Supporting Information for:

Is the ocean surface a source of HONO in the marine boundary layer?

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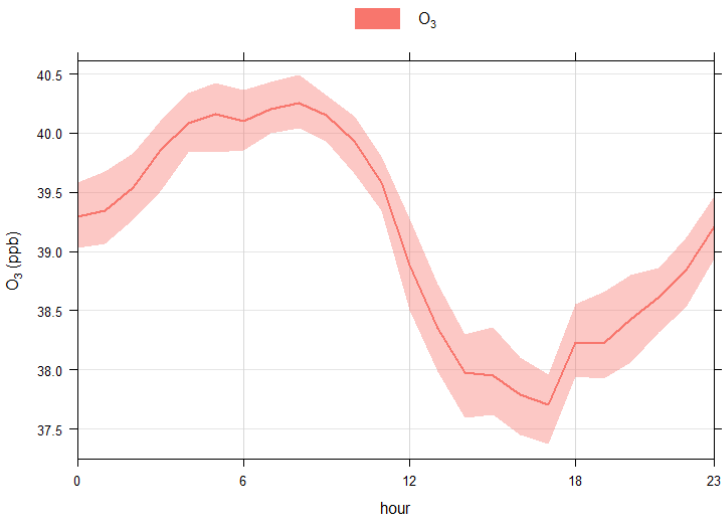

Figure S1: Mean diurnal profile of ozone mixing ratio at CVAO during the campaign.

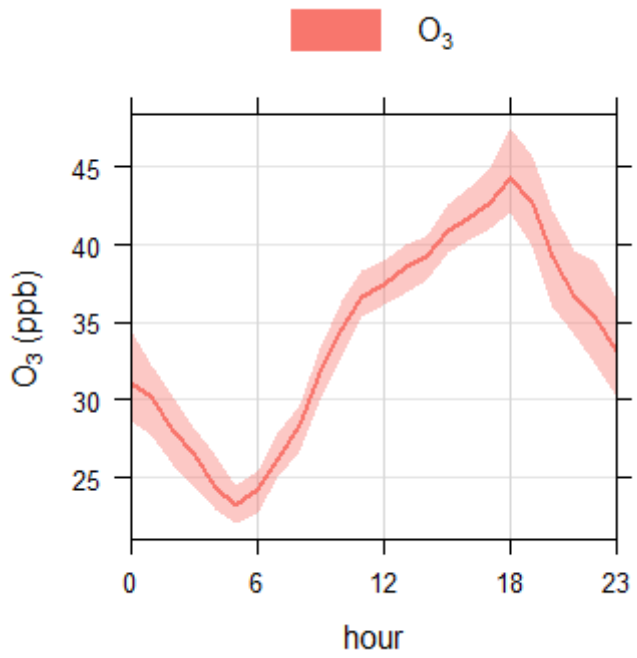

Fig S2: Mean diurnal profile of ozone mixing ratio at WAO during the campaign.

