

APPENDIX A

Weather Maps and Graphs

**EXCEPTIONAL EVENTS DEMONSTRATION FOR 2022, 2023, AND 2024 PM_{2.5}
EXCEEDANCES AT HARRISON, KLEBERG, AND TRAVIS COUNTIES**

AUGUST 5, 2025

**TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
P.O. BOX 13087
AUSTIN, TEXAS 78711-3087**

APPENDIX A: WEATHER MAPS AND GRAPHS

A.1: GROUP 1 - JUNE 14, 2022

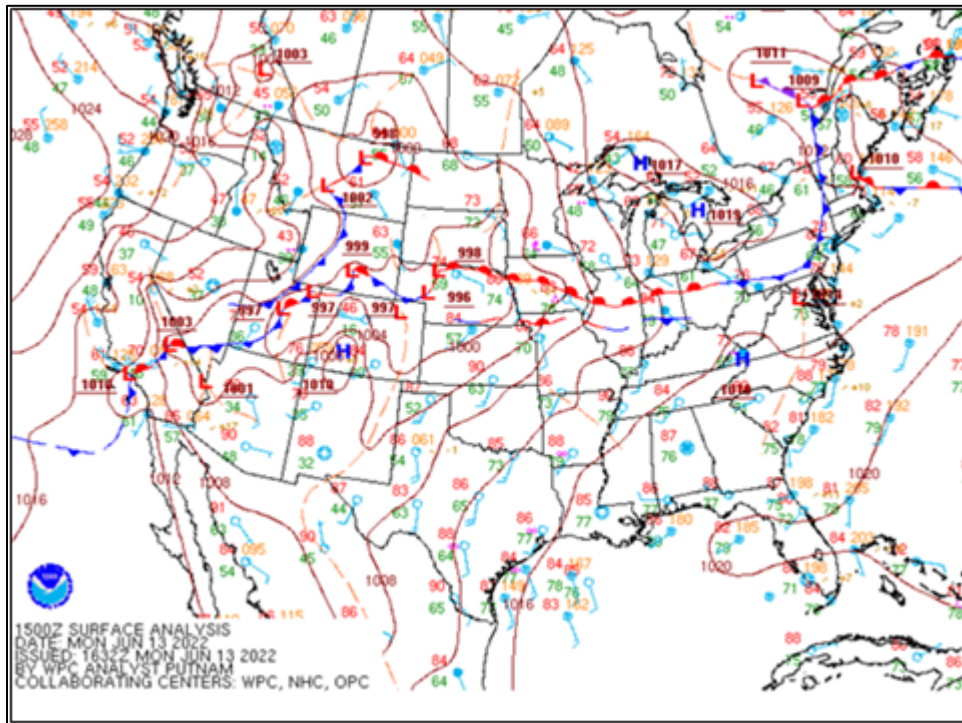


Figure A- 1: National Weather Service Weather Prediction Center (June 13, 2022) CONUS Surface Analysis (15Z) 10:00 a.m. CDT

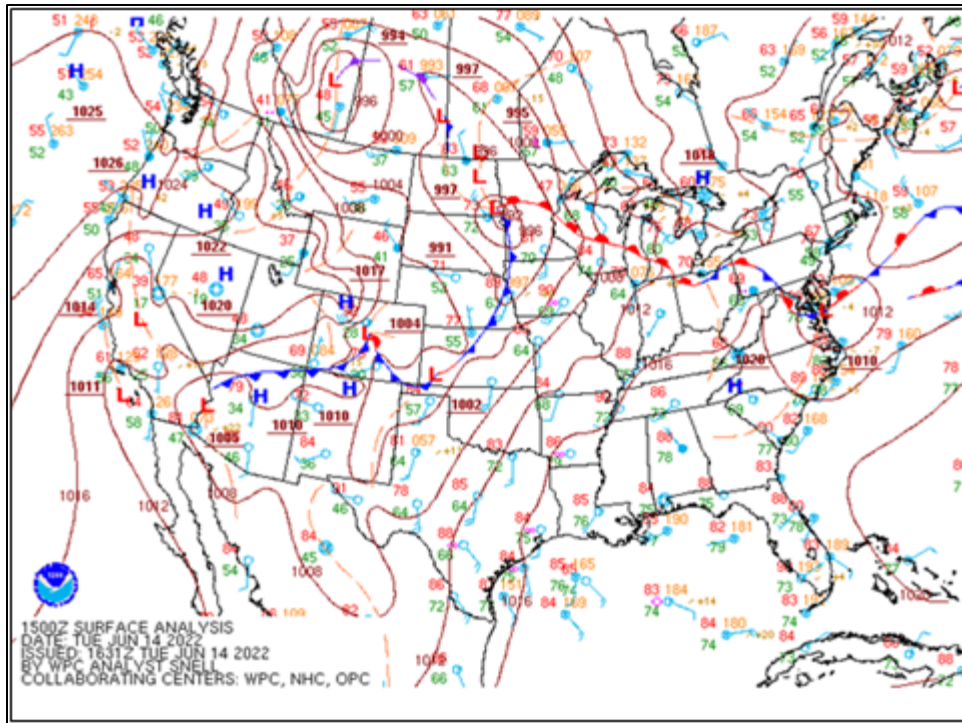


Figure A- 2: National Weather Service Weather Prediction Center (June 14, 2022) CONUS Surface Analysis (15Z) 10:00 a.m. CDT

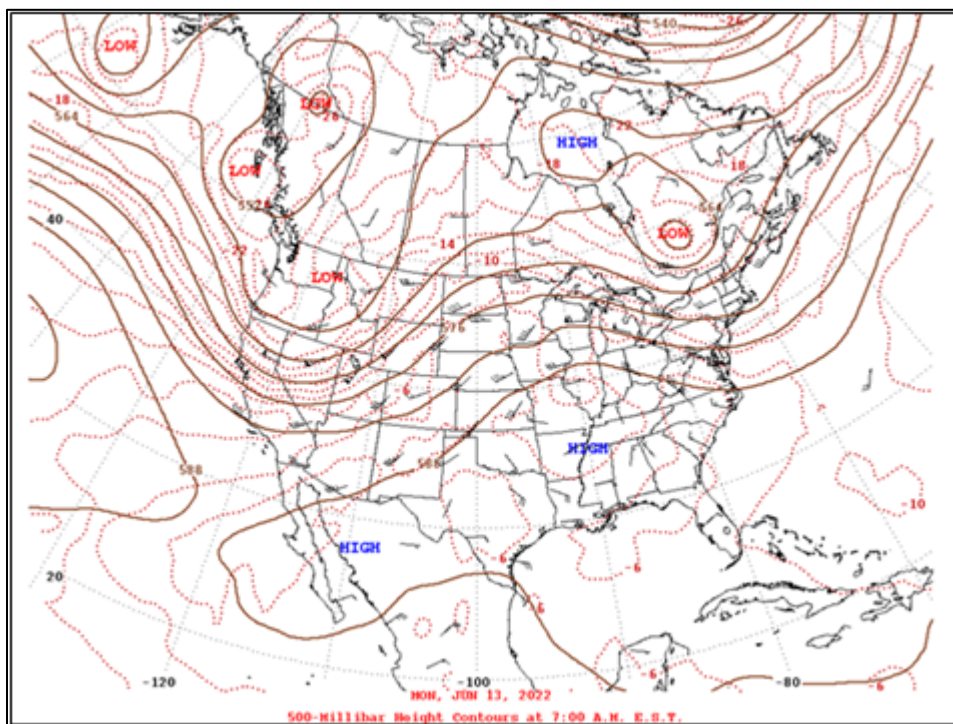
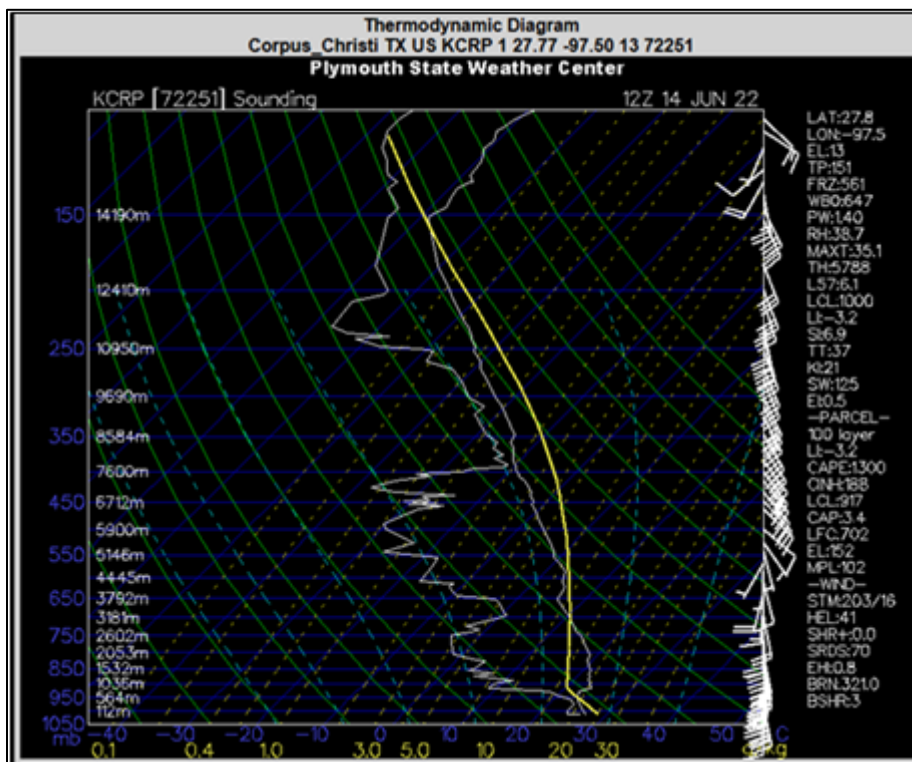
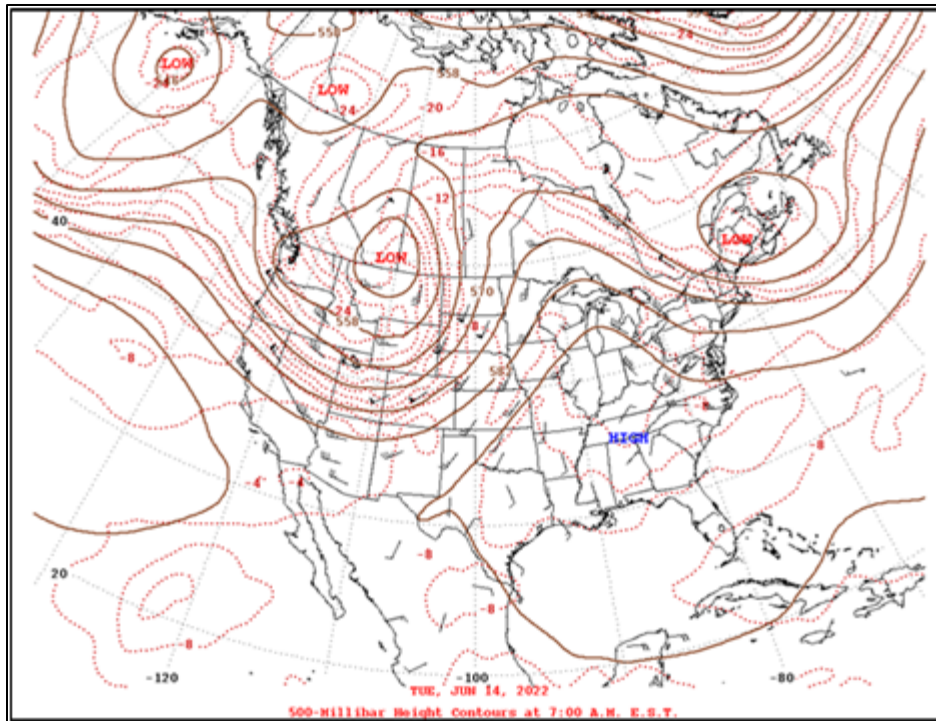


Figure A- 3: National Weather Service, Storm Prediction Center (June 13, 2022) 500 mb Analysis (12Z) 7:00 a.m. CDT



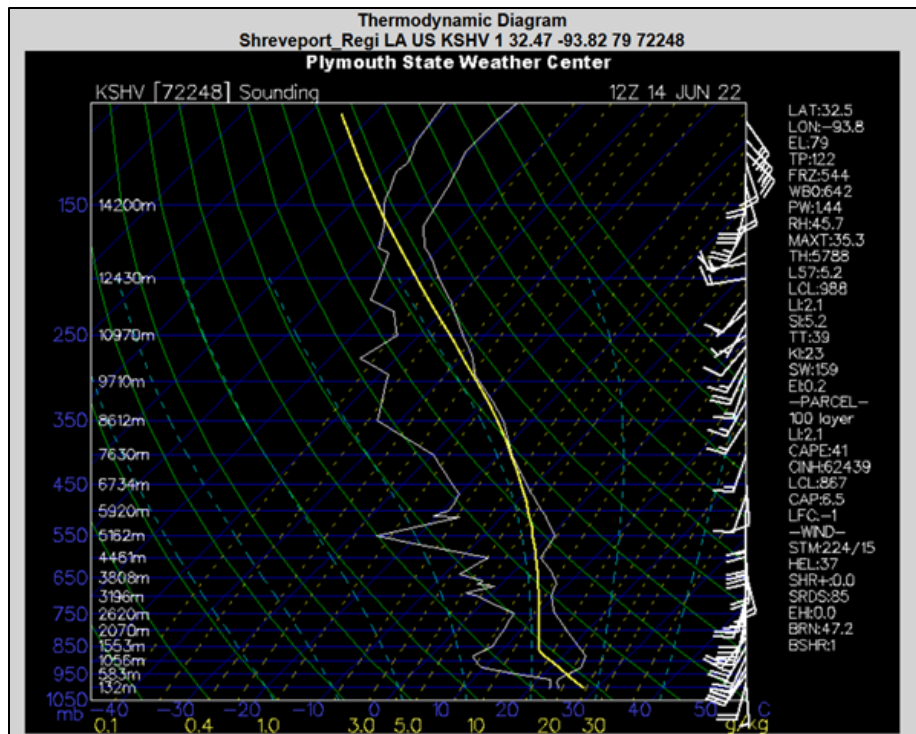


Figure A- 6: Upper Air Sounding Chart from Shreveport, Louisiana on June 14, 2022, at (12Z) 7:00 a.m. CDT

A.2: GROUP 2 - MARCH 1, 2023

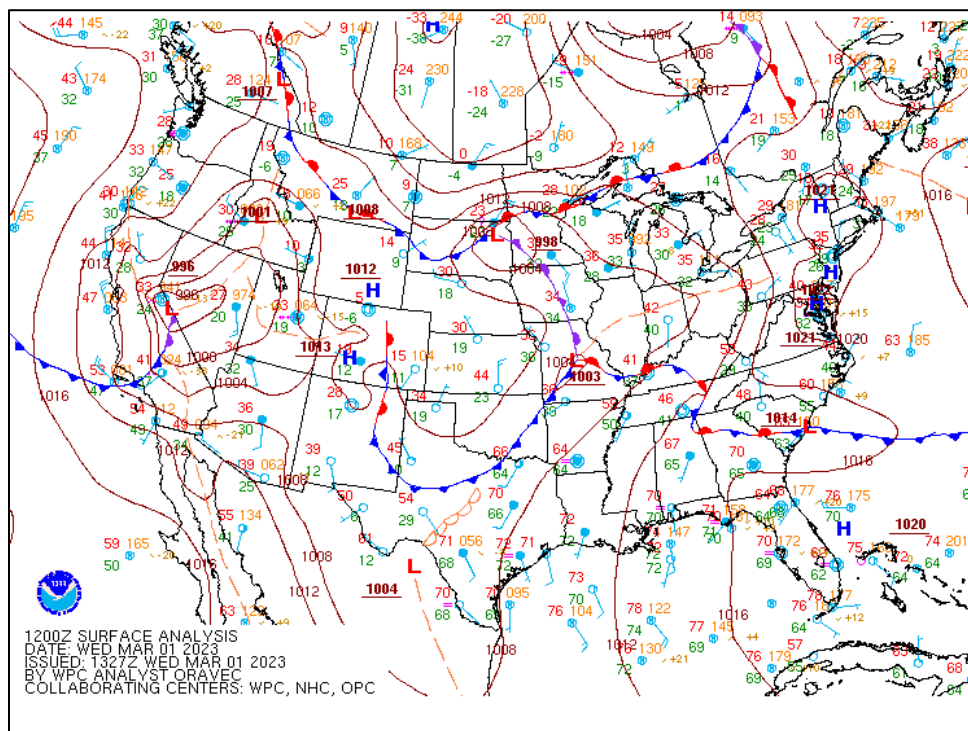


Figure A- 7: National Weather Service Weather Prediction Center (March 1, 2023) CONUS Surface Analysis (12Z) 6:00 a.m. CST

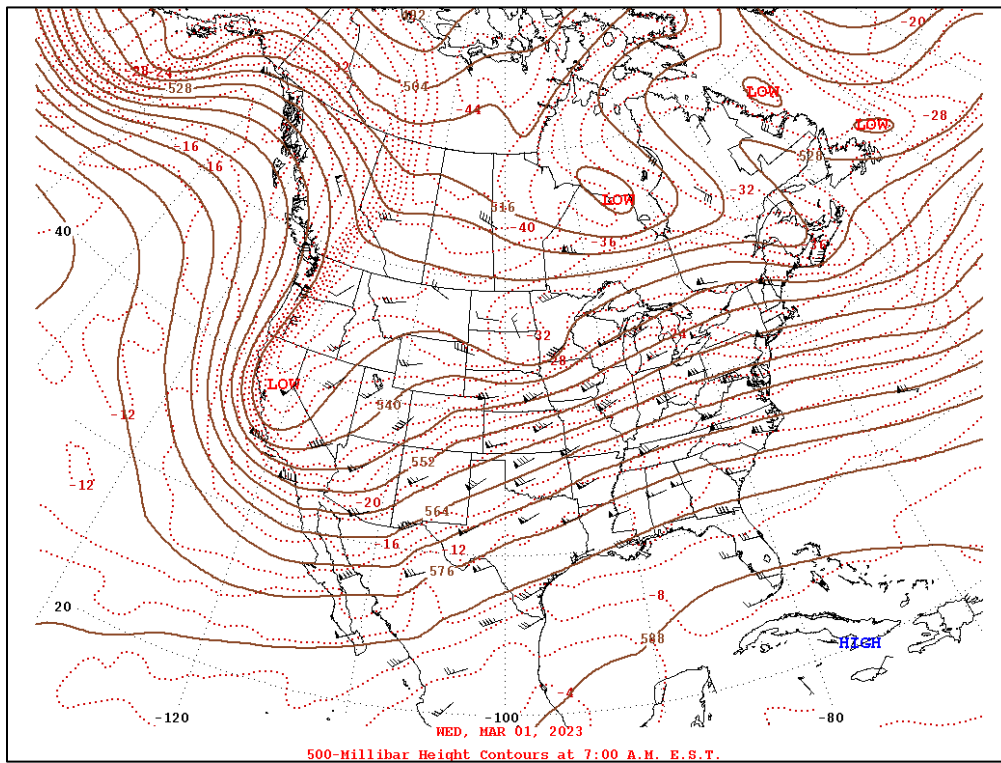


Figure A- 8: National Weather Service, Storm Prediction Center (March 1, 2023) 500 mb Analysis (12Z) 6:00 a.m. CST

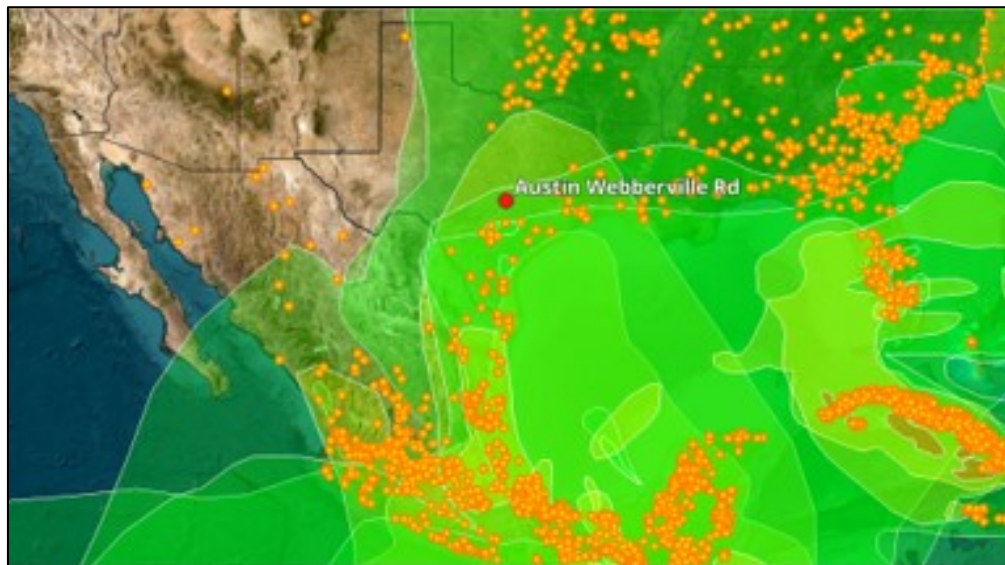


Figure A- 9: NOAA Hazard Mapping System Smoke Product for March 1, 2023

A.3: GROUP 3 - MAY 5, 2023

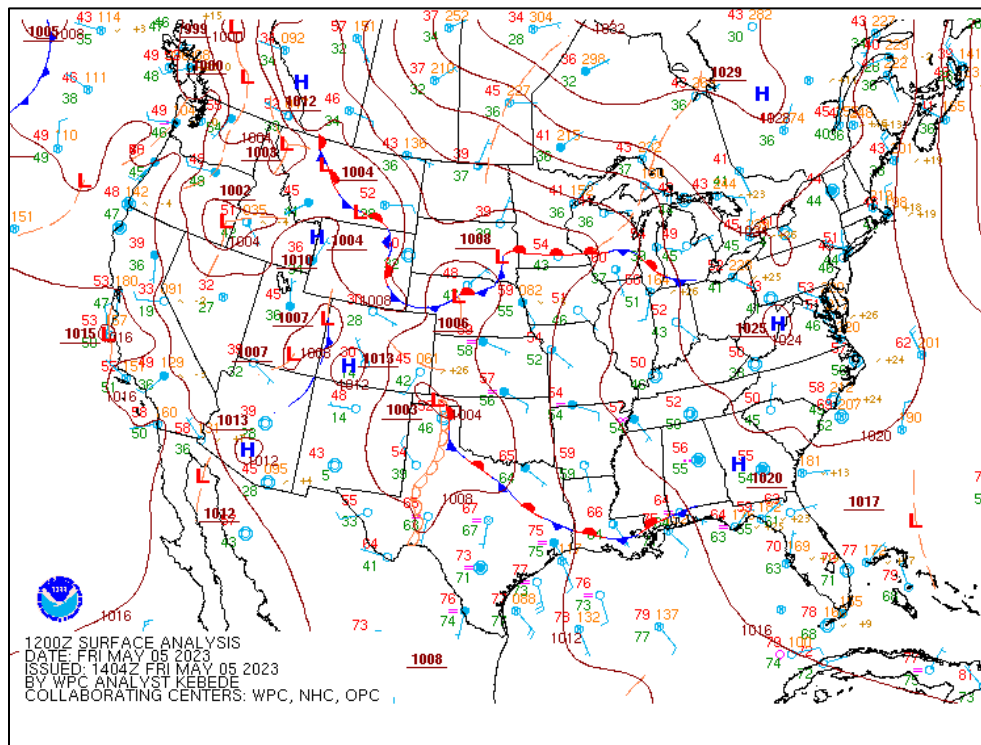


Figure A- 10: National Weather Service Weather Prediction Center (May 5, 2023) CONUS Surface Analysis (12Z) 7:00 a.m. CDT

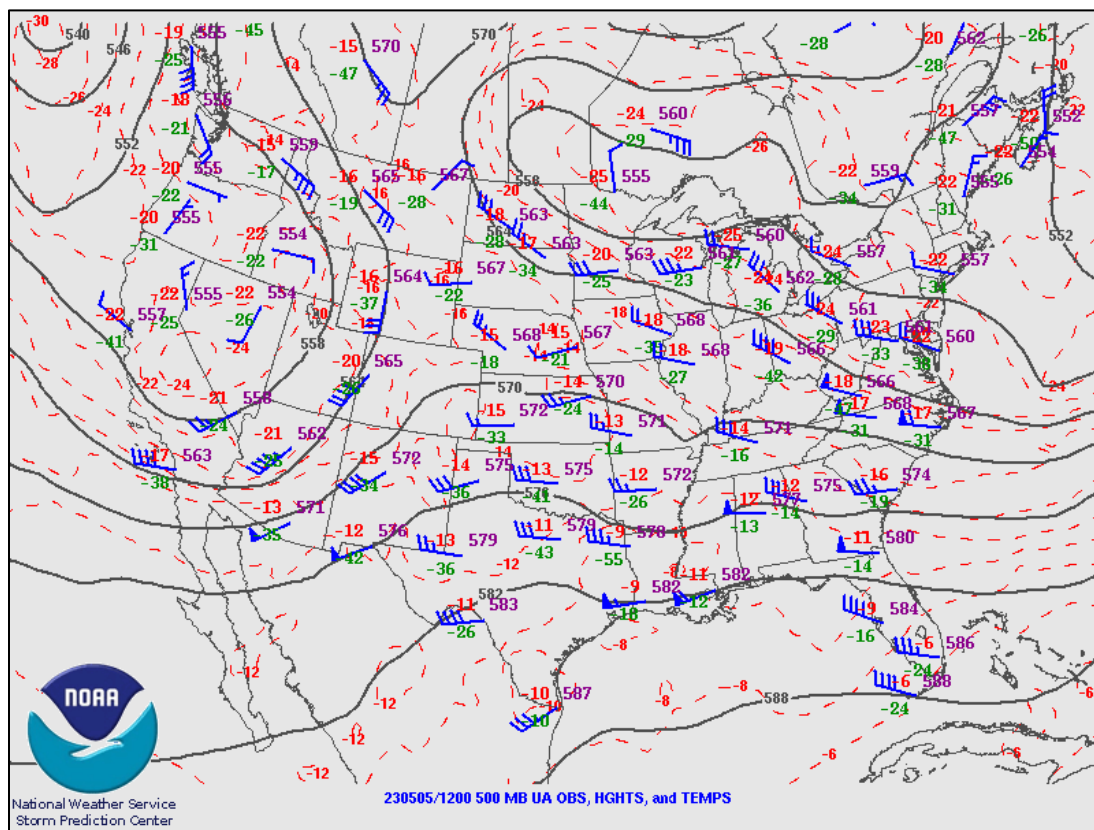


Figure A- 11: National Weather Service, Storm Prediction Center (May 5, 2023) 500 mb Analysis (12Z) 7:00 a.m. CDT

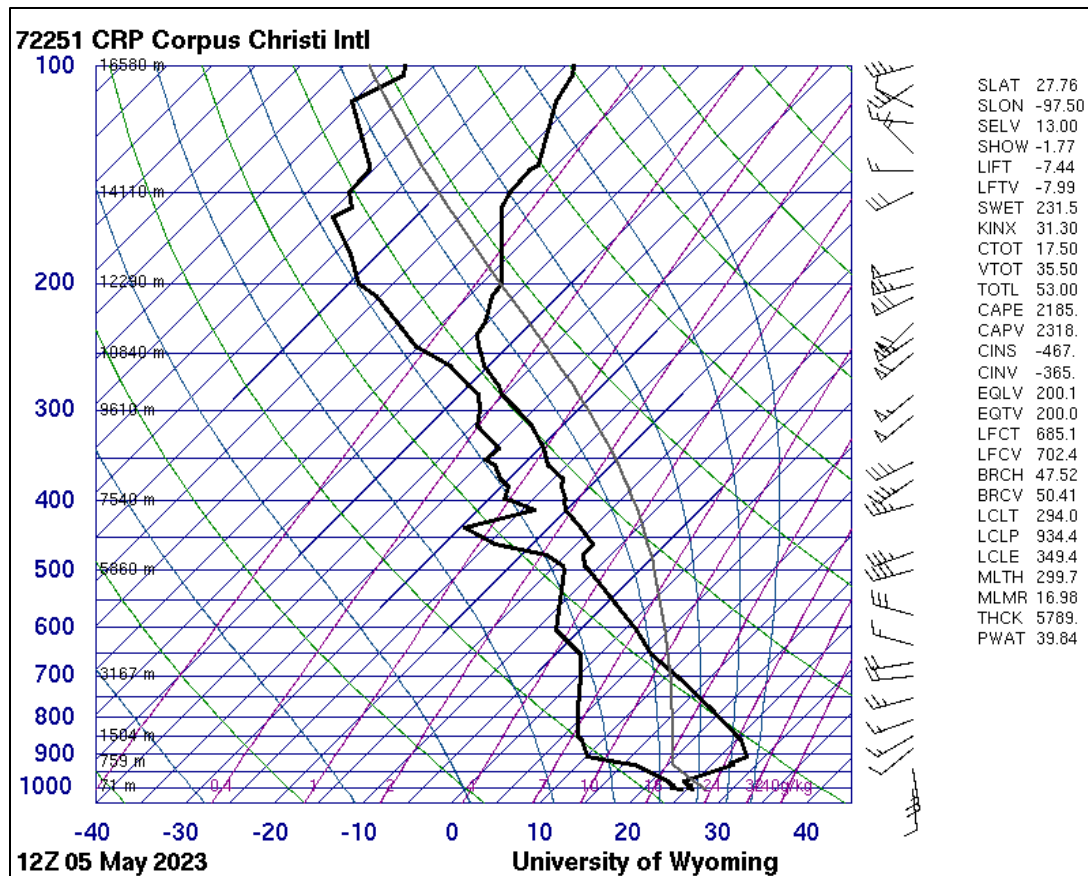


Figure A- 12: Upper Air Sounding Chart from Corpus Christi, Texas on May 5, 2023, at (12Z) 7:00 a.m. CDT

