



MOPITT QA

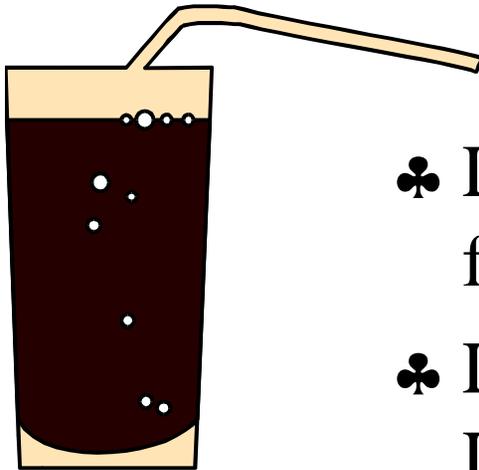
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MOPITT Data Manager



MOPITT SIPS

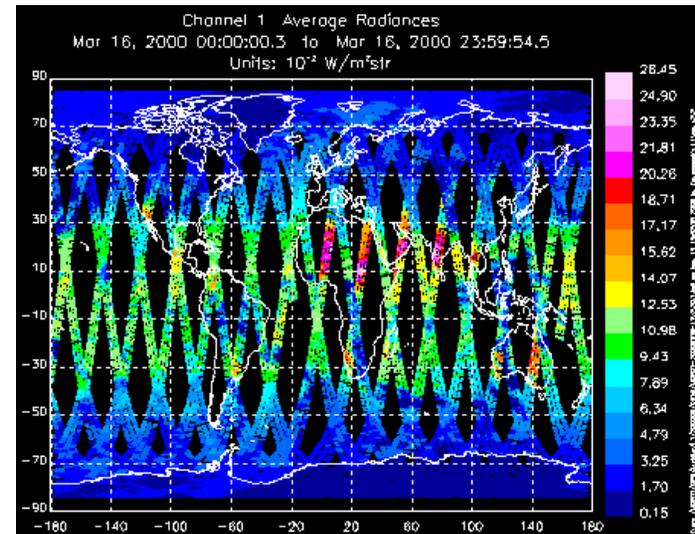


- ♣ Level 0 & Ephemeris data is sent from LDAAC
- ♣ Level 1 is created and sent back to LDAAC
- ♣ Level 1 is ingested, archived, and distributed
- ♣ Level 1 is processed up to Level 2.
- ♣ Beta - Level 2 will be released next month

Level 1 QA

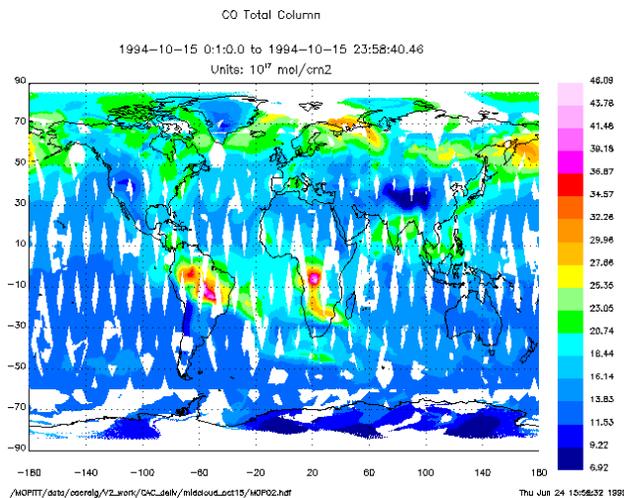


- ♣ Automatic QA
 - ♥ Various checks on L0 data
 - ♥ Check instrument health
 - ♥ Screen for negative radiances
 - ♥ Monitor the number of invalidated tracks
- ♣ Operational QA
 - ♥ Check for normal termination
 - ♥ Check file sizes
 - ♥ Scan the log for anything weird
 - ♥ Send email to the operator
- ♣ Science QA
 - ♥ Tied in with validation campaign
 - ♥ Compare with models





Level 2 Data



♣ Level 2 in HDF-EOS

- ♥ CO profile
- ♥ CO total column
- ♥ Methane total column
- ♥ Error estimates
- ♥ Other derived and input quantities

