Contacts
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Datagrams:
Eureka
Lufft Wspeed/Wdirection & Soil Met

Contacts
Project Lead: Taneil Uttal
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File name: (as of 1/11/17): eut5YYJJJhh_raw.txt

UTC time [mmssuuu]	Logger Temp [degC]	Battery [V]	**6m Lufft temp [degC]**	**6m Lufft wspeed actual [m\s]**	**6m Lufft wdir actual [deg]**	6m wdir vector average [deg]	6m Lufft pressure [mb]	6m Lufft wind quality [%]	6m Lufft wind error	6m Lufft air error	**6m top heating plate temp [degC]**	**6m bottom heating plate temp [degC]**
0003170	-15.62069	14.79404	-31	6.4	143.6	147	977	100	0	0	-15.3	-14.9
0009189	-15.62069	14.83848	-31	6.7	143.6	147	977	100	0	0	-15.3	-14.9

11m Lufft temp [degC]	**11m Lufft wspeed actual [m\s]**	**11m Lufft wdir actual [deg]**	11m wdir vector average [deg]	11m Lufft pressure [mb]	11m Lufft wind quality [%]	11m Lufft wind quality [%]	11m Lufft wind error	11m Lufft air error	**11m top heating plate temp [degC]**	**11m bottom heating plate temp [degC]**	**Upwelling SW K&Z [mV]**	**FluxPlateC [mV]**
-31.6	6.7	143.6	147	977	100	100	0	NAN	NAN	0	-0.01008347	-0.01011272
-30.8	6.7	143.6	147	977	100	100	0	NAN	NAN	0	-0.01008347	-0.006741814

