NATIONAL WEATHER SERVICE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Central Weather Surveillance Radar Server - WSR-88D Product Files

Telecommunication Operations Center
National Program

Central Services
Operational Information
Broadcast Services
Component Descriptions
Online Software

Radar Product Files

The U.S. National Weather Service provides anonymous FTP access to files containing collectives of code generated and binary radar imagery products from NWS, FAA, and DOD radar sites located in the United States and Puerto Rico. The collectives are in the same format as received from the WSR-88D Radar Product Generator (RPG) and the TDWR Supplemental Product Generator (SPG). The server internal structure for sub-directory names and file names can be found with descriptions in the document TOC File Name Standards. The naming conventions for the sub-directories and files are described in the document titled: File and Directory Name Standards. The data is available at the NWS Telecommunication Gateway on the server ftp://tgftp.nws.noaa.gov/ via anonymous FTP.

Availability
The data can be obtained either through a direct LDM data feed from the NWS or by standard ftp. Either process follows the directory path established below.

The *Implementation Guide* for a **LDM** connection is available.

Directory and File Descriptions

See "Directory and File Naming Standards" for information about directory and file name formats and structure.

TO BE USED FOR FTP ACCESS

DIRECTORY NAME	CONTENTS
SL.us008001/	Data root - for NWS Telecommunication Gateway Server (top directory)
DF.of/	Data in NWS coded form either ASCII or Binary depending on product
DC.radar/	Data category: Above Surface - land (see radar site ID list below)
DS.p2gsm/	Data Subcategory: general status of the the radar message
DS.p19r0/	Data Subcategory: Base reflectivity - 124 nmi Range (angle = 0.5°)
DS.p20-r/	Data Subcategory: Base reflectivity - 248 nmi Range (angle = 0.5°)
DS.p27v0/	Data Subcategory: Base Radial Velocity - 124 nmi Range (angle = 0.5°)
DS.p30sw/	Data Subcategory: Base Spectrum Width - 124 nmi Range (angle = 0.5°)
DS.32dhr/	Data Subcategory: Digital Hybrid Scan Reflectivity
DS.34cf1/	Data Subcategory: Clutter Filter Control (Segment 1)
DS.34cf2/	Data Subcategory: Clutter Filter Control (Segment 2)
DS.34cf3/	Data Subcategory: Clutter Filter Control (Segment 3)
DS.34cf4/	Data Subcategory: Clutter Filter Control (Segment 4)
DS.34cf5/	Data Subcategory: Clutter Filter Control (Segment 5)
DS.p37cr/	Data Subcategory: Composite Reflectivity - 16 levels, 124 nmi range
DS.p38cr/	Data Subcategory: Composite Reflectivity - 16 levels, 248 nmi range
DS.p41et/	Data Subcategory: Echo Tops
DS.48vwp/	Data Subcategory: Velocity Azimuth Dispaly (VAD) Wind Profile
DS.56rm0/	Data Subcategory: Storm Relative Mean radial velocity map (angle = 0.5°)
DS.56rm1/	Data Subcategory: Storm Relative Mean radial velocity map (angle = 1.3°/1.5°)
DS.56rm2/	Data Subcategory: Storm Relative Mean radial velocity map (angle = 2.4°/2.5°)
DS.56rm3/	Data Subcategory: Storm Relative Mean radial velocity map (angle = 3.1°/3.4°/3.5°)
DS.57vil/	Data Subcategory: Vertical Integrated Liquid
DS.58sti/	Data Subcategory: Storm Tracking Information
DS.p59hi/	Data Subcategory: Hail Index
DS.61tvs/	Data Subcategory: Tornadic Vortex Signature
DS.p62ss/	Data Subcategory: Storm Structure
DS.66lrm/	Data Subcategory: Layer Composite Reflectivity Maximum (middle level)
DS.67apr/	Data Subcategory: Layer Composite Reflectivity with AP removed
DS.74rcm/	Data Subcategory: Radar Coded message
DS.75ftm/	Data Subcategory: Free Text message
DS.78ohp/	Data Subcategory: Surface rainfall accums - one hr Total
DS.79thp/	Data Subcategory: Surface rainfall accums - three hr Total
DS.80stp/	Data Subcategory: Surface rainfall accums - storm total
DS.81dpr/	Data Subcategory: Hourly digital precip array
DS.82spd/	Data Subcategory: Supplemental precip data
DS.90lrm/	Data Subcategory: Layer composite reflectivity max - high level
DS.p94r0/	Data Subcategory: Base reflectivity - 248 nmi Range (angle = 0.5°)
DS.p94ra/	Data Subcategory: Base reflectivity - 248 nmi Range (angle = 0.9°)

