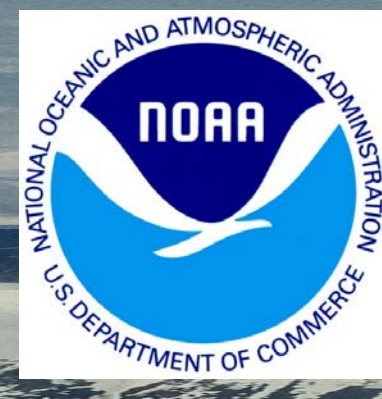
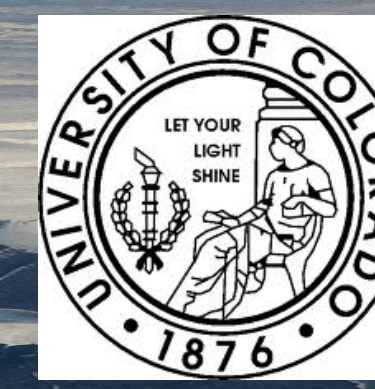


Contacts
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 Engineer: Duane Hazen
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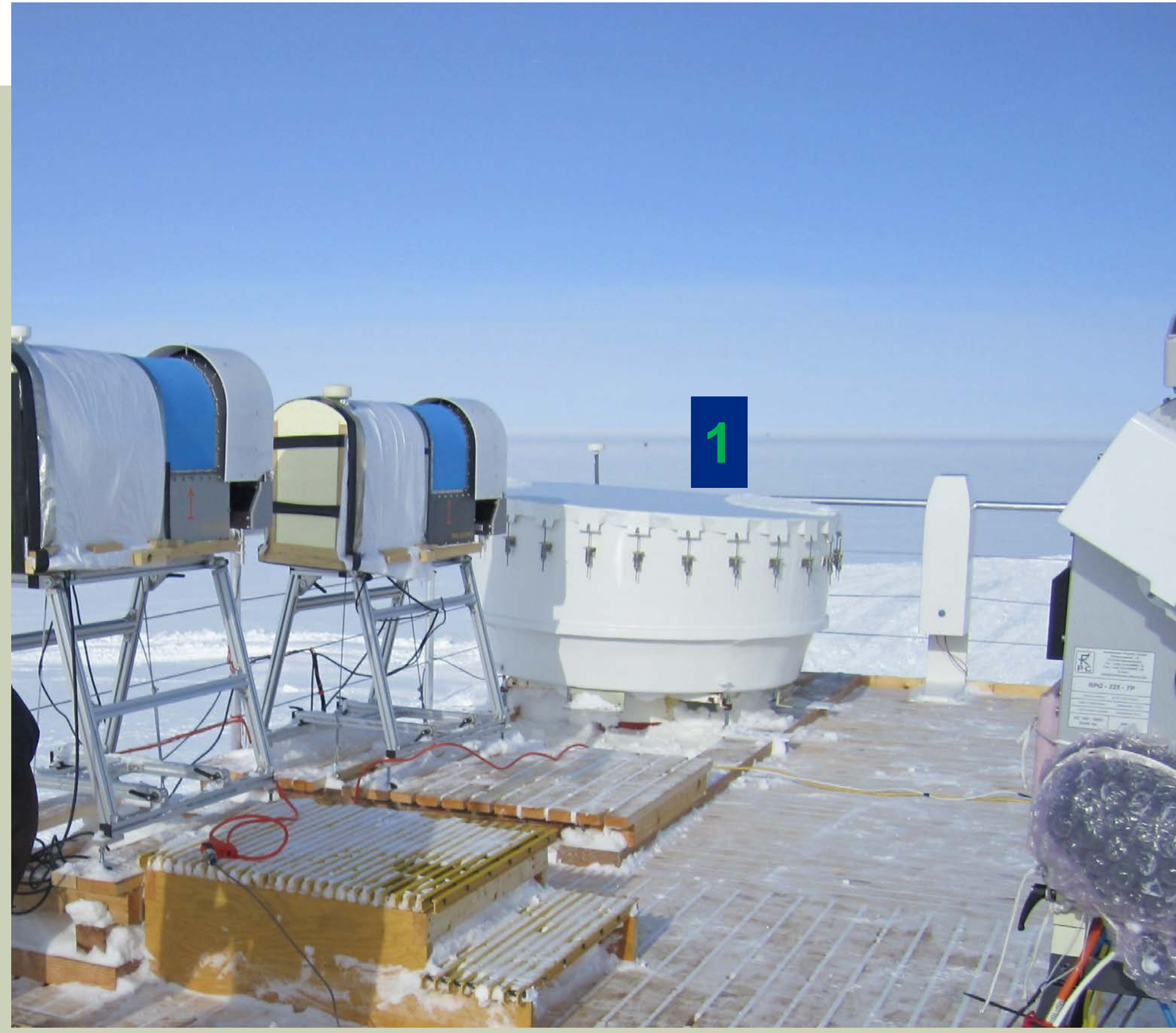
Datagrams: Summit NOAA MMCR: Millimeter Wavelength Cloud Radar



Contacts
 Data Support: Sara Crepinsek
 sara.crepinsek@noaa.gov

File metadata: caltable, moment, spectral

Data	Diagnostics	Logger Info		
File Type	mmcr sub-folder	File Names	File Location NOAA ftp	
Instrument calibration information	caltable	YYYYJJJhhmmLapxm_CalibrationLog.txt YYYYJJJhhmmCaTable.nc [zipped files]	ftp://ftp.etl.noaa.gov/psd3/arctic/summit/mmcr/caltable/	
Instrument error log information	elog	YYYYJJJhhmmElog.txt	ftp://ftp.etl.noaa.gov/psd3/arctic/summit/mmcr/elog/	
Instrument health information	health	YYYYJJJhhmmHealth.txt	ftp://ftp.etl.noaa.gov/psd3/arctic/summit/mmcr/health/	
Radar moment files including reflectivity, mean Doppler velocity, and Doppler spectrum width	mom	YYYYJJJhhmmMMCRMom.nc [zipped files]	ftp://ftp.etl.noaa.gov/psd3/arctic/summit/mmcr/mom/	
Radar spectra files including full Doppler spectra	spc	YYYYJJJhhmmMMCRSpecMom.nc [zipped files]	ftp://ftp.etl.noaa.gov/psd3/arctic/summit/mmcr/spc/	



