Warm Season MHC:

* Surface cyclone located in southern Quebec inducing geostrophic southwesterly flow over New York
* Low-level warm air advection in the Eastern region of New York ahead of the approaching cold front
* Moist surface, steep mid-level lapse rates and deep layer CAPE
* Mid-Level cyclonic vorticity advection

Cold Season MHC:

* Surface cyclone located just east of Cape Cod inducing geostrophic north/northwesterly flow over New York
* Low-level warm air advection
* Saturated boundary layer
* Mid-level anticyclonic vorticity advection