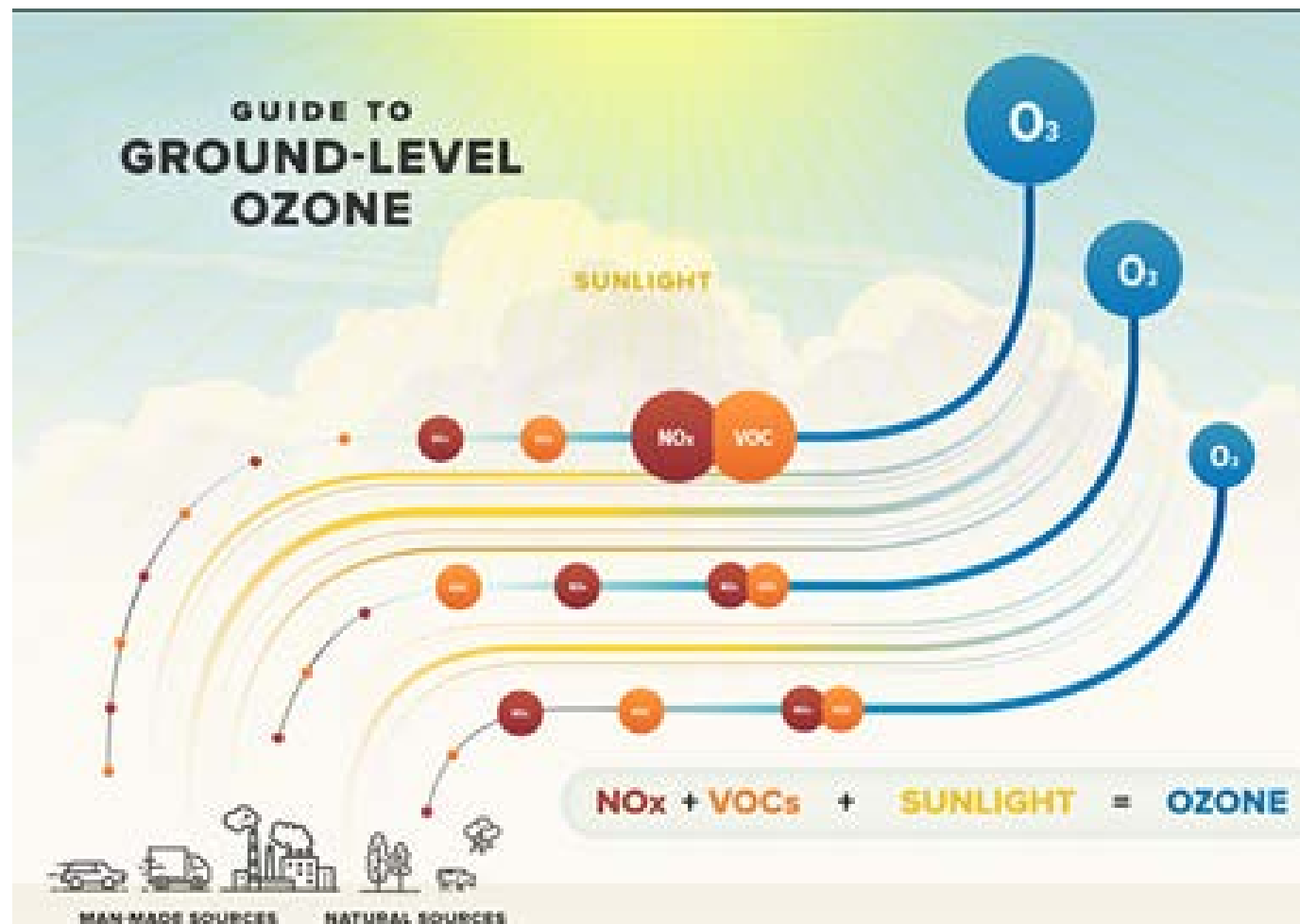


OZONE HEALTH ALERTS 2019

JEFF STONESIFER, SR. ENVIRONMENTAL HEALTH SCIENTIST

PRESENTED AUGUST 14, 2019
ALBUQUERQUE-BERNALILLO COUNTY AIR QUALITY CONTROL BOARD



OZONE HEALTH ALERTS 2019

TWO OZONE HEALTH ALERTS ISSUED JULY 27 AND JULY 30, 2019

- For each event:
 1. First Sign(s)
 2. Current conditions: What is going on?
 3. Make determination: Do we need to issue an alert?
 4. Post Event Analysis: What happened?
- Conclusion: Was it the right decision?

