

I. MODIS Data Products: File Descriptions

MODIS Level 2 data

MODIS level 2 granules are available by ordering from the Goddard DAAC (GDAAC) at <http://acdisx.gsfc.nasa.gov/data/dataset/MODIS/index.html>. These granules are at 1 km² resolution and each contains 5 minutes of collected data.

The MODIS Oceans level 2 products are grouped together into several HDF files. The GDAAC has recently implemented a capability to order individual products for a prescribed geographic area and time. However, here we describe the HDF files in which products are grouped. These are listed below. The list of products in each file are contained in *Appendix #1*, and also found at:

<http://modis-oceans.gsfc.nasa.gov/parameters.html> and
<http://picasso.oce.orst.edu/ORSOO/MODIS/code/Table11params.html>

The MODIS Oceans Level 2 products are contained within the following HDF files:

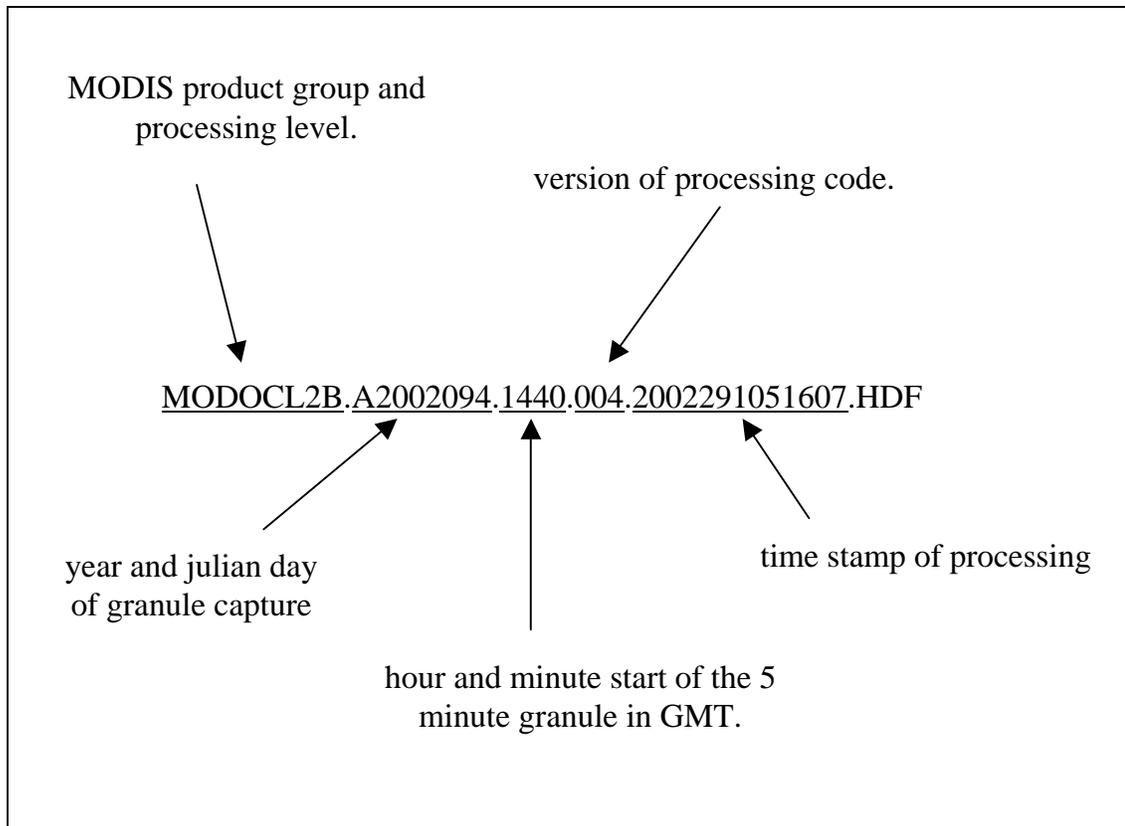
MODOCL2	→	Water-leaving radiances and related products
MODOCL2A	→	Ocean color group 1 products
MODOCL2B	→	Ocean color group 2 products
MOD28L2	→	Sea-surface temperatures and related products
MODOCQC	→	Ocean color QC products
MOD28QC	→	SST QC products
MOD03	→	Geolocation level 1a file (see *NOTE 1)
MOD09	→	MODIS land products (see **NOTE 2)

*NOTE 1: MODIS Oceans Level 2 files need a corresponding ‘geolocation’ file for any remapping. This file is contained in the MODIS Level 1A ‘MOD03’ product (also available at the GDAAC).

**NOTE 2: This file contains ‘atmospherically-corrected’ radiances for MODIS bands 1-7, generally used for land remote sensing. This file contains a number of high resolution bands (250m and 500m) which do contain ocean radiances for coastal zones. This file can also be used to generate ‘true-color’ composites. These files are NOT generally available from the GDAAC but can be included in a “push” order. They are very large – 600Mbytes per granule.

Filename convention

MODIS level 2 filenames all follow a similar convention. The breakdown is illustrated on the following figure.



MODIS Level 3 data

MODIS Level 3 data are available from the GDAAC (4km, 36km and 1 degree resolution) at <http://acdisx.gsfc.nasa.gov/data/dataset/MODIS/index.html> and at the MQABI site (at 36km, 1 degree res.) (<http://jeager.gsfc.nasa.gov/browsetool/>).

What is HDF?

HDF stands for Hierarchical Data Format. All MODIS level 2 and level 3 data are in this format. Actually, MODIS data are in HDF-EOS format, which is more of a specialized HDF format. This format adds new specialized data fields (Point, Swath and Grid) developed for Earth science data. This format can still be read using 'regular' HDF read commands as 'SDS' (Scientific Data Set) variables. Several of the websites listed above go into depth on HDF and HDF-EOS. HDF can be read very easily in SeaDAS, IDL and Matlab.