Expanding the simulation of East Asian Super Dust Storm: Physical transport mechanism impacting the Western Pacific

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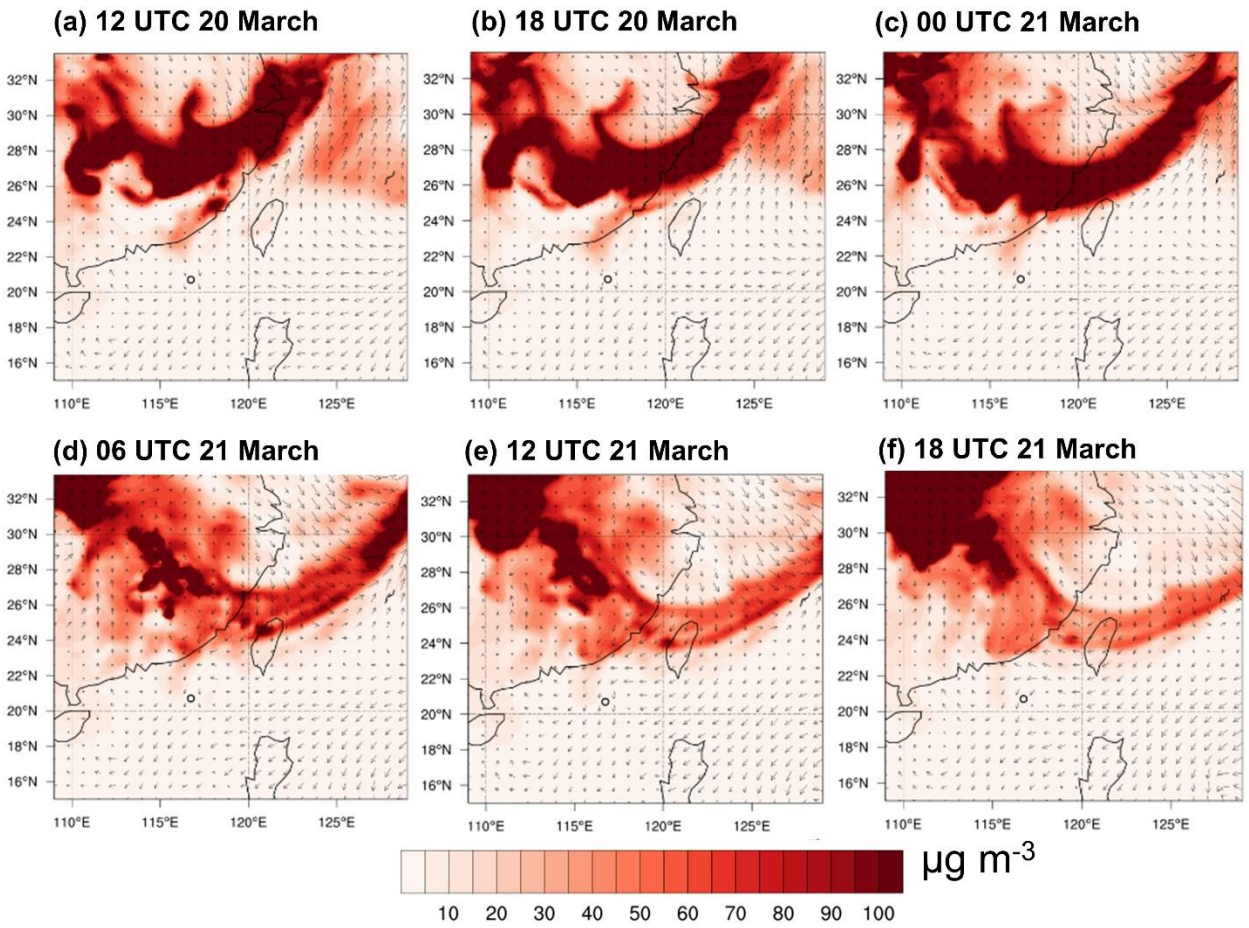

Figure S1: MERRA2 surface dust mass concentrations during (a) 12 UTC 20 March, (b) 18 UTC 20 March, (c) 00 UTC 21 March, (d) 06 UTC 21 March, (e) 12 UTC 21 March and (f) 18 UTC 21 March.

