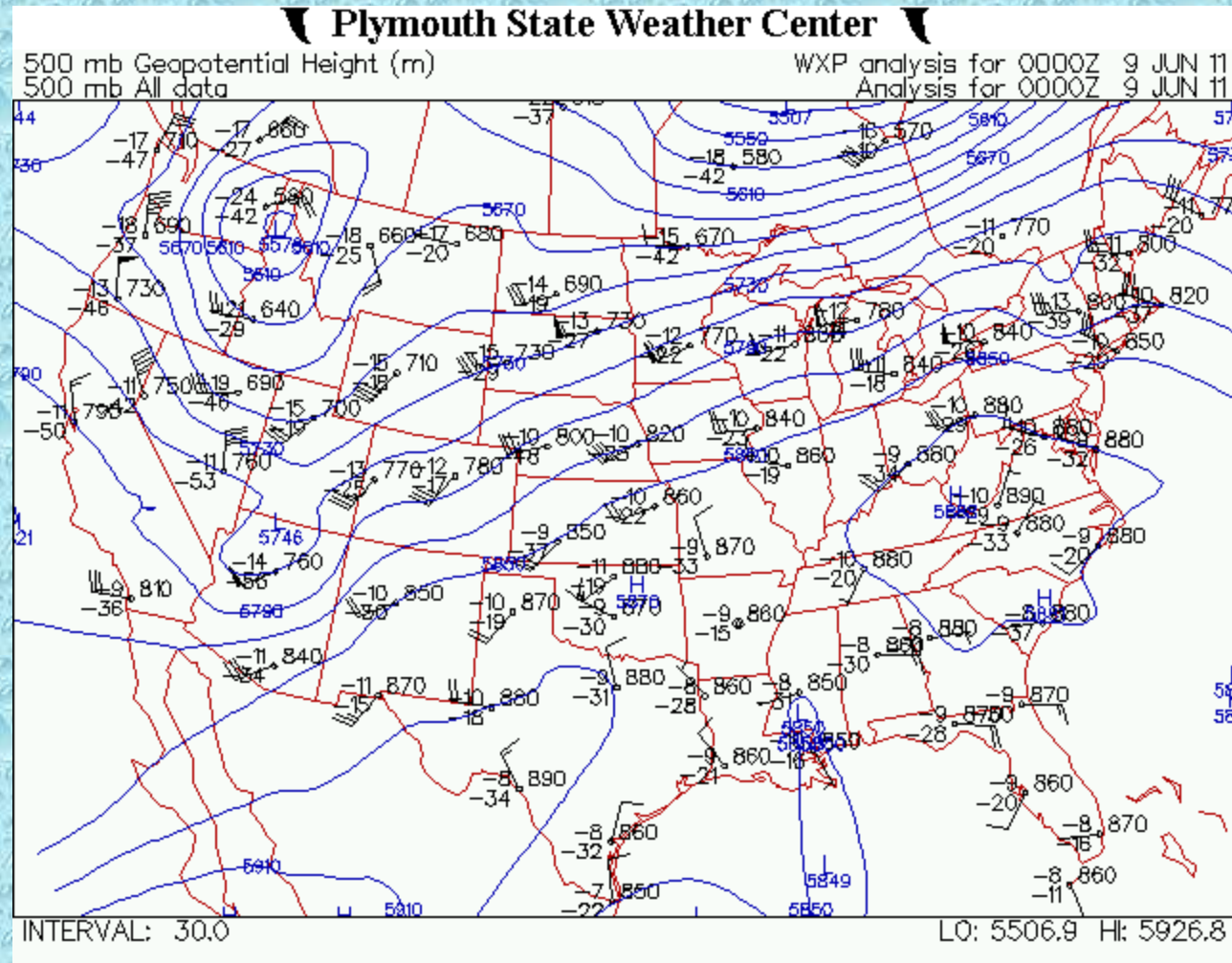




Severe Weather Case Study:
June 9, 2011
Nocturnal Convection

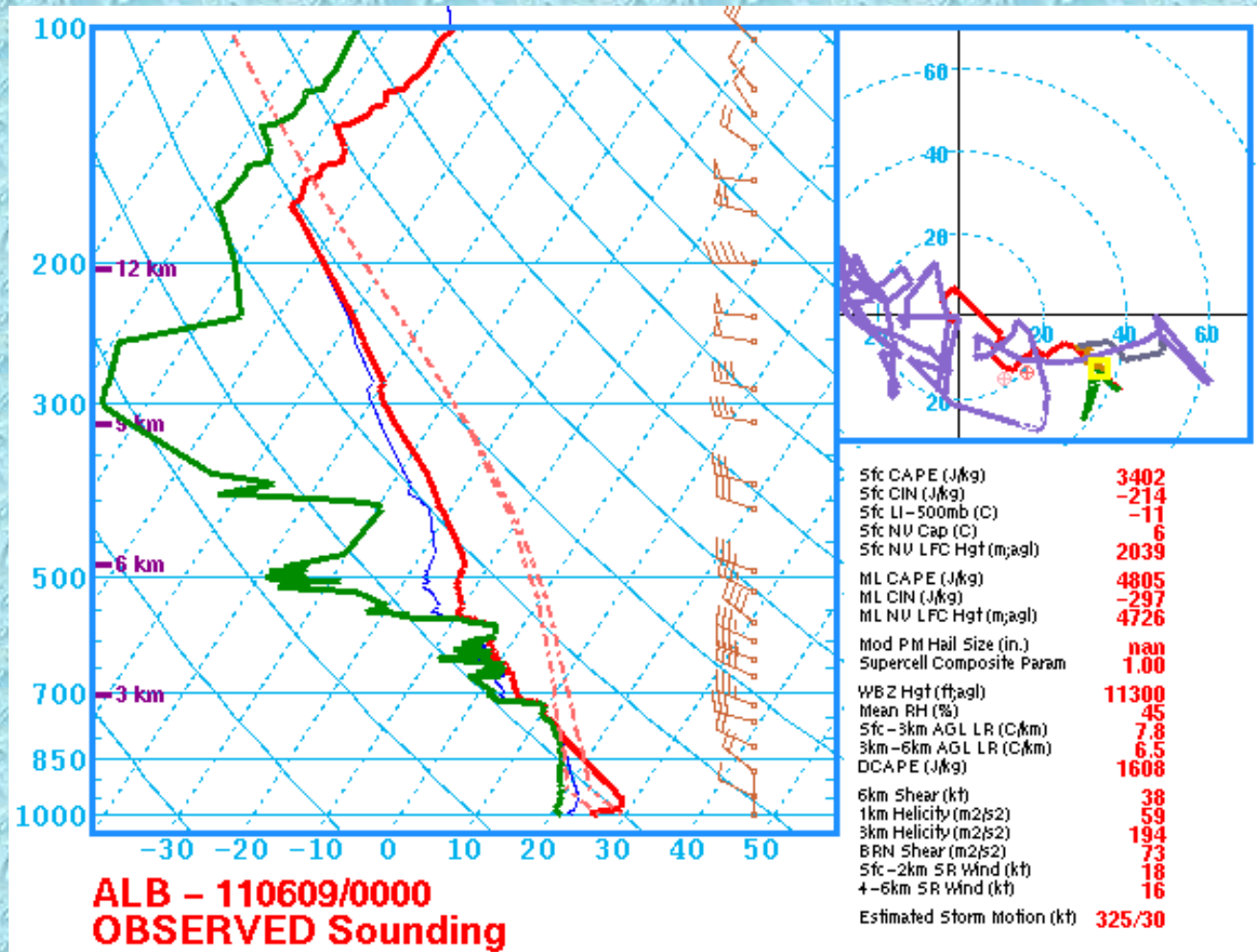
500 mb Analysis: 00z June 9

- Ridge centered over the Appalachians
- Shortwave trough moving through the region
- Jet streak near BUF
- Temperatures around -10C



