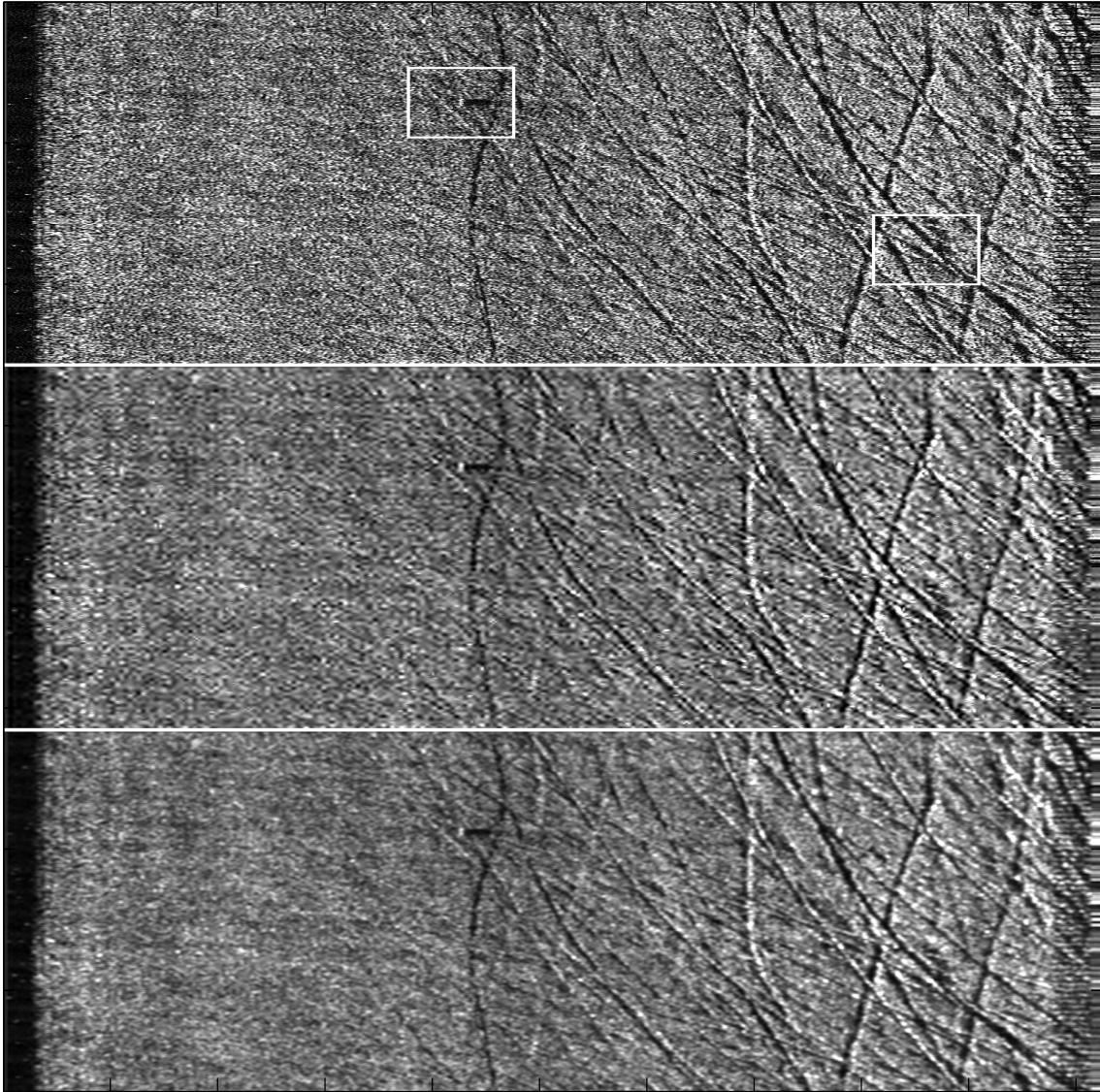


# Sonar Images of Mines



Original image (top), wavelet denoised image (center), and Gaussian filtered image (bottom). Mine-like objects are in white squares.

## Mine Detection Results Effect of Image Denoising

Type of image preprocessing	Pd (%)	FA/Image
Original	91	1.17
Gaussian	91	1.57
Coiflet-5 (2nd level)	91	0.9
Original	97	3.8
Coiflet-5 (1st level)	97	1.38
Symmlet-8 (1st level)	97	1.37
Coiflet-5 (2nd level)	97	1.20
Symmlet-8 (2nd level)	97	1.22

Performance of the detection stage of the AM-DAC algorithm for different denoising techniques. Percent correct classification is followed by the average number of false alarms per image.

Wavelet denoising at a certain level reduces the number of false alarms per image without affecting the detection performance.