

**APPENDIX A**

**WEATHER MAPS AND GRAPHS**

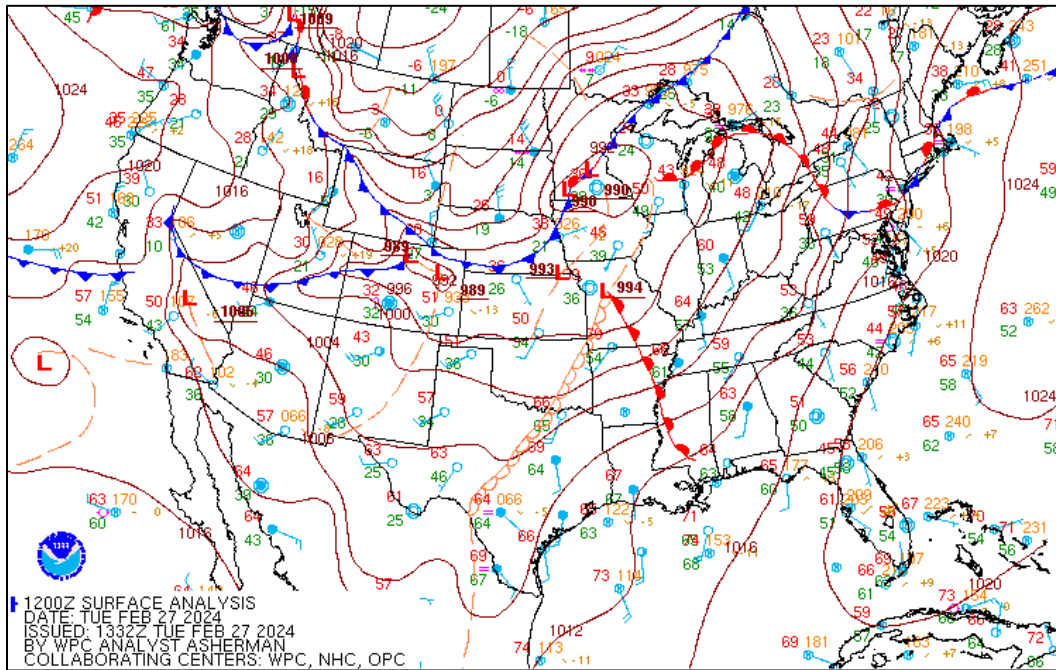
EXCEPTIONAL EVENTS DEMONSTRATION FOR 2024 PM<sub>2.5</sub>  
EXCEEDANCES AT ATASCOSA, HIDALGO, NUECES, TARRANT,  
AND WEBB COUNTIES

AUGUST 5, 2025

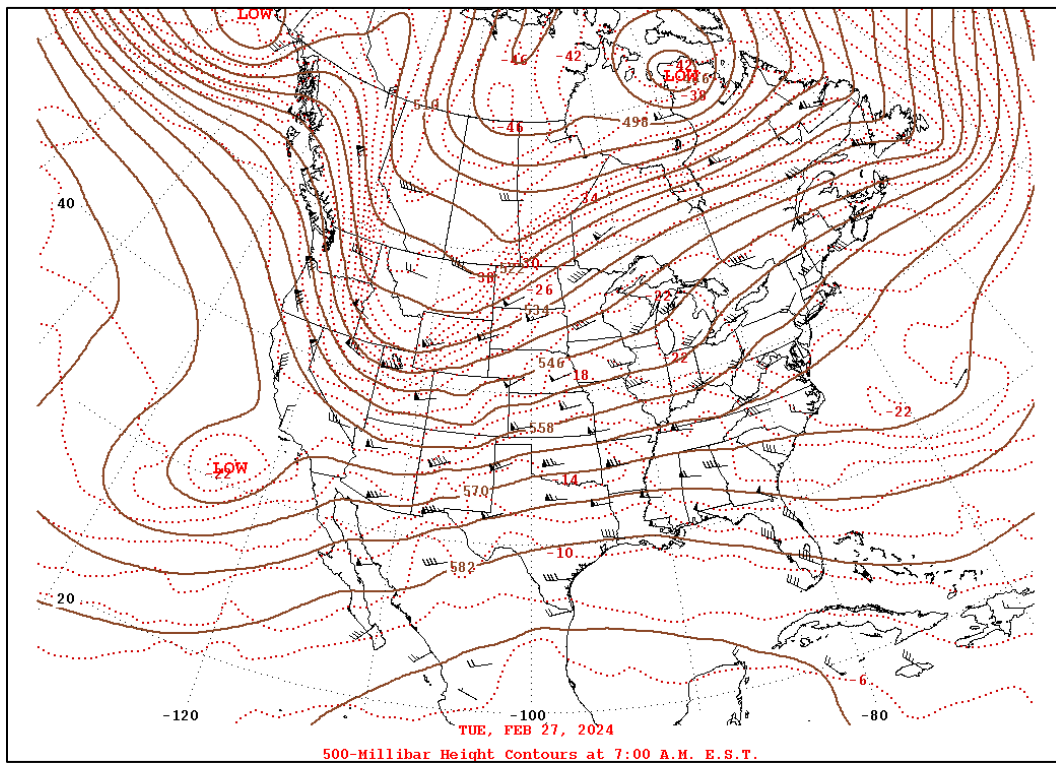
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
P.O. BOX 13087  
AUSTIN, TEXAS 78711-3087

## APPENDIX A: WEATHER MAPS AND GRAPHS

### A.1: Group 1 - February 27, 2024



**Figure A-1: National Weather Service Weather Prediction Center (February 27, 2024) CONUS Surface Analysis (12Z) 6:00 a.m. CST**



**Figure A-2: National Weather Service Storm Prediction Center (February 27, 2024) 500 mb Analysis (12Z) 6:00 a.m. CST**

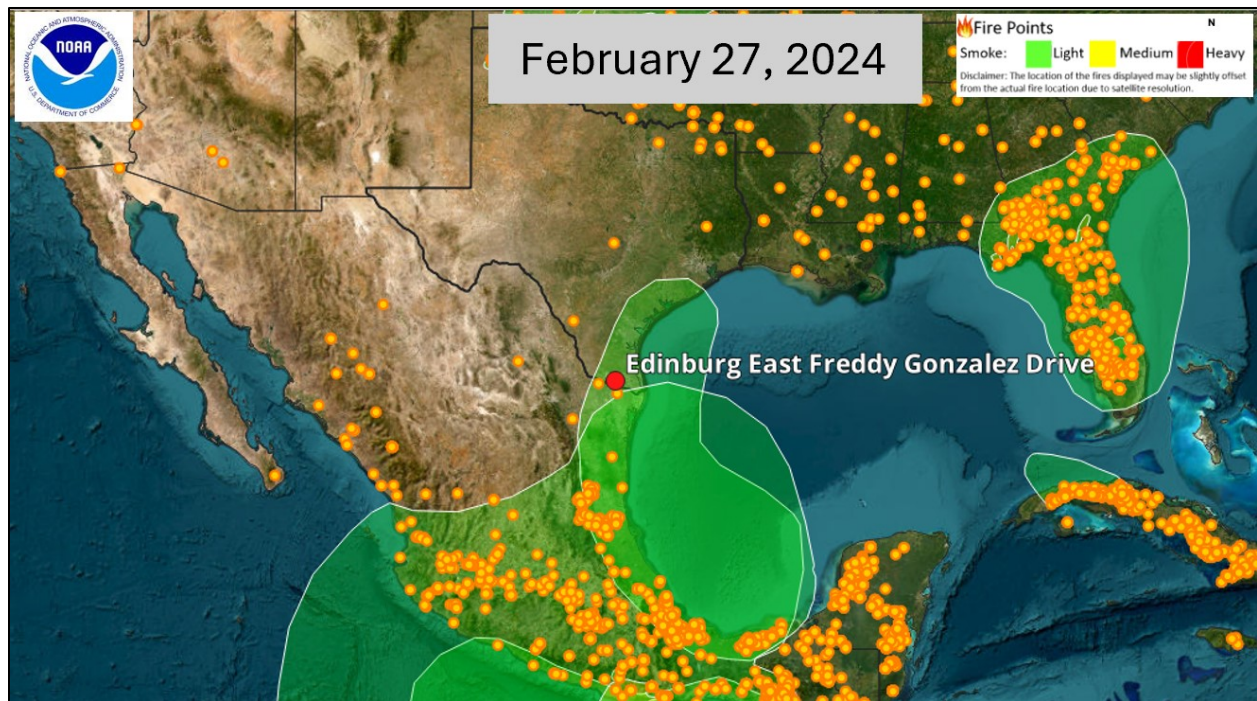


Figure A-3: NOAA HMS Fire and Smoke Map on February 27, 2024

A.2: Group 2 - March 4 through March 6, 2024, and March 8, 2024

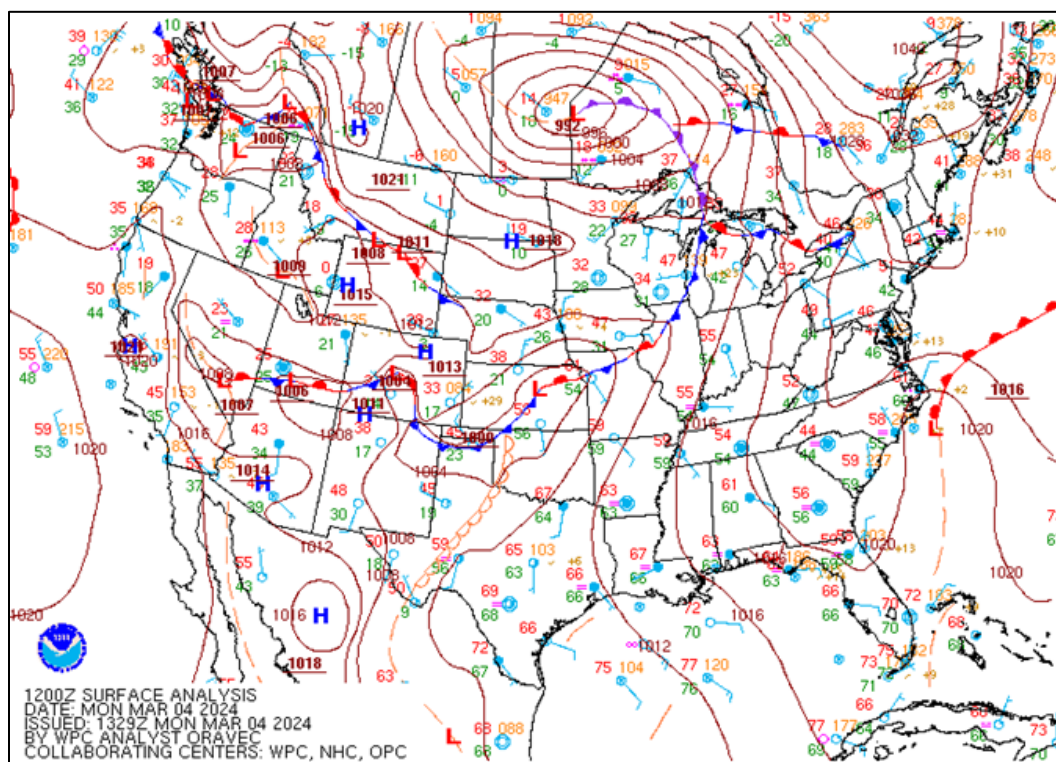
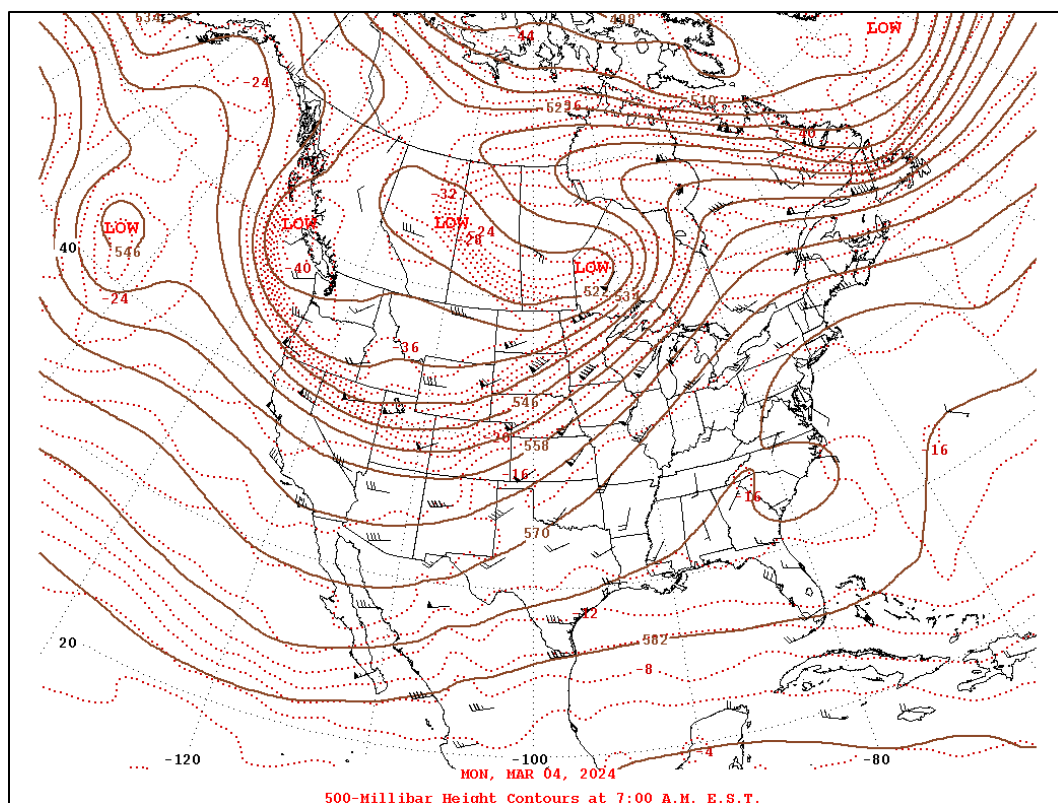
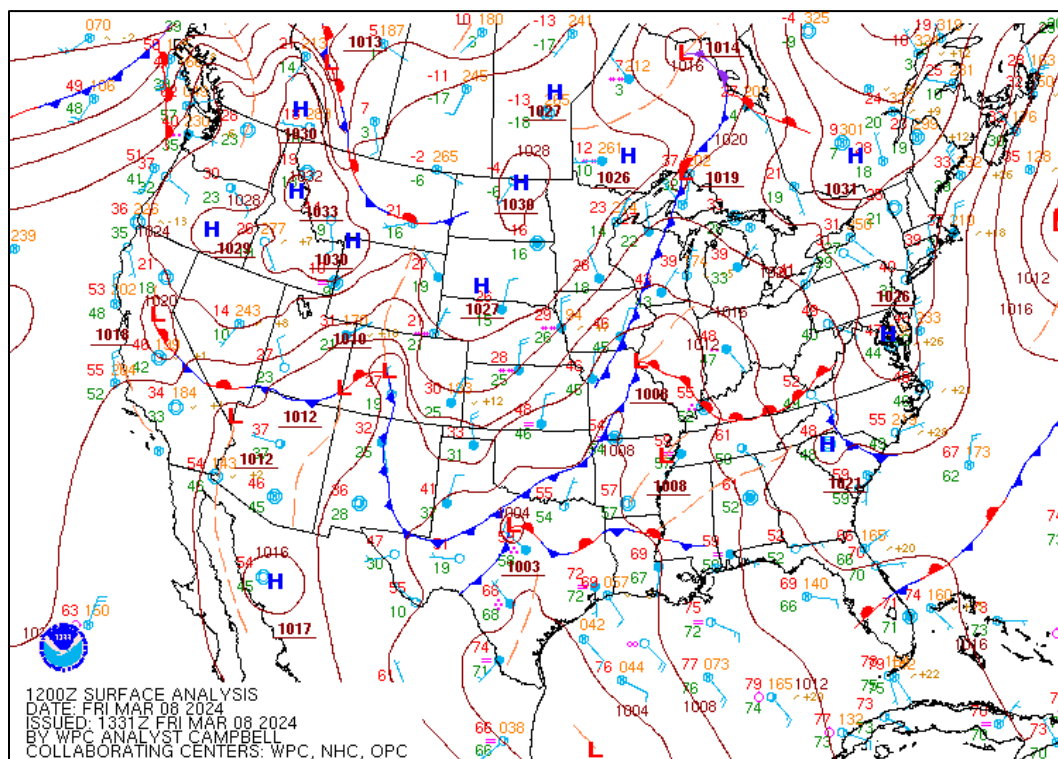


Figure A-4: National Weather Service Weather Prediction Center (March 4, 2024) CONUS Surface Analysis (12Z) 6:00 a.m. CST





**Figure A-5: National Weather Service Storm Prediction Center (March 4, 2024) 500 MB Analysis (12Z) 6:00 a.m. CST**



**Figure A-6: National Weather Service Weather Prediction Center (March 8, 2024) CONUS Surface Analysis (12Z) 6:00 a.m. CST**



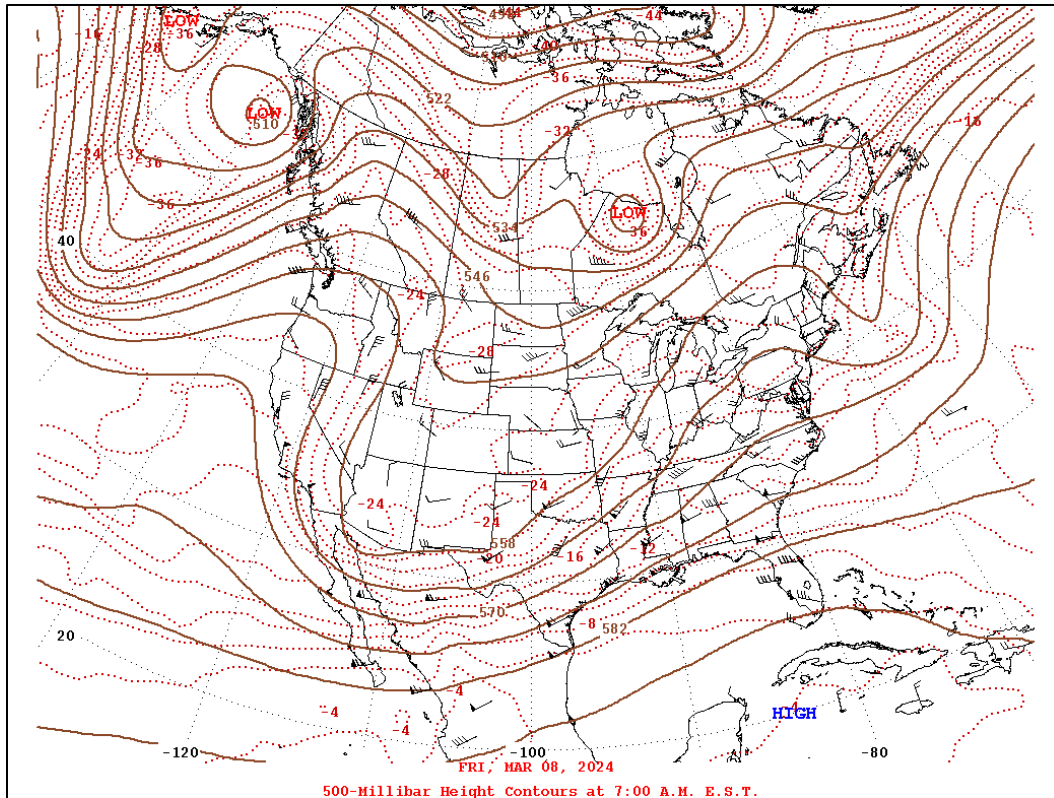


Figure A-7: National Weather Service Weather Prediction Center (March 8, 2024) 500 mb Analysis (12Z) 6:00 a.m. CST

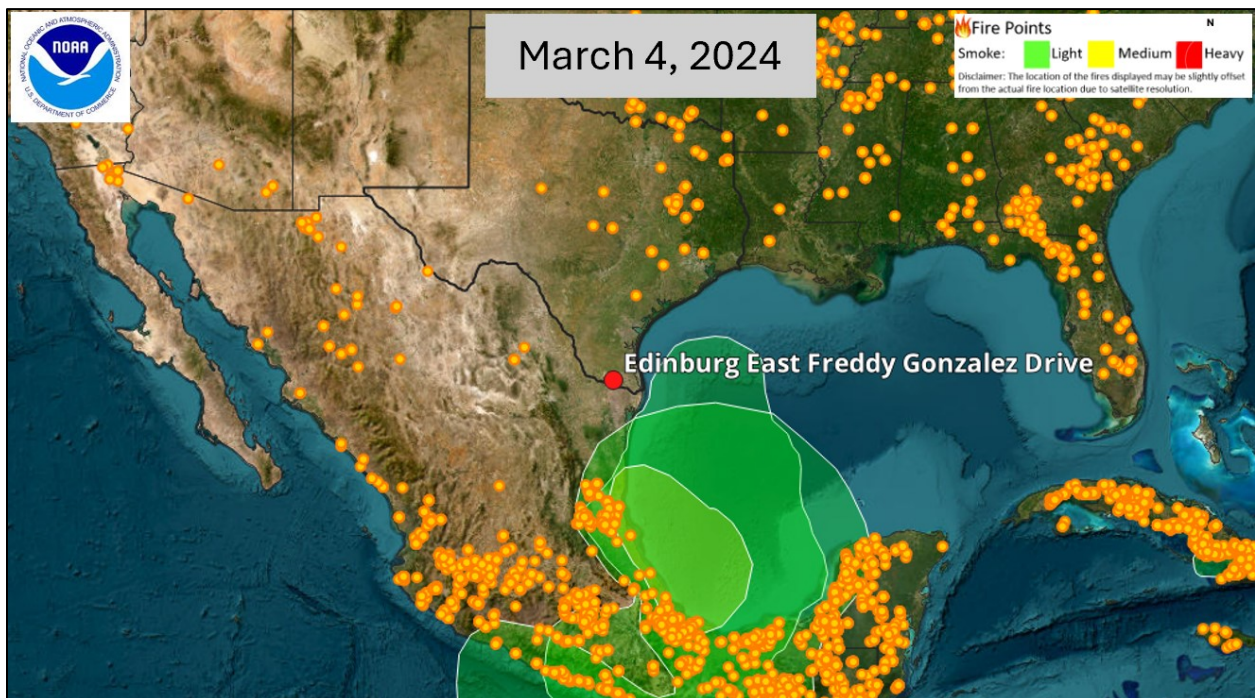


Figure A-8: NOAA HMS Fire and Smoke Map on March 4, 2024



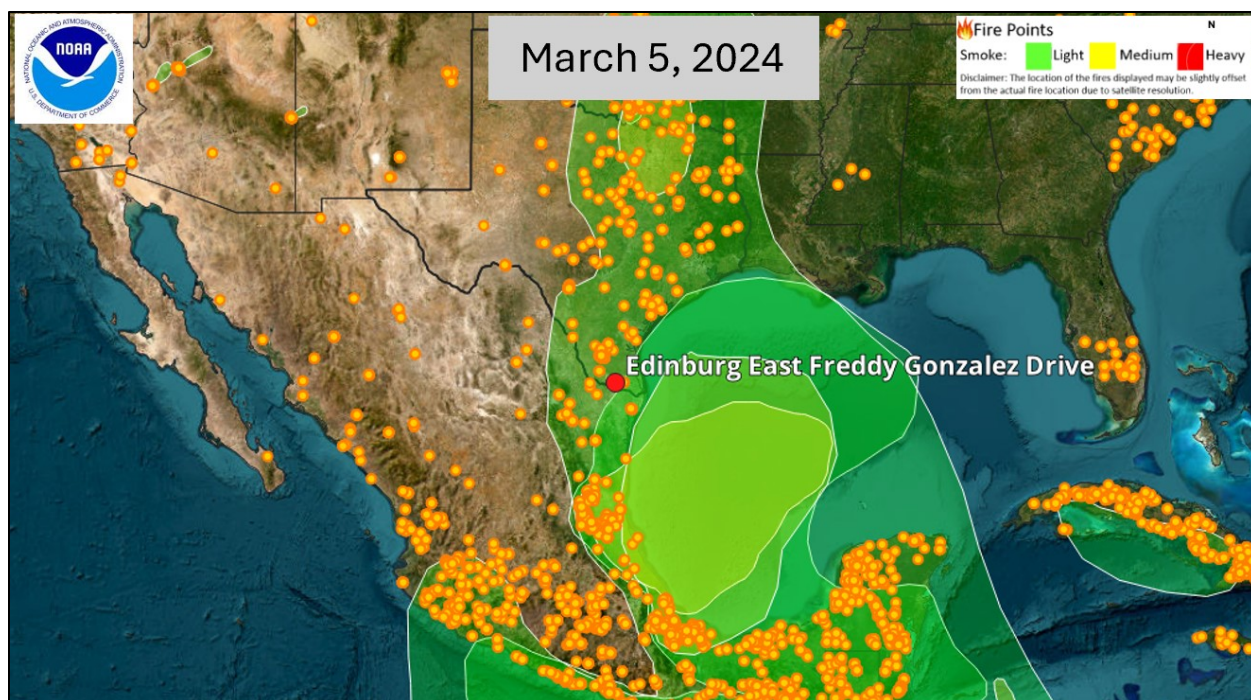


Figure A-9: NOAA HMS Fire and Smoke Map on March 5, 2024

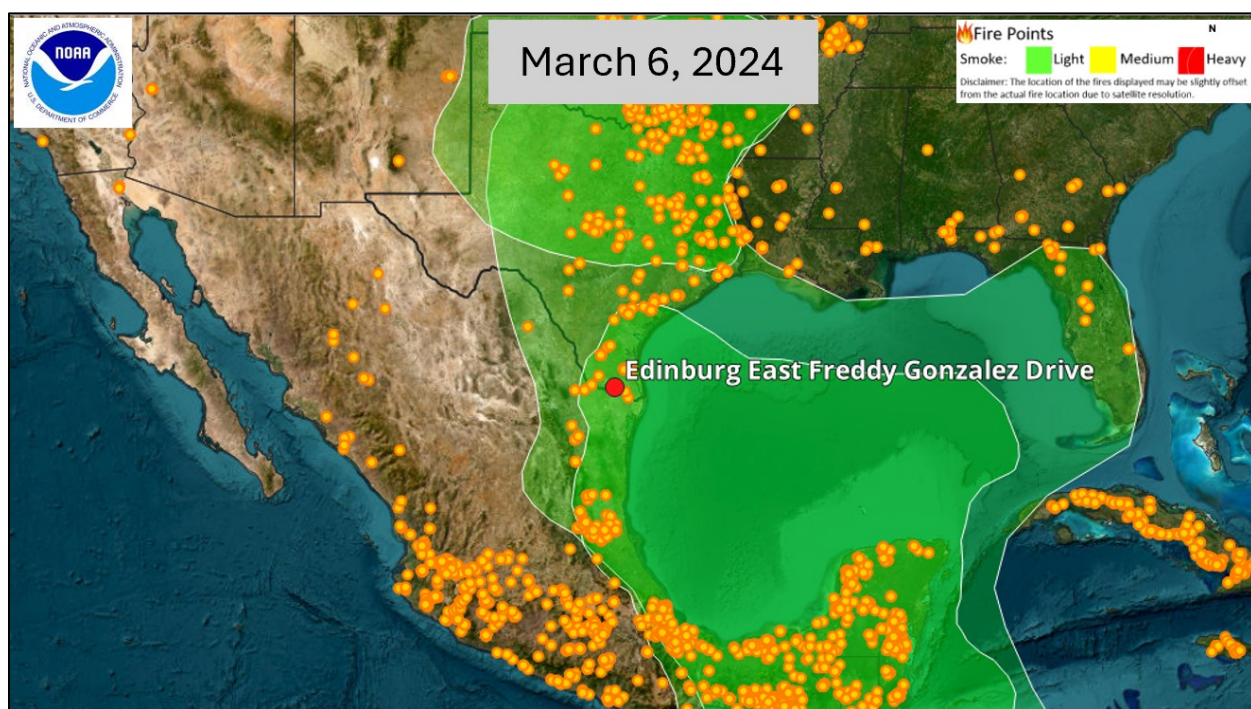


Figure A-10: NOAA HMS Fire and Smoke Map on March 6, 2024



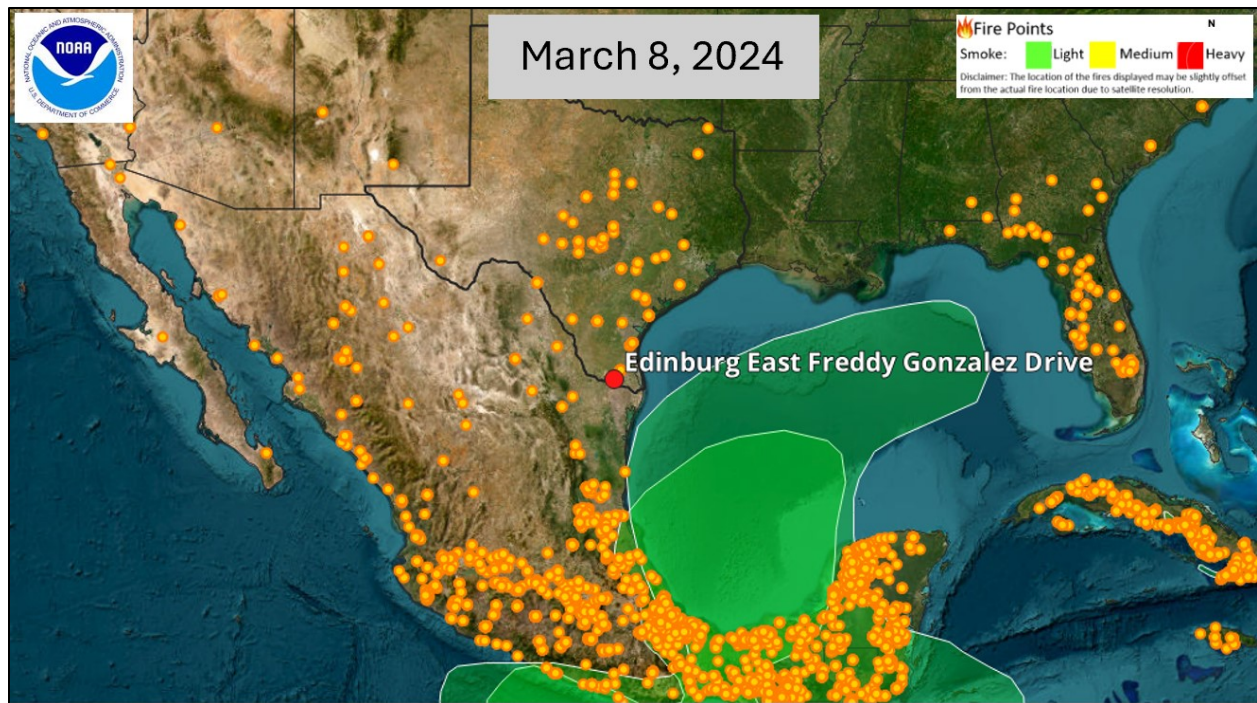


Figure A-11: NOAA HMS Fire and Smoke Map on March 8, 2024

### A.3: Group 3 - March 14 and March 15, 2024

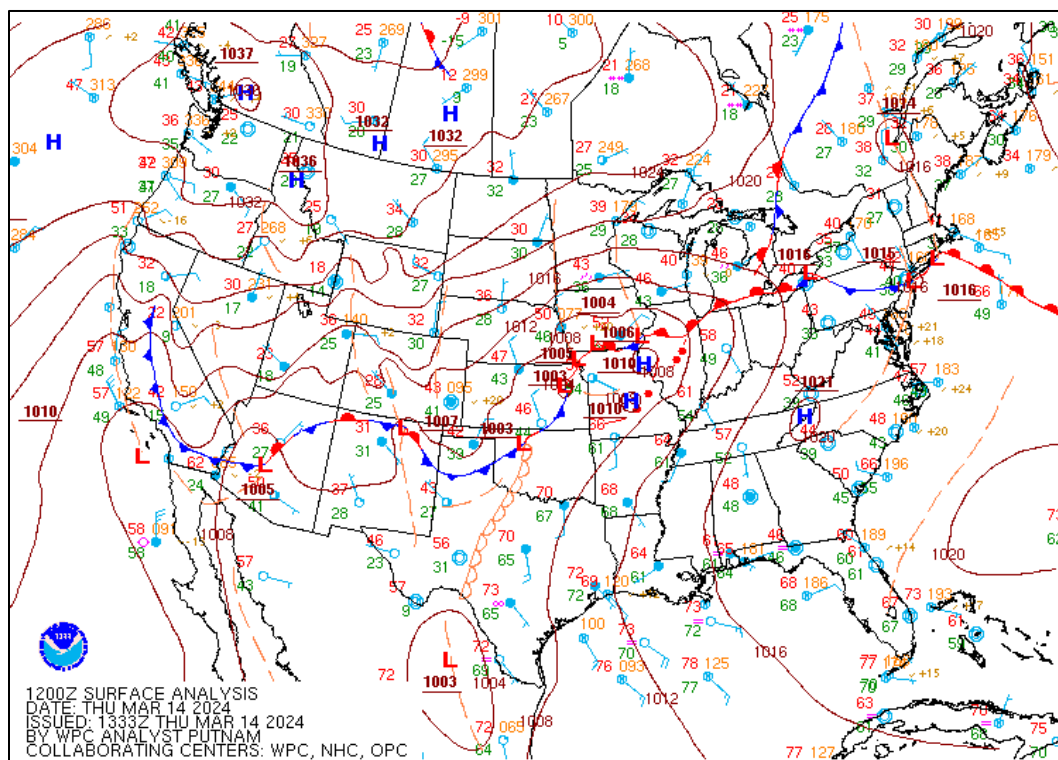


Figure A-12: National Weather Service Weather Prediction Center (March 14, 2024) CONUS Surface Analysis (12Z) 6:00 a.m. CDT



