

U.S. DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration National Weather Service Western Region P.O. Box 11188 Federal Building Salt Lake City, Utah 84147

August 31, 1982

Reply to Attn. of: WFW3

Receivers of Western Region Technical Memoranda

OA/WFW3 - Glenn E. Rasch

Subject: Updates to Technical Memorandum NWS WR-152,

"Climate of Salt Lake City, Utah" .

Attached are pen and ink changes to Tech Memo No. 152. These changes will bring this publication up-to-date through July 1982.



- A. Change period of record to read January 1929 January 1982.
- B. For day 17, change the high maximum from 53.6 in 1959 to 54.4 in 1982.
- C. For day 26, change the high maximum from 58.5 in 1971 to 61.5 in 1982.
- D. For the whole month at bottom of table, change 61.1 on 31 in 1971 to 61.5 on the 26th in 1982.

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- A. Change period of record to read February 1929 February 1982.
- B. Under high maximum column for day 21, change 60.3 in 1977 to 66.3 in 1982.
- C. Under low maximum column:

For day 4, change 26.0 in 1962 to 20.2 in 1982.

For day 5, change 26.9 in 1962 to 18.2 in 1982.

For day 6, change 25.2 in 1933 to 20.2 in 1982.

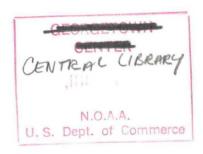
D. Under high minimum column:

For day 14, change 37.2 in 1980 to 38.1 in 1982.

For day 15, change 36.9 in 1962 to 39.1 in 1982.

For day 16, change 37.6 in 1972 to 37.9 in 1982.

For day 22, change 41.0 in 1957 to 42.9 in 1982.



Page 22

Change period of record to March 1929 - March 1982.

Page 23

- A. Change period of record to April 1929 April 1982.
- B. Under high minimum column, for day 11, change 49.0 in 1931 to 48.7 in 1982*.
- C. Under low minimum column:

For day 19, change 26.4 in 1955 to 24.1 in 1982.

For day 20, change 24.8 in 1966 to 24.3 in 1982.

For day 21, change 27.0 in 1931 to 22.4 in 1982.

- A. Change period of record to May 1928 May 1982.
- B. Under high minimum column, change 54.0 in 1981 to 56.9 in 1982.

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Change period of record to June 1928 - June 1982.

Page 26

- A. Change period of record to July 1928 July 1982.
- B. In low maximum column:

 For day 5, change 69.9 in 1938 to 65.2 in 1982

 For entire month, change 69.7 on 25 in 1941 to 65.2 on the 5th in 1982.
- C. In high minimum column:

For day 1, change 71.4 in 1957 to 73.1 in 1981.

For day 6, change 73.6 in 1974 to 74.0 in 1981*.

For day 11, change 71.7 in 1973 to 76.0 in 1981.

For day 22, change 74.2 in 1963 to 74.5 in 1982.

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- A. Change period of record to August 1928 August 1981.
- B. Under high maximum column for day 25, change 97.0 in 1931 to 96.8 in 1981*.
- C. In high minimum column:

For day 2, change 72.2 in 1951 to 72.2 in 1981*.

For day 25, change 66.0 in 1971 to 69.6 in 1981.

For day 26, change 71.1 in 1953 to 73.7 in 1981.

For day 29, change 66.7 in 1958 to 68.4 in 1981.

D. In low minimum column:

For day 19, change 48.2 in 1964 to 47.0 in 1978.

- A. Change period of record to September 1928 September 1981.
- B. In high minimum column:

 For day 28, change 58.7 in 1957 to 64.4 in 1981.

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Change period of record to October 1928 - October 1981.

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- A. Change period of record to November 1928 November 1981.
- B. In high maximum column:

For day 16, change 66.6 in 1953 to 67.5 in 1981.

For day 17, change 61.3 in 1976 to 67.8 in 1981.

For day 24, change 63.0 in 1949 to 63.8 in 1981.