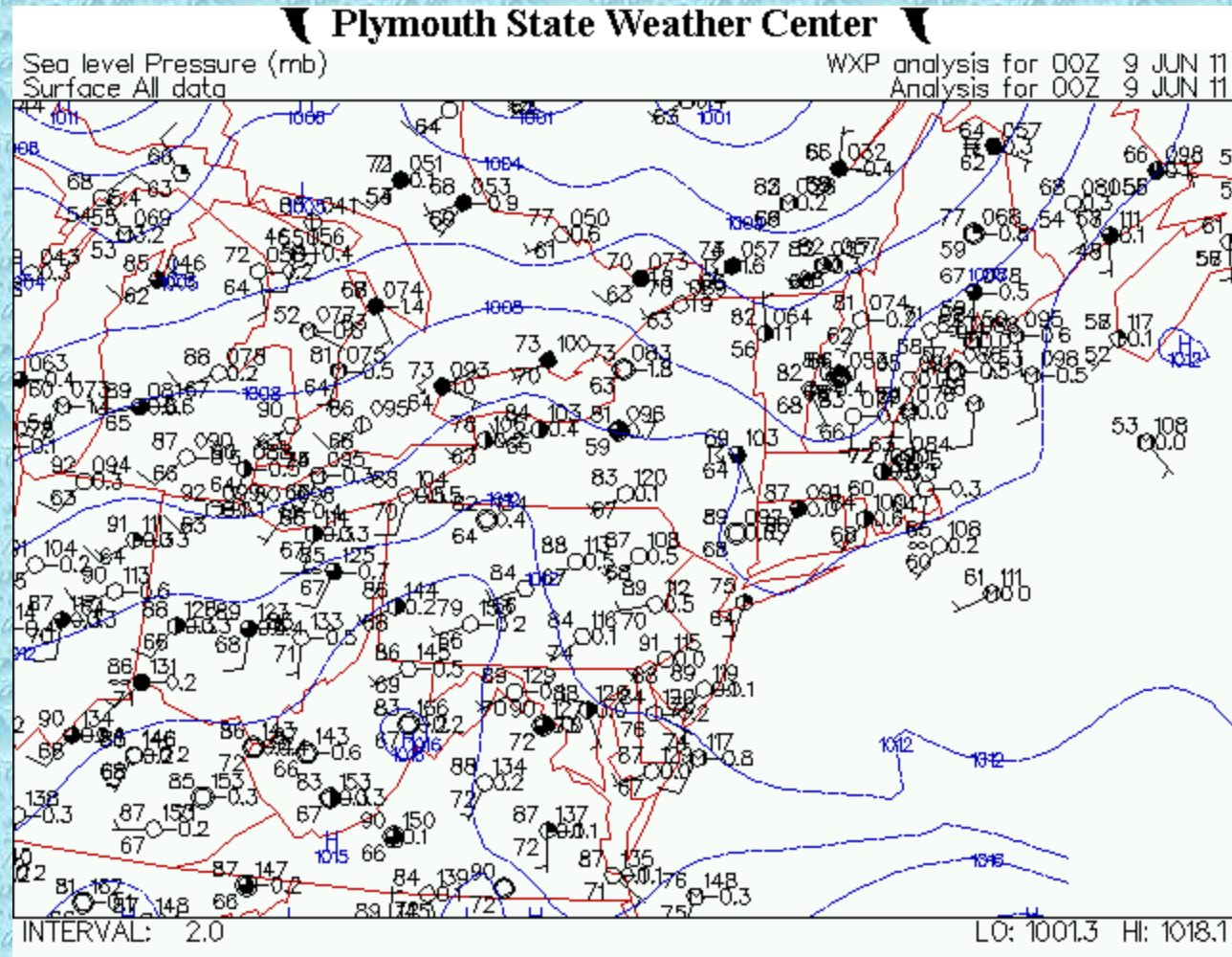
Albany 00z June 9 Sounding

- “Inverted V” sounding favors downdraft potential
- High CAPE (3426 J/kg)
- Unidirectional winds increasing with height favor linear convection
- Precipitable water around 1.92 inches



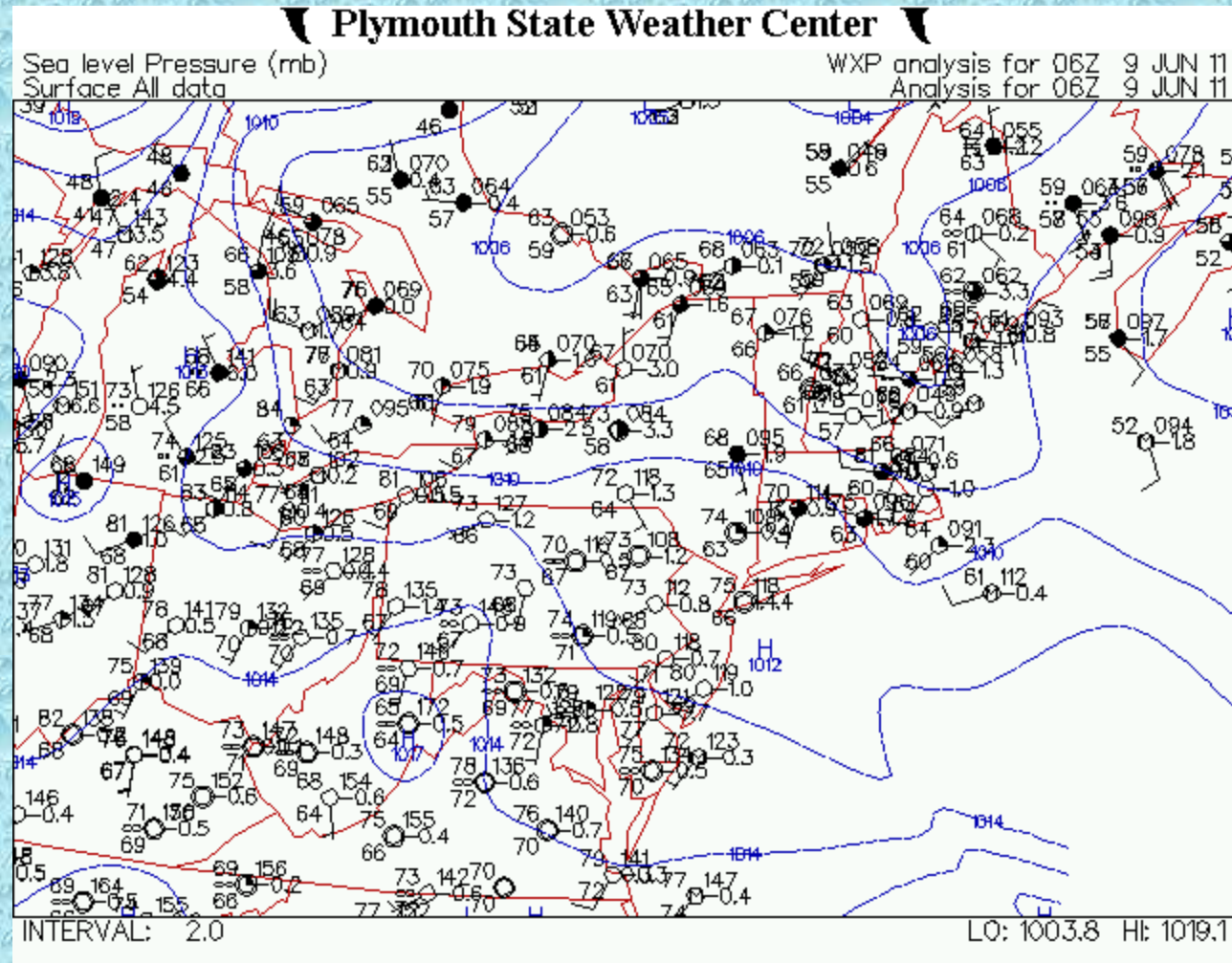
Surface Analysis: 00z June 9

- Weak surface trough in western New England
- Temperatures in the 80s with dew points in the mid to upper 60s

