

# **An Assessment of Detector Modes of a Kongsberg EM2040C for vertical object detection**

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Kongsberg Maritime, within its user and reference manuals, offers guidance and recommendations for the use of various detector modes within their Seafloor Information Systems (SIS) acquisition software for sonar control. In order to determine the effectiveness in bottom tracking or object detection of a particular detector mode in real time, the hydrographer must visually analyze the detected depth curve within the Water Column Display, which could lead to objects going undetected should the wrong detector mode be in use. This paper aims to provide an assessment of various detector modes while surveying a vertical object located within a waterway. Within the assessment, modes including Tracking, Waterway and Min Depth are reviewed, as is the incorporation of Kongsberg's Extra Detections function and these compared against a control survey conducted using a Norbit iWBMS.