Underwater Bomb Trajectory Prediction for JABS

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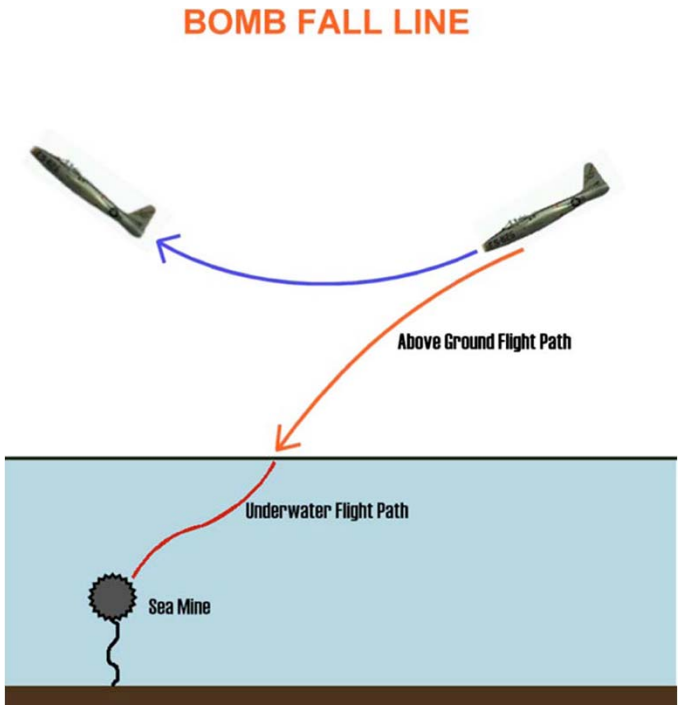

Brief Description

Development of Navy's operational model (STRIKE35) for predicting bomb trajectory in air, water, and sediment columns.

NPS Thesis

Greg Ray, "Bomb strike experiments for mine countermeasure", MS in METOC, March 2006

Bushnell, J.,. ""Prediction of Bomb Trajectory for Mine Breaching", MS in METOC, December 2009

Selected Publications

(1) Chu, P.C., J.M. Bushnell, C.W. Fan, and K.P. Watson, 2011: Modeling of underwater bomb trajectory for mine clearance. *Journal of Defense Modeling and Simulation*, The Society for Modeling and Simulation International, **8** (1), 25-36 (paper download).

(2) Chu, P.C., and C.W. Fan, 2011: Probability density function of underwater bomb trajectory deviation due to stochastic ocean surface slope. *Journal of Dynamic Systems, Measurement and Control*, American Society of Mechanical Engineers, **133**, 031002 (13 pages) (paper download).

(3) Chu, P.C., C..W. Fan, and P. R. Gefken, 2010: Diagnostic-photographic determination of drag/lift/torque coefficients of high speed rigid body in water column. *Journal of Applied Mechanics*, American Society of Mechanical Engineers, **77**, 011015-1 (paper download).