



# 7<sup>th</sup> *CLARUS* Initiative Meeting Charlotte, NC



## **NOAA Support for a National Mesonet including Mobile Platforms**



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# NWS FY 2009 Budget Activities for Establishing a National Mesonet



- FY 2009 Budget:
  - Maintain operations for existing mesonet network observation agreements
    - Resources placed on WeatherBug grant to sustain access to 1,470 Urbanet Stations
  - Procure competitively a national mesonet, which will provide the critical information needed to improve short- and medium term weather forecasting
    - Procurement announcement will be posted on the GSA web page this week; the procurement's objective is to gain access to mesonet observations and their metadata. Requested observations include surface atmospheric and soil properties.
    - The solicitation has the potential for multiple contract awards.
    - Contracts will be awarded before October 1, 2009
  - Examine the use of real time mobile data collected from commercial trucking operators to evaluate, validate and demonstrate the efficacy of providing supplemental weather information to improve the safety and efficiency of the national highway system
    - Procurement announcement will be posted on the GSA web page this week.
    - Contract will be awarded before October 1, 2009
  - Develop requirements, assess, and proto-type the “plumbing” to support metadata exchange with data providers, operate a central archive, and support data mining and exchange of metadata with application developers and decision support systems. Resources will be used to accelerate the assimilation of new mesonets into MADIS.
    - Task plans developed and funds distributed to NOAA Metadata Team (OAR ARL and ESRL/GSD, NWS NCEP and OST/MDL)



# Approach to a NOAA Integrated Observing Enterprise



- Create efficient and sustainable metadata collection methods – GSD MADIS
- Build a metadata catalog and repository – GSD MADIS
- Develop web services, including the ability to data mine metadata database (**NextGen**) – GSD MADIS
- Integrate enhanced metadata into the application environment, e.g., filtering and fitting, sensitivity testing –
  - NWS NCEP (GDAS)
  - NWS OST (MOS)
  - OAR ERSL (Rapid Refresh)
  - OAR ARL (READY)
  - **Goal: Understand and document the service benefits of enhanced metadata (e.g. achieving Walt Dabberdt's "value chain")**
- Assess observing system gaps (re: NRC Report) – NWS OST
- Demonstrate an end-to-end capability, metadata requirements, project management – NWS OST
- Strengthen partnerships with AMS, OFCM, WMO, etc., and Weather Enterprise – NWS OST



**FY 2009**

# **“National Mesonet” Status**



- **Task 1. Proto-type real-time mobile data collection from commercial trucking operators**
  - Develop data and metadata exchange protocols with trucking fleet operators
  - Develop consistency checks, QA methods for mobile platform engineering data
  - Create synthetic observations from engineering data (wind shield wipers = rain)
  - **GSA RFQ Posted – Proposal(s) received, contract award pending**
- **Task 2. National Mesonet**
  - Establish Tiers of Performance (TOP) informed by service outcomes
  - Define TOP based on degree of compliance with metadata and siting standards
  - Develop efficient and Sustainable Metadata Collection Methods
  - **Priorities:**
    - Central/South U.S.
    - Gap filling surface observations (atmospheric, soil)
    - Describing temperature and wind parameters using enhanced metadata for temperature and wind parameters
    - Demonstrate end-to-end capability chain for gathering and exploiting metadata resulting in improved services
  - **GSA RFP Posted, comments received. GSA RFQ Pending (Friday), award early September 2009.**
- **Task 3. Deliver Report on National Mesonet to Congress (submitted)**



# Questions?

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