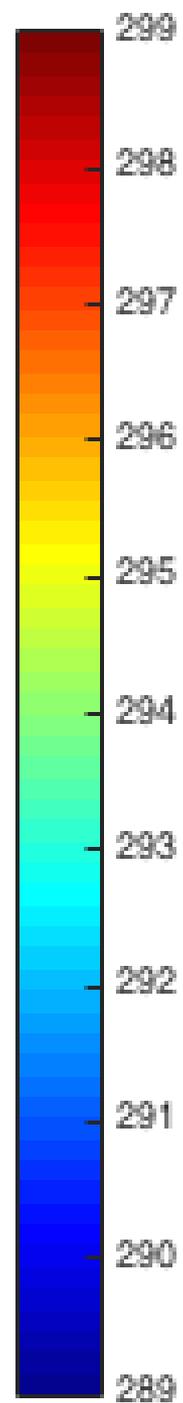
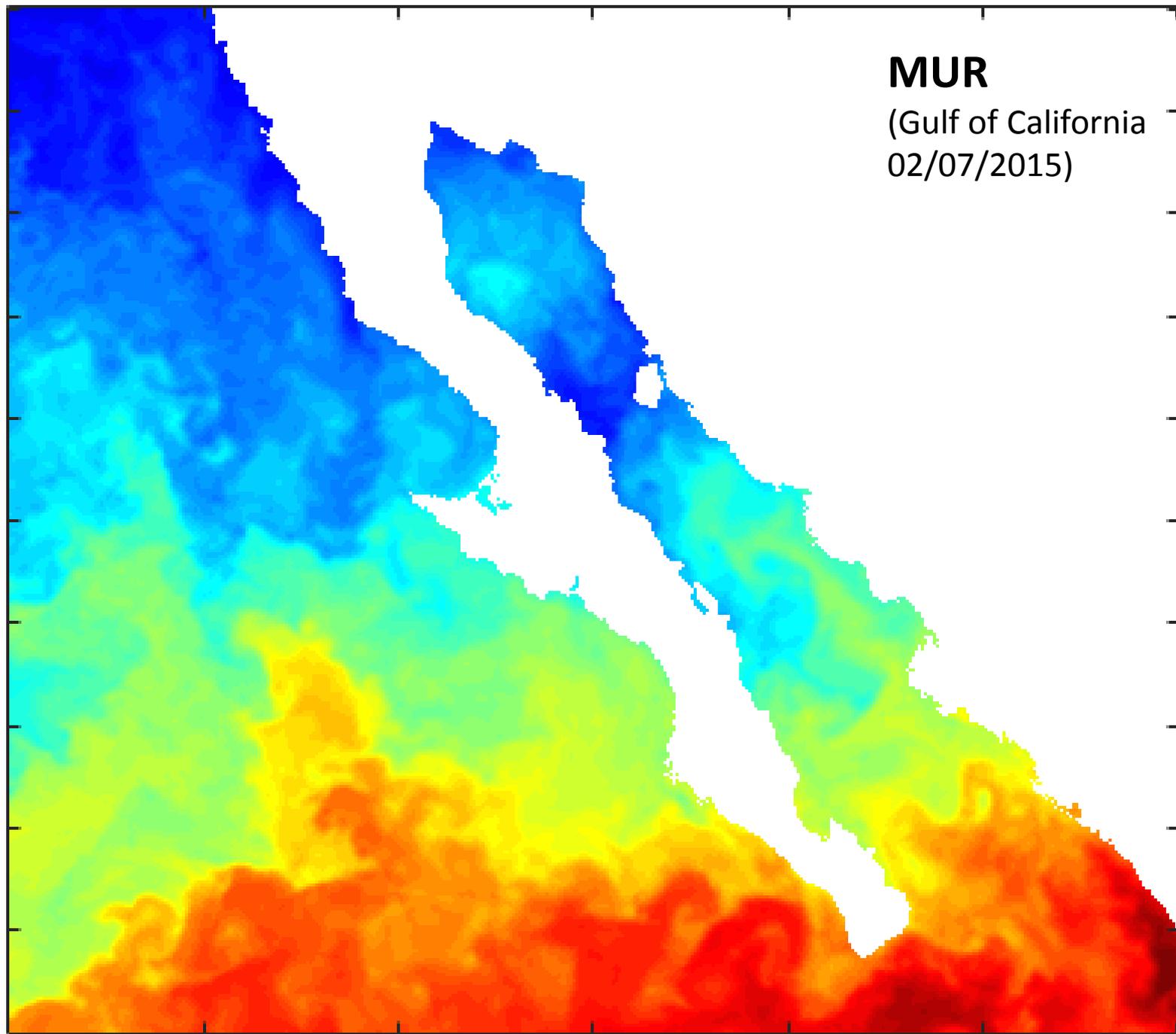


