

## 7 Plots of Biomass Burning and Dust Plumes

This supplementary section shows curtain plots from the NASA Langley airborne High Spectral Resolution Lidar for cases of fresh biomass burning plumes and dust plumes during the MILAGRO field campaign. Please see the paper for data description, discussion and acknowledgments:

B. de Foy, S. P. Burton, R. A. Ferrare, C. A. Hostetler, J. W. Hair, C. Wiedinmyer, and L. T. Molina, Aerosol Plume Transport and Transformation in High Spectral Resolution Lidar measurements and WRF-Flexpart simulations during the MILAGRO Field Campaign. *Atmospheric Chemistry and Physics*, 2011.

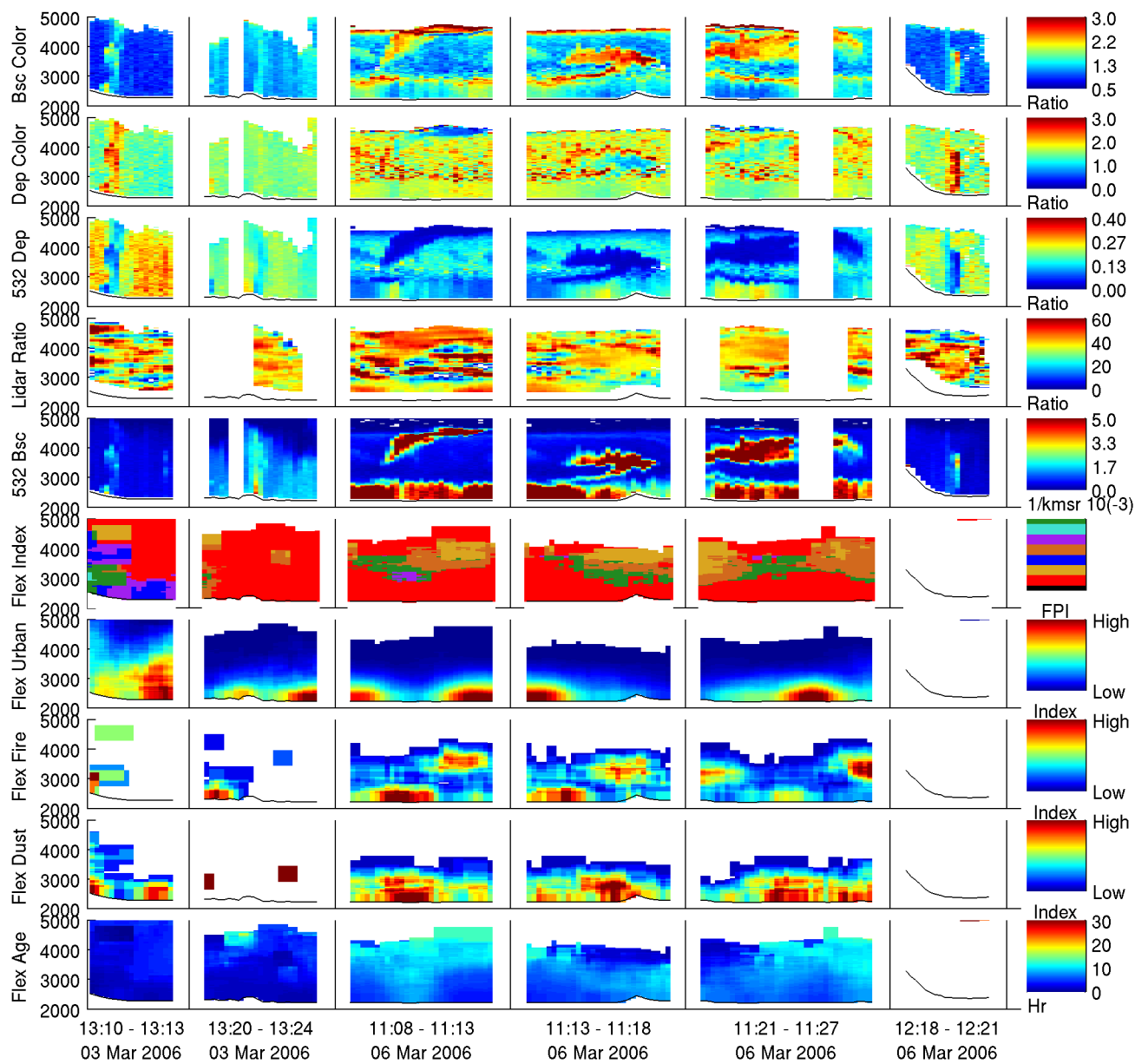


Figure S1: Curtain plots of HSRL backscatter coefficients and intensive properties for transects over fresh biomass burning plumes along with Flexpart average age and particle count index for dust, fire and urban emissions. See Fig. 12 for Flexpart Particle Index (FPI) legend. The y-axis is height above mean sea level. Times are given in CST.

