



## Characteristics to be met by future ground-based systems to ensure operational superiority

Earth Thought Notebooks

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Expériences alliées

**In addition to a reinforced infantry component as part of the adoption of the Heer 2011 structure (German Army), the Bundeswehr forces capable of conducting ground combat consist mainly of an armoured core of mechanised units.**

**There is no consensus in security policy circles on the need to maintain mechanized components that are capable of holding their own in high-intensity duels over the long term.**

Such a perception often stems from the conviction that the growing ability of friendly effectors to act at a distance, combined with rapidly deployable light units, makes it possible to dispense with overly heavily equipped mechanised units. In addition, until recently, stabilisation operations against adversaries with asymmetric modes of action were the focus of media attention. Today, the security situation, long perceived as immutable, is changing rapidly and unpredictably. The White Paper on German Security Policy and the Future of the Bundeswehr, published in 2016, describes the situation as follows: "The international order, which was created at the end of the Second World War and which is still today the framework for international policy with its organizations and institutions, is undergoing a process of change. The resurgence of open or latent inter-state conflicts plays a decisive role in this process. In this connection, Russia is also at the centre of the German White Paper's reflections: "Russia's declared willingness in the Crimea and Eastern Ukraine to defend its interests, including through the use of armed violence, and to unilaterally shift the borders guaranteed by international law, openly challenges the European peace order. Such behaviour has far-reaching consequences for the security of Europe and Germany". Faced with these multiple transformations, the question of the use of armoured units arises, as they are often perceived as anachronistic for future land operations.

The "Bundeswehr Concept", a major conceptual document, is currently being revised and adapted to the new guidelines set out in the current White Paper. However, in its 2013 version, the Bundeswehr Concept already stressed that the ability to conduct combat is the highest requirement that must be met in the future. The Bundeswehr's operational

readiness must be assessed on the basis of this capability. In addition, it set out multiple requirements for the capability to produce effects in all defined mission types, but differentiated in terms of their escalation potential, in order to ensure operational superiority through the use of modular, flexible and integrable forces. The new priorities set out in the "White Paper" reinforce this orientation, in the sense that defence of national/alliance territory takes precedence over stabilisation operations.

### **Scenarios of operations and operational conduct**

An examination of likely future scenarios suggests that land forces will continue to produce effects by their presence alone. They will thus be able to ensure environmental safety and enable coordinated activities at interministerial level, inter alia in the political and economic fields. In order to achieve this, units will need to be shown to be robust and credible and, if necessary, determined to make their mark through combat. It is this unique characteristic - presence in the land space and gradation of effects up to combat - that distinguishes land forces from all other actors. Where presence alone is not enough, operations will have to be conducted to produce effects on the ground or on the adversary, including, in some cases, in the midst of the population. The perception by the local population and authorities of the deployed force, whose actions and behaviour will have a decisive impact on the course of the operation, will be taken as a constant. Operations designed to produce effects on the ground aim to conquer, invest and conserve space. In contrast, force-centric operations will aim at destroying enemy potential and breaking the enemy's will or ability to continue the confrontation.

### **For of conflicts today and tomorrow**

The demands placed on land forces in future conflicts are based on an extrapolation of the threat as observed today. But forecasting errors are common. This impossibility of predicting the future is reflected in the requirements for the adaptability of the Bundeswehr, as set out in the "Bundeswehr Concept". It is also confirmed by the reversal of priorities, with the main effort now being directed towards the defence of Alliance home territory. Moreover, in addition to the still relevant distinction between symmetrical and asymmetrical forms of conflict, there is an increase in the number of conflicts of a hybrid nature. Hybrid conflicts are characterised by an interweaving of types of conflict and the means by which they are fought (e.g. economic, political, military, propagandist, subversive activities), each of which is traditionally considered to be differentiable. Regular and sometimes militarily organized irregular forces work under a single command or under a single ideological banner to achieve a common goal; They use both symmetrical and asymmetrical elements in their operational planning, as far as possible below the threshold of open conflict.

The tendency for mechanised units to stagnate - a fact that was undeniable until the Ukrainian crisis - and the relative reduction that characterised their development was limited, in comparison with other countries in the world, to Western Europe. Current geostrategic developments have, at least in this area, contributed to new initiatives being taken. For Germany, this means, among other things, three clearly visible measures:

- the strengthening of the Bundeswehr armoured weaponry, whose number of systems is increasing.

of weapons available increases from 225 to 328 Leopard battle tanks;

- the establishment of an additional German-Dutch armoured battalion.

Concrete planning is being initiated for the future requirements for tanks and artillery systems. But will these initiatives be enough to really turn the tide? This is doubtful when one considers the proliferation of modern battle tanks and infantry fighting vehicles on the surface of the globe, which is also due to the transfer of equipment to third countries (a phenomenon known as "cascading"). Offers to upgrade battle tanks and infantry fighting vehicles, which are also equipped with components that improve both the effects produced and protection, are helping to reduce the Western technological lead visibly.

A scenario-oriented study on the proliferation of mechanized weapon systems in crisis regions has highlighted that the use of battle tanks and infantry fighting vehicles by potential enemies must be foreseen in almost every land operation worthy of the name.

Enemy forces initially operating asymmetrically may be able to adapt their mode of action and act more robustly, taking advantage of desertions by members of a State's regular forces, using equipment they have taken over or receiving external support.

