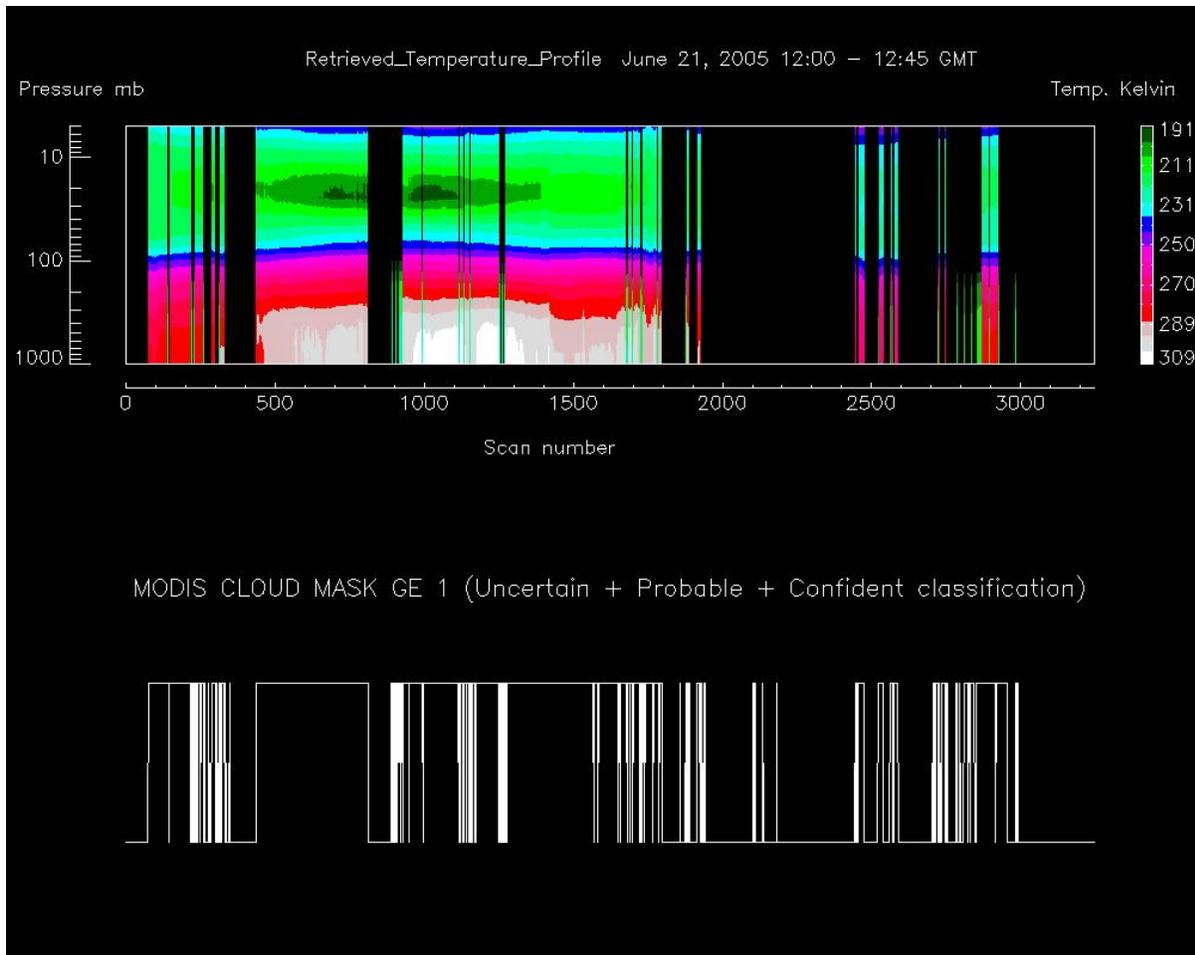


MODIS-CloudSat Orbital Inter-comparison Sample

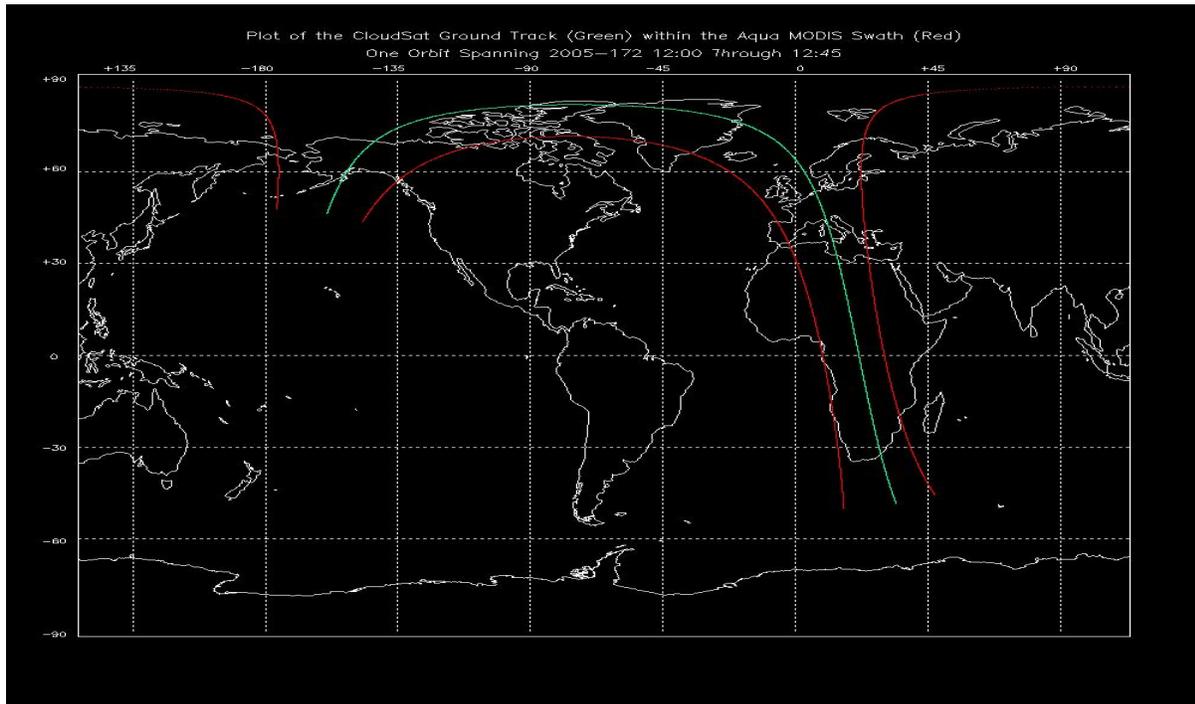
"Retrieved temperature Profile" data field for MODIS MOD07 collocated with the simulated CloudSat sub-track for Jun 21st, 12:00 -12:45 GMT.



MODIS temperature profile and the corresponding cloud mask for June 21, 2005

Eight MODIS 5-min granules were used (the 12:10 granule didn't have good data). Pressure levels for the profiles range from 1000 mb to 5 mb. About 3275 scans of MODIS data are shown. The MODIS pixel selected from each scan line was the one closest to the CLOUDSAT sub-track. For comparison, a plot of the collocated MODIS cloud mask is shown for pixels that were classified as either uncertain cloudy, probably cloudy or confidently cloudy. For the most part the MOD07 temperature retrieval seems to be well correlated with this cloud mask classification, i.e., no retrievals when cloudy.

A plot of the original MODIS swath edges (red) and the subsetted ($\pm 3\text{km}$) MODIS swath edges (green). Central pixels of the subsetted product are MODIS pixels nearest to the CloudSat ground track. We did use the simulated CloudSat TLE provided by Colorado folks.



MODIS swath and CloudSat subtrack