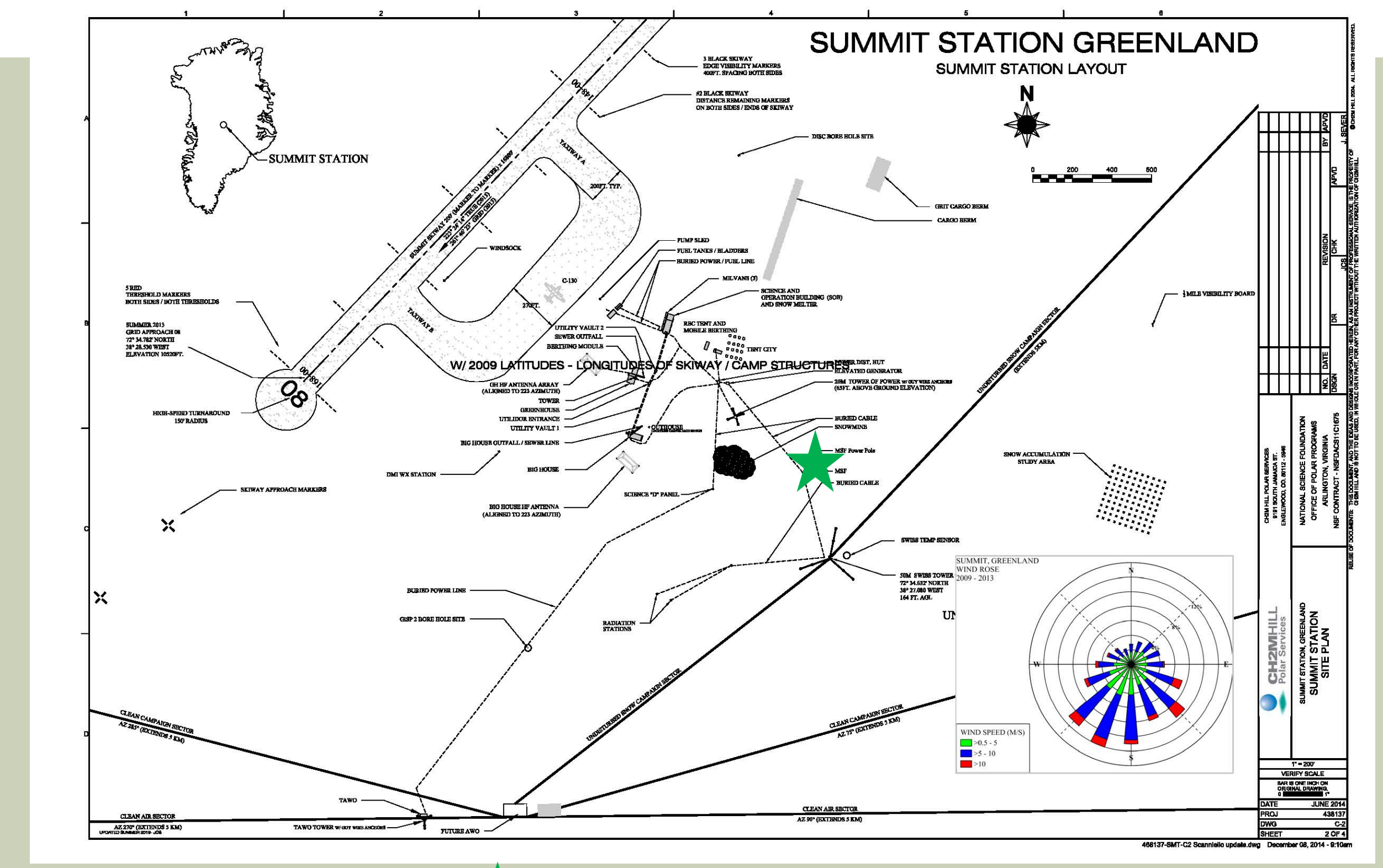
Summit Data Center

NOAA

FTP File locations at NOAA:
 From Summit Data Center to:
 ftp://ftp.etl.noaa.gov/psd3/arctic/summit/mmcr/

Processing

Quicklooks



★ Indicates current location of instrument

Instrument Details

Specifications					
Measurement	Reflectivity, mean Doppler velocity, Doppler spectrum width, Doppler spectra				
Derived Parameter (s)	Cloud boundaries, phase, microphysics, cloud-scale dynamics				
Serial #	In-house build; no serial #				
Instrument Manufacturer	In-house build; NOAA ETL (PSD)				
Type	Doppler 35-GHz Millimeter Cloud Radar				
Location	Instrument inside the MSF, antenna on top of the MSF				
Calibration factors	Full internal system calibration once a month with calibration checks done daily. The external calibration of the antenna was performed at an antenna range many years ago and is taken to be constant. There is a complete internal calibration that is already applied to the data stream				
Modes	ST	CI	GE	PR	
Mode	1	2	3	4	Units
IPP	68	115	96	96	Msec
Pulse Width	0.292	0.583	0.583	0.583	Nsec
# of code bits	0	16	0	0	
# of coherent averages	6	6	5	1	
# of spectra averages	10	10	26	20	
Length of FFT's	256	128	128	128	
# of gates	135	149	149	149	
Gate spacing	0.292	0.583	0.583	0.583	Nsec
Delay	3417	4000	4000	4000	
Min. Range	83.5	83.2	82.6	82.6	M
Max Range	6.00	13.11	13.11	13.11	KM
Range Resolution	43.8	87.5	87.5	87.5	M
Duty Cycle	0.43	8.11	0.61	0.61	Percent
Average Power	0.378	7.146	0.5353	0.535	Watts
Unambiguous velocity	5.270	3.116	4.479	22.40	M/S
Dwell	0.469	0.344	0.705	0.563	S
Min. dBZ	-29.65	-44.32	-33.56	-3.41	dB
Min. detectable signal	-134	-133	-135	-127.8	dB
Sequence	ST, GE, ST, CI, ST, GE, ST, PR				
Additional Info	The system had an upgrade from an analog to a digital signal processor in June 2014.				

