Workshop Executive Summary

March 5, 2013
Dust Workshop History

• First workshop was held on March 6, 2012
  – Half of workshop was to discuss all aspects of the dust problem.
  – Half of the workshop was to develop goals in the areas of (1) prevention, (2) detection and prediction and (3) education and response.

• Second workshop was to update information from last year, and revisit the recommendations and goals from the first workshop.

• Preliminary 2012 data shows:
  – No fatalities occurred on Arizona highways attributed to dust.
  – From 2011 to 2012 the I-10 corridor had 50% less incidents related to dust.
Prevention

- Progress:
  - Focus on specific problem areas:
    - ADOT dust committee analysis of dust related incident and recommendation for ITS implementation on I-10. (Farzana Yasmin – ADOT)
    - Analysis of 2000-2011 dust related traffic incident (Ken Waters – NWS)

- Future goals:
  - Continue on with long-term goals from 2012 and make more specific:
    - Identify and focus on specific problem areas; analyses related to highway infrastructure.
    - Implement road regulation changes
    - Recommend best management practices for land users and owners; related to PM10 attainment issues
  - Educating growers, construction crews and developers on containment issues.
Detection and Prediction Progress

• Recruit spotters in strategic areas:
  – The NWS Tucson and Phoenix offices have increased spotters by 20% in dust prone areas. (Ken Waters and Ken Drozd – NWS)

• Compile a partners list:
  – List has been developed. Many in this community are present today.

• Development of high-resolution weather models:
  – Continuing the development of high-resolution weather models for dust events. (Mike Leuthold and Ave Arellano – UofA)

• Establish an Arizona mesonet:
  – NWS Phoenix working to create a Dust Detection network for the problem areas. (Ken Waters – NWS)
Detection and Prediction

• Future goals:
  – Continue to expand the dust detection network with more spotters and inexpensive sensors before the 2013 monsoon.
  – Continue to enhance weather forecasting models incorporating new data:
    • Take into account vegetation and soil moisture changes from satellite data.
    • Use LIDARS to supplement traditional weather radar.
    • Use climatological data.
  – Increase the use of social media to relay dust reports (e.g. Twitter) and improve the public’s situational awareness.
Education and Response Progress

- “Pull Aside, Stay Alive” Dust Storm Awareness Campaign Report Summary (Tim Tait – ADOT)
  - Created a dust storm PSA
    - Number of TV clips collected: 90
    - Number of clips estimated to have been published around the country: more than 500
  - Publicity Value
    - Total Publicity Value: $389,710
  - Notable Coverage
    - TV Segments: CNN and The Weather Channel

- More aggressive use of overhead sign boards between Phoenix and Tucson.
- Expanded use of 511 system to get information out about dust events.
- Haboob haiku contest to raise public awareness about dust storms.
Education and Response Goals

• Future goals:
  – Reinvigorate “Pull aside, stay alive” campaign again in 2013 along with another haiku contest.
    • Expand this campaign into social media through local PIOs.
  – Get more information into venues such as rest areas, gas stations and restaurants along highways.
  – Revise messaging to advise people about not driving into dust storms; advise them on what to do.
  – Communicate the differences between types of dust events – long-term, sustained events versus sudden monsoon storms.
  – Develop a Dust Threat Index based on work by NWS.
  – Increase dynamic messaging signs linked to enhanced monitoring capabilities.