

MABS 17 10-14 June 2002

## **Blast Damage of Submunitions in a TBM Warhead by a 15 kg Heavy High Explosive Charge**

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### **Abstract**

The used TBM target with chemical submunitions consisted of a thin aerodynamic shell in which submunitions were installed in three tiers. The submunitions were simulated with water pipes of 3.65 mm wall thickness, filled to 90 % with water. Blast warheads with a 8 mm cylindrical steel casing were installed with their full diameters in the aerodynamic shell and were fired in the upper, the middle and the lower tier. Despite the high explosive charge weight was around 15 kg, the submunitions in the larger distances to the detonating charge were less or not damaged. The percentage of fully destroyed submunitions was found to be between 40 % to 64 %. If fully opened submunitions would be enough, then 93 % would be achieved by a hit in the middle tier. Used designs and test setups with the analysed test results are presented in detail.