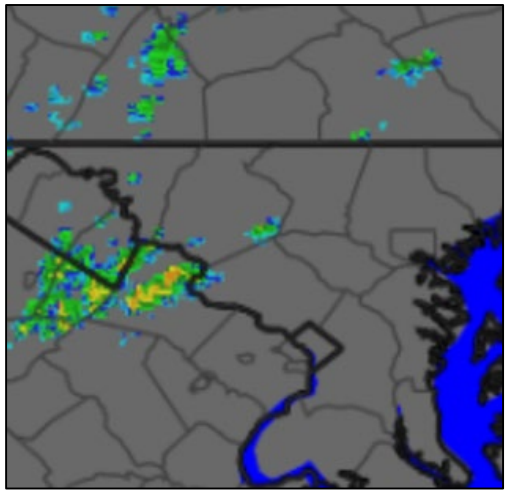
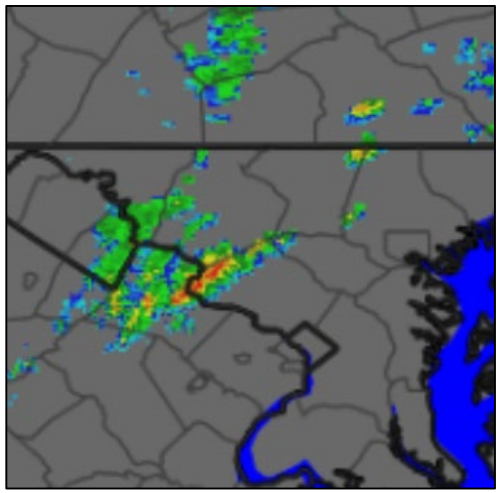
30 May 2018: DC Metros Convection

A line of SHRA/embedded TS…tops to ~ FL280…quickly developed ahead of a cold front/E of Blue Ridge/Catoctin Mountains, caused reroutes/sev turb impacts for the DC Metros.

