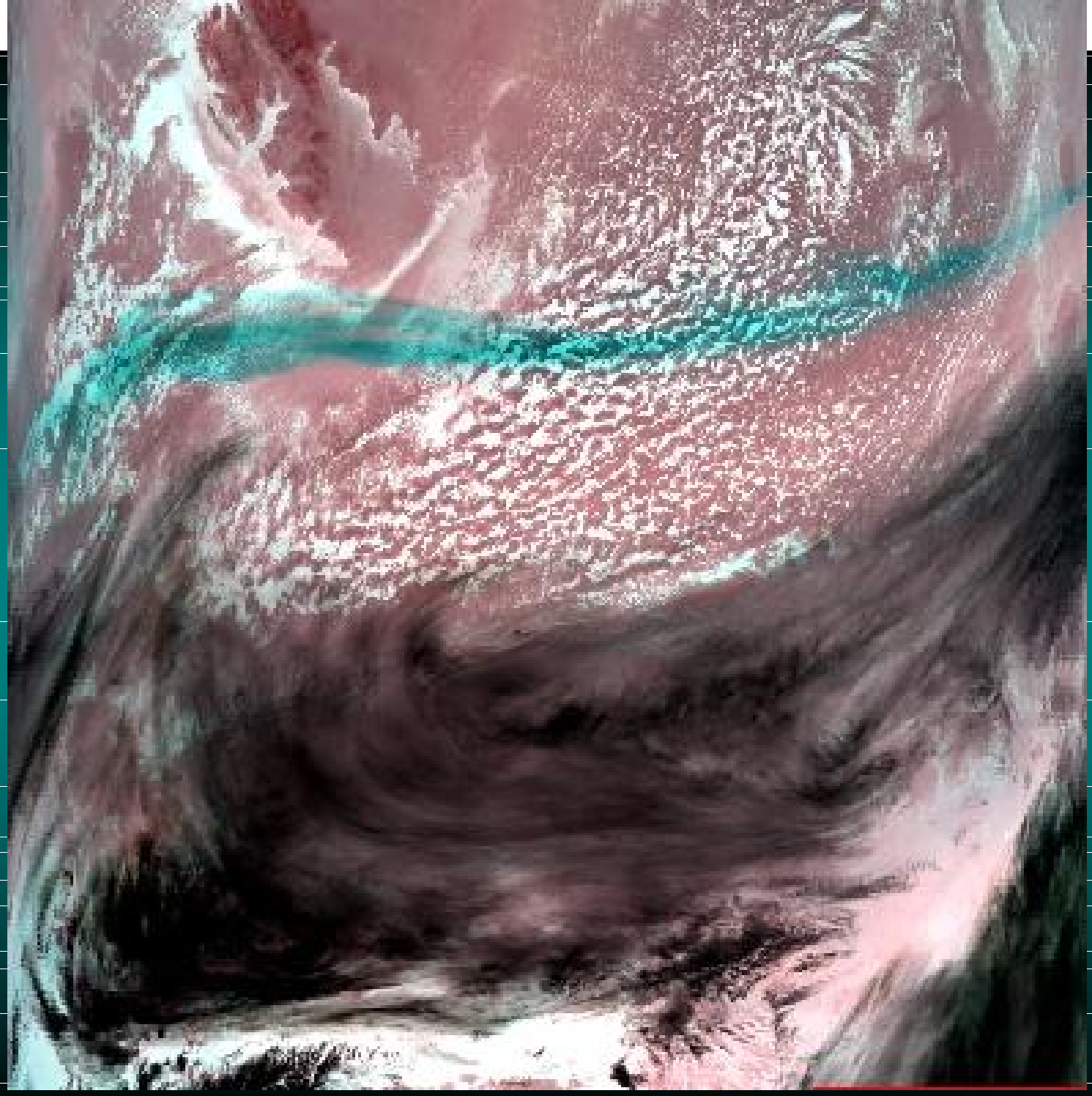
MODIS Atmosphere Group Summary

- Collection 5 Status
  - Summary of modifications and enhancements in collection 5 (mostly covered in posters)
  - Ready to commence in early April
  - Identified enhancements identified for collection 6
- Data Use/Validation Investigations
  - 25 presentations
  - New uses of MODIS data
- Direct Broadcast
  - Exploding use of MODIS data worldwide
  - New software planned for AIRS and MODIS data this year

