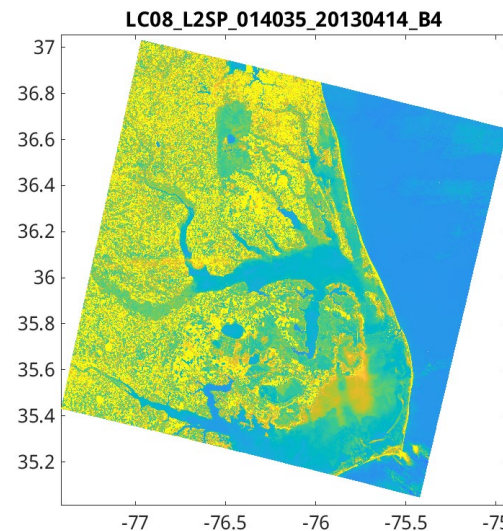
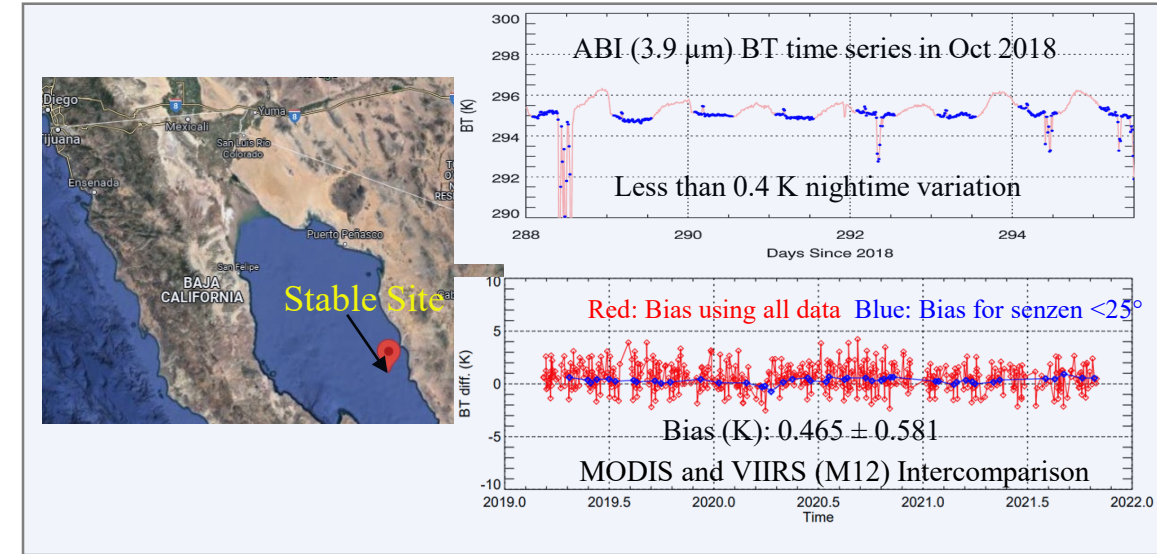


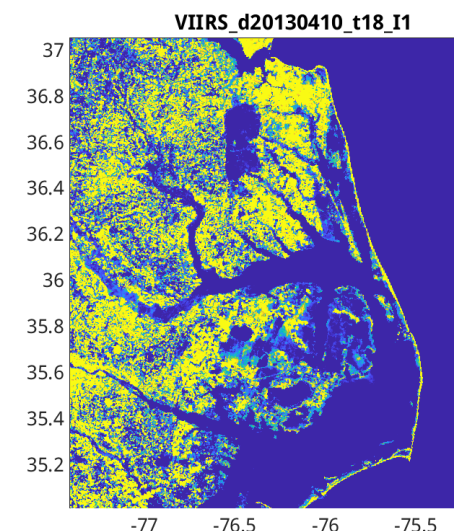
Support:

1. Identifying Stable Ocean Site for TEB Intercomparison/Validation
2. Similarity Index using AI for Geolocation Validation

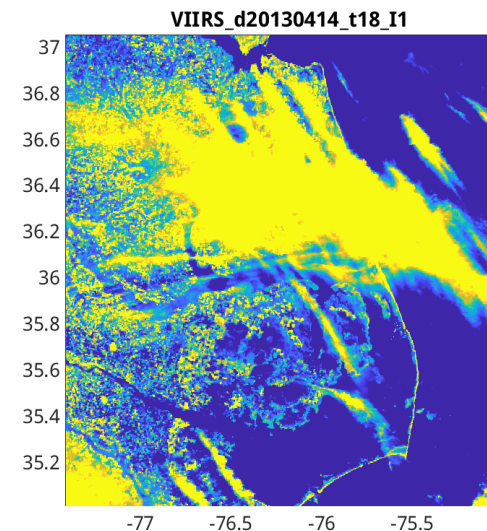
- Supported identifying Stable Ocean Site ($30^{\circ}\text{N}/113^{\circ}\text{W}$) using GOES-16 ABI channel 7 ($3.9\text{ }\mu\text{m}$) nighttime observations: Inter-calibrating between N20 VIIRS and TERRA MODIS in preparation for METImage postlaunch cal/val support
- GOES-16 ABI channel 7 ($3.9\text{ }\mu\text{m}$) nighttime observations used to identify a thermally stable ocean site over Gulf of California ($30^{\circ}\text{N}/113^{\circ}\text{W}$)
- Code the Similarity index detection using Tensorflow MobileNet python code with DNB images.
- Testing reading Landsat GeoTIFF images in python.
- Using Landsat (Band 4) and VIIRS images (I1) to generate similarity index.
- VIIRS Clear sky scenes shows high SI, cloudy scene shows lower SI using Landsat as reference.
- The SI index will be used to screen out cloudy scenes of VIIRS for geolocation comparison.



LandSAT as Reference



Clear Sky SI: 0.71



Cloudy Sky SI: 0.57