



Supplement of

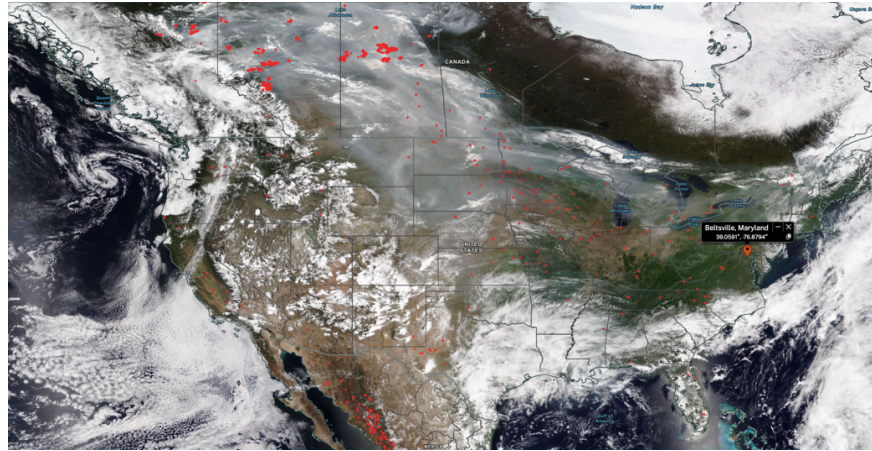
**Vertical profiling of Canadian wildfire smoke in the
Baltimore-Washington Corridor – interactions with
the planetary boundary layer and impact
on surface air quality**

Nakul N. Karle et al.

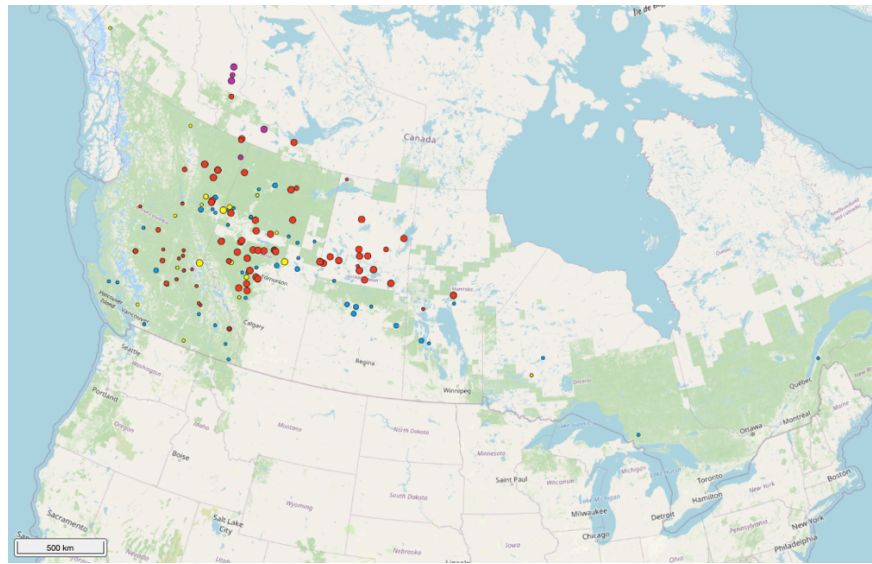
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Supplemental Figures

