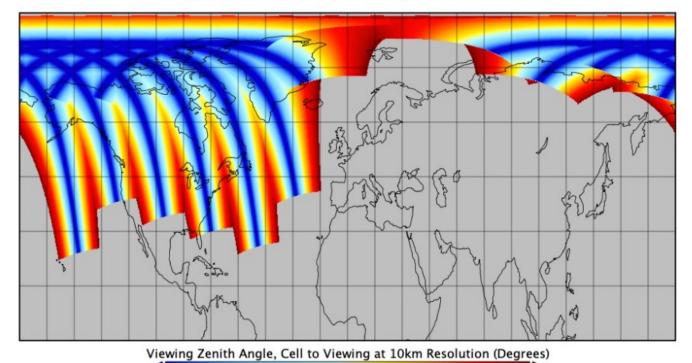


Viewing Zenith Angle, Cell to Viewing at 10km Resolution



Data Min = 0.2, Max = 65.0

53.0

65.0

5.0

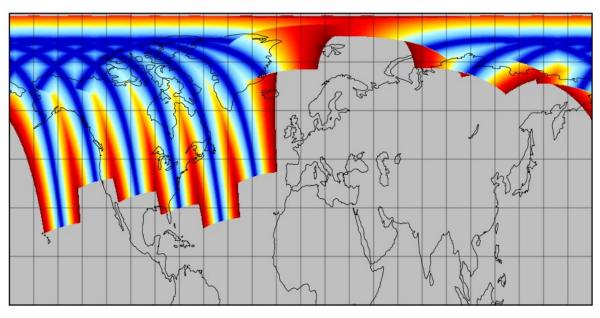
17.0

**Above**: L2 mosaic attempt following hdfeos.org python example¹ created from 28 MYDATML2 files (SDS = viewing zenith angle 10km; filenames are given in the file list\_of\_files and also on the final page). This image was created using the code L2\_mosaic\_testing.ipynb (https://github.com/ianashpole/L2\_mosaic/blob/main/L2\_mosaic\_testing.ipynb)

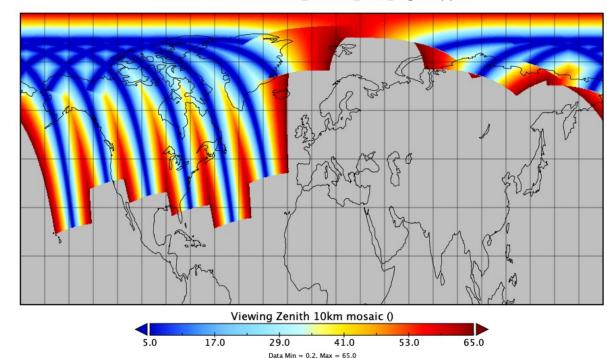
**Left**: L2 mosaic created from the same 28 files and SDS, using post- processing "mosaic" and "reproject" options (detailed on final page) from laads find data interface

<sup>1</sup>http://hdfeos.org/zoo/MORE/LAADS/MOD/MOD04\_L2\_m erge.z.py

#### from mosaic file downloaded from laadsweb



mosaic created from L2\_mosaic\_with\_regrid.ipynb



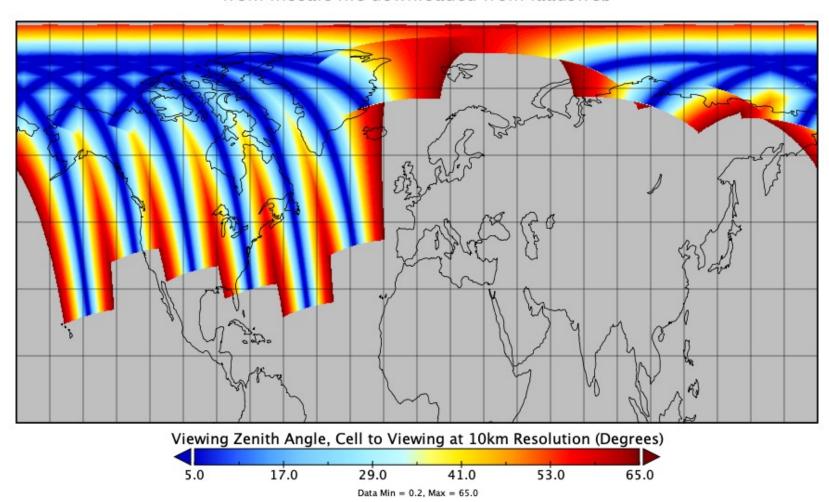
**Top**: L2 mosaic created from the same 28 files and SDS, using post- processing "mosaic" and "reproject" options (detailed on final page) from laads find data interface

