



Supplement of

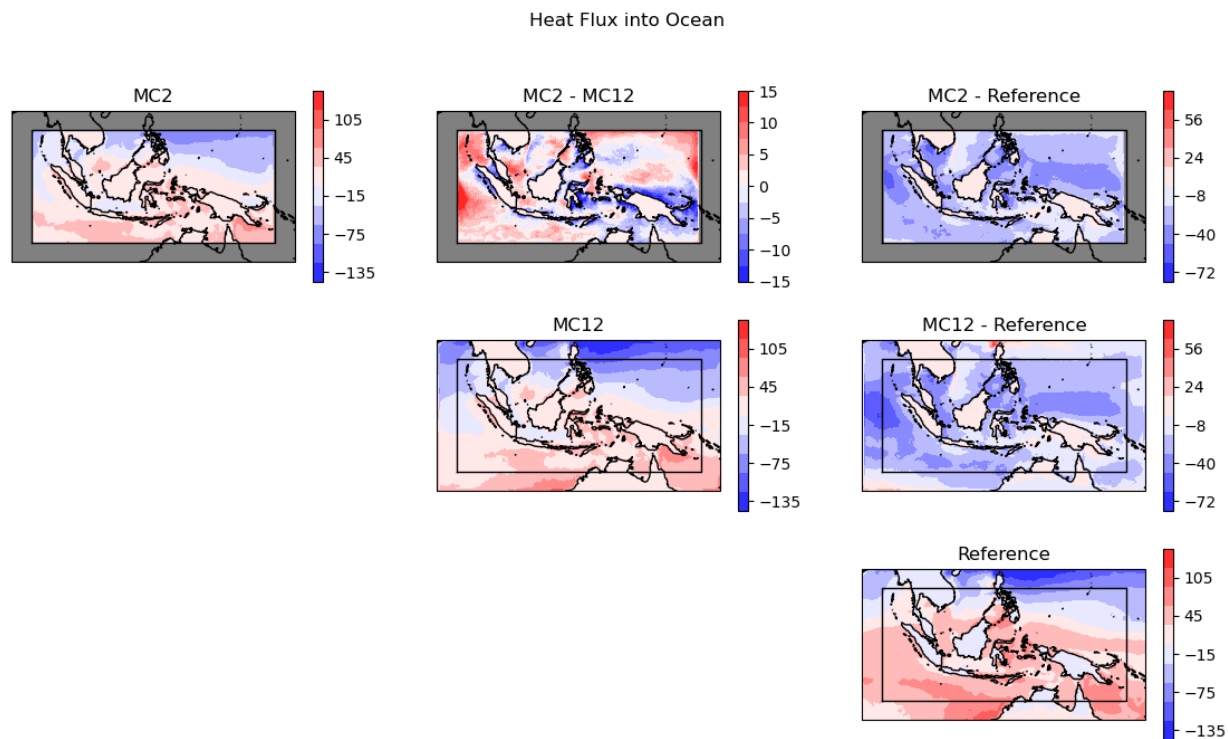
Evaluation of multi-season convection-permitting atmosphere – mixed-layer ocean simulations of the Maritime Continent

Emma Howard et al.

