noise in the detection output. Spatio-amplitude and spatio-temporal information generated form F-K transform is used for target detection, localisation and classification. Significant SNR improvement is observed at detector output with F-K transform compared to conventional frequency domain beamformer with energy detector. Long range detection of torpedoes are possible with improved SNR at the detector output. Reduced beam width and lower side lobe levels are also observed at the detector output. Automatic target detection using Hough Transform is also presented in this paper. This is an essential feature for torpedo detection. Adaptive noise cancellation techniques for the removal of non-acoustic noise from towed array sonars is the area of future research.

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