



Supplement of

Observations and source investigations of the boundary layer bromine monoxide (BrO) in the Ny-Ålesund Arctic

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Fig S1. Ensemble back trajectory calculations of air masses arriving at Ny-Alesund from 22 April 00:00 UTC to 30 April 00:00 UTC at sea level. Each trajectory runs 72 hours.

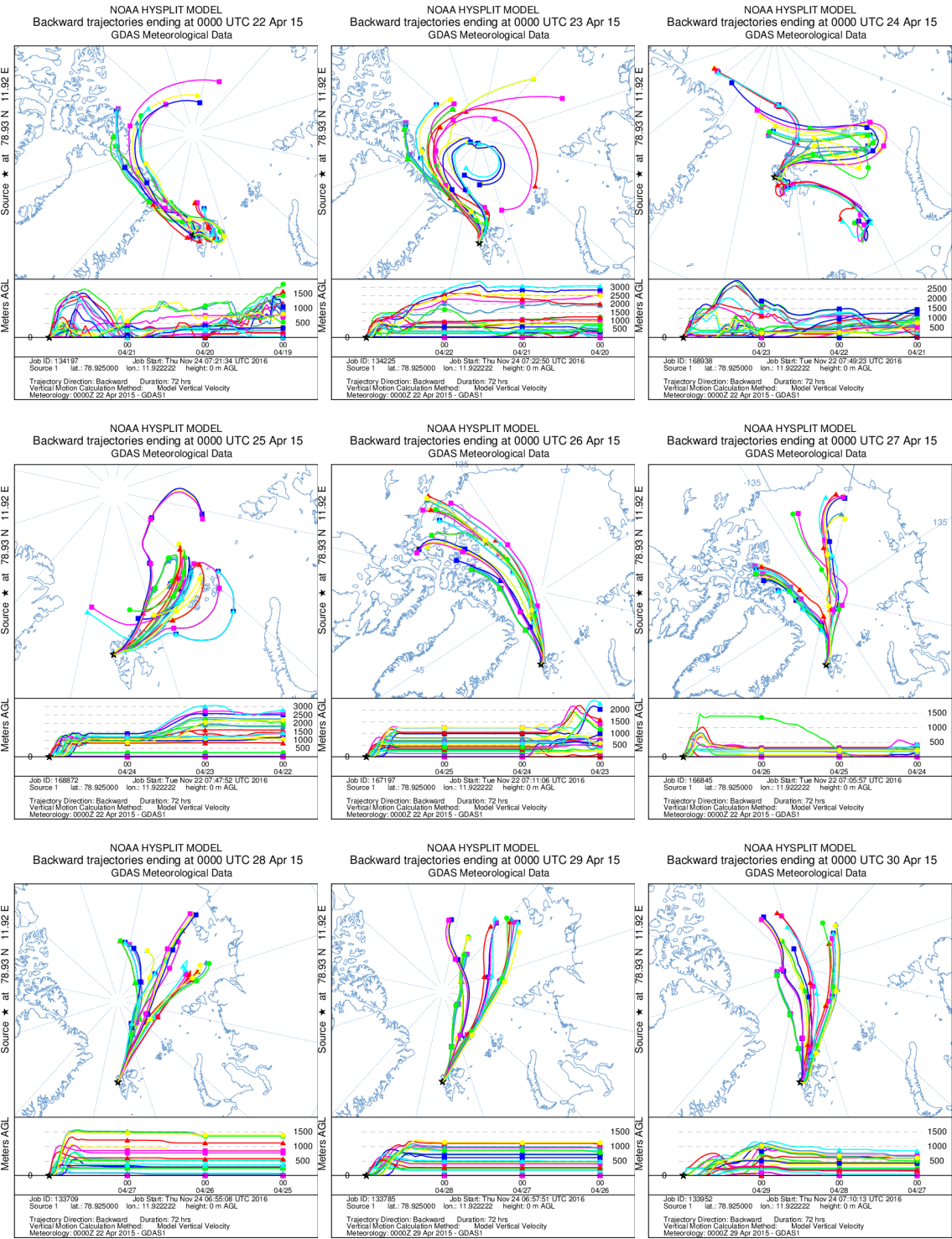


Fig S2. Ensemble back trajectory calculations of air masses arriving at Ny-Alesund from 22 April 00:00 UTC to 30 April 00:00 UTC at 500 meters a.s.l. Each trajectory runs 72 hours.