- 1) Data ingested to daily netCDF files
- 2) Merging algorithm applied to optimally combine information from each of the four operational modes (Clouthiaux et al., 2000)

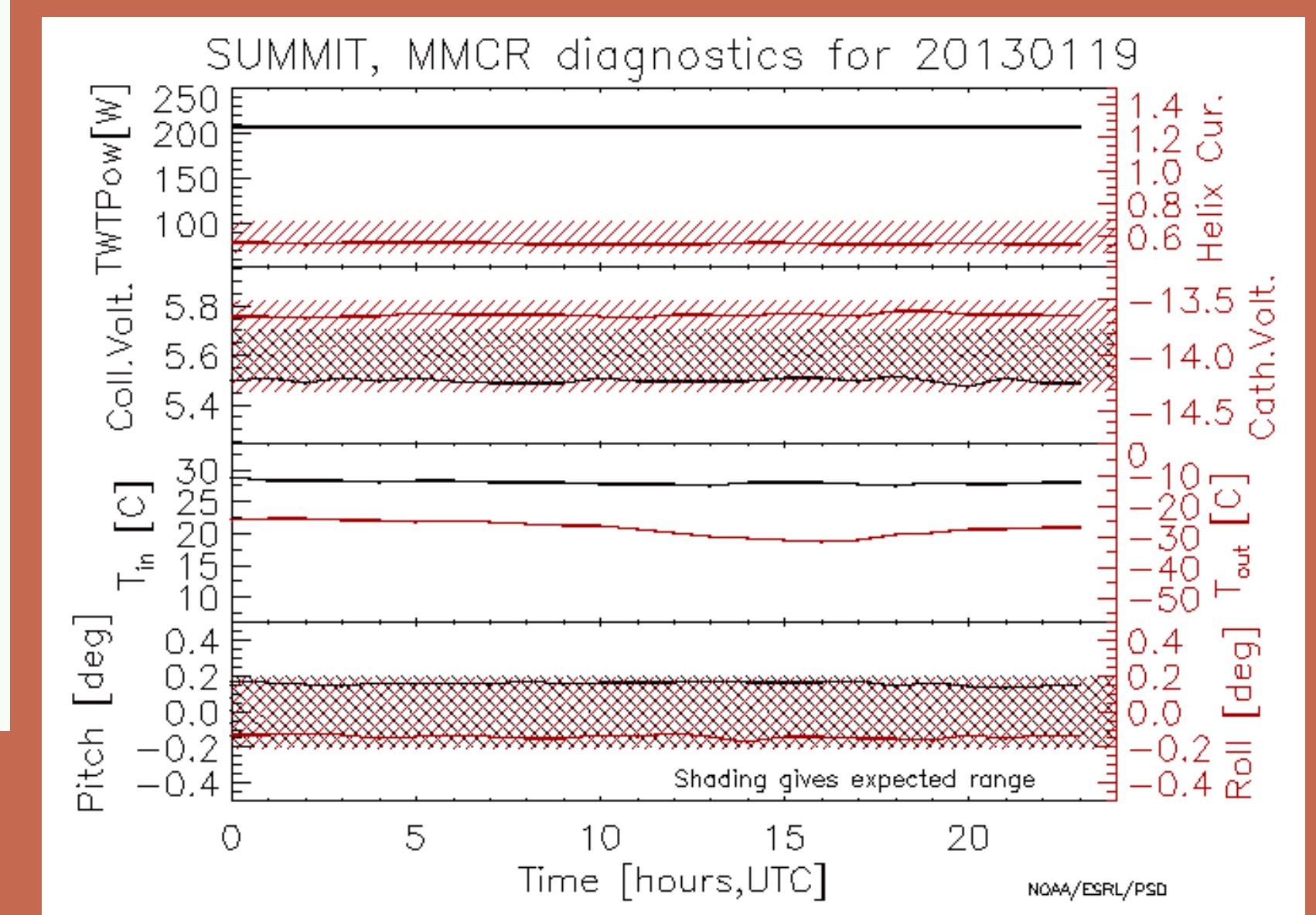
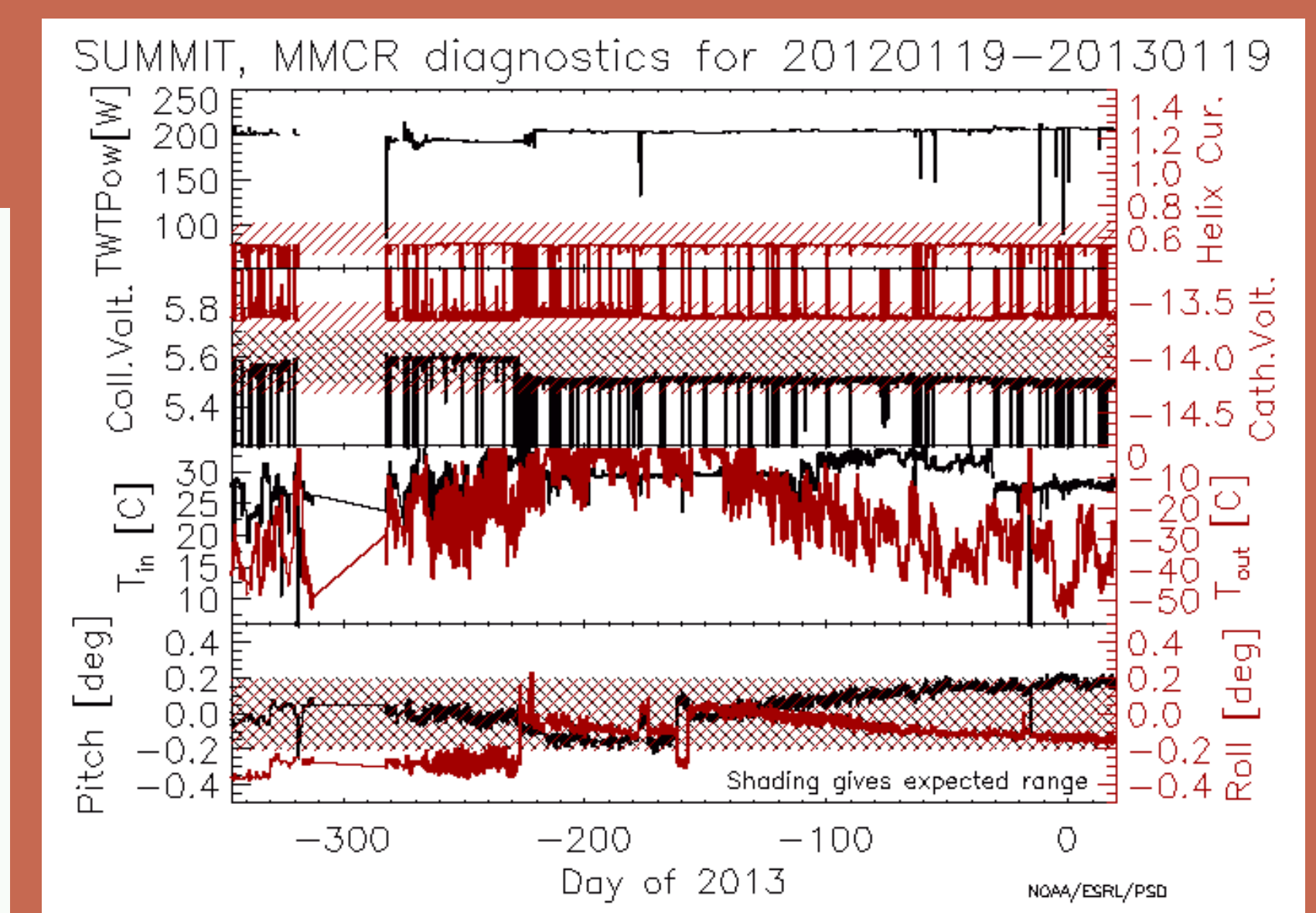
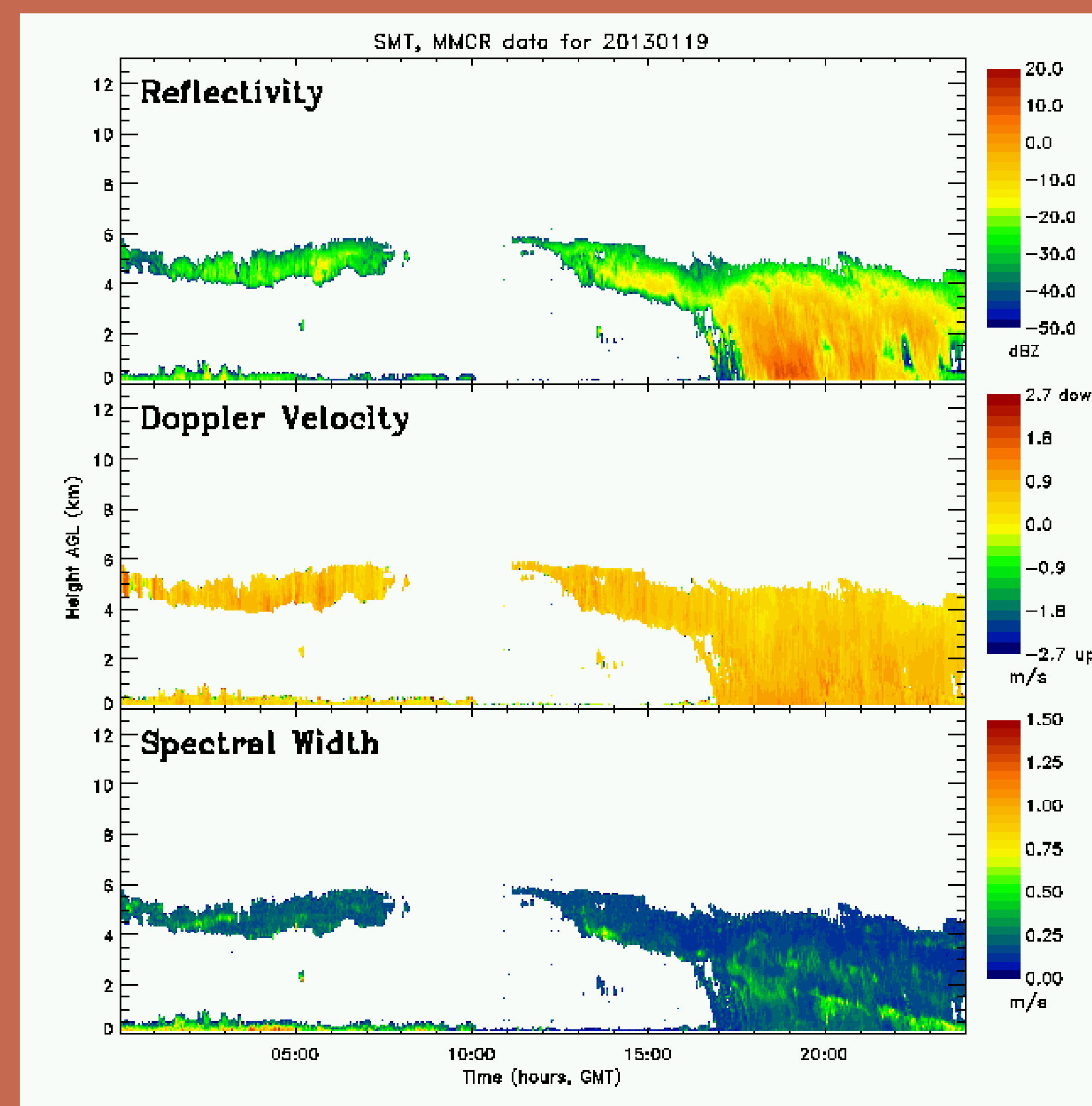
Clouthiaux, EE, TP Ackerman, GG Mace, KP Moran, RT Marchand, MA Miller, and BE Martner, 2000: Objective determination of cloud heights and radar reflectivities using a combination of active remote sensors at the ARM CART sites. J. Appl. Meteor., 39, 645-665.

