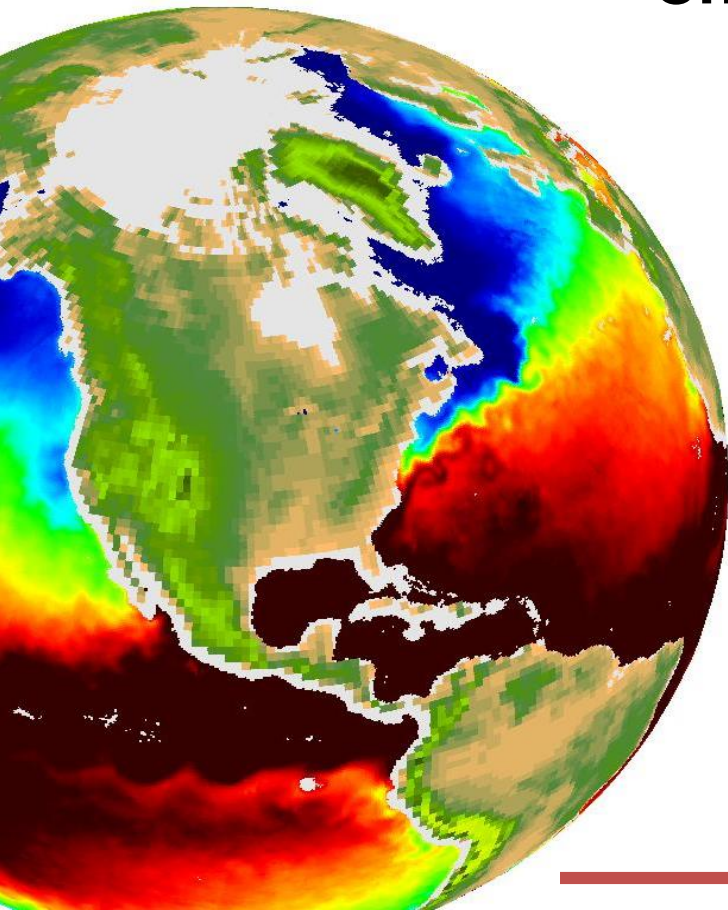


AMSR2 data

**Chelle L. Gentemann, Kyle Hilburn
Frank Wentz**

www.remss.com

➔ L1A / L1B data
➔ Geolocation



GHRST13
Woods Hole, MA 2013

Remote Sensing Systems
www.remss.com





GCOM-W logo

- SHIZUKU's decal is designed to leave a large space on the campus for calligraphic Japanese Hiragana characters (the most basic letters) of SHIZUKU in order for everybody including both adults and children to grow closer to the satellite. Using a Japanese writing brush for calligraphy highlights Japanese taste to show off that it is a "Japanese satellite" to the world. Color gradation on the background is associated with "water circulation" to purely stand out the silhouette of the SHIZUKU, which will fly around the water planet "Earth."



