

Abstract Submitted
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Internal Wave Generation in Evanescent Regions ALLISON LEE, JULIE CROCKETT, Brigham Young Univ - Provo — Internal waves are well known to be generated by flow over topography in regions where the excitation frequency is less than the local buoyancy frequency of the fluid. Linear theory indicates that if the excitation frequency is greater than the buoyancy frequency, then internal waves will be evanescent. These evanescent waves' amplitudes decrease exponentially away from the region of generation. However, under certain conditions, the wave stress generated by flow over topography in a region that is weakly stratified can be transported by evanescent waves into a region of higher stratification, far from the generation region, and internal waves will begin to propagate away. Further exploration of this theory is undertaken with physical experiments performed with varying stratifications and multiple types of topography.

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