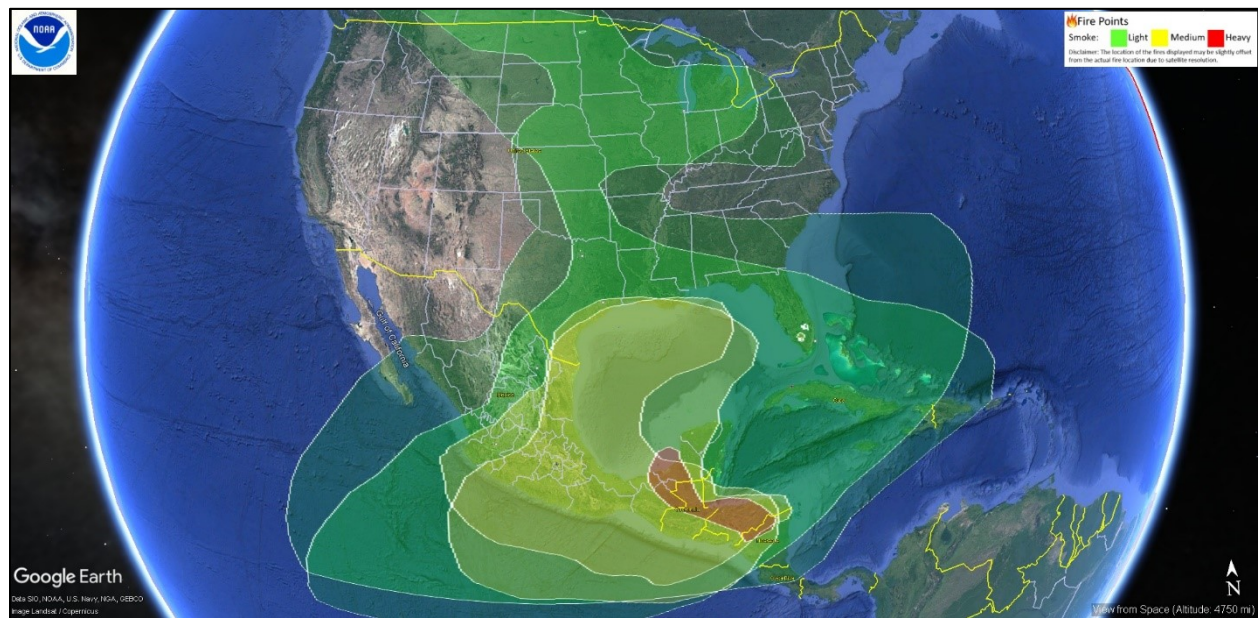
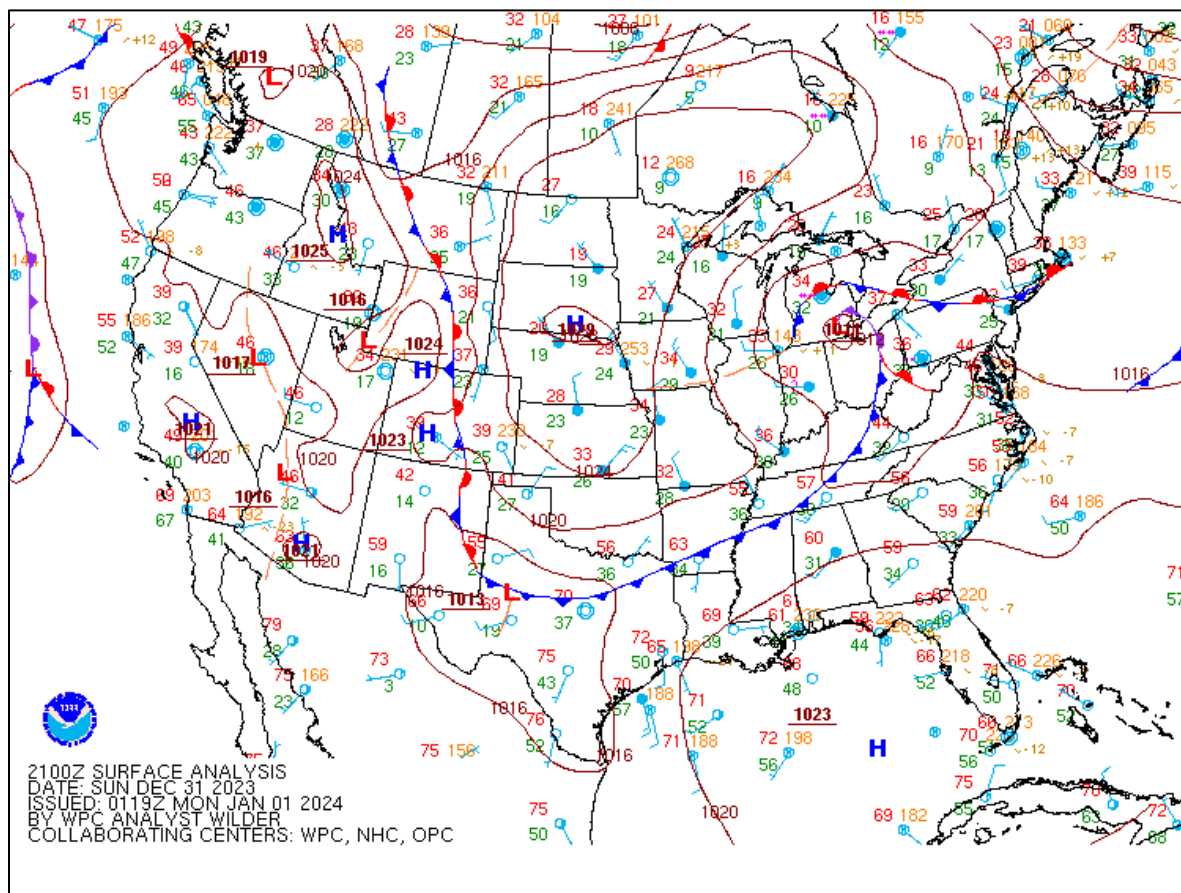
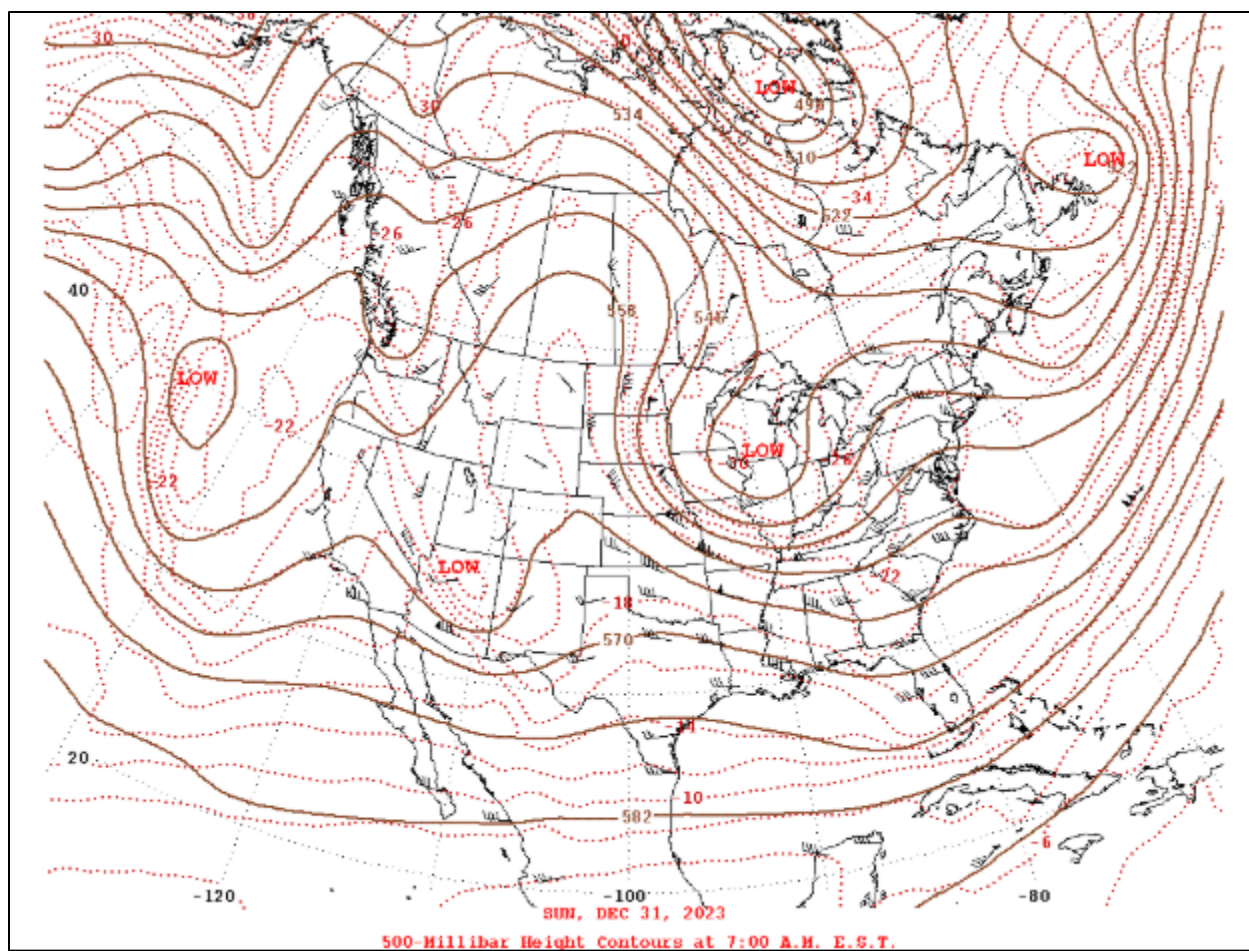


Figure A- 13: NOAA HMS Fire and Smoke Map on May 5, 2023

A.4: GROUP 4 - DECEMBER 31 THROUGH JANUARY 1, 2024



**Figure A- 14: National Weather Service Weather Prediction Center (December 31, 2023)
 CONUS Surface Analysis (21Z) 3:00 p.m. CST**



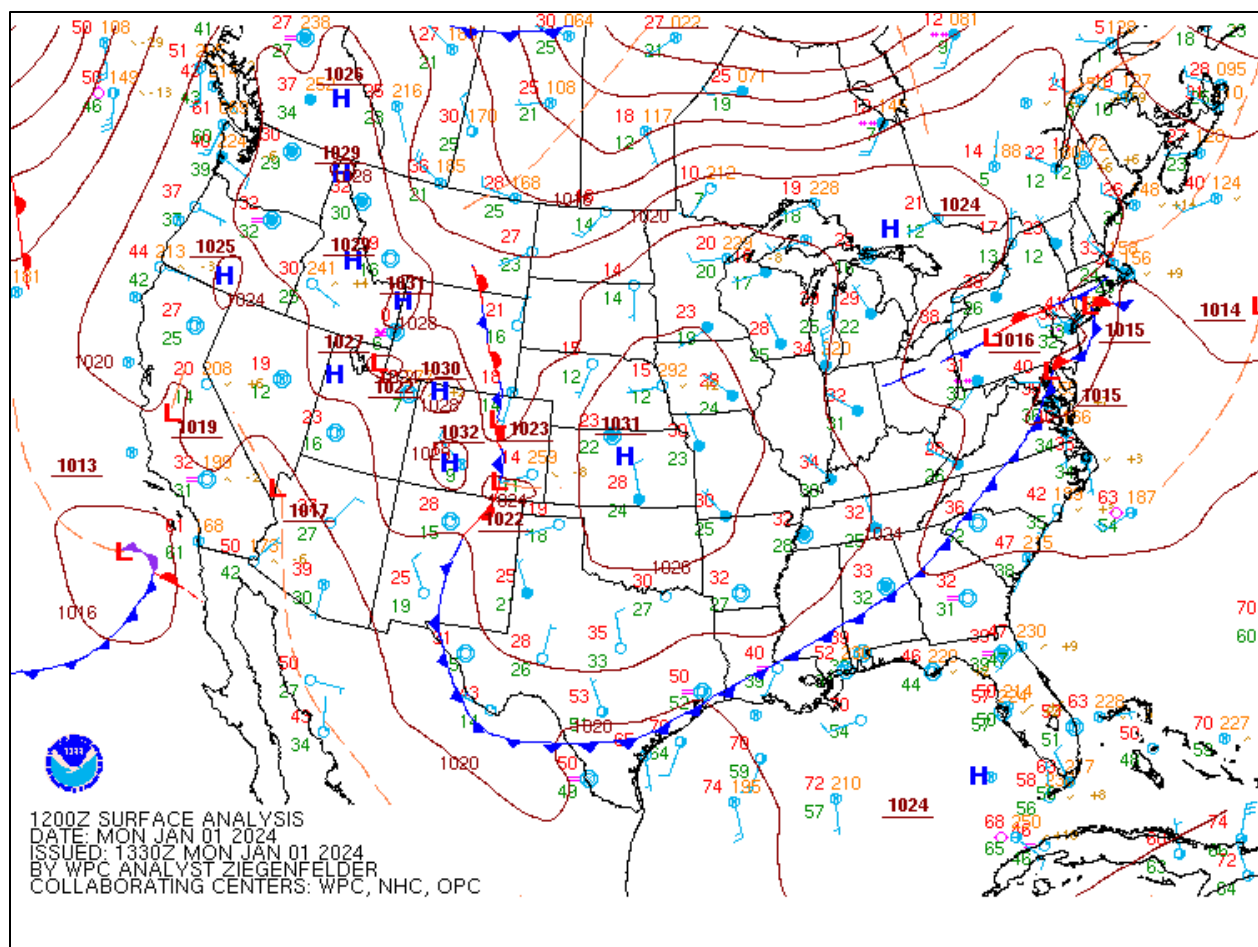


Figure A- 16: National Weather Service Weather Prediction Center (January 1, 2024) CONUS Surface Analysis (12Z) 6:00 a.m. CST

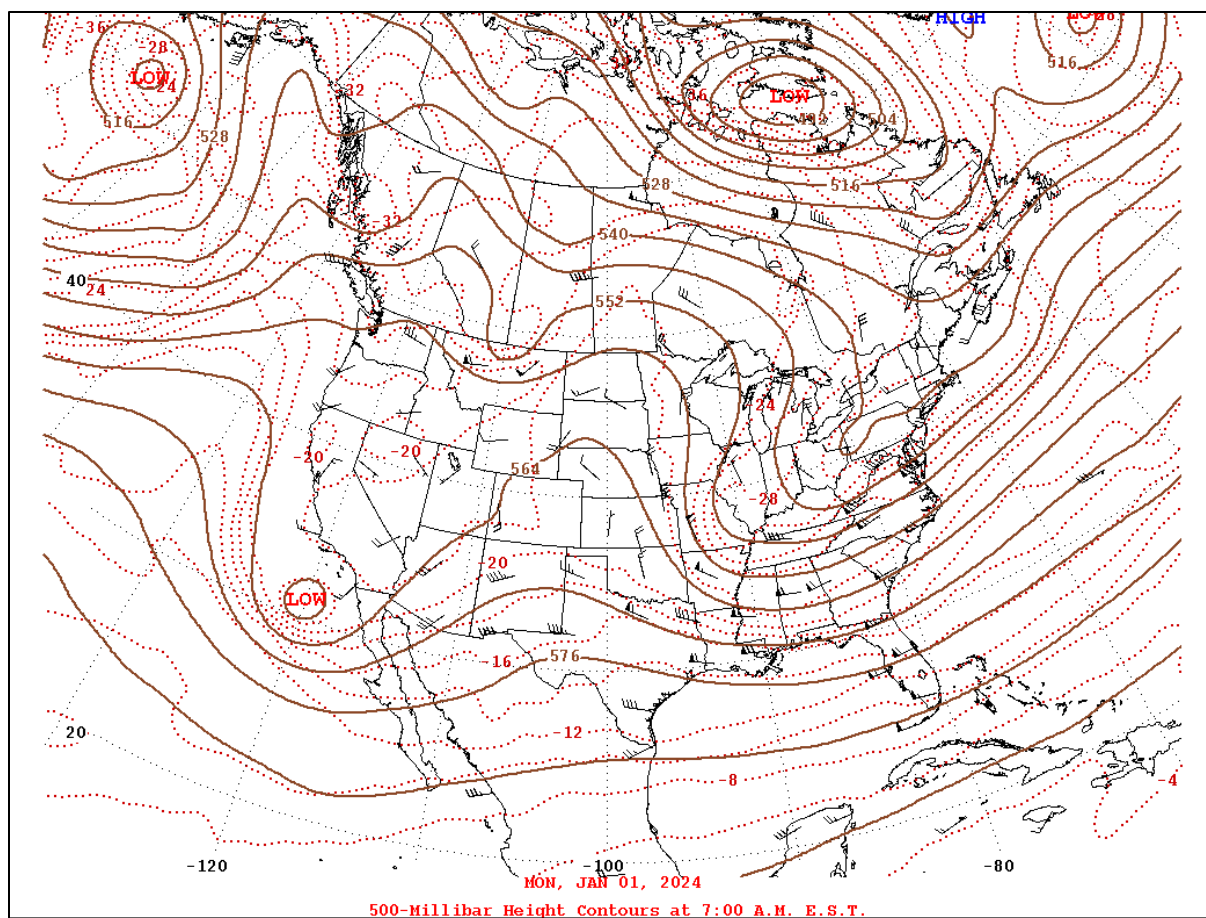


Figure A- 17: National Weather Service Storm Prediction Center (January 1, 2024) 500 mb Analysis (12Z) 6:00 a.m. CST

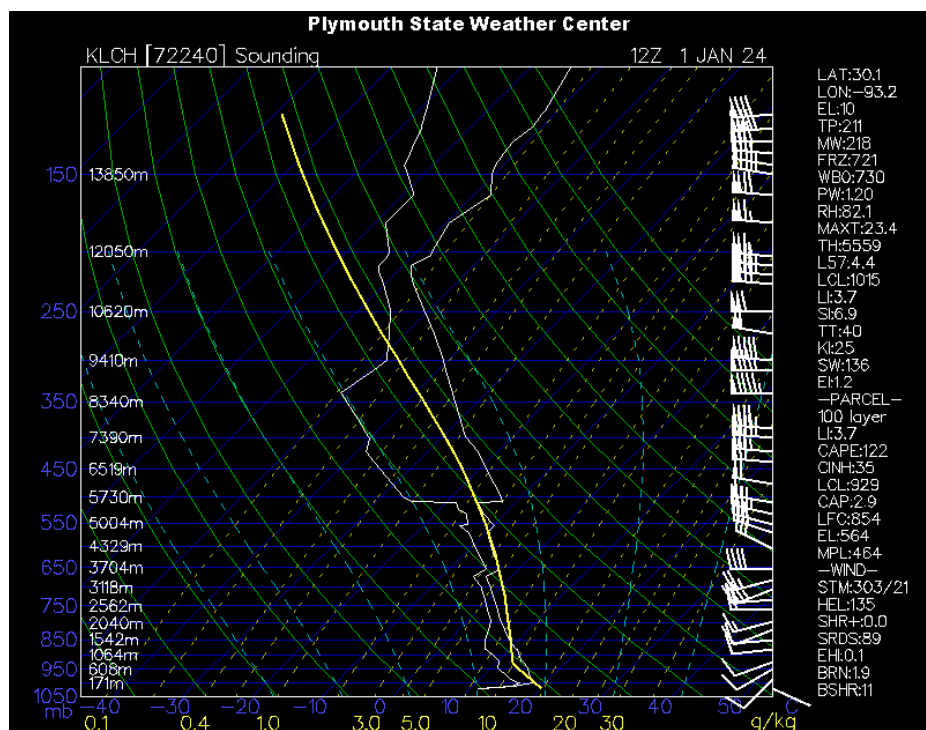


Figure A- 18: Upper Air Sounding Chart from Lake Charles, Louisiana, on January 1, 2024 (12Z) 6:00 a.m. CST

A.5: GROUP 5 - FEBRUARY 27, 2024

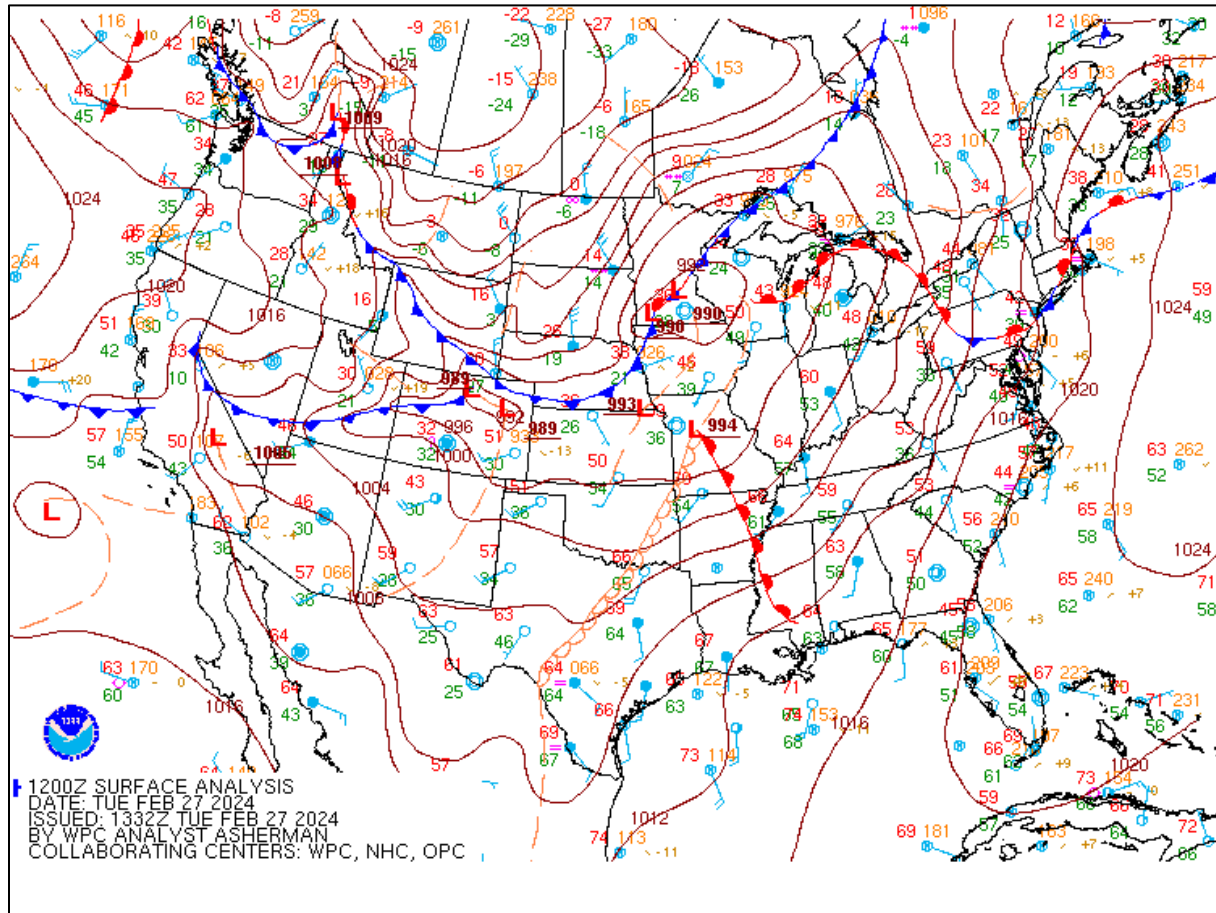


Figure A- 19: National Weather Service Weather Prediction Center (February 27, 2024)
CONUS Surface Analysis (12Z) 6:00 a.m. CST

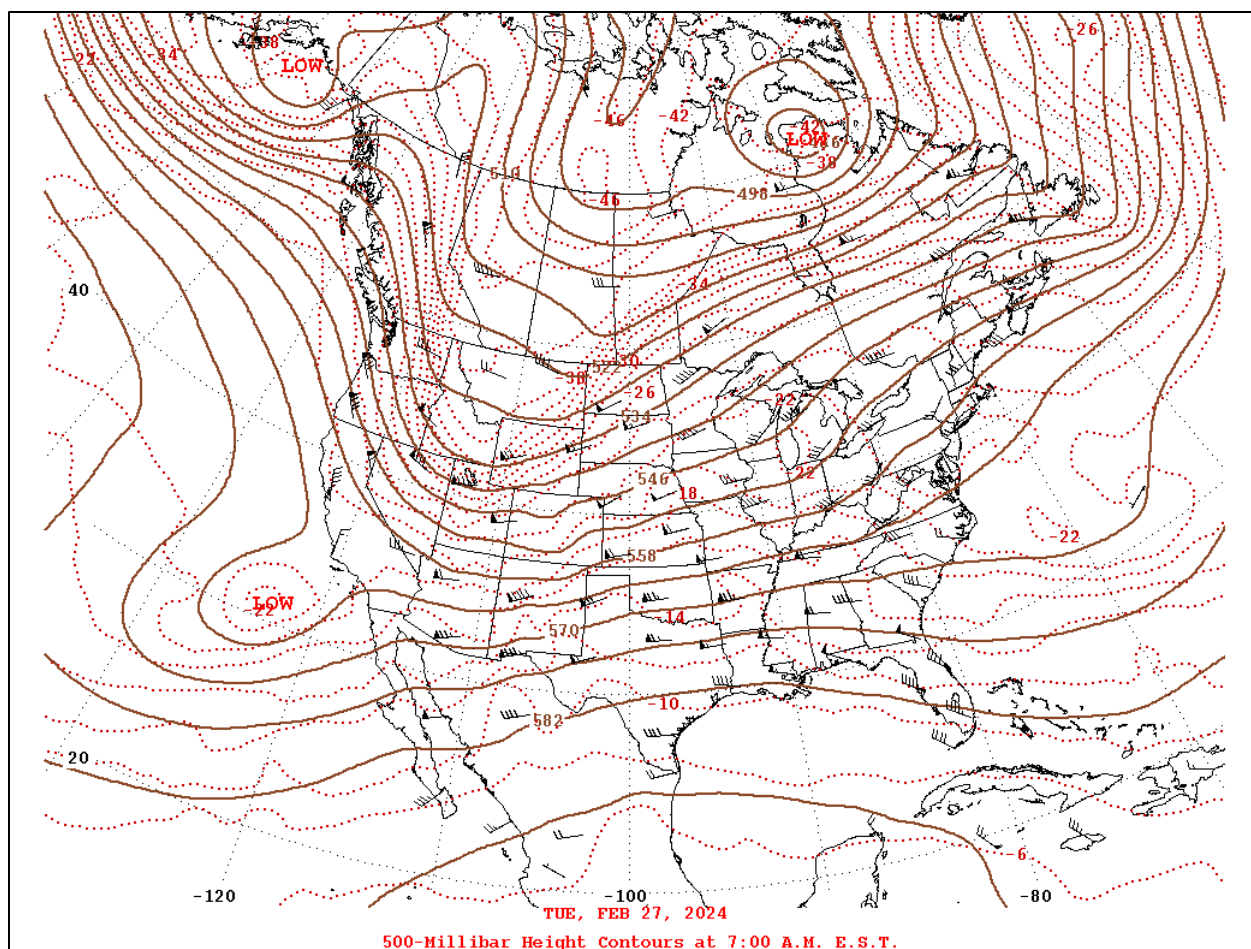


Figure A- 20: National Weather Service Storm Prediction Center (February 27, 2024) 500 mb Analysis (12Z) 6:00 a.m. CST

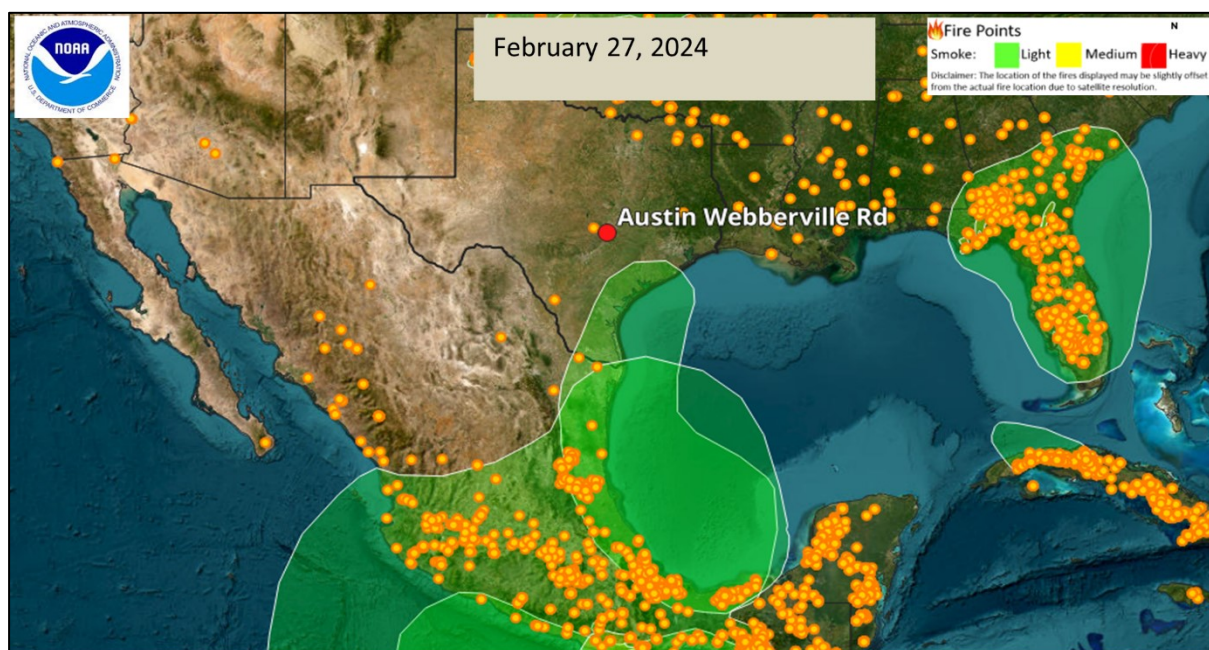


Figure A- 21: NOAA HMS Fire and Smoke Map on February 27, 2024

A.6: GROUP 6 - APRIL 1, 2024

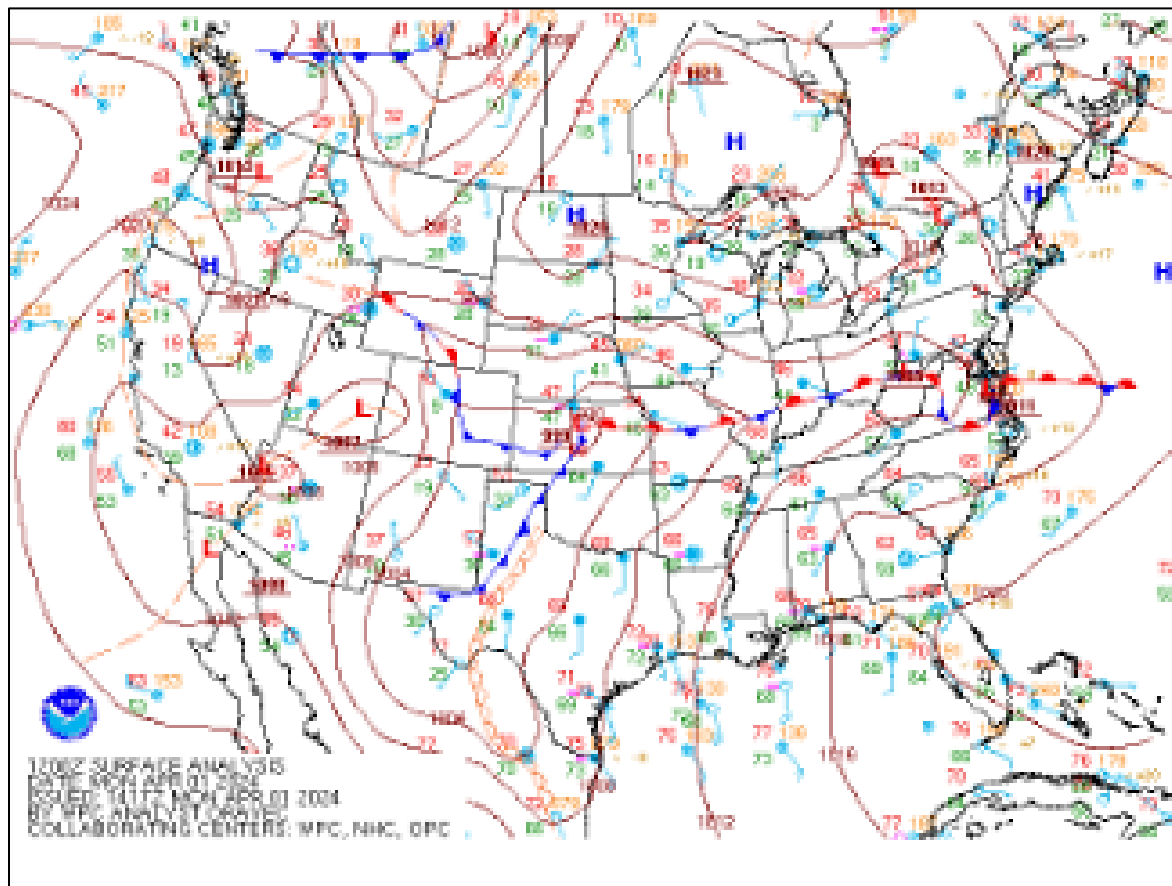


Figure A- 22: National Weather Service Weather Prediction Center (April 1, 2024) CONUS Surface Analysis (12Z) 7:00 a.m. CDT

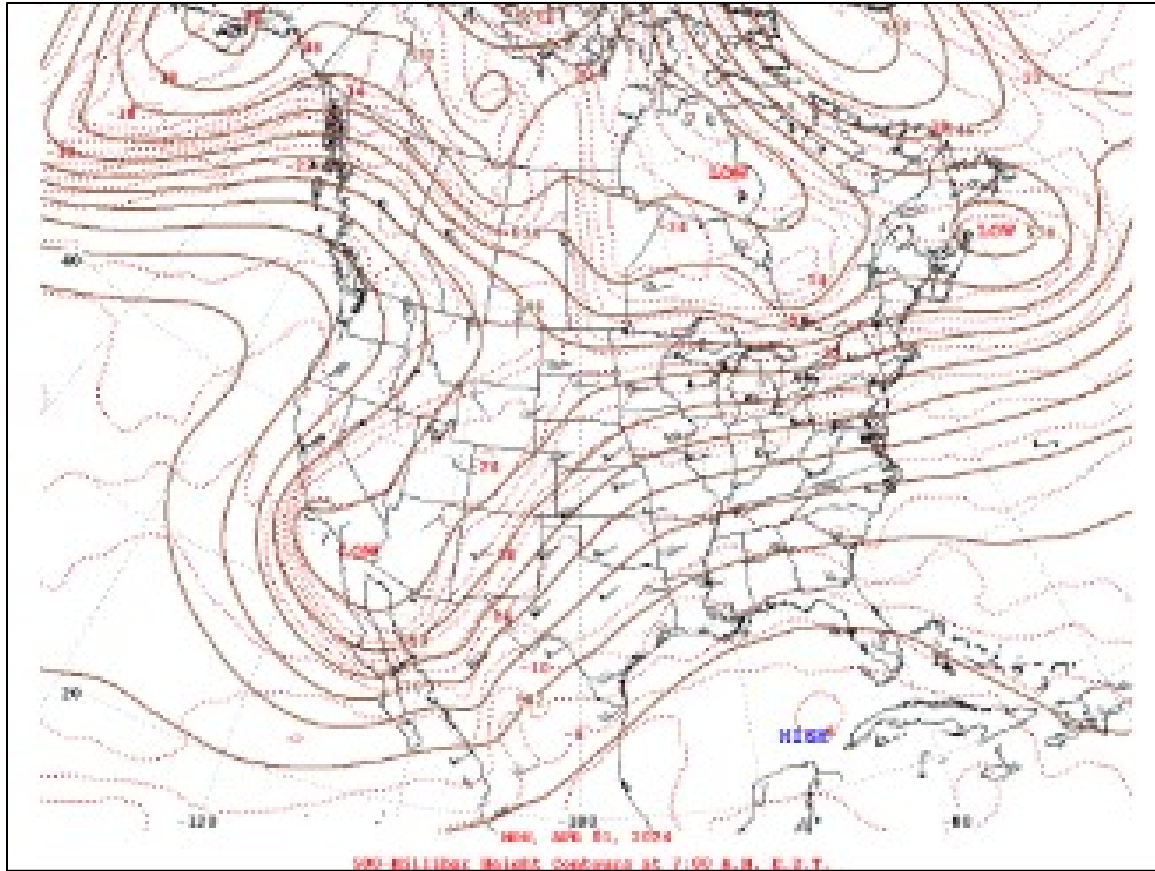


Figure A- 23: National Weather Service Storm Prediction Center (April 1, 2024) 500 mb Analysis (12Z) 7:00 a.m. CDT

