

The Future German Army: Capabilities and Procurement Projects

by Lieutenant General Hans-Otto Budde

General Hans-Otto Budde is the Chief of the German Army Staff. In this article, he outlines the transformation programme that the German Army is undergoing, and discusses their future armoured vehicle fleet.

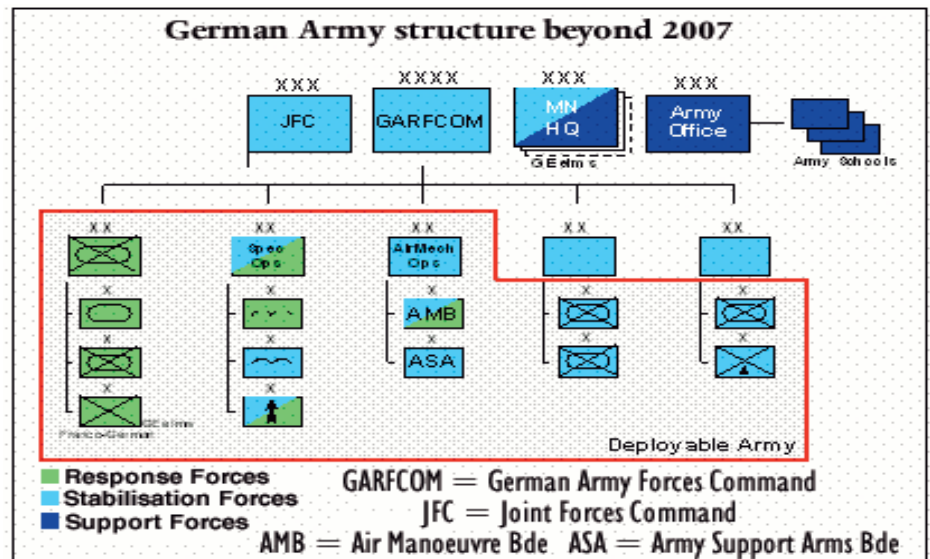
The German Army is currently undergoing a modernisation and transformation process that is designed to take account of the worldwide political changes of the last decade, which are providing new challenges that are influencing the development of modern warfare.

Today, military planners face a high likelihood of conducting operations under conditions of asymmetry. This does not only relate to differences in weaponry and material, or in procedures and tactics, but to differences in overriding aims, in values and in the nature and individual behaviour of the 'enemy'. The already wide range of asymmetrical risks must be seen against the background of the nation state's faded monopoly of power, the proliferation of weapons of mass destruction, and the huge psychological impact of fanatical terrorism. Moreover, we continue to face more conventional risks in the heart of Europe.

The Bundeswehr's Broader Spectrum of Tasks

To meet these challenges and risks, Germany has set up a comprehensive and Government-wide approach to wider security, which has resulted in a broader spectrum of tasks for the Bundeswehr. Although the Bundeswehr's mission has not changed fundamentally, the priorities within the spectrum of tasks have been adjusted to take account of the most probable future missions.

Threats are now to be countered when



and where they occur. This guideline governs all our actions, as well as the transformation of the military. Transformation is a continuous process of assessing new risks and threats, as well as adapting our Forces. The Transformation process encompasses doctrinal concepts, technology and material, training and education, procedures and, of course, organisation and military structures. The enlarged task spectrum ranges from nation-building to high-intensity combat. For this the Bundeswehr will be reorganised by 2010 into three categories: Response Forces, Stabilisation Forces and Support Forces.

“ Response and Stabilisation Forces will together form a continuum of light, medium and heavy forces.”

The Army portion of the Response Forces will comprise:

- One division with two mechanised brigades
- The German elements of the Franco-German Brigade
- Sufficient combat support troops
- Units of the Special Operations Division
- Elements of the Air Mobile Division including our future Air Manoeuvre Brigade.

These Forces will retain high-intensity warfighting capabilities and will be fully trained, equipped and prepared to conduct joint and network-based operations of the highest imaginable intensity up to division level.

Statistically, Stabilisation Operations appear to be the most likely operations that the German Army will be called on to conduct. Therefore, Stabilisation Forces will be set up consisting mainly of four Stabilisation Brigades, together with

light forces of the Special Operations Division and force multipliers from the Air Mobile Division. Appropriately equipped and trained, the Stabilisation Forces will create the security environment essential to allow peaceful solutions to conflicts, as well as carry out follow-on tasks to assist nation-building. In addition, Stabilisation Forces will be capable of warfighting up to battalion level at least.

And finally, Support Forces will be capable of providing the necessary comprehensive support for Response and Stabilisation Forces.

Response and Stabilisation Forces will together form a continuum of light, medium and heavy forces. They will be truly Joint in terms of their training, and the interoperability of their procedures and their equipment, and they will be able to function in a multinational environment.

Versatility and Agility

Through Transformation we will develop an Army that is quicker to deploy, more mobile and agile, more lethal and versatile, and more modular but no less robust. These principles will be reflected in our equipment development and procurement programmes. We will move away from our present platform-centric focus by introducing a wider range of flexible modular systems.

In order to be faster in deployment, our Forces must be quickly deployable over

strategic distances. So our future vehicles will, for example, be matched to a realistic airlift capability – in this case the Airbus A400M. This demands, in terms of procurement planning, a Joint approach right from the start.

“Through the acquisition of Puma and Boxer, the German Army will have greater freedom of action during any build-up of forces with medium capability.”

