

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 <sup>2</sup>	RMS (cm)	/	R <sup>2</sup>
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 <sup>2</sup>	RMS (cm)	/	R <sup>2</sup>
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 <sup>2</sup>	RMS (cm)	/	R <sup>2</sup>
Superior	8-9	/	0.75-0.82	5	/	0.95
Michigan	<b>5-7</b>	/	0.69-0.78	<b>7</b>	/	0.93
Ontario	<b>5</b>	/	0.96-97	<b>7</b>	/	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 <sup>2</sup>
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