3

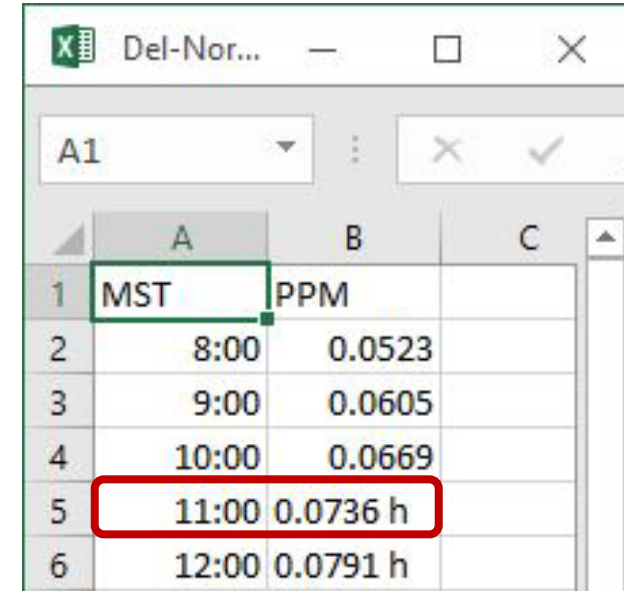
OZONE HEALTH ALERT

ISSUED JULY 27, 2019

OZONE HEALTH ALERT JULY 27, 2019

1. First Sign:

- Weekend Alert
- Received Notification from Del Norte Monitoring Station.
- At 1100, readings show a concentration of 73.6 ppb
- That is a concern



