AWIPS-2 Application Focal Point Course

Data-Type Reference for the AWIPS-2 Archiver

Warning Decision Training Branch

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Introduction. AWIPS-2 archives both raw and processed data, whereas AWIPS-1 only archived processed data, with the exception of Redbook graphics and Level 3 radar data. AWIPS-2 stores the processed data in a different hierarchy than did AWIPS-1. AWIPS-2 also has different names for some of the data. Moreover, different parts of the AWIPS-2 system may refer to the same data in somewhat different ways. This document is designed to provide information on how different types of data in AWIPS-2 are labeled in order to help you use the archiver most effectively. After this introduction, there are individual sections on basic non-gridded datasets, gridded data, radar data, and satellite data.

The archiver GUI displays selections of data to be archived by various names, most of which are derived from directory names. However, the archiver configuration also can override the various default dataset labels. It may be possible in the future to use the override feature to make the labels more human-readable with the tradeoff that more maintenance will be required as datasets change over time.

This reference is designed to help users identify various types of data throughout AWIPS-2. The information contained herein is based partly on official documentation (e.g., NCEP Office Note 388, available at http://nco.ncep.noaa.gov/pmb/docs/on388, and many NWS technical information notices), various configuration files like pqact.conf for the LDM and the grib XML files in /awips2/edex/data/utility/edex_static/base/grib/models, various Internet searches, and simple observation and inspection. Though this reference is considered to be mostly accurate at the time of its writing in December of 2014, beware that configurations change over time, so information contained herein may become dated.

Part 1. Basic Datasets

This table provides names and descriptions of most datasets in AWIPS-2. The datatype is the label that appears in the archiver GUIs and is also the directory name for Raw and Processed data (in /data_store and /archive, respectively) and in any resultant saved cases. Much of this data is discriminated using WMO headers, so some of the WMO headers are given throughout the table. Notes are provided when processed data and raw data are stored using different high-level directories, with the intention of providing the ability to cross-reference raw data to the corresponding processed data and vice-versa.

Datatype	Description	Raw (/data_store)	Processed (/archive)
acars	"**A**ircraft **C**ommunication **A**ddressing and **R**eporting **S**ystem" observations	X	X
acarssounding	Vertical profiles derived from acars data.		X
airep	**Ai**rcraft **rep**orts (Text bulletins also in text database. WMO headers starting with UAUS, UAPA, UANT.)	X	X
airmet	"**Air**men's **Met**eorological Information": aviation weather advisories for potentially hazardous, but non-severe weather (Text bulletins also in text database. WMO headers WAUSxx, where xx=41-46.)	X	X

Datatype	Description	Raw (/data_store)	Processed (/archive)
binlightning	Lightning data from the National Lightning Detection Network	X	X
bufrascat (bufr refers to the raw data being in BUFR format – the Binary Universal Form for the Representation of meteorological data, a WMO standard)	**A**dvanced **Scat**terometer wind data	X	X
bufrhdw	GOES **H**igh **D**ensity **W**inds	X	X
bufrmos	**M**odel **O**utput **S**tatistics: station data (Raw data contains BUFR bulletins for each of the separate types of MOS: AVN, ETA, GFS, HPC, LAMP, and MRF. Processed data are separated by type.)	X	
bufrmosAVN	MOS from the Aviation Model		X
bufrmosETA	MOS from the ETA (NAM) Model		X
bufrmosGFS	MOS from the GFS (Global Forecast System) Model		X
bufrmosHPC	MOS from the HPC (now WPC)		X
bufrmosLAMP	MOS from LAMP (**L**ocalized **A**viation **M**OS **P**roduct)		X
bufrmosMRF	MOS from the MRF Model (**M**edium-**R**ange **F**orecast)		X
bufrmthdw	MTSAT (Japanese **M**ulti-Functional **T**ransport **Sat**ellite) **H**igh **D**ensity **W**inds	X	X
bufrncwf	**N**ational **C**onvective **W**eather **F**orecast for Aviation	X	X
bufrsigwx	Aviation **Sig**nificant **W**eather	X	X
bufrssmi	**S**pecial **S**ensor **M**icrowave/**I**mager data from DMSP (Defesne Meteorological Satellite Program) satellites	X	X
bufrua	Upper air radiosonde data	X	X
ccfp	Aviation **C**ollaborative **C**onvective **F**orecast **P**roduct (Raw text data stored under forecasts. WMO headers FAUSii KKCI, where ii=28, 29, 30. Text bulletins also in text database.)		X
climate	Climate text products (WMO headers starting with C; Text bulletins stored in text database.)	X	
convsigmet	Aviation **Sig**nificant **Met**eorological Information for convective weather (Text bulletins also in text database. WMO headers WSUSxx, xx=31,32,33.)	X	X
cwa	Aviation **C**enter **W**eather **A**dvisory, issued by CWSUs (Center Weather Service Units). (Raw text data stored under forecasts. WMO headers FAUSii CCCC, where ii=20, 21, 22, 23, 24, 25, 26 or FAAK20-29 and CCCC is the station id of the CWSU [e.g., KZTL = Atlanta]. Text bulletins also in text database.)		X

Datatype	Description	Raw (/data_store)	Processed (/archive)
cwat	**C**ounty **W**arning **A**rea **T**hreat produced by SCAN (System for Convection Analysis and Nowcasting). CWAT was formerly called SCAN Convective Threat Index (SCTI). (Raw data inputs: include radar, cloud-to-ground lightning from the NLDN, and a few RUC130 fields. Radar data [with WSR-88D product mnemonics and numbers] needed for CWAT are 1 km Composite Reflectivity [CZ, 37]; 4 km Vertically Integrated Liquid [VIL, 57]; Storm Track [STI, 58]; Mesocyclone Detections [MD, 141]; and Tornadic Vortex Signatures [TVS, 61]. RUC130 fields include 700 mb Wind, Freezing Level, 1000-500 mb Thickness and 500 mb Wind as specified in the SCANRunSiteConfig.xml file.)		X
ffg	Flash flood guidance metadata (county-based ffg from RFCs) (Raw data: WMO headers FOUS61-64)		X
ffmp	**F**lash **F**lood **M**onitoring and **P**rediction data (raw data inputs: radar, gridded flash flood guidance from River Forecast Centers, high-resolution precipitation estimates [HPE] and nowcasts [HPN], QPF from SCAN and gage data from the IHFS [Integrated Hydrologic Forecast System] database. Radar data [with WSR-88D product mnemonics and numbers] needed for FFMP are Digital Hybrid Reflectivity [DHR, 32] and Digital Precipitation Rate [DPR, 176]. The raw GRIB files containing RFC Flash Flood Guidance are identified in the tables in Part 2 of this document as NWS_151 or FFG-XXX, where XXX is an RFC identifier such as TUA, KRF, or ALR. The WMO header for the RFC FFG begins with "ZEGZ98".)		X
fire_wx_spot_forecast_reports	Fire Weather Spot Forecast Requests and Reports (WMO headers starting with B; Text bulletins stored in text database)	X	
fog	Fog Monitor (raw data inputs: METAR, Mesonet, maritime, buoys, MAROBs, and satellite [visible, 3.9 μm, and 10.7 μm]).		X
forecast	Various forecast text bulletins. (Most WMO headers starting with F; Text bulletins stored in text database. Particular bulletins also processed by other plugins including ccfp, cwa, idft, vaa.)	X	
fssobs	Observations for the **F**og monitor, **S**NOW, and **S**AFESEAS (raw data inputs: METAR, Mesonet, maritime, buoys, MAROBs).		X
gfe	Graphical Forecast Editor grids		X

Datatype	Description	Raw (/data_store)	Processed (/archive)
goessounding	GOES (**G**eostationary **O**perational **E**nvironmental **S**atellite) soundings	X	X
grib	Binary gridded data, version 1 (see Part 2)	X	
grib2	Binary gridded data, version 2 (see Part 2)	X	
grid	Gridded data products, uses grib and grib2 data as input (See Part 2)		X
idft	Ice Drift Forecasts (Raw text data stored under forecasts. WMO header FZXX41 KWNO . Text bulletins also in text database.)		X
intlsigmet	**Int**ernational **Sig**nificant **Met**eorological Information for Aviation (Text bulletins also in text database.)	X	X
lsr	Local Storm Reports (WMO header NWUSxx where xx=50-59. Text bulletins also in text database.)	X	X
manual	Experimental data not from the SBN	X	
maritime	Buoy observations (Processed by sfcobs plugin. Text bulletins also in text database.)	X	
MAROB	**Mar**ine **Ob**servations (Processed by sfcobs plugin. WMO headers starting with V.)	X	
metar	Surface observations, also contains SPECI reports (Processed by obs plugin. WMO headers start with SA and SP. Text bulletins also in text database.)	X	
misc_adm_messages	Miscellaneous Administrative Messages (WMO headers start with N, except for LSRs and WSR-88D General Status Messages [GSM]. Text bulletins also in text database.)	X	
misc_sfc_obs	Miscellaneous Surface observations not in METAR format. (WMO headers start with SHUS. Text bulletins also in text database.)	X	
modelsounding	Individual grid point soundings from the GFS and NAM models.	X	X
nonconvsigmet	Aviation **Sig**nificant **Met**eorological Information for **non**-**conv**ective weather (Text bulletins also in text database. WMO headers WCUSxx, WSUSxx, WVUSxx, where xx=01-06.)	X	X
nucaps	Soundings from **N**OAA **U**nique **C**rIS/**A**TMS **P**rocessing **S**ystem from NPP (National Polar-Orbiting Partnership) Satellites	X	X
obs	Surface observations from METARs		X
pirep	**Pi**lot **Rep**orts (WMO headers that start with "UB". Text bulletins also in text database.)	X	X
poessounding	POES (**P**olar **O**perational **E**nvironmental	X	X

