

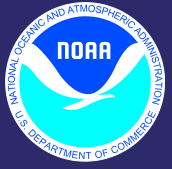
May 22, 2014 Dust Storm Tragedy

I-10 just east of AZ-NM border



*John Fausett
WCM at NWS El Paso*

Website: www.weather.gov/elpaso

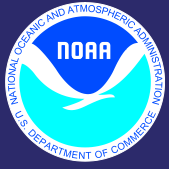


May 22, 2014 Dust Storm Tragedy

I-10 just east of AZ-NM border



SEVEN FATALITIES



May 22, 2014 Dust Storm Tragedy

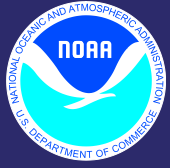
I-10 just east of AZ-NM border



CHALLENGES REVEALED...

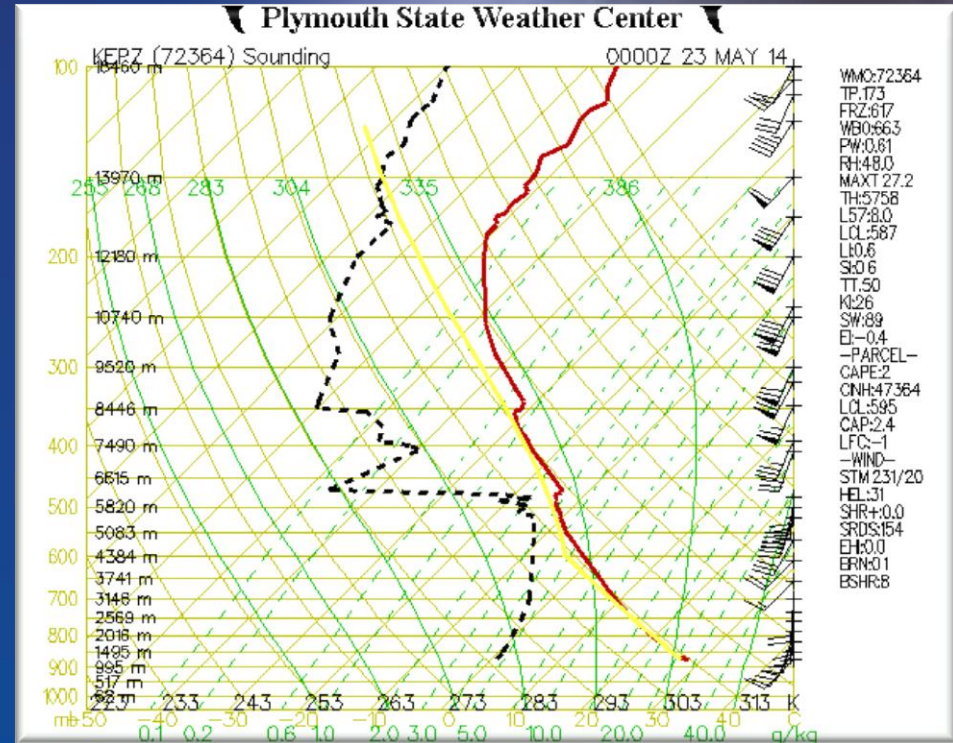
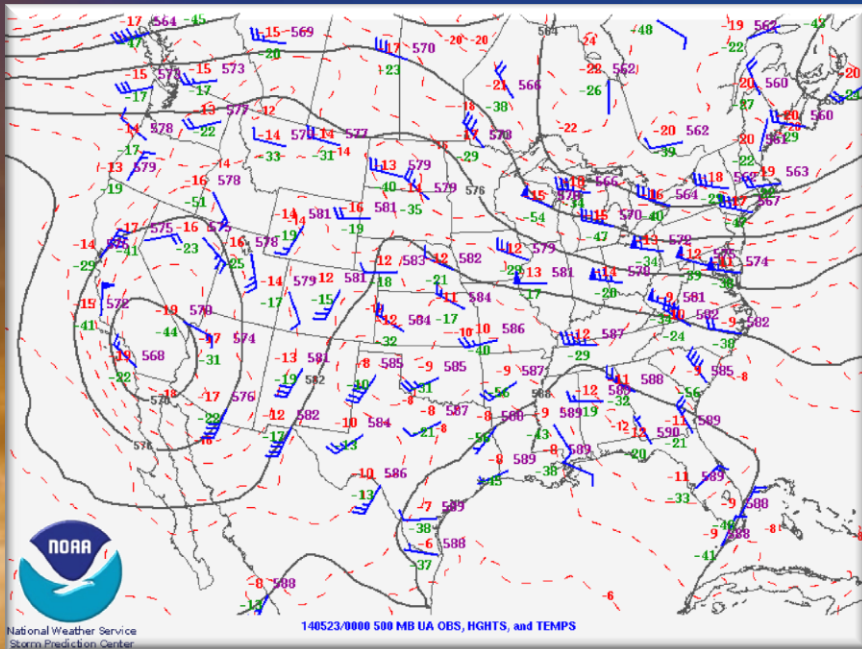
- **METEOROLOGICAL**
- **CONSISTENT MESSAGE**
- **BETTER NWS PRODUCT FOR THIS???**

