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Supplement of

An investigation on the origin of regional springtime ozone episodes in the western Mediterranean

P. Kalabokas et al.

Correspondence to: Pavlos Kalabokas (pkalabokas@academyofathens.gr)

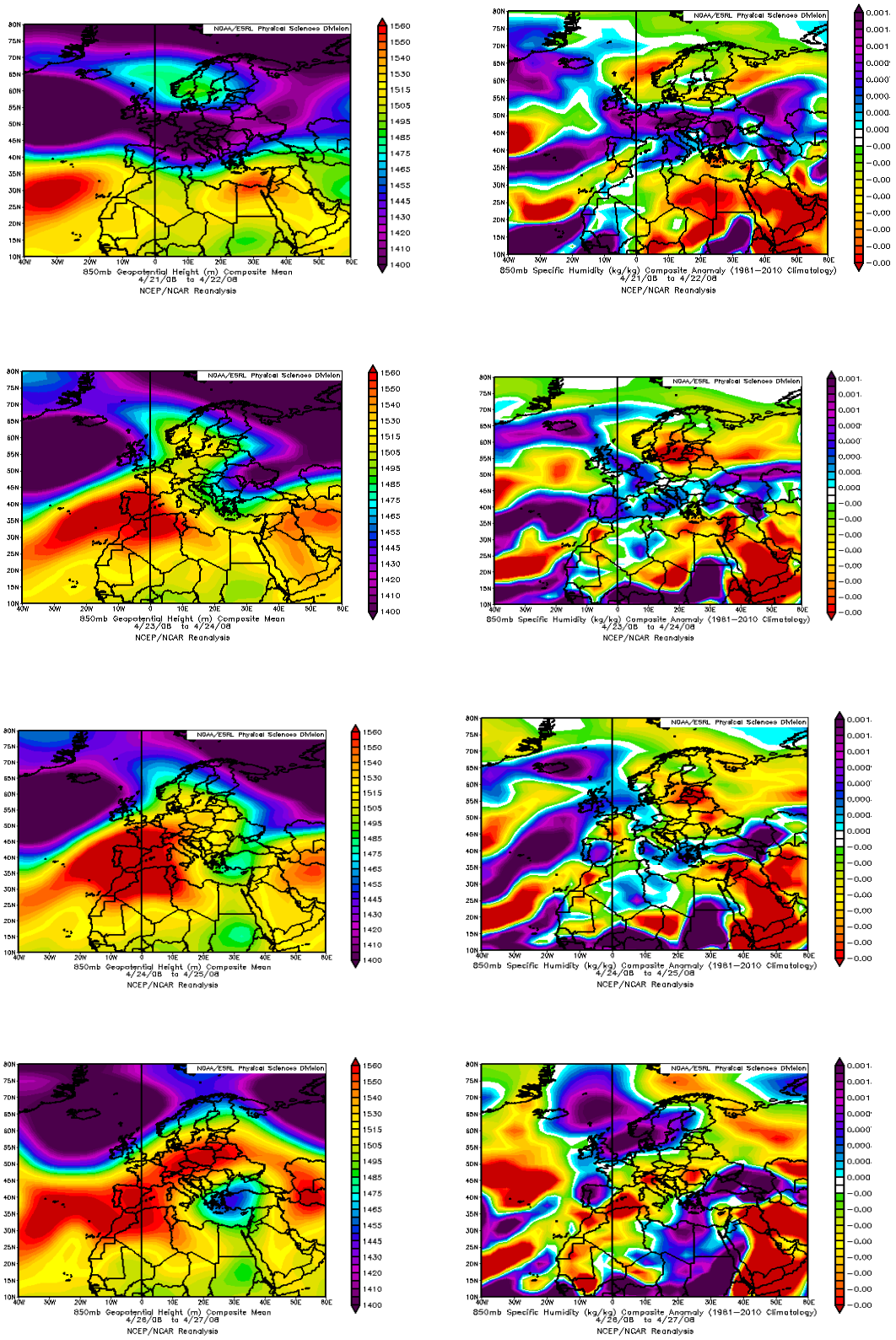

Figure S1: Composite weather maps of geopotential height (left column) and specific humidity (right column), for the high ozone episode of 26-27 April 2008 (lowest panels) as well as for two, three and five days before.