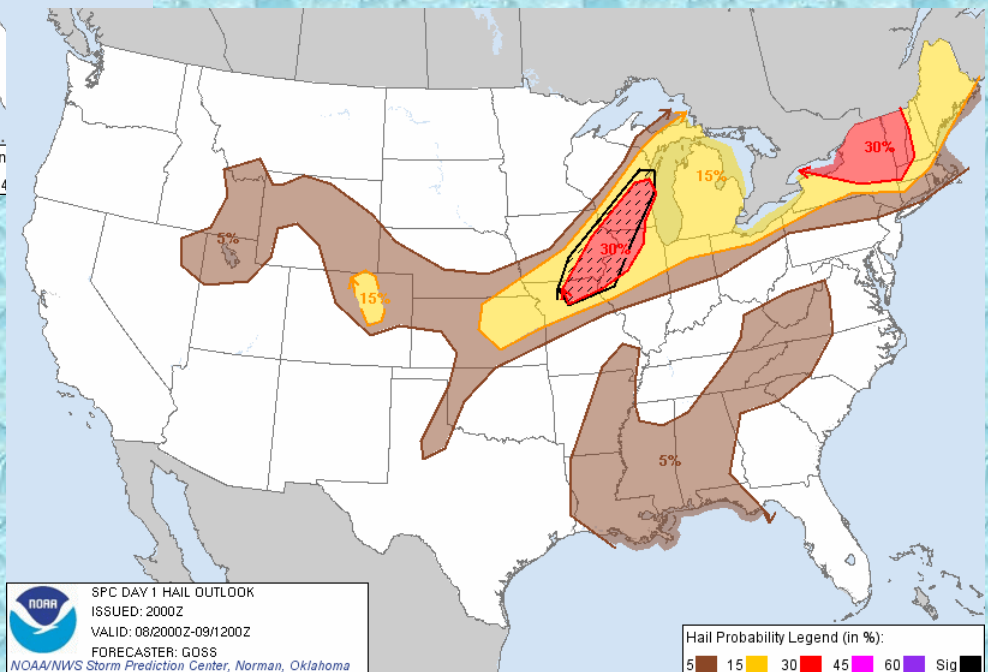
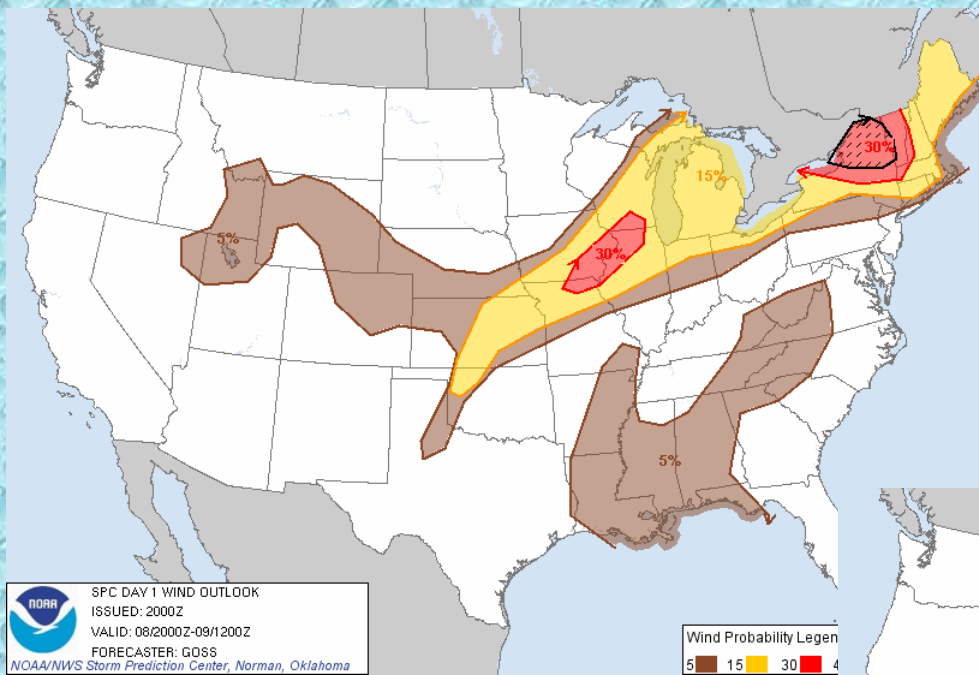


