



CRN: US Climate Reference Network

File names: CR3000_TBL_5min_YYYY_MM_DD_hhmm.dat
 CR3000_NWS_YYYY_MM_DD_hhmm.dat
 CR3000_Hour_YYYY_MM_DD_hhmm.dat

CR3000_TBL_5min_2015_07_19_0000.dat

Month/day/year Time	Record number	Sensor 1 Temp C average	Sensor 2 Temp C average	Sensor 3 Temp C average	Precipitation gage sensor raw data sample	Precipitation gage sensor raw data sample	Precipitation gage sensor raw data sample	Rain indicator sample 1 raw minimum [mV]	Rain indicator sample 2 raw minimum [mV]	Sensor 1 fan speed average	Sensor 2 fan speed average	Sensor 3 fan speed average	Enclosed service door switch total open time
2015-07-19 00:00:00	219048	5.535	5.524	5.509	-79.79282	415.5137	-82.42761	18.18	2961	114.1	112.6	113.7	0
2015-07-20 00:05:00	219049	5.386	5.375	5.38	-79.79081	415.5137	-82.42635	18.18	2847	114.1	112.6	113.8	0

CR3000_NWS_2015_07_19_0000.dat

Month/day/year time	Record number	Hour Minute sample	Calculated temperature average sample	Precipitation sample
7/19/2015 0:00	219048	0	5.524	-999
7/19/2015 0:05	219049	5	5.38	-999

CR3000_hour_2015_10_27_0000.dat

Month/day/year time	Record Number	Station Number	Year	Day of year (DOY)	Hour minute	Latitude	Longitude	Software version	Temperature sensor 1 five minute sample averages in Celsius																
10/27/2015 00:00	20645	999	2015	300	0	0	0	2.003	-15.24	-15.26	-15.29	-15.76	-15.88	-15.84	-15.74	-15.66	-15.64	-15.62	-15.6	-15.44	-15.42	-15.4	-15.38	-15.36	-15.34

Instrument:
 Details on following page



Tiksi Data Center

NOAA

FTP File locations at NOAA:

From Tiksi Data Center to:
ftp://ftp.etl.noaa.gov/psd3/arctic/tiksi/atmospheric_state/surface_meteorology/crn/raw/

Processing

Processing procedures: <https://www.ncdc.noaa.gov/crn/>

Quicklooks

Example Plots:

<https://www.ncdc.noaa.gov/crn/visualizations.html>

Product

Example Product File:

<https://www.ncdc.noaa.gov/crn/qcdatasets.html>

IASOA Portal

Home: <http://www.esrl.noaa.gov/psd/iasoa/>
 Data: <http://www.esrl.noaa.gov/psd/iasoa/dataataglace>



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Instrument Specifications

Instrument Details

Specifications	1	2	3	4	5
Measurement	Air Temperature	Precipitation	Wind Speed	Solar Radiation	Surface (Skin) Temperature
Description	Three platinum resistance thermometer housed in fan aspirated solar radiation shields	a. An inlet-heated, wind-shielded weighing rain gauge (configured with three load cell sensors) b. Precipitation (wetness) detector c. Auxiliary tipping bucket gauge	A 3-cup anemometer at the same height as the air temperature shield intakes	A silicon pyranometer	A precision infrared temperature sensor pointed at the ground surface
Instrument Manufacturer	a. Thermometrics Corporation b. Met One Instruments	a. Geonor b. Vaisala c. Hydrological Services America	Stevens Water Monitoring System, Inc.	Kipp & Zonen, Inc.	Apogee Instruments, Inc.
Type	a. Platinum Resistance Thermometer b. Fan Aspirated Shield	a. Precipitation gauge b. Rain Detector c. Tipping Bucket Rain Gauge	Hydra Probe II Soil Sensor	Pyranometer	Standard field of view infrared radiometer sensor
Height Location	1.5 meters	1.5 meters	1.5 meters	1.5 meters	1.5 meters
Instrument Specifications	a. PT100 b. Model 076B	a. Model T-200B b. Model DRD11A c. Model TB-3	Model SDI-12	SP Lite2	SI-111
Measurement Unit	Degrees Celsius	Millimeters	m/s	W/m ²	Degrees Celsius
Additional Corrections Applied (y/n/explain)			NOTE: only measured hourly	NOTE: only measured hourly	