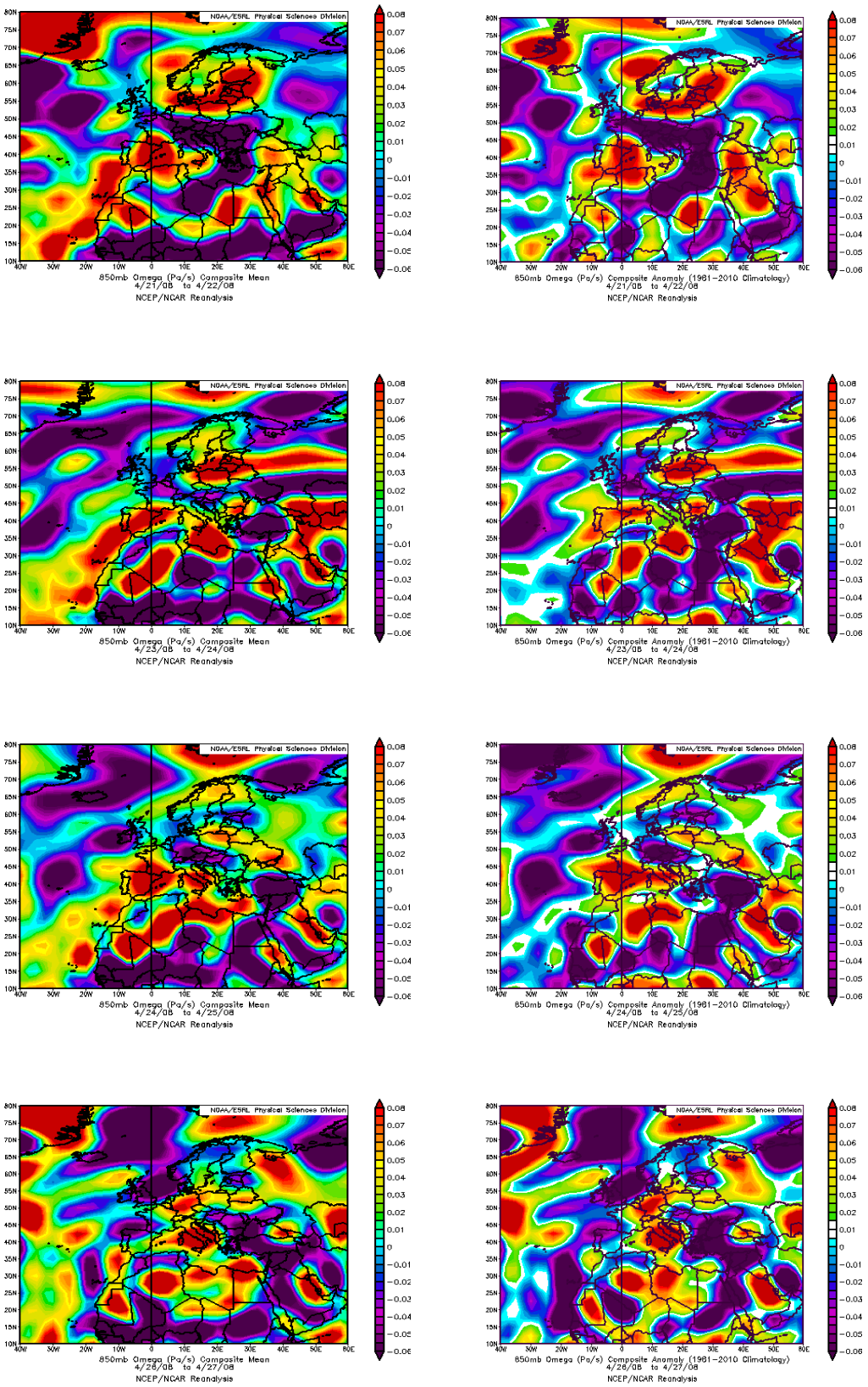

Figure S2: Same as Fig. 2 but for omega vertical velocity (left column) and omega vertical velocity anomaly (right column).

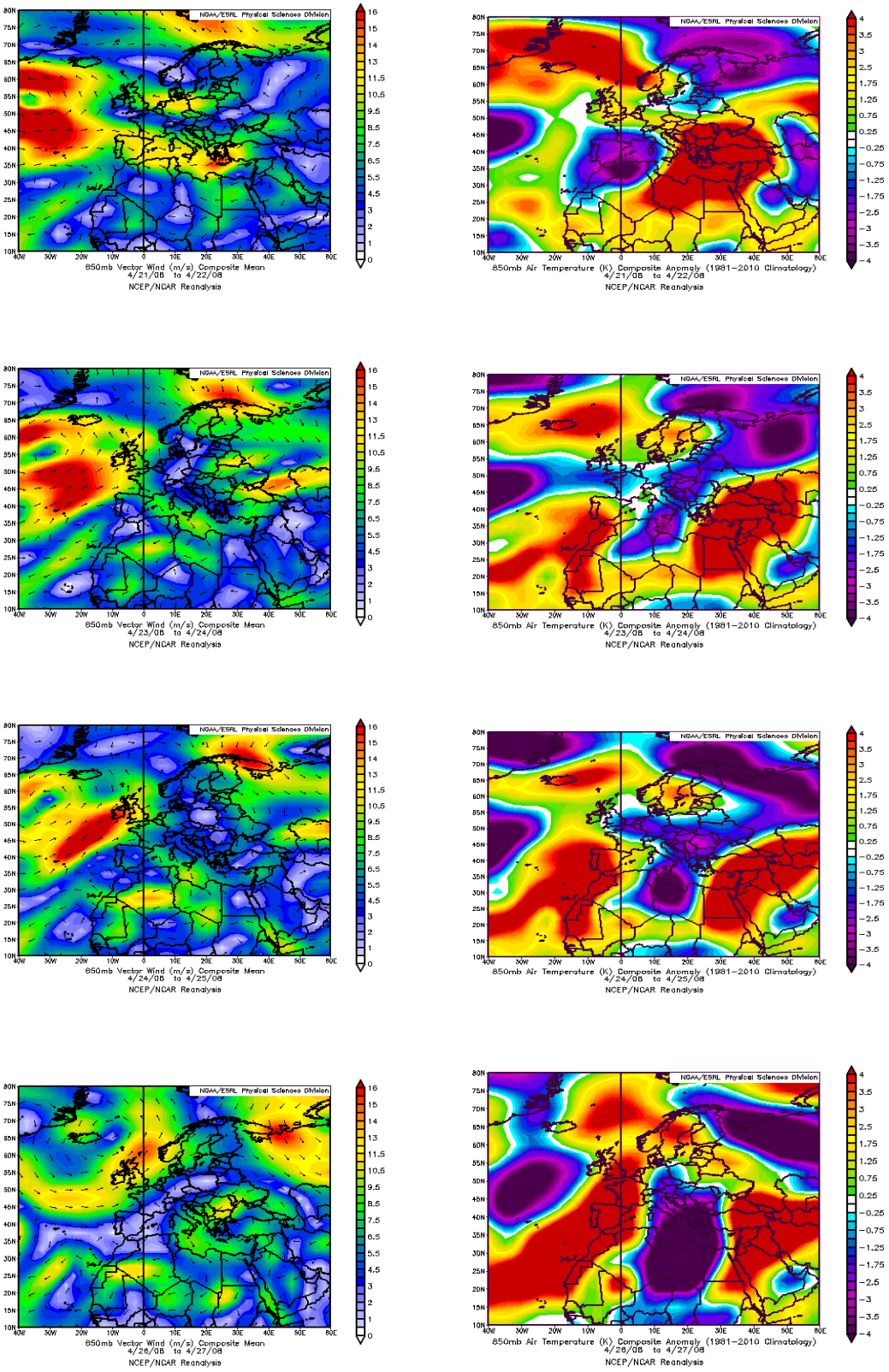

Figure S3: Same as Fig. 2 but for vector wind (left column) and air temperature anomaly (right column).

