

# SEA WAVE PATTERN EVALUATION

Submarine Portfolio

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## **Abstract**

The figures in this portfolio demonstrate the ability of the program SWPE4.0 to determine the free-surface shape near a moving submarine. The hull data used here is for a Los Angeles class submarine of length 110m travelling at a steady 20 knots speed. Only the depth of submergence of the submarine, as measured from the top of the conning tower, changes between figures.

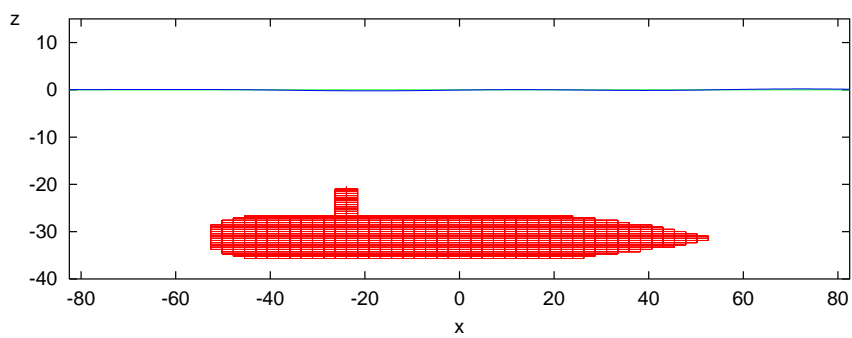
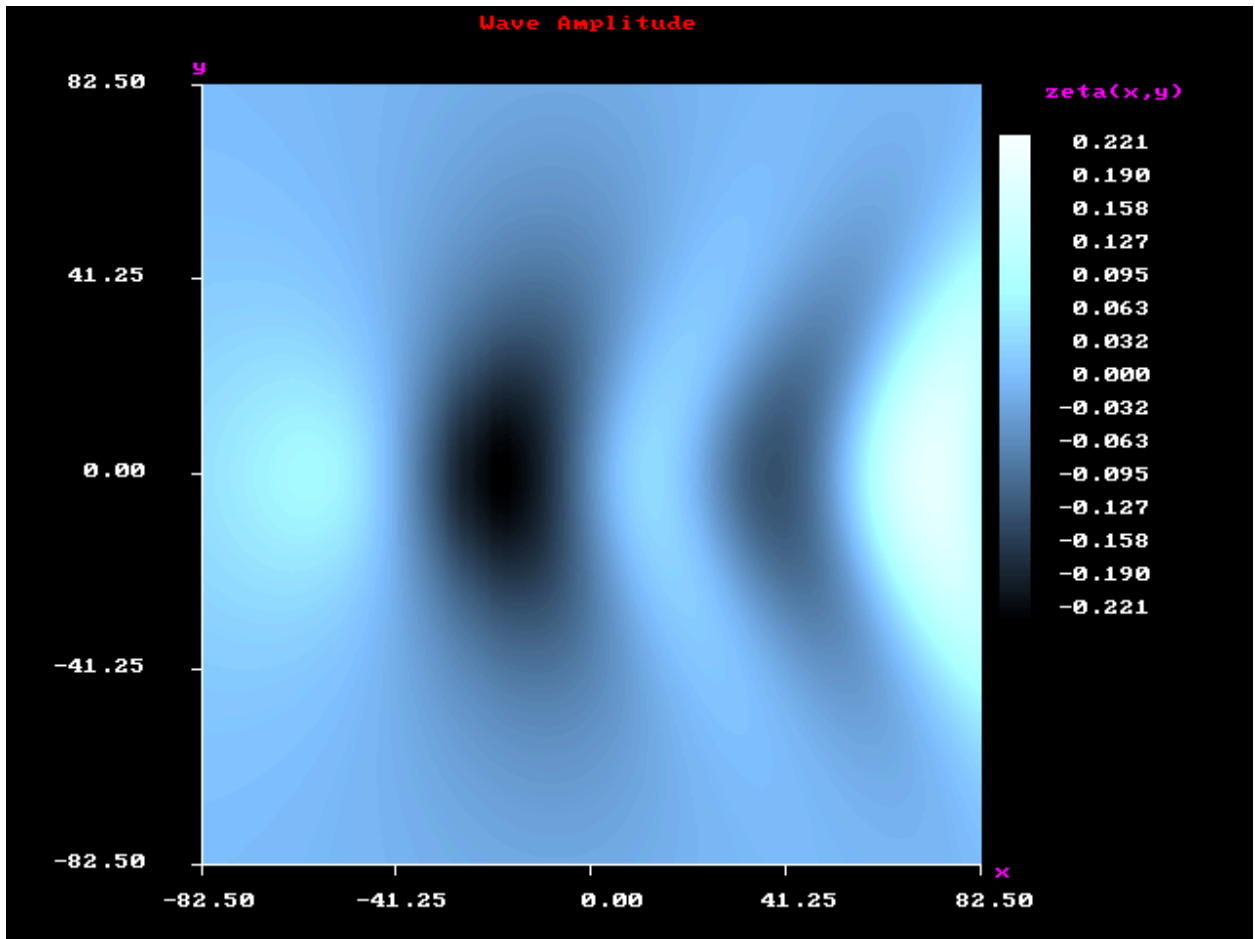


