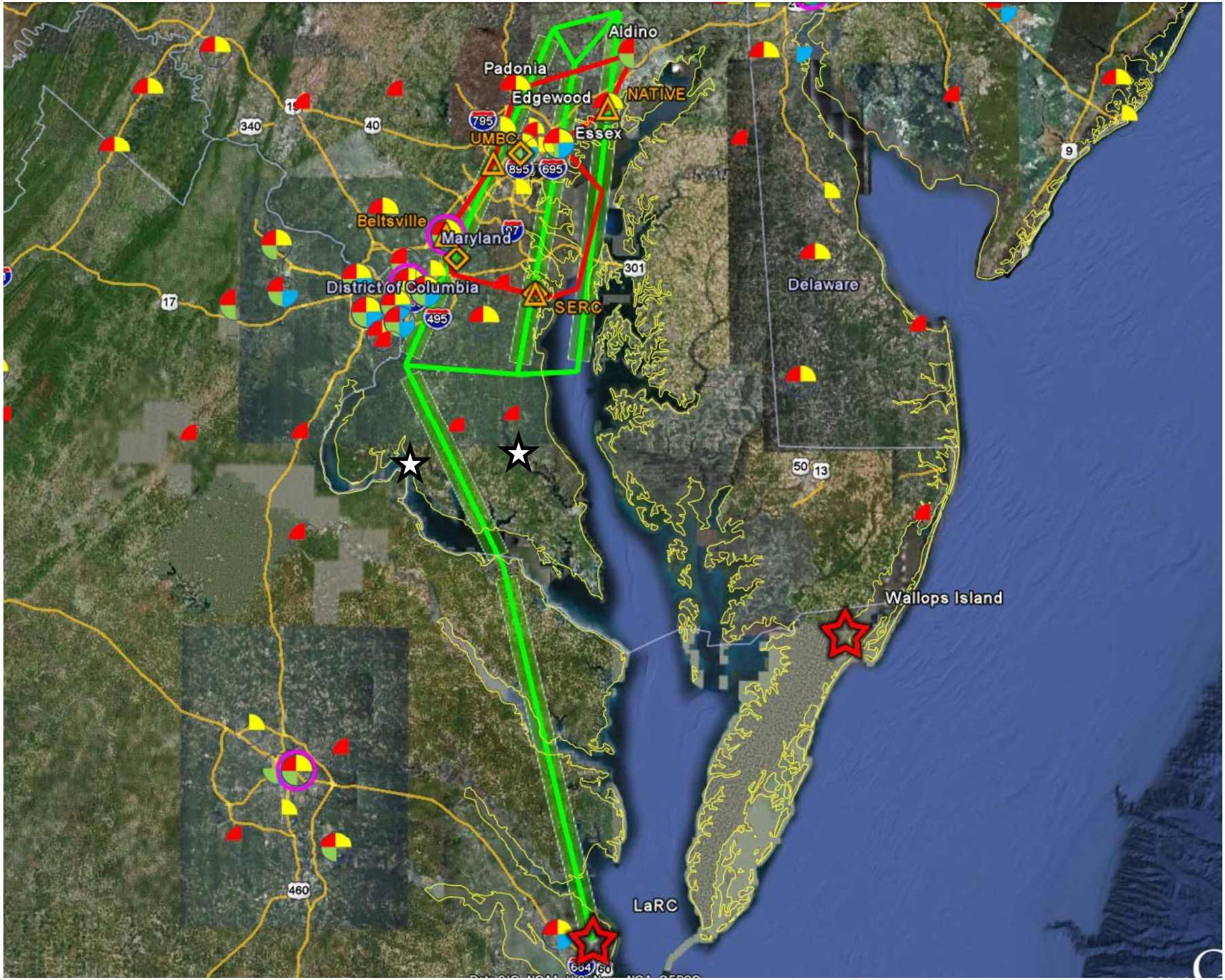
Aldino
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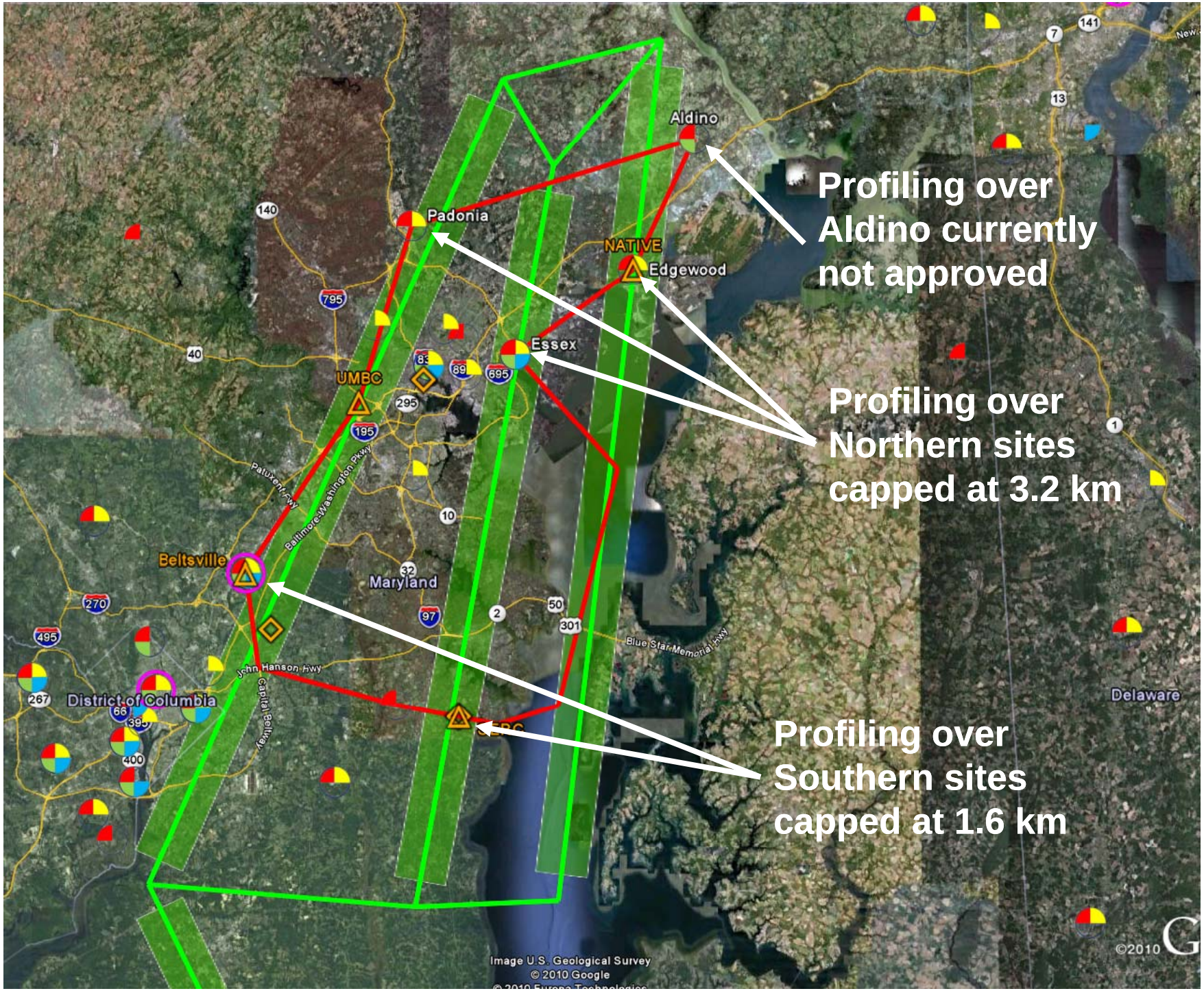
Aldino
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UMBC
Beltsville
Maryland
District of Columbia
Delaware
Profiling over Aldino currently not approved
Profiling over Northern sites capped at 3.2 km
Profiling over Southern sites capped at 1.6 km
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Daily Flight Goals:

