

Source Attribution Functions

Running the air concentration prediction model backwards is comparable to a back trajectory calculation but it includes the dispersion component of the calculation. The result, although it looks like an air concentration field is more comparable to a source attribution function. If the atmospheric turbulence were stationary and homogeneous then this attribution function would yield the same result from receptor to source as a forward calculation from source to receptor. [Configure the model](#) as the default top-hat-particle to run from the receptor location (36N-6W-1500 m) for 120 hours backward from July 17th using a 1-hour emission and with concentration output every 6 hours. The elevated release corresponds to the elevated nature of the TOMS signal. The concentration grid level should be 100 m to correspond to lower-level emissions. The results are shown below for the last 6-hour period in the simulation. They would be interpreted to mean that the emissions in the “yellow” region between 0000 July 12 and 0600 July 12 were most likely to have contributed to the measurements on the 17th at 1500 m at 36N-6W.