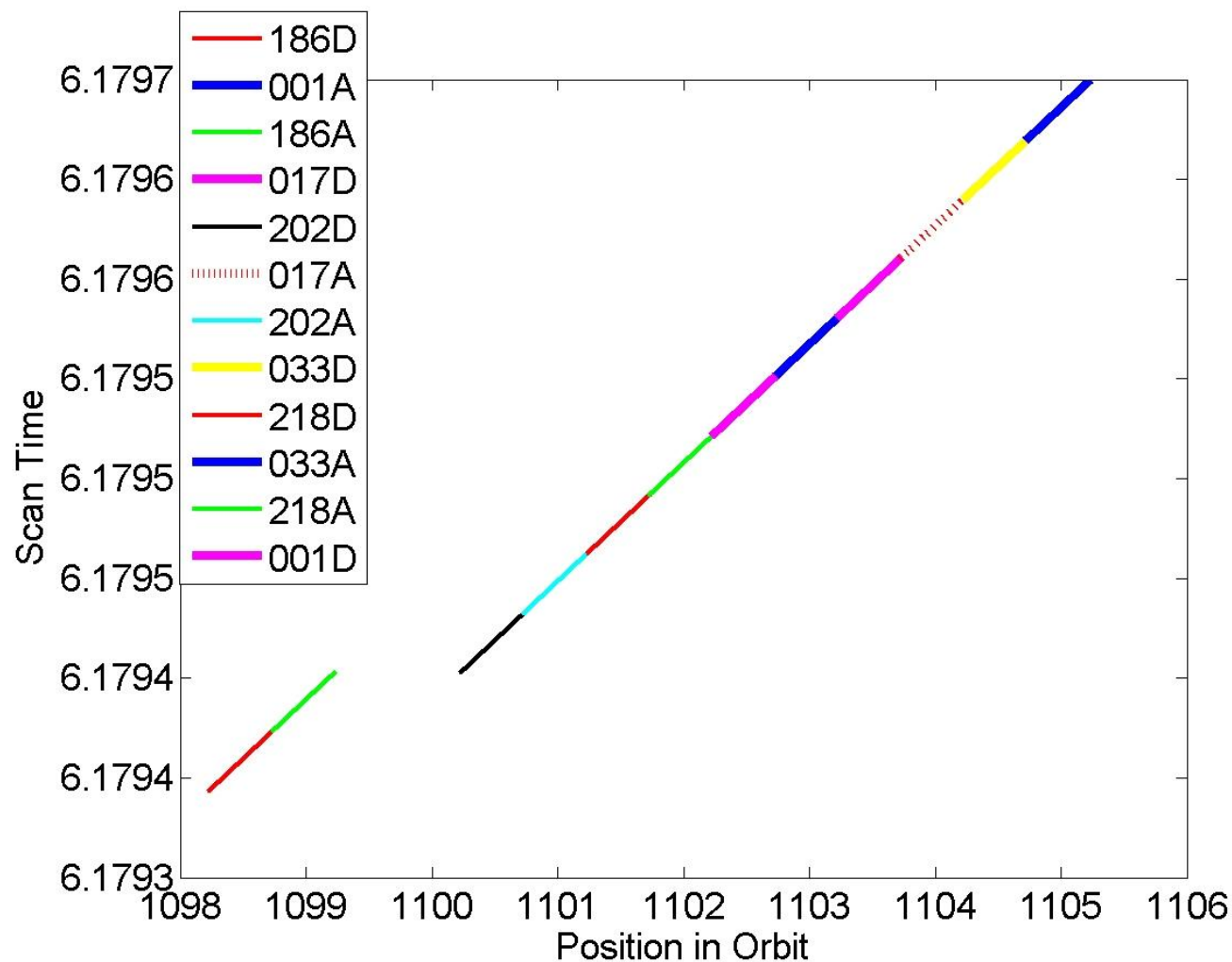


Position in Orbit

- 898,1100,1835,2567,3310
- No gap in Scan Time, but unexplained jump in “Position in Orbit” which gives orbit number and fraction of orbit
- NOAA files and JAXA files have different position in orbit (usually ~4 orbits)
- JAXA full orbit +20 overlap on either end
- NOAA 9-minutes, no overlap



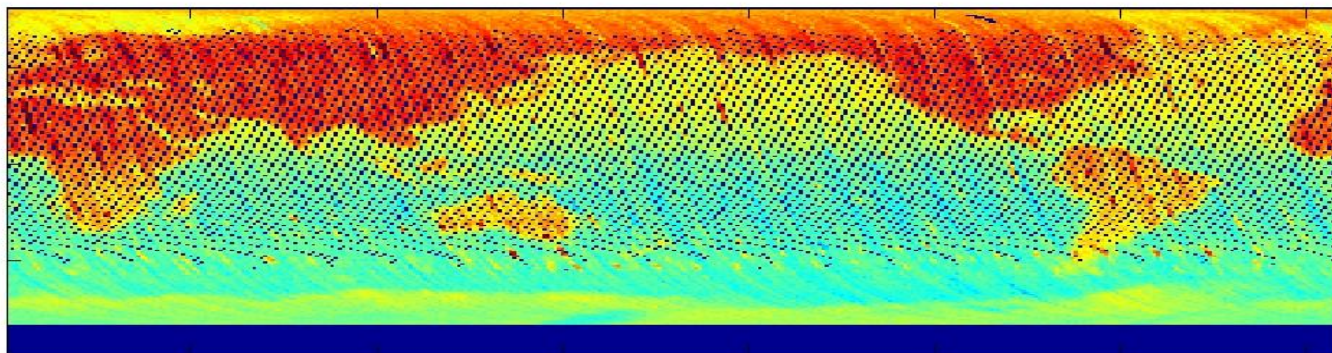
“Position in Orbit: 1100”