Figure 1: Submergence depth 20.0m

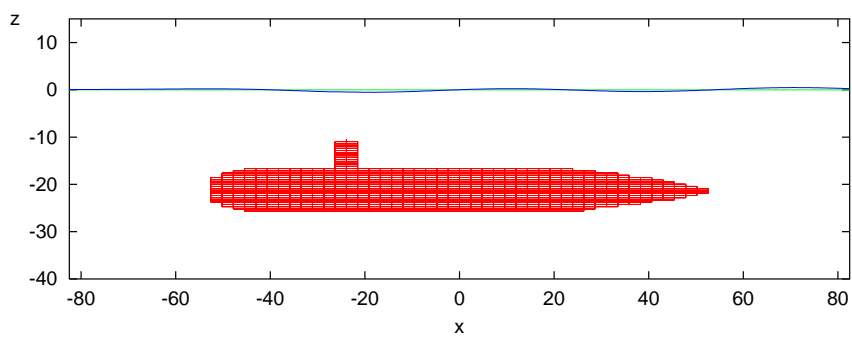
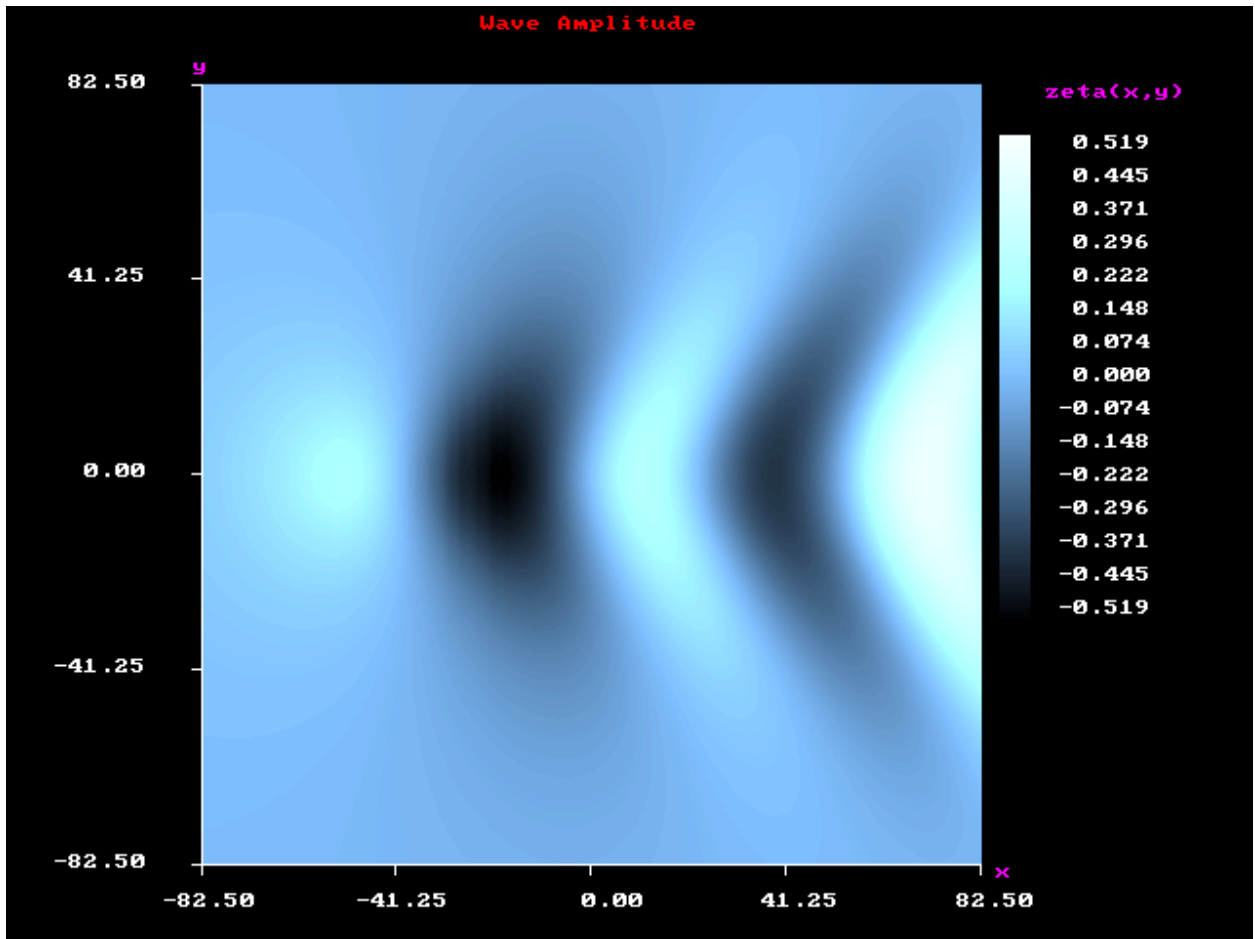


