BWI Single Runway (Rwy) 28 Configuration Days – Impacts per FAA logs, Potomac TRACON
(Day of or one day after strong cold frontal passage – 2014/15, 2015/16, 2016/17 cold seasons)

During the 2014/15, 2015/16 and 2016/17 cold seasons (15 Oct – 15 Apr):

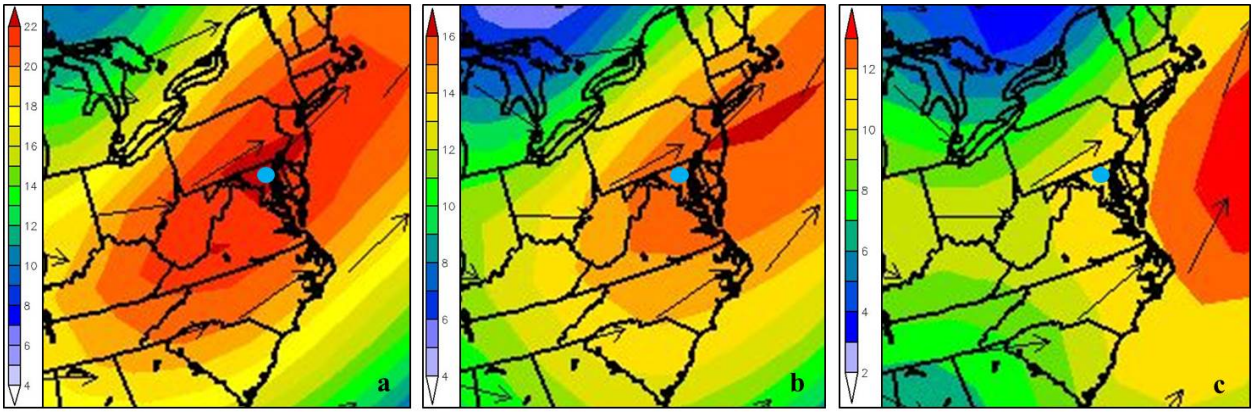
- There were 12 days when the passage of a strong cold front during normal operating hours caused BWI to switch to a single Rwy 28 config for at least part of the day
- Single Rwy 28 config was required on 3 days the day after a strong cold front passage

Conditions that can cause BWI to switch to single runway 28 ops:

- Surface wind sustained 15-25 kts (with higher gusts) from the SW – WNW

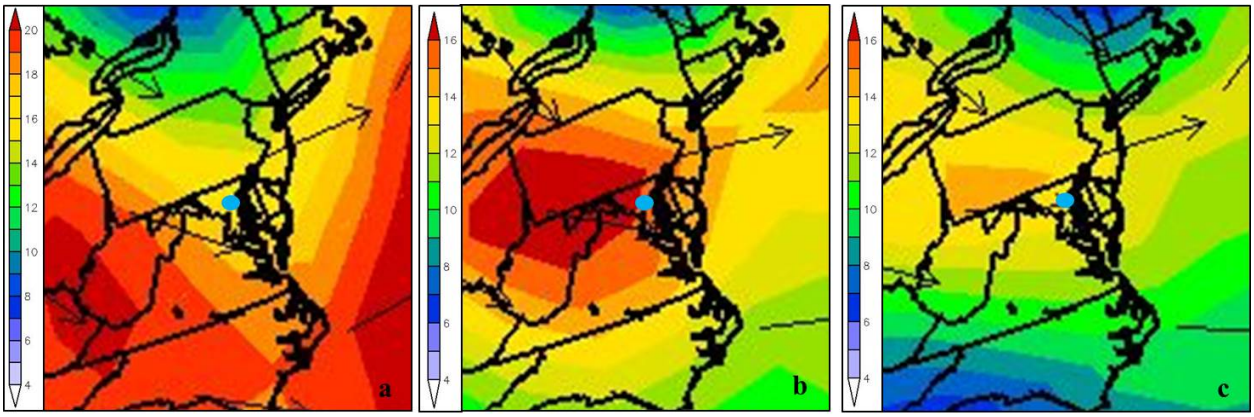
When conditions favor a Rwy 28 config, BWI tower personnel may discuss potential traffic mgmt initiatives with traffic mgmt coordinators at the Air Traffic Control System Command Center, Potomac TRACON, Washington Air Route Traffic Control Center and affected airlines.

ESRL NCEP/NCAR daily mean composites for strong cold front days requiring Rwy 28 config:



700 mb vector wind in ms^{-1} (a); 850 mb vector wind in ms^{-1} (b); 925 mb vector wind in ms^{-1} (c). Dates: 2 Feb 15; 2, 17, 31 Mar 15; 29 Jan 16; 4 Feb 16; 25, 28 Mar 16; 7 Apr 16; 18 Dec 16; 26 Jan 17; 8 Mar 17. The light blue dot approximates the location of BWI.

ESRL NCEP/NCAR daily mean composites for days after strong cold fronts requiring Rwy 28 config:



700 mb vector wind in ms^{-1} (a); 850 mb vector wind in ms^{-1} (b); 925 mb vector wind in ms^{-1} (c). Dates: 5 Apr 15, 20 Nov 16, 7 Apr 17. The light blue dot approximates the location of BWI.

Resultant impacts of BWI single Rwy 28 config include:

- AAR (Aircraft Arrival Rate – the number of arriving aircraft an airport can accept throughout any consecutive 60-min period) can drop from 34-40 in VMC – visual meteorological conditions – to 25 for several hours, which slows air traffic at BWI, particularly 4-7 pm (peak arrival period)
    - 25 equates to 62.5-73.5% of the normal AAR in VMC during a Rwy 33 (arrival) & Rwy 28/33 (departure) configuration
- Increased miles-in-trail (MIT), i.e. increased miles of separation between arriving aircraft, may also be used to control/slow the flow of aircraft departing/landing at BWI in Rwy 28 configuration; a departure "push" occurs in the morning, peaking ~ 7-9 am
    - Typical increased MIT is 5 nm