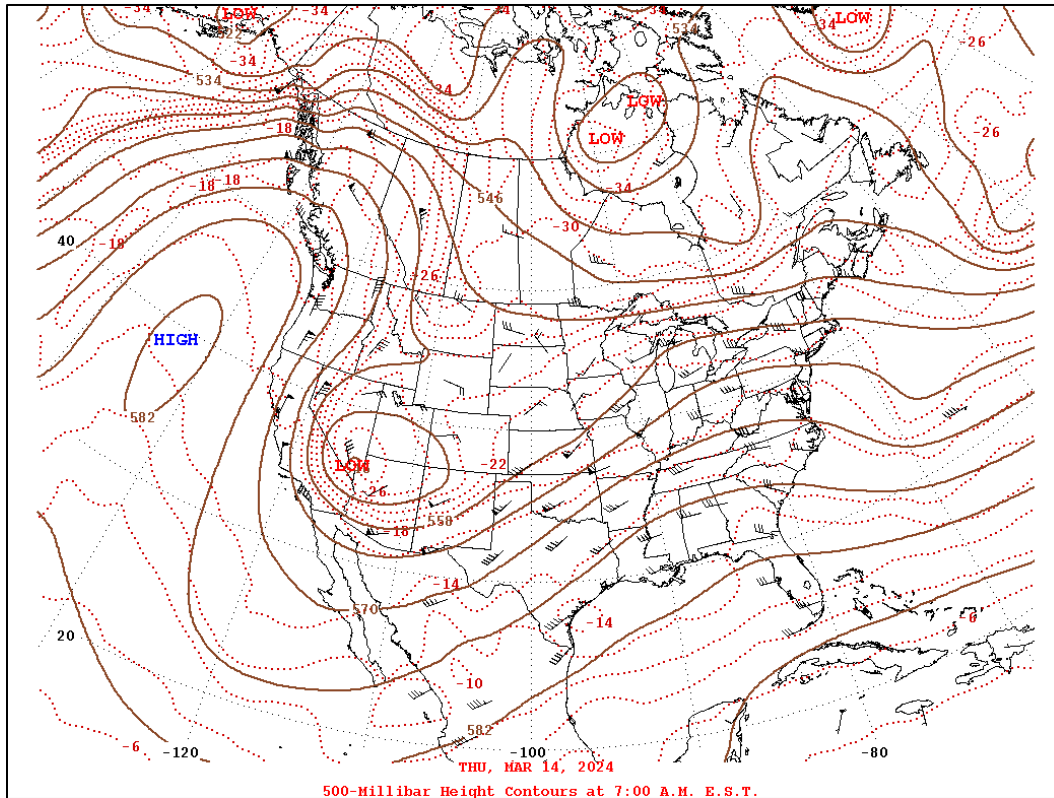


Figure A-13: National Weather Service Storm Prediction Center (March 14, 2024) 500 mb Analysis (12Z) 6:00 a.m. CDT

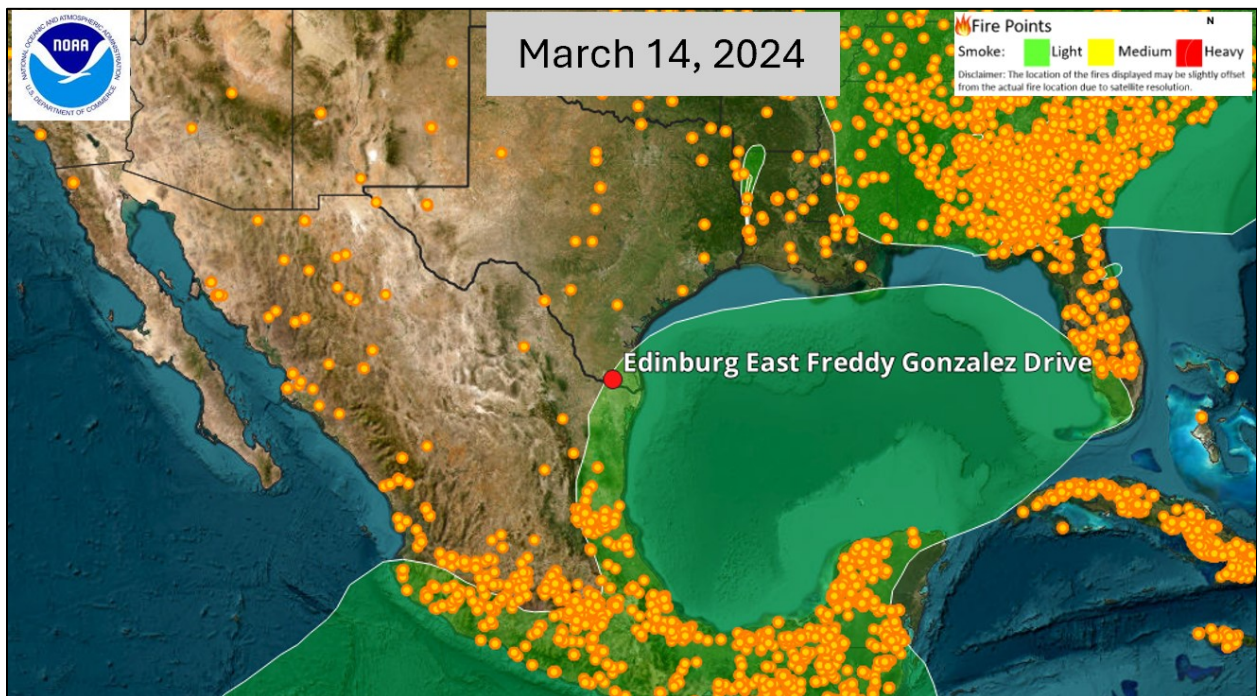


Figure A-14: NOAA HMS Fire and Smoke Map on March 14, 2024

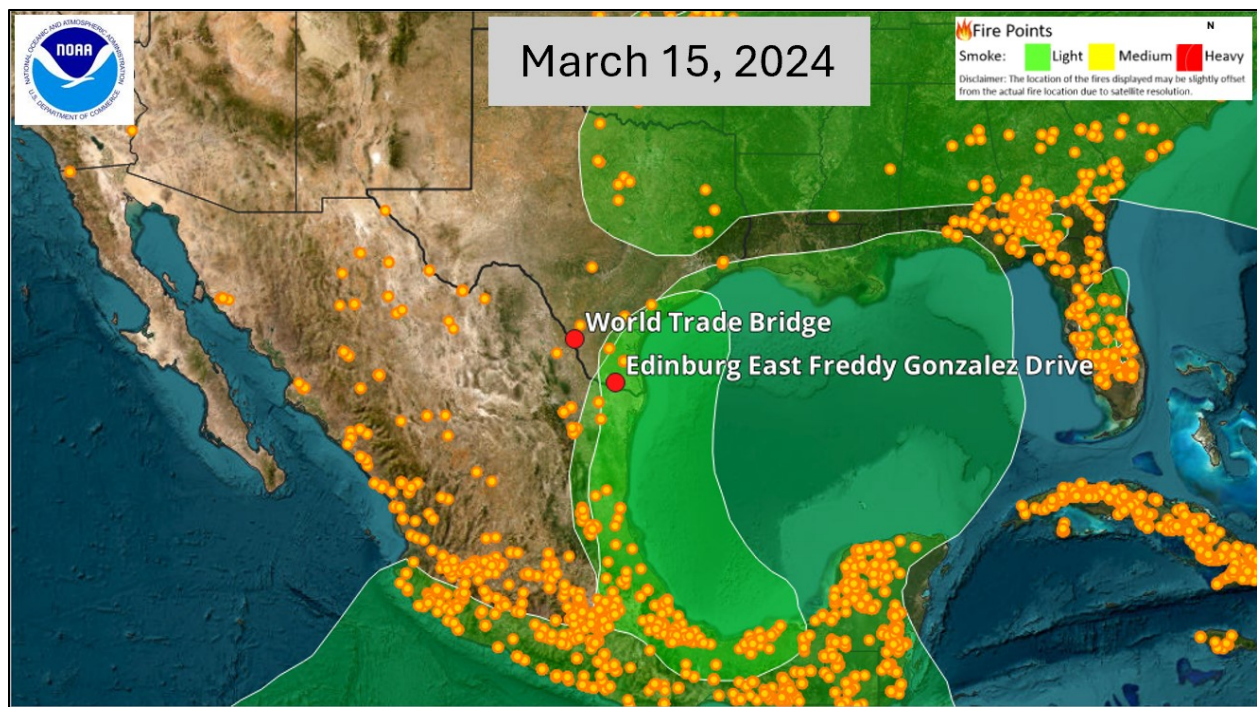


Figure A-15: NOAA HMS Fire and Smoke Map on March 15, 2024

#### A.4: Group 4 – April 1, 2024

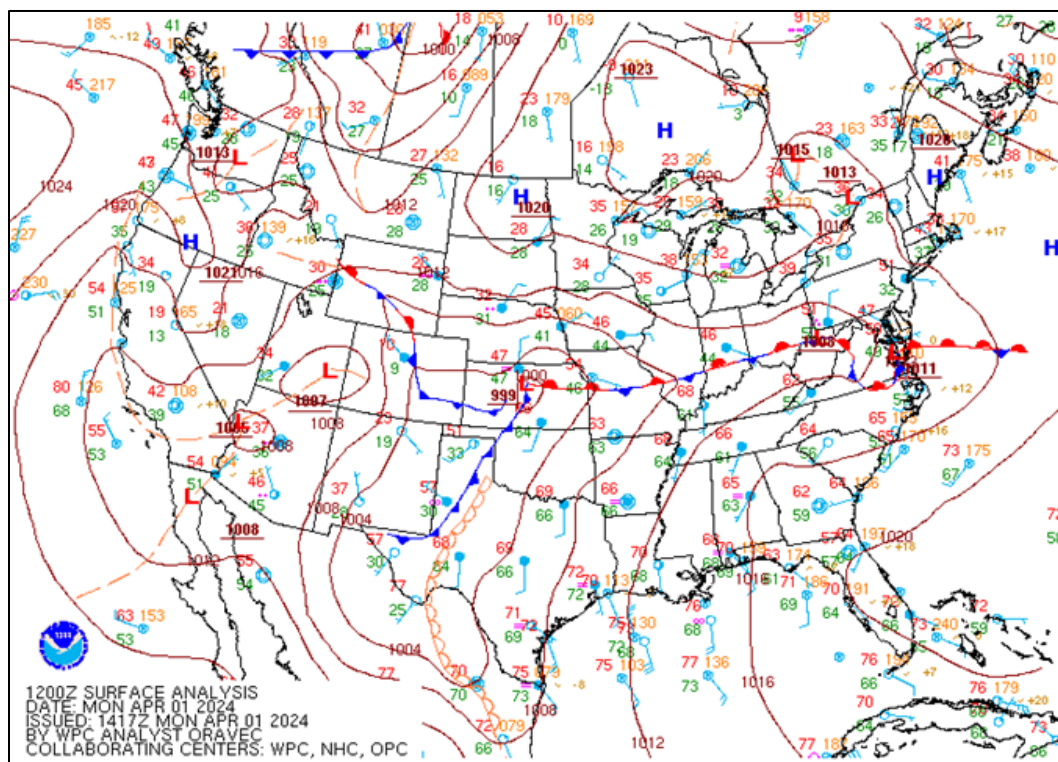


Figure A-16: National Weather Service Weather Prediction Center (April 1, 2024) CONUS Surface Analysis (12Z) 6:00 a.m. CDT



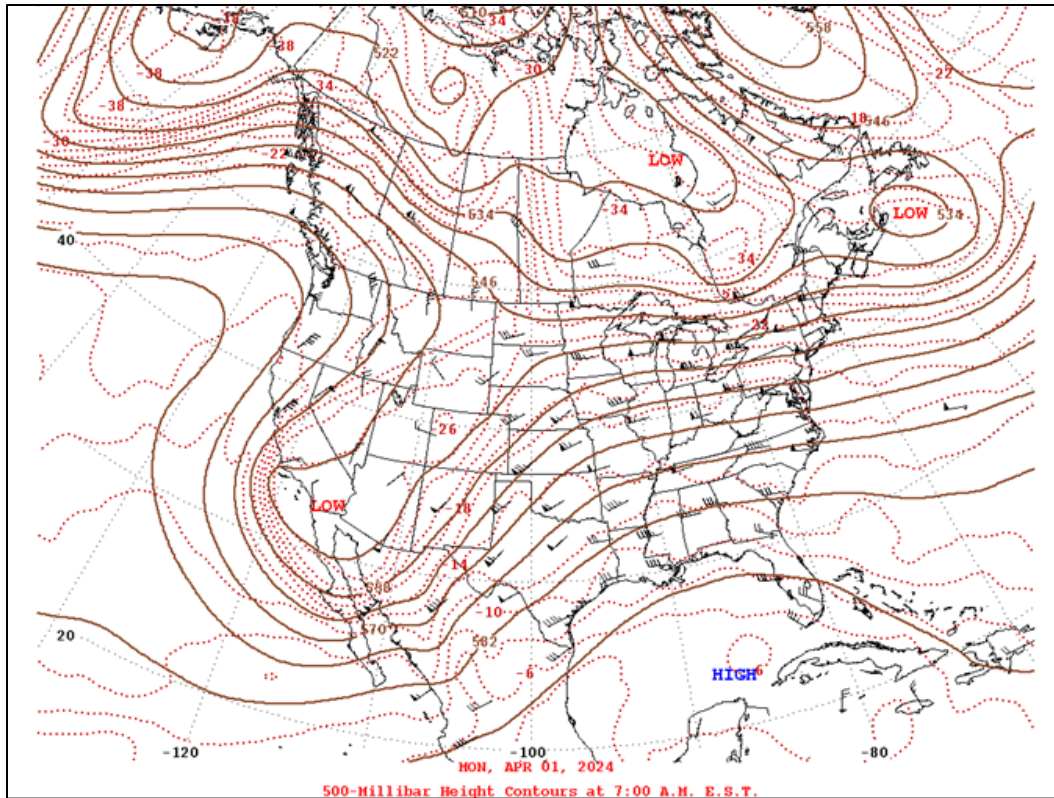


Figure A-17: National Weather Service Storm Prediction Center (April 1, 2024) 500 mb Analysis (12Z) 6:00 a.m. CDT

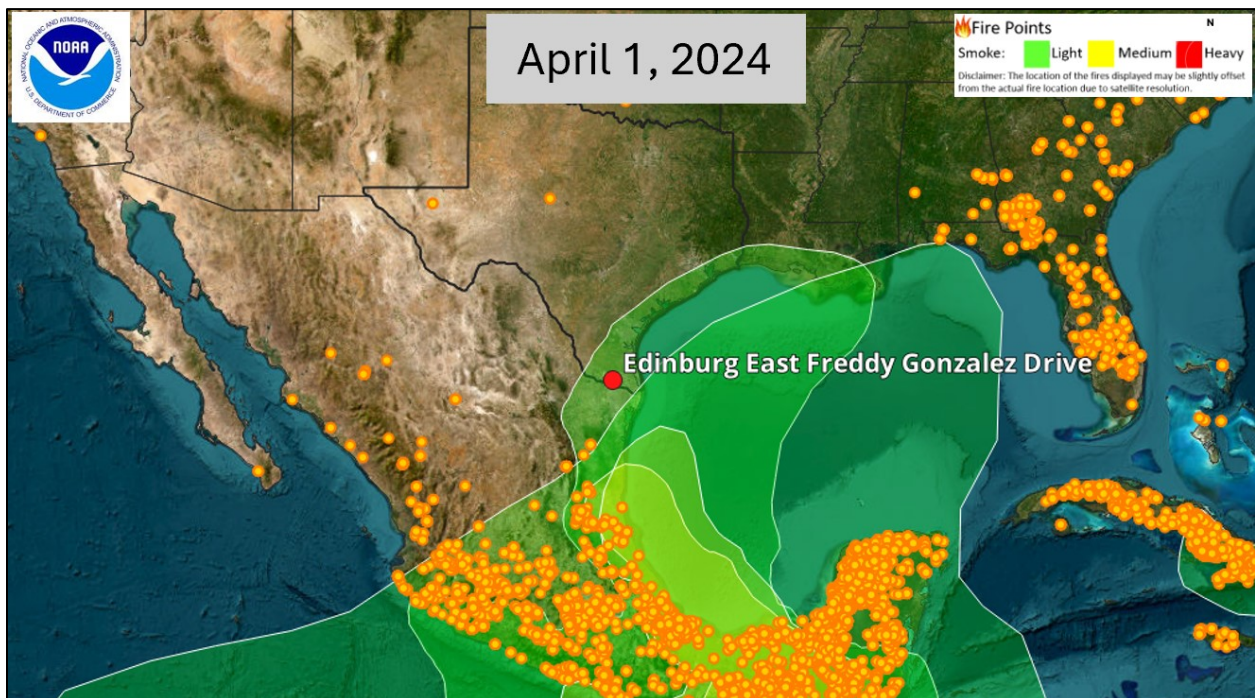


Figure A-18: NOAA HMS Fire and Smoke Map on April 1, 2024, with the Edinburg East Freddy Gonzalez Drive monitor



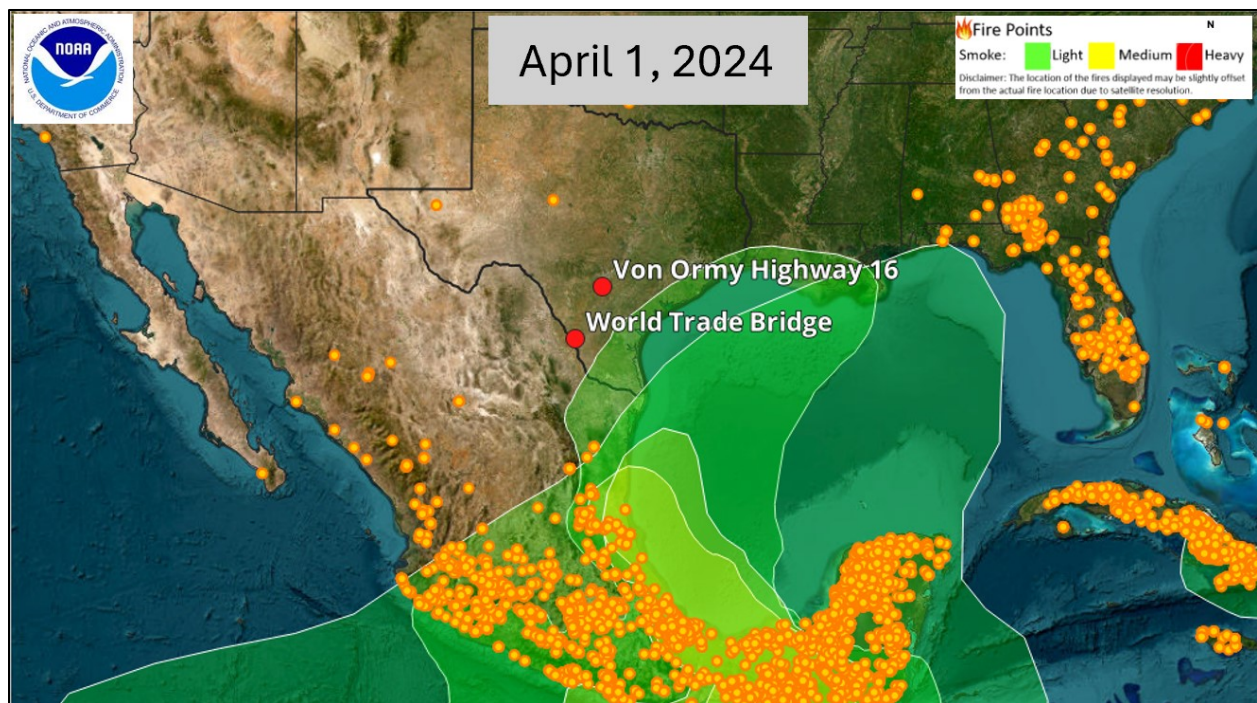


Figure A-19: NOAA HMS Fire and Smoke Map on April 1, 2024, with the Von Ormy Highway 16 and World Trade Bridge monitors

#### A.5: Group 5 - April 8 and April 9, 2024

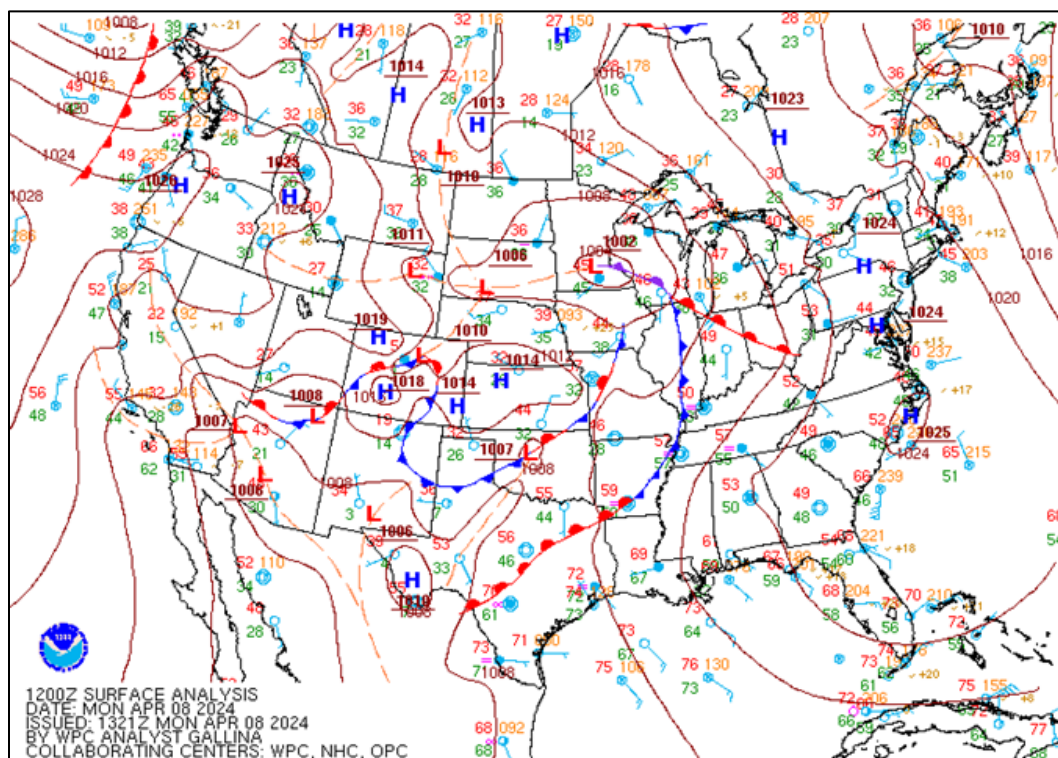


Figure A-20: National Weather Service Weather Prediction Center (April 8, 2024) CONUS Surface Analysis (12Z) 6:00 a.m. CDT



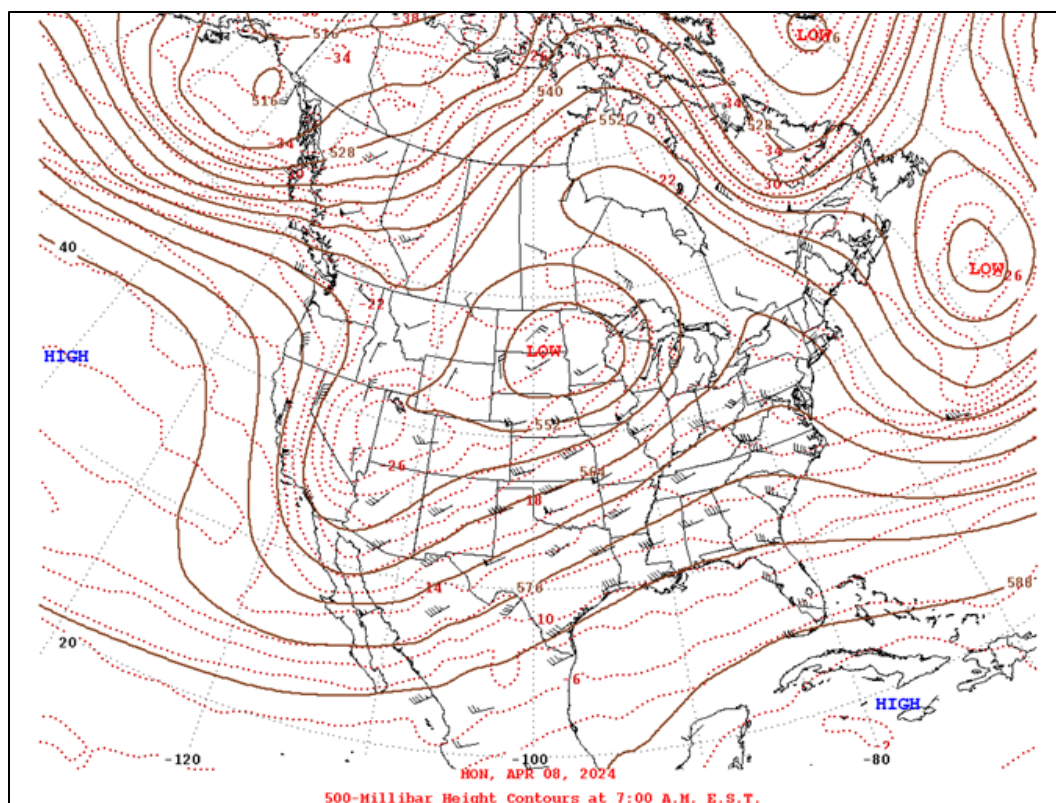


Figure A-21: National Weather Service Storm Prediction Center (April 8, 2024) 500 mb Analysis (12Z) 6:00 a.m. CDT

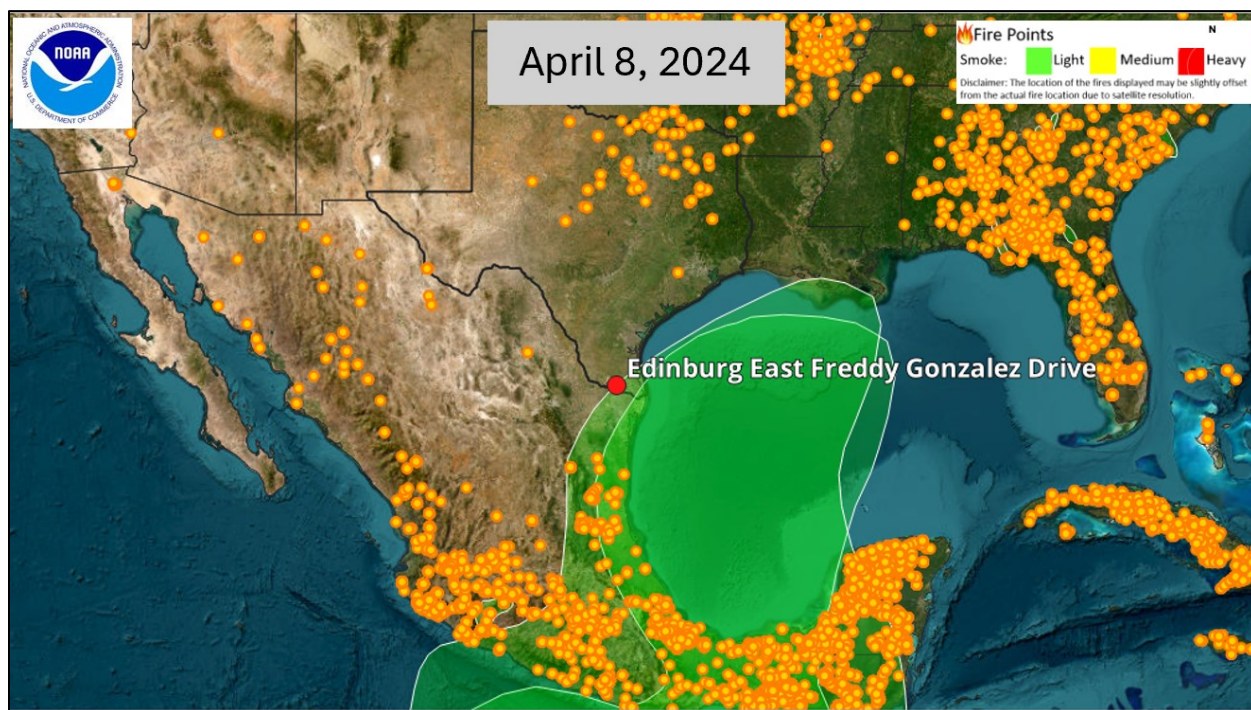


Figure A-22: NOAA HMS Fire and Smoke Map on April 8, 2024





Figure A-23: NOAA HMS Fire and Smoke Map on April 9, 2024

A.6: Group 6 - April 17, 2024

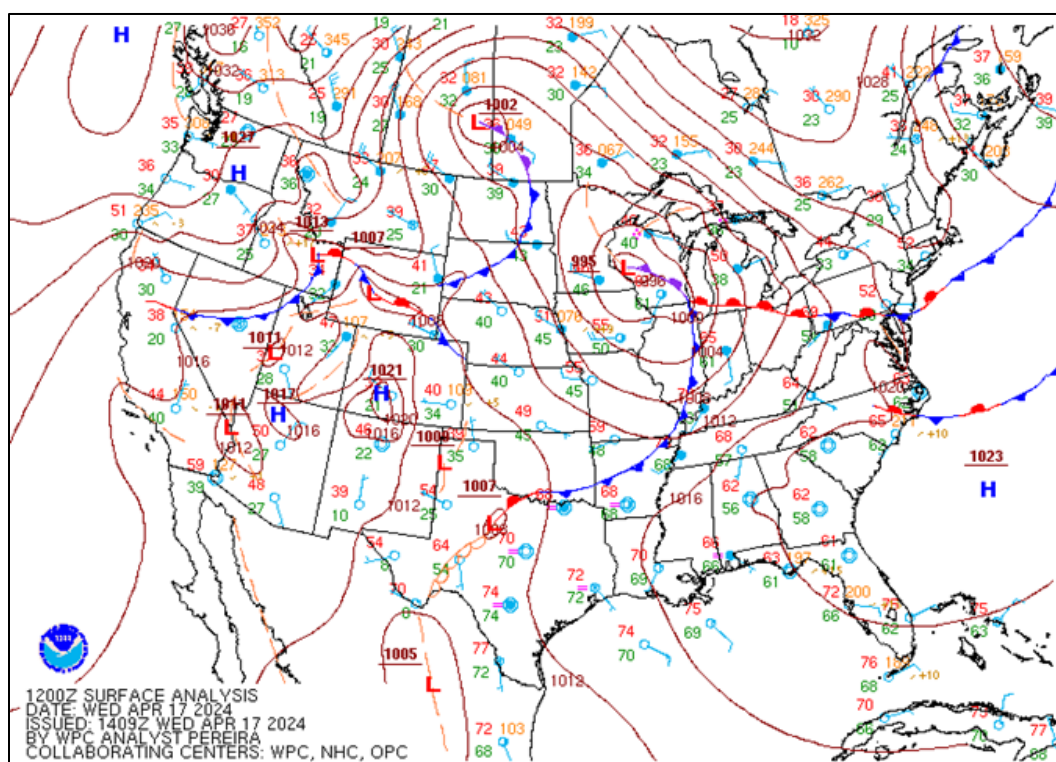


Figure A-24: National Weather Service Weather Prediction Center (April 17, 2024) CONUS Surface Analysis (12Z) 6:00 a.m. CDT



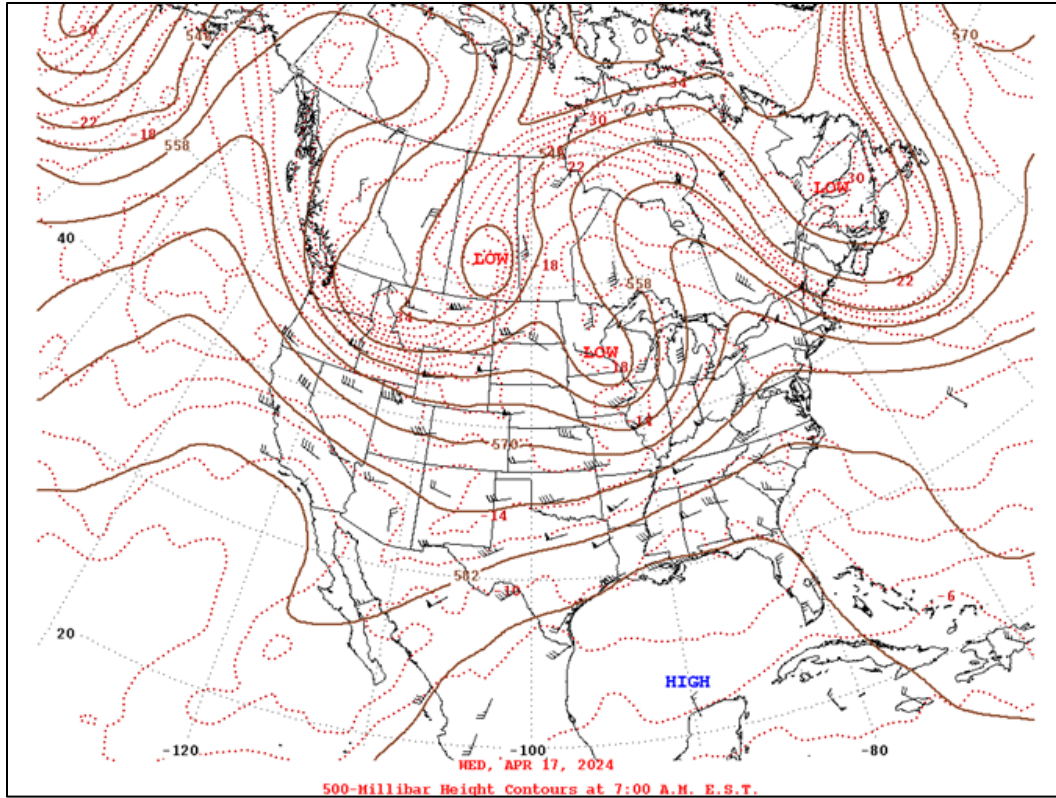


Figure A-25: National Weather Service Storm Prediction Center (April 17, 2024) 500 mb Analysis (12Z) 6:00 a.m. CDT

