

# **Dust Alliance for North America (DANA) Steering Committee 1<sup>st</sup> Meeting**



**30 September 2022**

# Welcome & Introduction of DANA

## Daniel Tong



# 1<sup>st</sup> Meeting of the Inaugural DANA Steering Committee

September 30, 2022, 12-2 pm (ET), by invitation only

Meeting moderator: Daniel Tong

<b>Time</b>	<b>Items</b>	<b>Presenter</b>
12:00 pm (ET)	Welcome & Introduction of DANA	Daniel
12:05 pm (ET)	DANA Vision/Purpose, governance/Structure	Bill Sprigg
	Introduction of Organizing Committee	Bill Sprigg
	Introduction of Steering Committee	Bill Sprigg
12:25 pm (ET)	DANA Origin, Past and Current Activity	Jimmy Li
12:30 pm (ET)	Communications/Coordination Hub	Ling Ren
12:35 pm (ET)	Web Page	Jenny Hand
12:40 pm (ET)	Webinar Series	Karin Ardon-Dryer
12:45 pm (ET)	Outreach Publications, Workshops, Press/News Media, Public/Professional Meetings/Briefings	Tom Gill
12:50 pm (ET)	Break	
1:00 pm (ET)	Introduction to Steering Committee Concept, Precepts and Operating Principles	Bill Sprigg
1:05 pm (ET)	Steering Committee Discussion/Q&A (DANA Tenets, governance, membership/subdiscipline structure)	Moderator: Bill Sprigg
1:45 pm (ET)	Homework, Action Items, Next (2) Meeting Tentative Agendas	Bill Sprigg
1:50 pm (ET)	Calls for Conference Session Organizers/Volunteers (e.g. American Association for Advancement of Science? American Thoracic Society? Electric Utility Environment Conference?)	Scott Van Pelt
2:00 pm ET	Adjourn	Daniel Tong

# DANA

A partnership formed of environmental, health, safety, and air quality scientists, practitioners, and policy makers to accelerate transitions from science and technology into services.











# DANA MISSION

Inspire, support, and promote local to global science and service collaboration to uncover and adapt knowledge of airborne dust to mitigate health, safety, and quality of life risks across North America

*An informal partnership of scientists and practitioners with a purpose to accelerate transition of research into service*

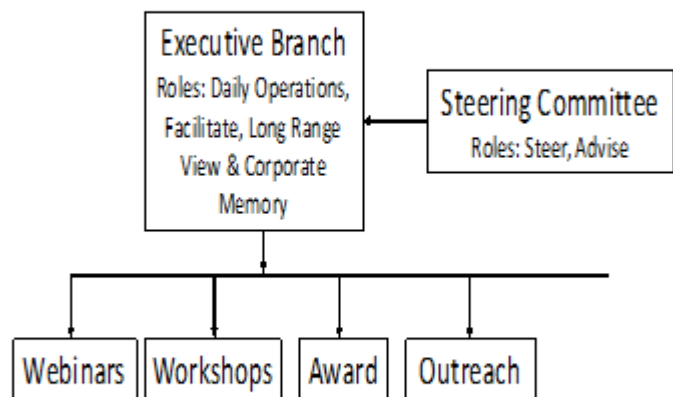
# DANA Organizing Committee

- Karin Ardon-Dryer, TTU
- Tom Gill, UT-El Paso
- Jenny Hand, Colorado State
- Jimmy Li, The University of Tulsa, now HKU
- Ling Ren, GMU
- Bill Sprigg, U. Arizona
- Daniel Tong, GMU
- Scott Van Pelt, USDA-ARS