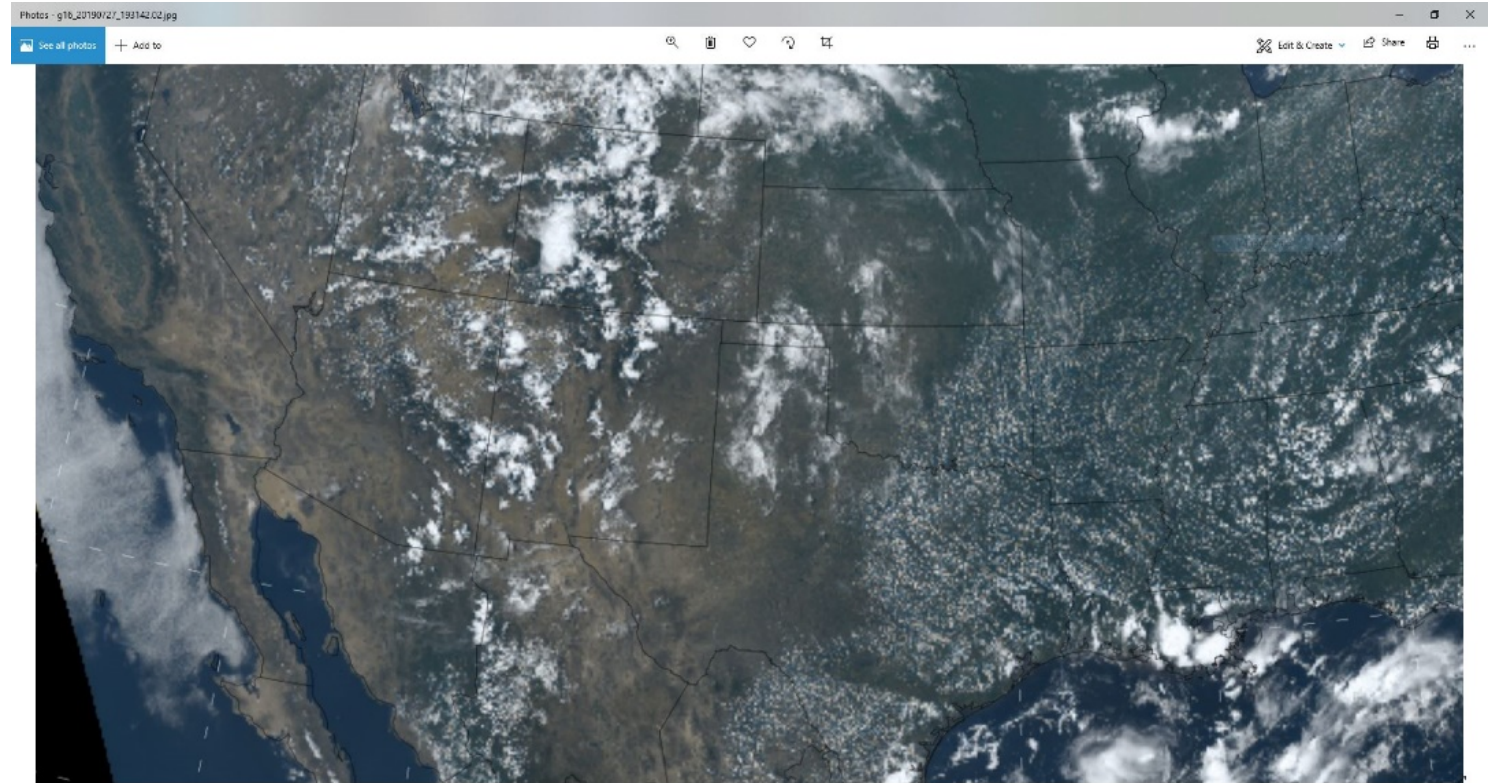
	A	B	C
1	MST	PPM	
2	8:00	0.0523	
3	9:00	0.0605	
4	10:00	0.0669	
5	11:00	0.0736 h	
6	12:00	0.0791 h	