Surface Analysis: 06z June 9

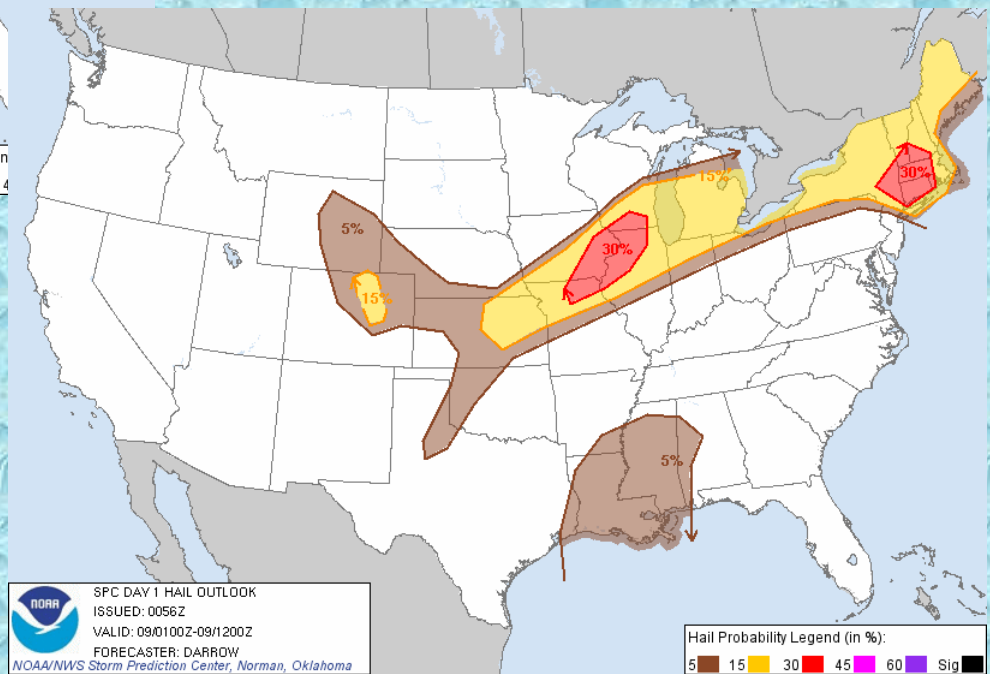
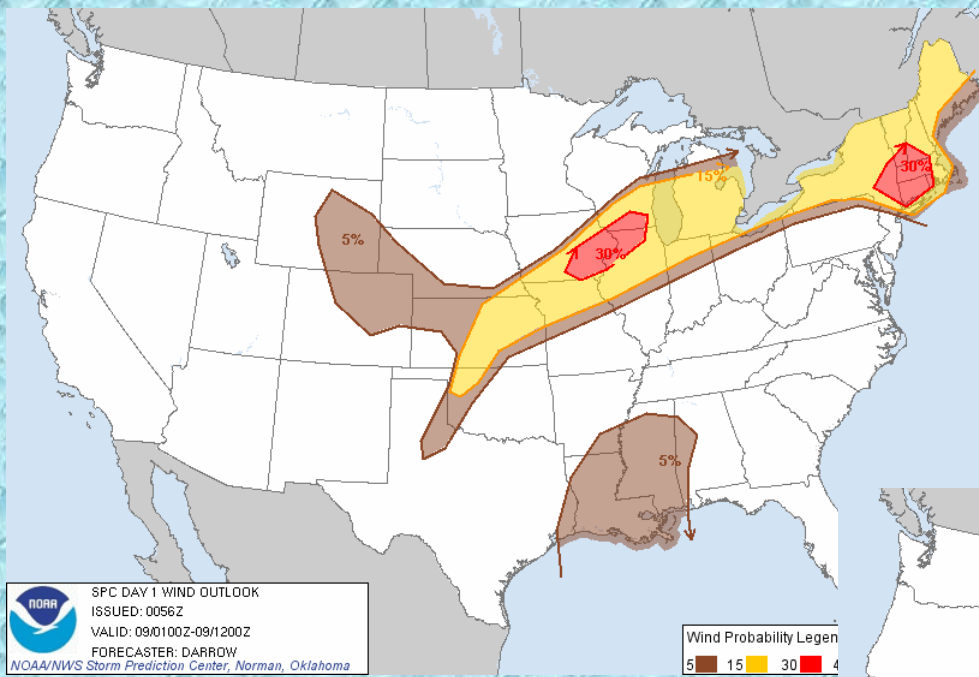
- First trough was moving offshore



