

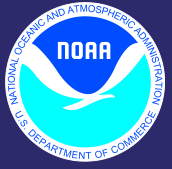
# May 22, 2014 Dust Storm Tragedy

*I-10 just east of AZ-NM border*



*John Fausett  
WCM at NWS El Paso*

Website: [www.weather.gov/elpaso](http://www.weather.gov/elpaso)



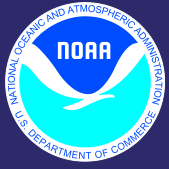
# May 22, 2014 Dust Storm Tragedy

*I-10 just east of AZ-NM border*



**SEVEN FATALITIES**

Website: [www.weather.gov/elpaso](http://www.weather.gov/elpaso)



# May 22, 2014 Dust Storm Tragedy

*I-10 just east of AZ-NM border*



## ***CHALLENGES REVEALED...***

- **METEOROLOGICAL**
- **CONSISTENT MESSAGE**
- **BETTER NWS PRODUCT FOR THIS???**

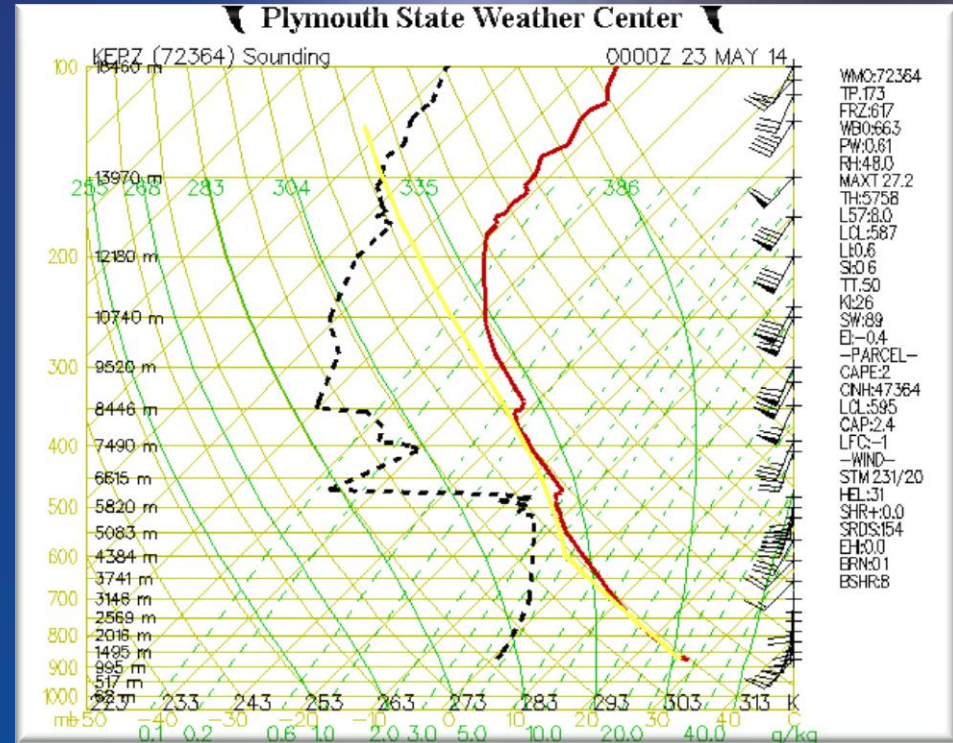
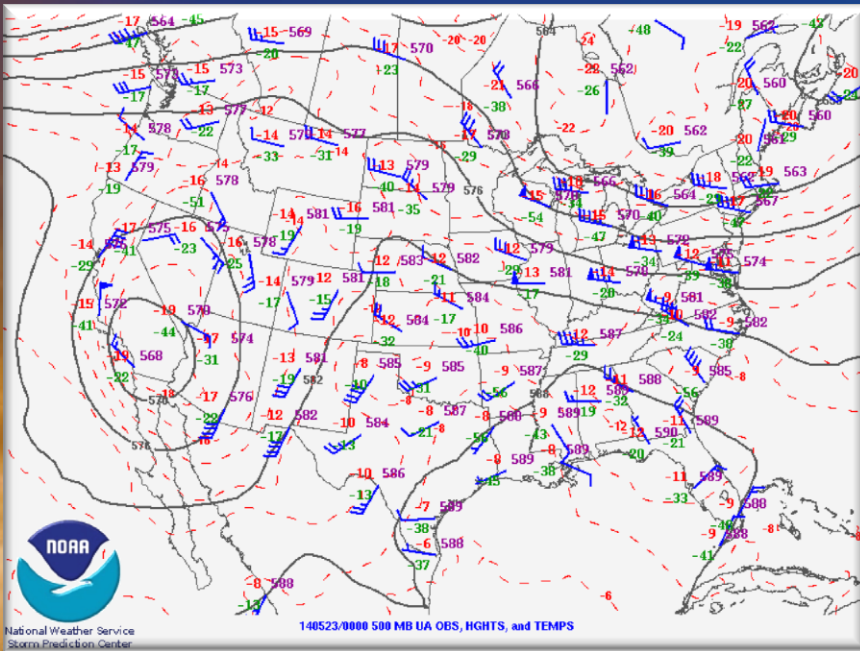
Website: [www.weather.gov/elpaso](http://www.weather.gov/elpaso)