DS.p94r1/	Data Subcategory: Base reflectivity - 248 nmi Range (angle = 1.3°/1.5°)
DS.p94rb/	Data Subcategory: Base reflectivity - 248 nmi Range (angle = 1.8°)
DS.p94r2/	Data Subcategory: Base reflectivity - 248 nmi Range (angle = 2.4°/2.5°)
DS.p94r3/	Data Subcategory: Base reflectivity - 248 nmi Range (angle = 3.1°/3.4°/3.5°)
DS.p99v0/	Data Subcategory: Base Radial Velocity - 162 nmi Range (angle = 0.5°)
DS.p99va/	Data Subcategory: Base Radial Velocity - 162 nmi Range (angle = 0.9°)
DS.p99v1/	Data Subcategory: Base Radial Velocity - 162 nmi Range (angle = 1.3°/1.5°)
DS.p99vb/	Data Subcategory: Base Radial Velocity - 162 nmi Range (angle = 1.8°)
DS.p99v2/	Data Subcategory: Base Radial Velocity - 162 nmi Range (angle = 2.4°/2.5°)
DS.p99v3/	Data Subcategory: Base Radial Velocity - 162 nmi Range (angle = 3.1°/3.4°/3.5°)
DS.134il/	Data Subcategory: Digital Vertical Integrated Liquid
DS.135et/	Data Subcategory: Enhanced Echo Tops
DS.138dp/	Data Subcategory: Digital Storm Total Precipitation
DS.141md/	Data Subcategory: Mesocyclone
DS.152rs/	Data Subcategory: Archive III Status Product
DS.159x0/	Data Subcategory: Digital Differential Reflectivity (angle = 0.5°)
DS.159xa/	Data Subcategory: Digital Differential Reflectivity (angle = 0.9°)
DS.159x1/	Data Subcategory: Digital Differential Reflectivity (angle = 1.3°/1.5°)
DS.159xb/	Data Subcategory: Digital Differential Reflectivity (angle = 1.8°)
DS.159x2/	Data Subcategory: Digital Differential Reflectivity (angle = 2.4°/2.5°)
DS.159x3/	Data Subcategory: Digital Differential Reflectivity (angle = 3.1°/3.4°/3.5°)
DS.161c0/	Data Subcategory: Digital Correlation Coefficient (angle = 0.5°)
DS.161ca/	Data Subcategory: Digital Correlation Coefficient (angle = 0.9°)
DS.161c1/	Data Subcategory: Digital Correlation Coefficient (angle = 1.3°/1.5°)
DS.161cb/	Data Subcategory: Digital Correlation Coefficient (angle = 1.8°)
DS.161c2/	Data Subcategory: Digital Correlation Coefficient (angle = 2.4°/2.5°)
DS.161c3/	Data Subcategory: Digital Correlation Coefficient (angle = 3.1°/3.4°/3.5°)
DS.163k0/	Data Subcategory: Digital Specific Differential Phase (angle = 0.5°)
DS.163ka/	Data Subcategory: Digital Specific Differential Phase (angle = 0.9°)
DS.163k1/	Data Subcategory: Digital Specific Differential Phase (angle = 1.3°/1.5°)
DS.163kb/	Data Subcategory: Digital Specific Differential Phase (angle = 1.8°)
DS.163k2/	Data Subcategory: Digital Specific Differential Phase (angle = 2.4°/2.5°)
DS.163k3/	Data Subcategory: Digital Specific Differential Phase (angle = 3.1°/3.4°/3.5°)
DS.165h0/	Data Subcategory: Digital Hydrometeor Classification (angle = 0.5°)
DS.165ha/	Data Subcategory: Digital Hydrometeor Classification (angle = 0.9°)
DS.165h1/	Data Subcategory: Digital Hydrometeor Classification (angle = 1.3°/1.5°)
DS.165hb/	Data Subcategory: Digital Hydrometeor Classification (angle = 1.8°)