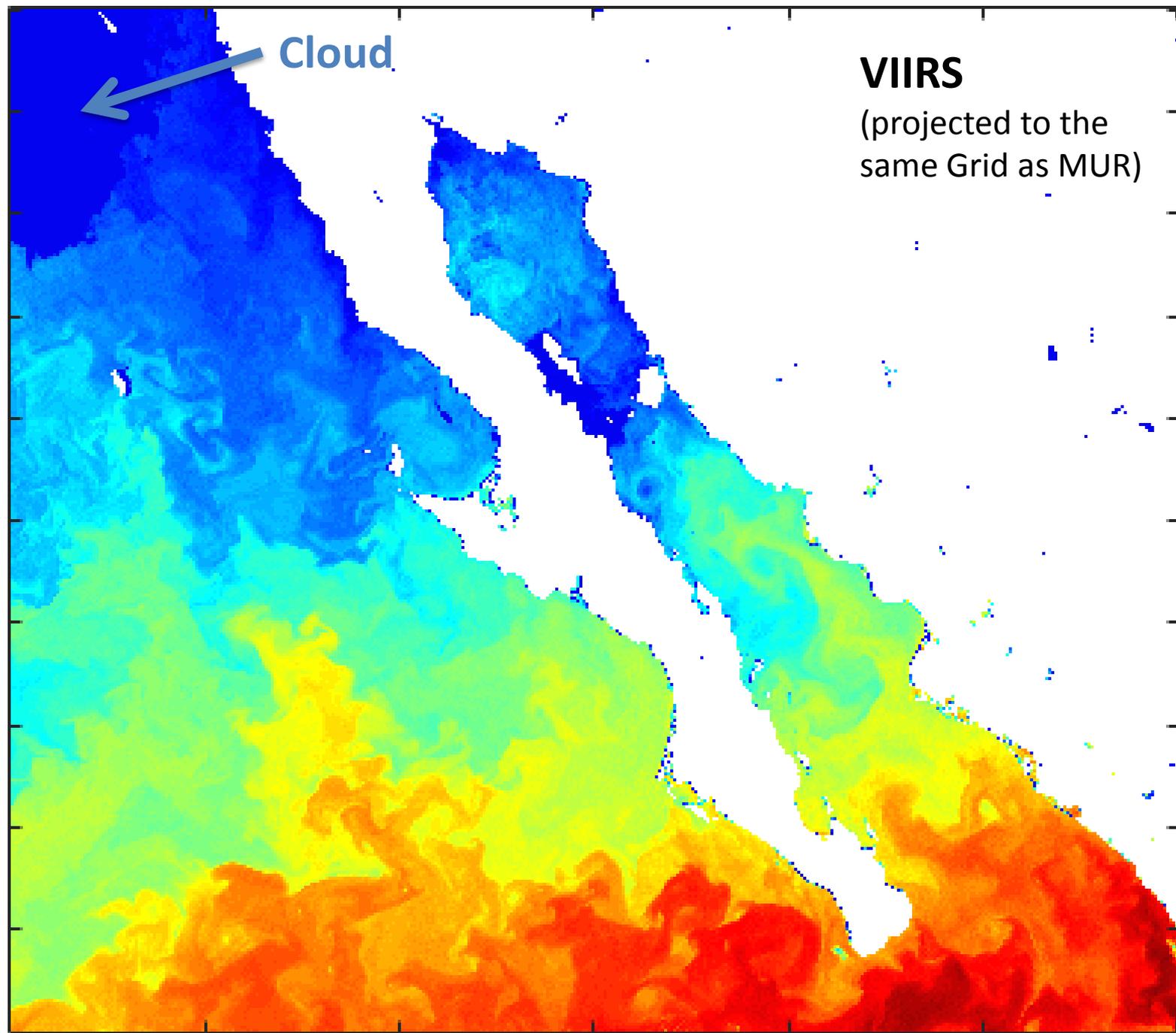
MUR/VIIRS comparison

02/07/2015

Gulf of California

- We have conducted a very limited comparison at this point
- Compared is MUR with ACSPO VIIRS SST, which is not assimilated by L4 MUR
- To facilitate the comparison, ACSPO VIIRS SST was reprojected to same grid as MUR
- Thermal fronts were calculated from MUR SST using gradient field, and superimposed with VIIRS SST imagery
- MUR product seems to capture high resolution ocean features very well!
- Standard global statistics on Delta SST (retrieved – reference SST) may not capture the quality of high resolution spatial features and perhaps a different metric is needed to highlight superior high resolution performance of MUR with respect to other L4 products



