

Atmospheric Chemistry and Physics

Electronic Supporting Material

First measurements of reactive α -dicarbonyl concentrations on PM_{2.5} aerosol over the Boreal forest in Finland during HUMPPA-COPEC 2010 – Source apportionment and links to aerosol aging

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Back trajectories during the HUMPPA-COPEC-2010 field measurement intensive in Hyytiälä, Finland, 2010

96 h backward trajectories were calculated using the NOAA Hysplit model at an altitude of 25 m above ground level (a.g.l.) for the sampling site located at 61° 50' 50.685" North, 24° 17' 41.206" East, 179m above sea level (a.s.l.).

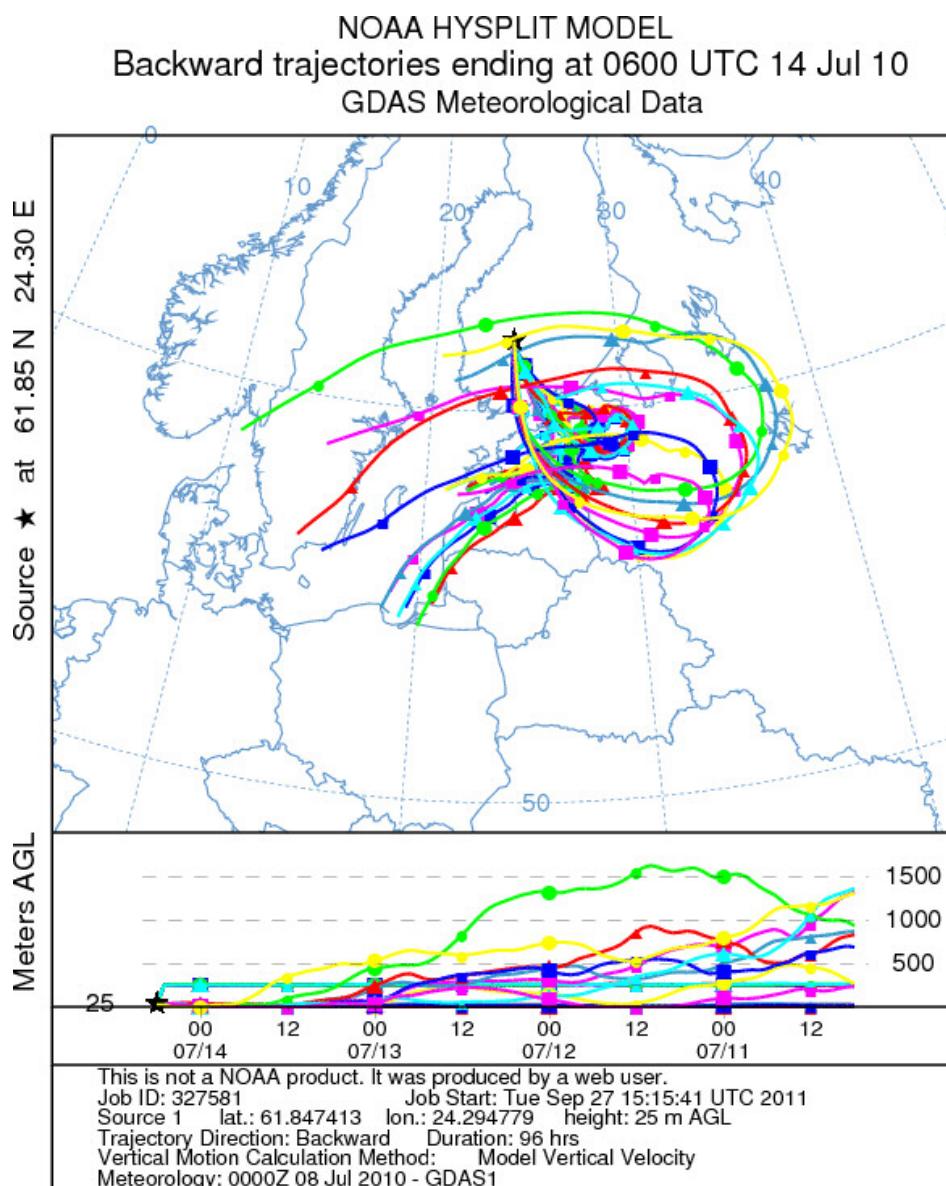


Figure S1. Ensemble 4 day back trajectories for the urban pollution plume event on 14 July