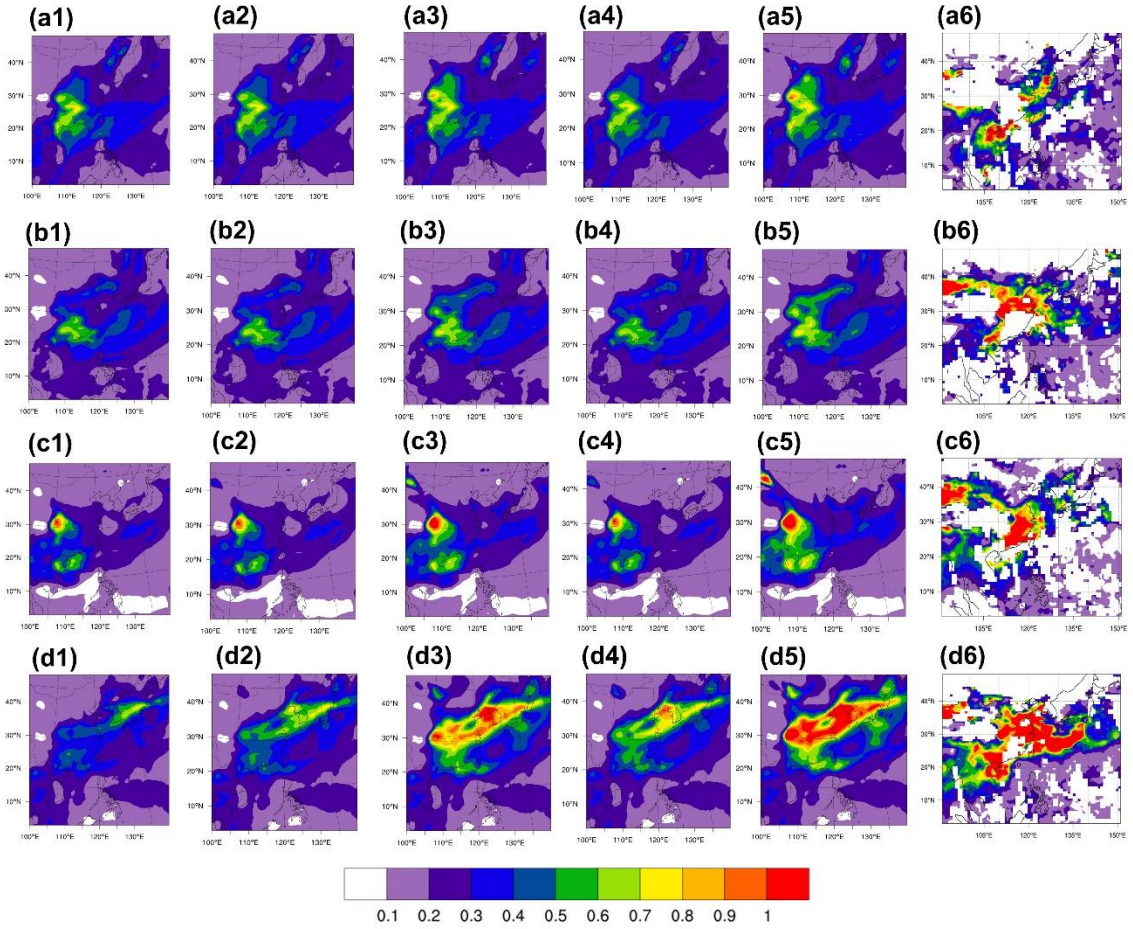

Figure S2: The 3-days mean averaged AOD over East Asia region, for (1-5) CMAQ and (6) AOD during 17-19 March 2005 (a1-a6), 18-20 March 2009 (b1-b6), 25-27 April 2009 (c1-c6) and 20-22 March 2010.

