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PNSWSH

Technical Implementation Notice 15-42 Amended
National Weather Service Headquarters Washington DC
1050 AM EDT Tue Sep 29 2015

To: Subscribers:
-Family of Services
-NOAA Weather Wire Service
-Emergency Managers Weather Information Network
-NOAAPORT
Other NWS partners, users and employees

From: Timothy McClung
Chief Operating Officer
NWS Office of Science and Technology Integration

Subject: Amended: Upgrade Graphical Turbulence Guidance Product
Effective October 20, 2015

Amended to change the implementation date to October 20, 2015

Effective Tuesday, October 20th, 2015, beginning with the 1200 Coordinated Universal Time (UTC) run, the National Centers for Environmental Prediction (NCEP) will begin operationally running the Aviation Weather Center's Graphical Turbulence Guidance (GTG) suite.

The GTG is produced hourly from the 13-km Weather Research and Forecasting Rapid Refresh (RAP) model runs. Output includes a 0-hour analysis and a 1, 2, 3, 6, 9 and 12-hour forecast for Clear Air Turbulence (CAT) in units of Eddy Dissipation Rate.

This upgrade will include an output change for CAT from GRIB1 to GRIB2, extend the forecast hours to include 15 and 18, and add the layers 1-10 thousand feet. In addition, new GRIB2 Mountain Wave Turbulence (MWT) products will be added for forecast hours 0, 1, 2, 3, 6, 9, 12, 15 and 18 and 1000 foot levels between 1-45 thousand feet.

This data is provided over the Satellite Broadcast Network (SBN) and NOAAPORT. The current products will be changing from GRIB1 to GRIB2 format, but WMO headers for CAT will remain the same. New headers will be added for the additional forecast hours, levels and for the MWT products. The daily volume will increase to 1058 MB per day.

The WMO heading for the CAT products are as follows:

T1: DATA FORMAT OF GRIB2 /Y or Z/
T2: PARAMETER CODE OF /V/
A1: GRID CODE /W/
A2: FORECAST TIME /ONE OF ABCDGJMPS/

- *A = Analysis
- *B = 01 HOUR FORECAST
- *C = 02 HOUR FORECAST
- *D = 03 HOUR FORECAST
- *G = 06 HOUR FORECAST
- *J = 09 HOUR FORECAST
- *M = 12 HOUR FORECAST
- *P = 15 HOUR FORECAST
- *S = 18 HOUR FORECAST

II: LAYER OR LEVEL /ONE OF 14-27 29 30 32-34 36 38 39 41 43
 45 46 48 50 53 55 57 60 62 65 67 70 73 75 78 81 84 85 90 93 95/
 CCCC: KKCI

The WMO heading for the MWT products are as follows:

- T1: DATA FORMAT OF GRIB2 /Y/
- T2: PARAMETER CODE OF /W/
- A1: GRID CODE /N/
- A2: FORECAST TIME /ONE OF ABCDGJMPS/

- *A = Analysis
- *B = 01 HOUR FORECAST
- *C = 02 HOUR FORECAST
- *D = 03 HOUR FORECAST
- *G = 06 HOUR FORECAST
- *J = 09 HOUR FORECAST
- *M = 12 HOUR FORECAST
- *P = 15 HOUR FORECAST
- *S = 18 HOUR FORECAST

II: LAYER OR LEVEL /ONE OF 14-27 29 30 32-34 36 38 39 41 43
 45 46 48 50 53 55 57 60 62 65 67 70 73 75 78 81 84 85 90 93 95/
 CCCC: KKCI

Data will no longer be available in GRIB1 on the NWS Gateway service via:

ftp://tgftp.nws.noaa.gov/SL.us008001/DC.avsp/DS.gtggb/PT.grid_DF.gr1

And instead will begin populating a GRIB2 directory here:

ftp://tgftp.nws.noaa.gov/SL.us008001/DC.avsp/DS.gtggb/PT.grid_DF.gr2

Data that resides on Family of Service (FOS) will also change from GRIB1 to GRIB2 output.

Changes will also be applied to the Aviation Digital Data Service (ADDS) to continue the product availability:

<http://www.aviationweather.gov/adds>

If you have any questions regarding the new Graphical Turbulence Guidance please contact either:

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If you have questions regarding the data flow aspects please contact:

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National Technical Implementation Notices are online at:

<http://www.nws.noaa.gov/om/notif.htm>

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