

The German Army Combat Simulation Center

Mission

Set up within the Wildflecken garrison as the central Army training center, the Army Combat Simulation Center complies with **training, in-the-field training, and tactical and technical advanced training requirements for military commanders and headquarters** at battalion, brigade, division and corps levels; it also deals with higher echelons for combined-arms operations in cooperation with the Air Force. The Army Combat Simulation Center’s mission consists in assisting units in preparing, carrying out and evaluating computer-aided exercises as well as improvement measures in the field of tactics. Exercise analysis and evaluation are the province of combined-arms commanders.

BY LIEUTENANT COLONEL THOMAS SPURZEM, GERMAN LNO TO THE FRENCH FORCES EMPLOYMENT DOCTRINE CENTER (CDEF)

Structures

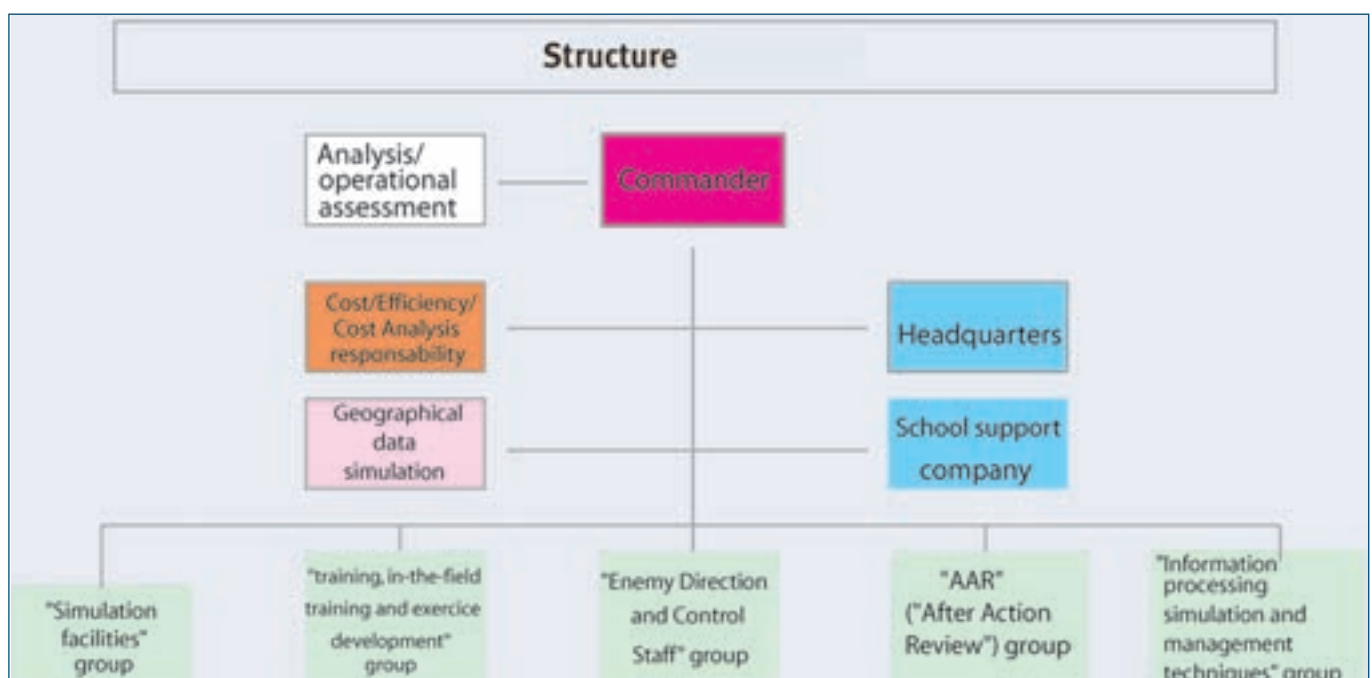
To carry out its mission efficiently, the Army Combat Simulation Center includes the following:

- a HQ (Headquarters) supporting the **Center’s Commander** as regards

C2 (Command and Control) and the coordination of supply measures with players;

- the **“geographical data simulation” group**, tasked to deal with all the issues pertaining to

the interface between the geographical service and simulation; furthermore, it has to provide support beyond the framework of the Army Combat Simulation Center’s specific activities;