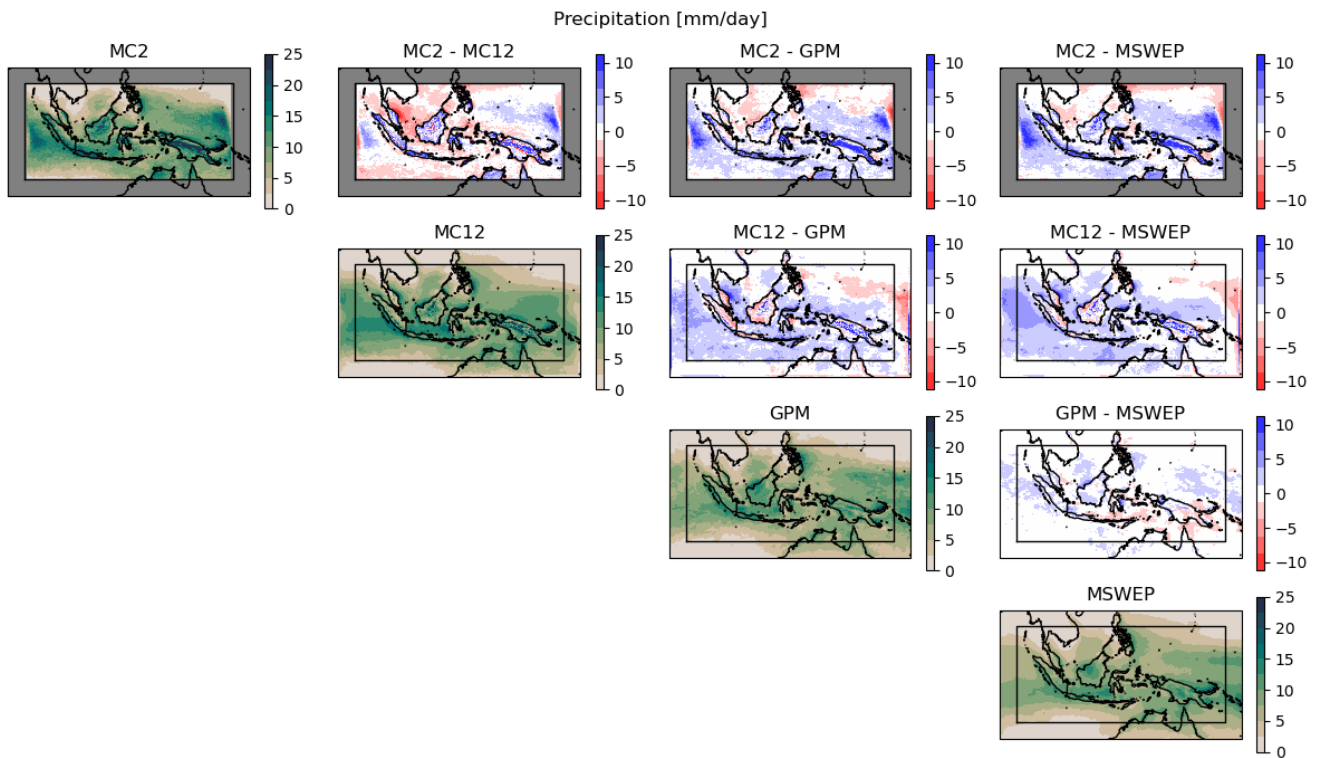
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Supplementary Material

