

# Summary of Satellite Observation Needs for GACP

A Twenty-Year Climatology

AVHRR

TOMS

Augmentation Data Sets (CZCS, OCTS, POLDER,  
SeaWiFS, GOES, ATSR, GOME, etc.)

2-Wavelength Retrieval Parameters

Aerosol Optical Depth

Angstrom Exponent

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## IMMEDIATE NEXT STEPS (TEAM)

① RETRIEVAL COMPARISONS (COMPOSITES, CASES WITH  
COMMON RADIANCES, SENSITIVITY)

\* WG Meeting (Strategy  $\Rightarrow$  Tasks)

② CONVERGE (CONSENSUS) ON "STANDARD" MODEL SET  
(AEROSOL + ENVIR.)

③ COMPONENT VALIDATION - CLOSURE SETS  $\leftarrow$  PROC/CLOSURE  
GROUP

④ TEST STANDARD MODEL

## Spatial/Temporal Variability

What do models need?

How do we average?

What is needed beyond averages?

## Continuity with the Future

Coordinated retrievals with EOS Sensors  
(and others)

## The Aerosol Model

Size Distribution (humidification factor)

Index of Refraction

Vertical Distribution

Shape

Regional Models??

## The Environmental Model

Parameters: Surface Reflectance, Column Water Vapor (RH), Column Ozone, Molecular Scatter

Cloud Screening

What if the environment is changing with the aerosol?