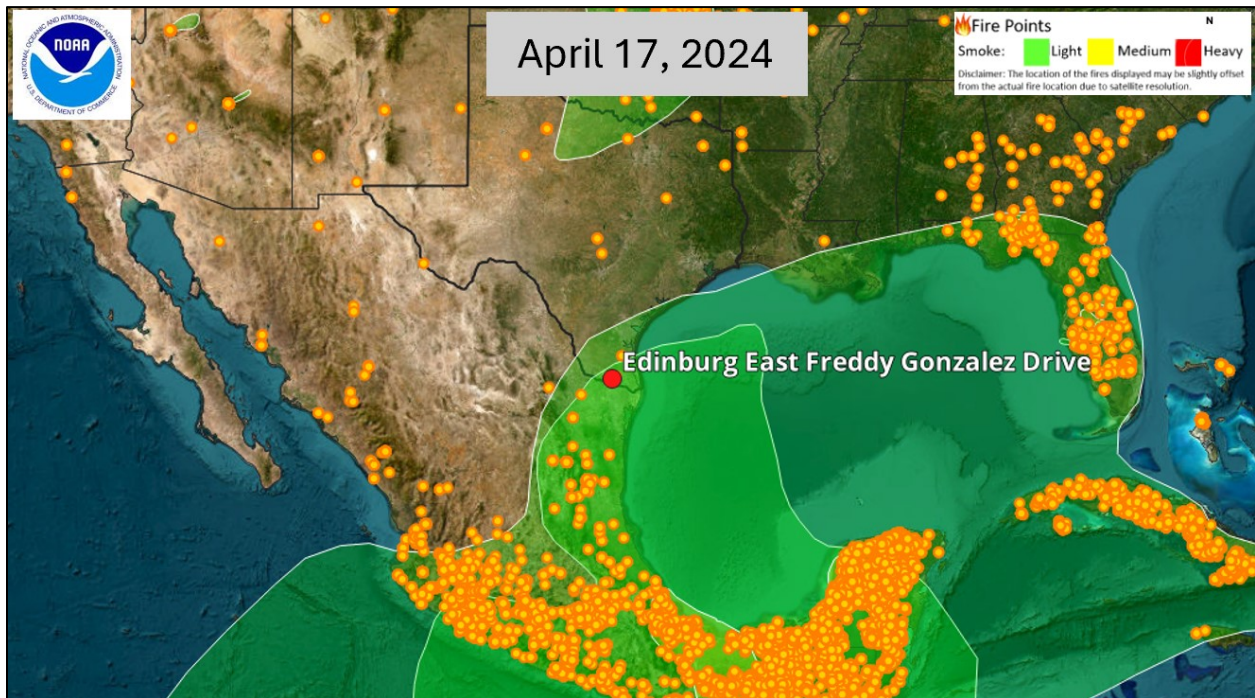


Figure A-26: NOAA HMS Fire and Smoke Map on April 17, 2024

A.7: Group 7 - April 26 through April 29, 2024

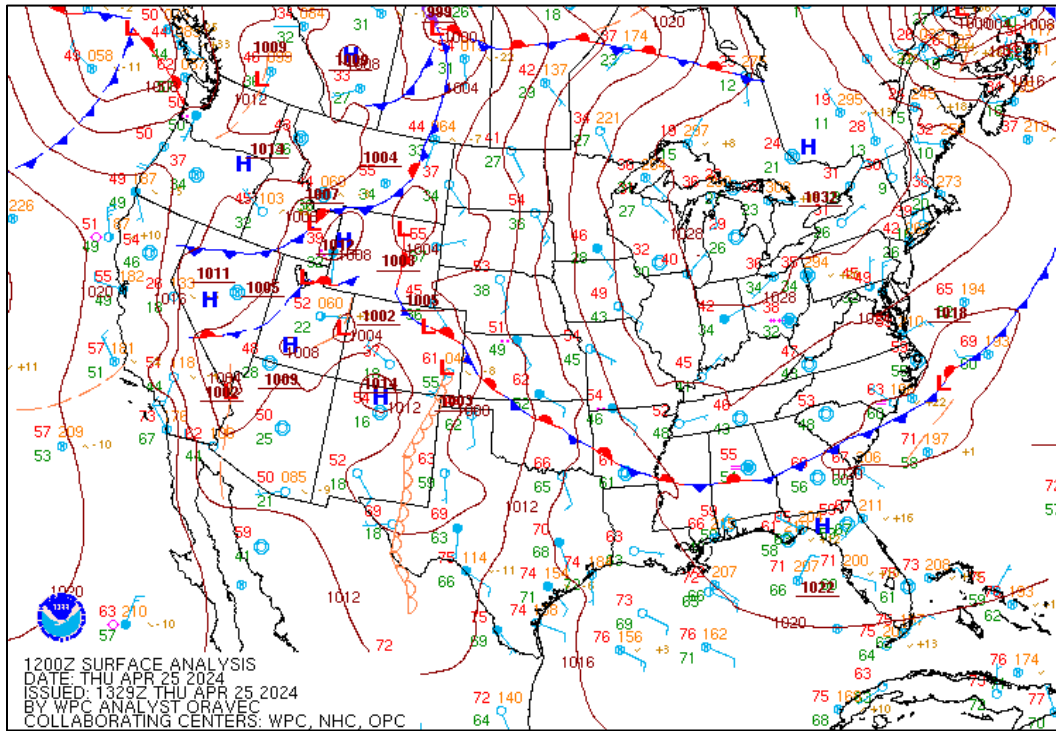


Figure A-27: National Weather Service Weather Prediction Center (April 25, 2024) CONUS Surface Analysis (12Z) 6:00 a.m. CDT

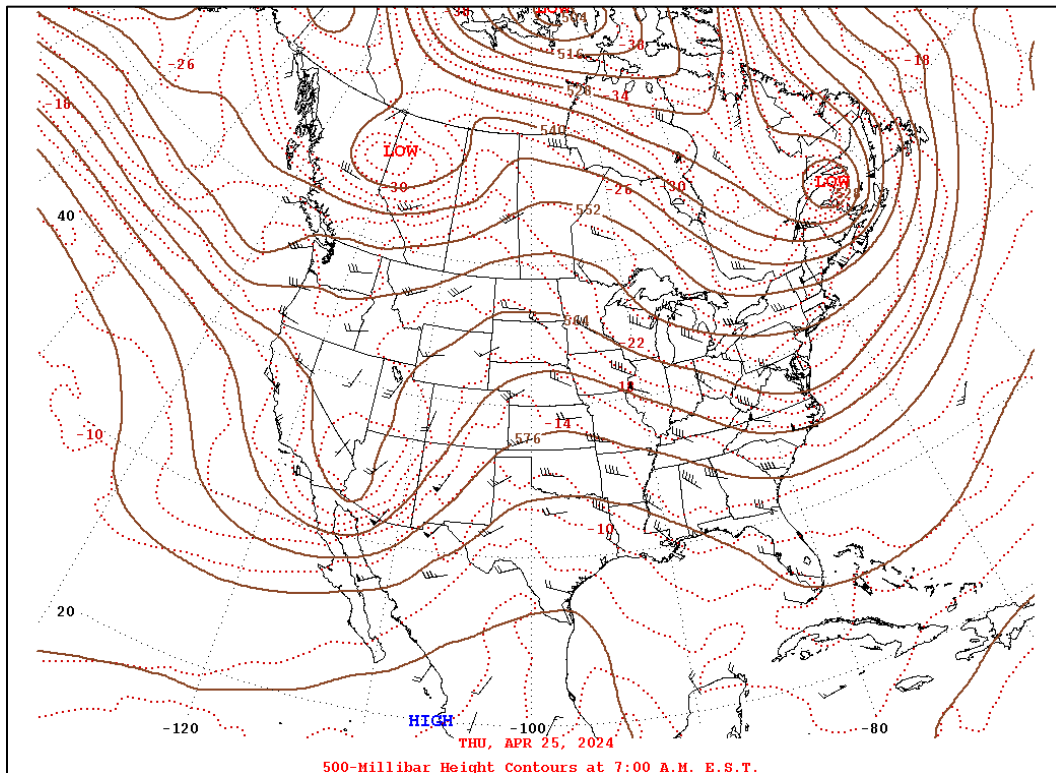
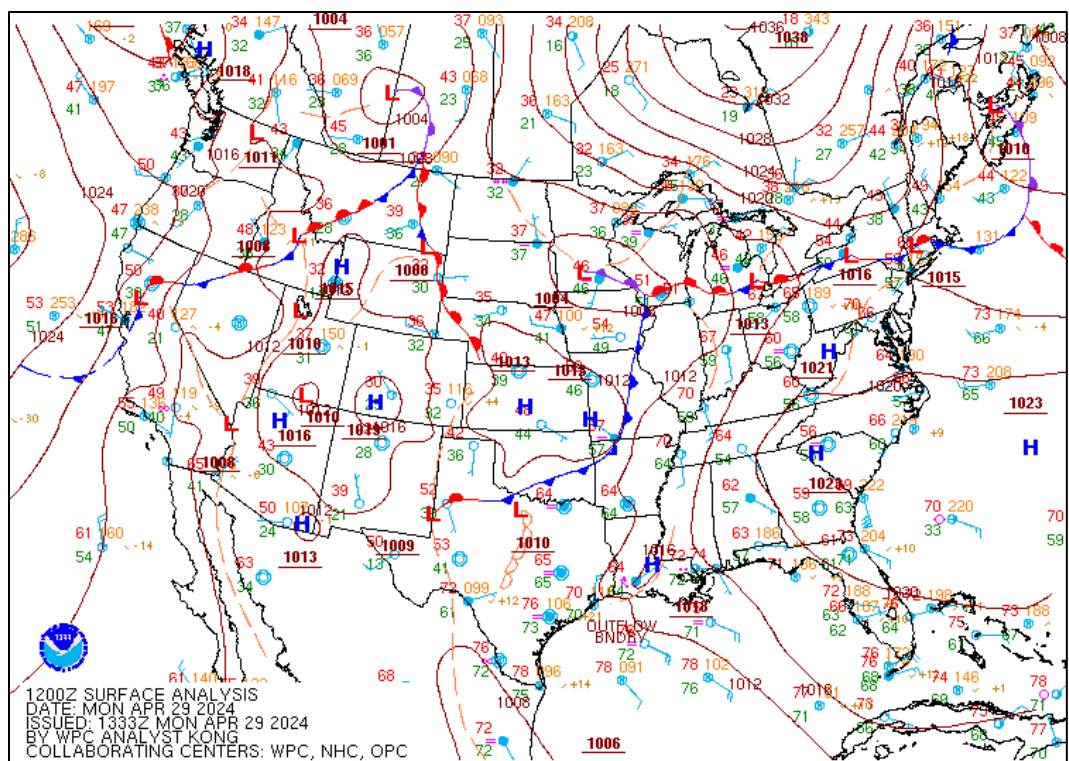
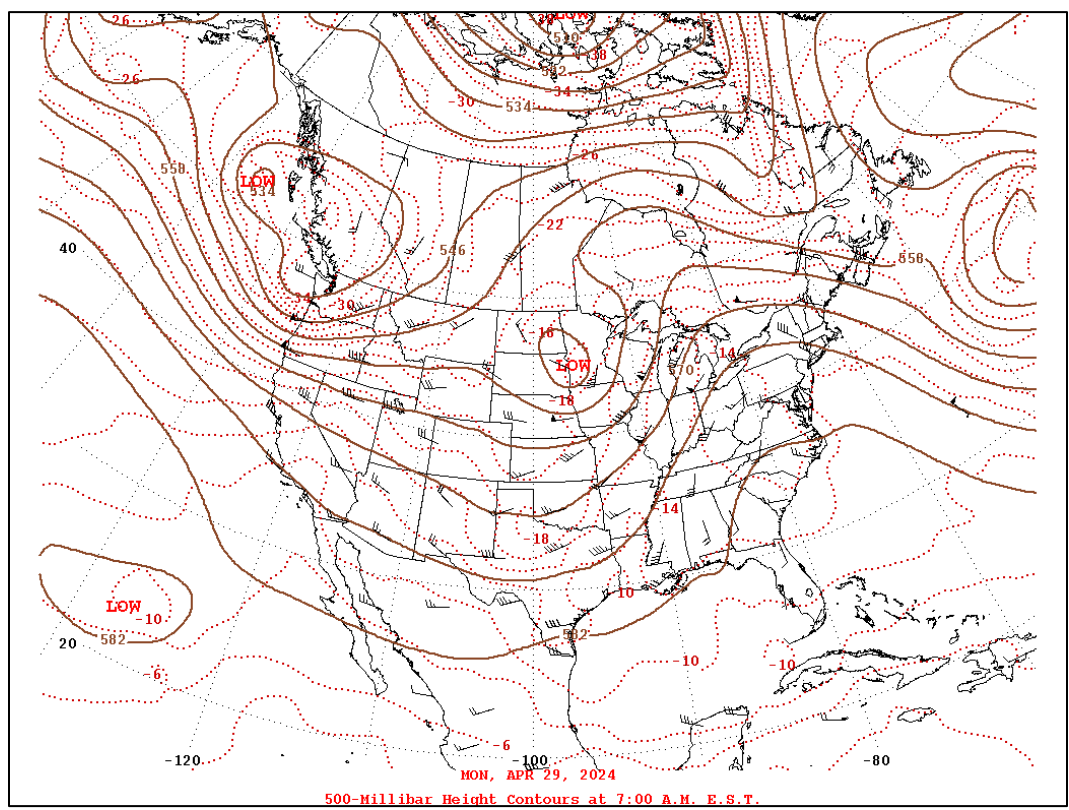


Figure A-28: National Weather Service Storm Prediction Center (April 25, 2024) 500 mb Analysis (12Z) 6:00 a.m. CDT





**Figure A-29: National Weather Service Weather Prediction Center (April 29, 2024) CONUS Surface Analysis (12Z) 6:00 a.m. CDT**



**Figure A-30: National Weather Service Storm Prediction Center (April 29, 2024) 500 mb Analysis (12Z) 6:00 a.m. CDT**



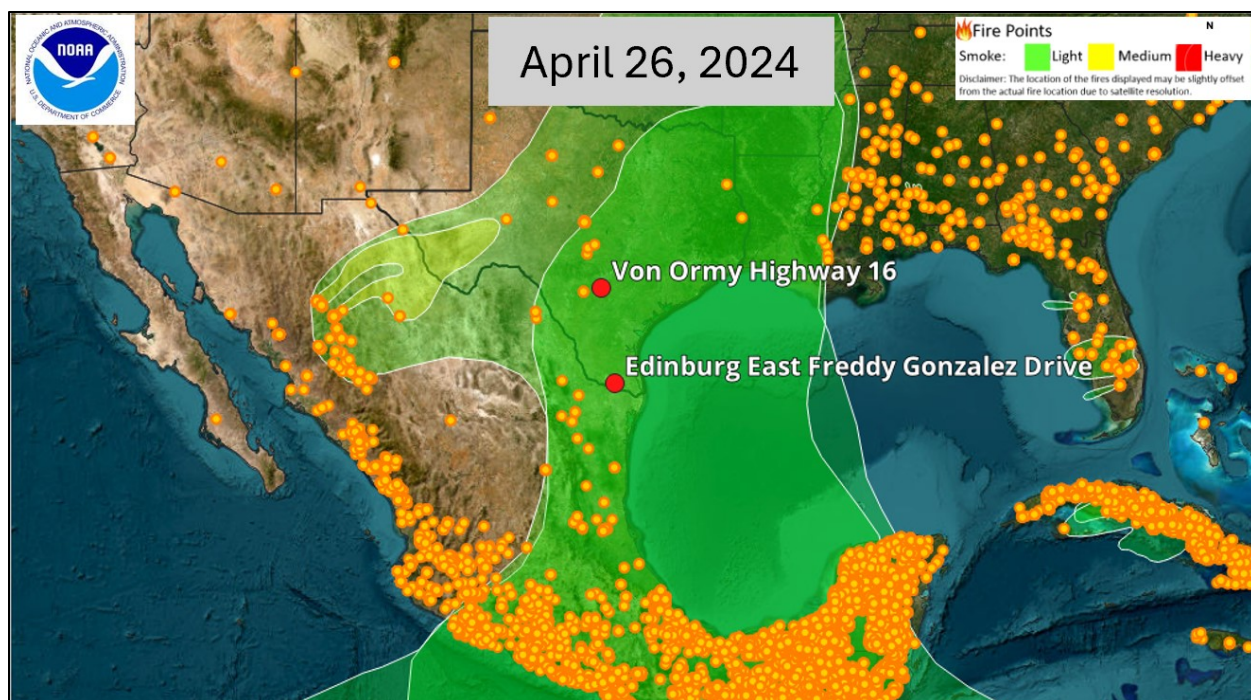


Figure A-31: NOAA HMS Fire and Smoke Map on April 26, 2024



Figure A-32: NOAA HMS Fire and Smoke Map on April 27, 2024



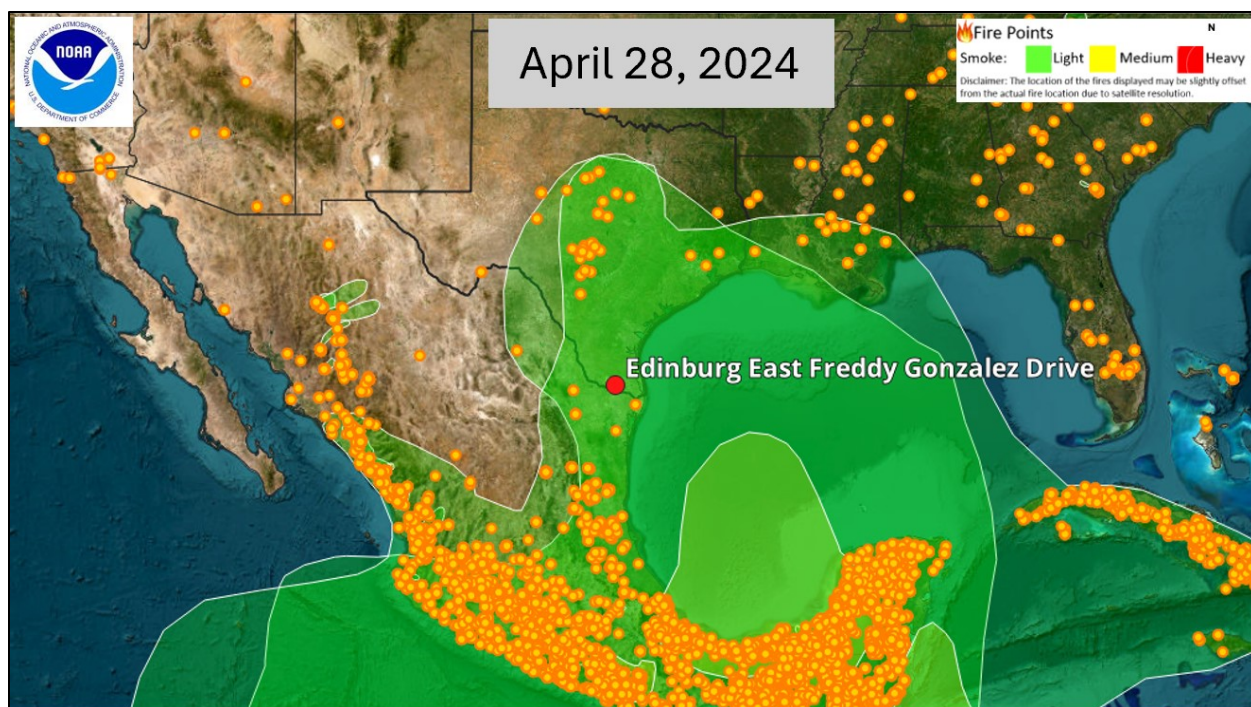


Figure A-33: NOAA HMS Fire and Smoke Map on April 28, 2024

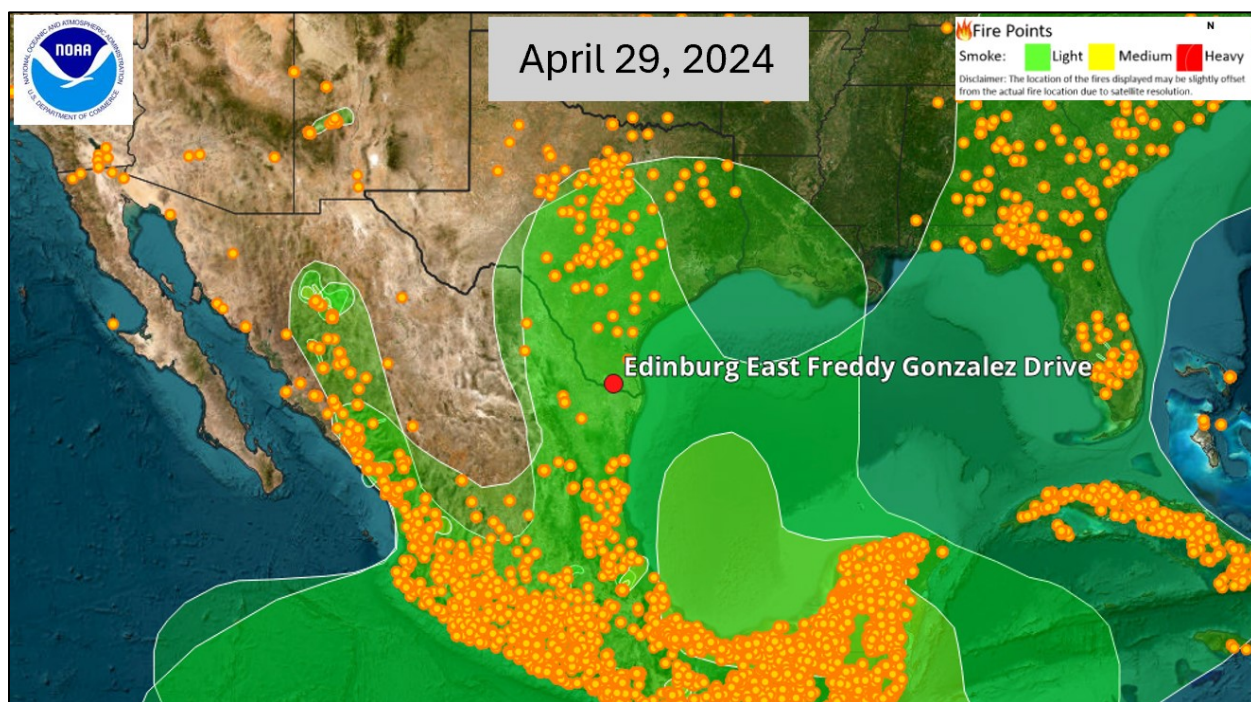


Figure A-34: NOAA HMS Fire and Smoke Map on April 29, 2024



A.8: Group 8 – May 2 and May 3, 2024

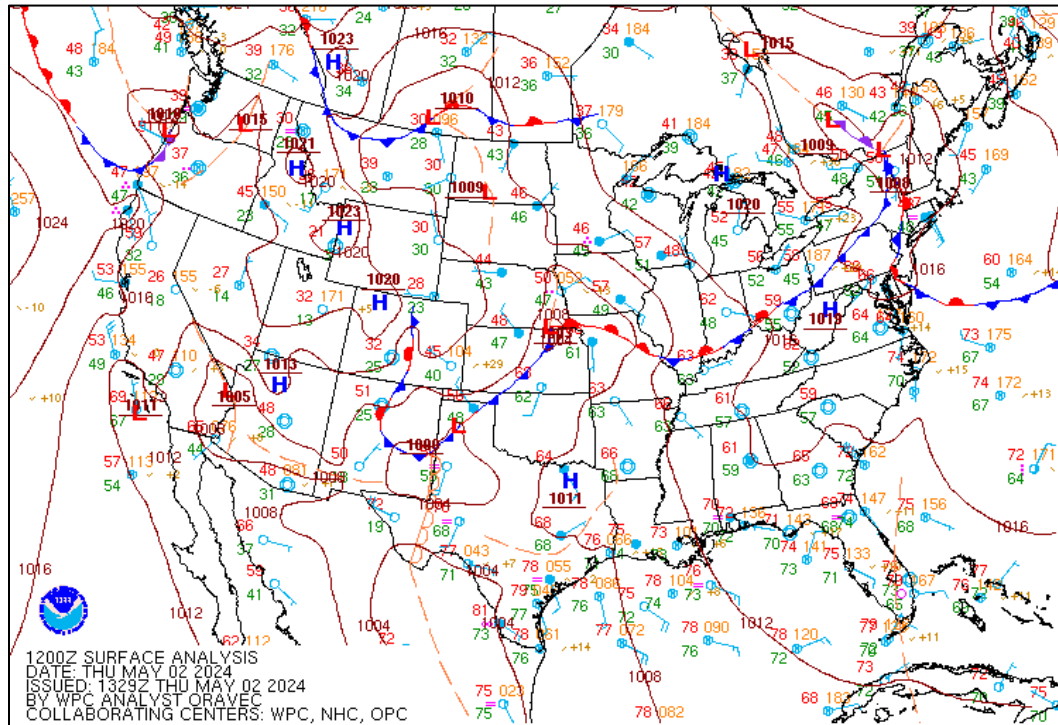


Figure A-35: National Weather Service Weather Prediction Center (May 2, 2024) CONUS Surface Analysis (12Z) 6:00 a.m. CDT

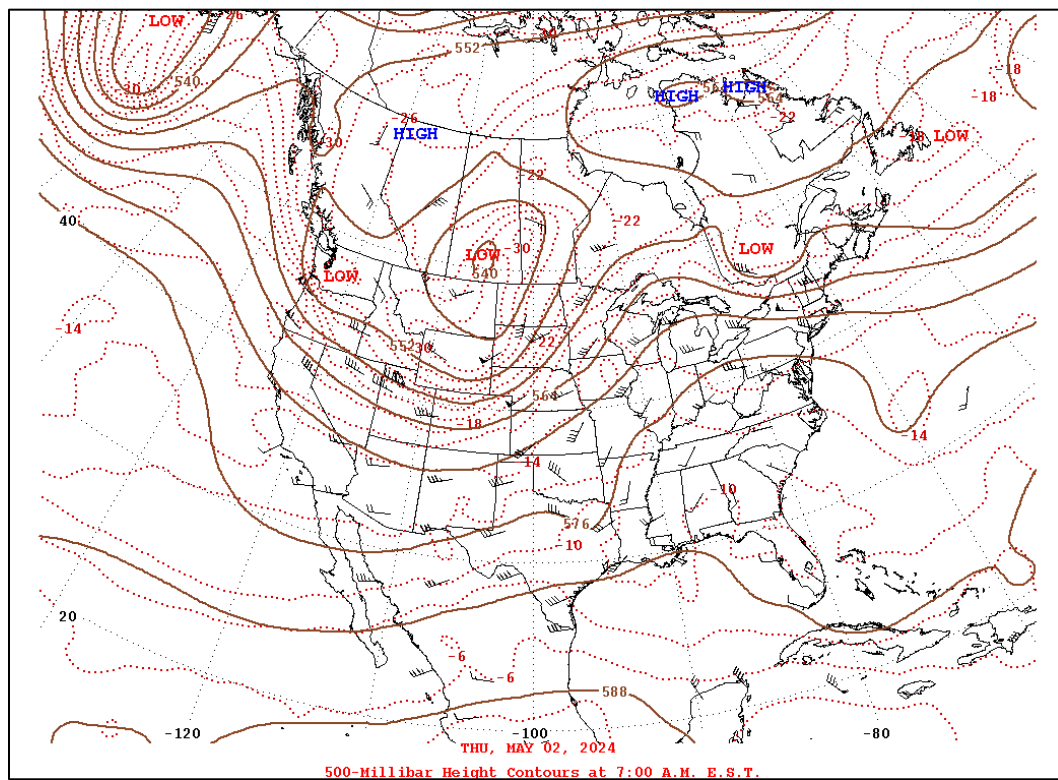


Figure A-36: National Weather Service Storm Prediction Center (May 2, 2024) 500 mb Analysis (12Z) 6:00 a.m. CDT

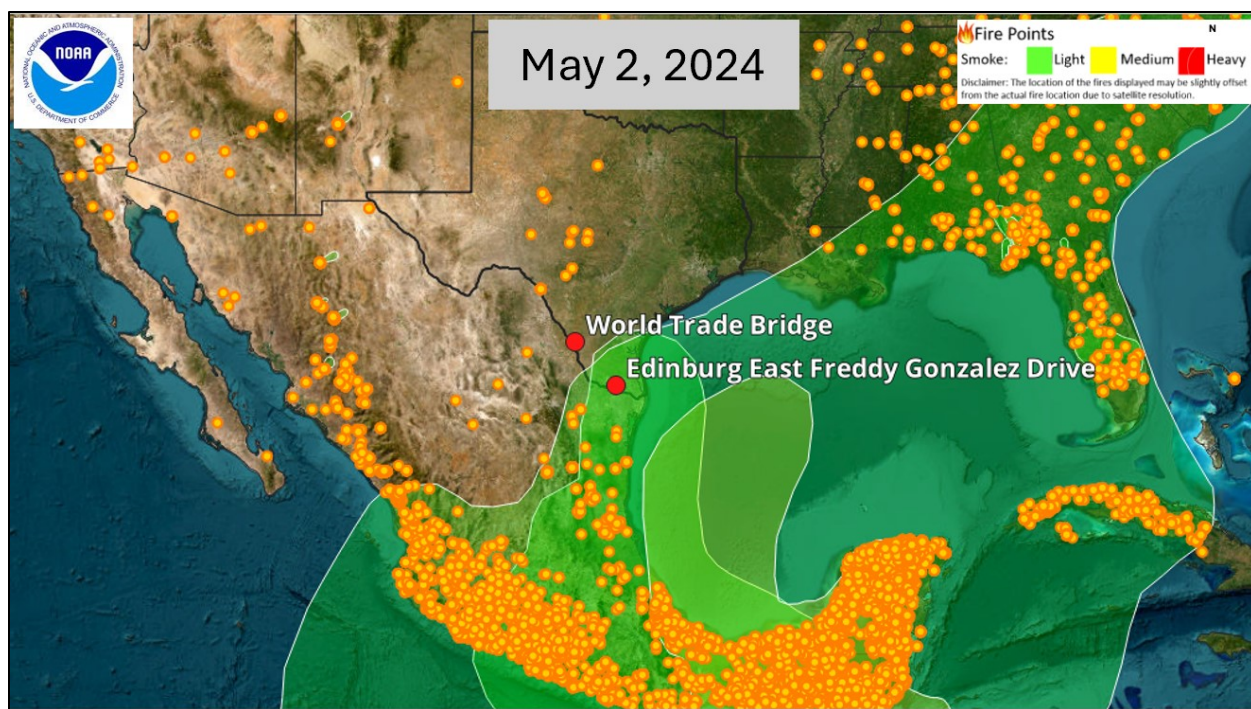


Figure A-37: NOAA HMS Fire and Smoke Map on May 2, 2024

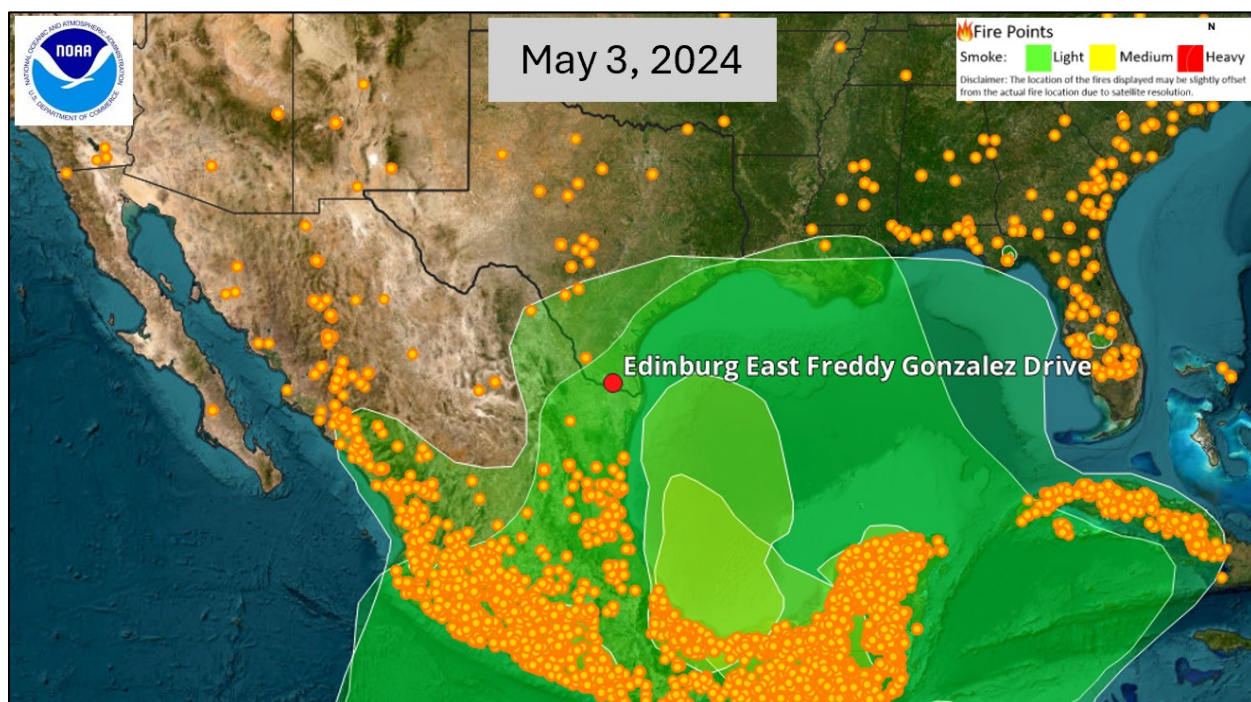
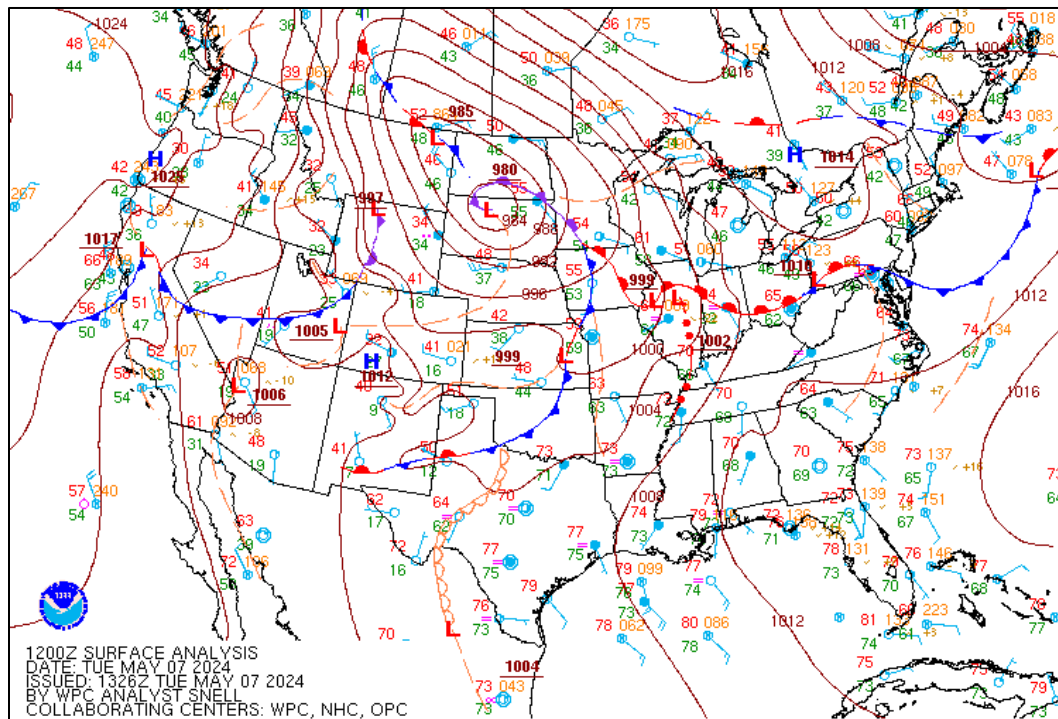