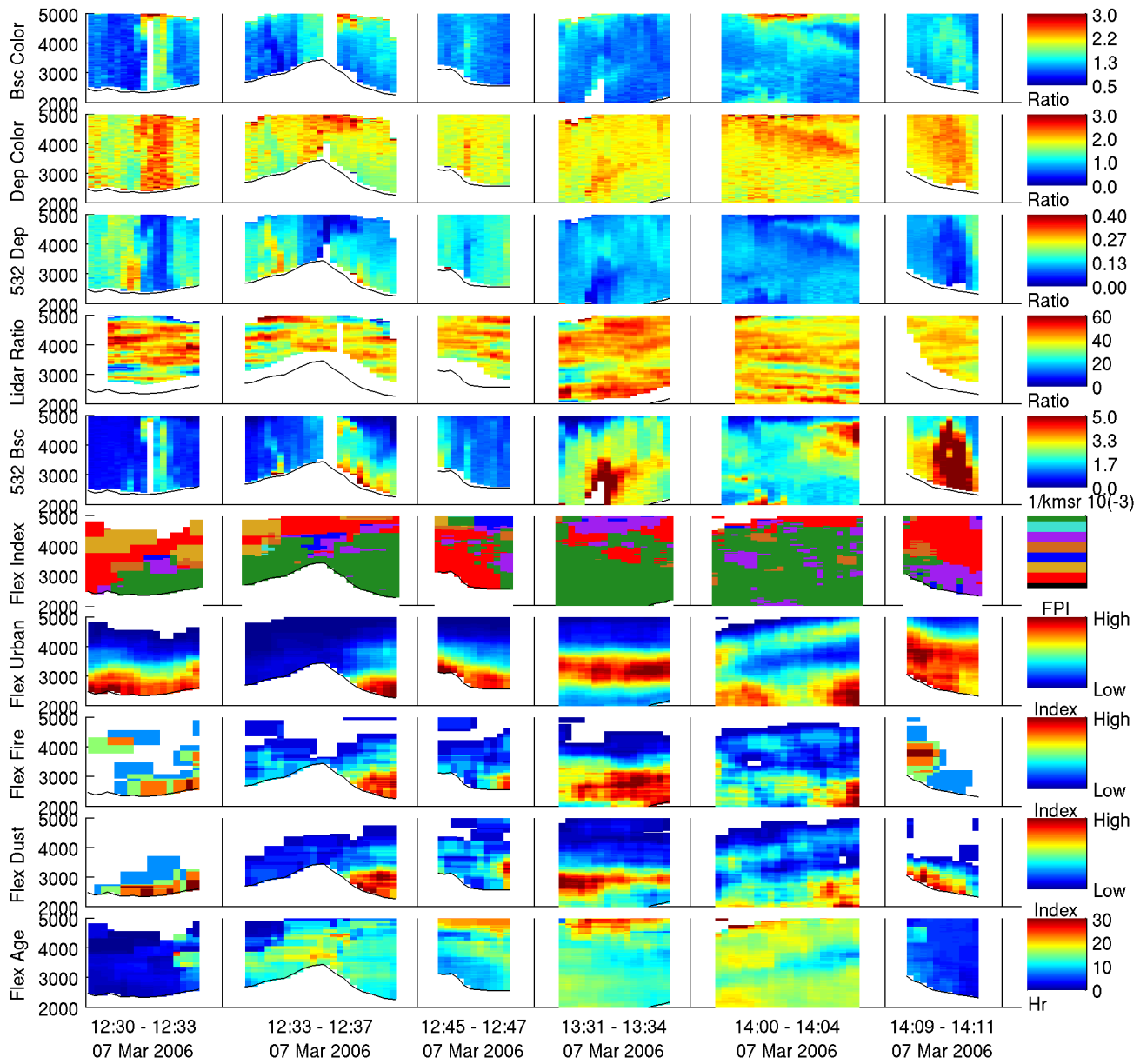


Figure S2: Curtain plots of HSRL backscatter coefficients and intensive properties for transects over fresh biomass burning plumes along with Flexpart average age and particle count index for dust, fire and urban emissions. See Fig. 12 for Flexpart Particle Index (FPI) legend. The y-axis is height above mean sea level. Times are given in CST.