- the “**simulation facilities**” group, tasked to assist major units in maneuver in planning the exercises and in carrying them out;
- the “**training, in-the-field training and exercise development**” group, which trains operators, and supports them during exercises; it also takes part in the evolution of the combat exercise simulation systems *KORA/OA* (at corps level and for officer training) and *SIRA* (simulation system to support CP exercises) used within the Army Combat Simulation Center;
- the “**Enemy Direction and Control Staff/OPFOR (Opposing Force)**” group that trains operators simulating OPFOR; it supports them during exercises and it takes part in the evolution of the *SIMOF* software (simulation model aiming at supporting exercises in the C2 field at operational level);
- the “**AAR (After Action Review)**” group provides the Directing and Controlling Staff with support regarding evaluation; it prepares for provisional reports and end reports; it also eases the Directing and Controlling Staff’s work by providing it with video and photograph teams;

- the “**Information processing simulation and management techniques**” group that operates the system and the network. The “Rhön” quarters provide us with outstanding capabilities to set up CPs and to accommodate the directing elements and response cells. In all, it can accommodate 2,500 people; in addition to this, it is possible to add the maneuver camp’s facilities, which increases accommodation capabilities by 4,000 people.

The **Army Combat Simulation Center’s core** includes five technical buildings within which operators translate players’ orders into computerized data. Moreover, two additional buildings are for the Directing and Controlling Staff to operate and a former 350-seat movie theater is used for all kinds of meetings. Two other buildings devoted to simulation management and to AARs complete these facilities.

Players’ CPs can be set up either within facilities or in the field in the vicinity. Areas located in the Northern part of Lower Franconia - that were previously reconnoitered - as well as a fairly large number of other facilities located between five and one hundred kilometers, can also be used for this purpose.

Computer-assisted exercises

Following the setting-up of combat exercise simulation systems, it is currently possible to give up - to a large extent - expensive exercises - that are also harmful to population and environment - putting into action major units together with their most important pieces of equipment.

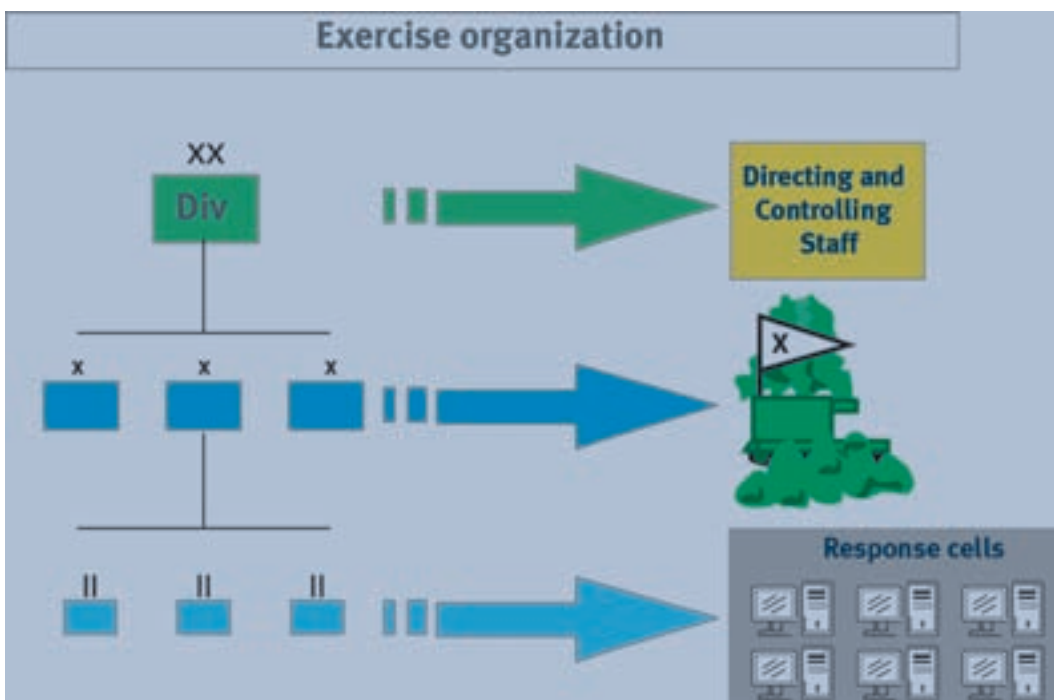
Thus, current costs resulting from an exercise at corps level with 3,500 personnel amount to less than 5 % of a conventional exercise in real size.