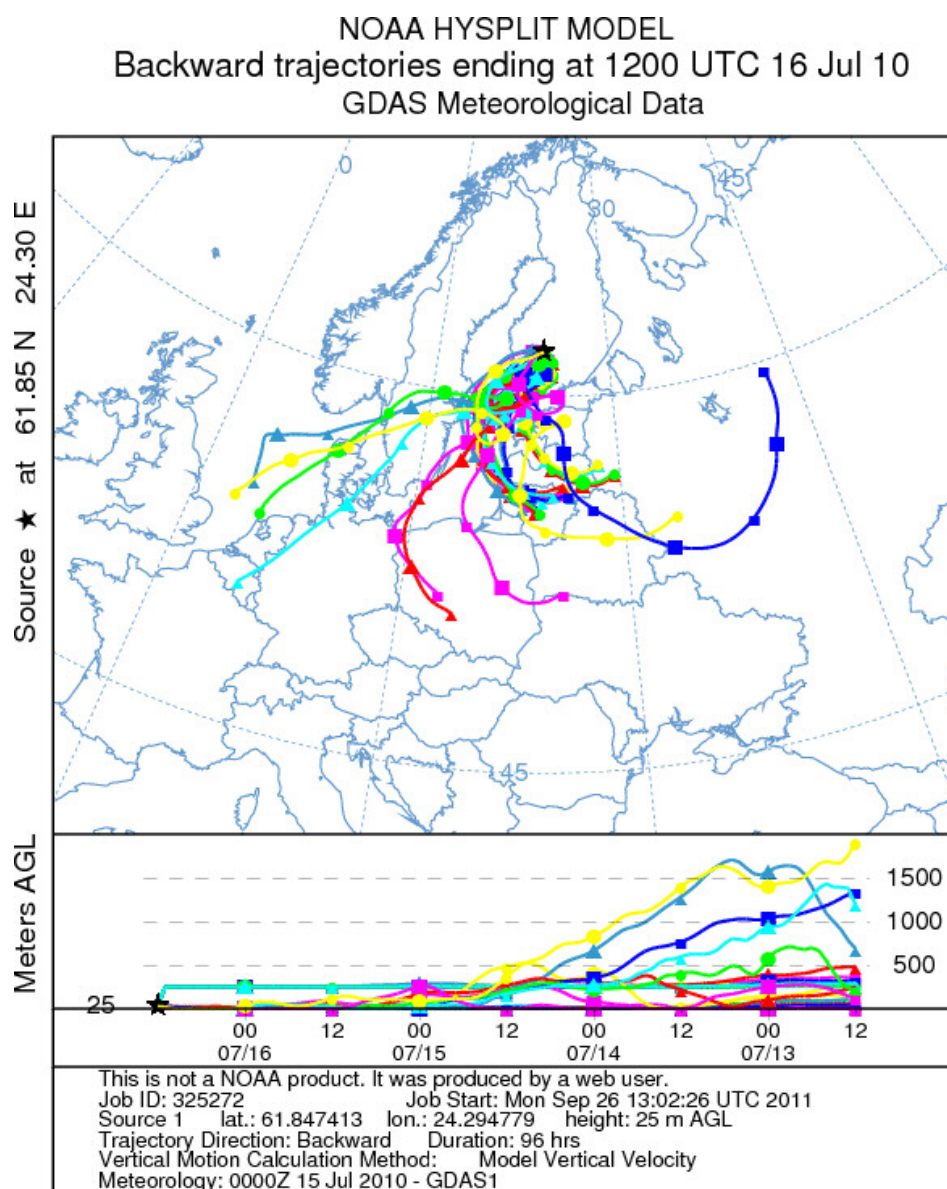


Figure S2. Ensemble 4 day back trajectories for the urban pollution plume event on 16 July