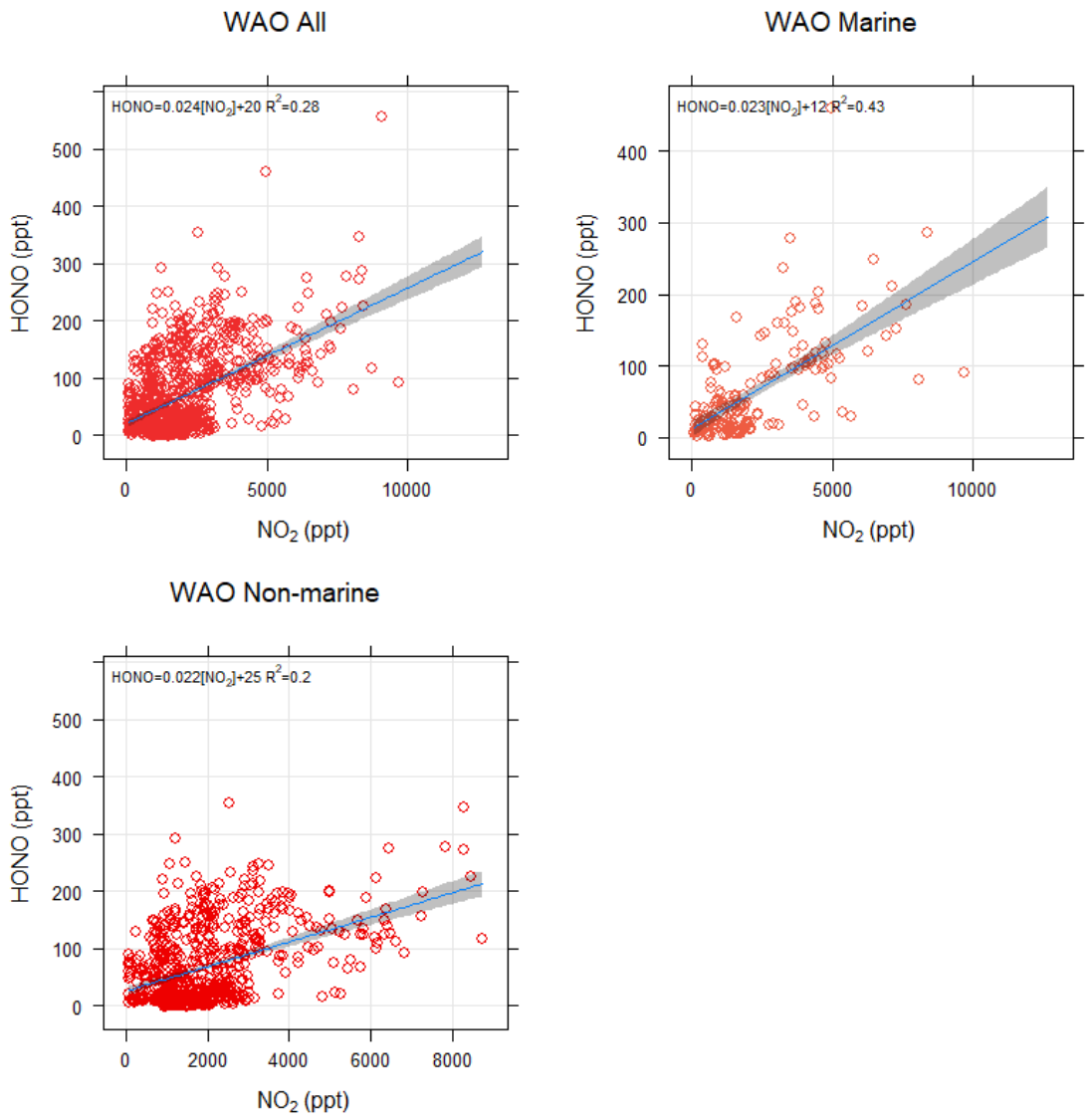

Figure S3: Scatterplots of HONO vs NO_2 at WAO for different periods as defined in Table 1.