Figure 2: Submergence depth 10.0m

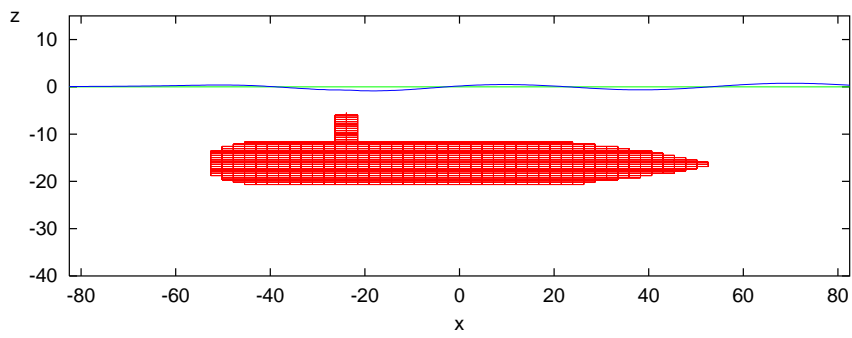
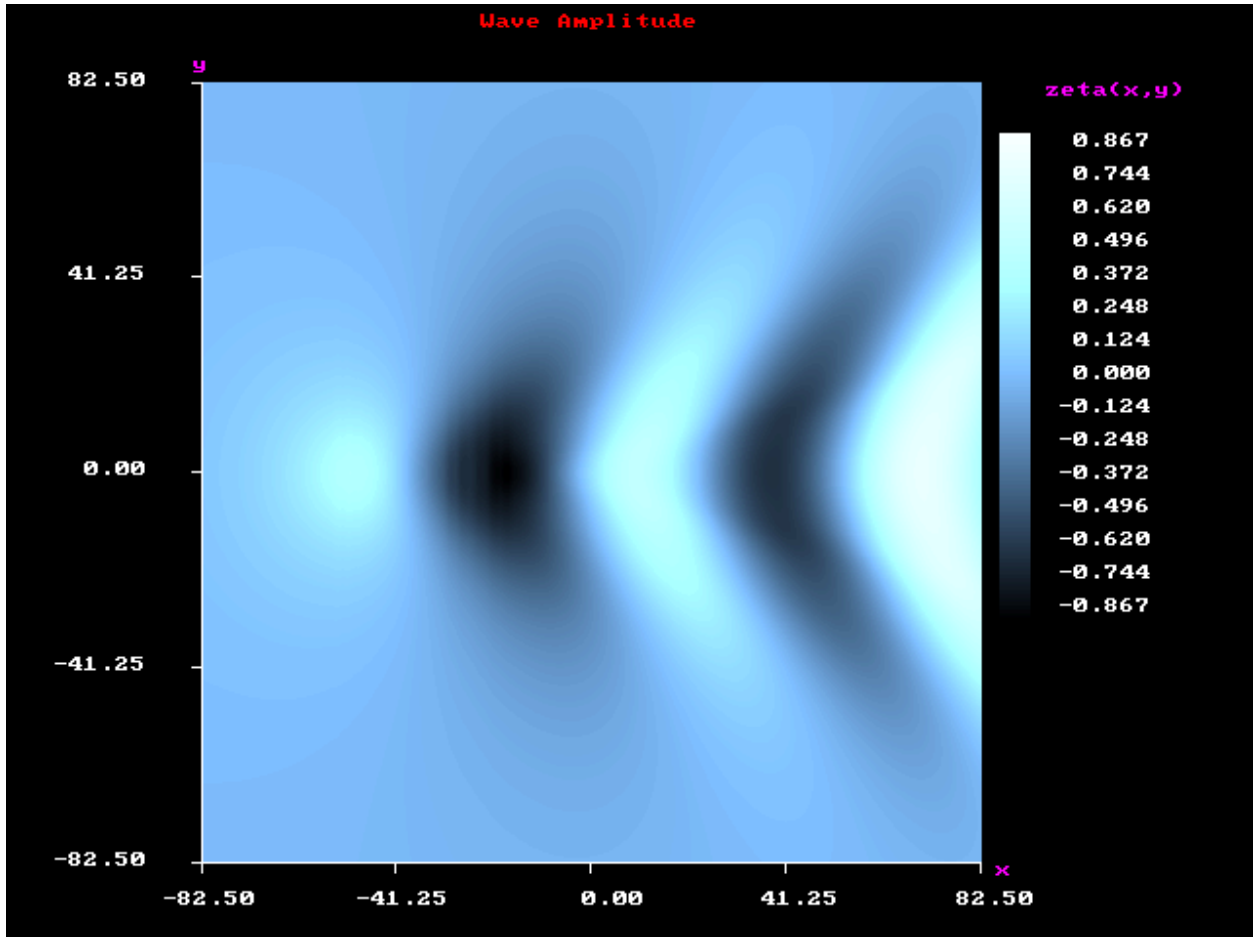


