



US DEPARTMENT OF DEFENSE

BLAST INJURY RESEARCH PROGRAM COORDINATING OFFICE

Protective Equipment

ONR efforts on Blast Barriers to Protect the Warfighter against Internal Injury

Researchers at NSWCCD, funded by ONR, are developing blast barriers that would mitigate blast exposure in the 1000 to 3000 Hz range, which has been associated with greatly increased pulmonary injury. Blast suppression by targeting the most critical frequencies has not been considered along this line previously. A technology, using perforated plate suppressive shield technology as a base, was identified. The technology includes incorporation of different fabric components, emphasizing the use of cross-over points for strain reflections, for cost and availability. A Navy Invention disclosure was submitted, "Blast Frequency Control Barrier", Navy Case no. 102,194. This technology is useful for barriers and around check and inspection points for protecting against pulmonary and perhaps mTBI injury.