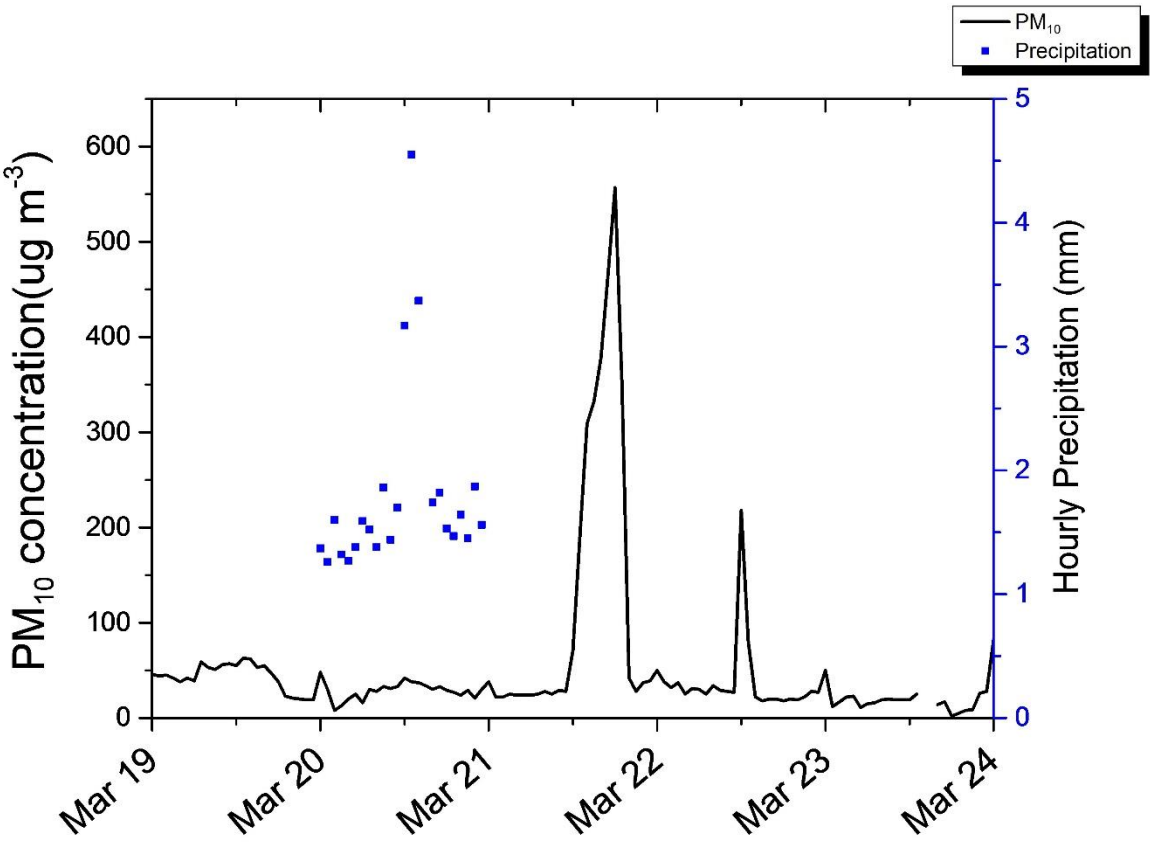

Figure S3: Hourly PM_{10} concentration and precipitation from 19-24 March 2010 over Dongsha Island.