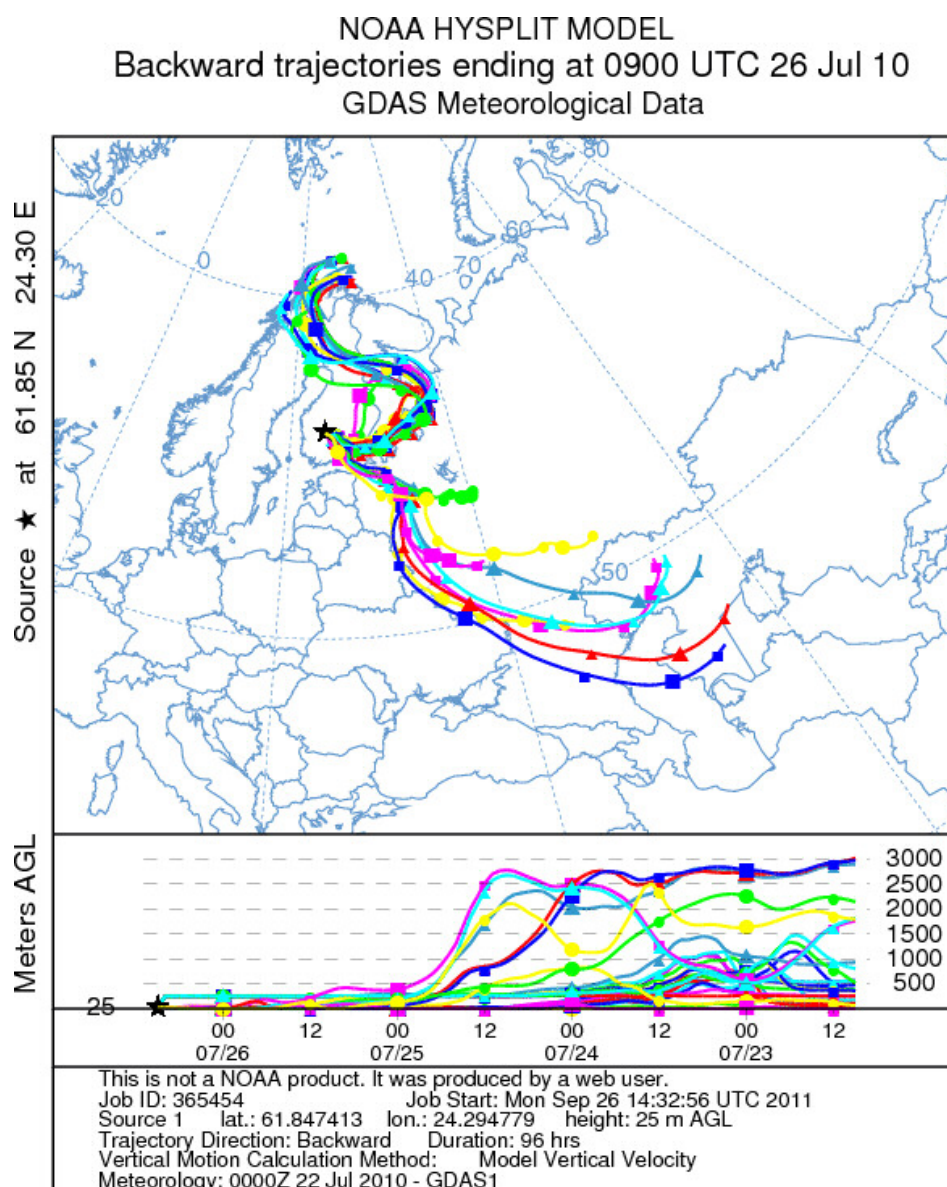


Figure S3. Ensemble 4 day back trajectories for the biomass burning / urban pollution plume event on 26 July

