

External Data Center Data

Datastream	Size raw / ingested [MB/d]	Maintenance Freq ¹ / Effort ²	Description	Notes	WG/comments	Disposition /ranking
			Key Measurements	Issues		
SGP 12 ETA sgpalleta12X1.00	2900 /	Low / Low	Eta GRIB model data on a 12 km grid.	No netCDF files yet. NOAA to move to different FTP server and new compressed format in 2004-12-14		
SGP RUC ISOB 20km sgpallruc20isobX1.00 sgpruc20isobX1.c1 sgpsynruc20isobX1.c1	680 / 150	Low / Med-High	The Rapid Update Cycle (RUC) model on a 20-km grid, Isobaric Data. Typical model data output at grid points of the model covering the lower 48 United States and adjacent areas of Canada, Mexico, and oceanic areas.	Possibly the most requested data at the archive. Users increased tremendously when data ingest was completed and availability announced on RUC discussion forum in 2002.		
SGP RUC HYBRID 20km sgpallruc20hybrX1.00 sgpruc20hybrX1.c1	1300 / 50	Low / Med-High	The Rapid Update Cycle (RUC) model on a 20-km grid, Hybrid Data. Typical model data output at grid points of the model covering the lower 48 United States and adjacent areas of Canada, Mexico, and oceanic areas.			
SGP ECMWF Diagnostic sgpecmwfX1.00 sgpecmwfflxX1.c1 sgpecmwfsfcm1X1.c1 sgpecmwfsfcl1X1.c1 sgpecmwftenX1.c1 sgpecmwfvarX1.c1 sgpecmwfsfceX1.c1	1.1 / 0.24	Med / Med	These files contain diagnostic data derived from ECMWF model runs. Radiative fluxes, surface and sub-surface variables, surface fluxes, total and physical tendencies on the model levels.			

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SGP MOLTS sgpmoltsedassfcclass1X1.a1 sgpmoltsedassndclass1X1.a1 nacmoltsedasclass1X1.00	55 / 9	Med / Med	The Model Output Location Time Series (MOLTS) Data are provided by NCEP in BUFR format. 26 surface measurements and 6 sounding measurements at 3 levels derived from Eta model at MOLTS stations			
SGP ABRFC sgpabrfcpcpX1.c1	0.26 / 0.26	Low / Low	Arkansas-Red Basin River Forecast Center (ABRFC) precipitation products on a 4 km grid. For each grid point, the amount of precipitation in units of 1/100 mm is provided.			
SGP CSPHOT sgpcsphotalmC1.00, .a1 sgpcsphotaotC1.00, .a1 sgpcsphotaotfiltC1.00, .a1 sgpcsphotppC1.00, .a1 sgpcsphotsizeC1.00, .a1 sgpcsphotaotfiltqaC1.00, .a1 sgpcsphotalm1duboC1.00, .a1 sgpcsphotcoarsepfn1C1.00, .a1 sgpcsphotfinepfn1C1.00, .a1 sgpcsphottotalpfn1C1.00, .a1	0.049 / 0.026	Med / Med	Cimel Sunphotometer (CSPHOT) data. The Cimel has been permanently installed at the SGP CART site since March 1998 but was also in place for earlier IOPs. Almucantar sky radiance, Aerosol optical thickness as a function of wavelength, total precipitable water vapor, Principle planes sky radiance as a function of wavelength and view zenith angle, aerosol size distribution, phase function	ARM owns this CSPHOT AERONET frequently changes datastream names and data files are often empty, higher order products have long delays (1 year or more).		

