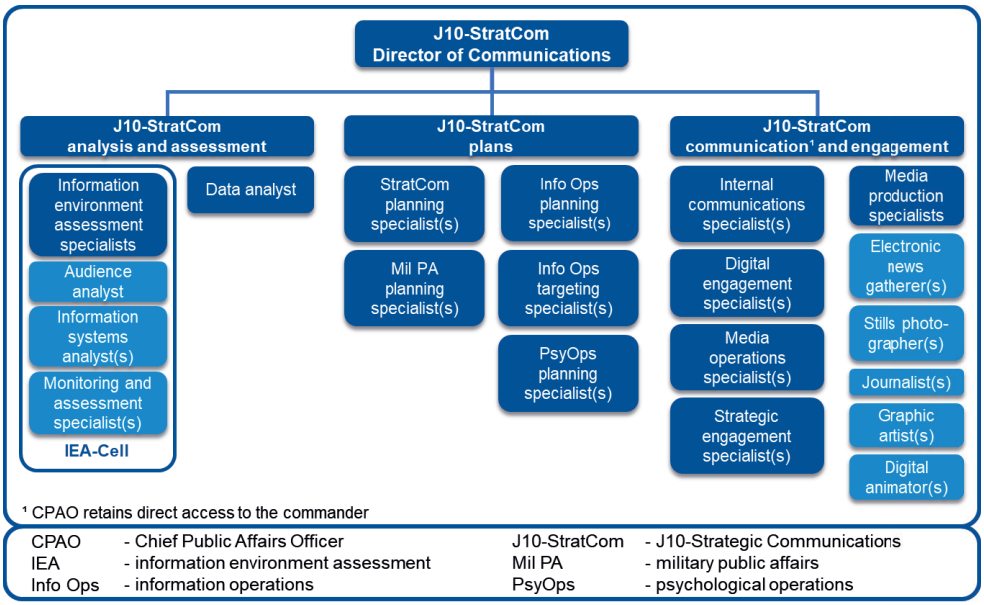

Figure 15: A generic J-10 StratCom structure on operational level according to AJP-10. On tactical and especially lower tactical level a G-10 branch would be much smaller to ensure mobility and fast deployability ('AJP-10', p. 50).

For the 10 Armoured Division in particular, StratCom offers the chance to be interoperable with the higher NATO commands while simultaneously strengthening its inner cohesion.

Apart from being compliant with NATO doctrine, there are some additional benefits to be gained by Germany and the Netherlands should they implement StratCom within their binational army structure (see Chapter 2: Division 2025 and the Dutch 13 Light Brigade). First, the Info Ops and Mil Pa staff functions which are both key to effective military communication, are not placed under one umbrella so far. Merging them under a G-10 StratCom functional area will bring clarity to staff processes. If Germany and the Netherlands were to also implement J-10 StratCom at their Ministries of Defence and relevant national commands, the entirety of information activities within (and even between) their organisations could be aligned up to the brigade level.

Second, there is also a military-political opportunity of implementing a G-10 StratCom. With possibly all three Dutch brigades integrated into the German army structures, StratCom would most definitely accelerate the integration process. It could add a new cornerstone of binational cooperation: deconflicting and coordinating the communication not only in operations but through a binational micro narrative. This cornerstone could even be expanded to the overarching German Framework Nation Concept, which aims to integrate more NATO partners into the German divisions (see Chapter 2: Division 2025 and its strategic environment). Equipping the German divisions and its brigades with a G-10 StratCom could lead to a strong multinational narrative, thus increasing the visibility and attractiveness of the Framework Nation Concept to additional partners.

For the 10 Armoured Division in particular, StratCom offers the chance to be interoperable with the higher NATO commands while simultaneously strengthening its inner cohesion. A strong and credible micro narrative will empower its brigades, battalions, and each strategic corporal to communicate and act individually resulting in effective mission command. This is a good recipe for resilience against possible enemy propaganda and malign information activities.

