

Aquarius Cal/Cal Meeting
Jan 10-12, 2017
Santa Rosa, CA

AGENDA

Tuesday, January 10th

Overview and Introduction

- Cal/Val Meeting Overview and Objectives [S. Brown]
- Cal/Val Workshop Objectives [G. Lagerloef]
- From Version 1 (V1) to Version 4 (V4) [S. Brown]

Seasonal, Regional and Long-term Temporal Analyses

- Global Antenna Temperature (TA) / Sea Surface Salinity (SSS) Analysis in Version 4.5.1 [L. Hong, J. Gales, D. Carey]
- Aquarius: Changes in Geophysical Model V4 to V5 [T. Meissner, F. Wentz, A. Manaster]
- Cold Sky Calibration (CSC) Biases and Time Series with Hardware-only Wiggle Correction [E. Dinnat, D. Le Vine]
- Aquarius Long-term Trend Analysis [S. Misra]
- Assessing Seasonal to Interannual Calibration Drifts with Level-2 Co-located Surface Observations [G. Lagerloef, D. Carey]
- Analysis of Regional Biases in Version 4.5 [S. Brown]

Salinity Validation Analyses

- Comparison of Reference Salinity Products [A. Manaster, T. Meissner, F. Wentz]
- Seasonal/Regional Biases in Aquarius/SMAP SSS [O. Melnichenko, P. Hacker]
- Evaluation of Aquarius V4.0, V4.5, V4.51 SSS using Argo data [T. Lee]
- Aquarius Validation Data Segment (AVDS) Analyses for V4.0, V4.5.0 and V4.5.1 [G. Lagerloef, H. Kao]
- Snakes on a Ship [J. Schanze]

Wednesday, January 11th

Radiometer Calibration

- Status and plans for whole range TA calibration [E. Dinnat, D. Le Vine]

Dielectric Measurements

- Comparisons of Argo Data and Salinity Results Retrieved from Different Model Functions [R. Lang, Y. Zhou, E. Dinnat, D. Le Vine]

Other Corrections

- Summary of Changes in the Land Model and Plan for the Land Correction [Y. Soldo, D. Le Vine, E. Dinnat, J. Gales, L. Hong]
- RFI Flagger [Y. Soldo, P. de Matthaeis, D. Le Vine]

- Status of Radiometer RFI Work and Missed Detection Analysis [P. de Matthaeis, Y. Soldo, D. Le Vine]
- Improved sea ice fraction model: Objective and Status [E. Dinnat, L. Brucker]
- New Correction for Improved SSS Retrievals Near Land [E. Dinnat, HY. Soldo, D. Le Vine]
- Air-Sea Dependence v4.5 [S. Brown]

SMAP Salinity Compared to Aquarius

- RSS SMAP Salinity: Version 2.0 Validated Release [T. Meissner, F. Wentz, T. Lee]

V5 and Looking Toward the End of Phase F

- Rain Impact Model (RIM) for Aquarius [M. Jacob, A. Santos-Garcia, L. Jones]
- Overview & Status of the Aquarius Phase-F: Preservation Task for Mission Closeout [V. Tsontos, G. Feldman]

OBJECTIVES

- Evaluate performance improvements from algorithm changes in version 4.5.x processing
- Re-assess seasonal and regional biases in latest product with the objective of identifying cause
- Use of SMAP to better understand Aquarius residual biases with respect to Argo/HYCOM
- Assess state of instrument calibration analysis both for absolute end-to-end calibration and drift
- Evaluate SPURS-2 results and how they can support Aquarius validation
- Evaluation of additional products included in version 5 (including RIM, spice etc.)
- Finalize list of v5 product contents
- Update schedule for finalizing algorithms and processing for v5 (including approach for empirical corrections)
- Identify and set schedule for final documentation

TOPICS

- Exploitation of cold sky measurements to stabilize the long-term radiometer calibration
- Use of vicarious methods (e.g. Antarctica) to either correct, or at least support an ocean model correction for the exponential long term drift
- Use of other ocean regions to help identify and separate the instrument contribution from the biases
- Alternative methods to isolate instrument component of drift (e.g. N/S hemisphere; A/D passes)
- Potential regional/season systematics in the retrieval model
- SMAP inter-comparisons during over-lap period and SMAP regional biases relative to Aquarius
- Evaluation of 3rd Stokes Calibration
- End-to-end absolute calibration
- Updated processing for sea ice fraction
- Algorithms improvements for RFI
- Observed rain-freshening from underway observations