

[特別招待講演] 低コストで複数 AUV チーム運行を実現するための 海中無線通信を利用した海中測位システム

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あらまし 通常の AUV による海底探索では図 1 に示すように、海底での位置を母船より得て、その後は慣性航行装置で、海中の位置を把握するが、今回の提案では図 2 のように海上の基準点からの海上座標の通信処理および測距を組み合わせることで海中の複数 AUV 船団を実現する。開発の状況および、海上実験結果等を報告する。

キーワード 水中 GPS、水中測位、水中無線通信、自律型無人潜水機

[Special Invited Talk] An Underwater Positioning System based on Wireless Acoustic OFDM Communication for multiple AUVs team operation

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Abstract This paper proposes a new underwater positioning system which does not use INS in order to realize a compact and lower cost AUV, and realizes AUV swarm operation as shown in Fig.2.

Keywords Underwater GPS, Underwater Positioning, Underwater Communications, Autonomous Underwater Vehicle

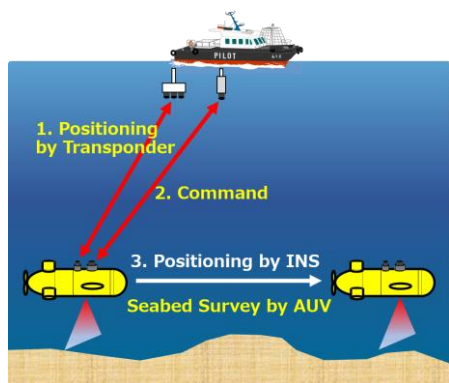


Fig. 1 Conventional AUV operation by Inertial Navigation System (INS)

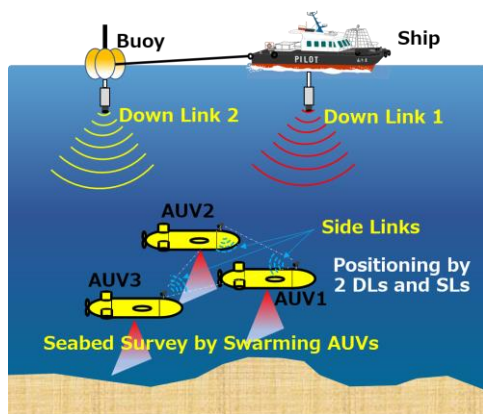


Fig. 2 Proposed Positioning System for Swarming AUV operation

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