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Impact of different sources of precursors on an ozone pollution outbreak over Europe analysed with IASI+GOME2 multispectral satellite observations and model simulations

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Figure S1: Geostationary Operational Environmental Satellite (GEOS) SAL-tracking satellite imagery on 10 July 2017. The yellow-red shading indicates likely SAL regions with increasing amounts of dust content and dry lower-tropospheric air. The imagery is provided by the Cooperative Institute for Meteorological Satellite Studies (CIMSS)/University of Wisconsin-Madison (Dunion and Velden, 2004; Dunion, 2011, http://tropic.ssec.wisc.edu/, last access: 23 June 2021).

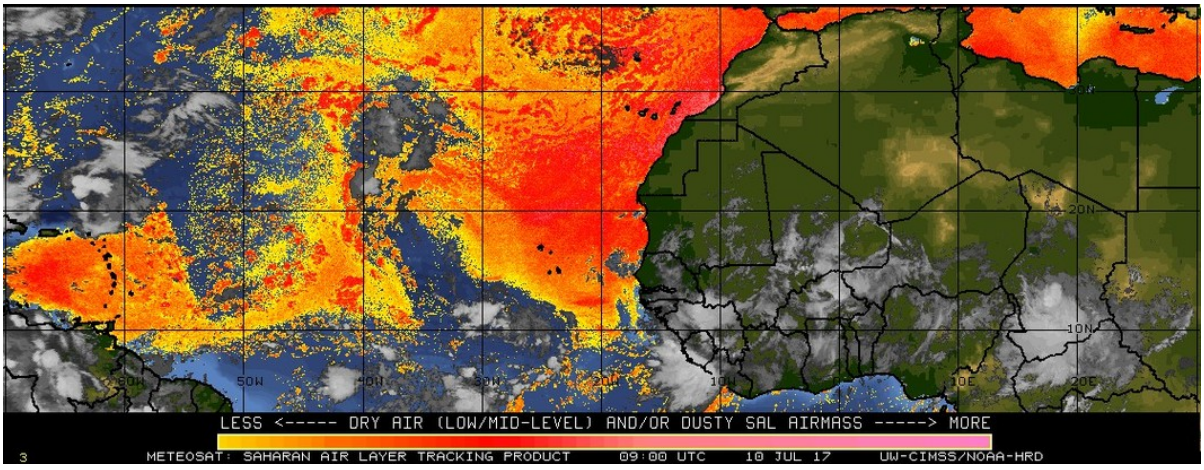


Figure S2: Daily mean sea level pressure and 500 hPa winds on 16 July 2017 from ERA5.

