

# Adaptation and Improvement of ASW Tactical Decision Aid Design to Mine Warfare Tactical Decision Aid

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**Abstract:** In this presentation, the adaptation of a tactical decision aid (TDA) designed for Anti Submarine Warfare (ASW) to one used for Mine Warfare is discussed. Previous work at the Naval Research Laboratory established a TDA, namely GRASP for the ASW role. Recently at NRL work has been done to extend the TDA model to Mine Warfare. Specifically this presentation examines search path algorithms for the two TDAs. Comparisons will be shown between various search path algorithms for environmentally influenced mine

detection: GRASP, edge covering, and greedy algorithms for limited time searches and searches for minimal confidence of detection. Oceanic environmental parameters relevant to designing tactical decision aids for mine detection will be noted.

In conclusion this presentation discusses how extensively detailed must the environmental survey be in order to make search path analysis sensitive to the data. This work is being supported by the Office of Naval Research, Program Element No. 62782N.