

Logistics and Simulation

Within the framework of **two exercises** to which they recently participated, the operational CPs of the **Land Logistic Command** were led to develop their tactical-logistical know-how by relying upon **two different simulation tools**:

- the German system **KORA**¹, at the occasion of the **JOINT- SWORD - HERMES 06** exercise organized by the 1st German-Dutch Corps, from April 18th through May 3rd 2006, at the specialized camp of Wildflecken (Germany);
- the French system **SCIPIO**² within the framework of the eponymous exercise jointly organized by the Land Logistics Command³, the 4th Force HQ⁴ and the CP Battle Command Training Centers⁵ at the camp of Mailly, from the 22nd till the 29th June 2006.

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Different tools showing all the interest of simulation...

The **objectives designed** for these two exercises were however **not comparable**:

- training of a multinational rapid reaction corps likely to be committed in a **“Three block war”** type of operation, for the first one;
- simple validation of the simulation tool in the logistics domain for the second one.

The **simulation systems** successively used at Wildflecken and at Mailly, had themselves notable differences:

- the German system KORA belongs to the first generation of tactical simulation tools. Although regularly upgraded since its fielding, it is animated by a limited number of automates. On the other hand, “running smoothly”, of a flexible use and representing with great realism differentiated tactical and logistical situations, it offers very interesting functionalities for the training of the CPs of the Land Support Group and the Division Support Group;
- the French system SCIPIO, still undergoing development, belongs to the last generation of simulation tools and, on this account, is animated by a set of automates developing a true “artificial intelligence”.

Despite these differences, the two above quoted exercises enabled to underline all the **interest provided by**

simulation to enrich, in the domain of operational service support, **the operation preparation process of the CPs of any large combat structures or units as well as logistical ones.**

In fact, in this field, the present simulation systems are **able to represent both realistically as well as “implacably” all implications and consequences**:

- of the various actions carried out by a multi-form opponent;
- of the presence, in the area of engagement, of hostile or friendly populations;

- of the existence of favorable or unfavorable environmental factors (industrial complexes, chemical factories, nuclear sites, ...);

- of the making or the lacking of decision at strategic, operational or tactical levels.

For “tacticians”...

Thus, thanks to these simulation tools which immediately give an appreciation of any decision, be it good or bad, **the “tacticians” at all levels who plan and monitor the maneuver of large combat**



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lessons learned

units no longer forget, very quickly, to take into account:

- the effects of casualties and damages inflicted by the opponent or due to the “aggressive” nature of the environment;
- the requirement of deploying general service support dispositions, of an appropriate size, in security and at the most appropriate location in the depth of the area of action of the considered echelon;
- the need to re-supply the forces they employ in ammos, POL, food, spares parts and to give them the direct support reinforcements that are necessary to conduct a given specific type of action;
- the speed of transport of logistics convoys;
- the obligation to escort these convoys that, by nature, are vulnerable and use routes whose security cannot be permanently warranted without distracting from its main mission a significant volume of forces;
- the state of weariness and motivation of the opponents as well as that of the combatants of friendly units.

From this point, the preservation of the human and material potentials at their highest level is naturally subject to all attentions in the sense that it conditions the success or the failure of the ongoing maneuver, even of the following one, and that the simulation tool clearly shows the results on the visualization displays practically instantaneously.

As well as for “logisticians”

For “logisticians”, belonging to the command and control and to the formations structures, of combat as well as of support, **the interest for simulation is not lesser**. In fact, it compels them to:

- place the success of the overall maneuver of the large unit to which they belong or for the support of which they are responsible, at the heart of the recommendations they formulate in order to solve all the logistical issues that are raised immediately or that will inevitably come later;
- search for the optimization of the chain of support by positioning logistical dispositions and by organizing supply “loops” in the most efficient tactical and technical manner;
- permanently listen carefully to “tactical background noises” in order to, timely, structure and then, if needed, re-orient the convoys, request reinforced protection for their benefit, reorganize or move the intermediary support dispositions;
- as soon as possible, collect the general and specific information of a logistical interest;
- monitor the driving times of vehicles and transport drivers.

If the analysis of the briefly above described factors is not sufficiently detailed or if it doesn’t lead to issue coherent orders perfectly adapted to

the situation, the screens of the simulation tool will irremediably display and without any complacency:

- the neutralization of one or the other of the deployed support dispositions;
- the partial or complete destruction of supply convoys; and therefore, consequently, within a more or less long time-span after these events:
- the outrunning of residual support capabilities;
- the falling-down of the levels of resources of all natures;
- the amplification, a contrario, of the casualties and damages ratios.

Thus, the **modern simulation systems**, able to precisely reproduce service support actions, thanks to syntheses pictures that are easily exploitable, and to represent and move the smallest player of this support on the exercise map, allow to reposition the **“logistical fact” at its appropriate place within the conception and the conduct of the overall maneuver**.

1 KORA: Korps-RAhmen Simulationsmodell.

2 SCIPPIO: Combined Arms Simulation for the Interactive Preparation of Operations.

3 CFLT: Land logistics Command, based at Monthléry.

4 EMF 4: 4th Force HQ, based at Limoges.

5 CEPC: CP Battle Command Training Center, based at Mailly.

6 Computer assisted exercise.

7 Command post exercise: exercise conducted on the field within a “green square”.

In fact and only a few years ago, **the CAX⁶** that, due to the inadequacies, even insufficiencies of simulation, seemed to only become nothing more than an ersatz of **CPX⁷**, has now reached, relying on tools such as **KORA** ou **SCIPPIO**, realism and precision levels that allows it, in many respects, to be considered a an **unavoidable passage along the track of the development for the operational preparation of level 1, 2 and 3 logistics CPs**.