



# GES DISC improvements in preparation for AIRS V6

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# Outline

- New Hardware
- Plans for V6 Processing
- Plans for V4 and V5 data
- DQSS and Merged services in Mirador
- A few other things
- Summary



# New Hardware

A new cluster will be brought online prior to version 6 for processing and staging data

- 10 new processing nodes
- Each node has 12 cores
- Selected existing processing resources will be transitioned into the cluster prior to V6 processing/reprocessing

## Improvements for Users

- L0 and L1 data available from a single address (no separate servers for odd/even years)
- New services (e.g., OPeNDAP) can easily be added.



# Plans for V6 Processing

→ The new hardware is capable of exceeding the goal of reprocessing the AIRS dataset in 6 months.

- Testing was based on Version 5 PGEs
- Assuming no reprocessing of Level 1
- Level 1C processing was not accounted for

→ Documentation for V6 is needed to update README files

→ **Default processing plan:**

- **AIRS/AMSU first then AIRS-Only**

→ **Will the Level 3 code be delivered with the Level 2 code?**

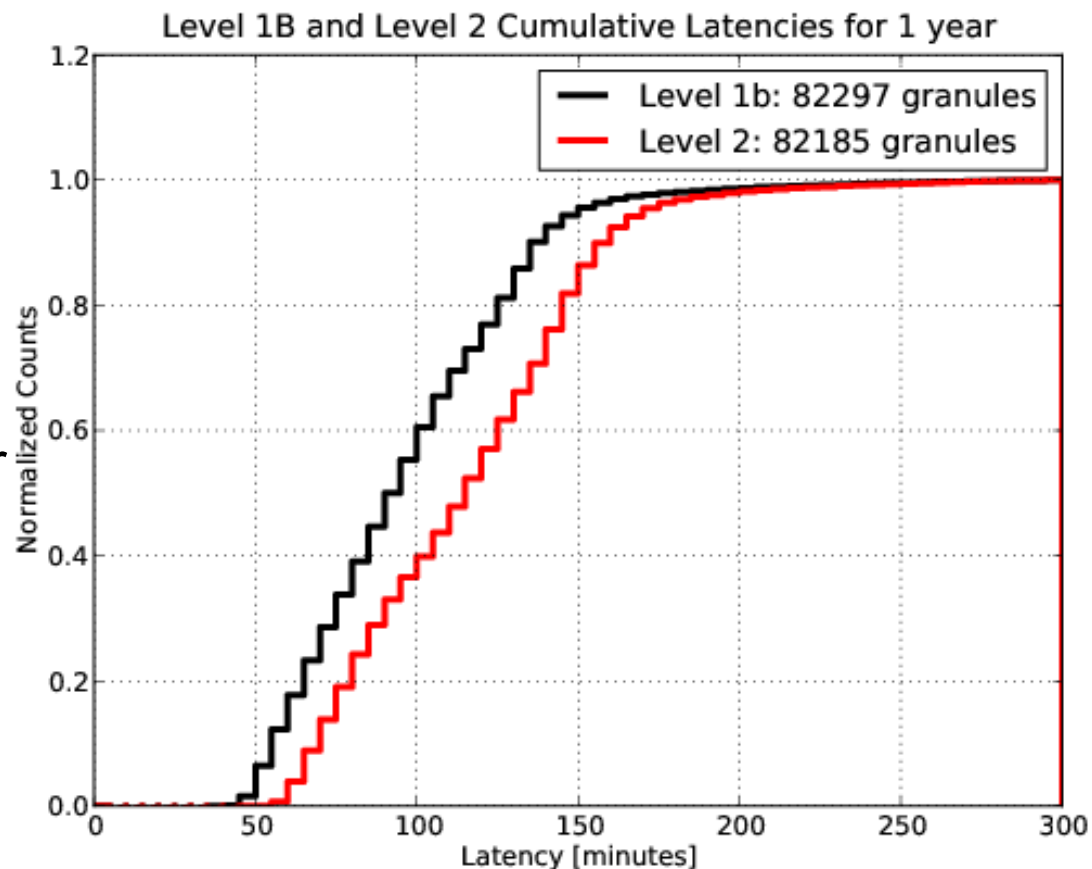


# Near Real Time Processing

The AIRS Version 5 NRT products are generated with the same code used for the routine products with the following 3 differences:

The NRT proceeds

1. whether or not the previous or subsequent Level 1b granules are present;
2. with less accurate ephemeris/attitude data;
3. whether or not the forecast surface pressure is present.