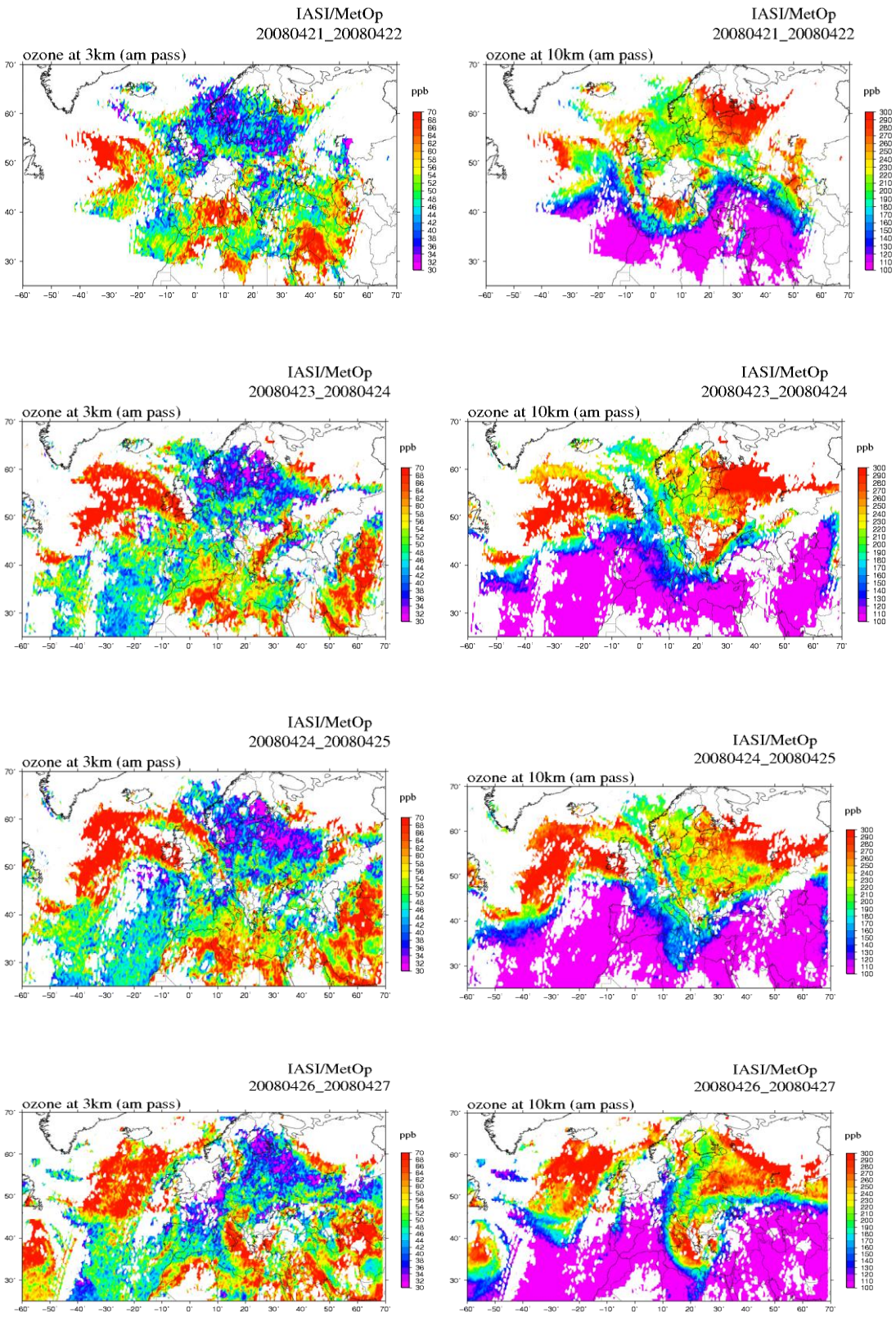

Figure S4: IASI satellite ozone measurements at 3km level (left column) and 10 km level (right column) during the high ozone episode of 26-27 April 2008 (lowest panels) as well as for two, three and five days before. Values outside the scale range are set up to the upper and lower color code respectively.