C. Under high minimum column:

For day 13, change 49.0 in 1953 to 50.2 in 1981.

For day 22, change 40.2 in 1943 to 41.0 in 1981.

Page 31

- A. Change period of record to December 1928 December 1981.
- B. In high maximum column:

For day 6, change 55.8 in 1939 to 57.0 in 1981.

For day 20, change 58.3 in 1955* to 60.6 in 1981.

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Table 5A:

- A. Change period of record to May 1928 July 1982.
- B. In highest daily maximum column for month of January, change 61.1 on 31st in 1971 to 61.5 on the 26th in 1982.

- C. In lowest daily maximum column for month of July, change 69.7 on the 25th in 1941 to 65.2 on the 5th in 1982.
- D. Lowest daily maximum column for entire year (annual), change 6.0 on February 7 in 1933 to 3.6 on January 12 in 1963.

Table 5B:

Change period of record to May 1928 - July 1982.

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Table 6A:

- A. Change period of record to May 1982 July 1982.
- B. In lowest average maximum column for month of July, change 88.6 in 1938, 1950 to 88.4 in 1982.

Table 6B:

Change period of record to May 1928 - July 1982.

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Table 7:

- A. Change period of record to May 1928 July 1982.
- B. In highest monthly average temperature column:
 - 1. For month of August, insert between 78.6 in 1967 and 77.9 in 1963, the value 78.0 in 1981 because August 1981 was the second warmest of record.
 - 2. For the month of September, insert between 68.7 in 1938 and 68.2 in 1953, 1960 the value 68.5 in 1981 because September 1981 was the 4th warmest of record.
 - 3. For the month of November, add following the entry 44.3 in 1949, the year 1981 because November 1981 also had a monthly average temperature of 44.3
 - 4. For the month of December, insert between 37.1 in 1955 and 36.3 in 1937, 1939, the value 36.4 in 1981 because December 1981 was the 4th warmest of record.
- C. In the Annual table at the bottom of page 34:
 - 1. Change period of record from 1929 1980 to read 1929 1981.

2. Under highest annual average column, insert between 55.2 in 1934 and 53.8 in 1940, the value 54.2 in 1981 because 1981 was the second warmest year of record.

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Table 8:

- A. Change period of record to read 1928 1981.
- B. For 90° or higher, following 59 days, add the year 1981 to the previous entry of 1969.

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Table 10:

Change period of record to read June 1928 - July 1982.

Table 11:

- A. Change period of record to read June 1928 July 1982.
- B. Add after 25 days in August 1940, 1970, the year 1981 which also had 25 days with 90° or higher in August.
- C. Add after 24 days in July 1940, 1948, 1949, 1953, 1954, 1969, 1971, the year 1981 which also had 24 days with 90° or higher in July.

Table 12:

Change period of record to read spring 1928 - Spring 1982.

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Table 13:

Change period of record to read June 1928 - July 1982.

Table 14:

Change period of record to read June 1928 - July 1982.

Table 15:

Change period of record to read spring 1928 - spring 1982.

Table 16:

Change period of record to read June 1928 - July 1982.

Table 17:

Change period of record to read June 1928 - July 1982.

Table 18:

Change period of record to read Spring 1928 - Spring 1982.

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Table 19:

Change period of record to read January 1929 - February 1982.

Table 20:

Change period of record to read January 1929 - February 1982.

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Table 21:

Change period of record to read May 1, 1928 - May 1, 1982.

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Table 23:

Change period of record to read May 1928 - May 1982.

Table 24:

Change period of record to read May 1928 - May 1982.

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Table 26:

- A. Change period of record to read Fall 1928 Spring 1982.
- B. In latest date in the Spring column, insert between May 23, 1966 and May 19, 1931, the date May 22, 1982.

C. In latest date in the Fall column, insert between November 1, 1977 and October 30, 1979, the date October 31, 1981.

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Table 27:

- A. Change period of record to read Fall 1928 Spring 1981.
- B. In the bottom separated half of Table 27, under the average length of growing season column, for a minimum temp base of 32° or below, change 166 to read 167.