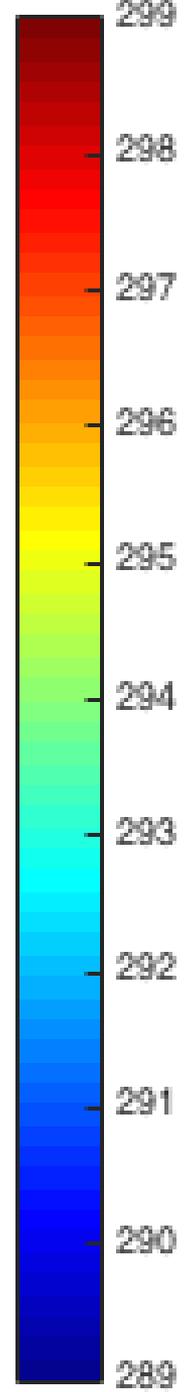


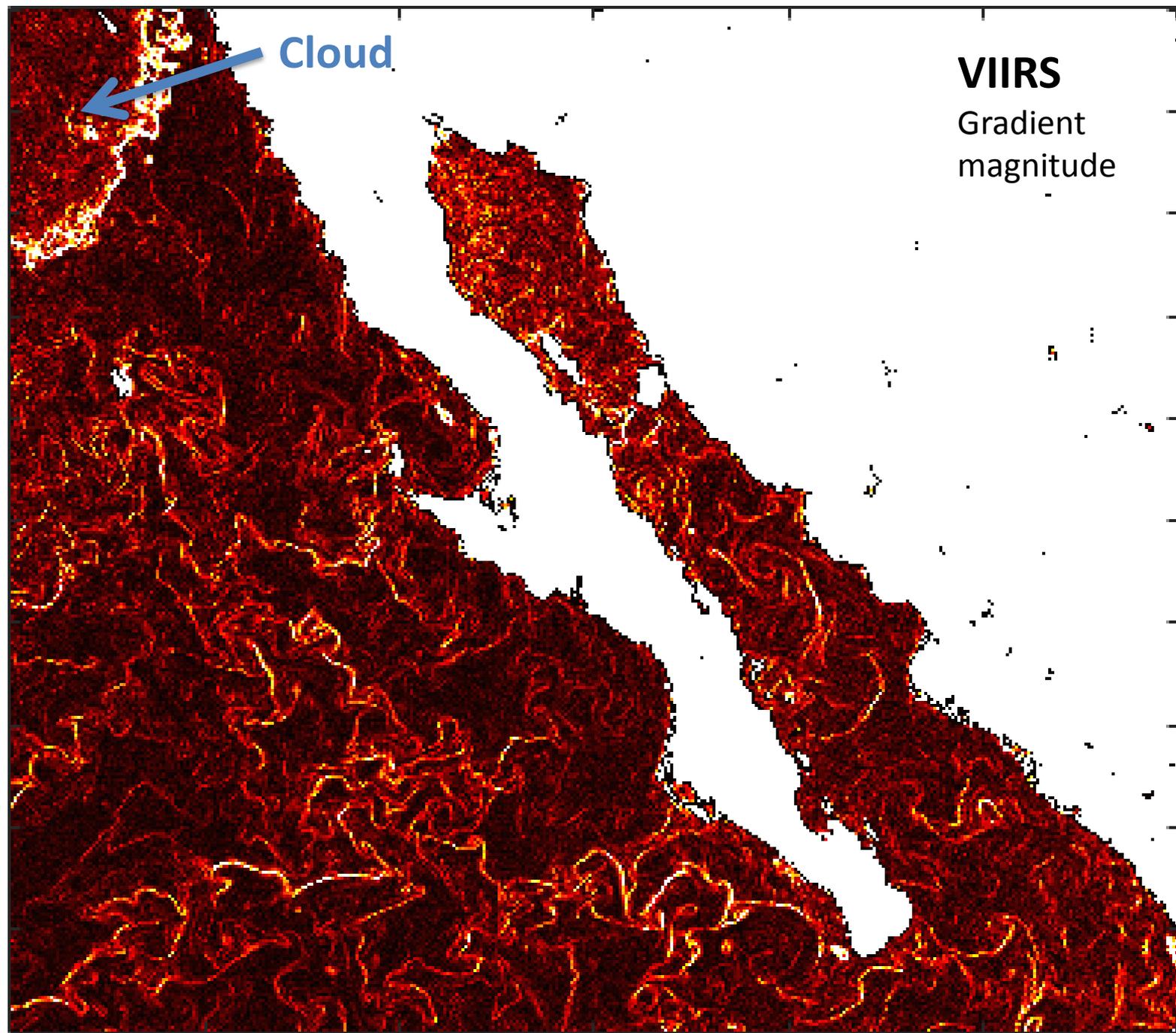
Cloud



VIIRS

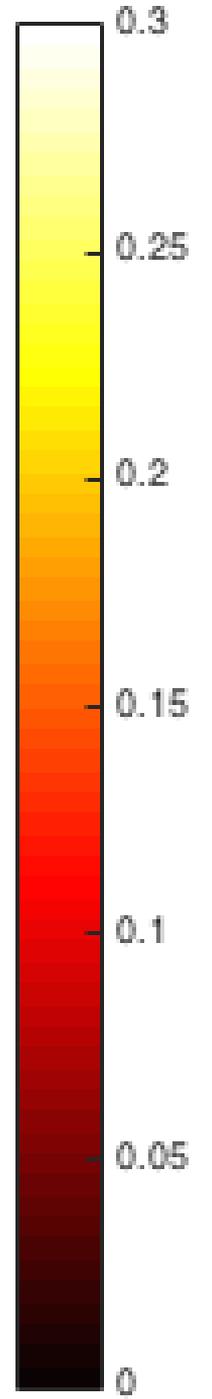
(projected to the
same Grid as MUR)