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SGP 60 KSUMESO sgp60ksumesoX1.00,.b1	0.041 / 0.022	Low / Low	This data stream contains surface meteorology information from 16 stations in Kansas. Data provided and quality assured by the High Plains Climate Center.			
			Air temperature, relative humidity, winds, solar radiation, precipitation, 10 cm soil temperature, and leaf wetness.			
NCDC Surf nac60ncdcsurfX1.00	1.6 /	Low / Med	NCDC hourly surface meteorology measurements.			
			Hourly averaged surface meteorological measurements for both the SGP and NSA.			
SGP OKMESO sgpokmX1.00,.01 sgp05okmX1.a1,.b1 sgp15okmX1.a1, .b1 sgp30okmX1.01,.b1	14.6 / 6.1	Med / Med	Surface meteorology measurements from stations in Oklahoma.	These data can only be distributed to ARM Scientists.		
			Surface relative humidity, air temperature at 1.5 and 9 meters, winds at 2 and 10 meters, soil temperatures, soil moisture, precipitation, solar radiation and surface pressure at over 100 stations.			
SGP USDA sgpusdaradX1.00 sgpusdaradauxX1.00 sgpusdauvmfrsrauxX1.00 sgpusdauvmfrsrX1.00	0.3	Low / Low	Data from USDA UV-B Radiation Monitoring Network site at the SGP CF.			
			temperature, humidity, UV-B measurements and UV-MFRSR data			
SGP WPDN sgp06fslwpdmetX1.00,.b1 sgp60fslwpdmetX1.00,.b1 sgp06fslwpdnrassX1.00,.b1 sgp60fslwpdnrassX1.00,.b1	54 / 49	Low / Low-Med	Wind Profiler Demonstration Network data.			
			At each WPDN station, surface meteorology and wind profiles. At some WPDN stations, virtual temperature profiles.			

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SGP ACARS sgpacarsX1.a1	2.5 / 2.5	Low / Low	Aircraft data including information on position, winds and temperature Temperature, winds and in some cases moisture are provided as a function of time and position.			
SGP GOES12 sgpgoes12X1.00,.a1 sgpgoes12visX1.00,.a1	950 / 381	Low / Low-Med	GOES satellites provide half-hourly observations of the Americas and their surrounding environment. GOES-12 replaced GOES-8 Visible and infrared images of the Southern Great Plains.			
SGP GOES Minnis Products sgpgoes12minnisX1.c1 sgpgoes12minnis-acfX1.c1		Med / Low	Gridded cloud products derived from GOES satellite images Cloud amounts, optical depth, cloud heights, cloud thickness, emissivity, cloud temperatures, albedos, fluxes	To be replaced by the VISST products. Distributed through LaRC webserver, i.e. not counted in ARM statistics. Only 1 archive user per year.		
SGP G12 PROF sgpg12profX1.00 sgpg12profC1.a1 sgpg12profB1.a1 sgpg12profB4.a1 sgpg12profB5.a1 sgpg12profB6.a1	0.13 / 0.05	Low / Low-Med	Soundings of dew point and temperature over the SGP CART site derived from GOES8 soundings at the University of Wisconsin, CIMSS/SSEC			
SGP 06 NWS UPA sgp06snwsupaabqX1.00 sgp06snwsupaounX1.00 sgp06snwsupatopX1.00	1 /	Low / Low	NWS high resolution (6 sec) quality assured sonde data provided by Steve William's group at NCAR. Temperature, Pressure, Relative Humidity, Winds at altitude.	Currently no data since 2004-01-01. NCAR needs \$5k/a to continue if desired		

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SGP SuomiNet sgp30suomigpsX1.c1	0.17 / 0.17	Low / Low- Med	UCAR's SuomiNet GPS receiving station network providing realtime atmospheric precipitable water vapor measurements and other meteorological information. precipitable water vapor			
SGP UTH sgpgoes12uthX1.c1 sgpgoes12uthgridX1.c1	/ 222	Low / Med	Upper Tropospheric Humidity from GOES 8 or 12 WV-channel. Data is extracted from the GOES 8 or 12 HDF file. Upper Tropospheric Relative Humidity			
SGP 30 WPDN GPS sgp30wpdngpsX1.00,.c1	2.2 / 0.7	Med / Low	FSL provides 30 minute averages of precipitable water vapor derived from Global Positioning Systems (GPS) .			
SGP AVHRR sgpavhrrX1.00 sgpavhrr##X1.a1 sgpavhrr##radX1.a1 ##=12,15,16,17	160 / 70	Med / Low	Measurements from Advanced Very High Resolution Radiometer (AVHRR) on the NOAA polar orbiting satellites taken over the Southern Great Plains CART site Albedo, brightness temperatures and calibrated radiances at different wave lengths, satellite solar azimuth angle, solar zenith angle and satellite zenith angle.			

