

HEIGHT OF BURST THERMAL BLAST SIMULATION STUDIES

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Simulation of the interaction of height-of-burst, air blast with thermal layer was undertaken in a series of exploratory field experiments. A blend of pyrotechnic grade magnesium and potassium perchlorate and wax was ignited on 18.6 square meters (900 square feet) of a concrete test pad to create a heated layer for interaction with a blast wave from a 45 kg (1000 lb) Pentolite charge detonated at a height-of-burst of 4.18 m (13.7 ft).

Measurements taken on and near the surface in the heated, non-ideal region are compared with those in the unheated ideal region. Correlation is made prior experiments conducted at the same height-of-burst. An evaluation of the technique is given.