

Investigating Impacts of Local Circulation on Coastal Ozone Pollution in the New York Metropolitan Area: Evidence from Multi-year Observations

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Contents of this file

Figures S1 to S5

Introduction

This supporting information file contains five figures which are not incorporated in the manuscript.

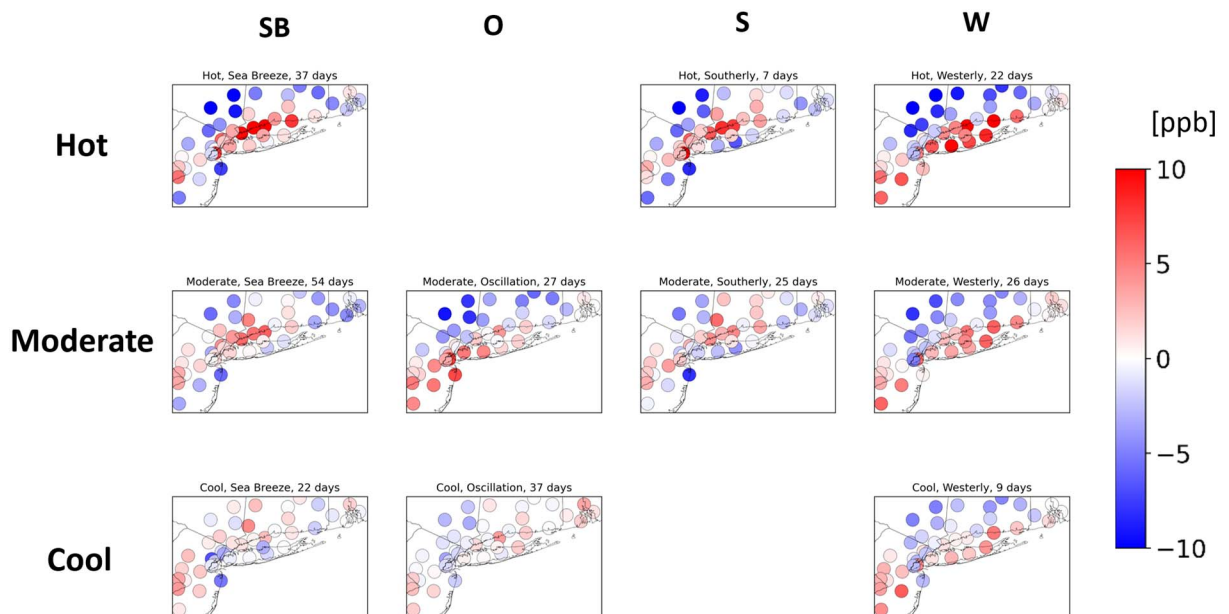


Figure S1. DMA8 spatial anomaly, derived by subtracting all-site mean DMA8 from individual average DMA8, for each cluster with at least 6 days during the summertime (JJA) of 2017-2019.

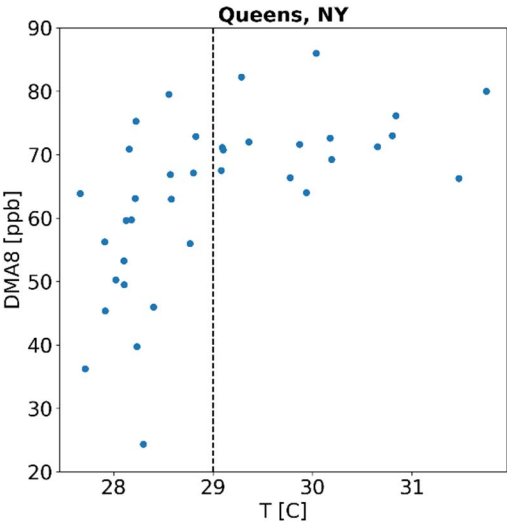


Figure S2. Dependence of DMA8 at Queens on regional daytime temperature on *Hot SB* days.