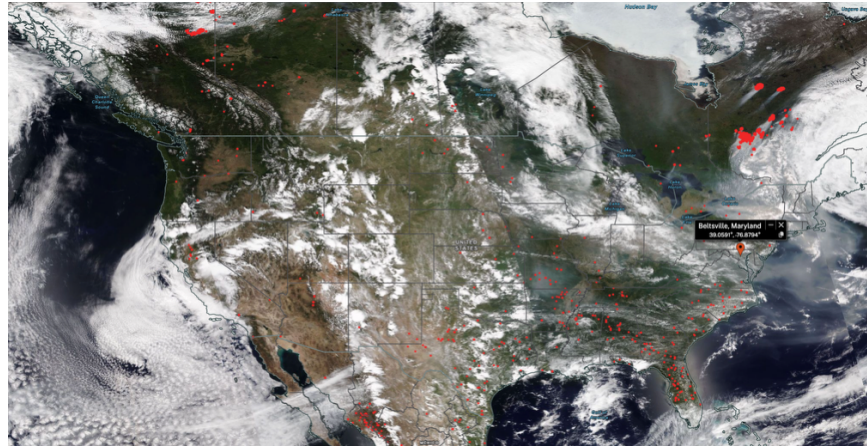


(a)

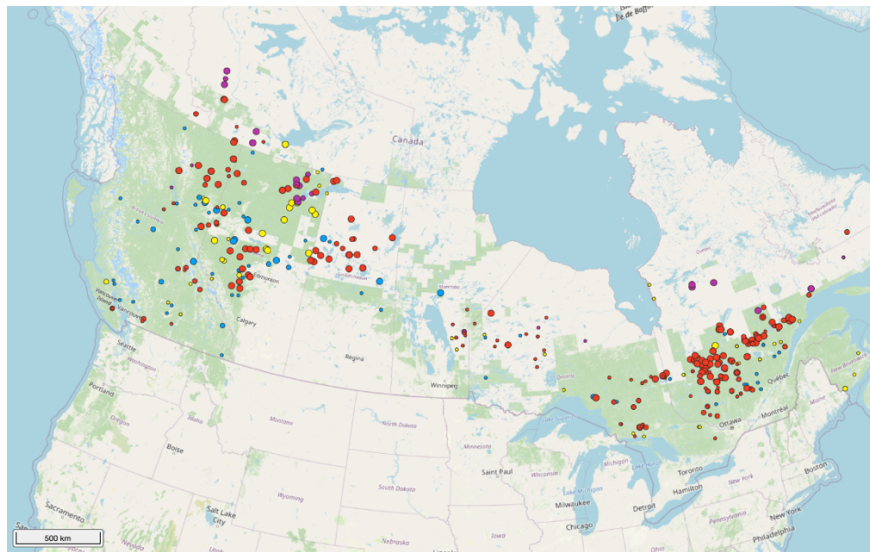


(b)

Figure S1: (a) The VIIRS Fire and Thermal Anomalies product (Day, 375 m) from the NOAA-20 satellite showing active fire detections and thermal anomalies on 21 May 2023. HUBeltsville, the study site location is highlighted. (b) CWFIS map for 21 May 2023 showing active fire locations in Canada.

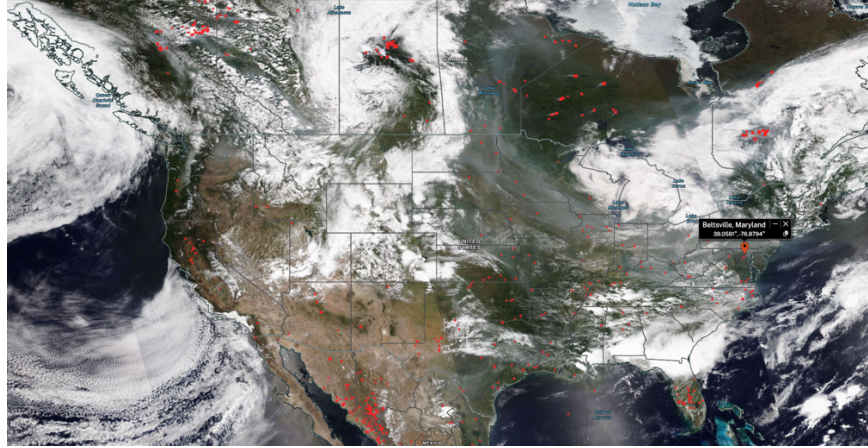


(a)