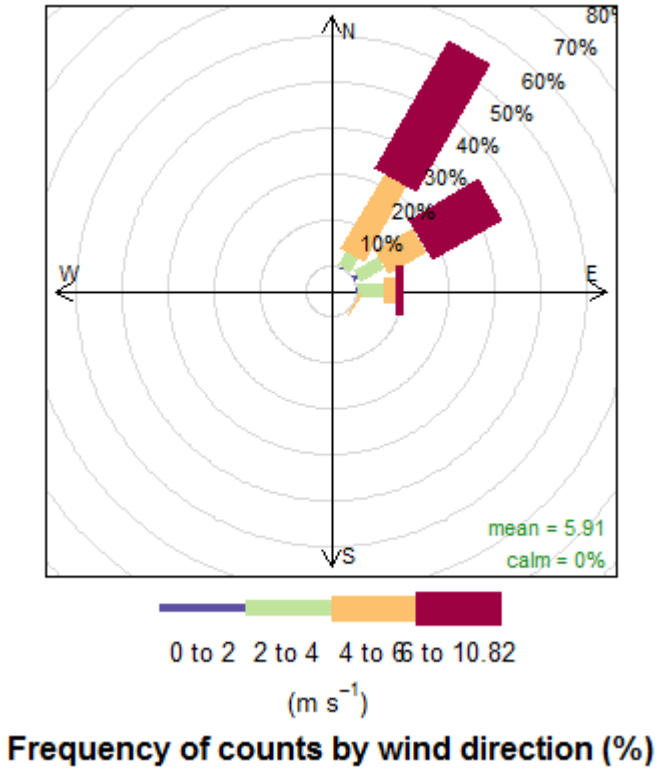

Figure S4: Wind rose plot for CVAO

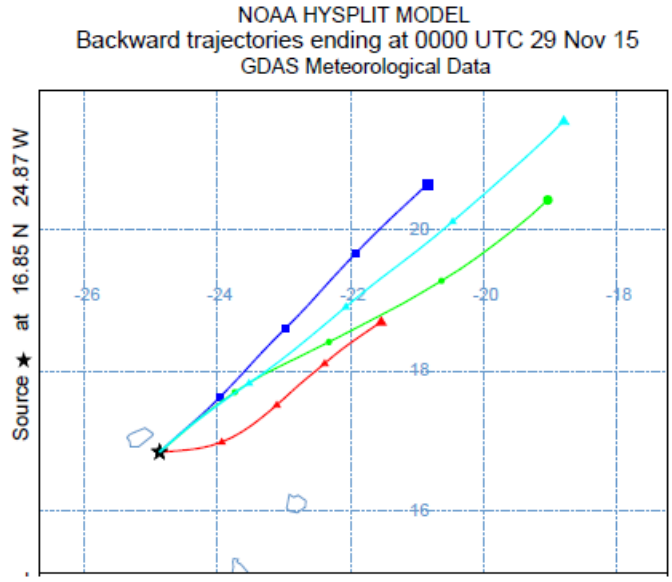

Fig S5: 24hr back trajectories at CVAO on the 25th (light blue), 26th (green), 27th (dark blue) and 28th (red) November 2015 at midnight. The black star represents the location of CVAO and the symbols show 6 hr intervals.

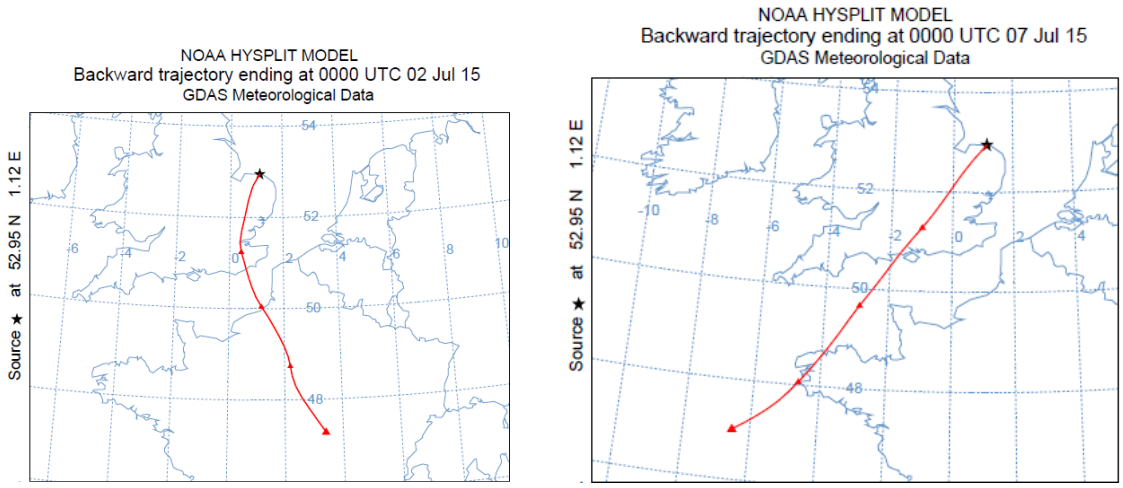

Fig S6: Representative 24hr back trajectories during non-marine periods at WAO. The black star represents the location of WAO and the red triangles show 6 hr intervals.

