**Why is Land Surface Temperature important?**

The GOES-R Land Surface Temperature field depicts the skin temperature as detected in clear skies by satellite. It provides information in regions without thermometers, and can provide useful information about thermal stresses, especially during extreme heat or extreme cold.

It has agricultural uses as well as it can highlight regions where sub-freezing temperatures are occurring.

### Useful Links

- **Advanced Theoretical Basis Document:** [Link]
- **Animation of Latest Values from NOAA/STAR:** [Link]
- **Product Validation:** [Link]

### Operational Information

**Land Surface Temperature:** This product provides information on the Earth’s skin temperatures. This is different from shelter temperatures (for example: ASOS thermometers) that are at 1.5 m.

**Resolution:** Full pixel-sized resolution: 2-km resolution at nadir.

### GOES RGBs with Derived Product Readouts

Readouts are paired with two RGBs in AWIPS: CIRA GeoColor and Day Land Cloud RGB

### Limitations

**This is an hourly product:** Land Surface Temperature is computed hourly. This matches the hourly observations at ASOS stations. Rapidly-evolving surface temperature changes (for example: Santa Ana winds) will be undersampled.

**Clear-Sky only Product:** The product is computed only in regions where clouds are not present.