RAFAEL
ADVANCED DEFENSE SYSTEMS LTD.

RSGS
RAFAEL SYSTEMS GLOBAL SUSTAINMENT, LLC

AIR DEFENSE OPTIMIZER

Accelerating and Simplifying Air Defense Decision-Making

A Game-Changing Leap in Air Defense Performance

As Air Defense missions become more complex, decision-makers and planners are faced with increasingly difficult challenges. To meet these challenges, RAFAEL's Air Defense Optimizer (ADO) uses a diverse range of models, data analysis tools, and optimization algorithms to provide a powerful system tool for strategic and operational planning, decision-making, mission rehearsal, debriefing, doctrine development, and training.

The ADO is specifically designed to meet the requirements of Air & Missile Defense (AMD) professionals, providing advanced capabilities that can be used together as a stand-alone system, or integrated into operational AMD systems, or customer Modeling & Simulation (M&S) environments. Tasks that previously required hours or days can now be performed in minutes.

Benefits

- Designed for AMD professionals, by AMD professionals
- Optimization algorithms provide the necessary inputs for decision-makers and planners
- Platform-agnostic and independent – users can integrate any required AMD systems
- Open Architecture connection to various types of systems, including operational BMC4Is and customer simulation systems
- Comprehensive visual analysis tools assist in understanding the effectiveness of AMD system deployments
- Designed for ease of use
- Multiple uses – defense & offense planning; decision-making support; doctrine development; training; debriefing

Simulation Modes

The ADO includes two simulation modes which can be run as standalones, or online while connected to other systems. These modes enable users to plan, make informed decisions, run what-if scenarios, and fine-tune strategies before executing them in the field, as well as debrief operational events.

1. Optimization Simulation –

Deployment-Allowed Areas are defined along with Defended Assets and Threats. A proprietary optimization algorithm calculates and recommends the best options for AMD system deployments. The results can then be exported to the Evaluation Simulation.

2. Evaluation Simulation –

AMD System Deployments, Defended Assets and Threats are defined. The ADO simulates the scenario and provides visualized data that can be analyzed by the operator using a wide variety of data- analysis tools provided in the HMI.

Main Capabilities

- Strategic and operational planning
- Real-time decision-making
- Doctrine development
- Decision-maker training
- Offense planning
- Operational debriefing and lessons learned

The Global Leader in Air Defense

Leveraging more than 75 years of experience, RAFAEL leads the world in the design and production of advanced AMD platforms, including the IRON DOME, DAVID's SLING, and SPYDER systems, with dozens of customers around the world. Based on this extensive experience, the ADO was designed for AMD professionals, by AMD professionals.