SHOCK WAVE/TWIN TARGETS INTERACTION EXPERIMENTAL STUDY AND NUMERICAL SIMULATION

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The interaction between a weak shock wave (-70 kPa) and twin targets fixed on the ground is investigated, experimentally and numerically, These experiments are performed in the ZEPHIRE laboratory shock tube, and in the CEG Large Blast Simulator (SSGG). Targets exposed in the SSGG are 10 times larger than those exposed in the ZEPHIRE shock tube. Experimental recordings are pressure - time histories at various measuring stations on the vertical faces of the targets, and shadowgraphs of the phenomenon, taken in the ZEPHIRE shock tube. Numerical simulations of the ZEPHIR-E experiments are per-formed using the SHARC hydrocode. Numerical results are compared with experimental results. Pressure signals recorded at corresponding stations on the small and large targets are compared in order to verify the usual scale laws.