

DEVELOPMENT AND TESTING OF HIGH BLAST THERMOBALLISTIC EXPLOSIVE COMPOSITIONS

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ABSTRACT

This paper is to realize thermobaric warhead effect using remaining fuel (aircraft oil) after making a flight until impact area. In the first step, thermobaric warhead of fuel air explosive (FAE) type (two cycle) was designed and tested using aircraft oil. Most of its all energy was released as heat by burning instead of detonation due to long chain length of aircraft oil. Therefore, its blast performance was very low. In the second step, thermobaric warhead of one cycle was designed and tested. Its blast performance was increased largely about 4 times compared with thermobaric warhead of two cycle thermobaric warhead, FAE type. In third step, remaining fuel was dispersed first and main warhead (35kg and 3kg) was detonated continuously as the second detonation device after the optimum delay time (about 20ms).