

Aquarius Calibration/Validation Workshop – Nov 15-17, 2011

Locations:

Nov 15: 321-515

Nov 16: 321-215

Nov 17: 321-515

Day 1 - Nov 15, 2011, JPL Bldg 321-515

8:30: Welcome

8:35: Post Launch CAL/VAL plan and Overview of workshop objectives:

- 1) Review the RFI mitigation algorithms and determine changes if needed
- 2) Determine radiometer calibration algorithms for drift correction
- 3) Review scatterometer calibration performance and algorithm and determine changes if needed
- 4) Review the geophysical correction algorithms and performance
- 5) Make decisions on the path toward v1.3 processing - Using the scatterometer wind, wind direction modulation correction, and TB correction using DRs

8:45 Project and Instrument Status

Current project status (Amit/Shen/Gary/David)

Summary of on-orbit instrument performance and Plan for long-term performance monitoring (I.e., what will and should Goddard be monitoring and how, alert levels, etc.) – Adam, Jeff, and Liang

9:15 ADPS

Status of ground processing system (schedule, testing and open issues) Patt/Feldman

Documentation

Code modification processes, validation

Code distribution

Issues:

- Improve code documentation
- Public access to JPL codes
- Setting reasonable deadline for resolving issues
- Revise and distribute radiometer ATBD
- Complete scatterometer ATBD
- Software user manual
- Algorithm specifications
- Data user manual

10:15 Break

10:30 Pointing and time tag

Alex Fore, Aquarius pointing assessment

Emmanuel, Radiometer pointing

11:30 Lunch

13:00 RFI Environment and Mitigation (Radiometer and scatterometer)

Chris, "RFI Detection, Flagging and Mitigation"

Paolo, radiometer RFI detection and mitigation

Freedman, Scatterometer RFI detection algorithm and mitigation

15:00 Break

15:30 Radiometer calibration

Shannon, Radiometer calibration and subgroup report

Chris and Amanda, TA Calibration Bias and Trend Analysis

Emmanuel P. Dinnat, Comparison of Aquarius measurements and simulations: assessing calibration bias, drift, and cold sky maneuvers

17:00 Splinter session on documentation, code modification and validation

17:30 End of day 1

Day 2, Nov 16, JPL Bldg 321-215

8:30 Radiometer Calibration (cont.)

Thomas, Radiometer Calibration drift

R. Bindlish and T. Jackson, Inter-comparison over land between Aquarius and SMOS observations

Tom Jackson and R. Bindlish, "Preliminary Soil Moisture estimation using Aquarius observations"

Jeff Piepmeier, Radiometer drift correction using DRs

10:15 Break

10:30 Scatterometer Calibration

Alex et al., Scatterometer calibration (gain adjustment of 1.5; summary of scat/model analysis; cross-pol correction using theoretical pattern/Faraday rotation)

Adam, sensitivity to temperature correction strategies

Greg, Time series analysis of radar data from DOME-C or other point target analysis

12:00 Lunch

Splinter session (cont.) if needed

13:30 Current Status of SSS Retrieval and Accuracy Assessment (AVDS)

Hsun-Ying Kao, Gary Lagerloef, John Gunn and David Carey, Regional and Global Analysis using Aquarius Validation Data Segment (AVDS)

Oleg, Peter, Nikolai, Jim, U Hawaii (given by Peter), Moderate-scale salinity features: calibration issues, resolution, noise

Chao, SSS Error analysis

15:00 Break

15:15 Geophysical retrieval algorithms

Frank Wentz, General Overview of the L2 Salinity Retrieval Algorithm

Thomas Meissner, Wind Emissivity Model and Surface Roughness Correction

Sid Misra and Shannon Brown, roughness model and correction

17:00 End day two

19:00 - Group dinner (location TBD) – survey types of restaurants

Day Three – Nov 17, 2011, JPL Bldg 321-515

8:30 Geophysical retrieval algorithms (cont.)

D. Vandemark et al., Effects of ocean wave variability on Aquarius satellite measurements
Simon Yueh, Combined Active-Passive (CAP) Retrieval Algorithm for Salinity and Wind Vector
Roger, Error Reduction in the Measurement of the Dielectric Constant of Seawater at 1.413
GHz.

10:15 Break

10:30 MWR (Jones)

12:00 Lunch

Splinter session (option)

1:30 Summary and discussions - Issues (gaps) and plan to move forward

Aquarius science data documentation

V1.3 processing - Path to use the Scatterometer wind, decision to wind direction modulation
correction and TB correction using DRs

Code modification and validation process

New products

Date of next workshop

3:30pm Break

3:40pm Wrap up and action items

4:30pm adjourn

Splinter rooms Availability

November 15, 2011

321-545 – Whole Day

321-530 8am – 1pm/ 2pm – 4:30pm

November 16, 2011

321-545 Whole Day

321-530 Whole Day

November 17, 2011

321-545 Whole Day

321-530 8am-1pm/ 2pm – 4:30pm