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
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I-10 just east of AZ-NM border

Seven Fatalities

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May 22, 2014 Dust Storm Tragedy

I-10 just east of AZ-NM border

CHALLENGES REVEALED...

- METEOROLOGICAL
- CONSISTENT MESSAGE
- BETTER NWS PRODUCT FOR THIS???
Meteorological Challenges

- Strong winds aloft
- Somewhat unstable
Meteorological Challenges

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- Somewhat unstable
- Shallow mid-level moisture
- Deep dry layer below
- Strong downdraft potential
Meteorological Challenges

High based showers & isolated thunder on radar
Meteorological Challenges

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)

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Meteorological Challenges

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

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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:
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 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

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
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.
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.
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.

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An “IWT” Could Help!

Agencies

TXDOT

ISDs

Integrated Warning Team

FD

NWS

EM

PD/SO

HAMs

Media

Website: www.weather.gov/elpaso
Increases Public Trust

Consistent & Uniform Message

Agencies

TXDOT

EM

ISDs

NWS

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PD/SO

HAMs

Media

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Consistent Message Challenges

How about the NWS products for convective dust storms?

Dust Storm Warning?
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
Consistent Message Challenges

How about the NWS products for convective dust storms?

Special Weather Statement?

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A consistent message often poses challenges. How about the NWS products for convective dust storms? Better, but lacks the urgency of a warning.
Consistent Message Challenges

CONVECTIVE DUST STORM WARNING??

Polygon based (right size & shape)
Quick to create
Urgency of warning (reaches many)
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.

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Any questions?

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