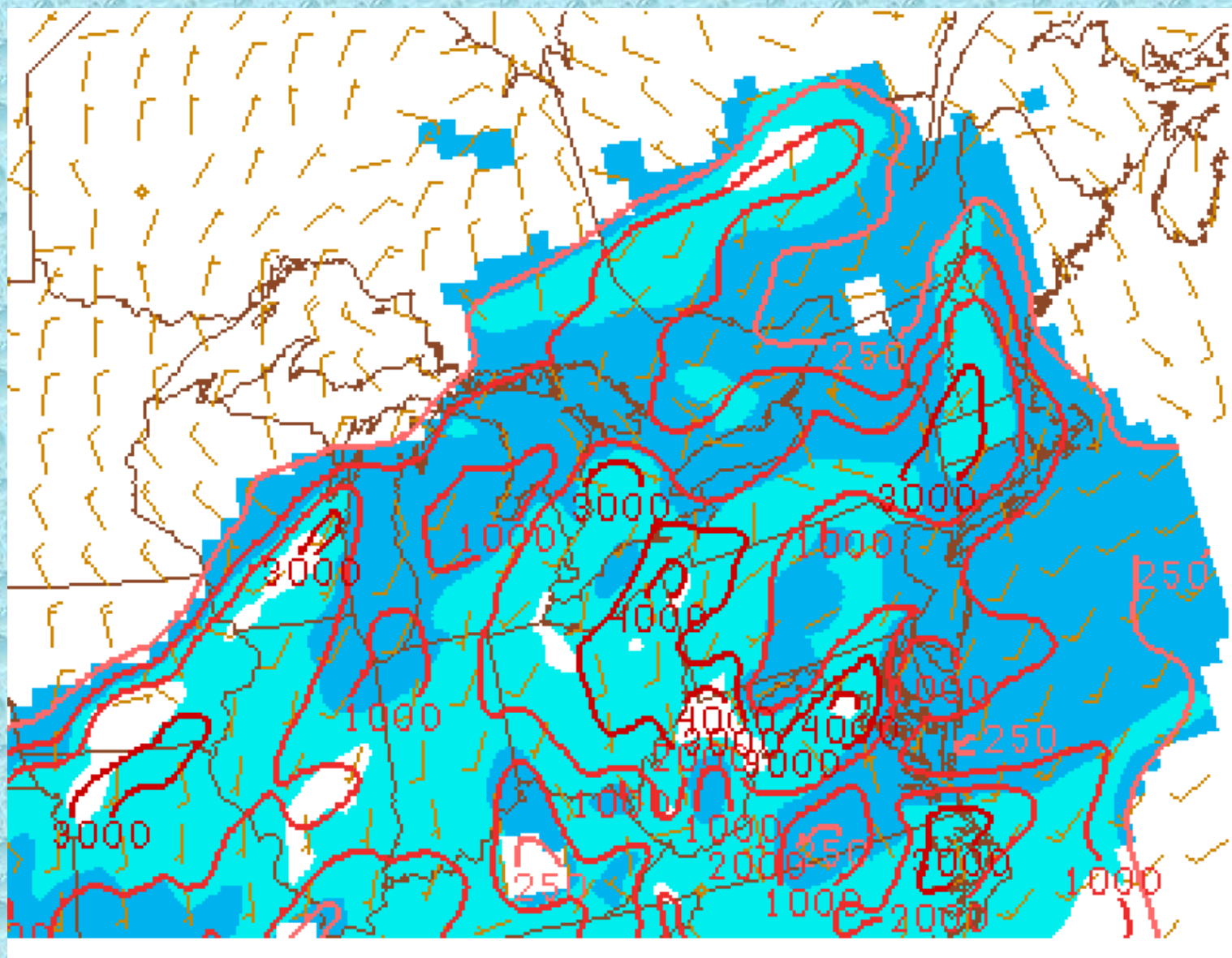
SPC Day 1 Outlook: 20Z



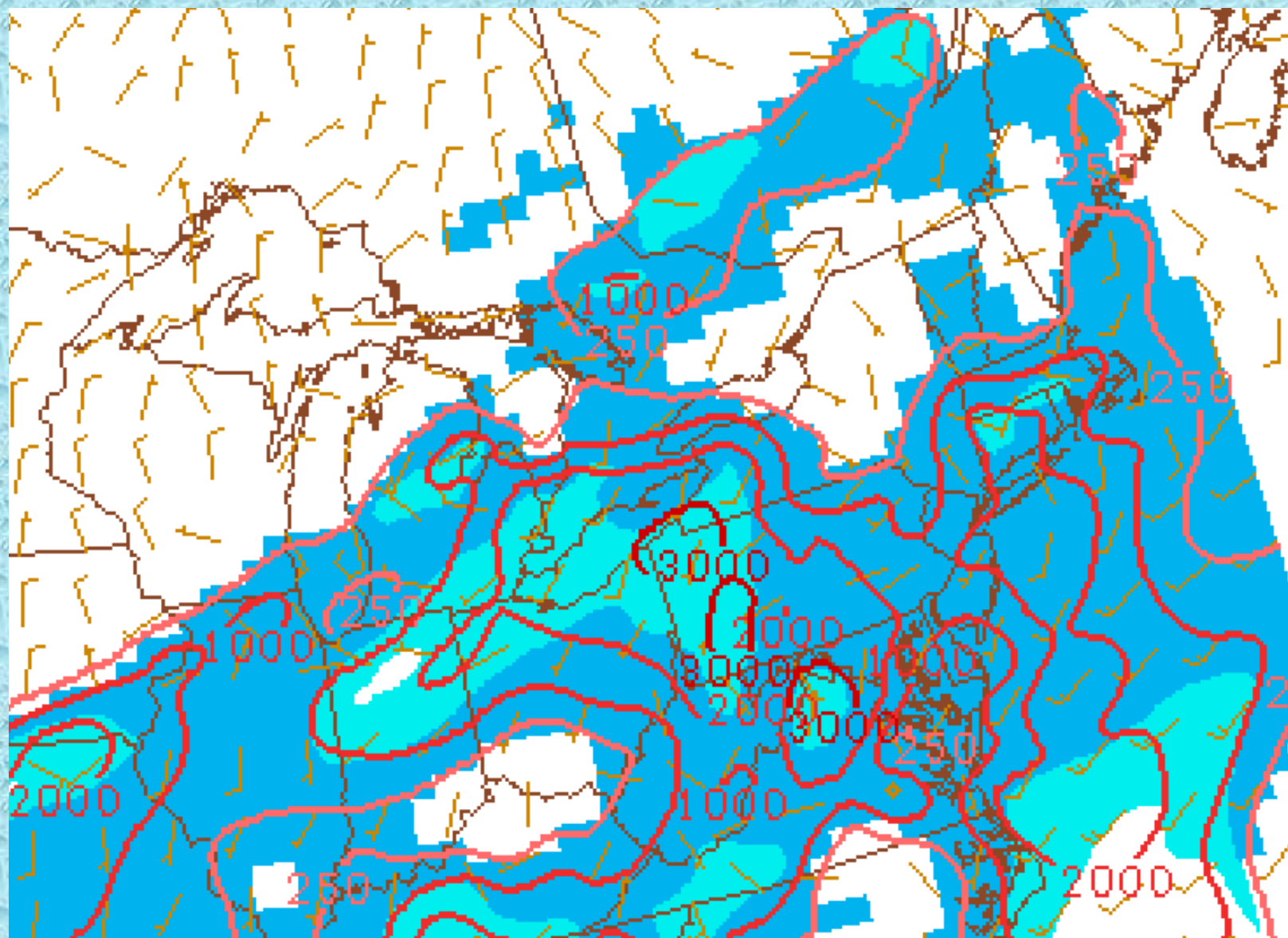
SPC Day 1 Outlook: 01z



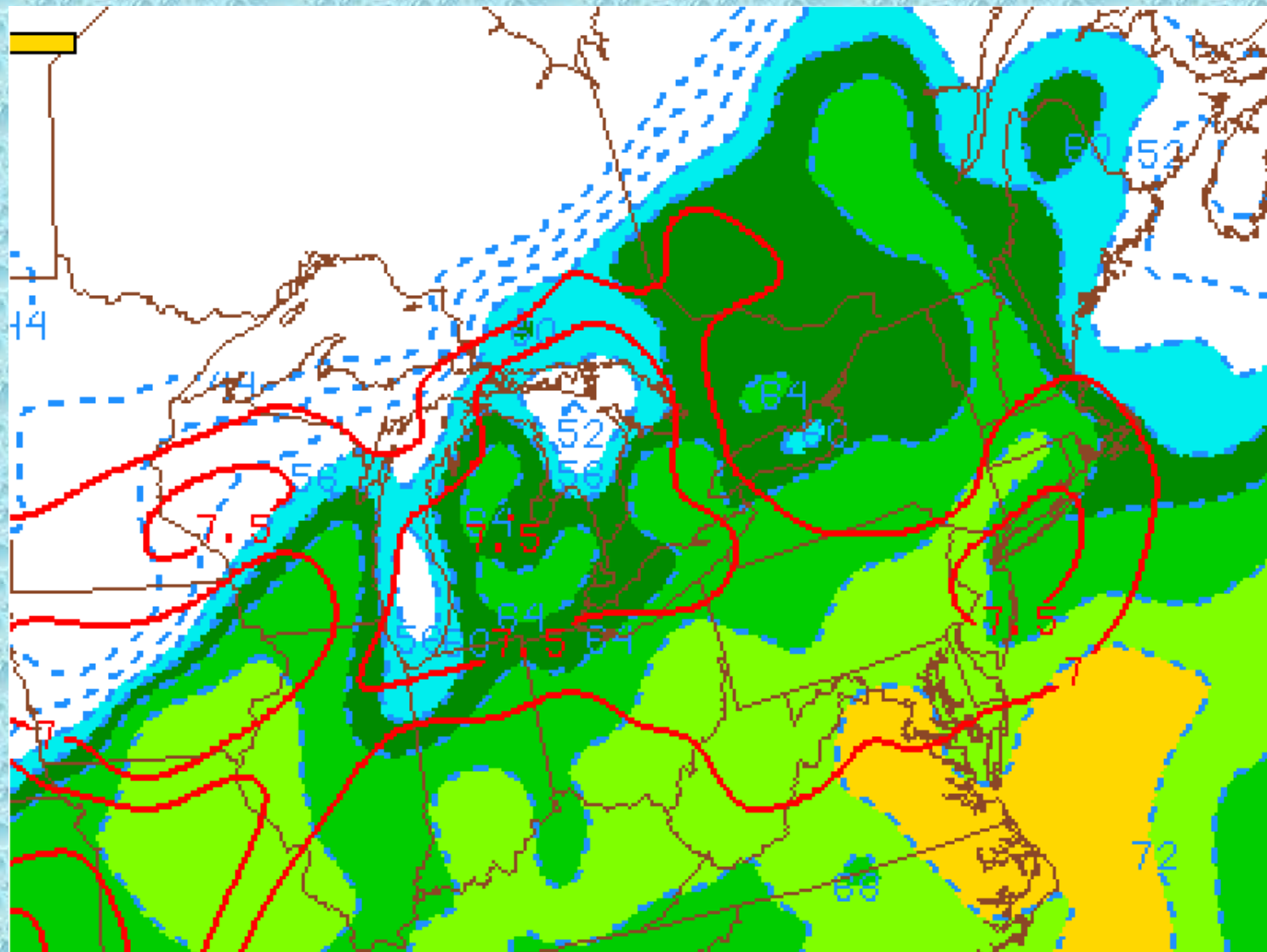