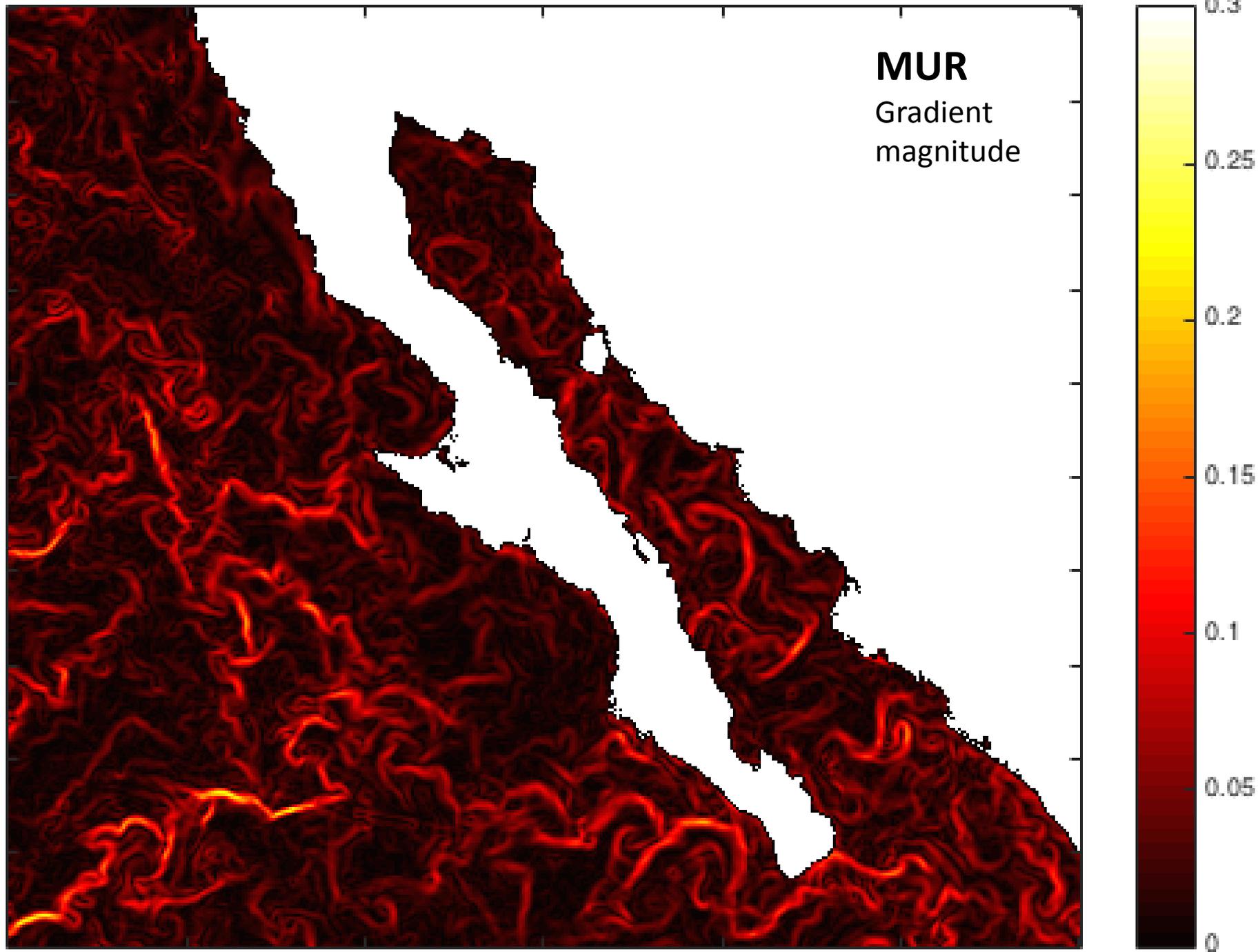




Cloud

