2016 CoRP Symposium

Poster Presentation

REMOTE SENSING MONITORING OF CANADIAN WILDFIRE SMOKE AND ITS IMPACT ON BALTIMORE AIR QUALITY

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High spatial and temporal resolution Elastic *li*ght *d*etection *a*nd *r*anging (lidar) measurements allows to monitor long-range transport of particulates, such as dust and smoke, that impact local and regional air quality. These lidar measurements enhance current knowledge and understanding on how vertical layering and long range transport of natural and anthropogenic particle pollution may alter the relationship between column aerosol optical depth and surface particle pollution concentrations. We analyze the impact and frequency of the transportation of Canadian wildfire smoke to the Mid-Atlantic. We will present a statistical analysis of data from ground based air quality monitors and remote sensing instrumentation (lidar, satellite, and sun photometer) which yield the chemical, physical, and optical properties of particle pollution during these events.

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- We analyze the impact and frequency of the transportation of Canadian wildfire smoke to the Mid-Atlantic. We will present a statistical analysis of data from ground based air quality monitors and remote sensing instrumentation which yield the chemical, physical, and optical properties of particle pollution during these events.
- During the months of June-August, for the years 2009-2015, there have been approximately 30 instances (one or consecutive days) when Canadian smoke has effected Baltimore.
- **Figure 1** is an image of smoke produced by one such Canadian wildfire in June 2015.
- High spatial and temporal resolution Elastic *li*ght *d*etection *a*nd *r*anging (lidar) measurements allows to monitor long-range transport of such particulates. The UMBC Elastic Lidar Facility was able to capture the mixing of wildfire smoke in the Planetary Boundary Layer during this case study (June 10, **Figure 2**).

Figure 1*

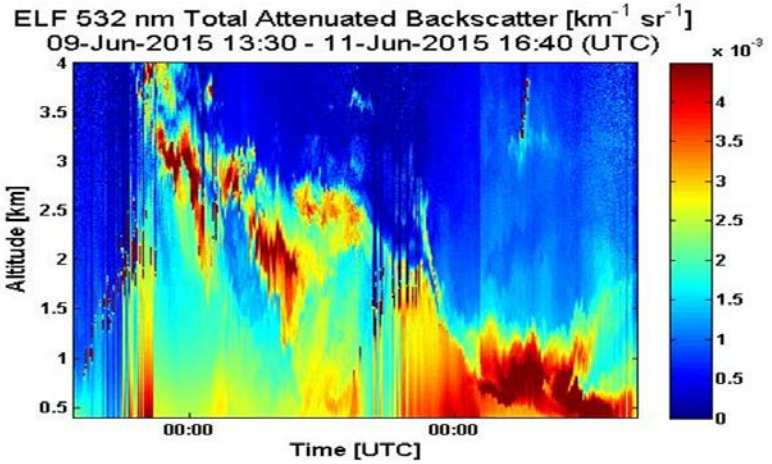

Figure 2

*photo compliments of Alberta Wildfire Info. Facebook page