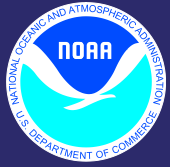


# Meteorological Challenges



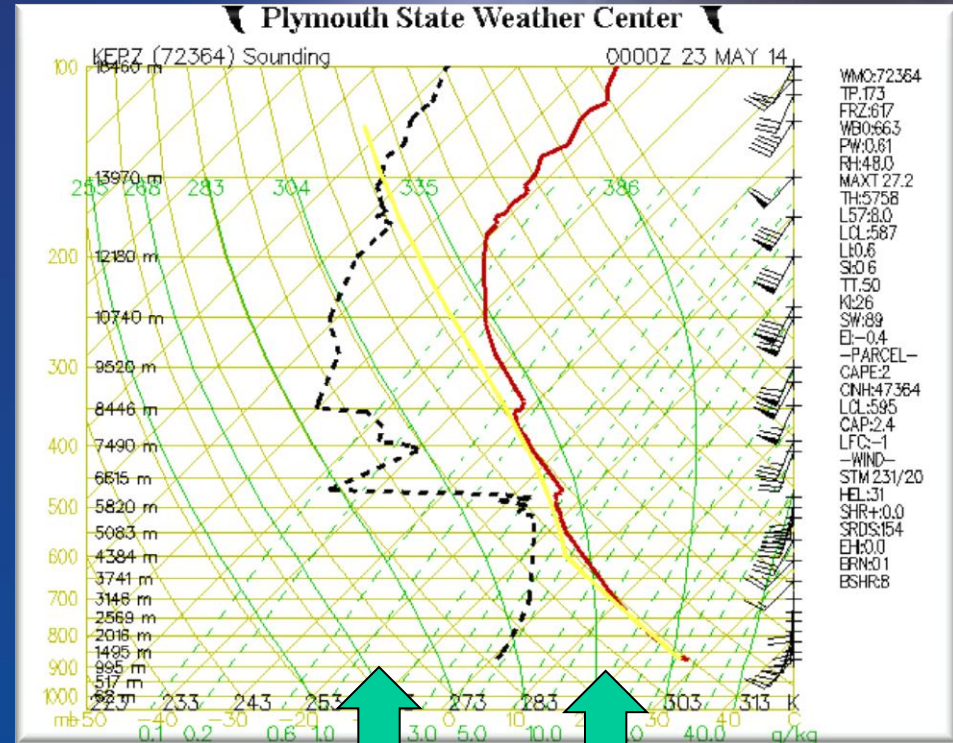
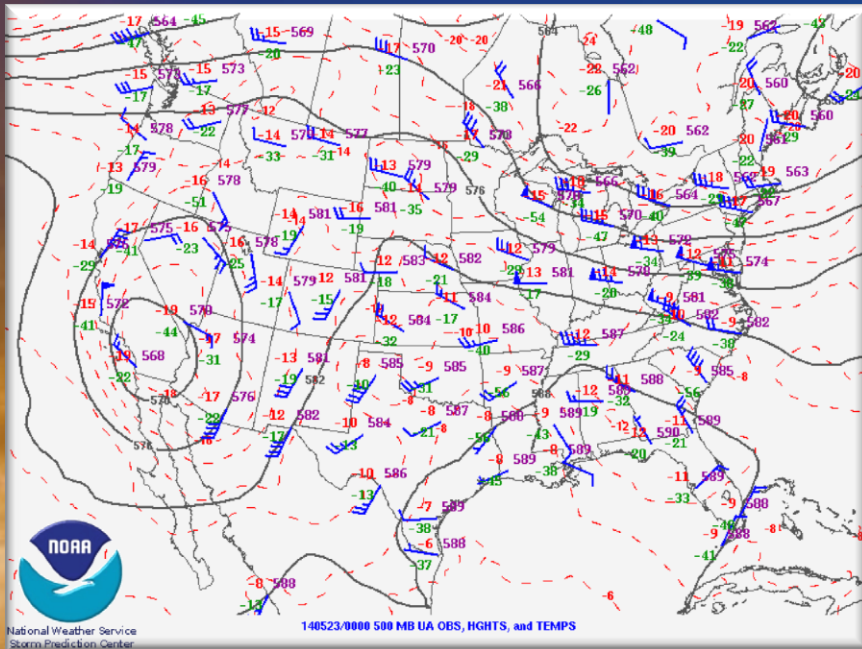
- Strong winds aloft
- Somewhat unstable