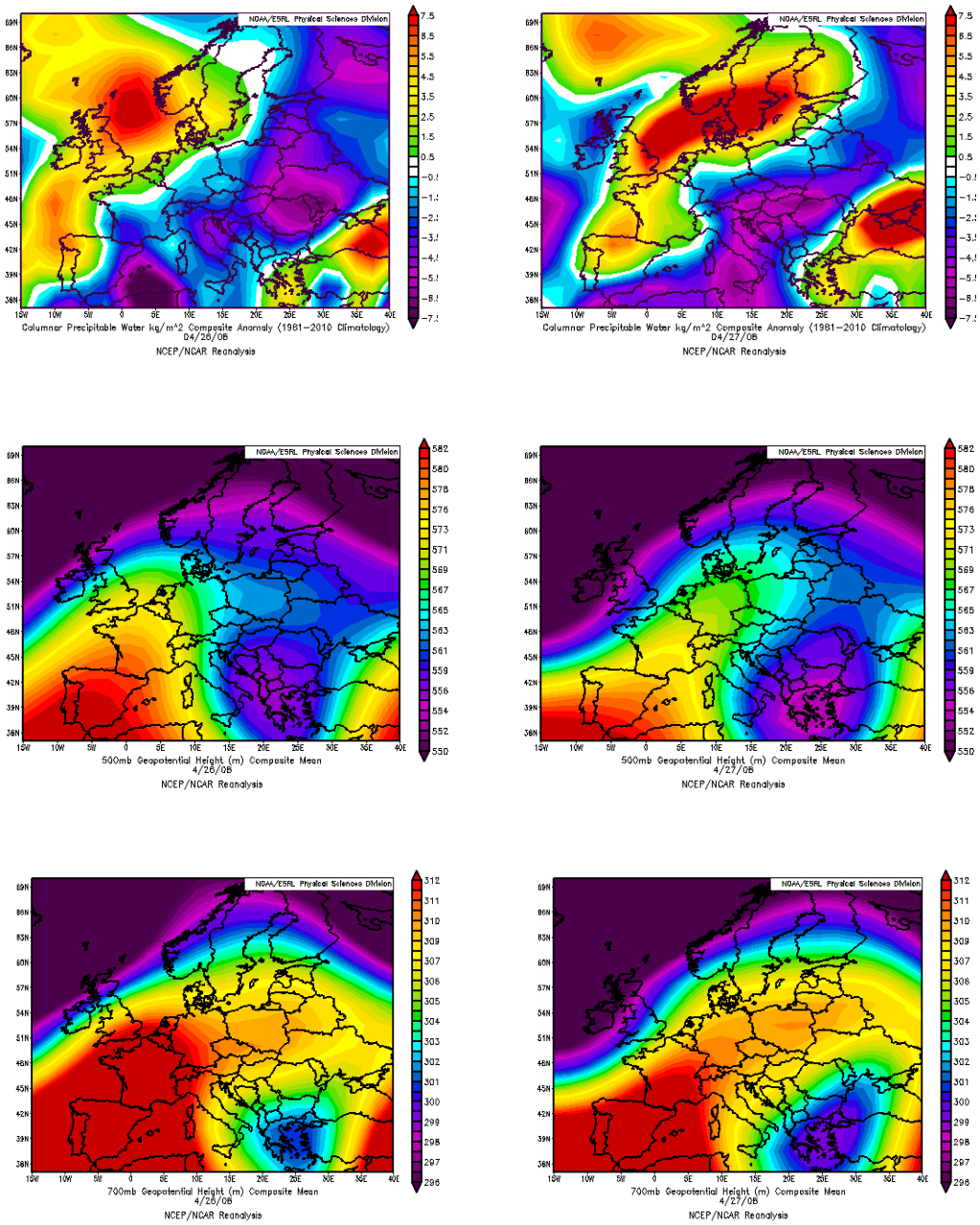

Figure S5: Columnar precipitable water anomaly (upper panel), geopotential height at 500hPa (middle panel) and geopotential height at 700hPa (lower panel) for April 26, 2008 (left column) and April 27, 2008 (right column).

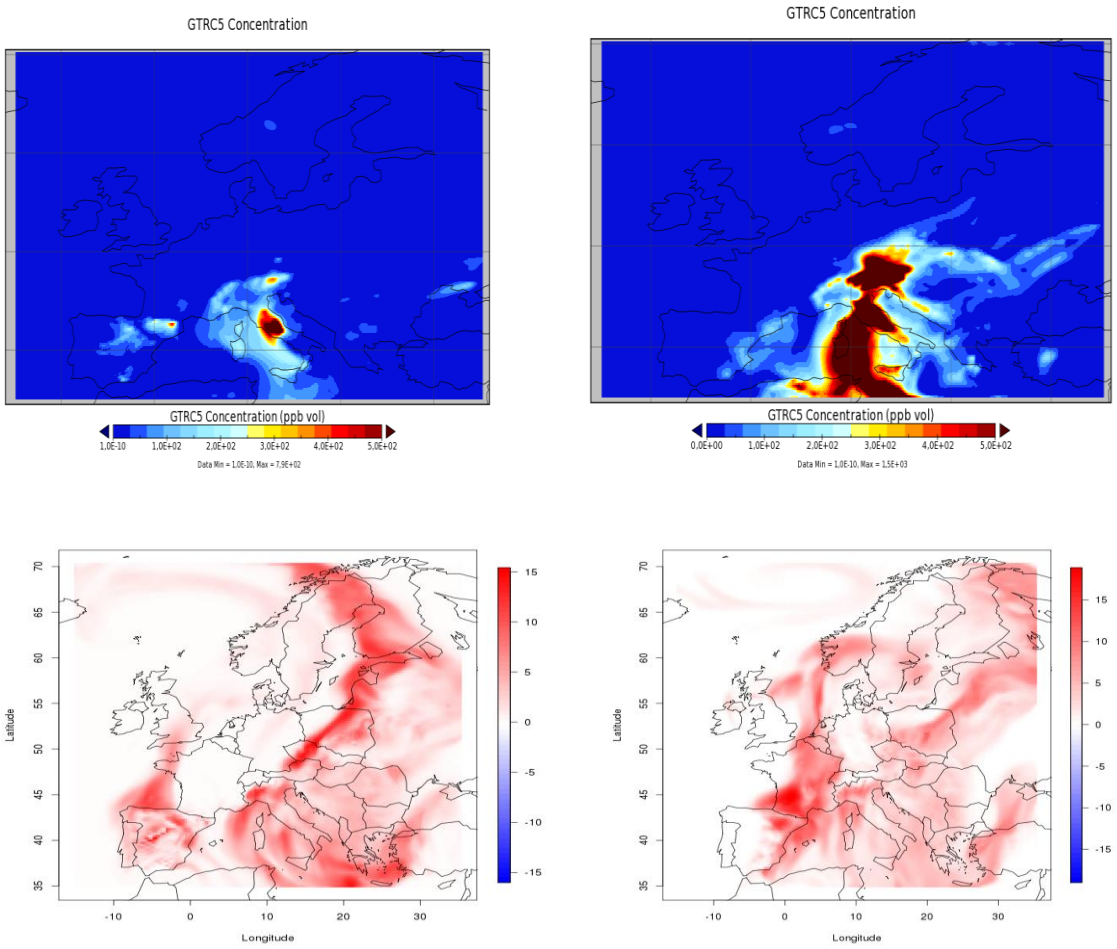

Figure S6: (Upper panel): CHIMERE simulations of upper tropospheric tracer concentrations at 3 km for April 26, 2008 (left column) and for April 27, 2008 (right column).

(Lower panel): CHIMERE simulations of photochemical production (difference between the reference simulation and a simulation without emissions) at 3km (in ppb) for April 26, 2008 (left column) and for April 27, 2008 (Right column).