Raw File Internal Header Information

CR3000_TBL_5min_2015_07_19_0000.dat															
TOA5 TIMESTAMP TS	CR3000 RECORD RN	CR3000 T1Cal_Avg Avg	2901 T2Cal_Avg Avg	CR3000.Std.21 T3Cal_Avg Avg	CPU:Tiksi_CR3000PgmCORRECTED_170613.CR3 mm1_Avg Smp	16245 mm2_Avg Smp	TBL_5min mm3_Avg Smp	Wetness1 mV Min:minimum	Wetness2 mV Min:minimum	FANSP1_Avg Avg	FANSP2_Avg Avg	FANSP3_Avg Avg	DoorTime_Tot Tot		
2015-07-19 00:00:00	219048	5.535	5.524	5.509	-79.79282	415.5137	-82.42761	18.18	2961	114.1	112.6	113.7	0		
2015-07-20 00:05:00	219049	5.386	5.375	5.38	-79.79081	415.5137	-82.42635	18.18	2847	114.1	112.6	113.8	0		

CR3000_NWS_2015_07_19_0000.dat									
TOA5 TIMESTAMP TS	CR3000 RECORD RN	CR3000 HrMin	2901 NWST	CR3000.Std.21 NWSP	CPU:Tiksi_CR3000PgmCORREC TED_170613.CR3	16245	NWS		
7/19/2015 0:00	219048	0	5.524	-999					
7/19/2015 0:05	219049	5	5.38	-999					

CR3000_Hour_2015_07_19_0000.dat																			
TOA5 TIMESTAMP TS	CR3000 RECORD RN	CR3000 SiteNum	Year	2901 Day_of_Year	CR3000.Std.21 CR3 HrMin	Lat	Lon	VersionNum	TAIR1(1)	TAIR1(2)	TAIR1(3)	TAIR1(4)	TAIR1(5)	TAIR1(6)	TAIR1(7)	TAIR1(8)	TAIR1(9)	TAIR1(10)	
7/19/2015 0:00	18248	999	2015	200	0	0	0	2.003	5.535	5.871	5.795	5.429	5.23	5.285	5.435	5.437	5.262	5.46	
7/19/2015 1:00	18249	999	2015	200	100	0	0	2.003	6.13	6.156	5.912	5.988	5.825	6.059	6.107	6.088	6.431	6.003	

TAIR1(11)	TAIR1(12)	TAIR2(1)	TAIR2(2)	TAIR2(3)	TAIR2(4)	TAIR2(5)	TAIR2(6)	TAIR2(7)	TAIR2(8)	TAIR2(9)	TAIR2(10)	TAIR2(11)	TAIR2(12)	TAIR3(1)	TAIR3(2)	TAIR3(3)	TAIR3(4)	TAIR3(5)	
Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp
5.407	5.493	5.524	5.854	5.815	5.438	5.231	5.275	5.432	5.442	5.247	5.452	5.406	5.479	5.509	5.852	5.812	5.429	5.242	
5.728	5.386	6.122	6.158	5.896	5.994	5.803	6.036	6.109	6.056	6.41	6.04	5.733	5.375	6.129	6.167	5.867	5.988	5.822	

TAIR3(6)	TAIR3(7)	TAIR3(8)	TAIR3(9)	TAIR3(10)	TAIR3(11)	TAIR3(12)	VWPCP1(1)	VWPCP1(2)	VWPCP1(3)	VWPCP1(4)	VWPCP1(5)	VWPCP1(6)	VWPCP1(7)	VWPCP1(8)	VWPCP1(9)	VWPCP1(10)	VWPCP1(11)	VWPCP1(12)
Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp
5.276	5.411	5.425	5.268	5.457	5.401	5.446	-79.79282	-79.78675	-79.78999	-79.7823	-79.78433	-79.79242	-79.79121	-79.79079	-79.7904	-79.79121	-79.79121	-79.79162
6.04	6.097	6.076	6.42	6.009	5.721	5.38	-79.79768	-79.79768	-79.79808	-79.80171	-79.80131	-79.8001	-79.79525	-79.79646	-79.79284	-79.78554	-79.79243	-79.79081