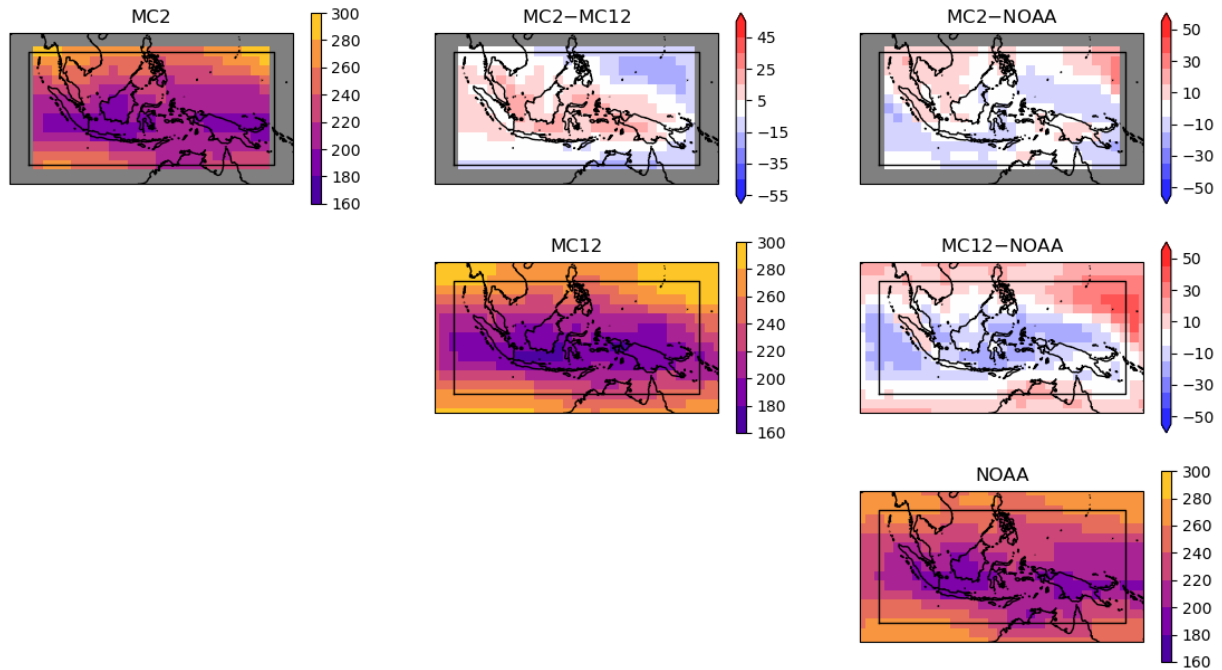


Supplementary Figure S1. Heat flux into the ocean and biases (W m^{-2}). Subplots along the diagonal indicate MC2, MC12, and ERA5 respectively. Upper off-diagonal subplots show differences between each of the datasets.



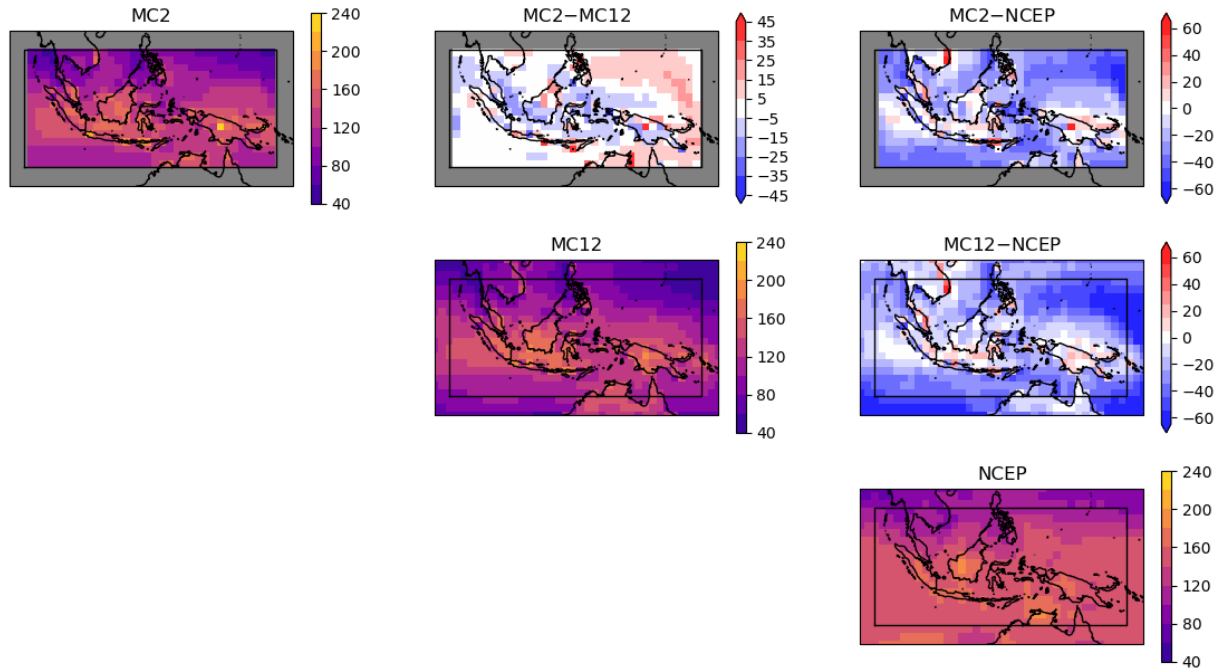
Supplementary Figure S2. Mean precipitation and biases (mm day^{-1}). Subplots along the diagonal indicate MC2, MC12, GPM-IMERG, and MSWEP (Beck et al., 2019) respectively. Upper off-diagonal subplots show differences between each of the datasets. MSWEP “Past” precipitation data were provided by the GloH2O project via their website at <https://www.gloh2o.org/mswep/> [accessed 1st March 2024].