-Characterize the Baltimore-DC traffic corridor (both aircraft)
-Characterize gradients within BL (HSRL, P-3B, ground lidars, sondes)
-ID layers aloft (HSRL, ground lidars, sondes) and sample when possible (P-3B)
-Ocean color/Atmospheric correction over the northern Chesapeake (HSRL and ACAM)

Flight-specific Goals:

-Aircraft corridor characterization (P-3B)
-Power plant emissions (both aircraft)
-Weekend/Weekday contrast (both aircraft)

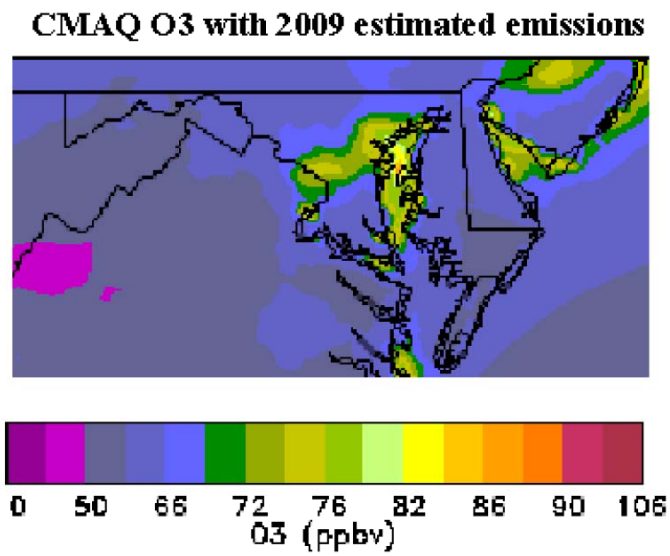
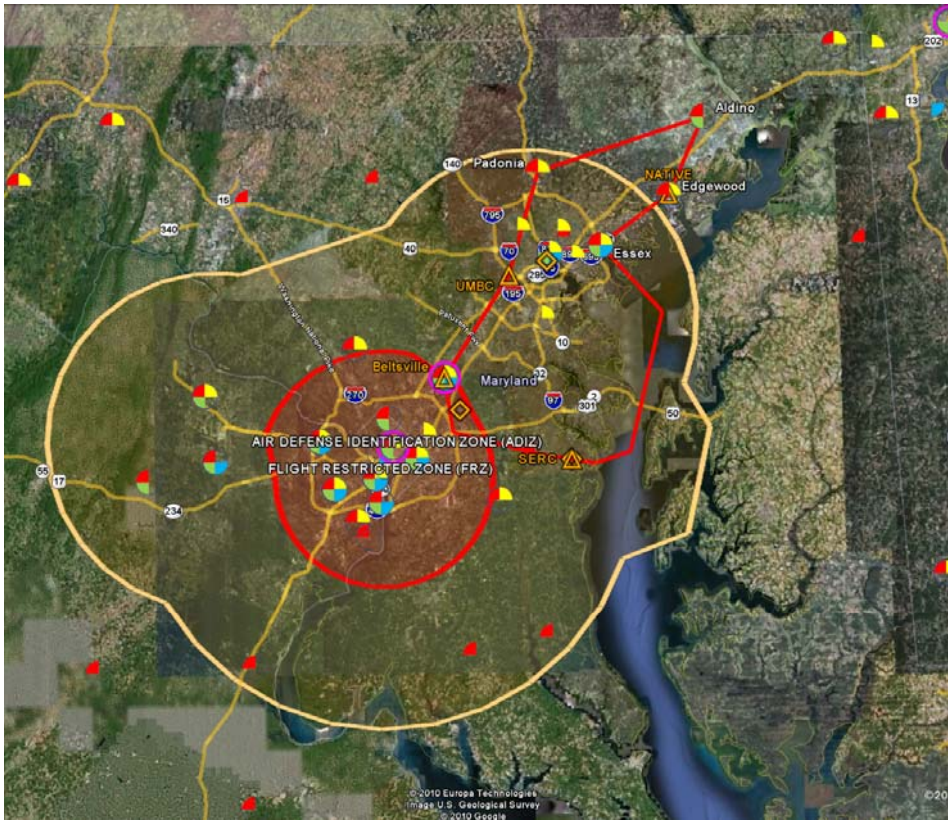
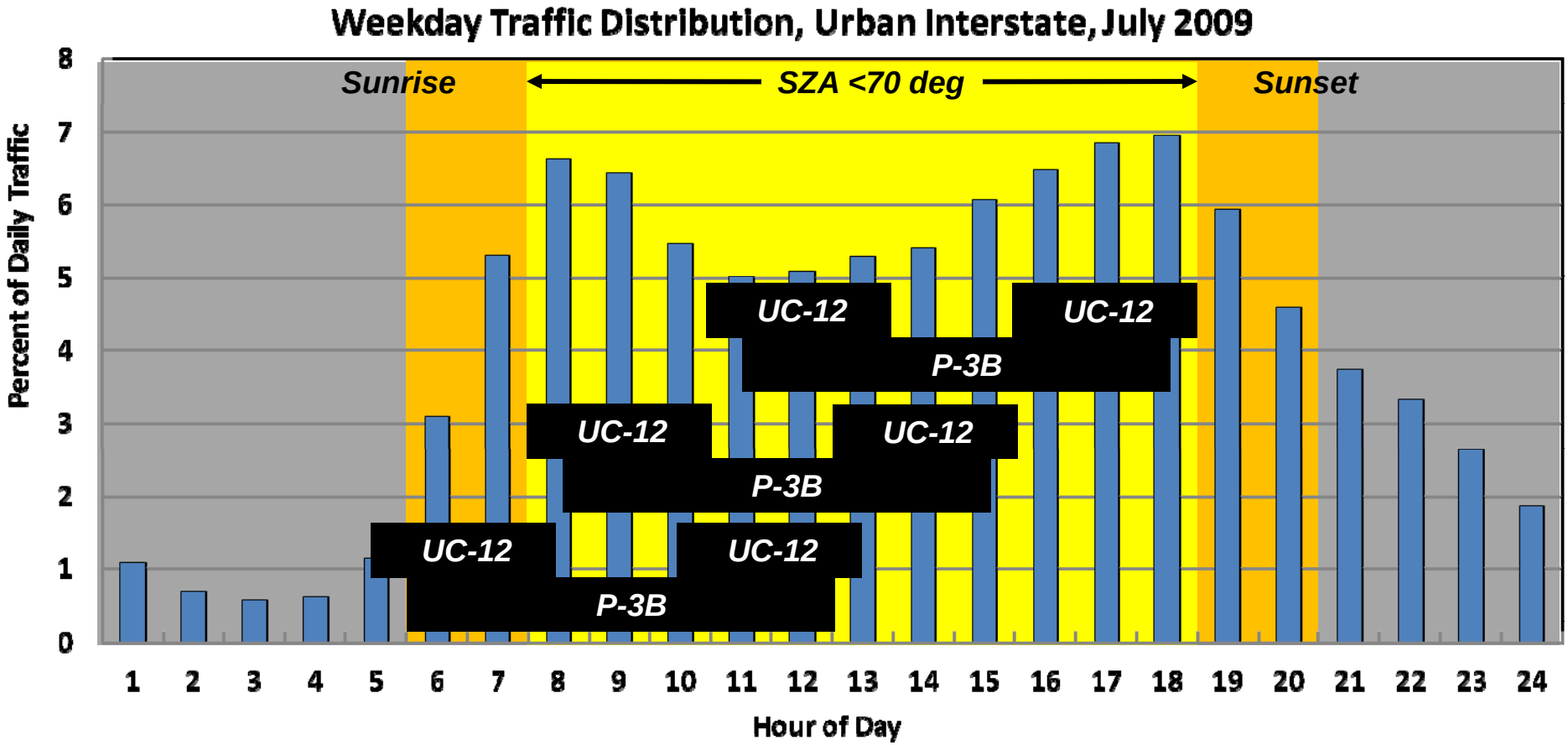
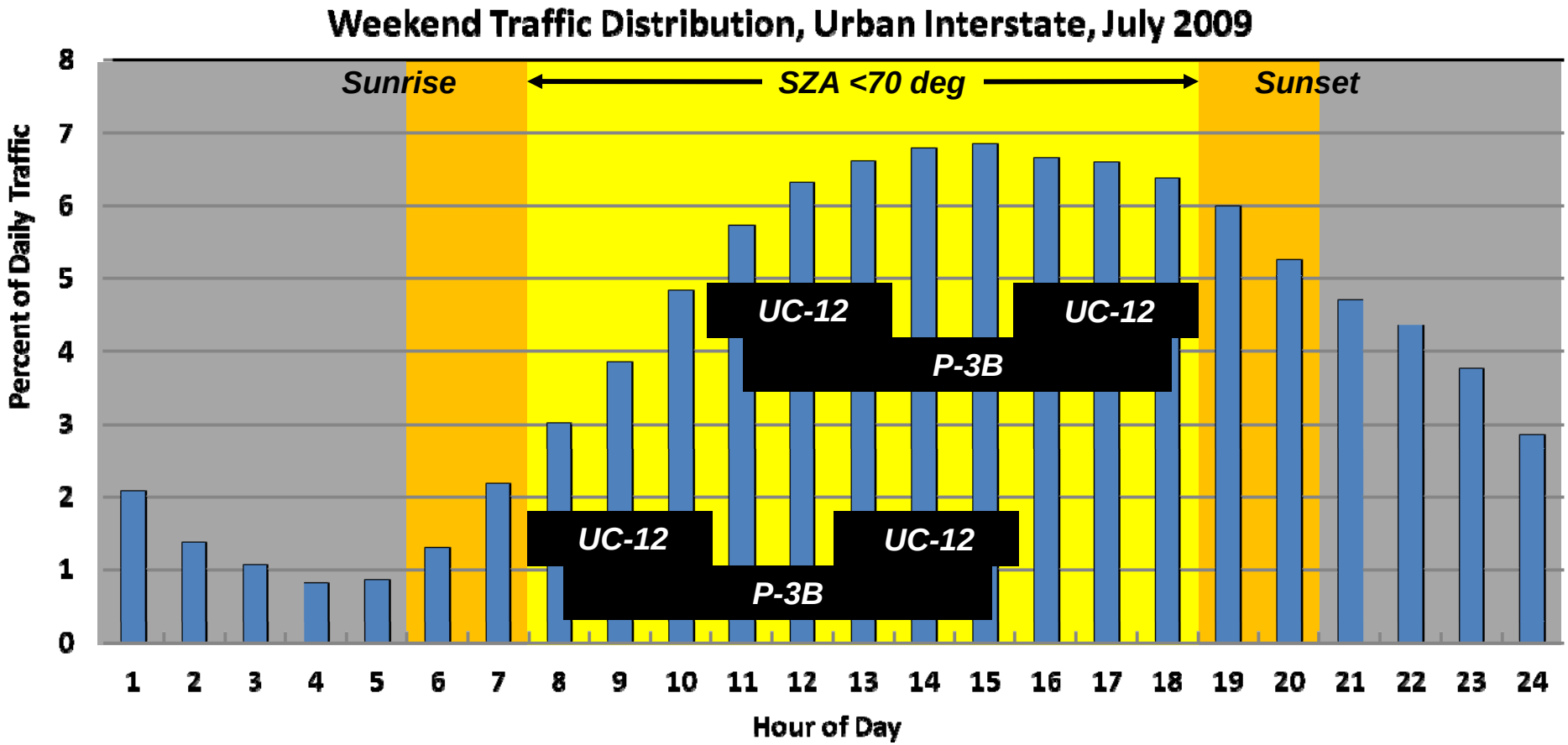


