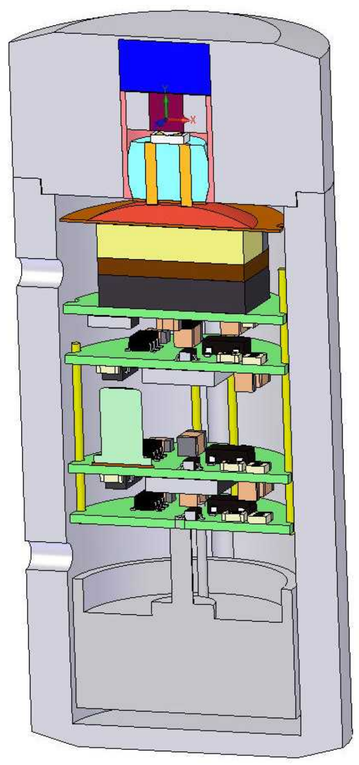
SAND2007-5273P

Advanced Instrumentation Technologies

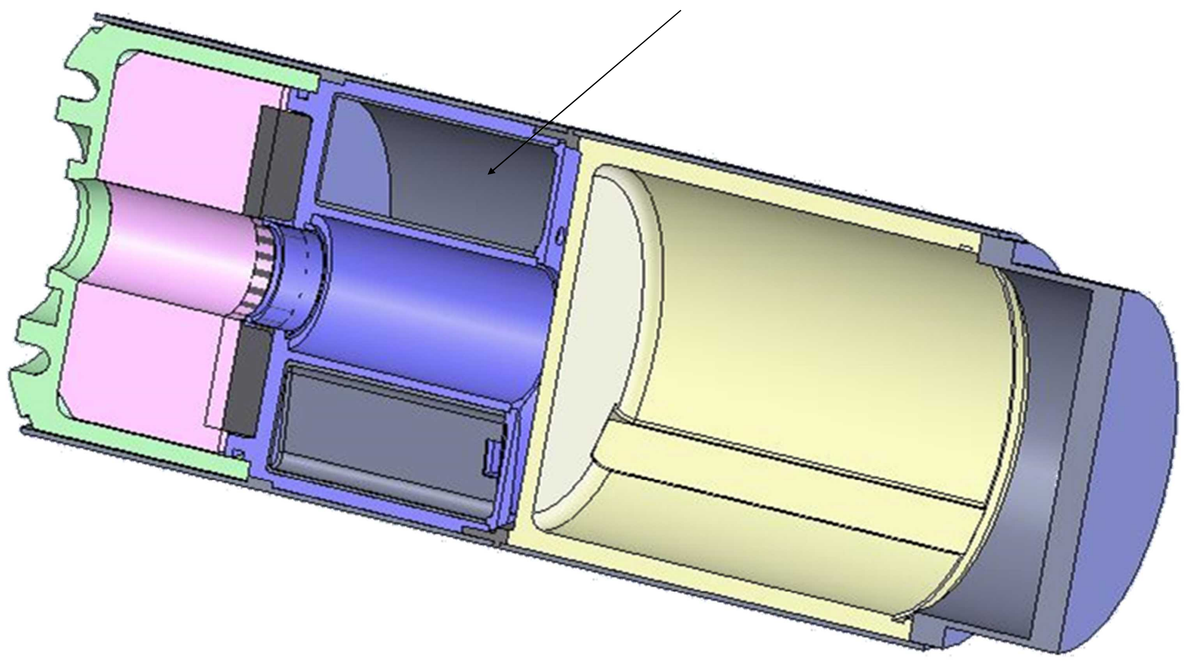
The number of hard and deeply buried targets continues to increase around the world. Current inventory weapons are very effective against many buried bunkers. The most difficult facilities to defeat are those buried deep underground, in tunnels and caves, and under multi-story urban facilities. Major technical issues exist for not only penetrator survival but also the survival of the payload and successful execution and functionality of hardened fuzing scenarios at both conventional (<2500 fps) and high (2500 to 5000 fps) velocities.

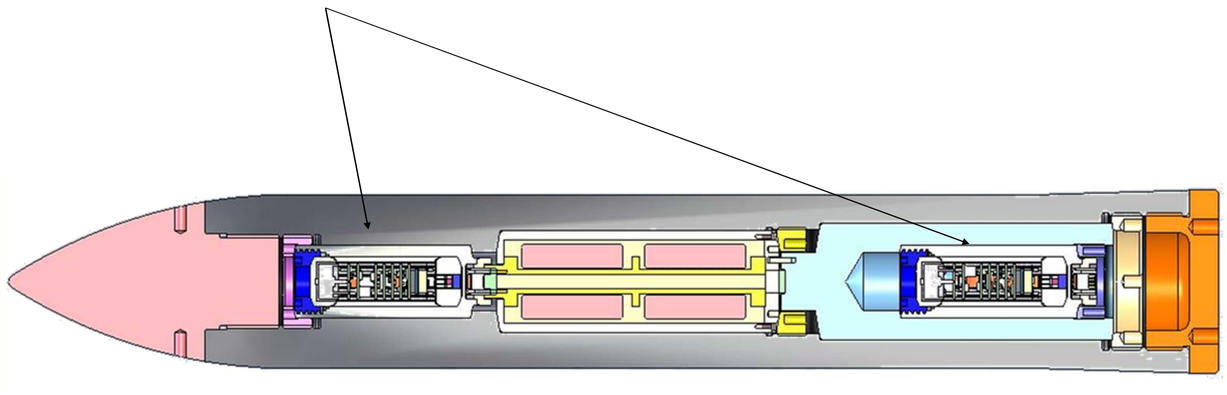
DTRA has a vested interest, along with the major military branches of the DoD, to develop technologies to place hard deeply buried targets (HDBT) at risk The scope of this effort is to develop fuzing technologies that can survive the high-g environments associated with (HDBT) impact. Specifically, it will address a need to develop shock resistant electronic packages that can withstand high velocity impacts and perform their assigned task(s).

SNL/DTRA Hardened Miniature Firing Set



Standard 3” Diameter Fuze Well with Implemented SNL/DTRA Firing Set





3”-Diameter Penetrator Testing Platform

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National Nuclear Security Administration

Sandia is a multiprogram laboratory operated by Sandia Corporation, a LockheedMartin Company, for the United States Department of Energy’s National Nuclear Security Administration under contract DE-AC04-94AL85000.

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