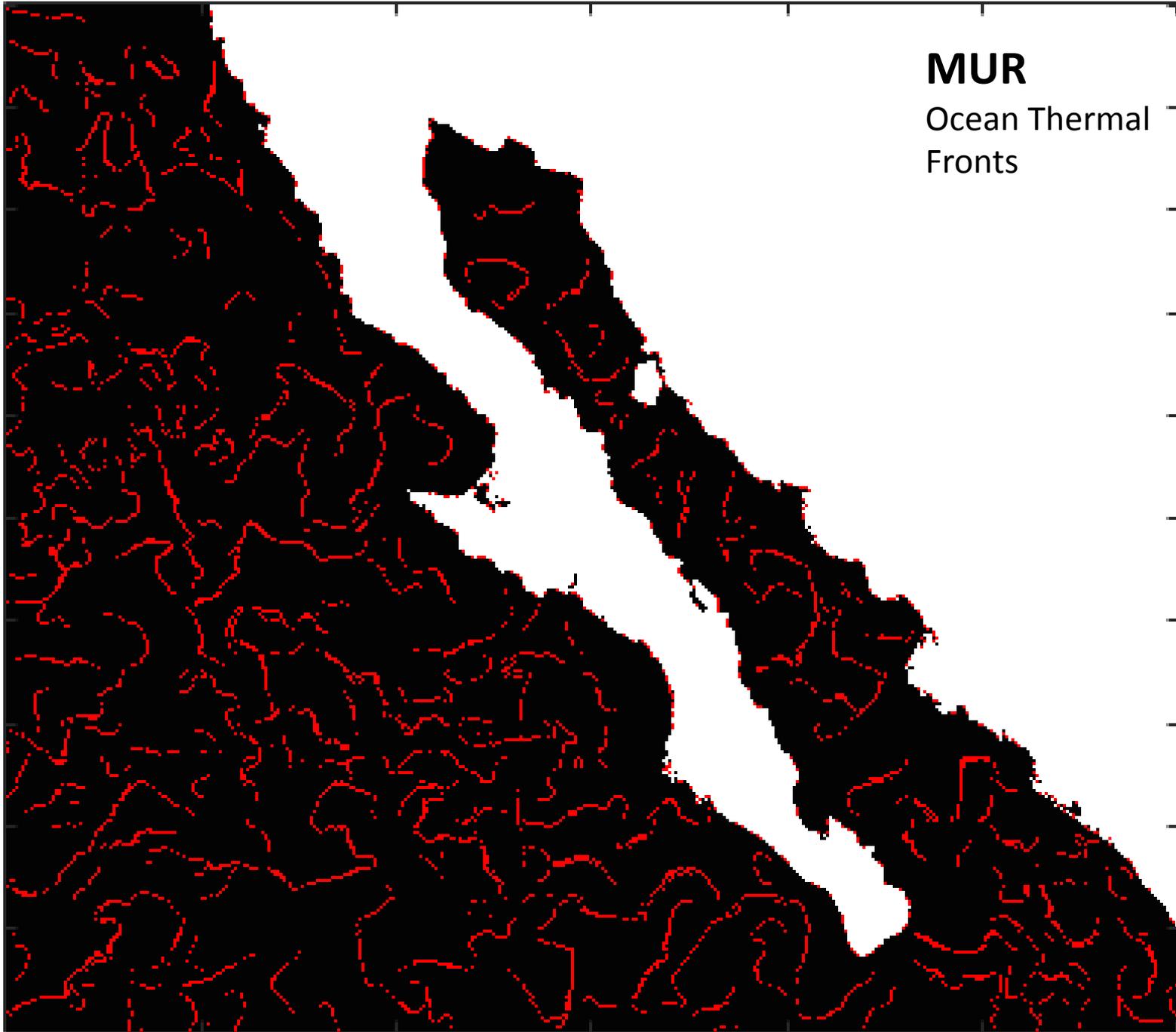
VIIRS
Gradient
magnitude

