MABS 18
September 27 - October 01, 2004, Bad Reichenhall, Germany

INTERNAL TRANSMISSION OF BLAST IN A BUILDING

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The explosion of a charge within a building represents a significant hazard to the building and its inhabitants. Ongoing research is looking at methods of mitigating the internal effects of such charges. In order to do this it is necessary to understand the extent of the blast hazard. This paper reports on work to investigate how blast arising from an internal charge propagates through a typical building and how the propagation is effected by different wall constructions. The results of full scale explosive testing on a modular test structure will be presented, together with a comparison of the effects of different wall constructions and retrofits. The results indicate that the degree of containment in the room where the charge is detonated has a considerable effect on the damage sustained by the building as a whole.