top-of-atmosphere outgoing longwave radiation flux [W m⁻²]



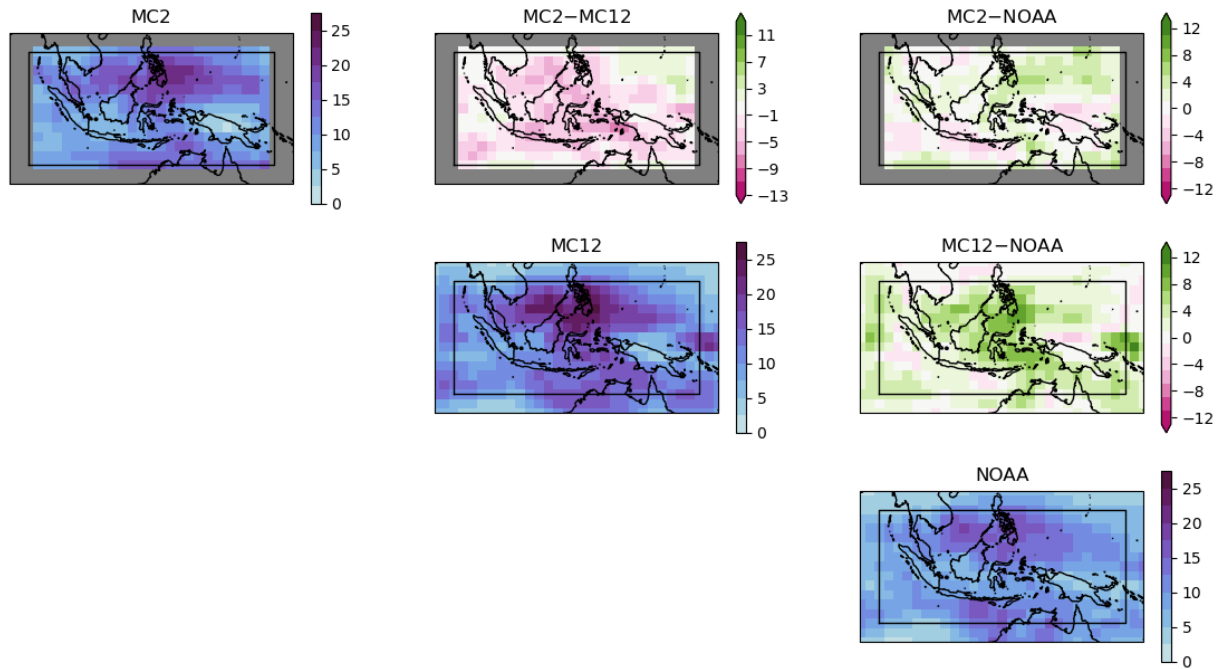
Supplementary Figure S3. Mean outgoing longwave radiation and biases (W m⁻²). Subplots along the diagonal indicate MC2, MC12, and NOAA daily interpolated OLR (Liebmann and Smith, 1996) respectively. Upper off diagonal subplots show difference plots between each of the datasets. NOAA Interpolated Outgoing Longwave Radiation (OLR) data were provided by the NOAA PSL, Boulder, Colorado, USA, from their website at <https://psl.noaa.gov/data/gridded/data.olrcdr.interp.html> [accessed 1st March 2024].