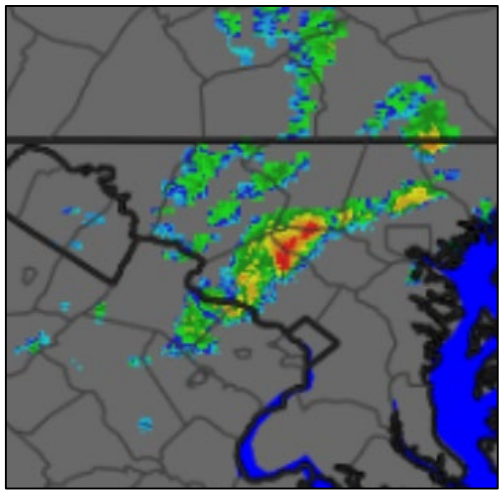
15:10Z radar



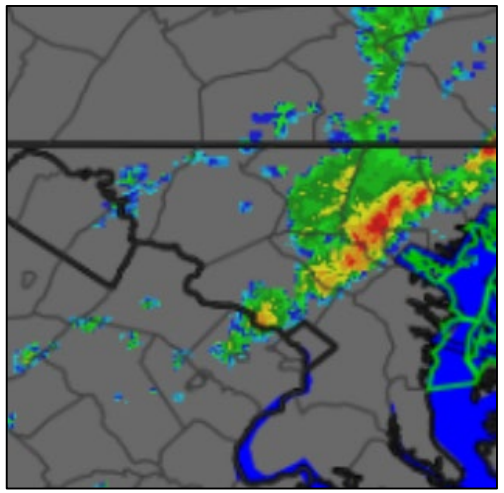
15:40Z radar



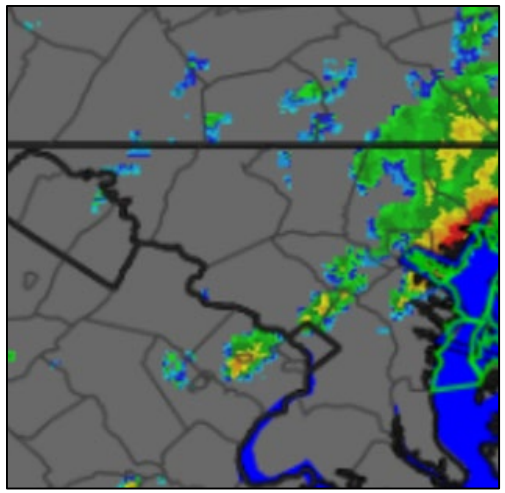
16:10Z radar



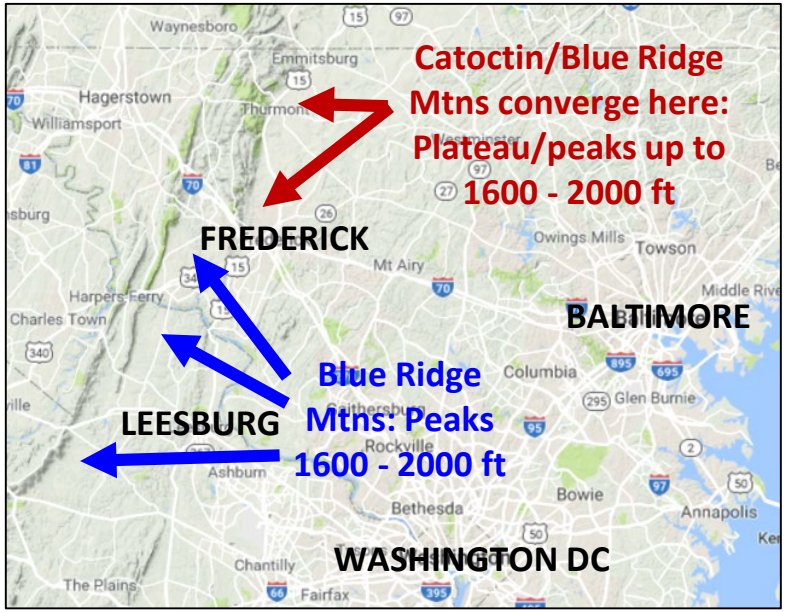
16:40Z radar



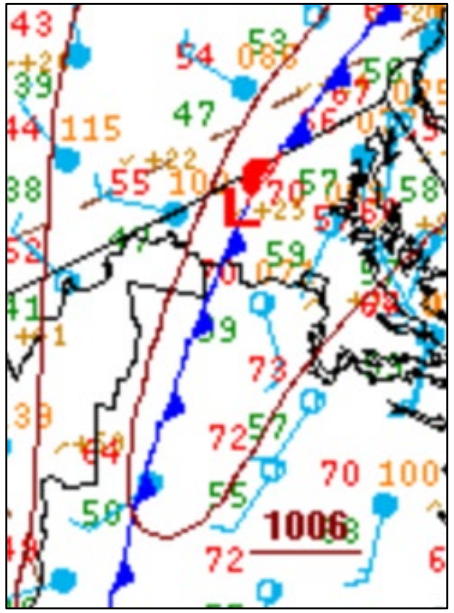
17:10Z radar



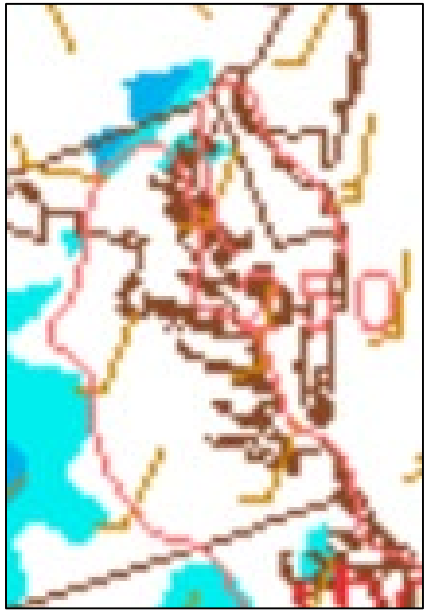
Over/lee of Catoctin/Blue Ridge Mtns: Favored for TS development ahead of spring/summer cold fronts



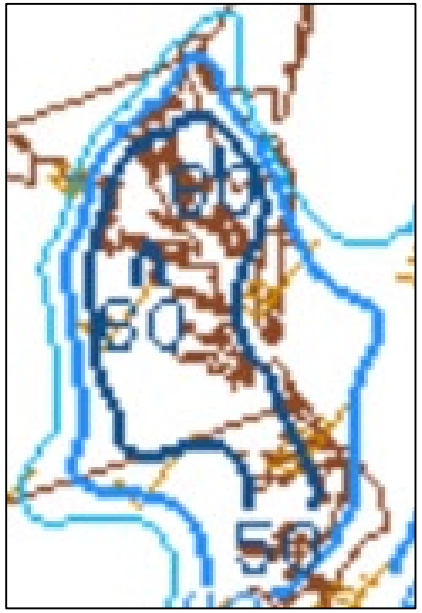
15Z surface analysis: Strong cold front



16Z: SBCAPE values > 250 j kg^{-2}, but < 1000 j kg^{-2}



16Z effective bulk shear: high values for convection



16Z 0-3 km lapse rates: 7 – 7.5°C/km (unstable)