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## DEVELOPMENT OF A REGIONAL MAP OF EXTREME WIND SPEEDS IN THE PHILIPPINES

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This paper presents an improvement of the current wind zone map of the Philippines. The Generalized Extreme Value (GEV), Gumbel and point process models were used in characterizing the extreme wind speeds in the Philippines. Available daily maximum wind data from 50 stations in the Philippines were also used in the analysis. The results show that the standard errors in the point process model are lower than the GEV or Gumbel models making it a better model. Finally a regional wind zone map (6 zones) was developed using extrapolated 30, 40 and 50 year return wind speeds from the point process approach. Wind zone maps were developed using kriging interpolation method of ArcGIS Geostatistical Analyst.

**Key Words:** GEV, point process, kriging, extreme wind speeds, wind zone map


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