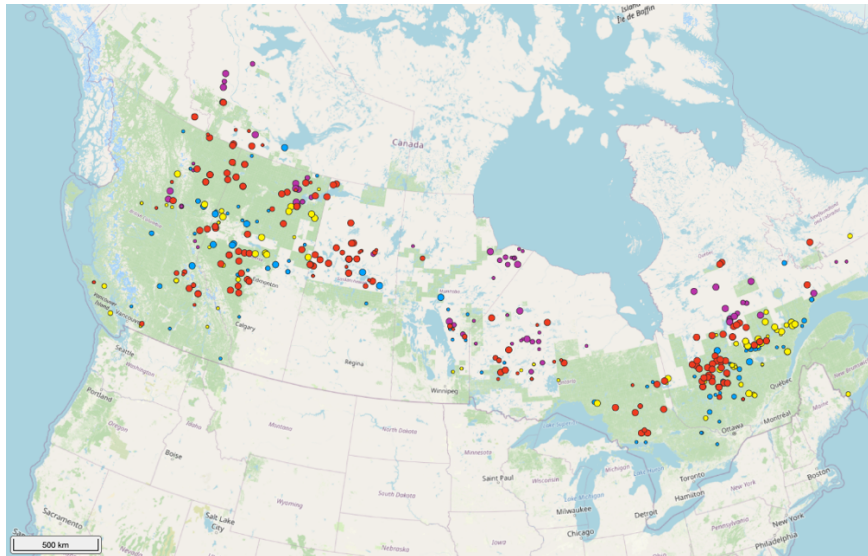


(b)

Figure S2: (a) The VIIRS Fire and Thermal Anomalies product (Day, 375 m) from the NOAA-20 satellite showing active fire detections and thermal anomalies on 06 June 2023. HU-Beltsville, the study site location is highlighted. (b) CWFIS map for 06 June 2023 showing active fire locations in Canada.



(a)

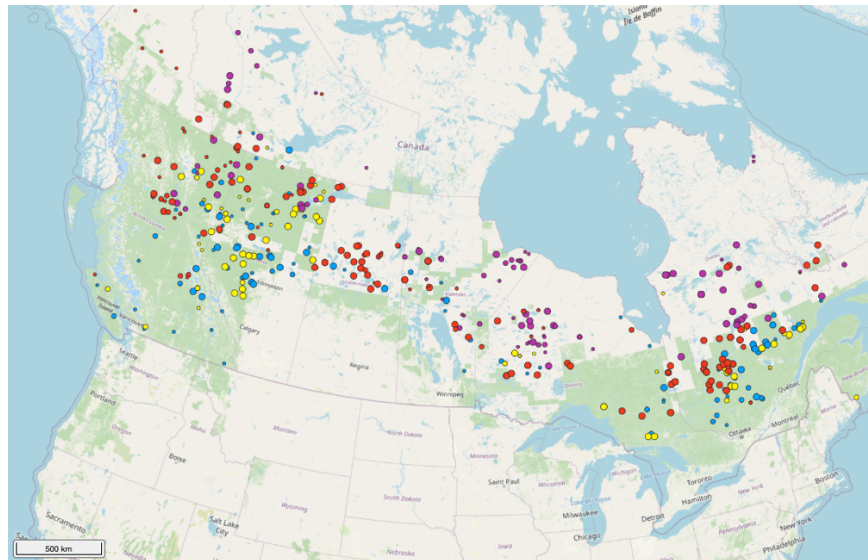


(b)

Figure S3: (a) The VIIRS Fire and Thermal Anomalies product (Day, 375 m) from the NOAA-20 satellite showing active fire detections and thermal anomalies on 15 June 2023. HU-Beltsville, the study site location is highlighted. (b) CWFIS map for 15 June 2023 showing active fire locations in Canada.



(a)



(b)

Figure S4: (a) The VIIRS Fire and Thermal Anomalies product (Day, 375 m) from the NOAA-20 satellite showing active fire detections and thermal anomalies on 28 June 2023. HU-Beltsville, the study site location is highlighted. (b) CWFIS map for 28 June 2023 showing active fire locations in Canada.

