

Three-Month Climate Outlooks (Contiguous U.S. and Alaska).

Part 1 - Mission Connection

a. Product/Service Description. The Climate Prediction Center (CPC) issues a series of thirteen probabilistic three-month temperature and precipitation outlooks.

b. Purpose/Intended Use. Since these outlooks pertain to the average temperature and total precipitation for the entire valid period and **not** to the variability within it, they will **not** help people planning events for specific dates or sub-periods. The outlooks will be of most use for economic and business planning, particularly when used with 30 year base period means.

c. Audience. These outlooks provide information to decision makers in weather and climate sensitive activities sensitive to seasonal and inter-annual climate variation (e.g. weather risk management, energy/utilities, agriculture, hydrology, etc.)

d. Presentation Format. CPC presents the outlooks as charts sent over NWS dissemination systems in "red book graphic" format and on the CPC web site.

e. Feedback. Go to: <http://www.cpc.ncep.noaa.gov/comment-form.html>

Part 2 - Technical

a. Format and Science Basis. CPC will express the outlooks in a 3-category probabilistic format as the chance the mean temperature or total precipitation for the period will fall into the most likely of three classes: above, below, or near normal. CPC defines the classes as climatologically equally likely: the top 10 cases of a thirty year record define the above category (A), the middle 10 cases define the normal category (N), and the bottom 10 cases defining the below category (B). For areas where a favored class cannot be determined, CPC will indicate those areas with a "EC." EC means equal chances for each of the three climatological classes for the outlook's valid period. For each of the thirteen three-month outlook periods (January through March, February through April, etc.), CPC uses the 30-year mean temperature and 30-year mean total precipitation for the climatology and class limits. CPC updates this information once per decade.

CPC will indicate the probability for the most likely class with solid contour lines. They will label the centers of maximum probability with the letters A, N, or B to denote the most likely class. For areas where a favored class cannot be determined, CPC will indicate those areas with a "EC" and not have contours. For example, if the probability for the above normal temperature class exceeds 40 percent for a given area and is the most likely class, then CPC will encircle the area by a probability contour of 40 percent on the temperature outlook chart and label the area with the letter A.

The latest three-month outlooks are at <http://www.cpc.ncep.noaa.gov/products/predictions/90day/>

b. Availability. These are scheduled products. CPC issues these 13 outlooks simultaneously once a month on the third Thursday of the month around 8:30 a.m. Eastern local time. CPC does not issue updates or amendments. They will issue corrections as needed. CPC issues the outlooks on NWS dissemination systems under the following product IDs:

Lead time is indicated by the number in the WMO heading and last letter in the AWIPS ID. (i.e. 01

and A have a lead time of 0.5 month, 02 and B have a lead time of 1.5 months, etc.)

Temperature Precipitation WMO Heading AWIPS ID WMO Heading AWIPS ID
PTIW(01-13) KWBC RBGLT(A-M) PEIW(01-13) KWBC RBGLE(A-M)

The outlooks are also issued on the CPC web site at the URL listed in section a.

c. Other information

Valid Time. CPC will issue the 13 outlooks with lead times from 0.5 months to 12.5 months. For example, in mid-January, CPC will issue Three-Month Outlooks for February through April, March through May, April through June, and so on to February through April of the following year.

Product Expiration Time. The 0.5 month lead time outlook expires at the beginning of the valid time of that outlook. The other outlooks expire when the next set of outlooks are issued (i.e. on the third Thursday of the following month).

Creation Software. CPC uses the General Meteorological Package (GEMPAK) software as an input into National Center Advanced Weather Interactive Processing System (NAWIPS).