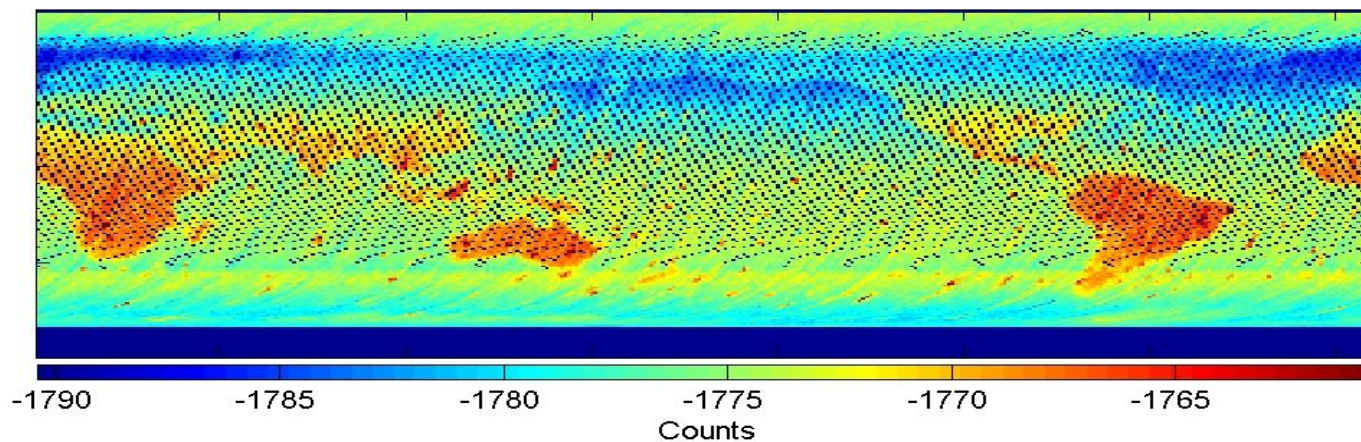


CSM land spillover

6.9 H: Asc



6.9 H: Dsc

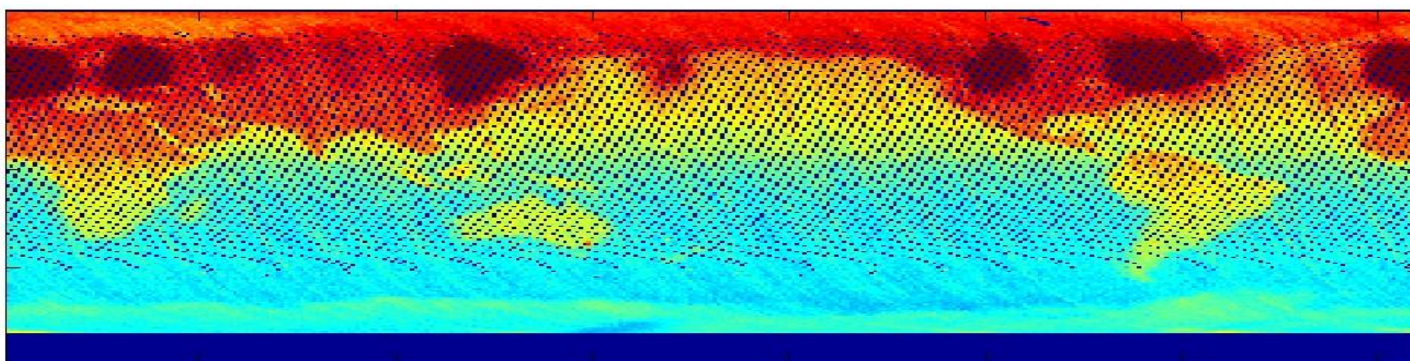


-1790 -1785 -1780 -1775 -1770 -1765
Counts