Datatype	Description	Raw (/data_store)	Processed (/archive)
	Satellite) soundings		
preciprate	Precipitation Rate from SCAN (System for Convection Analysis and Nowcasting). (raw data input: radar data [with WSR-88D product mnemonic and number] needed for preciprate are Digital Hybrid Reflectivity [DHR, 32]).		X
profiler	Wind Profiler data	X	X
qpf	**Q**uantitative **P**recipitation **F**orecast from SCAN (System for Convection Analysis and Nowcasting). Also known as SCANQPF. (raw data inputs: radar and some RUC130 fields. Radar data [with WSR-88D product mnemonics and numbers] needed for SCAN's QPF are 0.5 degree Base Reflectivity [Z, 19], 4 km Vertically Integrated Liquid [VIL, 57], and Storm Track [STI, 58]. The RUC130 field needed is 700 mb Wind, as defined in the SCANRunSiteConfig.xml file.)		
radar	WSR-88D (Weather Surveillance Radar 1998 Doppler) and TDWR (Terminal Doppler Weather Radar) data (see Part 3) (Some text bulletins stored in the text database.)	X	X
raobs	Raw (coded) **ra**diosonde **obs**ervation bulletins (TTAA, TTBB, etc.) (WMO headers start with US and UM. Text bulletins also in text database.)	X	
recco	**Rec**onnaissance **o**bservations (Raw data is stored under upperair. WMO headers start with "URPN" or "URNT".) The recco plugin was disabled in AWIPS Build 14.2.1.		X
redbook	"Redbook" graphics. (WMO headers start with P or Q.)	X	X
sat	GOES (**G**eostationary **O**perational **E**nvironmental **S**atellite), POES (**P**olar **O**perational **E**nvironmental **S**atellite), VIIRS (**V**isible **I**nfrared **I**maging **R**adiometer **S**uite), and composite satellite data	X	
satellite	Satellite data (see Part 4)		X
scan	SCAN (**S**ystem for **C**onvection **A**nalysis and **N**owcasting). (Inputs for the SCAN Table include radar, cloud-to-ground lightning from the NLDN, fields from RUC130, and CWAT. Specific radar products [with WSR-88D product mnemonics and numbers] are: 1 km Composite Reflectivity [CZ, 37]; 0.5 degree Base Reflectivity [Z, 19]; 4 km Vertically Integrated Liquid [VIL, 57]; Storm Track [STI, 58]; Mesocyclone Detections [MD, 141]; and Tornadic Vortex Signature [TVS, 61]. The SCAN Digital Mesocyclone Detection Table uses		X

Datatype	Description	Raw (/data_store)	Processed (/archive)
	the WSR-88D DMD product [number 149]. RUC130 fields used for SCAN include CAPE, 0-3 km Storm Relative Helicity, 700 mb Wind, Freezing Level, 1000-500 mb Thickness, and 500 mb Wind.)		
sfcobs	**Surface observations** other than METAR format including buoys (sfcobs plugin processes raw data filed under maritime, MAROB, synoptic.)		X
shef	**Standard Hydrometeorological Exchange Format data.** (Text bulletins in text database; hydrological data in IHFS [Integrated Hydrologic Forecast System] database. For raw data, some text bulletins that are in SHEF format are stored under summaries and forecasts.)	X	
summaries	Various weather summaries, includes SPC convective outlooks, air quality information/forecasts, hourly weather roundups, etc.) (WMO headers starting with A; text bulletins in text database.)	X	
svrwx	SPC Local Storm Report Summaries (WMO Header NWUS20. Text bulletins also stored in text database.)	X	X
synoptic	Surface observations other than METAR format (non-buoy) (Processed by sfcobs plugin. Text bulletins may be in text database depending on local configuration.)	X	
taf	**Terminal Aerodrome Forecasts** (Text bulletins in text database.)	X	X
tcg	Tropical Cyclone Guidance (WMO headers WHXX01_KWBC, WHXX04_KWBC, WHXX01_KMIA and WHXX04 KMIA, WTNT5, WTPZ5, WTPA5. Text bulletins in text database.)		X
tcm	Tropical Cyclone Forecast/Advisory (WMO headers WTNTxx KNHC [Atlantic], WTPZxx, KNHC [Eastern Pacific] and WTPNxx PHNC, where xx=21-25, 31-35. Text bulletins in text database.)		X
tcs	Tropical Cyclone Forecast/Advisory (WMO headers WTNTxx KNHC, WTPZxx KNHC, and WTPNxx PHNC, where xx=21-25, 31-35. Text bulletins in text database.)		X
text	Various Text Products (Raw data contains text products not filed under other directories. Processed data contains extracts from database records derived from raw data stored under airep, airmet, ccfp, climate, convsigmet, fire_wx_spot_forecast_reports, forecast, intlsigmet, lsr, maritime, metar, misc_adm_messages, miscc_sfc_obs, nonconvsigmet, pirep, radar, raobs, shef, summaries, svrwx, synoptic, taf, tcg, tcm, tcs, upperair, wwa, and xml.)	X	X

Datatype	Description	Raw (/data_store)	Processed (/archive)
upperair	Upper air observations other than radiosondes, aireps and pireps (Some processed by recco. May be stored in text database. May also contain radiosonde data outside the CONUS.)	X	
vaa	**V**olcanic **a**sh **a**dvisories (WMO headers FVXXyy, where yy=20-27 and FVAKzz where zz=20-24. Text bulletins in text database.)		X
vil	Cell-based **V**ertically **I**ntegrated **L**iquid from SCAN (**S**ystem for **C**onvection **A**nalysis and **N**owcasting) (Input is radar).		X
warning	Watches, Warnings, and Advisories (Text bulletins also stored in text database. Raw data is stored under wwa.)		X
wwa	Watches, Warnings, and Advisories. (Data processed by warning plugin for the warning database table.)	X	
wcp	SPC Convective Watches (WMO header WWUS60 KWNS. Text bulletins also stored in text database.)		X
xml	XML-format Hydrological Data (WMO headers start with R. Stored in text database based on local configuration.)	X	

Part 2. Gridded Datasets.

This table describes data ingested into AWIPS-2 that are transmitted in grib or grib2 format.   For a description of "GribModel" designations see the note below the table.   Many of the models are stored in GRIDnnn subdirectories, where nnn represents a particular grid definition (see NCEP Office Note 388) for various projections and spatial resolutions. The number that follows many of the gridded dataset names sometimes refers to a process number (NWS_151; explained below in the note), a grid number (RUC130), or a spatial resolution (RAP13). Sometimes certain abbreviations may have different meanings based on context. "PR" can mean "Puerto Rico" or "Pacific Region". "NA" can mean "North Atlantic" or "North America".   Some datasets are known by more than one name (AVN211 = GFS80).

This table is designed to be a lookup, includes equivalent names for the same data, and indicates whether input data is in grib or grib2 format. When a dataset is marked as both grib and grib2, some grids are transmitted in grib and others in grib2.   The data is often discriminated using various grid numbers which are described throughout the table. When certain River Forecast Centers (RFCs) are given in the description column as sites for certain products, these RFCs were determined solely by observation.

The items in the table below are based on default, baseline configurations. Local differences may be observed, particularly if modifications are made to the XML files in

/awips2/edex/data/utility/edex_static/base/grib/models which could likely result in different and/or additional model names. The default datatypes for raw grib and grib2 data below are derived from IDs or metadata that are transmitted along with most of the raw grib and grib2 data in the LDM stream. For example, "LTDG65 KWBG 131600 !grib2/ncep/RUC2/#130/201406131600F006/TMPK/650 hPa PRES" identifies a particular grid (temperature at 650 mb for the RUC2 model). Some of these identifications are a bit more cryptic: "ZETA98 KTAR 131905 /mNWS_171 !grib/nws/NWS_171/#255/201406131200/F006/APCP/sfc/" which turns out to be a quantitative precipitation estimate from the Southeast River Forecast Center (SERFC) in Peachtree City/Atlanta, GA. These identifications are used to create the directories in which raw data are stored and, hence, used by the archiver to identify and retrieve datasets.

Datatype	Description	GRIB	GRIB2	Raw (/data_store)	Processed (/archive)
14	• GRID255: See estofsUS and estofsPR		X	X	
118	GribModel:7:4:118, the Unrestricted Mesoscale Analysis (URMA).		X	X	
3hr	PROB3HR, disseminated hourly from NCEP Central Operations.	X		X	
83	• GRID255: See HRRR		X	X	
AK-GFS	See GFS160				
AK-GriddedMOS	See MOSGuide-AK				
AK-NAM12	See ETA242 Raw Data: NAM_84 (GRID242)				
AK-NAM20	See mesoEta217				
AK-NAM40	See mesoEta216				
AK-NamDNG3	NAM Downscaled Guidance for Alaska (3 km)				X
AK-NamDNG5	NAM Downscaled Guidance for Alaska (5 km) Raw Data: NMM_89 (GRID255)				X
AK-RAP	Rapid Refresh Model for Alaska, GribModel 7:0:105 on Grid 242 Raw Data: locally ingested through LDAD and archived in /data_store/manual; may be identified as "WRFRR_242"				X
AK-RTMA	Real-Time Mesoscale Analysis for Alaska Raw Data: RTMA (GRID255)				X
AK-RTMA3	Real-Time Mesoscale Analysis for Alaska, 3 km resolution Raw Data: RTMA (GRID255)				
AKwave10	Wave Model for Alaska (10 arc minute resolution) Raw Data: GMGWM				X
AKwave239	Wave Model for Alaska on Grid 239 (Alaska Regional lat-lon grid) Raw Data: NWW_122				X

Datatype	Description	GRIB	GRIB2	Raw (/data_store)	Processed (/archive)
AKwave4	Wave Model for Alaska (4 arc minute resolution) Raw Data: GMGWM				X
AUTOSPE	Automated Satellite Precipitation Estimates from NESDIS (hourly) Raw Data: NWS_190				X
Aviation	Aviation parameters from AWC (KKCI) CIP = Current Icing Product Raw Data: AWC_CIP (GRID252), RUC2 (GRID130)				X
AVN211	Aviation Model for CONUS on Grid 211 (80 km resolution Lambert Conformal projection), also known as GFS80 Raw Data: GFS (GRID211), SSIGFS (GRID211)				X
AVN225	Aviation Model for Hawaii/Pacific Region on Grid 225 (109W to 109E longitude). Also known as GFS75 Raw Data: GFS (GRID225), SSIGFS (GRID225)				X
AWC_CIP	• GRID252: See Aviation • GRID255: GribModel:7:8:191 Both are from the Aviation Weather Center	X		X	
AWC_NCWD	National Convective Weather Forecast from Aviation Weather Center	X			
BHPE	**B**ias HPE (Biased version of **H**igh-Resolution **P**recipitation **E**stimator) Note: produced locally by hydro apps				X
Canadian-NH	Canadian Model for Northern Hemisphere Raw Data: locally ingested through LDAD and archived in /data_store/manual.				X
Canadian-Reg Canadian-REG	Canadian Model (Regional Grid) Raw Data: locally ingested through LDAD and archived in /data_store/manual.				X
DGEX_115	• GRID185: See DGEX185 • GRID186: See DGEX186		X	X	
DGEX185	**D**ownscaled **G**FS by NAM **Ex**tensions for CONUS on Grid 185 (12 km resolution Lambert Conformal projection) Raw Data: DGEX_115 (GRID185)				X
DGEX186	**D**ownscaled **G**FS by NAM **Ex**tensions for Alaska on Grid 186 (12 km resolution Polar Stereographic projection) Raw Data: DGEX_115 (GRID186)				X
ECMF-	ECMWF Model on Northern				X