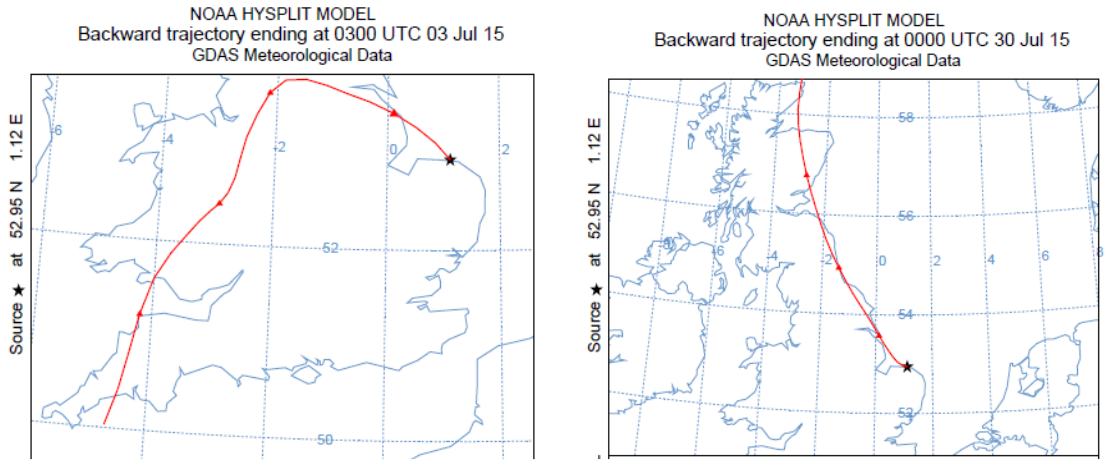

Fig S7: Representative 24hr back trajectories at WAO during typical marine air periods.