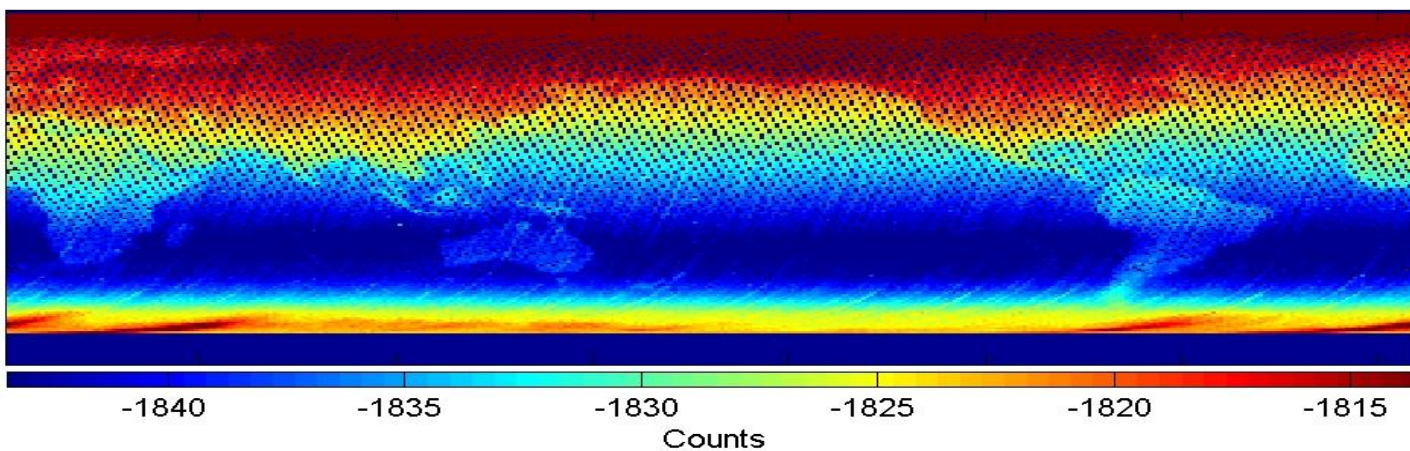


CSM land spillover

7.3 H: Asc



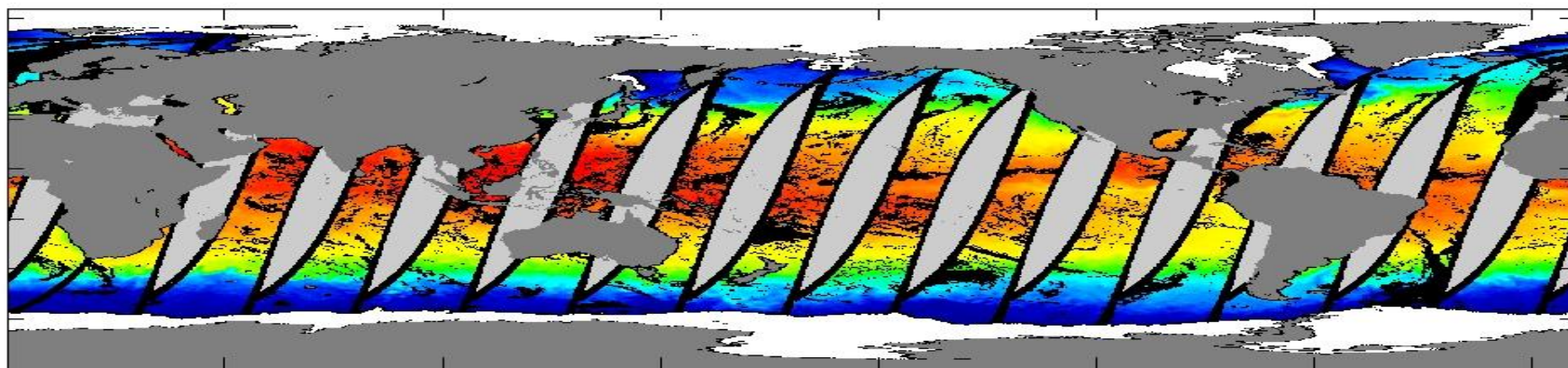
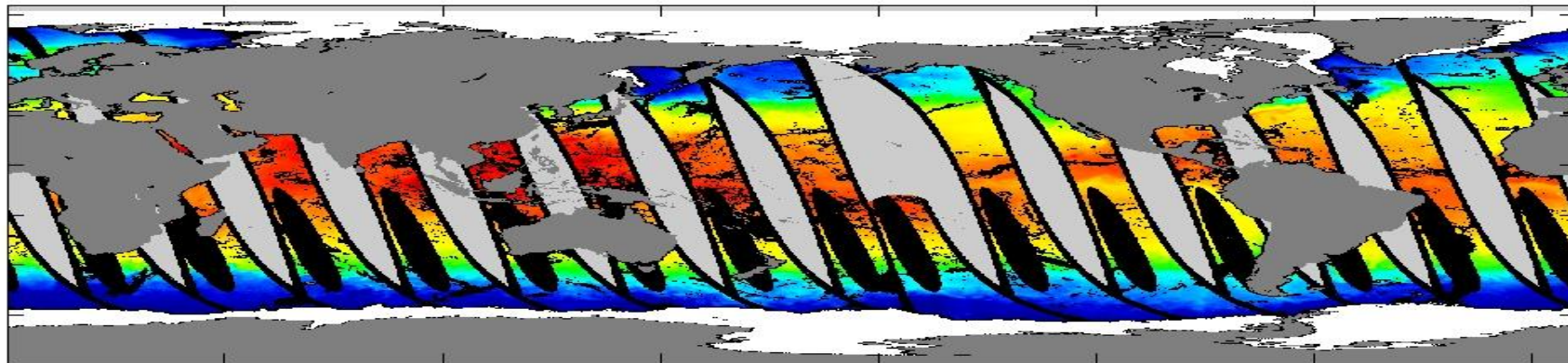
7.3 H: Dsc