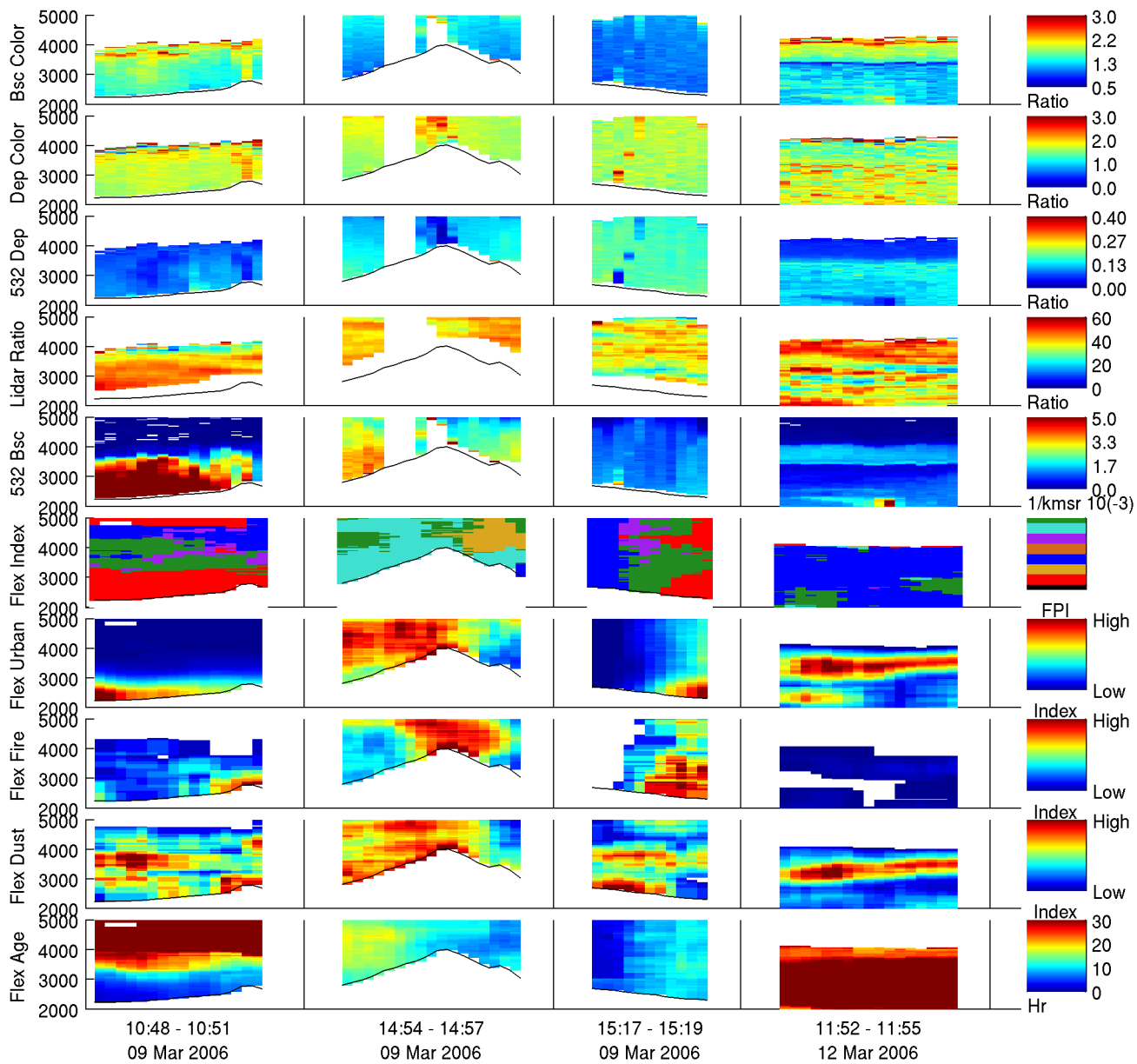


Figure S3: Curtain plots of HSRL backscatter coefficients and intensive properties for transects over fresh biomass burning plumes along with Flexpart average age and particle count index for dust, fire and urban emissions. See Fig. 12 for Flexpart Particle Index (FPI) legend. The y-axis is height above mean sea level. Times are given in CST.