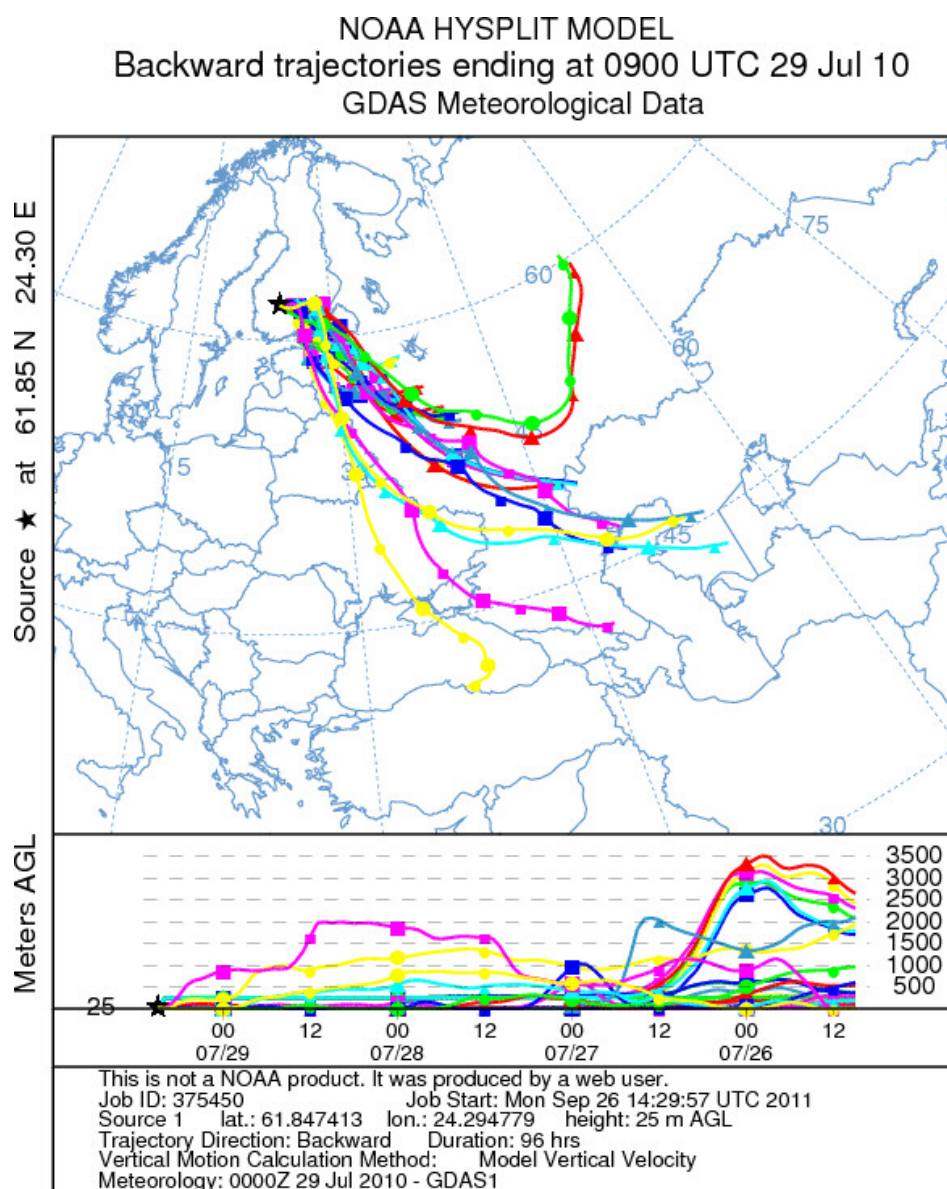


Figure S4. Ensemble 4 day back trajectories for the biomass burning / urban pollution plume event on 29 July

NOAA HYSPLIT MODEL
Backward trajectories ending at 0000 UTC 06 Aug 10
GDAS Meteorological Data