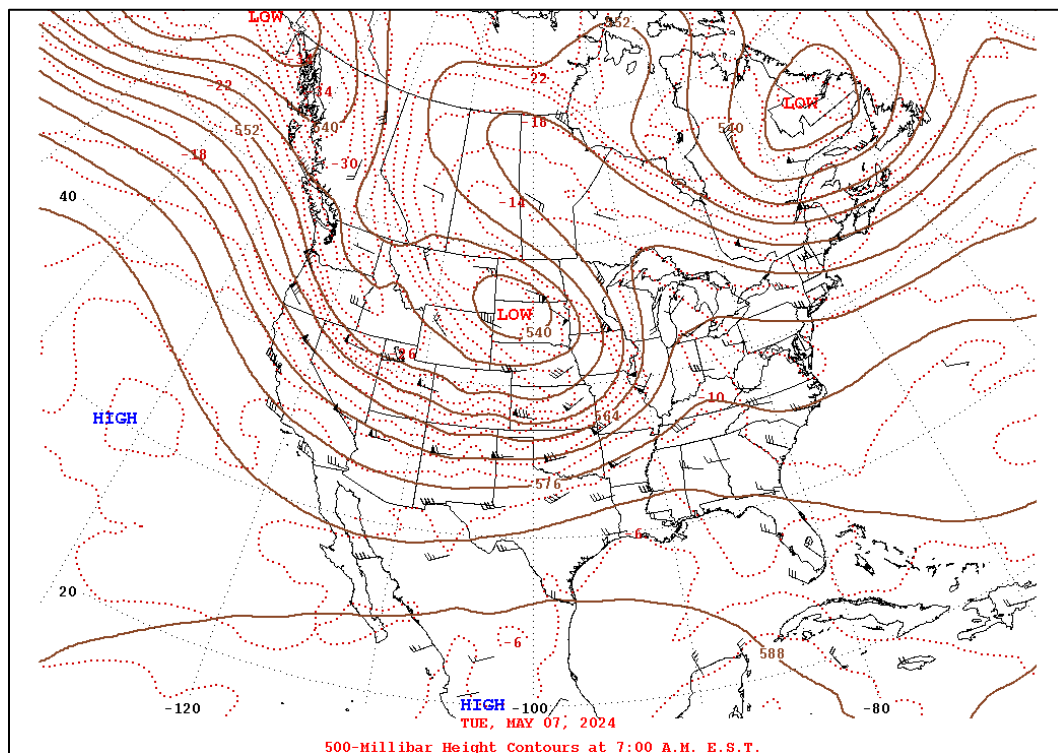
Figure A-38: NOAA HMS Fire and Smoke Map on May 3, 2024



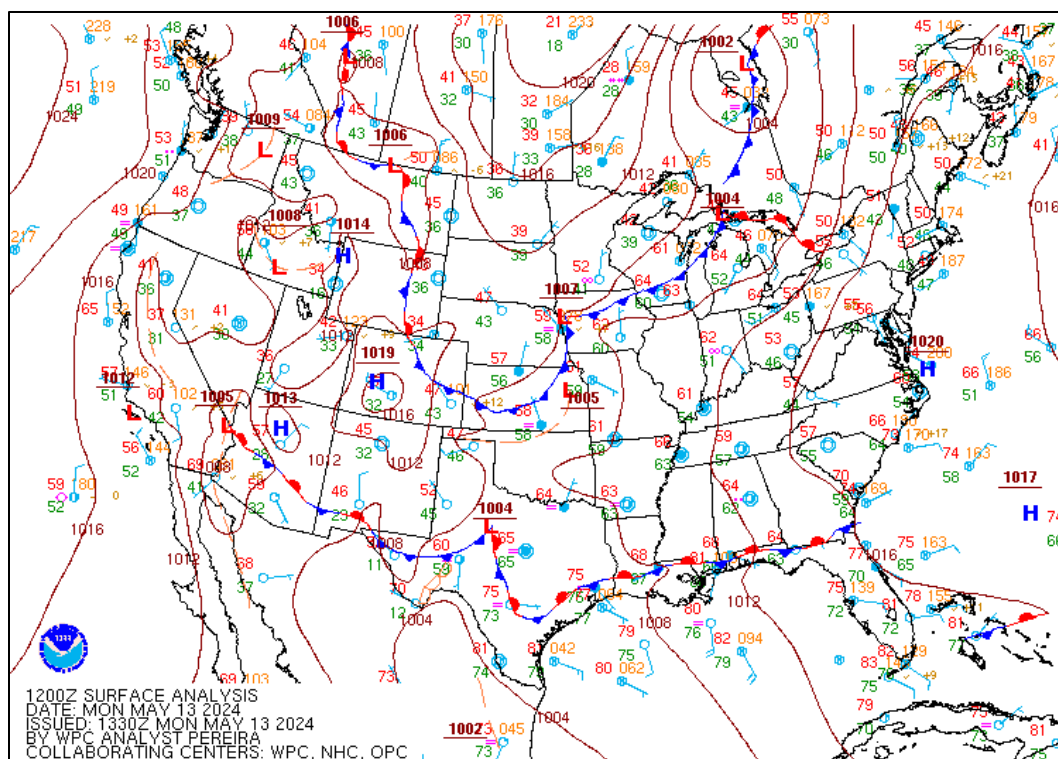
**A.9: Group 9 - May 7 through May 13, 2024, May 15, 2024, May 16, 2024, May 18 through May 28, 2024, May 30, 2024, and May 31, 2024**



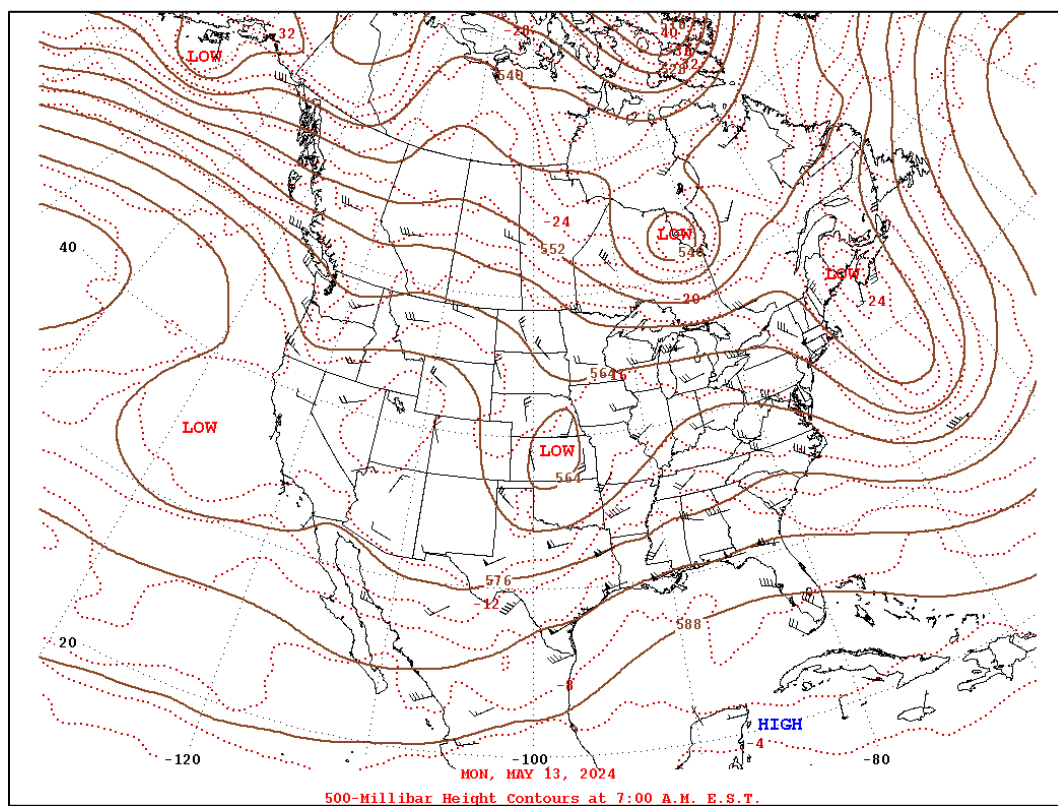
**Figure A-39: National Weather Service Weather Prediction Center (May 7, 2024) CONUS Surface Analysis (12Z) 6:00 a.m. CDT**



**Figure A-40: National Weather Service Storm Prediction Center (May 7, 2024) 500 mb Analysis (12Z) 6:00 a.m. CDT**

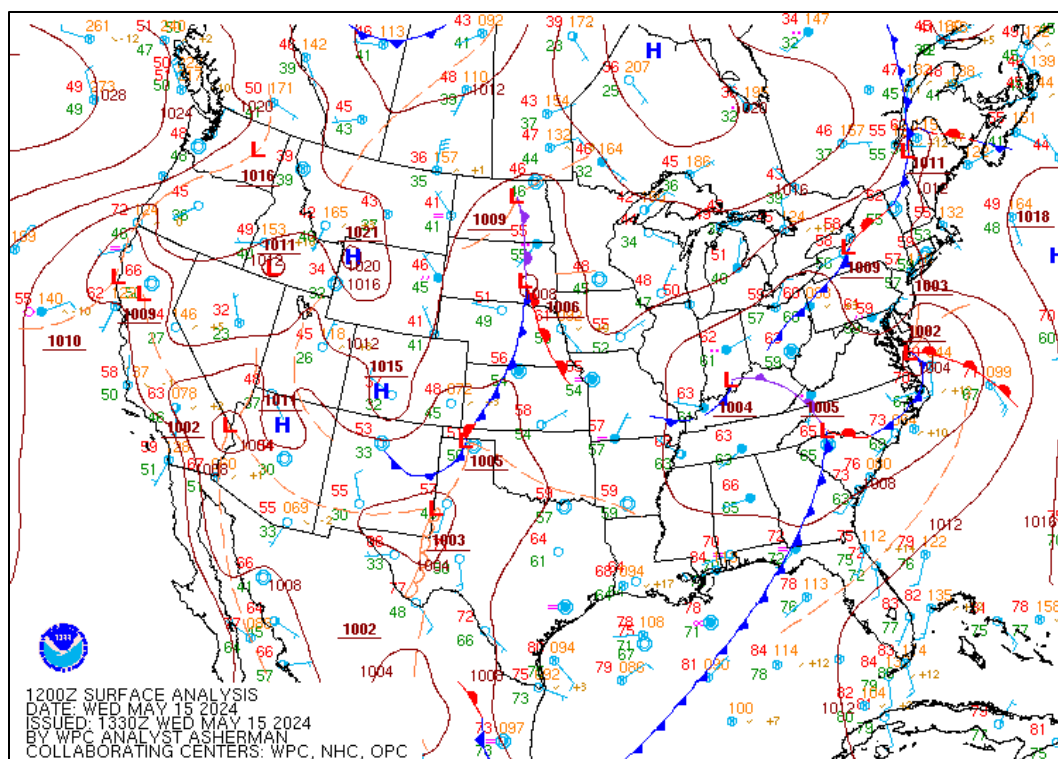


**Figure A-41: National Weather Service Weather Prediction Center (May 13, 2024) CONUS Surface Analysis (12Z) 6:00 a.m. CDT**

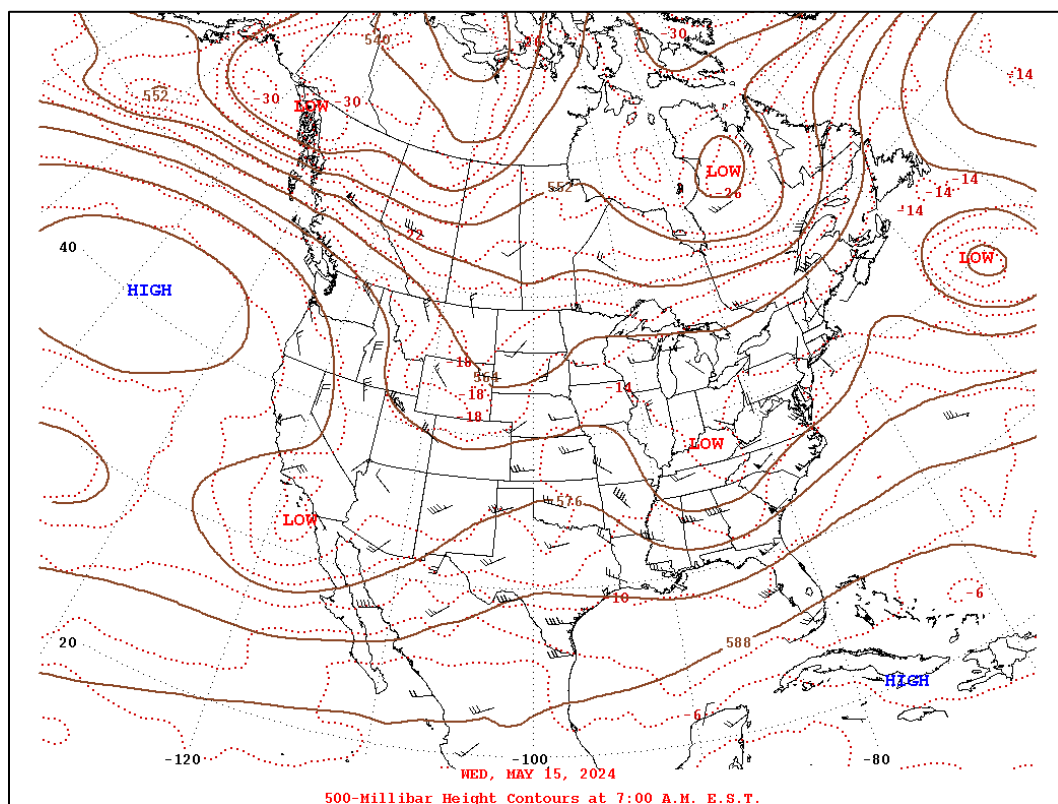


**Figure A-42: National Weather Service Storm Prediction Center (May 13, 2024) 500 mb Analysis (12Z) 6:00 a.m. CDT**

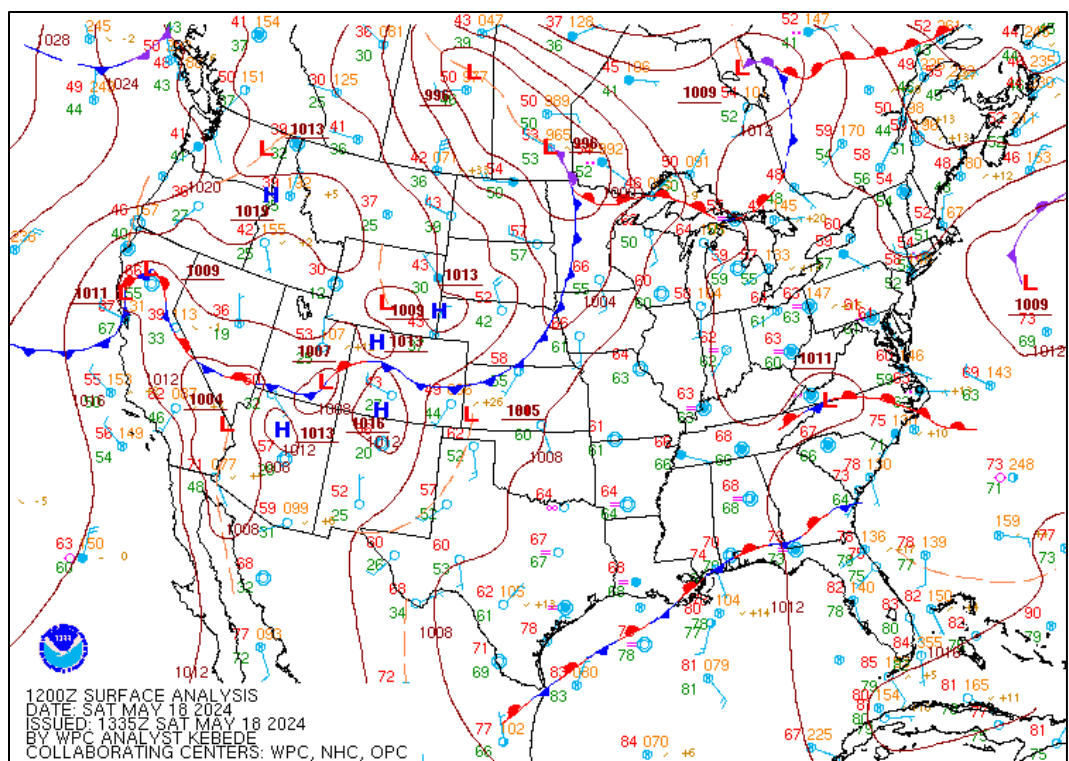




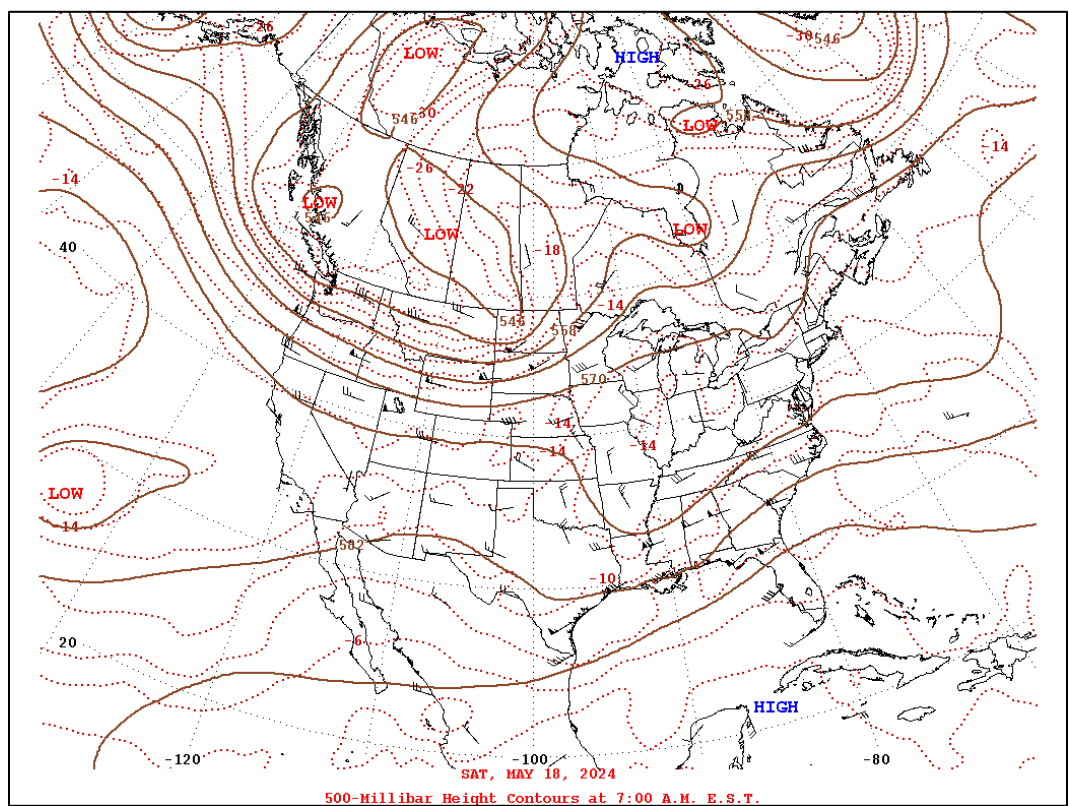
**Figure A-43: National Weather Service Weather Prediction Center (May 15, 2024) CONUS Surface Analysis (12Z) 6:00 a.m. CDT**



**Figure A-44: National Weather Service Storm Prediction Center (May 15, 2024) 500 mb Analysis (12Z) 6:00 a.m. CDT**

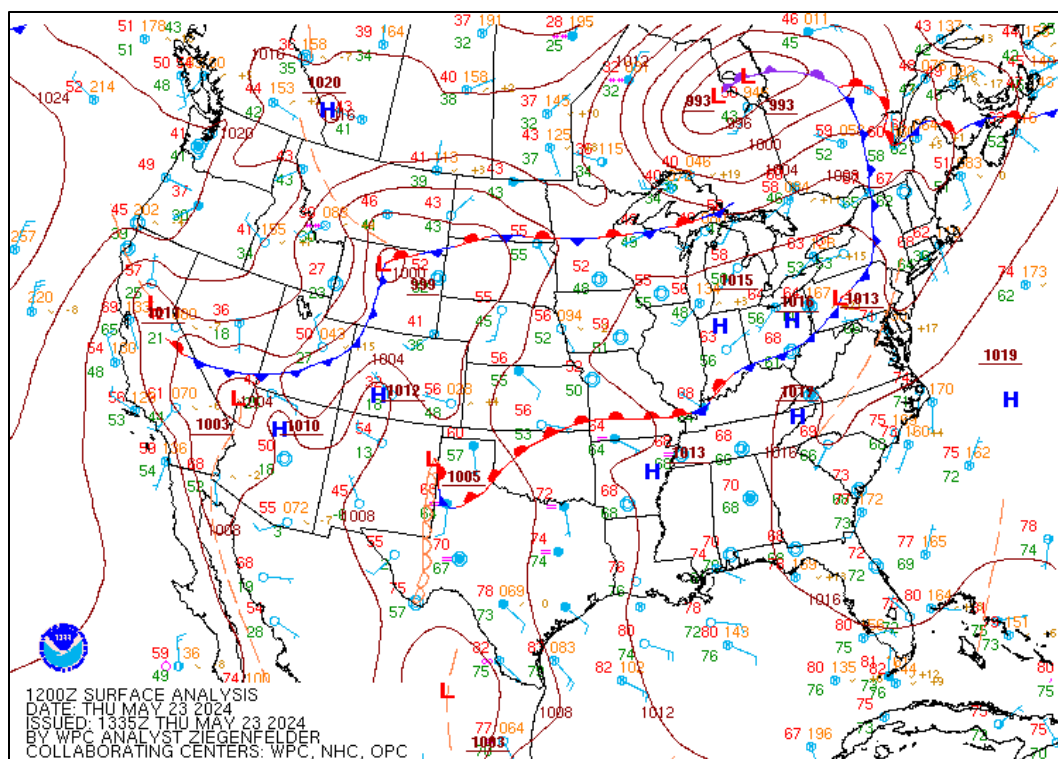


**Figure A-45: National Weather Service Weather Prediction Center (May 18, 2024) CONUS Surface Analysis (12Z) 6:00 a.m. CDT**

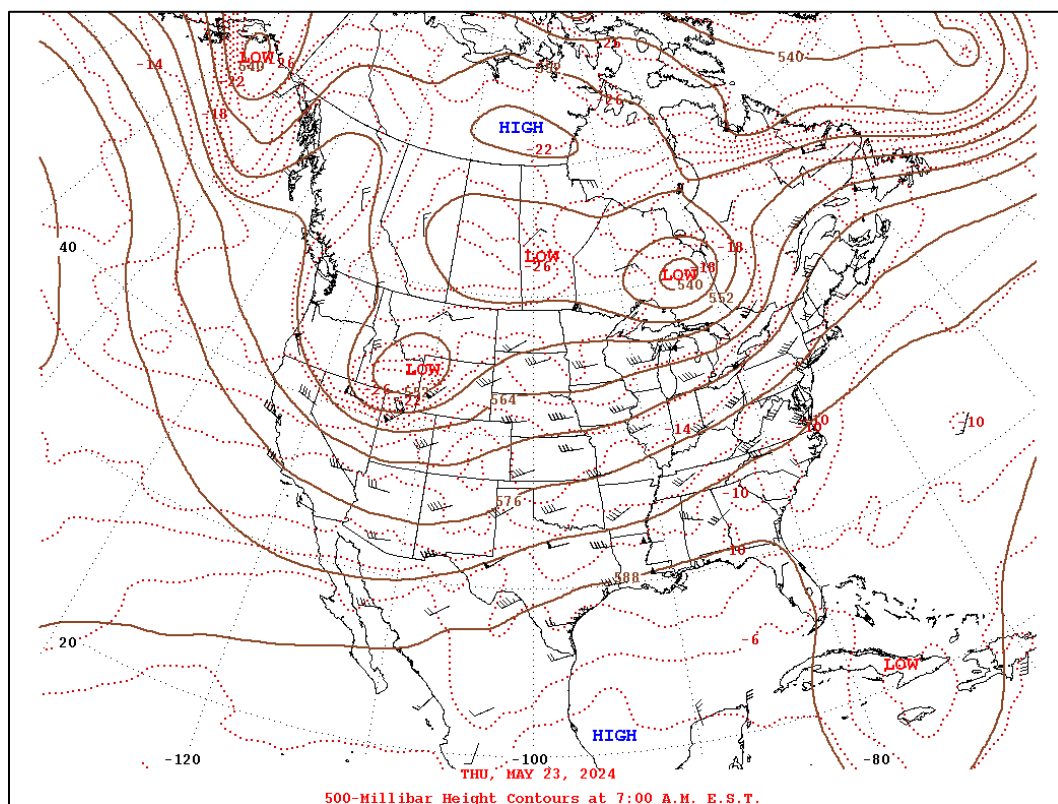


**Figure A-46: National Weather Service Storm Prediction Center (May 18, 2024) 500 mb Analysis (12Z) 6:00 a.m. CDT**

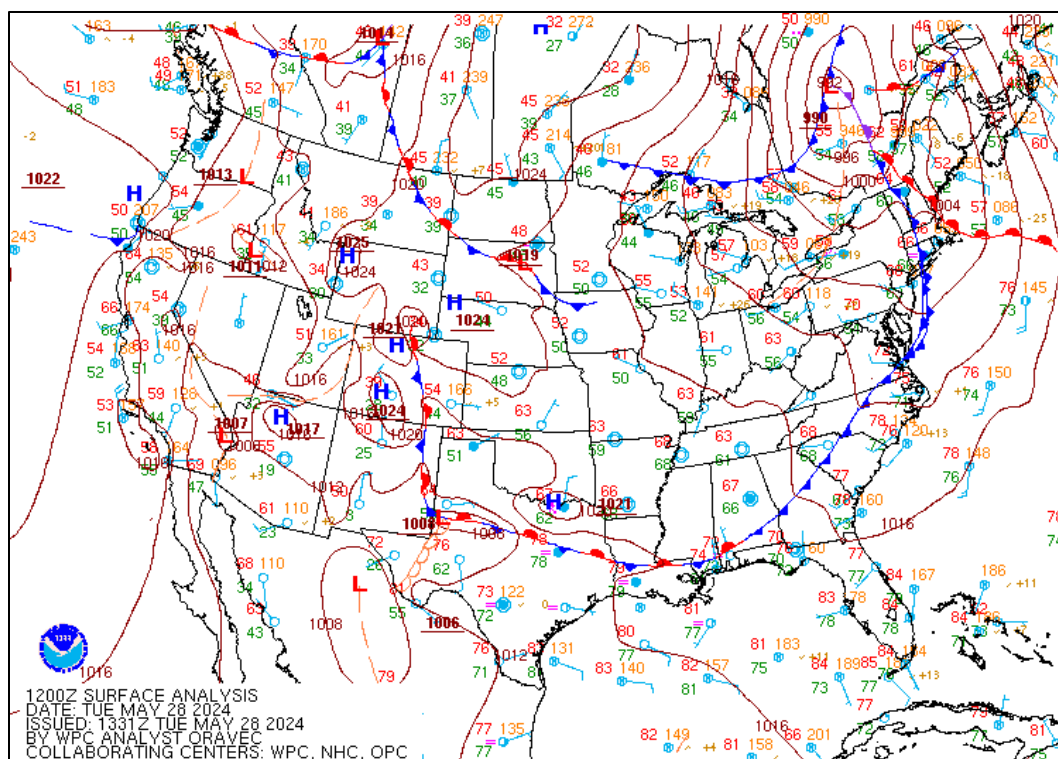




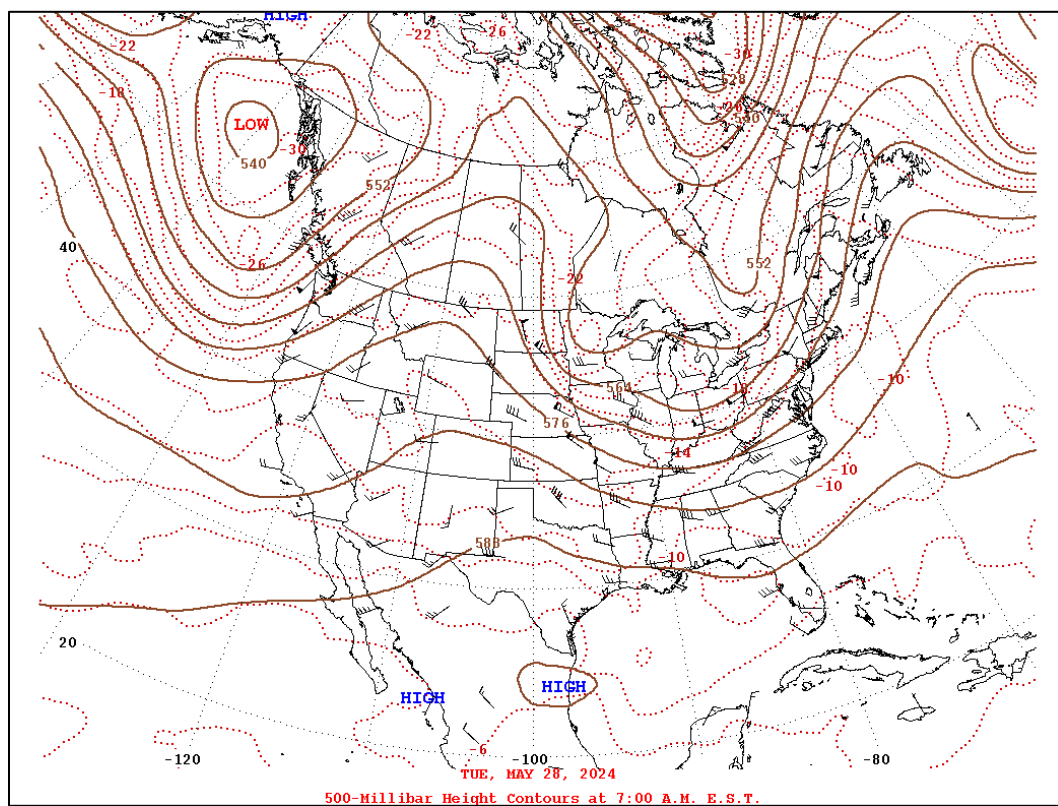
**Figure A-47: National Weather Service Weather Prediction Center (May 23, 2024) CONUS Surface Analysis (12Z) 6:00 a.m. CDT**



