BAMGoMAS-a REASoN(able) CAN Initiative

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Objectives

- Provide back trajectories, modeled aerosol optical properties, and daily MODIS products at all present and historical AERONET and MPLNET sites

- Combine the globally distributed network data sets of AERONET and MPLNET with the back trajectory and aerosol chemical transport model products within the overview of twice daily MODIS data with common access via the WWW.

- Enable global aerosol research through assimilation of readily available and readily producible component data sets.

- Provide an assimilation database expandable as new data sets become available.

Data Integration Status

- AERONET
  - AOT and modeled atmospheric retrievals (entire dataset)
- MODIS Rapid Response
  - Geo-referenced AQUA/TERRA images
- SHADOZ - Code 916
  - 7-day Back trajectory analyses
- MPLNET
  - Daily backscatter profiles
- GOCART
  - Daily AOT extinction and absorption (450, 550 and 900nm)

Near-term Data Integration

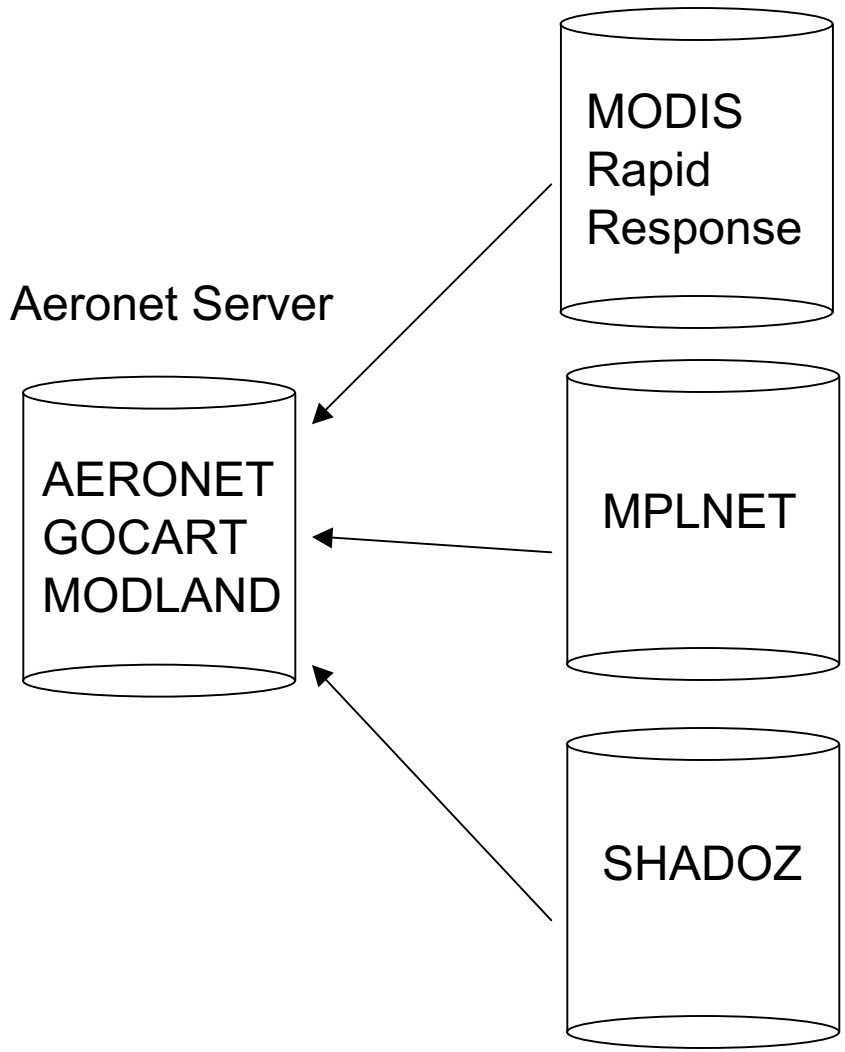
- MODIS Rapid Response
  - Develop for additional sites
- SHADOZ - Code 916
  - Process trajectory analyses for historical dataset
- MPLNET
  - Produce real-time single layer aerosol properties
- GOCART
  - Provide 6-hourly AOT data for historical dataset

