

Product Description Document

National Convective Weather Forecast (NCWF)

Part 1 – Mission Connection

1. Product Description: The National Convective Weather Forecast (NCWF) is an automatically generated convective product that provides current convective hazards and 1 hour extrapolation forecasts of thunderstorm hazard locations. The NCWF was developed by the National Center for Atmospheric Research Convective Weather Product Development Team, sponsored by the Federal Aviation Administration's (FAA) Aviation Weather Research Program, and implemented by the National Weather Service Aviation Weather Center (AWC).

2. Purpose/Intended Use: The purpose of the NCWF is to produce a convective hazard field diagnostic and forecast product based on radar data, echo top mosaics, and lightning data.

3. Audience/Users: The target audience for the NCWF product includes the FAA and other government agencies, pilots, airline dispatchers, aviation meteorologists, and other interested aviation users in the general public.

4. Presentation Format: The NCWF convective hazard field diagnostic is available in gridded binary (GRIB) format and the NCWF forecast product is available in Binary Universal Form for the Representation of meteorological data (BUFR) format via NOAAPort and at the National Weather Service

The NCWF GRIB and BUFR files are available from the NWS Telecommunications Gateway (NWSTG) via FTP:

ftp://tgftp.nws.noaa.gov/SL.us008001/DC.avspt/DS.ncwf/PT.grid_DF.gr1/ (GRIB)

ftp://tgftp.nws.noaa.gov/SL.us008001/DC.avspt/DS.ncwf/PT.bin_DF.buf/ (BUFR)

The NCWF is also available in graphical format at the following URLs:

<http://www.aviationweather.gov/products/ncwf/>

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

5. Feedback Method:

Feedback will typically be collected via comments provided to the AviationWeather.gov webmaster. Opportunities for face-to-face responses will occasionally occur in the context of media workshops, public outreach events, etc.

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Part 2 – Technical Description

1. Format and Science Basis: The NCWF convective hazard field depicts areas of aviation hazard due to convective activity. The hazard field is based on National Radar Mosaics and National Lightning Detection Network cloud-to-ground data. The NCWF product provides a 1 hour extrapolation forecast which are most reliable for long lived mature multi-storm systems. However, the initiation and dissipation of these systems, as well as shorter lived isolated storms, are not well forecast at this time.

2. Training: No additional training is required to generate the product.

3. Availability: The NCWF is available 24/7 and updated every 5 minutes using the most current data available. These analyses are updated in real time on the AWC webpage and are available over NOAAPort in both GRIB and BUFR formats, as well in graphical format on the Aviation Weather Center Website: <http://www.aviationweather.gov/adds/convection/>

A current example of the NCWF is available at: <http://www.aviationweather.gov/products/newf/>