General Reference for mmcr:

Moran, KP, BE Martner, MJ Post, RA Kropfil, DC Welsh, and KB Widener, 1998: An unattended cloud-profiling radar for us in climate research. Bull. Amer. Meteor. Soc., 79, 443-455.

**Metadata information on following pages, direct from netCDF file information

Example Plots:



Home:
www.archive.arm.gov
Data:
 sntmmcrmom.X1* files submitted

ARM Archive

Product

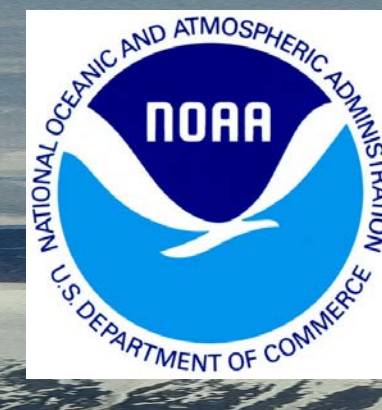
IASOA Portal

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

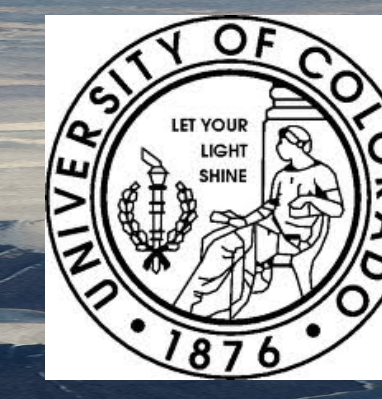
Product File:

File Type	mmcr sub-folder	File Names	File Location NOAA ftp
Raw files ingested into daily netCDFs	processed	sntmmcrmom.X1.b1.YYYY	ftp://ftp.etl.noaa.gov/psd3/arctic/summit/mmcr/processed/
"merged" files using an algorithm like ARSCL	products	sntmmcrmerge.C1.c1.YYYYMMDD.hhmmss.cdf	ftp://ftp.etl.noaa.gov/psd3/arctic/summit/mmcr/products/
Images for "merged" files using an algorithm like ARSCL	products-images	sntmmcrmerge.X1.c1.YYYYMMDD.hhmmss.png	ftp://ftp.etl.noaa.gov/psd3/arctic/summit/mmcr/products_images/
Quicklooks of raw moment data	quicklooks	sntmmcr3ql.YYYYMMDD.hhmmss.png	ftp://ftp.etl.noaa.gov/psd3/arctic/summit/mmcr/quicklooks/
Quicklooks showing daily health information	quicklooks/dailydiagnostics/	sntmmcrhealth.YYYYMMDD.png	ftp://ftp.etl.noaa.gov/psd3/arctic/summit/mmcr/quicklooks/dailydiagnostics/
Quicklooks showing long term (1 year) health information	quicklooks/longtermdiagnosics/	sntmmcr1tdiag.YYYYMMDD.png	ftp://ftp.etl.noaa.gov/psd3/arctic/summit/mmcr/quicklooks/longtermdiagnosics/

Contacts
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 Engineer: Duane Hazen
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**Datagrams:
 Summit
 NOAA MMCR:
 Millimeter Wavelength Cloud Radar**

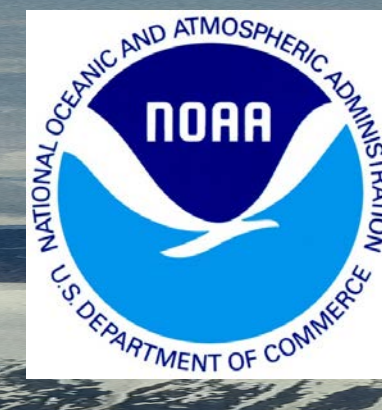


Contacts
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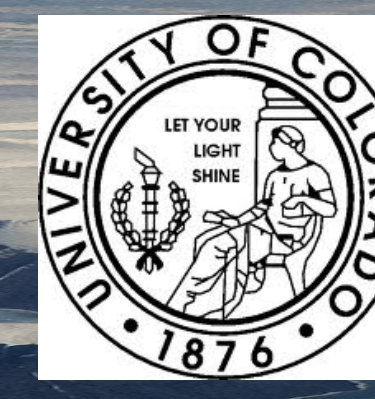
Caltable netCDF Metadata

