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From: Timothy McClung
Chief, Science Plans Branch
Office of Science and Technology

Subject: Addition of GFS-Based DNG and RTMA Products for Guam:
Effective November 16, 2010

On Tuesday, November 16, 2010 at 1200 Coordinated Universal Time
(UTC), the National Centers for Environmental Prediction (NCEP) will
add Global Forecast System (GFS)-based Downscaled Numerical
Weather Prediction Grids (DNG) and the Real Time Mesoscale
Analysis (RTMA) products for Guam to NOAAPort and the National
Digital Guidance Database (NDGD). The gridded products will be
available in GRIB2 format on the same 2.5 km Mercator grid used
in the National Digital Forecast Database (NDFD) grids for Guam.

The GFS-based DNG products will be produced for the 0000, 0600,
1200 and 1800 UTC model cycles with output every three hours
from 0 to 192 hours after model run time. The Guam DNG products
are horizontally interpolated from the 27 km GFS native grid to
the 2.5 km NDFD grid. Vertical interpolation to the high-
resolution terrain is performed using Smartinit. The Guam DNG
products will be available only on NOAAPort and not in the NDGD.
The following elements will be produced:

- Temperature at surface level
- Dew point at surface level
- Specific humidity at surface level
- u - wind at surface level
- v - wind at surface level
- Wind gust at surface level
- Pressure at surface level
- Height at surface level
- Land mask at surface level
- Total cloud cover at surface level
- Height at lowest level wet bulb
- Visibility at surface level
- Wind direction at planetary boundary
- Wind speed at planetary boundary
- Relative humidity at planetary boundary
- Geopotential height at planetary boundary
- Best (4 layer) lifted index at surface level
- Total precipitation at surface level
- Categorical rain at surface level
- Maximum temperature at surface level
- Minimum temperature at surface level
- Maximum relative humidity at surface level
- Maximum relative humidity at surface level

The products will be available with World Meteorological Organization (WMO) headers L***** KWBT or M***** KWBT. More details of the WMO headers for the Guam GFS DNG can be found at:

http://www.nco.ncep.noaa.gov/pmb/changes/gfs_dng_guam.shtml

The RTMA for Guam is a set of gridded surface analyses and surface analysis uncertainty fields made available every three hours, starting at 0000 UTC. The RTMA products will be available on NOAAPort and on NDGD.

The following is a list of Guam RTMA products and their associated WMO headers:

<table>
<thead>
<tr>
<th>WMO Header</th>
<th>RTMA Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTGA98 KWBR</td>
<td>temperature</td>
</tr>
<tr>
<td>LTGA98 KWBR</td>
<td>temperature analysis uncertainty</td>
</tr>
<tr>
<td>LRGA98 KWBR</td>
<td>dewpoint temperature</td>
</tr>
<tr>
<td>LRGA98 KWBR</td>
<td>dewpoint temperature analysis uncertainty</td>
</tr>
<tr>
<td>LNGA98 KWBR</td>
<td>wind speed</td>
</tr>
<tr>
<td>LNGA98 KWBR</td>
<td>wind speed analysis uncertainty</td>
</tr>
<tr>
<td>LNGA98 KWBR</td>
<td>wind direction</td>
</tr>
<tr>
<td>LNGA98 KWBR</td>
<td>wind direction analysis uncertainty</td>
</tr>
<tr>
<td>LUGA98 KWBR</td>
<td>u-wind analysis (not sent to NDGD)</td>
</tr>
<tr>
<td>LVGA98 KWBR</td>
<td>v-wind analysis (not sent to NDGD)</td>
</tr>
<tr>
<td>LPGA98 KWBR</td>
<td>surface pressure analysis</td>
</tr>
<tr>
<td>LPGA98 KWBR</td>
<td>surface pressure analysis uncertainty</td>
</tr>
<tr>
<td>LHGA98 KWBR</td>
<td>model terrain height</td>
</tr>
</tbody>
</table>
The RTMA data for Guam will be available from NDGD at:

ftp://tgftp.nws.noaa.gov/SL.us008001/ST.expr/DF.gr2/DC.ndgd/GT.r
tma/AR.guam

DNG and RTMA data for Guam is being run in parallel at NCEP and
the data are available on the NCEP server via http and ftp at:

http://www.ftp.ncep.noaa.gov/data/nccf/com/gfs/para (Guam DNG)
http://www.ftp.ncep.noaa.gov/data/nccf/com/gurtma/para (Guam
RTMA)

or:

ftp://ftp.ncep.noaa.gov/pub/data/nccf/com/gfs/para (Guam DNG)
ftp://ftp.ncep.noaa.gov/pub/data/nccf/com/gurtma/para (Guam
RTMA)

There are two files for each hour located on this server. Files
with names such as gurtma.t00z.2dvaranl_ndfd.grb2 contain all of
the RTMA analysis fields and the associated errors. Files with
names such as gurtma.t00z.2dvarges_ndfd.grb2 contain the first
guess fields used by the RTMA.

NCEP will continue to refine the RTMA. Users may provide
feedback on the experimental RTMA products at:


For questions regarding the GFS-based DNG, please contact:

John Ward
NCEP/Environmental Modeling Center
Camp Springs, MD
Phone: 301-763-8000, x7185
Email: john.ward@noaa.gov

For questions regarding the RTMA, please contact:

Geoff DiMego
NCEP/Environmental Modeling Center
Camp Springs, MD
301-763-8000, x7221
Email: geoff.dimego@noaa.gov
National Technical Implementation Notices are online at:

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

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