

Telecommunications Gateway File Server Structure for Gridded MOS Products

All gridded MOS products are in GRIB2 format. These products contain WMO headers when they are sent out to the NOAAPort Satellite Broadcast Network (SBN) through the Telecommunications Gateway, but there are no WMO headers in the Alaska or 5 km CONUS gridded files hosted on the tgftp server. Beginning with the addition of gridded guidance over Hawaii in November 2010 and the most recent update to the 2.5 km CONUS gridded guidance scheduled for December 2012, the gridded MOS files on the tgftp server do include headers in the files.

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 the 0000 and 1200 UTC GFS model runs.

Guidance products are aggregated for the same weather element, resolution, and geographical area. Thus, products for the 2.5 km CONUS are in one file system, while products for Alaska and Hawaii are in additional separate file systems. 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 MOS guidance beyond Day 4, hour 00 is included in the days 4 – 7 file.

NDGD tgftp file structure

5 km CONUS (no headers in the tgftp files)

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

2.5 km CONUS (headers are included in the tgftp files)

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

2.5 km Hawaii (headers are included in the tgftp files)

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

3 km Alaska (no headers in the tgftp files)

<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, 2.5 km CONUS, Hawaii products
status of data (operational):	ST.opnl/ - 5 km 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/
area of data (Hawaii):	AR.hawaii/

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 – daytime max temperature
- ds.mint.bin – nighttime 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 – 10-m wind direction
- ds.wspd.bin – 10-m wind speed
- ds.wgust.bin – 10-m wind gusts
- ds.pop06.bin – 6h PoPs
- ds.pop12.bin – 12h 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, coming soon*

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	23 - 27	3/72 (00Z); 3/84 (12Z)	250K/180K

	004-007	36 – 40	3/192	
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