

Supplementary Information for

Enlarging rainfall area of tropical cyclones by atmospheric aerosols

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Table S1. Averaged TC rainfall radius (km) with sample numbers inside the parentheses for WNP region within different relative SST ranges.

	Relative SST					
	[-1 0]	[0 1]	[1 2]	[2 3]	[3 4]	[4 5]
TC rain radius (km)	199.5 (154)	219.3 (472)	247.9 (1457)	270.3 (4323)	309.4 (7422)	307.5 (357)

Table S2. Averaged TC rainfall radius (km) with sample numbers inside the parentheses for WNP region within different AOD ranges from MODIS and MERRA2.

	AOD					
	0-0.1	0.1-0.2	0.2-0.3	0.3-0.4	0.4-0.5	>0.5
TC rain radius (km) relative to MERRA2 AOD	261.5 (3653)	263.9 (4753)	299.8 (2682)	309.6 (1362)	315.7 (597)	345.2 (1055)
TC rain radius (km) relative to MODIS AOD	242.5 (598)	254.1 (1624)	273.7 (947)	306.1 (343)	310.5 (69)	269.0 (25)