MASTER OF SCIENCE
IN
APPLIED MATHEMATICS

A COMBAT SIMULATION ANALYSIS OF THE AMPHIBIOUS ASSAULT VEHICLE IN COUNTERMINE OPERATIONS

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The purpose of this thesis is to evaluate the effectiveness of an Amphibious Assault Vehicle (AAV) as a mine countermeasure in the surf zone and beach zone (sz/bz). In order to show the utility of these approaches, this thesis presents results from three different scenarios. Scenario one provides a baseline and is conducted with the amphibious landing force moving onshore with no minefield breaching operations being conducted. Scenario two encompasses a more traditional method of minefield breaching. Scenario three will use AAVs only to breach the surf zone and beach zone minefields. The focus will be placed on the number of mines neutralized as well as the number of assets killed.

DoD KEY TECHNOLOGY AREAS: Battlespace Environments, Modeling and Simulation

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