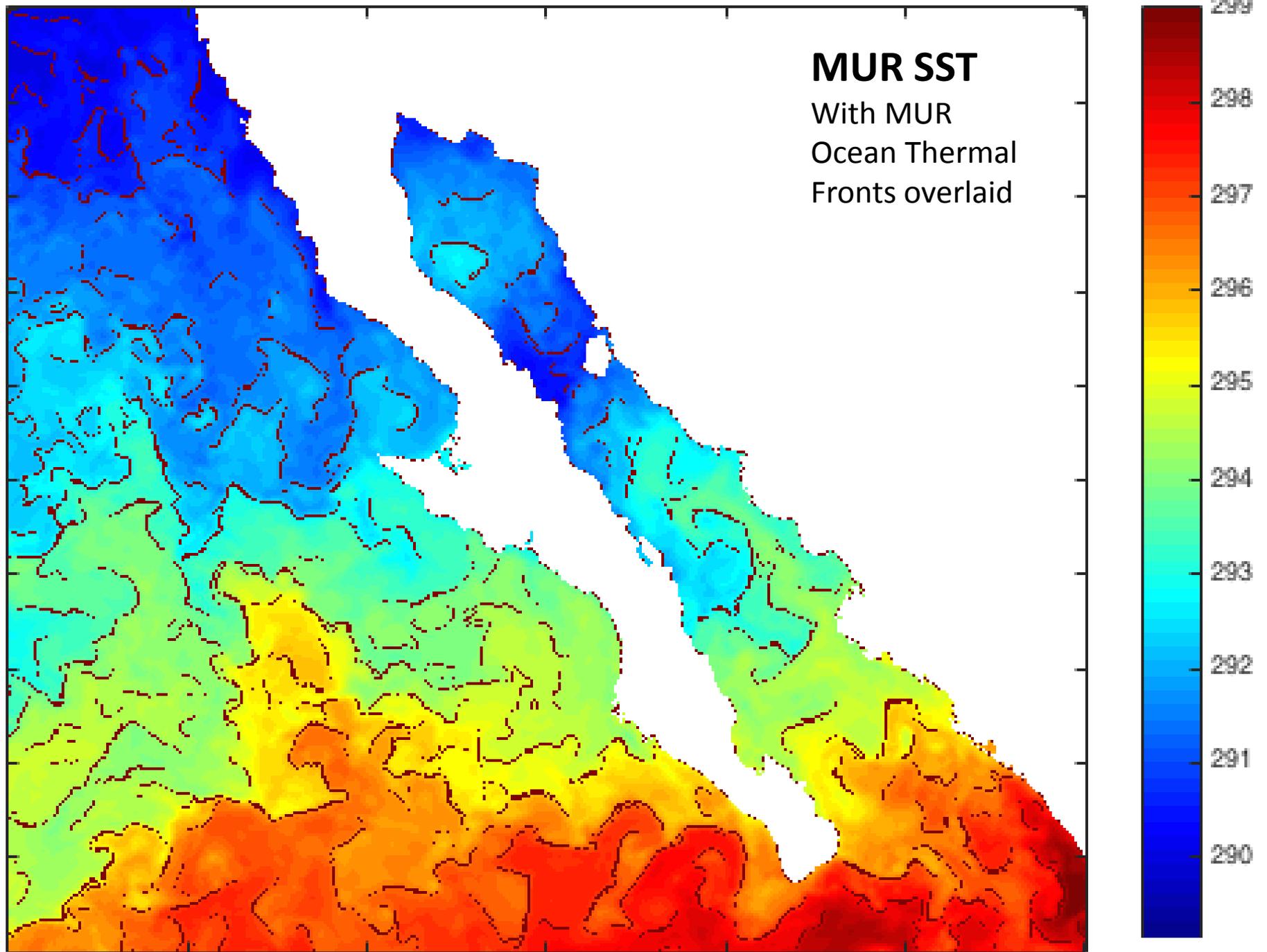


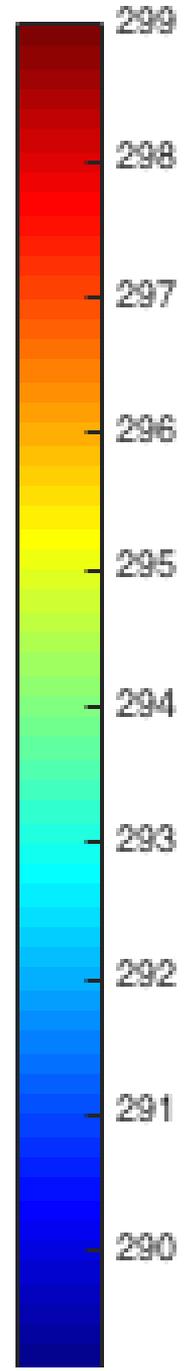