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Attributes			
Name	Value		
'site_id'	'Summit'		
'facility_id'	'Summit'		
'comment'	'DOE/ARM MMCR - template'		
'proc_level'	'a1'		
'history'	CalTable ver 0.5 (Jan 2004), Created by LAP-XM ver 5.8'		
Dimensions			
Name	Length		
'nrec'	2		
'mode'	10		
'bandwid'	4		
'RFattnrange'	5		
'IFattnrange'	22		
'crvdim'	60		
'rfcalval'	22		
'nforpow'	3		
Variables			
Name	Long name	Units	
'base_time'	'Base time in Epoch'	'seconds since 1970-1-1 0:00:00'	
'SystemParamT'	'System Parameters Time Stamp'	'seconds'	missing_value = -2147483647
'TxPathLoss'	'Tx Waveguide Path Loss'	'dB'	missing_value = 9.9692099683868690e+36 resolution = 0.05
'RxPathLoss'	'Rx waveguide path loss'	'dB'	missing_value = 9.9692099683868690e+36 resolution = 0.05
'AddedRFLoss'	'Added RF Receiver Loss'	'dB'	missing_value = 9.9692099683868690e+36 resolution = 0.05
'FFAntGain'	'Antenna Gain'	'dB'	missing_value = 9.9692099683868690e+36 resolution = 0.1
'PeakTxPower'	'Peak Transmitted Power (dBm) - default'	'dBm'	missing_value = 9.9692099683868690e+36 resolution = 0.1
'AntBeamWidTh'	'Antenna Beamwidth - Theta'	'degrees'	missing_value = 9.9692099683868690e+36 resolution = 0.01
'AntBeamWidP'	'Antenna Beamwidth - Phi'	'degrees'	missing_value = 9.9692099683868690e+36 resolution = 0.01
'AntennaDiameter'	'Antenna Diameter'	'meters'	missing_value = 9.9692099683868690e+36 resolution = 0.01
'DiodePathLoss'	'RF Calibration Diode Path Loss'	'dB'	missing_value = 9.9692099683868690e+36 resolution = 0.05
'NoiseDiodeENR'	'ENR of Calibration Source'	'dB'	missing_value = 9.9692099683868690e+36 resolution = 0.01
'NoiseDiodeSN'	'Noise Diode - Serial Number'	'count'	missing_value = 9.9692099683868690e+36
'RxBandWid'	'Calibrated Bandwidth (MHz)'	'MHz'	missing_value = 9.9692099683868690e+36 resolution = 0.001
'SysPulseWid'	'System Pulse Width'	'ns'	missing_value = 9.9692099683868690e+36
'SystemDelay'	'Calibrated Receiver Delay'	'ns'	missing_value = 9.9692099683868690e+36 resolution = 50
'RxCalTimeStamp'	'Receiver Calibration Time Stamp'	'seconds'	missing_value = -2147483647
'RxGain'	'Receiver Gain'	'dB'	missing_value = 9.9692099683868690e+36 resolution = 0.01
'RxNoisePower'	'Receiver Noise Power (dB)'	'dB'	missing_value = 9.9692099683868690e+36
'StartRxSaturation'	'Start Rx Saturation (dB)'	'dB'	missing_value = 9.9692099683868690e+36
'RxNoiseFig'	'Receiver Noise Figure (dB)'	'dB'	missing_value = 9.9692099683868690e+36
'SkyNoiseLevel'	'Receiver Sky Noise Level'	'dB'	missing_value = 9.9692099683868690e+36
'Rx290KLevel'	'Receiver Noise Level - 290 K'	'dB'	missing_value = 9.9692099683868690e+36
'CalCheckLevel'	'Quick Calibration Check - Noise Level'	'dB'	missing_value = 9.9692099683868690e+36
'CalCheckTime'	'Quick Calibration - Time Stamp'	'seconds'	missing_value = -2147483647
'RadarConstant'	'Radar Constant - default'	'dB'	missing_value = 9.9692099683868690e+36 resolution = 0.05
'CalibrationConstant'	'Spectral A/D Counts-Calibration'	'AD Units^2/dBZ'	missing_value = 9.9692099683868690e+36
'MinimumDetectableSignal'	'Minimum Detectable Signal'	'dBm'	missing_value = 9.9692099683868690e+36 resolution = 0.1
'ParamModeTimeStamp'	'Parameter mode - Time Stamp'	's'	missing_value = -2147483647
'InterPulsePeriod'	'Inter-Pulse Period'	'ns'	missing_value = -2147483647
'PulseWidth'	'Pulse Width'	'ns'	missing_value = -2147483647
'StartGateDelay'	'Delay to First Range Gate'	'ns'	missing_value = -2147483647
'GateSpacing'	'Range Gate Spacing'	'ns'	missing_value = -2147483647
'NumCoherentIntegrations'	'Number of Coherent Integrations'	'count'	missing_value = -2147483647
'NumSpectralAverages'	'Number of Spectral Averages'	'count'	missing_value = -2147483647
'NumFFT'	'Number of Points in the FFT'	'count'	missing_value = -2147483647
'NumHeights'	'Number of Range Gates'	'count'	missing_value = -2147483647
'NumCodeBits'	'Number of Code Bits'	'count'	missing_value = -2147483647
'NumReceivers'	'Number of Receivers'	'count'	missing_value = -32767
'ReceiverNumber'	'Current Receiver Number'	'count'	missing_value = -32767
'ReceiverMode'	'Receiver Mode'	'count'	missing_value = -32767
'CalSetTime'	'Calibration Settings - Time Stamp'	's'	missing_value = 9.9692099683868690e+36
'RFLevel'	'RF Noise Levels'	'dB'	missing_value = 9.9692099683868690e+36
'RFAttenSet'	'RF Atten Settings'	'dB'	missing_value = 9.9692099683868690e+36
'IFLevel'	'IF Power Levels'	'dB'	missing_value = 9.9692099683868690e+36
'IFAttenSet'	'IF Atten Settings'	'dB'	missing_value = 9.9692099683868690e+36
'RxCalNoiseCrvSig'	'Calibrated Input Power (dBm)'	'dBm'	missing_value = 9.9692099683868690e+36
'RxCalNoiseCrv'	'Measured Noise Power'	'dB'	missing_value = 9.9692099683868690e+36
'RFAttenCalT'	'RF Attenuator Calibration Time Stamp'	'seconds'	missing_value = -2147483647
'RFAttenVal'	'RF Attenuation for each Driver Settings'	'dB'	missing_value = 9.9692099683868690e+36
'RFAttenCal'	'RF Attenuator - Calibrated Driver Settings'	'dB'	missing_value = 9.9692099683868690e+36
'RFAttenSN'	'RF Attenuator Serial Number'	'number'	missing_value = -2147483647
'ForwardPowerCoefT'	'Forward Power Calibration - Time Stamp'	'seconds'	missing_value = -2147483647
'ForwardPowerCoef'	'Forward Power Calibration'	'Watts'	missing_value = 9.9692099683868690e+36 resolution = 0.001

Contacts
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 Engineer: Duane Hazen
 duane.hazen@noaa.gov



**Datagrams:
 Summit
 NOAA MMCR:
 Millimeter Wavelength Cloud Radar**

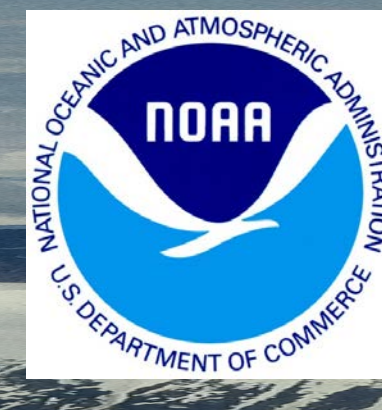


Contacts
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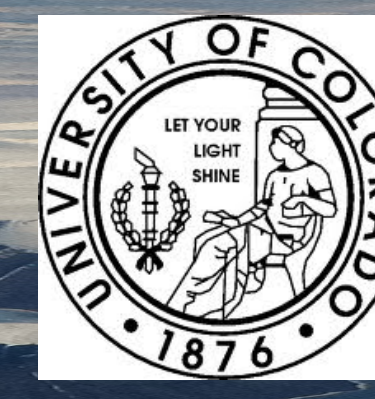
Moment netCDF Metadata

