

Post TRH calibration results

File

Modified

Microsoft Excel Spreadsheet PostTRHcalinfo.xlsx

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The TRH sensors were run through the calibration lab after SCP. Temperatures were checked over the range of -20C to 30C. RH was checked over the range of 10% to 90% at a temperature of 7C. The table below presents the mean error, Sensor - Ref, and the minimum and maximum error.

For humidity, in the cases where the range of the error is large, the errors typically increase systematically from the smallest errors around 10% RH to the largest errors around 90% RH.

SCP site	height	Temperature	Error	RH (%)			height	Temperature	(C)	RH (%)				
	0.5m	min	mean	max	min	mean	max	2m	min	mean	max	min	mean	max
	value	error	value	value	error	value								
1	TRH 002	-0.009	0.003	0.021	-3.187	-2.426	-1.107	TRH 009	-0.053	-0.008	0.032	-2.014	-1.566	-1.149
2	TRH 014	-0.007	0.011	0.038	-3.209	-2.596	-1.552	TRH 017	-0.056	-0.029	-0.016	-1.893	-1.316	-0.911
3 (10/1-11/7)	TRH 024	-0.028	-0.008	0.017	-1.759	0.701	2.230	TRH 051	-0.054	-0.039	-0.018	-0.444	3.118	6.206
3 (11/7-11/12)	TRH 048	0.013	0.036	0.068	-0.307	0.695	1.732	TRH 051	-0.054	-0.039	-0.018	-0.444	3.118	6.206
3 (11/12-12/1)	TRH 052	-0.019	0.008	0.042	-1.651	-1.141	-0.691	TRH 051	-0.054	-0.039	-0.018	-0.444	3.118	6.206
4 (10/1-10/6)	TRH 052	-0.019	0.008	0.042	-1.651	-1.141	-0.691	TRH 059	-0.077	-0.053	-0.020	-0.881	0.272	1.274
4 (10/6-12/1)	TRH 056	-0.041	-0.007	0.032	-0.051	3.410	6.634	TRH 059	-0.077	-0.053	-0.020	-0.881	0.272	1.274
5	TRH 015	-0.044	-0.032	-0.015	-2.201	-1.160	-0.487	TRH 011	-0.050	-0.003	0.021	-1.708	-1.159	-0.847
6	TRH 021	-0.233	-0.167	-0.134	-1.530	-0.751	-0.315	TRH 016	-0.053	-0.023	-0.003	-1.951	-1.501	-1.157
7	TRH 058	-0.039	0.003	0.027	-0.319	2.343	4.528	TRH 047	0.068	0.090	0.117	-0.469	1.238	3.109
8	TRH 050	-0.083	-0.054	-0.007	0.535	2.654	4.545	TRH 039	-0.011	0.019	0.042	-0.081	1.049	2.522
9	TRH 026	-0.076	-0.040	0.010	0.424	3.390	6.293	TRH 049	-0.230	0.021	0.147	-0.751	-0.189	0.455
10 (10/1-10/6)	TRH 008	0.002	0.016	0.034	-3.268	-0.871	0.237	TRH 033	-0.009	-0.016	0.015	-1.184	-0.405	0.831
10 (10/6-12/1)	TRH 038	-0.077	-0.053	0.000	-0.936	-0.122	0.907	TRH 033	-0.070	-0.016	0.015	-1.184	-0.405	0.831
11	TRH 064	-0.063	-0.020	0.023	0.732	3.807	6.735	TRH 063	-0.012	0.011	0.053	0.359	2.801	5.104
12	TRH 066	-0.043	-0.010	0.032	-1.073	-0.637	0.063	TRH 023	-0.027	-0.017	0.006	0.846	2.848	5.156
13	TRH 032	-0.021	0.002	0.018	-0.186	2.059	4.114	TRH 027	-0.032	-0.012	0.009	0.541	3.355	6.194
14	TRH 040	-0.237	-0.112	-0.032	-0.361	3.016	6.116	TRH 031	-0.012	0.030	0.062	0.368	3.293	5.964
15	TRH 062	-0.024	0.007	0.055	-0.649	2.466	5.204	TRH 041	-0.088	0.084	0.305	-0.269	2.784	5.398
16	TRH 054	-0.059	-0.028	0.025	-0.379	2.287	4.778	TRH 057	-0.029	-0.013	0.014	-0.334	2.879	5.492

17 (10/1-10/6)	TRH 068	-0.073-0.041	0.009	0.259	1.022	1.351	TRH 043	-0.356 -0.286-0.247-0.1541.734 3.570
17 (10/6-12/1)	TRH 060	-0.095-0.044	-0.022	-1.270	0.574	2.185	TRH 043	-0.356 -0.286-0.247-0.1541.734 3.570
18	TRH 042	-0.258-0.213	-0.125	-0.820	0.295	1.621	TRH 055	0.057 0.089 0.116 -1.557-0.729-0.100
19 (10/1-10/9)	TRH 046	-0.061-0.039	0.010	0.430	3.004	6.047	TRH 065	0.037 0.072 0.175 -1.324-0.942-0.438
19 (10/9-12/1)	TRH 046	-0.061-0.039	0.010	0.430	3.004	6.047	TRH 007	-0.013 0.002 0.017 -0.7113.813 3.614

		Temperature (C)			RH (%)		
C tower		min value	mean error	max value	min value	mean error	max value
C 0.5m	TRH 007	-0.013	0.002	0.017	-0.711	1.412	3.614
C (10/1-10/3)							
C 0.5m	TRH 025	0.000	0.026	0.055	-0.732	0.329	1.747
C (10/3-12/1)							
C 1m	TRH 019	-0.412	-0.210	-0.026	-0.716	0.388	1.666
C 1.5m	TRH 034	-0.025	-0.002	0.032	-2.050	-1.161	-0.234
C 2.5m	TRH 028	0.029	0.079	0.108	-1.385	-0.659	0.324

Main tower
10/1 - 10/3

M 0.5m	TRH lighting 013 damage
M 1.5m	TRH lighting 037 damage
M 2.5m	TRH lighting 012 damage
M 3m	TRH lighting 003 damage
M 4m	TRH lighting 006 damage
M 6m	TRH lighting 004 damage
M 8m	TRH lighting 020 damage
M 15m	TRH lighting 010 damage

		Temperature ©			RH (%)		
10/3 - 12/1		min value	mean error	max value	min value	mean error	max value
M 0.5m	TRH 005	-0.020	-0.013	0.007	-1.144	-0.214	0.871

M 1.5m	TRH	-0.044	-0.015	-0.002	-2.363	-1.689	-1.134
	022						
M 2.5m	TRH	-0.156	0.067	0.340	-0.096	1.269	2.556
	044						
M 3m	TRH	-0.067	-0.050	-0.037	-1.148	-0.051	1.462
	018						
M 4m	TRH	-0.070	-0.045	-0.025	-2.046	-1.570	-0.613
	001						
M 6m	TRH	-0.009	0.009	0.044	-1.490	-0.769	-0.032
	035						
M 8m	TRH	-0.054	-0.042	-0.024	-1.153	2.147	4.816
	053						
M 15m	TRH	-0.080	-0.021	0.013	-1.997	-1.155	-0.369
	029						