

Metadata for MVISR data products

The data products available in this directory are derived from Direct Broadcast Telemetry and are intended for applications which prioritize timeliness of the data over data quality.

Directory structure

MVISR/ most recent JPEG and TIFF files generated from MVISR telemetry by MAGIC DBRS
 MVISR/Archive/ JPEG and TIFF files generated during previous days beginning May 6, 2010

The MVISR directory is refreshed daily. MVISR products are typically available within about 20 minutes following satellite overpass. The previous day's data products are transferred to the MVISR /Archive/ subdirectory when the first pass of the current day is posted.

FengYun (FY)1-D overflights usually occur around 21:40 UTC +/- 45 minutes (MVISR).

Image Extents for All Products in Geographic Coordinates (Latitude x Longitude):

Upper Left Corner: 30.47592 x -98.09755 Upper Right Corner: 30.47592 x -80.60245
 Centroid: 24.3 x -89.35
 Lower Left Corner: 18.12408 x -98.09755 Lower Right Corner: 18.12408 x -80.60245

Data Product Dimensions

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1 kilometer Data Products

Lines (Rows): 1375
 Samples (Columns): 1775
 Coordinate System: Geographic (Decimal Degrees)
 Datum: WGS84
 Pixel Width (Degrees): 0.0098564
 Pixel Height (Degrees): 0.00898315

File naming convention

2-character satellite designation:

fd = Chinese polar orbiter FY-1D (late afternoon)

8-digit date stamp: yyyymmdd, where y = year, m = month, d = day

4-digit time stamp: hhmm, where h = hour, m = minute in Coordinated Universal Time (UTC). To convert to local time in Central Daylight, subtract 5 hours. Measured from the start of the pass acquisition from which the Gulf region scene was extracted.

multi-character data product tag:

no tag: 1km 24-bit(8 bits per channel) JPEG from bands 1,9,7

O16: One-kilometer (1000 m) 16-bit TIFF file with tfw world file

location designator: gulf-geo, the entire Gulf of Mexico basin

nominal ground sample distance designator at center of scene:

1km = 1 kilometer nominal pixel size

3-character file suffix:

.tif = TIFF (not GeoTIFF)

.tfw = ESRI world file
.jpg = JPEG
.jgw = ESRI world file

Data Product Information:

Each data product contains a single swath or pass. If a pass does not fully intersect the image extent, the resulting image will contain no data values for areas not imaged. The no data value for the MVISR 16-bit TIFF files is 32768. The no data value for the MVISR 8-bit JPEG files is 255.

no tag: 1km 24-bit (8 bits per channel) GeoJPEG generated from bands 1,9,7

An equalization enhancement is applied to each band before the subset and registration process in order to achieve a more balanced enhancement than obtained from enhancing the subscene view.

8-bits per channel

Example file name: fd.20100506.2130.gulf-geo.1km.jpg

O16: One-kilometer, 16-bit TIFF file with tfw world file

Geographic WGS 84 coordinate system, nominal 1km resolution

Bands 1-10

16-bits per channel unscaled signed integer values

Example file name: fd.20100506.2130.O16.gulf-geo.1km.jpg

- Band 1 = MVISR Band 1, visible red
- Band 2 = MVISR Band 2, near infrared
- Band 3 = MVISR Band 3, near infrared
- Band 4 = MVISR Band 4, thermal infrared
- Band 5 = MVISR Band 5, thermal infrared
- Band 6 = MVISR Band 6, near infrared
- Band 7 = MVISR Band 7, visible indigo
- Band 8 = MVISR Band 8, visible blue
- Band 9 = MVISR Band 9, visible green
- Band 10 = MVISR Band 10, near infrared

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Please credit The University of Texas at Austin Center for Space Research.

Please address questions or comments to magicdbrs@csr.utexas.edu.