

UNDERSEA DETECTION OF SEA MINES

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ABSTRACT: In this paper the authors tried to analyse the features of possible undersea threats, such as sea mines, available countermeasures and other activities. Detection, approach, inspection and destruction of an unidentified sunken object by a remotely operated underwater vehicle (ROV) is described. The authors tried to define ROV control parameters and optimisation criteria. ROV control simulation model is developed and tested with two different dynamic positioning algorithms. The paper includes results of ROV manoeuvres simulation. According to these results, the authors conclude that the use of ROVs in undersea detection and destruction of sea mines and other hazardous objects is an effective and efficient solution

Key words: Mine threat, sea mines, mine countermeasures, remotely operated underwater vehicle, remote control, simulation model, control algorithms.

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