top-of-atmosphere outgoing shortwave radiation flux [W m⁻²]



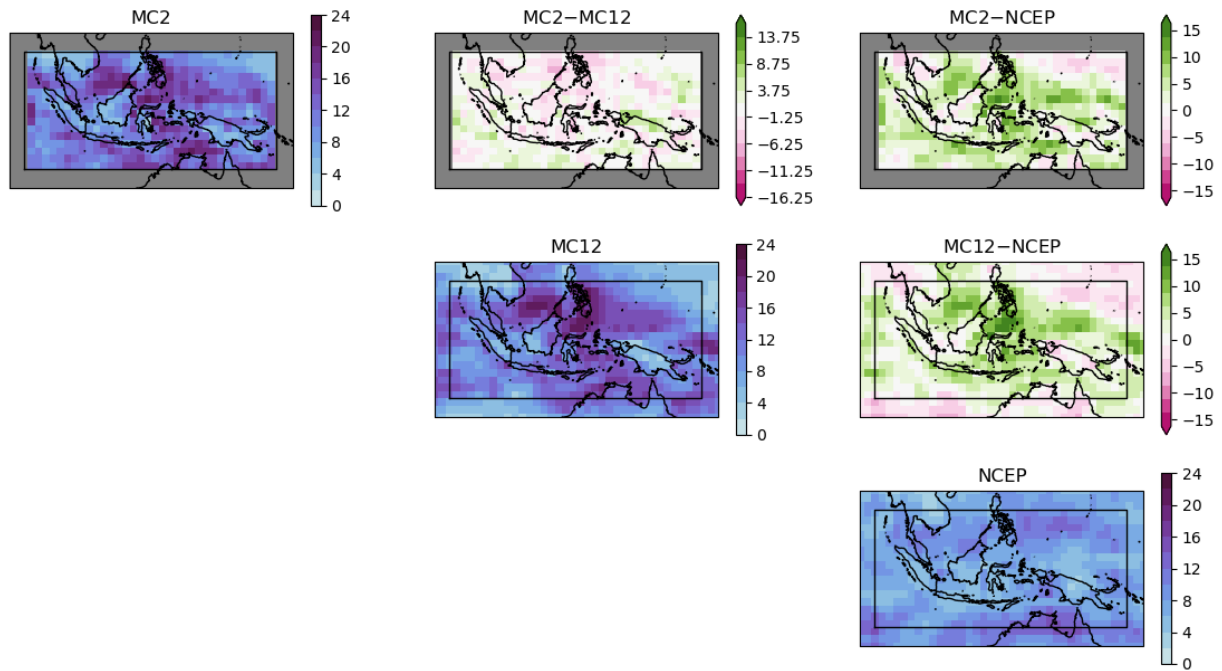
Supplementary Figure S4. Mean outgoing shortwave radiation and biases (W m^{-2}). Subplots along the diagonal indicate MC2, MC12, and NCEP-NCAR reanalysis (Kalnay et al., 1996) respectively. Upper off-diagonal subplots show differences between each of the datasets. NCEP-NCAR Reanalysis 1 data were provided by the NOAA PSL, Boulder, Colorado, USA, from their website at <https://psl.noaa.gov/data/gridded/data.ncep.reanalysis.html> [accessed 1st March 2024].

top-of-atmosphere outgoing longwave radiation flux [W m^{-2}]

