DIFFRACTION OF SHORT DURATION AIRBLAST THROUGH OPENINGS AND AROUND CORNERS.

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Small-scale high explosive tests were conducted to investigate the dif-fraction of airblast through openings and around a corner wall. The project investigated the effects of charge size, incident pressure level, and
the gage and charge locations on the peak pressure and pulse duration of the diffracted blast. The results of the experiments are presented and analytical, semi-empirical models of the diffraction phenomena are described and compared with test data.

Updates of the CHAMBER and BLASTIN codes are described for computation of the diffracted and reflected blast environment in structures when explosions occur externally near an opening into a structure or around the corner from a gage location. Examples of computed study are contrasted with free air blast and with data from earlier test programs, where the blast incident to an opening was a plane wave, or where the point of interest was in a direct line of sight from an explosion point in a room.