Datatype	Description	GRIB	GRIB2	Raw (/data_store)	Processed (/archive)
NorthernHemisphere	Hemispheric Grid. Stitched together from ECMF1, ECMF2, ECMF3, and ECMF4 (see note below table). Also known as ECMWF-LowRes				
ECMF-Tropical	ECMWF Model on Tropical Grid (south of 35N latitude). Stitched together from ECMF5, ECMF6, ECMF7, and ECMF8 (see note below table).				X
ECMF1	ECMWF Atlantic Region (90W to 0W). Contributes to ECMF-NorthernHemisphere. Also known as ECMWF-LowRes . Raw Data: ECMWF_144 (GRID001)				X
ECMF2	ECMWF Eastern Pacific Region (180W to 90W). Contributes to ECMF-NorthernHemisphere. Also known as ECMWF-LowRes . Raw Data: ECMWF_144 (GRID002)				X
ECMF3	ECMWF Western Pacific Region (180E to 90E). Contributes to ECMF-NorthernHemisphere. Also known as ECMWF-LowRes . Raw Data: ECMWF_144 (GRID003)				X
ECMF4	ECMWF Europe Region (90E to 0E). Contributes to ECMF-NorthernHemisphere. Also known as ECMWF-LowRes . Raw Data: ECMWF_144 (GRID004)				X
ECMF5	ECMWF Tropical Atlantic Region (south of 35N between 90W and 0W). Contributes to ECMF-Tropical. Also known as ECMWF-LowRes . Raw Data: ECMWF_144 (GRID005)				X
ECMF6	ECMWF Tropical Eastern Pacific Region (south of 35N between 180W and 90W). Contributes to ECMF-Tropical. Also known as ECMWF-LowRes . Raw Data: ECMWF_144 (GRID006)				X
ECMF7	ECMWF Tropical Western Pacific Region (south of 35N between 180E and 90E). Contributes to ECMF-Tropical. Also known as ECMWF-LowRes . Raw Data: ECMWF_144 (GRID007)				X
ECMF8	ECMWF Tropical Africa Region (south				X

Datatype	Description	GRIB	GRIB2	Raw (/data_store)	Processed (/archive)
	of 35N between 90E and 0E). Contributes to ECMF-Tropical. Also known as ECMWF-LowRes . Raw Data: ECMWF_144 (GRID008)				
ECMWF_142 or ECMWF_144	• GRID001: See ECMF1 • GRID002: See ECMF2 • GRID003: See ECMF3 • GRID004: See ECMF4 • GRID005: See ECMF5 • GRID006: See ECMF6 • GRID007: See ECMF7 • GRID008: See ECMF8	X		X	
ECMWF_HiRes	ECMWF-High Resolution		X	X	
ECMWF-HiRes	ECMWF-High Resolution				X
ECMWF-LowRes	See ECMF-NorthernHemisphere and ECMF1, ECMF2, ECMF3, ECMF4, ECMF5, ECMF6, ECMF7, and ECMF8				
ENPWAVE253	**E**astern **N**orth **P**acific **Wave** Model on Grid 253 (Regional Lat/Lon Grid) Raw Data: NWW_124				X
ENSEMBLE	Northern Hemisphere GFS Ensemble. Comprised of ENSEMBLE38, ENSEMBLE39, and ENSEMBLE40. Also known as GFSensemble.				X
ENSEMBLE38	Northern Hemisphere GFS Ensemble on Grid 38 (60E to 150E). Contributes to ENSEMBLE. Raw Data: GFS (GRID038), SPEC62MRF (GRID038), SSIGFS (GRID038)				X
ENSEMBLE39	Northern Hemisphere GFS Ensemble on Grid 39 (150E to 120W). Contributes to ENSEMBLE. Raw Data: GFS (GRID039), SPEC62MRF (GRID039), SSIGFS (GRID039)				X
ENSEMBLE40	Northern Hemisphere GFS Ensemble on Grid 40 (120W to 30W). Contributes to ENSEMBLE. Raw Data: GFS (GRID040), SPEC62MRF (GRID040), SSIGFS (GRID040)				X
EPwave10	**E**astern **P**acific **Wave** Model (10 arc minute resolution) Raw Data: GMGWM				X
ESTOFS	• GRID255: See estofsUS and estofsPR		X	X	
estofsPR	**E**xtratropical **S**urge and **T**ide **O**perational **F**orecast **S**ystem for the Puerto Rico domain Raw Data: ESTOFS (GRID255) or 14 (GRID255)				X

Datatype	Description	GRIB	GRIB2	Raw (/data_store)	Processed (/archive)
estofsUS	**E**xtratropical **S**urge and **T**ide **O**perational **F**orecast **S**ystem for the the US domain Raw Data: ESTOFS (GRID255) or 14 (GRID255)				X
ETA	North American Model (NAM) for CONUS on Grid 211 (80 km resolution Lambert Conformal projection). Also known as NAM80. Raw Data: NAM_84 (GRID211)				X
ETA207	North American Model (NAM) for Alaska on Grid 207 (95 km resolution Polar Stereographic projection). Also known as NAM95. Raw Data: NAM_84 (GRID207)				X
ETA212	North American Model (NAM) for CONUS on Grid 212 (40 km resolution Lambert Conformal projection). Also known as NAMWX. Locally subgridded. Raw Data: NMM_89 (GRID212)				X
ETA218	North American Model (NAM) for CONUS on Grid 218 (12 km resolution Lambert Conformal projection). Also known as NAM12. Locally subgridded. Raw Data: NAM_84 (GRID218)				X
ETA242	North American Model (NAM) for Alaska on Grid 242 (12 km Polar Stereographic projection). Also known as AK-NAM12. Raw Data: NAM_84 (GRID242)				X
FFG-ALR	Gridded Flash Flood Guidance for 1, 3, and 6 hour accumulations from Southeast RFC (SERFC) in Peachtree City/Atlanta (ALR). Raw Data: NWS_151				X
FFG-FWR	Gridded Flash Flood Guidance for 1,3, and 6 hour accumulations from West Gulf RFC (WGRFC) in Fort Worth (FWR). Raw Data: NWS_151				X
FFG-KRF	Gridded Flash Flood Guidance for 1, 3, and 6 hour accumulations from Missouri Basin RFC (MBRFC) in Pleasant Hill/Kansas City (KRF). Raw Data: NWS_151				X
FFG-MSR	Gridded Flash Flood Guidance for 1,				X

Datatype	Description	GRIB	GRIB2	Raw (/data_store)	Processed (/archive)
	3, and 6 hour accumulations from North Central RFC (NCRFC) in Chanhassen/Minneapolis (MSR). Raw Data: NWS_151				
FFG-ORN	Gridded Flash Flood Guidance for 1, 3, and 6 hour accumulations from Lower Mississippi RFC (LMRFC) in Slidell/New Orleans (ORN). Raw Data: NWS_151				X
FFG-PTR	Gridded Flash Flood Guidance for 1, 3, and 6 hour accumulations from Northwest RFC (NWRFC) in Portland (PTR). Raw Data: NWS_151				X
FFG-RHA	Gridded Flash Flood Guidance for 1, 3, 6, and 12 hour accumulations from Mid-Atlantic RFC (MARFC) in State College (RHA). Raw Data: NWS_151				X
FFG-RSA	Gridded Flash Flood Guidance for 1, 3, and 6 hour accumulations from California/Nevada RFC (CNRFC) in Sacramento (RSA). Raw Data: NWS_151				X
FFG-STR	Gridded Flash Flood Guidance for 1, 3, and 6 hour accumulations from Colorado Basin RFC (CBRFC) in Salt Lake City (STR). Raw Data: NWS_151				X
FFG-TAR	Gridded Flash Flood Guidance for 1, 3, and 6 hour accumulations from Northeast RFC (NERFC) in Taunton/Boston (TAR). Raw Data: NWS_151				X
FFG-TIR	Gridded Flash Flood Guidance for 1, 3, 6, 12, and 24 hour accumulations from Ohio RFC (OHRFC) in Wilmington, OH (TIR). Raw Data: NWS_151				X
FFG-TUA	Gridded Flash Flood Guidance for 1, 3, and 6 hour accumulations from Arkansas/Red Basin RFC (ABRFC) in Tulsa (TUA). Raw Data: NWS_151				X
FORECASTER	See TPCWindProb		X	X	
GEFS or gefs	**G**lobal **E**nsemble **F**orecast **S**ystem			X	X
GFS	Global Forecast System	X	X	X	

Datatype	Description	GRIB	GRIB2	Raw (/data_store)	Processed (/archive)
	• GRID038: See ENSEMBLE38 • GRID039: See ENSEMBLE39 • GRID040: See ENSEMBLE40 • GRID160: See GFS160 • GRID161: See GFS161 • GRID197: See MOSGuide • GRID201: See GFS201 • GRID211: See AVN211 • GRID212: See GFS212 • GRID213: See GFS213 • GRID225: See AVN225 • GRID254: See GFS254 • GRID255: Miscellaneous GFS products (includes GFSGuide and MOSGuide-AK)				
GFS160	GFS Model for Alaska on Grid 160 (47.5 km resolution Polar Stereographic Projection). Also known as AK-GFS. Raw Data: GFS (GRID160), SSIGFS (GRID160)				X
GFS161	GFS Model for Puerto Rico on Grid 161 (0.5 degree Lat/Lon Grid for Puerto Rico). Also known as SJU-GFS. Raw Data: GFS (GFS161), SSIGFS (GRID161)				X
GFS199	GFS Model for Guam on Grid 199 (2.5 km Mercator projection for Guam). Also known as Guam-GFS.				X
GFS201	GFS Model for Northern Hemisphere on Grid 201 (381 km resolution Polar Stereographic projection for Northern Hemisphere). Also known as GFS360. Raw Data: GFS (GRID201), SSIGFS (GRID201)				X
GFS212	GFS Model for CONUS on Grid 212 (40 km resolution Lambert Conformal Projection). Also known as GFS40. Raw Data: GFS (GRID212), SSIGFS (GRID212)				X
GFS213	GFS Model for CONUS on Grid 213 (95 km resolution Polar Stereographic Projection). Also known as GFS90. Raw Data: GFS (GRID213), SSIGFS (GRID213)				X
GFS254	GFS Model for Pacific Region on Grid 254 (40 km resolution Mercator projection for Pacific Region). Also known as PR-GFS. Raw Data: GFS (GRID254), SSIGFS (GRID254)				X

