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Atmospheric Measurement Techniques Discussions

Interactive comment on "Estimating reflectivity values from wind turbines for analyzing the potential impact on weather radar services" *by* I. Angulo et al.

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I read your paper with great interest. Recently, a paper was published investigating the impact of wind turbines by comparing radar observations before and after construction of five wind turbines:

Norin, L.: A quantitative analysis of the impact of wind turbines on operational Doppler weather radar data, Atmos. Meas. Tech., 8, 593-609, doi:10.5194/amt-8-593-2015, 2015.

Following your equation 13, I estimated a radar reflectivity factor Z of ~81 dBz for the

blades of your wind turbine model 2 in 13 km distance. I neglected the mast assuming that it will be removed by the radar clutter filter. Norin (2015), however, did not find any disturbance caused by similar wind turbines which was greater than ~15 dBz. How do you explain this large difference? For sure, non-metallic components and the effect of the surface on beam propagation will reduce Z, but can these two effects explain the difference of more than 60 dB?

regards, Maximilian Maahn

Interactive comment on Atmos. Meas. Tech. Discuss., 8, 1477, 2015.