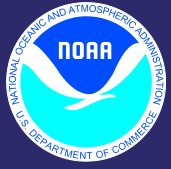
# Meteorological Challenges

- Strong winds aloft
- Somewhat unstable



- Shallow mid-level moisture
- Deep dry layer below
- Strong downdraft potential

Website: [www.weather.gov/elpaso](http://www.weather.gov/elpaso)

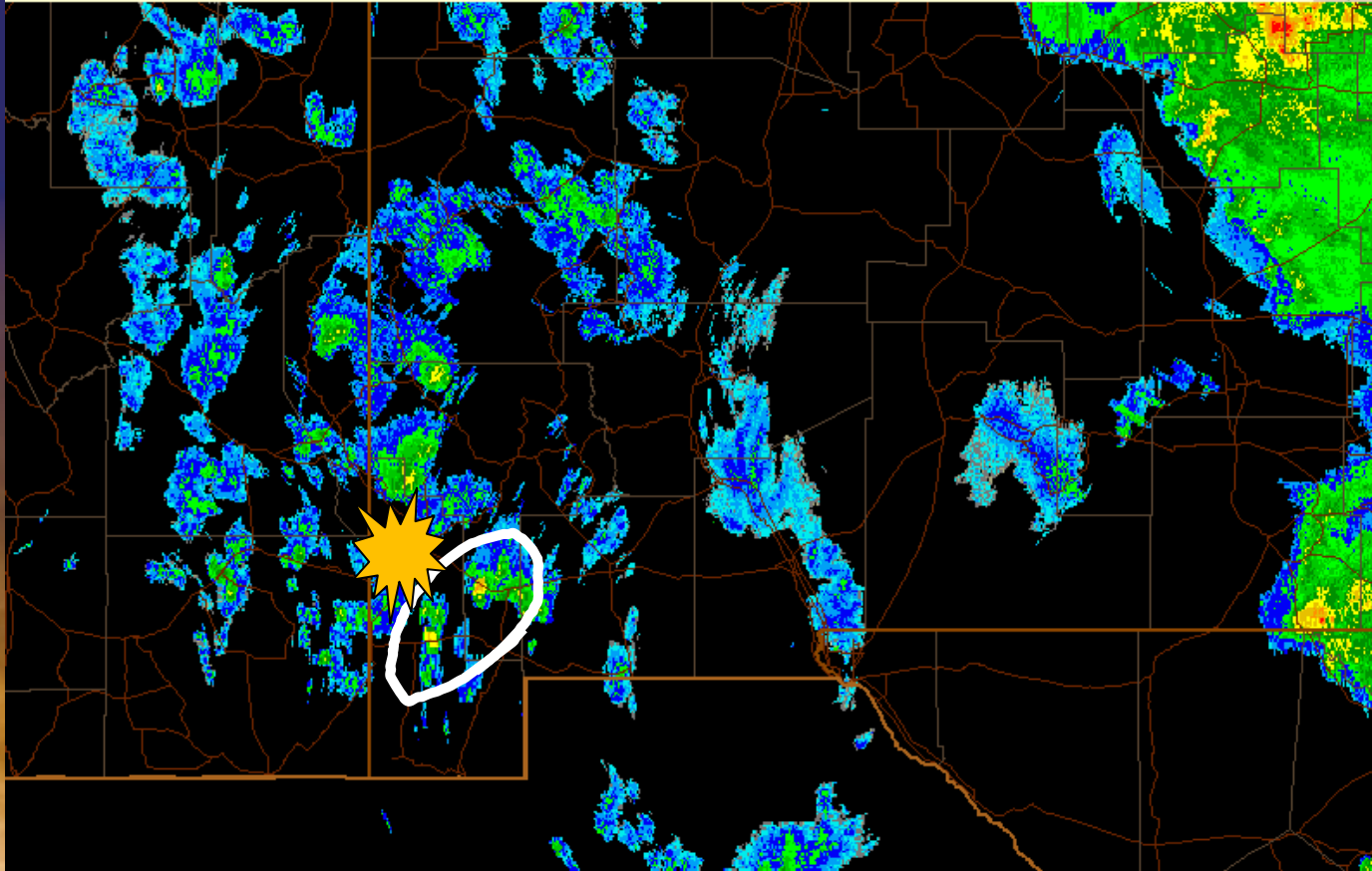


# Meteorological Challenges

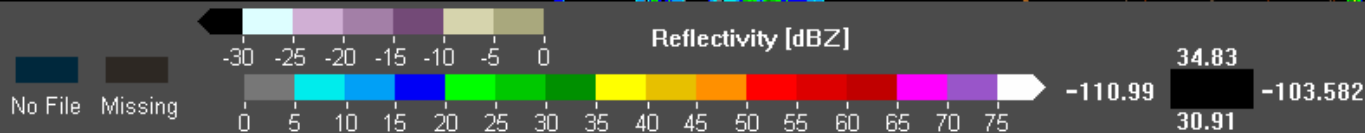


Composite Reflectivity  
Derived From Mosaic3D

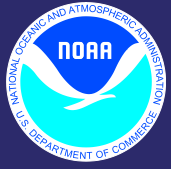
Valid: 05/22/2014 23:00:00 UTC



High based  
showers &  
isolated  
thunder on  
radar



Website: [www.weather.gov/elpaso](http://www.weather.gov/elpaso)