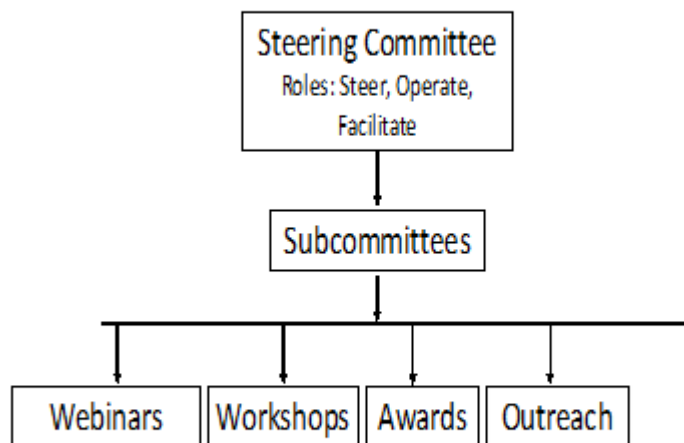
<p>Scott Van Pelt Soil Scientist, USDA-ARS</p>  <p><a href="#">Details</a></p>	<p>Ling Ren Research Assistant Professor, George Mason University</p>  <p><a href="#">Details</a></p>	<p>William A. Sprigg Professor Emeritus, University of Arizona</p>  <p><a href="#">Details</a></p>
<p>Jimmy Li Associate Professor, University of Tulsa</p>  <p><a href="#">Details</a></p>	<p>Daniel Tong Associate Professor, George Mason University</p>  <p><a href="#">Details</a></p>	<p>Jenny Hand Senior Research Scientist, Colorado State University</p>  <p><a href="#">Details</a></p>
<p>Tom Gill Professor, University of Texas, El Paso</p>  <p><a href="#">Details</a></p>	<p>Karin Ardon-Dryer Assistant Professor, Texas Tech University</p>  <p><a href="#">Details</a></p>	

## DANA Governance Structure is needed: e.g., two of (many)

### Model 1



### Model 2



DANA needs an active Steering Committee (SC) that works well together

- understands the aims of DANA, and will contribute ideas (and effort) that benefit
- an influential DANA in marking the path forward, attracting new members and opening doors to policymakers

# Steering Committee Roster

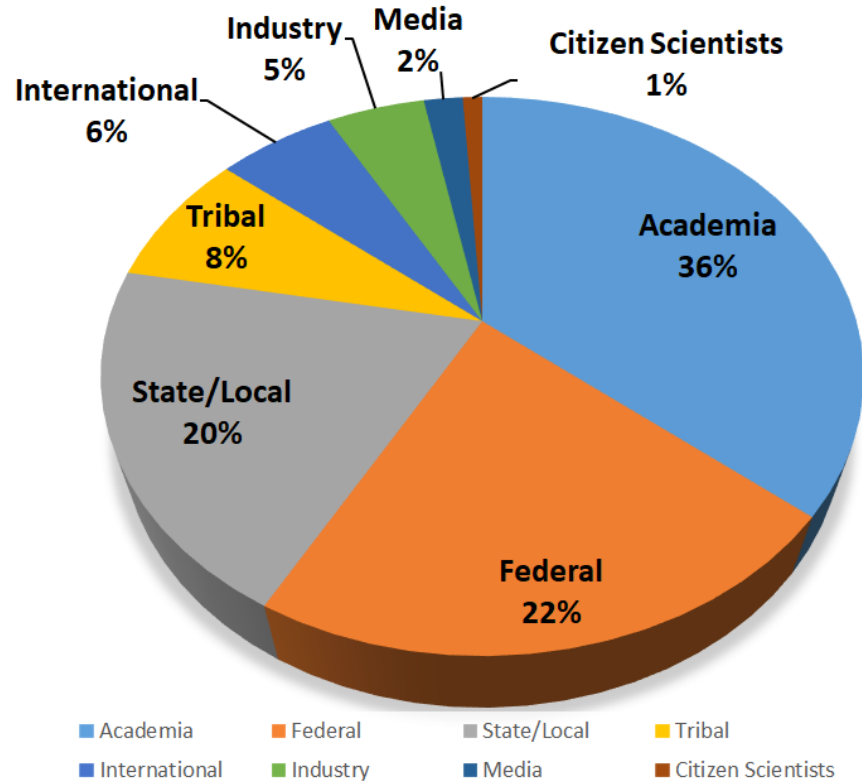
Name/Affiliation	Area of Expertise	Country
William Sprigg /SPC, UA Emeritus	Science policy	USA
Thomas Gill / UTEP	Dust consequences, communications, science	USA
Karin Ardon-Dryer /TTU	Dust ground-based measurements, Air quality, health (InVitro)	USA
Jenny Hand / CSU	Dust ground-based measurements, visibility, trends, dust, IMPROVE network, CSN network	USA
Ling Ren / GMU	Environmental Microbiology	USA
Jimmy Li /Hong Kong University	Dust transport, Dust source characteristics	USA
Scott Van Pelt /USDA		USA
Daniel Tong /GMU	Dust forecasting, project leader	USA
Jeff Lee /TTU		USA
Glenn Lader /NWS Tucson, AZ	Weather Services/Policy	USA
Mariana Singletary / Pima County Health Department, AZ	Health Services, epidemiology	USA
Greg Carling / (DustSquared), Brigham Young University	Interdisciplinary Science, Outreach & Education (DustSquared)	USA
Vernon Morris /ASU	Dust Source Monitoring/Control	USA
Bing Pu		USA
Miguel Dominguez /U. Autonoma de Ciudad Juarez, Mexico		Mexico
James King / U. Montreal, Canada ...		Canada
Luis Ladino / UNAM Mexico City, Mexico	cloud physics	Mexico
Kevin Perry / U. Utah		USA
Richard L. Reynolds / USGS Emeritus	Dust sources	USA
Hesham El Askary / CU, Orange, CA	Satellite-based airborne dust analyses	USA
Janice Brahney /Utah State		USA
Morgan Gorris / DOE	Valley fever, GeoHealth	USA
Ana Litvintseva / CDC	Team Lead, Fungal Research Unit, Mycotic Diseases Branch, CDC	USA
Dave DuBois / NMSU	Climate	USA
Alexander Baklanov / Geneva	Lead, WMO dust program (SDS-WAS)	Switzerland
Sara Basart, NAMEE / Barcelona	Chair, WMO N. Africa/Middle East/Europe dust center; Dust forecasting	Spain
Andrea Sealy / Pan-America Center for SDS-WAS, Barbados,	WMO dust program & Director, Pan-America Centre	Barbados
Nicholas Middleton / St. Anne's College, U of Oxford	Nature, use of deserts and their margins; UN FAO Consultant: science and policy	UK
Juan Castillo		USA
Orion McCotter	Valley fever, public health services	USA

