

The Reactive Adaptation

The Industry Point of View

Meeting an operational requirement in emergency conditions is a real problem. Nowadays, land forces have regularly to face it on theaters of operations. Thanks to the lessons learned, these requirements are better identified, their boundaries are then better defined. This enables to provide units with adequate equipment or with additional parts. Such form of "reactive adaptation" involves not only the military but also the defense industry.

BY MR. MARWAN LAHOUD, FORMER MBDA CHAIRMAN

For a variety of reasons, requirements of armed forces may evolve quickly especially in the area of equipment and ammunition. Accelerations have been reported for a couple of years. On the one hand, they are related to the evolution of geo-strategic situation, of the environment and the level of commitment of forces especially land forces. On the other hand, they are related to the theaters variety. These accelerations are acting on a number of de-stabilizing parameters capable to disturb the normal and traditional sequencing of armament programs.

Against this relatively new situation, the armaments industry is reacting and has to propose adequate and quickly available solutions. Everything is not possible immediately. However, when taking into consideration and resolving problems of a contractual, industrial and economic nature, a lot can be done in an operational emergency context. The first Gulf War demonstrated if need be, that **the reactive adaptation is not an hairy idea from headquarters, but a reality intensely and jointly experienced by the forces and the armament industry.**

We should however precisely define the boundaries of action and the role of each protagonist in order to be able to act efficiently in emergency cases without rush.

The general environment of an armament operation in a reactive adaptation

To successfully achieve an armament operation in contingency conditions, the defense industry should be supported by **a clear and precise requirement from the forces, a non-questionable contractual framework, a dialogue and a constant monitoring throughout all the operation.**

The operational requirement should be clearly identified, voiced and limited. It should also fit in an operation effectively achievable within an explicit time-schedule. Expressions such as "as soon as possible" or "do the best you can" should be banned.

The various possible operations

The response to requests from combatants on the ground may appear under **several forms which represent as many particular cases of achievable operations:**

- either with a piece of equipment not allotted to the forces but off-the-shelf available and designed for military and even civilian applications,
- or a piece of equipment in an advanced development phase or just in a prototype status,

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- or a piece of equipment currently fielded with the forces but requesting improvements or identified adaptations.

From a pure manufacturer's point of view, these various categories allow to assess the technical feasibility, to estimate the time needed for realization. This includes the steps of qualification and certification indispensable in particular to meet safety requirements.

Among possible operations, improvement of weaponry software versions is certainly offering a very wide area of investigations, considering the number of weapons systems developed for land forces. These are more and more calling for information technology either as an assistance tool for decision-making or simply to enable its functioning and operation.

A particular case still lies with ammunition. This problem may be the more difficult to solve in emergency conditions. We must report that the trend of western armed forces is to acquire complex ammunition, because they are precise and shot from security distance but produced in limited quantity. Besides that, these same armed forces are likely to be committed in conflicts with a high intensity phase highly ammo consuming. We should look at the phases of intense combats for two recent operations (Lebanon and Iraq) conducted by western type armed forces: this demonstrates the need for significant stocks. Emergency replenishment of such ammunition would require times for production and supply. These are however hardly compatible, considering emergency conditions of some operational situations.

The decision-making process and the conduct of such operation

Let us now consider that the various operations to achieve are registered and well identified, the concerned manufacture actors well localized, the operational requirement clearly explained, the budgets available and adequate. All components are then in place to efficiently conduct a **"reactive adaptation"**. Such convergence of factors is however possible only **if state interlocutors, organized in "EDPI"¹ are in a restricted number, enjoy a significant maneuver space and can conduct and coordinate the operation from the beginning to the end.**

The industry partner is then required to maintain a dialogue with officers and armament procurement engineers. These should have gained a good knowledge of the right requirement voiced by on-the-ground combatants. They should be capable to make decisions quickly without systematically referring to their hierarchy. It would then be dangerous and completely unproductive to see the good ideas elaborated commonly after due hearing of state and industry representatives being diluted and to fall apart in muffled mysteries of headquarters. The industry partner can commit himself only from firm decisions, made durable through contracts and not from blurred promises. Whatever are the details and the form of the action undertaken, the goal is **to define correctly the operation to achieve in regard of expected performances, of associated costs and time limits to take into account.**

Aspects related to contracts and regulations

Achieving a reactive adaptation operation can be imagined only within a laws and regulations framework. Considering emergency, typical procedures sequencing an operation (IM² 800, IG 1514...) are not applicable as they are, given the incompressible periods related to tender processes.

The Code for Public Contracts in its "defense decree"³ allows for **emergency procedures in case of an operational need.** The holy competition rule is no longer an obligation subject to the operational emergency to be proven and formally recognized.

