1. Data availability

2. SMOS extension review

3. Reprocessing(s)

4. Conferences

5. Further news
DATA AVAILABILITY
In summary ...

FROM 100% SCIENCE DATA AVAILABLE

1. ACQUISITION: no data loss due to overlap of 2 orbits so far
2. CALIBRATION: 1.68%
3. ANOMALIES: Since May 2010 0.111% loss of data, 1.332% degraded data, overall mission performance of 98.558%.
4. DATA PROCESSING: successfully processed to L1, L2SM, L2OS in 99.3%
5. NRT: delivered in ~92 % of the sensing time within the requirement of 165 minutes
SMOS operations in EOEP-4

- SMOS operations form part of the EOEP-4 proposal until Feb 2017, pending the ...

- SMOS extension review: schedule
  - ESA-CNES annual review 17-18 October 2013, ESRIN
  - ESAC reviewing SMOS: 22-23 October TBD (1/2 day)
  - March/April 2014 CNES REDEEM
  - April 2014 ESA DOSTAG
  - May 2014 ESA PB-EO
  - June 2014 final confirmation by CNES

- Ministerial Council end 2014: Spain to confirm their contribution beyond 2014, which will fund most of SMOS operations contracts

- AC/IPC for extension of SMOS missions submitted, discussion in Oct/Nov
Reprocessing

- SMOS Level 2 soil moisture "catch-up" reprocessing is - COMPLETED
  - Align archive to current (operational) version of the level 2 soil moisture processor V5.01
  - Different geophysical forward model with reference to the level 2 soil moisture processor V5.51 currently used in the operational chain since April 2012 (dielectric constant formulation by Dobson for V5.01 and Mironov for V5.51).
  - Reprocessing data for January 2010 to April 2012 with version 5.51

- 2nd mission reprocessing
  - Planned for autumn 2013 pending QWG decision on L1 v610 (some problems discovered: T4, land-sea contamination) → see later presentations
  - Schedule TBD
  - HW upgrade and rehearsal test on-going at ESAC
Conferences

SMOS sessions at

• IGARSS 2013
• Living Planet Symposium (overview, over land, over ocean and beyond) - lots of new results
• EUMETSAT & AMS conference – presentation on mission status, performance and operational applications

In 2014:

• Ocean Sciences Meeting, 23-28 February, Honolulu, Hawaii
• EGU: SMOS: continuing to provide global soil moisture and ocean salinity data, April
• 2nd SMOS workshop TBC but possibly Sept-Oct at ESAC
• Soil moisture validation and application workshop, Amsterdam, 10-11 July
• IGARSS 2014
Further news

- Thematic exploitation platform – “TEPs correspond to virtual workspaces providing a user community interested in a common Earth Science Topic with very fast access to (i) large volumes of data, (ii) computing resources, (iii) processing software, and (iv) general platform capabilities.” - Call for Ideas until November 2013

- Preparatory study for SMOS contribution to CCI soil moisture

- Best practice paper following soil moisture workshop in July 2013: “Best Practices for the Validation of Global Satellite Soil Moisture Data using In Situ Measurements from Long-Term Soil Moisture Networks: A Review”

- ITU question about how to handle RFIs in passive sensors approved for May 2014: “house keeping” report but good visibility.

- Special section on “Early scientific results from the salinity measuring satellites Aquarius/SAC-D and SMOS” in the Journal of Geophysical research (oceans): call for papers till 31 December 2013
SMOS FOLLOW-ON & L-BAND CONTINUITY

**REQUIREMENTS COLLECTION FROM THE SCIENCE/OPERATIONAL COMMUNITY**
- Recommendations from science workshops indicate clear need for L-Band continuity (Living Planet, SMOS-Aquarius WS)
- ISSI forum on “Continuity of microwave observations in L-band for operational and climate applications”
- Regular interaction with EUMETSAT community

**PREPARING MISSION CONCEPTS**
- SMOS follow-on concept: SMOSOps and SUPER MIRAS (ESA led)
- SMOS NEXT (CNES led)
- STSE study on concept for future water cycle mission

**SMOS CONTRIBUTING TO ECVS**
Soil moisture and ocean salinity have been defined as Essential Climate Variables (ECV) by GCOS in its second Adequacy Report to the UN Framework Convention on Climate Change (UNFCCC) on the global climate observing systems

**INTERNATIONAL COLLABORATION**
- Close collaboration with the counterpart L-Band missions: Aquarius and SMAP teams
- CEOS virtual constellation

**BUILDING UP OPERATIONAL USER COMMUNITY**
- Operational application for SMOS data in NWP (ECMWF, proven) and hydrological forecasting (on-going), working with WMO
- Availability of SMOS L1 data in NRT
- L2 soil moisture NRT data product planned (neural networks)
- Suit of further operational data products on-going: hurricane tracking, sea ice thickness etc

Way forward towards L-Band continuity to be identified over coming years