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SGP MTI sgpmti###X1.00 ###=cf,e2,e4,e5,e6,e7,e9,e12, e19,e20		Med / Low	ARM and the MTI program have an arrangement that allows ARM to receive MTI images. The MTI system consists of a single satellite in polar, 360-mile-high orbit carrying an advanced multispectral and thermal imaging sensor. MTI's 15 spectral bands collect data to derive information on surface temperatures, materials, water quality, and vegetation health and simultaneous information on atmospheric water vapor, aerosol content, and sub-visual cloud presence.	Not a continuous datastream, MTI scenes are collected when scheduling allows.		
NSA ACARS nsaacarsX1.a1	/ 0.02	Low / Low	Aircraft data including information on position, winds and temperature Temperature, winds and in some cases moisture are provided as a function of time and position.			
NSA AVHRR nsaavhrrX1.00 nsaavhrr##X1.a1 nsaavhrr##radX1.a1 ##=12,15,16,17	3200 / 70	Low-Med / Low	NSA AVHRR data supplied by the University of Alaska Reflected solar radiation in albedo units, infrared channels as brightness temperatures, satellite-solar azimuth angle, satellite zenith angle, solar zenith angle	Data flow has been interrupted for the past 8 months because of hardware issues at UAF. It is now being reestablished using online data transfer instead of tapes.		
NSA AVHRR jpeg nsaavhrr##ch2X1.a1 nsaavhrr##ch4X1.a1 nsafullavhrr##ch2X1.a1 nsafullavhrr##ch4X1.a1 ##=12,15,16,17	/ 37	Low / Low	Quick-look images supplied by the University of Alaska in near real-time.			

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			Key Measurements	Issues		
NSA CSPHOT nsacsphotalmC1.00, .a1 nsacsphotaotC1.00, .a1 nsacsphotaotfiltC1.00,.a1 nsacsphotppC1.00, .a1 nsacsphotsizeC1.00, .a1 nsacsphotaotfiltqaC1.00,.a1 nsacsphotalm1duboC1.00,.a1 nsacsphotcoarsepfn1C1.00,.a1 nsacsphotfinepfn1C1.00,.a1 nsacsphottotalpfn1C1.00,.a1	0.049 / 0.026	High / High	Cimel Sunphotometer (CSPHOT) data. Almucantar sky radiance, Aerosol optical thickness as a function of wavelength, total precipitable water vapor, Principle planes sky radiance as a function of wavelength and view zenith angle, aerosol size distribution, phase function	ARM operated a CSPHOT at Barrow unsuccessfully for a while, no data were archived. New external (NASA?) CSPHOT came online recently and data will be ingested. AERONET frequently changes datastream names and data files are often empty, higher order products have long delays (1 year or more).		
NSA ECMWF Diagnostic nsaecmwfX1.00 nsaecmwfflxX1.c1 nsaecmwfsfcm1X1.c1 nsaecmwfsfc11X1.c1 nsaecmwftenX1.c1 nsaecmwfvarX1.c1 nsaecmwfsfceX1.c1	1.1 / 0.24	Med / Med	These files contain diagnostic data derived from ECMWF model runs. Radiative fluxes, surface and sub-surface variables, surface fluxes, total and physical tendencies on the model levels.			
NSA MOLTS nsamoltsedassfclass1X1.a1 nsamoltsedassndclass1X1.a1 nacmoltsedasclass1X1.00	55 / 9	Med / Med	The Model Output Location Time Series (MOLTS) Data are provided by NCEP in BUFR format. 26 surface measurements and 6 sounding measurements at 3 levels derived from Eta model at MOLTS stations			
NSA 06 NWS UPA nsa06snwsupabrwx1.00	1 /	Low / Low	NWS high resolution (6 sec) quality assured sonde data provided by Steve William's group at NCAR. Temperature, Pressure, Relative Humidity, Winds at altitude.	Currently no data since 2004-01-01. NCAR needs \$5k/a to continue if desired		