AMSR2 SSTs

AMSR2 SST 30 May 2013

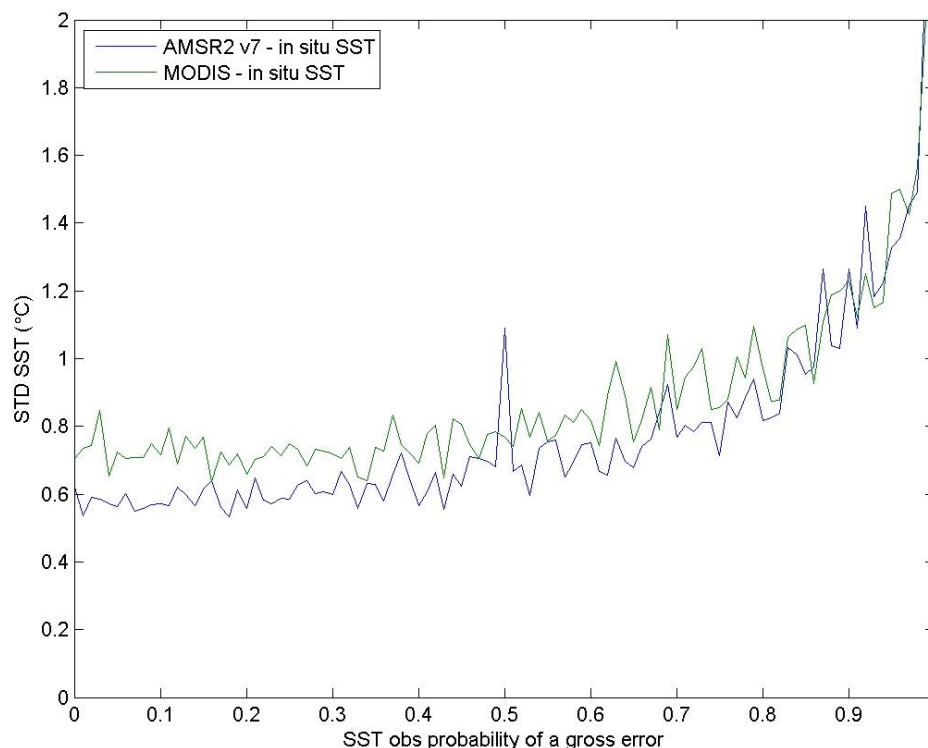


0 5 10 15 20 25 30 35
SST (°C)



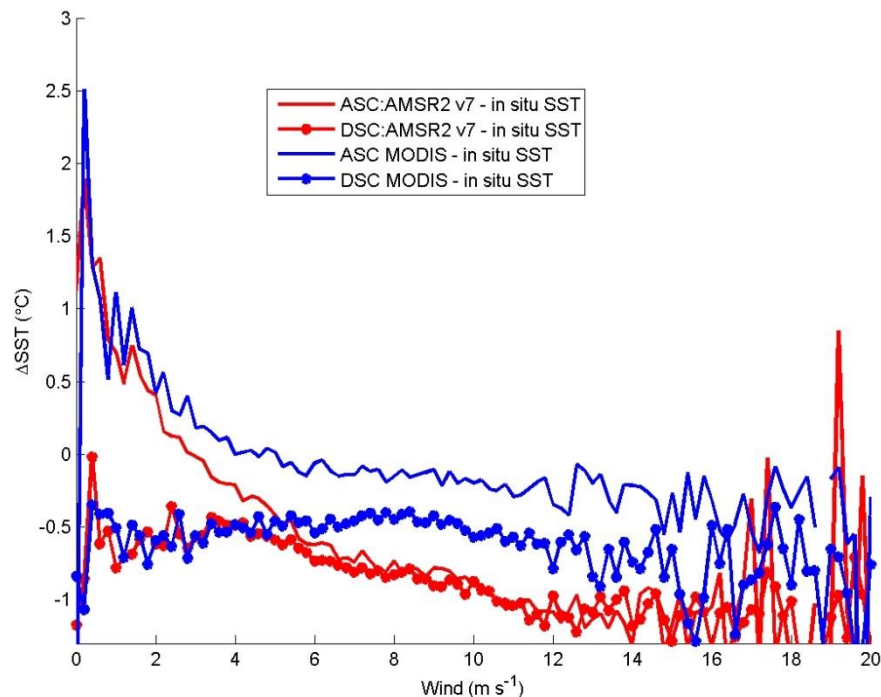
3-point collocation

- Navy GTS (moored/drifting buoys, ships)
- Each ob assigned probability of gross error



