CAKN Weather & Climate Monitoring
Site Visit Worksheet
Version: 8 March 2017

CAKN Program Contact:
Pam Sousanes/Ken Hill
phone: (907) 455-0677/(907)-455-0678
email: pam_sousanes@nps.gov/kenneth_hill@nps.gov

Site name	Upper Charley	**DCS - Sat. TX Check**	**RAWS HelpDesk:**
Date of this visit	6/13/2018	phone: (757) 824-7450	phone: (208) 387-5475
Operators	SOUSANES, HILL	24/7 technical support	Hours: M-F, 6 AM-2:30 PM AST

Pre-Field Information

(Look up the station: www.nifc.blm.gov-->Login-->'Weather' -->'Select Station')

GOES Information:	
Latitude	64.516919
Longitude	-143.202381
NESDIS ID	3960D064
Tx Time (mm:ss)	0:38:10
Tx Channel	152
Antenna Azimuth (Deg Mag)	171
Antenna Elev. (Deg.)	17
Currently activated?	Y
Currently transmitting?	Y
NWS Site ID	UPRA2
Camera	Y

Sensors	Swap? (Y/N)	Recent error events (list)?
Temp	Y	Presumed Damage 20171017
Temp/RH	Y (HMP45)	
Solar Radiation	Y	Presumed Damage 20171017
Wind Speed/Dir	N	
Snow Depth	?	Condition unknown
Soil Temp 1	N	
Soil Temp 2	N	
Soil Temp 3	N	
Precipitation	N	
Datalogger	N	
Transmitter	~~N~~ Y	Add new TX 321
Battery	N	
Fence	Y	Condition unknown

Record Site Conditions

Time visit begins:	14:15	Time visit ends:	
Station accessible? (Y/N)	Y	If no, comment:	
Cables intact? (Y/N)	N	If no, comment:	U1200X + 109 CABLES CHANGED
Power source ok? (Y/N)	Y	If no, comment:	BUT CONDUIT AT ENCLOSURE WAS CHANGED
Batteries ok? (Y/N)	Y	If no, comment:	

Record Station Status Table Values

(WMD: PConnectCE-->Connect Button-->Measurements Tab-->'Select 'Status' from Table Drop-Down Box)
(Laptop: Device config utility-->Select DataLogger CR1000 -->Connect Button-->Data Monitor tab-->Status table)

	Before Maintenance:		After Maintenance:	
OSVersion	25		25	
ProgName	Ucharley_2017		UCHARLEY_2017	
StartTime	7/13/17 0:00		6/13/17 15:46	
12 V Battery Voltage	13.5		13.5	
Panel Temperature	12.1		12.1	
Watchdog Errors	0	Reset if >0	0	Reset if >0
Lithium Batt Volt	3.4	Replace if <2.9	3.5	Replace if <2.9
Low 12V Batt Count	0	Reset if >0	0	Reset if >0
Skipped Scan	0	Reset if >0	0	Reset if >0
RNIN Cumulative				
SR50a height		80 in 2017		

Maintenance Checklist

	Completed? (Y/N)	
Download Hourly Data	Y	
RNIN before program update	4.06	
SR50 height before	80	80 in 2017
Upload new program	N	
Re-enter RNIN after	NA	
Measure and re-enter SR50	N	
Clean Rain Gage	N	
Clean Temp Shield	N	
Level Solar sensor	Y	
OS Version updated?	N	
Replace Desiccant	Y	

Check transmitted values:

	Value	OK? (Y/N)
RNIN	4.06	
WSM	9.3	
WDD	273	
ATF	53.0	
FTF	—	
RHP	42.7	
BVV	13.5	
WDDP	266	
WSMPH	14.8	
SDI	80	
SRW	532	

Tighten Guy Wires	N	STF	45.4	
Clean Battery Terminals	N	STF2	41.2	
Clean Snow Depth Area	N	STF3	39.1	
Brush Station Vicinity	N	STF4	—	
Tighten elements on YAGI	N (old style)	ATF HMP	52.9	
Take Site Photos	N	ATF ThermX	53.0	

Record Sensor Configuration Changes

	Model # out	Serial# out	Model # in	Serial# in	Cable length (ft)	Height/depth (in)
Air Temperature 1	109	308903-13	109	308903-31		
Air Temperature 2						
Temp/RH	HMP45	X3410056	HMP45	F4010029		
Solar Radiation	Li200x	PY43204	Li200x	PY83323		
Wind Speed/Dir						
Snow depth						
Soil Temp 1						
Soil Temp 2						
Soil Temp 3						
Precipitation						
Datalogger						
Transmitter						

Comments

To do:

Swap HMP45 ✓ Swap Solar ✓ Assess SR50a and replace if needed LOOKS GOOD Assess general site damage MINOR DAMAGE; FENCE TAKEN DOWN BY SOMETHING; 2 CABLES CHEWED. MAYBE NEW TEETH MARKS ON BATTERY BOX, BUT COULD BE OLD ONES.

Repair Fence ✓ Swap SD Card in Camera ✓ Assess condition of camera EXCELLENT

STRUNG NEW POLY WIRE AROUND FENCE.

Pre-visit notes: Station damaged Oct 17., 2017. Air Temp 109 and Solar sensor damaged.

Could be additional damage, but battery, wind, precip, RH, soil, and ThermX look okay as of May 4, 2018.

Need to call WFMI after site visit and un-Skip ATF, AT1L, AT1H, and SDI.

May be able to back-calculate snow depth values in Aquarius based on temperature correction from ThermX/HMP sensor?

LOOKS LIKE BEAR DAMAGE; FENCE WAS A MESS + CABLES WERE CHEWED ON THE 109 + SOLAR RAD SENSOR. ALL OTHER CABLES LOOK GOOD. SLIGHT DAMAGE TO POWER CABLE AT ENCLOSURE; USED MASTIC TO SECURE CONNECTION

WFMI Maintenance Narrative

(Fill out prior to submission of NAMS post-trip update. Update may contain several station visits.)

COMMENTS CONT'D: SWAPPED THE TX312 FOR A TX320. TOOK GREEN POWER END OFF OF THE TX312 AND WIRED THE EXISTING MESH CONNECTED POWER SUPPLY TO DIFFERENT STYLE GREEN CONNECTOR THAT FIT THE TX320. WATCHED A TX GO THROUGH. LOOKS OK.

Image identifiers of photos taken

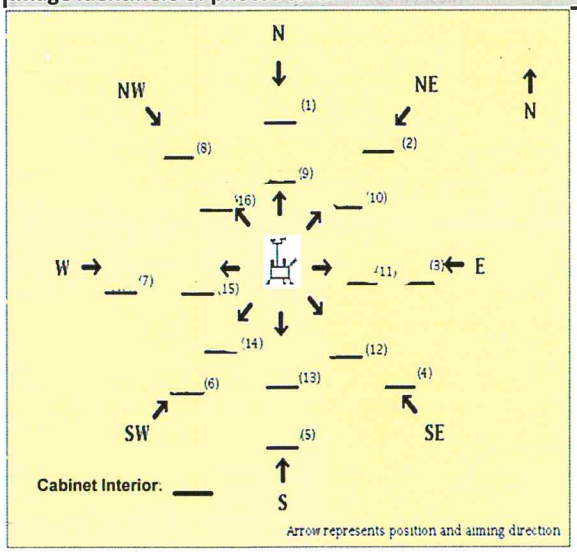

Photo Key	Image on camera #	Direction	On Computer
1		N Towards	
2		NW Towards	
3		W Towards	
4		SW Towards	
5		South Towards	
6		SE Towards	
7		E Towards	
8		NE Towards	
9		North Away	
10		NW Away	
11		W Away	
12		SW Away	
13		S Away	
14		SE Away	
15		E Away	
16		NE Away	
17		Enclosure	

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24/7 technical support

RAWS HelpDesk:
phone: (208) 387-5475
Hours: M-F, 6 AM-2:30 PM AST

Suspect Data
RNIN (Since April?)
SR (out of level ~15°, unknown date

Site name	Coal Creek
Date of this visit	6/14/2018
Operators	SOUSANES + HILL

Pre-Field Information

(Look up the station: www.nifc.blm.gov-->Login-->'Weather' -->'Select Station')

GOES Information:	
Latitude	65.304131
Longitude	143.157011
NESDIS ID	39605670
Tx Time (mm:ss)	0:33:20
Tx Channel	172
Antenna Azimuth (Deg Mag)	171
Antenna Elev. (Deg.)	16
Currently activated?	Y
Currently transmitting?	Y
NWS Site ID	CLCA2

Sensors	Swap? (Y/N)	Recent error events (list)?
Temp	N	
Temp/RH	Y (HMP45)	
Solar Radiation	N	
Wind Speed/Dir	N	
Snow Depth	N	
Soil Temp 1	N	
Soil Temp 2	N	
Soil Temp 3	N	
Precipitation	?	Precip near 100" - Apr 21???
Datalogger	N	
Transmitter	Y	Add new TX321
Battery	N	
Fence	N/A	

Record Site Conditions

Time visit begins:	8:55	Time visit ends:	
Station accessible? (Y/N)	Y	If no, comment:	
Cables intact? (Y/N)	N	If no, comment:	SNOW CABLE HANGING, BUT STILL CONNECTED W/NO DAMAGE.
Power source ok? (Y/N)	Y	If no, comment:	
Batteries ok? (Y/N)	Y	If no, comment:	

Record Station Status Table Values

(WMD: PConnectCE-->Connect Button-->Measurements Tab-->'Select 'Status' from Table Drop-Down Box)
(Laptop: Device config utility-->Select DataLogger CR1000 -->Connect Button-->Data Monitor tab-->Status table)

	Before Maintenance:		After Maintenance:	
OSVersion	25		25	
ProgName	CoalCreek_2017		COAL CREEK_2017	
StartTime	6/14/17 9:45		6/14/17 9:45	
12 V Battery Voltage	13.3		13.3	
Panel Temperature	16.3		16.3	
Watchdog Errors	0	Reset if >0	0	Reset if >0
Lithium Batt Volt	3.4	Replace if <2.9	3.4	Replace if <2.9
Low 12V Batt Count	0	Reset if >0	0	Reset if >0
Skipped Scan	0	Reset if >0	0	Reset if >0
RNIN Cumulative				
SR50a height				

