

ELECTRONIC WARFARE MISSION SUPPORT SYSTEM

Mission planning, support and debriefing software tool

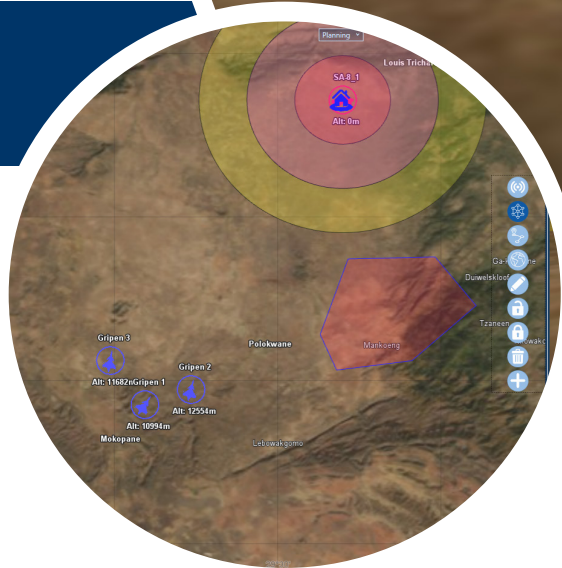
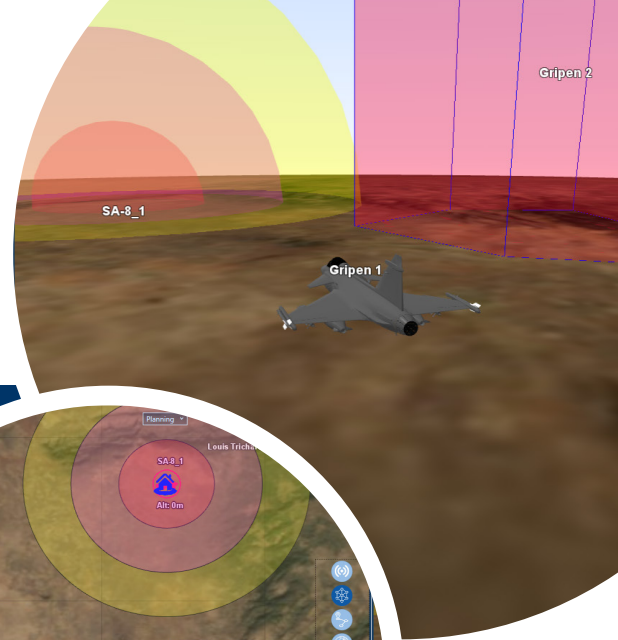
The Electronic Warfare Mission Support System (EWMSS) is a software-based product for joint pre-mission planning, in-mission support and post-mission debriefing for military training, test and evaluation exercises.

The EWMSS addresses needs for adversary air combat training and electronic warfare (EW) range use cases. It can be made available as a standalone product or as part of a larger CSIR EW range combat training package, which includes the airborne Inundu EW pod.

The EWMSS has the following functions:

- Pre-mission setup, planning and rehearsal;
- In-mission decision support – including situational awareness and kill assessment; and
- Post-mission debrief and analysis.

The EWMSS enhances mission effectiveness by providing cooperative mission planning and debriefing. During the execution of the mission, the EWMSS provides on/off-board, near-real-time mission support and kill assessment. The EWMSS fuses data from radar and EW sensors and other mission support systems in the training environment into a unified operational scenario to enable large force exercises (LFE). The EWMSS is designed to handle modern multidomain operations LFEs.



The EWMSS can be used by the following stakeholders:

- Fighter, helicopter and transport pilots/aircrew;
- Missions controllers (command and control);
- White/Blue/Red Forces mission commanders;
- EW mission operators;
- Test and evaluation personnel;
- Ground-based air defence operators; and
- Naval officers.

The EWMSS is delivered as a turnkey solution, with the software installed on high performance computing infrastructure that includes a central master server core, user interface clients and interfaces to external systems. Security of data has been designed in with roles-based logins and sensitive client data stored on removable data transfer cartridges.

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CSIR IN RADAR AND ELECTRONIC WARFARE

Mission planning, support and debriefing software tool

Integrated EW Test, Evaluation and Training Range

Example Weapons Platforms

Example Threat Systems

Electronic Warfare Mission Support System

Pre-mission setup, planning and rehearsal

In-mission support – including decision control, situational awareness and kill assessment

Post-mission debrief and analysis

Modelling & Simulation

Emitter and Environment Simulator Platforms

Personnel Training & Performance Evaluation

Measurement Platforms

A world-class research, development and innovation capability for radar and electronic warfare technology development and applications

The CSIR's radar and electronic warfare (EW) capability originated from the signal services deployed in South Africa from Great Britain during the Second World War. Over almost eight decades the CSIR has – and continues to make – a critical contribution to the National System of Innovation in the radar and electronic warfare sector. Local and international clients rely on the CSIR to deliver cutting-edge products and systems, as well as to assist in the establishment of look-alike R&D

capabilities in other organisations and countries. The EWMSS is a joint technology development project between the CSIR and Midnite Aerospace Solutions (MAS) that combines decades of EW, systems engineering, mission engineering, operational analysis, flight testing and software engineering expertise. MAS brings together a crew of fighter weapons instructors, predominantly with fourth-generation fighter experience from a variety of operational backgrounds and modern aircraft types.

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