

MODIS LST

Some Initial Questions:

- should we combine the LST for both Aqua and Terra?
 - I am not sure what this looks like, but I am thinking maybe an average of the values where they exist in both platforms, and then filling in nodata values in one with the other where the data allow.
- how to deal with LST-day / LST-night?
 - there are 2 different LST layers in the MOD11A2/MYD11A2 products, should we use only one of them? combine them?
 - how to deal with the aggregation of WRF Skin-temp (TSK) from hourlies to 8-day averages?
 - I have a method that can sub-select from the WRF hourly tsk the hour range that is used in the creation of the LST_Day product, which I computed from the `Day_view_time` variable layer in the raw HDF files
- how to deal with potentially large areas of nodata due to cloud-cover?
 - the first point above (if the combining of platforms is

chosen as a way forward) deals with *some* of these missing data values, but not all. I have some preliminary code that attempts to deal with this, but there are some anomalies that pop-out from the way I am doing it which is sub-optimal. More work will be necessary there.

- do we interpolate over the missing data? If so, what is the most defensible method to employ?
- why not use the new MOD21A2?
 - There are issues with the new version... see below:
 - errata:
https://landweb.modaps.eosdis.nasa.gov/cgi-bin/QA_WWW/displayCase.cgi?esdt=MOD21&caseNum=PM_MOD21_17307&caseLocation=2004532247.1538684603
 - main site:
https://lpdaac.usgs.gov/dataset_discovery/modis

METADATA:

main_meta:

<https://vip.arizona.edu/documents/viplab/MOD11A2.pdf>