



Neutral stability height correction for ocean winds

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Adjusting ocean wind observations to a standard height, usually 10 m, requires the use of a boundary layer model, and knowledge of the thermodynamical variables. Height adjustment is complicated by the fact that a necessary parameter, the roughness height, cannot be given in a closed form solution. If only the wind and reporting height are known, the best that can be done is to assume neutral stability. The determination of roughness height is analyzed and a simple approximation (used by Atlas et al. 2011) is derived in detail. This approximation is accurate for winds in the range of 1 - 30 m/s for neutral stratification and would be an excellent initial estimate for a Newton iteration to determine the roughness height precisely, whether or not neutral stability is assumed.

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