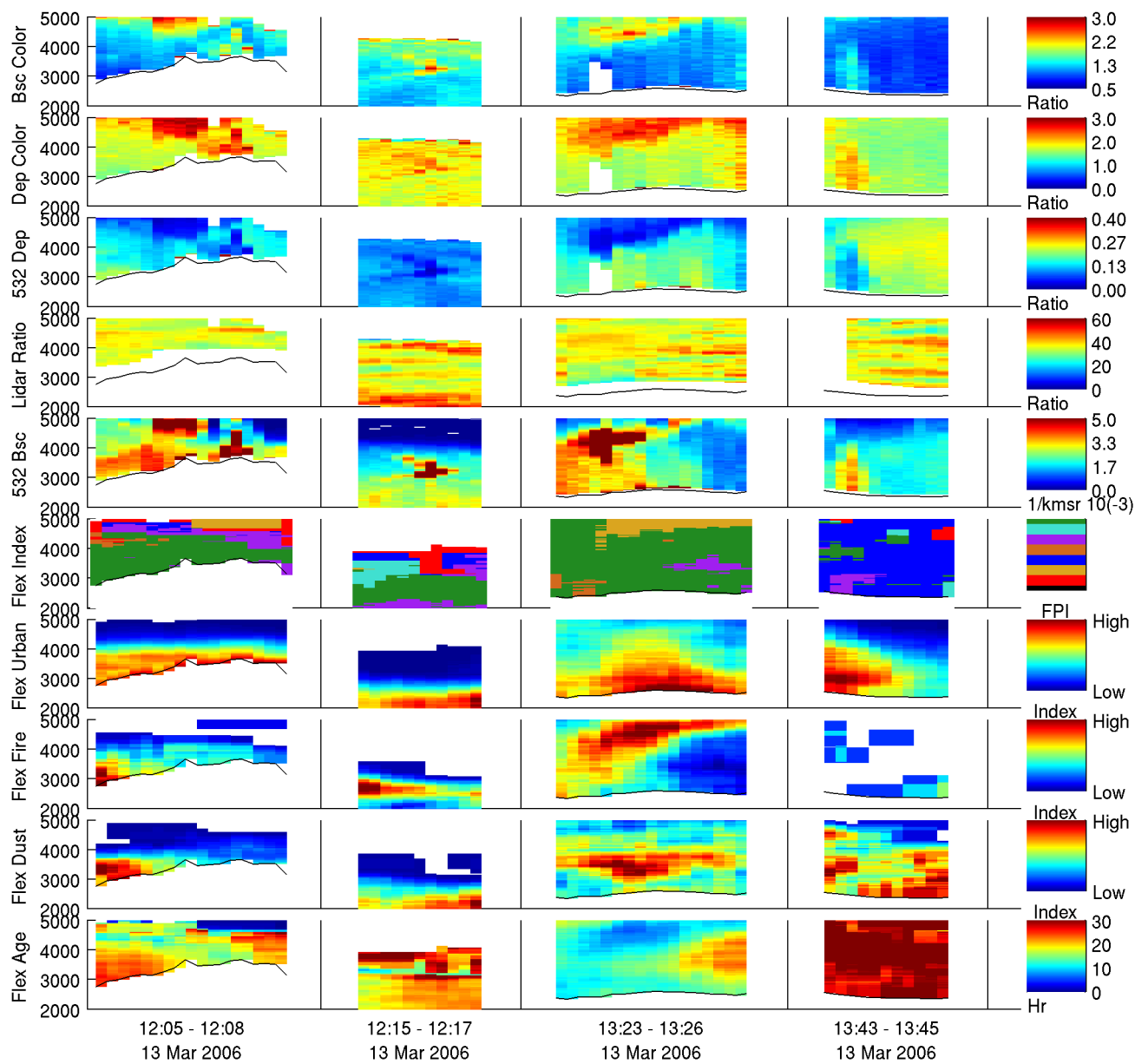


Figure S4: Curtain plots of HSRL backscatter coefficients and intensive properties for transects over fresh biomass burning plumes along with Flexpart average age and particle count index for dust, fire and urban emissions. See Fig. 12 for Flexpart Particle Index (FPI) legend. The y-axis is height above mean sea level. Times are given in CST.