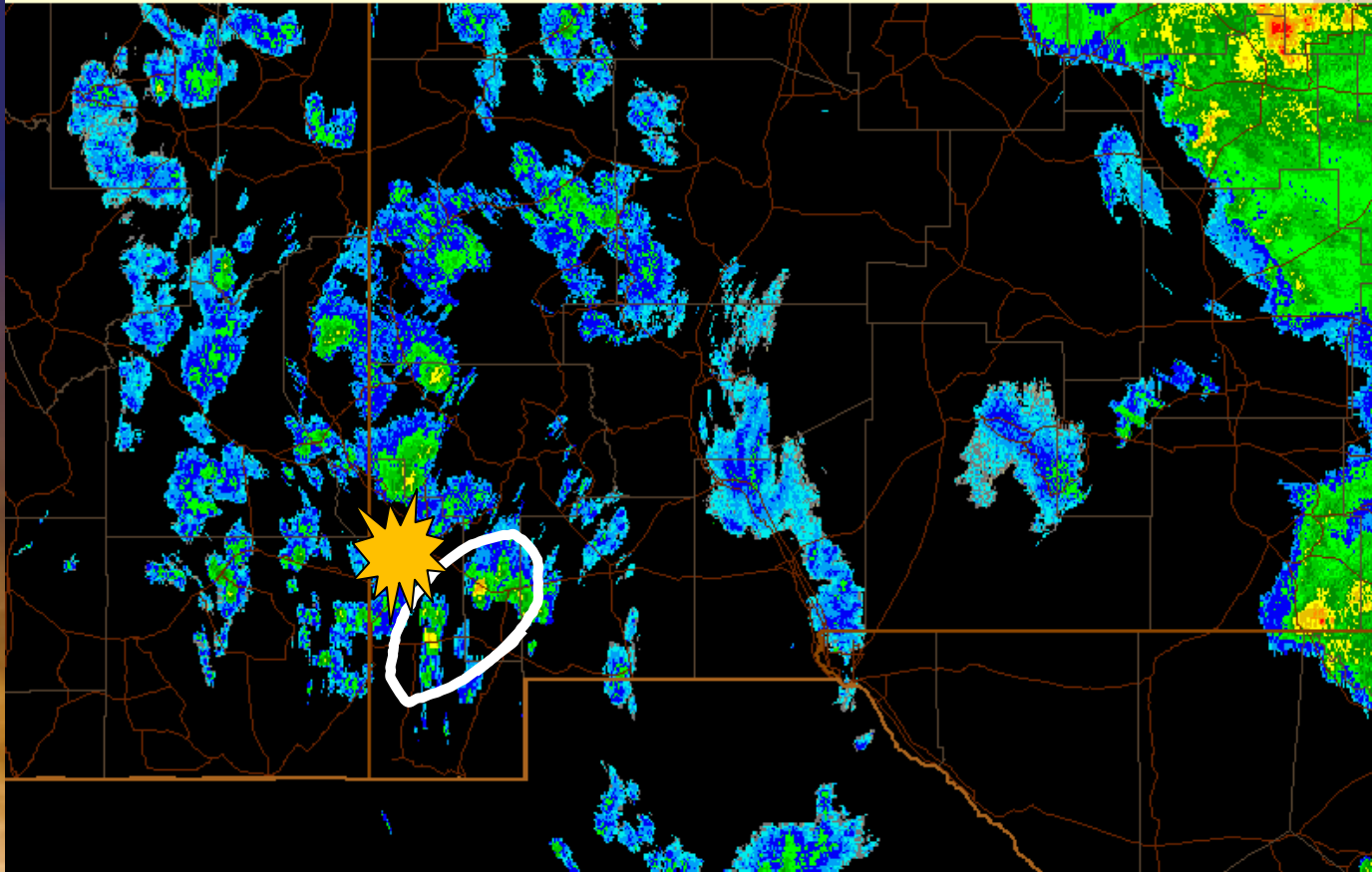


# Meteorological Challenges



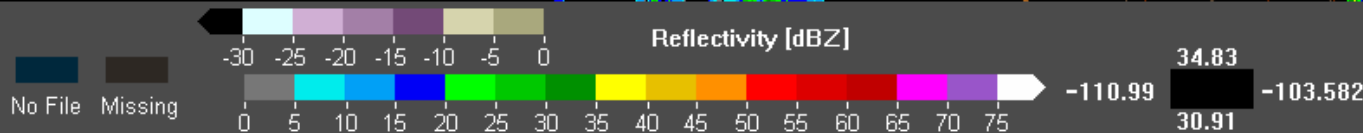
**Composite Reflectivity**  
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Valid: 05/22/2014 23:00:00 UTC