Maintenance Checklist

	Completed? (Y/N)	
Download Hourly Data	Y	
RNIN before program update	95 +	
SR50 height before	72.0	72 in. 2016
Upload new program	N	
Re-enter RNIN after	0.00	
Measure and re-enter SR50	N	
Clean Rain Gage	Y	
Clean Temp Shield	Y	
Level Solar sensor	Y	
OS Version updated?	N	
Replace Desiccant	Y	

Check transmitted values:

	Value	OK? (Y/N)
RNIN	0.00	
WSM	0.9	
WDD	170	
ATF	55.1	
FTF	—	
RHP	49.3	
BVV	13.2	
WDDP	59	
WSMPH	1.9	
SDI	0.0	
SRW	551	

Tighten Guy Wires	OK	STF	38.2		TCOT	73.0
Clean Battery Terminals	N	STF2	31.5			
Clean Snow Depth Area	Y	STF3	31.3			
Brush Station Vicinity	N	STF4	—			
Tighten elements on YAGI	NA	ATF HMP	54.7			
Take Site Photos	Y	ATF ThermX	54.9			

Record Sensor Configuration Changes

	Model # out	Serial# out	Model # in	Serial# in	Cable length (ft)	Height/depth (in)
Air Temperature 1						
Air Temperature 2						
Temp/RH	HMP45	X3410060	HMP45C	X3410061		
Solar Radiation						
Wind Speed/Dir						
Snow depth						
Soil Temp 1						
Soil Temp 2						
Soil Temp 3						
Precipitation						
Primary AT						
Datalogger						
Transmitter						

Comments

To do:

Swap HMP45 ✓ ; Consider Adding Rubber Gasket to Tipping Bucket ✓ ; Assess Condition of Enclosure RG SURFACED

ADDED TX321 - SWAPPED W/ TX31R. SWAPPED GREEN POWER PLUG, LEFT REST OF POWER CABLE SET-UP.
Cleaned, Inspected, and tested tipping bucket. Reset to 0.00. ADDED RUBBER GASKET.
WIND/SOLAR CROSSBAR OUT OF LEVEL IN 15°. RELEVELED. everything seemed tight, so not sure why it was out of level.

To Do 2019 Paint Enclosure Brown? Add Interpretive Sign to outside of Enclosure

CLEANED, SANDED, + PAINTED ENCLO SURE.

WFMI Maintenance Narrative

(Fill out prior to submission of NAMS post-trip update. Update may contain several station visits.)

Image identifiers of photos taken

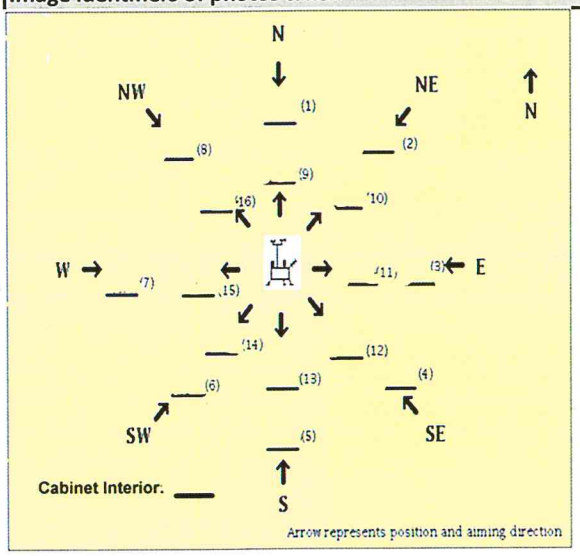

Photo Key	Image on camera #	Direction	On Computer
1		N Towards	
2		NE Towards	
3		E Towards	
4		SE Towards	
5		South Towards	
6		SW Towards	
7		W Towards	
8		NW Towards	
9		North Away	
10		NE Away	
11		E Away	
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email: pam_sousanes@nps.gov/kenneth_hill@nps.gov

Suspect Data
Soil Temps (heaving)

Site name	Ruth Glacier	**DCS - Sat. TX Check**	**RAWS HelpDesk:**
Date of this visit	6/20/18	phone: (757) 824-7450	phone: (208) 387-5475
Operators	SOUSANES + SIMMONS	24/7 technical support	Hours: M-F, 6 AM-2:30 PM AST

Pre-Field Information

(Look up the station: www.nifc.blm.gov-->Login-->'Weather' -->'Select Station')

GOES Information:	
Latitude	62 42.583
Longitude	150 32.383
NESDIS ID	3960157A
Tx Time (mm:ss)	0:32:40
Tx Channel	172
Antenna Azimuth (Deg Mag)	143
Antenna Elev. (Deg.)	19
Currently activated?	Y
Currently transmitting?	Y
NWS Site ID	RUGA2

Sensors	Swap? (Y/N)	Recent error events (list)?
Temp	N	
Temp/RH	Y (HMP45)	
Solar Radiation	Y	
Wind Speed/Dir	N	30' cable
Snow Depth	N	
Soil Temp 1	N	
Soil Temp 2	N	
Soil Temp 3	N	
Precipitation	N	
Datalogger	N	
Transmitter	N	
Battery	N	
Fence	Y	Bring fence parts

Record Site Conditions

Time visit begins:	1:00	Time visit ends:	
Station accessible? (Y/N)	Y	If no, comment:	
Cables intact? (Y/N)	Y	If no, comment:	
Power source ok? (Y/N)	Y	If no, comment:	
Batteries ok? (Y/N)	Y	If no, comment:	

Record Station Status Table Values

(WMD: PConnectCE-->Connect Button-->Measurements Tab-->'Select 'Status' from Table Drop-Down Box)
(Laptop: Device config utility-->Select DataLogger CR1000 -->Connect Button-->Data Monitor tab-->Status table)

	Before Maintenance:		After Maintenance:	
OSVersion	26			
ProgName	Ruth2017			
StartTime	6/21/17 13:38	1/11/2018 15:25		
12 V Battery Voltage	13.4			
Panel Temperature	14.2			
Watchdog Errors	2	Reset if >0		Reset if >0
Lithium Batt Volt	3.4	Replace if <2.9		Replace if <2.9
Low 12V Batt Count	119	Reset if >0		Reset if >0
Skipped Scan	0	Reset if >0		Reset if >0
RNIN Cumulative				
SR50a height				

Maintenance Checklist

	Completed? (Y/N)	
Download Hourly Data	Y	
RNIN before program update	6.78	
SR50 height before	69	69 in 2017
Upload new program	N	
Re-enter RNIN after	—	
Measure and re-enter SR50	Y	
Clean Rain Gage	Y	
Clean Temp Shield	Y	
Level Solar sensor	Y	
OS Version updated?	N	
Replace Desiccant	Y	
Tighten Guy Wires	N	

Check transmitted values:

	Value	OK? (Y/N)
RNIN	6.78	
WSM	4.25	
WDD	0.98	
ATF	54.8	
FTF	—	
RHP	48.0	
BVV	13.4	
WDDP	39	
WSMPH	5.7	
SDI	0	
SRW	886	
STF	50.2	

Clean Battery Terminals	N	STF2	44.9	
Clean Snow Depth Area	N	STF3	43.1	
Brush Station Vicinity	N	STF4	—	
Tighten elements on YAGI	Y	ATF HMP	55.4	
Take Site Photos	Y	ATF ThermX	54.7	

Record Sensor Configuration Changes

	Model # out	Serial# out	Model # in	Serial# in	Cable length (ft)	Height/depth (in)
Air Temperature 1						
Air Temperature 2						
Temp/RH	HMP45	E2630037	HMP45	D3670083		
Solar Radiation	LI200X	63699	LI200X	PY 63672		
Wind Speed/Dir						
Snow depth						
Soil Temp 1						
Soil Temp 2						
Soil Temp 3						
Precipitation						
Primary AT						
Datalogger						
Transmitter						

NOTE: SERIAL# IS RUBBED OFF. CHECK AGAINST CALIBRATION SHEET

Comments

To do:

Replace HMP45 sensor head ✓ Replaced Li200x Solar Radiation Sensor ✓

Repair Electric fence ✓ Assess condition of enclosure and enclosure collar Replace enclosure next year. collar is busted.

Notes from field:

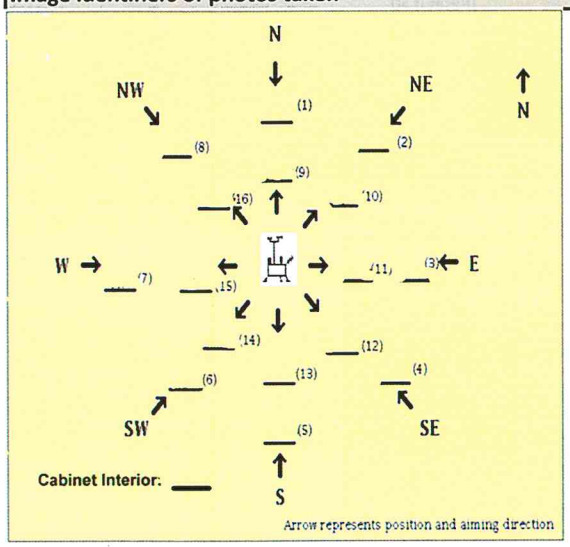
Lots of little bugs in enclosure and on station in general. Fence needed repair - replaced solar charger b/c mounting bracket was busted.
- Wind cable was sagging, but not damaged.

- HMP45C cable end was a bit corroded. Replace next year w/ CE181
- Watchdog errors for low 12V battery - solar pad buried?
- Soil sensors heaved a bit. pushed them back in holes

WFMI Maintenance Narrative

(Fill out prior to submission of NAMS post-trip update. Update may contain several station visits.)