5

OZONE HEALTH ALERT JULY 27, 2019

2. Current conditions

- Looked at the Satellite Image
- Satellite Image at 1:30 pm

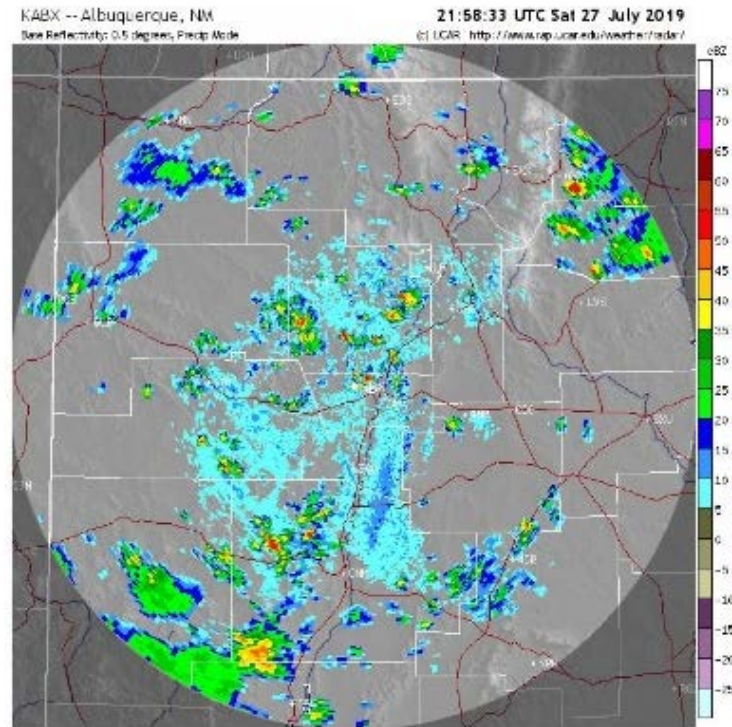


6

OZONE HEALTH ALERT JULY 27, 2019

2. Current Conditions

- Looked at Radar Image
- Satellite Image at 1:30 pm



7

OZONE HEALTH ALERT JULY 27, 2019

2. Current conditions

- Check the NWS terminal forecast

Time forecast was released	Forecast duration	Wind Speed	Visibility	Cloud Coverage
----------------------------	-------------------	------------	------------	----------------


```
KABQ 271726Z 2718/2818 25006KT P6SM FEW090
FM272200 28010KT P6SM VCTS BKN090CB
    TEMPO 2723/2802 VRB15G23KT TSRA BKN080CB
FM280200 10010KT P6SM VCSH BKN100
FM280600 VRB06KT P6SM SCT120
FM281700 31007KT P6SM FEW100
```

Windows (Ln 2, Col 1 100%

OZONE HEALTH ALERT JULY 27, 2019

3. Make a determination

- Issued a Health Alert

4. Post Event Analysis

- Ozone levels dropped
- Analysis of what happened

	A	B	C
1	MST	PPM	
2	8:00	0.0523	
3	9:00	0.0605	
4	10:00	0.0669	
5	11:00	0.0736 h	
6	12:00	0.0791 h	
7	13:00	0.0723 h	
8	14:00	0.0715 h	
9	15:00	0.0644	
10	16:00	0.0594	
11	17:00	0.0563	
12	18:00	0.0517	

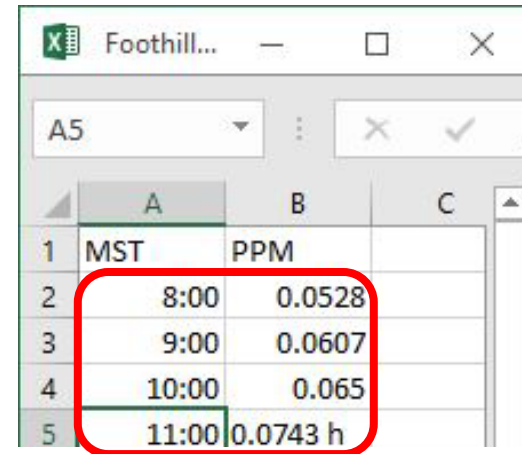
OZONE HEALTH ALERT

ISSUED JULY 30, 2019

OZONE HEALTH ALERT JULY 30, 2019

1. First Signs

- Weekday
- Looked at reading from the monitoring stations
- Ozone Concentrations at 1100 hrs were 74.3 ppb at the Foothills monitoring station



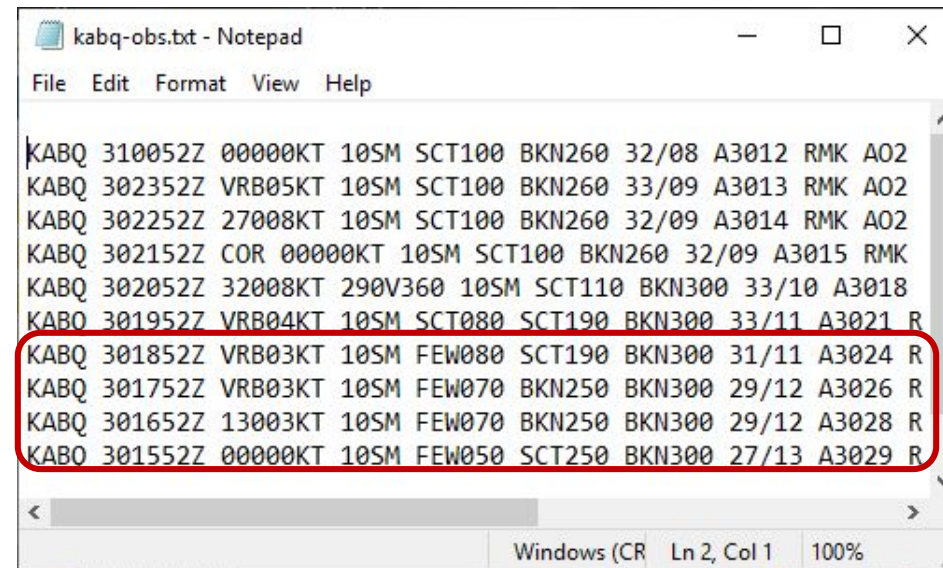
	A	B	C
1	MST	PPM	
2	8:00	0.0528	
3	9:00	0.0607	
4	10:00	0.065	
5	11:00	0.0743 h	