The need to be more mobile and agile means that the new systems will set new standards in tactical as well as operational and strategic mobility. New individual equipment must allow more flexible action, reduced reaction time, constant information flow to the extent needed, and better sustainability than at present. In addition, better mobility will provide more flexibility in carrying out our tasks, such as securing convoys, counter-concentration in theatre or responding quickly to any threat or attack. Furthermore, mobility will make a crucial contribution to the protection of our vehicle crews. Speed can often be the key to success in coping with difficult or adverse situations.

To improve our versatility, we will no longer focus on single tactical tasks. Even within the most likely missions, the

situation might comprise a three-bloc war scenario. This requires both multifunctional and multipurpose platforms.

Improved robustness and lethality will be achieved by fully integrating state-of-the-art weaponry as well as providing high standards of crew protection. Moreover, modularity will afford flexibility in use, as well as providing options for subsequent upgrading of equipment to meet new threats or to respond to technological developments. Modularity will also provide special features, such as variable mission packages, enabling a crew or the individual to adjust protection levels, or adapt in other ways appropriate to the threat and the operational environment.

Sketching this picture, we refer to it as the ‘Transformation of Equipment’. It is not just about procuring new equipment, but about a unified concept for equipping the Bundeswehr as a whole. In addition to a new generation of command and information assets, as well as individual equipment for infantrymen and other servicemen, this concept includes a variety of modern vehicles.

New Armoured Vehicles

The Light Armoured Vehicle (LAV) Wiesel, the Protected Transport Vehicle (PTV) Dingo-2, the Multi Role-Armoured Vehicle (MRAV) Boxer, and the Light Armoured Airborne Vehicle (LAAV) Mungo, for example, will lead to a significant upgrade of our light infantry forces’ tactical mobility and survivability. The improved Leopard 2 and the new Infantry Fighting Vehicle (IFV) Puma, with its modular armour, together form the heavy-armoured backbone within both the Response and Stabilisation Forces.

Together with the new Army capability of Air Manoeuvre – the new helicopter Tiger, the light transport helicopter NH-90, the upgraded medium transport helicopter CH-53 G/GS and the Air Assault Infantry – these ground assets fit into the overall Army system within a Joint environment.

Through the acquisition of Puma and Boxer, the German Army will have



The multi-role armoured vehicle Boxer.



The Puma infantry fighting vehicle.

greater freedom of action during any build-up of forces with medium capabilities. Both systems can be air-transported by the A400M over strategic distances – a key requirement for medium forces. But besides their strategic deployability, Puma and Boxer will have other specific capabilities that make them the two procurement projects of most importance for our Army.

The Puma, for example, is much more than a pure replacement for the IFV Marder, which was introduced to our Mechanised Infantry in the 1970s and will no longer be capable of meeting the future military requirements mentioned above. Puma is, rather, a completely new weapon system that will become a trendsetter for infantry fighting vehicles as far as protection, mobility, firepower and command technology are concerned. Taking into account that there is a serious mine threat in most foreseeable operational scenarios, the Puma offers appropriate mine protection for the crew. To meet the criteria for air transportability, specific add-on armour elements were developed. With the lowest protection level needed to operate in a low- to medium-intensity scenario, the Puma weighs less than 32 tons, which allows transportation in an A400M.

Additional armour elements can be added on to increase the protection to a level that meets all the requirements for a high-intensity fight. Its 800kW engine

will enable the Puma to keep up with the Leopard 2 during fast-moving combat operations, and the 500mm-wide tank tracks will ensure mobility even in difficult terrain. With its stabilised 30mm automatic cannon, the additional co-axial machine gun and the infantry weapon systems of the nine-man crew (driver, gunner, commander and six infantrymen), the Puma will provide sufficient firepower to engage an enemy successfully in combat. In medium-conflict operations the Puma, of course, will be an adequate platform to be used in a 'show of force'. It will provide us with tactical capabilities of escalation and de-escalation.

“ Like the Puma, the Boxer is air transportable in the A400M.”

Its command and communications structure enables it to form an integral part of an advanced information system, and thus it will be completely Network Centric Warfare (NCW) capable. A certain number of Pumas will be configured as a platform for the 'Joint Fire Co-ordination Teams' of the Response Forces' armoured and mechanised battalions. We plan to procure a total of 410 Puma vehicles. By the end of 2005 the first prototype will be delivered, and the introduction of a pre-production batch of 20 vehicles is planned to start in 2006.

Some elements of our infantry are well on the way to building up medium

capabilities. These infantry units will be capable of operating within the whole spectrum of tasks from early-entry to follow-on operations and therefore need to have a special engagement efficiency, improved command and control capabilities, and adequate survivability and protection. To this end we have recently introduced equipment for the disembodied soldier – the future integrated soldier technology. This equipment makes the single infantryman and the infantry squad NCW-capable and leads to significant improvements to the infantry's command and engagement capabilities.

To meet adequate protection requirements, we will introduce the MRV Boxer, a modern and efficient multifunctional 8x8 command and transport vehicle. The Boxer is designated as one of our infantry's future standard vehicles. However, in its command and transport configuration, it will also be used in combat support and combat service support units. The system offers increased mine, ballistic and NBC protection as well as a high on- and off-road mobility. Like the Puma, the Boxer is air transportable in the A400M. Two prototypes are currently undergoing a comprehensive series of trials. A total of 200 Boxers is planned, and we intend to bring the first transport and command vehicles into service in 2007.

The Overall Aim

The Transformation process of the German Army has already begun. A balanced continuum of capabilities and an appropriate mix of efficient military equipment are two of a variety of prerequisites needed to achieve our overall aim. We will train and organise our forces to meet the threats we perceive. Transformation is likely to be a continuous process with no end-state. In embarking on this task we are undertaking a process of permanent change, but our overall aim remains the same: success in carrying out our missions. ■