

***NATIONAL WEATHER SERVICE
PRODUCT/SERVICE DESCRIPTION DOCUMENT (PDD)
TYPE: Official Product
DATE: April 24, 2003***

NATIONAL CONVECTIVE WEATHER FORECAST

Part 1 - Mission Connection

1. Product/Service 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 Administrations (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:

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 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 at the following AWC URL:

<http://cdm.aviationweather.gov/ncwf/>

<http://cdm.aviationweather.gov/cip/>

5. Feedback Method:

Technical and policy questions, and comments concerning the NCWF product may be addressed to:

Aviation Weather Center
Attn: Jerry Shih
7220 NW 101st Terrace
Kansas City, MO 63153-2371

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Part 2 - Technical

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. **Availability:**

The NCWF is 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.

<http://www.prh.noaa.gov/pr/hnl/>

<http://weather.gov/om/marine/forecast.htm#bay>

3. **Additional Information:**

Additional information about the NCWF product is available at the following URL:

http://cdm.aviationweather.gov/ncwf/ncwf_wt/ncwf_wt.htm.