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Public Information Statement, Comment Request
National Weather Service Headquarters Washington DC
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From: John Derber, Acting Chief
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           NCEP/Environmental Modeling Center

Subject: Soliciting Public Comments through November 2, 2012 on the
Removal of NCEP's Legacy Global Data Assimilation System

The National Centers for Environmental Prediction (NCEP) is proposing to
stop producing the legacy Global Data Assimilation System (GDAS2) and
discontinue all associated output products. This proposal does not affect
any output from the current Global Data Assimilation System (GDAS1). The
NWS is seeking comments on this proposed change through November 2, 2012.

The GDAS2 are legacy products with a horizontal resolution of triangular
truncation T62 (about 208 km on 28 sigma layers). The current operational
Global Forecast System (GFS) runs at a much higher horizontal and vertical
resolution (T574, about 23 km on 64 hybrid sigma-pressure layers). GDAS2
files were originally created for downstream applications and customers
unable to handle GFS resolutions greater than 208 km x 28 vertical levels.
The GFS moved beyond T62 in August 1987 when GFS horizontal resolution
went from R40 to T80. Horizontal resolution increased to T126 four years
later (March 1991). Vertical resolution increased from 18 layers to 28
layers 2 years after this (August 1993). Since then, there has been a
steady increase in GFS horizontal and vertical resolution. The
operational GFS resolution of T574L64 has been in place since July 2010.
The Environmental Modeling Center (EMC) is currently working on a GFS
resolution increase package for a future implementation.

The near order magnitude reduction in horizontal resolution of GDAS2 files
represents a significant loss of information in the analysis and forecast
fields with respect to GDAS1 files. Not only do GDAS2 files have less
vertical resolution (28 layers), the vertical coordinate used in GDAS2
files (pure sigma = terrain following) differs from that used in current
operations (hybrid sigma-pressure = terrain following near surface
transitioning to isobaric surfaces in the upper atmosphere). Higher
resolution GDAS1 products are available for all GDAS2 products and should
be used by downstream applications and customers in lieu of obsolete GDAS2
files.

The obsolete GDAS2 products and the current GDAS1 operational products are both available at:

http://www.ftp.ncep.noaa.gov/data/nccf/com/gfs/prod/gdas.YYYYMMDD and
ftp://ftp.ncep.noaa.gov/pub/data/nccf/com/gfs/prod/gdas.YYYYMMDD

where YYYYMMDD is the 4-digit year, 2-digit month and 2-digit day.

The following files will be removed if the GDAS2 is discontinued. The replacement GDAS1 files have the same filename, but with gdas1 as the prefix in place of gdas2. All of these corresponding GDAS1 files are currently available at the links listed above.

gdas2.txxz.abias
gdas2.txxz.bfyy where yy = 00, 03, 06, 09
gdas2.txxz.pgrbanl.grib2 and gdas2.txxz.pgrbanl.grib2.idx
gdas2.txxz.pgrbfyy.grib2 where yy = 00, 03, 06, 09
gdas2.txxz.pgrbfyy.grib2.idx where yy = 00, 03, 06, 09
gdas2.txxz.sfanl
gdas2.txxz.sfyy where yy = 00, 03, 06, 09
gdas2.txxz.sfluxgrbfyy.grib2 where yy = 00, 03, 06, 09
gdas2.txxz.sfluxgrbfyy.grib2.idx where yy = 00, 03, 06, 09

In the filenames above, xx equals 00, 06, 12 or 18 depending on the model cycle.

NWS will evaluate all comments to determine whether to proceed with this change. If approved, a Technical Implementation Notice (TIN) will be issued giving 30 days' notice of the implementation date.

Send comments on this proposal to:

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National Public Information Statements are online at:

https://www.weather.gov/notification/archive

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