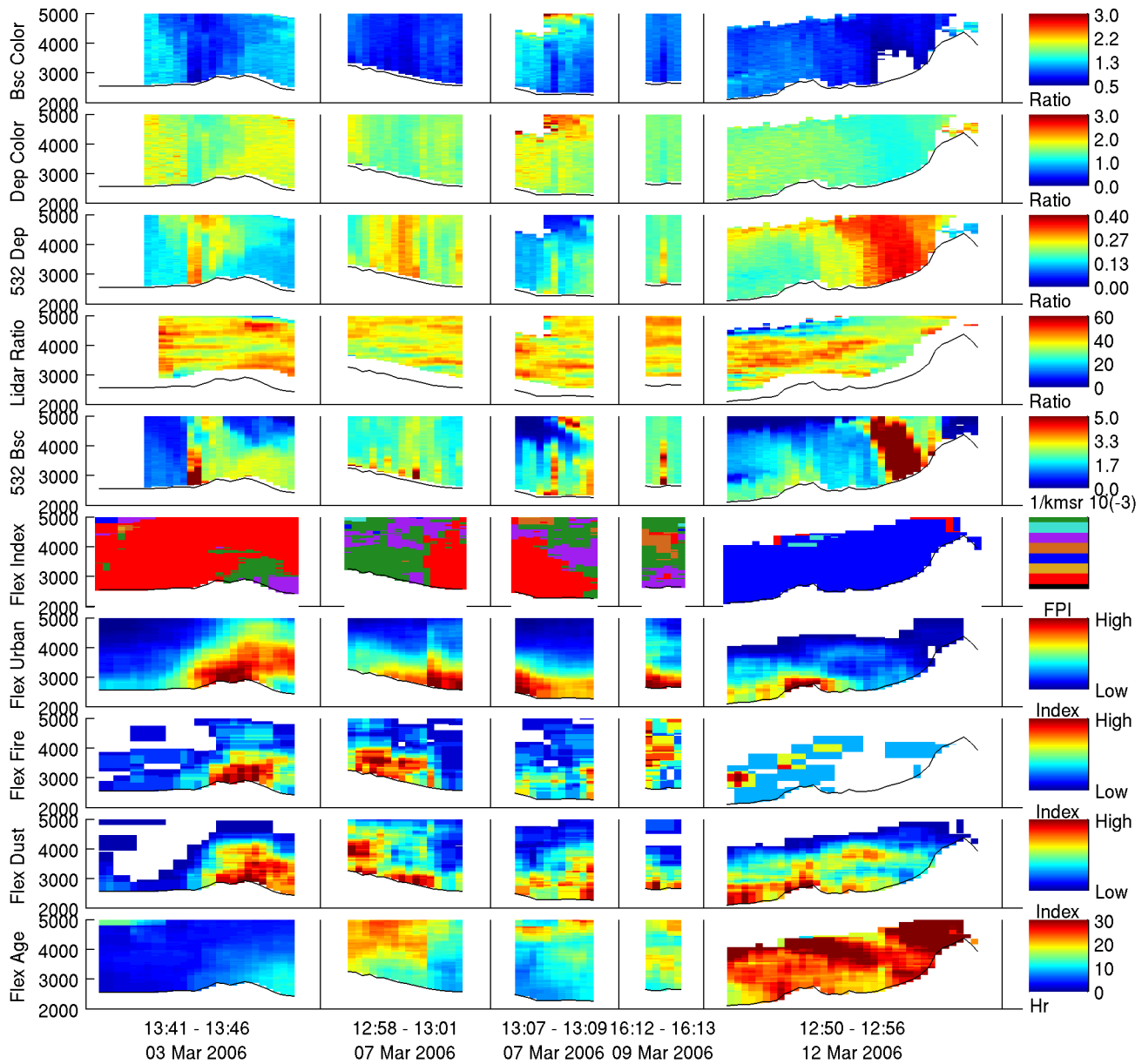


Figure S5: Curtain plots of HSRL backscatter coefficients and intensive properties for transects over dust plumes along with Flexpart average age and particle count index for dust, fire and urban emissions. See Fig. 12 for Flexpart Particle Index (FPI) legend. The y-axis is height above mean sea level. Times are given in CST.