Computer-assisted exercises are mainly characterized by a **formal separation between the military professions on the one hand and combat exercise simulation systems** on the other hand, being aware that headquarters train while keeping their task-organization and their planned equipment. Indeed, they have no direct contact with the very simulation system. Each exercise is based on the “*Train and organize as you fight*” philosophy.

Combat display, the input of orders and of military operations into the combat exercise simulation system, as well as the translation of simulated outcomes into a realistic, credible, detailed and comprehensive situation display is carried out by the personnel of the response cells and by the operators in front of their work stations, according to the orders and directives given by higher-echelon headquarters (players).

Combat exercise simulation systems simulate virtual units, which actually moved along in the field previously, as well as other factors such as terrain, etc...

In order to prevent any misunderstanding, we have to mention that the **C2 process from the players’ CP is not simulated**; it is being implemented through an interaction between higher and lower



headquarters within the framework of training organization and according to the computer-assisted exercise on-going. Thanks to available signals assets, the response cells are in contact with the various players' CPs set in the field. In the form of tactical reports, they forward the outcomes resulting from simulated action; consequently, they send requirements and they put the CPs in a situation that requires a decision, thus launching a C2 process.

Operating the system

About ten exercises are carried out each year within the Army Combat Simulation Center. The duration of the various exercises varies from two weeks at brigade level to four to five weeks for corps headquarters or for *"Component Commands"*. All the exercises require the setting up of a series of preparatory meetings as well as close cooperation to supply players. In addition to computer-assisted exercises, there are various *workshops* set up by the simulation center, as well as information events and advanced courses.

The Army Combat Simulation Center is an **outstanding training organization** for the German Army, which is of an absolutely unbeatable quality, even at international level. As early as the first successful tests carried out in 1998-99, this center had a good reputation in Germany as well as abroad thanks to its successful design and its high-level expertise; this reputation was

confirmed on several occasions during these last years. The programs *"SIMOF"* - used at corps level and at higher levels, *"KORA/OA"* - aiming at exercises carried out from the level of division headquarters - and *"SIRA"* - for brigades and battalions - can be used with user's interface in German and English. The knowledge of the staff working in the center enables us to operate in both languages. Among allied users, there are - in particular - multinational corps (the *EUROCORPS*, the *ARRC (ACE Rapid Reaction Corps)*, the 1st German-Dutch Corps, the North-Eastern Multinational Corps). Working in cooperation with multinational partners is quite natural, being aware that multinational operations are - from now on - part of common activities. For this reason, the *"EUROPEAN CHALLENGE"* exercise, gathering twenty-four nations and support provided within this framework were a high point in April 2005.

Future planned evolution for the Army Combat Simulation Center

Compared to previous years, training officers and NCOs as well as major unit headquarters increasingly moves towards **the new environment for the operational employment of armed forces**. Beyond conventional requirements resulting from operations covered by article 5, simulation for training increasingly aims at new scenarios characterized by current commitments. It leads to **new challenges** to be taken up within

the framework of the future program evolution. With the exception of operation display, which is sometimes quite detailed, **we have to take the joint aspect more and more into consideration as well as requirements stated by civilian organizations**. In the field of training organization, sophisticated scenarios are also major challenges. Training organization should include the various actors into the scenario, so that the objectives set by the Directing and Controlling Staff can be reached. This is a task that cannot be completed with simulation only. We need a balanced mix composed of *"role players"* included in conventional MELs/MILs - for example for the representation of *"media plays"* - on the one hand, and the possibilities granted by the simulation system on the other hand.

All the aspects linked to joint operations - that are more and more in the limelight - led to other thinking. On order of the German Chief of staff of the Armed Forces, the setting-up of **a joint training, in-the-field training, and certification center** is being studied. The Bundeswehr Operational Command agrees with this initiative. Certification, and thus the link with operational training have an increasing importance.

In principle, the Army Combat Simulation Center is not only able to meet

such requirements, but also other requirements with a prospective nature.

Thanks to its evolutionary capabilities, it holds a top position.