Image identifiers of photos taken



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4		SE Towards	
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6		SW Towards	
7		W Towards	
8		NW Towards	
9		North Away	
10		NE Away	
11		E Away	
12		SE Away	
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14		SW Away	
15		W Away	
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phone: (907) 455-0677/(907)-455-0678
email: pam_sousanes@nps.gov/kenneth_hill@nps.gov

Site name	Tana Knob	**DCS - Sat. TX Check**	**RAWS HelpDesk:**
Date of this visit	7/10/2018	phone: (757) 824-7450	phone: (208) 387-5475
Operators	Hill / Sousanes	24/7 technical support	Hours: M-F, 6 AM-2:30 PM AST

Suspect Data
- WD (station twisted unknown date
- All data (intermittent due to bad battery cable, 2017 - 2018)
- STZ, Cable Severed

Pre-Field Information

(Look up the station: www.nifc.blm.gov-->Login-->'Weather' -->'Select Station')

GOES Information:		Sensors	Swap? (Y/N)	Recent error events (list)?
Latitude	60.908	Temp	?	
Longitude	142.901311	Temp/RH	Y (HMP45)	
NESDIS ID	3960709C	Solar Radiation	Y	
Tx Time (mm:ss)	0:33:40	Wind Speed/Dir	N	
Tx Channel	172	Snow Depth	N	
Antenna Azimuth (Deg Mag)	171	Soil Temp 1	N	
Antenna Elev. (Deg.)	21	Soil Temp 2	Y	Reading -99
Currently activated?	Y	Soil Temp 3	N	
Currently transmitting?	?	Precipitation	N	
NWS Site ID	TANA2	Datalogger	?	
		Transmitter	Y	Replace w/ 321. No Tx Dec - April
Camera	N	Battery	?	Power suspect; rain resets
		Fence	Y	

Record Site Conditions

Time visit begins:	1030	Time visit ends:	
Station accessible? (Y/N)	Y	If no, comment:	
Cables intact? (Y/N)	N	If no, comment:	STZ cut. Bear damage?
Power source ok? (Y/N)	?	If no, comment:	looks ok, but low 12 V counts
Batteries ok? (Y/N)	?	If no, comment:	

Record Station Status Table Values

(WMD: PConnectCE-->Connect Button-->Measurements Tab-->'Select 'Status' from Table Drop-Down Box)
(Laptop: Device config utility-->Select DataLogger CR1000 -->Connect Button-->Data Monitor tab-->Status table)

	Before Maintenance:		After Maintenance:	
OSVersion	26		26	
ProgName	Tana - 2017		TANA - 2018	
StartTime	7/10/2018	7:57am. ???	7/10/2018	12:47PM
12 V Battery Voltage	13.7		13.8	
Panel Temperature	9.8		7.6	
Watchdog Errors	175	Reset if >0	0	Reset if >0
Lithium Batt Volt	3.4	Replace if <2.9	3.4	Replace if <2.9
Low 12V Batt Count	2542	Reset if >0	0	Reset if >0
Skipped Scan	0	Reset if >0	0	Reset if >0

Maintenance Checklist

	Completed? (Y/N)		Check transmitted values:	Value	OK? (Y/N)
Download Hourly Data	Y		RNIN	0	
RNIN before program update	0.40		WSM	12.8	
SR50 height before	103.5	103.5 in. 2017	WDD	152	
Upload new program	Y		ATF	43.4	
Re-enter RNIN after	Y		FTF		
Measure and re-enter SR50	Y		RHP	84	
Clean Rain Gage	N		BVV	13.7	
Clean Temp Shield	N		WDDP	104	
Level Solar sensor	Y		WSMPH	14.2	
OS Version updated?	N		SDI	11.6	
Replace Desiccant	Y		SRW	360	
Tighten Guy Wires	Y		STF	53.1	
Clean Battery Terminals	Y		STF2	47.3	
Clean Snow Depth Area	N		STF3	45.4	
Brush Station Vicinity	N		STF4		

Tighten elements on YAGI	DLD 57469		ATF HMP	4.3.2
Take Site Photos	y		ATF ThermX	4.3.3

Record Sensor Configuration Changes

	Model # out	Serial# out	Model # in	Serial# in	Cable length (ft)	Height/depth (in)
Air Temperature 1						
Air Temperature 2						
Temp/RH	HMP45	E263011	EE181	1712160004	4AB	
Solar Radiation	Li200x	60149	Li200x	68295		
Wind Speed/Dir						
Snow depth						
Soil Temp 1						
Soil Temp 2	107					
Soil Temp 3						
Precipitation						
Primary AT						
Datalogger						
Transmitter						

Scotchlock sheet for sensor #5

Comments

To do:

Replace TX3210 with TX321 ✓ Replace HMP45 with EE181 ✓ Swap Li200x ✓

Repair Fence ✓ Troubleshoot power/datalogger/timestamp/transmission issues (replace RS232 data cable?) Battery?

Repair/Replace ST2 Sensor ✓

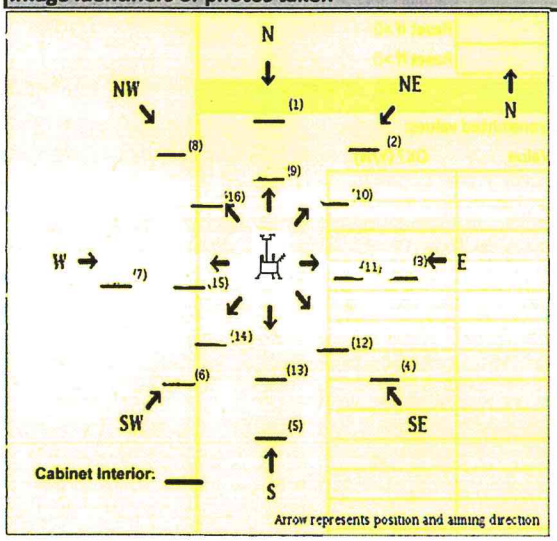
Moved station mast from W to S facing.
GPS year 2022
Repaired guy wires
Battery voltage ___, Battery cable was bad based on volt meter output. Replaced & stations seems better. :)
Soil temp 2 cable severed + replaced

WFMI Maintenance Narrative

(Fill out prior to submission of NAMS post-trip update. Update may contain several station visits.)

-downloaded status table to desktop (Pam's tablet)

Image identifiers of photos taken



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8		NW Towards	
9		North Away	
10		NE Away	
11		E Away	
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email: pam_sousanes@nps.gov/kenneth_hill@nps.gov

Site name	Tebay	**DCS - Sat. TX Check**	**RAWS HelpDesk:**
Date of this visit	7/10/2018	phone: (757) 824-7450	phone: (208) 387-5475
Operators	HILL/SOUSANES	24/7 technical support	Hours: M-F, 6 AM-2:30 PM AST

Pre-Field Information

(Look up the station: www.nifc.blm.gov-->Login-->'Weather' -->'Select Station')

GOES Information:	
Latitude	61.18095
Longitude	-144.3392
NESDIS ID	3960936E
Tx Time (mm:ss)	0:34:00
Tx Channel	172
Antenna Azimuth (Deg Mag)	169
Antenna Elev. (Deg.)	20
Currently activated?	Y
Currently transmitting?	Y
NWS Site ID	TEBA2
Camera	N

Sensors	Swap? (Y/N)	Recent error events (list)?
Temp	N	
Temp/RH	Y (EE181)	
Solar Radiation	N	
Wind Speed/Dir	Y	Riming event mid-December
Snow Depth	N	
Soil Temp 1	~~Y~~	Bad data in 2017; current tx ok? Seems OK
Soil Temp 2	N	
Soil Temp 3	N	
Precipitation	N	
Datalogger	N	
Transmitter	Y	Replace TX320 with TX321
Battery	N	
Fence	Y	

Record Site Conditions

Time visit begins:	2:10 PM	Time visit ends:	
Station accessible? (Y/N)	Y	If no, comment:	
Cables intact? (Y/N)	Y/N	If no, comment:	Soil Cables pulled out of box
Power source ok? (Y/N)	Y	If no, comment:	
Batteries ok? (Y/N)	Y	If no, comment:	

Record Station Status Table Values

(WMD: PConnectCE-->Connect Button-->Measurements Tab-->'Select 'Status' from Table Drop-Down Box)
(Laptop: Device config utility-->Select DataLogger CR1000 -->Connect Button-->Data Monitor tab-->Status table)

	Before Maintenance:		After Maintenance:	
OSVersion	26		26	
ProgName	Tebay_2017		TEBAY_2018	
StartTime	7/10/17 15:42		7/10/2018	15:22
12 V Battery Voltage	13.4		13.3	
Panel Temperature	12.7		11.6	
Watchdog Errors	0	Reset if >0	0	Reset if >0
Lithium Batt Volt	3.5	Replace if <2.9	3.5	Replace if <2.9
Low 12V Batt Count	0	Reset if >0	0	Reset if >0
Skipped Scan	0	Reset if >0	0	Reset if >0

Maintenance Checklist

	Completed? (Y/N)	
Download Hourly Data	Y	
RNIN before program update	14.69	
SR50 height before	93.6	93.6 in 2017
Upload new program	Y	
Re-enter RNIN after	Y	
Measure and re-enter SR50	Y	
Clean Rain Gage	N	
Clean Temp Shield	N	
Level Solar sensor	N	
OS Version updated?	N	
Replace Desiccant		
Tighten Guy Wires	NA	

Check transmitted values:

	Value	OK? (Y/N)
RNIN	14.69	
WSM	2.5	
WDD	290	
ATF	50.4	
FTF	—	
RHP	92	
BVV	13.3	
WDDP	290	
WSMPH	3.2	
SDI		
SRW	487	
STF	55.1	

Clean Battery Terminals	N	STF2	54.4	
Clean Snow Depth Area	Y	STF3	51.4	
Brush Station Vicinity	N	STF4		
Tighten elements on YAGI	NA	ATF HMP	181 51.1	
Take Site Photos		ATF ThermX	50.3	

Record Sensor Configuration Changes

	Model # out	Serial# out	Model # in	Serial# in	(ft)	(in)
Air Temperature 1						
Air Temperature 2						
Temp/RH	HMP45	X3140062	EE181	1710160000	4379	
Solar Radiation						
Wind Speed/Dir	5103	105732	5103	87973		
Snow depth						
Soil Temp 1	107					
Soil Temp 2						
Soil Temp 3						
Precipitation						
Primary AT						
Datalogger						
Transmitter	TX320		TX321			

Comments

To do:

Replace TX320 with TX321 ✓ Replace HMP45 with EE181 ✓ Swap 5103 ✓

Troubleshoot Parity errors Swapped TX Troubleshoot STF1 (requested skip in Sept. due to bad data, but current message looks ok)

Assess snow damage (~6 ft snowpack) YAGI ANTENNA WAS POINTING TOWARD GROUND. J BOLT ON ADJUSTMENT SHEARED OFF. TIGHTENED OTHER BOLT + ADDED CABLE TIE. SEEMS OK.