**Can the Version 6 PGE performance meet the NRT requirement (< 3 hour)?**

Also Note: Near Real Time data products now require user registration on the LANCE (Land Atmosphere Near Real Time Capability for EOS) web page:  
<http://lance.nasa.gov>



# Current Plans for V4, V5 and V6

- Continue processing L1 as V5
- Commence L2, L3 as V6
- Process L2, L3 V5 until V6 reprocessing is complete
- Version 5 (L2, L3) will become a static dataset after Version 6 reprocessing is complete
- Version 4 no longer available when V6 processing starts
- **Start of Level 3 processing will depend upon the delivery of V6 Level 3 code**



# New Merged Services in Mirador

We will soon implement a new merged service combining existing services. Default criteria will differ depending upon the service chosen.

## Mirador

Data Access Made Simple

You are here: [Keyword Search](#) » [Data sets from airx2ret search](#) » [File Listing of airx2ret](#) » [Service Selection](#) » Your Cart » Checkout

### Service Selection

- Data set files added to the cart have their corresponding services, and only one service can be selected per data set.
- To enable a service, click on the link for any of the available services.
- To change options for a service you have already selected, click on a link in the Available Services column.
- After choosing your services, click **"Continue to Shopping Cart"** to proceed, or click **"Cancel"** to return to your search results.
- Selecting a subsetting service will take you to the Service Options page and then back to this page.

### Available Services

- [Quality Screening](#) [What's this?](#)
- [Subset by Variable](#) [What's this?](#)
- [Convert to NetCDF](#) [What's this?](#)
- [Convert to gzipped NetCDF](#) [What's this?](#)
- [Download via HTTP](#) [What's this?](#)

Data Set	Selected Service	Available Services (Select 1)
AIRS/Aqua Level 2 Standard physical retrieval (AIRS+AMSU) (AIRX2RET.005) <a href="#">Disclaimer (PDF)</a>	None	<a href="#">Quality Screening...</a> <a href="#">Subset by Variable...</a> <a href="#">Convert to NetCDF</a> <a href="#">Convert to gzipped NetCDF</a> <a href="#">Download via HTTP</a>

[Continue to Shopping Cart](#) [Cancel](#)





# New Merged Services in Mirador

We need to know what quality control changes will be in place for Version 6 to keep the service functional

## QUALITY SCREENING AND VARIABLE SUBSETTING

**Output Format Options**

**Quality Screening Global Selections:**

Best \*  Good \*\*  NoScreening  DoNotInclude You may refine your selections below.

Select **Good** to screen all variables to follow Science Team criteria)

**SUBSETTING Choice:** Select **DoNotInclude** to remove the variable from the subset

**Variable Refinement Selection**

**Moisture\_Parameters**  Best \*  Good \*\*  NoScreening  DoNotInclude

H2OMMRStd <a href="#">View Quality Screening</a>	<input type="radio"/> Best <input checked="" type="radio"/> Good <input type="radio"/> NoScreening <input type="radio"/> DoNotInclude
H2OMMRSat <a href="#">View Quality Screening</a>	<input type="radio"/> Best <input checked="" type="radio"/> Good <input type="radio"/> NoScreening <input type="radio"/> DoNotInclude
totCldH2OStd <a href="#">View Quality Screening</a>	<input type="radio"/> Best <input checked="" type="radio"/> Good <input type="radio"/> NoScreening <input type="radio"/> DoNotInclude
totH2OStd <a href="#">View Quality Screening</a>	<input type="radio"/> Best <input checked="" type="radio"/> Good <input type="radio"/> NoScreening <input type="radio"/> DoNotInclude
totH2OMWOnlyStd <a href="#">View Quality Screening</a>	<input type="radio"/> Best <input checked="" type="radio"/> Good <input type="radio"/> NoScreening <input type="radio"/> DoNotInclude
H2OMMRSat_liquid <a href="#">View Quality Screening</a>	<input type="radio"/> Best <input checked="" type="radio"/> Good <input type="radio"/> NoScreening <input type="radio"/> DoNotInclude

