A STUDY ON COMPLEX BLAST WAVE BEHAVIOR IN LARGE, VENTED ENCLOSURES

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In 1992 numerous explosive tests were conducted both interior to and exterior of several enclosures. This test program consisted of both experimental research (Refs. 1, 2) and analytical model development (Ref. 3) from bare explosive charges. recoilless rifles, and small caliber rocket launchers initiated in or exterior to enclosures. These tests Were conducted a' the newly constructed Norwegian Defense Construction Service (NDCS) test facility at Terningnoen, Norway. The purpose of the study was to examine and map the complex blast flow and the loads on walls and personnel inside the enclosures. The results of these tests were used to develop and validate predictive methodologies.

This paper describes the experimental portion of the complex blast wave (CBW) program using explosive charges, both internal and external to enclosures, as the blast source. Descriptions of the test site, tests conducted, and a brief analysis Of the results will be presented.