100mb ML CAPE: 01Z June 9



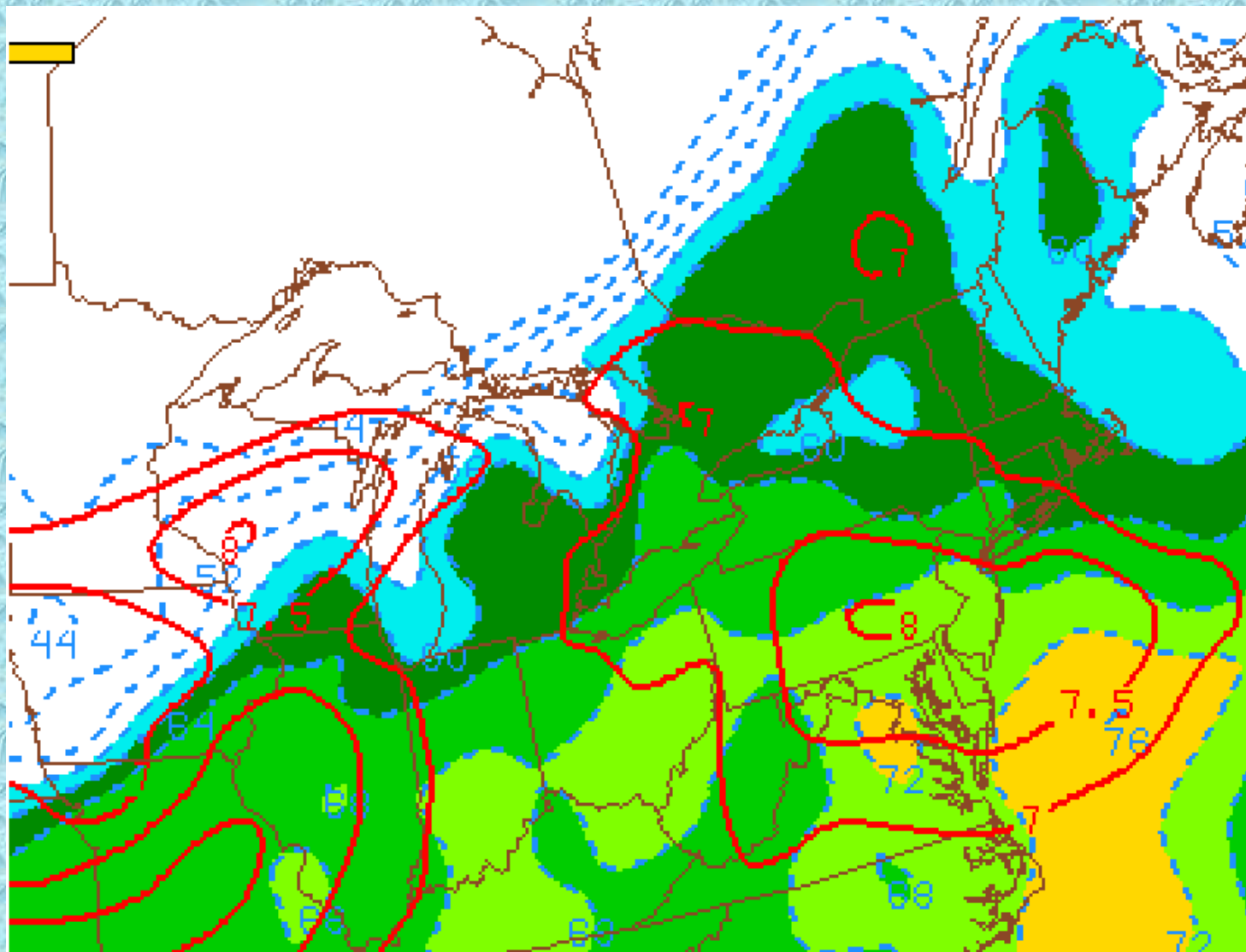
100mb ML CAPE: 06Z June 9



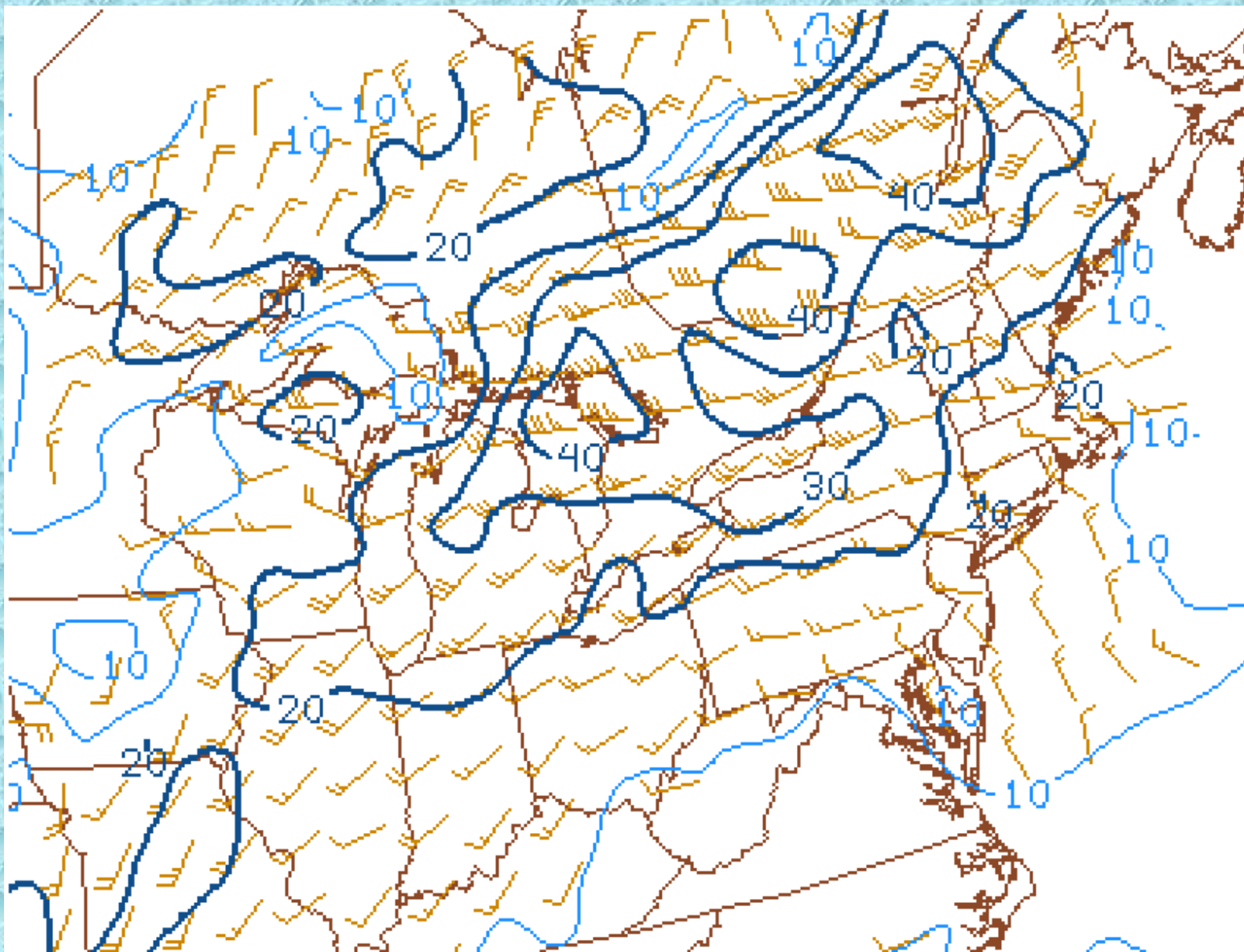
Dewpoint and 700-500mb Lapse Rate: 01Z June 9