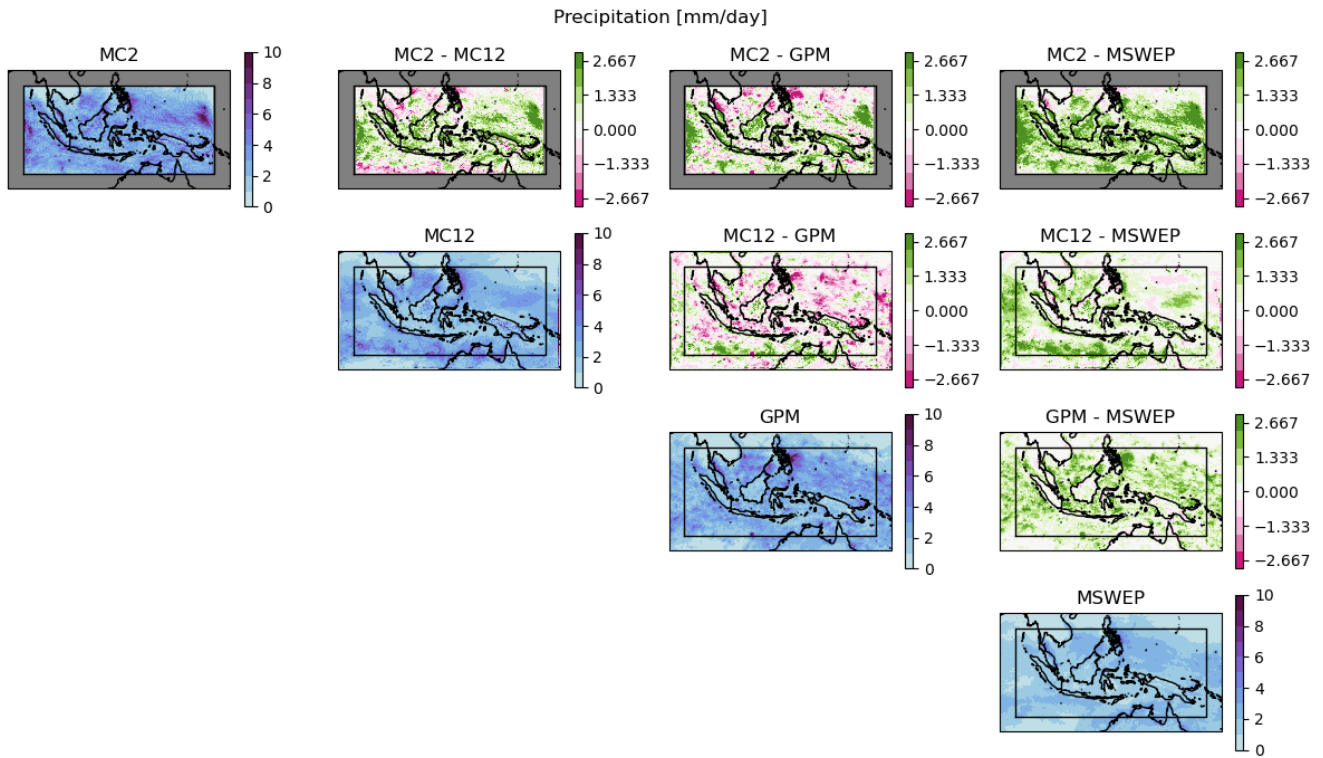


Supplementary Figure S5. Interannual standard deviation of outgoing shortwave radiation and biases (W m^{-2}). Subplots along the diagonal indicate MC2, MC12, and NOAA daily OLR respectively. Upper off-diagonal subplots show differences between each of the datasets. See Figure S3 for a full description of the reference dataset.

top-of-atmosphere outgoing shortwave radiation flux [W m^{-2}]



Supplementary Figure S6. Interannual standard deviation of outgoing shortwave radiation and biases (W m^{-2}). Subplots along the diagonal indicate MC2, MC12, and NCEP-NCAR reanalysis respectively. Upper off-diagonal subplots show differences between each of the datasets. See Figure S4 for a full description of the reference dataset.



Supplementary Figure S7. Interannual standard deviation of precipitation and biases (mm day^{-1}). Subplots along the diagonal indicate MC2, MC12, GPM-IMERG, and MSWEP respectively. Upper off-diagonal subplots show differences between each of the datasets. See Figure S2 for a full description of the reference dataset.