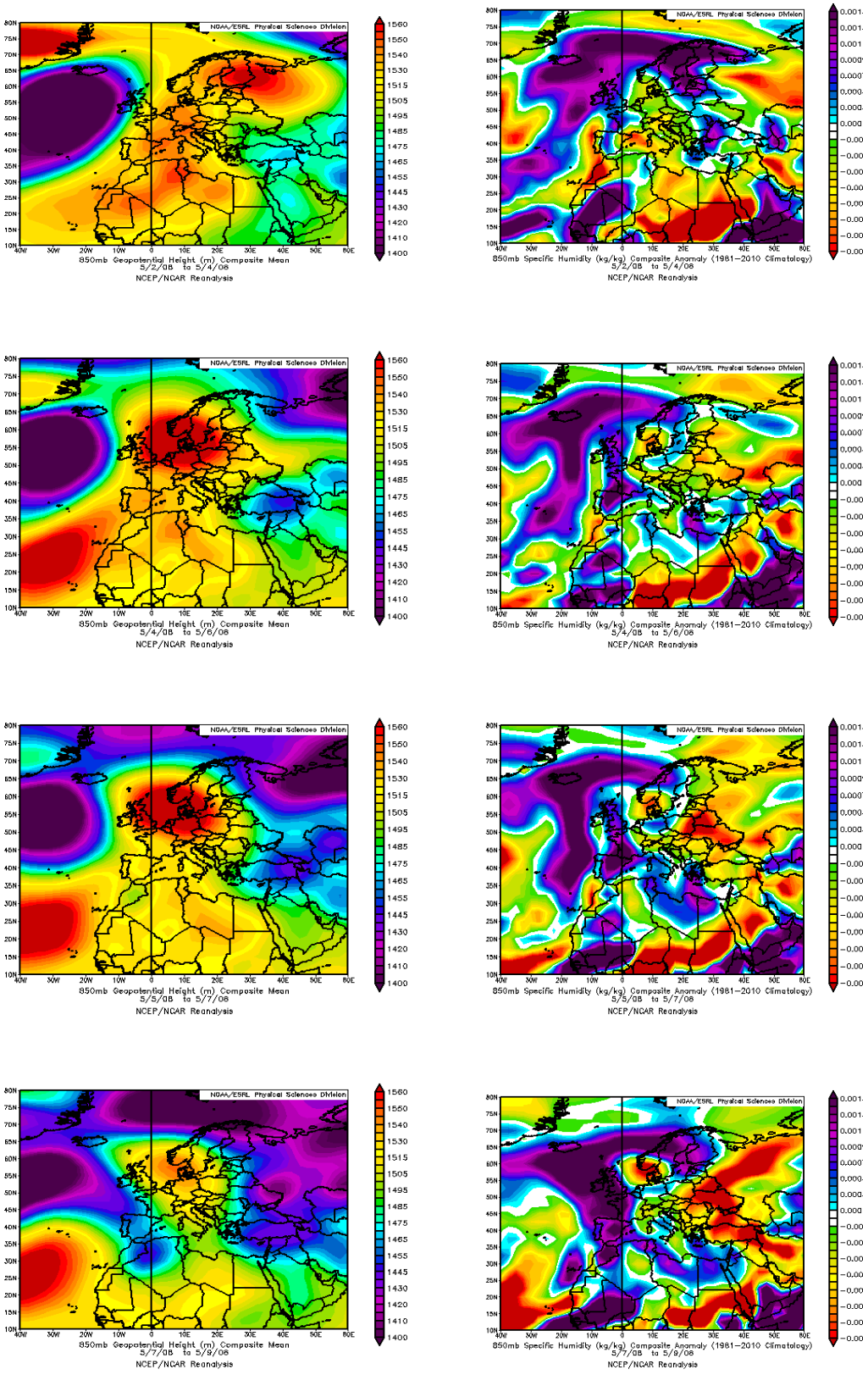

Figure S7: Composite weather maps of geopotential height (left column) and specific humidity (right column), for the high ozone episode of 7-9 May 2008 (lowest panels) as well as for two, three and five days before.