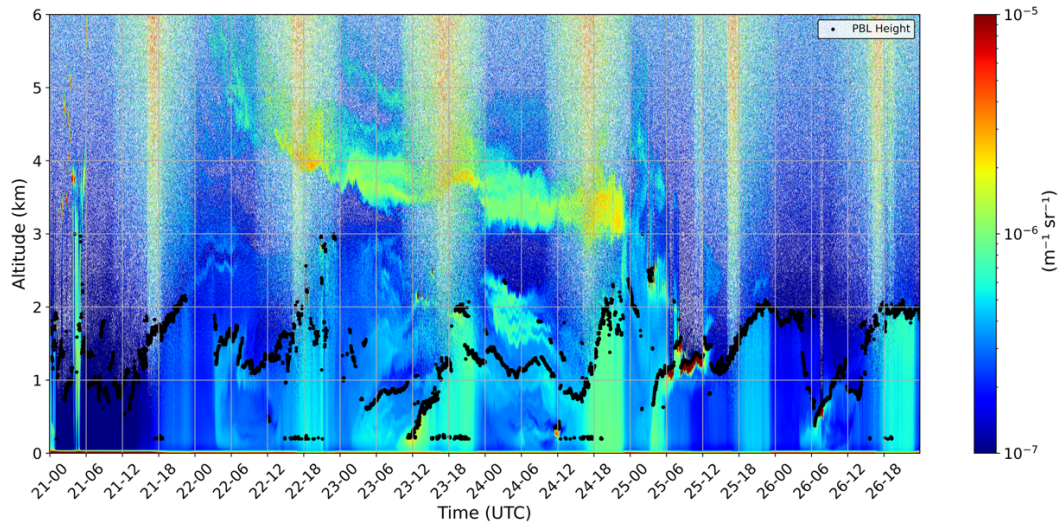


Figure S5: CL61 attenuated backscatter profile (21-27 May 2023 UTC) along with PBL heights (black dots).

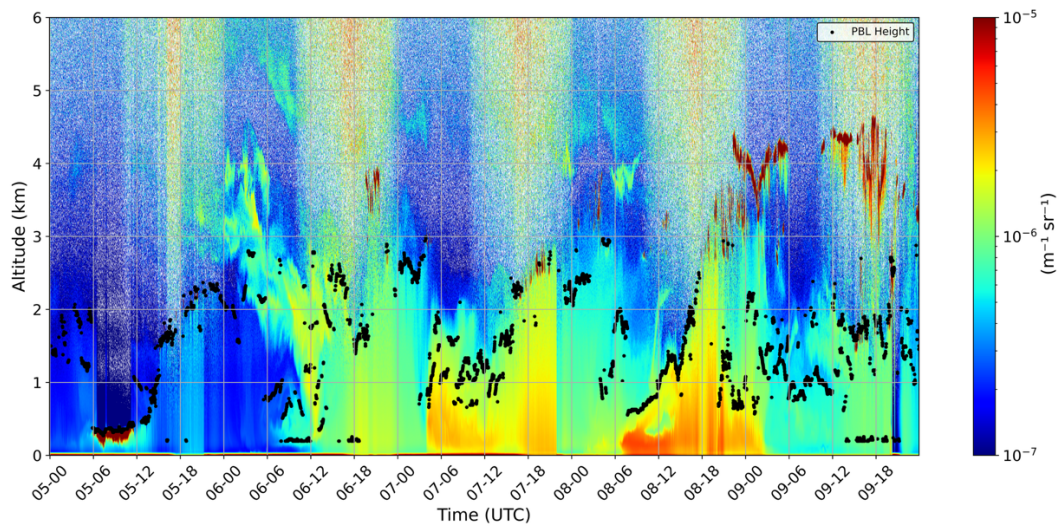


Figure S6: CL61 attenuated backscatter profile (05-10 June 2023 UTC) along with PBL heights (black dots).