# DANA Origin, Past & Current Activities

- Association between dust/dust storms and Valley fever, transport safety
- Publications
  - Sprigg et al. 2014 AR-Dust storm and Valley fever incidence
  - Hand et al. 2016 GRL-Earlier onset of dust storms and health implications
  - Tong et al. 2017 GRL-Magnitude and frequency of dust storm and Valley fever incidence
  - Li et al. 2018 STOTEN-Hot spots of blowing dust affecting highway safety
  - Van Pelt et al. 2020-G.E.Disater-Dust and highway safety Lordsburg playa-a true hot spot
  - Tong et al. 2022 RoG (*in review*) Dust and health effects
- Meeting/Symposium
  - AGU Geohealth 2019-2021
  - Southern NM & Western US Dust Symposium, 2021
- Grants
  - Li et al. 2014-2016 US DOT
  - Tong et al. 2017-2020 NASA HAQ
  - Tong et al. 2021 NASA HAQ (Unselected)
- Current activities
  - Website
  - Webinars
  - Special issues (Aeolian Research, GeoHealth)

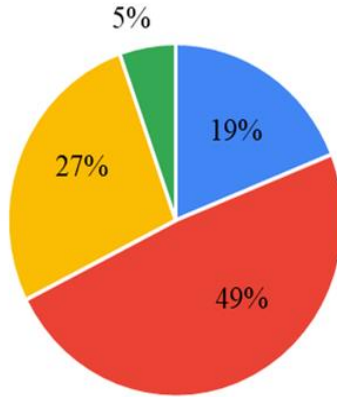
# Findings from 2021 Symposium Survey

189 Registered Participants



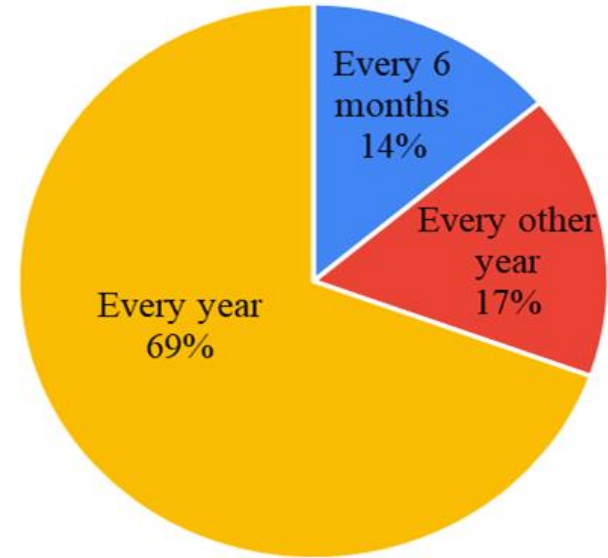
# Findings from 2021 Symposium Survey

Would you prefer a virtual, in-person meeting or a mixture for future years?