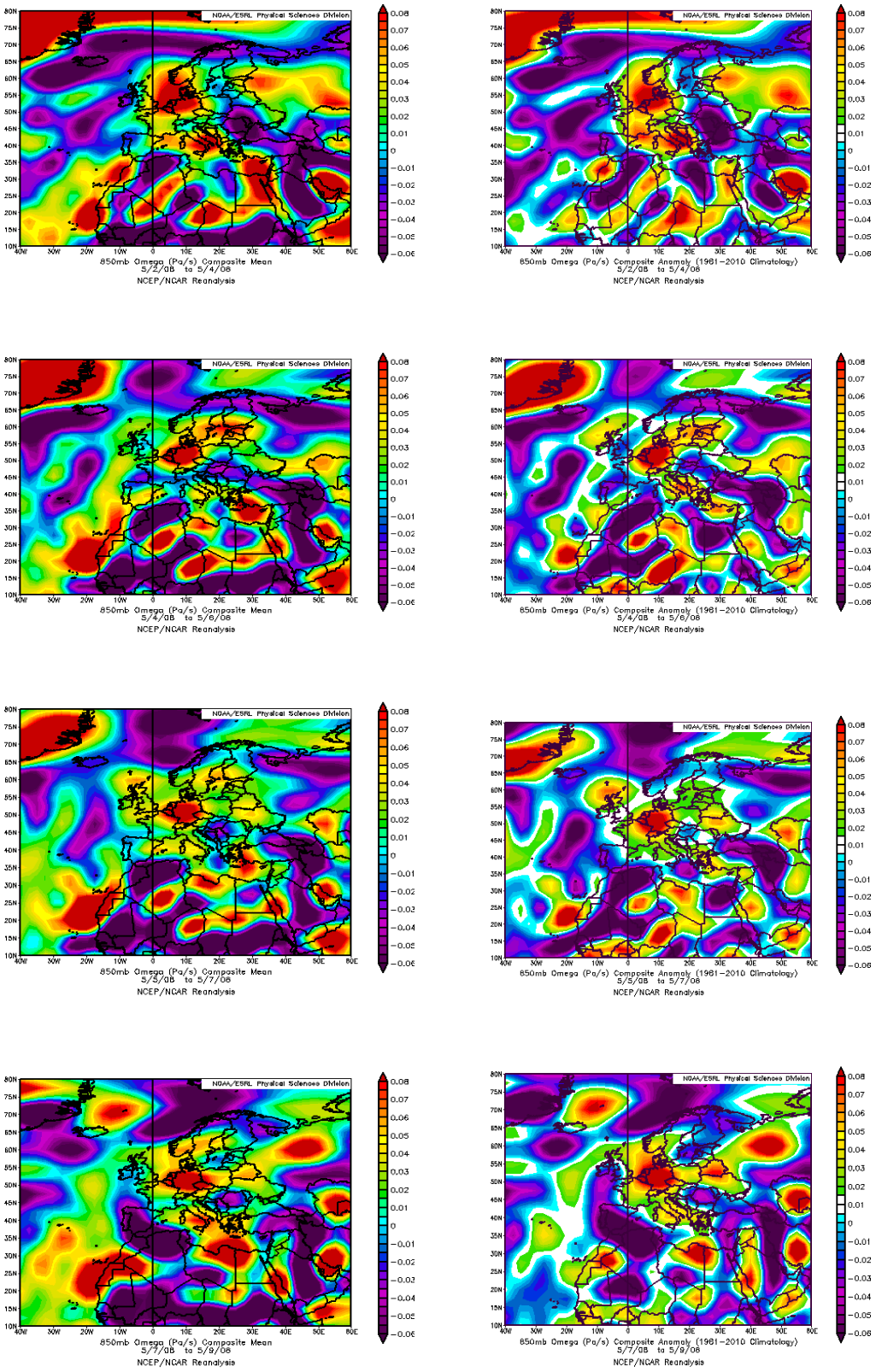

Figure S8: Same as Fig. 8 but for omega vertical velocity (left column) and omega vertical velocity anomaly (right column).

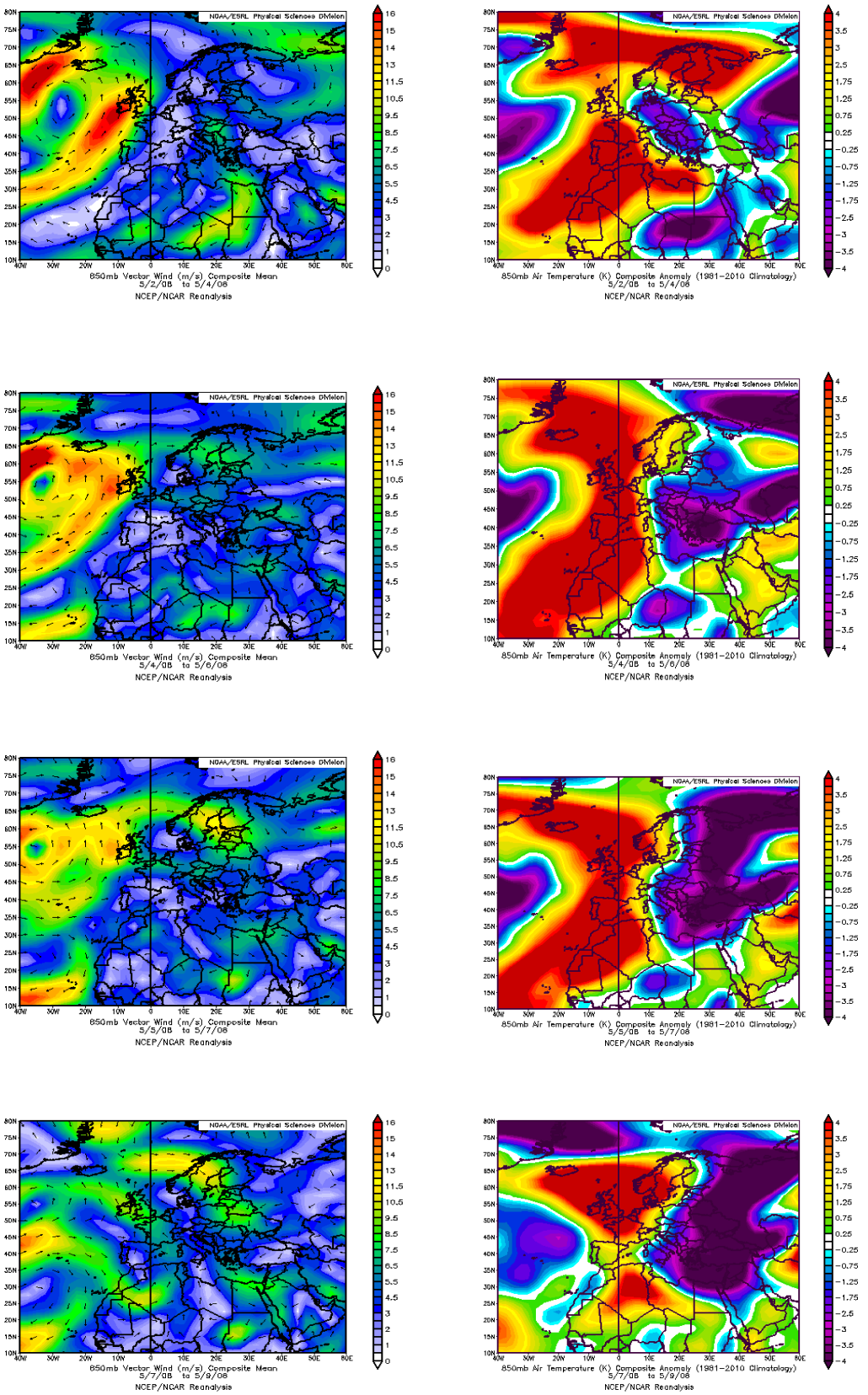

Figure S9: Same as Fig. 8 but for vector wind (left column) and air temperature anomaly (right column).