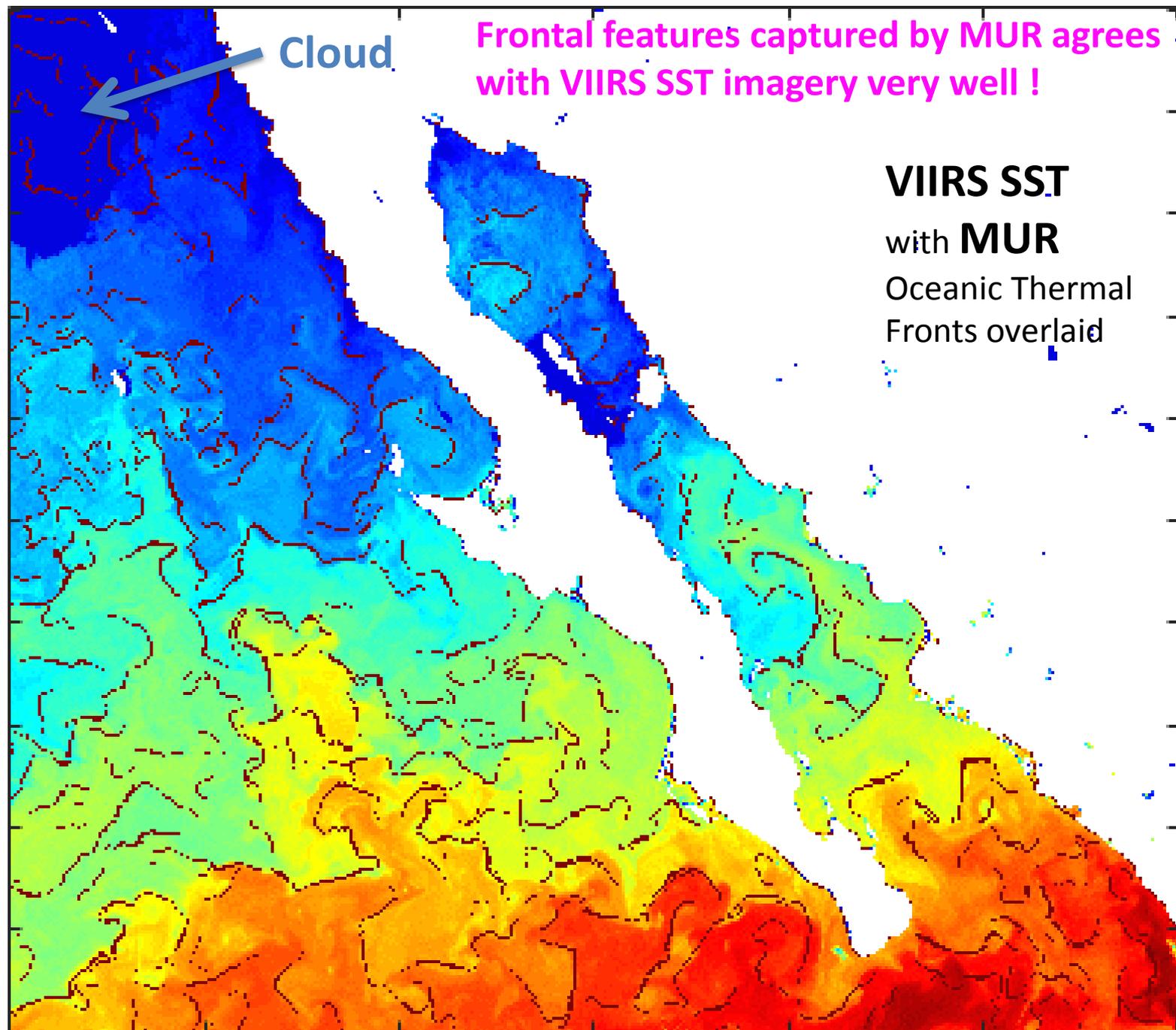