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TWP ECMWF GRIB twpecmwfsuppX1.00,.c1 twpecmwfsurfX1.00,.c1 twpecmwfupaX1.00,.c1 twpecmwf###suppX1.c1 twpecmwf###surfX1.c1 twpecmwf###upaX1.c1 ###=man,nau,dar	26 / 52	Med / Med-High	ECMWF GRIB data Surface, upper air and supplemental measurements from the ECMWF model runs.	These data can only be distributed to ARM scientists		
TWP ECMWF Diagnostic twpecmwfX1.00 twpecmwfnaux1.00 twpecmwfdarX1.00 twpecmwfman###X1.c1 twpecmwfnaux###X1.c1 twpecmwfdar###X1.c1 ### = flx,sfcml,sfc11,ten,var,sfce	3.7 / 0.8	Med / Med	Diagnostic data derived from ECMWF model. Radiative fluxes, surface and sub-surface variables, surface fluxes, total and physical tendencies on the model levels.			

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TWP CSPHOT twpcsphotalmC#.00, .a1 twpcsphotaotC#.00, .a1 twpcsphotaotfiltC#.00,.a1 twpcsphotppC#.00, .a1 twpcsphotosizeC#.00, .a1 twpcsphotalm1duboC#.00,.a1 twpcsphottotalpfn1C#.00,.a1 twpcsphotcoarsepfn1C#.00,.a1 twpcsphotfinepfn1C#.00,.a1 twpcsphotaotfiltqaC#.00,.a1 # = 2,3 (Nauru,Darwin)	0.072 / 0.032	High / High	Cimel Sunphotometer (CSPHOT) data. Almucantar sky radiance, Aerosol optical thickness as a function of wavelength, total precipitable water vapor, Principle planes sky radiance as a function of wavelength and view zenith angle, aerosol size distribution, phase function	ARM owns the CSPHOT at Nauru. Darwin CSPHOT not official part of AERONET network but ingested by NASA via ftp anyway. AERONET frequently changes datastream names and data files are often empty, higher order products have long delays (1 year or more).		
TWP NCDC Surf twpncdcsurfX1.00	0.12 /	Low / Low-Med	Daily mean temperature, dew point, sea level and station pressure, visibility and wind speed; maximum sustained wind speed, wind gust, temperature; minimum temperature, precipitation.			
TWP TAO BUOY twp02taorad165e##X1.a1 twp10taoprecip165e##X1.a1 twp10taomet165e##X1.a1 twp10taosalinity165e##X1.a1 ## = 8n, 5n, 2n, 0n, 2s, 5s, 8s	/ 0.1	Med / Low	Data from the TAO buoys located on the 165E line of the TAO Buoy Array. 2 minute average radiation and 10 minute average meteorology, precipitation, salinity and sea surface temperature data from the seven TAO buoys located on the 165E line (8n, 5n, 2n, 0n, 2s, 5s, 8s)	ARM supplied the radiometer for this line of buoys. Data get retrieved from the buoys only once a year.		
TWP ACARS twpacarsX1.a1	/ 0.4	Low / Low	Aircraft data including information on position, winds and temperature. Temperature, winds and in some cases moisture are provided as a function of time and position.			

