Assessment of SMAP Passive-Only Soil Moisture Data (Beta Version)

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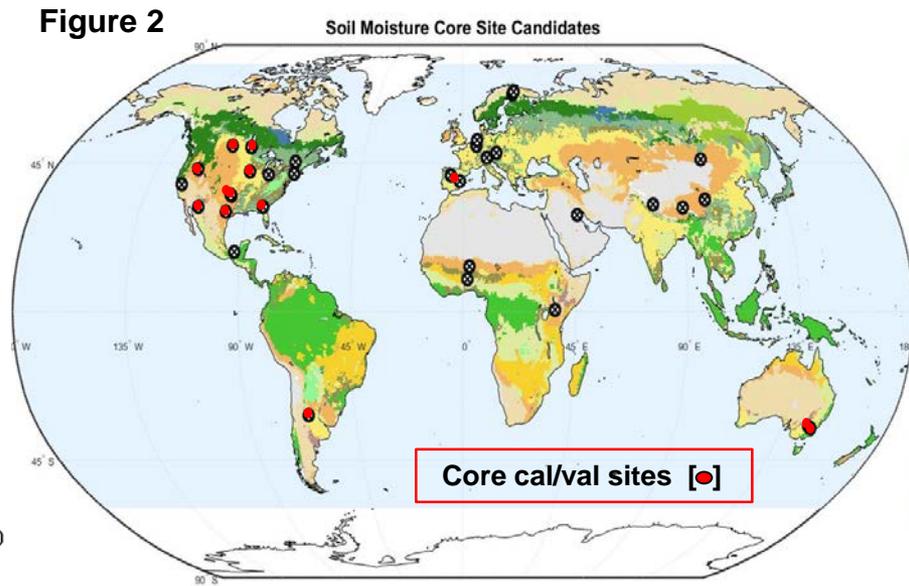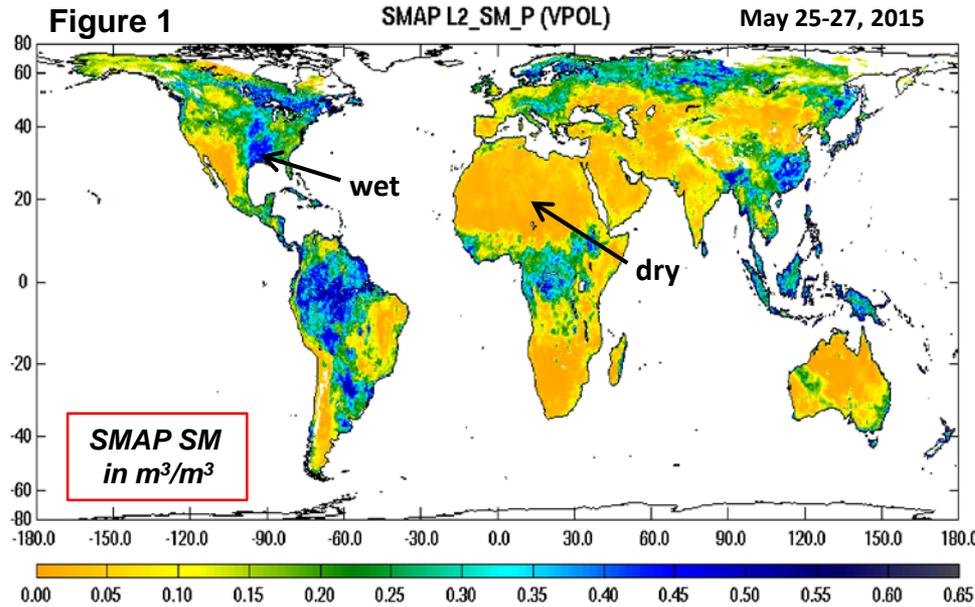
Figure 1

SMAP L2_SM_P (VPOL)   May 25-27, 2015

wet

dry

SMAP SM in m³/m³

Figure 2

Soil Moisture Core Site Candidates

Core cal/val sites [●]

Figure 3

SMAP L2SMP Metrics for March 31- October 26, 2015	ubRMSE (m³/m³)			Bias (m³/m³)			Correlation			N
	SCAH	**SCAV**	DCA	SCAH	**SCAV**	DCA	SCAH	**SCAV**	DCA	
Overall Mean Metrics from Core CV sites	0.043	0.038	0.044	-0.040	-0.018	0.008	0.748	0.781	0.719	13
Overall Mean Metrics from Sparse Networks	0.049	0.048	0.060	-0.044	-0.016	0.020	0.655	0.654	0.590	416

Initial validation of SMAP passive-only derived soil moisture (*beta version*) was done using global *in situ* data from core cal/val sites and sparse networks. Core site results from the current baseline retrieval algorithm [SCA-V] meet mission accuracy requirements of an unbiased RMSE < 0.04 m³/m³.