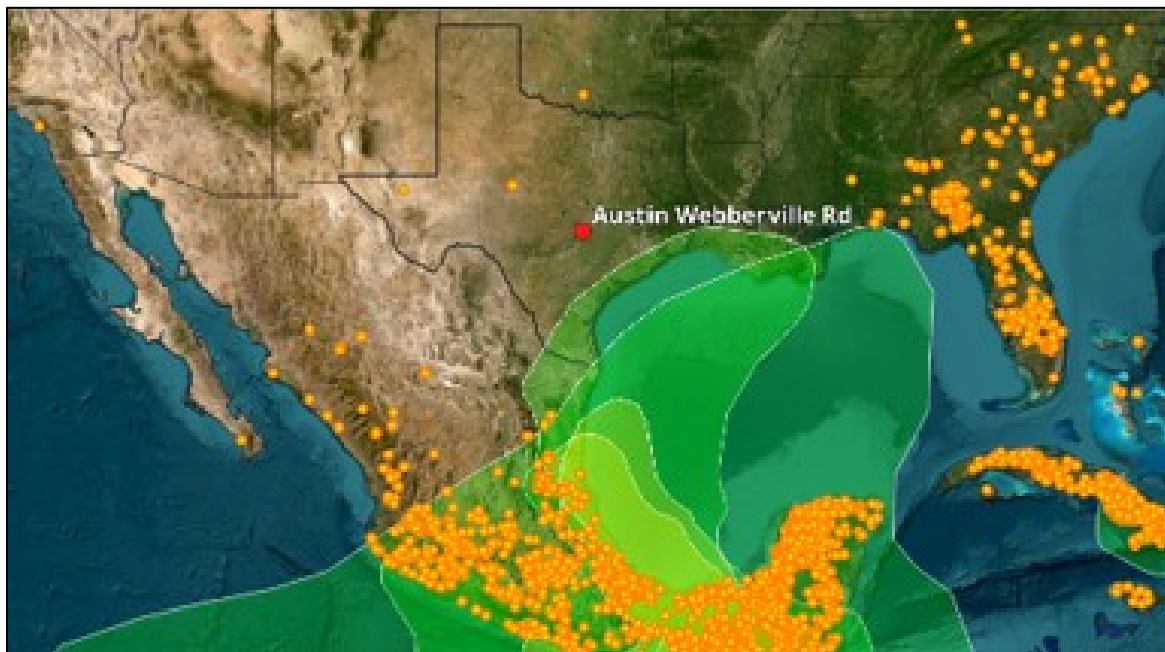


Figure A- 24: NOAA HMS Fire and Smoke Map on April 1, 2024

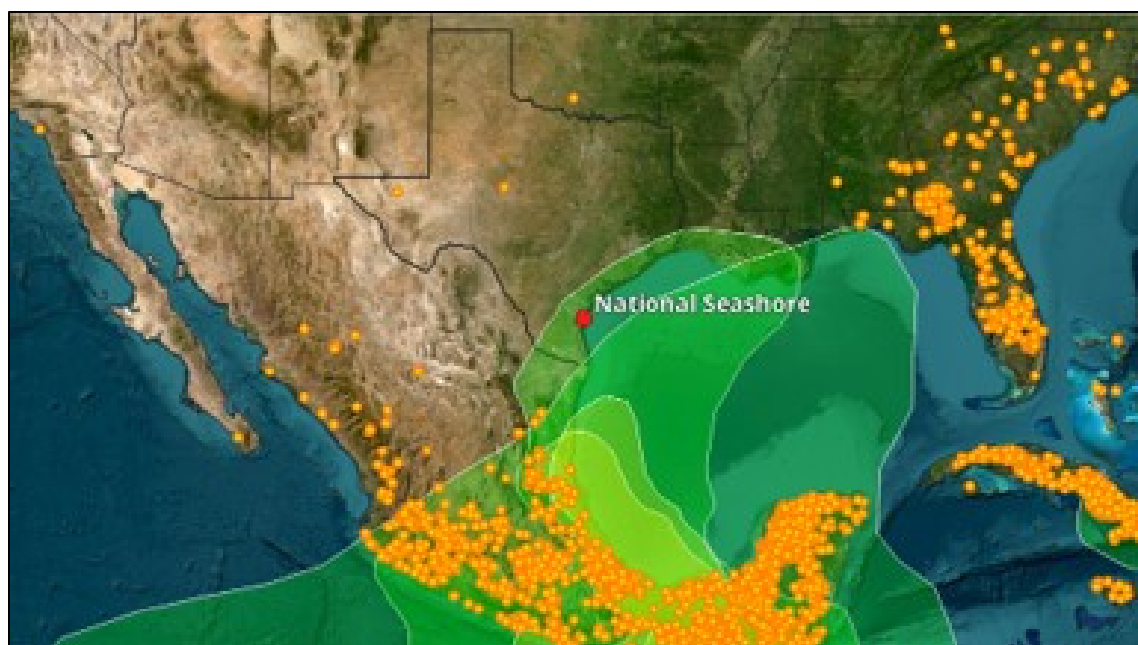


Figure A- 25: NOAA HMS Fire and Smoke Map on April 1, 2024

A.7: GROUP 7 - APRIL 4 THROUGH 6, 2024

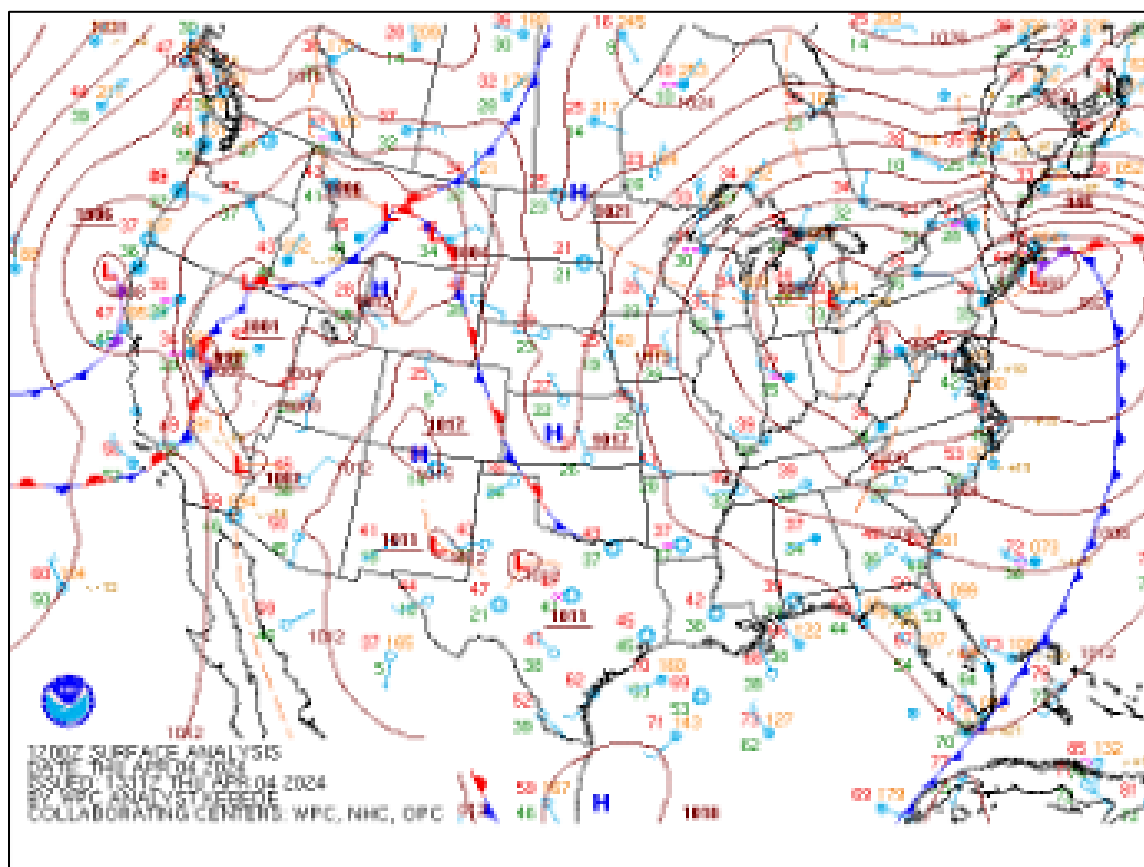


Figure A- 26: National Weather Service Weather Prediction Center (April 4, 2024) CONUS Surface Analysis (12Z) 7:00 a.m. CDT

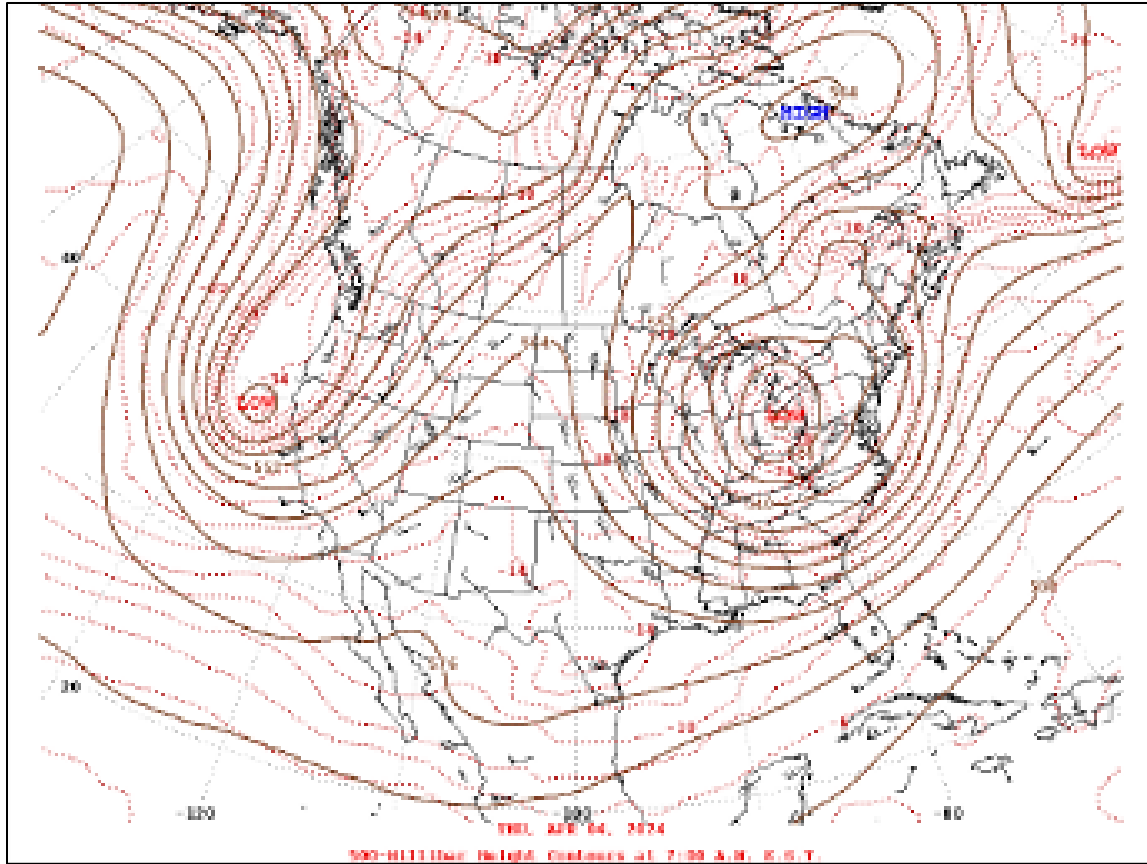


Figure A- 27: National Weather Service Storm Prediction Center (April 4, 2024) 500 mb Analysis (12Z) 7:00 a.m. CDT

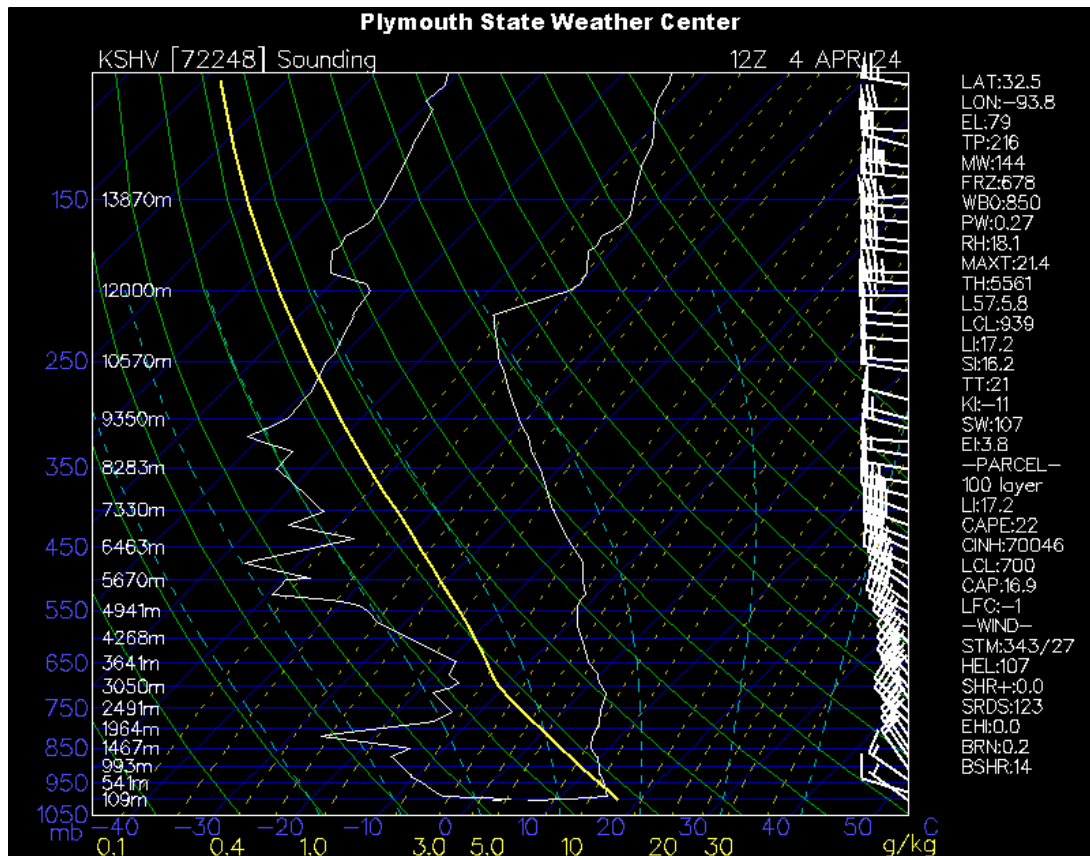


Figure A- 28: Upper Air Sounding Chart from Shreveport, Louisiana, on April 4, 2024 at (12Z) 7:00 a.m. CDT

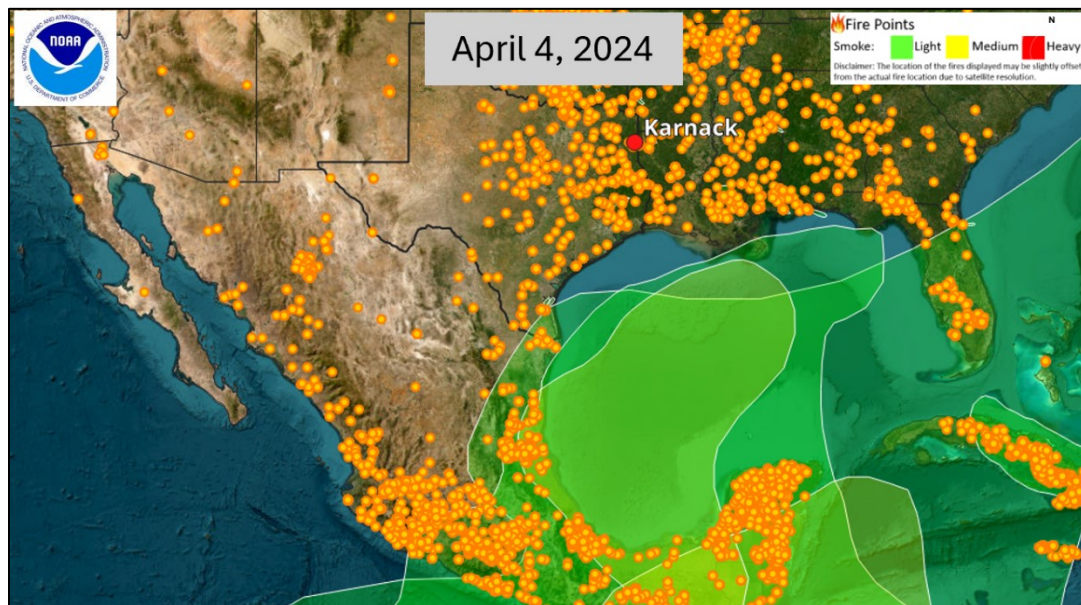


Figure A- 29: NOAA HMS Fire and Smoke Map on April 4, 2024

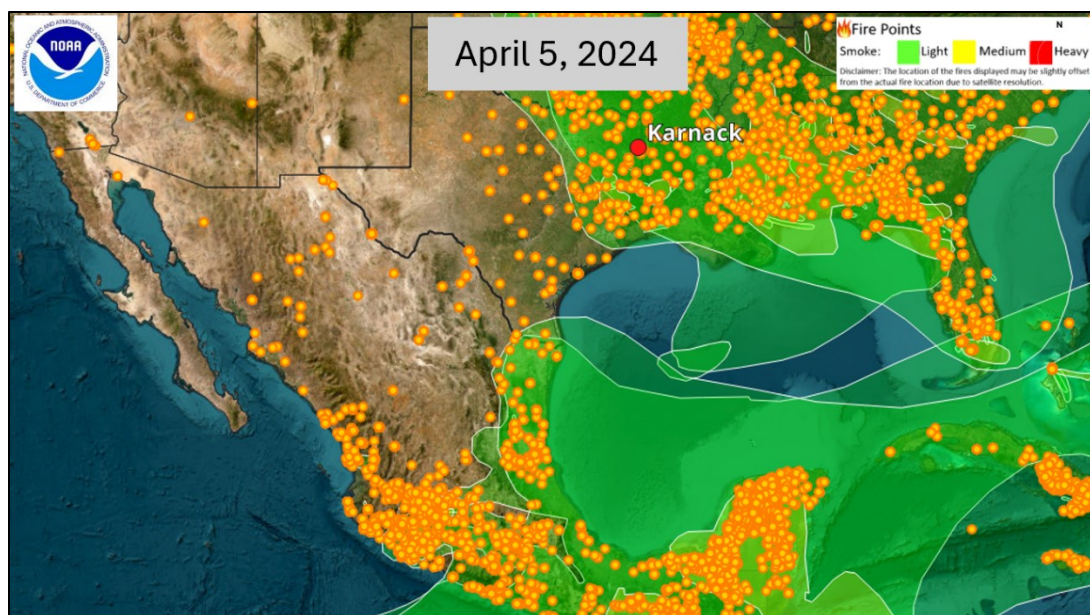


Figure A- 30: NOAA HMS Fire and Smoke Map on April 5, 2024

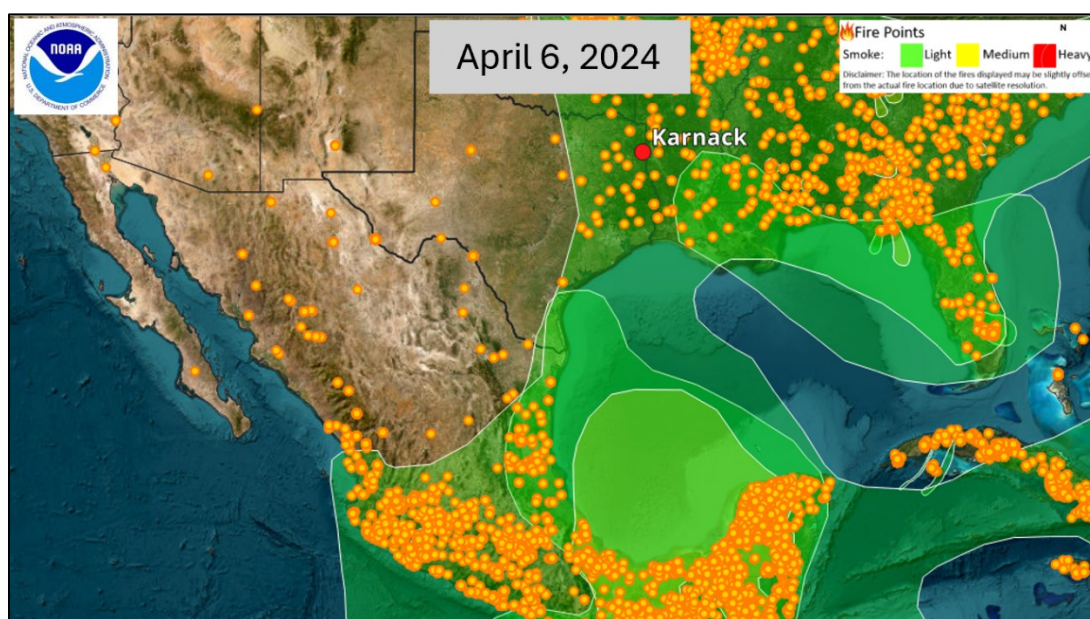


Figure A- 31: NOAA HMS Fire and Smoke Map on April 6, 2024

A.8: GROUP 8 - APRIL 17 AND 18, 2024

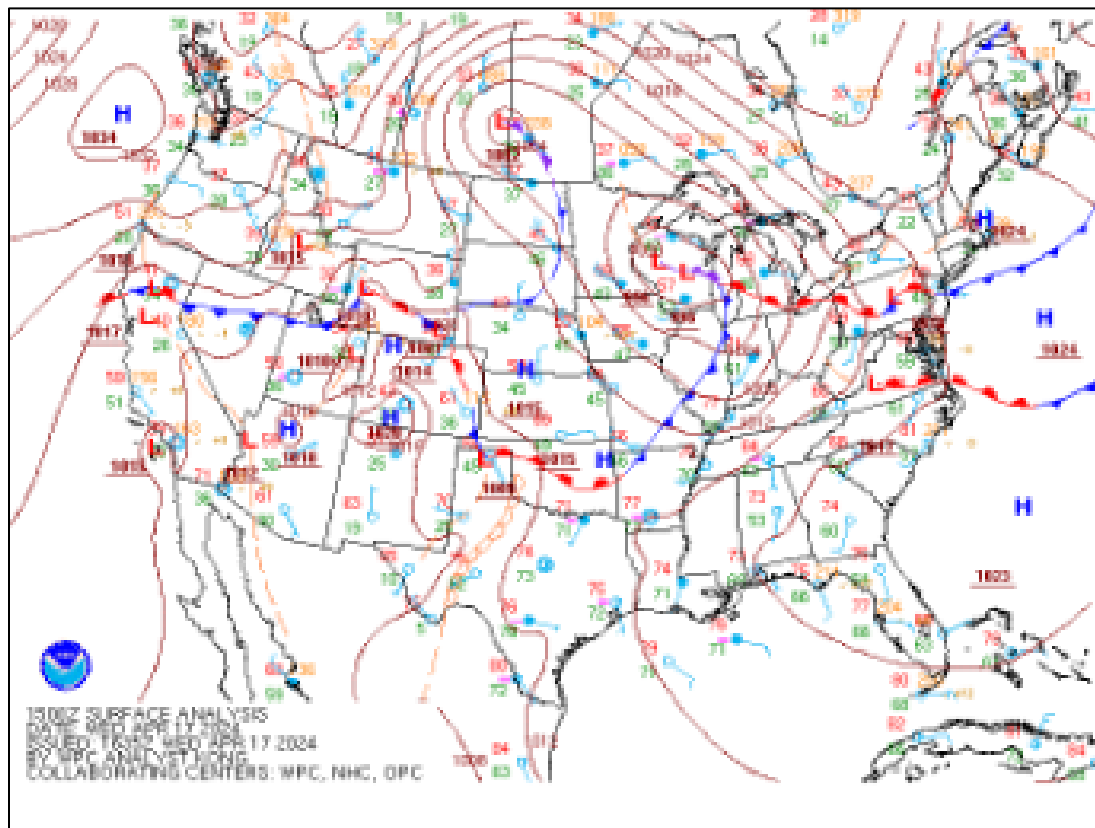


Figure A- 32: National Weather Service Weather Prediction Center (April 17, 2024) CONUS Surface Analysis (15Z) 10:00 a.m. CDT

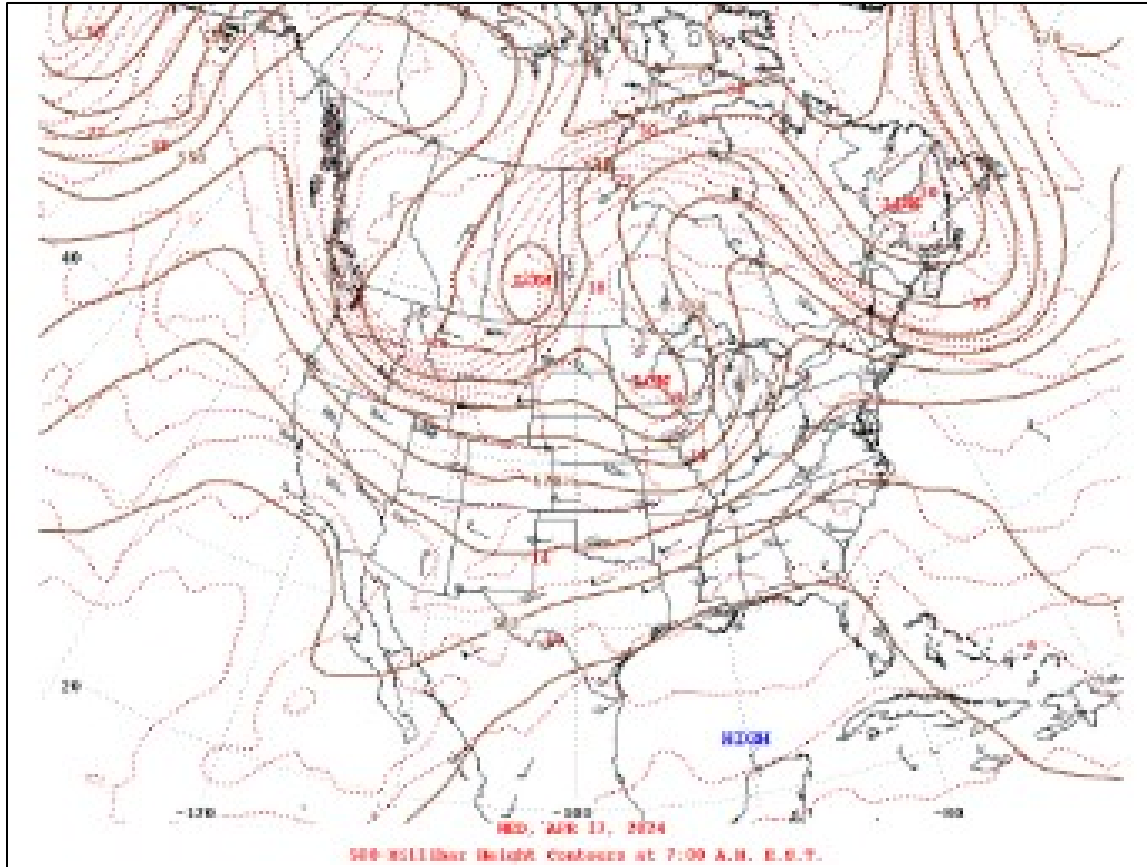


Figure A- 33: National Weather Service Storm Prediction Center (April 17, 2024) 500 mb Analysis (12Z) 7:00 a.m. CDT

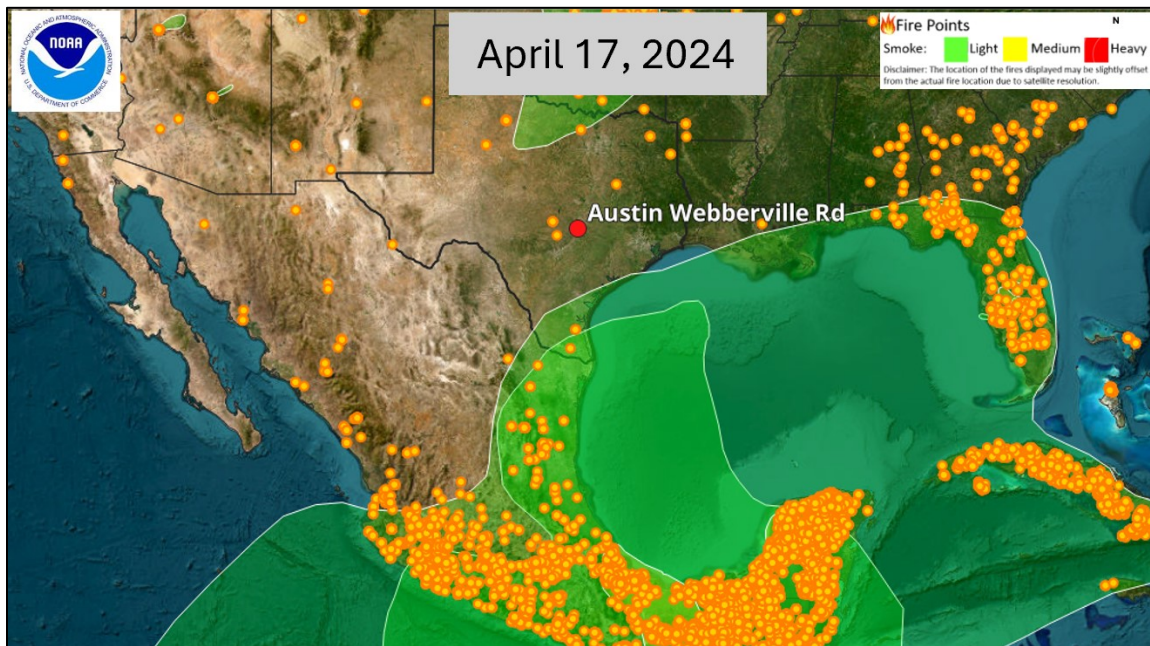


Figure A- 34: NOAA HMS Fire and Smoke Map on April 17, 2024

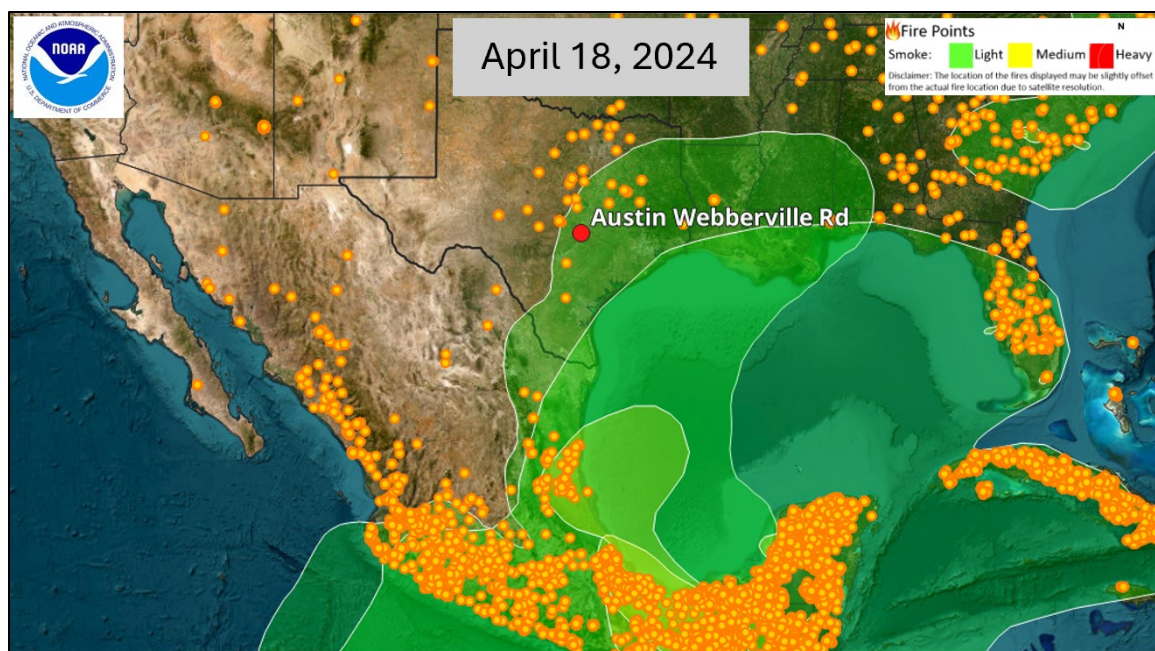


Figure A- 35: NOAA HMS Fire and Smoke Map on April 18, 2024

A.9: GROUP 9 - APRIL 26 THROUGH APRIL 28, 2024, WILDFIRE - CENTRAL AMERICA/MEXICO

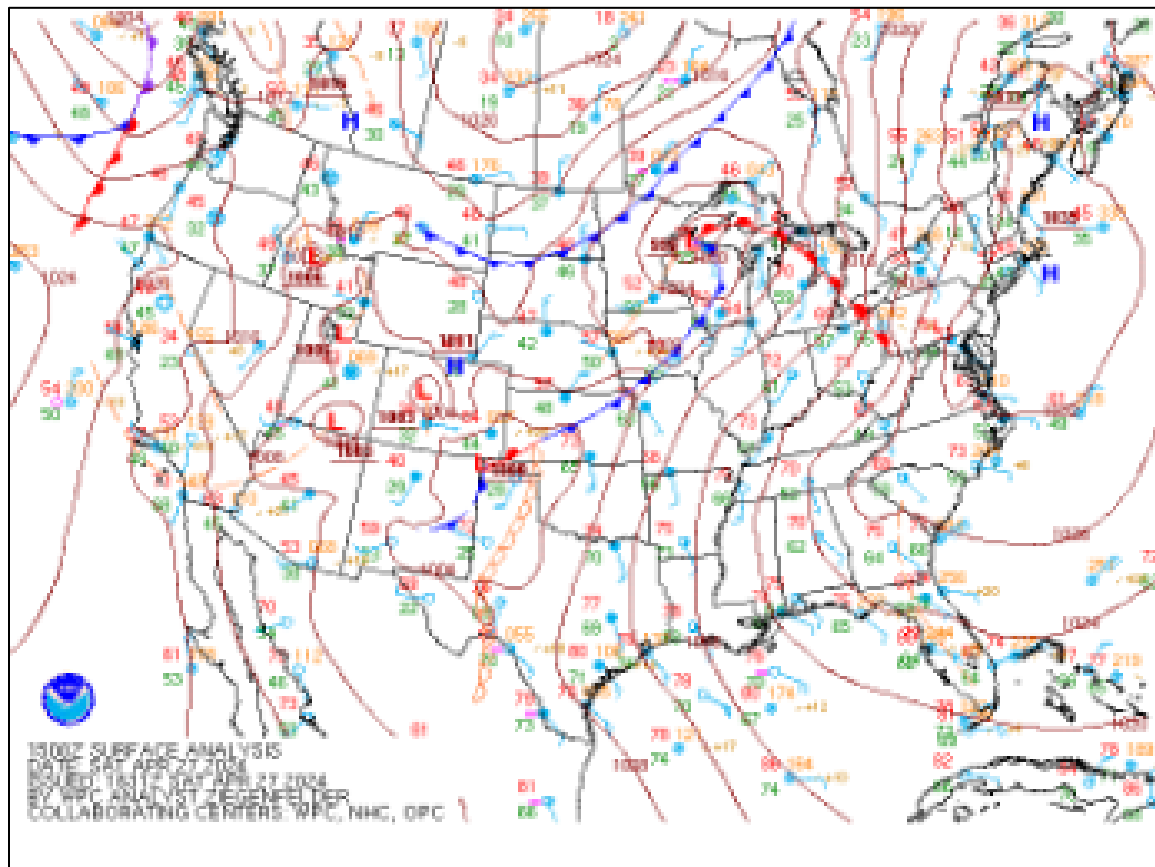


Figure A- 36: National Weather Service Weather Prediction Center (April 27, 2024) CONS Surface Analysis (15Z) 10:00 a.m. CDT

