

A Saturation Attack Simulation on a Navy Warship Based on Discrete-Event Simulation Models

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Abstract : Threat from cruise missiles is among the most dangerous considerations to a warship in the modern era: anti-ship cruise missiles are fast, accurate, and extremely destructive. In this paper, the goal was to use an object-orientated environment to program a simulation to model a scenario in which a lone frigate is attacked by a wave of missiles fired at given intervals. The parameters of the simulation are modified to examine the relationships between different variables in the situation, and an analysis is performed on various aspects of the defending ship's equipment. Finally, the results are presented, along with a brief discussion.

Keywords : discrete event simulation, Monte Carlo simulation, naval resource management, weapon-target allocation/assignment

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