REPAIRED FENCE - REPLACED POLYWIRE.

- LIGHTNING ROD SHEARED OFF - DID NOT REPLACE DUE TO RIMING AT THIS SITE.

- SOIL CABLES PULLED OUT. THEY ARE IN CONDUIT + LOOK LIKE IT MIGHT HAVE BEEN SHEARED BY SNOW.

GPS CLOCK DATE AFTER SWAP READS 2022, NOT 2018.

WFMI Maintenance Narrative

(Fill out prior to submission of NAMS post-trip update. Update may contain several station visits.)

Image identifiers of photos taken

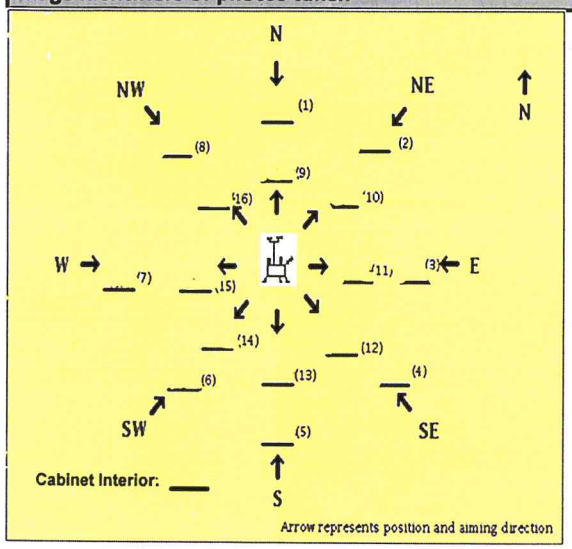

Photo Key	Image on camera #	Direction	On Computer
1		N Towards	
2		NE Towards	
3		E Towards	
4		SE Towards	
5		South Towards	
6		SW Towards	
7		W Towards	
8		NW Towards	
9		North Away	
10		NE Away	
11		E Away	
12		SE Away	
13		S Away	
14		SW Away	
15		W Away	
16		NW Away	
17		Enclosure	

CAKN Weather & Climate Monitoring
Site Visit Worksheet
Version: 8 March 2017

CAKN Program Contact:
Pam Sousanes/Ken Hill
phone: (907) 455-0677/(907)-455-0678
email: pam_sousanes@nps.gov/kenneth_hill@nps.gov

Site name	Chititu
Date of this visit	7/11/2018
Operators	Ken Hill, Pam Sousanes

DCS - Sat. TX Check
phone: (757) 824-7450
24/7 technical support

RAWS HelpDesk:
phone: (208) 387-5475
Hours: M-F, 6 AM-2:30 PM AST

Pre-Field Information

(Look up the station: www.nifc.blm.gov-->Login-->'Weather' -->'Select Station')

GOES Information:	
Latitude	61.273589
Longitude	-142.6209
NESDIS ID	396020E0
Tx Time (mm:ss)	0:32:50
Tx Channel	172
Antenna Azimuth (Deg Mag)	171
Antenna Elev. (Deg.)	20
Currently activated?	Y
Currently transmitting?	Y
NWS Site ID	CTUA2

Elev 4609.2

Sensors	Swap? (Y/N)	Recent error events (list)?
Temp	N	
Temp/RH	Y (EE181)	
Solar Radiation	Y	
Wind Speed/Dir	Y	
Snow Depth	N	
Soil Temp 1	N	
Soil Temp 2	N	
Soil Temp 3	N	
Precipitation	N	
Datalogger	N	
Transmitter	Y	Replace TX320 with TX321
Battery	N	
Fence	N/A	

Record Site Conditions

Time visit begins:	10:45	Time visit ends:	
Station accessible? (Y/N)	Y	If no, comment:	
Cables intact? (Y/N)	Y	If no, comment:	
Power source ok? (Y/N)	Y	If no, comment:	
Batteries ok? (Y/N)	Y	If no, comment:	~~Took out one battery to bring to Tana~~ returned & reinstalled 7/12

Record Station Status Table Values

(WMD: PConnectCE-->Connect Button-->Measurements Tab-->'Select 'Status' from Table Drop-Down Box)
(Laptop: Device config utility-->Select DataLogger CR1000 -->Connect Button-->Data Monitor tab-->Status table)

	Before Maintenance:		After Maintenance:	
OSVersion	26		26	
ProgName	Chititu_2017		CHITITU_2018	
StartTime	7/12/17 19:39		7/11/2018	11:56 am
12 V Battery Voltage	13.7		13.6	
Panel Temperature	4.4		6.3	
Watchdog Errors	0	Reset if >0	0	Reset if >0
Lithium Batt Volt	3.4	Replace if <2.9	3.5	Replace if <2.9
Low 12V Batt Count	0	Reset if >0	0	Reset if >0
Skipped Scan	0	Reset if >0	0	Reset if >0

Maintenance Checklist

	Completed? (Y/N)	
Download Hourly Data	Y	
RNIN before program update	5.42	
SR50 height before	96.5	96.5 in 2017
Upload new program	Y	
Re-enter RNIN after	Y	
Measure and re-enter SR50	Y	
Clean Rain Gage	Y	
Clean Temp Shield	N	
Level Solar sensor	Y	
OS Version updated?	N	
Replace Desiccant	Y	

	Value	OK? (Y/N)
RNIN	5.42	
WSM		
WDD		
ATF	41.6	
FTF	—	
RHP	69	
BVV	13.5	
WDDP		
WSMPH		
SDI	0.02	
SRW	181	

Tighten Guy Wires	Y	STF	45.2		
Clean Battery Terminals	Y	STF2	41.0		
Clean Snow Depth Area	N	STF3	35.7		
Brush Station Vicinity	N	STF4	23.0		96.47
Tighten elements on YAGI	NA	ATF ~~HMP~~	EE181 41.0		
Take Site Photos		ATF ThermX	40.7		

Record Sensor Configuration Changes

	Model # out	Serial# out	Model # in	Serial# in	(ft)	(in)
Air Temperature 1						
Air Temperature 2						
Temp/RH	HMP45	X3410042	EE181	164816000041 90		
Solar Radiation	Li200x	PY43036	Li200x	60173		
Wind Speed/Dir	5103	WM132729	05103	58429		
Snow depth						
Soil Temp 1						
Soil Temp 2						
Soil Temp 3						
Precipitation						
Primary AT						
Datalogger						
Transmitter	TX320		TX321			

Comments

To do:

Replace HMP45 with EE181 ✓ Replace TX320 with TX321 ✓ Swap 5103 ✓ Swap Li200x ✓

Confirm 2018 program has STF4 ✓

GPS YEAR FOR TX321 / GPS ANTENNA = 2022 (?)

WFMI Maintenance Narrative

(Fill out prior to submission of NAMS post-trip update. Update may contain several station visits.)

Image identifiers of photos taken

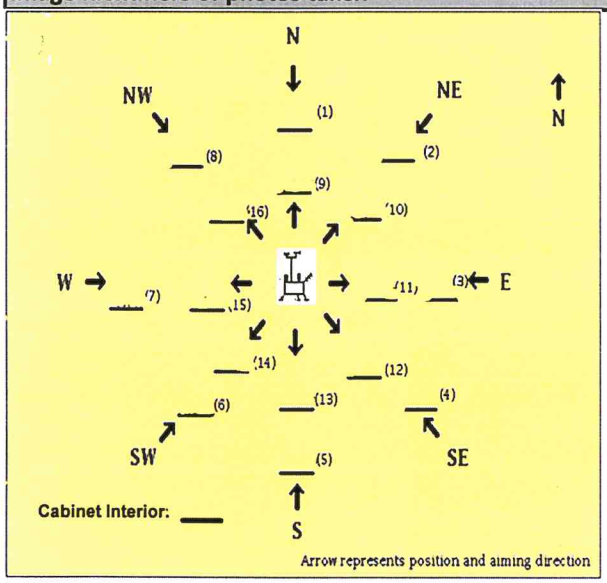

Photo Key	Image on camera #	Direction	On Computer
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2		NE Towards	
3		E Towards	
4		SE Towards	
5		South Towards	
6		SW Towards	
7		W Towards	
8		NW Towards	
9		North Away	
10		NE Away	
11		E Away	
12		SE Away	
13		S Away	
14		SW Away	
15		W Away	
16		NW Away	
17		Enclosure	

CAKN Weather & Climate Monitoring
Site Visit Worksheet
Version: 8 March 2017

CAKN Program Contact:
Pam Sousanes/Ken Hill
phone: (907) 455-0677/(907)-455-0678
email: pam_sousanes@nps.gov/kenneth_hill@nps.gov

Site name	Gates Glacier	**DCS - Sat. TX Check**	**RAWS HelpDesk:**
Date of this visit	7/11/2018	phone: (757) 824-7450	phone: (208) 387-5475
Operators	H.11, Sousanes	24/7 technical support	Hours: M-F, 6 AM-2:30 PM AST

Pre-Field Information

(Look up the station: www.nifc.blm.gov-->Login-->'Weather' -->'Select Station')

GOES Information:	
Latitude	61.602889
Longitude	-143.013211
NESDIS ID	39608018
Tx Time (mm:ss)	0:33:50
Tx Channel	172
Antenna Azimuth (Deg Mag)	171
Antenna Elev. (Deg.)	20
Currently activated?	Y
Currently transmitting?	Y
NWS Site ID	GGLA2
Camera	Y

Sensors	Swap? (Y/N)	Recent error events (list)?
Temp	N	
Temp/RH	Y (EE181)	
Solar Radiation	Y	
Wind Speed/Dir	Y	
Snow Depth	N	
Soil Temp 1	N	
Soil Temp 2	N	
Soil Temp 3	N	
Precipitation	N	
Datalogger	N	
Transmitter	Y	Replace TX320 with TX321
Battery	?	Panel buried Dec.-May?
Fence	N/A	

Record Site Conditions

Time visit begins:	15:30	Time visit ends:	17:15
Station accessible? (Y/N)	Y	If no, comment:	
Cables intact? (Y/N)	Y	If no, comment:	
Power source ok? (Y/N)	Y	If no, comment:	
Batteries ok? (Y/N)	Y	If no, comment:	

