



Supplement of

Deep convective cloud system size and structure across the global tropics and subtropics

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Supplementary figures



5

MERRA-2 OLR (W m⁻²)







10 (b)





0

L 102

-135 -132 -129 -126 -123 -120 -117 -114 -111

25

(f)

2

- 210



Supplementary Fig. 1: Matched examples of MERRA-2 outgoing longwave radiation (OLR in W m⁻²; left panels) and MODIS infrared (IR) brightness temperatures (T_b in K) (a) 08 July 2006, 0730 UTC, (b) 10 January 2011, 0825 UTC, (c) 10 January 2011, 0645 UTC, (d) 10 January 2011, 0505 UTC, (e) 10 January 2011, 1640 UTC, (f) 10 January 2011, 2140 UTC, (g) 27

2011, 0505 UTC, (e) 10 January 2011, 1640 UTC, (f) 10 January 2011, 2140 UTC, (g) 27 January 2011, 1720 UTC.

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Supplementary Fig. 2: minimum MERRA-2 outgoing longwave radiation (OLR in W m-2) against minimum MODIS infrared (IR) brightness temperature (in K) for clouds observed in all of the scenes included in supp. Fig. 1 above. Shown are the minimum value within the boundary of each cloud for (a) all clouds, (b) all clouds larger than 1000 km² in area, (c) all clouds larger than 5000 km², and (d) all clouds larger than 10,000 km².