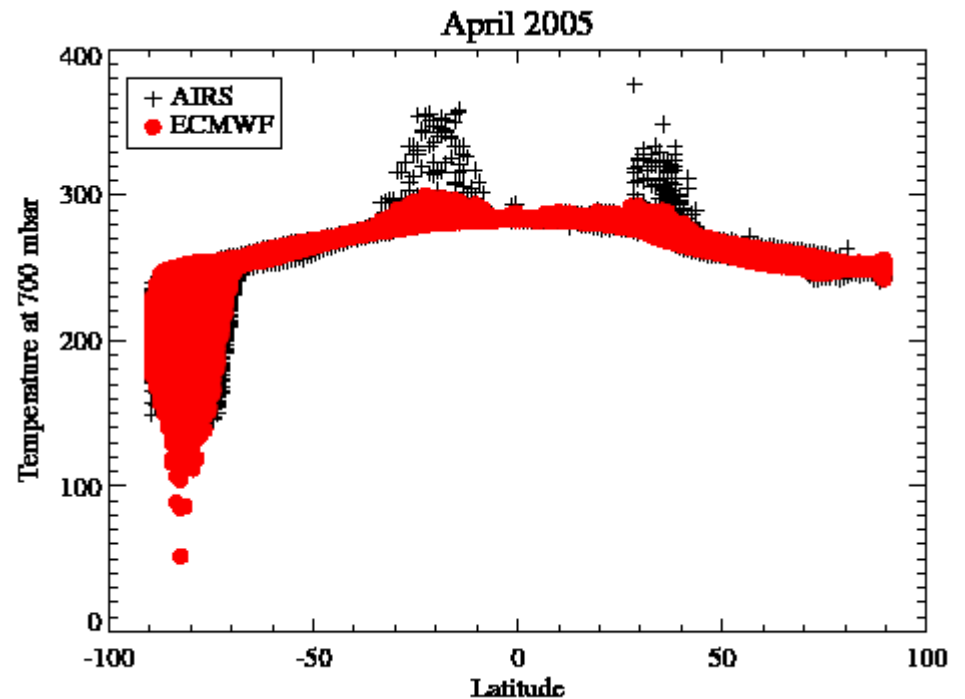
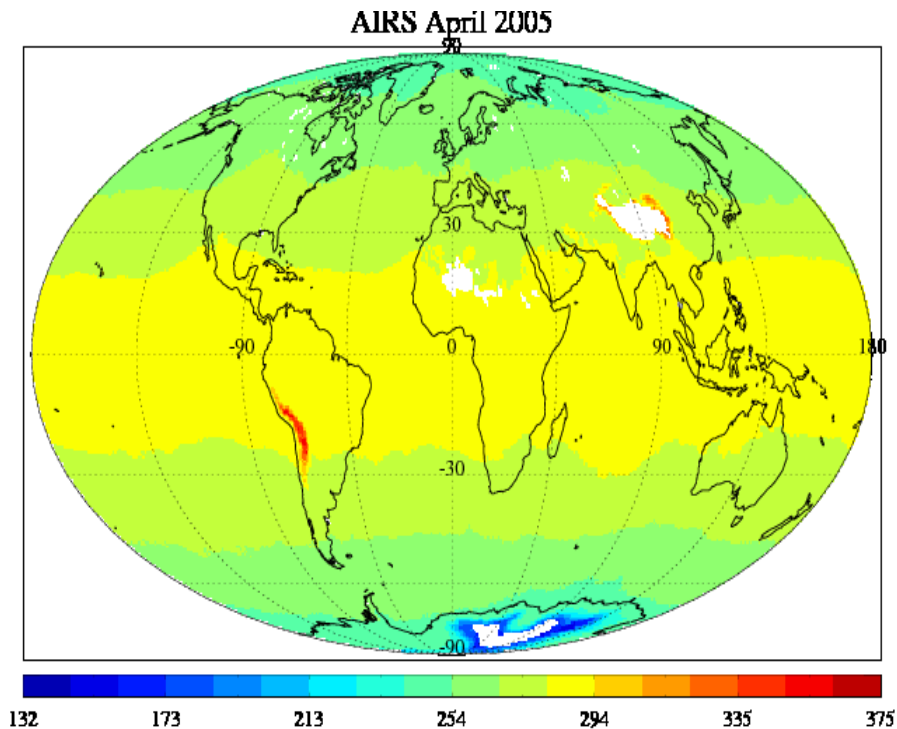
Any variables selected from this group will include: **pressStd, pressH2O, PSurfStd, nSurfStd, PBest, PGood, MWSurfClass, Qual\_MW\_Only\_H2O, Qual\_H2O, H2OMMRStdErr, totH2OStdErr, num\_H2O\_Func, H2O\_verticality, totCldH2OStdErr, nBestStd, nGoodStd**