It is also important to note some possible negative effects of declining to implement a G-10 StratCom structure. First, without the necessary staff structure, narratives and StratCom

frameworks developed at the operational NATO commands, in multinational corps, and by the German and Dutch Ministries of Defence would likely neither be integrated into the overall planning process nor translated into concrete effects and activities at the division and brigade levels. Second, without StratCom, no overarching umbrella is equipped to effectively orchestrate a defence or even proportional response to malign sub-threshold activities (see Chapter 1: The nature of conflict and NATO's behaviour-centric approach).

Furthermore, with the brigade level as the highest command level in the Royal Netherlands Army, and with Information Manoeuvre now having been upgraded to a separate military branch , the chances are high that the Netherlands will implement a G-10- StratCom functional area in all three of their brigades in the upcoming years. Should the framework nation, Germany, not follow this path at least in its divisions, there would then be a gap in the functional StratCom chain of command between the Dutch brigades and the corps level (see Figure 14). This would be especially unfavourable, as StratCom is — in its very essence — designed to vertically streamline all levels of command.

StratCom could add a new cornerstone of binational cooperation: deconflicting and coordinating the communication not only in operations but through a binational micro narrative.

Three takeaways for Division 2025:

1. Implementing a functional StratCom chain will render the 10th Armoured Division more effective in the cognitive dimension, support its command relation with the corps level and enable its German and Dutch brigades to employ information activities more effectively.
2. The momentum created by the new AJP-10 should be used to implement a G-10 StratCom functional area within the three German divisions. This process should begin with Division 2025 and the Dutch 13 Light Brigade, after which these units could be used as a model for future transformations (see Figure 16).
3. Taking the recommended actions at brigade and division level as stated in the previous sections but failing to implement StratCom as a new overarching functional area would lessen the effect of these changes. The information environment analysts, Info Ops officers, and Mil PA officers will need the overall guidance of a StratCom chain of command that reaches from the strategic level up to them.

Conclusion

The central role of behaviour in the conflict triangle paired with a digitally interconnected and urban operating environment has led to the establishment of the behaviour-centric approach as one of the four key tenets of NATO doctrine. Recent developments not only in the capstone AJP-01 but also on Strategic Communication and Information Operations therefore highlight the need to coordinate the effects in all three effect dimensions aiming for desired & intended effects. To make the findings of this paper more tangible and of immediate use, the case study Division 2025 and its strategic environment were introduced as a current example of a tactical formation.

This paper provides practical advice to German and Dutch military decision makers by answering the research question: "Using Division 2025 as a case study, what actions should the Royal Netherlands Army and German Army take to implement information activities more effectively in their structures?" The findings here are therefore not only applicable to the project Division 2025 but can be implemented in the whole of the German-Netherlands army structure and even other NATO army structures.