11

OZONE HEALTH ALERT JULY 30, 2019

2. Looked at current conditions

- Check KABQ Observations



```
kabq-obs.txt - Notepad
File Edit Format View Help
KABQ 310052Z 0000KT 10SM SCT100 BKN260 32/08 A3012 RMK A02
KABQ 302352Z VRB05KT 10SM SCT100 BKN260 33/09 A3013 RMK A02
KABQ 302252Z 27008KT 10SM SCT100 BKN260 32/09 A3014 RMK A02
KABQ 302152Z COR 0000KT 10SM SCT100 BKN260 32/09 A3015 RMK
KABQ 302052Z 32008KT 290V360 10SM SCT110 BKN300 33/10 A3018
KABQ 301952Z VRB04KT 10SM SCT080 SCT190 BKN300 33/11 A3021 R
KABQ 301852Z VRB03KT 10SM FEW080 SCT190 BKN300 31/11 A3024 R
KABQ 301752Z VRB03KT 10SM FEW070 BKN250 BKN300 29/12 A3026 R
KABQ 301652Z 13003KT 10SM FEW070 BKN250 BKN300 29/12 A3028 R
KABQ 301552Z 0000KT 10SM FEW050 SCT250 BKN300 27/13 A3029 R
Windows (CR Ln 2, Col 1 100%
```

