National Climatic Data Center

DATA DOCUMENTATION

FOR

DATASET 9977 (DSI-9977)

COOP Historical Keyed Data

November 22, 2002

National Climatic Data Center
151 Patton Ave.
Asheville, NC 28801-5001 USA

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1. Abstract: These data are keyed from the Coop network which contains over 30,000 historical stations of which approximately 8000 are currently active. The project was to digitize those records not currently in DSI-3200. Most of the stations in the digital file begin circa 1948 with a few exceptions where some stations, for special projects, were digitized for earlier dates. The DSI-3200 inventories were checked and all observations in the NCDC archives (on microfiche) that were not in the digital database were keyed as far back as the early 1890s to fill in existing voids in the digital database. These data will be processed through an extensive meteorological QC before being archived in the DSI 3200 element database. Most elements that appeared on the coop forms were keyed although all will not be converted to DSI-3200.

2. Element Names and Definitions:

Keying format for Co-op forms

Position	Field Name
01 - 28	Station Name (left justify, blank fill)
29	, (comma delimited)
30 - 31	State (2-letter post office abbreviation)
32	,
33 - 38	Station Number, e.g. Co-op number (right justify, zero fill)
39	,
40 - 45	Hour of observation - Temperature or when only one observational time is reported on the form (local time; e.g. 0700am), (&-see footnote below)
46	,
47 - 52	Hour of observation - precipitation (when different from temperature); local time, &
53	,
54 - 57	Year
58	,
59 - 60	Month (01-12)
61	,
62 - 63	Day (01-31); add 50 (e.g. 51-81) to the day if the daily record is illegible (indecipherable), use 32 to = sum, use 33 to = monthly mean. Use 99 to = missing month (no monthly microfiche record available) ; use 98 to = illegible month (fiche available, but could not be keyed because the information was indecipherable) use 97 to = to form available, daily information essentially blank, but monthly summary entries available which were keyed to supplement the station daily data (e.g. picking up the monthly precipitation and snowfall amounts).
64	,
65 - 66	Latitude in degrees (N) (right justify, zero fill)
67	,
68 - 69	Latitude in minutes (right justify, zero fill)
70	,
71 - 73	Longitude in degrees (W)(right justify, zero fill)

:

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74                ,
75 -76            Longitude in minutes (right justify, zero fill)
77                ,
78 - 81           Temperature 7 A.M. (right justify, blank fill;
                  # - see footnote)
82                ,
83 - 86           Temperature 2 P.M.  (right justify, blank fill; #)
87                ,
88 - 91           Temperature 9 P.M.  (right justify, blank fill; #)
92                ,
93 - 96           Maximum Temperature (right justify, blank fill; #)
97                ,
98-101            Minimum Temperature (right justify, blank fill;# )
102               ,
103-106           Mean Temperature    (right justify, blank fill; # )
107               ,
108-111           Temperature Range   (right justify, blank fill)
112               ,
113-116           Set Max (temp at time of observation)
                                      (right justify, blank fill; # )
117               ,
118-122           Total Precipitation (rain + melted snow)
                                       right justify; decimal implied, blank
                                       filled - note: key *  for trace (T).
123               ,
124-127           Snowfall in inches to tenths at time of observation (average
                  depth of snow);      right justify, blank fill - note: key *
                                       for trace (T).
128               ,
129-132           Depth of snow on the ground (inches);
                                       right justify, blank fill - note: key *
                                       for trace (T).
133               ,
134-136           Prevailing wind direction (left justify, blank fill)
137               ,
138-141           Total wind movement in whole miles
                                       (right justify, blank fill)
142               ,
143-147           Actual amount (evaporation in inches to thousandths) decimal
                  implied; most reports are to hundredths of an inch (add a
                  zero in thousandths position) (right justify, blank fill)
148               ,

For positions 149 - 180, except for Acomma@ fields;  if reported on coop etc.)
form key a A1" otherwise leave blank

149                Clear (character of the day);%- see footnote
150                ,
151                Partly Cloudy (character of the day);%- see footnote
152                ,
153                Cloudy (character of the day);% - see footnote
154                ,
155                Rain
156                ,
157                Snow
158                ,
159                Smoke/haze
:
:
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160 ,
161 Fog
162 ,
163 Drizzle (mist)
164 ,
165 Sleet
166 ,
167 Glaze
168 ,
169 Thunder
170 ,
171 Hail
172 ,
173 Dust Storm
174 ,
175 Blowing Snow
176 ,
177 High Wind
178 ,
179 Tornado
180 ,

- if negative place A-@ in left most position

% - may be indicated by a symbol: open circle, O = Clear or cloudless; circle with vertical line through the middle = Partly Cloudy; circle with plus sign in the middle = Cloudy

& - a number of the forms include the meridian time as well as the local time. Insure the local time is keyed. If only the meridian time is provided convert to local time (in most cases they are the same when only the meridian time is provided).

Note 1: on rare occasions a station will report to tenths of a degree Fahrenheit. In these cases round to the nearest whole degree for keying (if < .5 truncate and if .5 or > round up to nearest whole value).

Note 2: If a field is not reported on the observational form, leave the field blank (space filled).

3. Start Date: early 1890's, varies with each station

4. Stop Date: Generally 1947, a number of stations earlier, but a few stations even later.

5. Coverage:

a. Southernmost Latitude: 18N
b. Northernmost Latitude: 70N
c. Westernmost Longitude: 180W
d. Easternmost Longitude: 67W

6. How to Order Data:

This data has not been QCed and is the original data received from the keying contractor. **It is not available to customers outside NCDC.**

7. Archiving Data Center:

Archive Branch
National Climatic Data Center
151 Patton Avenue
Asheville, NC 28801

8. Technical Contact:

National Climatic Data Center
151 Patton Avenue
Asheville, NC 28801

9. Known Uncorrected Problems: None.

10. Quality Statement: No QC at this level except for that performed by the contractor. Since there were many entries that were difficult to read and the observer made many errors this data set only reflects the data as it appeared to the keyer on the coop forms. A meteorological QC will be performed before the data are converted into DSI-3200 and-DSI 3220.

11. Essential Companion Datasets: This data set requires use of NCDC's in-house station history files.

12. References:

DSI-3200 Reference Manual

DSI-3220 Reference Manual

Easterling, D.R., T.R. Karl, E.H. Mason, P.Y. Hughes, D.P. Bowman, R.C. Daniels, and T.A. Boden, editors, 1996: *United States Historical Climatology Network (U.S. HCN) Monthly Temperature and Precipitation Data.*