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Attributes			
Name	Value		
'site_id'	'Summit'		
'facility_id'	'Summit'		
'radar_operating_frequency'	'34.86 GHz'		
'radar_wavelength'	'8.600115e-003 m'		
'peak_transmitted_power'	'52.59 dBm'		
'peak_transmitted_power_timestamp'	'-1322874421 s'		
'antenna_diameter'	'2.00 m'		
'twt_status_code'	'100000000'		
'comment'	'DOE/ARM SGP MMCR netcdf raw file'		
'resolution_description'	The resolution field attributes refer to the number of significant digits relative to the decimal point that should be used in calculations. Using fewer digits might result in greater uncertainty using a larger number of digits should have no effect and thus is unnecessary. However, analyses based on differences in values with a larger number of significant digits than indicated could lead to erroneous results or misleading scientific conclusions, resolution for lat = 0.001, resolution for lon = 0.001, resolution for alt = 1'		
'proc_level'	'a1'		
'history'	'created by LAP-XM'		
'comment_on_time'	The time stamp comes at the beginning and end of the sample period. Sample period is made up of data collection and processing time'		
Dimensions			
Name	Length		
'mode'	10		
'namelength'	32		
'heights'	234		
'speclength'	256		
'time'	2254		
Variables			
Name	Long name	Units	
'base_time'	'Base Time in Epoch'	'seconds since 1970-1-1 0:00:00 0:00'	
'time_offset'	'Time offset from base_time'	'seconds since 2015-07-15 21:00:01 0:00'	
'ModeDescription'	'radar mode char identifier'		missing_value = 0
'RxCalTimeStamp'	'Receiver Cal Time Stamp'	's'	missing_value = -2147483647
'RxGain'	'Receiver Gain'	'dB'	missing_value = 9.9692099683868690e+36
'SkyNoiseLevel'	'Receiver Sky Noise'	'dB'	missing_value = 9.9692099683868690e+36
'Rx290KLevel'	'Receiver 290K Level'	'dB'	missing_value = 9.9692099683868690e+36
'CalCheckLevel'	'Receiver Cal Check Level'	'dB'	missing_value = 9.9692099683868690e+36
'CalCheckTime'	'Receiver Cal Check Time Stamp'	's'	missing_value = -2147483647
'RadarConstant'	'Radar Constant'	'dB'	missing_value = 9.9692099683868690e+36
'MinimumDetectableReflectivity'	'Minimum detectable reflectivity'	'dBZ'	missing_value = 9.9692099683868690e+36
'InterPulsePeriod'	'Inter-Pulse Period'	'ns'	missing_value = -2147483647
'PulseWidth'	'Pulse Width'	'ns'	missing_value = -2147483647
'StartGateDelay'	missing_value = -2147483647	'ns'	missing_value = -2147483647
'GateSpacing'	'Gate Spacing'	'ns'	missing_value = -2147483647
'NumCoherentIntegrations'	'Number of Coherent Integrations'	'count'	missing_value = -2147483647
'NumSpectralAverages'	'Number of Spectral Averages'	'count'	missing_value = -32767
'NumFFT'	'Number of Points in FFT'	'count'	missing_value = -32767
'NumHeights'	'Number of Range Gates'	'count'	missing_value = -32767
'NumCodeBits'	'Number of Code Bits'	'count'	missing_value = -32767
'NumReceivers'	'Number of Receiver'	'count'	missing_value = -32767
'ReceiverMode'	'Receiver Mode'	'count'	missing_value = -32767
'ReceiverNumber'	'Current Receiver Number'	'count'	missing_value = -32767
'NyquistVelocity'	'Nyquist Velocity'	'm/s'	missing_value = 9.9692099683868690e+36
'DCFilterONOFF'	'DC Filtering ON-OFF Status'	'count'	missing_value = -32767
'WindowingONOFF'	'Windowing ON-OFF Status'	'count'	missing_value = -32767
'ClutterHeight'	'Max. height of clutter removal'	'meters'	missing_value = 9.9692099683868690e+36
'Heights'	'Range Heights (center of radar sample volume)'	'meters AGL'	missing_value = 9.9692099683868690e+36
'ModeNum'	'Operating Set for this Record'	'count'	missing_value = -32767
'lat'	'Latitude'	'degrees'	missing_value = 9.9692099683868690e+36
'lon'	'Longitude'	'degrees'	missing_value = 9.9692099683868690e+36
'alt'	'Altitude'	'meters above Mean Sea Level'	missing_value = -32767
'Azimuth'	'Azimuth'	'degrees'	missing_value = -32767
'Elevation'	'Elevation'	'degrees'	missing_value = 9.9692099683868690e+36
'DataQualityStatus'	'Data Quality Status'	'code'	missing_value = -2147483647
'MeanDopplerVelocity'	'Mean Doppler Velocity'	'meters/sec'	missing_value = 9.9692099683868690e+36 resolution = 0.001
'SignalToNoiseRatio'	'Signal to Noise Ratio'	'dB'	missing_value = 9.9692099683868690e+36 resolution = 0.001
'Power'	'Power (uncalibrated)'	'dB'	missing_value = 9.9692099683868690e+36 resolution = 0.001
'SpectralWidth'	'Spectral Width'	'meter/sec'	missing_value = 9.9692099683868690e+36 resolution = 0.001
'NoiseLevel'	'Mean Noise Level'	'dB'	missing_value = 9.9692099683868690e+36 resolution = 0.001
'Reflectivity'	'Reflectivity'	'dBZ'	missing_value = 9.9692099683868690e+36 resolution = 0.001
'RangeCorrectedPower'	'Range Corrected Calibrated Power'	'dBm'	missing_value = 9.9692099683868690e+36 resolution = 0.001
'CircularDepolarizationRatio'	'Circular Depolarization Ratio'	'dB'	missing_value = 9.9692099683868690e+36 resolution = 0.001
'AvgNoiseLevel'	'Average Noise Level (S/N<0)'	'dB'	missing_value = 9.9692099683868690e+36 resolution = 0.001

Contacts
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 Engineer: Duane Hazen
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**Datagrams:
 Summit
 NOAA MMCR:
 Millimeter Wavelength Cloud Radar**



Contacts
 Data Support: Sara Crepinsek
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Spectral netCDF Metadata