DS.165h2/	Data Subcategory: Digital Hydrometeor Classification (angle = 2.4°/2.5°)
DS.165h3/	Data Subcategory: Digital Hydrometeor Classification (angle = 3.1°/3.4°/3.5°)
DS.166m0/	Data Subcategory: Melting Layer (angle = 0.5°)
DS.166ma/	Data Subcategory: Melting Layer (angle = 0.9°)
DS.166m1/	Data Subcategory: Melting Layer (angle = 1.3°/1.5°)
DS.166mb/	Data Subcategory: Melting Layer (angle = 1.8°)
DS.166m2/	Data Subcategory: Melting Layer (angle = 2.4°/2.5°)
DS.166m3/	Data Subcategory: Melting Layer (angle = 3.1°/3.4°/3.5°)
DS.169oh/	Data Subcategory: One Hour Accum
DS.170aa/	Data Subcategory: Dig. Accum Array (unbiased)
DS.171st/	Data Subcategory: Storm Total Accum
DS.172dt/	Data Subcategory: Dig. Storm Total Accum
DS.173u1/	Data Subcategory: Dig. User-Selectable Accum: 3hr/hrly
DS.173u3/	Data Subcategory: Dig. User-Selectable Accum: 24hr/12Z
DS.174od/	Data Subcategory: Dig. One Hour Difference Accum
DS.175sd/	Data Subcategory: Dig. Storm Total Difference Accum
DS.176pr/	Data Subcategory: Digital Inst. Precip. Rate (in/hr)
DS.177hh/	Data Subcategory: Hybrid Scan Hydrometeor Classification
DS.181r0/	Data Subcategory: Base reflectivity - 48 nmi Range (angle = 0.1°-0.8°)
DS.181r1/	Data Subcategory: Base reflectivity - 48 nmi Range (angle = 1.0°)
DS.181r2/	Data Subcategory: Base reflectivity - 48 nmi Range (angle = 1.6°-3.7°)
DS.182v0/	Data Subcategory: Base Radial Velocity - 48 nmi Range (angle = 0.1°-0.8°)
DS.182v1/	Data Subcategory: Base Radial Velocity - 48 nmi Range (angle = 1.0°)
DS.182v2/	Data Subcategory: Base Radial Velocity - 48 nmi Range (angle = 1.6°-3.7°)
DS.186zl/	Data Subcategory: Long Range reflectivity - 225 nmi Range (angle = 0.6°)
Sl.ktlx/	Data site: Oklahoma City, OK/Norman
Sl.tden	Data site: Denver, CO
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Sl.cccc/	Data site: A radar site for each data subcategory for all 200 sites

Delivery Details

Data files are updated on the FTP server every five minutes or sooner with data from the RPG or SPG. **File names** within each radar site directory have the format **sn.*nnnn*** where *nnnn* is a four-digit number ranging from 0000 to 0250. Files are written in sequence with the file sn.0000 following sn.0250. This scheme provides unique file names for at least the previous 48 hours of data received, as older files are over-written.

A sample of the most recently written radar file (base reflectivity - 54 nmi range, elevation of 1.5°) for Dallas/Fort

Worth, TX is:

SL.us008001/DF.of/DC.radar/DS.p19r1/SI.kfws/sn.0114

Data files are written only when data of that subcategory type is available.

Further questions or comments concerning data in SL.us008001 path may be directed to nws.isg@noaa.gov .

Radar Site Identification List

WSR-88D radar list (155 sites)

TDWR radar list (45 sites)