

NOUS41 KWBC 191140 AAA
PNSWSH

Technical Implementation Notice 15-41 Amended
National Weather Service Headquarters Washington DC
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From: Tim McClung
Chief Operating Officer
Office of Science and Technology Integration

Subject: Amended: Changes to Gridded Localized Aviation Model
Output Statistics Program (LAMP) Effective Monday,
October 19, 2015

Amended to change the implementation date from Thursday, October
1, 2015, to Monday, October 19, 2015

On or about Monday, October 19, 2015, beginning with the 1400
Coordinated Universal Time (UTC) model run, the NWS
Meteorological Development Laboratory (MDL) will implement
changes to the Gridded Localized Aviation Model Output
Statistics Program (LAMP).

Gridded LAMP products are generated on a 2.5-km Lambert
Conformal grid over the CONUS. Gridded observations and gridded
forecasts (1 to 25 hour projections) are produced hourly. These
products are disseminated on the Satellite Broadcast Network
(SBN), NOAAPORT, and are available in the operational National
Digital Guidance Database (NDGD).

The changes are as follows:

1. Add three new elements to LAMP gridded observations and
forecast guidance for CONUS. Guidance will be available for the
following new elements:

- Opaque sky cover
- 10-m Wind speed
- 10-m Wind direction

2. Improve gridded LAMP observations and forecast guidance for
existing elements:

- 2-m Temperature
- 2-m Dewpoint temperature

- Ceiling height
- Visibility

3. Increase the number of LAMP forecast points input into the Gridded LAMP analyses for ceiling height and visibility forecast guidance, and increase the number of observations which are input into the Gridded LAMP analyses of temperature and dewpoint observations.

4. Replace SREF data with observations and MOS data for augmentation of Gridded LAMP temperature and dewpoint forecast guidance grids.

Benefits of the system changes include:

- Make available Gridded LAMP guidance for new elements of opaque sky cover, 10-m wind speed, and 10-m wind direction
- Improve ceiling height and visibility forecast guidance due to additional LAMP forecast inputs and modified analysis scheme.
- Improve temperature and dewpoint observation and forecast grids due to augmentation with observations and MOS data.
- Provide better temporal consistency between the observation grids and the 1-h forecast grids for all elements, as well as between every forecast projection for temperature, dewpoint, and wind grids
- Improve system robustness in case of missing observations.

The gridded LAMP products for the CONUS, in GRIB2 format, are available on the NWS server at:

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

or

<http://weather.noaa.gov/pub/SL.us008001/ST.opnl/DF.gr2/DC.ndgd/GT.gimp/AR.conus/>

A listing of the GRIB2 file names for gridded observations and forecasts for new and existing elements is available at:

http://www.nws.noaa.gov/mdl/gfslamp/docs/gimp_NWS_tgftp_server.php

The new communication identifiers for the GRIB2 products are shown below in Tables 1 and 2. A complete list of GLMP WMO headers is available at

http://www.nws.noaa.gov/mdl/gfslamp/docs/gimpheaders_2015.pdf

Table 1: Communication identifiers for the Gridded LAMP observation products in GRIB2 format

Listed below are representations of the WMO header: xx

represents the valid UTC hour (00-23).

| WMO HEADER | ELEMENT |
|-------------|--|
| LAUxxx KMDL | 2-meter gridded temperature observations |
| LAUBxx KMDL | 2-meter gridded temperature observation error estimations |
| LBUAxx KMDL | 2-meter gridded dewpoint temperature observations |
| LBUBxx KMDL | 2-meter gridded dewpoint temperature observation error estimations |
| LCUAxx KMDL | Gridded ceiling height observations |
| LDUAxx KMDL | Gridded visibility observations |
| LEUAxx KMDL | Gridded opaque sky cover observations |
| LFUAxx KMDL | 10-m gridded wind speed observations |
| LGUAxx KMDL | 10-m gridded wind direction observations |

Table 2: Communication identifiers for the Gridded LAMP forecast products in GRIB2 format

Listed below are representations of the WMO header: xx represents the forecast projections (01-25).

| WMO HEADER | ELEMENT |
|-------------|--|
| LKUxxx KMDL | Gridded 2-meter temperature forecasts |
| LLUAxx KMDL | Gridded 2-meter dewpoint temperature forecasts |
| LMUAxx KMDL | Gridded ceiling height forecasts |
| LNUAxx KMDL | Gridded visibility forecasts |
| LOUAxx KMDL | Gridded opaque sky cover forecasts |
| LPUAxx KMDL | 10-m gridded wind speed forecasts |
| LQUAxx KMDL | 10-m gridded wind direction forecasts |

More details about the Gridded LAMP products and this implementation, including a link to a website for displaying the new and improved products, can be found online at:

<http://www.nws.noaa.gov/mdl/gfslamp/docs/glmpinfo.php>

A consistent parallel feed of data will be made available on the NCEP HTTP server once the model is running in parallel on the NCEP Weather and Climate Operational Supercomputing System (WCOSS). The data will be available at the following URL:

<http://para.nomads.ncep.noaa.gov/pub/data/nccf/com/glmp/para/>

If you have technical comments or questions, please contact:

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Links to the LAMP products and descriptions can found at:

<http://www.nws.noaa.gov/mdl/gfslamp/gfslamp.shtml>

National Public Information Statements are online at:

<http://www.weather.gov/os/notif.htm>

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