

***NATIONAL WEATHER SERVICE
PRODUCT/SERVICE DESCRIPTION DOCUMENT
DATE: October 17, 2006***

**CDC (ESRL) 6-10/8-14 Day Temperature and
Precipitation**

Part 1 – Mission Connection

- 1. Product/Service Description:** The Climate Prediction Center (CPC) issues this product to display probabilistic 6-10 day and Week 2 temperature and precipitation forecasts for the contiguous U.S. and Alaska using the Earth System Research Laboratory (ESRL) “reforecast” technique.
- 2. Purpose/Intended Use:** This product is primarily used by CPC’s forecasters as a tool for CPC’s official 6-10/8-14 day forecasts. They also used as input to CPC’s automated 6-10/8-14 day temperature and precipitation forecasts. The primary motivation for the creation of this product is to increase CPC 6-10/week 2 forecast skill and is a component of NCEP’s Climate Test Bed.
- 3. Audience:** CPC Forecasters (primary users). Products also available to the general public.
- 4. Presentation Format:** These products are presented as probabilistic forecast GIF images disseminated to the WWW as well as locally for internal use. ASCII data files are also produced in GEMPAK format for verification purposes.
- 5. Feedback Method:** E-Mail either scott.handel@noaa.gov or Kenneth.pelman@noaa.gov for questions on product generation. E-Mail Jeffrey.S.Whitaker@noaa.gov or Tom.Hamill@noaa.gov for information regarding the ESRL “reforecast” technique.

Part 2 – Product Details

- 1. Product Interpretation:** CPC expresses the outlook in a 3-category probabilistic format as chances the mean temperature or total precipitation for the period will fall into the most likely of three classes: above, below, or near normal. CPC uses a three class system with each class designed to be climatologically equally likely: the top one third of cases define the above category, the middle third of cases define the normal category, and the bottom third of cases defining the below category. The tercile categories are defined in terms of ESRL’s 1979-2001 daily climatology while tercile probabilities are calculated from ESRL’s retrospective forecast database based on a 15 member ensemble of a 1998 version of NCEP’s global forecast system (GFS) model. These probabilities are provided to CPC from code developed at ESRL. CPC indicates the probability values for the most likely class. Temperature probability values are colored red, black, or blue corresponding to the above, near, and below normal categories respectively. If the above (below) normal is the dominate forecast category and the forecast probability is greater than 80 percent, values are colored gold (purple). Precipitation probability values are colored green, black, or brown corresponding to the above, near, and below normal categories respectively. If the above (below) normal is the dominate precipitation forecast category and the probability is greater than 80 percent, values are colored dark green (gold). If the probability of the dominant category is less than 40 percent, a “+” symbol is indicated with the color of the dominant category.
- 2. Availability:**

Output products are available on a daily basis at approximately 4:40 AM Eastern Time
- 3. Public Product List:**
 - (a) AWIPS Products: None**
 - (b) WWW Products:**
 - 6-10 Day Temperature Forecast Image:
http://www.cpc.ncep.noaa.gov/products/predictions/short_range/tools/usTlog.CONC08.gif
 - 8-14 Day Temperature Forecast Image:
http://www.cpc.ncep.noaa.gov/products/predictions/short_range/tools/usTlog.CONC11.gif
 - 6-10 Day Precipitation Forecast Image:
http://www.cpc.ncep.noaa.gov/products/predictions/short_range/tools/usPlog.CONC08.gif
 - 8-14 Day Precipitation Forecast Image:
http://www.cpc.ncep.noaa.gov/products/predictions/short_range/tools/usPlog.CONC11.gif
 - CDC Temperature and Precip Web Page:
http://www.cpc.ncep.noaa.gov/products/predictions/short_range/tools/cdc.pub.html
 - CDC Upper Air Web Page
http://www.cpc.ncep.noaa.gov/products/predictions/short_range/tools/cdc.hgt.pub.html
- 4. Additional Information:**
 - (a) See the following website for more details on the ESRL “reforecast” project and methodology:**
<http://www.cdc.noaa.gov/people/jeffrey.s.whitaker/refcst/>