Figure 3: Submergence depth 5.0m

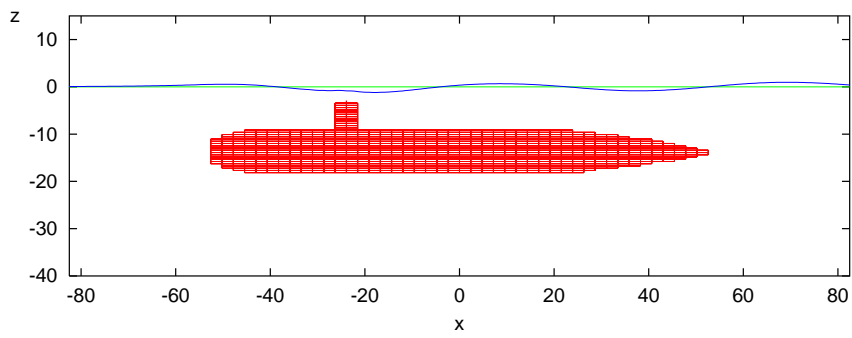
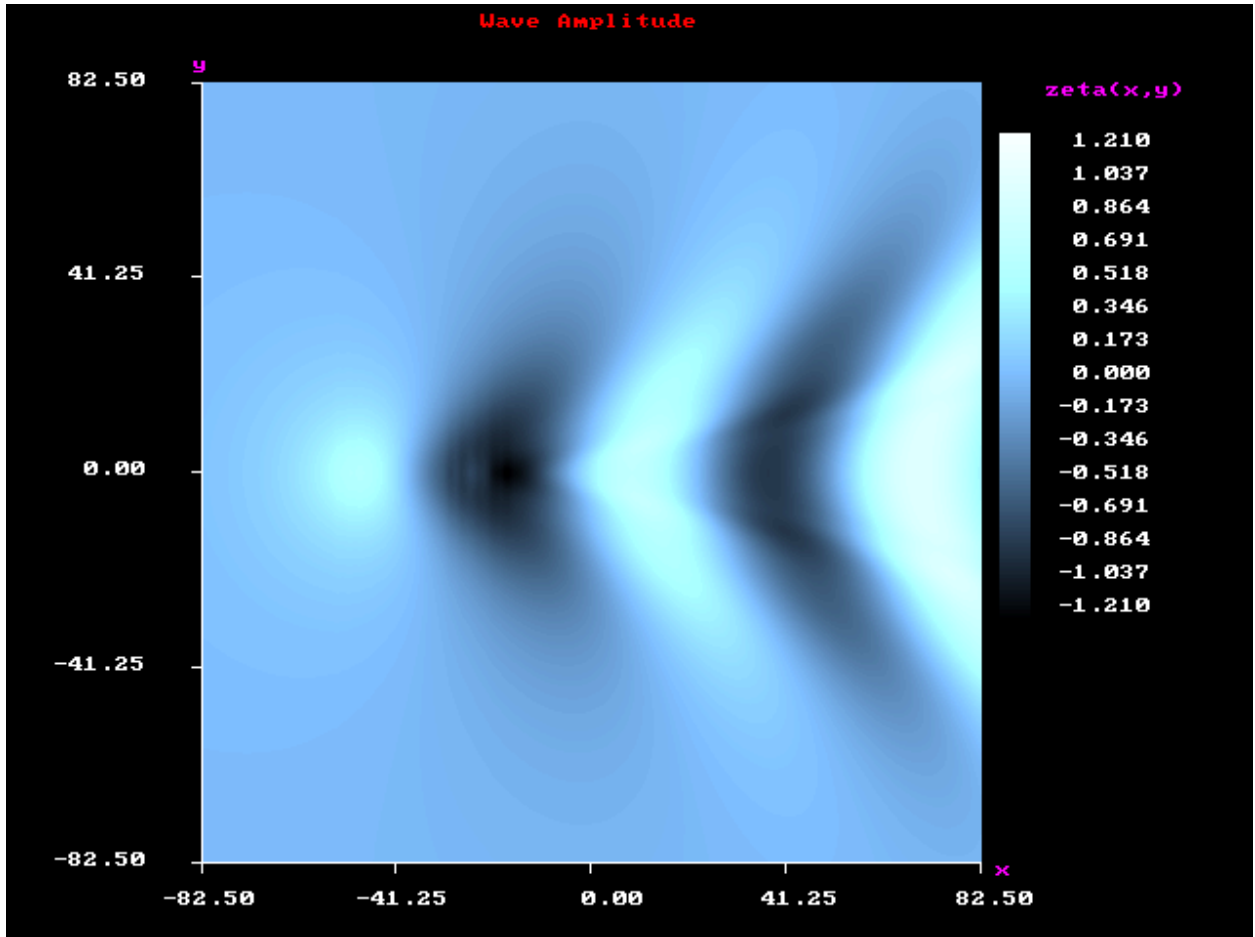