**Figure A-48: National Weather Service Storm Prediction Center (May 23, 2024) 500 mb Analysis (12Z) 6:00 a.m. CDT**

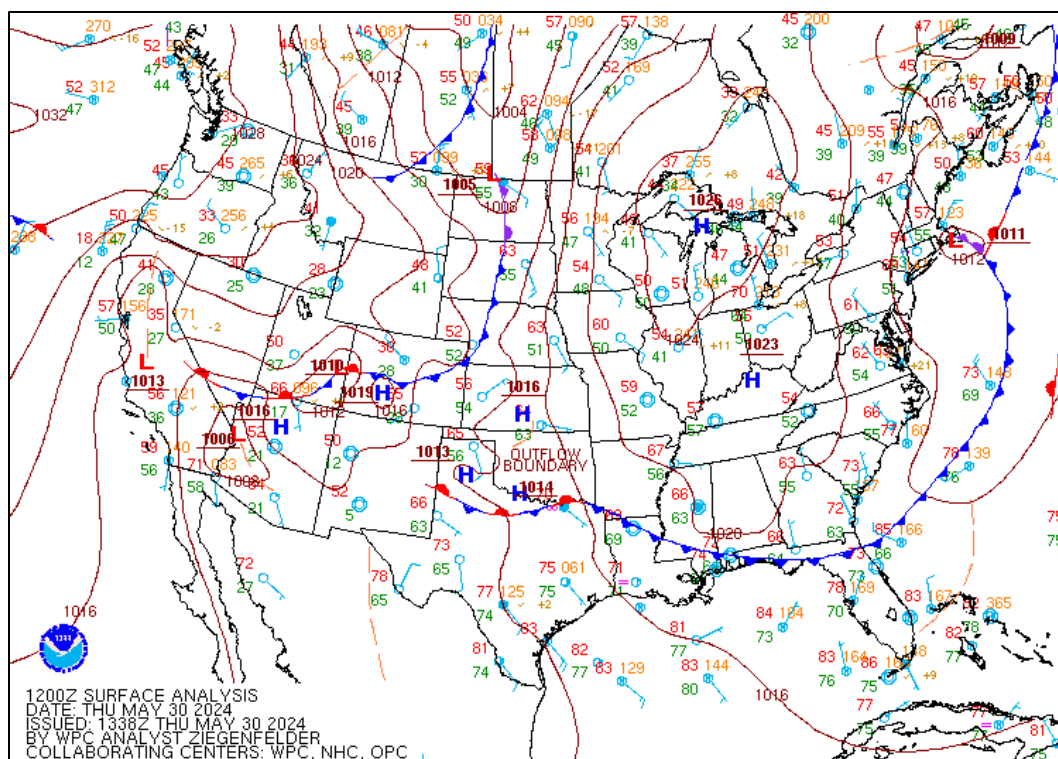


**Figure A-49: National Weather Service Weather Prediction Center (May 28, 2024) CONUS Surface Analysis (12Z) 6:00 a.m. CDT**

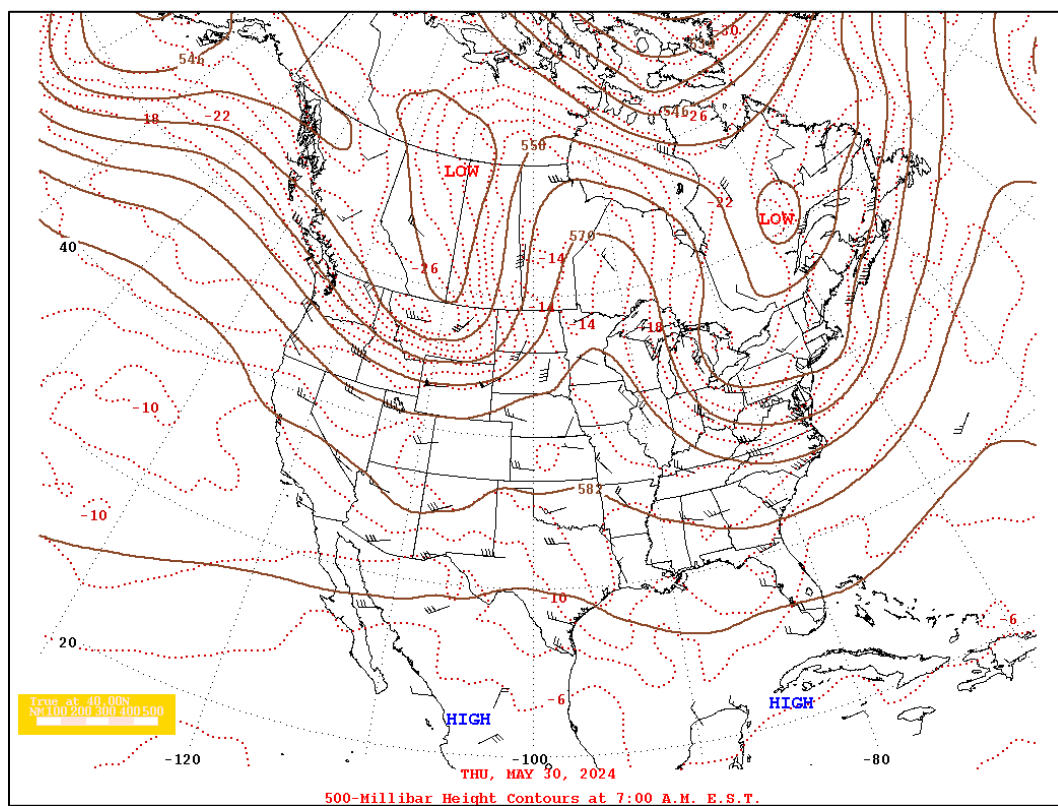


**Figure A-50: National Weather Service Storm Prediction Center (May 28, 2024) 500 mb Analysis (12Z) 6:00 a.m. CDT**





**Figure A-51: National Weather Service Weather Prediction Center (May 30, 2024) CONUS Surface Analysis (12Z) 6:00 a.m. CDT**