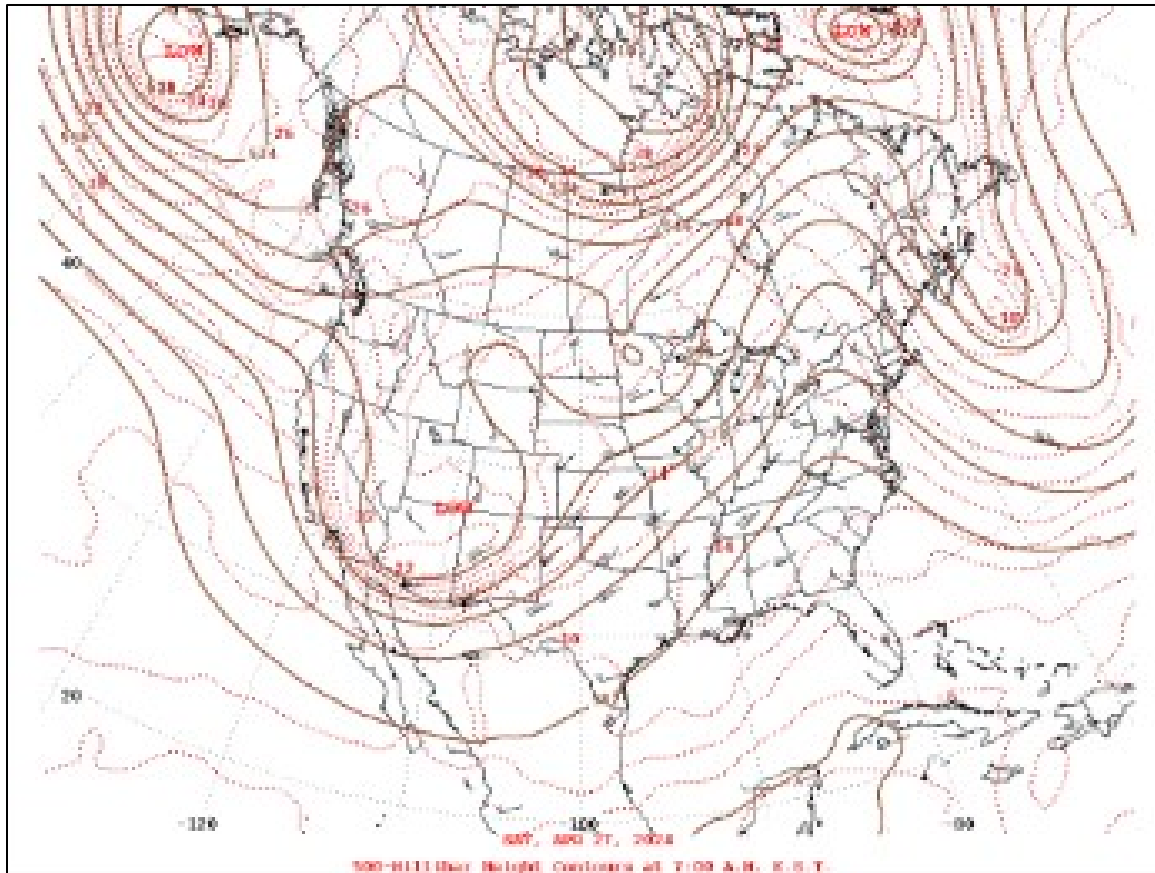


Figure A- 37: National Weather Service Storm Prediction Center (April 27, 2024) 500 mb Analysis (12Z) 7:00 a.m. CDT

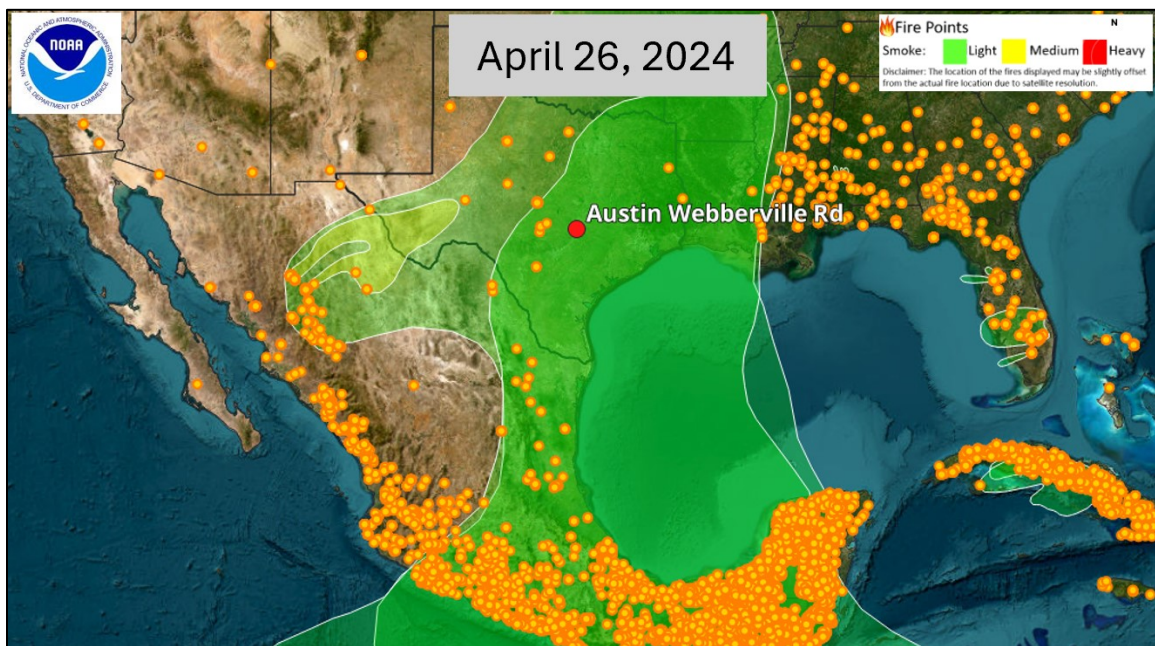


Figure A- 38: NOAA HMS Fire and Smoke Map on April 26, 2024

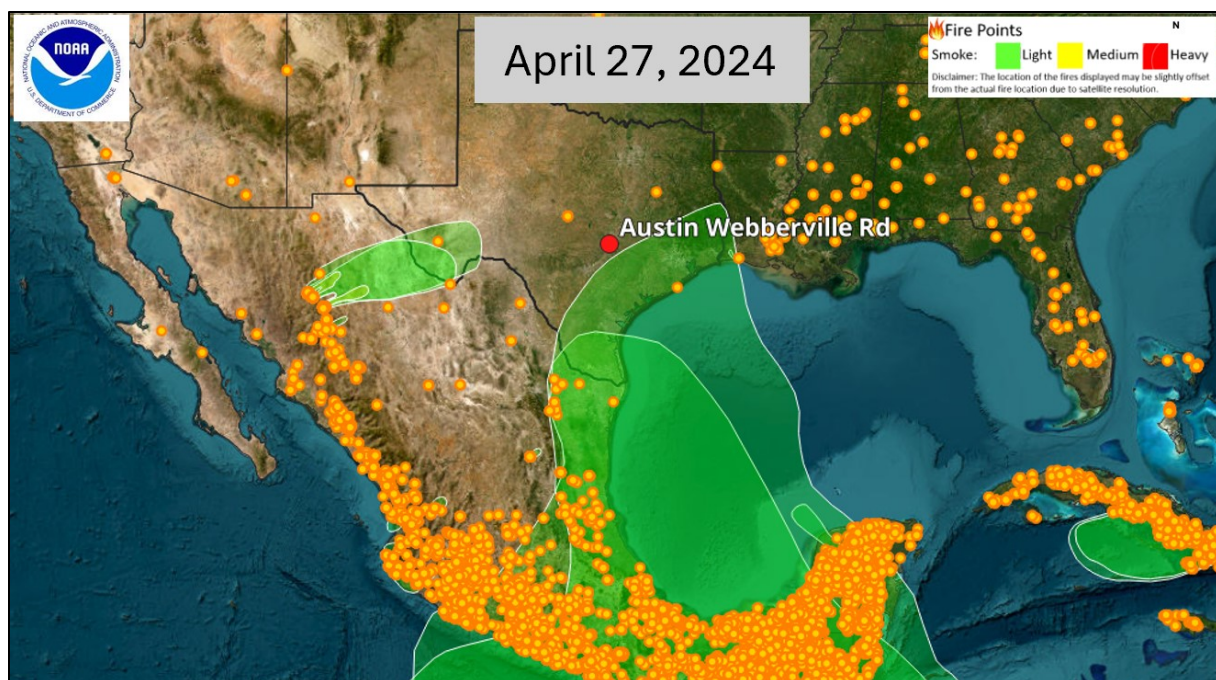


Figure A- 39: NOAA HMS Fire and Smoke Map on for April 27, 2024

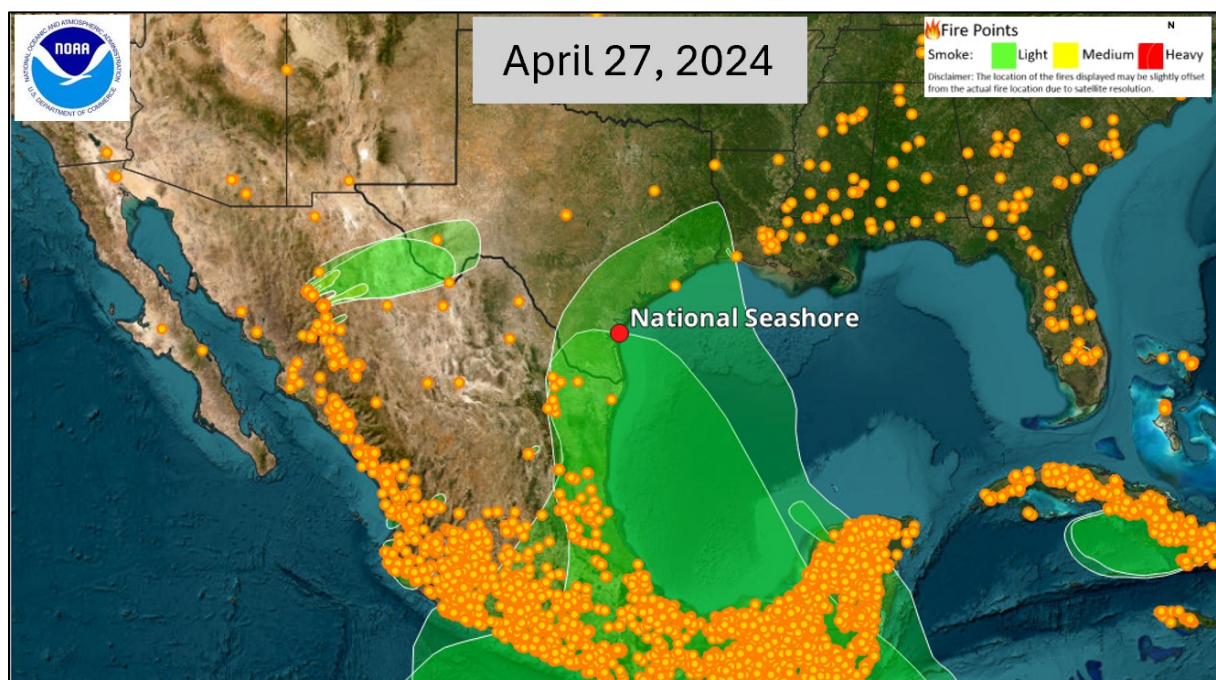


Figure A- 40: NOAA HMS Fire and Smoke Map on April 27, 2024



Figure A- 41: NOAA HMS Fire and Smoke Map on April 28, 2024

A.10: GROUP 10 - MAY 7 THROUGH MAY 10, 2024, WILDFIRE - CENTRAL AMERICA/MEXICO

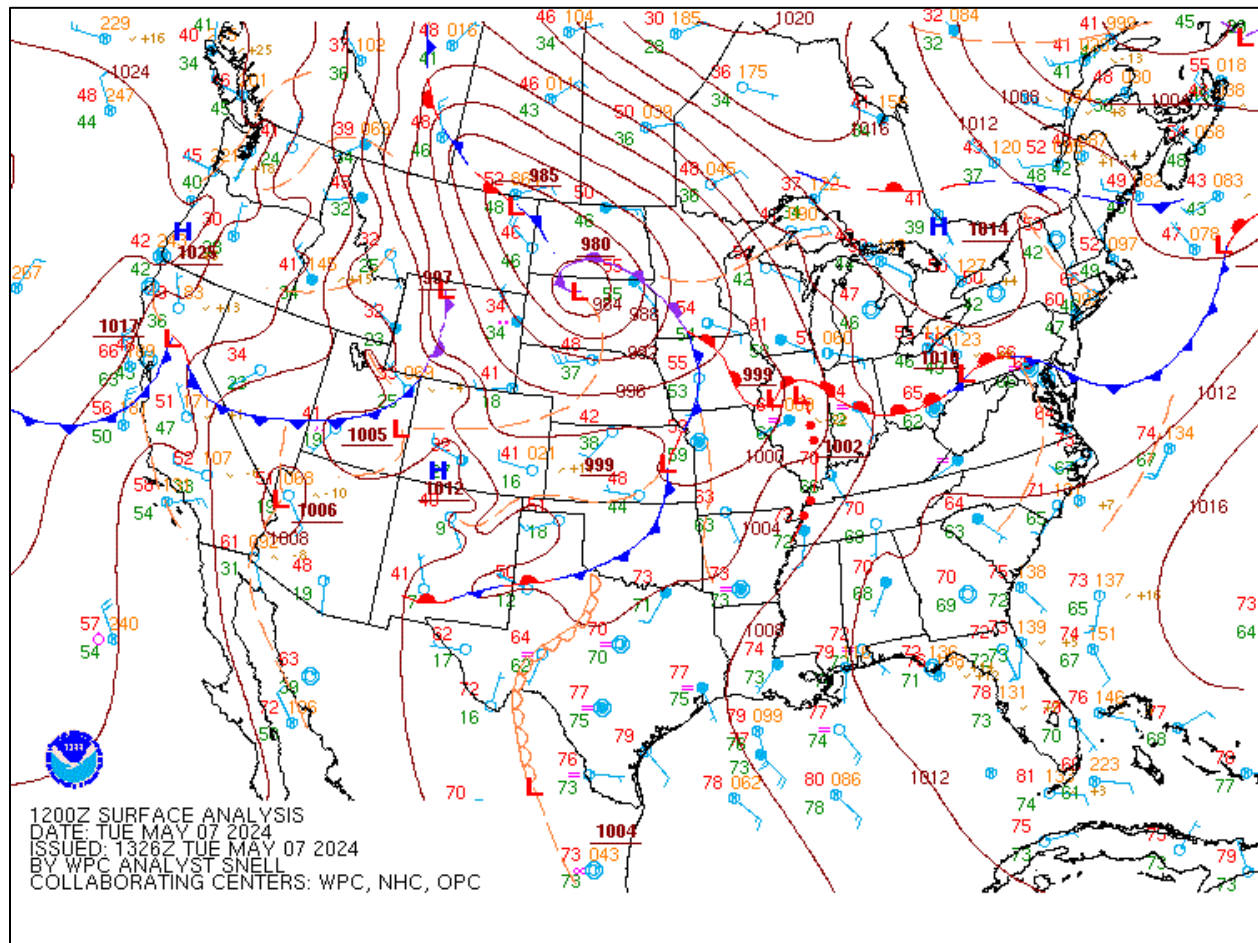


Figure A- 42: National Weather Service Weather Prediction Center (May 7, 2024) CONUS Surface Analysis (12Z) 10:00 CDT

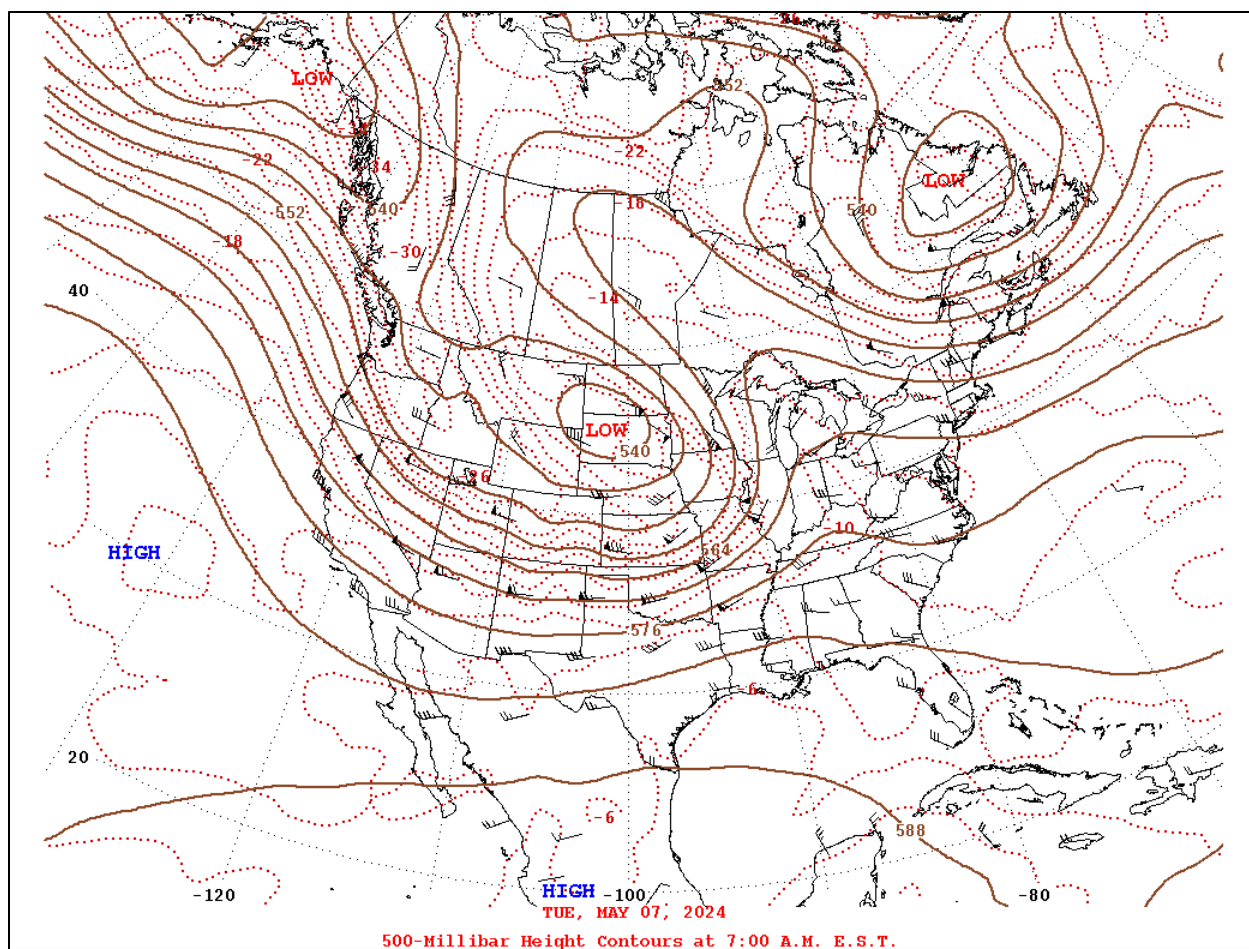


Figure A- 43: National Weather Service Storm Prediction Center (May 7, 2024) 500 mb Analysis (12Z) 7:00 a.m. CDT

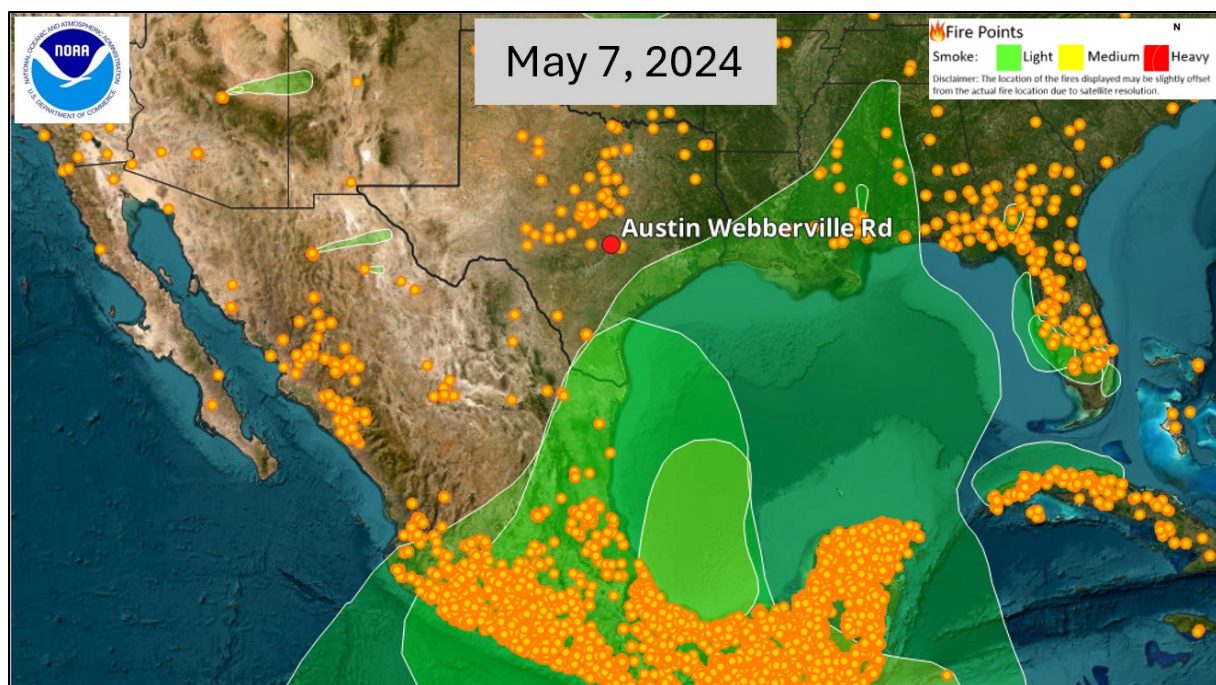


Figure A- 44: NOAA HMS Fire and Smoke Map on May 7, 2024

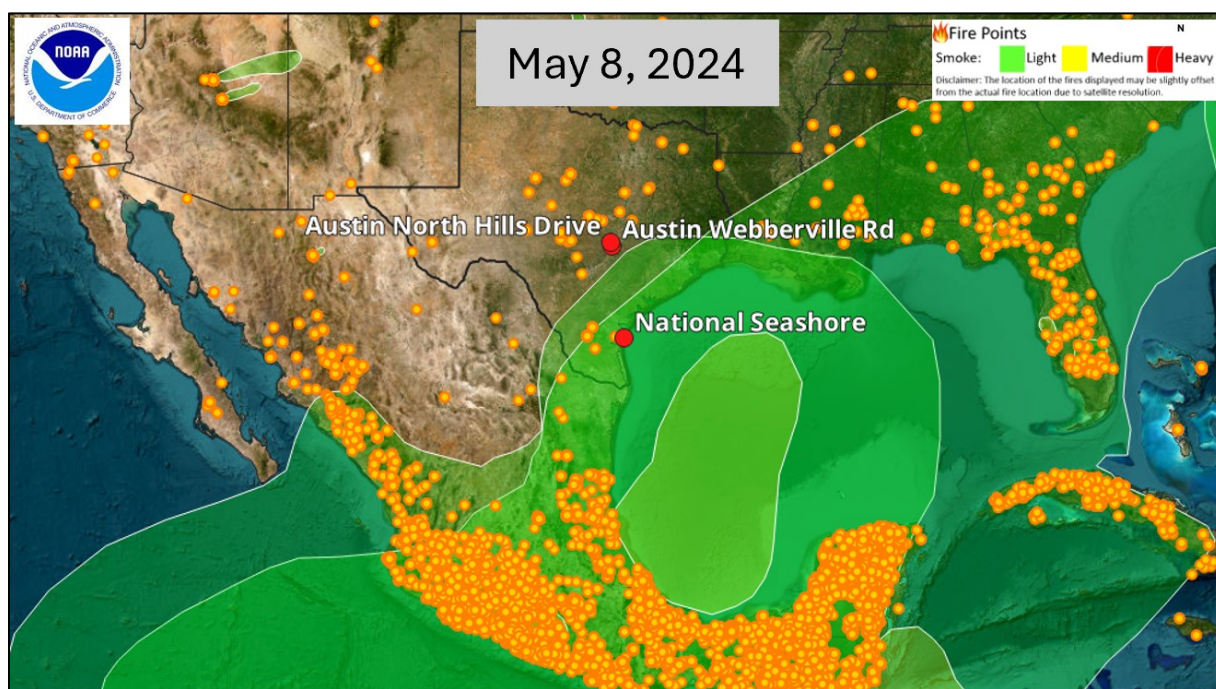


Figure A- 45: NOAA HMS Fire and Smoke Map on May 8, 2024

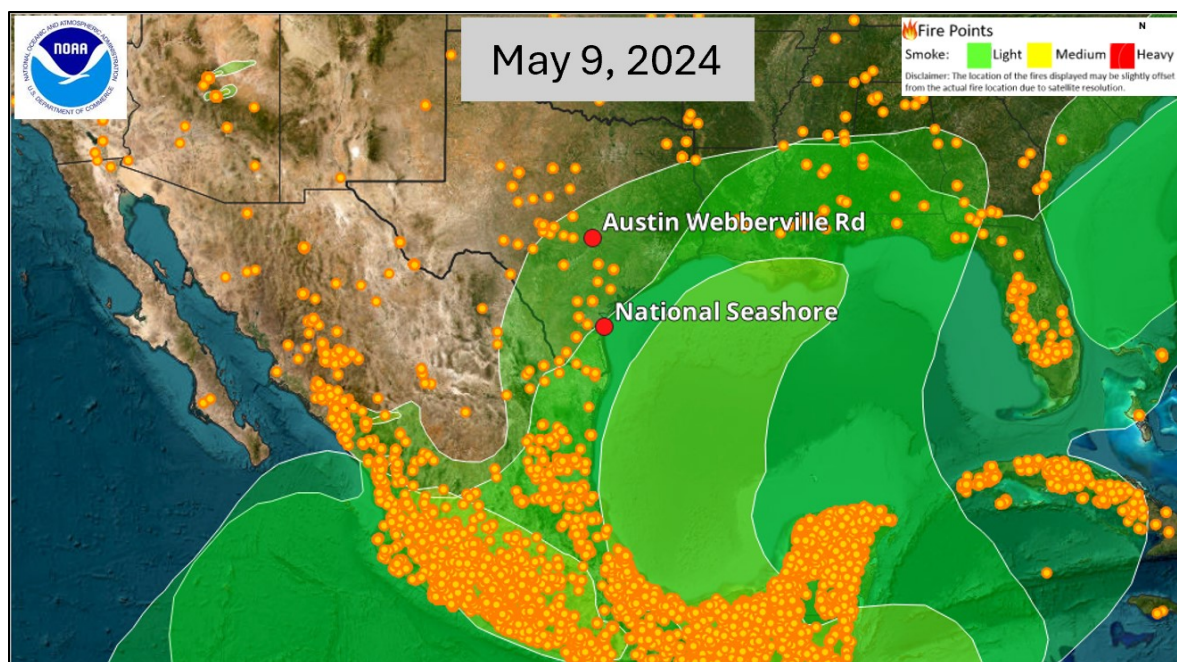


Figure A- 46: NOAA HMS Fire and Smoke Map on May 9, 2024

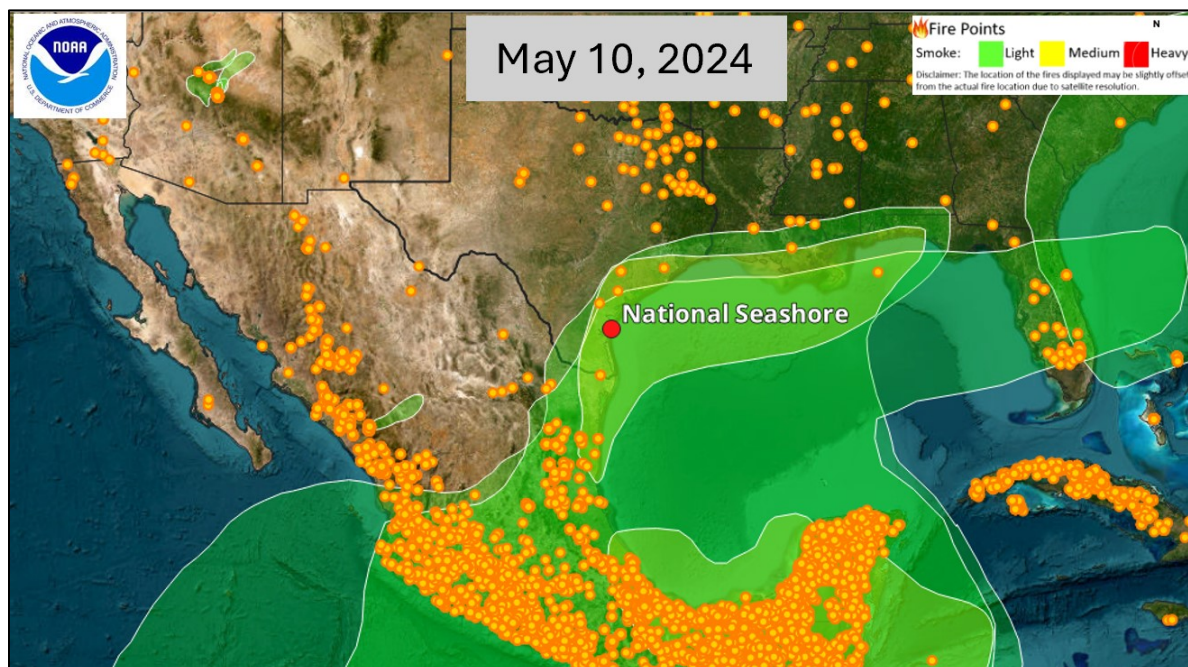


Figure A- 47: NOAA HMS Fire and Smoke Map on May 10, 2024

A.11: GROUP 11 - MAY 16, 2024

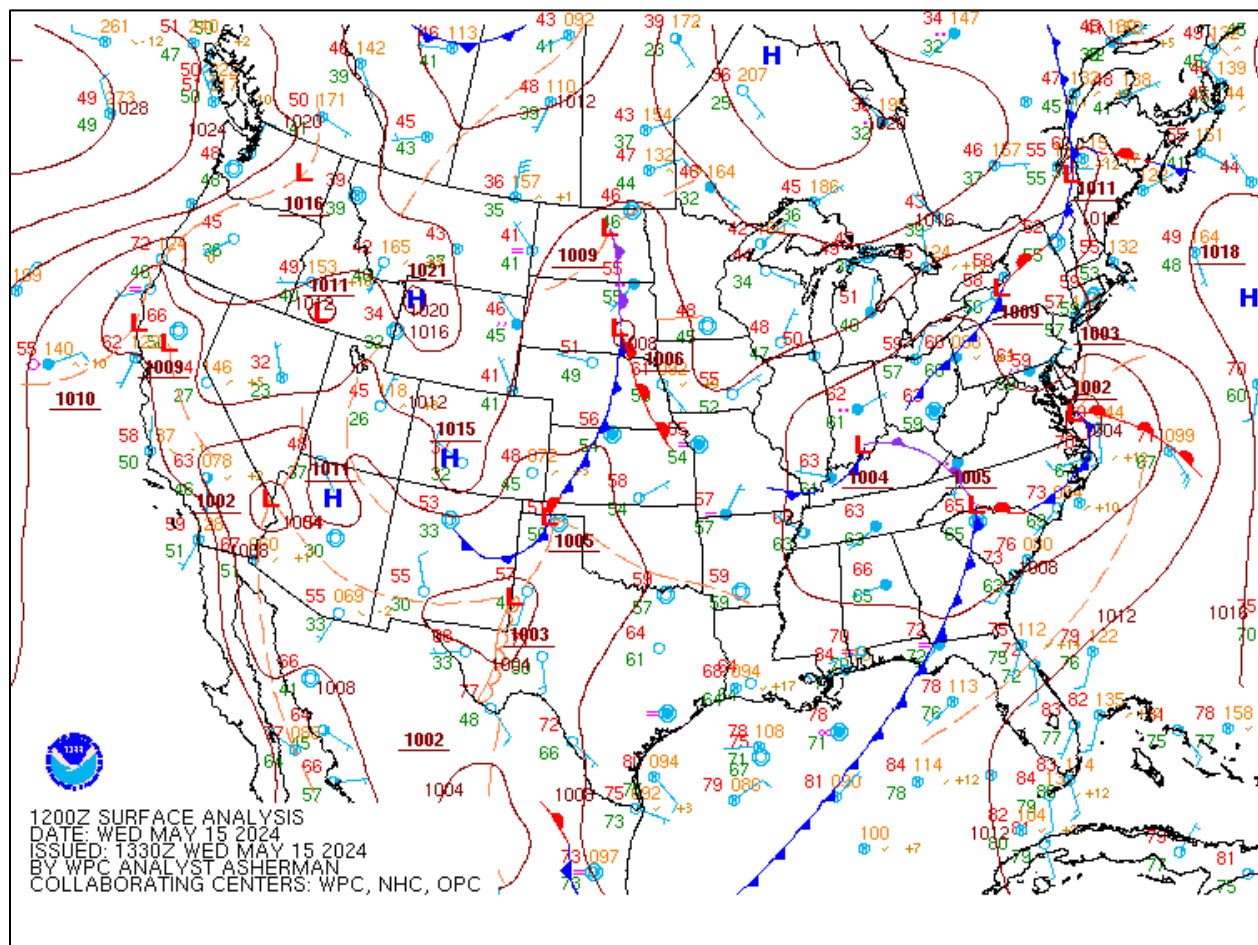


Figure A- 48: National Weather Service Weather Prediction Center (May 16, 2024) CONUS Surface Analysis (12Z) 7:00 a.m. CDT