Record Station Status Table Values

(WMD: PConnectCE-->Connect Button-->Measurements Tab-->'Select 'Status' from Table Drop-Down Box)
(Laptop: Device config utility-->Select DataLogger CR1000 -->Connect Button-->Data Monitor tab-->Status table)

	Before Maintenance:		After Maintenance:	
OSVersion	26		26	
ProgName	GatesGl_2017		GatesGl.2018	
StartTime	7/10/17 20:06		7/11/2018	16:54
12 V Battery Voltage	13.4		13.4	
Panel Temperature	8.7		7.2	
Watchdog Errors	0	Reset if >0	0	Reset if >0
Lithium Batt Volt	3.5	Replace if <2.9	3.5	Replace if <2.9
Low 12V Batt Count	0	Reset if >0	0	Reset if >0
Skipped Scan	0	Reset if >0	0	Reset if >0

Maintenance Checklist

	Completed? (Y/N)	
Download Hourly Data	Y	
RNIN before program update	13.38	
SR50 height before	103	103 in. 2017
Upload new program	Y	
Re-enter RNIN after		
Measure and re-enter SR50		
Clean Rain Gage	Checked-OK	
Clean Temp Shield	N	
Level Solar sensor	OK	
OS Version updated?	N	
Replace Desiccant		
Tighten Guy Wires	Y	
Clean Battery Terminals	N	
Clean Snow Depth Area	Y	
Brush Station Vicinity	NA	

	Value	OK? (Y/N)
RNIN	13.38	
WSM	7.7	
WDD	344	
ATF	40.7	
FTF		
RHP	73	
BVV	13.5	
WDDP	344	
WSMPH	7.7	
SDI	0	
SRW	215	
STF	52.6	
STF2	49.2	
STF3	44.1	
STF4		

EE181

Tighten elements on YAGI	NA	ATF HMP	40.4	4
Take Site Photos		ATF ThermX	40.5	

Record Sensor Configuration Changes

	Model # out	Serial# out	Model # in	Serial# in	(ft)	(in)
Air Temperature 1						
Air Temperature 2						
Temp/RH	HMP45	B1240013	EE181	17141600003057		
Solar Radiation	Li200x	PY43093	Li200x	63676		
Wind Speed/Dir	5103	LM1299047	5103	53408		
Snow depth						
Soil Temp 1						
Soil Temp 2						
Soil Temp 3						
Precipitation						
Primary AT						
Datalogger						
Transmitter	TX320		TX321			

Comments

To do:

Replace HMP45 with EE181 ✓ Swap 5103 ✓ Swap SD Card in Camera ✓ Swap Solar ✓

Assess condition of CC5MPX SUPER Assess Battery/Solar Panel (not charging Dec. - May) OK

Assess potential damage by snow loading (up to 7 ft. of snow in late winter/ spring) STATION LOOKS GREAT. Front (South) Leg of Tripod starting to bend a little.

Replace TX320 with TX321 ✓

- Did not install ST4. 2019?
- wildlife chew marks on Battery Boxes

WFMI Maintenance Narrative

(Fill out prior to submission of NAMS post-trip update. Update may contain several station visits.)

Image identifiers of photos taken

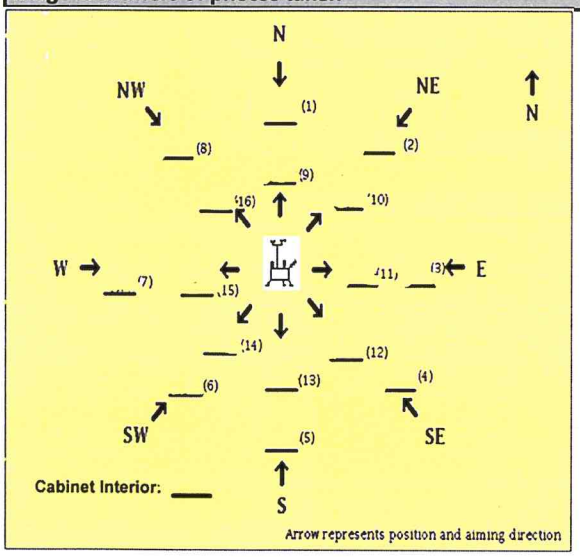

Photo Key	Image on camera #	Direction	On Computer
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2		NE Towards	
3		E Towards	
4		SE Towards	
5		South Towards	
6		SW Towards	
7		W Towards	
8		NW Towards	
9		North Away	
10		NE Away	
11		E Away	
12		SE Away	
13		S Away	
14		SW Away	
15		W Away	
16		NW Away	
17		Enclosure	

CAKN Weather & Climate Monitoring
Site Visit Worksheet
Version: 8 March 2017

CAKN Program Contact:
Pam Sousanes/Ken Hill
phone: (907) 455-0677/(907)-455-0678
email: pam_sousanes@nps.gov/kenneth_hill@nps.gov

Site name	Chicken Creek	**DCS - Sat. TX Check**	**RAWS HelpDesk:**
Date of this visit	~~7/21/2017~~ 7/12/2018	phone: (757) 824-7450	phone: (208) 387-5475
Operators	Hill, Sousanes	24/7 technical support	Hours: M-F, 6 AM-2:30 PM AST

Pre-Field Information

(Look up the station: www.nifc.blm.gov-->Login-->'Weather' -->'Select Station')

GOES Information:	
Latitude	62.124019
Longitude	141.847369
NESDIS ID	39603396
Tx Time (mm:ss)	0:33:00
Tx Channel	172
Antenna Azimuth (Deg Mag)	172
Antenna Elev. (Deg.)	19
Currently activated?	Y
Currently transmitting?	Y
NWS Site ID	CREA2

Sensors	Swap? (Y/N)	Recent error events (list)?
Temp	N	
Temp/RH	Y (EE181)	
Solar Radiation	Y	
Wind Speed/Dir	N	
Snow Depth	N	
Soil Temp 1	N	
Soil Temp 2	N	
Soil Temp 3	N	
Precipitation	N	
Datalogger	N	
Transmitter	Y	Replace TX320 with TX321
Battery	N	
Fence	N/A	

Record Site Conditions

Time visit begins:	12:15	Time visit ends:	
Station accessible? (Y/N)	Y	If no, comment:	
Cables intact? (Y/N)	Y	If no, comment:	looks like some cables may have been pulled from ~~box~~ enclosure, but no damage
Power source ok? (Y/N)	Y	If no, comment:	
Batteries ok? (Y/N)	Y	If no, comment:	

Record Station Status Table Values

(WMD: PConnectCE-->Connect Button-->Measurements Tab-->'Select 'Status' from Table Drop-Down Box)
(Laptop: Device config utility-->Select DataLogger CR1000 -->Connect Button-->Data Monitor tab-->Status table)

	Before Maintenance:		After Maintenance:	
OSVersion	26		26	
ProgName	Chicken_2017		CHICKEN_2018	
StartTime	~~7/11/17 0:00~~ 7/12/2017 13:06		7/12/2018 13:50	
12 V Battery Voltage	13.6		13.5	
Panel Temperature	7.5		8.4	
Watchdog Errors	0	Reset if >0	0	Reset if >0
Lithium Batt Volt	3.4	Replace if <2.9	3.4	Replace if <2.9
Low 12V Batt Count	0	Reset if >0	0	Reset if >0
Skipped Scan	0	Reset if >0	0	Reset if >0

Maintenance Checklist

	Completed? (Y/N)	
Download Hourly Data	Y	
RNIN before program update	7.93	
SR50 height before	85.5	85.5 in. 2016
Upload new program	Y	
Re-enter RNIN after	Y	
Measure and re-enter SR50	Y	
Clean Rain Gage	N	
Clean Temp Shield	N	
Level Solar sensor	N	
OS Version updated?	N	
Replace Desiccant	Y	
Tighten Guy Wires	Y	
Clean Battery Terminals	N	

Check transmitted values:

	Value	OK? (Y/N)
RNIN	7.93	
WSM	8.4	
WDD	294	
ATF	45.6	
FTF	—	
RHP	55	
BVV	13.3	
WDDP	281	
WSMPH	9.6	
SDI	0.2	
SRW	400	
STF	45.2	
STF2	43.4	

85.5

Clean Snow Depth Area	Y	STF3	39.6	
Brush Station Vicinity	N	STF4	57.8	
Tighten elements on YAGI	NA	ATF_ThermX	44.5	
Take Site Photos	Y	ATF_~~HMP45~~ EE181	45.1	

Record Sensor Configuration Changes

	Model # out	Serial# out	Model # in	Serial# in	Cable length (ft)	Height/depth (in)
Air Temperature 1						
Air Temperature 2						
Temp/RH	HMP45	F4010022	EE181	171111600009 92A		
Solar Radiation	Li200x	60172	Li200x	64359		
Wind Speed/Dir						
Snow depth						
Soil Temp 1						
Soil Temp 2						
Soil Temp 3						
Precipitation						
Primary AT						
Datalogger						
Transmitter	TX320	1192	TX321			

Comments

To do:

Replace HMP45 with EE181 ✓ Swap Li200x ✓ Confirm program has STF4 ✓

Replace TX320 with TX321 ✓ Upload new program ✓

STF4 READING 57.8.

- ON JUNE 30 TEMP STARTED CLIMBING FOR STF4. NOT SURE WHY - REPLACE NEXT YEAR. LEFT STF4 IN PLACE, BUT MIGHT CONSIDER REPLACING FOR TX SWAP.
- REPAIRED GROUND WIRE FROM ENCLOSURE TO MAST.
- CABLE FROM BATTERY TO ENCLOSURE IS SLIGHTLY DAMAGED (EXTERNAL) NEAR BATTERY END. THERE IS CABLE IS IN METAL CONDUIT. NEEDED MORE SLACK TO REACH CHARGE REGULATOR.
- REMEASURED SNOW AND REMOVED CLAMPS IN CENTER OF PLYWOOD UNDER SENSOR.

WFMI Maintenance Narrative

(Fill out prior to submission of NAMS post-trip update. Update may contain several station visits.)