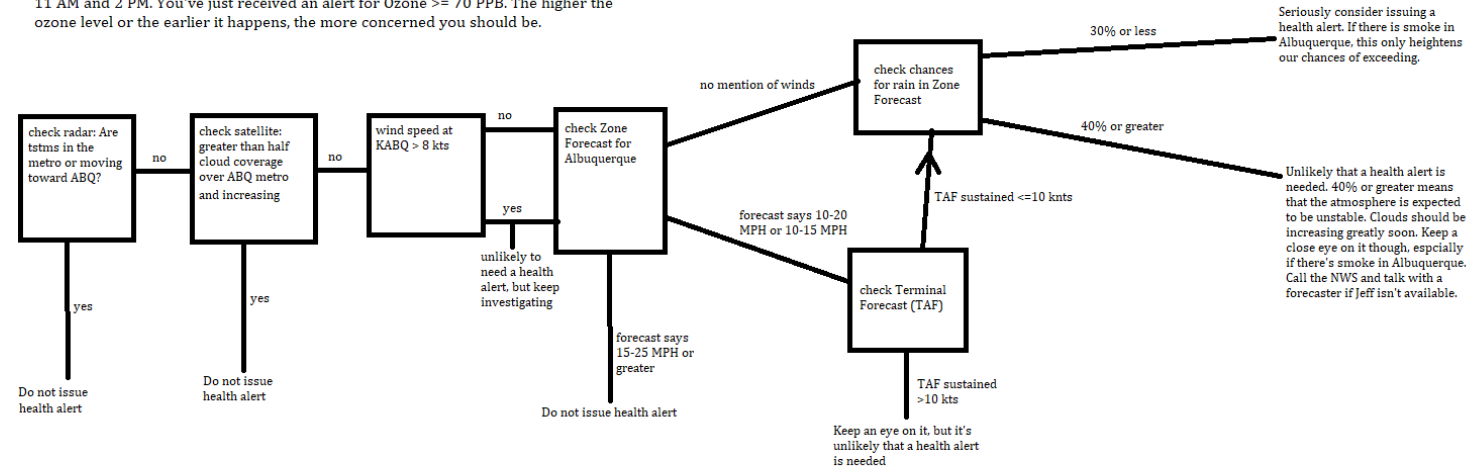
OZONE HEALTH ALERT JULY 30, 2019

3. Make a determination

- Issued a Health Alert

Albuquerque Ozone Health Alert Decision Tree for June, July, and August

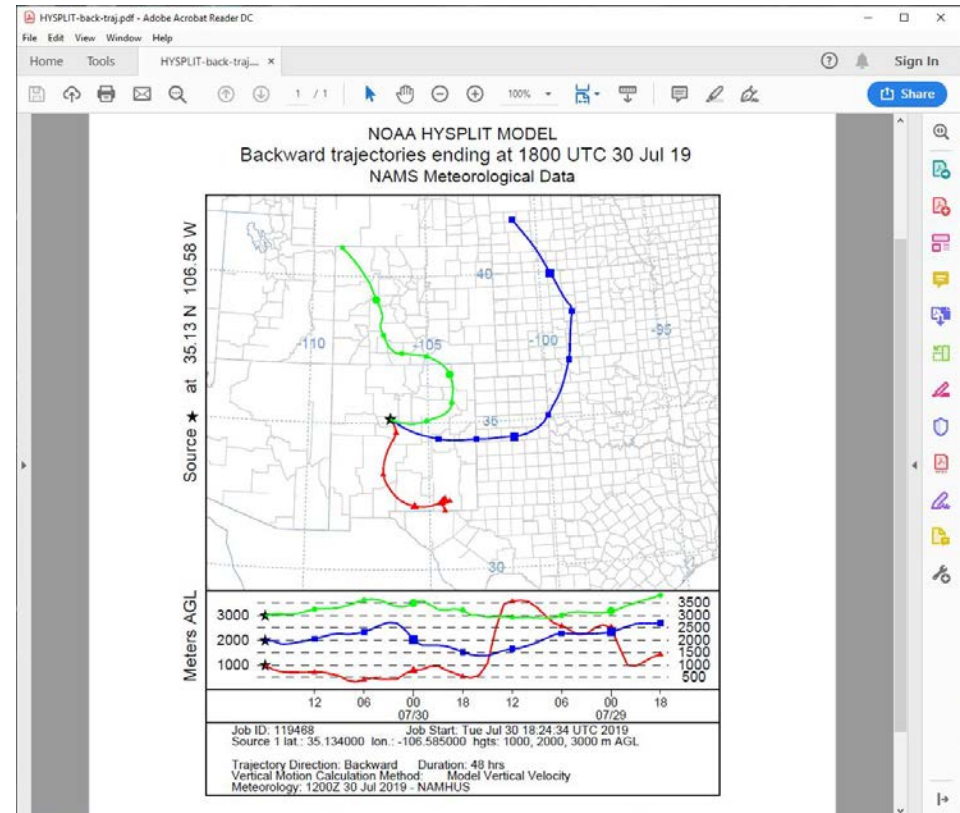
This decision tree is meant to be guidance for the following situation: It's between 11 AM and 2 PM. You've just received an alert for Ozone ≥ 70 PPB. The higher the ozone level or the earlier it happens, the more concerned you should be.