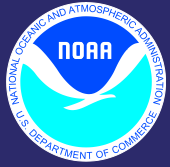
Website: www.weather.gov/elpaso



Meteorological Challenges

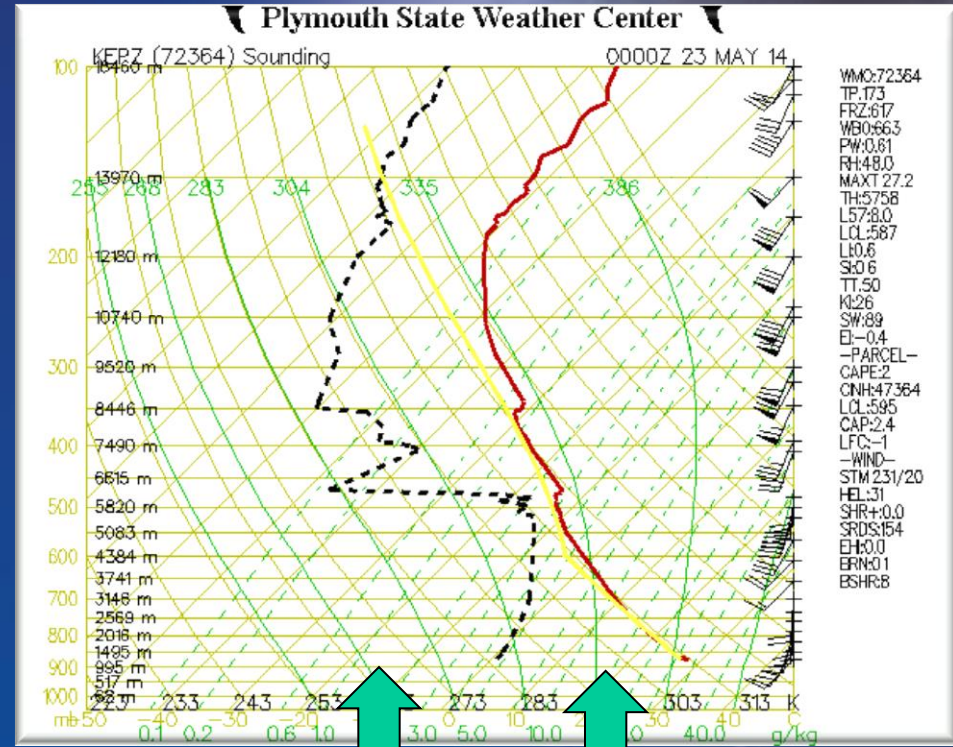
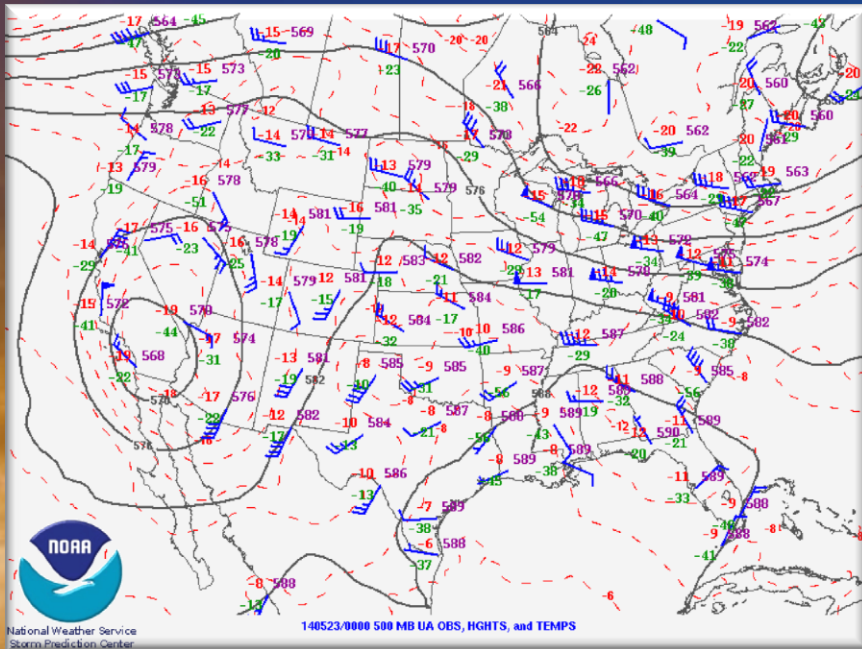
- Strong winds aloft
- Somewhat unstable