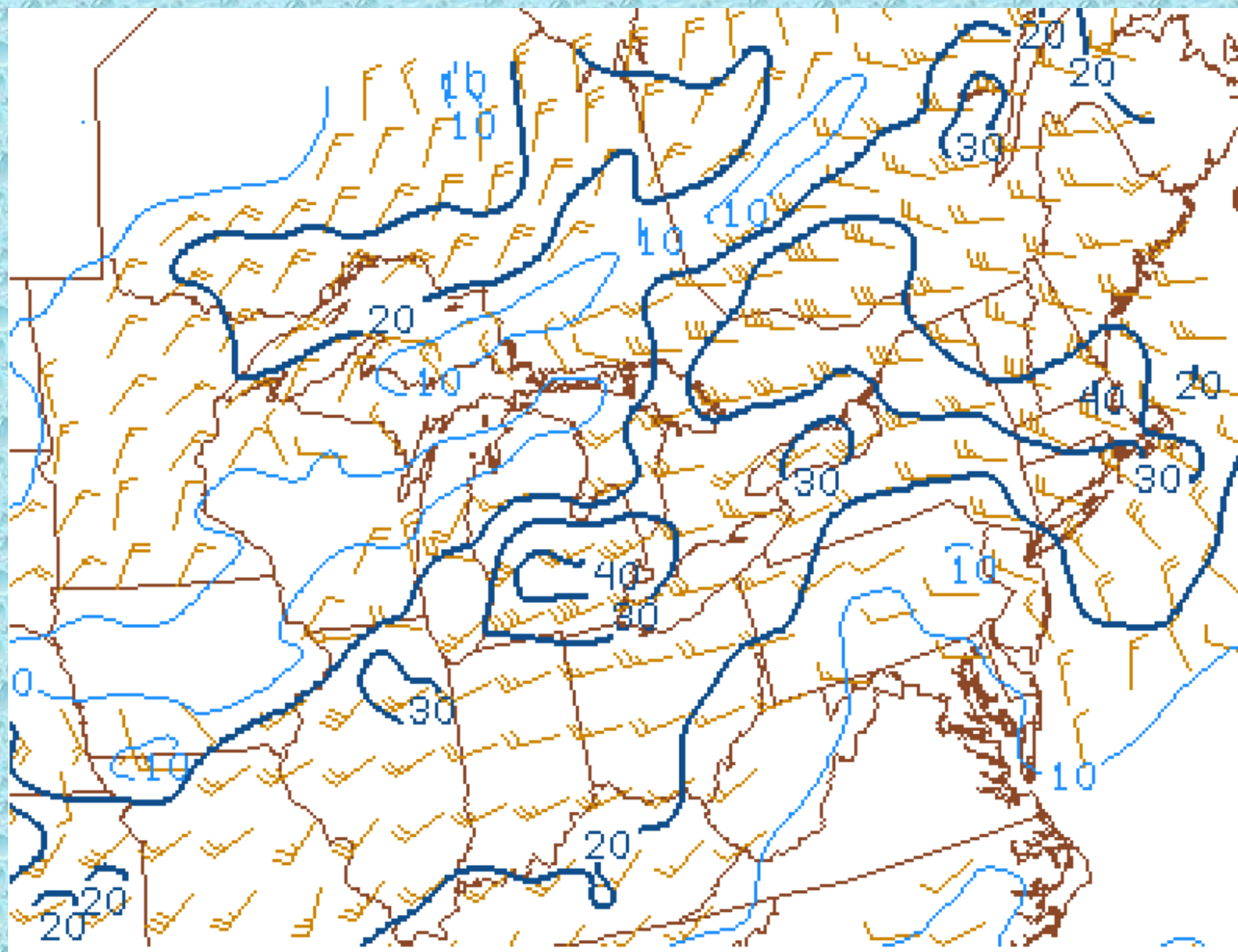
Dewpoint and 700-500mb Lapse Rate: 06Z June 9



