

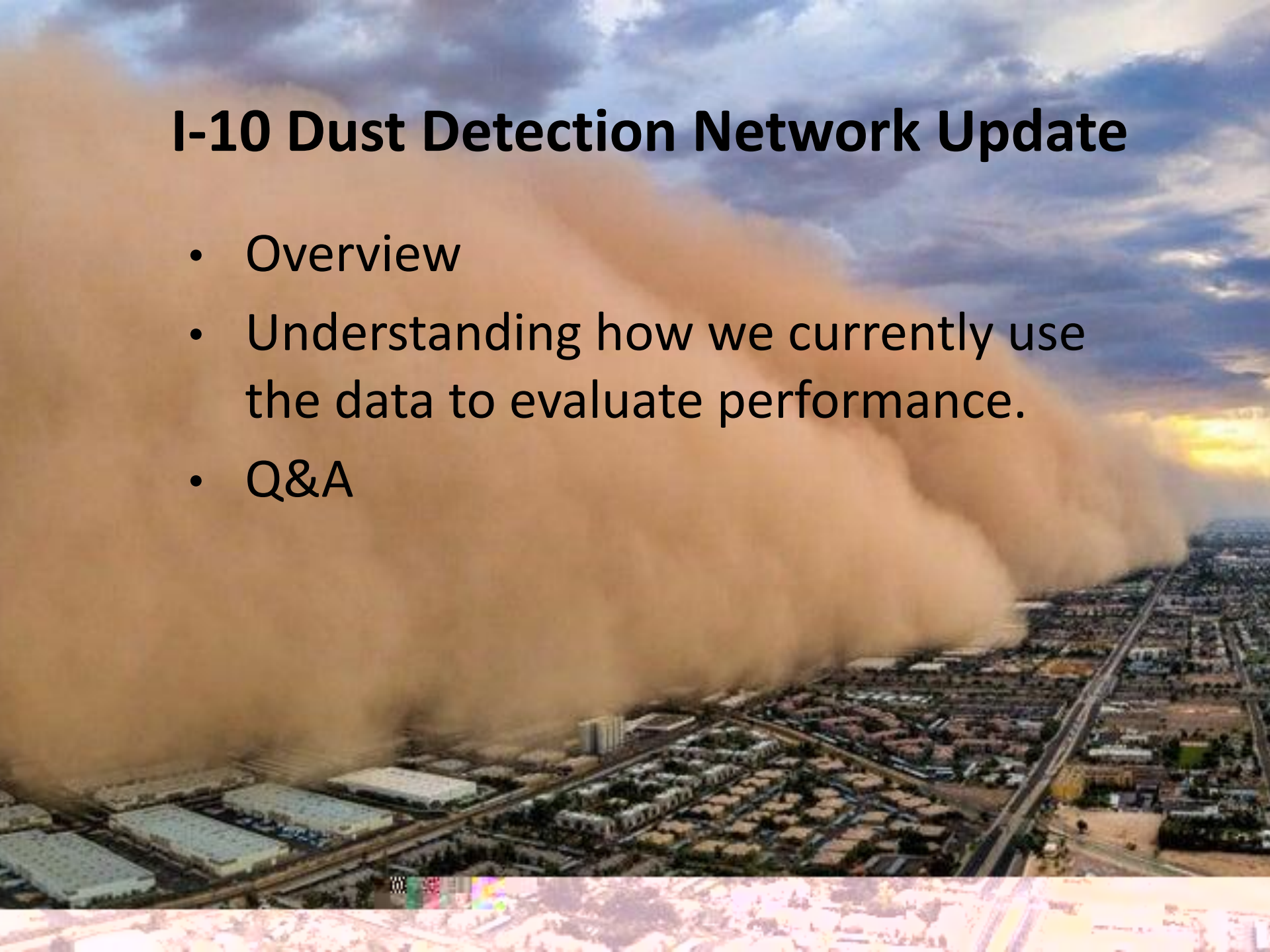
I-10 Dust Detection Network Update



Kevin Duby and Joseph Jones
Arizona Department of Transportation
March 24, 2021
kduby@azdot.gov and jjones2@azdot.gov

I-10 Dust Detection Network Update

- Overview
- Understanding how we currently use the data to evaluate performance.
- Q&A



What is a Dust Detection System?