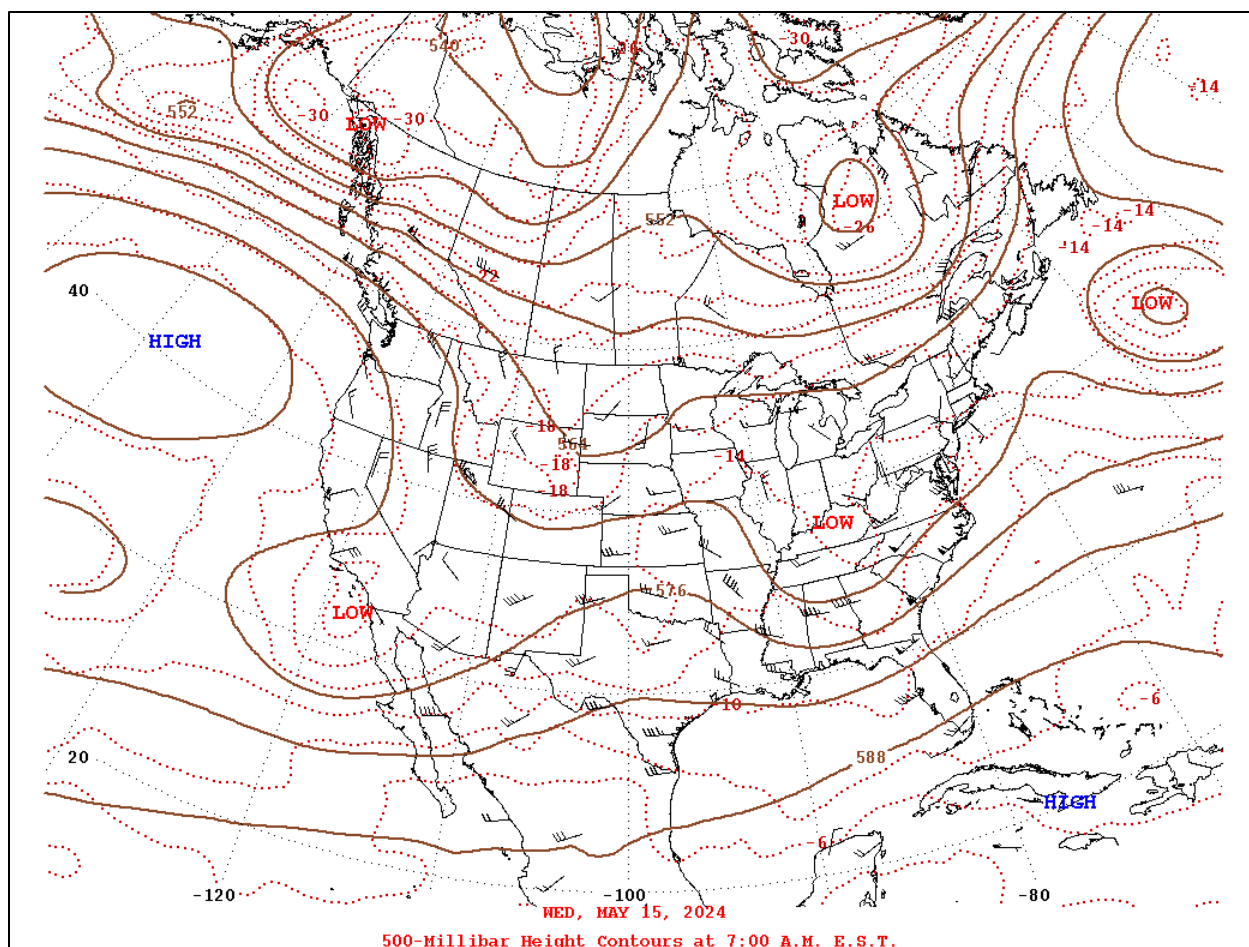


Figure A- 49: National Weather Service Storm Prediction Center (May 15, 2024) 500 mb Analysis (12Z) 7:00 a.m. CDT

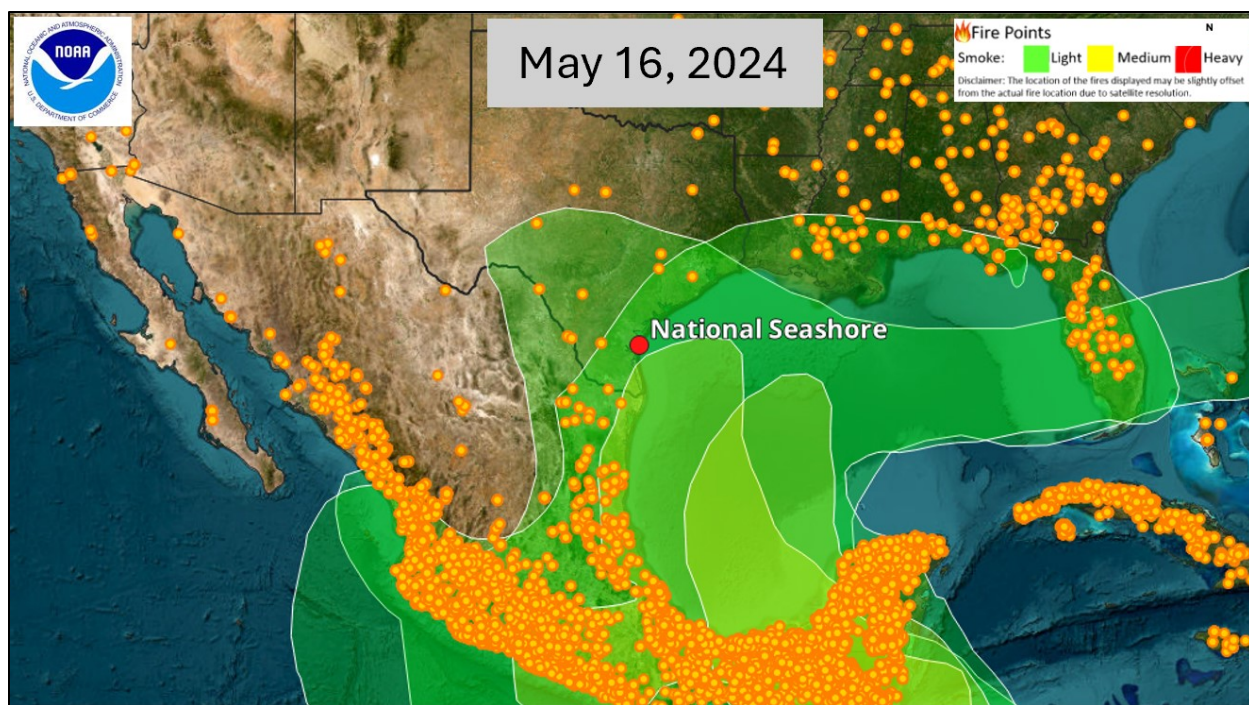


Figure A- 50: NOAA HMS Fire and Smoke Map on May 16, 2024

A.12: GROUP 12 - MAY 19 THROUGH MAY 28, 2024

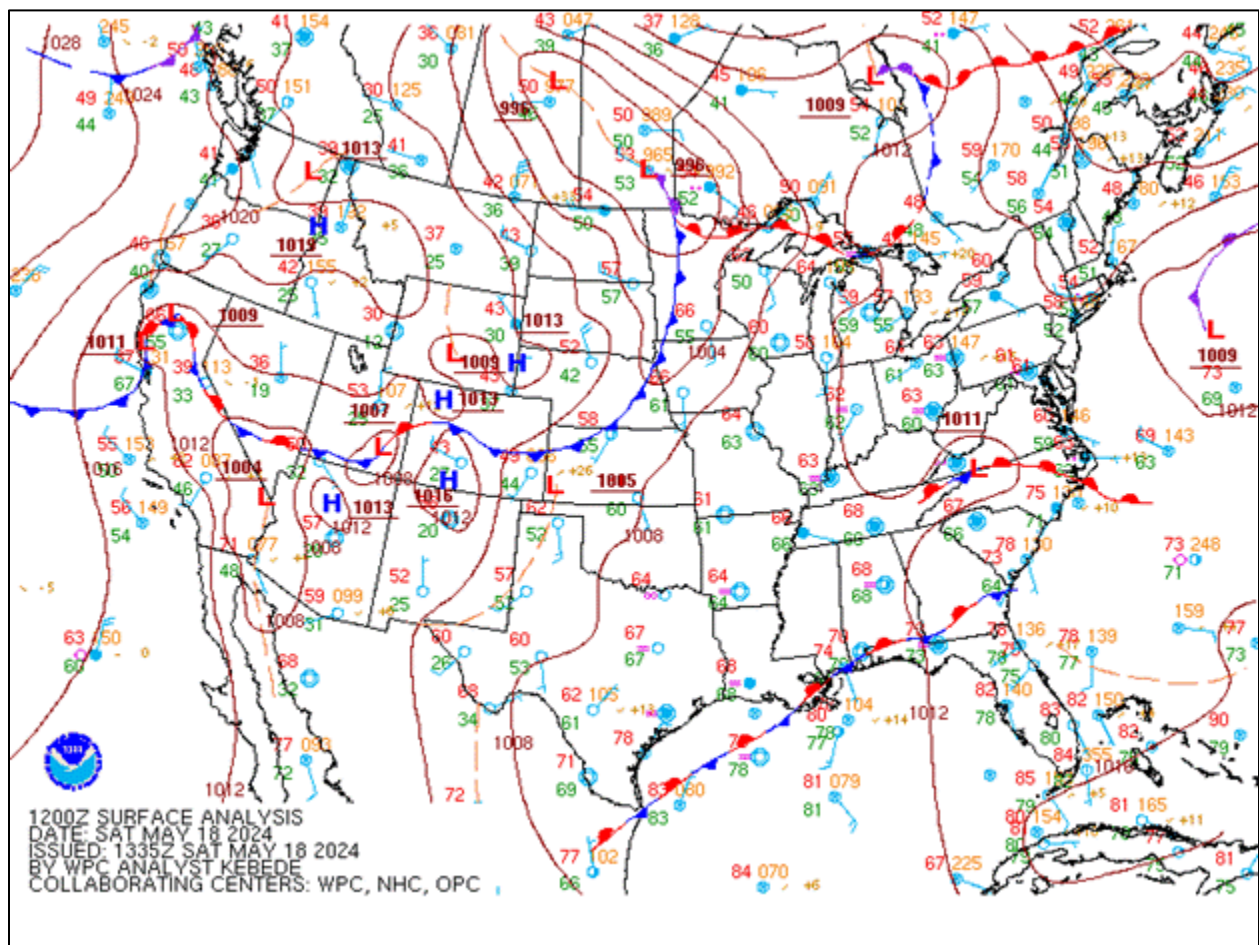


Figure A- 51: National Weather Service Weather Prediction Center (May 18, 2024) CONUS Surface Analysis (12Z) 7:00 a.m. CDT

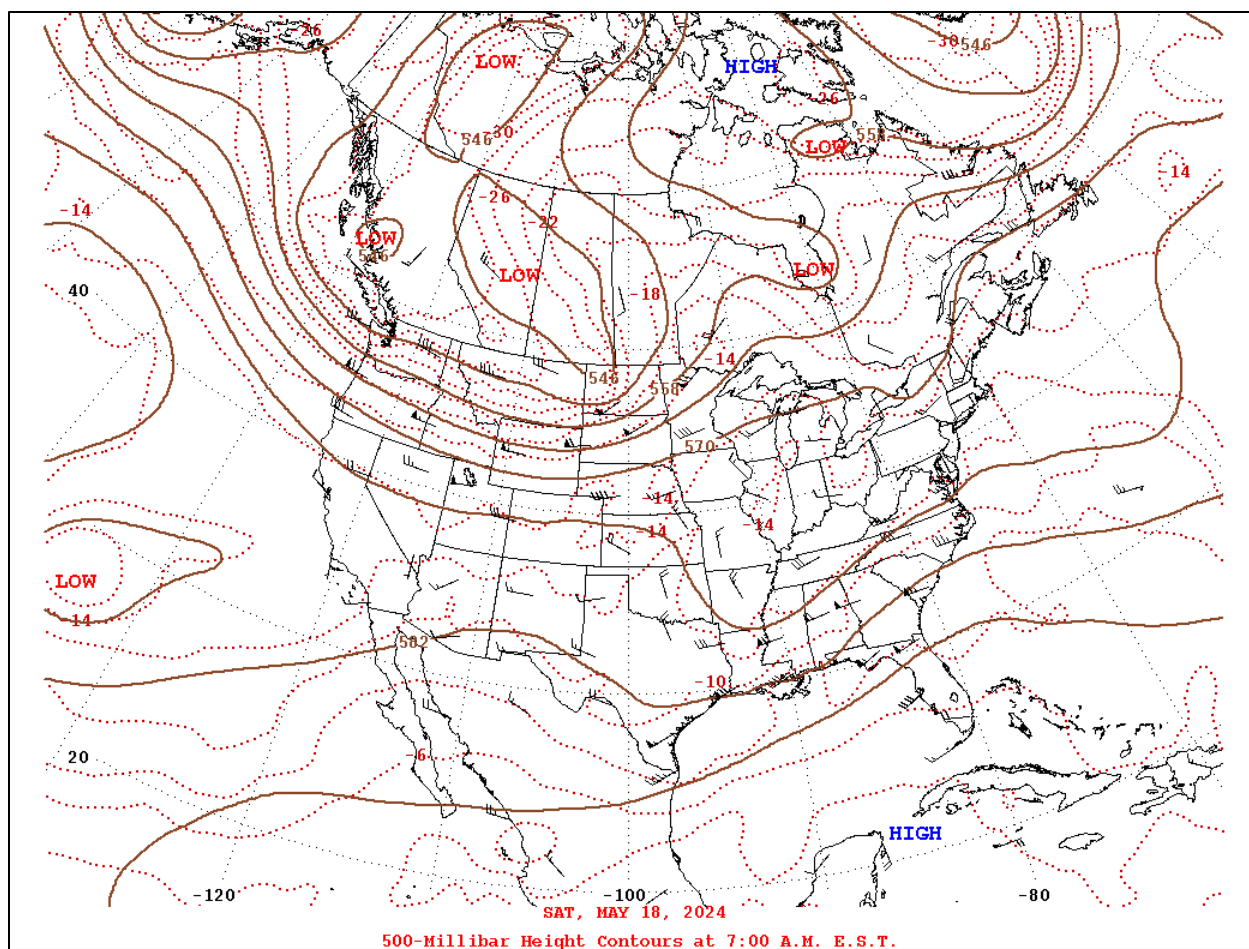


Figure A- 52: National Weather Service Storm Prediction Center (May 18, 2024) 500 mb Analysis (12Z) 7:00 a.m. CDT

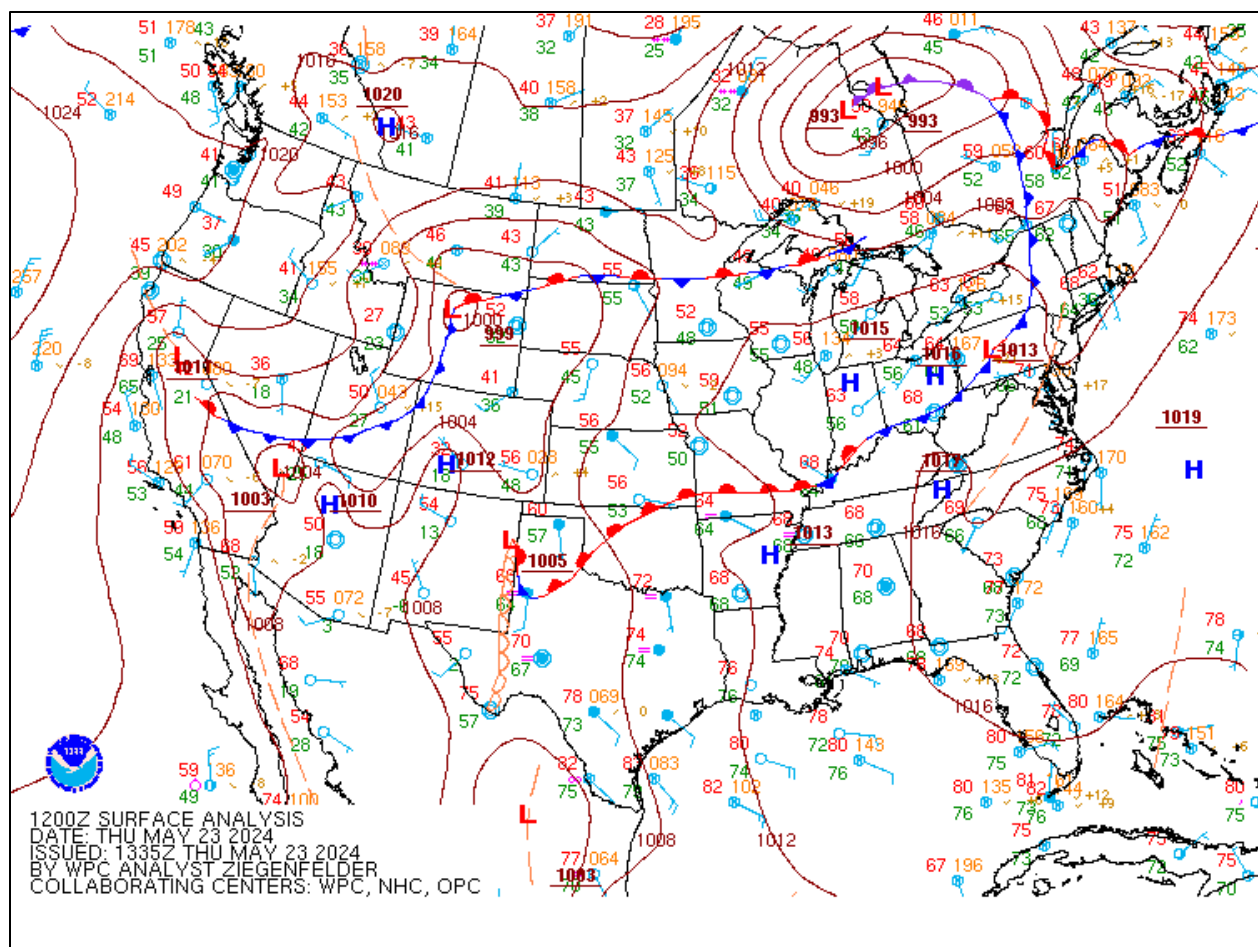


Figure A- 53: National Weather Service Weather Prediction Center (May 23, 2024) CONUS Surface Analysis (12Z) 7:00 a.m. CDT

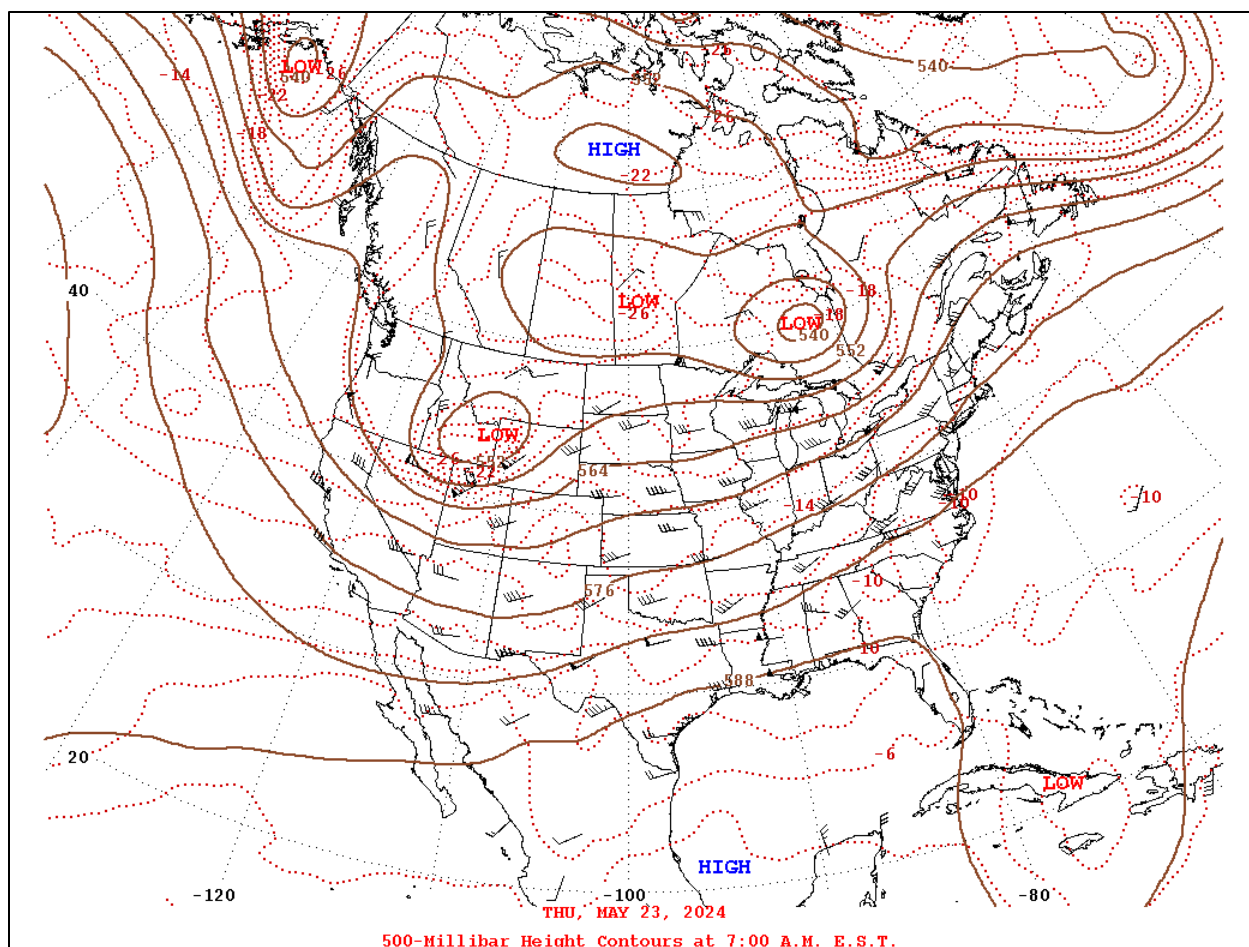


Figure A- 54: National Weather Service Storm Prediction Center (May 23, 2024) 500 mb Analysis (12Z) 7:00 a.m. CDT

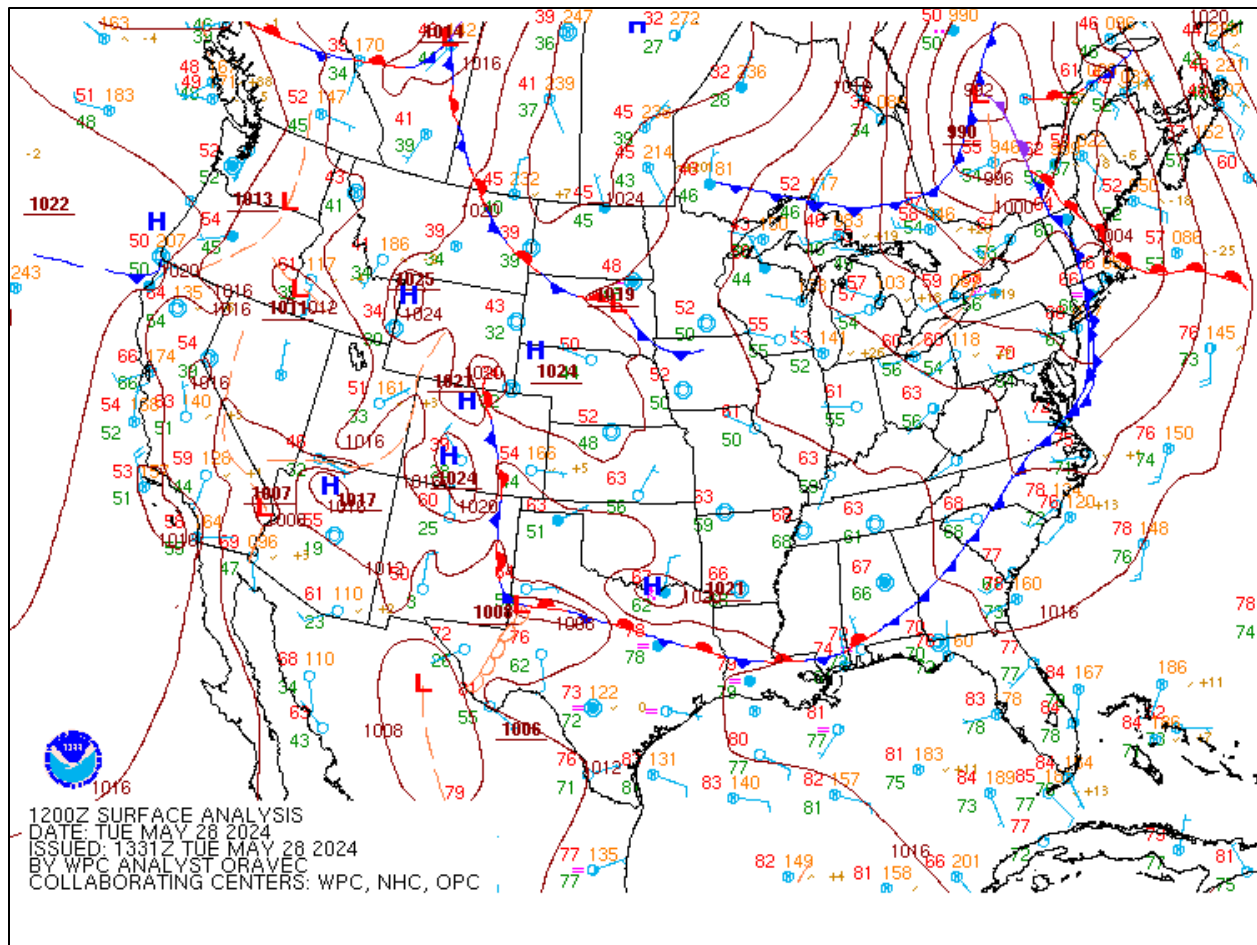


Figure A- 55: National Weather Service Weather Prediction Center (May 28, 2024) CONUS Surface Analysis (12Z) 7:00 a.m. CDT

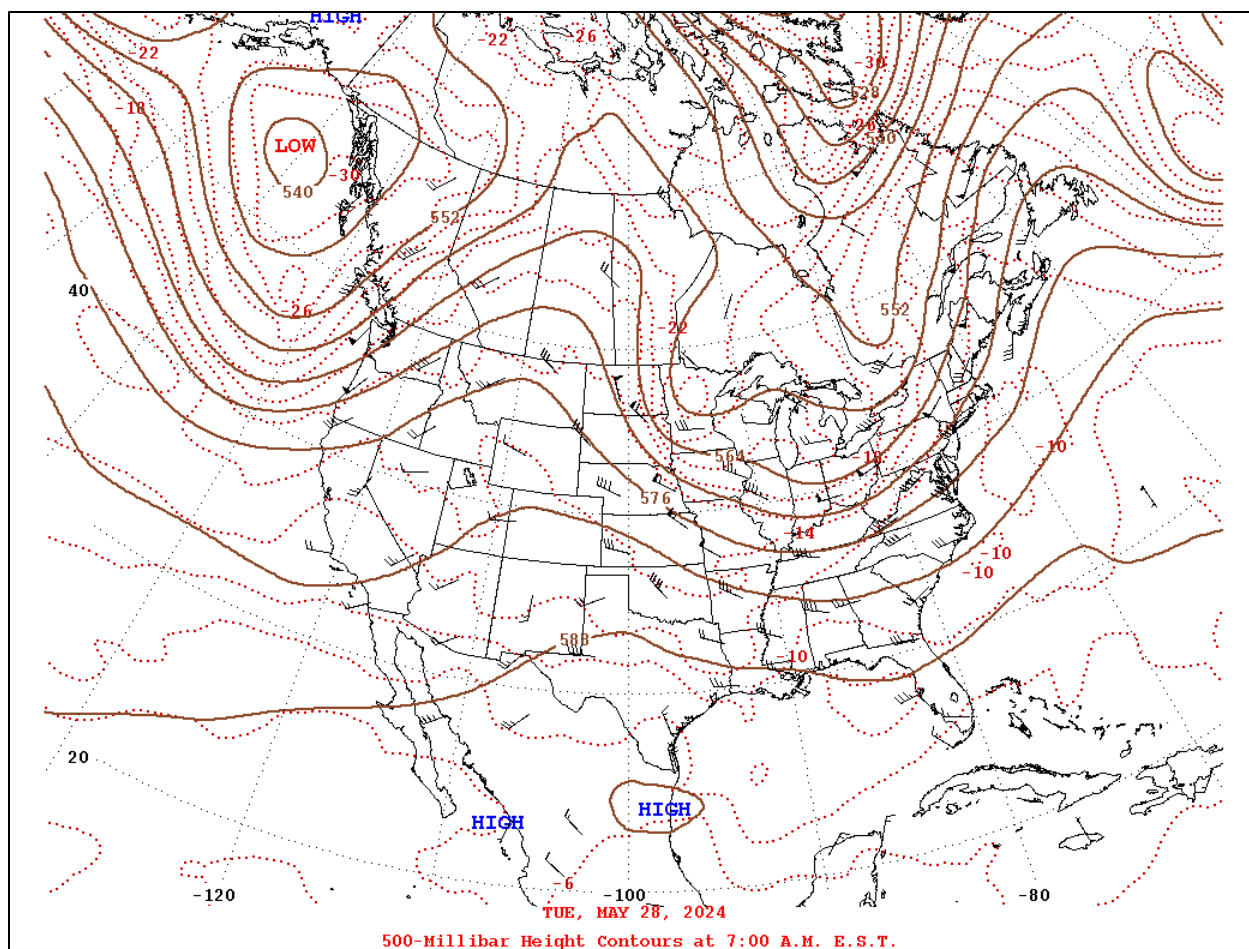


Figure A- 56: National Weather Service Storm Prediction Center (May 28, 2024) 500 mb Analysis (12Z) 7:00 a.m. CDT

