

NATIONAL WEATHER SERVICE
PRODUCT/SERVICE DESCRIPTION DOCUMENT (PDD)
TYPE: Official Product
DATE: April 17, 2003

CURRENT ICING POTENTIAL

Part 1 - Mission Connection

1. Product/Service Description:

The Current Icing Potential (CIP) is an automatically generated index of current icing potential. The CIP was developed by the National Center for Atmospheric Research In-flight Icing 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) as a supplement to icing AIRMETs and SIGMETs.

2. Purpose/Intended Use:

The purpose of the CIP is to produce an icing diagnostic by integrating satellite and radar data and current surface (METAR) and icing observations (PIREPs).

3. Audience:

The target audience for the CIP 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 CIP product is available in gridded binary (GRIB) format via NOAAPort and at the National Weather Service Telecommunications Gateway via FTP:

ftp://ptgftp.nws.noaa.gov/SL.us008001/DC.avspt/DS.cipgb/PT.grid_DF.gr1/.

The CIP is also available at the following AWC URL:

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

5. Feedback Method:

Technical and policy questions, and comments concerning the Current Icing Potential product may be addressed to:

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

Part 2 - Technical

1. **Format and Science Basis:**

The CIP ingests the 40 km RUC model, satellite and radar data, domestic pilot reports, and surface observations to identify the three-dimensional extent of clouds. The CIP then integrates information from these sources to identify the locations and likelihood of both conventional and supercooled large drop (SLD) icing across the United States and Canada. The CIP product maps each of these tools to a common icing intensity scale (0-1). The CIP diagnostic is then computed from numerical weather prediction output at the assimilation time.

2. **Availability:**

The CIP produces a 00 hour analysis every hour (0 - 23 UTC) These analyses are updated in real time on the AWC webpage and are available over NOAAPort in GRIB format.

3. **Additional Information:**

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

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