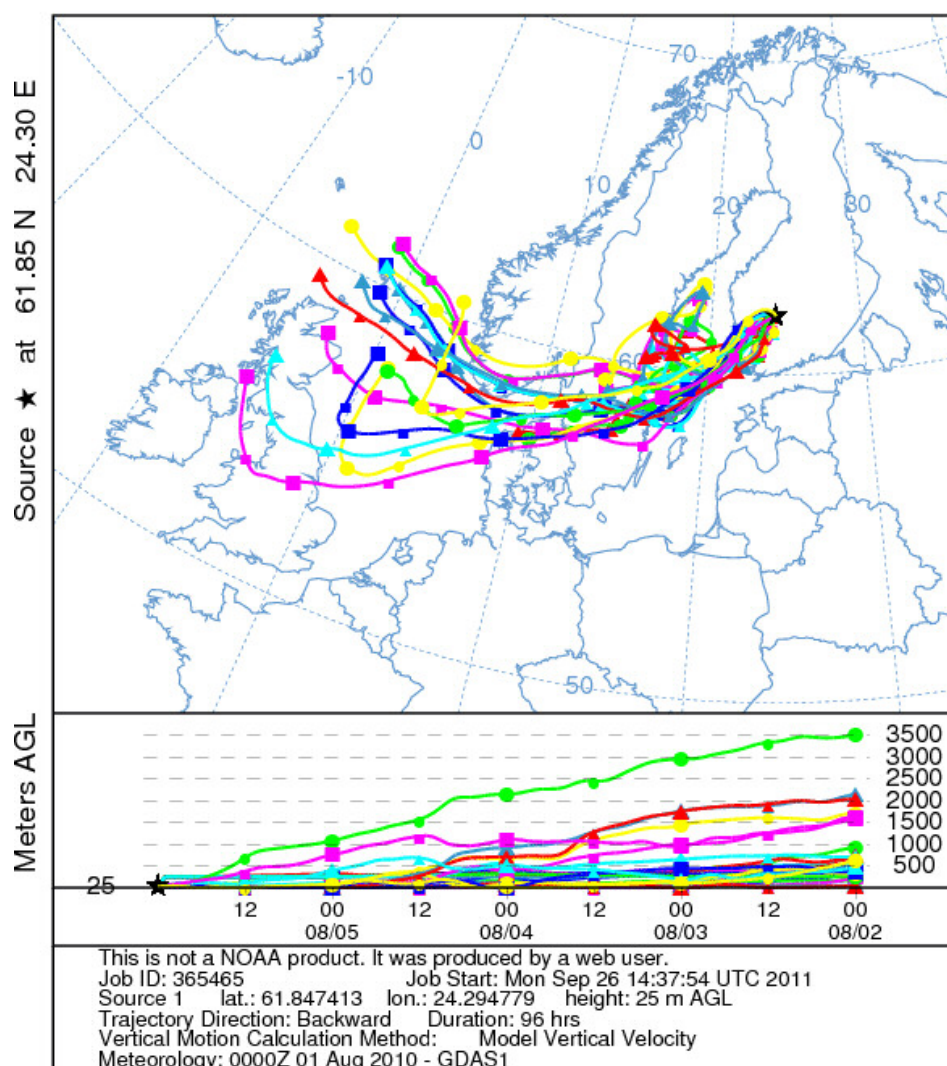


Figure S5. Ensemble 4 day back trajectories for the sawmill / urban pollution plume event on 6 August

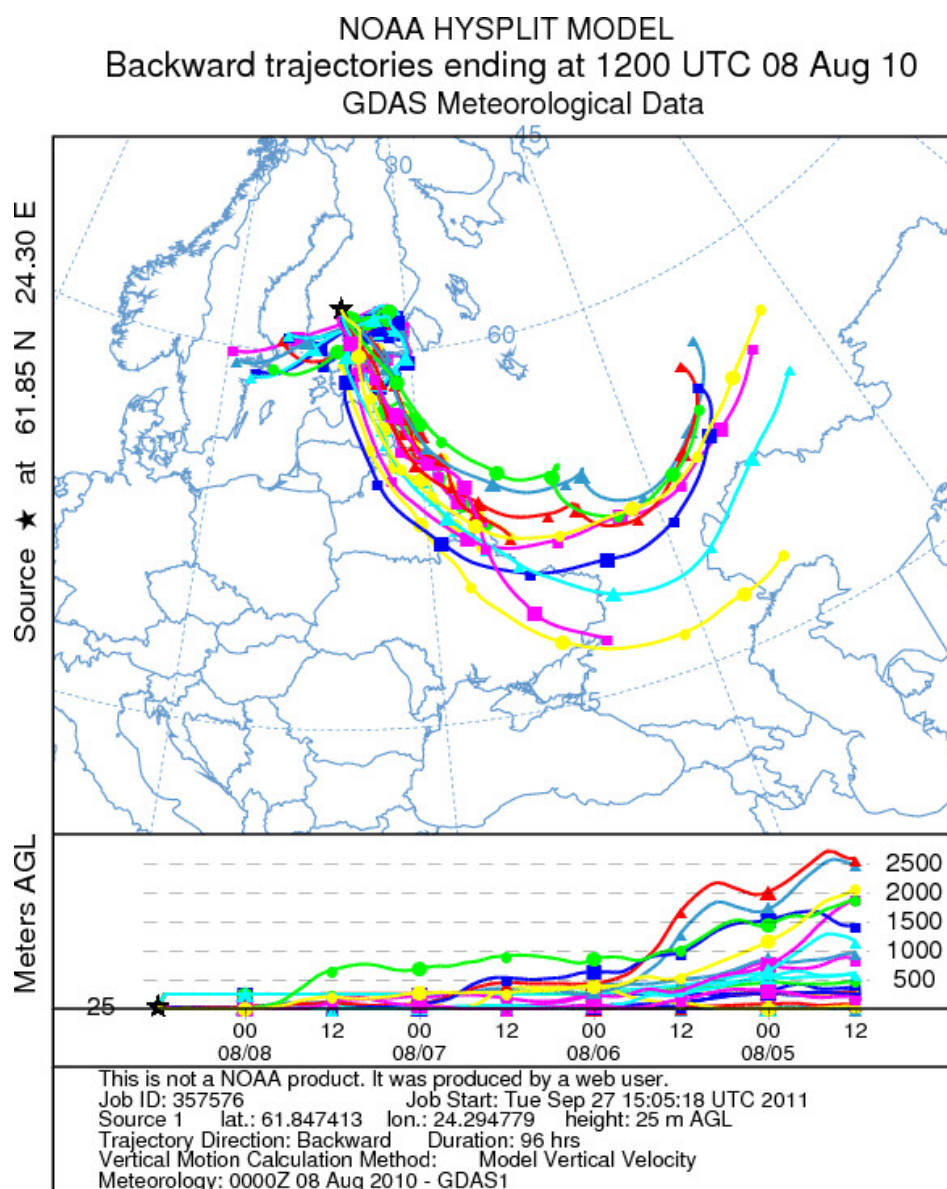


Figure S6. Ensemble 4 day back trajectories for the biomass burning event on 8 August

48 h backward trajectories were calculated using the NOAA Hysplit model at an altitude of 25 m above ground level (a.g.l.) for the sampling site located at 61° 50' 50.685" North, 24° 17' 41.206" East, 179m above sea level (a.s.l.).