- In-person
- Mix (1 year virtual, the next year in-person etc.)
- Virtual
- Hybrid (virtual + in-person)

How often do you think such a Symposium should occur?



# Communications/Coordination Hub

DANA Organizing Committee

DANA Steering Committee



DANA Community  
(~280 members and growing)

Joined via Website

Webinar registrants

My role:

- Assist in communications and correspondences
- Facilitate meetings/webinars and scheduling
- Monitor [dustalliance.na@gmail.com](mailto:dustalliance.na@gmail.com)
- Maintain and update DANA membership list
- Anything else?



# DANA Website



[Home](#) [Webinars](#) [Upcoming Events](#) [News](#) [Resources](#) [DANA Executive Committee](#) [Partners](#) [Contact](#)

## Dust Alliance for North America (DANA)

DANA is a partnership of scientists and practitioners with the purpose to accelerate the transition of dust-related research into service.

With a focus on North America, DANA's mission is to inspire, support, and promote global science and service collaboration to uncover and adapt knowledge of airborne dust particulates to mitigate health, safety, and quality of life risks.

[dustalliance.org](http://dustalliance.org)

# Local/Regional Dust Workshops

## Upcoming Events

### Fall Southern New Mexico Dust Symposium

Theme: "The Insidious Nature of Dust"

WebEx teleconference

Monday, October 31, 2022 from 9am – 12 pm (MST)

Please fill out the **registration form** if you are interested in presenting or attending.

Contact Armando Paz with questions:

armando.paz@state.nm.us

## Upcoming Events



The International Society for Aeolian Research (ISAR)'s 11th International Conference on Aeolian Research (ICAR XI) will be July 10-14, 2023 in Las Cruces, New Mexico USA. The mid-conference field trip will visit White Sands National Park and the Jornada Experimental Range. Registration begins 1 October 2022, abstract submission begins 1 January 2023.

<https://aeolianresearch.com/icar/>

# DANA Webinar Spring-Summer 2022

Webinar team:  
Jenny, Ling and Karin

Register for  
the webinar



## Dust Alliance for North America (DANA) Spring 2022 Webinar Series

DANA is an informal partnership of scientists and practitioners  
with the purpose to accelerate the transition of dust-related  
research into service.



dustalliance.org

**WHEN:** Every 2nd Friday @1 pm ET (12 pm CT, 11 am MT, 10 am PT)

The DANA webinar series will highlight different dust-related topics, promote communications and collaborations among members, engage community interests, and enhance public awareness on dust-related challenges under climate change.

February 11



DANA Executive  
Committee

March 11



Richard Reynolds  
USGS; Institute for Rock Magnetism,  
University of Minnesota

April 8



Cassandra Gaston  
Department of Atmospheric Sciences,  
RSMAS, University of Miami

May 13



John Haynes  
NASA



Natasha Sadoff  
NASA

Contact Us: [dustalliance.na@gmail.com](mailto:dustalliance.na@gmail.com)



Register for  
the event



Dust Alliance for North America (DANA)  
2022 Virtual Summer Social

**You are invited!**  
**DANA Virtual Social Time**  
**Come meet other**  
**DANA members**  
**& DUST lovers**

Connecting, Communicating, and Collaborating

Friday, August 12, 2022, @1pm ET (12pm CT, 11am MT, 10am PT)

Contacts us with questions or speaker suggestions at [dustalliance.na@gmail.com](mailto:dustalliance.na@gmail.com)  
DANA Webinar committee - Jenny Hand, Ling Ren, & Karin Ardon-Dryer

DANA is an informal partnership of scientists and practitioners with purpose to accelerate transition of research into service.

84 participants  
(110)

88 participants  
(102)

46 participants  
(96)

57 participants  
(95)

30 participants

# DANA Webinar Fall 2022

Register @



## Dust Alliance for North America (DANA) Fall 2022 Webinar Series



**WHEN: Every 2<sup>nd</sup> Friday @ 1PM ET, 10 AM PT**

**September 9**



**James Crooks**

National Jewish Health  
& Colorado School  
of Public Health



**Claire Rowan**

Center for Disease  
Control and Prevention



**Kirk Hohsfield**

Colorado School of  
Public Health

**October 14**



**Katie Clifford**

University of Colorado

**November 4\***



**Jasper Kok**

University of California,  
Los Angeles

\* Note: 1<sup>st</sup> Friday

Register at [dustalliance.org](https://dustalliance.org) or using the QR code

Contacts us with questions or speaker suggestions at [dustalliance.na@gmail.com](mailto:dustalliance.na@gmail.com)

