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FORCE PROTECTION - ADVANCED SOLUTIONS FOR PROTECTING CAMPS AND CONVO YS

Out of area" operations, peace enforcement and peacekeeping missions, the deployment of rapid reaction forces in crisis regions: the process of Force Transformation is intimately linked to the growing number of overseas missions and the changing nature of modern warfare. The establishment of semi-permanent forward operating bases and the concomitant need for convoys are one consequence of this. Often shared with the armed forces of other nations, stationary and mobile assets of this type have proved to be particularly vulnerable to asymmetric attacks by irregular forces and insurgent groups. In response to this threat, Rheinmetall DeTec AG offers a complete range of comprehensive Force Protection concepts.

Difficult to counter by conventional military means, asymmetric attacks represent a new and lethal threat both on and off the battlefield: fired at close range, cheap rocket-propelled grenades can inflict immense damage, and the same is true of roadside improvised explosive devices, to say nothing of car and truck bombs and explosives smuggled in by saboteurs and suicide bombers.

The vulnerability of forward operating bases and military convoys travelling in insecure areas has been dramatically illustrated by numerous recent incidents in Afghanistan. Snipers pose a particularly insidious threat to forward operating bases and convoys, as was repeatedly demonstrated during the Balkan conflicts of the 1990s. In response, Rheinmetall DeTec now offers a laser-supported detection system capable of recognizing and locating the optics employed by snipers. This way, appropriate countermeasures can be instantly brought to bear.

The networking of all components is a fundamental feature of the overall concept. By proceeding on the building block principle, we can provide the most diverse configurations imaginable, including interfaces to the C4I assets and weapons systems of foreign forces.

Forward operating bases are particularly vulnerable from the air. Extremely cheap rockets are readily available today on the international black market, which at close range are sufficiently accurate to pose a serious threat to troops based in the camp. Rheinmetall DeTec has demonstrated that it is possible to use air defence systems to locate and destroy–in the air–objects as small as an incoming mortar round. Linked with their target detection and engagement systems, these tried and tested medium-calibre weapons could potentially be deployed in fully automated mode.

Reacting to a threat does not always mean resorting to force. Today, it is possible to use advanced microwave technology to disable enemy electronic systems. As shown by the Madrid bombings, a standard, commercially available mobile telephone can be used to detonate a bomb. With the aid of suitable jamming equipment, the radio-controlled systems and other electronic detonator systems often employed by enemy forces or terrorists can be switched off, suppressed or even triggered.

Assuring the effective interplay of all forces

Under the rubric of "Network Centric Warfare", for instance, solutions are currently being pursued in which forward operating bases located in coastal areas will be able to make use of shipboard radar systems for monitoring local airspace. In such a case, data is transmitted via interfaces to the command information systems of the different components of the military.

Forward operating base protection

Rapidly defining and effectively implementing efficient and reliable concepts for protecting forward operating bases is an urgent task for the defence industry. It entails acting in close cooperation with the military and the procurement authorities, and is a key aspect of the Force Transformation process now underway.

The basic requirements for protecting forward operating bases by means of modular systems can be defined as an amalgam of all possible threats versus the resources available to counter them and the increasing level of operational and communications networking of all human and material assets:

- soldier-optimized operating concepts through computer-supported command and weapon systems,
- low logistical requirements,
- air-transportability of all components of the protection systems,
- good adaptability to local circumstances,
- networking of all reconnaissance, monitoring and weapons assets,
- interoperability through open system interfaces,
- inclusion of existing components and equipment in an integrated system of systems,
- dependable, high-precision reconnaissance and monitoring equipment,
- an array of military hardware enabling significant non-lethal options, and
- the scaling to the threat through the use of modules and standardized system interfaces.


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