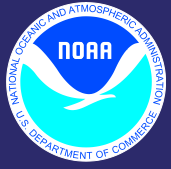
Meteorological Challenges

- Strong winds aloft
- Somewhat unstable



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

Website: www.weather.gov/elpaso

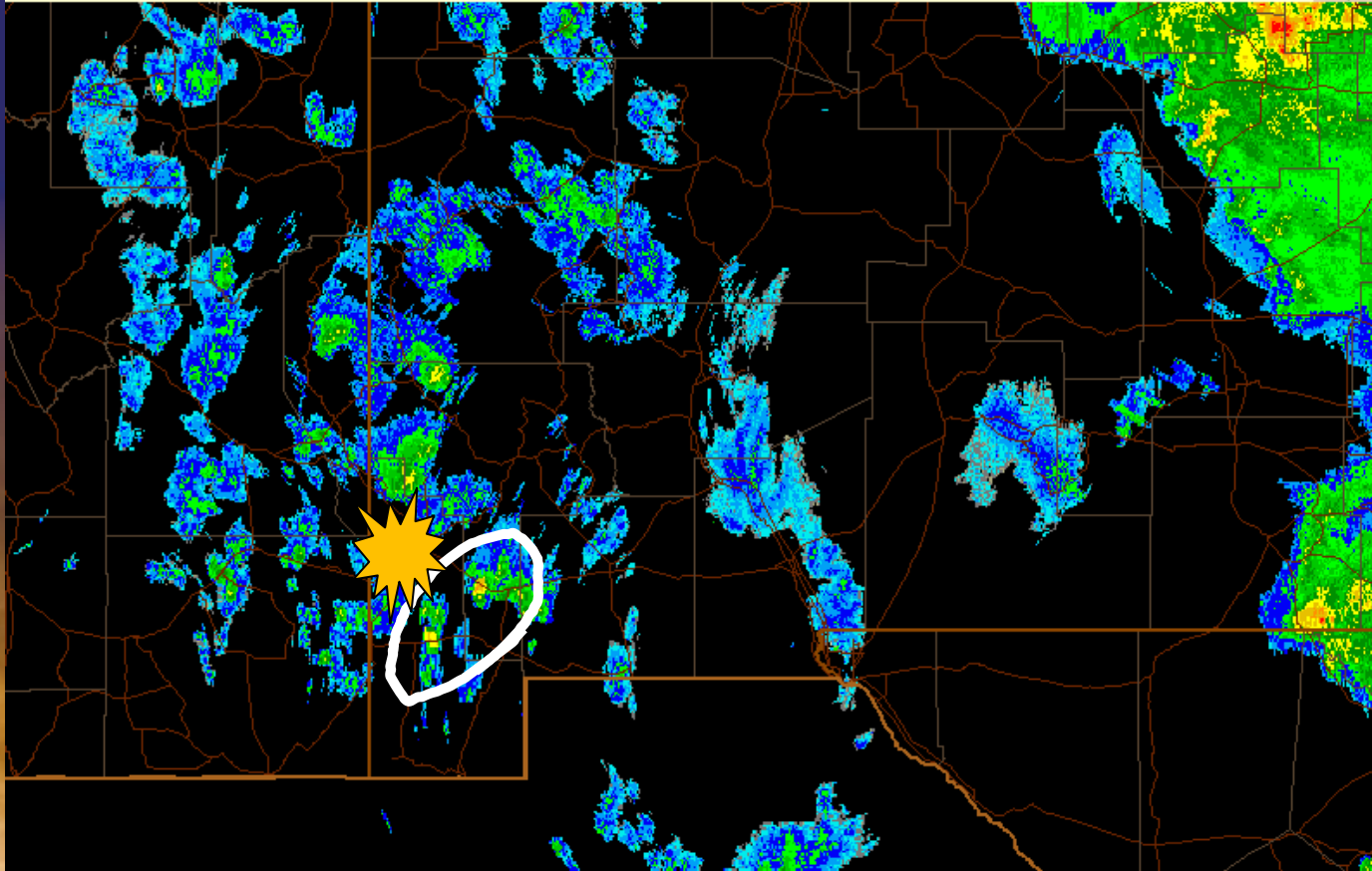