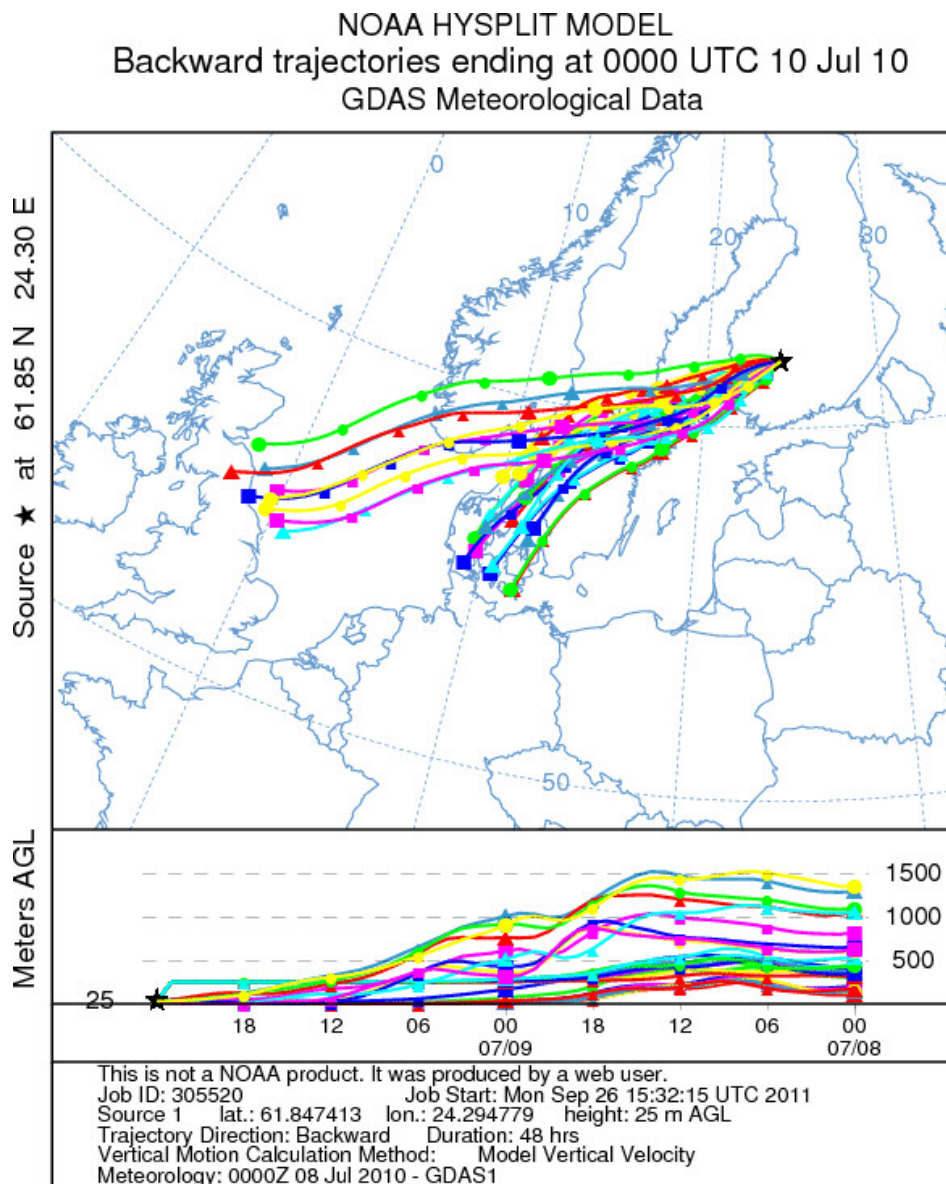


Figure S7. Ensemble back trajectories for the urban pollution plume / traffic at site event on 10 July

96 h backward trajectories were calculated using the NOAA Hysplit model at an altitude of 200 m above ground level (a.s.l.) for the sampling site located at 61° 50' 50.685" North, 24° 17' 41.206" East, 179m above sea level (a.s.l.) and plotted together with fire hotspot data, for fires with >90% confidence, provided by the Fire Information for Resource Management System (FIRMS) for the biomass burning events on 7 to 9 August. Back trajectories and active hot spots for specific dates are colored. Black squares indicate sampling site and predominant nearby cities: Helsinki, Finland, Oslo, Norway, St. Petersburg and Moscow, Russia.

