

TES GDS

Instrument Team Ground Data System Reports



September 13, 2006





Current State of Data Production

- TES GDS software version: 'R9', active at SIPS from February '06, Limb data processing capability provided in April '06
 - Format versions – L1B F03_03, L2 F03_03
 - ESDT Version 2
- State of L2 Product described in TES Data User's Guide and Quality Summary
(http://eosweb.larc.nasa.gov/PRODOCS/tes/Quality_Summaries/L2_products_v002.html)
- Nadir Product Maturity:
 - O3, CO – validated
 - ATMT, H2O, HDO – provisionally validated
 - HNO3 – beta
- Limb Product Maturity
 - O3, NO2, ATMT – beta



Current State of Data Production

- SIPS R9 processing is currently up to date, reprocessing of backlogged data completed May '06 (Nadir) and July '06 (Limb)
- ASDC holds 273 R9 Global Surveys, 715 Special Operations
- ASDC site provides listings of data holdings for L1B and L2 with data format,
 - L1B: http://eosweb.larc.nasa.gov/PRODOCS/tes/tes_l1b.php
 - L2: http://eosweb.larc.nasa.gov/PRODOCS/tes/tes_products.php



Data Processing Hiccups

- Early R9 SIPS processing was augmented via 'CASPER' processing
- Several instances of incorrect Format Version was provided to ASDC with CASPER processing. These have been corrected
- Several instances of duplicate data have been provided to ASDC, these have been corrected



New Data to Come

- TES GDS software version: 'R10', SIPS installation date dependent on GMAO GEOS5 – projected Nov 1st
 - Format versions – L1B F03_03, L2 F04_04
 - ESDT Version 3 for L2 Products
- R10 address improvements in Trop Limb retrievals, CO2 Spectroscopy
- “There are significant improvements to our retrievals for temperature, water vapor, ozone, and methane. The limb data is valid over an extended vertical range and includes a correction to the pointing angle retrieval. There are improvements to the cloud retrieval products in this version of data as well.”



Problems solved

- ASDC listing of holdings provided us with a much improved ability to see what is really at the DAAC
- Secondary wait timer has been adjusted to where we rarely receive partial data
- ASCII UTCTime in Geolocation caused product subsetter to fail in testing
 - This field moved to data portion of product for R10



Problems unsolved

- GEOS5 GMAO planning and scheduling

TES and R10 processing is directly dependent on GEOS5
GMAO – we have little insight into planning and scheduling

Delay of scientifically valid data inhibits our science validation for
our R10 release



Reading TES data

- IDL readers provided early in each release
 - http://eosweb.larc.nasa.gov/PRODOCS/tes/tools/l2_read_software.html
- Readers are backward compatible



National Aeronautics and Space
Administration
Jet Propulsion Laboratory
California Institute of Technology

Tropospheric Emission Spectrometer

chem-dswg mail list



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chem-dswg@tes-mail.jpl.nasa.gov

- Please address any modification requests to:
scf-staff@tes-mail.jpl.nasa.gov