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Global Observations of the Land Breeze STEFAN LLEWELLYN SMITH, MAE, UCSD, SARAH GILLE, SIO and MAE, UCSD, NICHOLAS STATOM, MAE, UCSD — Four-times daily satellite wind observations from the QuikSCAT and ADEOS-II tandem scatterometer mission are used to study the land/sea breeze circulation. These observations provide a global view of diurnal wind variations over the ocean. Results agree with frictional linear theory: winds follow an elliptical hodograph through the course of the day, but indicate that diurnal wind variations propagate offshore progressively like nonlinear gravity waves and are detectable several hundred kilometers from the coast.

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