♣ 3 - 8 hours per data day

♣ ~50 MB depending on clouds

♣ Inputs: MOP01 and Meteorology



Level 2 QA

♣ Automatic QA

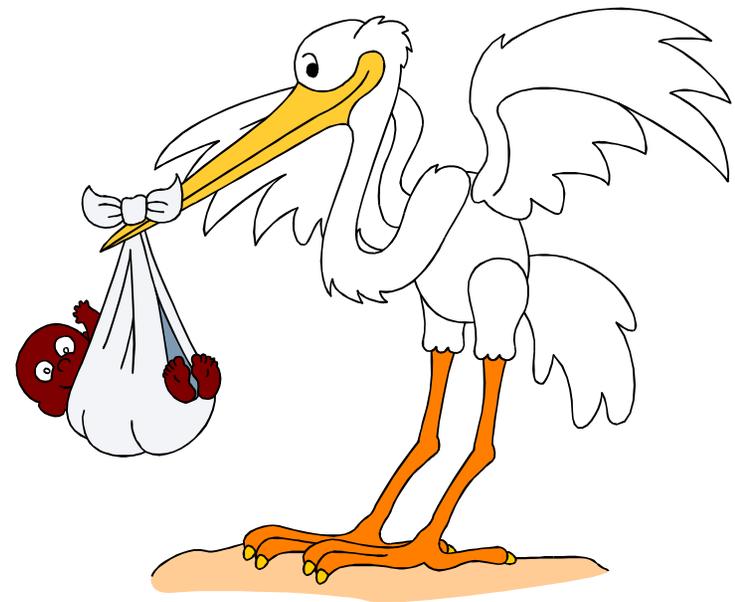
- ♥ Early assumptions not valid
- ♥ Only process pixels with all radiances valid
- ♥ Check ancillary data sanity

♣ Operational QA

- ♥ Check for normal termination
- ♥ Check file sizes
- ♥ Scan the log for anything weird
- ♥ Send email to the operator

♣ Science QA

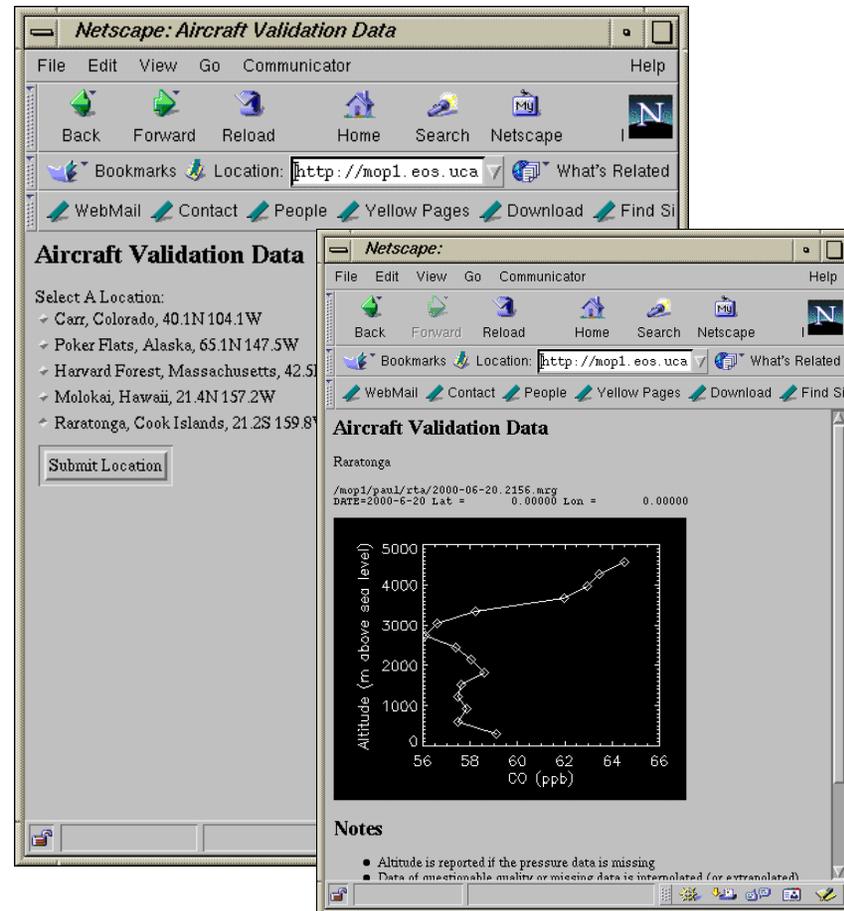
- ♥ Tied in with validation campaign
- ♥ Compare with MODIS cloud mask
- ♥ Compare with in situ measurements and spectroscopy
- ♥ Evaluation by the science team



QA Tools



- ♣ Data visualization tools
- ♣ Aircraft data viewer
- ♣ Log parser





QA Challenges

- ♣ Science team wants to complete initial validation before releasing the data.
 - ♥ This prevents really bad data from being exposed
 - ♥ Under utilizes ECS QA capabilities.
- ♣ Operator email goes unread
 - ♥ Automatic parser ignores handles DNs etc.
- ♣ Metadata is a low priority for scientists and developers.