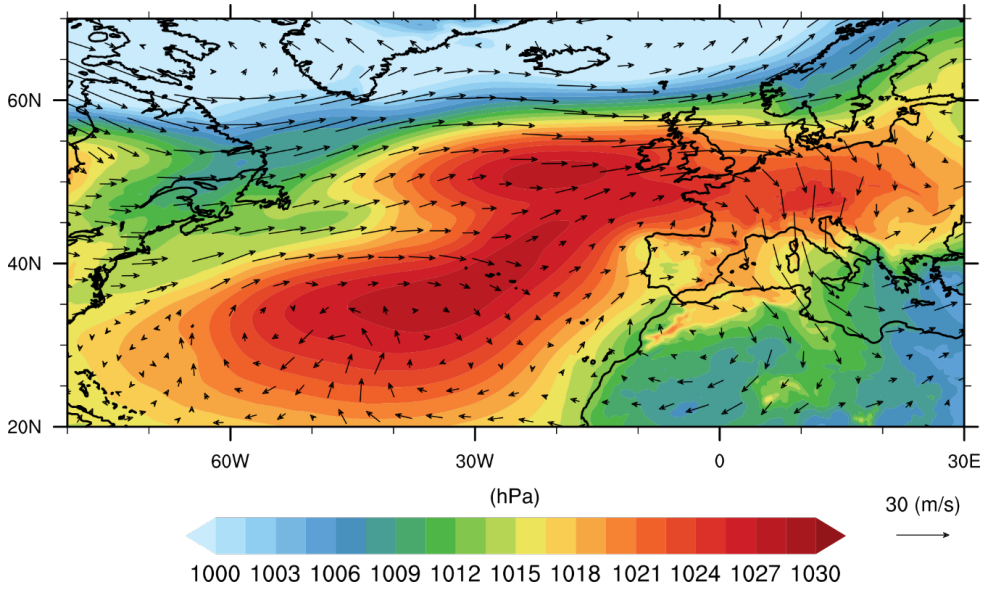
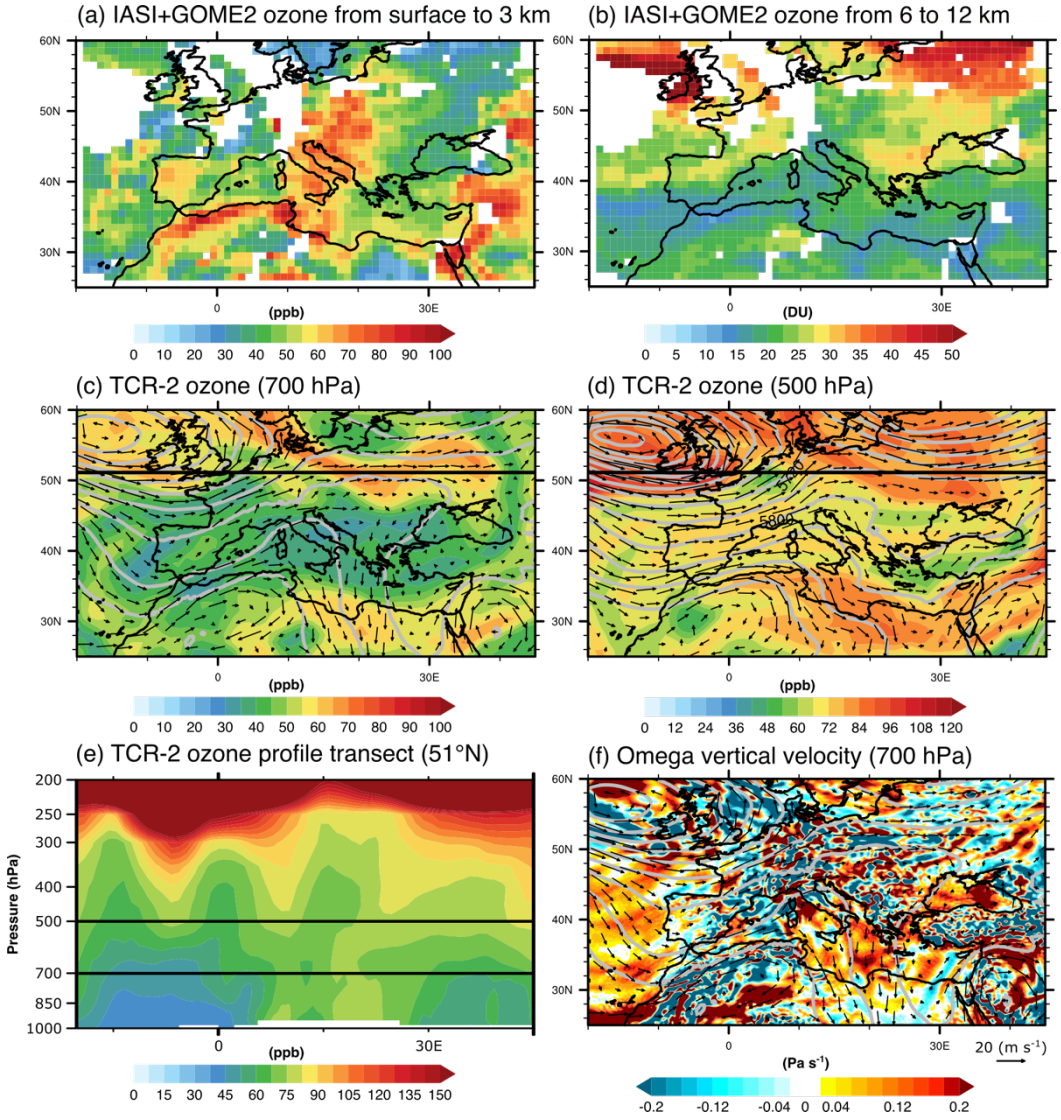


Figure S3: Distributions of the meteorological conditions and the middle/upper tropospheric ozone over Europe and the surrounding areas on 20 July 2017. Horizontal distributions of IASI+GOME2 lowermost tropospheric ozone from surface to 3 km **(a)** and upper tropospheric ozone column from 6 km to 12 km **(b)**, TCR-2 ozone at 700 hPa **(c)** and 500 hPa **(d)** and omega vertical velocity at 700 hPa **(f)** from ERA5. **(e)** Transect of vertical profile of TCR-2 ozone at 41°N. Black bold straight lines in panels (c–d) indicate the positions of the transect of vertical profile. Winds and geopotential height are indicated by black arrows and grey contour lines in panels (c, d and f).



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