<sup>1</sup>http://hdfeos.org/zoo/MORE/LAADS/MOD/MOD04\_L2\_m erge.z.py

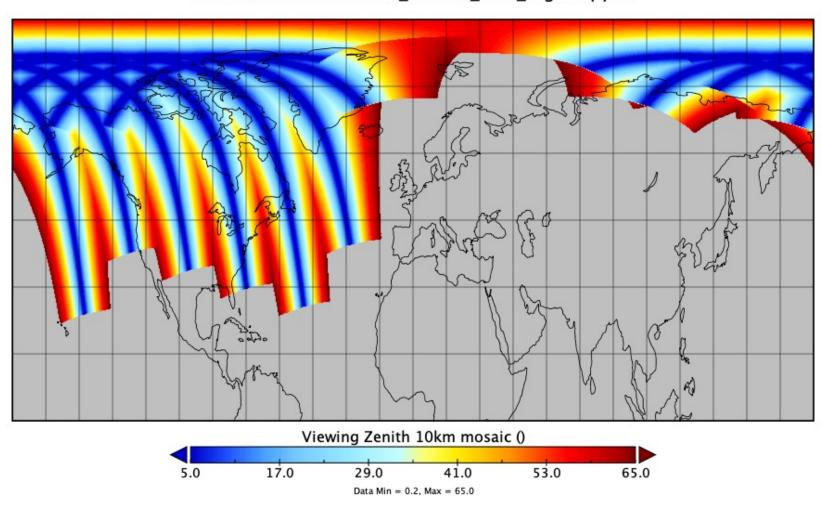
**Bottom**: L2 mosaic created using the code L2\_mosaic\_with\_regrid\_final.ipynb (https://github.com/ianashpole/L2\_mosaic/blob/main/L2\_mosaic\_with\_regrid\_final.ipynb). The same 28 files were processed as in the image above and in the erroneous mosaic on the previous page.

The images are almost identical except for a tiny offset evident at swath edges (visible by panning between the images reproduced in larger form on the following two pages). I am unsure why this is occurring, but suspect it may be due to my specification of grid box edges in my code (L2 mosaic with regrid final.ipynb) vs grid box midpoints in the laads post-processed mosaic... TO BE VERIFIED!

#### from mosaic file downloaded from laadsweb



### mosaic created from L2\_mosaic\_with\_regrid.ipynb



## **List of swath files processed:**

MYDATML2.A2022214.1200.061.2022215174300.hdf MYDATML2.A2022214.1205.061.2022215174618.hdf MYDATML2.A2022214.1335.061.2022215175335.hdf MYDATML2.A2022214.1340.061.2022215175442.hdf MYDATML2.A2022214.1345.061.2022215172424.hdf MYDATML2.A2022214.1505.061.2022215175324.hdf MYDATML2.A2022214.1510.061.2022215180301.hdf MYDATML2.A2022214.1515.061.2022215175001.hdf MYDATML2.A2022214.1520.061.2022215172759.hdf MYDATML2.A2022214.1640.061.2022215174756.hdf MYDATML2.A2022214.1645.061.2022215164953.hdf MYDATML2.A2022214.1650.061.2022215180022.hdf MYDATML2.A2022214.1655.061.2022215175702.hdf MYDATML2.A2022214.1820.061.2022215180131.hdf MYDATML2.A2022214.1825.061.2022215181331.hdf MYDATML2.A2022214.1830.061.2022215180306.hdf MYDATML2.A2022214.1835.061.2022215175746.hdf MYDATML2.A2022214.2000.061.2022215180252.hdf MYDATML2.A2022214.2005.061.2022215180933.hdf MYDATML2.A2022214.2010.061.2022215175930.hdf MYDATML2.A2022214.2015.061.2022215175022.hdf MYDATML2.A2022214.2140.061.2022215175139.hdf MYDATML2.A2022214.2145.061.2022215175317.hdf MYDATML2.A2022214.2150.061.2022215175929.hdf MYDATML2.A2022214.2315.061.2022215180645.hdf MYDATML2.A2022214.2320.061.2022215175043.hdf MYDATML2.A2022214.2325.061.2022215175000.hdf MYDATML2.A2022214.2330.061.2022215174719.hdf

# Post-processing options used on laads find data interface:

(https://ladsweb.modaps.eosdis.nasa.gov/search/)

Mosaic: YES

Reproject: YES

- Output pixel size: 0.1deg

- Projection: GEO

- Resample type: NEAREST