VWPCP2(1)	VWPCP2(2)	VWPCP2(3)	VWPCP2(4)	VWPCP2(5)	VWPCP2(6)	VWPCP2(7)	VWPCP2(8)	VWPCP2(9)	VWPCP2(10)	VWPCP2(11)	VWPCP2(12)	VWPCP3(1)	VWPCP3(2)	VWPCP3(3)	VWPCP3(4)	VWPCP3(5)	VWPCP3(6)	VWPCP3(7)
Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp
415.5137	415.5426	415.5499	415.5354	415.5282	415.5282	415.5282	415.5137	415.5354	415.5426	415.5499	-82.42761	-82.42355	-82.42609	-82.42021	-82.4215	-82.42634	-82.4266	
416.0059	415.9914	415.9697	415.9552	415.9191	415.8756	415.8176	415.7091	415.615	415.5716	415.5426	415.5137	-82.43042	-82.43067	-82.43043	-82.43271	-82.4322	-82.42889	

VWPCP3(8)	VWPCP3(9)	VWPCP3(10)	VWPCP3(11)	VWPCP3(12)	WET1(1)	WET1(2)	WET1(3)	WET1(4)	WET1(5)	WET1(6)	WET1(7)	WET1(8)	WET1(9)	WET1(10)	WET1(11)	WET1(12)	WET2(1)	WET2(2)
Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp
-82.42635	-82.42609	-82.42634	-82.42659	-82.4266	18.18	1123	1123	18.34	1123	1124	1124	1124	1124	1124	1124	1124	2961	2976
-82.42991	-82.42762	-82.42278	-82.42686	-82.42635	18.34	18.17	18.17	18.17	18.17	18.18	19	19	19	18.18	18.34	18.18	2902	2845

WET2(3)	WET2(4)	WET2(5)	WET2(6)	WET2(7)	WET2(8)	WET2(9)	WET2(10)	WET2(11)	WET2(12)	TAIR1_5mn_Min	TAIR2_5mn_Min	TAIR3_5mn_Min	TAIR1_5mn_Max	TAIR2_5mn_Max	TAIR3_5mn_Max	T1Cal_Std	T2Cal_Std	T3Cal_Std
Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Smp	Min	Min	Min	Max	Max	Max	Std	Std	Std
2968	2954	2939	2990	2990	2990	2990	2990	2990	2990	5.208	5.205	5.215	5.958	5.967	5.973	0.204	0.209	0.207
2745	2545	2185	1843	1442	1550	1829	2015	2751	2847	5.376	5.36	5.363	6.464	6.463	6.465	0.279	0.283	0.286

WS_ms_Avg	WS_ms_Max	WS_ms_Std	Solar_Avg	Solar_Min	Solar_Max	Solar_Std	SurfT_Avg	SurfT_Min	SurfT_Max	SurfT_Std	BodyT_Avg	BodyT_Std	PanelT_Avg	FANSP1_Avg	FANSP2_Avg	FANSP3_Avg	BatVolt_Avg	DL_BatVolt_Avg
Avg	Max	Std	Avg	Min	Max	Std	Avg	Min	Max	Std	Avg	Std	Avg	Avg	Avg	Avg	Avg	Avg
0	0	0	45.19	36.59	55.59	5.201	7.063	6.948	7.275	0.085	5.955	0.142	11.17	113.9	112.4	113.5	13.65	12.71
0.31	1.625	0.454	59.44	36.5	89.8	14.45	7.36	6.989	7.725	0.184	6.303	0.155	11.69	113.9	112.4	113.7	13.65	12.63

DoorTime_Tot	TPRECP_Max	RefRes_Avg	DSignTR
Tot	Max	Avg	Smp
0	7.066	1499.673	0
0	7.553	1499.683	0