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Analysis of Net Engagement with a Towcable KATHERINE MANGUM, RICHARD KNUTSON, STEPHEN EBNER, NSWCCD — The Naval Surface Warfare Center, Carderock Division conducted a test in the deep water David Taylor Model Basin (DTMB) in September of 2006. The objective of the test was to evaluate the interaction of a towcable with drift nets and with longlines. Entanglement is a major problem in military and commercial applications, both with ship towed systems and with helicopter towed systems. A tenth scale model of nets and target towcable were designed and fabricated to allow proper froude scaling. Simulation was done to predict net behavior at various end drag conditions, thus simulating different typical net lengths. Other variables evaluated were cable scope, tow speed, net angle with respect to towcable at point of engagement, and centered versus off center point of contact. After engagement studies, a sample net cutter was towed to examine probability of success. Visual and quantitative data were compared for all cases to evaluate the net simulations.

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