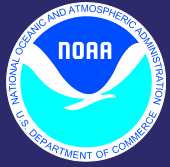


**High based  
showers &  
isolated  
thunder on  
radar**

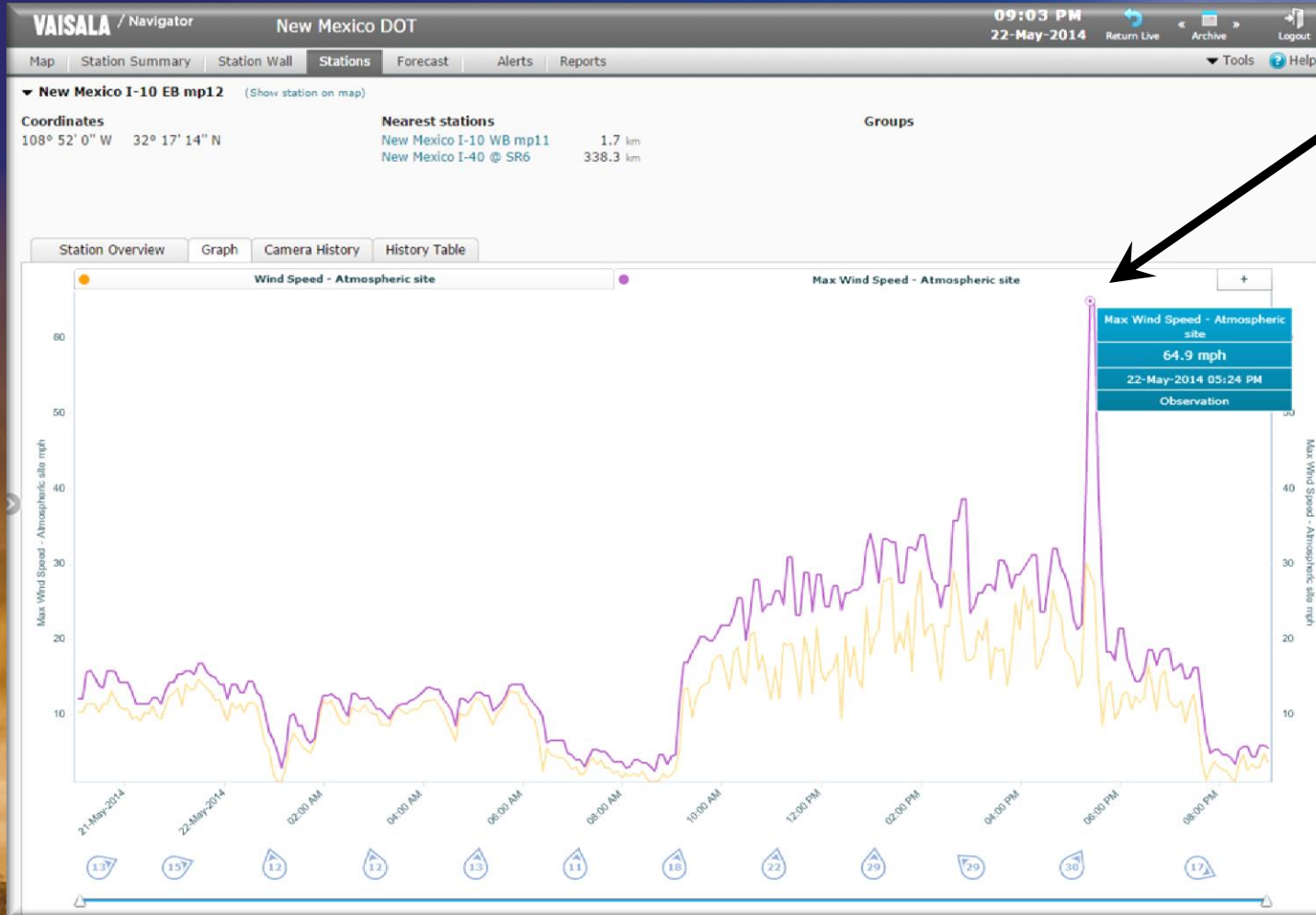
**60+ MPH  
Gusts  
resulting in  
visibility  
near zero**



