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PNSWSH

Technical Implementation Notice 15-42 Amended
National Weather Service Headquarters Washington DC
207 PM EDT Tue Oct 20 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 27, 2015

Amended to change the implementation date of NOAAPort and tgftp only to
October 27, 2015.

Effective Tuesday, October 20, 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 only output
change will be on the Aviation Digital Data Service (ADDS) website.
Effective Tuesday, October 27, 2015, beginning with the 12 UTC run, NCEP
will begin sending the new output to NOAAPort and tgftp.

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 gridded binary
(GRIB)1 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 1,000 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 World Meteorological Organization (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 1,058 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 of 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/
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Data will no longer be available in GRIB1 on the NWS Gateway service via:

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

and instead will begin populating a GRIB2 directory here:

ftp://tgftp.nws.noaa.gov/SL.us008001/DC.avspt/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 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:

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

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