File name: 20151571900MMCRSpecMom.nc Path: summit\mmcr\spc				
Attributes				
Name	Value			
'site_id'	'Summit'			
'facility_id'	'Summit'			
'radar_operating_frequency'	'34.86 GHz'			
'radar_wavelength'	'8.600115e-003 m'			
'peak_transmitted_power'	'52.60 dBm'			
'peak_transmitted_power_timestamp'	'-1323264621 s'			
'antenna_diameter'	'2.00 m'			
'twr_status_code'	'100000000'			
'comment'	'DOE/ARM SGP MMCR netcdf raw file'			
'resolution_description'	The resolution field attributes refer to the number of significant digits relative to the decimal point that should be used in calculations. Using fewer digits might result in greater uncertainty using a larger number of digits should have no effect and thus is unnecessary. However, analyses based on differences in values with a larger number of significant digits than indicated could lead to erroneous results or misleading scientific conclusions, resolution for lat = 0.001, resolution for lon = 0.001, resolution for alt = 1'			
'proc_level'	'a1'			
'history'	'created by LAP-XM'			
'comment_on_time'	The time stamp comes at the beginning and end of the sample period. Sample period is made up of data collection and processing time'			
Dimensions				
Name	Length			
'mode'	10			
'namelength'	32			
'heights'	234			
'speclength'	256			
'time'	2273			
Variables				
Name	Long name	Units		
'base_time'	'Base Time in Epoch'	'seconds since 1970-1-1 0:00:00 0:00'		
'time_offset'	'Time offset from base_time'	'seconds since 2015-06-06 19:00:00 0:00'		
'ModeDescription'	'radar mode char identifier'		missing_value = '0'	
'RxCalTimeStamp'	'Receiver Cal Time Stamp'		missing_value = '-2147483647'	
'RxGain'	'Receiver Gain'	'dB'	missing_value = '9.9692099683868690e+36'	
'SkyNoiseLevel'	'Receiver Sky Noise'	'dB'	missing_value = '9.9692099683868690e+36'	
'Rx290KLevel'	'Receiver 290K Level'	'dB'	missing_value = '9.9692099683868690e+36'	
'CalCheckLevel'	'Receiver Cal Check Level'	'dB'	missing_value = '9.9692099683868690e+36'	
'CalCheckTime'	'Receiver Cal Check Time Stamp'	's'	missing_value = '-2147483647'	
'RadarConstant'	'Radar Constant'	'dB'	missing_value = '9.9692099683868690e+36'	
'MinimumDetectableReflectivity'	'Minimum detectable reflectivity'	'dBZ'	missing_value = '9.9692099683868690e+36'	
'InterPulsePeriod'	'Inter-Pulse Period'	'ns'	missing_value = '-2147483647'	
'PulseWidth'	'Pulse Width'	'ns'	missing_value = '-2147483647'	
'StartGateDelay'	'Delay to First Range Gate'	'ns'	missing_value = '-2147483647'	
'GateSpacing'	'Gate Spacing'	'ns'	missing_value = '-2147483647'	
'NumCoherentIntegrations'	'Number of Coherent Integrations'	'count'	missing_value = '-2147483647'	
'NumSpectralAverages'	'Number of Spectral Averages'	'count'	missing_value = '-32767'	
'NumFFT'	'Number of Points in FFT'	'count'	missing_value = '-32767'	
'NumHeights'	'Number of Range Gates'	'count'	missing_value = '-32767'	
'NumCodeBits'	'Number of Code Bits'	'count'	missing_value = '-32767'	
'NumReceivers'	'Number of Receiver'	'count'	missing_value = '-32767'	
'ReceiverMode'	'Receiver Mode'	'count'	missing_value = '-32767'	
'ReceiverNumber'	'Current Receiver Number'	'count'	missing_value = '-32767'	
'NyquistVelocity'	'Nyquist Velocity'	'm/s'	missing_value = '9.9692099683868690e+36'	
'DCFilterONOFF'	'DC Filtering ON-OFF Status'	'count'	missing_value = '-32767'	
'WindowingONOFF'	'Windowing ON-OFF Status'	'count'	missing_value = '-32767'	
'ClutterHeight'	'Max. height of clutter removal'	'meters'	missing_value = '9.9692099683868690e+36'	
'Heights'	'Range Heights (center of radar sample volume)'	'meters AGL'	missing_value = '9.9692099683868690e+36'	
'CalibrationConstant'	'First Order Estimate of Spectral Count Calibration'	'ADC/dBZ'	missing_value = '9.9692099683868690e+36'	
'ModeNum'	'Operating Set for this Record'	'count'	missing_value = '-32767'	
'lat'	'Latitude'	'degrees'	missing_value = '9.9692099683868690e+36'	
'lon'	'Longitude'	'degrees'	missing_value = '9.9692099683868690e+36'	
'alt'	'Altitude'	'meters above Mean Sea Level'	missing_value = '-32767'	
'Azimuth'	'Azimuth'	'degrees'	missing_value = '-32767'	
'Elevation'	'Elevation'	'degrees'	missing_value = '9.9692099683868690e+36'	
'DataQualityStatus'	'Data Quality Status'	'code'	missing_value = '-2147483647'	
'MeanDopplerVelocity'	'Mean Doppler Velocity'	'meters/sec'	missing_value = '9.9692099683868690e+36'	resolution = 0.001
'SignalToNoiseRatio'	'Signal to Noise Ratio'	'dB'	missing_value = '9.9692099683868690e+36'	resolution = 0.001
'Power'	'Power (uncalibrated)'	'dB'	missing_value = '9.9692099683868690e+36'	resolution = 0.001
'SpectralWidth'	'Spectral Width'	'meter/sec'	missing_value = '9.9692099683868690e+36'	resolution = 0.001
'NoiseLevel'	'Mean Noise Level'	'dB'	missing_value = '9.9692099683868690e+36'	resolution = 0.001
'Reflectivity'	'Reflectivity'	'dBZ'	missing_value = '9.9692099683868690e+36'	resolution = 0.001
'RangeCorrectedPower'	'Range Corrected Calibrated Power'	'dBm'	missing_value = '9.9692099683868690e+36'	resolution = 0.001
'CircularDepolarizationRatio'	'Circular Depolarization Ratio'	'dB'	missing_value = '9.9692099683868690e+36'	resolution = 0.001
'AvgNoiseLevel'	'Average Noise Level (S/N<0)'	'dB'	missing_value = '9.9692099683868690e+36'	resolution = 0.001
'Spectra'	'Spectra Dat'	'count'	missing_value = '9.9692099683868690e+36'	