Figure 4: Submergence depth 2.5m

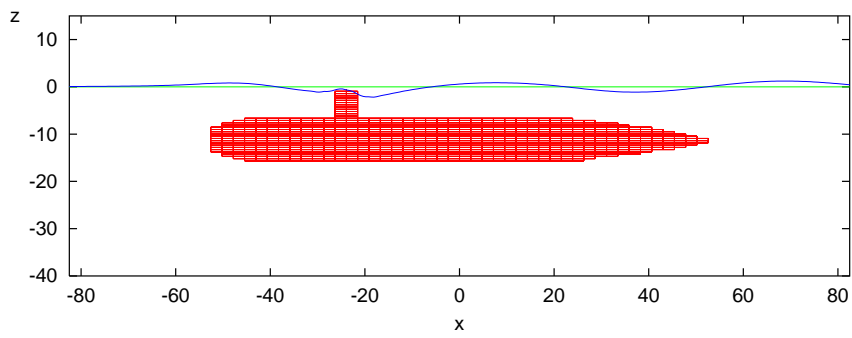
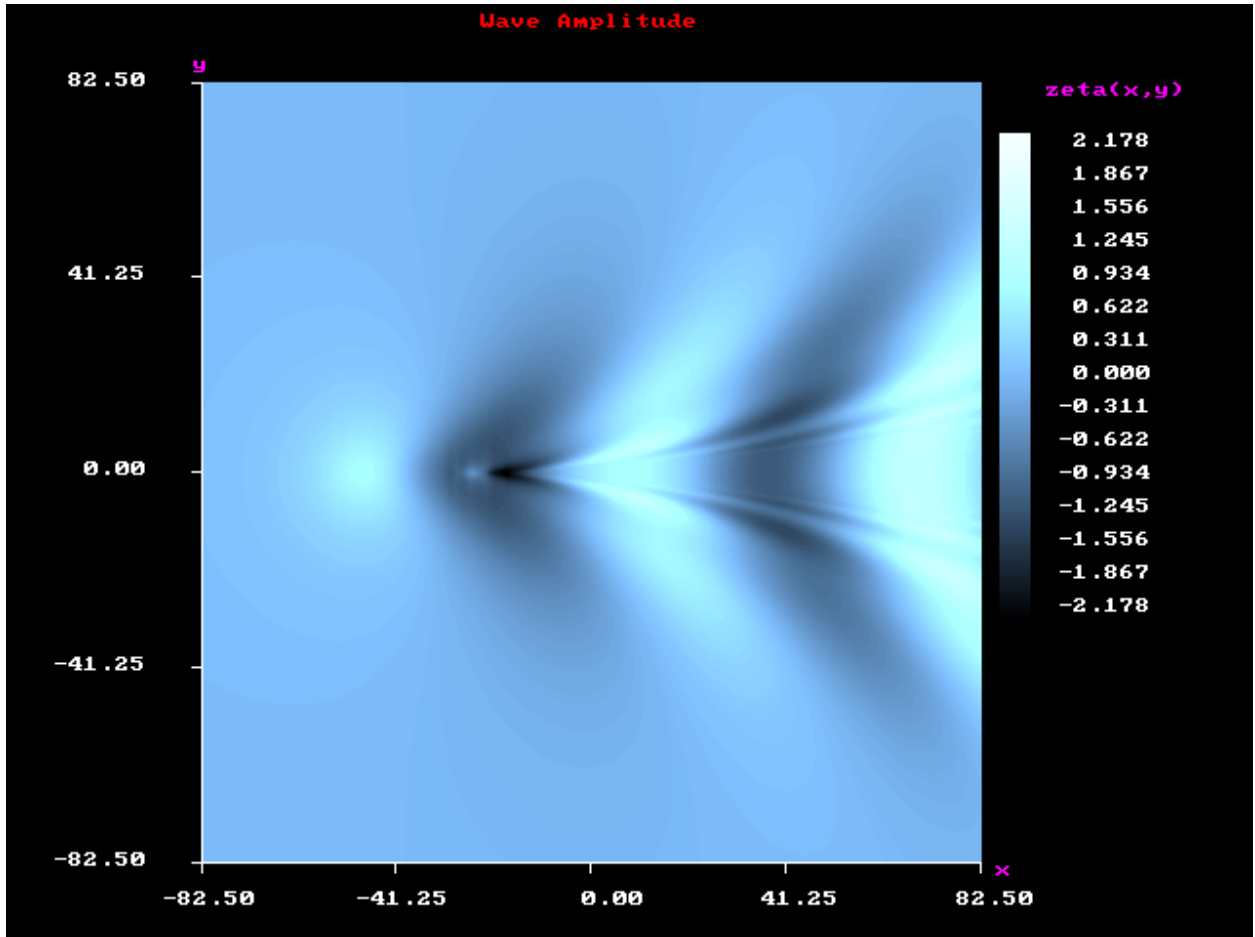


Figure 5: Submergence depth 0.0m

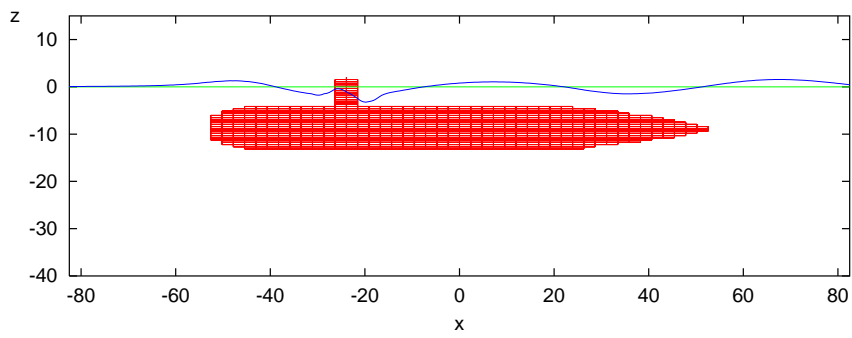
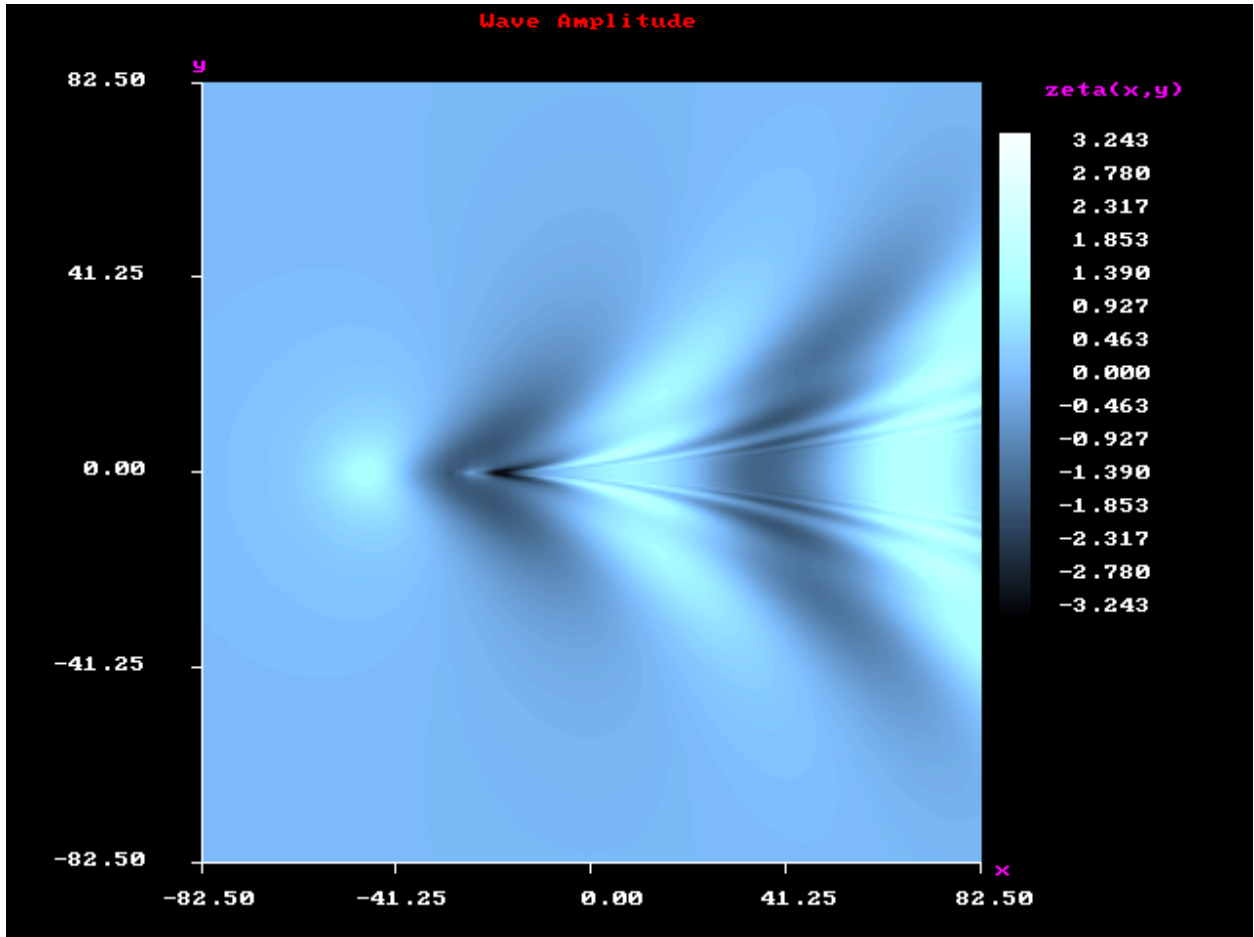


