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
MUR
(Gulf of California
02/07/2015)
VIIRS
(projected to the same Grid as MUR)
MUR Gradient magnitude
MUR SST
With MUR
Ocean Thermal
Fronts overlaid
Frontal features captured by MUR agrees with VIIRS SST imagery very well!

VIIRS SST with MUR
Oceanic Thermal Fronts overlaid

Cloud
Zoomed

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

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