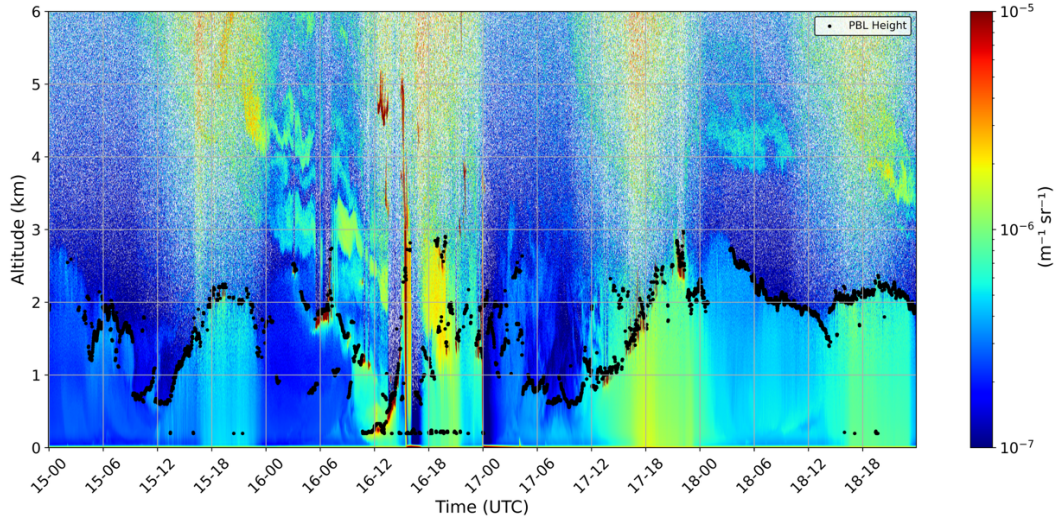


Figure S7: CL61 attenuated backscatter profile (15-19 June 2023 UTC) along with PBL heights (black dots).

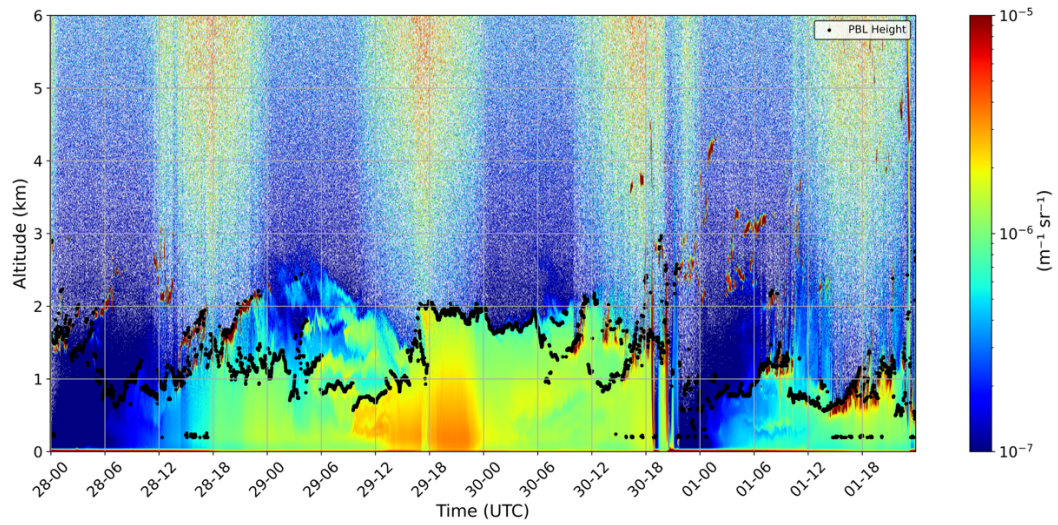


Figure S8: CL61 attenuated backscatter profile (28 June – 01 July 2023 UTC) along with PBL heights (black dots).