

Telecommunications Gateway File Server Structure for Gridded MOS Products

These products will have headers on them when they are sent out to the NOAA Port Satellite Broadcast Network (SBN) through the Telecommunications Gateway, but there are no WMO headers in the files on the tgftp server. All products are in grib2 format and cover either the CONUS 5km NDFD grid or a 3km Alaska grid covering the same extent as the Alaska NDFD grid..

This guidance is based on GFS model output, and is broken up into two directory structures for short-range guidance (day 1 through day 3), and for extended-range guidance (day 4 through day 7). It is running in production on NOAA's Central Computing System every day, twice a day from 0000 and 1200 UTC GFS model runs.

Guidance products are aggregated for the same weather element and geographical area. Thus, products for the CONUS are in one file system, while products for Alaska are in another file system; when gridded MOS products for the rest of the OCONUS become available, they will be in yet another file system. The aggregation is stored in individual files on the ftp server where a single file contains individual products for groupings of forecast periods. Groupings of forecast periods are designated as days 1 – 3 and days 4 – 7. For user convenience and for consistency with NDFD, the products for Day 4, hour 00, are included in the days 1 – 3 file. The remainder of the MOS guidance beyond Day 4, hour 00 is included in the days 4 – 7 file.

NDGD tgftp file structure

<ftp://tgftp.nws.noaa.gov/SL.us008001/ST.opnl/DF.gr2/DC.ndgd/GT.mosgfs/AR.conus>

<ftp://tgftp.nws.noaa.gov/SL.us008001/ST.expr/DF.gr2/DC.ndgd/GT.mosgfs/AR.alaska>

Description of directory structure:

status of data (experimental):	ST.expr/ - Alaska products (as of May 2008)
status of data (operational):	ST.opnl/ - CONUS products
data format (grib2):	DF.gr2/
data category (ndgd):	DC.ndgd/
guidance type (gfs-based MOS):	GT.mosgfs/
area of data (CONUS):	AR.conus/
area of data (Alaska):	AR.alaska/
valid period	VP.001-003/ – for days 1 to 3 VP.004-007/ – for days 4 to 7

ds.sssss (file name or data subcategory):	ds.maxt.bin – max temperature
	ds.mint.bin – min temperature
	ds.temp.bin – 2-m temperature
	ds.td.bin – 2-m dewpoint
	ds.rhm.bin – 2-m relative humidity
	ds.sky.bin – sky cover
	ds.wdir.bin – wind direction
	ds.wspd.bin – wind speed
	ds.wgust.bin – wind gusts

ds.pop12.bin – 12h PoPs
 ds.pop06.bin – 6h PoPs
 ds.pts03.bin – 3h thunderstorm probabilities
 ds.pts06.bin – 6h thunderstorm probabilities
 ds.pts12.bin – 12h thunderstorm probabilities
 ds.qpf06.bin – 6h precipitation amount
 ds.qpf12.bin – 12h precipitation amount
 ds.snw24.bin – 24h snowfall amount
 ds.ptype.bin – precipitation type*

Thus, as an example, the complete file name (minus, the ftp server name) containing the gridded MOS max temperatures for days 4 through 7 looks like:

SL.us008001/ST.opnl/DF.gr2/DC.ndgd/GT.mosgfs/AR.conus/VP.004-007/ds.maxt.bin

Table C.1. Groupings for gridded MOS products.

Gridded MOS Element	Valid Period (VP)	No. of grids per file(00/12Z)	Time increment/final projection	Size per grid (CONUS/AK)
Temperature	001-003 004-007	23 – 27 36 – 40	3/72 (00Z); 3/84 (12Z) 3/192	250K/180K
Dew Point	001-003 004-007	23 – 27 36 – 40	3/72 (00Z); 3/84 (12Z) 3/192	250K/180K
Relative Humidity	001-003 004-007	23 - 27 36 - 40	3/72 (00Z); 3/84(12Z) 3/192	250K/250K
Daytime Max	001-003 004-007	3 4 - 5	24/72 (00Z); 24/84 (12Z) 24/192	250K/180K
Nighttime Min	001-003 004-007	3 4 - 5	24/72 (00Z); 24/84 (12Z) 24/192	250K/180K
6h PoP	001-003 004-007	11 - 13 18 – 20	6/72 (00Z); 6/84 (12Z) 6/192	100K/250K
12h PoP	001-003 004-007	11 – 13 18 – 20	6/72 (00Z); 6/84 (12Z) 6/192	100K/250K
Wind Direction	001-003 004-007	23 - 27 36 – 40	3/72 (00Z); 3/84 (12Z) 3/192	250K/180K
Wind Speed	001-003 004-007	23 - 27 36 – 40	3/72 (00Z); 3/84 (12Z) 3/192	250K/180K
Wind Gusts	001-003 004-007	23 - 27 36 – 40	3/72 (00Z); 3/84 (12Z) 3/192	250K/180K
Sky Cover	001-003 004-007	23 - 27 36 – 40	3/72 (00Z); 3/84 (12Z) 3/192	100K
Precipitation Type	001-003 004-007	23 - 27 36 – 40	3/72 (00Z); 3/84 (12Z) 3/192	50K
3h prob. of thunderstorms	001-003	22 - 26	3/72 (00Z); 3/84 (12Z)	100K/250K
6h prob. of thunderstorms	001-003 004-007	11 – 13 18 - 20	6/72 (00Z); 6/84 (12Z) 6/192	100K/250K
12h prob. of thunderstorms	001-003 004-007	11 – 13 18 - 20	6/72 (00Z); 6/84 (12Z) 6/192	100K/250K

6h qpf	001-003 004-007	11 - 13 12 - 14	6/72 (00Z); 6/84 (12Z) 6/156	100K
12h qpf	001-003 004-007	11 - 13 12 - 14	6/72 (00Z); 6/84 (12Z) 6/156	100K
24h snowfall	001-003 004-007	5 - 6 4 - 5	12/72 (00Z); 12/84 (12Z) 12/132 (00Z); (12Z to be added)	100K