

DUST WATCH PROPOSAL

For consideration by the DEJF

November 15, 2004

Las Vega, NV

Purpose

- Improve our understanding of dust events and their contribution to regional haze
 - Frequency
 - Magnitude
 - Spatial extent
 - Transport distance
 - Source location
 - Source type
 - Contribution of events vs background

Challenges

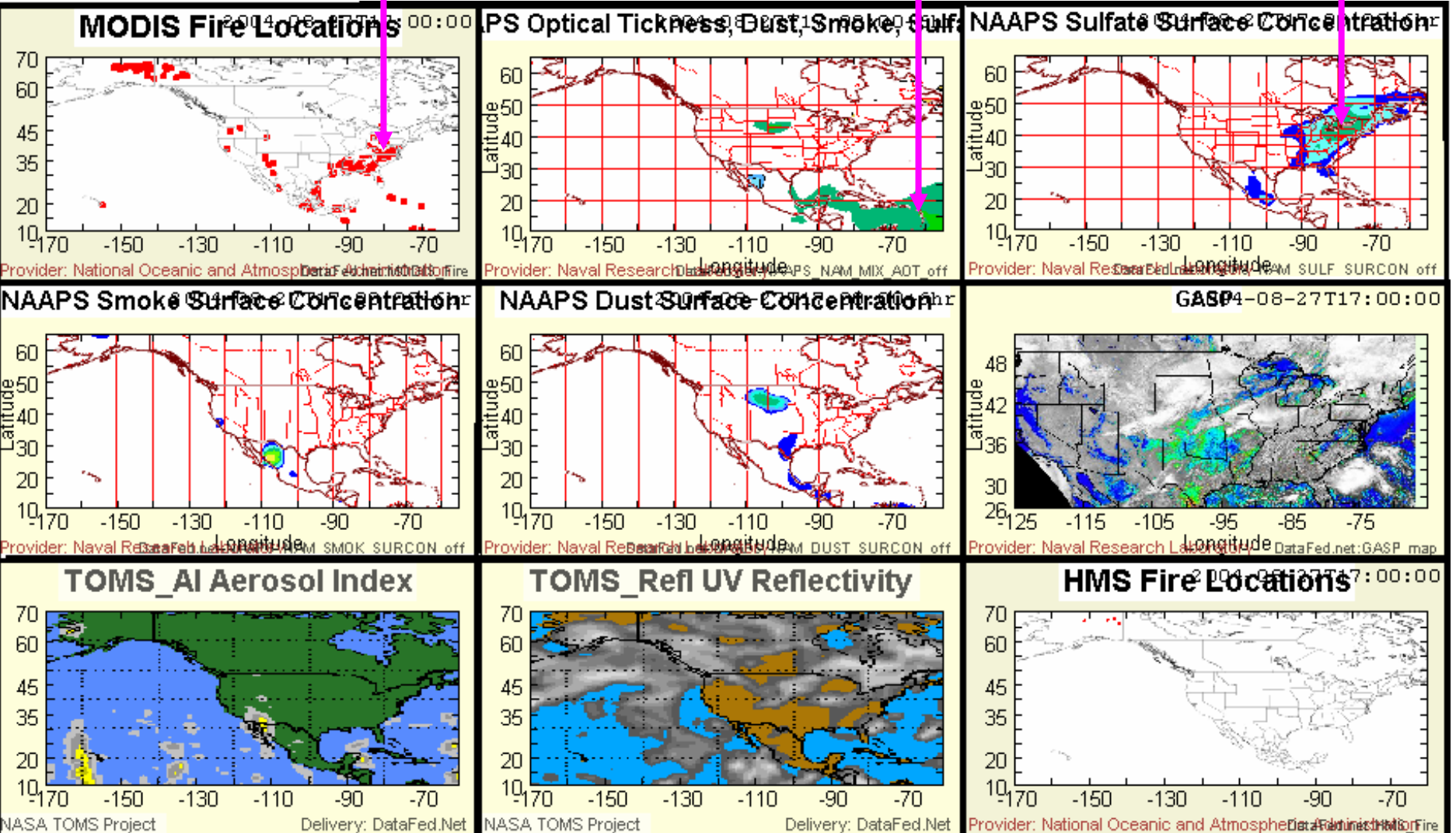
- Dust events are highly episodic
- Difficult to document, evaluate in retrospect
 - Much of the data are collected once every 3 days and on a 24-hour average basis
 - Much of the continuous data are truncated, deleted, or more costly to acquire when archived

Opportunities

- Two years to collect and analyze data
- Most events occur from Mar – Jun
- Large body of continuous data
 - Facilitated by FASTNET