Data | Diagnostics | Logger Info

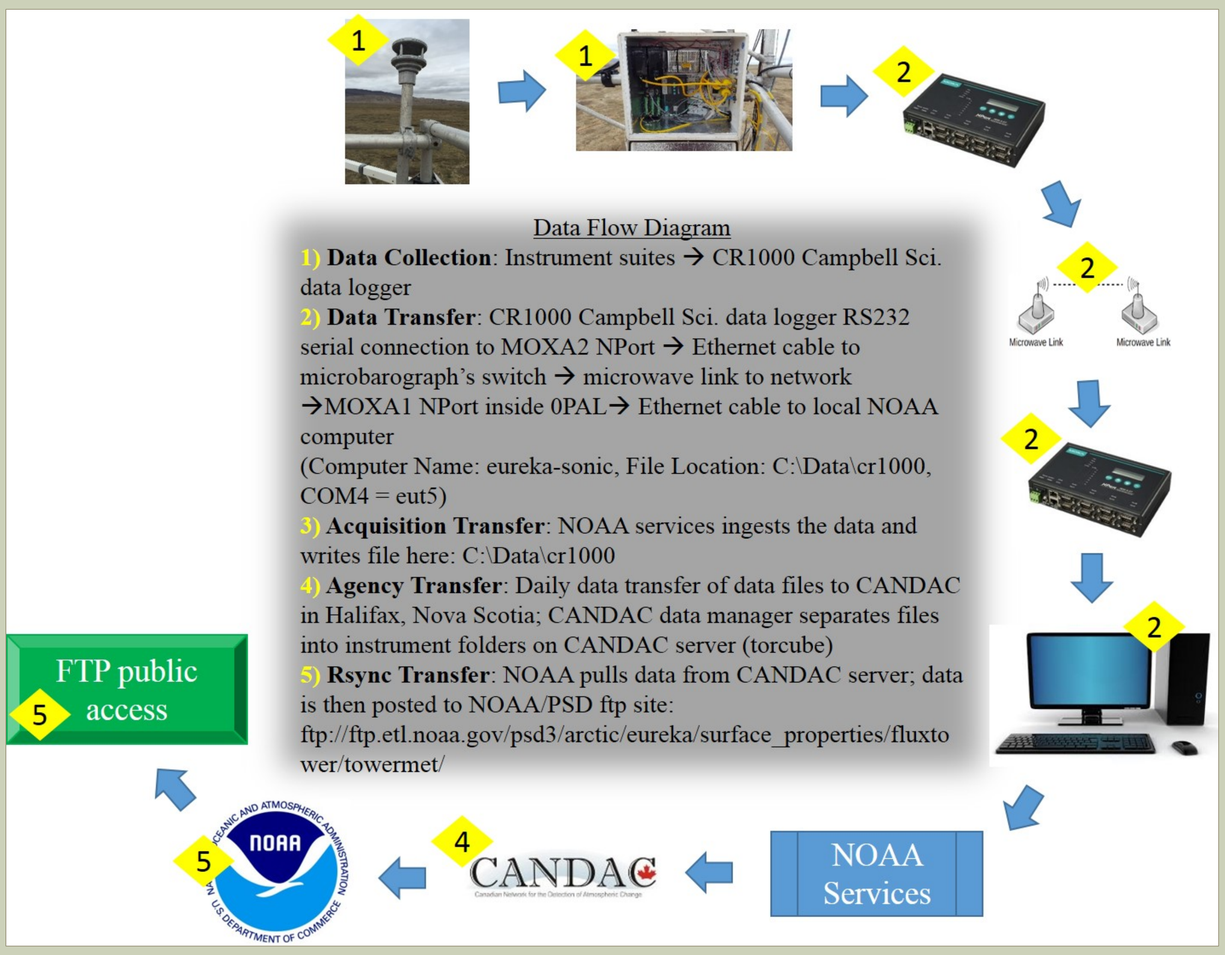
Eureka Data Center

NOAA

Processing

Quicklooks

Data Flow Description



Data Flow Diagram

1) **Data Collection**: Instrument suites → CR1000 Campbell Sci. data logger
2) **Data Transfer**: CR1000 Campbell Sci. data logger RS232 serial connection to MOXA2 NPort → Ethernet cable to microbarograph's switch → microwave link to network →MOXA1 NPort inside 0PAL→ Ethernet cable to local NOAA computer
(Computer Name: eureka-sonic, File Location: C:\Data\cr1000, COM4 = eut5)
3) **Acquisition Transfer**: NOAA services ingests the data and writes file here: C:\Data\cr1000
4) **Agency Transfer**: Daily data transfer of data files to CANDAC in Halifax, Nova Scotia; CANDAC data manager separates files into instrument folders on CANDAC server (torcube)
5) **Rsync Transfer**: NOAA pulls data from CANDAC server; data is then posted to NOAA/PSD ftp site: ftp://ftp.etl.noaa.gov/psd3/arctic/eureka/surface_properties/fluxtowerwer/towermet/

Example Plots:

Ingest

Folder Name	File Name	FTP Location
Raw	eut5YYJJJhh_raw.txt	ftp://ftp.etl.noaa.gov/psd3/arctic/eureka/surface_properties/fluxtower/towermet/raw/
Ingest		ftp://ftp.etl.noaa.gov/psd3/arctic/eureka/surface_properties/fluxtower/towermet/ingest/
Products		ftp://ftp://ftp.etl.noaa.gov/psd3/arctic/eureka/surface_properties/fluxtower/towermet/products/
Quicklooks		ftp://ftp.etl.noaa.gov/psd3/arctic/eureka/surface_properties/fluxtower/towermet/quicklooks/

IASOA Portal

Home:
http://www.esrl.noaa.gov/psd/iasoa/
Data:
http://www.esrl.noaa.gov/psd/iasoa/dataataglance

Product

Example Product File:

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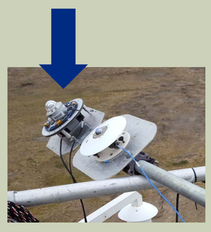
Instrument Specifications



Processing

Calibration Values Radiometers:

3. Downwelling Shortwave Total (K&Z PSP CMP22)
   9.856 µV/W/m^2 08/01/2016 – present
   9.89 µV/W/m^2 05/11/2016 – 07/31/2016

Processing Conversions:

Shortwave Radiation (#3)
DESCRIPTION:
SW = 1000 * Recorded value / calibration coefficient

UNITS:
W/m^2 = 1000 * mV / µV/W/m^2

Flux Plate (#4)
DESCRIPTION/UNITS:
Esen = calibration factor [FluxC = 62.69 V/W/m^2] 34.1 W/m^2/mV

Vsen = (Recorded Value in mV) / 1000
Flux in W/m^2 = Vsen / Esen

Instrument Details

Specifications	1	2	3	4
Measurement	Wind spd/dir	Wind spd/dir	Upwelling Shortwave Total	Conductive FluxC
Serial #	241.0516.0901.029	236.0516.0901.029	160432	12301
CD #	n/a	n/a	CD0004292300	n/a
Country of Origin	German	Germany	Netherlands	Netherlands
Instrument Manufacturer	Lufft USA	Lufft USA	Kipp&Zonen CMP22	Hukseflux
Type/Model	Ventus UMB	Ventus UMB	Pyranometer PSP	HFP01
Special Notes	Oriented with tower, which is not true North so data should be adjusted for direction [tower orientation is ~340 deg]	Oriented with tower, which is not true North so data should be adjusted for direction [tower orientation is ~340 deg]		
Height	11m	6m	11m	Depth: ~3cm
Heated? (y/n)	Yes; 24VDC / 240VA	Yes; 24VDC / 240VA	Heated, Aspirated, DC fan	No
Measurement Unit	Wspd: m/s Wdir: deg	Wspd: m/s Wdir: deg	mV	mV
Calibration factors	Applied internally	Applied internally	9.856 µV/W/m^2	62.69 V/W/m^2
Unit after Applied Calibration or Conversion	Wspd: m/s Wdir: deg	Wspd: m/s Wdir: deg	W/m^2	W/m^2
Additional Corrections Applied (y/n/explain)				