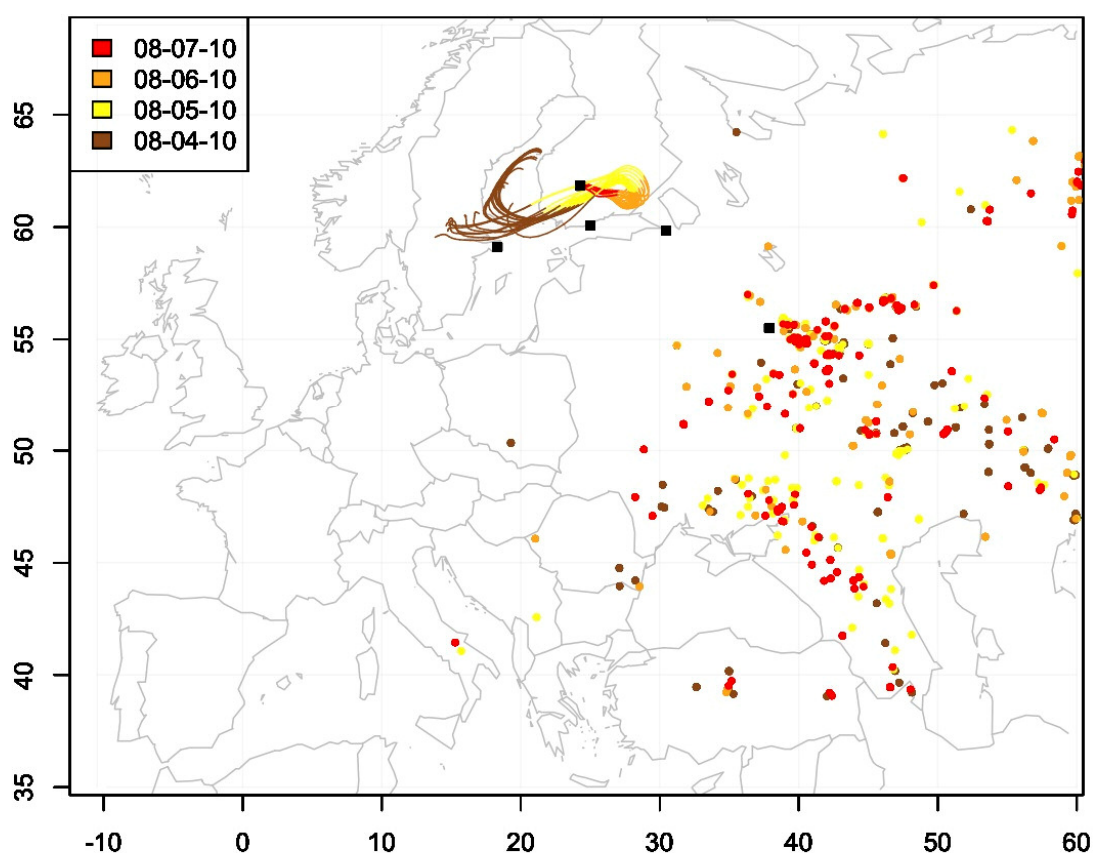


Figure S8. Ensemble 4 day back trajectories for the biomass burning event on 7 August

