

## MULTIBURST MACH REFLECTION INTERACTIONS

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The defense Nuclear Agency sponsored a series of eight pound high explosive, three burst shock interaction experiments in 1982. The results of these experiments were reviewed at the 1983 Military Applications of Blast Simulation Symposium. The Physics International multiburst test facility was refurbished last year. A multiburst test series will be conducted this year to extend the results obtained in 1982 to include a wider range of interaction conditions and to develop a high quality database for future three dimensional computer code validations.

The previous eight pound high explosive experiments involved the interaction of three nearly equal strength simple Mach reflection wave systems. This test series will explore a wide range of shock strengths involving complex and double Mach wave systems and their reflective interactions. Several experiments will investigate the interaction of shock with significantly different strengths. The results of these experiments will provide a high quality database to challenge three dimensional computer codes being developed by the Defense Nuclear Agency.

The test facility and instrumentation will be described. The overall test matrix will be outlined. Results of the experiments will be presented.