**Figure A-52: National Weather Service Storm Prediction Center (May 30, 2024) 500 mb Analysis (12Z) 6:00 a.m. CDT**

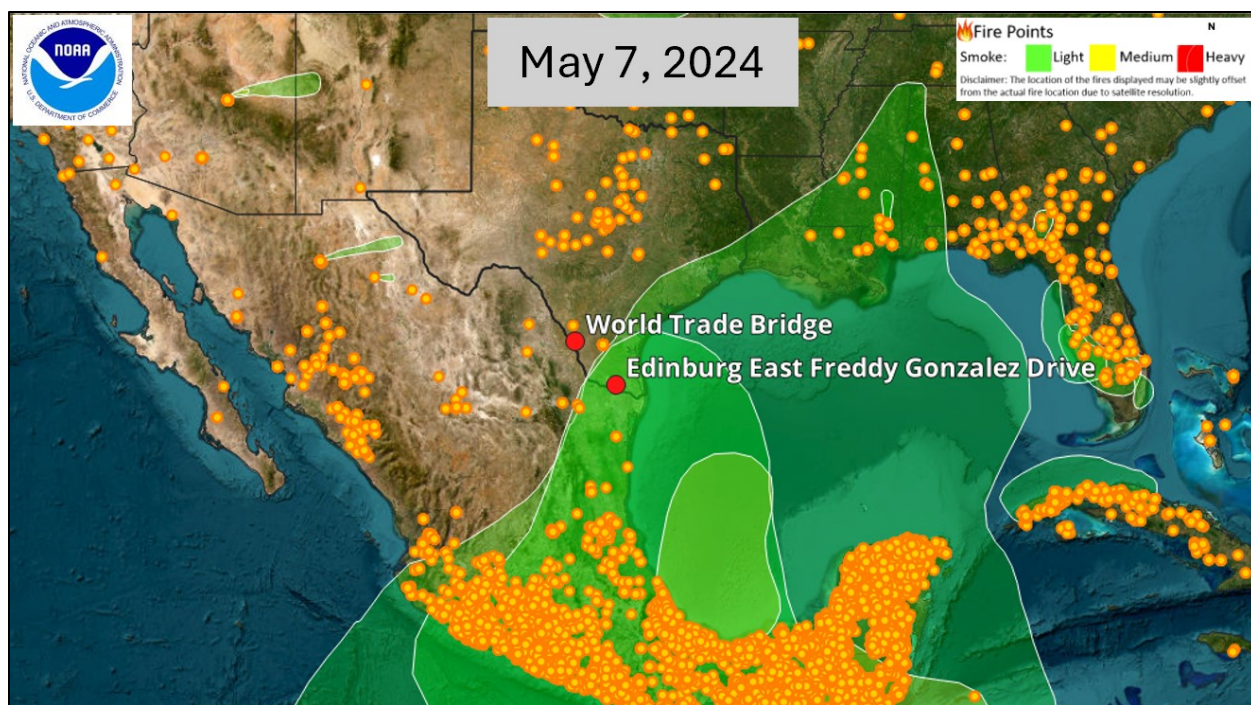


Figure A-53: NOAA HMS Fire and Smoke Map on May 7, 2024

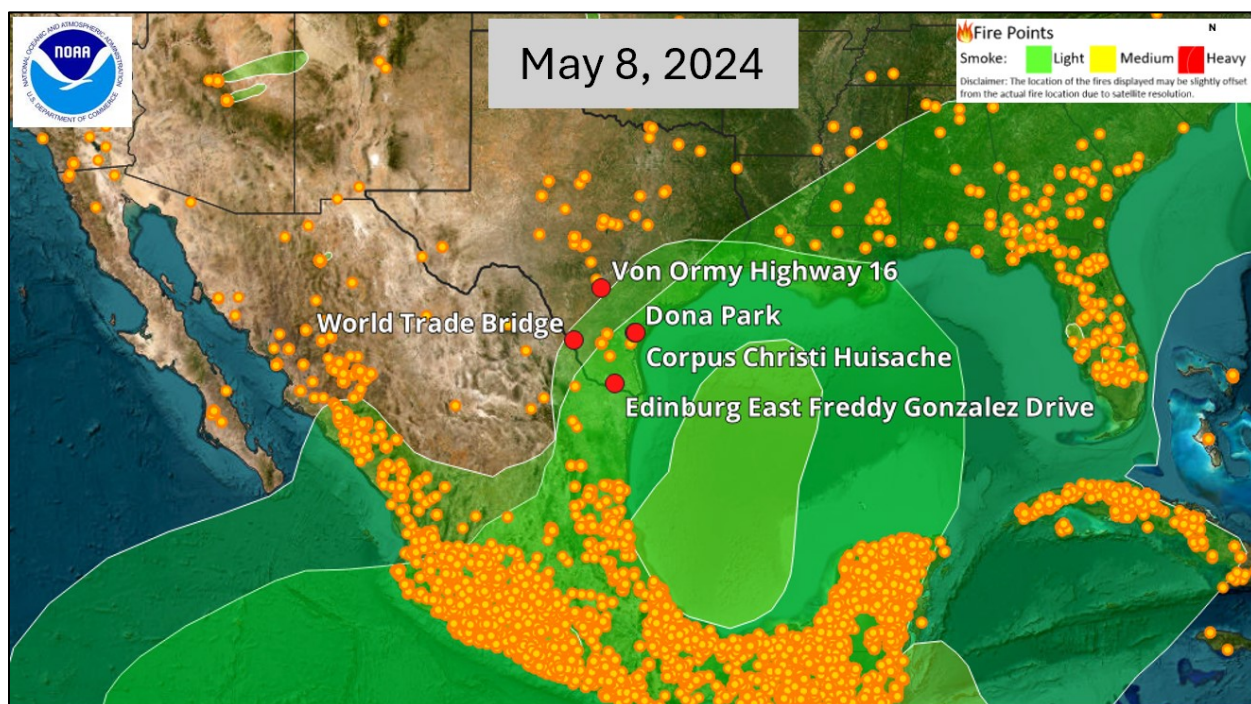


Figure A-54: NOAA HMS Fire and Smoke Map on May 8, 2024



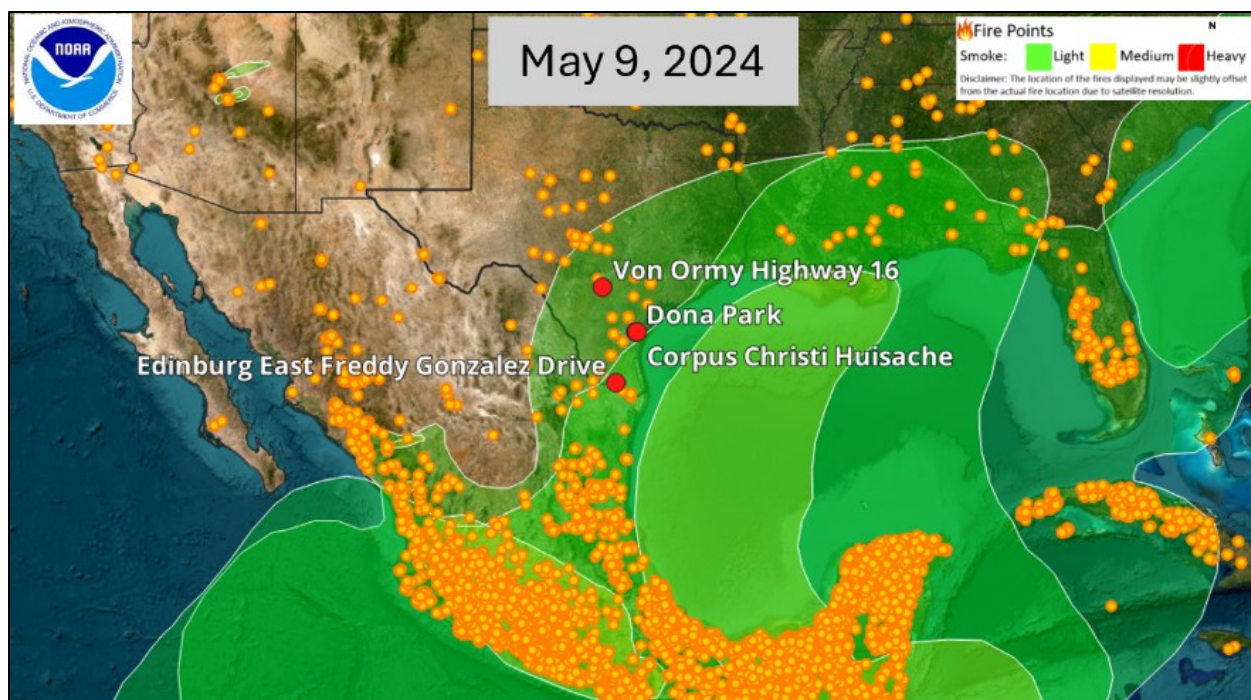


Figure A-55: NOAA HMS Fire and Smoke Map on May 9, 2024

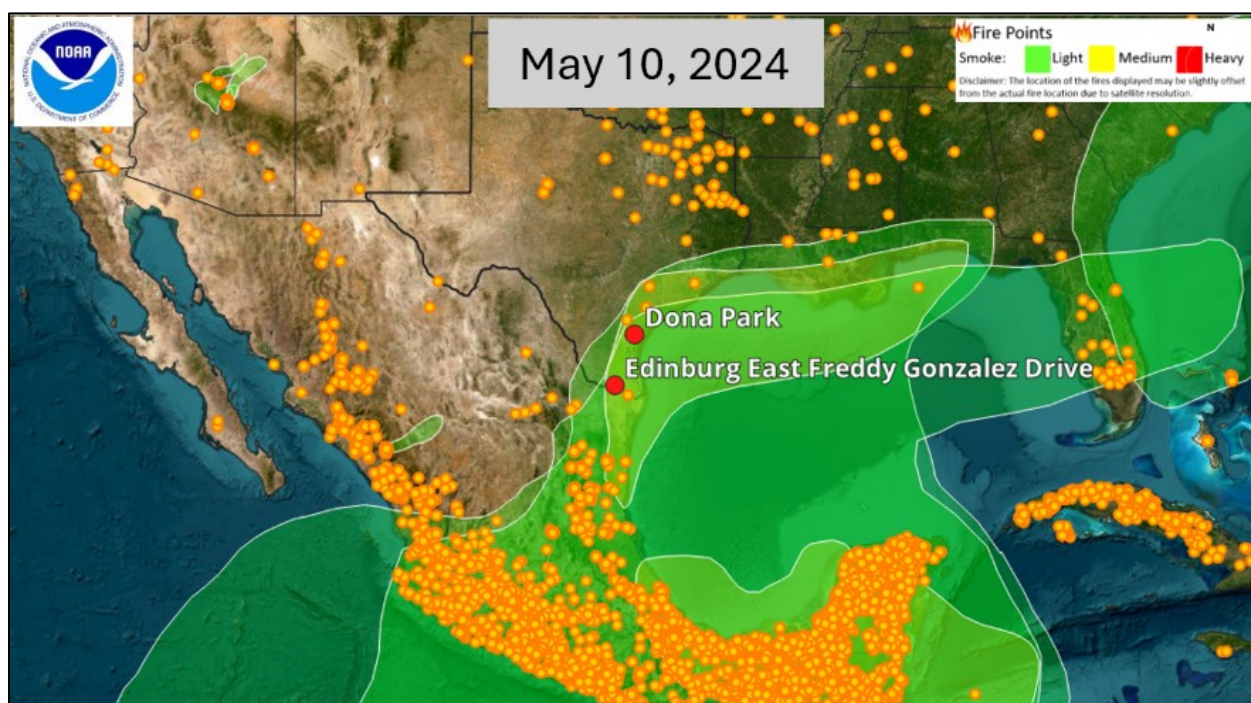


Figure A-56: NOAA HMS Fire and Smoke Map on May 10, 2024



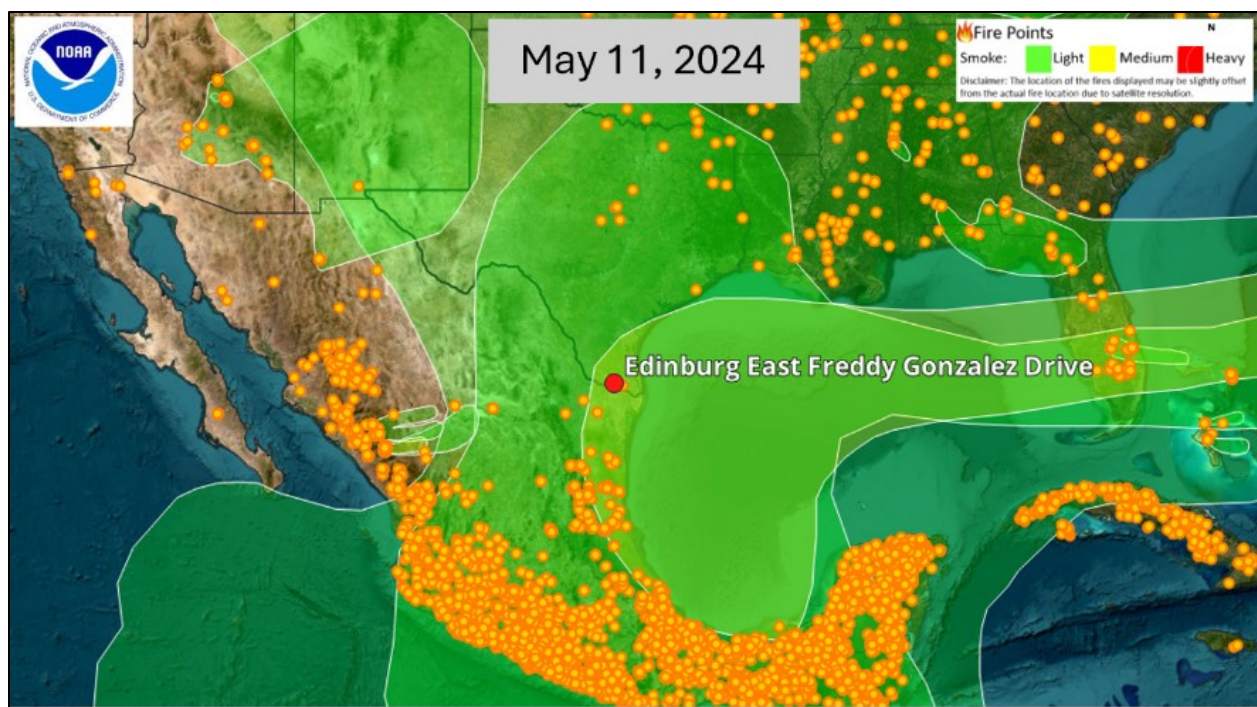


Figure A-57: NOAA HMS Fire and Smoke Map on May 11, 2024

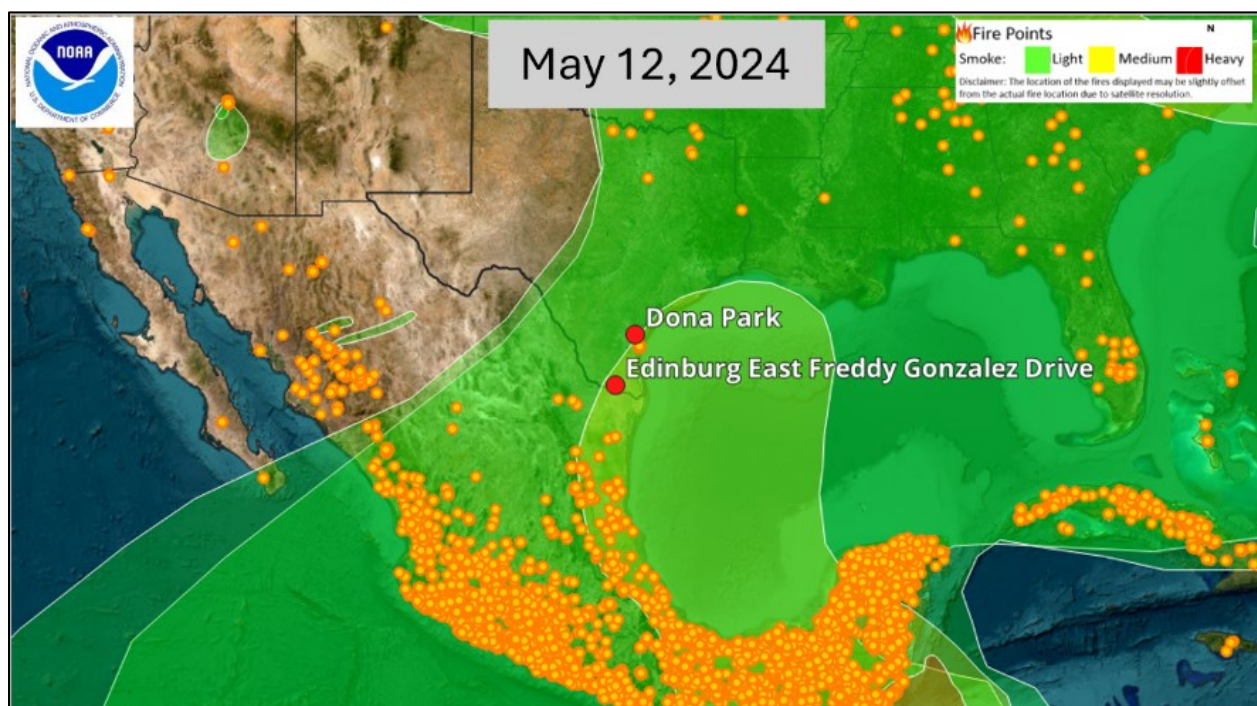


Figure A-58: NOAA HMS Fire and Smoke Map on May 12, 2024



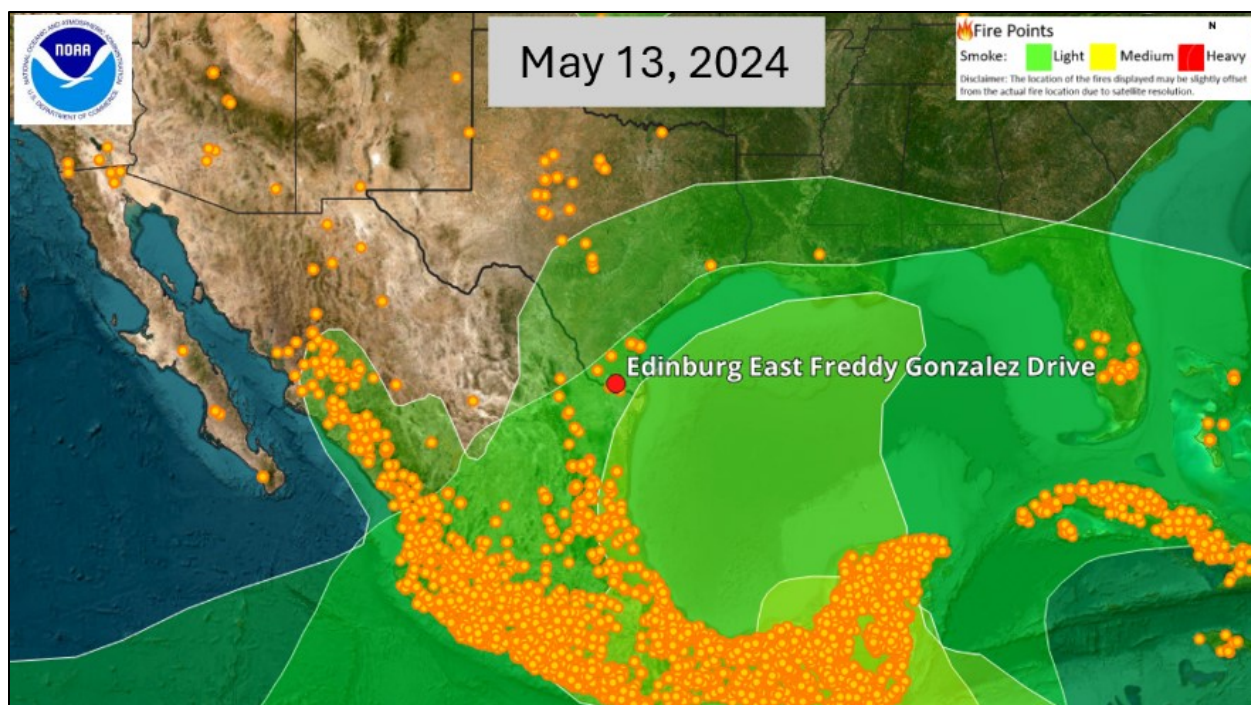


Figure A-59: NOAA HMS Fire and Smoke Map on May 13, 2024

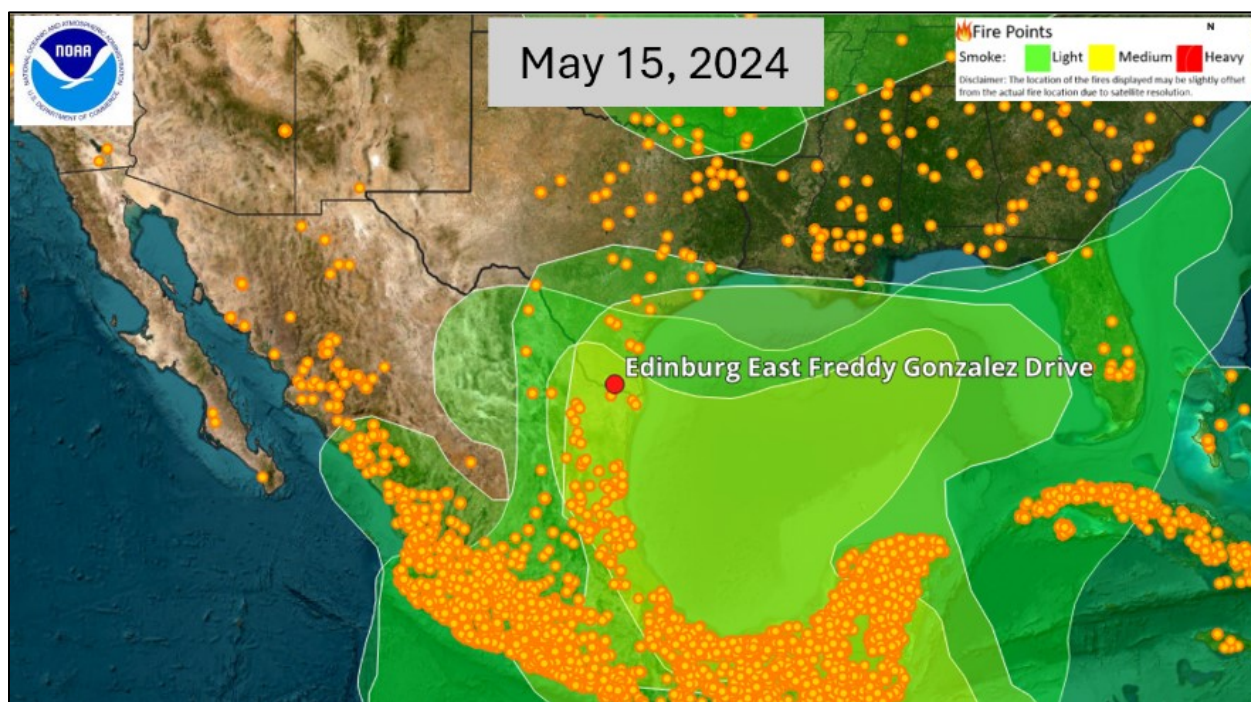


Figure A-60: NOAA HMS Fire and Smoke Map on May 15, 2024





Figure A-61: NOAA HMS Fire and Smoke Map on May 16, 2024

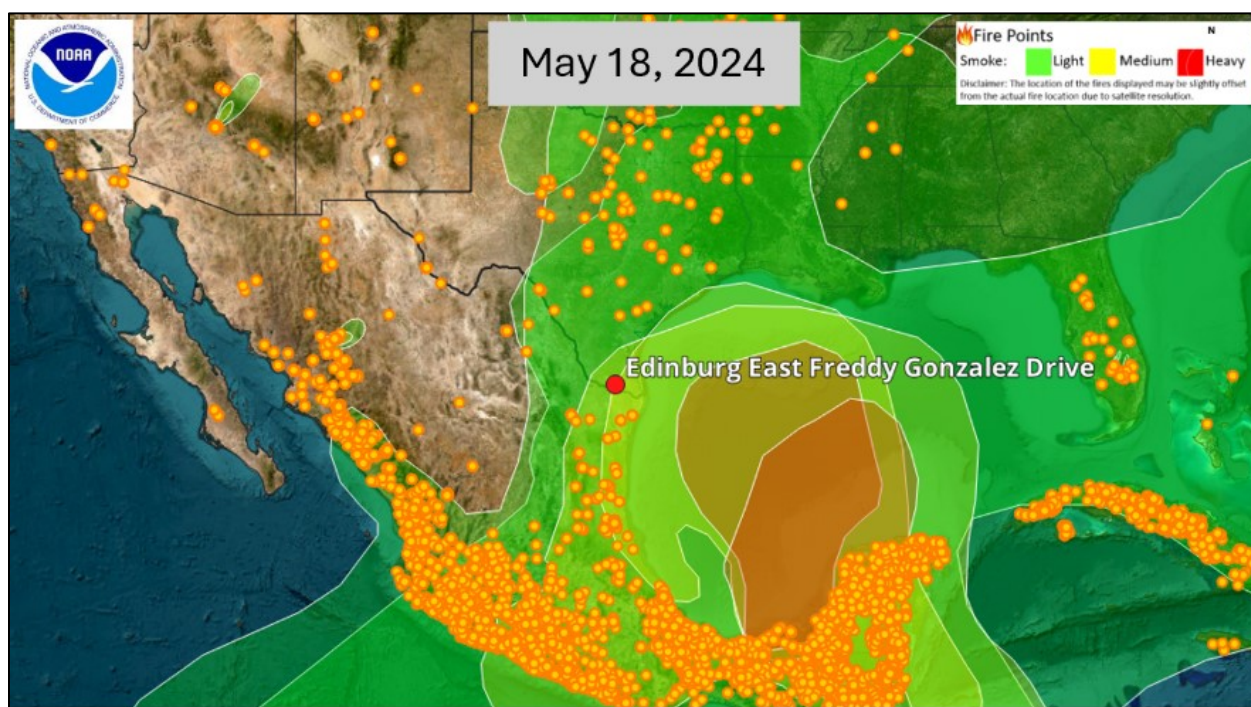


Figure A-62: NOAA HMS Fire and Smoke Map on May 18, 2024



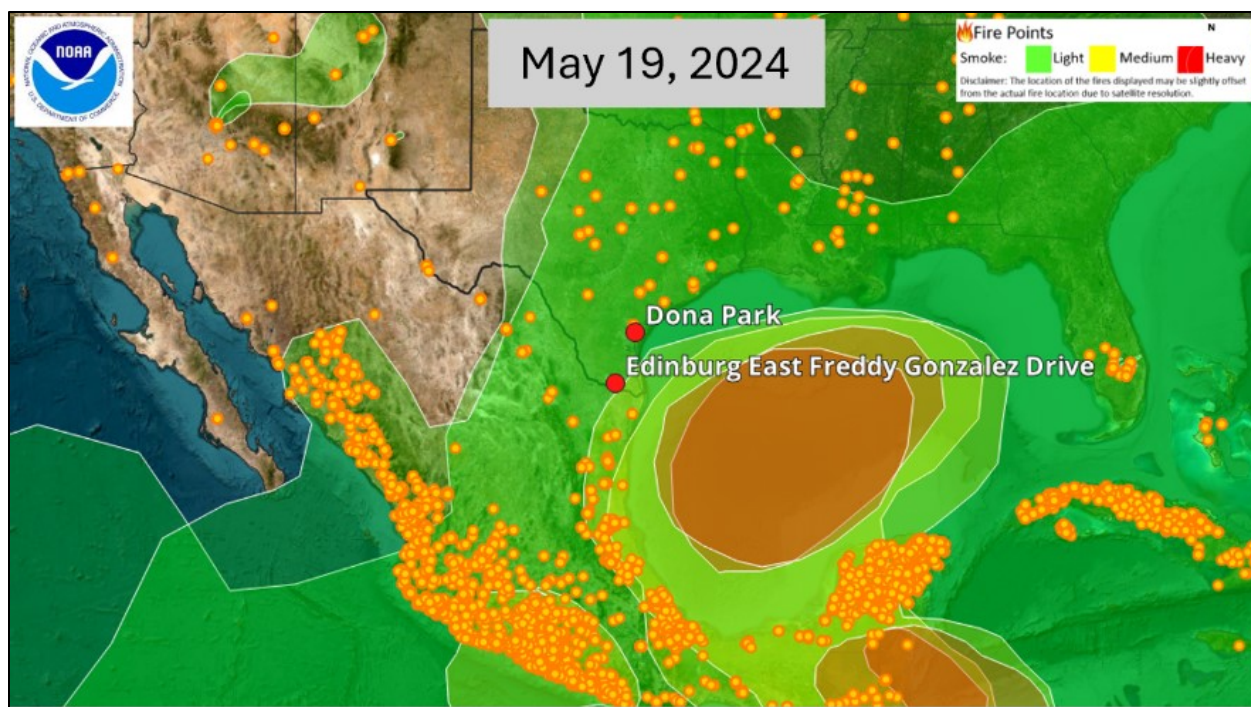


Figure A-63: NOAA HMS Fire and Smoke Map on May 19, 2024

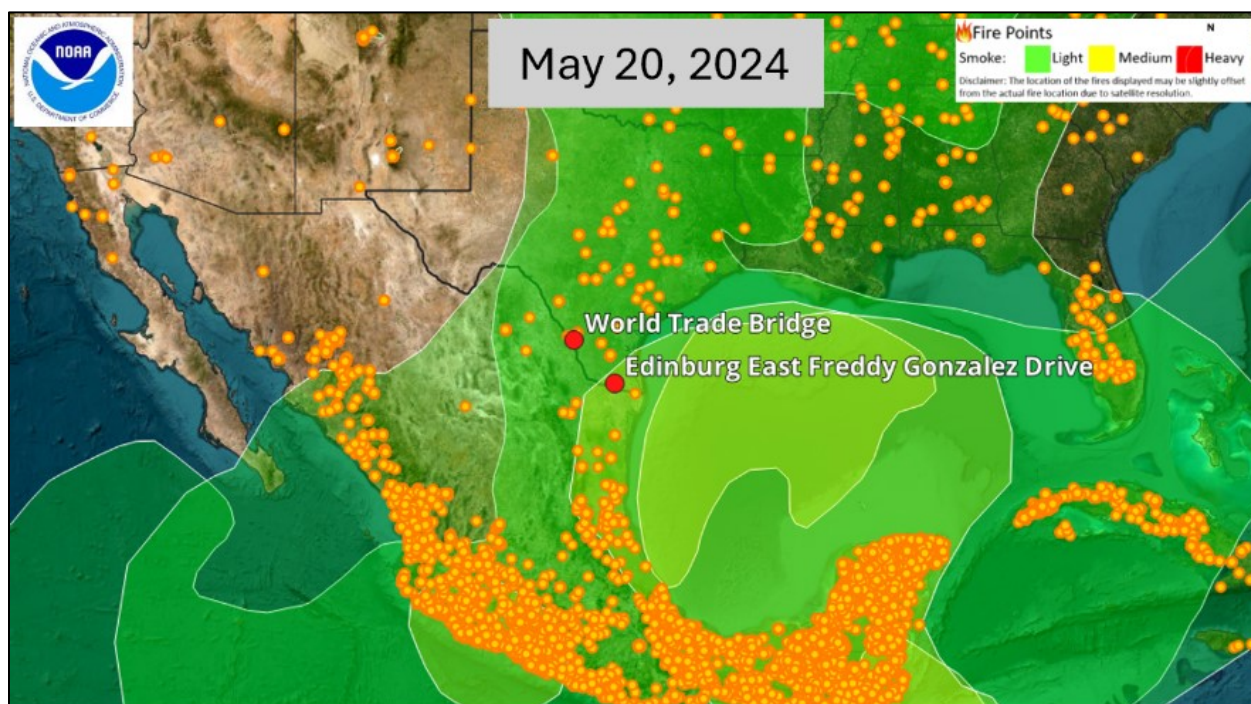


Figure A-64: NOAA HMS Fire and Smoke Map on May 20, 2024



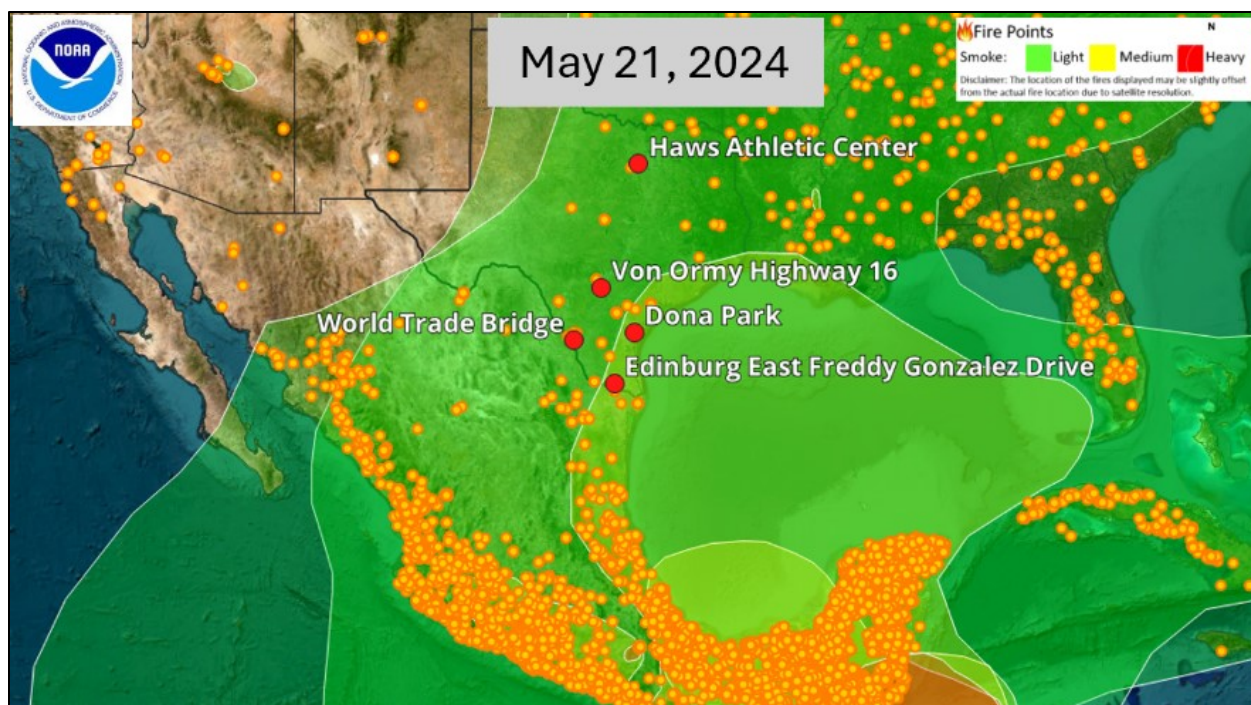


Figure A-65: NOAA HMS Fire and Smoke Map on May 21, 2024



Figure A-66: NOAA HMS Fire and Smoke Map on May 22, 2024



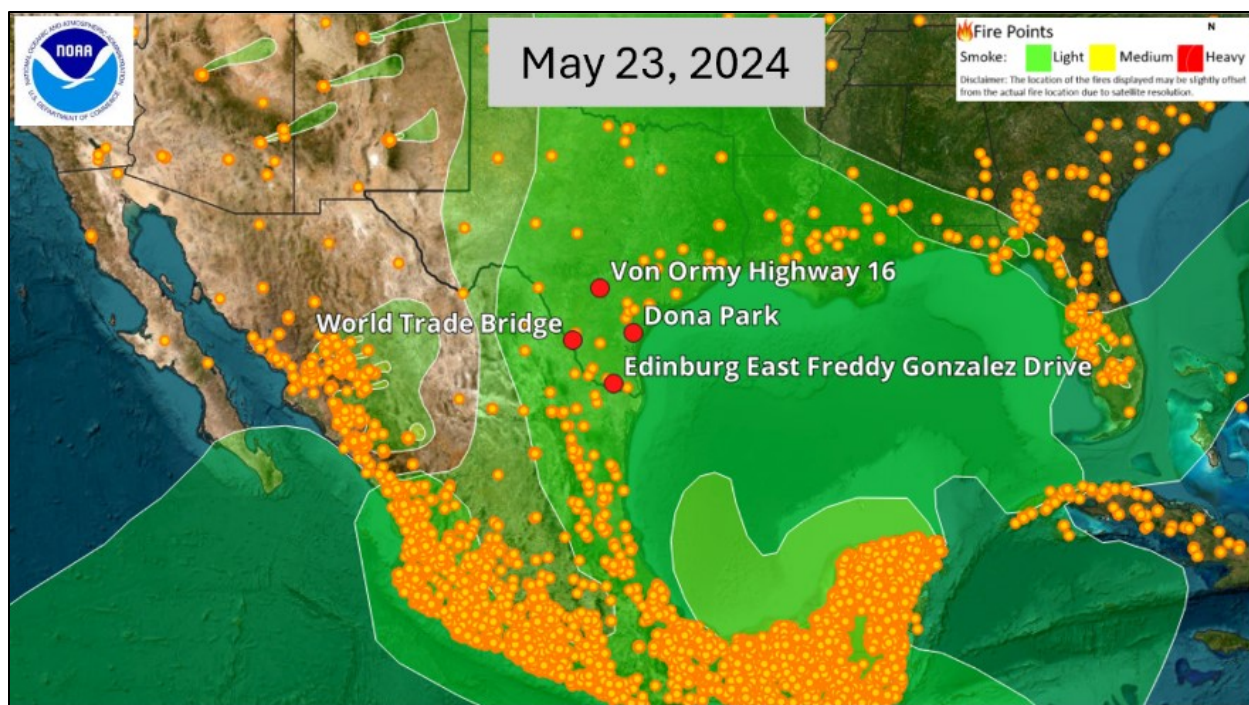


Figure A-67: NOAA HMS Fire and Smoke Map on May 23, 2024

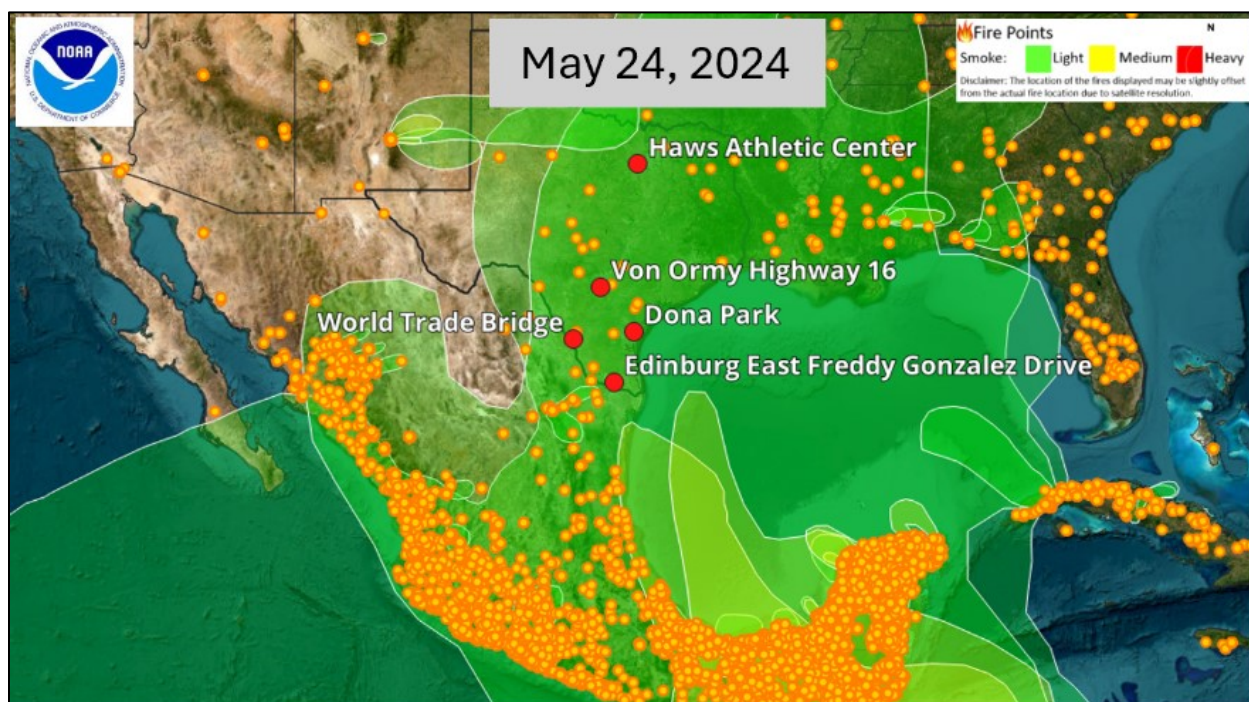


Figure A-68: NOAA HMS Fire and Smoke Map on May 24, 2024



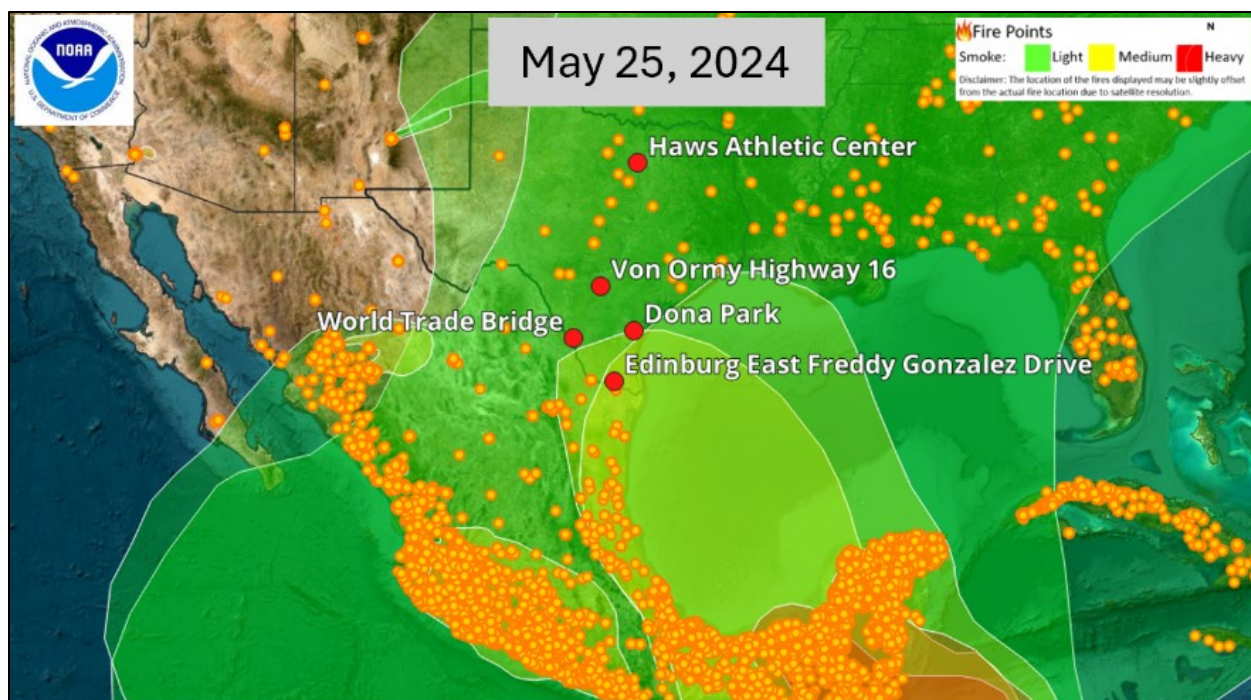


Figure A-69: NOAA HMS Fire and Smoke Map on May 25, 2024

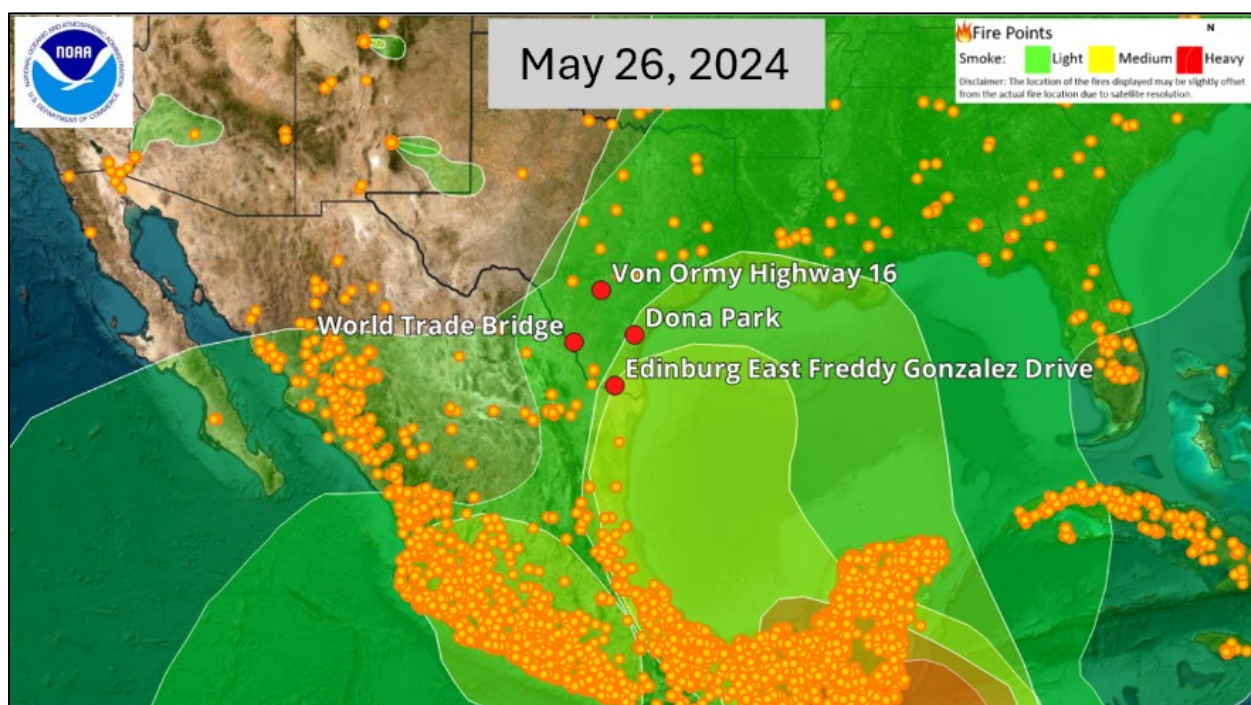


Figure A-70: NOAA HMS Fire and Smoke Map on May 26, 2024



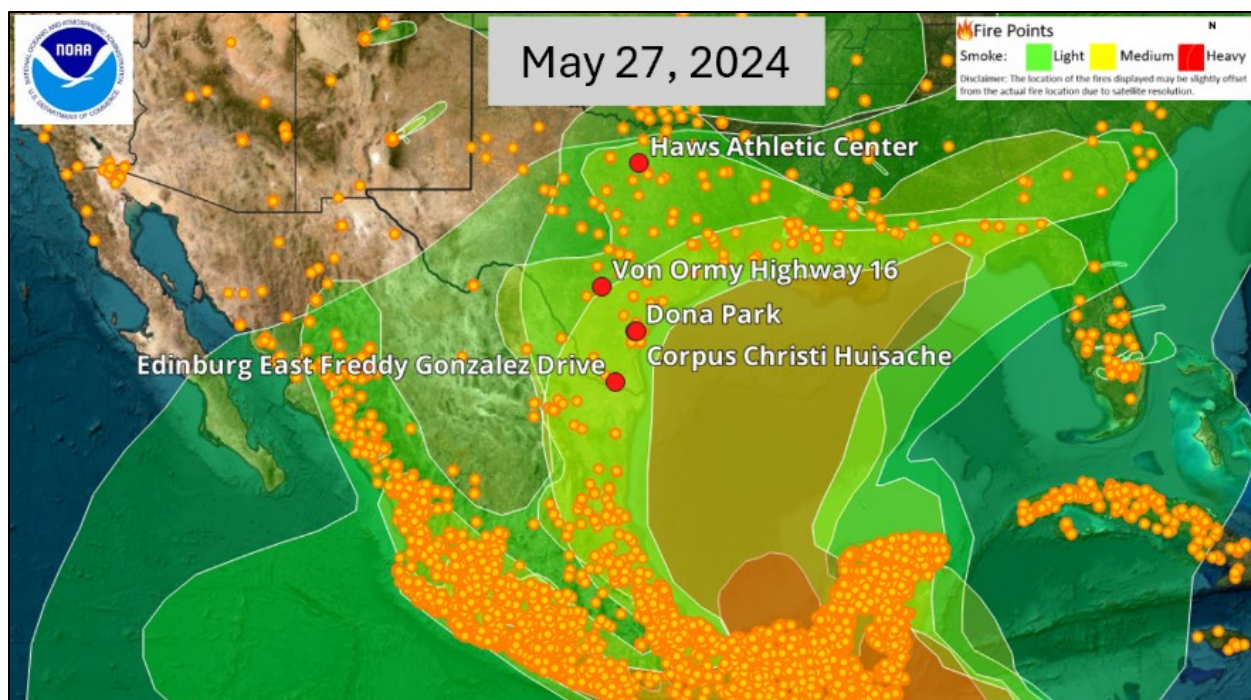


Figure A-71: NOAA HMS Fire and Smoke Map on May 27, 2024

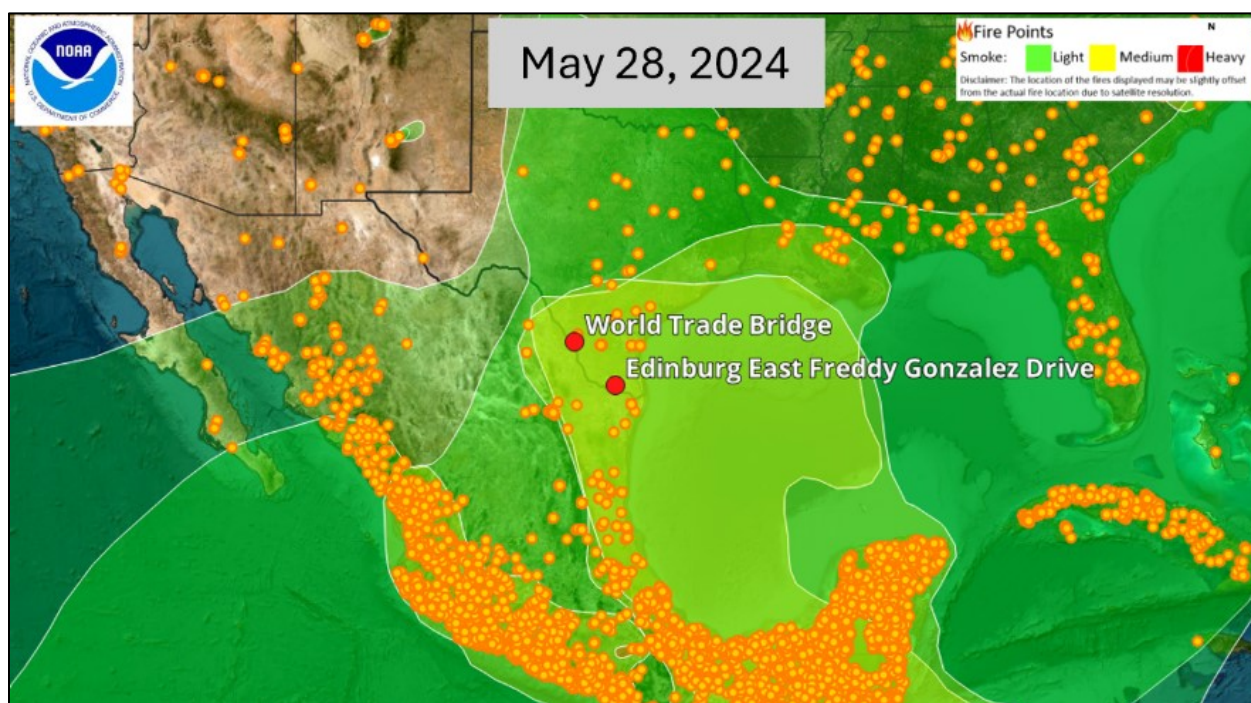


Figure A-72: NOAA HMS Fire and Smoke Map on May 28, 2024



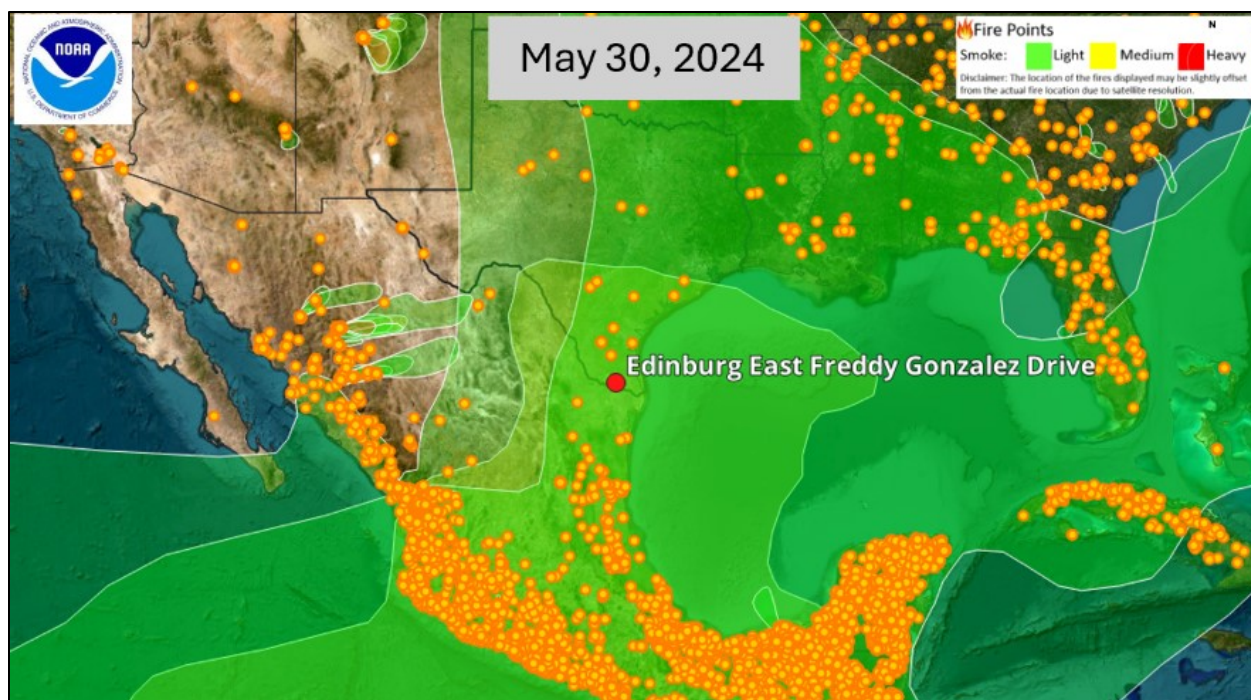


Figure A-73: NOAA HMS Fire and Smoke Map on May 30, 2024

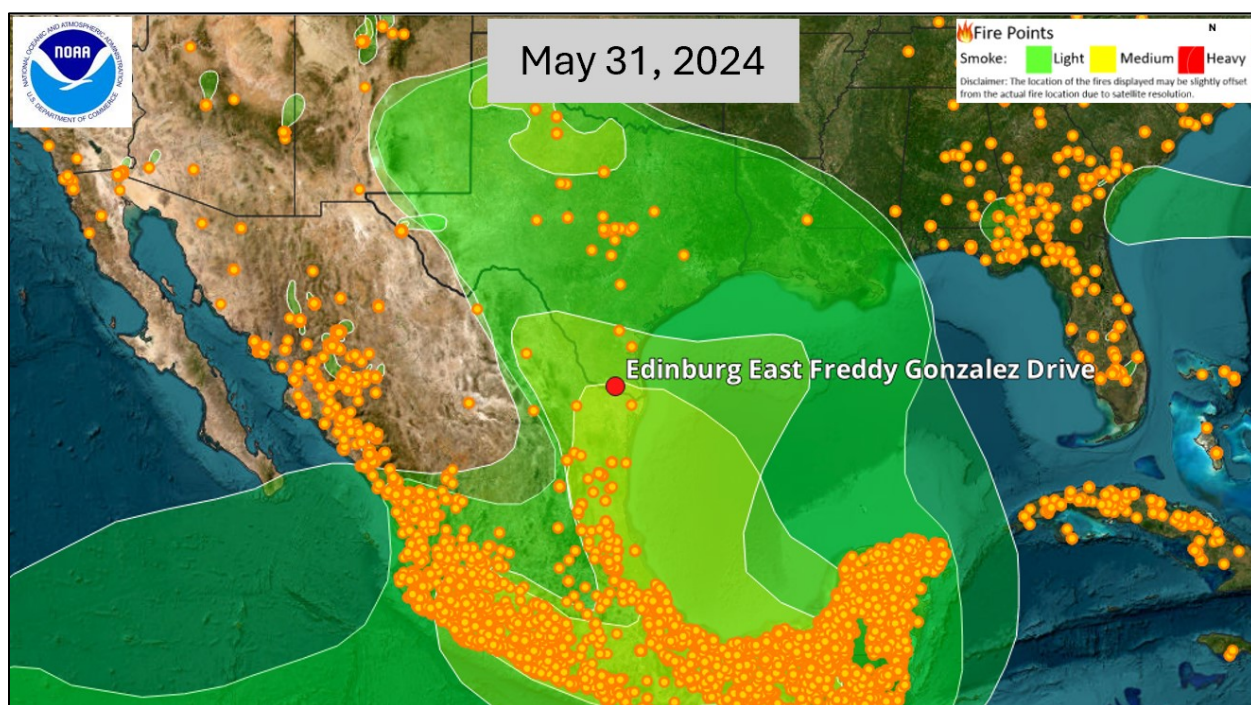


Figure A-74: NOAA HMS Fire and Smoke Map on May 31, 2024



A.10: Group 11 - June 2 through June 6, 2024

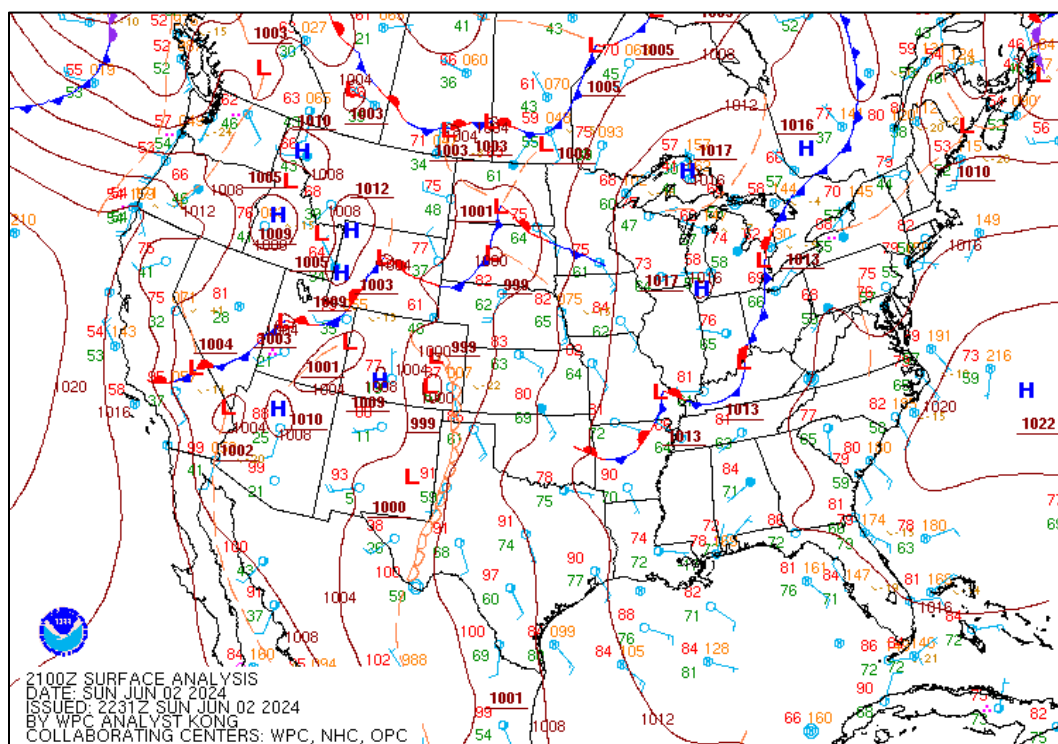


Figure A-75: National Weather Service Weather Prediction Center (June 2, 2024) CONUS Surface Analysis (12Z) 6:00 a.m. CDT