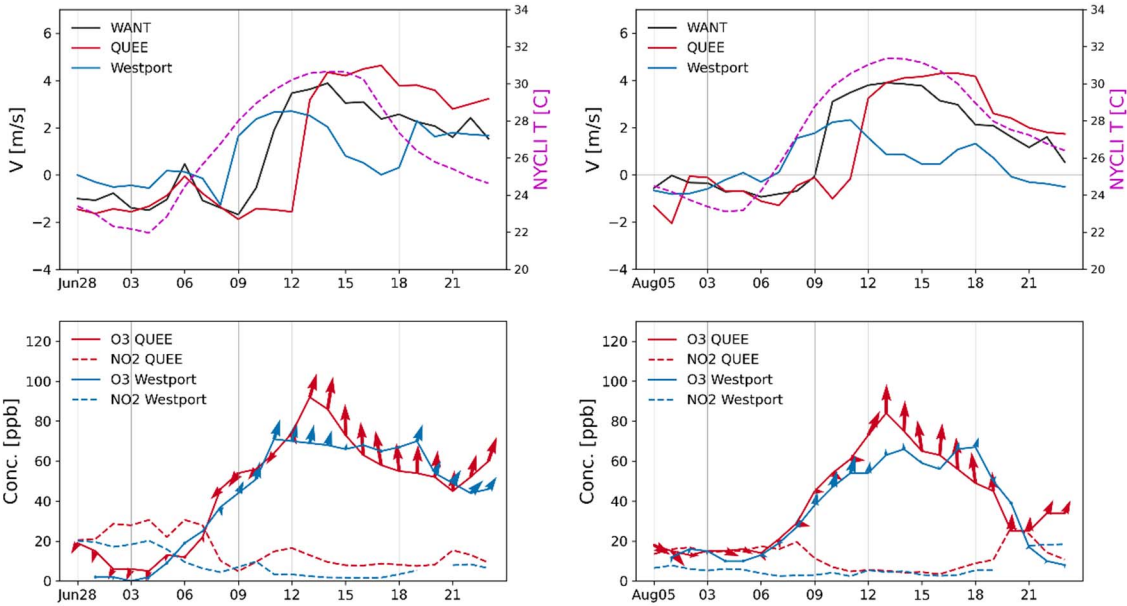


Figure S3. Two other abrupt strong sea breeze onset cases on Jun. 28, 2019 (left) and Aug. 5, 2018 (right).

