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Corporate Author: DECISION SCIENCE APPLICATIONS INC ARLINGTON VA

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Identifiers: MOST COMPUTER PROGRAM, AIMPOINT SELECTION, **POSEIDON** MISSILES, TARGETS, PE62704H, WU42

Abstract: The MOST code (for Multiweapon Optimizer for Strategic Targets) is designed to find a aimpoints for nuclear weapons assigned to complex targets such as airfields. It finds the minimum number of weapons needed to accomplish the objective of an attack and optimizes aimpoints for them. Although designed primarily for **Poseidon** RV's in its current form it will handle any problem in which identical yields are used. There are two kinds of attack objectives that may be specified. The first attack objective is the achievement of at least a minimum probability of damage against each of the elements of the complex. The second objective is to achieve a required level of damage to the complex as a whole. It is assumed that each element of the complex is assigned a value against which other elements can be weighed, and that the value-weighted probability of damage to an element is the probability of damage to it multiplied by its value. This second objective, then, is to achieve at least a minimum required value-weighted average probability of damage on the entire complex (which is the sum of the value-weighted probabilities of damage of all of the elements divided by the total value of the complex). Compounded probabilities of damage, due to multiple bursts, are taken into account in the achievement of this second objective, and the value-weighted average PD is maximized during aimpoint optimization. Colocated targets (not part of the complex) have been taken into account, and may be given a high probability of damage requirement independent of the requirement of the complex.

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