Image identifiers of photos taken

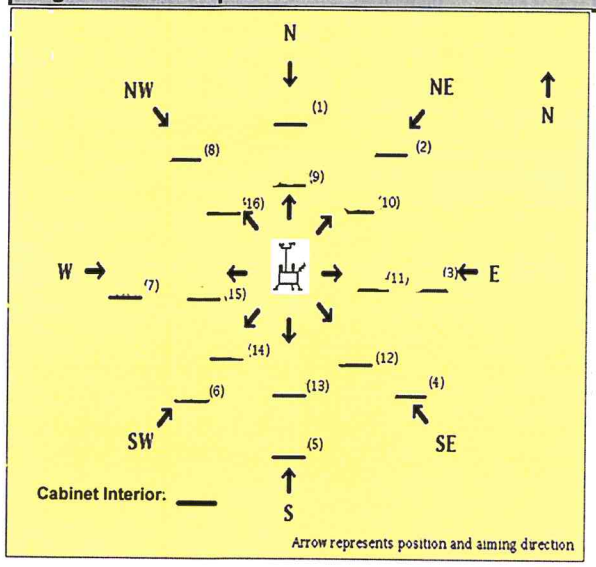

Photo Key	Camera Image #	Direction	Comp. Image #
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3		E Towards	
4		SE Towards	
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6		SW Towards	
7		W Towards	
8		NW Towards	
9		North Away	
10		NE Away	
11		E Away	
12		SE Away	
13		S Away	
14		SW Away	
15		W Away	
16		NW Away	
17		Enclosure	

- dropped Loso @ Eldorado Mine & Simmons @ stream site

CAKN Weather & Climate Monitoring
Site Visit Worksheet
Version: 8 March 2017

CAKN Program Contact:
Pam Sousanes/Ken Hill
phone: (907) 455-0677/(907)-455-0678
email: pam_sousanes@nps.gov/kenneth_hill@nps.gov

Site name	Stampede	**DCS - Sat. TX Check**	**RAWS HelpDesk:**
Date of this visit	8/8/2018	phone: (757) 824-7450	phone: (208) 387-5475
Operators	Sousanes, Hill	24/7 technical support	Hours: M-F, 6 AM-2:30 PM AST

Pre-Field Information

(Look up the station: www.nifc.blm.gov-->Login-->'Weather' -->'Select Station')

GOES Information:	
Latitude	63.747781
Longitude	-150.328053
NESDIS ID	3960A6F4
Tx Time (mm:ss)	0:34:10
Tx Channel	172
Antenna Azimuth (Deg Mag)	141
Antenna Elev. (Deg.)	18
Currently activated?	Y
Currently transmitting?	Y
NWS Site ID	SMPA2

Sensors	Swap? (Y/N)	Recent error events (list)?
Temp	N	
Temp/RH	Y (HMP45)	replace shield
Solar Radiation	N	
Wind Speed/Dir	Y	
Snow Depth	N	
Soil Temp 1	N	Depth Unknown
Soil Temp 2	N	Depth Unknown
Soil Temp 3	N	Depth Unknown
Precipitation	?	No tips since December
Datalogger	N	
Transmitter	N	check antenna, poor tx in winter
Battery	N	
Fence	N/A	

Record Site Conditions

Time visit begins:	1200	Time visit ends:	
Station accessible? (Y/N)	Y	If no, comment:	
Cables intact? (Y/N)	Y	If no, comment:	Rain gauge out of level
Power source ok? (Y/N)	Y	If no, comment:	
Batteries ok? (Y/N)	Y	If no, comment:	

Record Station Status Table Values

(WMD: PConnectCE-->Connect Button-->Measurements Tab-->'Select 'Status' from Table Drop-Down Box)
(Laptop: Device config utility-->Select DataLogger CR1000 -->Connect Button-->Data Monitor tab-->Status table)

	Before Maintenance:		After Maintenance:	
OSVersion	27		27	
ProgName	Stampede2017		Stampede2017	
StartTime	8/8/17 13:41		8/8/17 13:41	
12 V Battery Voltage	13.3		13.6	
Panel Temperature	7.7		9.1	
Watchdog Errors	0	Reset if >0	0	Reset if >0
Lithium Batt Volt	3.5	Replace if <2.9	3.5	Replace if <2.9
Low 12V Batt Count	0	Reset if >0	0	Reset if >0
Skipped Scan	0	Reset if >0	0	Reset if >0
RNIN Cumulative	2.32			
SR50a height	85.4			

Maintenance Checklist

	Completed? (Y/N)	
Download Hourly Data	Y	
RNIN before program update	2.32	
SR50 height before	85.4	85.4 inches 2017
Upload new program	N	
Re-enter RNIN after	2.32	
Measure and re-enter SR50	85.4	
Clean Rain Gage	Y	
Clean Temp Shield	N	
Level Solar sensor	N	
OS Version updated?	N	
Replace Desiccant	Y	
Tighten Guy Wires	OK	
Clean Battery Terminals	N	

Check transmitted values:

	Value	OK? (Y/N)
RNIN	2.32	
WSM	2.5	
WDD	166	
ATF	46.2	
FTF		
RHP	91.6	
BVV	13.6	
WDDP	186	
WSMPH	3.4	
SDI	0.0	
SRW	186.8	
STF	52.2	
STF2	52.6	

Clean Snow Depth Area	plywood		STF3	33.5	
Brush Station Vicinity	Y		STF4		
Tighten elements on YAGI	welds		ATF HMP	46.1	
Take Site Photos	Y		ATF ThermX	43.9	

Record Sensor Configuration Changes

	Model # out	Serial# out	Model # in	Serial# in	Cable length (ft)	Height/depth (in)
Air Temperature 1						
Air Temperature 2						
Temp/RH	HMP45	D3620074	HMP45	B1240007		
Solar Radiation						
Wind Speed/Dir	5103	58427	5103	132717		
Snow depth						
Soil Temp 1						
Soil Temp 2						
Soil Temp 3						
Precipitation						
Primary AT						
Datalogger						
Transmitter						

Comments

Check soil probes - DEPTHS UNKNOWN ____ ?? still unknown Did not want to disturb record.

Clear Site of brush ____ Some. Needs more work.

Swap HMP 45 Sensor ____ ✓

Swap 05103 Wind Monitor ____ ✓

Check Rain Gage (no tips since December) ____ ✓ Out of level on arrival, Hose clamped straight to mounting pole & leveled. Cleaned out bucket & funnel and re-taped funnel. Brushed precip arm. Out of level due to snow loading (?) (430°). Possibly due to snow load.

To do: request site clearing

WFMI Maintenance Narrative

(Fill out prior to submission of NAMS post-trip update. Update may contain several station visits.)

Image identifiers of photos taken

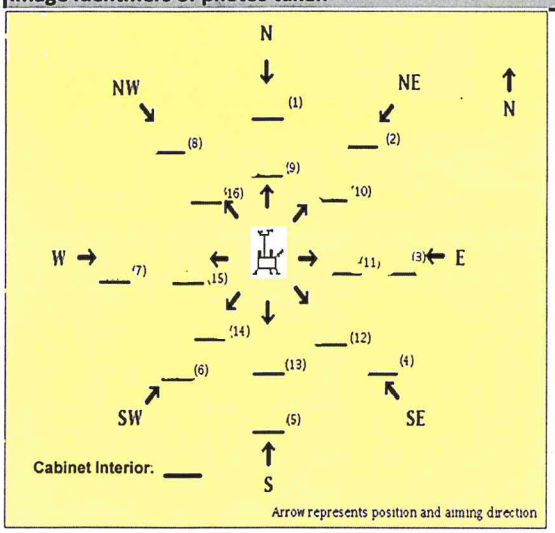

Photo Key	Image on camera #	Direction	On Computer
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CAKN Weather & Climate Monitoring
Site Visit Worksheet
Version: 8 March 2017

CAKN Program Contact:
Pam Sousanes/Ken Hill
phone: (907) 455-0677/(907)-455-0678
email: pam_sousanes@nps.gov/kenneth_hill@nps.gov

Site name	Wigand
Date of this visit	8/8/2018
Operators	SOUSANES, HILL

DCS - Sat. TX Check
phone: (757) 824-7450
24/7 technical support

RAWS HelpDesk:
phone: (208) 387-5475
Hours: M-F, 6 AM-2:30 PM AST

Pre-Field Information

(Look up the station: www.nifc.blm.gov-->Login-->'Weather' -->'Select Station')

GOES Information:

Latitude	63.812081
Longitude	-150.049769
NESDIS ID	3960060C
Tx Time (mm:ss)	0:32:30
Tx Channel	172
Antenna Azimuth (Deg Mag)	141 (?)
Antenna Elev. (Deg.)	18 (?)
Currently activated?	Y
Currently transmitting?	Y
NWS Site ID	WIGA2

Sensors	Swap? (Y/N)	Recent error events (list)?
Temp	N	
Temp/RH	Y (HMP45)	
Solar Radiation	N	
Wind Speed/Dir	N	
Snow Depth	N	
Soil Temp 1	N	Seems cold. Too deep?
Soil Temp 2	N	
Soil Temp 3	N	
Precipitation	N	
Datalogger	N	
Transmitter	N	
Battery	N	
Fence	Y	

Record Site Conditions

Time visit begins:	11:05	Time visit ends:	
Station accessible? (Y/N)	y	If no, comment:	
Cables intact? (Y/N)	y	If no, comment:	
Power source ok? (Y/N)	y	If no, comment:	
Batteries ok? (Y/N)	y	If no, comment:	

Record Station Status Table Values

(WMD: PConnectCE-->Connect Button-->Measurements Tab-->'Select 'Status' from Table Drop-Down Box)
(Laptop: Device config utility-->Select DataLogger CR1000 -->Connect Button-->Data Monitor tab-->Status table)

	Before Maintenance:		After Maintenance:	
OSVersion	26		26	
ProgName	Wigand2017		WIGAND2017	
StartTime	8/8/17 15:06		8/8/17 15:00	
12 V Battery Voltage	13.5		13.5	
Panel Temperature	7.9		8.3	
Watchdog Errors	0	Reset if >0	0	Reset if >0
Lithium Batt Volt	3.4	Replace if <2.9	3.4	Replace if <2.9
Low 12V Batt Count	0	Reset if >0	0	Reset if >0
Skipped Scan	0	Reset if >0	0	Reset if >0
	—			
RNIN Cumulative	8.32			
SR50a height	77.4			

