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Windy Island Soliton Experiment (archived)

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Windy Island Soliton Experiment (WISE)

Acoustics Section

The Windy Islands Soliton Experiment (WISE) is designed by Taiwan and US physical oceanographers to observe the generation, evolution and transformation of the transbasin, nonlinear internal waves in the Northeastern South China Sea for a period of one year beginning April 2005. To augment the naval relevance of WISE, specifically in the area of antisubmarine warfare, two acoustic propagation studies, one over the shallow shelf and one over the deep basin along the WISE mooring transect were conducted. The objective of the shelf transmission was to study the physics of sound propagation through nonlinear, elevation internal waves in shallow water, and to quantify the associated fluctuations in the sound intensity. The objective of the basin transmission was to study and characterize the supertidal-to-seasonal-scale impacts of the transbasin, nonlinear internal waves on long-range transmission loss, and to help monitor the evolution of the transbasin internal waves in the basin's interior.

Mooring drawings and Physical Oceanography data plots can be found at the following link:

[Welcom to the WISE-VANS Web Site.](#)



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