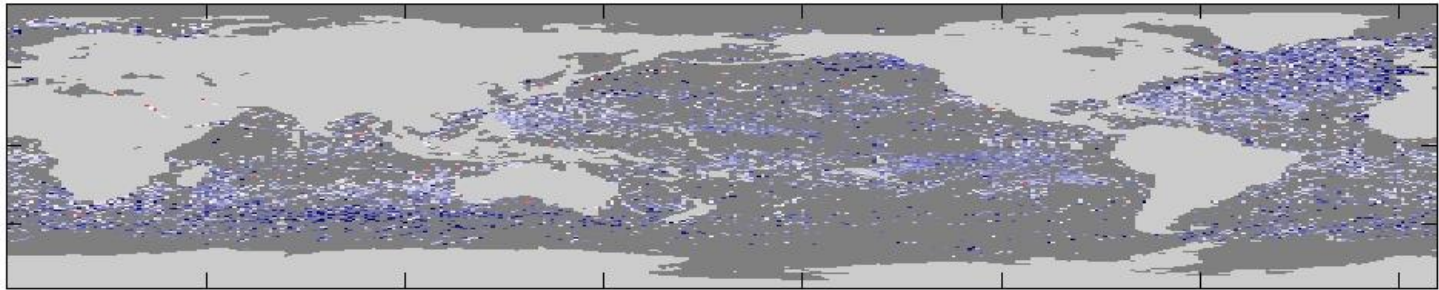


AMSR2-MODIS-in situ

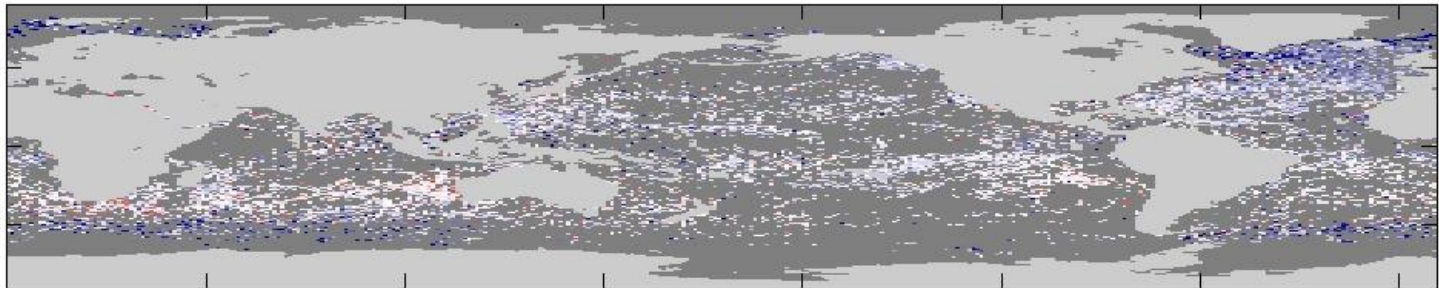


- Daytime observations at $u < 6 m/s$ have larger diurnal warming in the satellite obs than the in situ obs resulting in a warming at low wind speeds

