

## Estimate of Biological Contribution to the Surface Structure Observed by SAR

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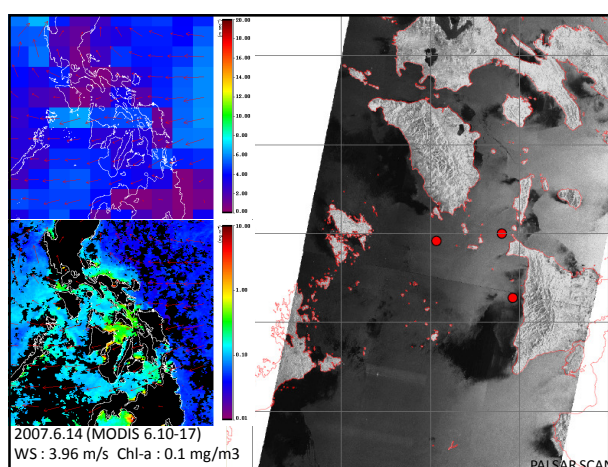
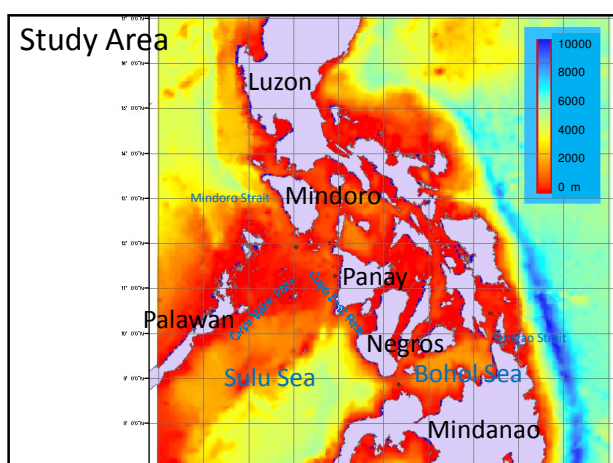
\*\* The Scripps Institution of Oceanography, UCSD

