

“The hourly wind-bias adjusted precipitation data set from the ECCC automated surface observation network” describes the evolution of ECCC precipitation measurements. It addresses the need to adjust some of the newer automated precipitation measurement for undercatch caused by wind. A new adjusted wind speed precipitation dataset is also described. The manuscript is well written and thorough. The need for wind adjustment is nicely described, in addition to the drawbacks of such adjustments.

Specific suggestions and questions:

Pg. 10, ln 15 – 23. It is surprising to me that unfiltered hourly total precipitation was not retained. Was this filter applied on site, before transmitting the data? It might be worth providing a little more detail on this, necessitating the regional hourly correction as the only method available to address this problem.

Pg. 8, ln 22 and 23. It is surprising to me that 10 m height winds are only available as the 2- or 10- min average prior to the top of the hour. As I am sure the authors are aware, it would be better to use an average wind speed that is representative of the entire hour over which precipitation occurred, and I suspect that nothing can be done about what is available. I am still curious as to why the wind speeds were recorded like this, and if nothing can be done to address this going forward. It might be worth evaluating the sensitivity of the adjustments to the choice of wind speed – there are plenty of other uncertainties in this type of adjustment, and in the end it may be impossible to say with certainty which approach is actually more accurate. However, it should be easy to quantify the uncertainty in C_e associated with using the less ideal 10 m wind; using the sites and periods when both wind speeds are available, a standard deviation (or whatever error statistic is preferred) could be calculated.

Pg 11, ln 5. “ C_e is set to 1 at all temperatures greater than 5 deg C.” Nicely done! The WMO-SPICE data does not include much warm/liquid precipitation. This is another good reason not to trust those adjustments for warm/liquid precipitation. Please point this out.

Pg 13, ln 11. Move the comma from after “but,” to just before it. Like this: “...data set, but...”

Pg 14, ln 16. Change “effected” to, “affected.”

Pg. 15, ln 17 – 18. I am gladdened and encouraged by the fact that at least one person understood the point of that figure I made for Kochendorfer et al. (2018)! However, the punctuation here is terrible. Add a comma after the closed parenthesis, “during moderation efforts),”. And the “wind speed thereby” on ln. is awkward as written. At a minimum a comma is needed before “thereby”, but it would be better to rephrase entirely. “Thereby... and therefore...”. This can certainly be improved! Breaking this sentence into two might be a good start, or otherwise drastically changing the way it is structured.

Pg. 18, ln 12. Change, “also primary” to, “also of primary.”

Pg. 18, ln 18. Add a comma after “radar.” There are a other places where the Oxford comma is used inconsistently, but this one I find especially problematic.