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Figure 4:

- A. Change period of record to read 1928 1929 to 1980 1981 (water year)*
- B. Add to the seasonal precipitation record, the water year total for 1980 1981 of 13.04 inches.

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Table 29A:

- A. Change period of record to read May 1928 July 1982.
- B. In minimum monthly precipitation column, for month of February, delete the entry .64 in 1949, 51, 77 and replace with .53 in 1982.
- C. In maximum monthly precipitation column:
 - 1. For month of July, insert before the entry 2.52 in 1962, the value 2.57 in 1982 because July 1982 was the wettest July of record.
 - 2. For month of October, insert before the entry 3.61 in 1946, the value 3.91 in 1981 because October 1981 was the wettest October of record.

Table 29B:

Change period of record to read 1929 - 1981.

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Table 32A:

Change period of record to read May 1928 - July 1982.

Table 32B:

- A. Change period of record to read May 1928 July 1982.
- B. For month of July, day 5, change the entry .05 in 1938 to read .41 in 1982.
- C. For month of July, day 28, change the entry .40 in 1951 to read 1.25 in 1982.

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Table 32C:

- A. Change period of record to read May 1928 July 1982.
- B. For month of October, day 8, change the entry .35 in 1930 to read .50 in 1981.
- C. For month of October, day 29, change the entry .58 in 1947 to read .86 in 1981.

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Table 33:

Change periods of record for months as follows:

January to read #1943-82; February #1942-82; March #1941-82; April #1942-82; May #1936-82 except 1938, 40; June #1936-82 except 1940; July #1935-82 except 1936, 39, 40; August #1935-81 except 1939, 40; September #1935-81 except 1939, 40; October #1935-81 except 1938-40; November #1935-81 except 1938-40; December #1936-81 except 1938-41.

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Table 34:

- A. Change period of record to read May 1928 July 1982.
- B. In 0.01 inch or more column, for month of October where most number of days is listed as 13 in 1946, add the year 1981.
- C. In 0.10 inch or more column for month of October where entry now reads 9 days in 1946, 1972, change to 12 days in 1981.

- D. 0.50 inch or more column for month of October where most number of days is entered as 3 in the years 1946, 1949, 1971, add the year 1981.
- E. In 1.00 inch or more columns for month of July, add the year 1982 to the months already listed 1945, 1962 and 1969.

Table 35:

Change period of record to read May 1928 - July 1982.

Table 36:

- A. Change period of record to read May 1928 July 1982.
- B. Insert between 9 days May 20-28, 1962 and 8 days January 8 January 15, 1962, the entry 9 days December 19 December 27, 1981 with total rainfall amount of 1.34.

Table 37:

Change period of record to read May 1928 - July 1982.

Table 38:

Change period of record to read May 1928 - July 1982.

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Table 39 and 40:

Change period of record to read May 1928 - July 1982.

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Figure 6:

Add to the graph the seasonal snowfall amounts for the 1980-81 season of 30.2 and for the 1981-82 season of 57.4 inches.

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Table 41A:

A. Change period of record to read May 1928 - July 1982.

- B. In maximum monthly snowfall column:
 - 1. For month of June where it now states that a trace of snow was received in 1943, 49, 50, 52, 53, 54, 68, 76, 81, add the year 1982.
 - 2. For the month of October, insert between 6.0 in 1972 and 4.0 in 1929, the amount 4.4 in 1981.

Table 41 B:

Change period of record to read 1928-1929 through 1981-1982.

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Change period of record to read May 1928 - May 1982.

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Change period of record for the 3 tables to read May 1928 - May 1982.

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Table 46:

- A. Change period of record to read May 1928 May 1982.
- B. In maximum number of days with snowfall column for the month of October, change the years of occurrence with 2 days of snowfall that now read 1929, 36, 49, 56, 61, 62 to read 1929, 35, 49, 61, 72, and 81.