OZONE HEALTH ALERT JULY 30, 2019

4. Post Event Analysis

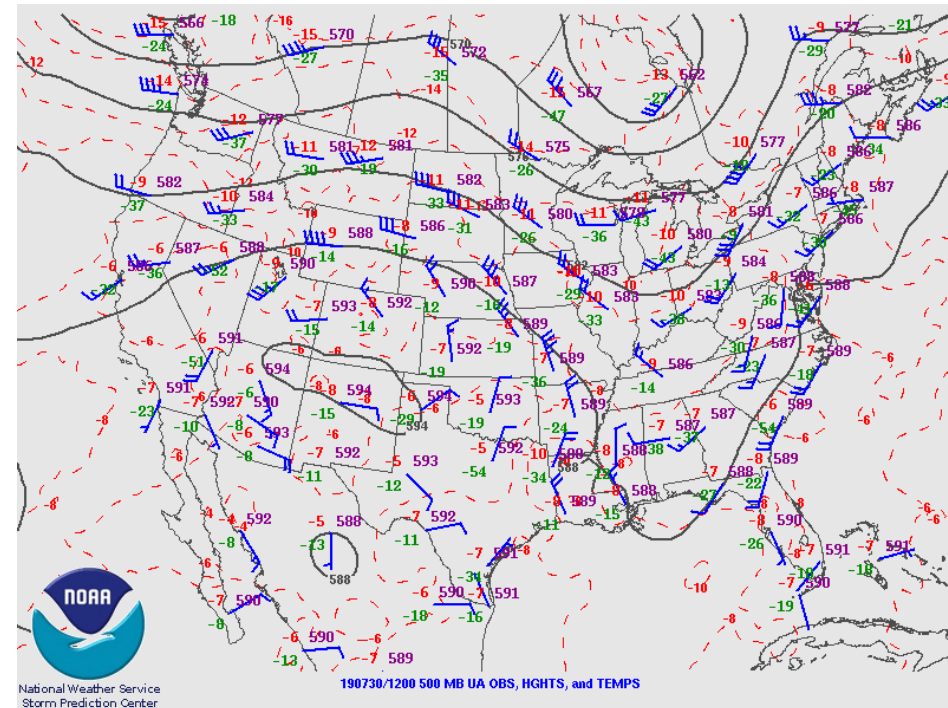
- Looked at the HYSPLIT back trajectory
- Determine origin of the air



OZONE HEALTH ALERT JULY 30, 2019

4. Post Event Analysis

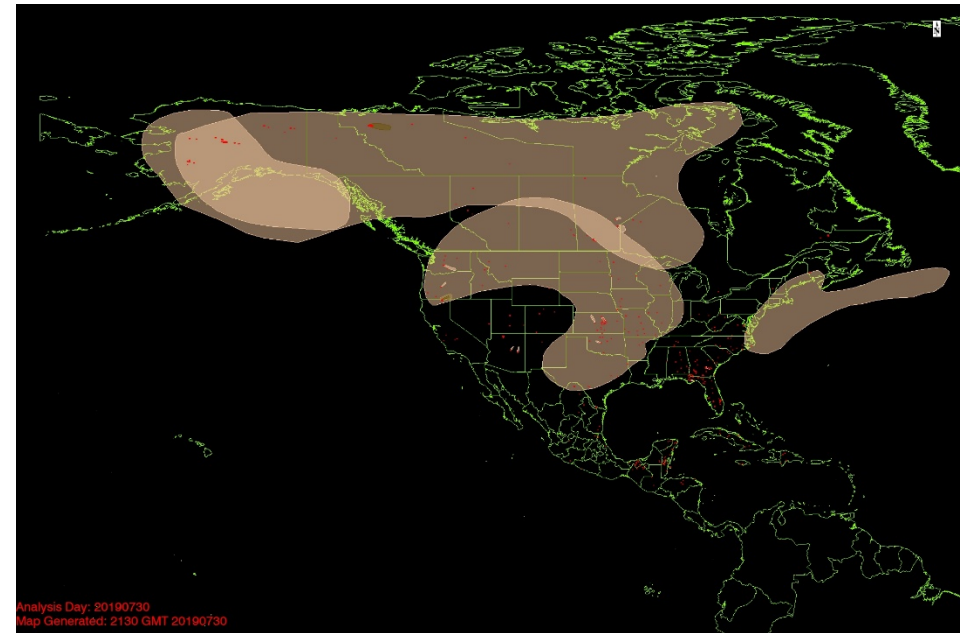
- Looked at the H5 Chart (500 mb)
- Looking at the large scale weather pattern



OZONE HEALTH ALERT JULY 30, 2019

4. Post Event Analysis

- Looked at HMS Smoke Analysis
- The ozone formed in the smoke to our East and moved into Albuquerque



CONCLUSION

OZONE HEALTH ALERT ISSUED JULY 27, 2019

- Right call
- All signs indicated that we were going to have high concentrations of ozone
- Concentrations of Ozone dropped around 2-ish pm and at 4pm

OZONE HEALTH ALERT ISSUED JULY 30, 2019.

- Right call
- We did experience high concentrations of ozone
- Ozone was brought to the area as a result of weather conditions

QUESTIONS ?