Meteorological Challenges

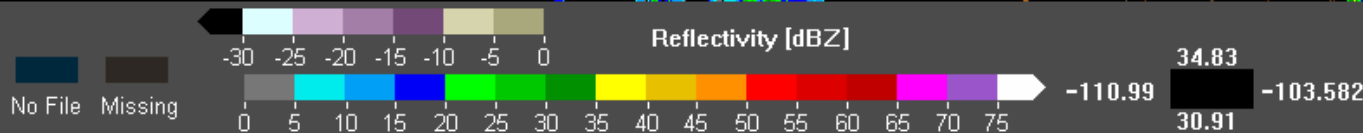


Composite Reflectivity
Derived From Mosaic3D

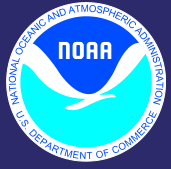
Valid: 05/22/2014 23:00:00 UTC



High based
showers &
isolated
thunder on
radar



Website: www.weather.gov/elpaso

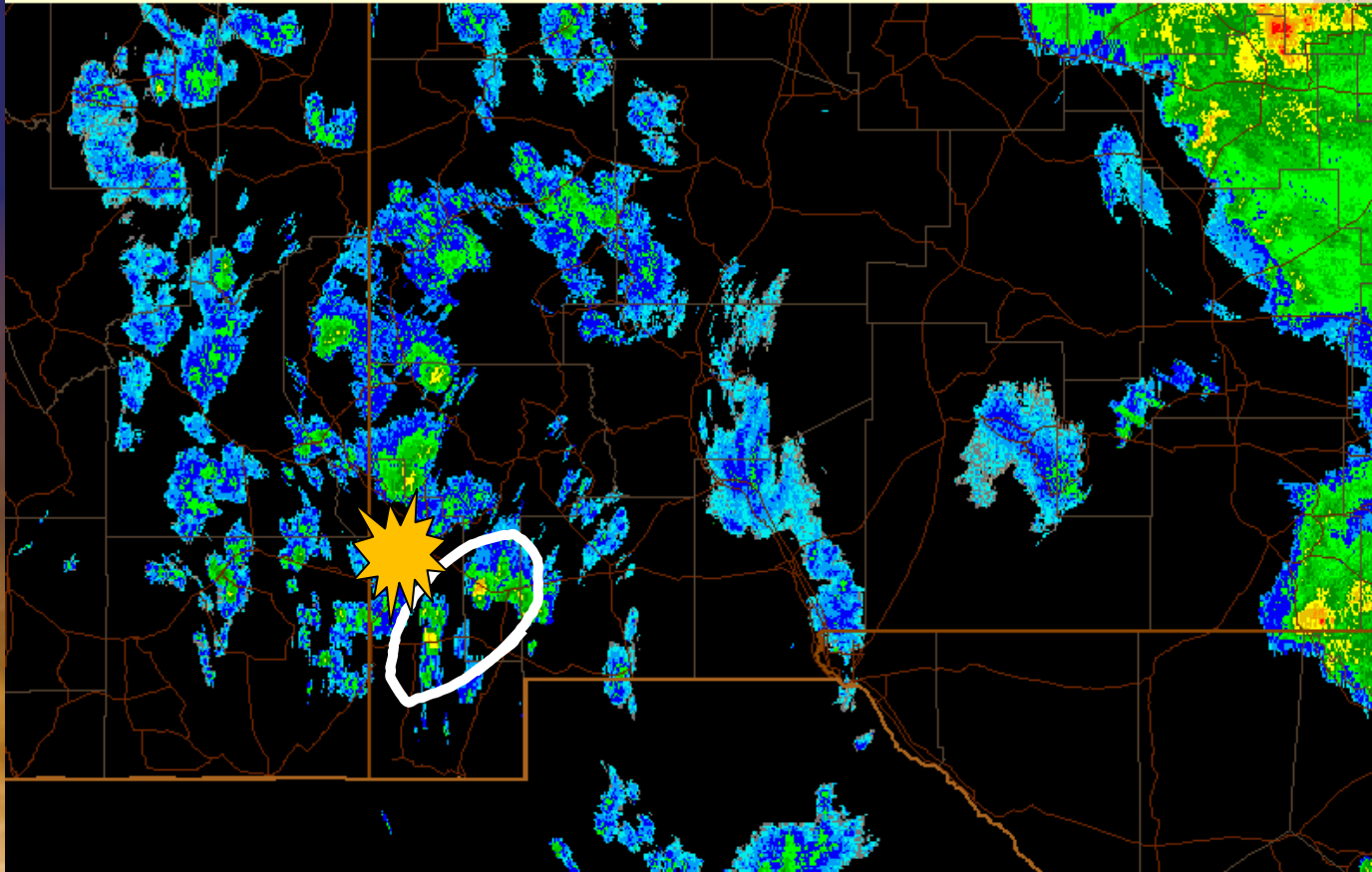


Meteorological Challenges



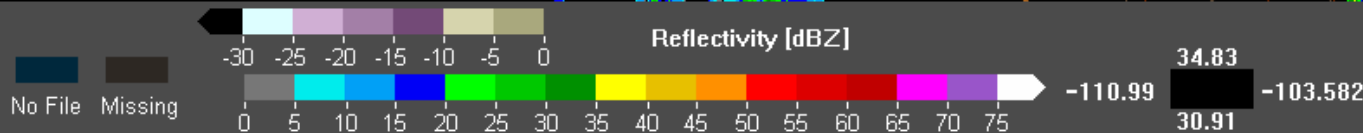
Composite Reflectivity
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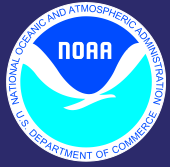