# Subterranean Temperature Blues

Some unrealistic Level 3 700 mbar temperatures





# Some AIRS Climatologies are in Giovanni

## AIRS Online Visualization and Analysis

### AIRS Global 1.0° x 1.0° (2.5° x 2.0° for CO2) Monthly Level-3 Products

Home

Remove All

To build on the success of the [previous version of the Giovanni online analysis tool](#), this Giovanni-3 interface has been redesigned to improve visualization and analysis of the AIRS Global 1.0° x 1.0° (except CO2 which is in 2.5° x 2.0° lonxlat bin) monthly Level-3 Products. By choosing various data services below, users can create area plots, time series plots, Hovmöller diagrams and animations or compare different flavors of AIRS Level-3 data. Results can be downloaded either in HDF or ASCII format. Please check [data availability](#) to ensure a successful run.

#### Select:

**Parameters**  
**Display:**  Data Product Info  Climatology Info  Units  Parameters with > 2 Dimensions  Only Parameters with Climatology  
**Analysis Options:**  Parameter  Climatology  Anomaly [Show Notes...](#)

<input type="checkbox"/> AIRX3C2M.005(2002/09 - 2011/03) ▲	
<i>Parameter</i>	<i>Climatology Info</i>
<input type="checkbox"/> CO2_fraction	No Climatology Information Available
<input type="checkbox"/> AIRX3STM.005(2002/09 - 2011/03) ▲	
<input type="checkbox"/> Cloud fraction (fine)_descending (FineCloudFrc_D) (12 Levels) (3D)	Cloud fraction (fine)_descending (FineCloudFrc_D) (12 Levels)
<input type="checkbox"/> Cloud top pressure_ascending (CloudTopPres_A)	Cloud top pressure_ascending (CloudTopPres_A)
<input type="checkbox"/> Cloud top pressure_descending (CloudTopPres_D)	Cloud top pressure_descending (CloudTopPres_D)
<input type="checkbox"/> Cloud top temperature_ascending (CloudTopTemp_A)	No Climatology Information Available
<input type="checkbox"/> Cloud top temperature_descending (CloudTopTemp_D)	No Climatology Information Available



# Summary

- Documentation is needed for V6
- We need science team feedback on reprocessing plan
- Version 4 will be retired at the start of V6
  - Advance notice to users
- Version 5 (L2, L3) processing stops when V6 complete
- When will the Level 3 PGE be delivered?
- We need to know about any changes to quality control
- Some Level 3 Temperatures are not correct
- Some AIRS Climatologies are available in Giovanni