MUR

Ocean Thermal
Fronts





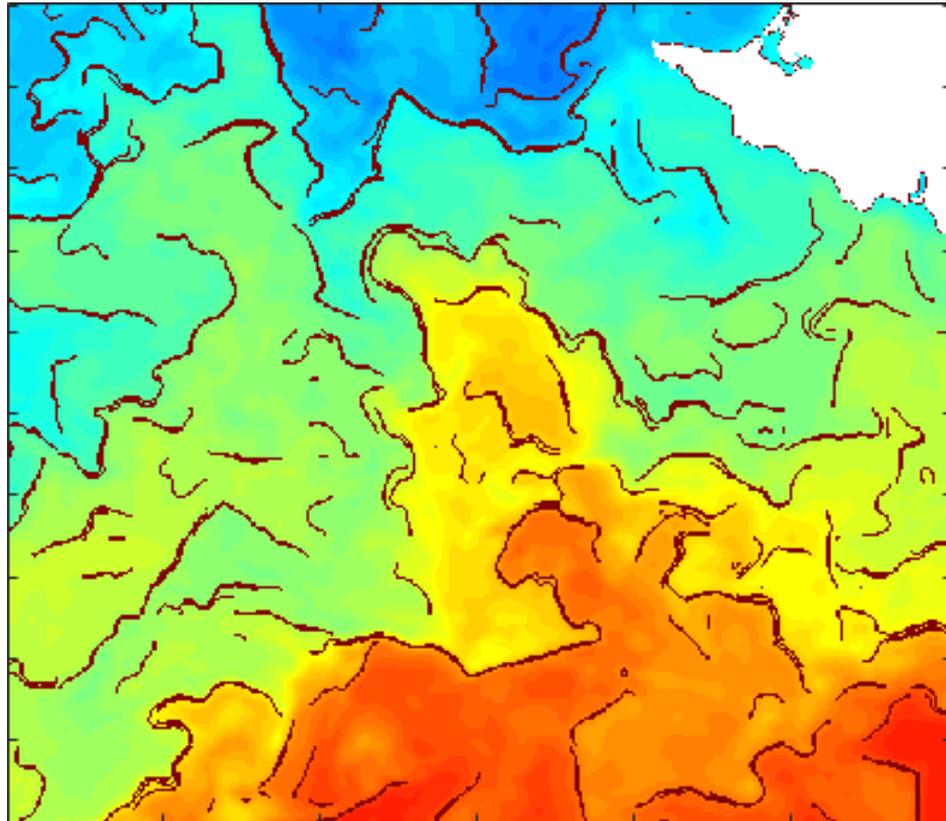


Zoomed

Closer look at the frontal features captured by MUR reveals a great deal of agreement between re-projected ACSP0 VIIRS SST imagery and L4 MUR product. MUR is currently the only L4 product that captures small features so well.

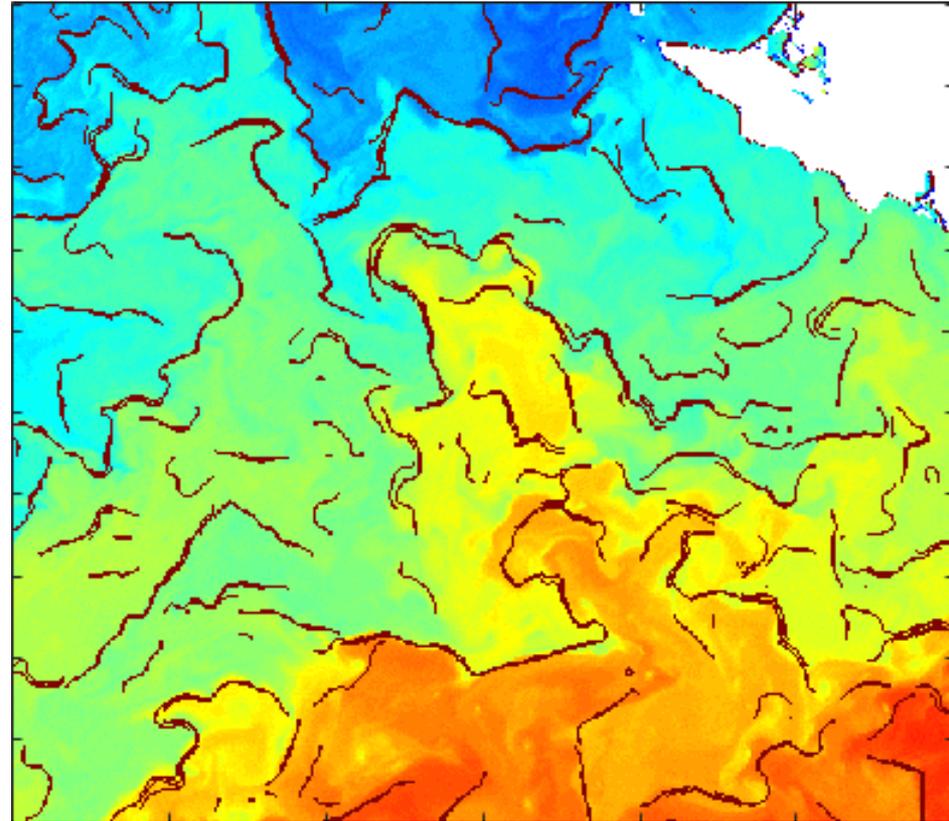
MUR SST

With Ocean Thermal
Fronts overlaid



VIIRS SST with MUR

Ocean Thermal Fronts
overlaid



Delta SST (VIIRS – MUR)

Global Statistics of delta SST between VIIRS L2 and MUR does not capture spatial similarity. There should be different metric for resolution quality of L4