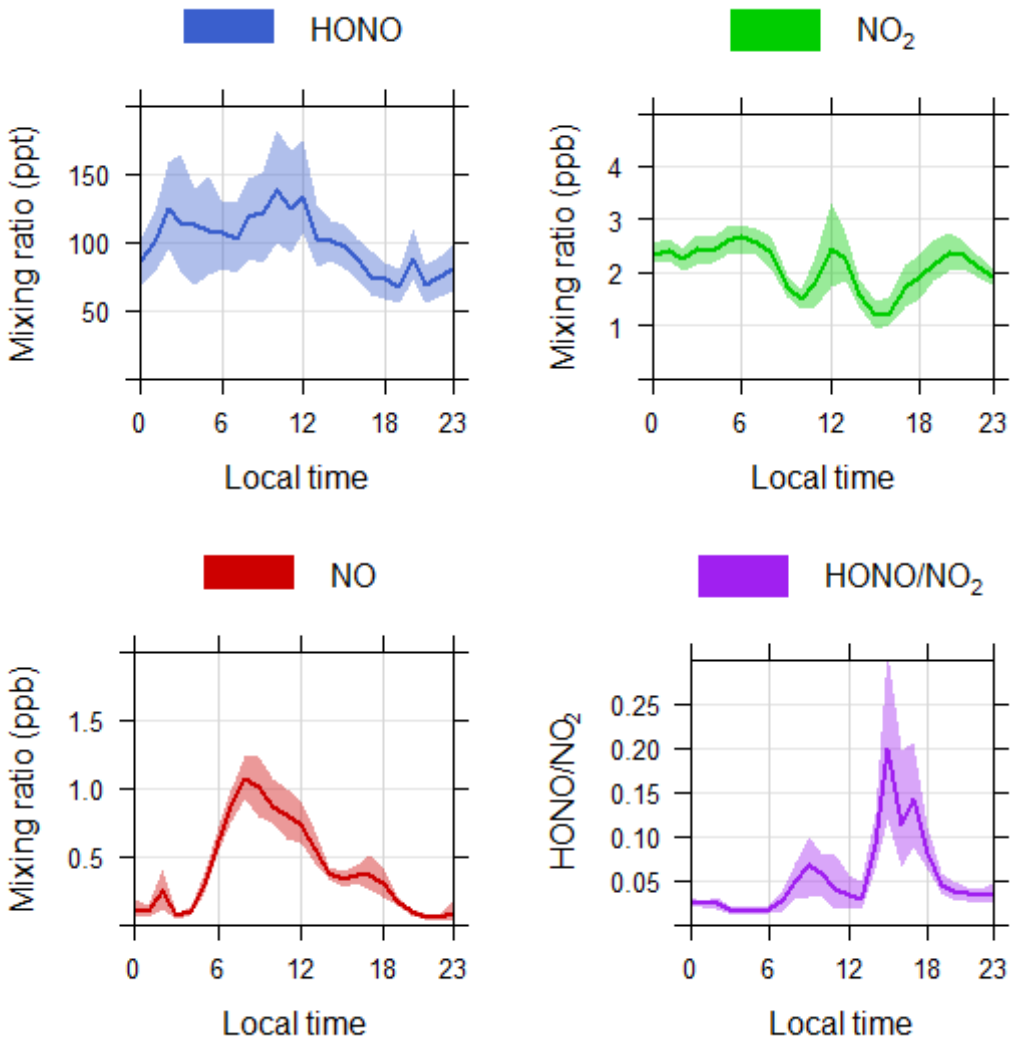

Figure S8: Diurnal profiles for WAO non-marine air.

Figure S9: Calculated HONO mixing ratios for conversion from NO_2 on the sea surface ($HONO_{ocean}$) calculated via Eqn 2 with using the rate coefficient of C_{HONO} = 0.033 hr^{-1} from Zha et al. (2014) and the measured HONO photolysis frequency j(HONO) at both sites. $HONO_{ocean}$ only calculated for daylight hours, as indicated by jHONO. Note different y axis scales.

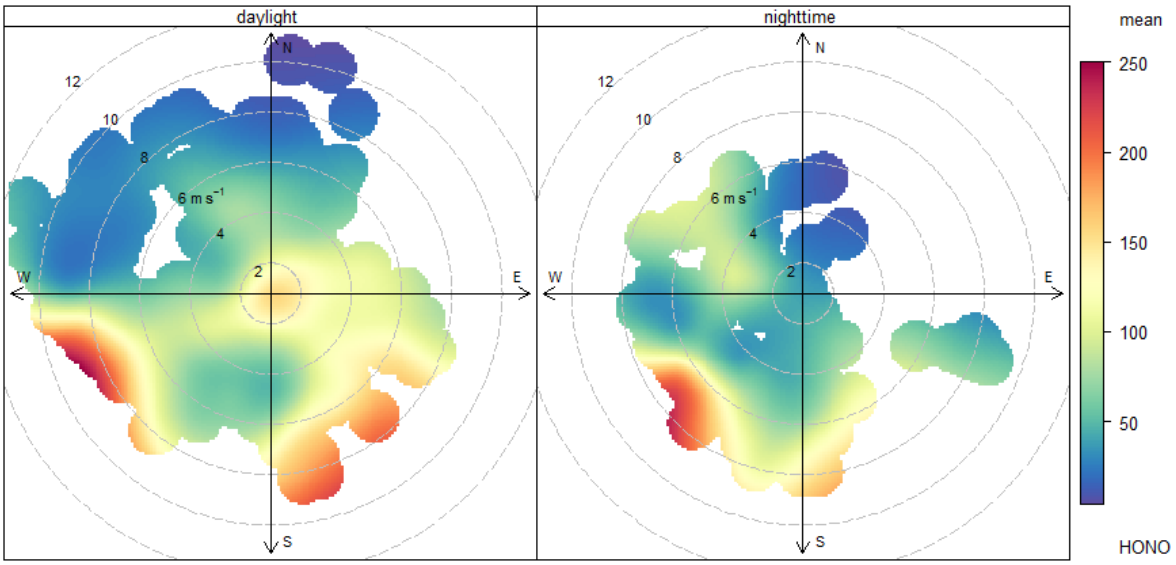

Figure S10: Polar plots of measured HONO mixing ratio (ppt) for day and night at WAO for the whole measurement period.

