



Overview of TES Data at the ASDC

The TES Project – The TES (Tropospheric Emission Spectrometer) project's primary objective is to make global, three-dimensional measurements of ozone and other chemical species involved in its formation and destruction.

Data Products – TES is a high-resolution imaging infrared Fourier-transform spectrometer that operates in both nadir and limb-sounding modes. TES global survey standard products include profile measurements of ozone, water vapor, carbon monoxide, methane, nitrogen dioxide, and nitric acid for 16 orbits every other day. TES Special Observations are research measurements of targeted locations or regional transects which are used to observe specific phenomena or to support local or aircraft validation campaigns.

Data from the TES project are written in HDF5 format (Level 1B) and HDF-EOS5 format and can be obtained from the TES section of the ASDC website: https://eosweb.larc.nasa.gov/project/tes/tes_table

Documentation – We recommend reading the [TES Quick Start Guide](#), which is an excellent overview of the TES project. Other recommended documents are the: [TES ATBD documents](#), and the [TES Primer](#).

Dataset Organization – The datasets are stored as hdf files and are organized by processing level and sensor: with Level 1 being full resolution, time and geo-referenced instrument data, Level 2 being the derived geophysical variables, and Level 3 being the variables mapped on a uniform space-time grid.

Ordering Data – Use the [ASDC HTML TOOL](#), the [Reverb Search Tool](#), and for Level 2 data only, the [TES Search and Subset Tool](#). Register as a New User, if you have not already registered. TES data products are also available from the [ASDC Data Pool](#). The Data Pool is an on-line data cache that provides FTP access to select ASDC data products. Data files are stored in directories based on data product and acquisition date.

Data Read and Display Tools – There are some Python, NCL, Matlab and IDL examples on the HDF Group's website: <http://hdfeos.org/zoo/>. Panoply is a netCDF, HDF, and GRIB viewer which creates maps of gridded TES data: <http://www.giss.nasa.gov/tools/panoply/>

HDFView is a free, easy-to-use visual tool from the non-profit HDF Group for browsing and editing HDF4 and HDF5 files: <http://hdfeos.org/software/tool.php#HDFVIEW>.

My NASA Data is an easy-to-use interface that displays selected TES datasets, with several options to output the data. Go to the website and use the Live Access Server – Advanced: [MY NASA DATA](#).

We hope this information is useful for you. If you have any questions, please contact us at support-asdc@earthdata.nasa.gov.

NASA Langley ASDC User Support

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