Friday will still be dominated by relatively clean northwesterly flow at low levels. However, winds will be light as the center of the large high pressure area moves over us during the day. This will allow possible bay breeze conditions to develop due to strong surface heating over land during the afternoon. The bay breeze will be conducive for pollutant buildup along the western shore of the Chesapeake Bay. Expect surface ozone in the upper good (Code Green, 8-hr max ozone <60 ppbv) to lower moderate range (Code Yellow, 8-hr max ozone 60-75 ppbv). Some locations along the Bay could exceed 75 ppbv. With low relative humidity on Friday, aerosol optical depth will still likely be low. Clear skies with a few scattered clouds are expected throughout the day. Recommendation is to fly.
Recommendations for June 30th-July 5th:

Fri., July 1: Fly -- NW winds, still relatively clean

Sat., July 2: Fly, hot -- possible high clouds in afternoon

Sun., July 3: No Fly, hot -- likely > 50% cloud cover

Mon., July 4: Perhaps Fly, hot

Tues., July 5: Perhaps No Fly - clouds

Clare Flynn
June 30, 2011
- Current conditions at BWI at 11:00am
  - Good air quality
  - Clear skies, low humidity, 78°, calm winds, 1017mb
Friday: Clear and calm under high pressure
Saturday: Clear under influence of high pressure offshore
Bufkit NAM (20110630 1200 UTC):

- BL Height ~ 5000 ft @ 1600 EDT
- Cloud Free
- NW winds shifting N by early evening
- Wind speed ~ 8-10 knts
Saturday 8pm: High clouds present around region of interest, increased cloudiness from morning

Integrated liquid and frozen hydrometeors (all levels)
Sunday: High clouds (above 18,000ft) and possibly some middle clouds (6-12,000ft) present in NAM by 12Z
Friday Update (valid 4pm): ozone in the upper good-low moderate range Friday afternoon

Saturday – Good chance of greater afternoon ozone -- into the Unhealthful for Sensitive Groups (Code Orange) range (> 75 ppbv 1 hr avg.)
Today’s AOT forecast, no major impact of wildfires.
Minor impact of smoke on our region of interest on Friday
By Saturday night/Sunday smoke from fires may reach Balt.-Wash.

[Map showing aerosol optical thickness over the eastern United States, with a gradient color scale ranging from 0.01 to 0.41.
84 hr forecast valid Sun 12z 2011-07-03]
GEOS-5 Outlook for 30 June – 4 July 2011
Beltsville, MD

High clouds
Saturday - Monday

Smoke influence on late Saturday early Sunday, then persistent through Monday

Precip. on Monday