



US DEPARTMENT OF DEFENSE

BLAST INJURY RESEARCH PROGRAM COORDINATING OFFICE

Blast Exposure Research

Underwater Explosion Quantity Distance Working Group

The DoD Explosive Safety Board hosts a working group dedicated to establishing safety guidance for swimmers and divers in the presence of an underwater explosion. This working group is chaired by NSWC Indian Head Explosive Ordinance Disposal Technology Division personnel. Current safety standoff guidance is provided by the explosive ordinance disposal (EOD) community, Chief of Naval Operations, and US Army Technical Center for Explosives Safety—but no common DoD-level guidance is documented at this time. In FY15, this working group met nearly monthly and settled on objectives, which are to develop a good working shock propagation model in shallow water environments for low pressure shockwaves (a model already exists for deep water/high pressures); to review the metrics for physiological risks; and to develop equipment to mitigate the effects of an underwater blast. Gaps in capabilities are being tracked through a maturity chart. All four US DoD Services participate in this working group, as well as academia (Duke University), and foreign Navies (United Kingdom and Canada). The working group is tracking basic research, which is supported by ONR, the Environmental Security Technology Certification Program, and the Naval Submarine Medical Research Laboratory.