

SWOT SDT Agenda

Tuesday, January 14

8:00 **Registration/breakfast**

Session Chair: L-L.Fu

8:30 Overview of meeting objectives

8:45 Welcome (J. Kaye/NASA)

9:00 Program overview (J. Entin, S. Cherchali)

9:30 Project overview (P. Vaze, T. Lafon)

10:10 **Break**

10:40

Science program in preparation for the MDR

Oceanography – review of the baseline and threshold science objectives

Keynote –P. Klein, B. Qiu

Discussion (including splinter overviews)

12:10 **Lunch**

1:30

Session Chair: T. Pavelsky

Hydrology – quantification of hydrology science returns from the baseline and threshold missions.

Keynote – M. Durand, J-F Cretaux

Discussion (including splinter overviews)

3:00

Presentation and discussion of mission performance and error budget

Keynote - D. Esteban-Fernandez

3:30 Break

4:00 Discussion (facilitated by R. Morrow and J-F. Cretaux)

- Accuracy of 2D wet tropospheric correction over oceans and hydrological surfaces
- Impact of wind direction and waves on SSH observability & accuracy of sea-state bias errors at 1x1 km resolution
- Accuracy of 2D geophysical models for 1 km SSH estimates (geoid/MSS, tides, etc)
- Roll error estimation & error reduction techniques ... impact on SSH and water height over continent
- Changes in power or total error budget – impact on height over ocean and continent
- Impact of onboard presuming factor on error budget for hydrology and oceanography

5:30 Adjourn

6:00 Reception and working dinner

Wednesday, January 15

8:00 Breakfast

Session Chair: J-F. Cretaux

8:30 *Phenomenology capability of KaRIn in hydrology*

Tutorial review of radar phenomenology and BUSARD results. (R. Fjortoft)

The potential of AltiKa to address SWOT phenomenology. (M. Haynes and D. Blumstein)

Water classification sensitivity to land returns and system SNR. (B. Williams)

AirSWOT phenomenology results and status summary. (E. Rodriguez, X. Wu)

10:00 **Break**

10:30

AirSWOT results and plans (E. Rodriguez)

Hydrology results

Oceanography results

Instrument status

Preliminary plans for the 2014 US validation campaign

12:30 **Lunch**

2:00

Session Chair: R. Morrow

Working group reports/discussion

High-resolution data coverage (S. Biancamaria, Y. Chao, D. Biccari)

Wet tropospheric correction (S. Brown, E. Obligis)

Data products and mission interaction (P. Callahan)

Applications (M. Srinivasan)

3:00 *Splinter meetings*

(Refreshments served at 3:30)

Oceanography

3:00 Understanding the 2-D sub-mesoscale (P. Klein, B. Qiu)

4:15 High-frequency signals – tides, internal tides and waves (T. Farrar, B. Arbic, F. Arduin)

Hydrology

3:00 Floodplains (B. Sanders, A. Boone)

3:40 Assimilation of SWOT data into models (K. Andreadis, S. Biancamaria)

 Hydraulic modeling

 Large-scale hydrology

4:20 Anticipated impact of the newly-specified SNR on the core SWOT data products (L. Smith, H. Yesou)

5:00 Future AirSWOT experiments for cal/val and science (S. Calmant, T. Pavelsky)

5:30 **Adjourn**

Thursday, January 16

8:00 **Breakfast**

8:30

Session Chair: R. Morrow

Application program (M. Srinivasan)

Keynote -

NASA Program Manager B. Doorn

CNES Program Manager S. Cherchali

Discussion (20 minutes)

9:30 *Simulator status and discussion* (B. Chapron and K. Andreadis)

SWOT oceanography and hydrology simulators: validation and applications
(E. Peral)

Impacts of layover: global simulation results. (K. Andreadis and D.K. Moller)

The vegetation module for the SWOT simulator. (D. Blumstein)

10:30 **Break**

11:00 *Algorithm Development and Cal/Val planning* (E. Rodriguez)

Algorithm Team (E. Rodriguez et al)

Project validation scope and plans

- Oceanography (E. Rodriguez)
- Hydrology (S. Calmant)

12:30 **Lunch**

Splinter meetings

Oceanography

2:00 Projecting fine-scale 2D SWOT observations horizontally and vertically (C. Ubelmann, B. Chapron, J. Le Sommer)

Hydrology

2:00 Computation of river discharge in the light of KaRIn performance (M. Durand, E. Martin)

2:45 Water cycle, from basin to continental scale (D. Lettenmaier, E. Martin)

Applications

2:00 Mission Applications Program overview (B. Doorn, M. Srinivasan, C. Peterson)

2:20 Draft SWOT Application Plan overview, Suggested pillars, Timeline of milestones, Discussion (M. Srinivasan, C. Peterson)

2:45 SDT member summaries;

G. Schuman; Zambezi River Basin project

Y. Chao; Ocean-to-estuary/river proposed work

S. Biancamaria; Transboundary basins management

C. Michailovsky; AirSWOT Applications demonstration project

F. Hossain (presented by M. Srinivasan); Operational satellite-base flood forecasting system

3:30 Break

4:00 *Summary, discussions, and wrap-up* (L-L. Fu and science leads)

5:00 Adjourn