This documentation describes the record format for the county files on
/pub/data/cirs/climdiv that have the filenames:

climdiv-pcpncy-vx.y.z-YYYYMMDD
climdiv-tmaxcy-vx.y.z-YYYYMMDD
climdiv-tmincy-vx.y.z-YYYYMMDD
climdiv-tmpccy-vx.y.z-YYYYMMDD
climdiv-cddccy-vx.y.z-YYYYMMDD
climdiv-hddccy-vx.y.z-YYYYMMDD

                                nClimDiv
                                 COUNTY
                       TEMPERATURE-PRECIPITATION

                              OCTOBER 2018

The major parameters in this file are sequential climatic county monthly
maximum, minimum and average temperature (deg. F. to 10ths) and precipitation (inches to
100ths).
Period of record is 1895 through latest month available, updated
monthly.

Values from the most recent two calendar years will be updated on a monthly
basis. Period of record updates will occur when the underlying data set
undergoes a version change.

METHODOLOGY:

County values in nClimDiv were derived from area-weighted averages of
grid-point estimates interpolated from station data. A nominal grid resolution
of 5 km was used to ensure that all divisions had sufficient spatial sampling
(only four small divisions had less than 100 points) and because the impact of
elevation on precipitation is minimal below 5 km. Station data were gridded
via climatologically aided interpolation to minimize biases from topographic
and network variability.

The Global Historical Climatology Network (GHCN) Daily dataset is the source
of station data for nClimDiv. GHCN-Daily contains several major observing
networks in North America, five of which are used here. The primary network
is the National Weather Service (NWS) Cooperative Observing (COOP) program,
which consists of stations operated by volunteers as well as by agencies such
as the Federal Aviation Administration. To improve coverage in western states
and along international borders, nClimDiv also includes the National
Interagency Fire Center (NIFC) Remote Automatic Weather Station (RAWS) network,
the USDA Snow Telemetry (SNOTEL) network, the Environment Canada (EC)
network (south of 52°N), and part of Mexicos Servicio Meteorologico Nacional
(SMN) network (north of 24°N). Note that nClimDiv does not incorporate
precipitation data from RAWS because that networks tipping-bucket gauges are
unheated, leading to suspect cold-weather data.

All GHCN-Daily stations are routinely processed through a suite of logical,
serial, and spatial quality assurance reviews to identify erroneous
observations. For nClimDiv, all such data were set to missing before
computing monthly values, which in turn were subjected to additional serial
and spatial checks to eliminate residual outliers. Stations having at least
10 years of valid monthly data since 1950 were used in nClimDiv.

For temperature, bias adjustments were computed to account for historical
changes in observation time, station location, temperature instrumentation,
and siting conditions. Changes in observation time are only problematic for
the COOP network whereas changes in station location and instrumentation occur
in almost all surface networks.   As in the U.S. Historical Climatology Network
version 2.5, the method of Karl et al. (1986) was applied to remove the
observation time bias from the COOP network, and the pairwise method of Menne

and Williams (2009) was used to address changes in station location and
instrumentation in all networks. Because the pairwise method also largely
accounts for local, unrepresentative trends that arise from changes in siting
conditions, nClimDiv contains no separate adjustment in that regard.

For additional information on how nClimDiv is constructed, please see:
http://journals.ametsoc.org/doi/abs/10.1175/JAMC-D-13-0248.1

STATE CODE TABLE:

                        Range of values of 01-50.

01 Alabama	28 New Jersey
02 Arizona	29 New Mexico
03 Arkansas	30 New York
04 California	31 North Carolina
05 Colorado	32 North Dakota
06 Connecticut	33 Ohio
07 Delaware	34 Oklahoma
08 Florida	35 Oregon
09 Georgia	36 Pennsylvania
10 Idaho	37 Rhode Island
11 Illinois	38 South Carolina
12 Indiana	39 South Dakota
13 Iowa	40 Tennessee
14 Kansas	41 Texas
15 Kentucky	42 Utah
16 Louisiana	43 Vermont
17 Maine	44 Virginia
18 Maryland	45 Washington
19 Massachusetts	46 West Virginia
20 Michigan	47 Wisconsin
21 Minnesota	48 Wyoming
22 Mississippi	49 Hawaii
23 Missouri	50 Alaska
24 Montana	
25 Nebraska	
26 Nevada	
27 New Hampshire	

FILE FORMAT:

IMPORTANT NOTE:

The format of the county data is slightly different than the other data files. To accomadate
the 2 digit state code and the 3 digit county FIPS code, the first field contains 11
columns.
The other data files still contain 10 columns.

Element Name	Record Position	Element Description
STATE-CODE	1-2	STATE-CODE as indicated in State Code Table as described in FILE 1. Range of values is 01-50.
DIVISION-NUMBER	3-5	COUNTY FIPS - Range of values 001-999.
ELEMENT CODE	6-7	01 = Precipitation 02 = Average Temperature 25 = Heating Degree Days 26 = Cooling Degree Days 27 = Maximum Temperature 28 = Minimum Temperature
YEAR	8-11	This is the year of record. Range is 1895 to

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                                   current year processed.

   (all data values are right justified):

   JAN-VALUE              12-18

                                    Monthly Divisional Temperature format (f7.2)
                                    Range of values -50.00 to 140.00 degrees Fahrenheit.
                                    Decimals retain a position in the 7-character
                                    field.  Missing values in the latest year are
                                    indicated by -99.99.

                                    Monthly Divisional Precipitation format (f7.2)
                                    Range of values 00.00 to 99.99.  Decimal point
                                    retains a position in the 7-character field.
                                    Missing values in the latest year are indicated
                                    by -9.99.


   FEB-VALUE              19-25

   MAR-VALUE              26-32

   APR-VALUE              33-39

   MAY-VALUE              40-46

   JUNE-VALUE             47-53

   JULY-VALUE             54-60

   AUG-VALUE              61-67

   SEPT-VALUE             68-74

   OCT-VALUE              75-81

   NOV-VALUE              82-88

   DEC-VALUE              89-95
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