High based
showers &
isolated
thunder on
radar

60+ MPH
Gusts
resulting in
visibility
near zero



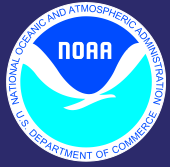
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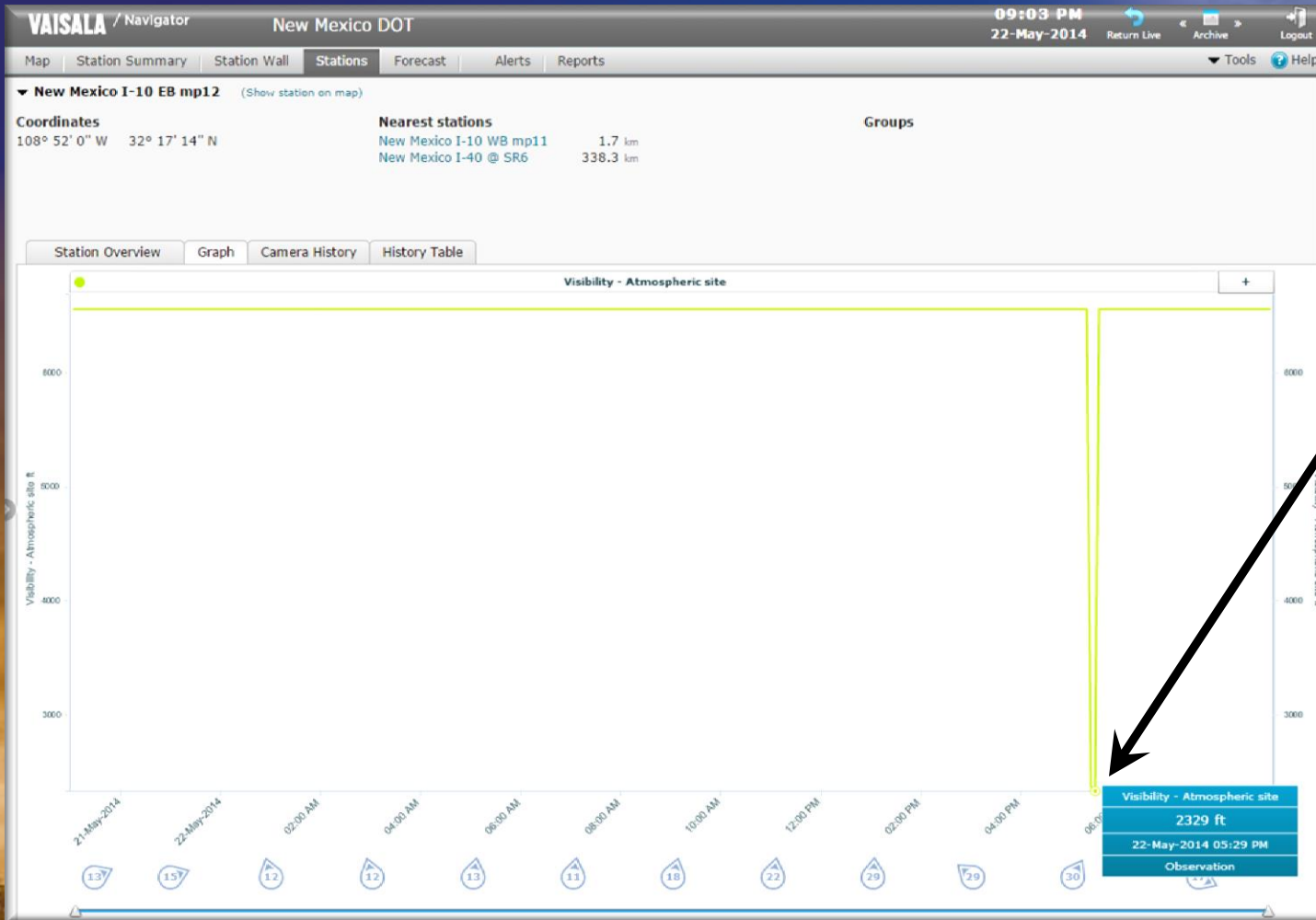
Meteorological Challenges