Table 47:

Change period of record to read 1928 - 1929 through 1981 - 1982.

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Table 48:

- A. In the 1 inch or more of snowfall column:
 - 1. Change period of record to read *May 1928 May 1982.
 - 2. For month of October, where maximum number of days is listed as 2 days in 1929, 56, 61, 71 and 72, add the year 1981.
 - 3. For month of January, after 6 days, add the year 1982.
 - 4. For the month of February, after 6 days, change the entries to read 1944, 52, 55, 56, 60, 79.

5. For month of April, insert <u>before</u> the entry, 5 days in 1958, 63, 70, the data 6 days in 1974. This is the correct record maximum number of days for April and was inadvertedly left off when the original manuscript was typed.

Also for the month of April, after 3 days where years of occurrence now reads 1929, 68, 74, change these years to 1929, 68, 77, and 82.

- 6. In the seasonal data, change the seasonal average from 17 days to 18 days.
- B. In the 3 inches or more of snowfall column:
 - 1. Change period of record to *January 1951 May 1982.
 - 2. For the month of January, after the 3 day maximum number of days entry, change the years of occurrence to read 1951, 55, 69, 74, 80.
 - 3. For the month of April, after the 3 days maximum number of days entry, add the year 1974 to the year already entered 1968. Additionally, after the 2 days maximum number of days entry, add the years 1972 and 1975 to the years already entered 1955, 63.
 - 4. In the seasonal data, change the seasonal average number of days from 8 days to 7 days.

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Table 49:

- A. Change period of record to read May 1928 July 1982.
- B. In thunderstorms column (greatest number days):
 - For month of January, add the year 1982 to the year already listed -1969.
 - 2. For month of October, add the year 1981 to that already listed 1972.

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In footnotes near the bottom of the page where it reads, "Greatest number of heavy fog days (vsby reduced to 1/4 mile or less): May 1929-81". Change this period of record to read May 1929 - July 1982.

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Table 52:

A. In the fastest mile column, change period of record to read *July 1935 - July 1982.

- B. In the peak gust speed column:
 - 1. Change period of record to read *August 1954 July 1982.
 - 2. For the month of January, change direction from W to NW.
 - 3. For month of July, change peak gust speed from 70 to 74, direction from W to NW, day from 11 to 18, and the year from 1976 to 1981.
 - 4. For the month of December, change peak gust speed from 57 to 60, direction from NW to N, day from 11 to 15, and the year from 1973 to 1981.

Table 54:

In highest and lowest pressure (reduced to sea level) by month and day and year of occurrence column:

- 1. Change period of record to read May 1928 July 1982.
- 2. For the month of October, change highest from 30.65 to 30.67, day from 19 to 31, year from 1964 to 1981.

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Table 55:

- A. Change period of record to read May 1928 July 1982.
- B. For month of July, change highest number of heating degree days from a dash (-) to the number 23 in the year 1938. Also, change the lowest number of heating degree days from a dash (-) to zero in the year 1982(2).
- C. For the month of August, change highest reading from 44 in 1964 to read 49 in 1968. Also, change the lowest from zero in $1973^{(2)}$ to zero in $1981^{(2)}$.

Table 56:

- A. Change period of record to read May 1928 July 1982.
- B. For month of April, change lowest reading from zero in 1928 (2) to zero in 1982(2).

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Table 57:

A. Change period of record to read 1928 - 1981.

- B. In the warmest column, insert between the year 1960 and 1977 the year 1981 with a mean temeprature of 75.3 degrees and precipitation of 1.59.
- C. In the average summer season means for the period of record column, change the temeprature from 71.3 to 71.9 and the precipitation from 2.63 to 2.49.

Table 58:

- A. Change period of record to read 1928-1929 to 1981-1982.
- B. In the average winter season means for period of record column, change the temperature from 30.3 to 30.4, the snowfall from 38.3 to 38.0, and the number of days with snowfall from 22 to 21.