Website: [www.weather.gov/elpaso](http://www.weather.gov/elpaso)

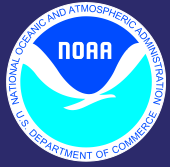


# Meteorological Challenges

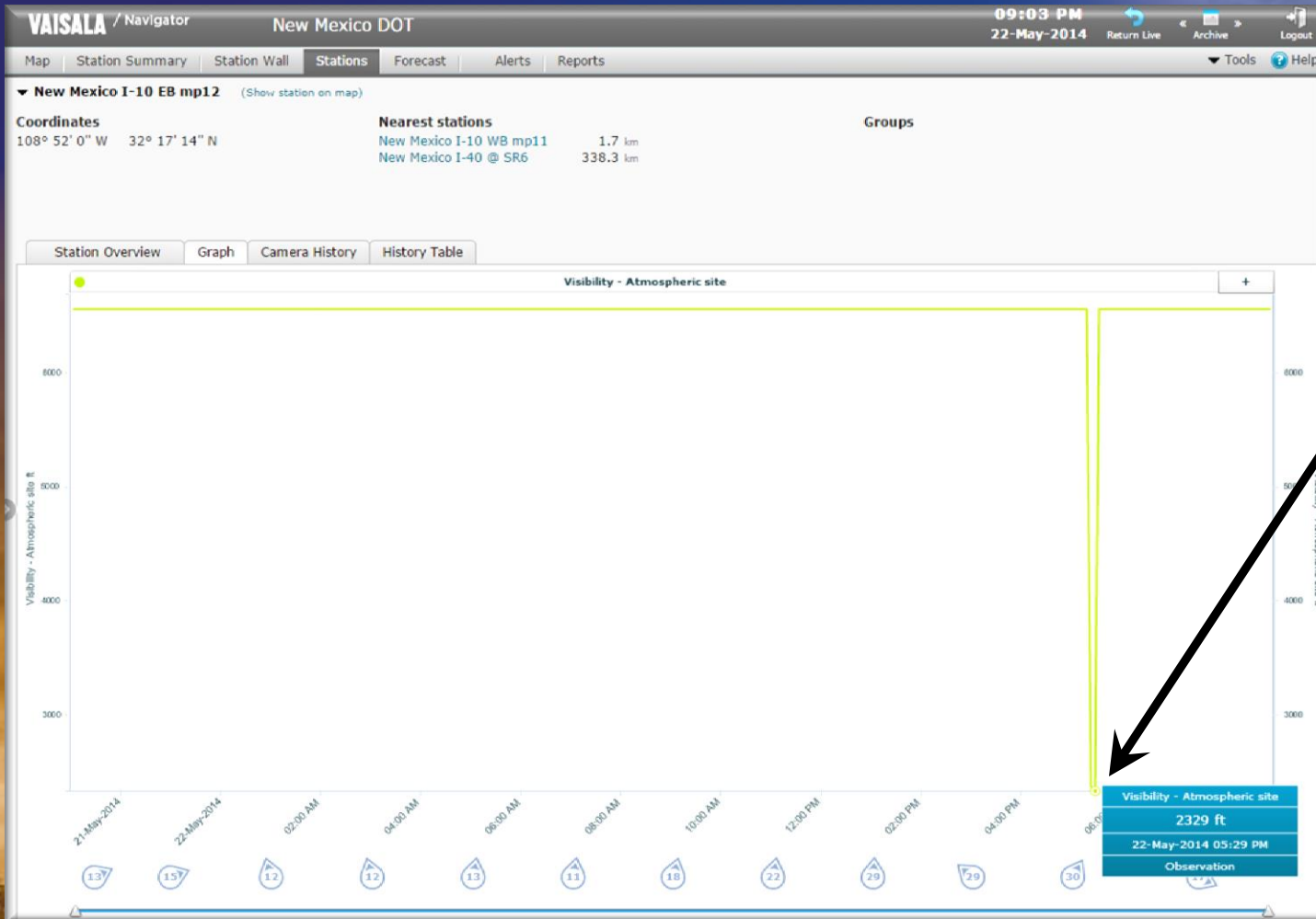


Peak Wind  
65 MPH at  
I-10 MP 12  
(5:24 PM)

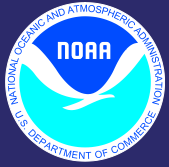




# Meteorological Challenges



**Visibility**  
**2329 feet**  
**(0.45 mile)**  
**I-10 MP 12**  
**(5:29 PM)**



# Consistent Message Challenges



**The following slides are messages promoted by New Mexico WFOs during previous Monsoon Awareness Weeks, repeated in spotter presentations, safety talks and in a Doña Ana County OEM safety brochure:**



**Website: [www.weather.gov/elpaso](http://www.weather.gov/elpaso)**



# *What to do*

- Remain indoors and close windows.
- If caught outside, cover your face and seek the nearest available shelter.
- If driving, pull *off* the road, **STOP** and put your car in park. Turn off your lights and set the emergency brake.
- If you can't pull off, *slow down* and use the painted center line to help guide you. Turn on your headlights and sound the horn occasionally. Pull off when possible.

Stay tuned to **NOAA Weather Radio** or your favorite media outlet for the latest updates.



# *What to do*

- Remain indoors and close windows.
- If caught outside, cover your face and seek the nearest available shelter.
- If driving, pull *off* the road, **STOP** and put your car in park.  
Turn off your lights and set the emergency brake.
- If you can't pull off, *slow down* and use the painted center line to help guide you. Turn on your headlights and sound the horn occasionally. Pull off when possible.

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# *What to do*

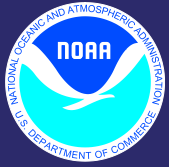