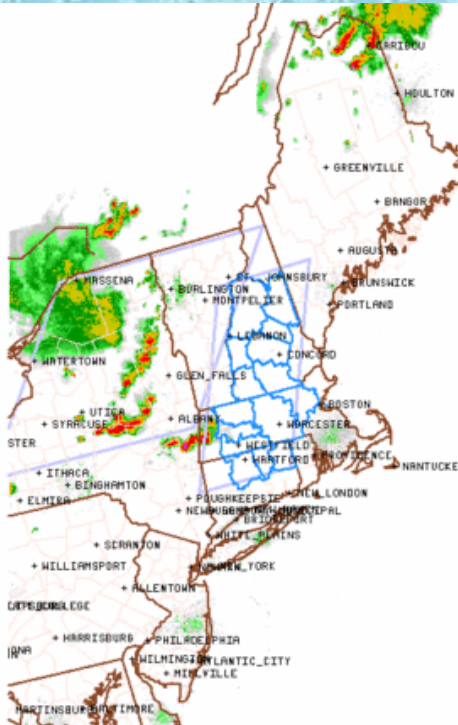
0-1km Shear: 01Z June 9



0-1km Shear: 06Z June 9



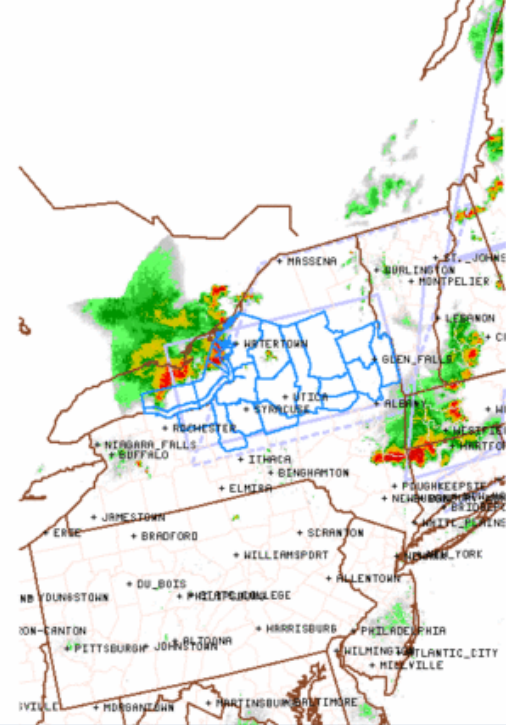
SPC Watches



Severe Thunderstorm Watch # 443 - Valid from 645 PM until 1100 PM EDT

NOAA/NWS/Storm Prediction Center

Updated: 20110608/2246 UTC

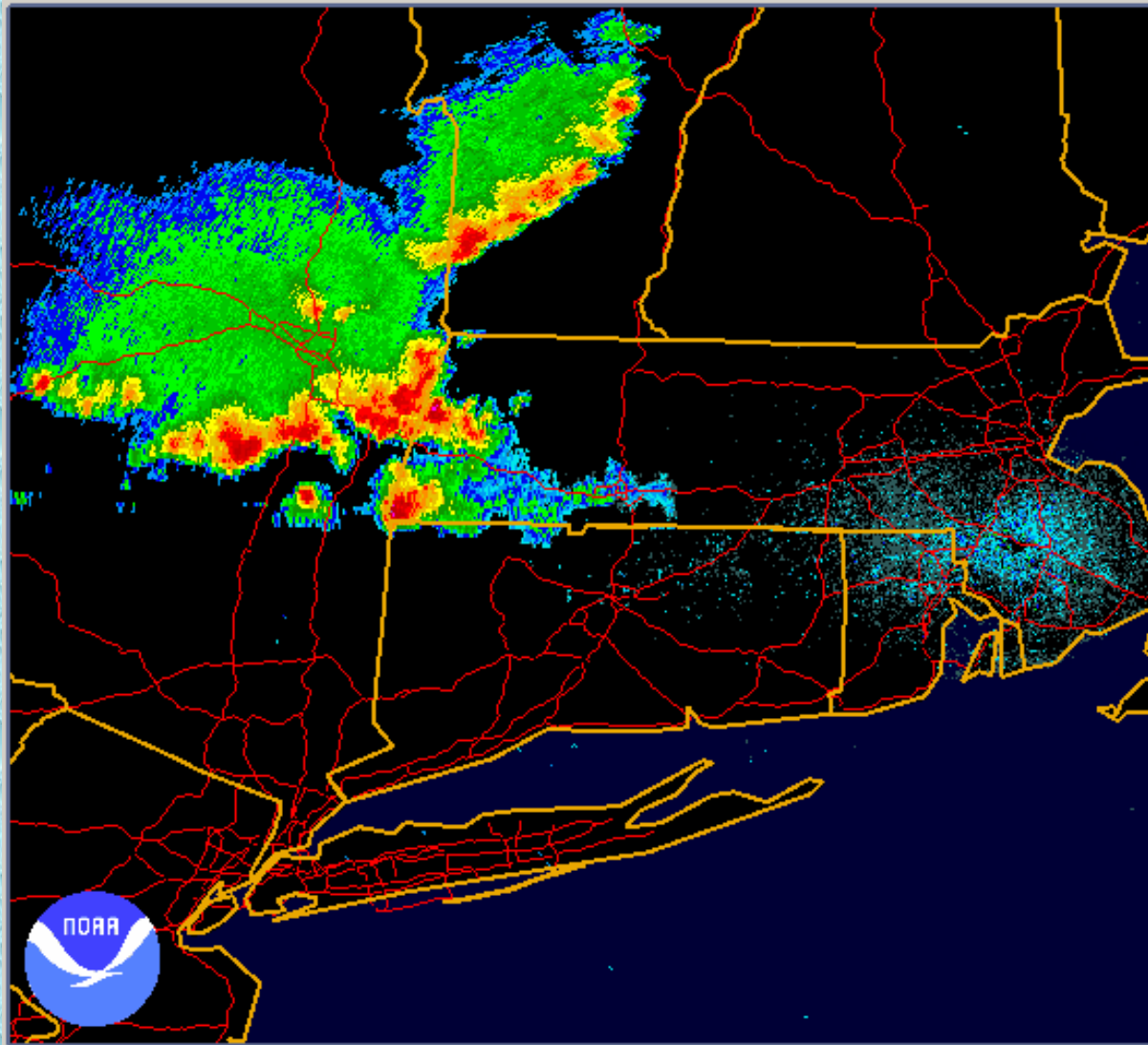


Severe Thunderstorm Watch # 446 - Valid from 900 PM until 100 AM EDT

NOAA/NWS/Storm Prediction Center

Updated: 20110609/0101 UTC

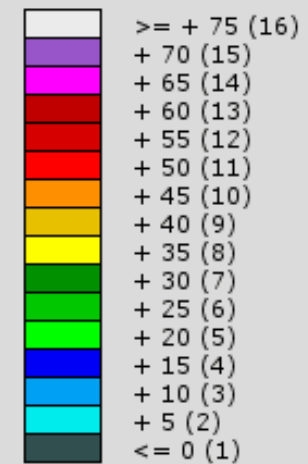
Radar Loop: 00z to 06z June 9



NEXRAD LEVEL-II
KBOX - BOSTON, MA
06/09/2011 00:01:44 GMT
LAT: 41/57/21 N
LON: 71/08/13 W
ELEV: 118 FT
VCP: 12

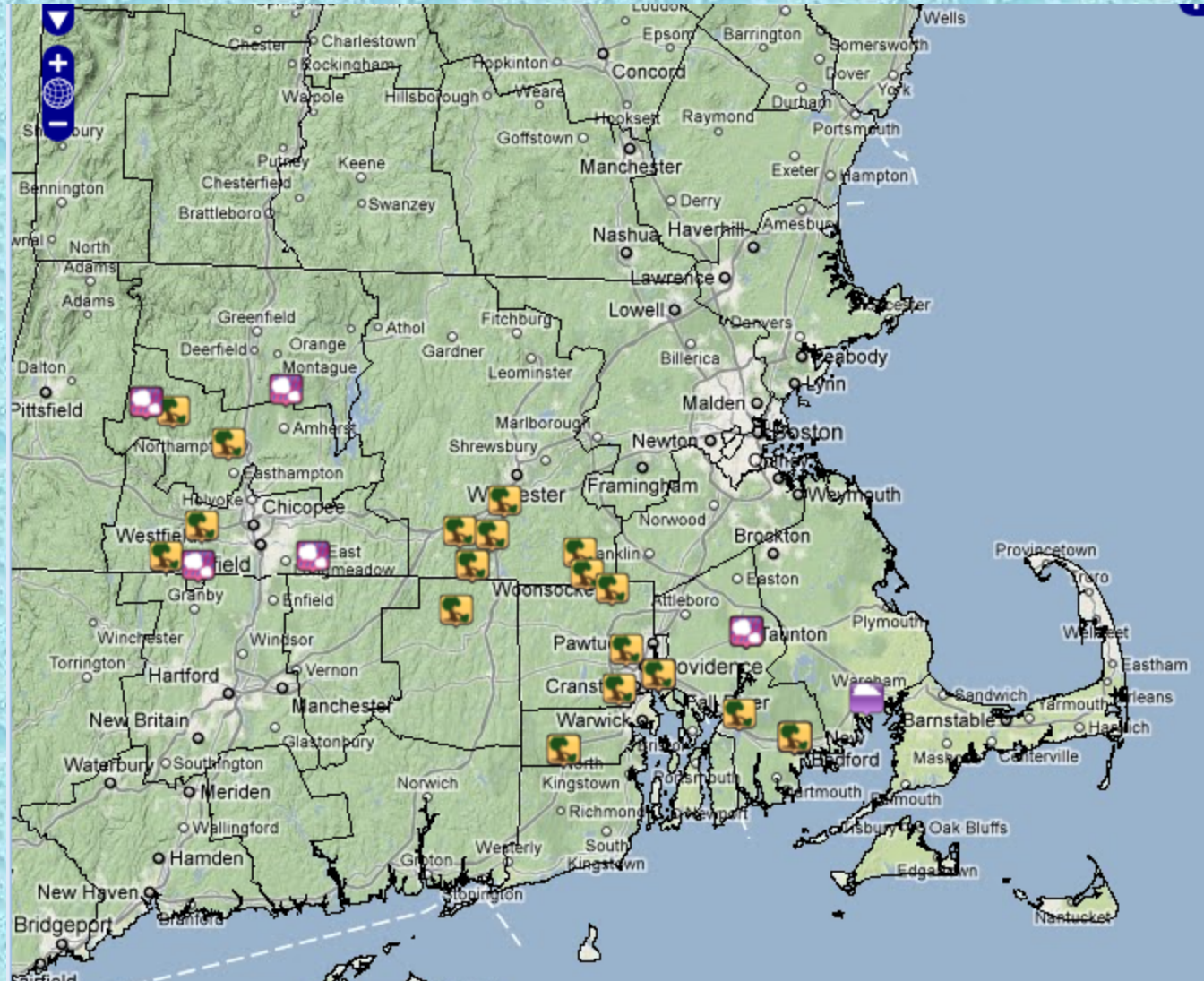
REFLECTIVITY
ELEV ANGLE: 0.53

Legend: dBZ (Category)



Storm Reports

- Many reports of downed trees and wires, hail up to nickel size
- Significant damage in Cranston and Providence



Storm Damage in Providence