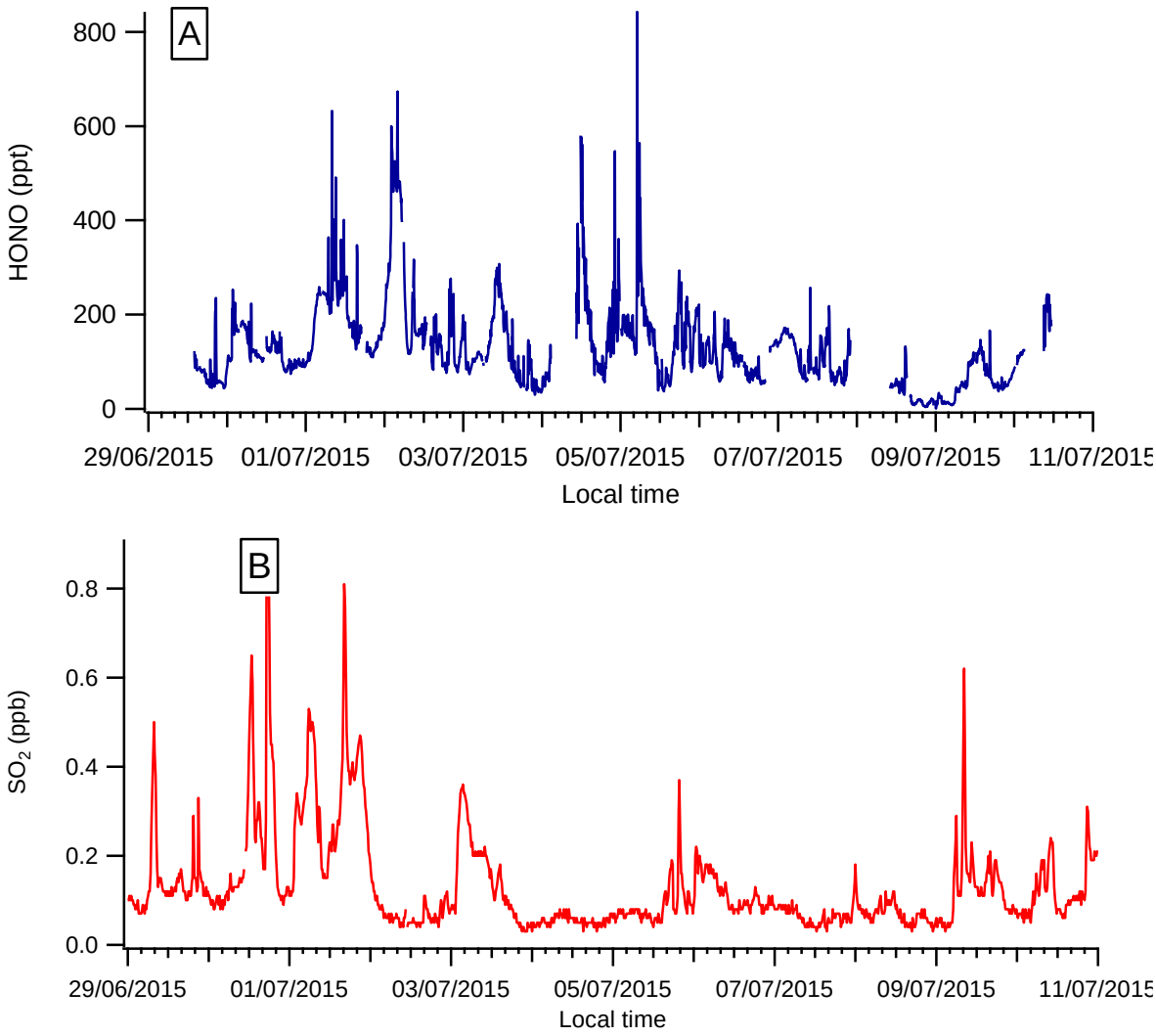

Figure S11: Time series of HONO (ppt) and SO_2 (ppb) at WAO.