

Upgrades of GEOS-FP

▲ Improvement
+ New data

[Recent updates]

- ▲ All-sky GMI
- + ATMS (NOAA21)
- + RO (PlanetIQ)
- + OMPS-LP (NOAA21) ozone
- ▲ P_{sfc} from some ships

[Upcoming updates]

- ▲ CRTM v2.4.1
- ▲ Assimilation of AMSU-A & ATMS Tb (instead of Ta)
- ▲ B.C. for AMSU-A ch14 & ATMS ch15
- ▲ Channel selection for CrIS-FSR
- ▲ Gross error check for IASI, AIRS & CrIS
- + AVHRR (Metop-C)

☐ NASA GMAO's GEOS configuration

- FV3 dynamic core + GEOS physics suite
- 12.5 km with 72 levels
- GSI hybrid 4D EnVar, 4D Incremental analysis update
- Aerosol assimilation

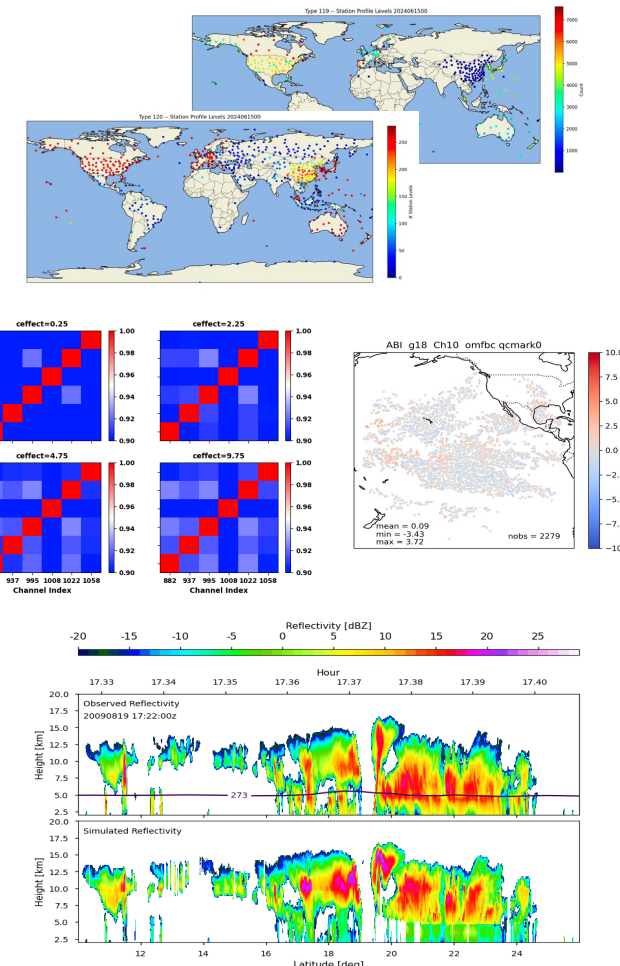
Ongoing Development

Preparing for potential data loss

- ATMS (NOAA21), AVHRR (Metop-C)
- All-sky (ATMS), VIIRS (JPSS), CrIS (NOAA21)

Other ongoing efforts:

- High-res radiosonde data
- GOES-16/18 radiance data
- TROPICS radiance data
- Radar reflectivity data
- CrIS All-sky radiance data
- Use of IR reconstructed radiances



First phase in transition of the GSI-based to JEDI-based GEOS system (cycled JEDI-based GEOS is expected soon this year!)