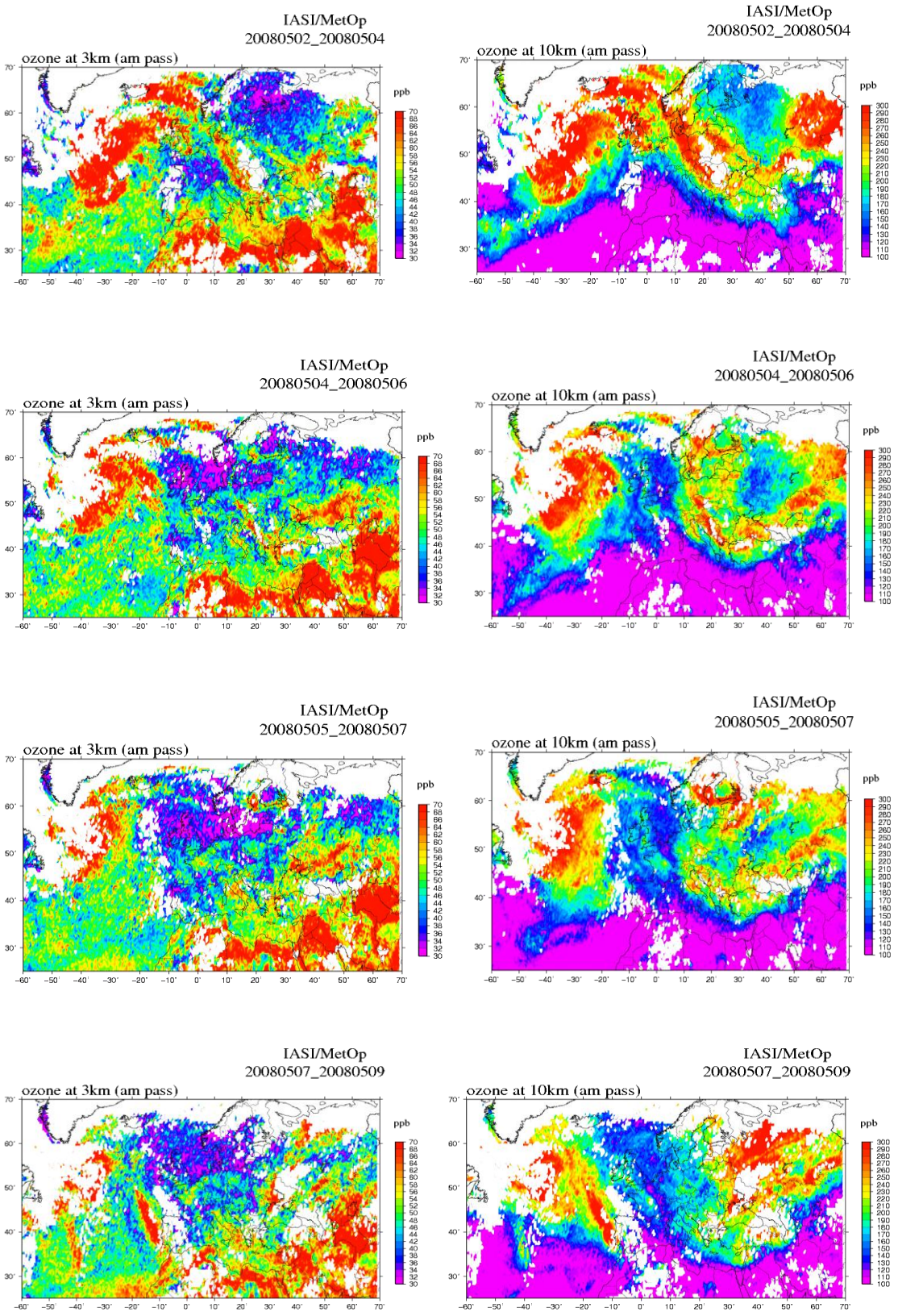

Figure S10: IASI satellite ozone measurements at 3km level (left column) and 10 km level (right column) during the high ozone episode of 7-9 May 2008 (lowest panels) as well as for two, three and five days before. Values outside the scale range are set up to the upper and lower color code respectively.