The transformation of DAECH is the current illustration of this. Whereas yesterday this terrorist organisation operated asymmetrically, relying on irregular forces, it is today, after the desertion of units of the regular forces of a State, using the equipment they have seized or receiving external support.s of the Iraqi army and the taking of material depots, it is perfectly capable of successfully carrying out both offensive and defensive actions, even against Syrian and Iraqi government forces. This is despite the massive threat posed to it by the States of the anti-Israeli coalition, Turkey and Russia. Similar developments cannot be ruled out in the future, including in other countries with fragile state structures. This applies in particular where, in the past, national armed forces have received external support in terms of equipment and training. The mechanised forces will therefore also have an important role to play in the future as a demonstration of force and as a main weapon of effort.

## **Conclusions for the operational conduct of opposing forces**

It will not be possible for non-state enemies to achieve complete symmetry in a confrontation against Western forces.

## **Potof future forces and threats**

An asymmetric enemy will therefore always seek to prevent its forces from being spotted too early and to conduct combat at a favourable distance, given the effects that its weapons can produce. This can be achieved by applying simple measures:

- the sheltering of vehicles in buildings;
- exploitation of the terrain;
- the use of materials for easy camouflage against aerial reconnaissance, including the reduction of heat signatures.

The effects of such concealment have already proved effective in past conflicts (Kosovo 1999). Even with remotely deployable weapons, including air assets, even with the most modern intelligence acquisition systems, the effects will be very limited on a disciplined, adaptable and skilfully operating enemy.

Similarly, an enemy with state resources and the ability to conduct joint operations will seek to interdict, by all available means, any intelligence action against its forces in order to maintain the initiative for first contact.

### **Ability of ground systems to assert themselves, to conduct duels and to fight from a distance**

Operational superiority derives essentially from the combination of various elements such as mobility, protection, firepower, command capability, psychological effects and availability at the level of the overall integrated system. Depending on the situation and the enemy, this can be achieved by the effect of remotely-operated weapons or by the ability to conduct duels, depending on the situation and the enemy. The search for the right balance between these two factors has always been a subject of debate and is reflected throughout the world in the multitude of different corresponding systems.

As a modality of tactical domination, dueling is the preferred option when confrontation and attrition at a distance have failed. A platform's ability to conduct duels against enemy systems of similar operational value results from the ability to neutralize the threat during the immediate confrontation and to survive by maintaining its operational capability.

### **Ability to conduct duels**

Dueling situations are characterized by the immediate and unexpected confrontation with one or more enemy weapon systems. In offensive modality, against a static and camouflaged enemy, the latter will most likely be able to decide when to open fire and thus initially retain the initiative. In the tactical "defence" modality, friendly forces will be able to exploit these conditions to their advantage. The encounter combat is characterised for both "duellists" by a confrontation that neither of them expected. A duel usually ends within a few seconds either by annihilating the system in a state of inferiority, depending on the fighting distance, or by breaking contact (by disengaging from the opponent's line of sight). If the "duelist" who withdraws retains his combat capability, he gives up the initiative to the enemy and is, in this case, no longer able to impose himself. A protection superior to the threat makes it possible to evade the effects of enemy weapons, at least for a limited period of time. The time thus gained should be used to recognize and reduce the threat by superiority of fire, ensuring as far as possible that the objective is achieved at the first blow. The tactical mobility of the systems involved can also directly influence the outcome of the duel. Winning the immediate confrontation with the enemy can maintain or, as the case may be, regain the initiative, neutralize the immediate threat to friendly forces and complete the mission.

### **Ability to fight at a distance**

Avoiding duel situations requires a high degree of certainty of having identified enemy systems in advance, so as to be able to engage them in a timely manner with effectors,



using all the possible advantages of their range and considering all the collateral damage that may be caused. Avoiding or minimising such damage requires effectors capable of operating remotely with a particularly high degree of accuracy and gradation of intensity of effect.

For a variety of reasons, the timely recognition of threats will be constrained, including in the future. However, the frequency of duel situations can at least be reduced by combining all important reconnaissance systems and sources of information, as well as by relying on the integrated intelligence and reconnaissance system.

### **Importance of land-based platforms capable of asserting themselves**

The ability to prevail will therefore continue to require duel-capable components that are integrated into joint operations. Mechanized forces provide this capability and, by their very presence, have the added advantage of a high conventional deterrent potential. In critical situations, they can thus make a significant contribution to de-escalation. In addition to the indirect effect achieved by their presence, ground systems capable of duelling contribute substantially to the protection of friendly forces by "absorbing" enemy effects and neutralising the immediate threat.

To dispense with such systems implies that the tasks they perform are performed by other forces, such as infantry equipped with individual anti-tank weapons, will have at their disposal, at The renunciation of these systems implies that the tasks they perform must be carried out by other forces, such as infantry forces equipped with individual anti-tank weapons, which will in future also have the means to inflict heavy losses, even on the best-equipped infantry units, and to prevent them from coming under fire.

From these considerations follows the question of how the above-mentioned capabilities can be maintained in the long term for Bundeswehr ground operations. Under the responsibility of the Federal Ministry of Defence, studies have been conducted to this end. They involve all the major players in order to define the criteria that land systems must meet in order to achieve operational superiority in dual-use situations and to be able to operate at a distance. Capability requirements have been integrated into these studies, based on scenarios and short case studies in the form of protocols. This method ensures consistency and transparency of results. The results obtained so far are currently being used as a basis for examining technologies and system concepts.

**Finally, we note** that the ability of land forces to assert themselves in joint operations conducted in any type of conflict and at any level of intensity will be ensured, including in the future, by a balanced mix of components capable of duelling and fighting from a safe distance. The deliberate choice of resource-sensitive management requires a targeted approach with a long-term focus. Only then will the Bundeswehr be able to achieve the necessary effects in land operations in the future as well, while at the same time providing its own units with the most effective protection.

**The author's comments reflect the vision of the German Army**

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