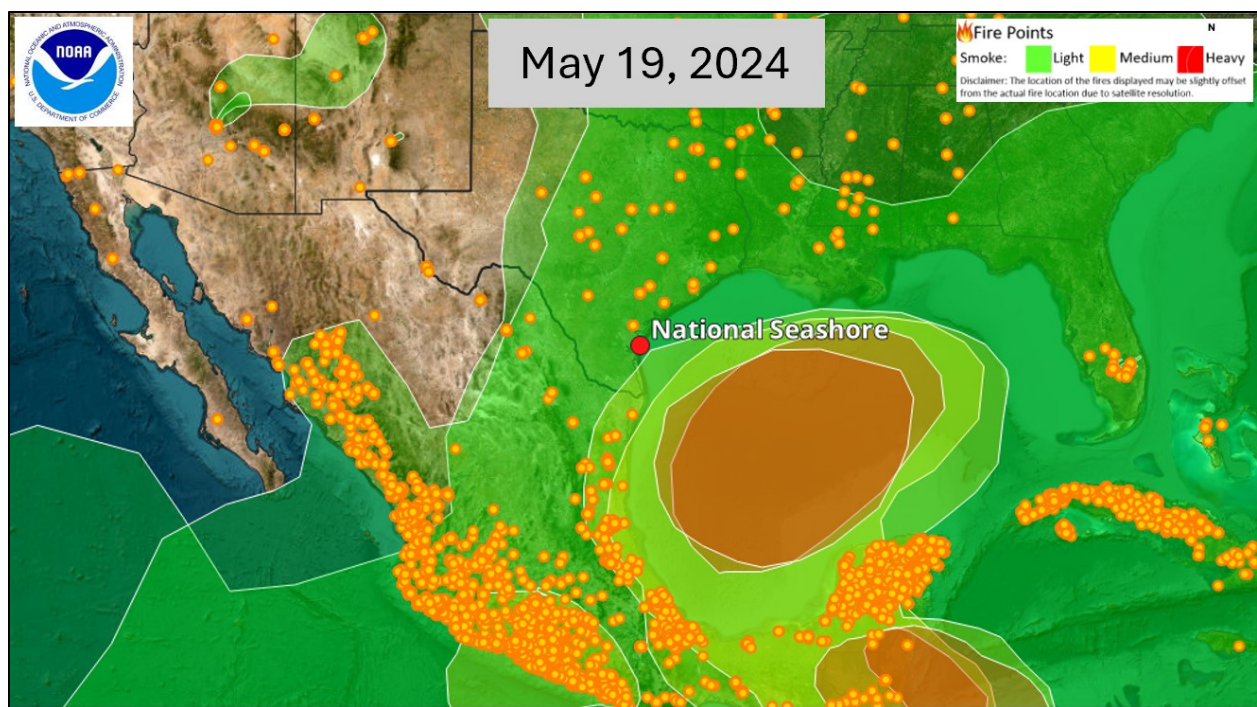


Figure A- 57: NOAA HMS Fire and Smoke Map on May 19, 2024

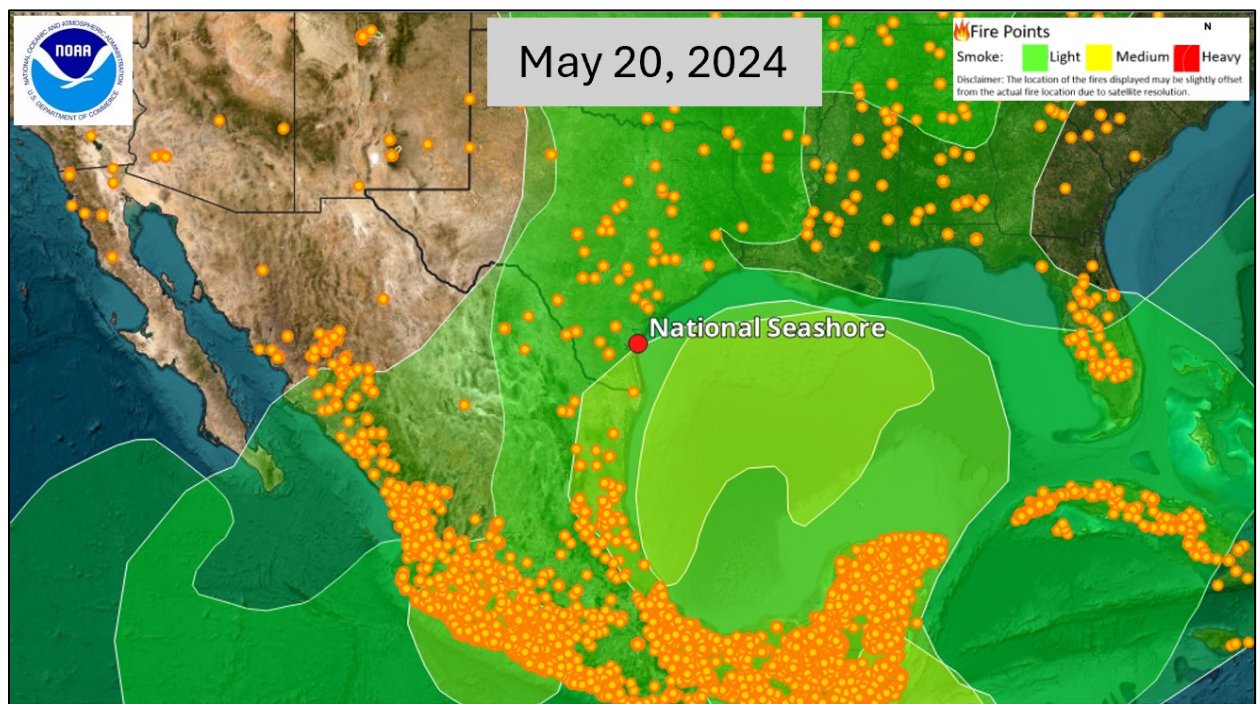


Figure A- 58: NOAA HMS Fire and Smoke Map on May 20, 2024

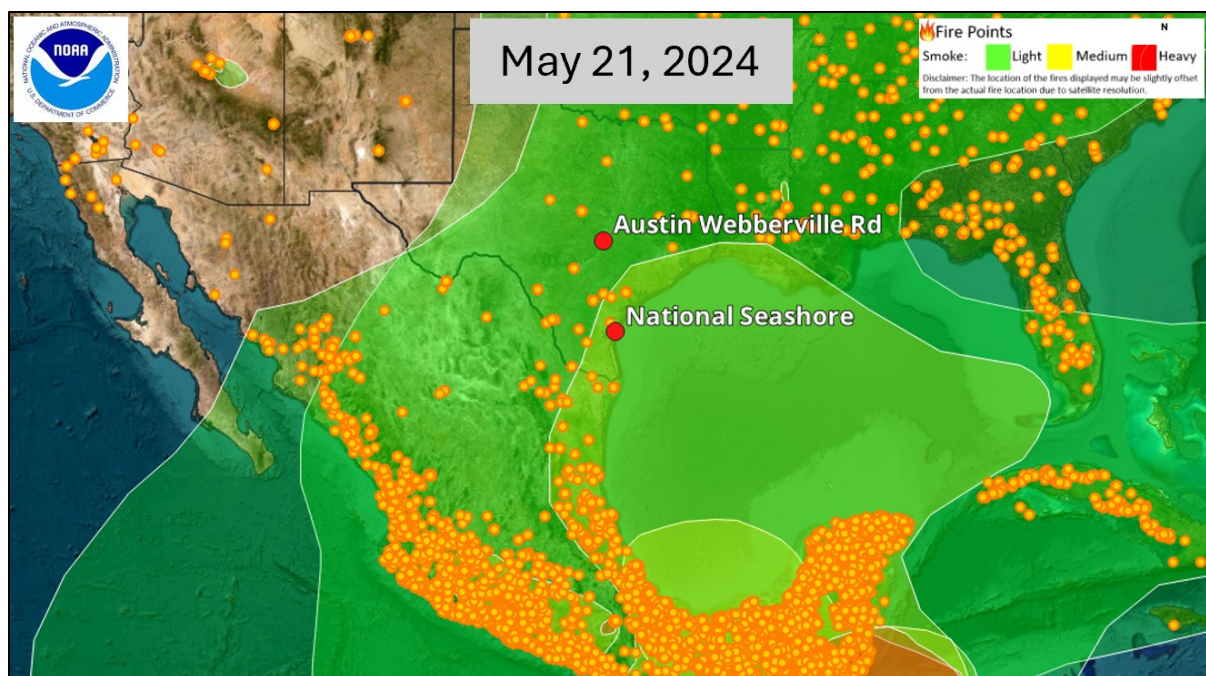


Figure A- 59: NOAA HMS Fire and Smoke Map on May 21, 2024

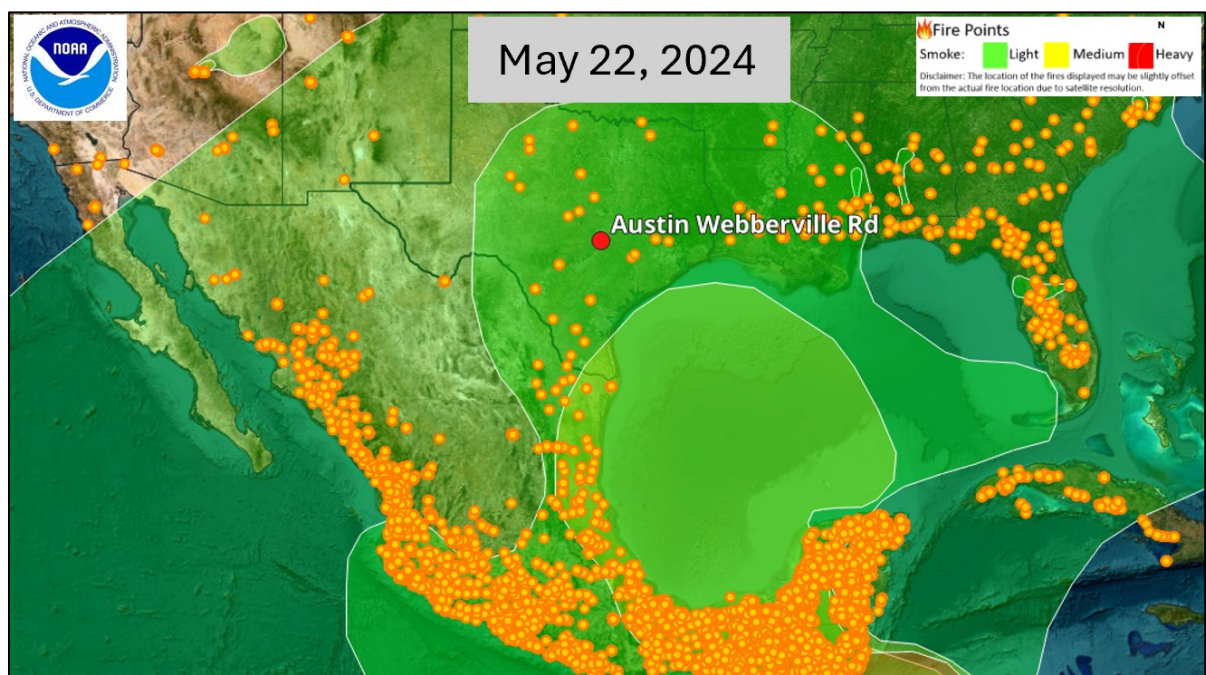


Figure A- 60: NOAA HMS Fire and Smoke Map on May 22, 2024

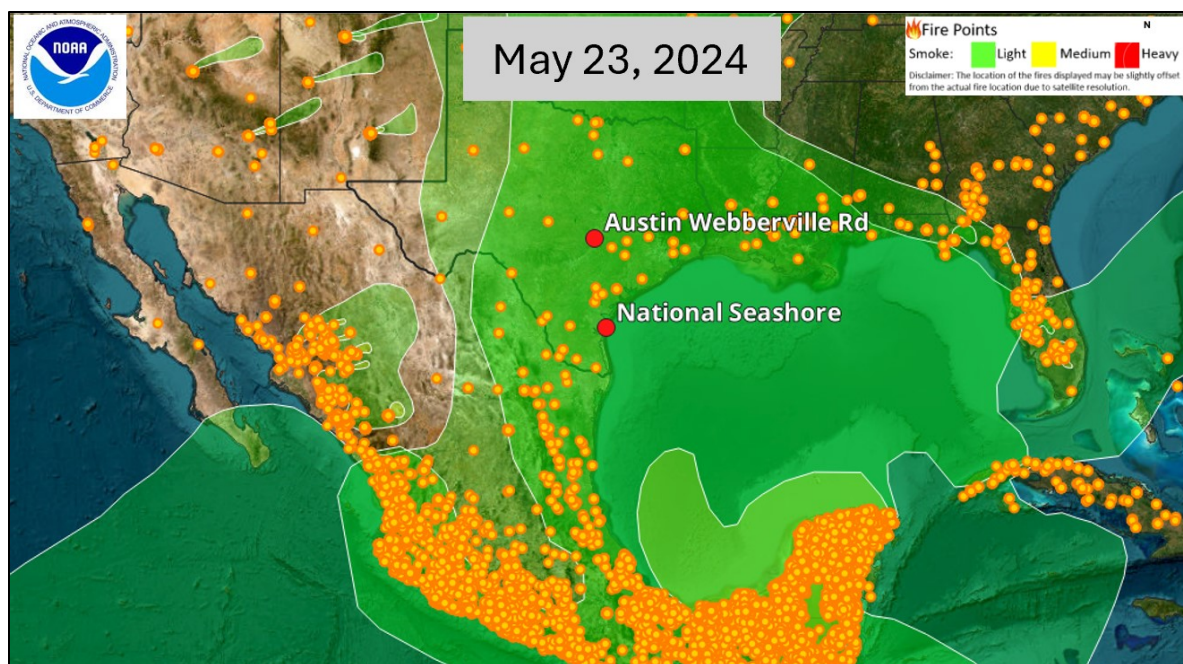


Figure A- 61: NOAA HMS Fire and Smoke Map on May 23, 2024

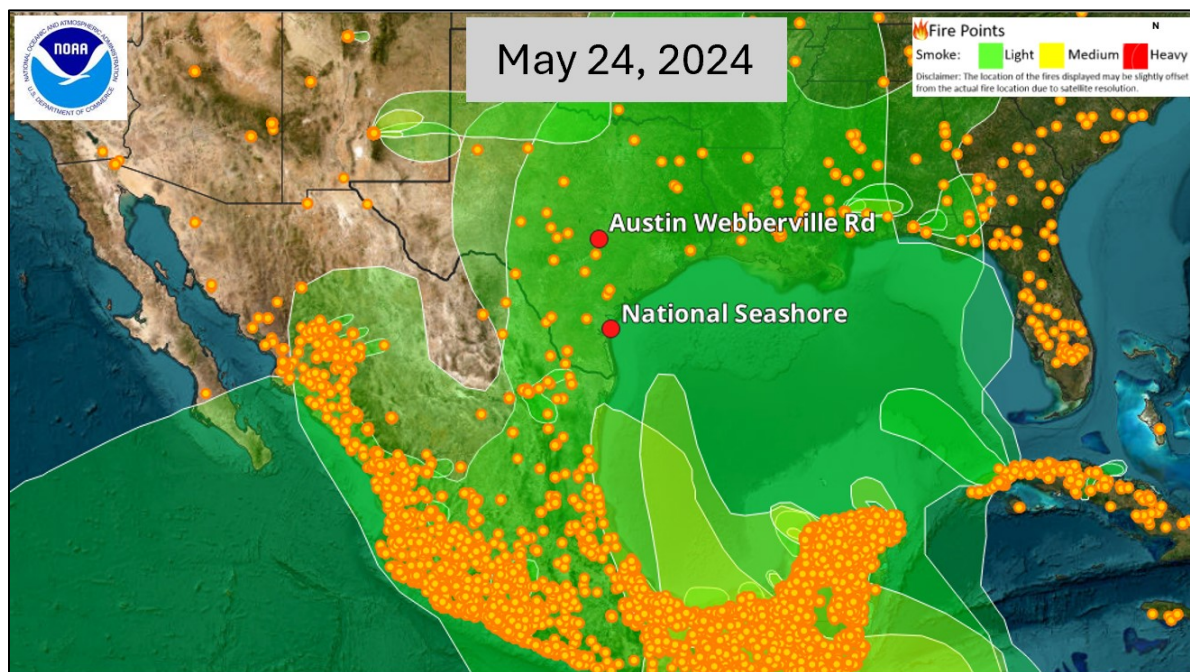


Figure A- 62: NOAA HMS Fire and Smoke Map on May 24, 2024

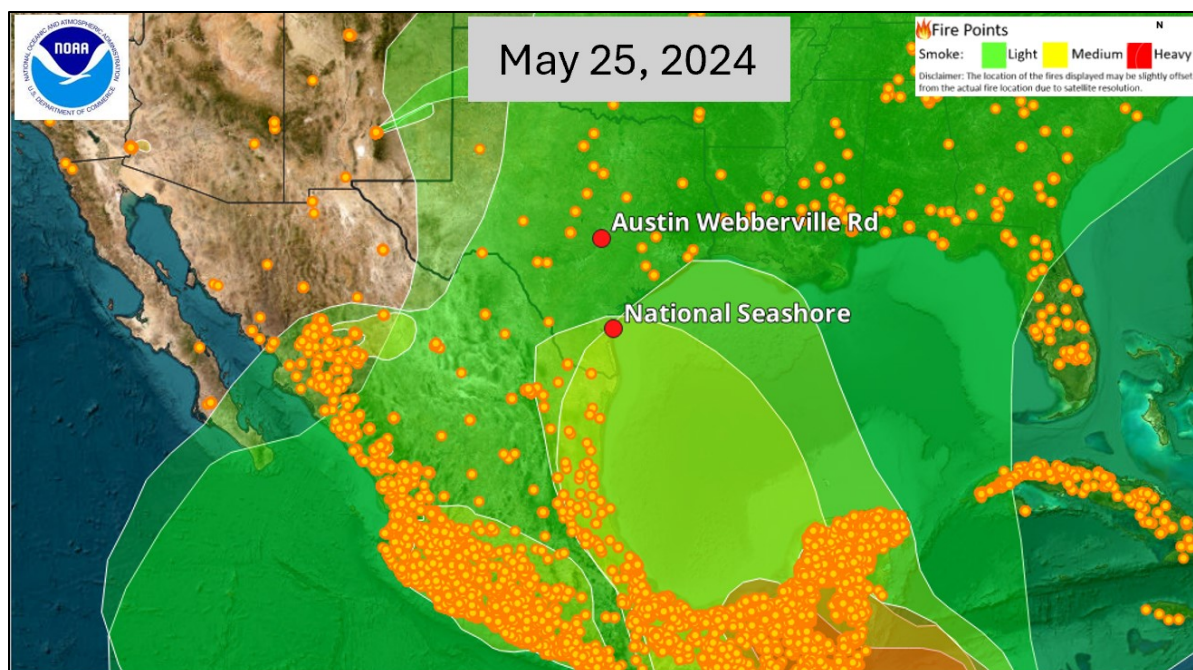


Figure A- 63: NOAA HMS Fire and Smoke Map on May 25, 2024

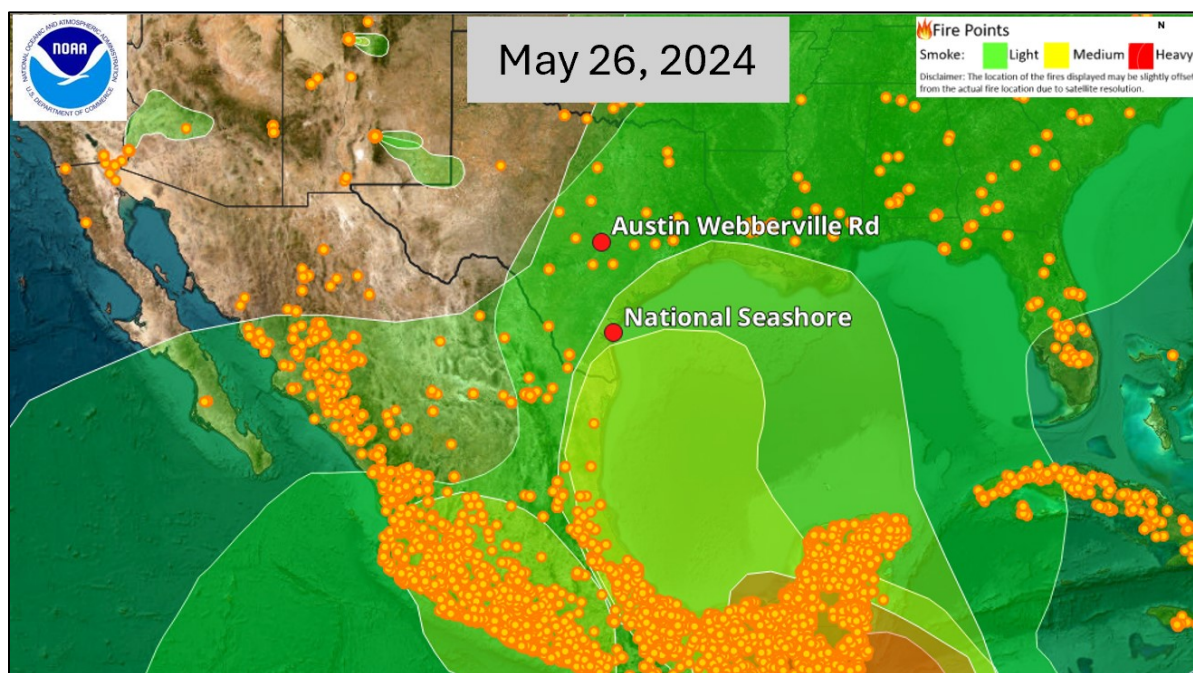


Figure A- 64: NOAA HMS Fire and Smoke Map on May 26, 2024

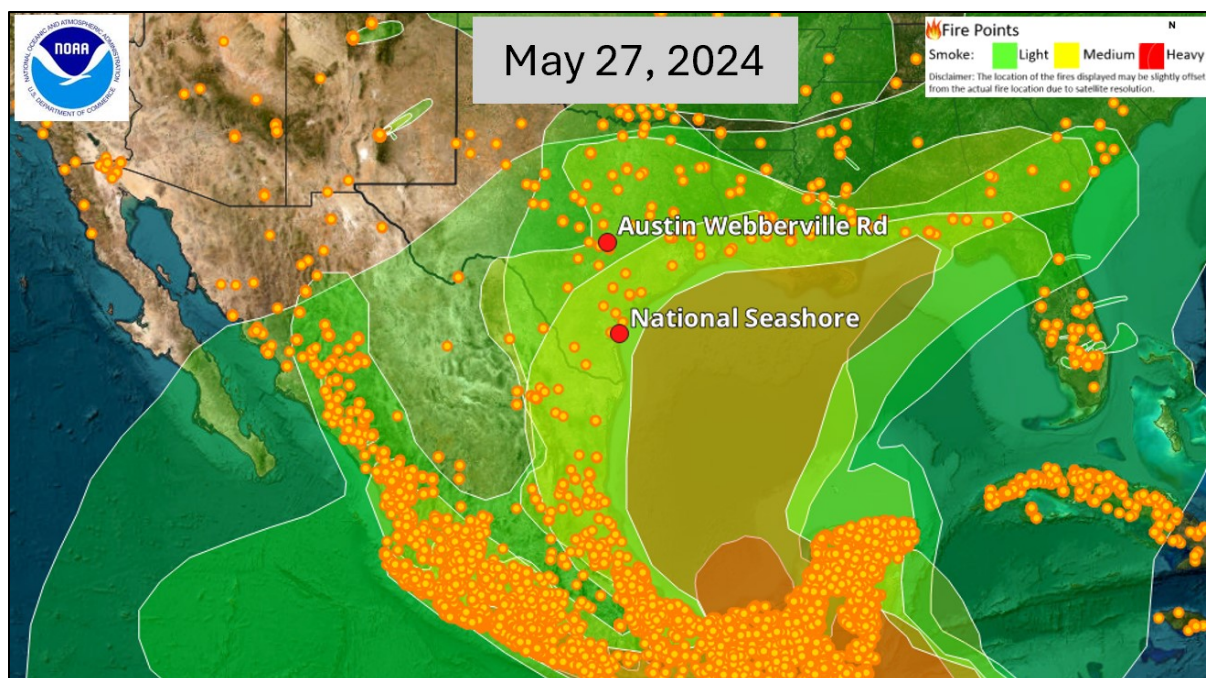


Figure A- 65: NOAA HMS Fire and Smoke Map on May 27, 2024

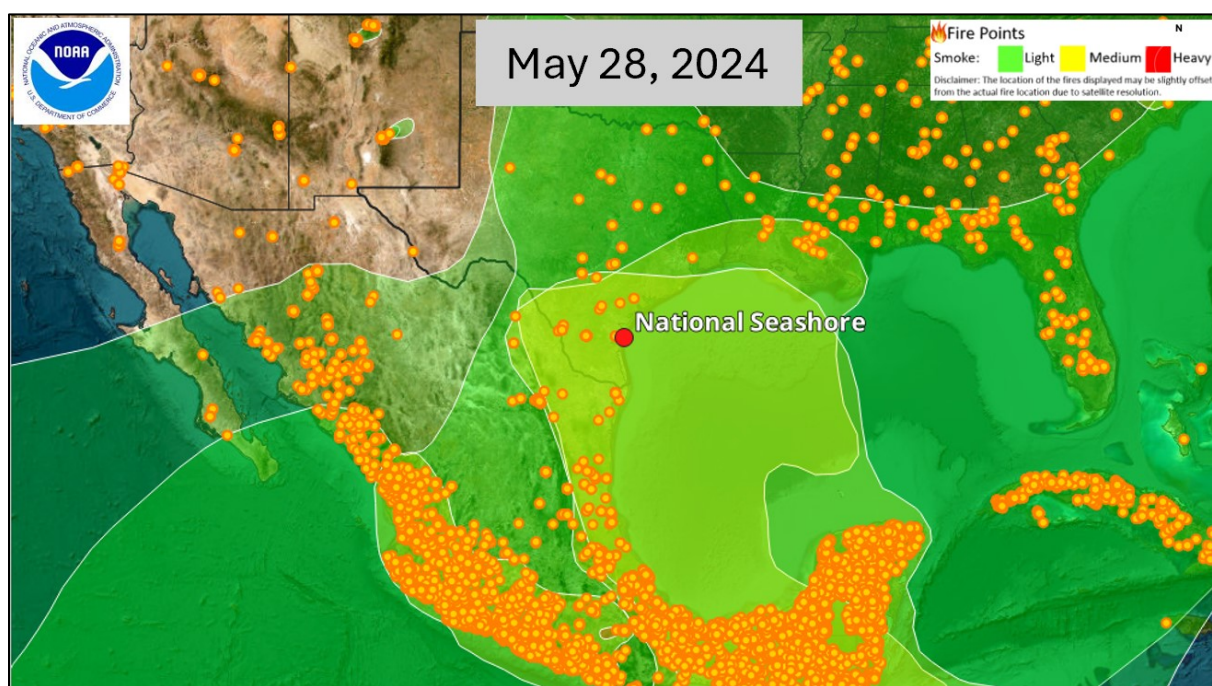


Figure A- 66: NOAA HMS Fire and Smoke Map on May 28, 2024

A.13: GROUP 13 - JUNE 3 THROUGH 6, 2024

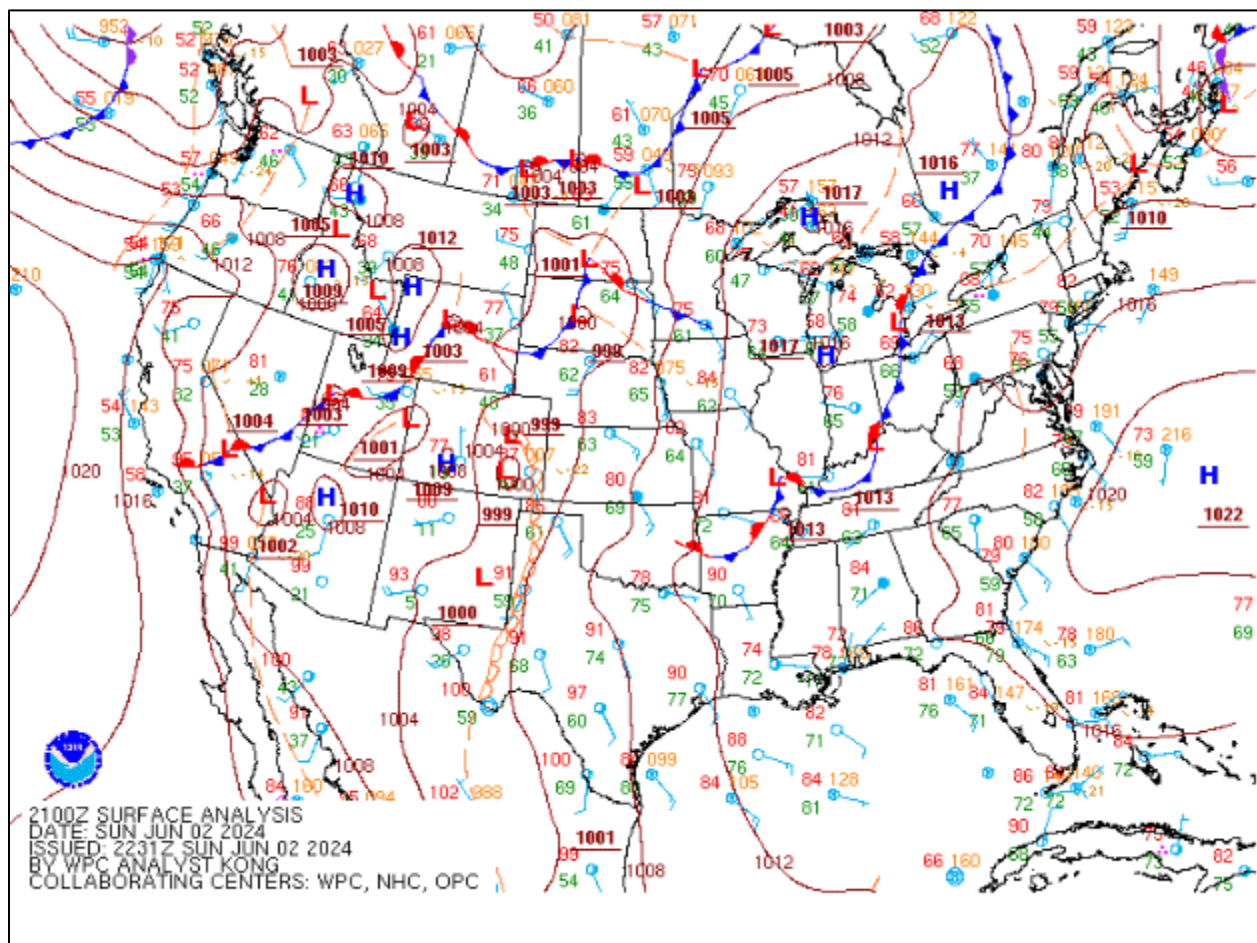


Figure A- 67: National Weather Service Weather Prediction Center (June 2, 2024) CONUS Surface Analysis (21Z) 4:00 p.m. CDT