- Remain indoors and close windows.
- If caught outside, cover your face and seek the nearest available shelter.
- If driving, pull *off* the road, **STOP** and put your car in park. Turn off your lights and set the emergency brake.
- If you can't pull off, *slow down* and use the painted center line to help guide you. Turn on your headlights and sound the horn occasionally. Pull off when possible.

Stay tuned to **NOAA Weather Radio** or your favorite media outlet for the latest updates.



# *What **NOT** to do*

- **Don't enter the dust storm area if you can avoid it.**
- **Never stop on the traveled portion of the roadway.**
- **Don't leave your lights on when you're pulled over. Motorists looking to get off the roadway can use this as a guide right into your vehicle!**



# Consistent Message Challenges

## ADOT & AZ WFOs:

# PULL ASIDE · STAY ALIVE



Will you know what to do?

**Avoid driving into or through** a dust storm.

If you encounter a dust storm, **immediately check traffic around your vehicle** (front, back and to the side) and **begin slowing down**.

Do not wait until poor visibility makes it difficult to safely pull off the roadway -- do it as soon as possible. **Completely exit the highway if you can**.

**Do not stop in a travel lane or in the emergency lane.** Look for a safe place to pull completely off the paved portion of the roadway.

**Turn off all vehicle lights**, including your emergency flashers.

Set your emergency brake and **take your foot off the brake**.

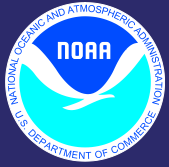
**Stay in the vehicle with your seatbelts buckled** and wait for the storm to pass.

Drivers of high profile vehicles should **be especially aware of changing weather conditions and travel at reduced speeds**.

