

Abstract Submitted  
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**Shock Separation and Dead-Zone Formation from Detonations in an Internal Air-Well Geometry** JOHN MOLITORIS, HENRY ANDRESKI, RAUL GARZA, JAN BATTEUX, PETER VITELLO, CLARK SOUERS, Lawrence Livermore National Laboratory, ENERGETIC MATERIALS CENTER TEAM — Here we report on measurements of dead-zone formation due to shock separation from detonations attempting to corner-turn in an internal air-well geometry. This geometry is also known as a “hockey-puck” configuration. These measurements were performed on detonations in LX-17 and PBX9502 using time sequence radiography to image the event with surface contact timing pins as an additional diagnostic. In addition to an open corner in the high-explosive component we also examined the effects of steel defining the corner. In these experiments we find a long lived dead-zone consisting of shocked explosive that persists to very late times. Data and numerical modeling will be presented in addition to a comparison with previous work using an external air well. This work was performed under the auspices of the U.S. Department of Energy by University of California, Lawrence Livermore National Laboratory under Contract W-7405-Eng-48.

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