Datatype	Description	GRIB	GRIB2	Raw (/data_store)	Processed (/archive)
GFS360	See GFS201				
GFS40	See GFS212				
GFS75	See AVN225				
GFS80	See AVN211				
GFS90	See GFS213				
GFSensemble	See ENSEMBLE				
GFSGuide	GFS Guidance Raw Data: GFS (GRID255)				X
GFSLAMPTstorm	GFS Localized Aviation MOS Program (LAMP) Guidance for Thunderstorms Raw Data: LAMP				X
GLAMP	Gridded LAMP, GribModel:7:14:108		X	X	
GLAMP25	Gridded LAMP with 2.5 km resolution. Also known as GribModel:7:14:108. Raw Data: GLAMP				X
GLERL	**G**reat **L**akes **E**nvironmental **R**esearch **L**aboratory Model (specifically, the NOAA GLERL Great Lakes Coastal Forecast System) Raw Data: GLERL (GRID255)	X		X	X
GlobalWave	Global Wave Model Raw Data: GMGWM				X
GLWM ("Great Lakes Wave Model")	See GRLKWave		X	X	
GMGWM	See AKwave10, WNAwave10, WNAwave4, WCwave10, EPwave10, WCwave4, GlobalWave, AKwave4		X	X	
GMOS	Gridded MOS, GribModel:7:14:96 or GribModel:7:14:0		X	X	
GMOS25	Gridded Model Output Statistics (MOS) with 2.5 km resolution. Also known as GribModel:7:14:96. Raw Data: GMOS				X
GribModel:x:y:z	**See note below table** Raw Data for GribModel:7:4:118: 118 Raw Data for GribModel:7:8:191: AWC_CIP (GRID255)		X	X	
GRID001	See SPCGuide These raw data grids may actually be mis-stored in the archive and should be under SPC/GRID001 rather than GRID001/SPC.		X	X	
GriddedMOS	See MOSGuide				
GRLKwave	Great Lakes Wave Model Raw Data: GLWM				X
Guam-GFS	See GFS199				

Datatype	Description	GRIB	GRIB2	Raw (/data_store)	Processed (/archive)
Guam-RTMA	Real-Time Mesoscale Analysis for Guam (2.5 km resolution) Raw Data: RTMA (GRID255)				X
GWW233	**G**lobal **W**ave **M**odel on Grid 233 (a regional Lat/Lon Grid) Raw Data: NOW				X
HI-NamDNG5	Downscaled NAM for Hawaii Raw Data: NMM_89 (GRID255)				X
HI-RTMA	Real Time Mesoscale Analysis for Hawaii Raw Data: RTMA (GRID255)				X
HiResW-ARW-AK	Hi-Res Window Model using the Advanced Research WRF (ARW) core for Alaska Raw Data: WRF_EM				X
HiResW-ARW-East	Hi-Res Window Model using the Advanced Research WRF (ARW) core for East CONUS. Locally subgridded. Raw Data: WRF_EM				X
HiResW-ARW-GU	Hi-Res Window Model using the Advanced Research WRF (ARW) core for Guam Raw Data: WRF_EM				X
HiResW-ARW-HI	Hi-Res Window Model using the Advanced Research WRF (ARW) core for Hawaii Raw Data: WRF_EM				X
HiResW-ARW-SJU	Hi-Res Window Model using the Advanced Research WRF (ARW) core for Puerto Rico. Raw Data: WRF_EM				X
HiResW-ARW-West	Hi-Res Window Model using the Advanced Research WRF (ARW) core for West CONUS. Locally subgridded. Raw Data: WRF_EM				X
HiResW-NMM-AK	Hi-Res Window Model using the Non-hydrostatic Mesoscale Model (NMM) core for Alaska Raw Data: WRF_NMM				X
HiResW-NMM-East	Hi-Res Window Model using the Non-hydrostatic Mesoscale Model (NMM) core for East CONUS. Locally subgridded. Raw Data: WRF_NMM				X
HiResW-NMM-GU	Hi-Res Window Model using the Non-hydrostatic Mesoscale Model (NMM) core for Guam Raw Data: WRF_NMM				X

Datatype	Description	GRIB	GRIB2	Raw (/data_store)	Processed (/archive)
HiResW-NMM-HI	Hi-Res Window Model using the Non-hydrostatic Mesoscale Model (NMM) core for Hawaii Raw Data: WRF_NMM				X
HiResW-NMM-SJU	Hi-Res Window Model using the Non-hydrostatic Mesoscale Model (NMM) core for Puerto Rico. Raw Data: WRF_NMM				X
HiResW-NMM-West	Hi-Res Window Model using the Non-hydrostatic Mesoscale (NMM) core for West CONUS. Locally subgridded. Raw Data: WRF_NMM				X
HPCGuide	WPC (formerly, HPC) Guidance Raw Data: NDFD (GRID001 or GRID197)				X
HPCGuide-AK	WPC (formerly, HPC) Guidance for Alaska Raw Data: NDFD (GRID255)				X
HPCqpf	WPC (formerly, HPC) Quantitative Precipitation Forecast. Locally subgridded. Raw Data: NCEP_QPF (GRID242)				X
HPCqpfNDFD	WPC (formerly, HPC) Quantitative Precipitation Forecast for the NDFD. Locally subgridded. Raw Data: NCEP_QPF (GRID001)				X
HPCWWD	WPC (formerly HPC) Winter Weather Desk				X
HPE	**H**igh-Resolution **P**recipitation **E**stimator. Produced locally by hydro apps.				X
HRRR	**H**igh-**R**esolution **R**apid **R**efresh Model Raw Data: 83 (GRID255)				X
ICE_120	See SeaIce	X		X	
LAMP (**L**ocalized **A**viation **M**OS **P**rogram)	See GFSLAMPTstorm		X	X	
LAPS	**L**ocal **A**nalysis and **P**rediction **S**ystem. Locally produced.				X
mesoEta212	North American Model (NAM) for CONUS on Grid 212 (40 km resolution Lambert Conformal projection). Also known as NAM40. Locally subgridded. Raw Data: NAM_84 (GRID212)				X
mesoEta215	North American Model (NAM) for CONUS on Grid 215 (20 km resolution Lambert Conformal projection). Also				X

Datatype	Description	GRIB	GRIB2	Raw (/data_store)	Processed (/archive)
	known as NAM20. Locally subgridded. Raw Data: NAM_84 (GRID215)				
mesoEta216	North American Model (NAM) for Alaska on Grid 216 (45 km resolution Polar Stereographic projection). Also known as AK-NAM40. Raw Data: NAM_84 (GRID216)				X
mesoEta217	North American Model (NAM) for Alaska on Grid 217 (22.5 km resolution Polar Stereographic projection). Also known as AK-NAM20. Raw Data: NAM_84 (GRID217)				X
mesoEta237	North American Model (NAM) for Puerto Rico on Grid 237 (32 km resolution Lambert Conformal projection). Also known as PR-NAM12. Raw Data: NAM_84 (GRID237)				X
MOSGuide	MOS Guidance. Also known as GriddedMOS. Locally subgridded. Raw Data: GFS (GRID197)				X
MOSGuide-AK	MOS Guidance for Alaska. Also known as AK-GriddedMOS. Raw Data: GFS (GRID255)				X
MPC (Marine Prediction Center, now OPC)	GRID180: See OPCWave180 GRID181: See OPCWave181	X		X	
MPE-Local	Multisensor Precipitation Estimator produced locally by each WFO's hydroapps.				X
MPE-Local-ALR	Multisensor Precipitation Estimator from Southeast RFC (SERFC) in Peachtree City/Atlanta (ALR) Raw Data: NWS_160				X
MPE-Local-FWR	Multisensor Precipitation Estimator from West Gulf RFC (WGRFC) in Fort Worth (FWR) Raw Data: NWS_160				X
MPE-Local-MSR	Multisensor Precipitation Estimator from North Central (NCRFC) in Chanhassen/Minneapolis (MSR) Raw Data: NWS_160				X
MPE-Local-ORN	Multisensor Precipitation Estimator from Lower Mississippi RFC (LMRFC) in Slidell/New Orleans (ORN) Raw Data: NWS_160				X

Datatype	Description	GRIB	GRIB2	Raw (/data_store)	Processed (/archive)
MPE-Local-RHA	Multisensor Precipitation Estimator from Mid-Atlantic RFC (MARFC) in State College (RHA) Raw Data: NWS_160				X
MPE-Local-RSA	Multisensor Precipitation Estimator from California/Nevada RFC (CNRFC) in Sacramento (RSA) Raw Data: NWS_160				X
MPE-Local-STR	Multisensor Precipitation Estimator from Colorado Basin RFC (CBRFC) in Salt Lake City (STR) Raw Data: NWS_160				X
MPE-Local-TAR	Multisensor Precipitation Estimator from Northeast RFC (NERFC) in Taunton/Boston (TAR) Raw Data: NWS_160				X
MPE-Local-TIR	Multisensor Precipitation Estimator from Ohio RFC (OHRFC) in Wilmington, OH (TIR) Raw Data: NWS_160				X
MPE-Local-TUA	Multisensor Precipitation Estimator from Arkansas/Red Basin RFC (ABRFC) in Tulsa (TUA) Raw Data: NWS_160				X
MPE-Mosaic-ALR	Mosaic of Multisensor Precipitation Estimates from Southeast RFC (SERFC) in Peachtree City/Atlanta (ALR) Raw Data: NWS_161				X
MPE-Mosaic-FWR	Mosaic of Multisensor Precipitation Estimates from West Gulf RFC (WGRFC) in Fort Worth (FWR) Raw Data: NWS_161				X
MPE-Mosaic-MSR	Mosaic of Multisensor Precipitation Estimates from North Central RFC (NCRFC) in Chanhassen/Minneapolis (MSR) Raw Data: NWS_161				X
MPE-Mosaic-ORN	Mosaic of Multisensor Precipitation Estimates from Lower Mississippi RFC (LMRFC) in Slidell/New Orleans (ORN) Raw Data: NWS_161				X
MPE-Mosaic-RHA	Mosaic of Multisensor Precipitation Estimates from Mid-Atlantic RFC (MARFC) in State College (RHA) Raw Data: NWS_161				X
MPE-Mosaic-TAR	Mosaic of Multisensor Precipitation				X