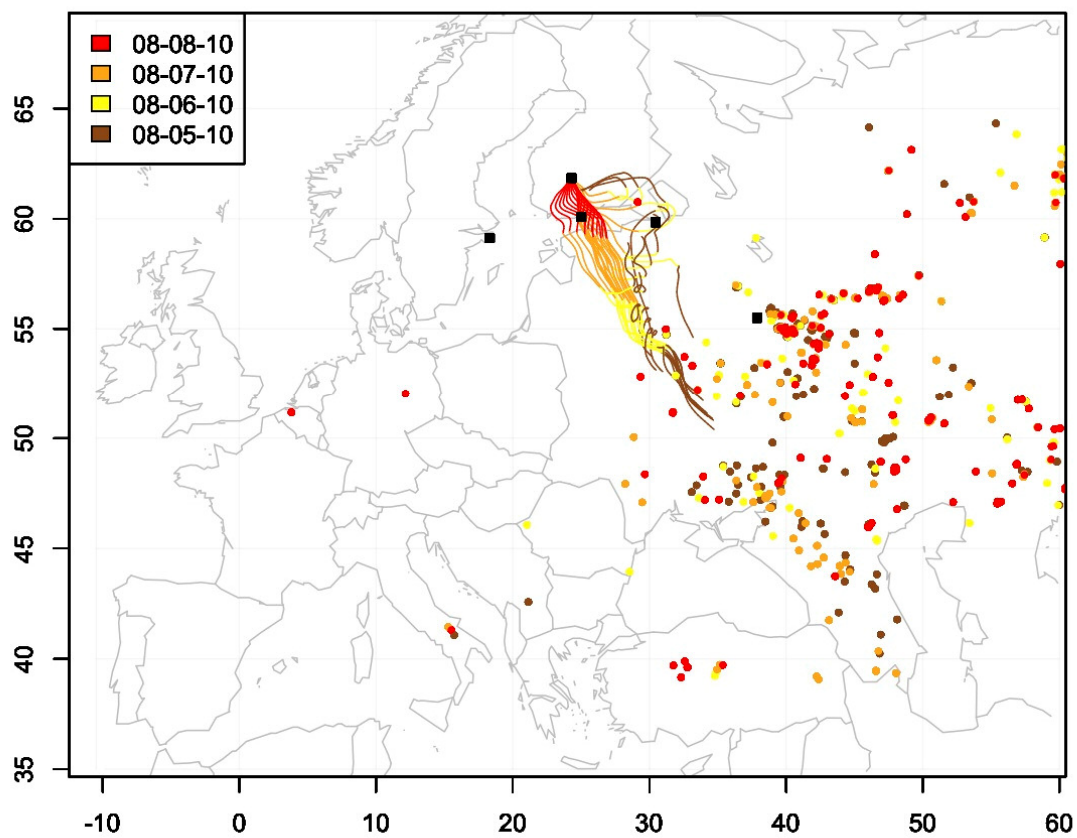


Figure S9. Ensemble 4 day back trajectories for the biomass burning event on 8 August

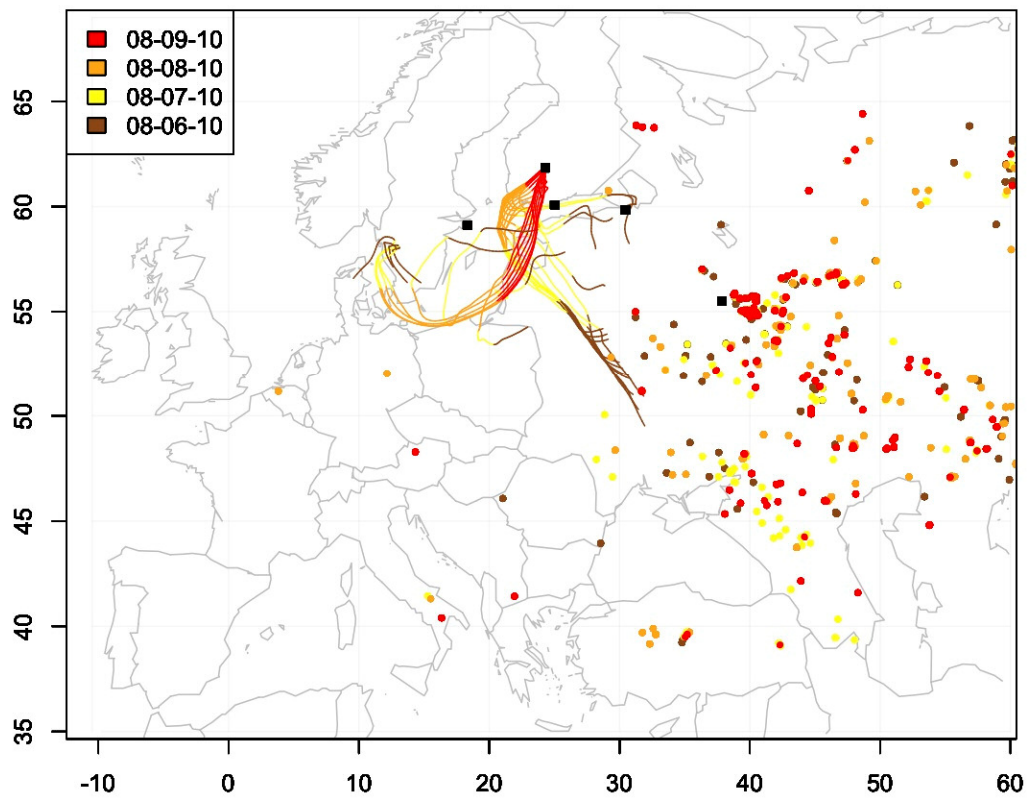


Figure S10. Ensemble 4 day back trajectories for the biomass burning event on 9 August