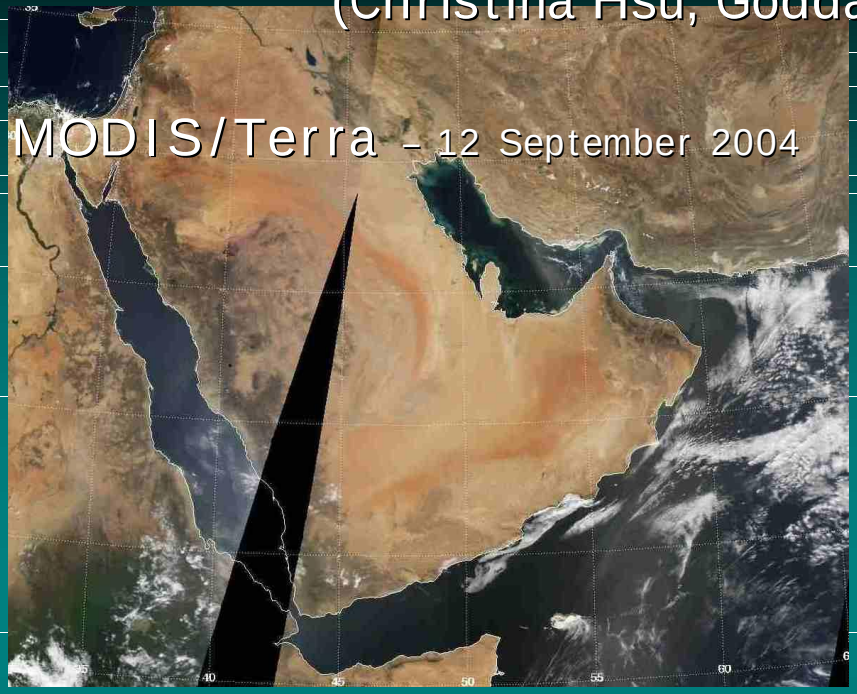
Collection 5 Software Updates

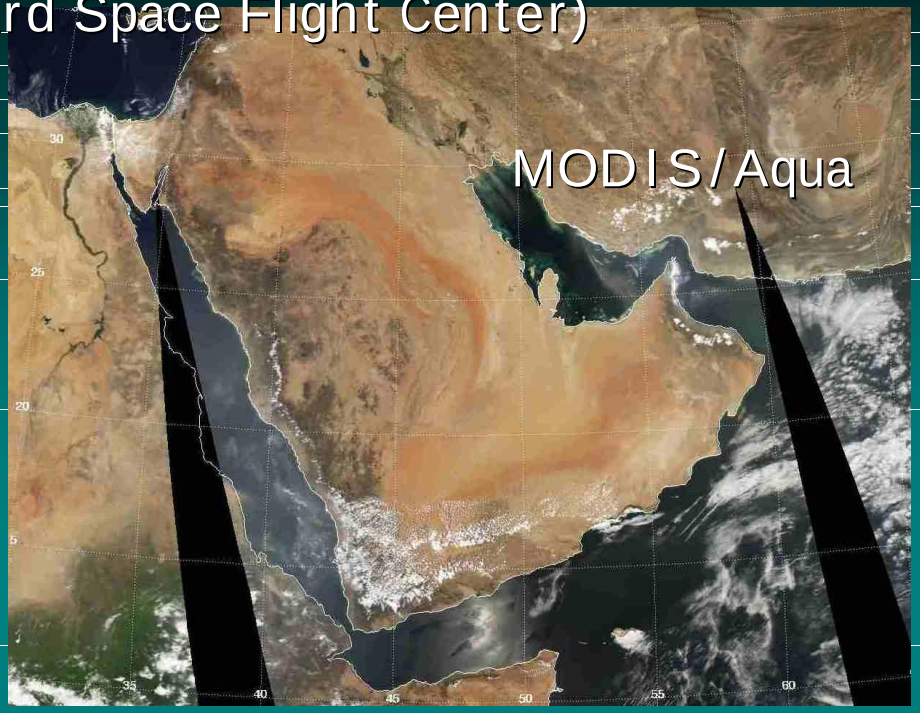
- All Software has been delivered to SDST/MODAPS
  - Science test 4 completed Monday
    - Major enhancements in cloud mask (especially nighttime and polar regions)
    - Cloud product uses new ice crystal libraries, better phase determination, atmosphere/land surface reflectance product, improved atmospheric correction, uncertainties in cloud optical thickness, effective radius, and water path, and improved cloud top pressure (especially for low clouds)
    - Aerosol product uses new spatial variability to improve screening of heavy aerosol and clouds, better regional characterization of aerosol optical properties
    - Water vapor over high dry regions, like Tibet, improved in near-infrared algorithm
- Collection 6 enhancements identified for aerosol, including new Deep Blue algorithm for bright desert regions

