

CONTAINMENT OF SHALLOW-DEPTH BURIED EXPLOSIONS

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ABSTRACT

Often field blast tests to study ground shock phenomenon involves placement of the explosives at some depth below the ground surface. Depending on the depth of burial, weight and type of explosive and ground properties, the explosion may be either fully or partially contained. A fully contained explosion will result in a camouflet at the explosive location while a partially contained explosion will result in material throw and a crater formed at the ground surface. Interpretation of test results is less ambiguous with a fully contained explosion. The objective of this paper is to examine the apparent crater size of shallow-depth buried explosions using both field test results and numerical modelling. The results are compared with guidelines given in TM5-855-1 and the difference is explained with suggestions to improve the guidelines given in TM5-855-1.