

Comment on HESSD manuscript “Kalman filter approach for estimating water level time series over inland water using multi-mission satellite altimetry” by Schwatke et al., 2015, doi:10.5194/hessd-12-4813-2015

Table 1. Hydroweb comparison from Schwatke et al (in review, HESSD) analysis and published in Ričko et al., 2012

Lake name	Schwatke et al., 2015			Ričko et al., 2012		
	RMS (cm)	/	R ²	RMS (cm)	/	R ²
Superior	5-6	/	0.94-0.95	6	/	0.97
Michigan	7-12	/	0.82-0.95	11	/	0.98
Ontario	6-7	/	0.94-0.95	6	/	0.98
Erie	9-18	/	0.69-0.92	10	/	0.95
Huron	6-11	/	0.92-0.98	8	/	0.99
Athabasca	33.7	/	0.79	28	/	0.91
Woods	43-44	/	0.58-0.63	27	/	0.81

Table 2. GRLM comparison from Schwatke et al (in review, HESSD) analysis and published in Ričko et al., 2012

Lake name	Schwatke et al., 2015			Ričko et al., 2012		
	RMS (cm)	/	R ²	RMS (cm)	/	R ²
Superior	11-12	/	0.62-0.75	5	/	0.97
Michigan	8-10	/	0.73-0.95	8	/	0.98
Ontario	11	/	0.85	6	/	0.98
Erie	14-20	/	0.61-79	6	/	0.97
Huron	7-12	/	0.90-0.96	6	/	0.99
Athabasca	55.7	/	0.27	Not calculated		
Woods	Not calculated			19	/	0.86

Table 3. ESA/DMU comparison from Schwatke et al (in review, HESSD) analysis and published in Ričko et al., 2012

Lake name	Schwatke et al., 2015			Ričko et al., 2012		
	RMS (cm)	/	R ²	RMS (cm)	/	R ²
Superior	8-9	/	0.75-0.82	5	/	0.95
Michigan	5-7	/	0.69-0.78	7	/	0.93
Ontario	5	/	0.96-97	7	/	0.96
Erie	13-17	/	0.50-0.74	10	/	0.86
Huron	6-9	/	0.80-89	7	/	0.93
Athabasca	80.5	/	0.30	28	/	0.85
Woods	36	/	0.40-41	24	/	0.81

Table 4. DAHITI comparison from Schwatke et al., (in review, HESSD)

Lake name	Schwatke et al., 2015		
	RMS (cm)	/	R ²
Superior	4-6	/	0.85-0.96
Michigan	5-7	/	0.82-0.95
Ontario	4-5	/	0.94-0.9_
Erie	5-13	/	0.78-0.96
Huron	4-9	/	0.92-0.98
Athabasca	17	/	0.88
Woods	15-16	/	0.75-79

Reference

Ričko M., C.M. Birkett, J.A. Carton, and J-F. Cretaux, Intercomparison and validation of continental water level products derived from satellite radar altimetry, *J. of Applied Rem. Sensing*, Volume 6, Art N°: 061710, DOI: 10.1117/1.JRS.6.061710, 2012