TREMENDOUS INCREASE OF THE BLAST EFFECT ABOVE HE PLATES CHARACTERISED BY SMALL SCALE EXPERIMENTS

A. Lefrancois¹, S.Chapelle¹, S.Pauly², F.Donadieu², J.Mespoulet²

 French Ministry of Defence / DGA / Centre d'études de Gramat BP 80200, Gramat, 46500, France
Thiot Ingenierie
La Croix Blanche » St-Michel-Loubéjou, Bretenoux, 46130, France

ABSTRACT

A small scale blast experiment has been developed to characterize the blast effects of a HE plate. Different scale factors have been investigated in order to verify the similarity laws.

Hemispherical surface burst experiments (detonated on the ground) have been also performed to determine the TNT equivalent of the chosen HE and compared with the plate configuration.

This study highlights that the similarity laws apply for the plate configuration and that a tremendous increase of the blast effect has been observed above the plate compared to the hemispherical configuration.