Datatype	Description	GRIB	GRIB2	Raw (/data_store)	Processed (/archive)
	Estimates from Northeast RFC (NERFC) in Taunton/Boston (TAR) Raw Data: NWS_161				
MPE-Mosaic-TIR	Mosaic of Multisensor Precipitation Estimates from Ohio RFC (OHRFC) in Wilmington, OH (TIR) Raw Data: NWS_161				X
MSAS	**M**APS (**M**esoscale Analysis and Prediction System) **S**urface **A**ssimilation **S**ystem (locally produced)				X
NAM_84	North American Model (formerly the Eta Model) • GRID207: See ETA207 • GRID211: See NAM80 • GRID212: See mesoEta212 • GRID215: See mesoEta215 • GRID216: See mesoEta216 • GRID217: See mesoEta217 • GRID218: See NAM12 • GRID237: See mesoEta237 • GRID242: See AK-NAM12	X	X	X	
NAM12	See ETA218 Raw Data: NAM_84 (GRID218)				
NAM20	See mesoEta215				
NAM40	See mesoEta212				
NAM80	See ETA Raw Data: NAM_84 (GRID211)				
NAM97	See ETA207				
NamDNG25	Downscaled North American Model (NAM) at 2.5 km resolution		X	X	X
NamDNG5	Downscaled North American Model (NAM) at 5 km resolution Raw Data: NMM_89 (GRID197 or GRID255)				X
NAMWX	See ETA212				
NCEP_QPF	Quantitative Precipitation Forecasts from WPC (formerly WPC) • GRID001: See HPCqpfNDFD • GRID242: See HPCqpf	X	X	X	
NCWF	**N**ational **C**onvective **W**eather **F**orecast from Aviation Weather Center Raw Data: AWC_NCWD				X
NDFD	• GRID001: See HPCGuide • GRID197: See HPCGuide • GRID255: See HPCGuide-AK		X	X	

Datatype	Description	GRIB	GRIB2	Raw (/data_store)	Processed (/archive)
NMM_89	• GRID197: See NamDNG5 • GRID212: See ETA212 • GRID255: See HI-NamDNG5, PR-NamDNG5, AK-NamDNG5, and NamDNG5	X	X	X	
NOHRSC-SNOW	Snow Analysis from NOHRSC (National Operational Hydrologic Remote Sensing Center) Raw Data: NWS_185				X
NOW	See GWW233	X		X	
NWS_0	• GRID255: Radar Coded Message (RCM) Mosaic	X		X	
NWS_151	• GRID255: 1-, 3-, 6-, 12-, and 24-hour FFG (Flash Flood Guidance from individual RFCs [River Forecast Centers]): See the following for processed data: FFG-ALR, FFG-FWR, FFW-KRF, FFG-MSR, FFG-ORN, FFG-PTR, FFG-RHA, FFG-RSA, FFG-STR, FFG-TAR, FFG-TIR, FFG-TUA Note: each grib file for FFG contains one FFG product, using this translation for parameter names that are included as part of the filename: HPBL: 1 hour FFG 5WAVH: 3 hour FFG CNWAT: 6 hour FFG SOTYP: 12 hour FFG VGTYP: 24 hour FFG Only a few RFCs issue FFG for periods longer than 6 hours. The forecast period for each file is 24 hours.	X		X	
NWS_152	• GRID255: One-hour QPE (Quantitative Precipitation Estimates) from Individual RFCs: QPE-ALR, QPE-FWR, QPE-KRF, QPE-MSR, QPE-ORN, QPE-RHA, QPE-STR, QPE-TAR, QPE-TIR, QPE-TUA	X		X	
NWS_159	• GRID255: QPE-AUTO-TUA	X		X	
NWS_160	• GRID255: Multi-sensor Precipitation Estimates from RFCs: GribModel:9:105:160 (MPE-Local-ALR), MPE-Local-FWR, MPE-Local-MSR, MPE-Local-ORN, MPE-Local-RHA, MPE-Local-RSA, MPE-Local-STR, MPE-Local-TAR, MPE-Local-	X		X	

Datatype	Description	GRIB	GRIB2	Raw (/data_store)	Processed (/archive)
	TIR, MPE-Local-TUA				
NWS_161	• GRID255: Multi-sensor Precipitation Estimate Mosaics from RFCs: GribModel:9:105:161 (MPE-Mosaic-ALR), MPE-Mosaic-FWR, MPE-Mosaic-MSR, MPE-Mosaic-ORN, MPE-Mosaic-RHA, MPE-Mosaic-TAR, MPE-Mosaic-TIR	X		X	
NWS_171	• GRID255: XNAV versions of Quantitative Precipitation Estimates (QPE) from RFCs: QPE-XNAV-ALR [Some ALR products appear as GribModel:9:105:171], QPE-XNAV-FWR, QPE-XNAV-KRF, QPE-XNAV-MSR, QPE-XNAV-ORN, QPE-XNAV-RHA, QPE-XNAV-TAR, QPE-XNAV-TIR, QPE-XNAV-TUA	X		X	
NWS_172	• GRID255: QPE-RFC-PTR, QPE-RFC-RSA, QPE-RFC-STR (RFCs that didn't have NWS_152 have QPEs here)	X		X	
NWS_180	• GRID218: Quantitative Precipitation Forecasts (QPF). See RFCqpf	X		X	
NWS_185	• GRID255: See NOHRSC-SNOW	X		X	
NWS_190	• GRID255: See AUTOSPE	X		X	
NWW_121 ("NOAA Wave Watch")	• GRID238: WNAWAVE238	X		X	
NWW_122 ("NOAA Wave Watch")	• GRID239: AKWAVE239	X		X	
NWW_124 ("NOAA Wave Watch")	• GRID253: ENPWAVE253	X		X	
OPCWave180	Significant Wave Height Forecasts for the Western Atlantic, Caribbean, and Gulf of Mexico Raw Data: MPC (GRID180)				X
OPCWave181	Significant Wave Height Forecasts for the Eastern North Pacific Raw Data: MPC (GRID181)				X
OPCWave182	Significant Wave Height Forecasts for				X

Datatype	Description	GRIB	GRIB2	Raw (/data_store)	Processed (/archive)
	the Tropical North Pacific, produced by the Tropical Analysis and Forecast Branch (TAFB) at NHC Raw Data: TPC (GRID182)				
PR-GFS	See GFS254				
PR-NAM12	See mesoEta237				
PR-NamDNG5	Downscaled North American Model (NAM) for Puerto Rico (5 km resolution) Raw Data: NMM_89 (GRID255)				X
PR-RTMA	Real-Time Mesoscale Analysis for Puerto Rico Raw Data: RTMA (GRID255)				X
PROB3HR	PROB3HR Raw Data: 3hr				X
QPE-ALR	Quantitative Precipitation Estimate (QPE) from Southeast RFC (SERFC) in Peachtree City/Atlanta (ALR). Raw Data: NWS_152				X
QPE-Auto-TUA	Automated Quantitative Precipitation Estimate (QPE) from Arkansas/Red Basin River Forecast Center (ABRFC) in Tulsa (TUA). Raw Data: NWS_159				X
QPE-FWR	Quantitative Precipitation Estimate (QPE) from West Gulf RFC (WGRFC) in Fort Worth (FWR). Raw Data: NWS_152				X
QPE-KRF	Quantitative Precipitation Estimate (QPE) from Missouri Basin RFC (MBRFC) in Pleasant Hill/Kansas City (KRF). Raw Data: NWS_152				X
QPE-MSR	Quantitative Precipitation Estimate (QPE) from North Central RFC (NCRFC) in Chanhassen/Minneapolis (MSR) Raw Data: NWS_152				X
QPE-ORN	Quantitative Precipitation Estimate (QPE) from Lower Mississippi RFC (LMRFC) in Slidell/New Orleans (ORN). Raw Data: NWS_152				X
QPE-RFC-PTR	Quantitative Precipitation Estimate (QPE) from Northwest RFC (NWRFC) in Portland (PTR) Raw Data: NWS_172				X

Datatype	Description	GRIB	GRIB2	Raw (/data_store)	Processed (/archive)
QPE-RFC-RSA	Quantitative Precipitation Estimate (QPE) from California/Nevada RFC (CNRFC) in Sacramento (RSA). Raw Data: NWS_172				X
QPE-RFC-STR	Quantitative Precipitation Estimate (QPE) from Colorado Basin RFC (CBRFC) in Salt Lake City (STR) Raw Data: NWS_172				X
QPE-RHA	Quantitative Precipitation Estimate (QPE) from Mid-Atlantic RFC (MARFC) in State College (RHA). Raw Data: NWS_152				X
QPE-STR	Quantitative Precipitation Estimate (QPE) from Colorado Basin RFC (CBRFC) in Salt Lake City (STR) Raw Data: NWS_152				X
QPE-TAR	Quantitative Precipitation Estimate (QPE) from Northeast RFC (NERFC) in Taunton/Boston (TAR) Raw Data: NWS_152				X
QPE-TIR	Quantitative Precipitation Estimate (QPE) from Ohio RFC (OHRFC) in Wilmington, OH (TIR) Raw Data: NWS_152				X
QPE-TUA	Quantitative Precipitation Estimate (QPE) from Arkansas/Red Basin RFC (ABRFC) in Tulsa (TUA) Raw Data: NWS_152				X
QPE-XNAV-ALR	XNAV version of Quantitative Precipitation Estimate (QPE) from Southeast RFC (SERFC) in Peachtree City/Atlanta (ALR) Raw Data: NWS_171				X
QPE-XNAV-FWR	XNAV version of Quantitative Precipitation Estimate (QPE) from West Gulf RFC (WGRFC) in Fort Worth (FWR) Raw Data: NWS_171				X
QPE-XNAV-KRF	XNAV version of Quantitative Precipitation Estimate (QPE) from Missouri Basin RFC (MBRFC) in Pleasant Hill/Kansas City (KRF) Raw Data: NWS_171				X
QPE-XNAV-MSR	XNAV version of Quantitative Precipitation Estimate (QPE) from North Central RFC (NCRFC) in Chanhassen/Minneapolis (MSR)				X