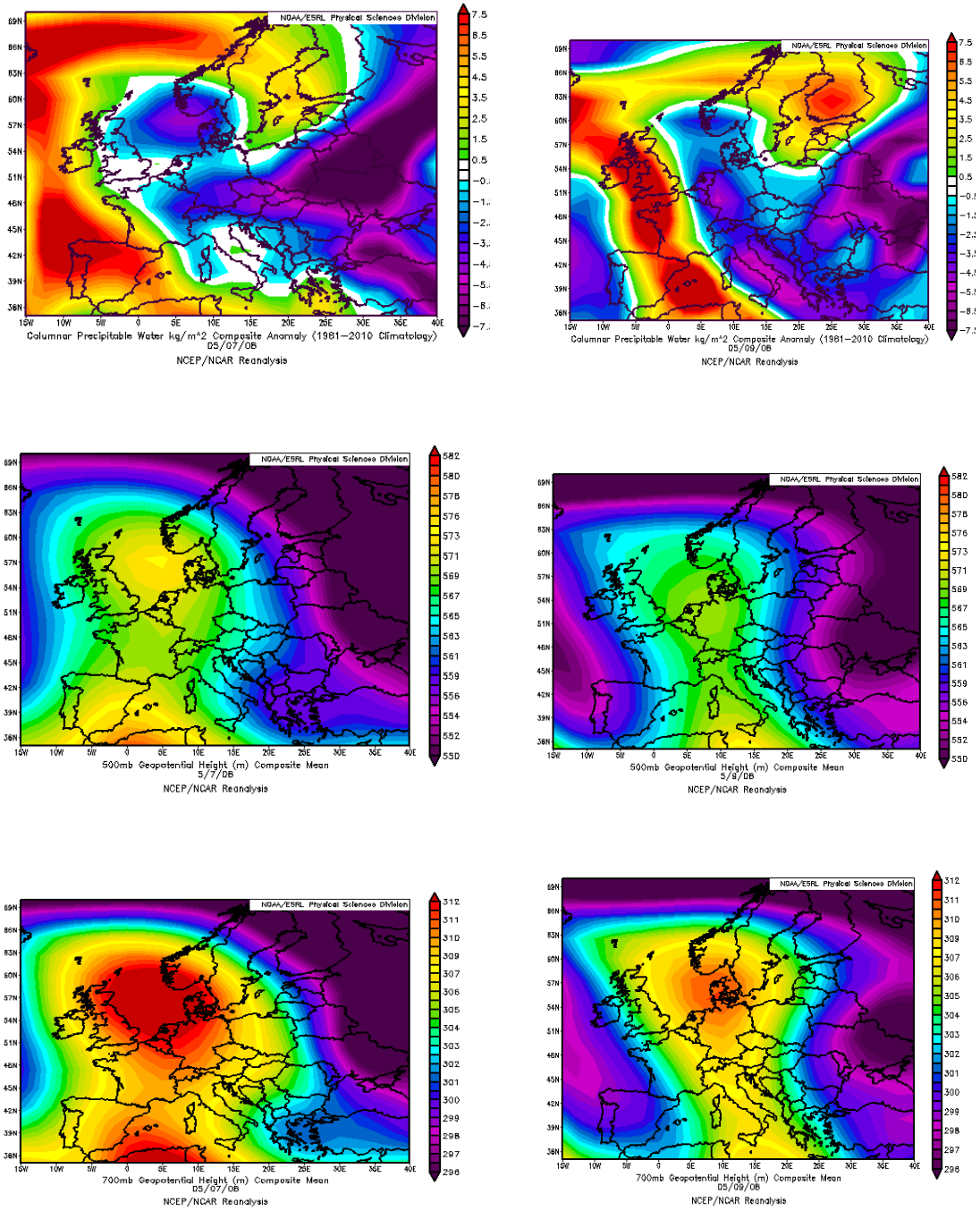

Figure S11: Precipitable water anomaly (upper panel), Geopotential height at 500hPa (middle panel) and Geopotential height at 700hPa (lower panel) for May 7, 2008 (left column) and May 9, 2008 (right column).

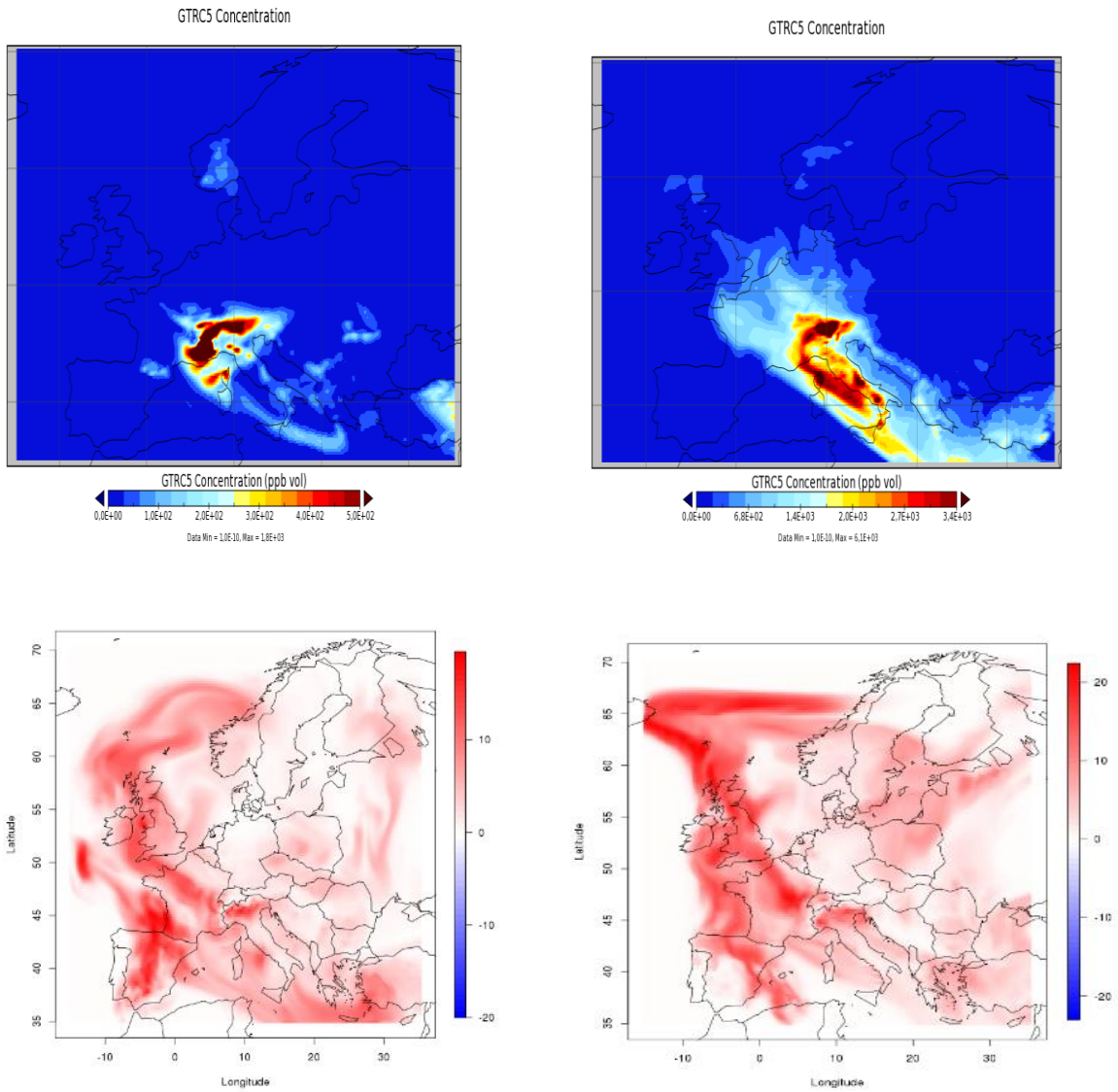

Figure S12: (Upper panel): CHIMERE simulations of upper tropospheric tracer concentrations (in arbitrary units) at 3 km for May 7 and for May 9, 2008 (right).

(Lower panel): CHIMERE simulations of photochemical production (difference between the reference simulation and a simulation without emissions) at 3km (in ppb) for May 7, 2008 (left), and for May 9, 2008 (right).