Maintenance Checklist

	Completed? (Y/N)	
Download Hourly Data	y	
RNIN before program update	8.32	
SR50 height before	77.4	77.4 in. 2017
Upload new program	N	
Re-enter RNIN after	—	
Measure and re-enter SR50	N	
Clean Rain Gage	N	
Clean Temp Shield	N	
Level Solar sensor	N	
OS Version updated?	N	
Replace Desiccant	y	
Tighten Guy Wires	y	

Check transmitted values:

	Value	OK? (Y/N)
RNIN	8.33	
WSM	5.7	
WDD	214	
ATF	46.0	
FTF	—	
RHP	92	
BVV	13.5	
WDDP	214	
WSMPH	8.7	
SDI	2.2	
SRW	153	
STF	41.9	

Clean Battery Terminals	N	STF2	41.0	
Clean Snow Depth Area	Y	STF3	37.9	
Brush Station Vicinity	Y	STF4	—	
Tighten elements on YAGI	Y	ATF HMP	46.0	
Take Site Photos	Y	ATF ThermX	45.7	

Record Sensor Configuration Changes

	Model # out	Serial# out	Model # in	Serial# in	Cable length (ft)	Height/depth (in)
Air Temperature 1						
Air Temperature 2		D3620074				
Temp/RH	HMP45	~~D3520027~~	HMP45	E3010021		
Solar Radiation						
Wind Speed/Dir						
Snow depth						
Soil Temp 1						
Soil Temp 2						
Soil Temp 3						
Precipitation						
Primary AT						
Datalogger						
Transmitter						

Comments

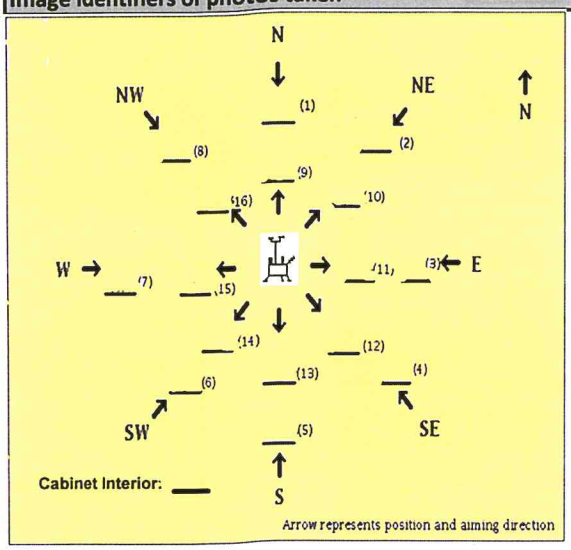
Swap HMP45 AT/RH Sensor ✓
Repair Fence GOOD SHAPE
Take Trimble Coordinate NO
Check ST1 Soil Depth ✓

STATION + FENCE LOOKED GREAT.
TIGHTENED GUY WIRES (XTRA 3)
TIGHTENED POLY ON FENCE
SOIL TEMP 1 LOOKS OK, TUSSOCKY AREA SO 10CM IS RELATIVE.

WFMI Maintenance Narrative

(Fill out prior to submission of NAMS post-trip update. Update may contain several station visits.)

Image identifiers of photos taken



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Suspect Data
Soil Temp depths -> See Notes

CAKN Weather & Climate Monitoring
Site Visit Worksheet
Version: 8 March 2017

CAKN Program Contact:
Pam Sousanes/Ken Hill
phone: (907) 455-0677/(907)-455-0678
email: pam_sousanes@nps.gov/kenneth_hill@nps.gov

Site name	Dunkle Hills	**DCS - Sat. TX Check**	**RAWS HelpDesk:**
Date of this visit	8/8/2018	phone: (757) 824-7450	phone: (208) 387-5475
Operators	SOUSANES + HILL	24/7 technical support	Hours: M-F, 6 AM-2:30 PM AST

Pre-Field Information

(Look up the station: www.nifc.blm.gov-->Login-->'Weather' -->'Select Station')

GOES Information:	
Latitude	63.300322
Longitude	-149.541531
NESDIS ID	3960B582
Tx Time (mm:ss)	0:34:20
Tx Channel	172
Antenna Azimuth (Deg Mag)	141 (?)
Antenna Elev. (Deg.)	18 (?)
Currently activated?	Y
Currently transmitting?	Y
NWS Site ID	DKLA2
Camera	N

Sensors	Swap? (Y/N)	Recent error events (list)?
Temp	N	
Temp/RH	Y (HMP45)	
Solar Radiation	N	
Wind Speed/Dir	N	
Snow Depth	N	
Soil Temp 1	N	
Soil Temp 2	N	Depth Unknown now we know!
Soil Temp 3	N	
Precipitation	N	
Datalogger	N	
Transmitter	N	
Battery	N	
Fence	N/A	

Record Site Conditions

Time visit begins:	1:50pm	Time visit ends:	
Station accessible? (Y/N)	Y	If no, comment:	
Cables intact? (Y/N)	Some	If no, comment:	Few had been chewed on. Coax, GPS + HMP45. Soil 5 pulled out a bit but not chewed
Power source ok? (Y/N)	Y	If no, comment:	
Batteries ok? (Y/N)	Y	If no, comment:	

Record Station Status Table Values

(WMD: PConnectCE-->Connect Button-->Measurements Tab-->'Select 'Status' from Table Drop-Down Box)
(Laptop: Device config utility-->Select DataLogger CR1000 -->Connect Button-->Data Monitor tab-->Status table)

	Before Maintenance:		After Maintenance:	
OSVersion	26		26	
ProgName	Dunkle2017		Dunkle2017	
StartTime	8/8/17 11:24		8/8/17 11:24	
12 V Battery Voltage	13.5		13.5	
Panel Temperature	10.0		9.0	
Watchdog Errors	0	Reset if >0	0	Reset if >0
Lithium Batt Volt	3.4	Replace if <2.9	3.4	Replace if <2.9
Low 12V Batt Count	0	Reset if >0	0	Reset if >0
Skipped Scan	0	Reset if >0	0	Reset if >0
RNIN Cumulative	7.63			
SR50a height	104			

Maintenance Checklist

	Completed? (Y/N)	
Download Hourly Data	Y	
RNIN before program update	7.63	
SR50 height before	104	104 in. 2017
Upload new program	N	
Re-enter RNIN after	NA	
Measure and re-enter SR50	NA	
Clean Rain Gage	N	
Clean Temp Shield	N	
Level Solar sensor	N	
OS Version updated?	N	
Replace Desiccant	Y	
Tighten Guy Wires	OK	

Check transmitted values:

	Value	OK? (Y/N)
RNIN	7.63	
WSM	8.2	
WDD	348	
ATF	49.6	
FTF	—	
RHP	55	
BVV	13.5	
WDDP	342	
WSMPH	12.7	
SDI	0.2	
SRW	372	
STF	50.2	

Clean Battery Terminals	N	STF2	50.8	
Clean Snow Depth Area	plywood	STF3	49.9	
Brush Station Vicinity	NA	STF4		
Tighten elements on YAGI	welded	ATF HMP		
Take Site Photos	Y	ATF ThermX		

Record Sensor Configuration Changes

	Model # out	Serial# out	Model # in	Serial# in	Cable length (ft)	Height/depth (in)
Air Temperature 1						
Air Temperature 2						
Temp/RH	HMP45	F4010005	HMP45	X3410043		
Solar Radiation						
Wind Speed/Dir						
Snow depth						
Soil Temp 1						
Soil Temp 2						
Soil Temp 3						
Precipitation						
Primary AT						
Datalogger						
Transmitter						

Comments

Swap HMP 45 Y

Determine depth of ST2 ✓

Take Trimble GPS Coordinate Nope

	Before	After	After values
STF	~10 cm	10 cm	50.5
STF2	~10 cm	20 cm	50.7
STF3	~10 cm	50 cm	50.2

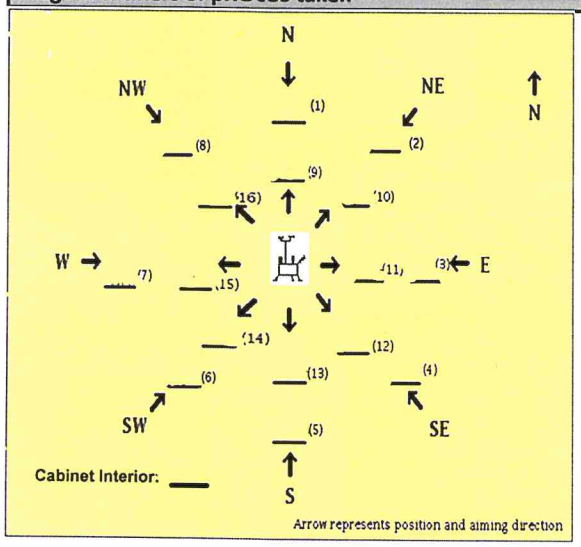
Wires had been pulled on (Bear?), but minimum damage. Repaired with e tape

-SOILS RE-INSTALLED + RE-LABELED AT DATALOGGER. ALL SAME AT ~10CM, + HAD BEEN PULLED ON NEAR ENCLOSURE.

WFMI Maintenance Narrative

(Fill out prior to submission of NAMS post-trip update. Update may contain several station visits.)