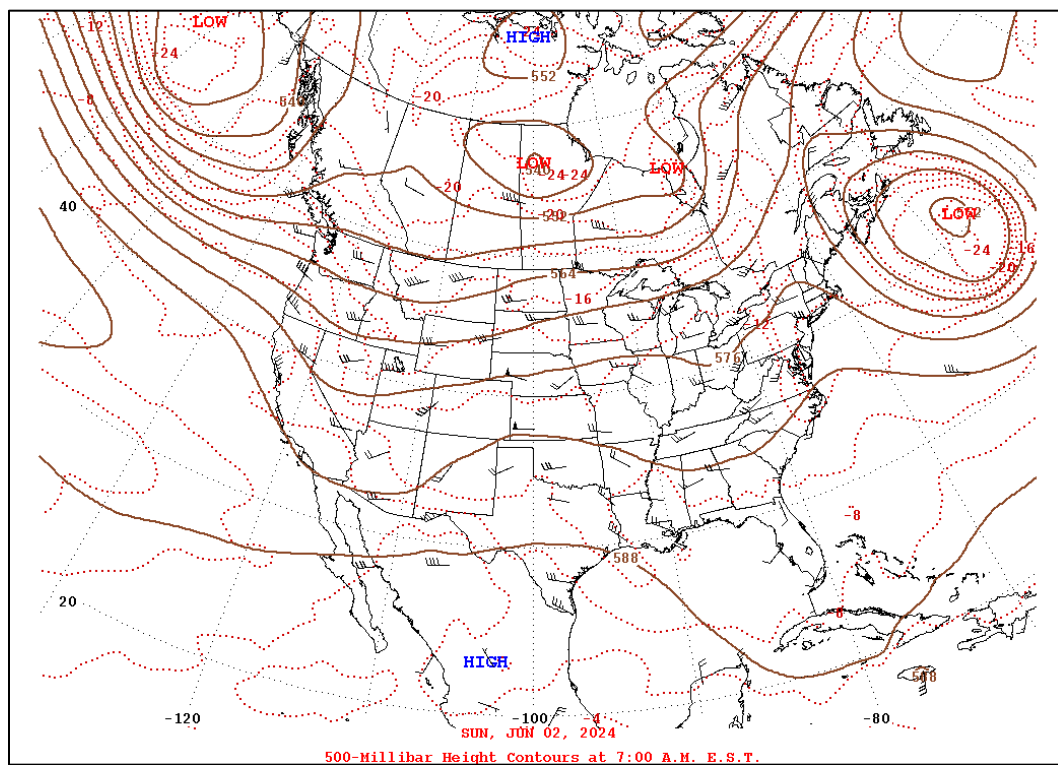
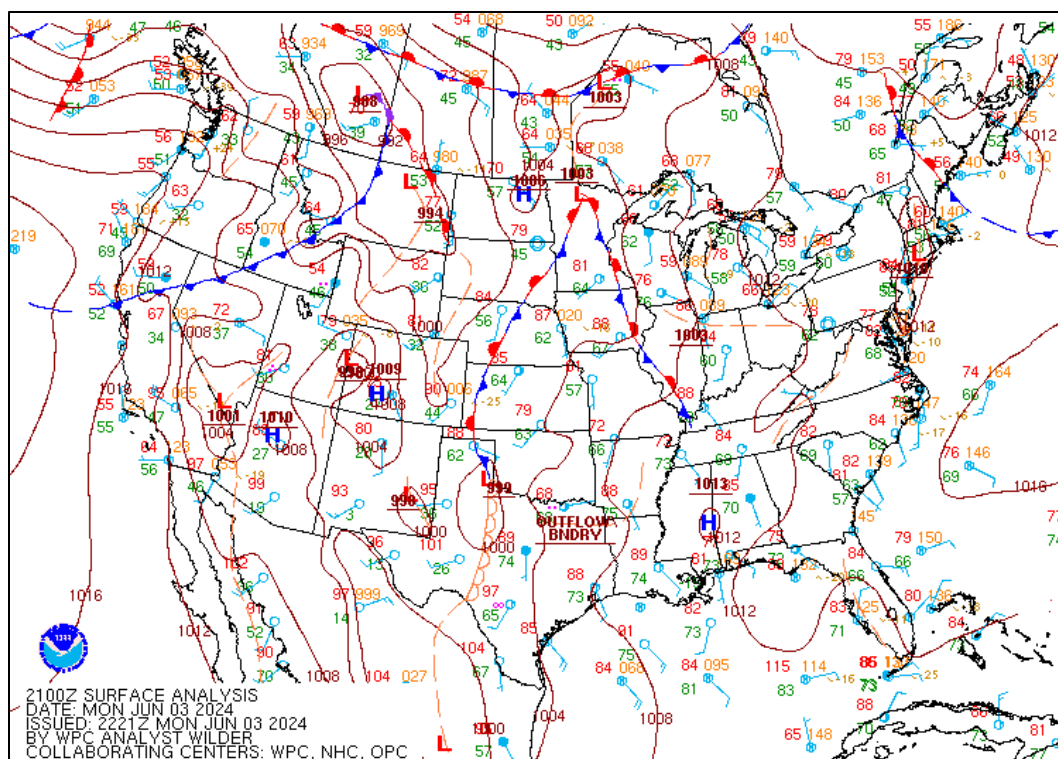
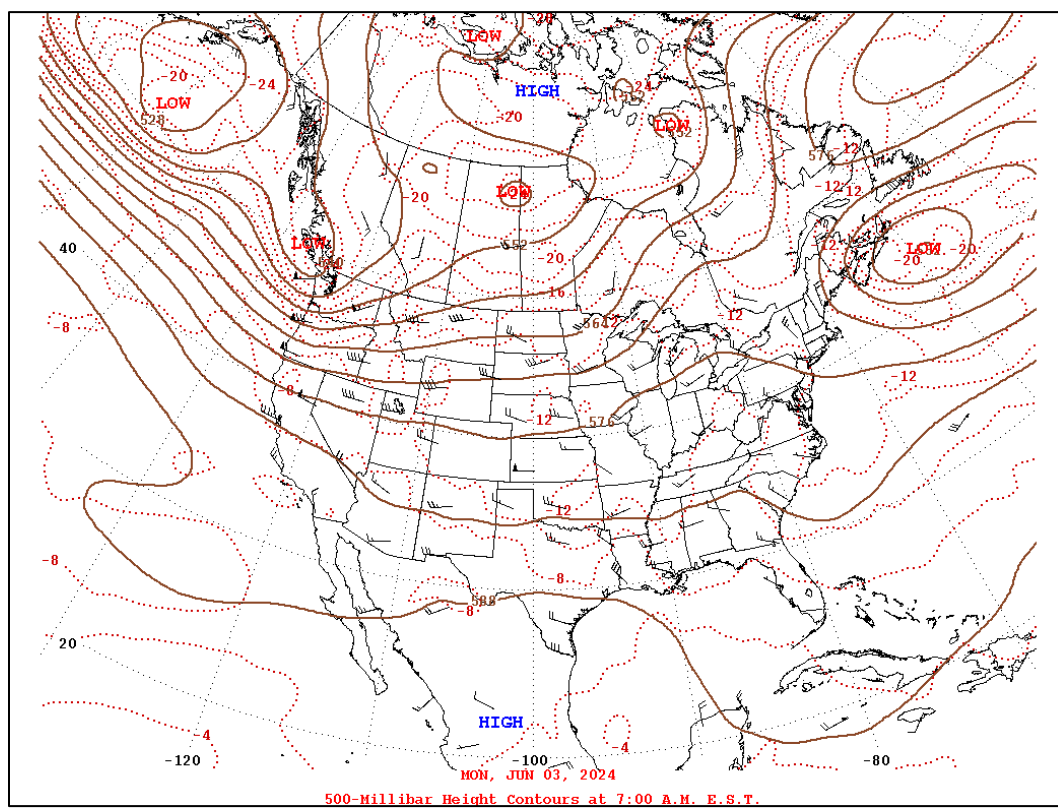


Figure A-76: National Weather Service Storm Prediction Center (June 2, 2024) 500 mb Analysis (12Z) 6:00 a.m. CDT



**Figure A-77: National Weather Service Weather Prediction Center (June 3, 2024) CONUS Surface Analysis (12Z) 6:00 a.m. CDT**



**Figure A-78: National Weather Service Storm Prediction Center (June 3, 2024) 500 mb Analysis (12Z) 6:00 a.m. CDT**



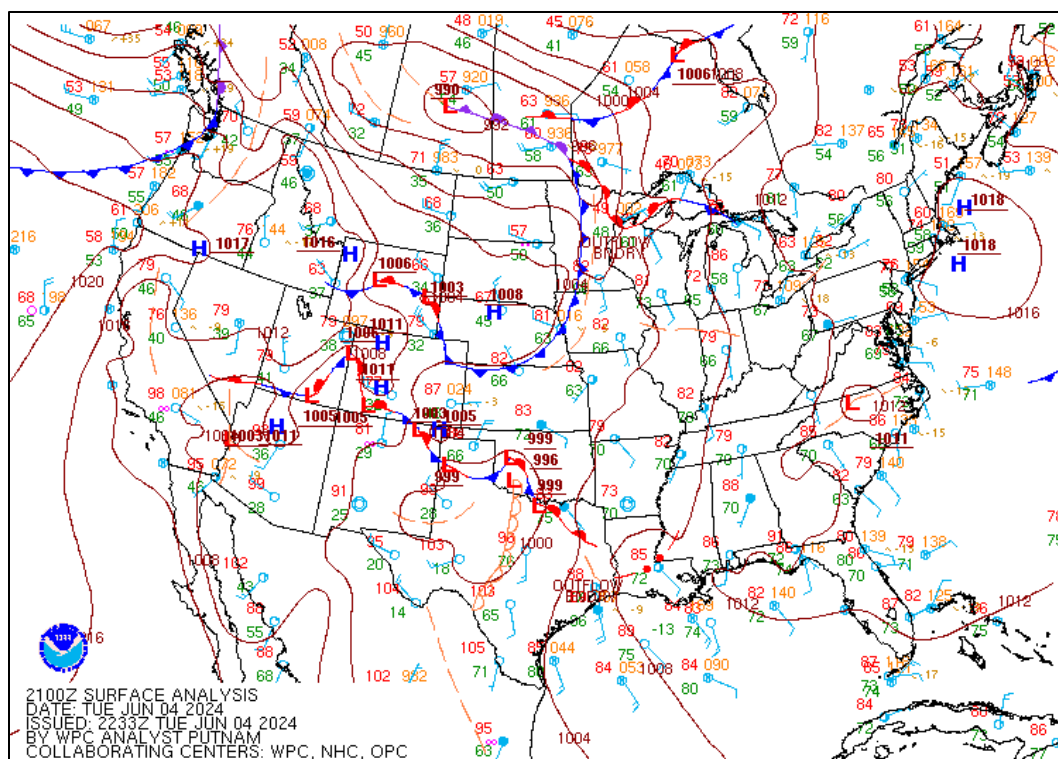


Figure A-79: National Weather Service Weather Prediction Center (June 4, 2024) CONUS Surface Analysis (12Z) 6:00 a.m. CDT

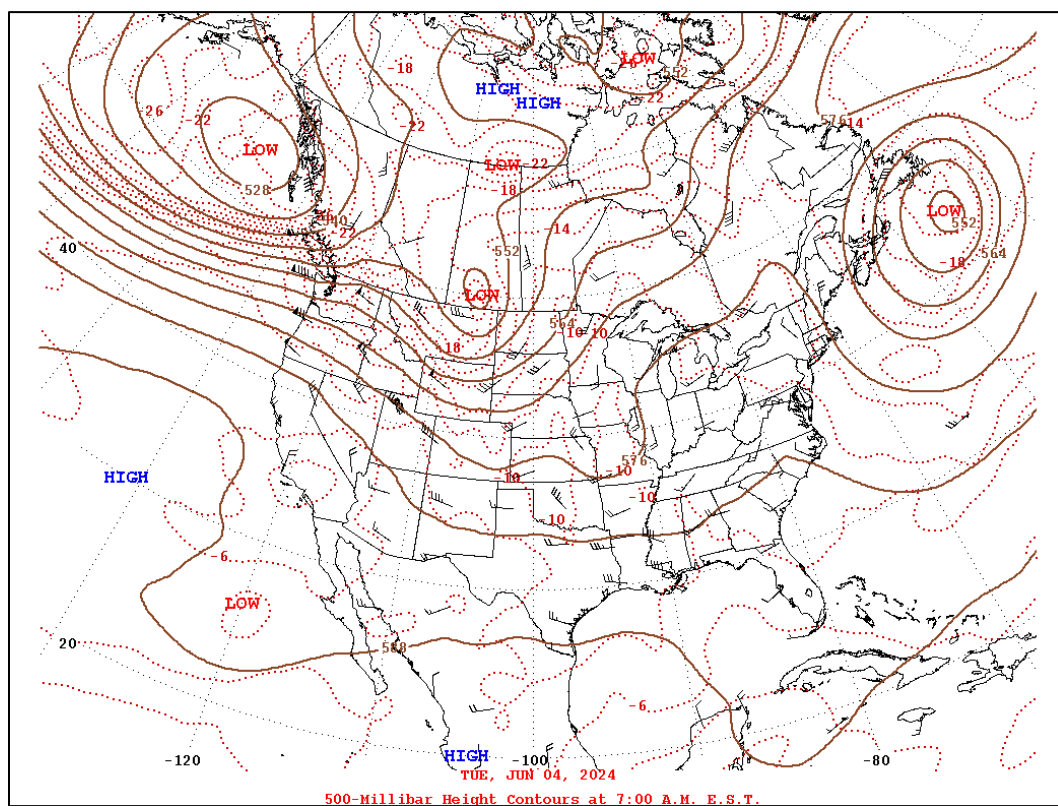
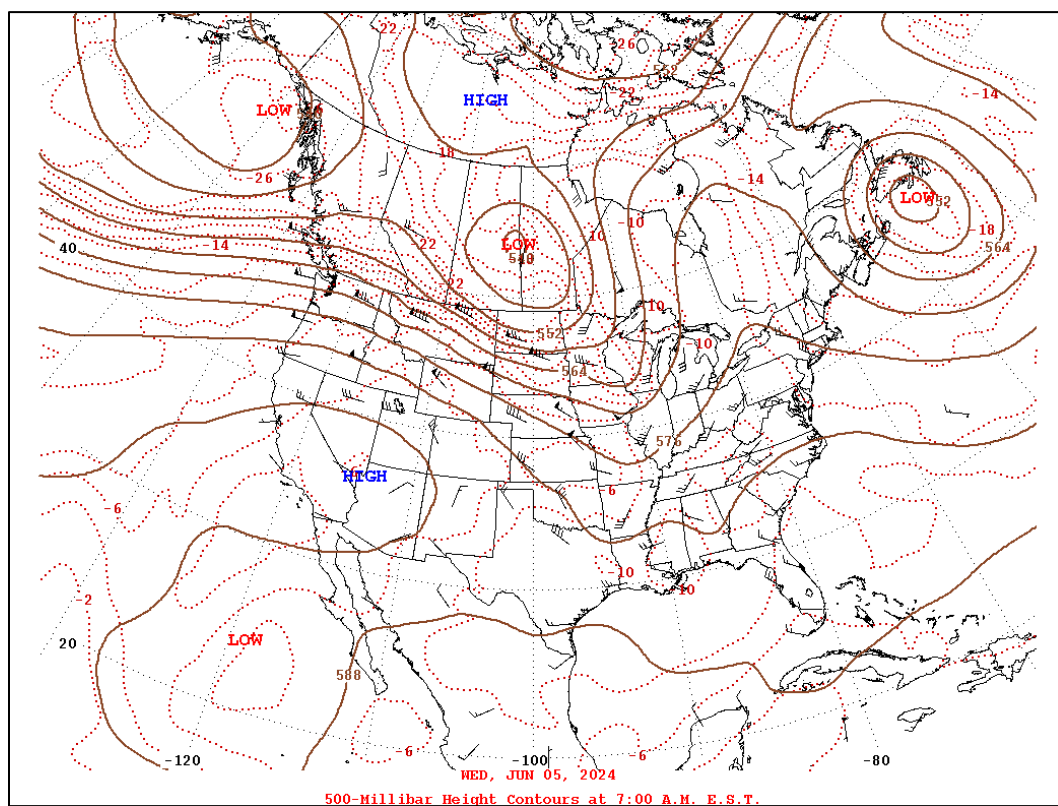
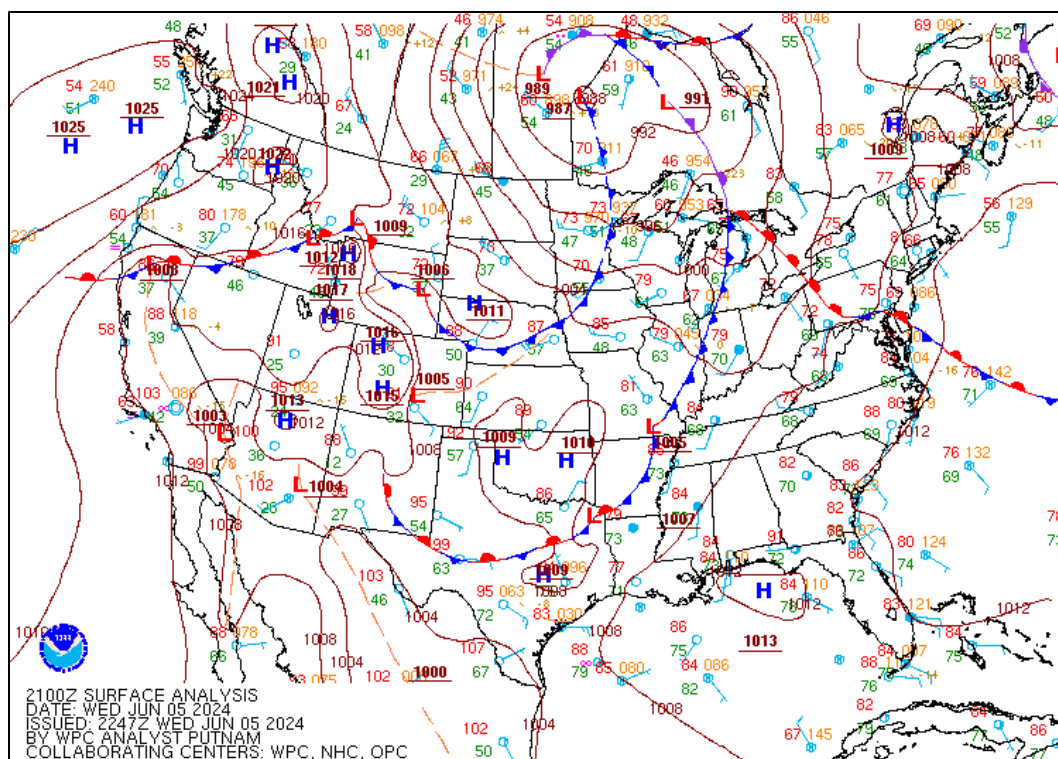
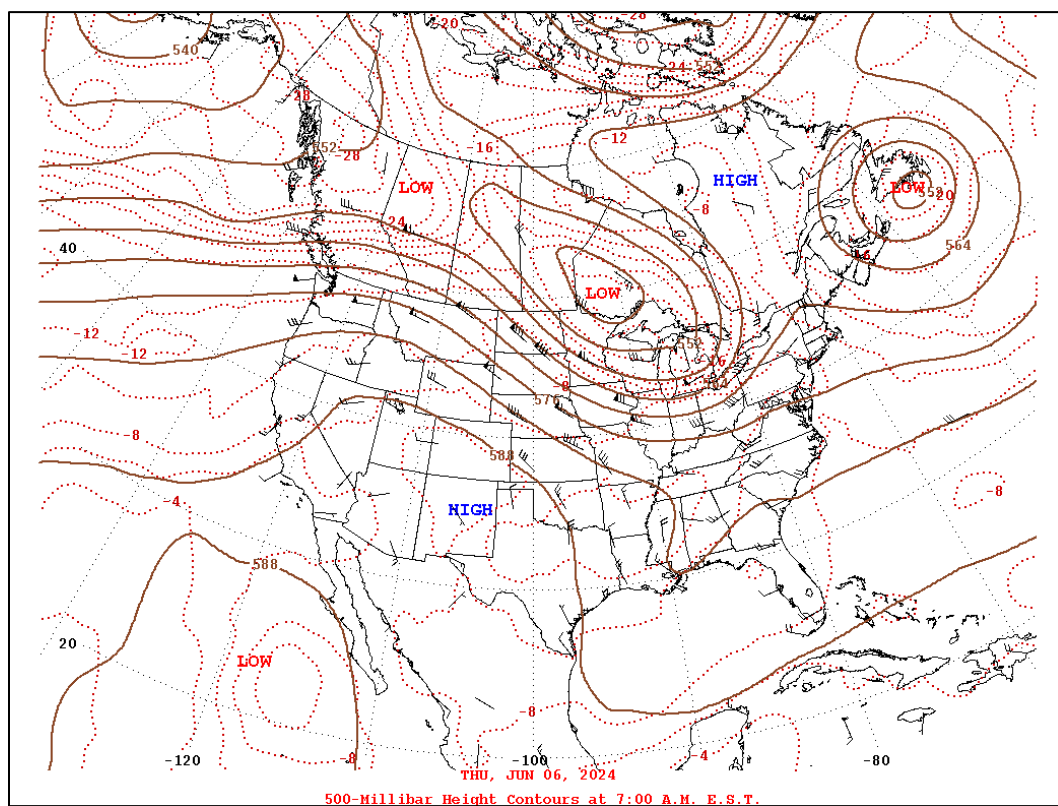
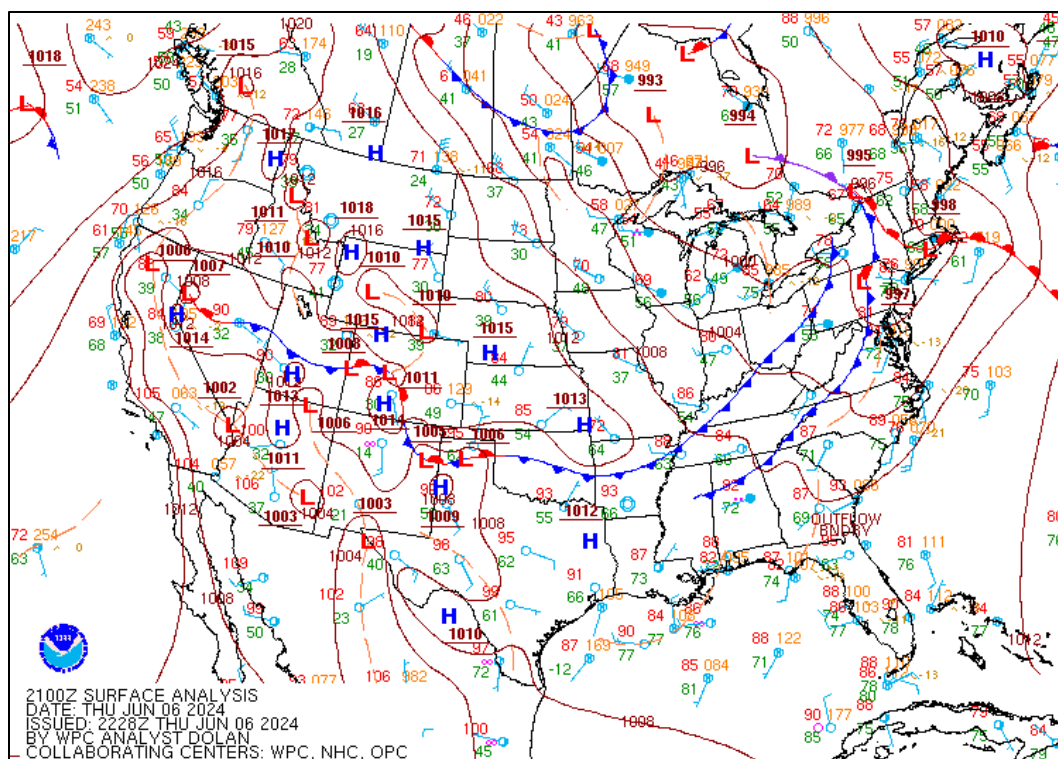


Figure A-80: National Weather Service Storm Prediction Center (June 4, 2024) 500 mb Analysis (12Z) 6:00 a.m. CDT