# Topics for future webinar

**DANA webinar topics?** Mentimeter

Dust observations, regional transport, health effects	Controversial topics / debates	Monitoring
dust mitigation methods	Available dust data and modeling and it's uses/drawbacks	Health consequences
Dust mitigation	Association with work related diseases	Important new findings
Sources, mixing of dust and anthropogenic emissions	regional haze, exceptional events	The importance of bioparticles in mineral dust events

## Dust Is a Growing Problem. What Role Does Farmland Play?

With a growing set of tools, scientists are digging into questions about the links between modern agriculture, drought, and rising incidents of dust storms and respiratory illness.

BY VIRGINIA GWINN | AUGUST 10, 2022

NEWS | 01 August 2022

### Dust-up over dust storm link to 'Valley Fever' disease

Researchers are divided over whether rising cases of the fungal infection in the United States can be linked to dust storms.

Virginia Gwin



Scientists have yet to establish a clear link between dust storms — such as this one in Arizona — and the risk of Valley Fever. Credit: Getty

What qualifies as a dust storm? That is one of the questions at the centre of a debate over the phenomenon's role in the spread of Valley Fever, an infectious disease caused by inhaling the soil-dwelling fungi *Coccidioides*, in the Western United States.

A study published in *GeoHealth* on 17 July calls into question research from 2021 suggesting that no consistent link exists between dust storms and Valley Fever. The authors of the new paper say the data set used in the 2021 analysis — the Storm Events Database, maintained by the US National Oceanic and Atmospheric Administration (NOAA) — is known to contain errors, lacks certain information and uses a definition of 'dust storm' that is inconsistent with that used by most meteorological organizations. As a result, they say the jury is still out on the dust storm-Valley Fever connection.

**A**s hurricane fun  
December, the  
as a massive dust side  
people. Two weeks li  
wildfire in urban no

Dust storms aren't u  
smaller scale. And y  
concerned that they  
terrain. "It was neve  
more difficult," says  
warning on Twitter

# Outreach

dustalliance.org dustalliance.na@gmail.com

## A DUST ALLIANCE for NORTH AMERICA (DANA)

Presented by Tom Gill, UTEP  
on behalf of the Organizing Committee  
William Sprigg • Daniel Tong  
Karin Ardon • Dryer – Ling Ren  
Scott Van Pelt • Junran Li  
Jenny Hand

Dust Alliance for North America  
From Science to Service

## All of northern Utah at risk for toxic dust from shrinking Great Salt Lake, scientist tells lawmakers



- **Raise knowledge of impacts of dust and of DANA** at meetings of experts and the public in scientific and stakeholder communities
- **Expert knowledge source** for news media & science writers
- **Provide expert scientific, service and user perspective** to policymakers when dust enters the public arena

BREAK

Inspire, support, and promote local to global science and service collaboration to uncover and adapt knowledge of airborne dust to mitigate health, safety, and quality of life risks across North America

*An informal partnership of scientists and practitioners with a purpose to accelerate transition of research into service*



*DANA "... speed application of airborne-dust research into public service"*

*Propose Creating a unique, farsighted opportunity*

- Research, Service and Policy ... together*
- Proactive*
- Regionally focused while globally relevant*
- Communities driven*

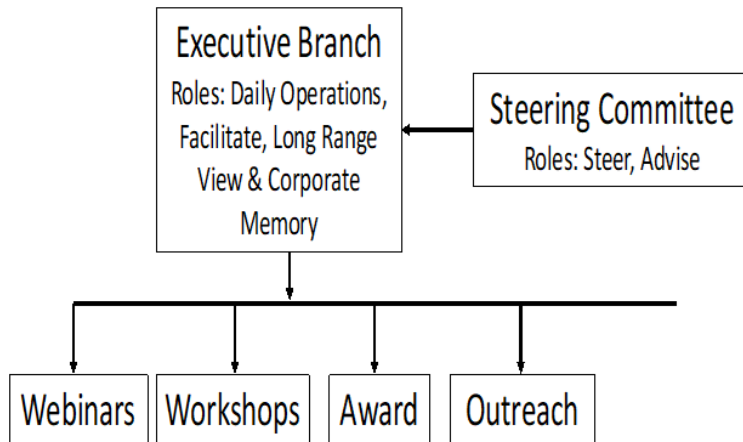
# Let's Discuss

- Hot issues/problems in dust science, service and policy today?
- Next hot button issues—e.g., intentional climate modification? How should DANA prepare for them, the emergence of “black swans?”
- DANA Governance Structure, tenets, sub-disciplines, etc.