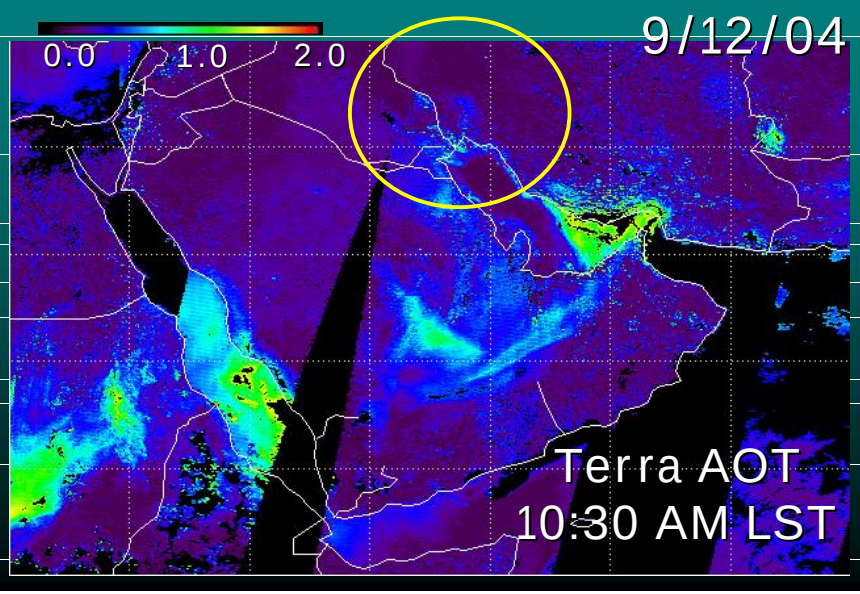


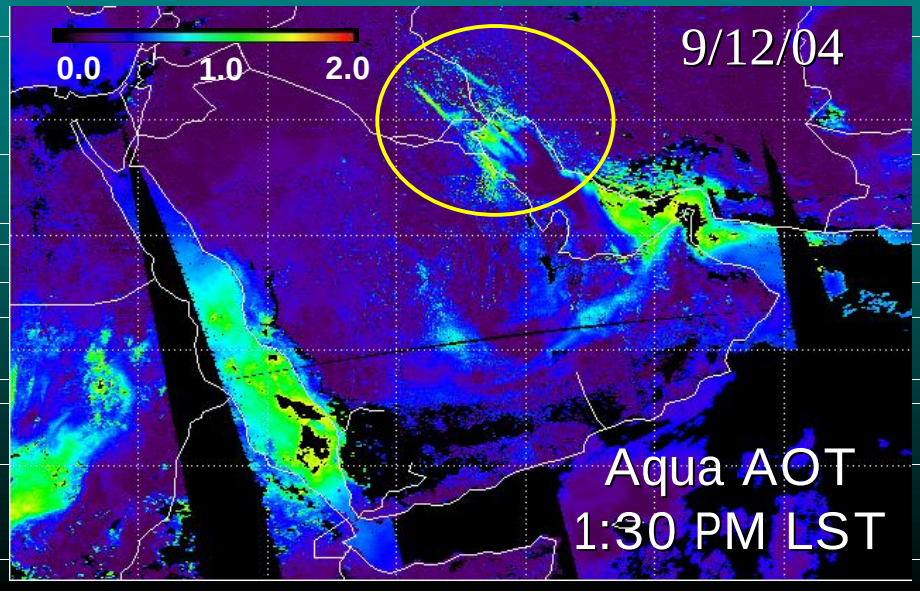
Tracking Movements and Evolution of Aerosol

(Christina Hsu, Goddard Space Flight Center)









Miscellaneous Progress

- Direct Broadcast exploding internationally
  - ø New software at Wisconsin will incorporate MODIS cloud, snow, reflectance, and BRDF products, AMSR-E precip, and high resolution AIRS/MODIS analysis in 2005
  - ø Kenya has a direct broadcast receiving station in Malindi
    - ü Data received on ground and sent by tape to Rome
    - ü Unknown facility by NASA or Wisconsin/IMAPP group
- Applications
  - ø IDEA project (NOAA/NASA/EPA) use of MODIS data and PM2.5 to input into air quality monitoring in US
  - ø MODIS polar winds being used by ECMWF, GMAO, NCEP (June), Japan, and Canada
- Modeling activities
  - ø Several data assimilation and modeling investigations described that are showing great progress