CALCULATION OF SHOCK AND BLAST WAVE PROPAGATION IN AQUEOUS FOAM

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Experimental work at AWE Foulness has demonstrated the effectiveness of aqueous foams in completely containing or restricting the dispersal of products from explosive devices. A readily deployable system of aqueous foam contained in a light plastic dome has demonstrated complete containment of HE charges up to 100 kg in weight.

The test results have provided much date on the blast wave attenuation in foams bur many questions of practical significance remained unanswered and a theoretical model was devised.

This paper describes the work done in the course of the development of such a model, discussing the terminology or aqueous foam, a survey of experimental data, the development of the model and validation of the model by comparison with experiments.