Figure 6: Submergence depth -2.5m

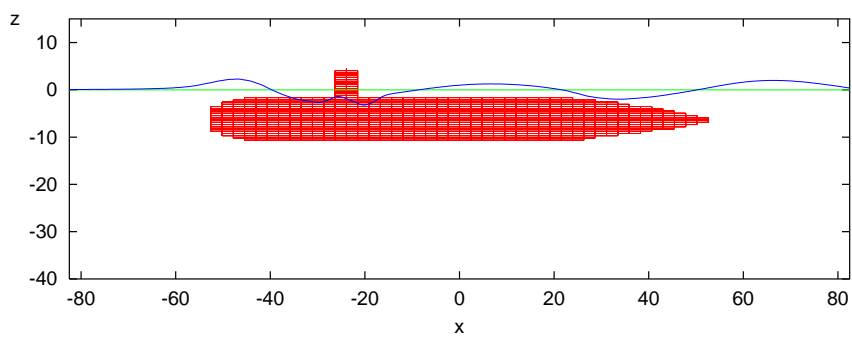
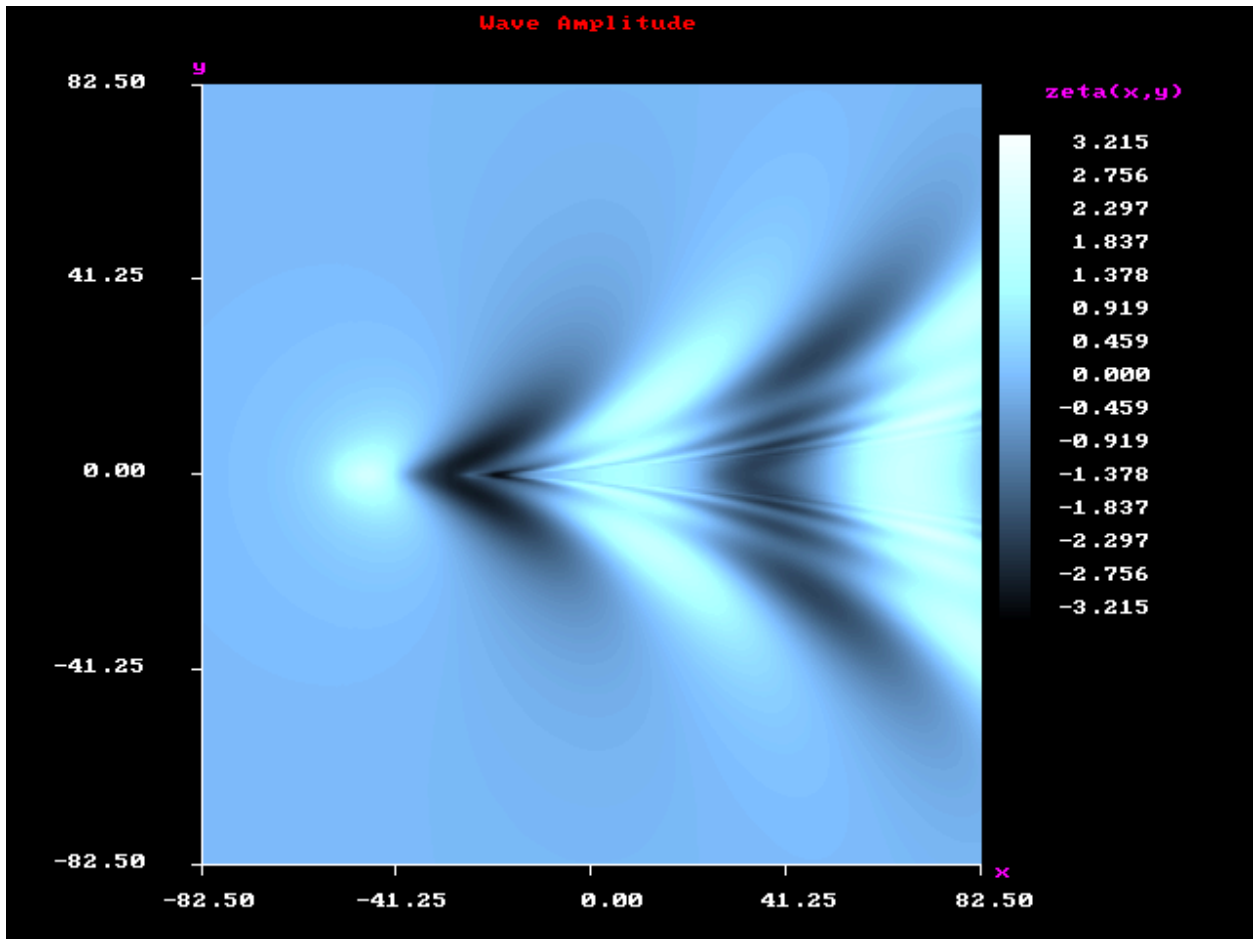