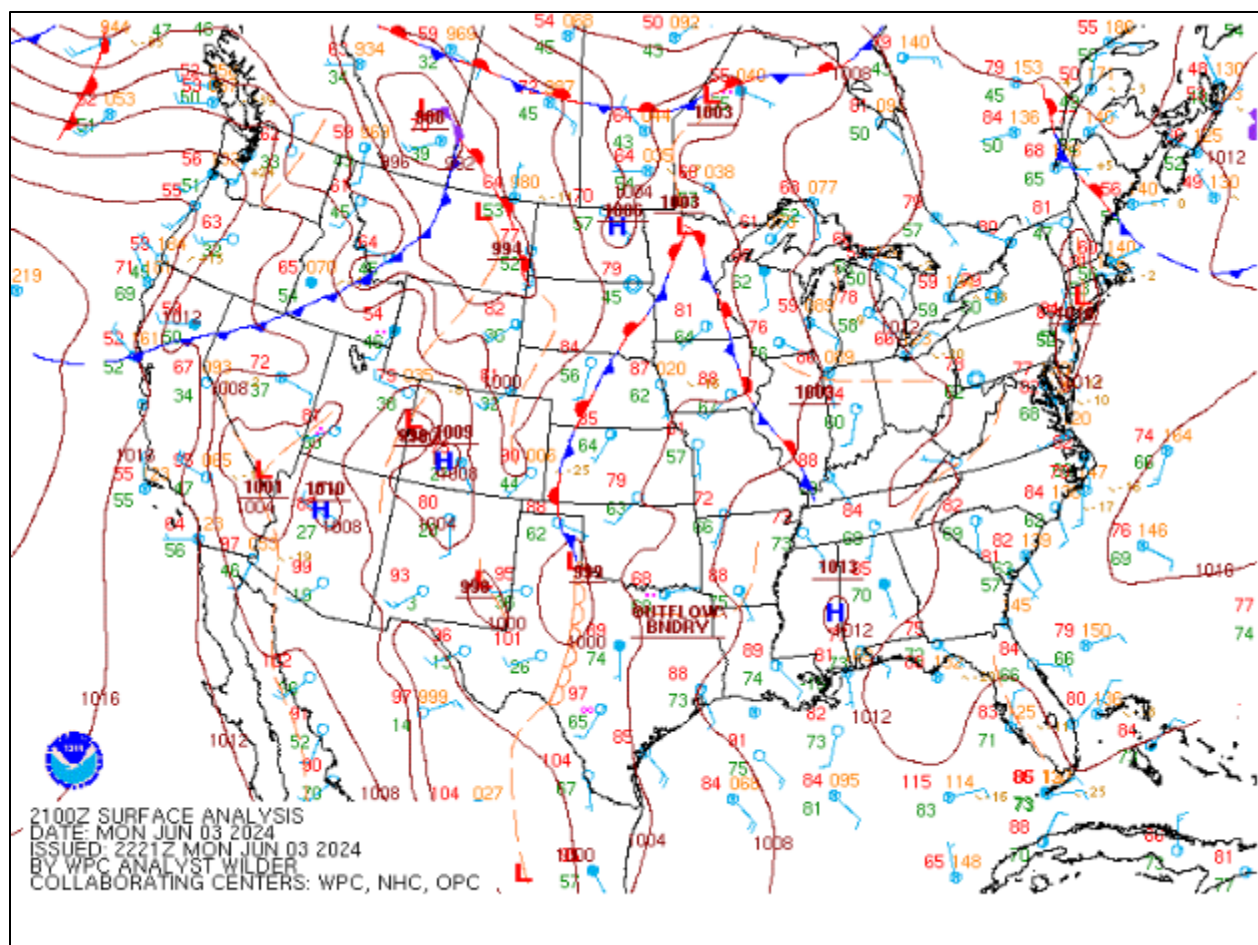


Figure A- 68: National Weather Service Weather Prediction Center (June 3, 2024) CONUS Surface Analysis (21Z) 4:00 p.m. CDT

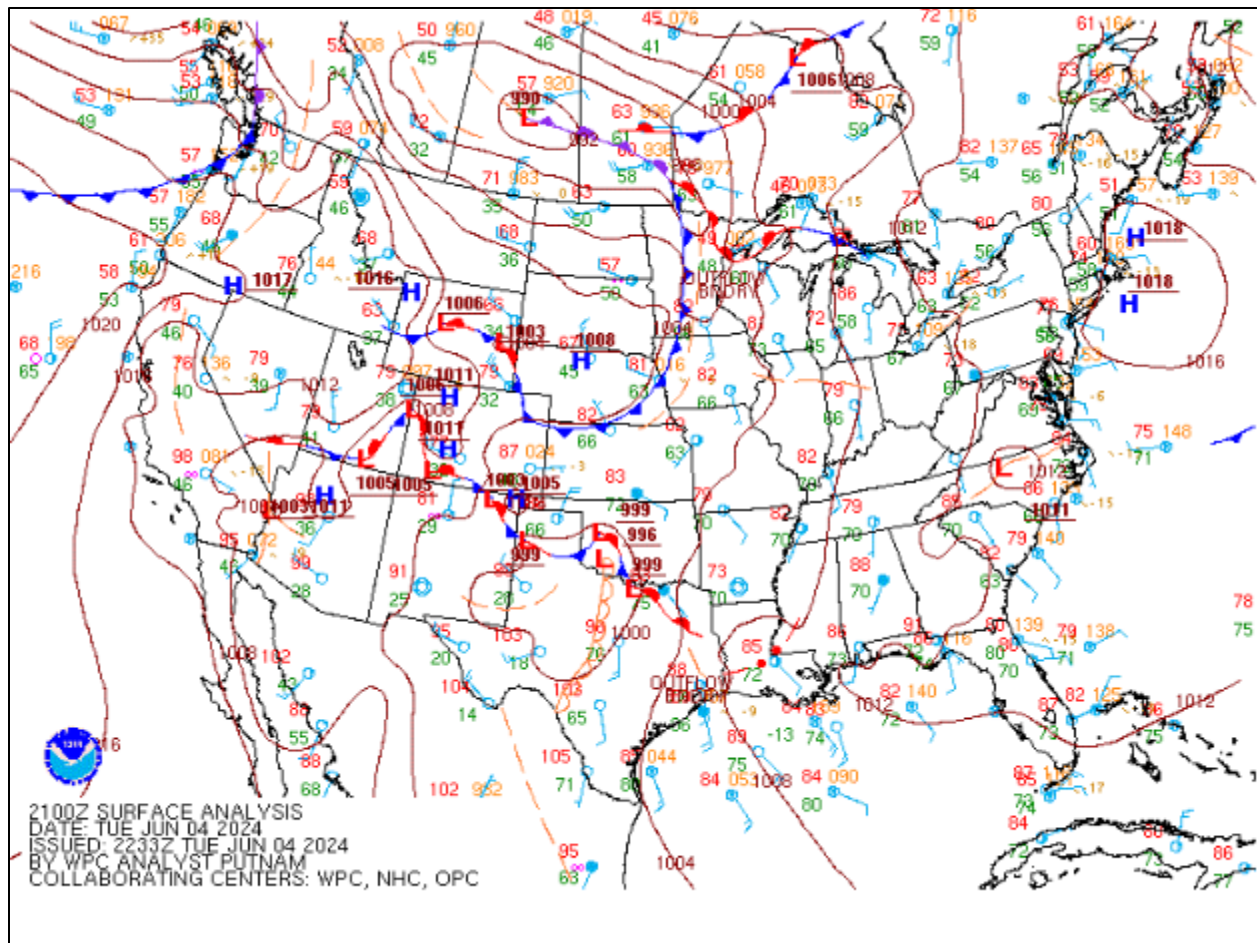


Figure A- 69: National Weather Service Weather Prediction Center (June 4, 2024) CONUS Surface Analysis (21Z) 4:00 p.m. CDT

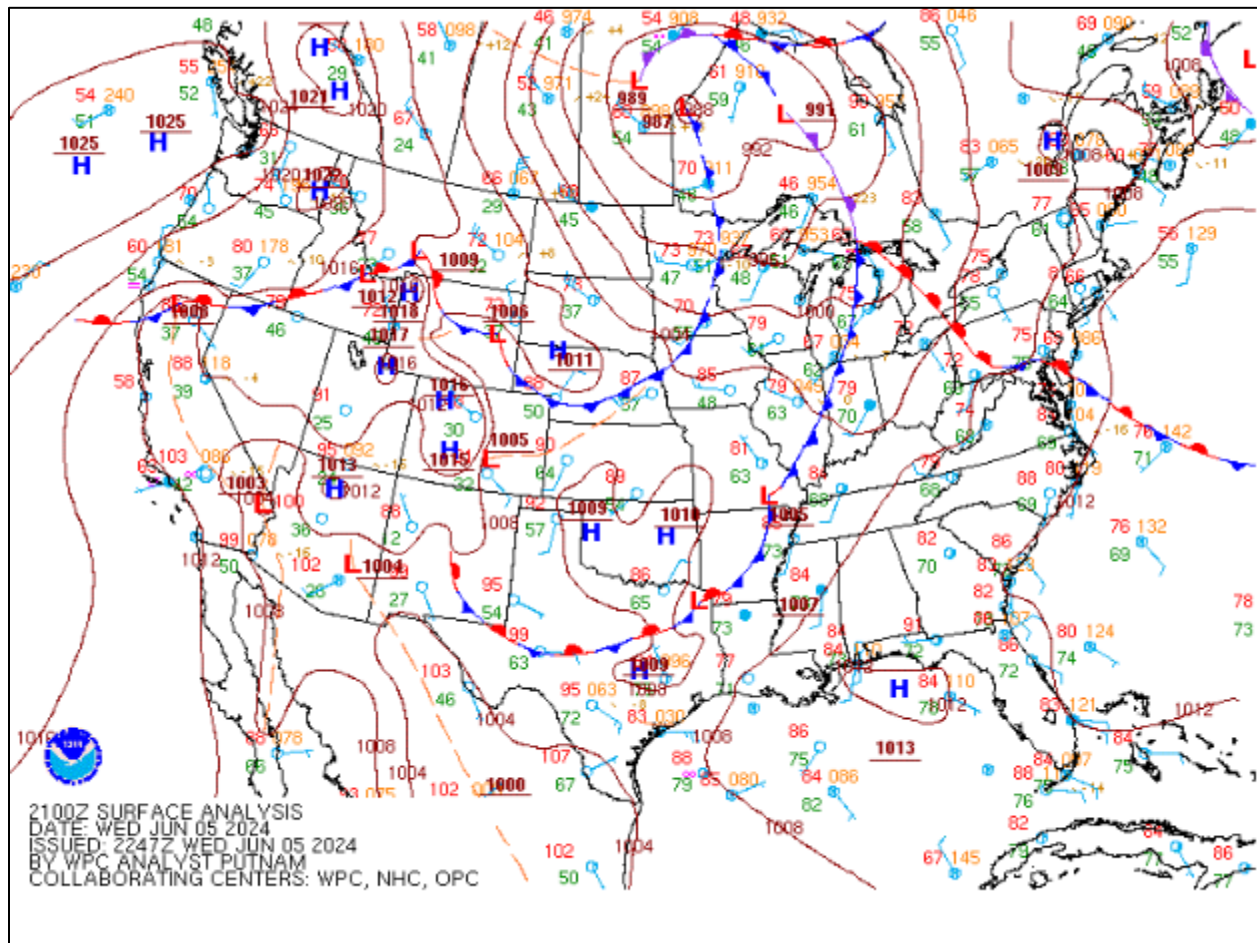


Figure A- 70: National Weather Service Weather Prediction Center (June 5, 2024) CONUS Surface Analysis (21Z) 4:00 p.m. CDT

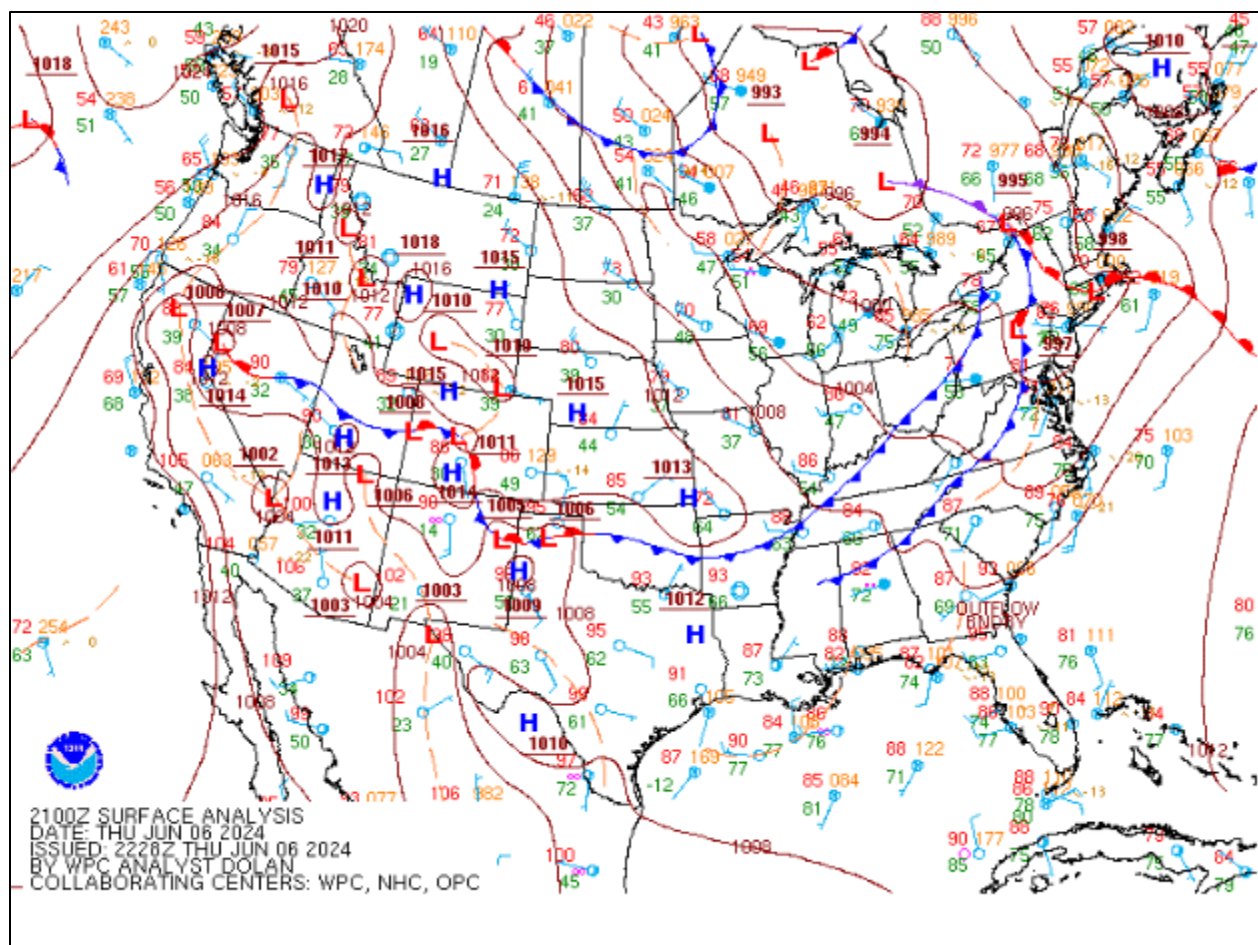


Figure A- 71: National Weather Service Weather Prediction Center (June 6, 2024) CONUS Surface Analysis (21Z) 4:00 p.m. CDT

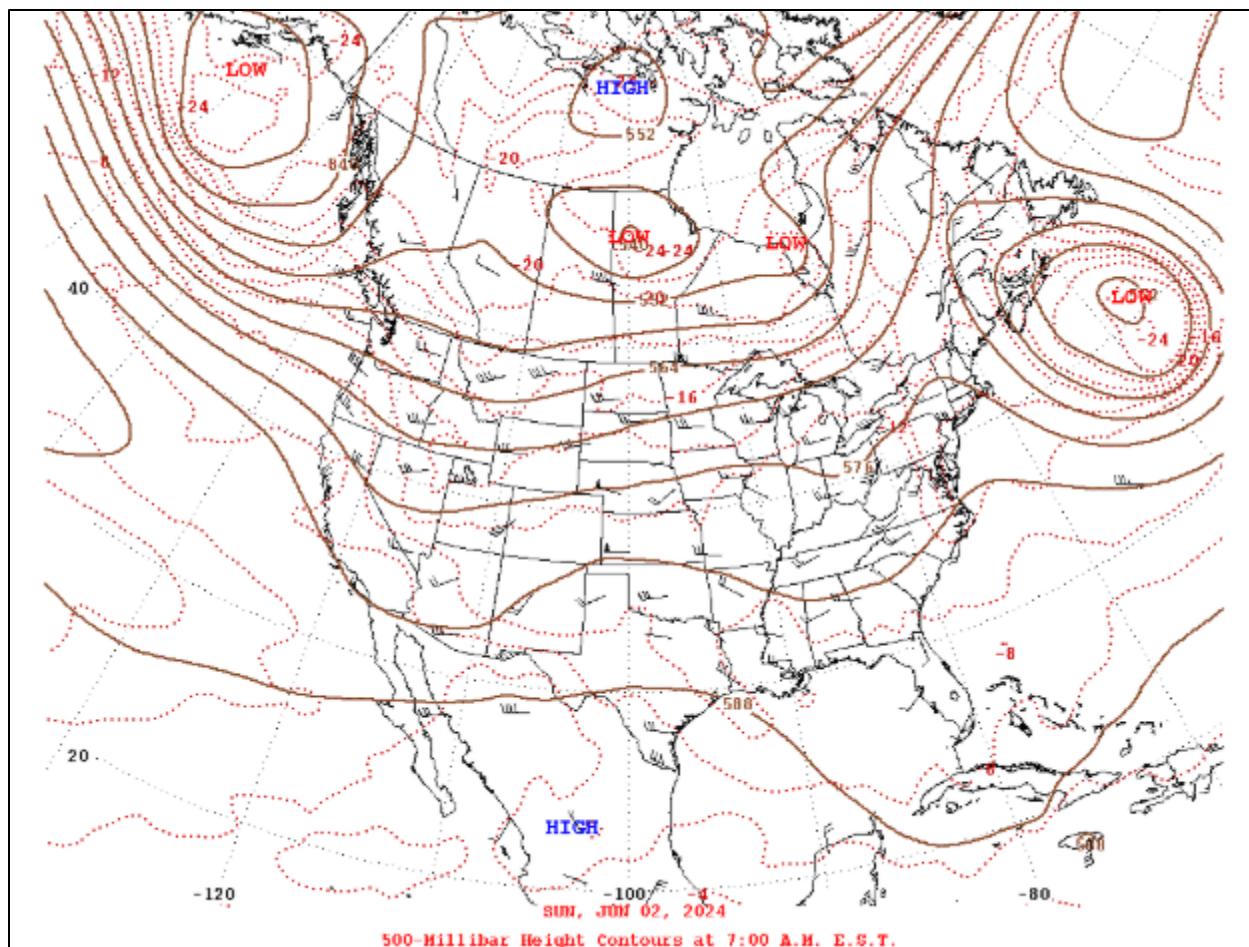


Figure A- 72: National Weather Service Storm Prediction Center (June 2, 2024) 500 mb Analysis (12Z) 7:00 a.m. CDT

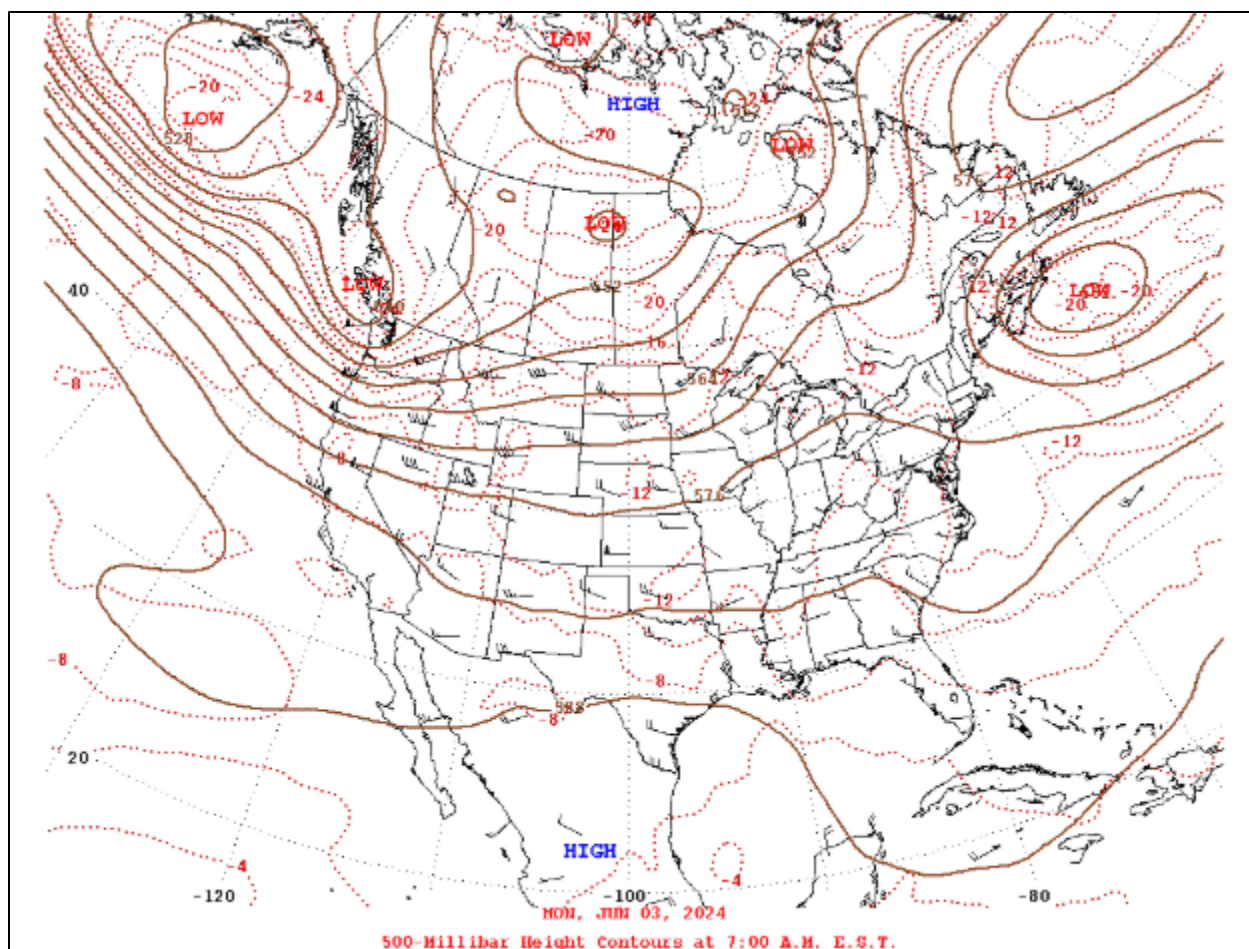


Figure A- 73: National Weather Service Storm Prediction Center (June 3, 2024) 500 mb Analysis (12Z) 7:00 a.m. CDT

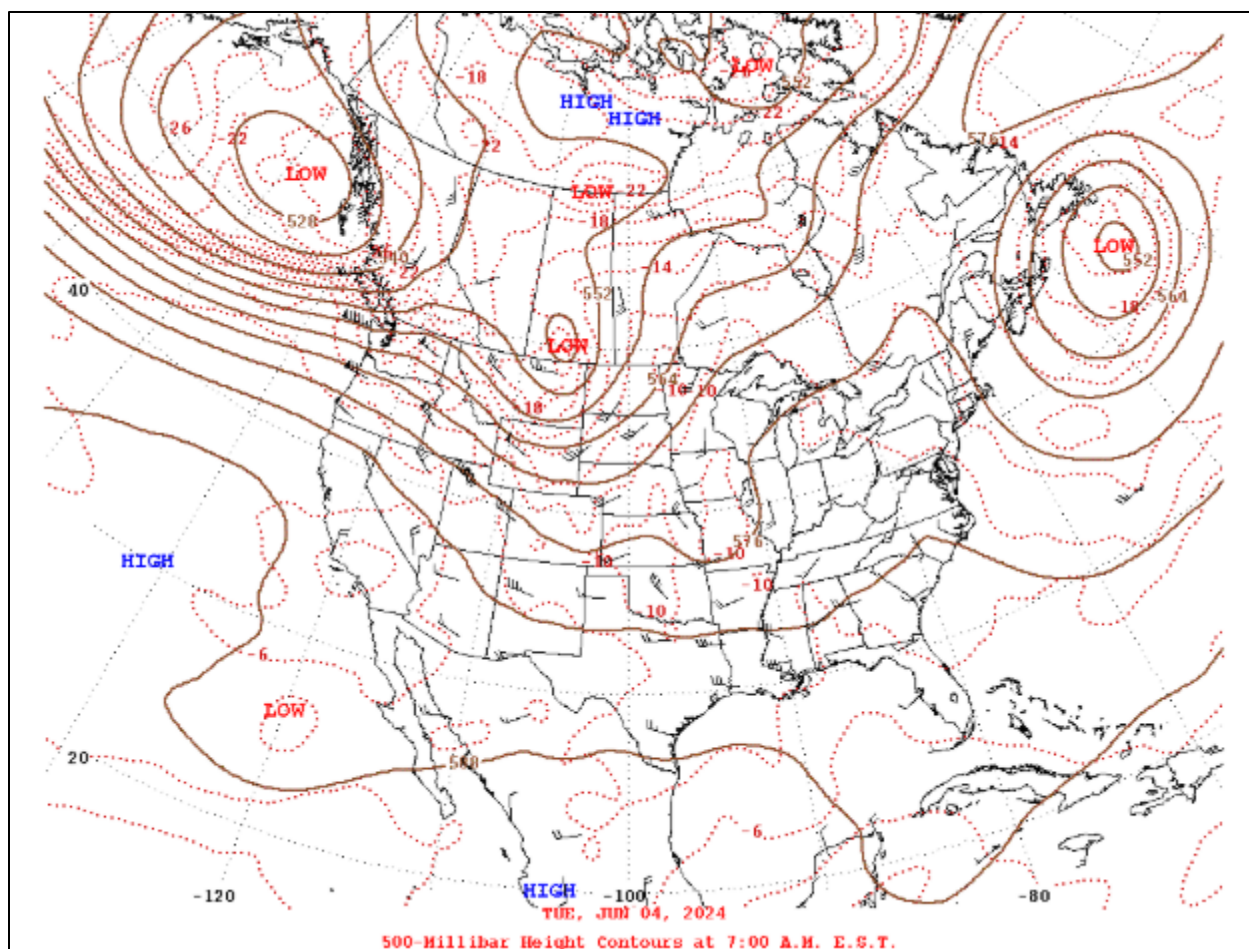


Figure A- 74: National Weather Service Storm Prediction Center (June 4, 2024) 500 mb Analysis (12Z) 7:00 a.m. CDT

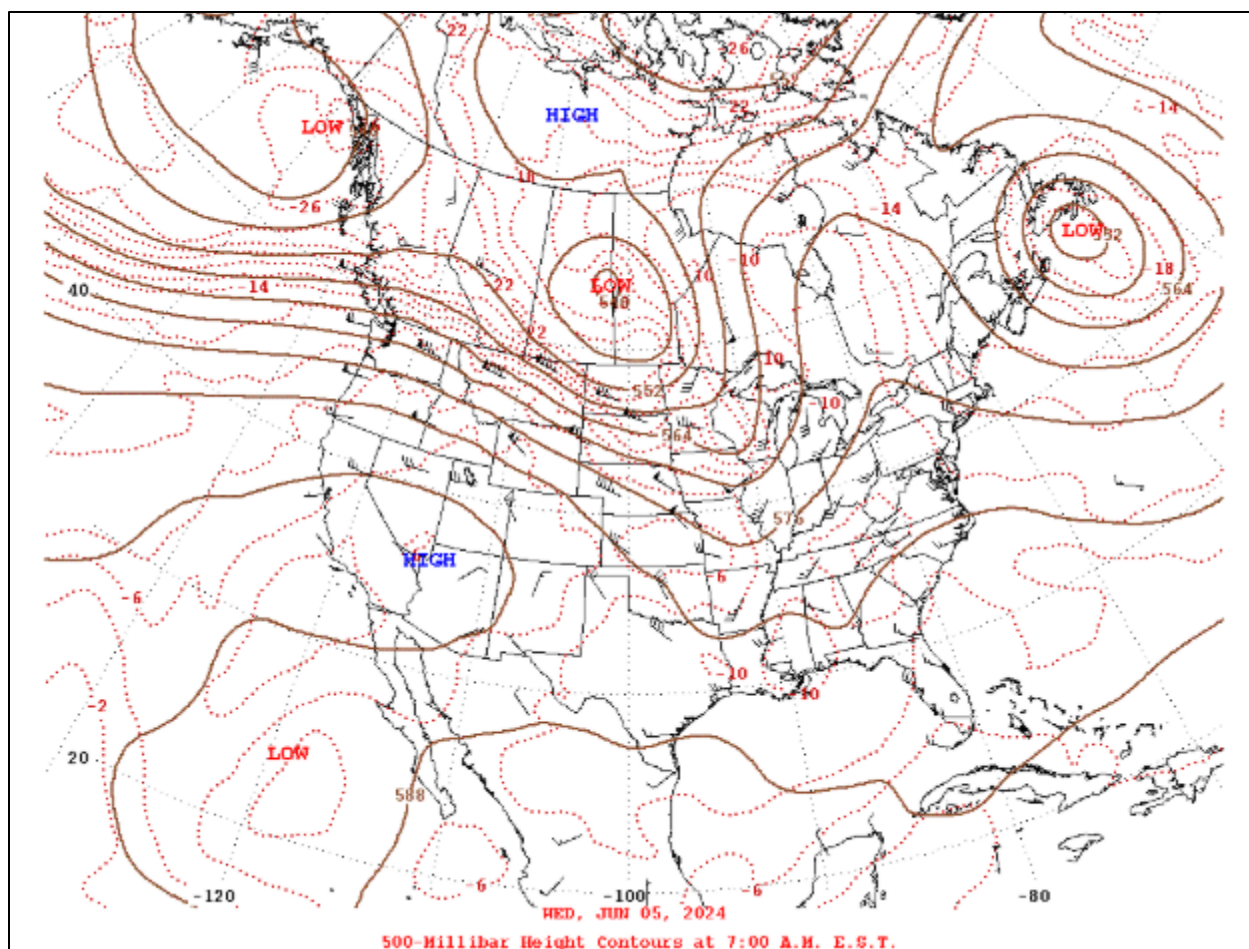


Figure A- 75: National Weather Service Storm Prediction Center (June 5, 2024) 500 mb Analysis (12Z) 7:00 a.m. CDT

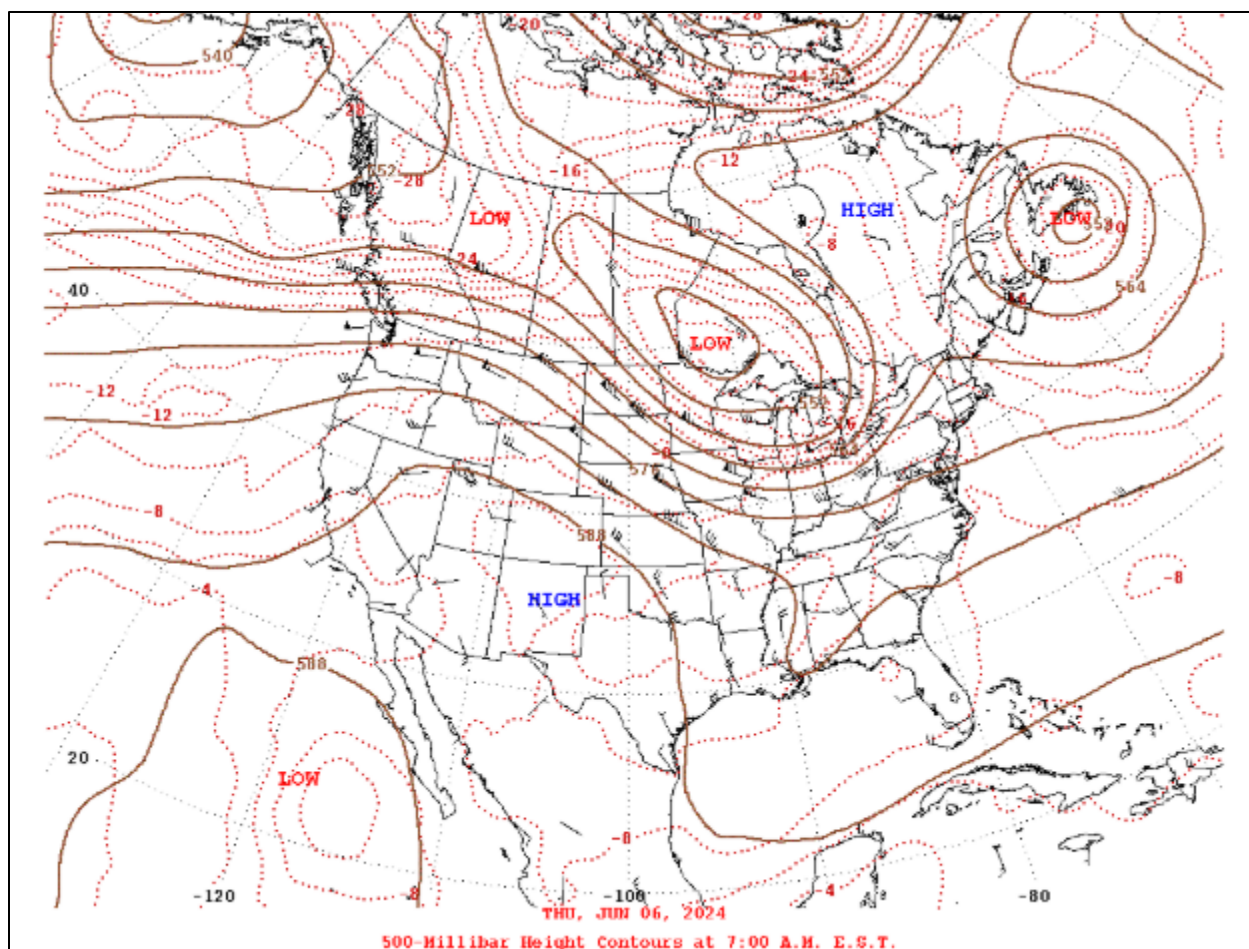


Figure A- 76: National Weather Service Storm Prediction Center (June 6, 2024) 500 mb Analysis (12Z) 7:00 a.m. CDT