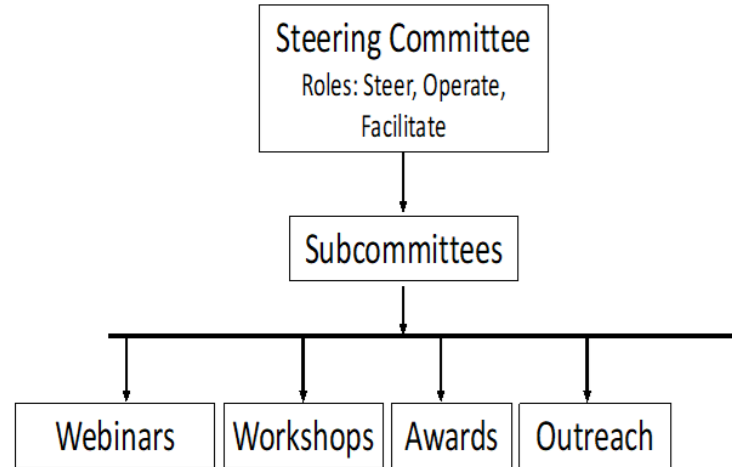
*As written today, the SC marks DANA's path forward, with opportunity in the SC first meeting agenda to recommend greater administrative and facilitating roles*

# DANA Governance Structure, tenets, sub-disciplines, etc. Let's Discuss Options

## Model 1



## Model 2



# Next Steps

- The Organizing Committee drafts a summary of today's meeting which will be distributed quickly for comment/edit to the SC
- Posts summary on the DANA web site and submits a summary (requested) to NASA to the day's discussion and its recommendations
- The SC reviews DANA Web Page—recommends ideas to improve and submits items for posting

- **Next 2 Meeting Agendas**—2 weeks apart?—in order to prepare firm footing for this important SC and DANA launch—monthly-spaced meetings?—take over following these foundational meetings. Both address:

Today the SC marks DANA's path forward, with opportunity in the SC first three meetings to recommend best administrative and facilitating roles

- 2<sup>nd</sup> Steering Committee Meeting—transportation focus? (Tom)
  - The Organizing Committee Reports:
    - Changes to topical structure and SC membership (Bill) and DANA Web Page (Jenny)
    - Seminar Series (Karin, Ling, Jenny)—aimed to support DANA purpose—science to service; current plans & nominations for topics/speakers
      - Session Organizers for AGU? AMS? American Thoracic Society? Electric Utility Environment Conference? etc.? (Jimmy & Scott)
      - Ideas to show DANA strength in numbers? Followers?
      - Other issues?
- 3<sup>rd</sup> Steering Committee Meeting—health focus (Daniel, Ling & Bill)
  - Progress Reports (All)
  - Revisit Discussion Q&A of 1<sup>st</sup> SC Meeting (Discussion)
  - International engagement; e.g. SDS-WAS (Daniel)
  - Other issues?

Summary  
**1<sup>st</sup> Meeting Objectives**

On track to establish best practices for DANA and point DANA in the right direction

- (a) DANA familiarization and Steering Committee introductions**
- (b) Initiate an environment for creative solutions**
- (c) Create opportunity to discuss/debate/collaborate**
- (d) Ensure global SC membership (need more NA reps)**
- (e) Agree on main DANA tenets: Focus on dust science and N.A. applications—in public health, transportation, and air quality—allied through policy, service, and research**
- (f) Objectives are clear: accelerate transfer of airborne dust research into beneficial service**
- (g) Begin assessment of DANA organization/administration**

# Conference Sessions and Organizers

We need to make all our colleagues aware of dust-related issues in North America and how DANA can make their science relevant to action agencies for human and environmental health and safety.

- ICAR – Tom Gill and Scott Van Pelt
- AGU
- AMS
- ESA
- GSA
- AMA
- AAAS
- ATS
- Public Health Organizations
- Transportation Safety Organizations
- Others????

# Looking forward

Outreach and Public Education

Community Recognition: Awards and Fellowships

Training and Capability Building

Organize Citizen Dust Spotter Network  
(NASA GLOBE, Photo Competition etc. )