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TWP Kwajalein AVHRR twpavhrrkwajX1.00	193 /	Med / Low- Med	1 km resolution AVHRR data Albedo, brightness temperatures and calibrated radiances and different wave lengths, satellite-solar azimuth angle, satellite zenith angle and solar zenith angle	Still waiting for ingest. Covers Nauru and Manus (limited).		
TWP GAC AVHRR twpavhrr14gacmanX1.a1 twpavhrr14gacnauX1.a1 twpavhrrhovmullerX1.a1	/ 0.5	Low / High	Global Area Coverage (GAC) providing 4-km resolution AVHRR data over the TWP Manus and Nauru Sites from RSMAS U. Miami's archive. Albedo, brightness temperatures and calibrated radiances and different wave lengths, satellite-solar azimuth angle, satellite zenith angle and solar zenith angle	Interim replacement for the lack of coverage for Manus after the ARM owned satellite receiving system was declared inoperable and donated to the PNG weather service. The Darwin BoM AVHRR data might provide sufficient coverage for Manus so this datastream can be terminated when the BoM data are ingested.		
TWP GOES twpgoes9X1.00, twpgoes9X1.a1	5400 / 1140	Med / Low- Med	The twpgoes9X1 visible channel data are at 1.25 km resolution, the other channels are at 5 km. resolution. Visible and Infrared images over Pacific.			
TWP GMS5/GOES Minnis Products twpgms5minnis-manusX1.c1 twpgms5minnis-nauruX1.c1		Med / Low	Gridded cloud products derived from GMS5/GOES satellite images Cloud amounts, optical depth, cloud heights, cloud thickness, emissivity, cloud temperatures, albedos, fluxes	Only available for IOP periods. To be replaced by the VISST products. Distributed through LaRC webserver, i.e. not counted in ARM statistics.		
TWP Darwin BoM Mesonet twpmesodarX1.00	0.26 /	Low / Low	Mesonet data from BOM Darwin site Surface meteorology	No ingest yet.		

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TWP Darwin BoM AVHRR twpavhrrdarX1.00	500 /	Low / Low	Satellite images from the BOM AVHRR at Darwin. Covers Manus as well as Darwin. AVHRR satellite images	No ingest yet.		
TWP Darwin BoM Irradiance twpirrdarX1.00	1 /	Low / Low	Irradiance measurements from BOM Darwin Radiation observations from Darwin site	No ingest yet.		
TWP Darwin BoM CPOL twpcpoldarX1.00	25 /	Low / Low	BOM C-band Polarimetric Radar data C-band polarimetric radar data	No ingest yet.		
TWP Darwin BoM Sonde twpsonedarX1.00	0.003 /	Low / Low	Sonde data from the BOM Darwin site winds and temperature profiles	Ingest under development		
TWP Darwin BoM Wind Profilers twp50rwpdarX1.00 twp920rwpdarX1.00	9 /	Low / Low	BOM 50MHz and 920MHz profiler data at Darwin site Winds at altitude	No ingest yet.		
GEC SSM/I gecssmi##X1.00,c1 gecssmi##fullX1.a1 gecssmi##smallX1.a1 ##=10,11,13,14,15	52 / 210	Low / Med	These Special Sensor Microwave/Imager (SSM/I) data products are produced as part of NASA's Pathfinder Program. Remote Sensing Systems generates SSM/I data products using a unified, physically based algorithm for retrieval. Ocean wind speed (at 10 meters), water vapor, cloud water, and rain rate.			

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GEC TOMS gectomsaerosolindexX1.00 gectomsozoneX1.00 gectomsreflX1.00 gectomsX1.a1	0.5 / 0.6	Low / Med	Global data derived from the Total Ozone Mapping Spectrometer (TOMS) instrument on various polar orbiting satellites, consisting of daily values of aerosol index, ozone and reflectivity remapped into a regular 1x1.25 deg grid.			
			Aerosol index, ozone and reflectivity on a regular 1 x 1.25 degree grid.			

Notes:

- 1) **Freq:** How frequently manually intervention is needed to maintain datastream:
 - low:** datastream mostly automated, very little intervention required,
 - med:** Occasionally need to manually pick up data or stations are added.
 - high:** Always manual, many frequent updates to datastream.

- 2) **Effort:** How much effort is needed when maintenance is needed:
 - low:** Only minor changes to scripts necessary or simple change to configuration file;
 - med:** Ingest & DOD changes required to maintain datastream.
 - high:** Ingest & DOD changes required maintaining datastream and ingesting or processing scripts require significant resources to modify.