# Overview of MISR Data at the ASDC

**The MISR Project – The Multi-angle Imaging SpectroRadiometer (MISR)** project measurements are designed to improve our understanding of the Earth's environment and climate. Viewing the sunlit Earth simultaneously at nine widely-spaced angles, MISR provides radiometrically and geometrically calibrated images in four spectral bands at each of the angles.

**Data Products –** Data products (parameters) include: Georectified Radiance Emissivity, Land Surface, Aerosol, Albedo, Cloud, Cloud Fraction by Altitude, Cloud Motion due to advection, Aerosol Summary, Tropospheric Aerosol Optical Depth, Aerosol Composition and Size, Surface Directional Reflectance factors, Bi-hemispherical Reflectance, Radiometric Camera-by-camera Cloud Mask, TOA/Cloud Stereo Data, TOA/Cloud Albedo Data, TOA/Cloud Classifiers, Ellipsoid Data, Terrain Data, and Browse Data.
Data from the MISR project can be obtained from the MISR section of the ASDC website: https://eosweb.larc.nasa.gov/project/misr/misr_table . MISR Imagery and Articles can be found here: https://eosweb.larc.nasa.gov/project/misr/imagery .

**Documentation –** We recommend taking a look at the MISR Frequently Asked Questions section, which is an excellent introduction to the MISR project: https://eosweb.larc.nasa.gov/faq-page/misr-faq .

**Dataset Organization –** The datasets are stored as HDF-EOS files and are organized by processing level and data product. The Level 1 products are processed and calibrated to remove the instrument effects and are suitable for subsequent scientific derivations. The Level 1 products are in swaths, each derived from a single MISR orbit, where the imagery is 360 km wide and approximately 20,000 km long. The Level 2 Products are geophysical measurements derived from the Level 1B2 data and are also in the same swath configuration. The MISR Level 3 Products are global or regional maps (grids) of select parameters from the Level 2 products. Level 3 global maps are available at daily (D), monthly (M), quarterly (Q), and yearly (Y) time scales.

**Data Ordering Tools –** There are four ways to order MISR data: the HTML Order Tool (https://eosweb.larc.nasa.gov/HBDOCS/langley_web_tool.html), the Reverb Search Tool (http://reverb.echo.nasa.gov/reverb), the MISR Order and Customization Tool , and the ASDC Data Pool (ftp and OPeNDAP) at https://eosweb.larc.nasa.gov/datapool. Register as a New User, if you have not already registered.

**Data Read and Display Tools –** MISR has several tools for working with the data here: https://eosweb.larc.nasa.gov/tools/ . There are some Matlab, NCL, Python, and IDL examples on the HDF Group's website: http://hdfeos.org/zoo/ . Here are some good Tutorials on MISR data: https://eosweb.larc.nasa.gov/sites/default/files/project/misr/misr_workshop.pdf

**GIOVANNI** is a free, easy-to-use visualization and analysis tool which uses selected MISR datasets: http://disc.sci.gsfc.nasa.gov/giovanni .

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
*Preserving, managing, and sharing atmospheric data for the common good*