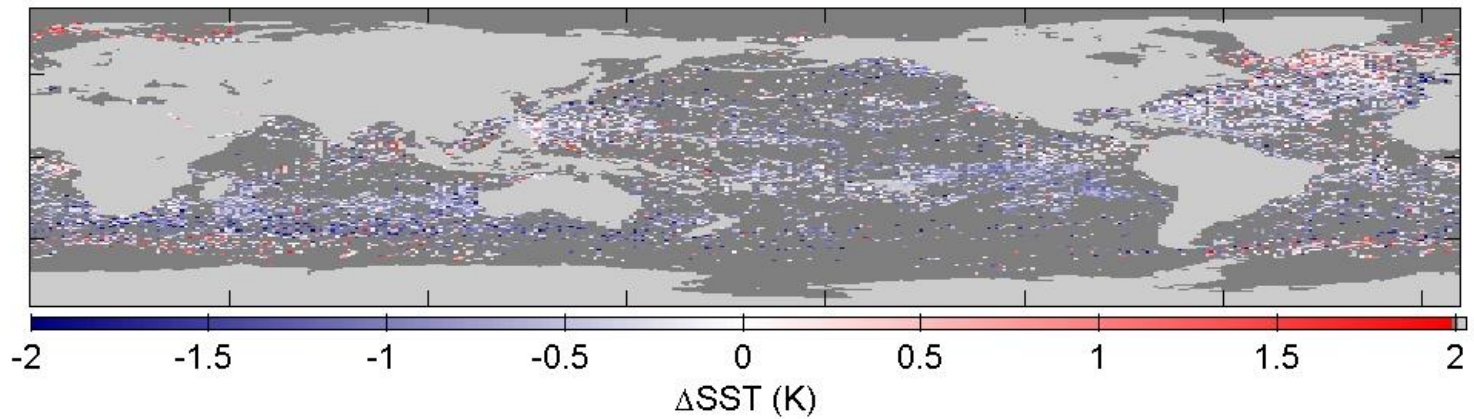
AMSR2 v7 - in situ SST



MODIS - in situ SST

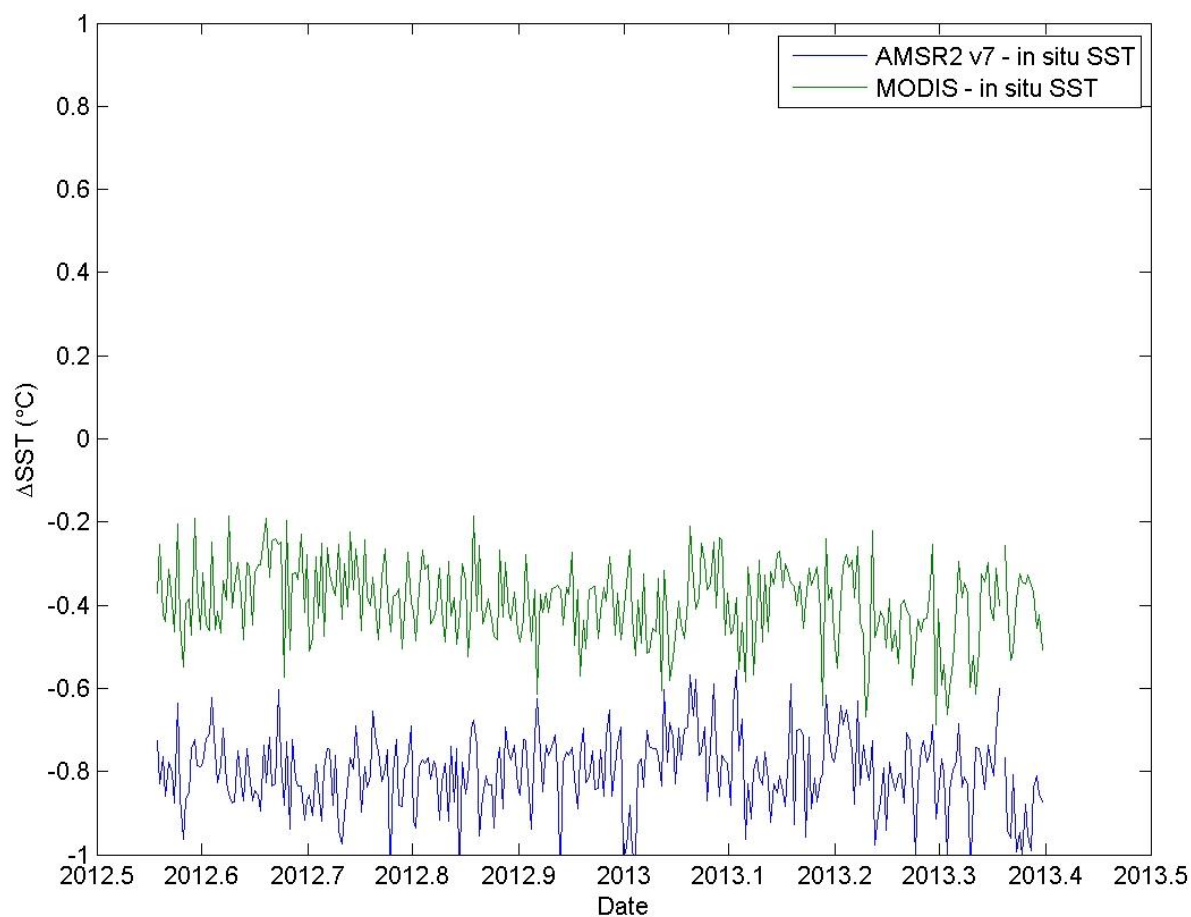


AMSR2 v7 - MODIS SST



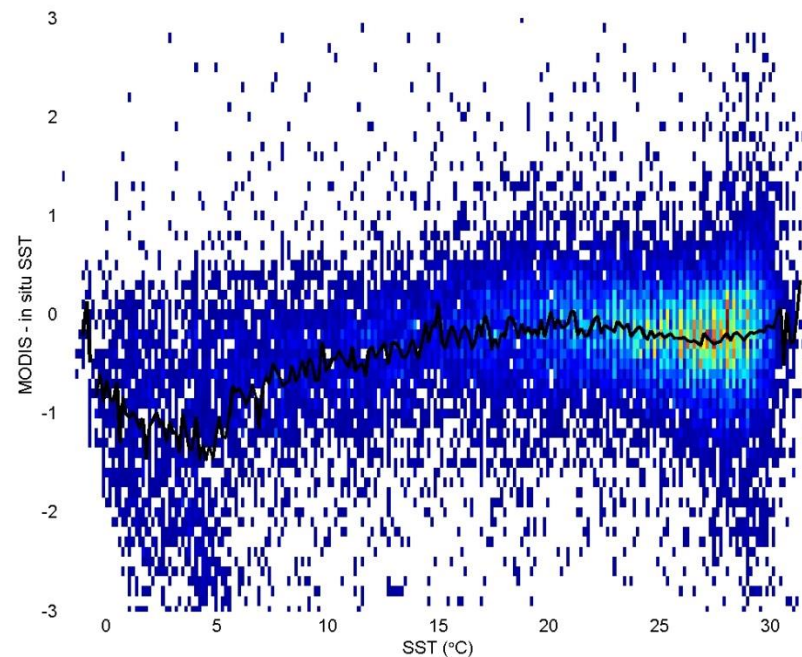
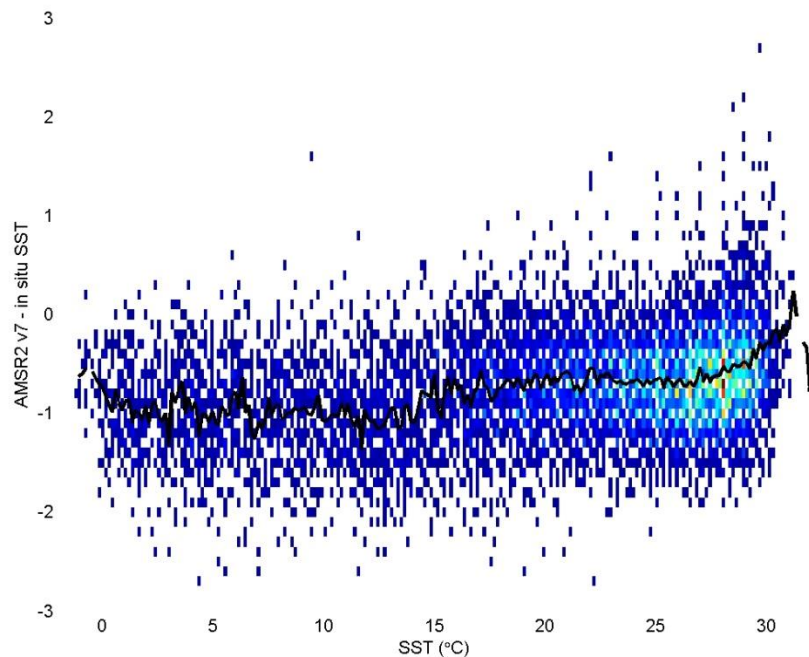


timeseries





PDF and dependency on SST



- PDF in background, black line is mean difference SST as function of in situ SST



