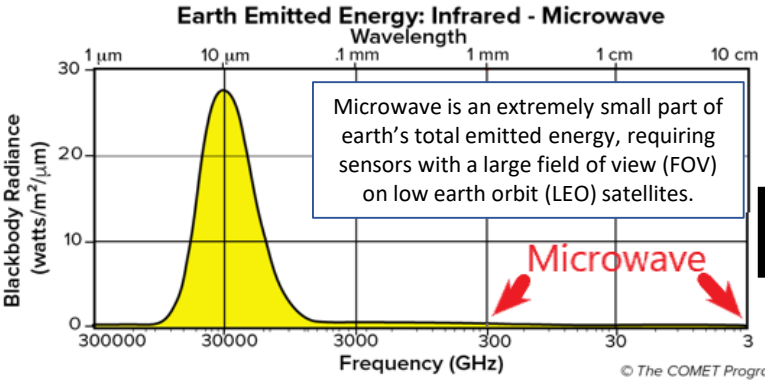
MIRS Skin Temperature

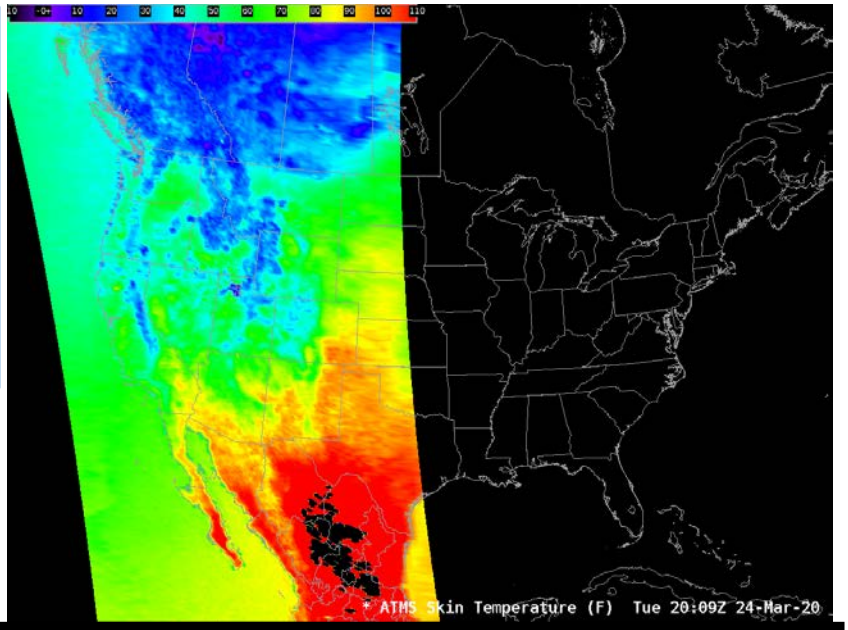
Quick Guide

Skin Temperature from Microwave

Skin Temperature and Emissivity control the amount of energy emitted by the surface and detected by the satellite. It is important that emissivity properties of the surface are well-characterized.

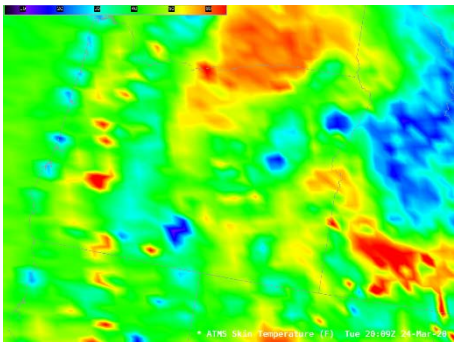
The MiRS Skin Temperature product is valid day or night, and in most weather conditions. The coarse resolution may not be able to resolve small terrain-driven features.





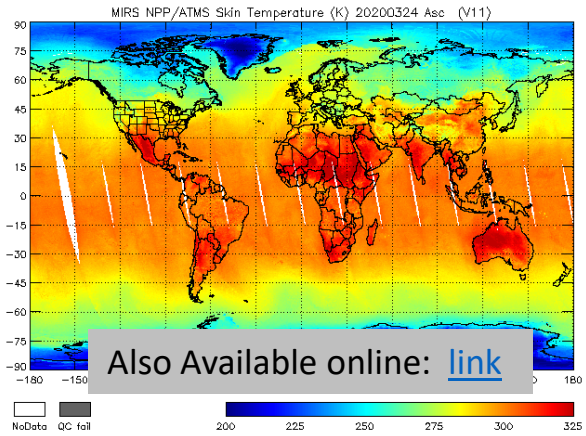
MIRS Skin Temperature from NOAA-20 ATMS at 2009 UTC, 24 Mar 2020

Note: The temperature range is too large for the color bar!



Pixelated views occur if you zoom in, as at left over Oregon

MIRS Skin Temperature from NOAA-20 ATMS at 2009 UTC, 24 Mar 2020 Note: A different color bar from the one in the upper right!



Also Available online: link

Benefits

Skin Temperature is not obscured by clouds: The microwave signal passes through clouds.

Fills gaps in surface temperature observations: MIRS Skin Temperature provides a more complete spatial distribution where surface observations are sparse.

Available day or night

Limitations

Coarse resolution: The sensor may not detect small-scale temperature variability (due to small topographic features for example).

Microwave signal affected by heavy precipitation: If heavy rain is falling, the microwave signal is affected. Use the product with caution there.

Be cautious when viewing large regions: The temperature range may be large enough that values will fall outside the default colorbar

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