Datatype	Description	GRIB	GRIB2	Raw (/data_store)	Processed (/archive)
	Raw Data: NWS_171				
QPE-XNAV-ORN	XNAV version of Quantitative Precipitation Estimate (QPE) from Lower Mississippi RFC (LMRFC) in Slidell/New Orleans (ORN) Raw Data: NWS_171				X
QPE-XNAV-RHA	XNAV version of Quantitative Precipitation Estimate (QPE) from Mid-Atlantic RFC (MARFC) in State College (RHA) Raw Data: NWS_171				X
QPE-XNAV-TAR	XNAV version of Quantitative Precipitation Estimate (QPE) from Northeast RFC (NERFC) in Taunton/Boston (TAR) Raw Data: NWS_171				X
QPE-XNAV-TIR	XNAV version of Quantitative Precipitation Estimate (QPE) from Ohio RFC (OHRFC) in Wilmington, OH (TIR) Raw Data: NWS_171				X
QPE-XNAV-TUA	XNAV version of Quantitative Precipitation Estimate (QPE) from Arkansas/Red Basin RFC (ABRFC) in Tulsa (TUA) Raw Data: NWS_171				X
RAP13	See RUC130				
RAP40	See RUC236				
RCM	Radar Coded Message Mosaic Raw Data: NWS_0 (GRID255)				X
RFCqpf	RFC Quantitative Precipitation Forecast (QPF) Raw Data: NWS_180 (GRID218)				X
RTGSST	Real-Time Global Sea Surface Temperature Analysis Raw Data: SST (GRID235)				X
RTGSSTHR	Real-Time Global Sea Surface Temperature Analysis (High-Resolution) Raw Data: SST (GRID173)				X
RTMA	• GRID197: RTMA (Real Time Mesoscale Analysis) • GRID255: See HI-RTMA, AK-RTMA, PR-RTMA, Guam-RTMA, AK-RTMA3		X	X	X
RTOFS	GRID255: See RTOFS-Now-Alaska, RTOFS-Now-Arctic, RTOFS-Now-Bering, RTOFS-Now-Guam, RTOFS-		X	X	

Datatype	Description	GRIB	GRIB2	Raw (/data_store)	Processed (/archive)
	Now-GulfAlaska, RTOFS-Now-Honolulu, RTOFS-Now-HudsonBaffin, RTOFS-Now-Samoa, RTOFS-Now-TropPaciLowres, RTOFS-Now-WestAtl, RTOFS-Now-WestConus				
RTOFS-Now-*	Real-Time Ocean Forecast System Domains: Alaska, Arctic, Guam, GulfAlaska, Honolulu, HudsonBaffin, Samoa, TropPacLowres, WestAtl, WestConus				X
RUC130	Rapid Refresh Model (RAP) on Grid 130 (13 km resolution Lambert Conformal Projection). Locally subgridded. Also known as RAP13. Raw Data: RUC2 (GRID130)				X
RUC2	• GRID130: Aviation (from KKCI) and RUC130 • GRID236: See RUC236	X	X	X	
RUC236	Rapid Refresh Model (RAP) for CONUS on Grid 236 (40 km resolution Lambert Conformal projection). Also known as RAP40 Raw Data: RUC2 (GRID236)				X
SeaIce	Sea Ice Analysis Raw Data: ICE_120				X
SJU-GFS	See GFS161				
SPC	• GRID001: See SPCGuide		X	X	
SPCGuide	Guidance from the Storm Prediction Center (SPC) Raw Data: GRID001 or SPC (GRID001)				X
SPEC62MRF	• GRID038: See ENSEMBLE38 • GRID039: See ENSEMBLE39 • GRID040: See ENSEMBLE40	X		X	
SREF_113	• GRID212: See SREF212 • GRID216: See SREF216 • GRID255: See SREF243		X	X	
SREF212	Short Range Ensemble Forecast (SREF) for CONUS on Grid 212 (40 km resolution Lambert Conformal projection) Raw Data: SREF_113 (GRID212)				X
SREF216	Short Range Ensemble Forecast (SREF) for Alaska on Grid 216 (45 km resolution Polar Stereographic projection) Raw Data: SREF_113 (GRID216)				X

Datatype	Description	GRIB	GRIB2	Raw (/data_store)	Processed (/archive)
SREF243	Short Range Ensemble Forecast (SREF) for Pacific Region on Grid 243 (Lat/Lon grid) Raw Data: SREF_113 (GRID243)				X
SSIGFS (00 hr analysis)	• GRID038: See ENSEMBLE38 • GRID039: See ENSEMBLE39 • GRID040: See ENSEMBLE40 • GRID160: See GFS160 • GRID161: See GFS161 • GRID201: See GFS201 • GRID211: See AVN211 • GRID212: See GFS212 • GRID213: See GFS213 • GRID225: See AVN225 • GRID254: See GFS254	X	X	X	
SST	• GRID173: See RTGSSTHR • GRID235: See RTSSST	X	X	X	
SURGE	• GRID197: See TPCSurgeProb197		X	X	
TPC	See TPCSurgeProb • GRID182: See OPCWave182		X	X	
TPCSurgeProb	NHC/TPC Probabilistic Storm Surge Exceedance				X
TPCSurgeProb197	Extra Tropical Storm Surge				X
TPCWindProb	NHC/TPC Wind Probability Forecast Raw Data: FORECASTER				X
UKM_15 (00 hr analysis)	• GRID037: See UKMET37 • GRID038: See UKMET38 • GRID039: See UKMET39 • GRID040: See UKMET40	X		X	
UKM_45 (progs)	• GRID037: See UKMET37 • GRID038: See UKMET38 • GRID039: See UKMET39 • GRID040: See UKMET40	X		X	
UKMET-NorthernHemisphere	UKMET Model on Northern Hemispheric Grid. Comprised of UKMET37, UKMET38, UKMET39, and UKMET40.				X
UKMET37	UKMET Model for Europe on Grid 37 (30W to 60E longitude). Contributes to UKMET-NorthernHemisphere. Raw Data: UKM_15 (GRID037), Raw Data: UKM_45 (GRID037)				X
UKMET38	UKMET Model for Asia on Grid 38 (60E to 150E longitude). Contributes to UKMET-NorthernHemisphere.				X

Datatype	Description	GRIB	GRIB2	Raw (/data_store)	Processed (/archive)
	Raw Data: UKM_15 (GRID038), Raw Data: UKM_45 (GRID038)				
UKMET39	UKMET Model for Pacific Region on Grid 39 (150E to 120W longitude). Contributes to UKMET-Northern Hemisphere. Raw Data: UKM_15 (GRID039), Raw Data: UKM_45 (GRID039)				X
UKMET40	UKMET Model for North America on Grid 40 (120W to 30W longitude). Contributes to UKMET-NorthernHemisphere. Raw Data: UKM_15 (GRID040), Raw Data: UKM_45 (GRID040)				X
URMA	• GRID255: See URMA25		X	X	
URMA25	**Un**restricted **M**esoscale **A**nalysis, 2.5 km resolution				X
WCwave10	**W**est **C**oast **Wave** Model (10 arc minute resolution) Raw Data: GMGWM				X
WCwave4	**W**est **C**oast **Wave** model (4 arc minute resolution) Raw Data: GMGWM				X
WNAwave10	**W**estern **N**orth **A**tlantic **Wave** Model (10 arc minute resolution) Raw Data: GMGWM				X
WNAWAVE238	**W**estern **N**orth **A**tlantic **Wave** Model on Grid **238** (lat/lon grid for the Western North Atlantic region) Raw Data: NWW_121				X
WNAwave4	**W**estern **N**orth **A**tlantic **Wave** Model (4 arc minute resolution) Raw Data: GMGWM				X
WRF_EM	• GRID255: See HiResW-ARW-SJU, HiResW-ARW-West, HiResW-ARW-GU, HiResW-ARW-HI, HiResW-ARW-East, HiResW-ARW-AK		X	X	
WRF_NMM	• GRID255: See HiResW-NMM-SJU, HiResW-NMM-West, HiResW-NMM-GU, HiResW-NMM-HI, HiResW-NMM-East, HiResW-NMM-AK		X	X	

Note on Model Stitching. Some models have versions of processed data that are stitched together from constituent grids. For example, the HDF files for ECMF-NorthernHemsiphere contain the grids from

ECMF1, ECMF2, ECMF3, and ECMF4. Conceivably you could save space by saving either the constituent grids or the stitched versions of the processed versions.

Note on GribModels, process IDs, and center and subcenter IDs for Gridded Data. Most gridded data is transmitted using grib or grib2 format (grib means "binary grid"). Both of these formats use a series of numeric IDs to specify the model or type of data (i.e., the process ID), and where the data originates (i.e., the center and subcenter ID). The grid decoder in AWIPS-2 uses XML-formatted lookup files to translate these numeric IDs into more reasonable names. BASE versions of these XML files are located in /awips2/edex/data/utility/edex_static/base/grib/models. SITE versions exist as well. When a grib or grib2 file is decoded and the system can't find matching center, subcenter, and process IDs, then AWIPS-2 names the model according to the form of GribModel:x:y:z where x is the center, y is the subcenter, and z is the process.

The center IDs are assigned by the World Meteorological Organization (WMO). Center IDs 7, 8, and 9 are for the operational use of the NWS. Other common center IDs include 74 (UK Met Office), 98 (ECMWF), 57 (USAF), 58 (FNMOC / Navy), 59 (NOAA's Global Systems Division, formerly Forecast Systems Laboratory), 60 (NCAR), 160 (NESDIS), and 161 (NOAA OAR). Additional center IDs can be found in NCEP Office Note 388. Center 7 is used by most NCEP models. Center 8 is assigned to the NWS Telecommunications Gateway (NWSTG); the Radar Coded Message mosaic is an example of a product that uses Center ID 8. Center 9 is used for products that originate at NWS Field Offices, and is described below.

Within each center, a set of subcenter IDs provides further specification. According to NCEP Office Note 388, the Environmental Modeling Center (EMC) is subcenter 4; additional subcenter IDs are listed for individual offices (HPC/WPC=5, CPC=7, AWC=8, SPC=9, NHC=10, MDL=14, etc.). This means that a GFS model from NCEP's EMC has a center ID of 7 and subcenter ID of 4. The model itself is identified using a process ID, which happens to be 96, according to the same office note. Specific grids and model resolutions sometimes are specified using additional process IDs or through specific WMO headers. The process IDs are assigned by each individual organization.

