

DISCOVER-AQ Outlook for Friday, July 21, 2011

High surface temperatures of near 100 F today in the study region have led to substantial ozone production as noted by the P-3B aircraft (100 – 116 ppbv) at around 1000 ft. However surface ozone has not reached such elevated values. Some stations went Code Orange for PM2.5 today, which is the first time that has occurred during DISCOVER-AQ. South and SW winds today have minimized the effects of the Bay breeze. Substantial fair weather Cu were observed during today's flight, especially over Beltsville, with little cloudiness at Edgewood and Fair Hill. These meteorological conditions will continue tomorrow, with possibly even slightly higher temperatures. Expect significant Cu again tomorrow with some small risk of afternoon and evening thunderstorms. Therefore, we recommend flying again tomorrow. The outlook for Saturday through Monday is rather muddled. The NAM-MOS gives us near 50% cloud cover Saturday, with 60-70% on Sunday and Monday, as a frontal system stalls over the region. Shower activity is likely the greatest on Sunday, with lesser probability on Monday. Some models show clearing possible on Monday. We will be updating the weekend and early next week outlooks tomorrow.