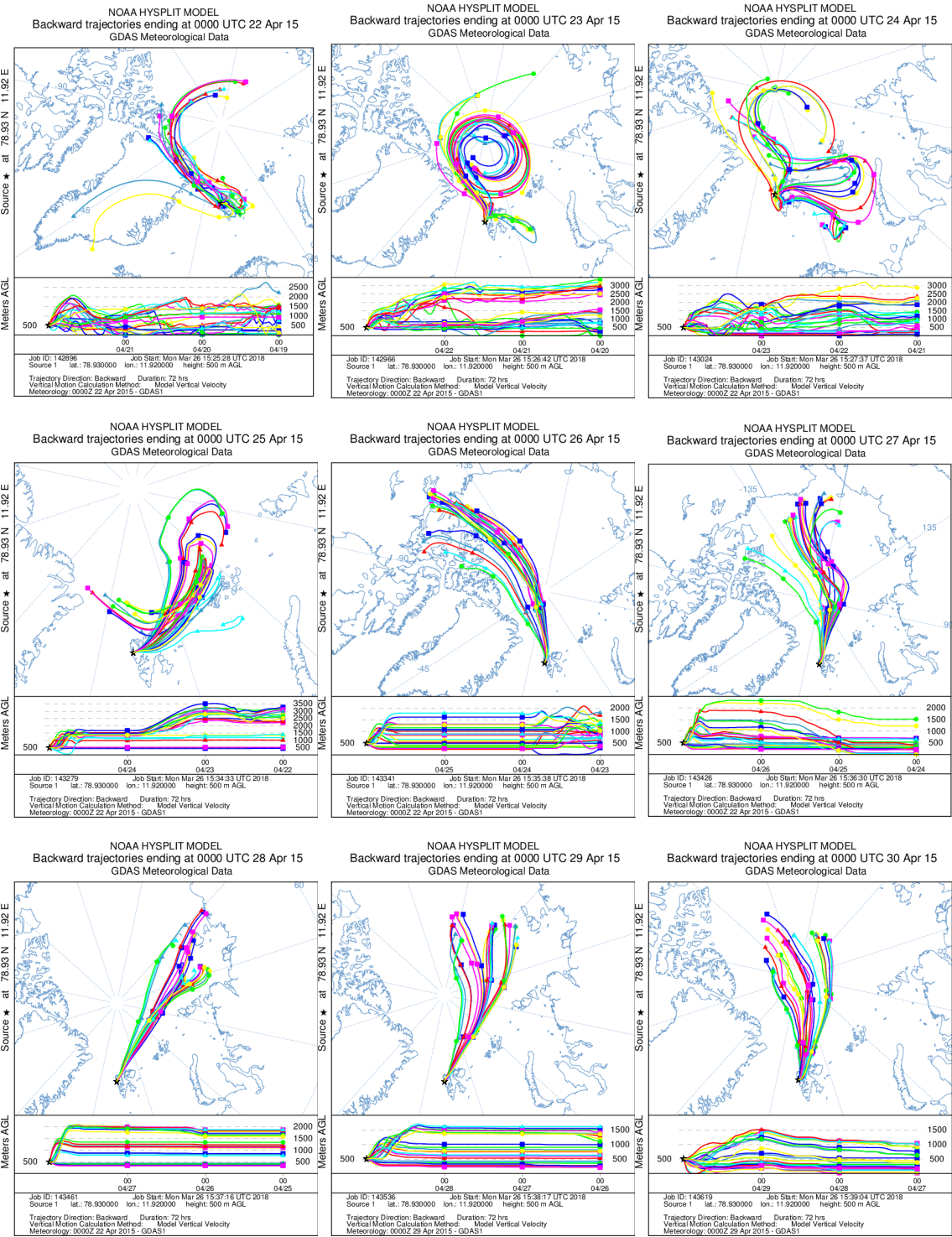


Fig S3. Maps of troposphere BrO of northern hemisphere by GOME-2 product from 20 April to 13 May. (Cited from

http://www.iup.uni-bremen.de/does/scia_data_browser.htm)

BrO clouds existed at two main periods: coastal North America and Chukchi Sea during 22-23 April and North of Siberia during 08-11 May 2015. Both of the BrO clouds lasted about three to four days, the first of which was occasionally at the same period with the

5 Ny-Ålesund BrO enhancement event.