For Center 9, subcenter IDs 150 through 162 are assigned to each River Forecast Center (150=TUA, 151=ACR [Alaska/Pacific RFC], 152=STR, 153=RSA, 154=ORN, 155=RHA, 156=KRF, 157=MSR, 158=TAR, 159=PTR, 160=TIR, 161=ALR, 162=FWR). The RFCs typically share the same process IDs; for example, flash flood guidance (FFG) is 151. In some of the raw data directories, the process ID is included in the directory name (for example, the "151" in /data_store/grib/<date>/<hour>/NWS_151 is the process ID so those directories contain FFG products from each RFC).

Part 3. "Raw" Radar Data. "Raw" radar data from an AWIPS-2 point-of-view is "Level 3" data from a WSR-88D Radar Product Generator (RPG) or from a TDWR Supplemental Product Generator (SPG). Both of these are fed by "Level 2" data that comes from the radar itself. Captured and archived prior to being processed by the RPG, Level 2 data essentially consists of one file per volume scan and contains basic data from the RDA (radar data acquisition) unit: reflectivity, velocity, and spectrum width (the dual-pol

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upgrade added differential reflectivity, differential phase and correlation coefficient).   Level 3 data is produced by the RPGs and ingested by AWIPS-2; it also is used by many partners. It consists of both "base" products and "derived" products. "Base" products differ from the Level 2 data in that they have been "quantized" (assigned particular display levels), and downsampled to particular polar-coordinate or Cartesian grids. Because AWIPS-2 does not directly ingest Level 2 data, the AWIPS-2 archiver does not handle Level 2, either. A machine with RPG software installed is required to create Level 3 products including the derived products using various algorithms from the Level 2 data.   WDTB has expertise in utilizing archived Level 2 data to re-create Level 3 products suitable for viewing in AWIPS.

Level 3 data for AWIPS arrives either from a direct communications link to the RPG or SPG or from the AWIPS Satellite Broadcast Network (SBN). Raw data are stored differently depending on the source. SBN data is stored in /data_store/radar/<date> and RPG/SPG data is stored in /data_store/radar/<site>. Regardless of the source of raw data, the processed data (HDF and corresponding database records) for radar is the same.

A subset of Level 3 data is transmitted over the AWIPS SBN, or NOAAPORT, and is delivered to many customers, partners, and universities using LDM (Local Data Manager) software. This same (or a very similar) subset of data is archived at the National Climatic Data Center (NCDC). When the data are transmitted over the AWIPS SBN, both a WMO header (e.g., SDUS54 KOUN) and an AWIPS header (N0RTLX) are prepended to the beginning of the Level 3 file. As the WSR-88D has evolved, so has its data transmission over the SBN. Originally, the SBN version of Level 3 data consisted of the lowest four tilts of base reflectivity and velocity, and one product per volume scan of composite reflectivity, precipitation accumulation, vertically integrated liquid (VIL), and echo tops, and two tilts of storm relative velocity. The SBN storm relative velocity is different from the SRM product that is displayed in AWIPS. The AWIPS version is constructed dynamically from the 8-bit or super-res base velocity by each workstation using the operator-defined storm motion by using the Radar Display Controls menu in D2D. The SBN version uses the average storm motion of all the tracked cells.

As mentioned above, the SBN data originally consisted of the low resolution versions of reflectivity and velocity for the lowest four tilts: 0.5, 1.5, 2.4, and 3.4 degrees. Subsequently, additional Volume Coverage Patterns (VCPs) were introduced that had 0.9 and 1.8 degree tilts. In addition, the original distribution of SBN products consisted of 4 bit (16-level) data. Some of the 8-bit (256 level) data were added and letters nearby to those used in the original AWIPS PIL designations were chosen to represent the 8-bit data. For example, 4-bit reflectivity for the bottom tilt was given the name "N0R" (N=NEXRAD, 0=bottom tilt, R=reflectivity). The 8 bit version is now "N0Q". The tilt numbers were specified using the middle character in this ID (1 = 1.3°/1.5°; 2=2.4°, 3=3.4°). With the advent of the 0.9 and 1.8 degree tilts, they were labeled A and B, respectively. The last character for these tilt based products represents the actual product (Q=reflectivity, U = velocity, X=differential reflectivity, C=correlation coefficient, K = specific differential phase, H=hydrometeor classification, M=melting layer). A similar system is in place to handle TDWR data that is also transmitted over the SBN and archived at NCDC. There is an additional set of TDWR and WSR-88D Level 3 products that are centrally collected, available to partners via landline or Internet connection to the NWS Telecommunications Gateway, and also archived at NCDC.

The "raw" Level 3 data that comes directly from the RPG is stored (in /data_store) similarly to how it was in AWIPS-1. These files are in a directory hierarchy that is named at the highest level according to the radar product mnemonic (e.g., Z, CZ, V, ZDR, TVS, OHP, etc.). Various subdirectories are created below those mnemonic/product directories and organize the data by combinations of elevation angle (for tilt based products), data resolution and spatial resolution.   The following table relates the SBN (and other centrally) collected radar data to the data that comes directly from RPGs and SPGs.

SBN Product Abbreviation	RPG/SPG Mnemonic	Product Number	Product Details	Corresponding subdirectory in AWIPS	Product Name
DAA	DAA	170		(no subdirectories)	Digital Accumulation Array (256 levels) (Dual-Pol)
DHR	DHR	32		layer0/res1/ level256	Digital Hybrid Reflectivity
DOD	DOD	174		layer0/res0_25/ level256	One Hour Precip Difference Accumulation (256 levels) (Dual-Pol)
DPA	DPA	81		layer0/res4/ level256	Digital Precipitation Array (legacy precip)
DPR	DPR	176		layer0/res0_25/ level65536	Instantaneous Precipitation Rate (65536 levels) (Dual-Pol)
DSD	DSD	175		layer0/res0_25/ level256	Storm Total Precip Difference Accumulation (256 levels) (Dual-Pol)
DSP	STP	138	8-bit	layer0/res2/ level256	Storm Total Precip (256 levels) (legacy precip)
DTA	STA	172	8-bit	layer0/res0_25/ level256	Digital Storm Total Accumulation (Dual-Pol)
DU3	DUA	173	3-hour	layer3/res0_25/ level256	User Selectable Accumulation (256 levels) (Dual-Pol)
DU6	DUA	173	24-hour	layer0/res0_25/ level256/ (other non-24 hour products may be in this directory)	User Selectable Accumulation (256 levels) (Dual-Pol)
DVL	DVL	134		layer0/res1/ level256	Digital VIL (256 levels)
EET	EET	135		layer0/res1/ level256	Enhanced Echo Tops (256 levels)
FTM	FTM	175		/data_store/ misc_adm_messages (NOUS WMO header) also in text database;	Free Text Message
GSM	GSM	2		(no subdirectories)	General Status Message
HHC	HHC	177		layer0/res0_25/	Hybrid Hydrometeor

				level256	Classification (256 levels)
N0C	CC	161	0.5 deg	elev0_5/res0_25/ level256	Correlation Coefficient (256 levels)
N0H	HC	165	0.5 deg	elev0_5/res0_25/ level256	Hydrometeor Classification (256 levels)
N0K	KDP	163	0.5 deg	elev0_5/res0_25/ level256	Specific Differential Phase (256 levels)
N0M	ML	166	0.5 deg	elev0_5	Melting Layer (256 levels)
N0Q	Z	94	0.5 deg	elev0_5/res1/ level256	Base Reflectivity (256 levels)
N0R	Z	19	0.5 deg	elev0_5/res1/ level16	Base Reflectivity (16 levels)
N0S	SRM	56	0.5 deg	elev0_5/res1/ level16	Storm Relative Velocity (16 levels)
N0U	V	99	0.5 deg	elev0_5/res0_25/ level256	Base Velocity (256 levels)
N0V	V	27	0.5 deg	elev0_5/res1/ level16	Base Velocity (16 levels)
N0X	ZDR	159	0.5 deg	elev0_5/res0_25/ level256	Differential Reflectivity (256 levels)
N0Z	Z	20	0.5 deg	elev0_5/res2/ level16	Base Reflectivity (16 levels) (long range)
N1C	CC	161	1.3/1.5 deg	elev1_5/res0_25/ level256	Correlation Coefficient (256 levels)
N1H	HC	165	1.3/1.5 deg	elev1_5/res0_25/ level256	Hydrometeor Classification (256 levels)
N1K	KDP	163	1.3/1.5 deg	elev1_5/res0_25/ level256	Specific Differential Phase (256 levels)
N1M	ML	166	1.3/1.5 deg	elev1_5	Melting Layer (256 levels)
N1P	OHP	78		layer0/res2/ level16	One Hour Precip (16 levels) (Legacy Precip)
N1Q	Z	94	1.3/1.5 deg	elev1_5/res1/ level256	Base Reflectivity (256 levels)
N1S	SRM	56	1.3/1.5 deg	elev1_5/res1/ level16	Storm Relative Velocity (16 levels)
N1U	V	99	1.3/1.5 deg	elev1_5/res0_25/ level256	Base Velocity (256 levels)
N1X	ZDR	159	1.3/1.5 deg	elev1_5/res0_25/ level256	Differential Reflectivity (256 levels)
N2C	CC	161	2.4 deg	elev2_4/res0_25/ level256	Correlation Coefficient (256 levels)
N2H	HC	165	2.4 deg	elev2_4/res0_25/ level256	Hydrometeor Classification (256 levels)
N2K	KDP	163	2.4 deg	elev2_4/res0_25/ level256	Specific Differential Phase (256 levels)
N2M	ML	166	2.4 deg	elev2_4	Melting Layer (256 levels)
N2Q	Z	94	2.4 deg	elev2_4/res1/	Base Reflectivity (256