FASTNET Aerosol Analyst Console, 8/27/04 at 17:00 UTC

Fires in the Southeast, Sahara Dust in the Gulf, Sulfate in the Northeast



LAYERS

- METAR_USFBext
- TOMS_AIAerIndex
- SEAW_USReflect

move

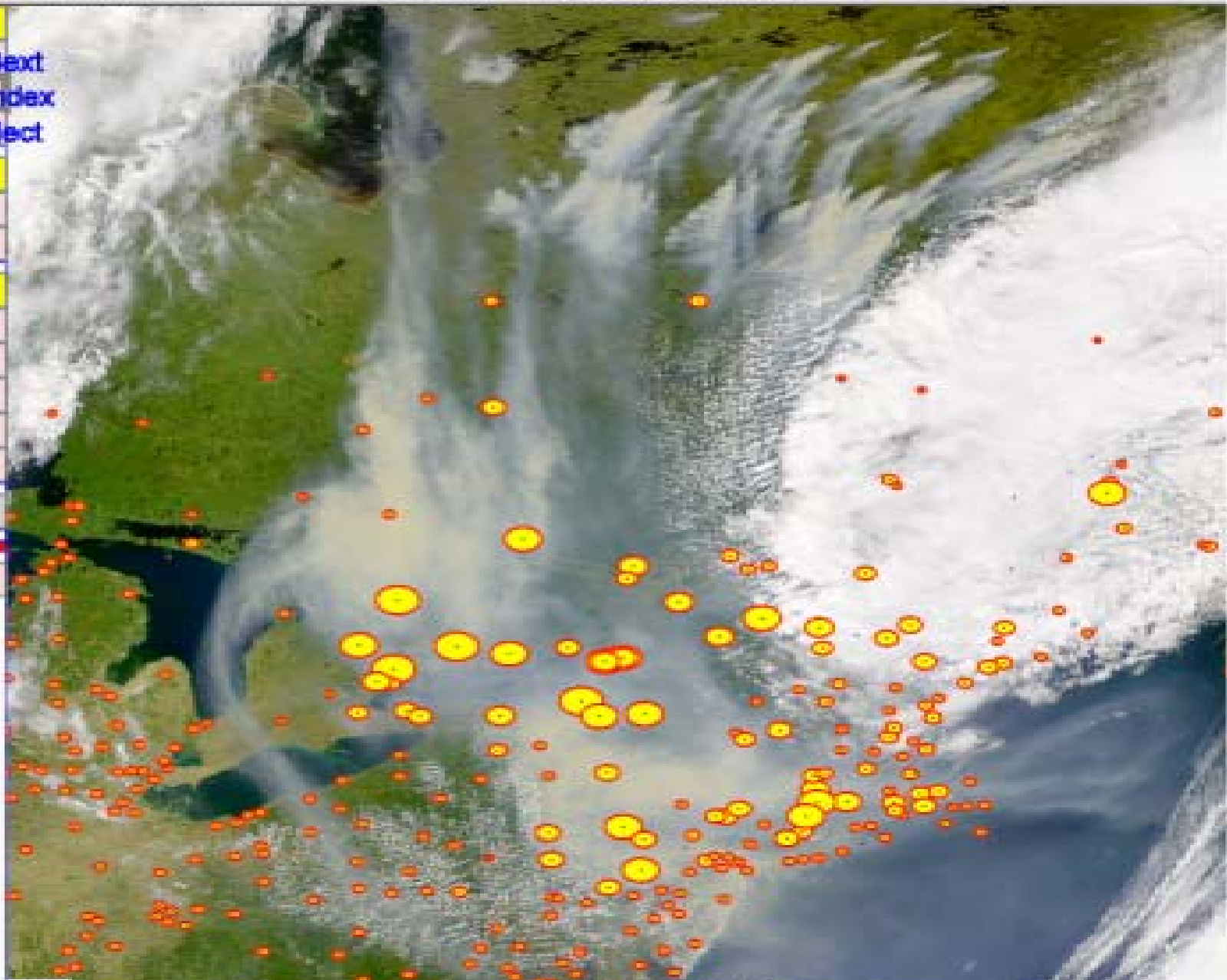
- up
- down

opacity

- 100%
- 75%
- 50%
- 25%
- 0%

point data

help



Proposed Approach

- Minimize expenses
- Rely on grad student or intern
- Few months in 2005 and 2006
- Identify data sources, process, scope, etc.
- Encourage “field observers” to report events

Outcomes

- A log of events with common set of descriptors
- Combination of quantitative and qualitative
- Use 2005 results to guide any further technical work by Forum
- Use in conjunction with other assessments to identify the most appropriate control strategies for SIPs and TIPs