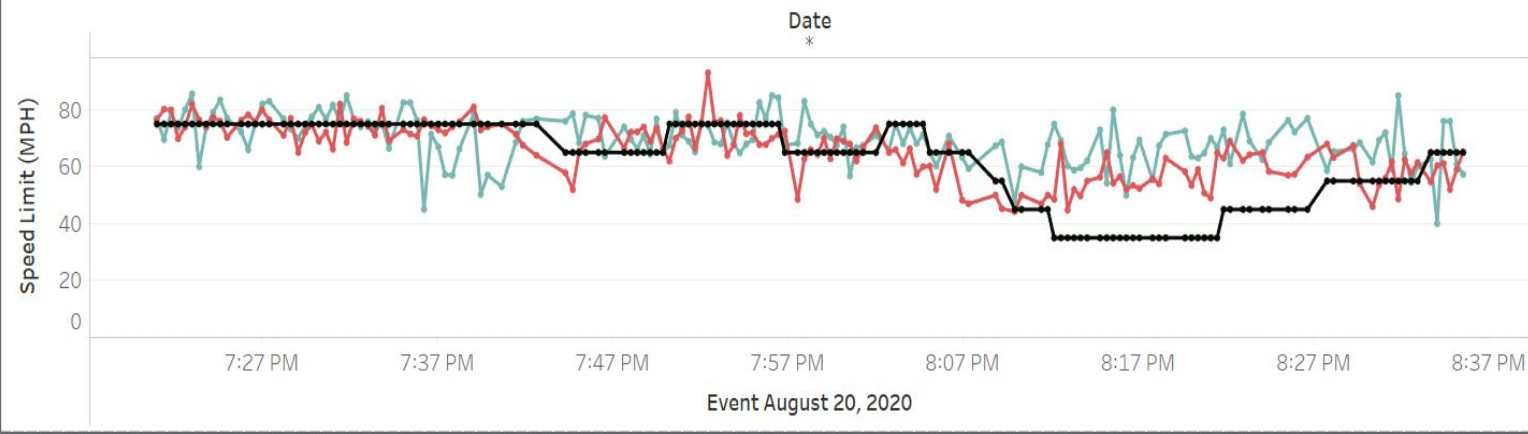
- Radar Detects Approaching Storm
- Sensors Measure Visibility
- Software Determines Appropriate Speed
- Software Sends Messages to Variable Speed Limit(VSL) signs and Dynamic Message Signs(DMS)
- Closed Circuit TV(CCTV) Verifies Conditions
- Pavement Sensors Measure Speed

I-10 Dust Detection Network Update

- System is less than a year old.
- Working as expected.
- Still trying to understand the dynamics of the system.

Dust Detection Evaluation Tools

Actual Speed vs VSL



DateTime AZ
 8/20/2020 8/20/2020
 DD

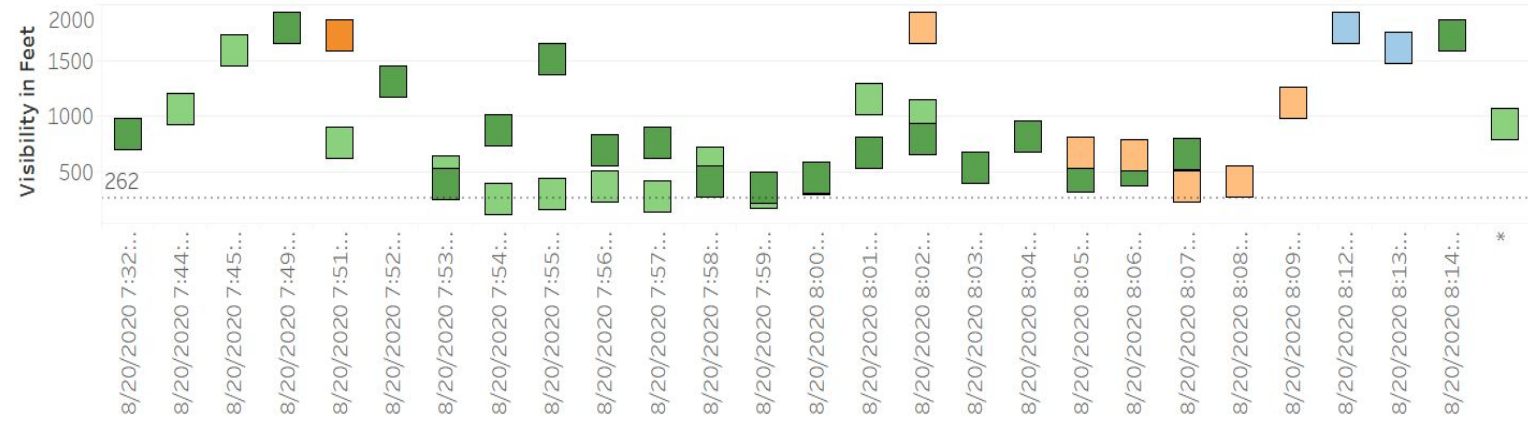
Dust Sensor

- VSL #2
- VSL #3
- VSL #4
- VSL #5
- VSL #6

Measure Names

- (All)
- Event VSL
- MP 210 EB
- MP 212 WB
- MP 214 EB
- MP 214 WB
- MP 218 EB
- MP 218 WB

Dust Sensor Visibility < 1,800 Feet



I-10 AZ Mileposts

- Event VSL
- MP 214 EB
- MP 218 EB

Dust Detection Tool

Next Steps:

- Plans to have operability metrics such as uptime.
- Have after action reviews.
- Improving data presentation.



I-10 Dust Detection Network Update

Questions?