Near-term Data Integration

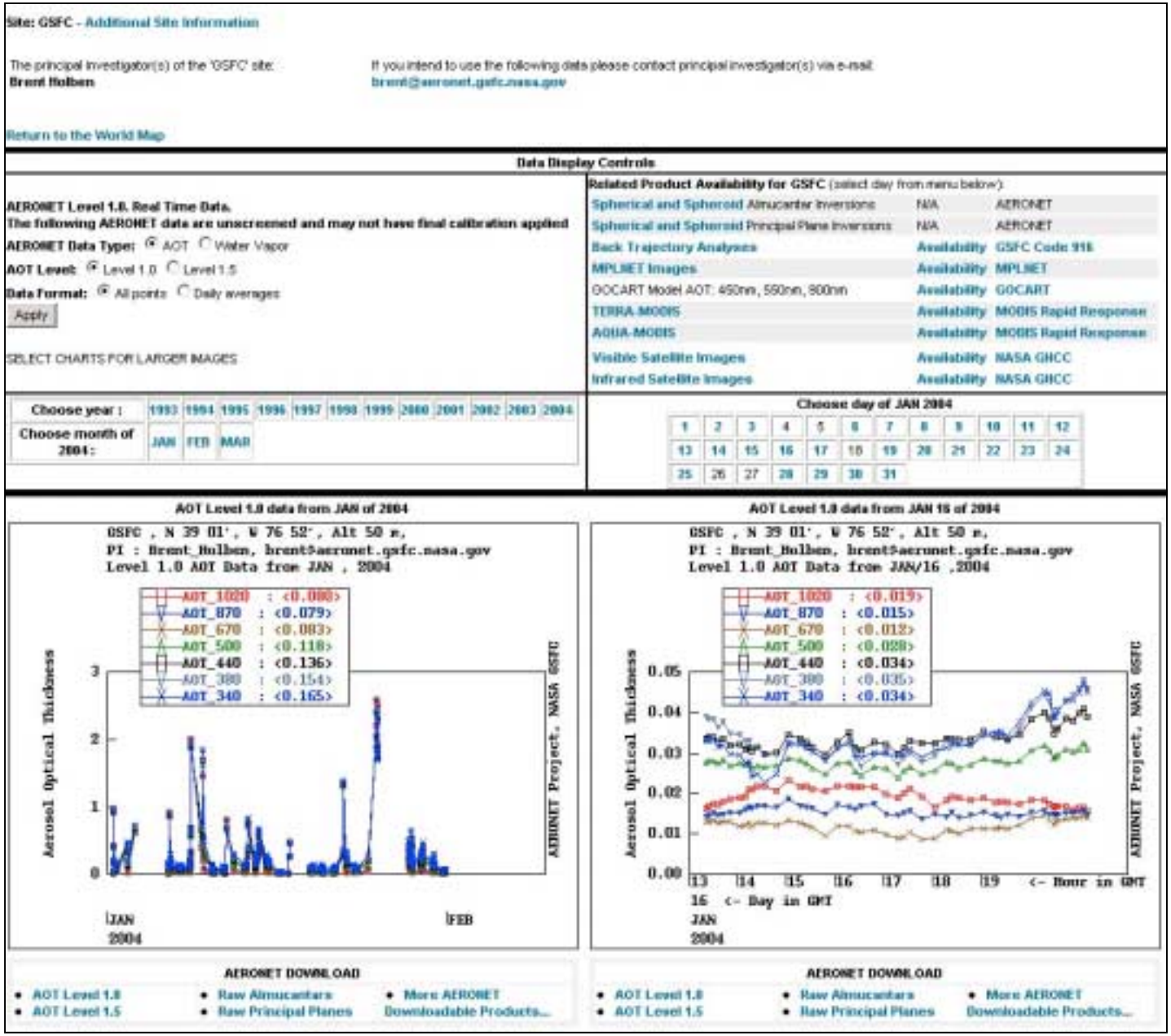
- MODLAND
  - Produce surface reflectance data files
- MOVAS
  - Link to MODIS retrieval plots and data

