

Abstract Submitted  
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**Internal waves incident upon an interface** JOHN MCHUGH, University of New Hampshire — Recent results have shown that a vertical packet of internal waves that are horizontally periodic will develop a discontinuous mean flow at an interface, depending on wave reflection. Here we consider a similar configuration where the waves are not horizontally periodic, but instead exist within a wave packet that is limited both horizontally and vertically. The basic state has constant stability  $N$  in two layers without a shear flow. The horizontal limit of the wavepacket results in a much different wave-induced mean flow than the periodic case, as the mean flow is confined to the wavepacket and therefore must have approximately a zero net flow across any vertical surface. The net effect is that gradients of the mean flow at the interface are stronger than the periodic case. Waves are treated with the nonlinear Schrodinger equations that are solved numerically.

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