- [Printable PDF file](#)
- [Español archivo para imprimir](#)



Arizona Department of Public Safety



# Consistent Message Challenges



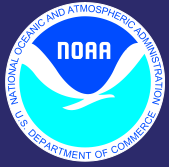
**L.A. Times article quoting NMSP PIO:**



*Brown said police recommend that drivers caught in a dust storm slow down and turn on their hazard lights. Dust storms should only last a couple of minutes, he said.*

Website: [www.weather.gov/elpaso](http://www.weather.gov/elpaso)





# Consistent Message Challenges

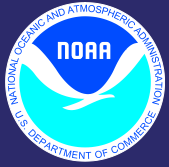


**L.A. Times article quoting NMSP PIO:**



*"Don't stop in your lane or the shoulder because it's extremely dangerous, since tractor-trailers have an inability to quickly stop," Brown said.*

Website: [www.weather.gov/elpaso](http://www.weather.gov/elpaso)



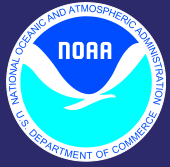
# Consistent Message Challenges

**Technically, he's correct,  
but the most important action was left out.**



*THE MESSAGE TO  
THE PUBLIC IS  
DON'T FIND A SAFE  
PLACE TO STOP,  
JUST KEEP GOING.  
AS IS OFTEN THE  
CASE, HE MAY  
HAVE BEEN  
MISQUOTED.*

Website: [www.weather.gov/elpaso](http://www.weather.gov/elpaso)



# An "IWT" Could Help!



## Agencies

**TXDOT**

**EM**

**ISDs**

**Integrated  
Warning  
Team**

**NWS**

**FD**

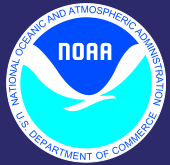
**PD/SO**

**HAMs**

**Media**



Website: [www.weather.gov/elpaso](http://www.weather.gov/elpaso)



# Increases Public Trust

## Agencies

**TXDOT**

**EM**

**ISDs**

*Consistent &  
Uniform  
Message*

**NWS**

**FD**

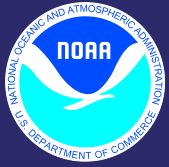
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# Consistent Message Challenges

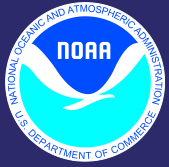


**How about the NWS products for  
convective dust storms?**



*Dust Storm  
Warning?*

Website: [www.weather.gov/elpaso](http://www.weather.gov/elpaso)



# Consistent Message Challenges



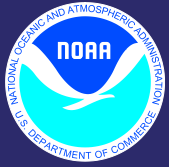
**How about the NWS products for  
convective dust storms?**



*Dust Storm  
Warning?*

**Area too large,  
valid time too long,  
more cumbersome  
to create**

Website: [www.weather.gov/elpaso](http://www.weather.gov/elpaso)



# Consistent Message Challenges

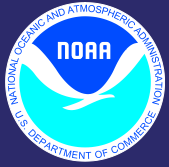


**How about the NWS products for  
convective dust storms?**



*Special Weather  
Statement?*

Website: [www.weather.gov/elpaso](http://www.weather.gov/elpaso)



# Consistent Message Challenges



How about the NWS products for convective dust storms?

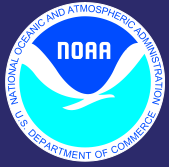


*Special Weather Statement?*

**Better, but lacks the urgency of a warning**

Website: [www.weather.gov/elpaso](http://www.weather.gov/elpaso)





# Consistent Message Challenges



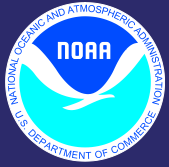
## CONVECTIVE DUST STORM WARNING?????

Polygon based (right size & shape)

Quick to create

Urgency of warning (reaches many)

Website: [www.weather.gov/elpaso](http://www.weather.gov/elpaso)



# Consistent Message Challenges



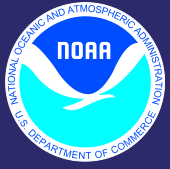
## CONVECTIVE DUST STORM WARNING????

Polygon based (right size & shape)

Quick to create

Urgency of warning (reaches many)

PAST ATTEMPTS FOR  
SUCH A PRODUCT  
HAVE BEEN  
UNSUCCESSFUL, BUT  
WE'RE STILL  
WORKING ON IT.



# Any questions?



**John Fausett, WCM**  
**john.fausett@noaa.gov**

**Website: [www.weather.gov/elpaso](http://www.weather.gov/elpaso)**