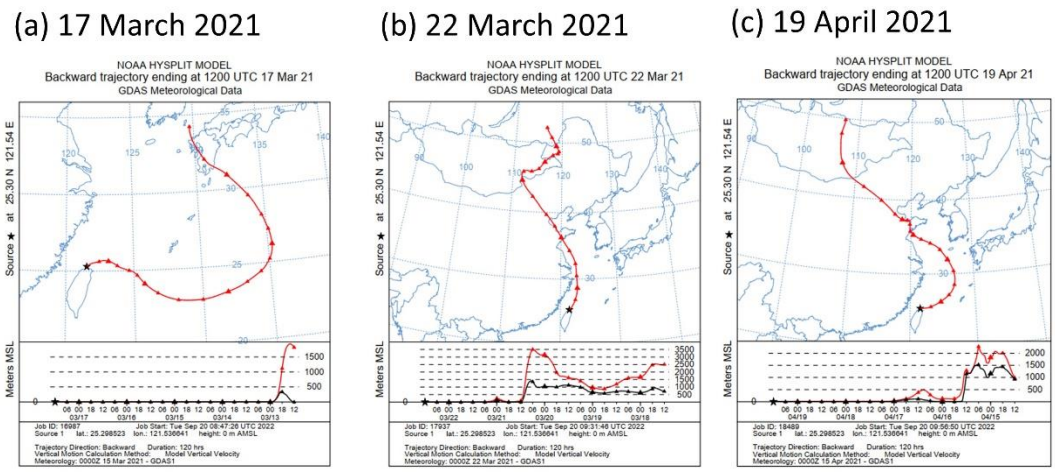

Figure S4: HYPLIT backward trajectory over Cape Fuguei on 00 UTC (a) 17 March 2021, (b) 22 March 2021 and (c) 19 April 2021.

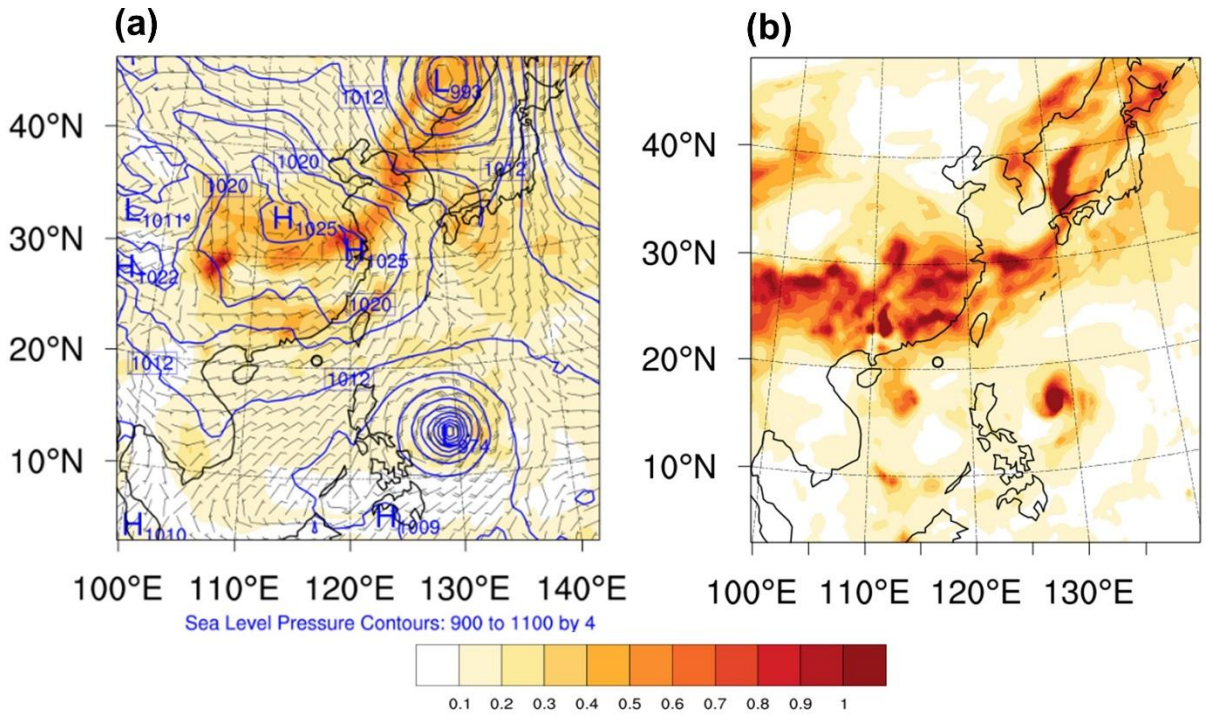

Figure S5: Spatial distribution of AOD at 550 nm for (a) CMAQ and (b) MERRA2 during 06 UTC 17 April 2022.