Bias STD

	BIAS	STD	#
AMSR2-in situ	-0.80	0.57	18750
MODIS-in situ	-0.39	0.71	18750
AMSR2-MODIS	-0.41	0.80	18750

	Bias	std	num
AMSRE-buoy	-0.05	0.53	194684
MODIS-buoy	-0.39	0.71	194684
MODIS-AMSRE	0.34	0.77	194684



Bias STD by type

	BIAS		STD		
	AMSR2- insitu	MODIS- insitu	AMSR2- insitu	MODIS- insitu	
ship engine room intake	-0.62	-0.26	0.76	0.82	722
fixed buoy	-0.76	-0.39	0.61	0.64	1070
drifting buoy	-0.82	-0.40	0.55	0.70	16401
ship bucket	-0.79	-0.43	0.79	0.78	88
ship hull	-0.64	-0.34	0.70	0.83	469

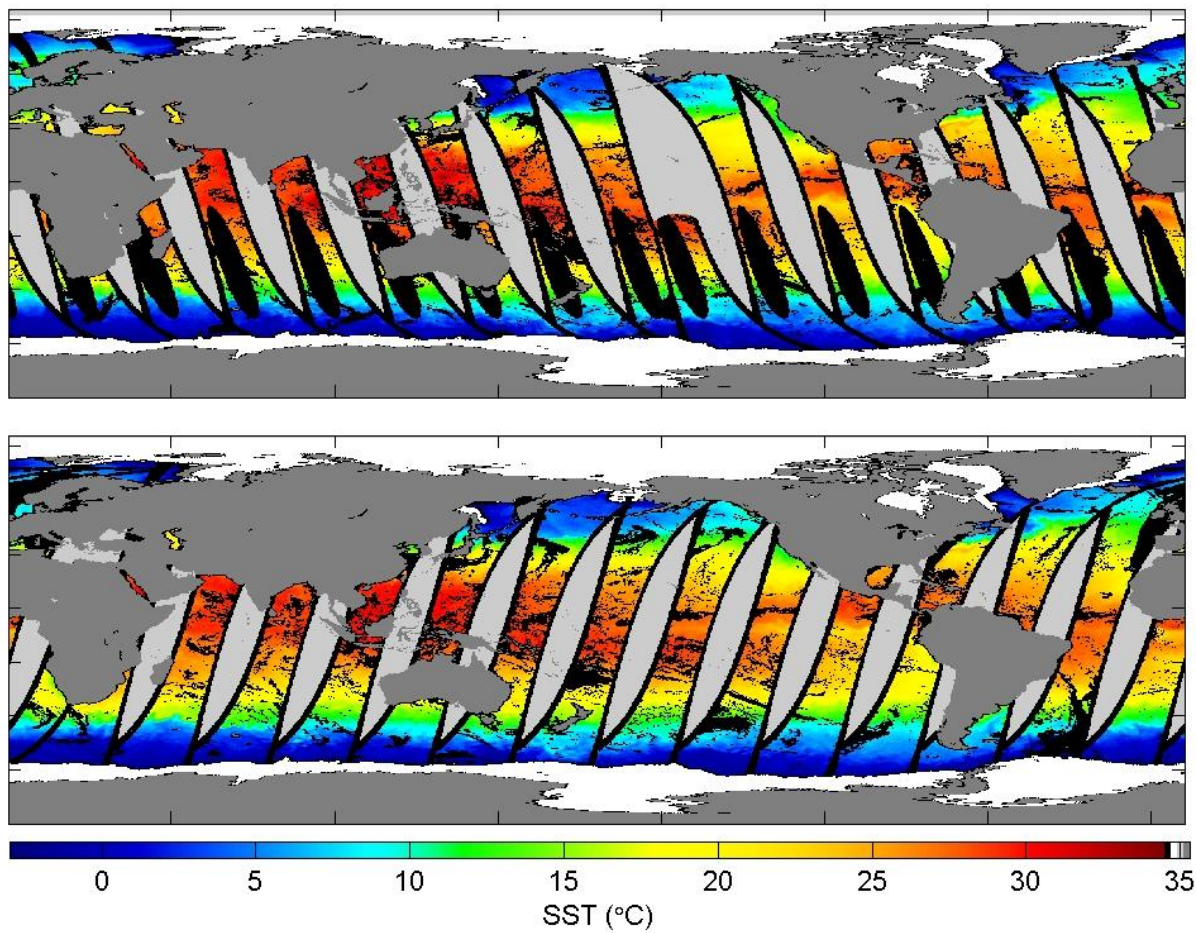


Conclusions

- AMSR2 is GREAT!
- GCOM-W stable platform
- Instrument performance appears to be stable
- NO hot load problems like AMSRE
- Calibration should be relatively straightforward, currently using WindSAT but overlap is an issue
- Fall 2013 for geophysical retrievals



AMSR2 SST 30 May 2013





Amazon Cal

