Agenda for NASA Salinity Continuity Processing (SCP) Workshop

April 29-30, 2019, Santa Rosa, California, USA
Meeting location: Remote Sensing Systems, 444 10th St #200, Santa Rosa, CA 95401

Guideline for oral presentations:
Presentation ~12 minutes. Leave ~8 minutes for Q&A/discussion & transition

(Presenters’ names are in italic)

Monday April 29

HQ briefing, public engagement, product distribution

8:30-8:50 Eric Lindstrom & Nadya Vinogradova (NASA HQ)
Briefing of NASA PO and OSST

8:50-9:10 Annette deCharon (ODYSEA LLC)
Societal Relevance of NASA Salinity

9:10-9:30 Vardis Tsontos (JPL), Yibo Jiang, and Jorge Vazque
Status of Salinity Data Archival/Distribution at the PO.DAAC

Algorithms

Algorithms Overview:

9:30-9:50 Thomas Meissner (RSS), Frank Wentz, and Andrew Manaster
Status of the RSS Salinity Algorithm (including analysis and comparison of the residual biases in SMAP and Aquarius)

9:50-10:10 Alexander Fore (JPL), Wenqing Tang, Simon Yueh, and Akiko Hayashi
JPL SMAP Sea Surface Salinity Algorithm

10:10-10:40 Coffee/tea break

Algorithm Enhancements:

10:40-11:00 Frank Wentz (RSS), Thomas Meissner, and Andrew Manaster
Correction of Land Contamination in the RSS Algorithm (including a brief comparison between the JPL and the RSS algorithms)

11:00-11:20 Alexander Fore (JPL), Wenqing Tang, Simon Yueh, and Akiko Hayashi
Land and Sea Ice Correction for the JPL SMAP Salinity Data Product
11:20-11:40 Yan Soldo (NAS/GSFC & USRA), Emmanuel Dinnat, David Le Vine
(Remote presentation)
A method for land correction based on SMAP TB measurements

11:40-12:00 Wendy Tang (JPL), Simon Yueh, and Alex Fore
Preliminary results on L-band sea ice correction for SSS retrieval

12:00-12:30 Discussion (esp. for land & ice correction algorithms)

12:30-14:00 Lunch break

14:00-14:20 Yiwen Zhou, Roger Lang (George Washington Univ.), Emmanuel Dinnat and
David Le Vine
(Remote presentation)
Salinity Variation in Seawater Dielectric Model Function

14:20-14:40 Richard Lindsley, Andrew Manaster (RSS), Thomas Meissner, Frank Wentz
Revised SMAP Solar Contamination Flagging

Instrument calibration

14:40-15:00 Thomas Meissner (RSS)
SMAP reflector emissivity correction

Assessments & applications

Salinity Validation:

15:00-15:20 Shannon Brown (JPL) and Sidharth Misra
Understanding Systematic Biases Associated with Observation Geometry

15:20-15:40 Coffee/tea break

15:40-16:00 Séverine Fournier (JPL), Tong Lee, Wenqing Tang, Michael Steele, Simon Yueh,
Estrella Olmedo, and Anastasia Tarasenko
Intercomparison of SMOS, Aquarius and SMAP Sea Surface Salinity
Products in the Arctic Ocean

16:00-16:20 Doug Vandemark (Univ. New Hampshire), Senya Grodsky, H. Feng, J. Levin,
and J. Wilkin
Ongoing evaluation of SMAP salinity datasets for coastal and shelf-sea
applications

16:20-16:40 Gary Lagerloef (ESR)
(Remote presentation)
Re-evaluation of the Triple-Colocation analysis for Estimating Aquarius Satellite Salinity Measurement Errors

16:40-17:00  Viviane Menezes (WHOI)
Evaluation of SMAP salinity products in the Indian Ocean

17:00-17:20  Tong Lee (JPL)
Evaluation of SMAP SSS using Argo data on various spatial scales

Tuesday April 30

8:30-8:50  Emmanuel Dinnat (Chapman Univ & NASA/GSFC) and David Le Vine
(Remote presentation)
Evaluation of SMAP SSS product: comparisons with other satellite products and in situ observations by the Argo network

Salinity Scientific Analysis:

8:50-9:10  Oleg Melnichenko (IPRC/University of Hawaii) and Peter Hacker
Improved spatial resolution in SMAP data versus signal-to-noise ratio: Preliminary results from analysis of existing products and non-resampled L2 SSS data

9:10-9:30  Jingru Sun (Princeton Univ.), Gabriel Vecchi, Enhui Liao, Laure Resplandy, Brian Soden
Impact of Sea surface salinity on tropical cyclone intensification in the Bay of Bengal: preliminary satellite observations and ocean modeling results

9:30-9:50  Frederick Bingham (UNCW), Matt Chmelewski, Joseph Brown and Oksana Chkreibti
The relationship between rainfall and sea surface salinity from buoy data

9:50-10:10  Frederick Bingham (UNCW), Joseph D'Addezio, and Karly Ulfåx
SSS sub-footprint variability from the ECCO 1/48deg global simulation

10:10-10:30  Semya Grodsky (Univ Maryland)
Intramonth oscillations of Atlantic ITCZ in SMAP satellite salinity

10:30-11:00  Coffee/tea break

11:00-11:20  Yibo Jiang (JPL), Jorge Vazquez, and Varids Tsontos
SSS study in the Arctic region
In-situ and field campaign

*Cold-water salinity experiment over the Artic Sea – Results and Observations*

11:30-11:50  *Julian J Schanze* (ESR), Hsun-Ying Kao, Gary S E Lagerloef, and David Carey
*Salinity Gradients and Sub-Footprint Variability from SPURS-2 and SMAP*

11:50-12:10  *Jorge Vazquez* (JPL), Jose Gomez-Valdes², Marouan Boualin, Chelle Gentemann, Wenqing Tang
*Using the Saildrone Unmanned Surface Vehicle for Validation of Satellite Derived Sea Surface Salinity from SMAP: The California/Baja Coast Deployment*

12:10-12:30  *Verena Hormann* (SIO/UCSD), Luca Centurioni, Nikolai Maximenko, and Yi Chao
*Studies of near-surface salinity with surface Lagrangian drifters in support of SPURS-2*

12:30-14:00  Lunch break

Validation platform and Pi-MEP collaboration

14:00-14:20  *Hsun-Ying Kao*, Julian Schanze and David Carey (ESR)
*Overview of the Salinity Validation Data System (SVDS)*

14:20-14:40  *David Levine* (NASA/GCFS)
*SCP participation in Pi-MEP and definition of Aquarius/SMAP “matchup”*

14:40-15:10  *Discussion (NASA collaboration with Pi-MEP)*
What do we provide/What do we get in return?
Aquarius/SMAP matchup data base: can we reach a consensus on definition of “matchup”?
Discuss delivery of the matchup data base to Pi-MEP.

15:10-15:30  Coffee/tea break

15:30-16:00  *Continuity and future missions* (Shannon and David lead discussion)

16:00-17:00  *Discussion (other topics)*
Product spatial resolution, resampling and spatially correlated errors.
Flagging Approach: Sun-glint, sea ice, land, RFI.
Roughness correction.
SMAP/Aquarius consistency.
Future field programs.
Radiometer long-term drift correction.
Land/ice correction (if need additional discussion beyond Monday’s discussion)