				level256	levels)
N2S	SRM	56	2.4 deg	elev2_4/res1/ level16	Storm Relative Velocity (16 levels)
N2U	V	99	2.4 deg	elev2_4/res0_25/ level256	Base Velocity (256 levels)
N2X	ZDR	159	2.4 deg	elev2_4/res0_25/ level256	Differential Reflectivity (256 levels)
N3C	CC	161	3.1/3.4 deg	elev3_4/res0_25/ level256	Correlation Coefficient (256 levels)
N3H	HC	165	3.1/3.4 deg	elev3_4/res0_25/ level256	Hydrometeor Classification (256 levels)
N3K	KDP	163	3.1/3.4 deg	elev3_4/res0_25/ level256	Specific Differential Phase (256 levels)
N3M	ML	166	3.1/3.4 deg	elev3_4	Melting Layer (256 levels)
N3Q	Z	94	3.1/3.4 deg	elev3_4/res1/ level256	Base Reflectivity (256 levels)
N3S	SRM	56	3.1/3.4 deg	elev3_4/res1/ level16	Storm Relative Velocity (16 levels)
N3U	V	99	3.1/3.4 deg	elev3_4/res0_25/ level256	Base Velocity (256 levels)
N3X	ZDR	159	3.1/3.4 deg	elev3_4/res0_25/ level256	Differential Reflectivity (256 levels)
NAC	CC	161	0.9 deg	elev0_9/res0_25/ level256	Correlation Coefficient (256 levels)
NAH	HC	165	0.9 deg	elev0_9/res0_25/ level256	Hydrometeor Classification (256 levels)
NAK	KDP	163	0.9 deg	elev0_9/res0_25/ level256	Specific Differential Phase (256 levels)
NAM	ML	166	0.9 deg	elev0_9	Melting Layer (256 levels)
NAQ	Z	94	0.9 deg	elev0_9/res1/ level256	Base Reflectivity (256 levels)
NAU	V	99	0.9 deg	elev0_9/res0_25/ level256	Base Velocity (256 levels)
NAX	ZDR	159	0.9 deg	elev0_9/res0_25/ level256	Differential Reflectivity (256 levels)
NBC	CC	161	1.8 deg	elev1_8/res0_25/ level256	Correlation Coefficient (256 levels)
NBH	HC	165	1.8 deg	elev1_8/res0_25/ level256	Hydrometeor Classification (256 levels)
NBK	KDP	163	1.8 deg	elev1_8/res0_25/ level256	Specific Differential Phase (256 levels)
NBM	ML	166	1.8 deg	elev1_8	Melting Layer (256 levels)
NBQ	Z	94	1.8 deg	elev1_8/res1/ level256	Base Reflectivity (256 levels)
NBU	V	99	1.8 deg	elev1_8/res0_25/ level256	Base Velocity (256 levels)
NBX	ZDR	159	1.8 deg	elev1_8/res0_25/	Differential Reflectivity

				level256	(256 levels)
NCR	CZ	37		layer0/res1/ level16	Composite Reflectivity (16 levels)
NET	ET	41		layer0/res4/ level16	Echo Tops (16 levels)
NMD	MD	141		(no subdirectories)	Mesocyclone Detection Algorithm
NST	STI	58		(no subdirectories)	Storm Track Information
NTP	STP	80		layer0/res2/ level16	Storm Total Precipitation (16 levels) (Legacy Precip)
NVL	VIL	57		layer0/res4/ level16	Vertically Integrated Liquid (16 levels)
NVW	VWP	48		(no subdirectories)	VAD Wind Profile
OHA	OHA	169		layer0/res2/ level16	One Hour Accumulation (16 levels) (Dual-Pol)
PTA	STA	171		layer0/res2/ level16	Storm Total Accumulation (16 levels) (Dual-Pol)
Terminal Doppler Weather Radar (TDWR) only					
TR0	Z	181	0.5 deg*	elev0_5/res0_15/ level16*	Base Reflectivity
TR1	Z	181	1.0 deg*	elev0_9/res0_15/ level16*	Base Reflectivity
TR2	Z	181	2.5 deg*	elev2_4/res0_15/ level16*	Base Reflectivity
TV0	V	182	0.5 deg*	elev0_5/res0_15/ level256*	Base Velocity
TV1	V	182	1.0 deg*	elev0_9/res0_15/ level256*	Base Velocity
TV2	V	182	2.5 deg*	elev2_4/res0_15/ level256*	Base Velocity
TZL	Z	186	0.5 deg*	elev0_5/res_030/ level256*	Base Reflectivity (long range)
*Note: For TDWR radars, the actual available elevation angles vary from site to site.					
Additional Radar Products Archived at National Climate Data Center					
NCDC Product Abbreviation	**RPG/SPG Mnemonic**	**Product Number**	**Product Details**	**Corresponding RPG/SPG Directory**	**Product Name**
N3P	THP	79		layer0/res2/level16	Three Hour Precipitation
NC1	CFC	34	Segment 1	layer1	Clutter Filter Control (8 levels)
NC2	CFC	34	Segment 2	layer2	Clutter Filter Control (8 levels)
NC3	CFC	34	Segment 3	layer3	Clutter Filter Control (8 levels)

NC4	CFC	34	Segment 4	layer4	Clutter Filter Control (8 levels)
NC5	CFC	34	Segment 5	layer5	Clutter Filter Control (8 levels)
NCO	CZ	36		layer0/res4/ level8	Composite Reflectivity (8 levels)
NCZ	CZ	38		layer0/res4/ level16	Composite Reflectivity (16 levels)
NHI	HI	59		(no subdirectories)	Hail Index
NHL	LRM	90	High Layer	layer0/res4/level8	Layer Composite Reflectivity
NLA	LRM	67		layer1/res4/level8	Layer Composite Reflectivity (AP Removed)
NLL	LRM	65	Low Layer	layer1/res4/level8	Layer Composite Reflectivity
NML	LRM	66	Mid Layer	layer2/res4/level8	Layer Composite Reflectivity
NSP	SW	28	0.5 deg	elev0_5/res0_25/ level8	Spectrum Width
NSS	SS	62		(no subdirectories)	Storm Structure
NSW	SW	30	0.5 deg	elev0_5/res1/ level8	Spectrum Width
NTV	TVS	61		(no subdirectories)	Tornado Vortex Signature
RSL	ASP	152		(not on AWIPS)	Archive 3 Status Product
SPD	SPD	82		layer0/res40/ level8	Supplemental Precipitation Data

Note about FSI. AWIPS-2 uses processed versions of radar data (that is, AWIPS-2 radar displays utilize the HDF respository), except for the Four-Dimensional Stormcell Investigator (FSI) application. FSI was re-hosted from AWIPS-1 and it still accesses the Level 3 products directly. Therefore data cases must include both raw and processed radar data for FSI to work correctly. In addition, to display TDWR, FSI uses netcdf versions of TDWR's reflectivity and velocity products. They are located in the following directories:

/data_store/radar/<TDWR site>/Z/<elevation angle>/res0_15/level256/netcdf/Reflectivity
/data_store/radar/<TDWR site>/V/<elevation angle>/res0_15/level256/netcdf/Velocity

Part 4. Satellite data. Raw satellite files in AWIPS-2 are processed by three separate plugins: a baseline satellite plugin (for standard GINI files), a regionalsat plugin, and a McIDAS plugin. Many sites receive their regionalsat and McIDAS files via LDAD. All three plugins store their processed data in /awips2/edex/data/hdf5/satellite and all three use the same satellite database table. Thus, they are archived together inside /archive/satellite.

Here's a sample listing of data from /awips2/edex/data/hdf5/satellite from one WFO, annotated with which plugin processed it.

Alaska National	AREA2208	MODIS Land Sfc Temperature Sum 1km (F)
Alaska Regional	AREA2221	MODIS Lifted Index 4km (C)
AREA0130	AREA2222	MODIS NDVI PRODUCT
AREA0132	AREA2402	MODIS Sea Sfc Temperature Sum 1km (F)
AREA0133	AREA4200	MODIS Total Totals 4km (C)
AREA0988	conusOne	NH Composite - Meteosat-GOES E-GOES W-GMS
AREA0998	eastConus	Northern Hemisphere Composite
AREA1200	East CONUS	Puerto Rico National
AREA1881	Hawaii National	Puerto Rico Regional
AREA1891	Hawaii Regional	Supernational
AREA2201	MODIS 11um - 3.7um Product 1km (C)	westConus
AREA2202	MODIS K Index 4km (C)	West CONUS
AREA2207	MODIS Land Sfc Temperature 1km (F)	

The AREA* directories are produced by the McIDAS plugin. The conusOne, eastConus, MODIS*, and westConus directories were processed by regionalsat.

References.

Interface Control Document for RPG to Class 1 User, available from
http://www.roc.noaa.gov/wsr88d/PublicDocs/ICDS/2620001U.pdf

NCEP Office Note 388, available from http://www.nco.ncep.noaa.gov/pmb/docs/on388

NOAA Wave Watch III website, http://polar.ncep.noaa.gov/waves/index2.shtml

Products on the NOAA Servers (NCEP web page), available from
http://www.nco.ncep.noaa.gov/pmb/products/

Radar Products available from NOAAPORT, available from
http://www.nws.noaa.gov/tg/pdf/noaaport_radar_products.pdf

Radar Products available from RPCCDS, available from
http://www.nws.noaa.gov/tg/pdf/rpccds_radar_products.pdf

Technical Implementation Notice 08-23, available from
http://www.nws.noaa.gov/os/notification/tin08-23nww3.txt

Technical Implementation Notice 08-85, available from
http://www.nws.noaa.gov/os/notification/tin08-85_tdwr_spg.txt

Technical Implementation Notice 09-41, available from
http://www.nws.noaa.gov/os/notification/tin09-41_88d.txt

Technical Implementation Notice 10-23, available from
http://www.nws.noaa.gov/os/notification/tin10-23dual_pol88d.txt

Technical Implementation Notice 11-18 AAB, available from
http://www.nws.noaa.gov/os/notification/tin11-18gridded_lamp-aab.txt

Technical Implementation Notice 13-39 Amended, available from
http://www.nws.noaa.gov/os/notification/tin13-39rtma_q4aaa.htm

Technical Implementation Notice 14-03, available from http://www.nws.noaa.gov/os/notification/tin14-03nucaps.txt

WMO Headers for GFS-LAMP products, available from
http://www.nws.noaa.gov/mdl/gfslamp/docs/lampheaders_201403.pdf

WMO Headings for 2.5 CONUS Gridded MOS Products, available from
http://www.nws.noaa.gov/mdl/synop/gmos/gmos2p5headers.pdf

WMO Headings for Gridded LAMP (GLMP) Products, available from
http://www.nws.noaa.gov/mdl/gfslamp/docs/glmpheaders.pdf