

Successful on Crete with SIMBURG

A large-scale exercise for extended air defence, called “Joint Project Optic Windmill (JPOW VIII),” was held on the Greek island of Crete from 22 to 29 April 2004. With regard to linked operations management (NetOpFü), this was an important demonstration of the interoperability of air defence personnel (joint/combined) of the participating nations (USA, NL, GR, GER). IABG supported the German navy on-site with its test and experimental environment TEXnet and the simulated frigate F124 SIMBURG.

All agree: The safety/political problems of the 21st century can only be solved multilaterally. The type of threat and its location have changed and, as a result, so have the briefs and the general conditions for the German armed forces. These must be able to be deployed rapidly, effectively and in cooperation with the armed forces of other nations. This ability must be trained so that it happens smoothly in the event of an emergency.

Under the control of the Dutch air force, several hundred soldiers and experts participated in the eighth multinational air defence exercise “Joint Project Optic Windmill (JPOW VIII)” on Crete from 22-29 April 2004. JPOW targets the preparation of the military to meet current and future threats, particularly through tactical ballistic missiles.

JPOW plays an important role in the conceptual development of extended air defence and serves to reinforce the multilateral cooperation of the participating nations (USA, Netherlands, Greece and Germany). The aim of the exercise is to link the information, control and defence systems of the various nations and to test and optimise their performance and their cooperation as a team. In military language one also talks of “interoperability in the context of linked operations management.” As not all systems can be on-site, for cost reasons, simulated systems are also used. All systems, be they real or virtual, are linked both through simulation networks and real military data networks (tactical data link).

Even the German navy utilised this opportunity to test and

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improve its abilities in this “virtual operation.” The frigate “Sachsen” is the first of three ships of the F124 class. It is currently the most modern ship of the German navy and is used in air defence. However, it was unavailable for JPOW. Another two frigates of the F124 class, “Hamburg” and “Hessen,” will commence service in 2004 and 2005, respectively.

Based on its test and experimental environment “TEXnet,” IABG provided the navy with a system simulation of a virtual ship, frigate F124 called “SIMBURG.” For this purpose, the simulation system “ELVIS” which is used in extended air defence and integrated in TEXnet, was adjusted to the navy’s requirements at short notice.

The experts of the IABG had to master several technological challenges in doing this. In a three week preparatory period, computers, screens and operating consoles were linked on site and connected to the enormous JPOW network. The first hurdle was taken with the accreditation of SIMBURG by the US partners. This was necessary to participate in the exercise.

Another important condition for participation in JPOW was the link of the “virtual ship” to the real tactical network Link-16. Realising the exchange of data between a range of different countries is an extremely complex and demanding task. This challenge was met thanks to the extensive IT competence of the IABG experts. “Integration was effected without major technical complications. This is all the more surprising considering that several thousand “lines of code” had to be programmed during a very brief period,” states Dr Georg Bahmeier of IABG.

During the exercise, the great importance of the Link-16 data networks for the military operations of the USA and their allies became clear. Thanks to this standard, the interoperability of the participating systems from different countries is guaranteed. The ability proven during JPOW to crosslink simulation systems to such networks opens up a range of opportunities for the German armed forces in the international arena.

About IABG

The leading European service provider IABG employs around 1,000 employees at 12 sites across Europe. With its Automotive, InfoCom, Transport & Environment, Aeronautics, Space and Defence business areas, it generates around €130 million per year. For more than 40 years, IABG has been supplying its customers from industry and the public sector with tailored, technically demanding experimental, analytical and system technology solutions.