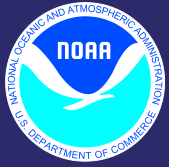
Peak Wind
65 MPH at
I-10 MP 12
(5:24 PM)



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



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.



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What to do

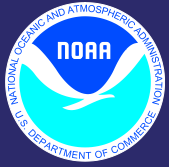
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- If you can't pull off, *slow down* and use the painted center line to help guide you. Turn on your headlights and sound the horn occasionally. Pull off when possible.

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.**

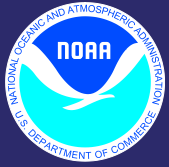
Stay in the vehicle with your seatbelts buckled and wait for the storm to pass.

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

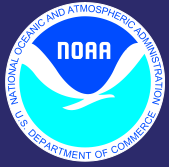


L.A. Times article quoting NMSP PIO:



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



Consistent Message Challenges

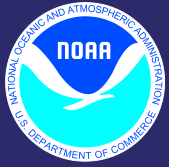


L.A. Times article quoting NMSP PIO:



"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



Consistent Message Challenges

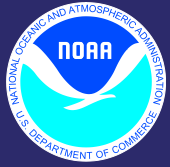


**Technically, he's correct,
but the most important action was left out.**



*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



An "IWT" Could Help!



Agencies

TXDOT

EM

ISDs

**Integrated
Warning
Team**

NWS

FD

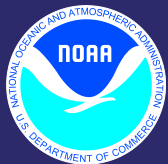
PD/SO

HAMs

Media



Website: www.weather.gov/elpaso



Increases Public Trust



Agencies

TXDOT

EM

ISDs

*Consistent &
Uniform
Message*

NWS

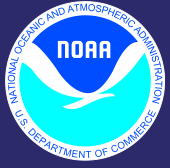
FD

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Media





Consistent Message Challenges

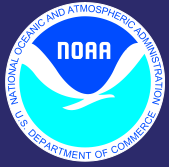


**How about the NWS products for
convective dust storms?**



*Dust Storm
Warning?*

Website: www.weather.gov/elpaso



Consistent Message Challenges



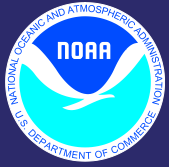
**How about the NWS products for
convective dust storms?**



*Dust Storm
Warning?*

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

Website: www.weather.gov/elpaso



Consistent Message Challenges

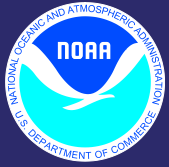


How about the NWS products for convective dust storms?



Special Weather Statement?

Website: www.weather.gov/elpaso



Consistent Message Challenges



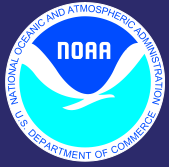
How about the NWS products for convective dust storms?



Special Weather Statement?

Better, but lacks the urgency of a warning

Website: www.weather.gov/elpaso



Consistent Message Challenges



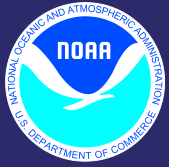
CONVECTIVE DUST STORM WARNING????

Polygon based (right size & shape)

Quick to create

Urgency of warning (reaches many)

Website: www.weather.gov/elpaso



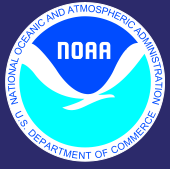
Consistent Message Challenges



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