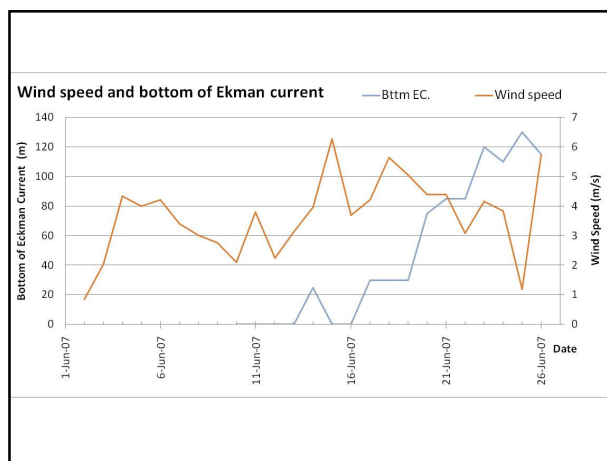
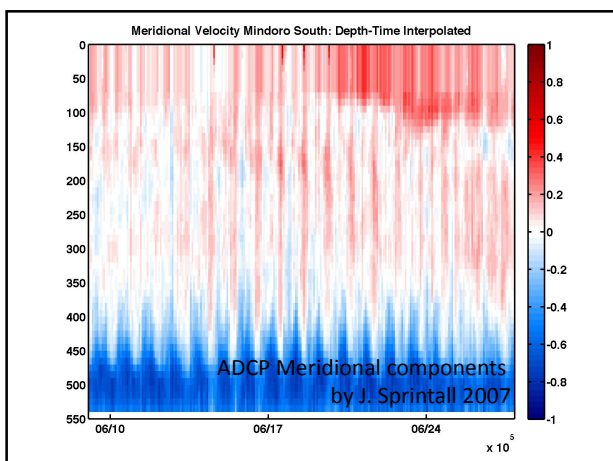
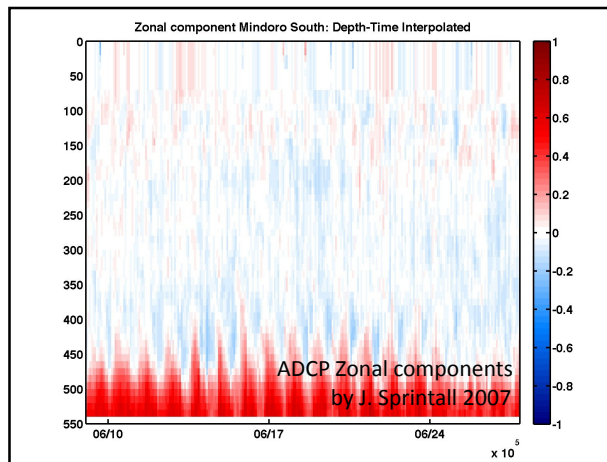
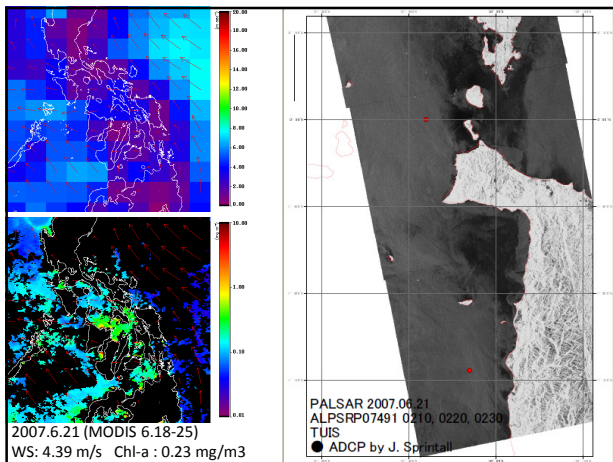
\*\*\*The University of Philippine

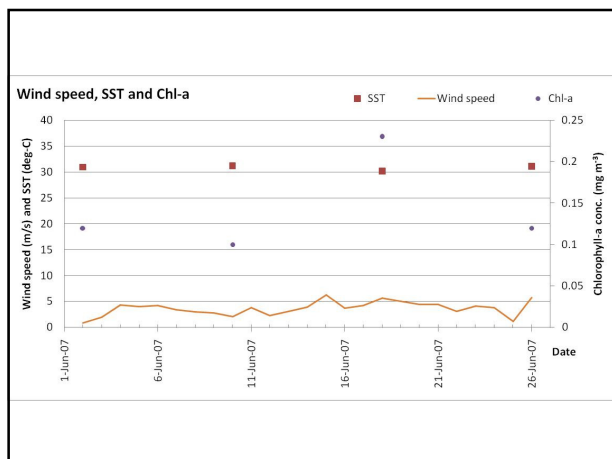
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## Objectives

- To study a contribution of biological activities to the SAR imaging as a surface film.
- To analyze a currently available SAR image and in-situ data.
- To discuss a possible model for SAR imaging.
- Target area is the Philippine Archipelagos.







## Conclusion

- The Ekman pumping and current were observed by ADCP from the middle of June in 2007 at the West off of Panay Island.
- MODIS observed the increase of chlorophyll-a concentration from 0.1 to 0.23 mg m<sup>-3</sup> and the slightly decrease of SST.
- SAR image on June 14, 2007 exhibited a dark region with a lower backscatter associated with the upwelling by the Ekman pumping.
- SAR image on June 21, 2007 exhibited a dark region along the Karman eddies, but it was difficult to observe a contribution of micro film to surface roughness associated with the increase of chlorophyll-a concentration.
- Although there are a limited number of SAR data around the Philippine Archipelagos, SAR imaging mechanism will be discussed with in-situ data.
- TUIS is planning to conduct the in-situ measurement in February of 2008 at the off of the west coast of the Panay Island.