

DATA Fields Needed, NOT Available

- L 1. Precipitation \Rightarrow point data needs augmentation, perhaps by precip. radar extrapolation (TRMM)
- A 2. Surface emissivity maps over land
- A 3. Aerosols (z)
- L 4. GOES data, stationary
H.W.

2. Spatial Issues:

- What spatial resolutions are required? Standard NMC products OK?
- Does proximity to coast or other constraint increase spatial requirements?
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3. Pooling ancillary data requests

- Oceans are largely making joint requests through the MOCEAN processing center in Miami
 - Provides streamlining of data flow
 - Reduces redundancy of requests to EOS/DIS each
- Can land & atmospheres combine common ancillary data requirements within the discipline?

Ancillary Data and Assimilation

1. Timeliness Issues:

- Needed ⁵ Level 2 Products, Level 3 Products, or Quality Assurance?
- Needed in near-real time (e.g. EOS-1 derived ~~3~~ or NMC model) or could last-pass/available field (e.g. MODIS SST), or climatology serve as surrogate?
- What fields will be used prior to validation of needed parameters from MODIS (e.g. we need O_3 and water vapor data for atmos. correction - MODIS products will be unavailable/inaccurate early in the check-out period)
- others, such as cal/val campaigns

Land needs

1. Precipitation, ~~not~~ ^{model} available
2. Soil moisture
3. PAR (daily), not available
4. Max-min temp. available

Maybe weather precip's. calibrating

weather radar data??

4. Sfc. Pressure

Ocean: needs not now available

1. PAR (daily)

2.

Atmosphere: needs

- surface emissivity map needed over land (Short & Long wave IR) ⇒ MODIS Prod. in part
- aerosols??

Resolution

- Temporal - Model outputs (NMC-like) tuned to MODIS Coverage
- Spatial - $1.25^\circ \times 1.25^\circ$ from models is adequate
 - interpolation to pixel level is algorithm-specific
- Model timeliness
 - 1st iteration within 24 hours using NMC-like input fields
 - 2nd iteration within 1 month using EOS data fields

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Discipline

- A, O, L 1. $T(z)$, H_2O Vapor (z), Column O_3 , Sfc. pressure & winds
(NMC, Rod model, NOAA, EOS)
- O 2. Mixed-layer depth - (FNOC)
- L 3. Max./Min. Temps (NOAA)
- L, O 4. PAR (daily) \Rightarrow GUES clouds, etc.
(not operational)