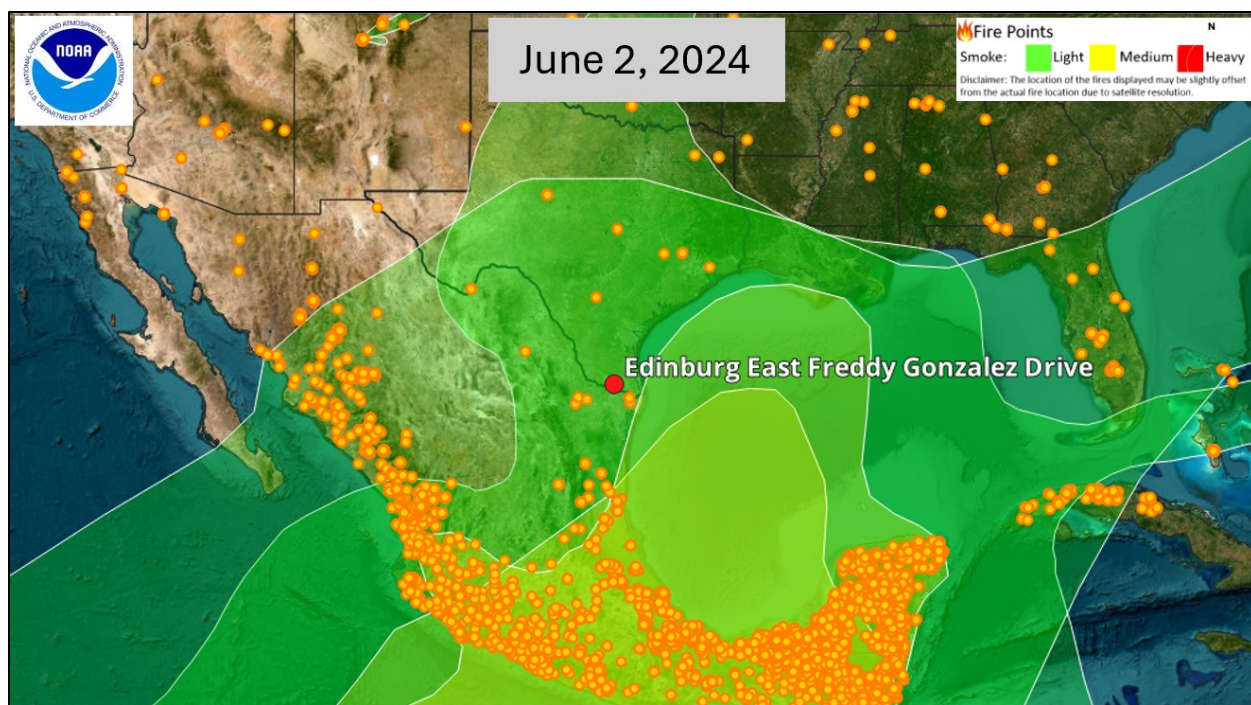


Figure A-85: NOAA HMS Fire and Smoke Map on June 2, 2024

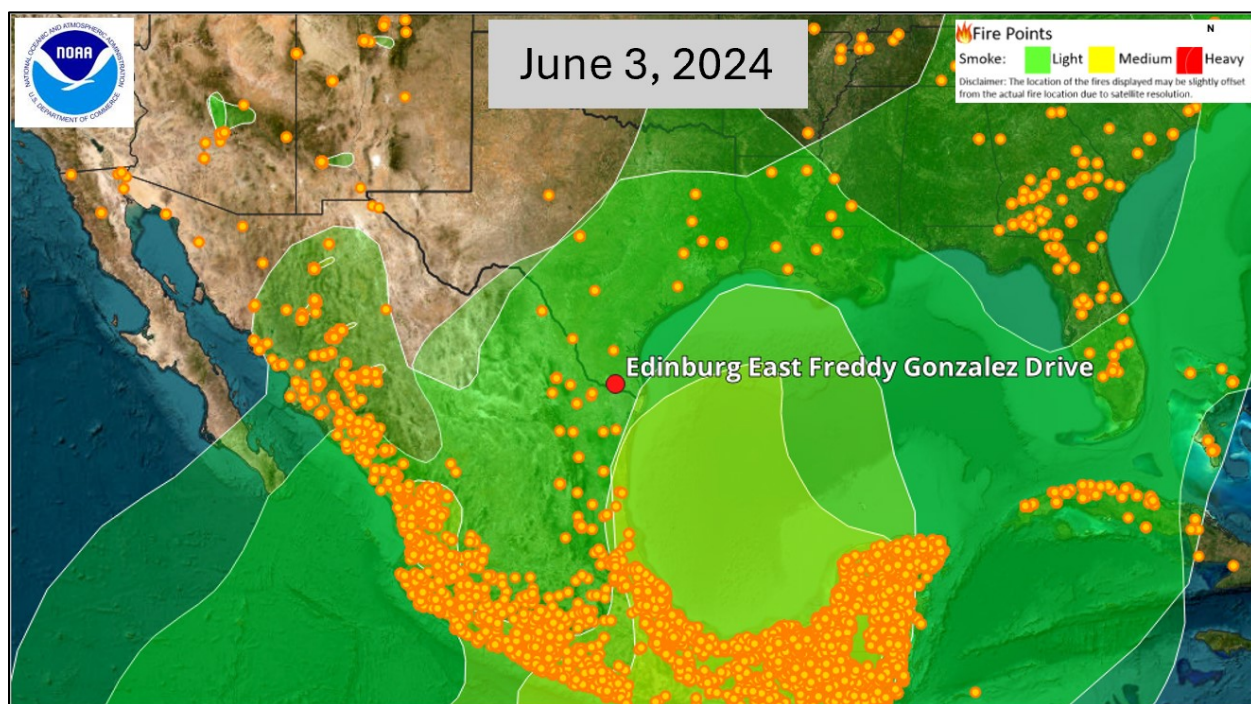


Figure A-86: NOAA HMS Fire and Smoke Map on June 3, 2024



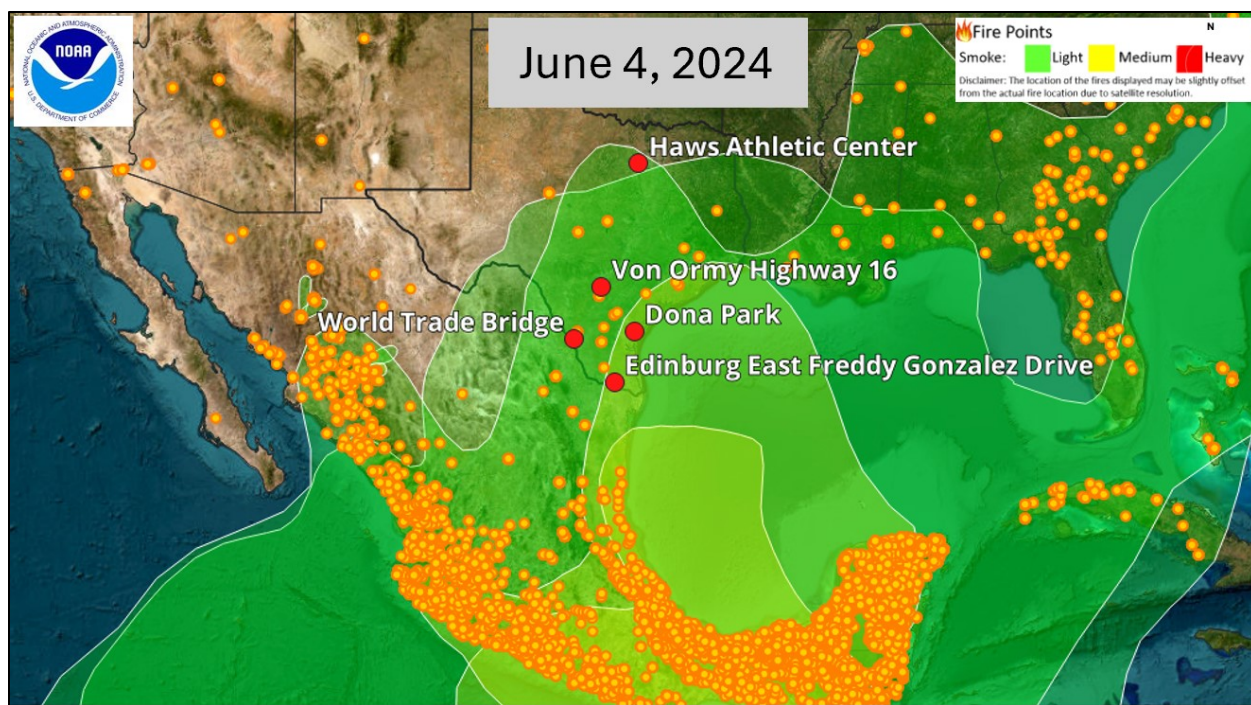


Figure A-87: NOAA HMS Fire and Smoke Map on June 4, 2024

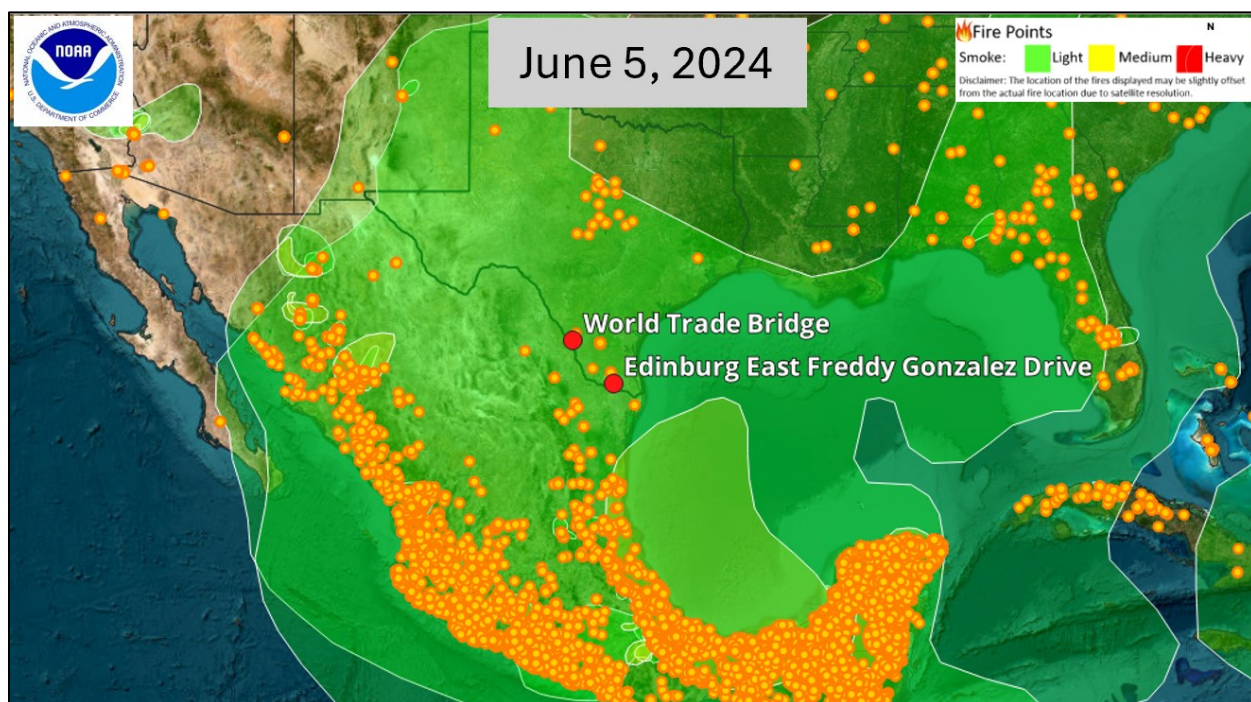


Figure A-88: NOAA HMS Fire and Smoke Map on June 5, 2024



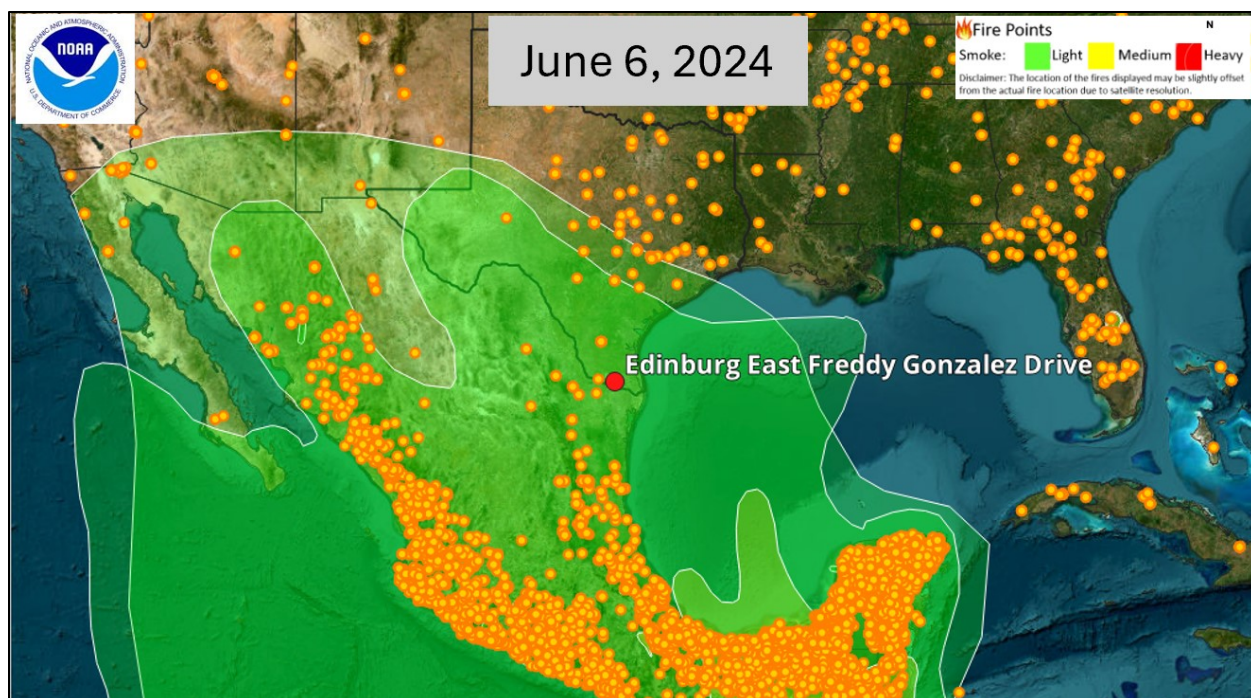


Figure A-89: NOAA HMS Fire and Smoke Map on June 6, 2024, with the Edinburg East Freddy Gonzalez Drive monitor

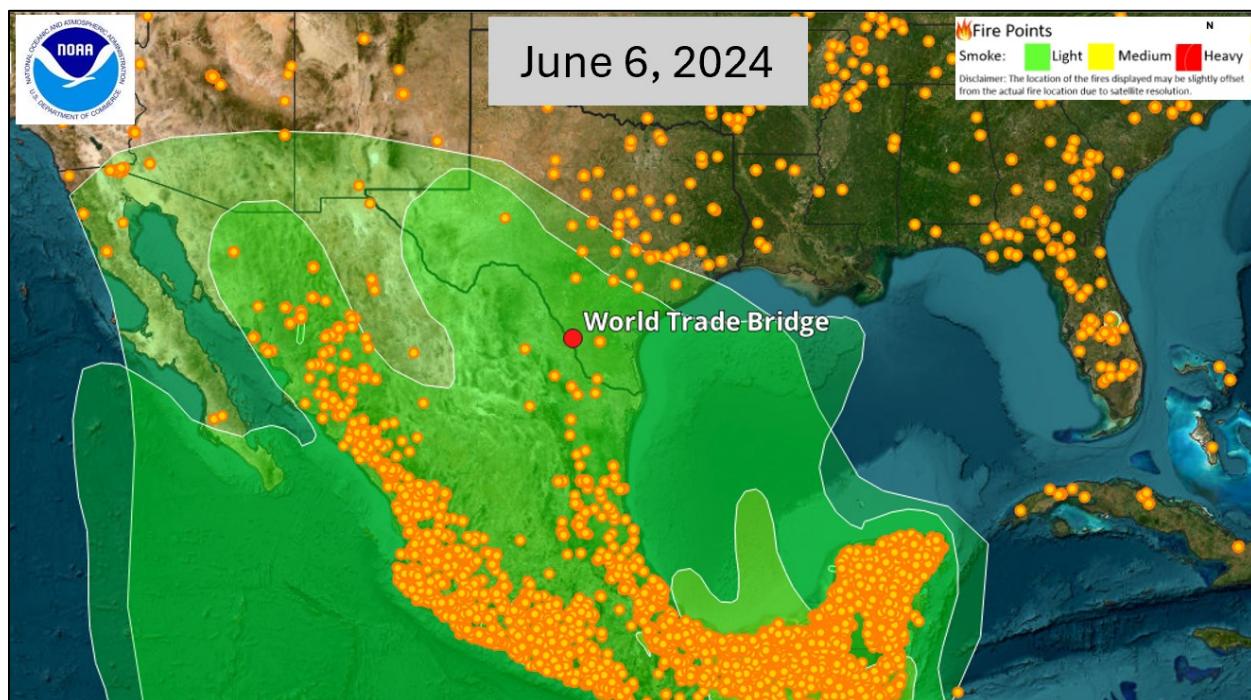


Figure A-90: NOAA HMS Fire and Smoke Map on June 6, 2024, with the World Trade Bridge monitor



A.11: Group 13 - July 30 through August 1, 2024

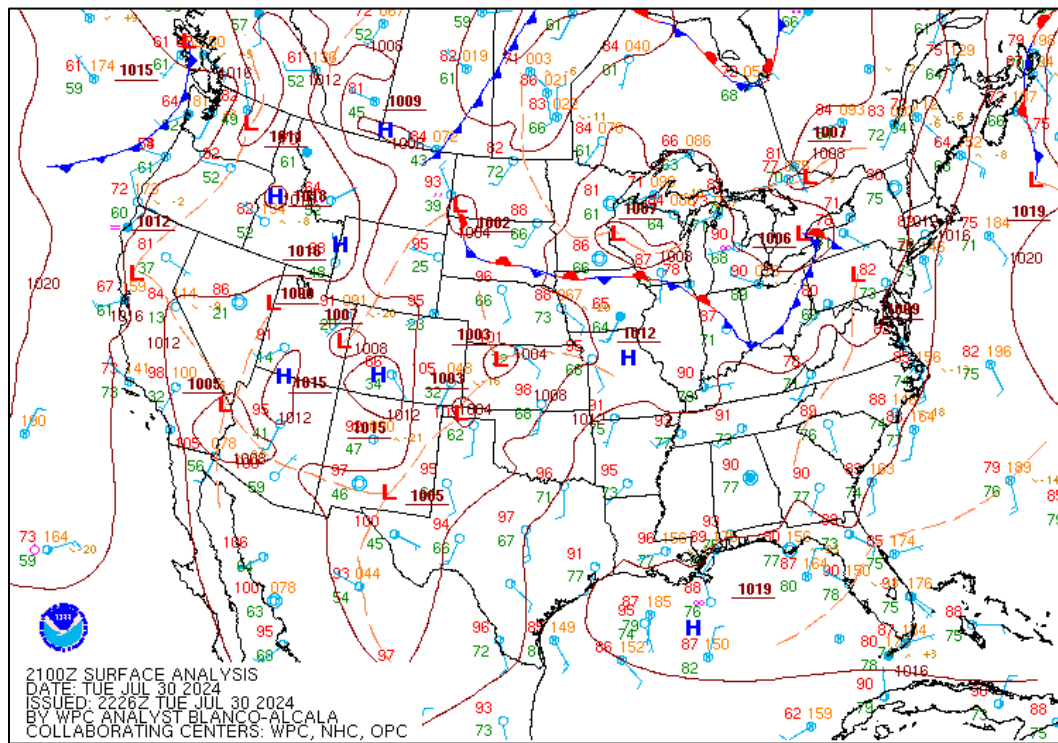


Figure A-91: National Weather Service Weather Prediction Center (July 30, 2024) CONUS Surface Analysis (12Z) 6:00 a.m. CDT

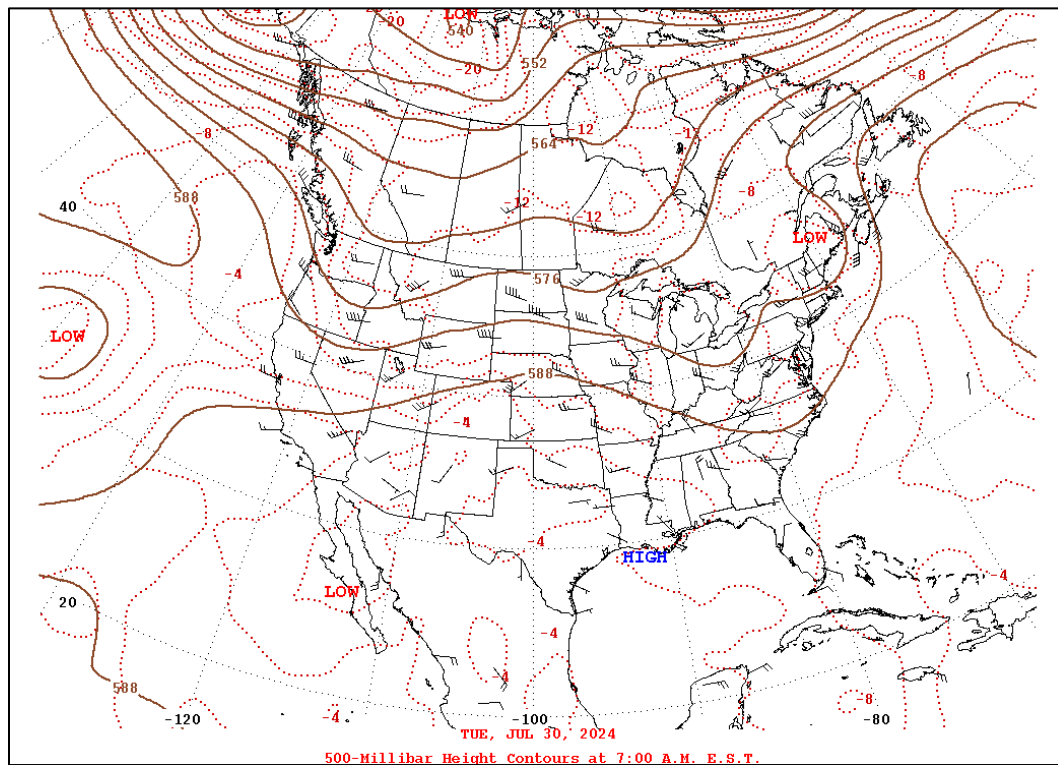
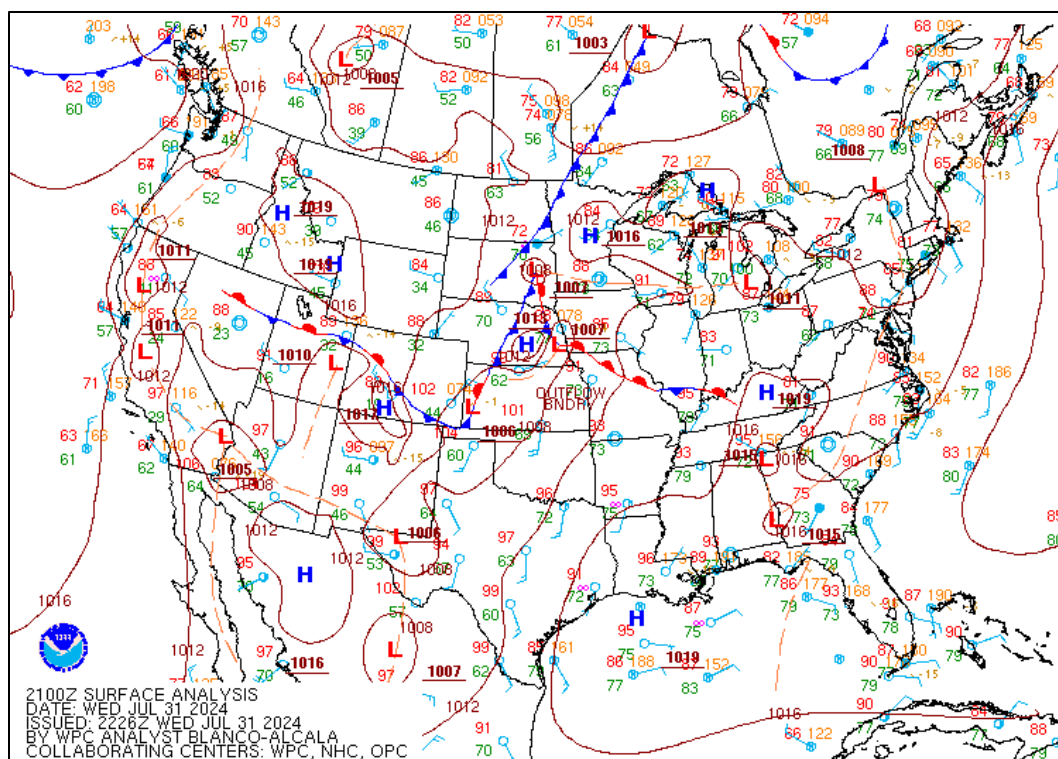
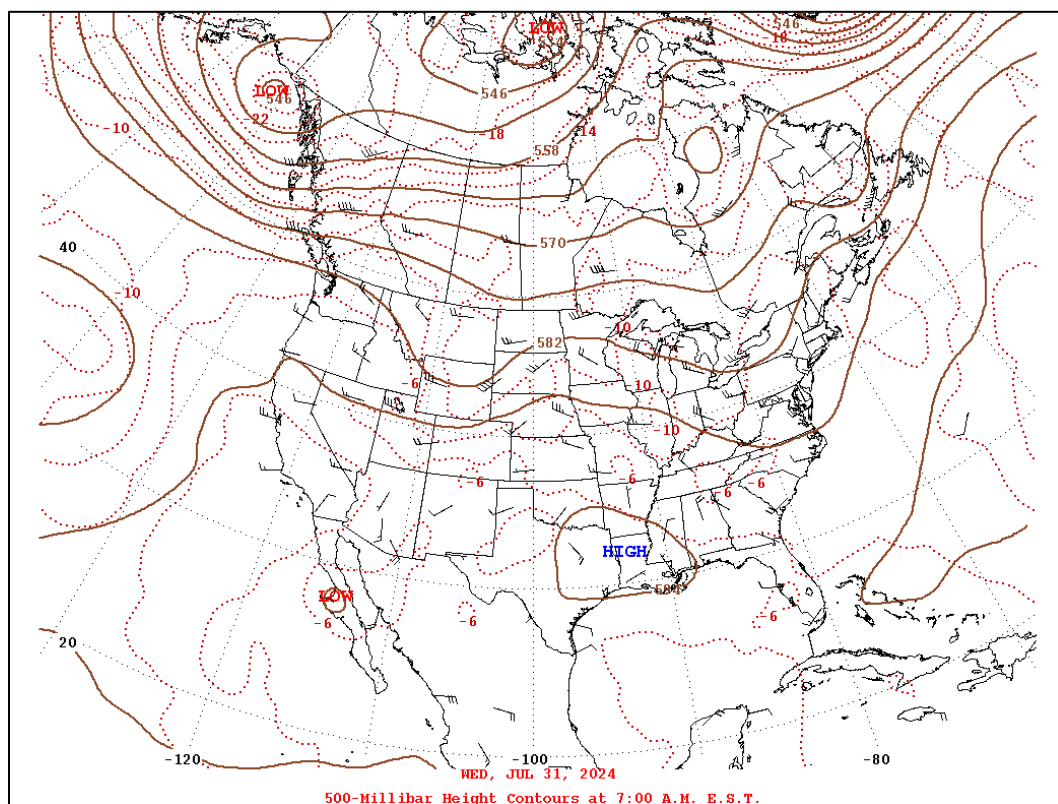


Figure A-92: National Weather Service Storm Prediction Center (July 30, 2024) 500 mb Analysis (12Z) 6:00 a.m. CDT



**Figure A-93: National Weather Service Weather Prediction Center (July 31, 2024) CONUS Surface Analysis (12Z) 6:00 a.m. CDT**



**Figure A-94: National Weather Service Storm Prediction Center (July 31, 2024) 500 mb Analysis (12Z) 6:00 a.m. CDT**



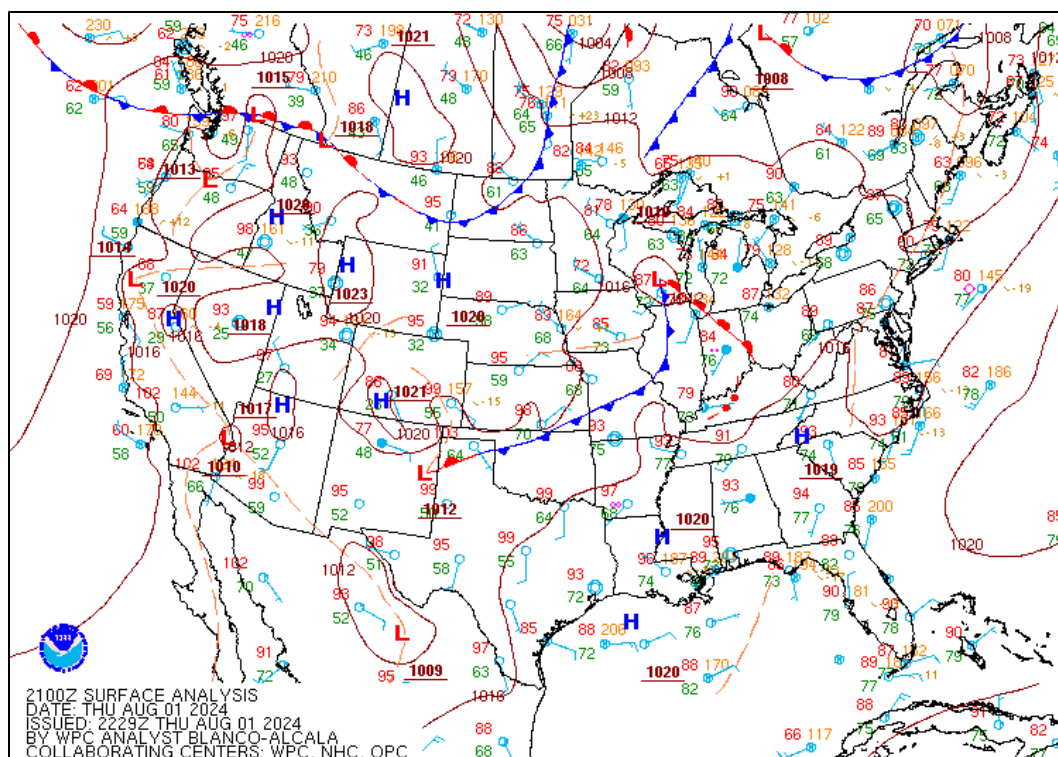


Figure A-95: National Weather Service Weather Prediction Center (August 1, 2024) CONUS Surface Analysis (12Z) 6:00 a.m. CDT

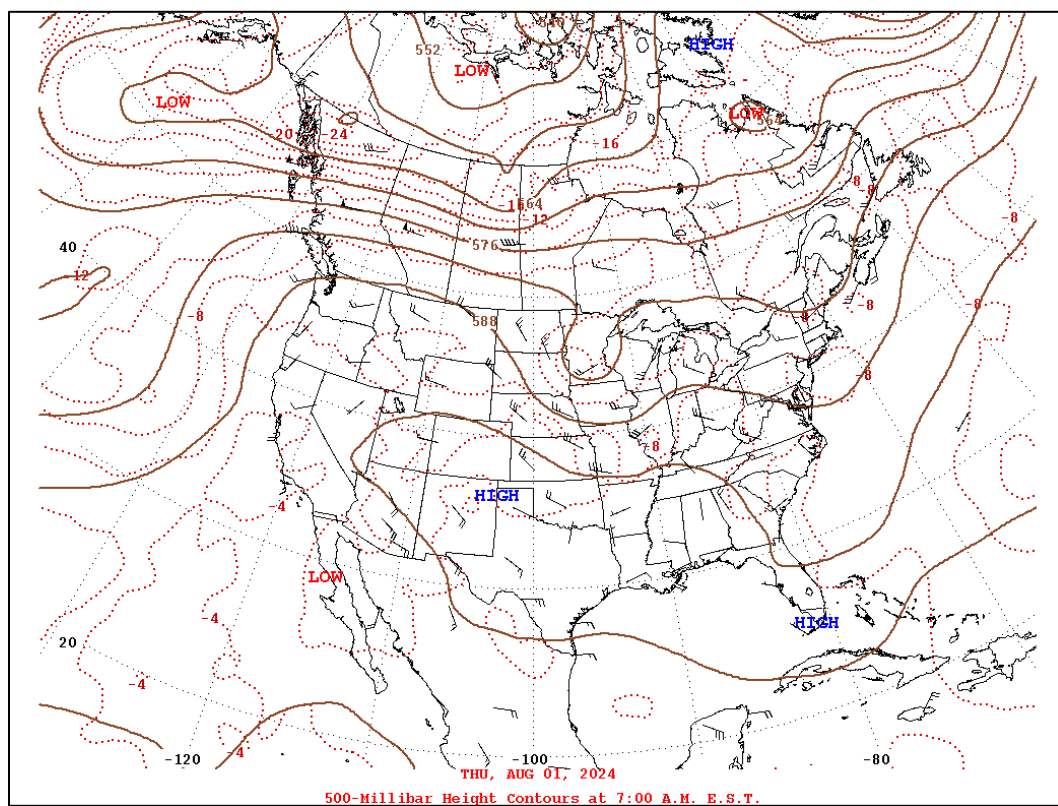


Figure A-96: National Weather Service Storm Prediction Center (August 1, 2024) 500 mb Analysis (12Z) 6:00 a.m. CDT

A.12: Group 14 - October 3, 2024

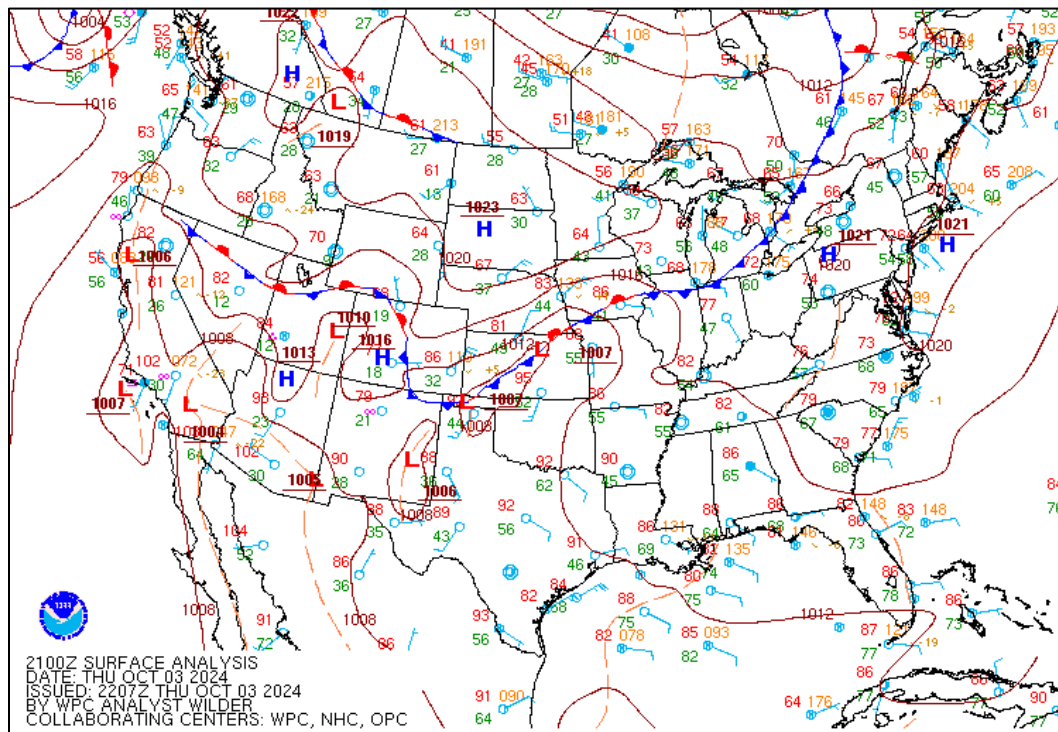


Figure A-97: National Weather Service Weather Prediction Center (October 3, 2024) CONUS Surface Analysis (12Z) 6:00 a.m. CDT

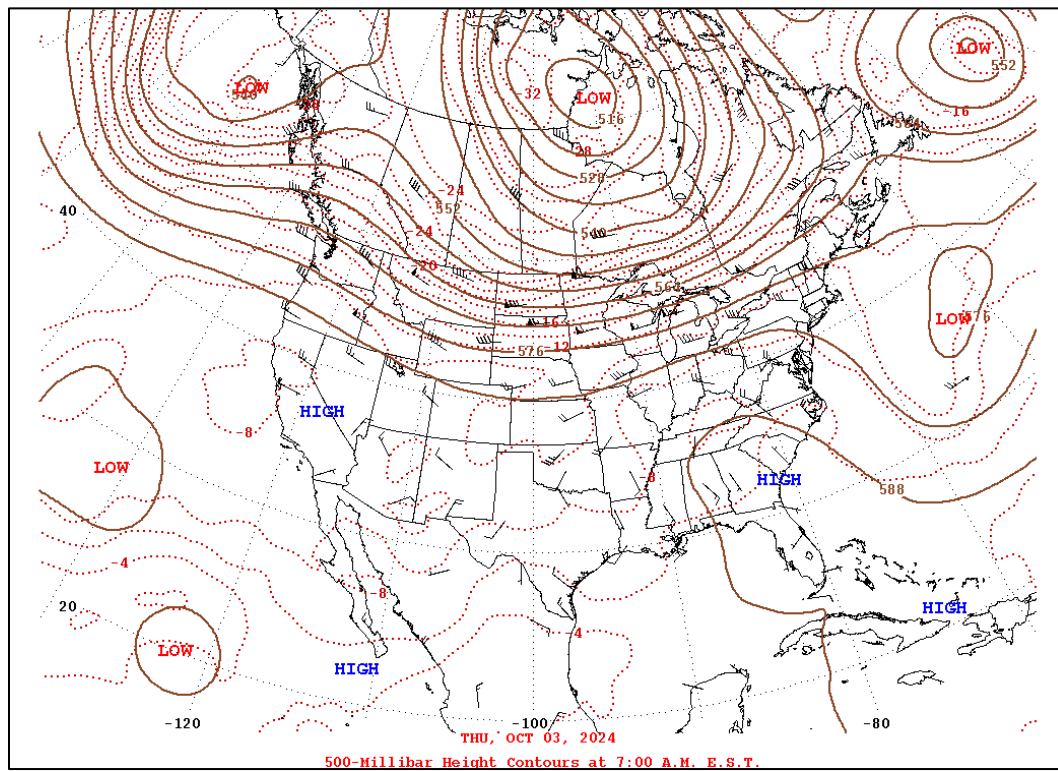


Figure A-98: National Weather Service Storm Prediction Center (October 3, 2024) 500 mb Analysis (12Z) 6:00 a.m. CDT



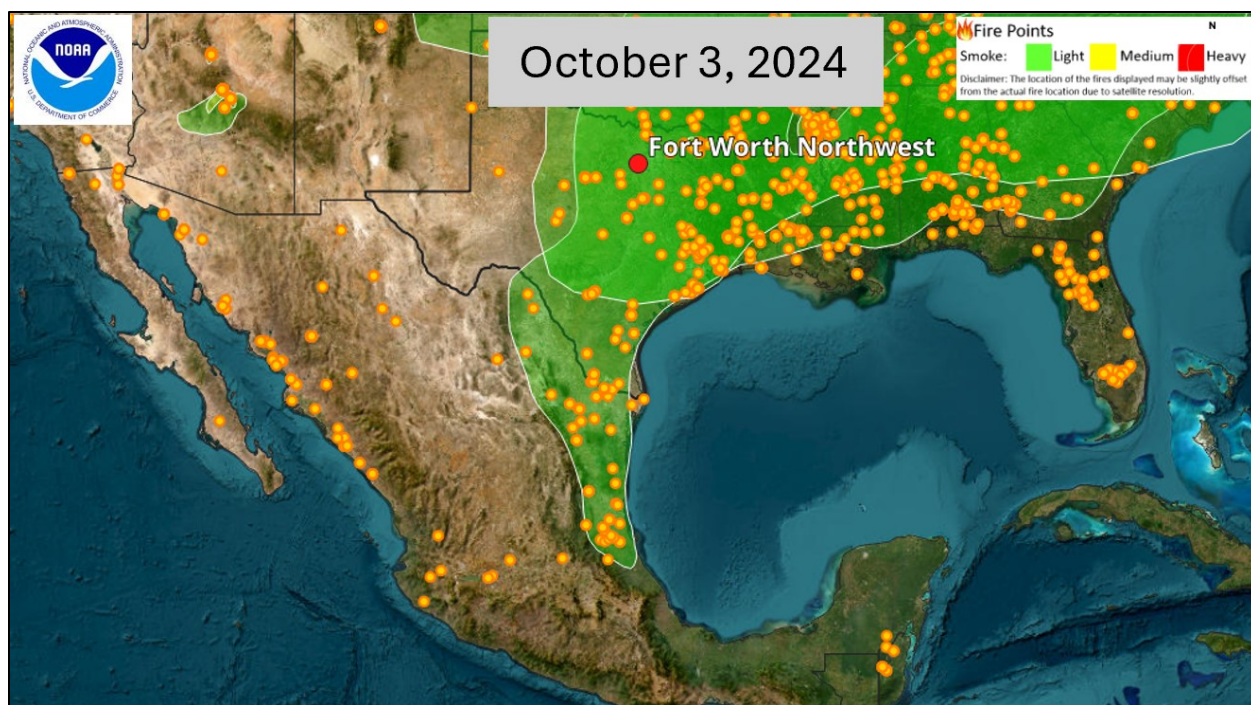


Figure A-99: NOAA HMS Fire and Smoke Map on October 3, 2024