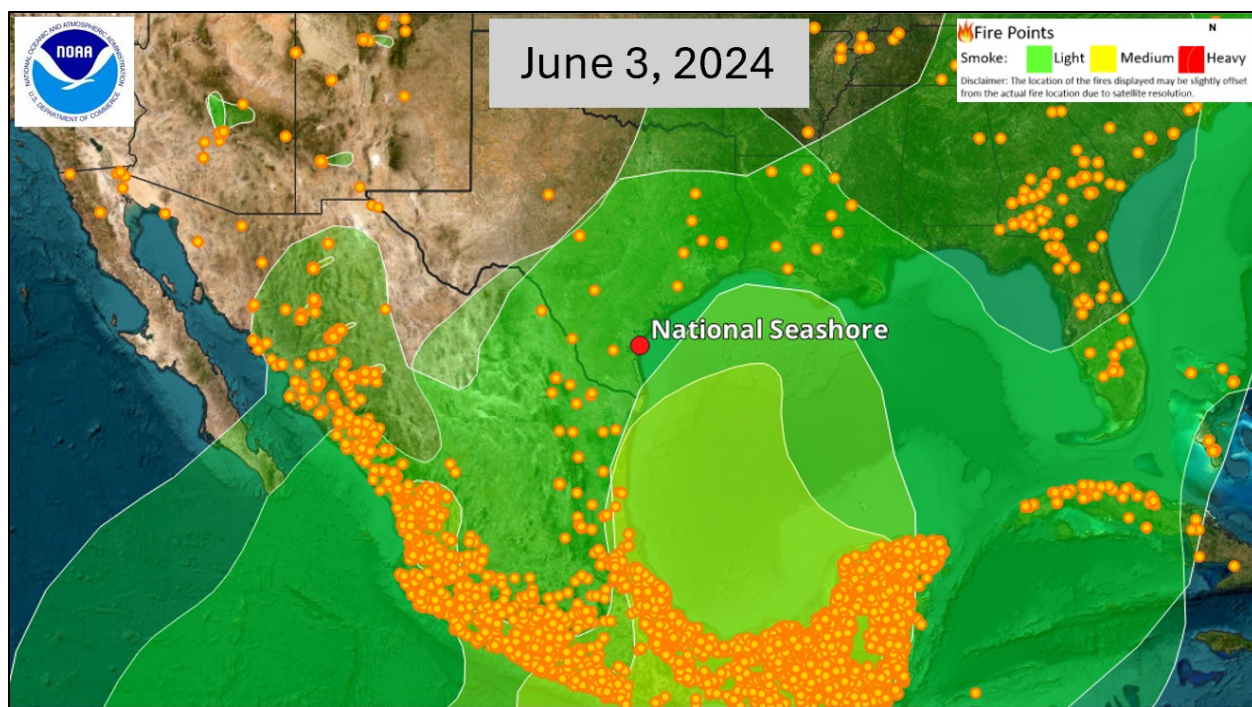


Figure A- 77: NOAA HMS Fire and Smoke Map on June 3, 2024

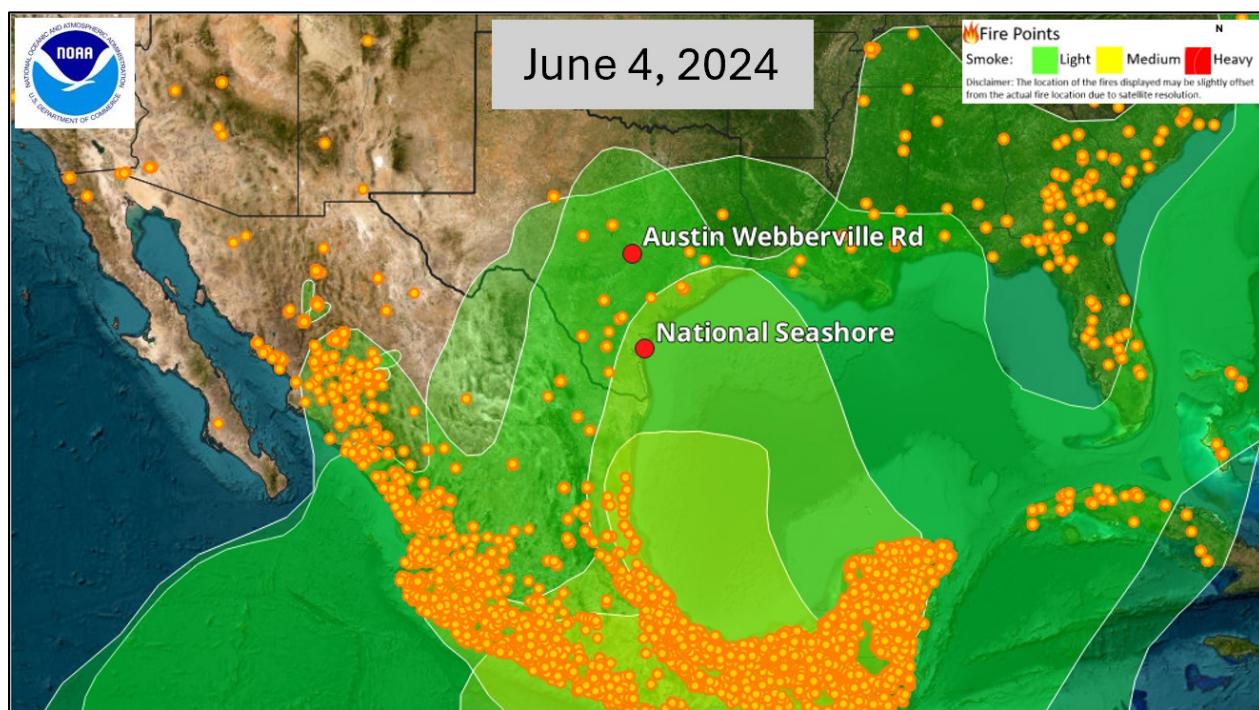


Figure A- 78: NOAA HMS Fire and Smoke Map on June 4, 2024

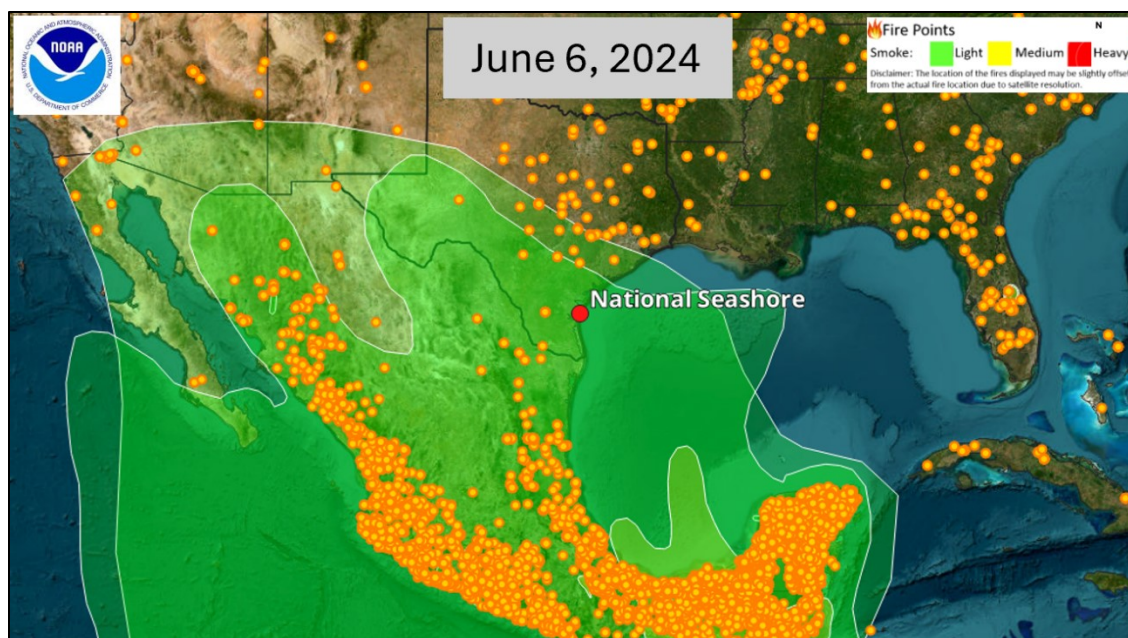


Figure A- 79: NOAA HMS Fire and Smoke Map on June 6, 2024

A.14: GROUP 14 - JULY 30 THROUGH AUGUST 1, 2024

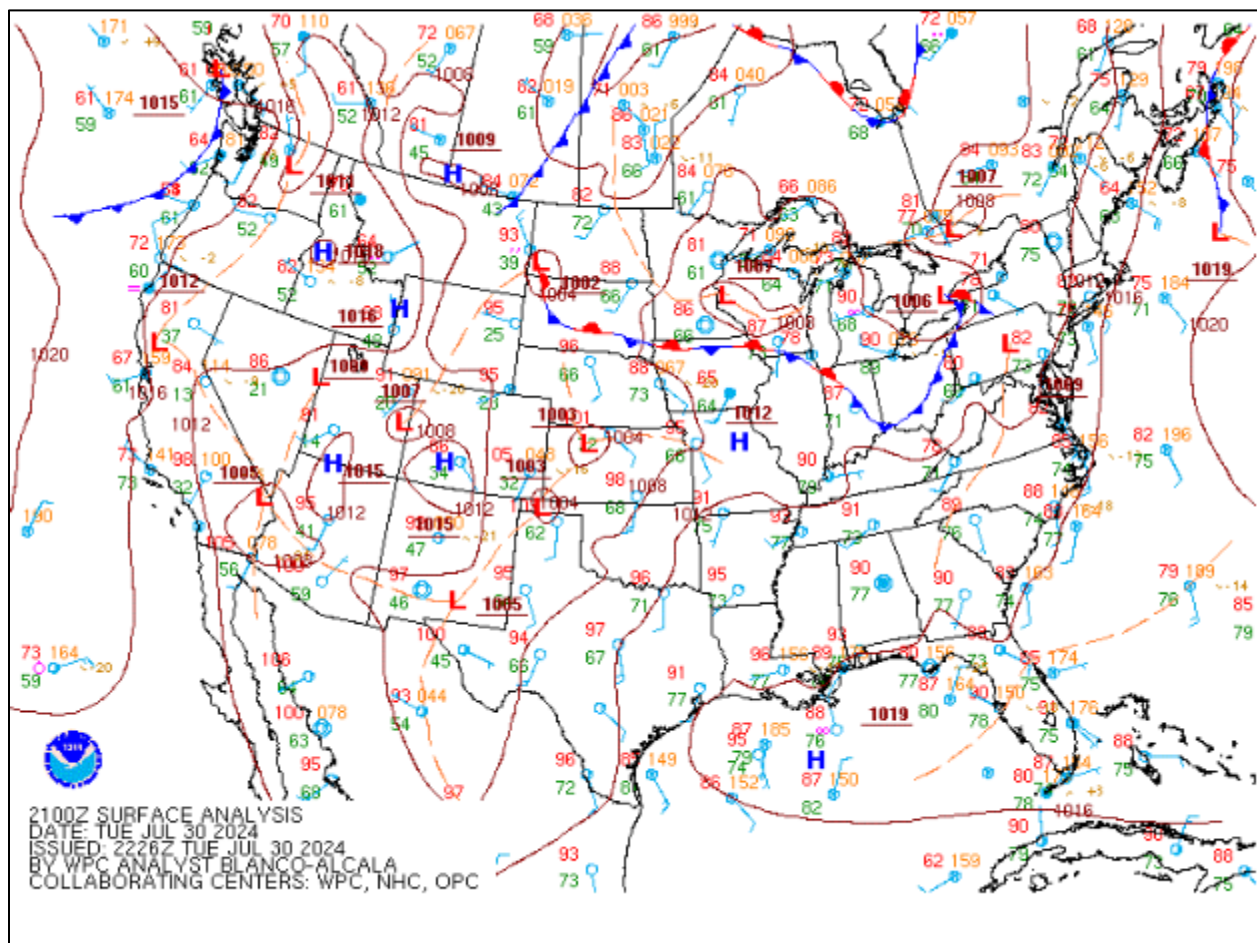


Figure A- 80: National Weather Service Weather Prediction Center (July 30, 2024) CONUS Surface Analysis (21Z) 4:00 p.m. CDT

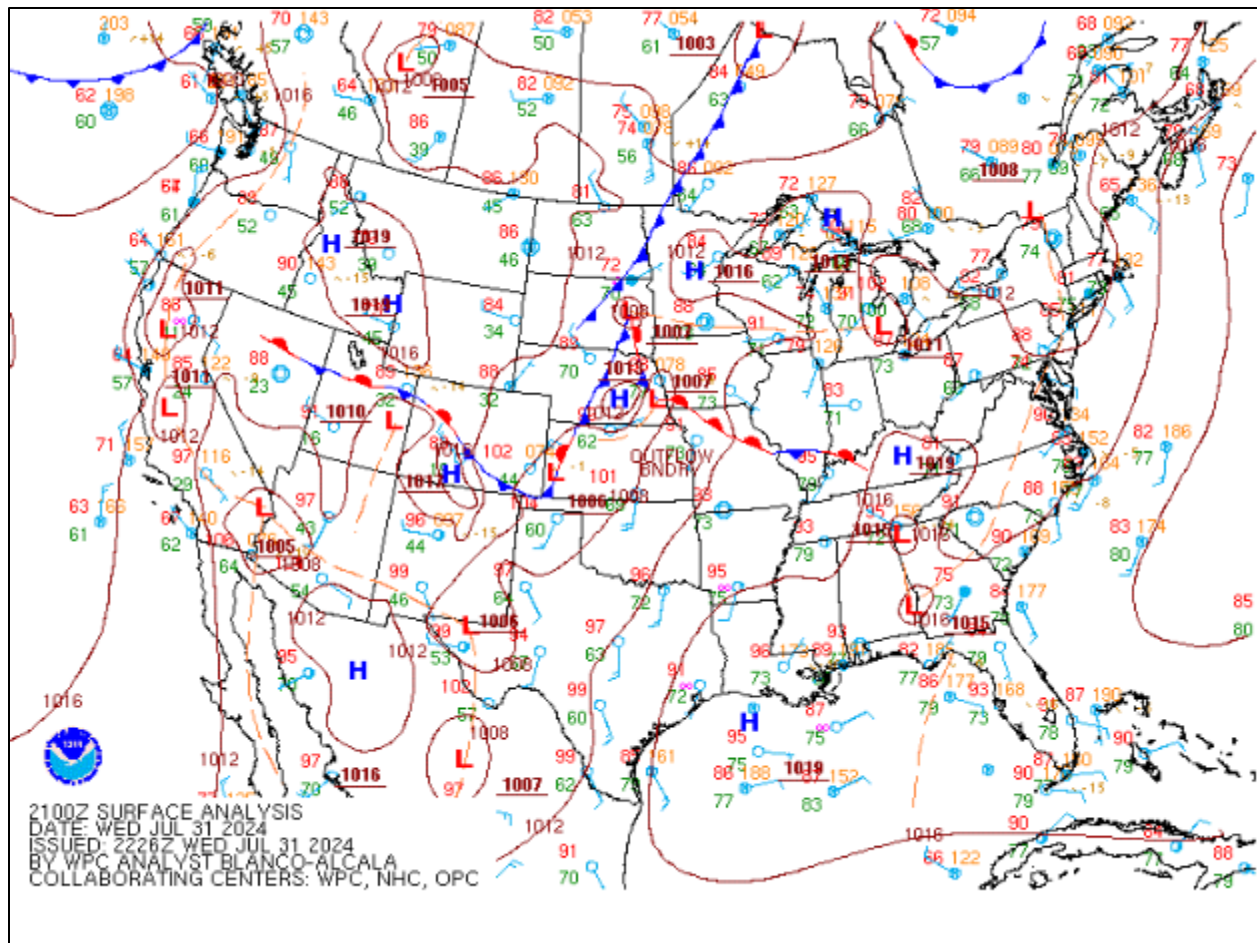


Figure A- 81: National Weather Service Weather Prediction Center (July 31, 2024) CONUS Surface Analysis (21Z) 4:00 p.m. CDT

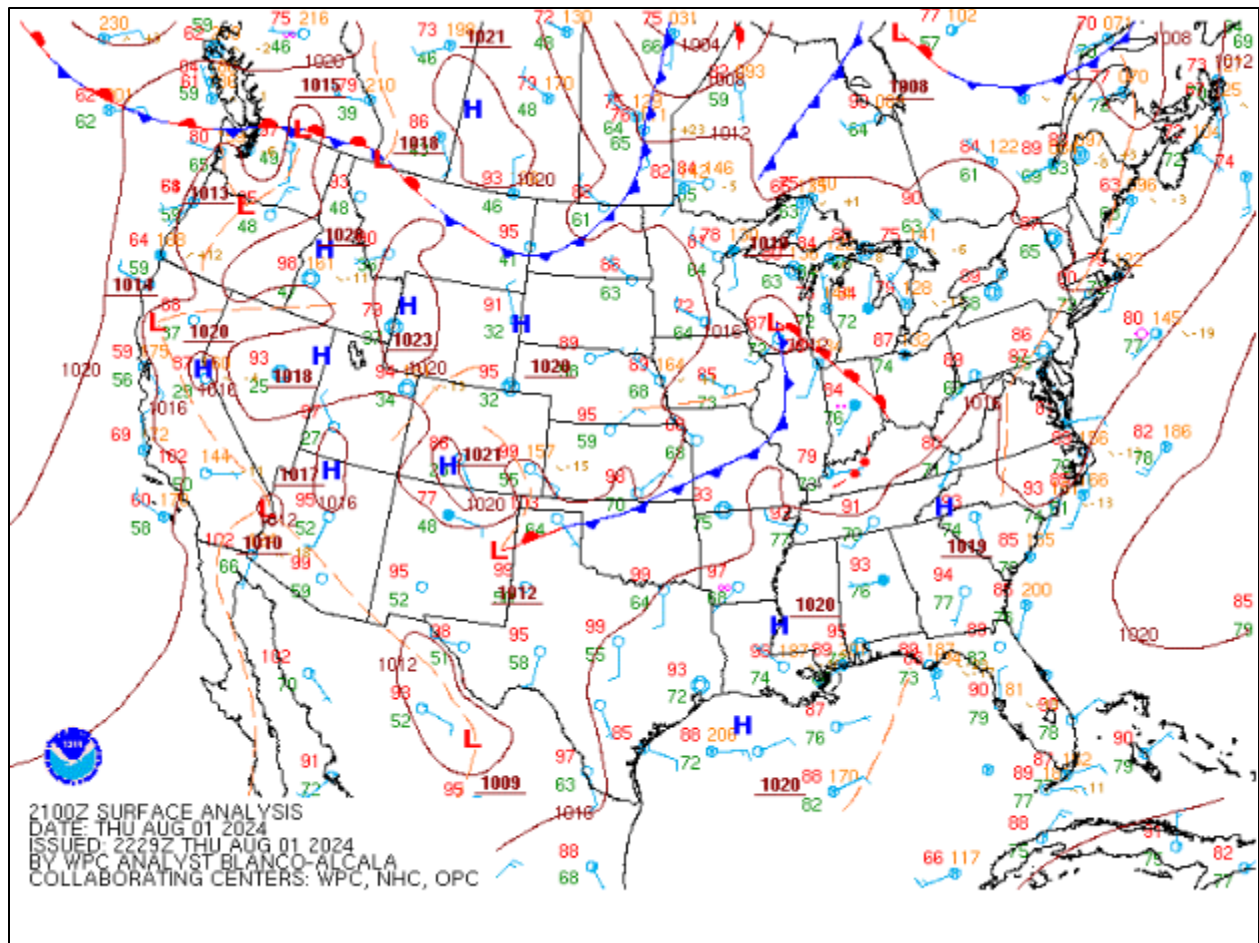


Figure A- 82: National Weather Service Weather Prediction Center (August 1, 2024) CONUS Surface Analysis (21Z) 4:00 p.m. CDT

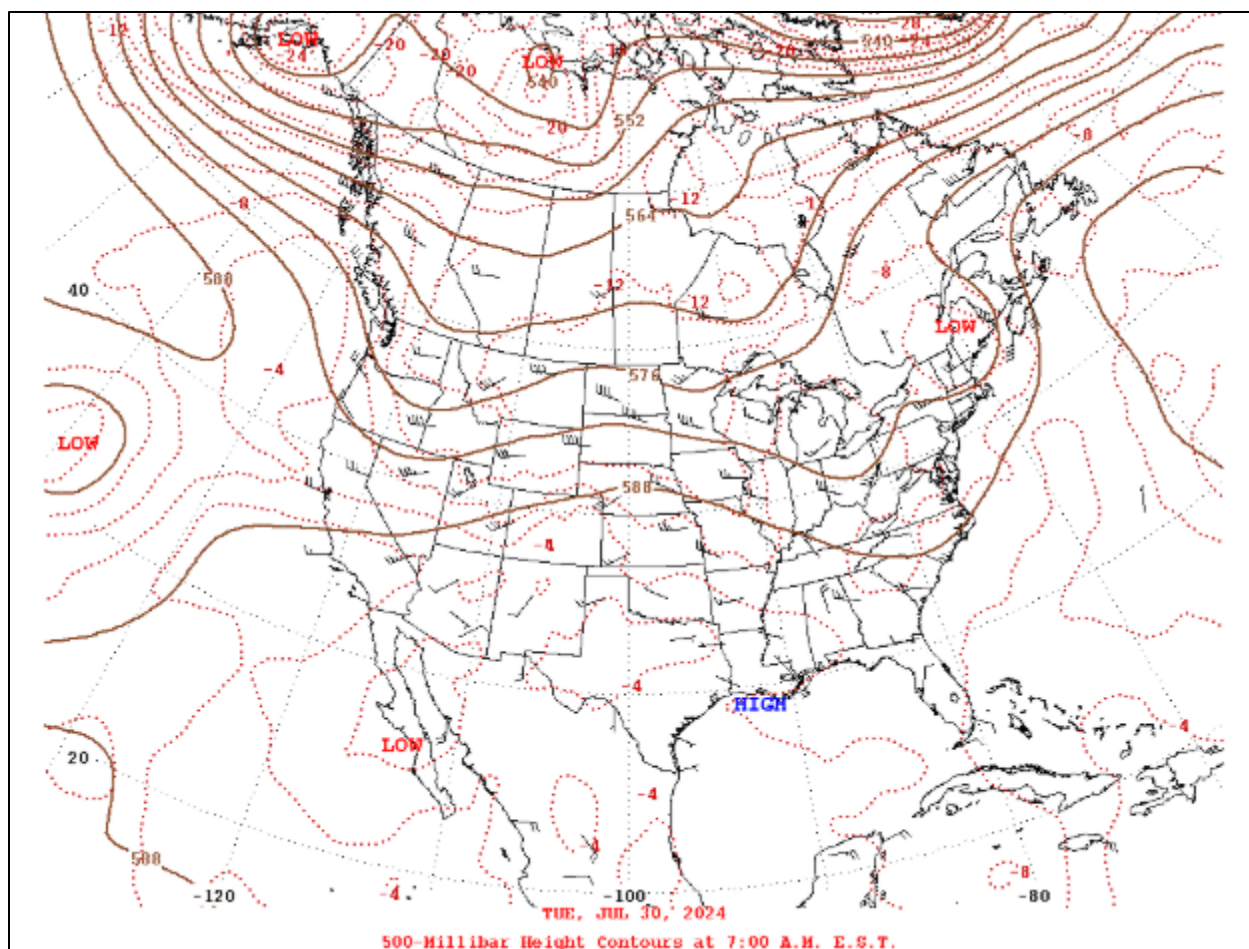


Figure A- 83: National Weather Service Storm Prediction Center (July 30, 2024) 500 mb Analysis (12Z) 7:00 a.m. CDT

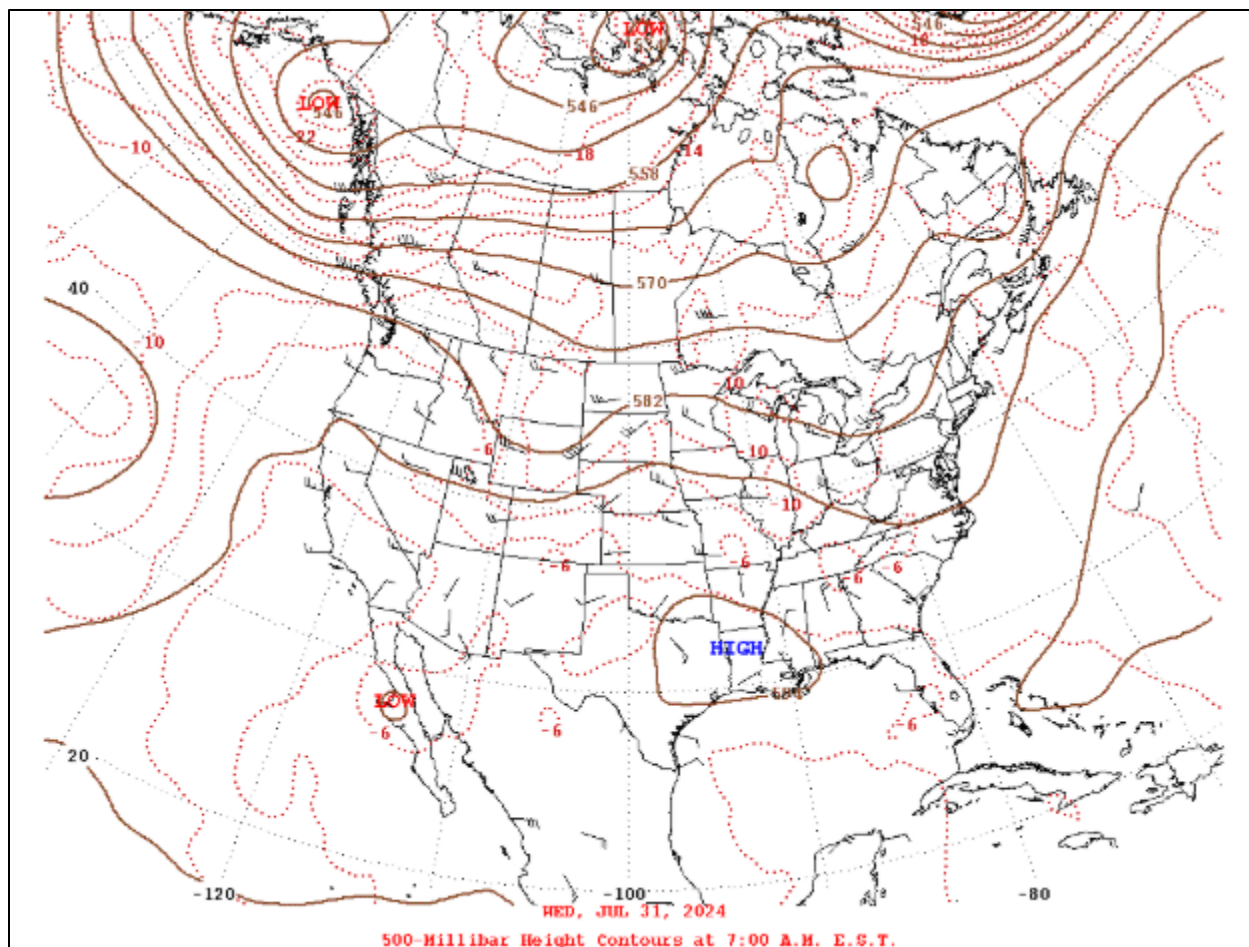


Figure A- 84: National Weather Service Storm Prediction Center (July 31, 2024) 500 mb Analysis (12Z) 7:00 a.m. CDT

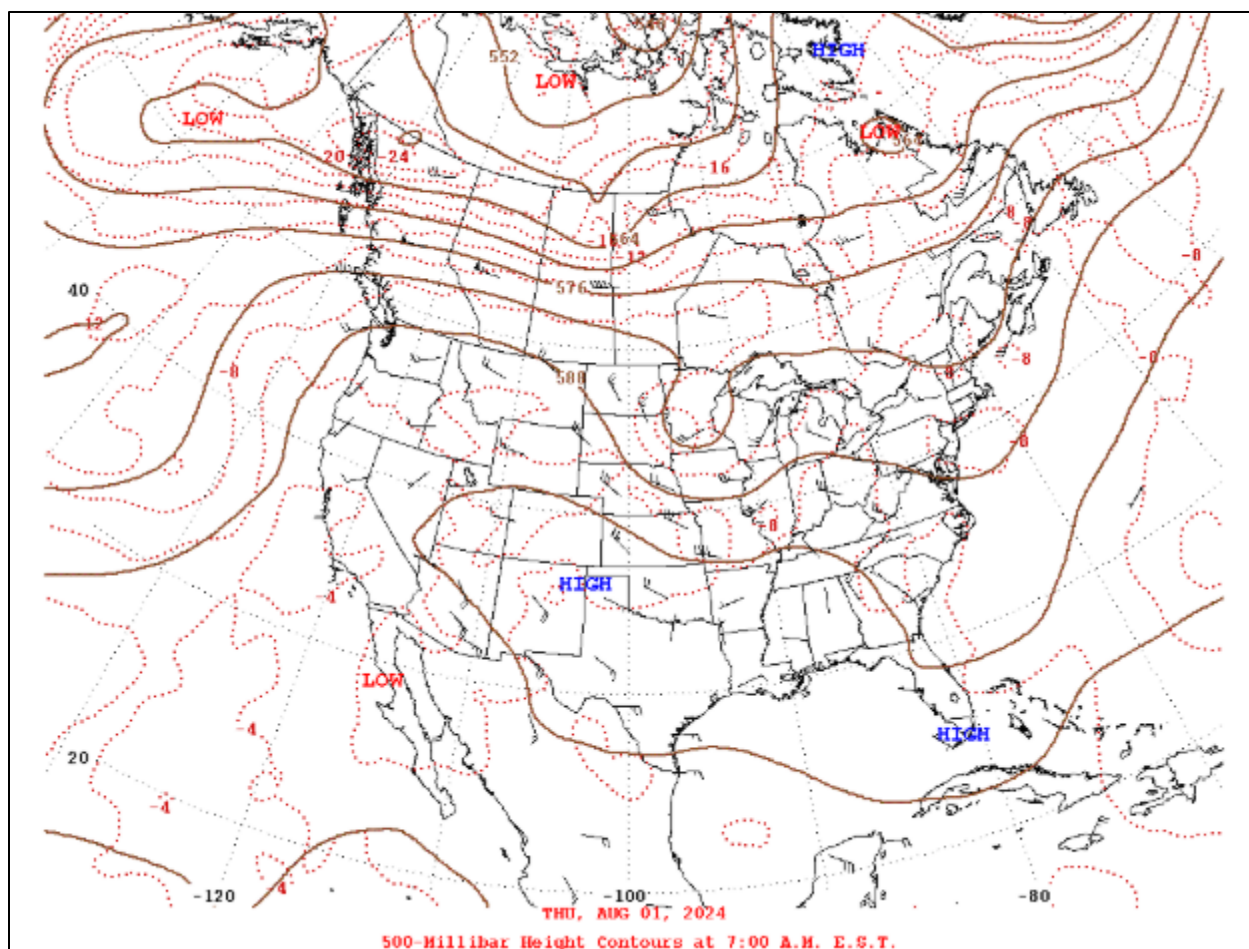


Figure A- 85: National Weather Service Storm Prediction Center (August 1, 2024) 500 mb Analysis (12Z) 7:00 a.m. CDT