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Application of underwater positioning systems for offshore and seabed surveying

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Abstract: The an underwater positioning systems consists of sea surface vehicles, a seabed vehicles, transponder, transducer mounted on an underwater vehicles. They can be classified into two sections, the first sections are dead reckoning positioning systems and second section is acoustic positioning systems. Examples of second section are LBL, SBL, USBL and combinations of the above. All of methods is calculated the range and horizontal and vertical angles, in order to the position is calculated. For offshore surveying positioning like drilling, piping, underwater photogrammetry and etc, should be calculate the point coordinates. Those methods have several advantage as well as disadvantages in offshore surveying. In this paper we presented their application on offshore and then compare together. During the course of this paper several results provided insight into the operation. in this paper provided the importance of combinations of the above

Key words: underwater positioning, LBL, USBL, Drilling, underwater photogrammetry