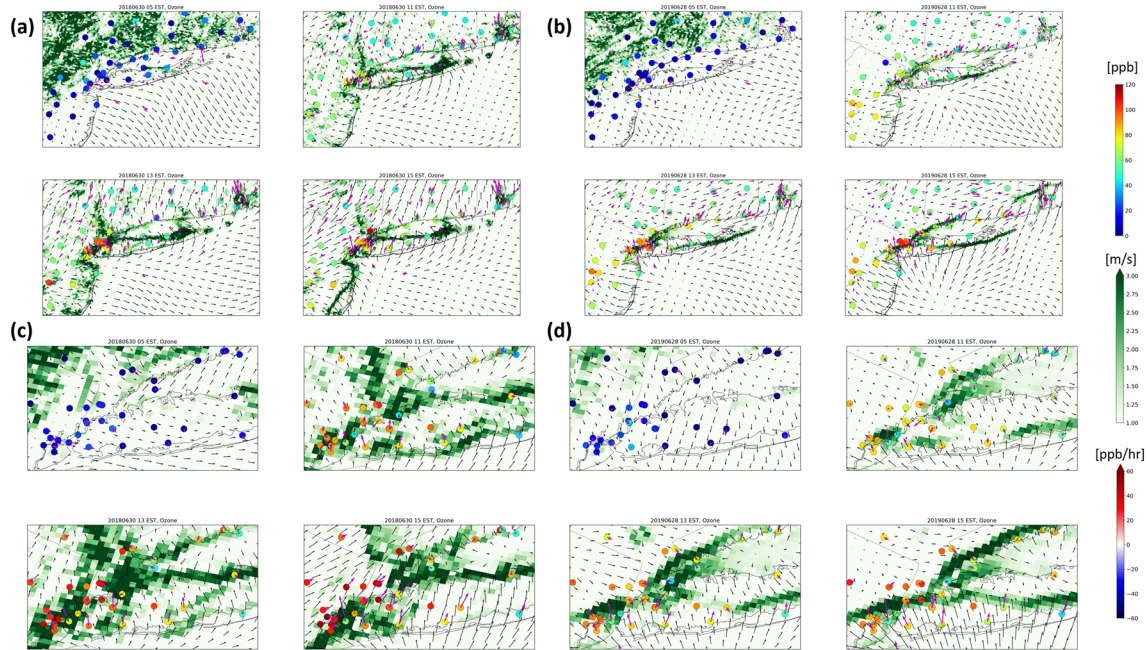


Figure S4. Impact of strong land-water temperature contrast during abrupt sea breeze onset cases on (a,c) Jun. 30, 2018 compared with (b,d) Jun. 28, 2019. (a,b) Ozone distribution (filled color circles) and surface wind arrows from observations (magenta) and HRRR reanalysis fields (black) at 5:00 (top left), 11:00 (top right), 13:00 (bottom left), and 15:00 (bottom right) with front locations (green shade) estimated by HRRR surface wind gradient (*Grad*, see Section 2.3); (c,d) hourly temperature (filled color circles) and local wind conditions (same as in a,b) around NYC.

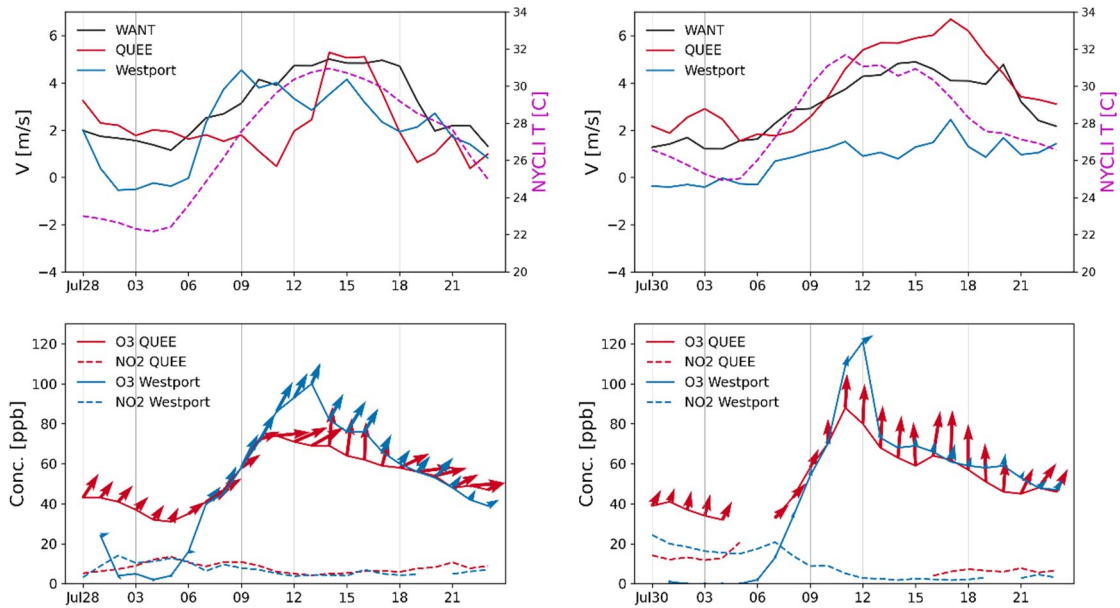


Figure S5. Two other gradual weak sea breeze onset cases on Jul. 28, 2019 (left), and Jul. 30, 2019 (right).