Figure 2-5. CMAQ modeled mean 8-hour maximum ozone during high ozone days (16 high ozone days between 6/1/2002-7/4/2002 using 2009 emissions estimates. Details of the modeling are in Piety et al. [2006]. See Figure 2-10 and Figure 2-3 for monitor locations.





MD State Hwy Admin (http://shagbhisdadt.mdot.state.md.us/TrafficTrends2/)



MD State Hwy Admin (http://shagbhisdadt.mdot.state.md.us/TrafficTrends2/)

Data collection flying to and from the operational area:

-How much flexibility will we have on the route from LaRC or WFF to DC?

-Can we pick one route that follows the Chesapeake and another that overflies a power plant?

-How soon does the UC-12 aircraft begin its descent on the return to LaRC?

-When does HSRL stop collecting data?

Pilot and Crew support for UC-12 and Cessna flights:

-How will EPA-sponsored underflights of the UC-12 with the Cessna affect pilot and crew requirements assuming 2 UC-12 flights per day?

-Since Cessna will fly at low altitude (~1 km), will it be able to underfly the B200 flight line over the Chesapeake?

-How to best keep Cessna and P-3B separated?

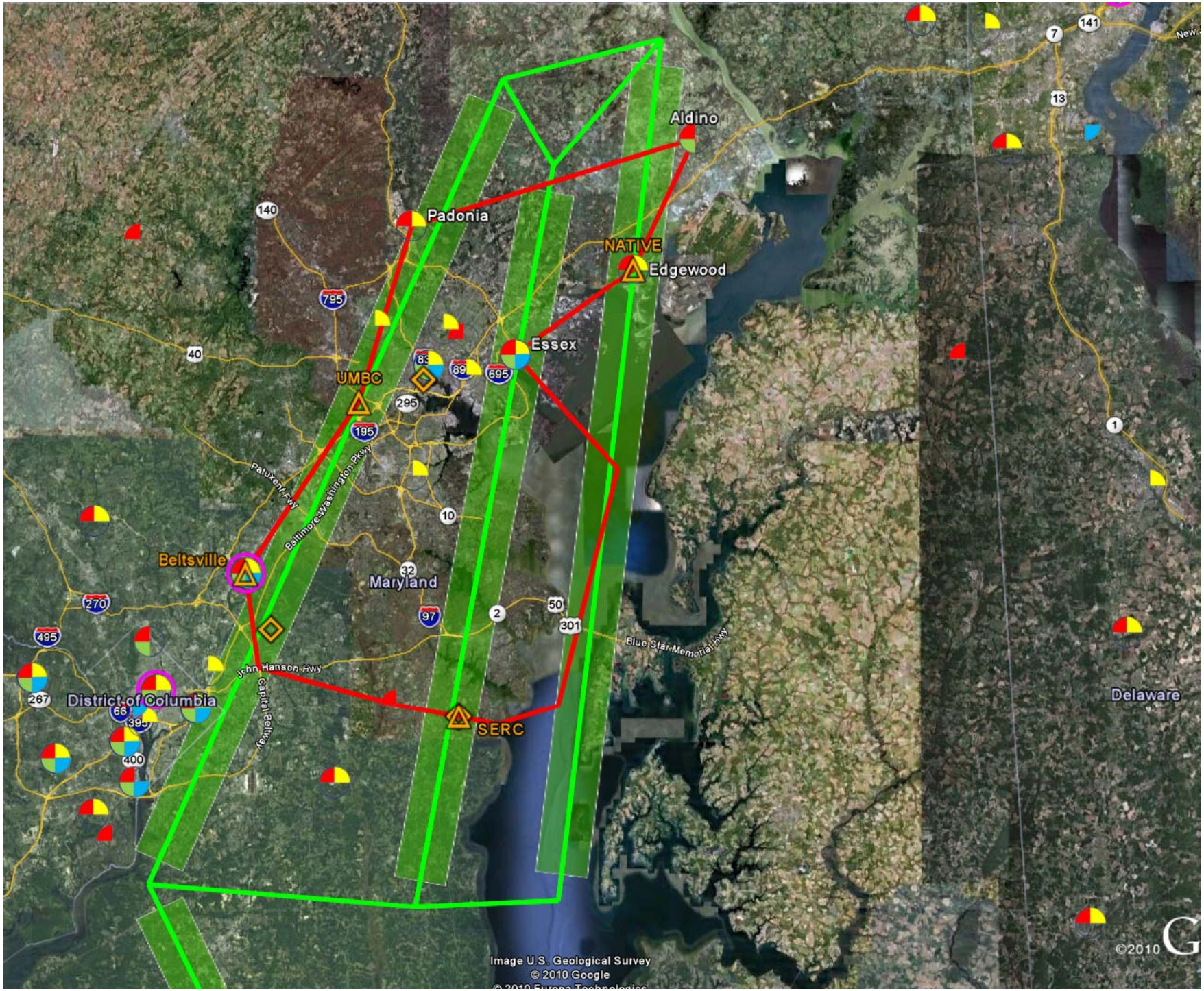
Flight Restrictions and interaction with ATC:

-Would it be possible to perform an early test run of the UC-12 with at least HSRL onboard to see how easily the planned flight lines can be executed?

-How soon would that be possible?

-Does it make sense to do something similar for the P-3B?

-The easternmost ground site (Edgewood) is within airspace controlled by Aberdeen Proving Ground (APG). Early contact suggests that we may be able to secure overflight permission from them if it is on the southwest end of the area. This needs to be linked with coordination to site the NATIVE trailer within the fence at APG.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SERC
Delaware
Patuxent Fwy
Baltimore-Washington Pkwy
John Hanson Hwy
Capital Beltway
Blue Star Memorial Hwy
140
795
40
83
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695
295
195
10
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2
50
301
270
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267
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400
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Aircraft flight lines:

-Will it be possible for the aircraft to follow roadways (e.g., I-95, BW Parkway)?

-How much will the UC-12 be able to "steer" along flight lines without introducing significant roll which affects the lidar operation?

-Is direct overflight of ground sites necessary? How close is sufficient?

Location of additional resources:

-Will it be best to position science-grade NO2 measurements from EPA to fill gaps or compare with existing thermal NO2 measurements?

-For mobile NO2 measurements, would driving I-95 and the BW parkway be best or should a broader route be considered?

-Where should additional Pandora monitors be placed?

-Would it be possible for DRAGON to shift its domain slightly to the north and east?

Traffic Information:

-What sort of daily information will be available?

-How useful will nadir cameras be to diagnose traffic density?

-Should we try to alternate our focus between highways within a given flight or between flights?