Image identifiers of photos taken



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CAKN Weather & Climate Monitoring
Site Visit Worksheet
Version: 8 March 2017

CAKN Program Contact:
Pam Sousanes/Ken Hill
phone: (907) 455-0677/(907)-455-0678
email: pam_sousanes@nps.gov/kenneth_hill@nps.gov

Site name	Toklat	**DCS - Sat. TX Check**	**RAWS HelpDesk:**
Date of this visit	8/21/2018	phone: (757) 824-7450	phone: (208) 387-5475
Operators	Ken, Pam, Mark Hall Mike	24/7 technical support	Hours: M-F, 6 AM-2:30 PM AST

Pre-Field Information

(Look up the station: www.nifc.blm.gov-->Login-->'Weather' -->'Select Station')

GOES Information:	
Latitude	63.5255
Longitude	-150.046481
NESDIS ID	396063EA
Tx Time (mm:ss)	0:33:30
Tx Channel	172
Antenna Azimuth (Deg Mag)	141
Antenna Elev. (Deg.)	17
Currently activated?	Y
Currently transmitting?	Y
NWS Site ID	TKLA2

Sensors	Swap? (Y/N)	Recent error events (list)?
Temp	N	
Temp/RH	Y (HMP45)	
Solar Radiation	Y	
Wind Speed/Dir	N	
Snow Depth	N	
Soil Temp 1	N	
Soil Temp 2	N	
Soil Temp 3	N	
Precipitation	N	
Datalogger	N	
Transmitter	Y	
Battery	N	
Fence	N/A	

Record Site Conditions

Time visit begins:	13:45	Time visit ends:	
Station accessible? (Y/N)	Y	If no, comment:	
Cables intact? (Y/N)	Y	If no, comment:	
Power source ok? (Y/N)	Y	If no, comment:	
Batteries ok? (Y/N)	Y	If no, comment:	

Record Station Status Table Values

(WMD: PConnectCE-->Connect Button-->Measurements Tab-->'Select 'Status' from Table Drop-Down Box)
(Laptop: Device config utility-->Select DataLogger CR1000 -->Connect Button-->Data Monitor tab-->Status table)

	Before Maintenance:		After Maintenance:	
OSVersion	27		27.04	
ProgName	Toklat2017		Toklat 2017	
StartTime	8/14/17 15:28		8/14/17 15:28	
12 V Battery Voltage	12.9		12.9	
Panel Temperature	16.0		13.8	
Watchdog Errors	0	Reset if >0	0	Reset if >0
Lithium Batt Volt	3.5	Replace if <2.9	3.5	Replace if <2.9
Low 12V Batt Count	0	Reset if >0	0	Reset if >0
Skipped Scan	0	Reset if >0	0	Reset if >0
RNIN Cumulative	13.75			
SR50a height	81.9			

Maintenance Checklist

	Completed? (Y/N)	
Download Hourly Data	Y	
RNIN before program update	13.75	
SR50 height before	81.9	81.9 in. 2016
Upload new program	N	
Re-enter RNIN after	—	
Measure and re-enter SR50	—	
Clean Rain Gage	OK	
Clean Temp Shield	OK	
Level Solar sensor	OK	
OS Version updated?	No	
Replace Desiccant	N	
Tighten Guy Wires	N	

Check transmitted values:

	Value	OK? (Y/N)
RNIN	13.75	
WSM	5.3	
WDD	310.9	
ATF	55.2	
FTF		
RHP	74.9	
BVV	12.9	
WDDP	313	
WSMPH	5.6	
SDI	0	
SRW	98.6	
STF	55.9	

Clean Battery Terminals	Y	One ⊖ is corroded	STF2	52.3	
Clean Snow Depth Area	OK		STF3	48.8	
Brush Station Vicinity	NA		STF4	—	
Tighten elements on YAGI	NA - WELDED		ATF HMP	54.9	
Take Site Photos	Y		ATF ThermX	54.6	

Record Sensor Configuration Changes

	Model # out	Serial# out	Model # in	Serial# in	Cable length (ft)	Height/depth (in)
Air Temperature 1						
Air Temperature 2						
Temp/RH	HMP45	D362 ???	HMP45	X3410044		
Solar Radiation	Li200x	PY60145	Li200x	83212		
Wind Speed/Dir						
Snow depth						
Soil Temp 1						
Soil Temp 2						
Soil Temp 3						
Precipitation						
Primary AT						
Datalogger						
Transmitter						

Comments

Swap HMP45 ✓

Swap Li200x ✓

Swap Transmitter ✓

Check Battery (consider swapping) ✓

Check Soil Probe Depths X SENSORS LOOKED UNDISTURBED. DID NOT PULL OUT TO VERIFY DEPTHS.

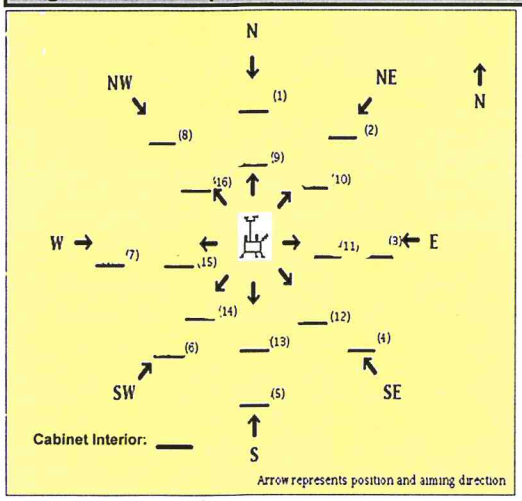
SOIL SENSORS WERE CHEWED ON BY GROUND SQUIRRELS, RUN AWAY ON SHEATH. PUT ELEC. TAPE/MASTIC ON THEM BUT SHOULD CONSIDER ADDING CONDUIT. LOTS OF SIGN OF GROUND SQUIRRELS IN AREA.
— SWAP BOTH BATTERIES, BATTERY CABLE + MAYBE BATTERY BOX NEXT YEAR.

CORROSION ON NEGATIVE TERMINAL OF 1 BATTERY, OTHERWISE LOOKS OK.

WFMI Maintenance Narrative

(Fill out prior to submission of NAMS post-trip update. Update may contain several station visits.)

Image identifiers of photos taken



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CAKN Weather & Climate Monitoring
Site Visit Worksheet
Version: 8 March 2017

CAKN Program Contact:
Pam Sousanes/Ken Hill
phone: (907) 455-0677/(907)-455-0678
email: pam_sousanes@nps.gov/kenneth_hill@nps.gov

Site name	Eielson VC
Date of this visit	8/21/2018
Operators	SOUSANES / HILL

DCS - Sat. TX Check
phone: (757) 824-7450
24/7 technical support

RAWS HelpDesk:
phone: (208) 387-5475
Hours: M-F, 6 AM-2:30 PM AST

Pre-Field Information

(Look up the station: www.nifc.blm.gov-->Login-->'Weather' -->'Select Station')

GOES Information:

Latitude	63.430911
Longitude	-150.310761
NESDIS ID	39604506
Tx Time (mm:ss)	0:33:10
Tx Channel	172
Antenna Azimuth (Deg Mag)	141
Antenna Elev. (Deg.)	17
Currently activated?	Y
Currently transmitting?	Y
NWS Site ID	EVCA2

Sensors	Swap? (Y/N)	Recent error events (list)?
Temp	N	
Temp/RH	Y (HMP45)	
Solar Radiation	N	
Wind Speed/Dir	N	
Snow Depth	N	
Soil Temp 1	N/A	
Soil Temp 2	N/A	
Soil Temp 3	N/A	
Precipitation	N	
Datalogger	N	
Transmitter	Y	
Battery	N	
Fence	N/A	

Record Site Conditions

Time visit begins:	12:30	Time visit ends:	
Station accessible? (Y/N)	Y	If no, comment:	
Cables intact? (Y/N)	Y	If no, comment:	
Power source ok? (Y/N)	Y	If no, comment:	
Batteries ok? (Y/N)	Y	If no, comment:	

Record Station Status Table Values

(WMD: PConnectCE-->Connect Button-->Measurements Tab-->'Select 'Status' from Table Drop-Down Box)
(Laptop: Device config utility-->Select DataLogger CR1000 -->Connect Button-->Data Monitor tab-->Status table)

	Before Maintenance:		After Maintenance:	
OSVersion	26		26	
ProgName	Eielson2017		Eielson2017	
StartTime	8/16/17 10:23		8/21/2018 10:23	
12 V Battery Voltage	13.6		13.5	
Panel Temperature	12.3		12.6	
Watchdog Errors	0	Reset if >0	0	Reset if >0
Lithium Batt Volt	3.5	Replace if <2.9	3.5	Replace if <2.9
Low 12V Batt Count	0	Reset if >0	0	Reset if >0
Skipped Scan	0	Reset if >0	0	Reset if >0
RNIN Cumulative	15.24			
SR50a height	87			

Maintenance Checklist

	Completed? (Y/N)	
Download Hourly Data	Y	
RNIN before program update	15.24	
SR50 height before	87	87 in 2017
Upload new program	N	
Re-enter RNIN after	N	
Measure and re-enter SR50	N	
Clean Rain Gage	OK	
Clean Temp Shield	OK	
Level Solar sensor	No	
OS Version updated?	No	
Replace Desiccant	N	

Check transmitted values:

	Value	OK? (Y/N)
RNIN	15.24	
WSM	6.4	
WDD	190	
ATF	51.9	
FTF		
RHP	90.8	
BVV	12.5	
WDDP	TBS	
WSMPH	7.7	
SDI	0	
SRW	210	

Tighten Guy Wires	OK	ATF HMP	52.0	
Clean Battery Terminals	No	ATF ThermX	54.3	
Clean Snow Depth Area	YES	TCOT	88.1	
Brush Station Vicinity	NA			
Tighten elements on YAGI	welded			
Take Site Photos	Y			

Record Sensor Configuration Changes

	Model # out	Serial# out	Model # in	Serial# in	Cable length (ft)	Height/depth (in)
Air Temperature 1						
Temp/RH	HMP45	F4010023	HMP45	D3520097		
Solar Radiation						
Wind Speed/Dir						
Snow depth						
Soil Temp 1						
Soil Temp 2						
Soil Temp 3						
Precipitation						
Primary AT						
Datalogger						
Transmitter						

Comments

Swap HMP45 ✓

Swap Transmitter ✓

Take Trimble Coordinate ✓

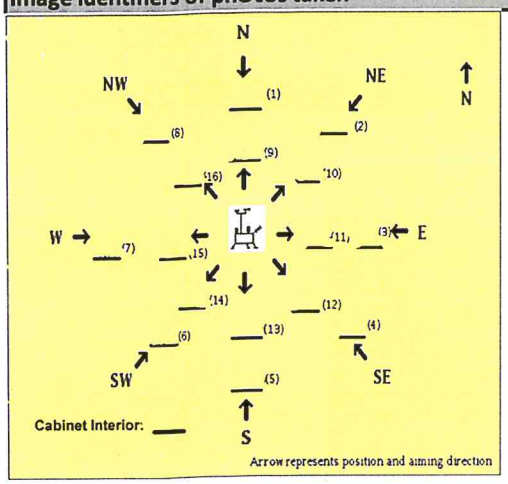
Consider replacing enclosure next visit

SITE VISIT IN CONJUNCTION W/CRN MAINTENANCE TRIP. MARK/MIKE

WFMI Maintenance Narrative

(Fill out prior to submission of NAMS post-trip update. Update may contain several station visits.)

Image identifiers of photos taken



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