

Directional Wave Spectrum Measurement

LinkQuest's FlowQuest acoustic current profilers now have the WaveQuest Directional Wave Spectrum Measurement function which can be used to measure wave directions, periods and heights. This function is offered as an option with the FlowQuest 600 and 1000 acoustic current profilers.

The WaveQuest directional wave spectrum measurement function generates complete wave parameters in both time and frequency domains including various kind of wave heights, wave frequencies and wave periods, such as H_{max} , H_3 , H_{10} , F_{peak} , T_{mean} , T_{max} , etc. The directional wave spectrum generated by the wave measurement provides a full wave spectrum. Each frequency in the wave spectrum has its stochastic mean direction. The measured waves and the direction spectrums are displayed in the FlowQuest Studio Windows software.

LinkQuest's wave measurement function is based on the effects of the reflected acoustic signals following the wave movement. This function shares the same electronics and transducer with current measurement. All calculation is done inside the FlowQuest system. No external processing device is needed. The data output is concise and can be transported over satellite, radio, cellular or acoustic links.

<https://www.hydro-international.com/content/article/directional-wave-spectrum-measurement>