Figure 7: Submergence depth -5.0m

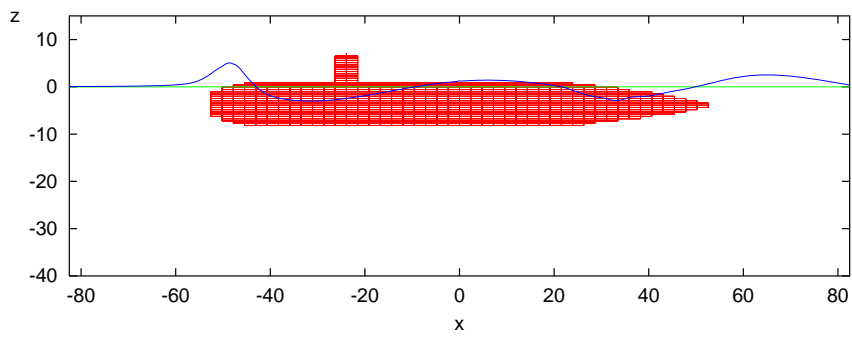
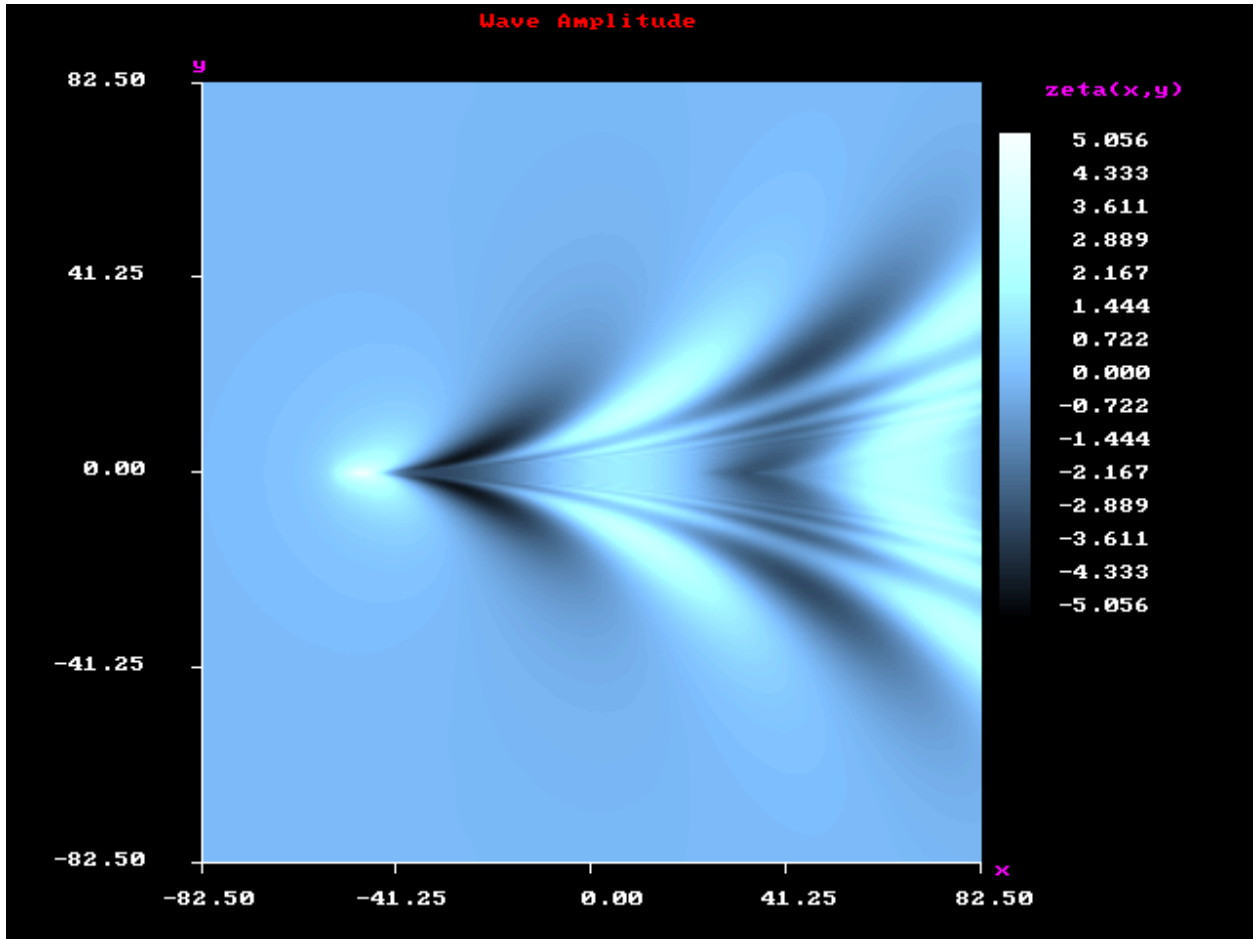