Data Organization

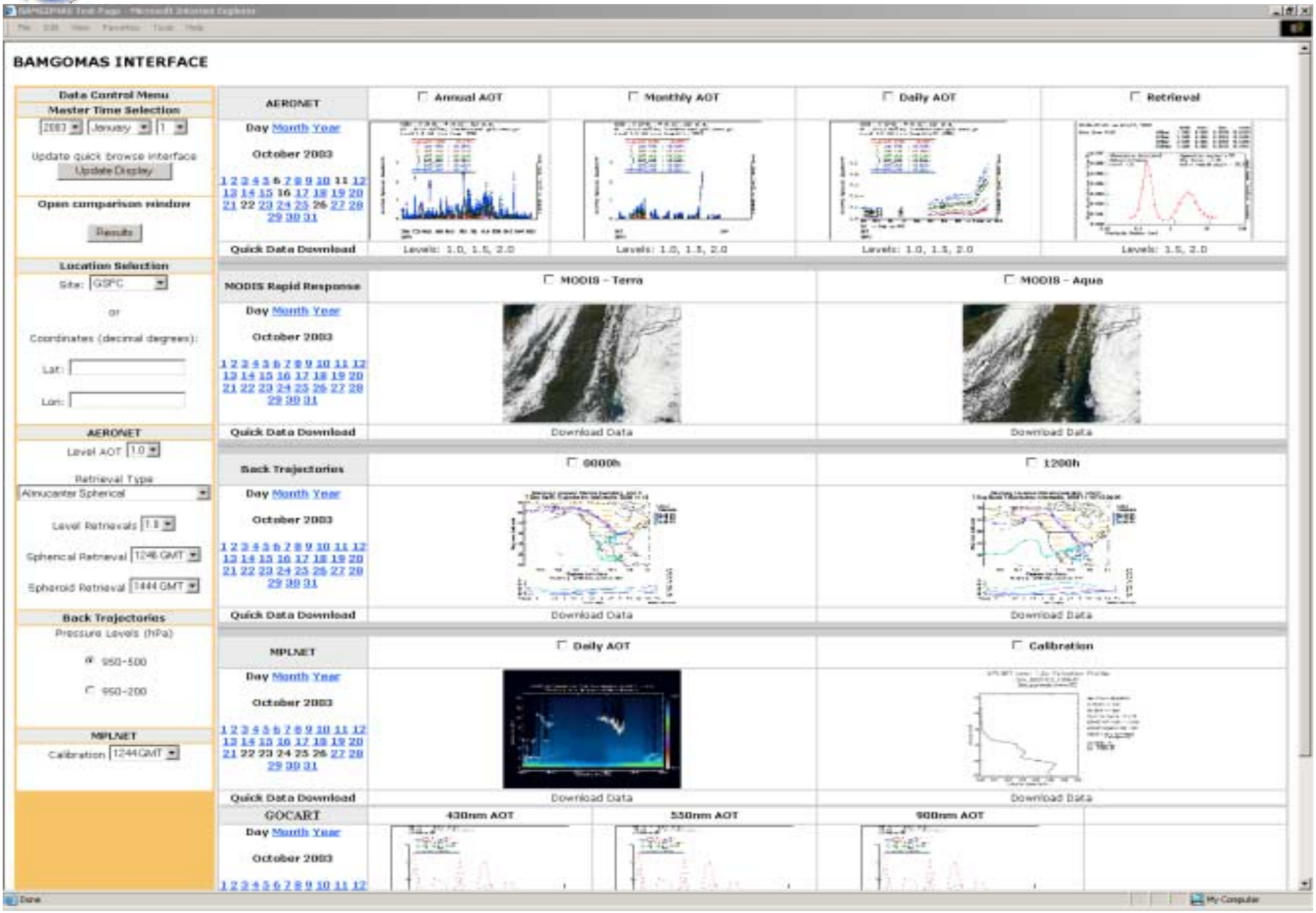
- Local Databases
  - AERONET
  - GOCART
  - MODLAND
- Distributed Databases
  - MODIS Rapid Response
  - SHADOZ
  - MPLNET



Beta BAMGOMAS Data Display Interface



Future BAMGOMAS Data Display Interface



Proposed Additional Data

- Modis
  - AOD retrievals (MODLAND, MOVAS)
  - Surface Reflectance (MODLAND, MOVAS)
  - Clouds-Cirrus (MOVAS)
  - Radiances-Level 1b
- MISR-AOD
- GLAS-Extinction profile
- CERES-TOA flux
- TOMS-AOD, AI
- ATRAIN-????
- POLDER-AOD
- BSRN-Surface Flux
- New Products-Direct radiative forcing (CERES, AERONET & BSRN)

BAMGOMAS Proposal Requirements

- ESIP Federation meetings
  - Once or twice a year
- SEEDS Working Group – Reuse
  - Monthly telecons
  - Normally in conjunction with ESIP meeting

Development Timeline

- Current
  - AERONET website: BT, A, MPL, M, GOES/GMS
- Late FY'04
  - BAMGOMAS with additional products
  - Web site integration
  - Climatology integration
- FY'05
  - Begin merge of AERONET/BAMGOMAS
- FY'06
  - Fully integrated products
  - Semi-automatic new products (synergism)
  - Maintenance