

Tornadic Waterspout Impacts on Coastal Zones

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Abstract : Coastal waterspout activity is known to occur globally over a wide climatic range. This study has focussed on recent tornadic waterspout activity along the temperate New South Wales coastline of Australia. Recent tornadic waterspout impacts were surveyed at Kurnell, Kiama, and Lennox Head in coastal New South Wales and are thought to have formed either wholly or partly offshore. It is proposed that a warm, moist layer of air at the sea surface creates more unstable atmospheric conditions than would an approaching supercell path over land, and hence a greater propensity to generate a tornadic event. Measured and observed wind velocities in the vicinity of 60 ms⁻¹ associated with the observed tornadic waterspouts are considerably higher in magnitude than the basic wind speed presented in AS1170.2 for an estimated return period of 2000 years in Region A.

Keywords : coastal, survey, tornadic, waterspout

Conference Title : ICWE 2017 : International Conference on Wind Engineering

Conference Location : Singapore, Singapore

Conference Dates : March 29-30, 2017