Figure 8: Submergence depth -7.5m

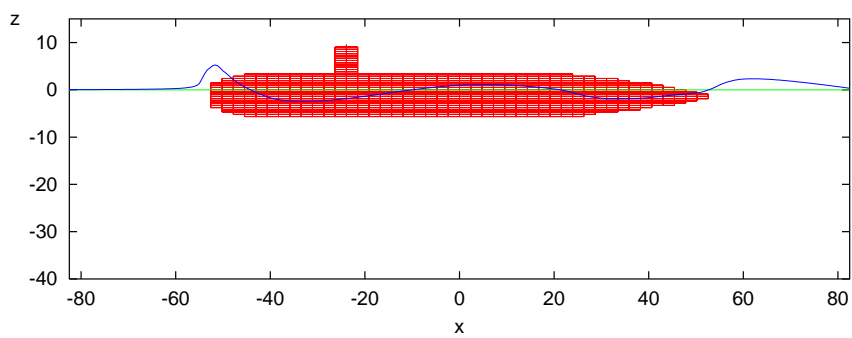
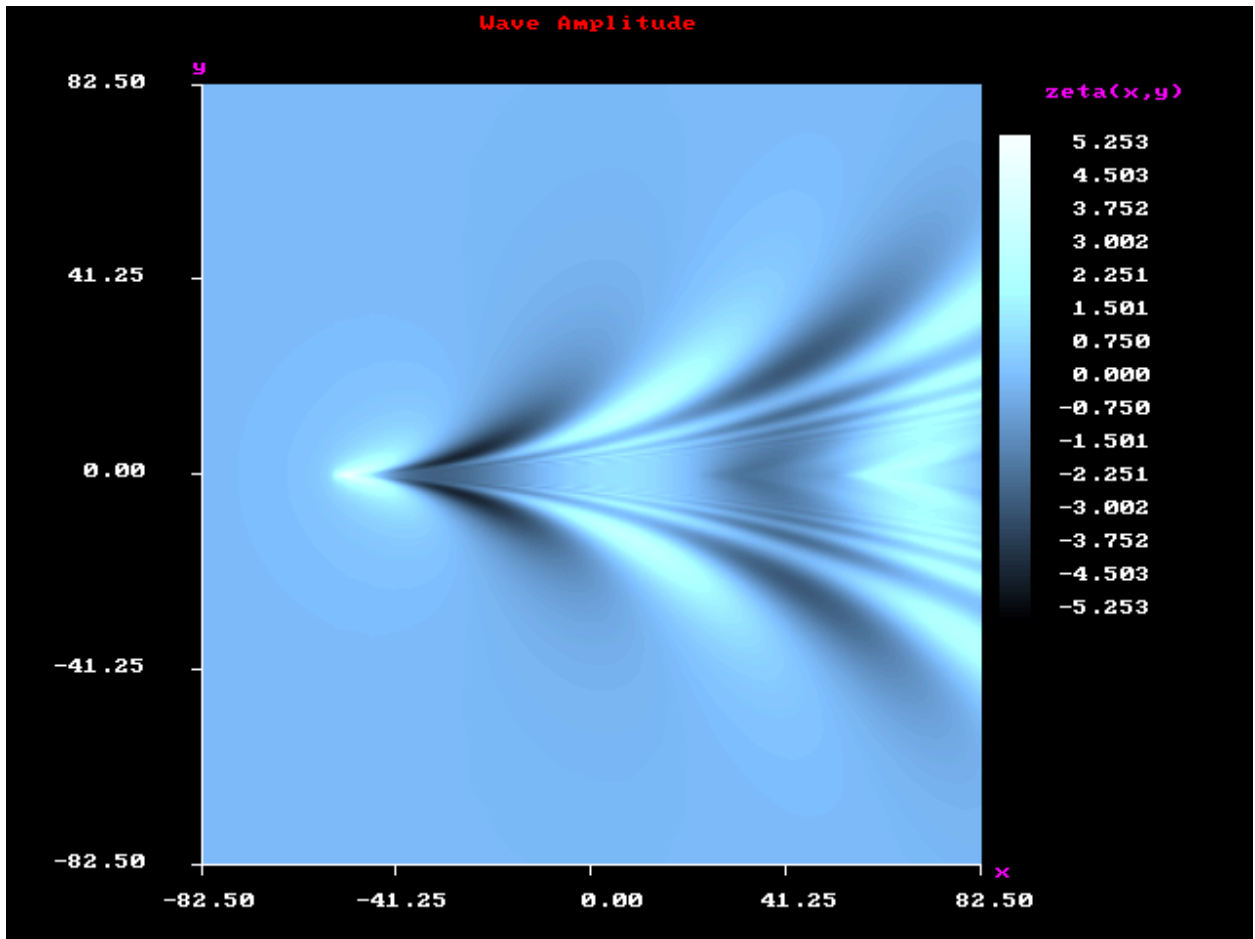


Figure 9: Submergence depth -10.0m