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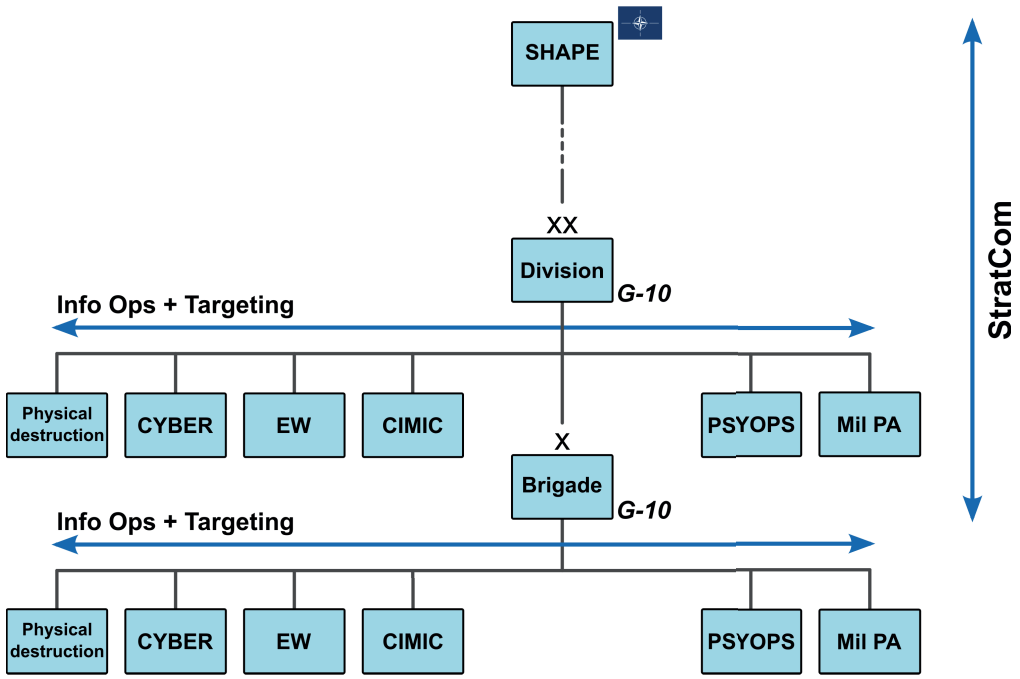

Figure 16: A schematic overview of the 10 Armoured Division and the 13 Light Brigade after implementing G-10 StratCom, Info Ops and targeting on each command level. This figure displays the desired endstate as suggested by the findings of this research paper.

Without specialized staff and capabilities, the 10 Armoured Division and 13 Light Brigade will miss opportunities in the information environment and face undesired and unintended effects in the virtual and cognitive dimension. Even as they themselves might face an active and disruptive adversary. If, as suggested in this paper, information activities are successfully integrated into the battle-proven concept of combined arms, the multinational division can prevent this dangerous state of inability. Combat forces and traditional effectors, synchronized with CIMIC, PsyOps and Mil PA, will achieve even greater "desired & intended" effects than previously thought possible.

It is not the intention of the paper to advocate for the dangerous bloating of division and brigade staffs. Instead, it calls for limited StratCom and Info Ops staff personnel tailored to each command level in order to create a fast and efficient vertical and horizontal synchronisation. Small tactical elements like Tactical CIMIC Teams, Tactical PsyOps Teams, and Combat Camera Teams enable the lower tactical formations to act independently and timely in the information environment. The bulk of the specialised capabilities is likely to be attached to the corps level and would support where needed most. A prerequisite for this fast employment across the corps area of responsibility will be an expertise that only specialised personnel can bring into the low tactical commands.

This paper calls for limited StratCom and Info Ops staff personnel tailored to each command level in order to create a fast and efficient vertical and horizontal synchronisation

To achieve such a full synchronisation on each level of command, information environment analysts and Info Ops staff personnel must be fully integrated into the intelligence and targeting process within the respective staff sections (G-2, G-3, G-5) of the 10 Armoured Division and its brigades. Only once they are permanent members of the staff will they be able to integrate the behaviour-centric approach into the standard operating procedures and general mindset of their command. This process will include using momentum gained by the implementation of the new AJP-01, AJP-3.10 and AJP-10. It is advisable to implement the functional model provided in this paper; that is, to include a G-10 StratCom functional area in the 10 Armoured Division and Dutch 13 Light Brigade in order to create one overarching body responsible for the information environment and cognitive effects (see Figure 16).

Implementing the five key elements identified in this paper will lead to both the creation of resilient structures within the multinational Division 2025 and the more effective use of information activities, all while simultaneously adding a new cornerstone to Dutch-German military cooperation. The 10 Armoured Division and 13 Light Brigade must be combat ready by 2025 and should therefore be prioritised. If proven effective, the five key elements can then serve as a model within the entire German-Dutch army structure and beyond. It is now up to the force generators and decision-makers to adapt the land forces to the new doctrine and thus assure success across all three effect dimensions for the future.

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