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PRECIPITATION CLIMATOLOGY OF THE NEVADA TEST SITE

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Introduction.

The National Weather Service (Weather Bureau at the time) began the systematic collection of daily precipitation data on the Nevada Test Site (NTS) in December 1957 with the installation of a weighing rain gage in Jackass Flats. The number of stations gradually increased and by early 1964 there were 20 stations scattered throughout the NTS. In September 1964 an effort was made to organize the 20-station network into the semblance of a grid within the limits imposed by accessibility and the need for measurements at specific locations. Wind shields were installed at the windiest locations and the practice of using a solution of antifreeze and oil in the bucket was started. The use of this solution made the record easier to interpret by eliminating evaporation and thus making the record cumulative.

Tipping-bucket rain gages, in conjunction with mechanical weather stations, were introduced at some locations in the network in August 1966. These stations presented a few problems in addition to not recording snowfall reliably and were augmented with storage gages. The storage gages provided a measure of the total precipitation between service dates which served as a check on the tipping-bucket gages and provided a means of estimating amounts for individual precipitation events, or series of events, when the tipping-bucket gage failed.

Data reduction has consisted of tabulating daily precipitation amounts, midnight to midnight, for each location. A station locator is provided in Figure 1 and identifying information for each location is given in Table 1.

Summary of Daily and Monthly Precipitation Amounts.

Data for all stations, active and discontinued, are summarized in Tables 2 through 6 under the following headings:

Table 2. Average monthly and annual precipitation.

Table 3. Average monthly and annual number of days with measurable precipitation.

Table 4. Greatest monthly and annual precipitation amounts with the year

of occurrence.

Table 5. Greatest daily precipitation amount with the year of occurrence.

Table 6. Greatest monthly and annual number of days with measurable precipitation with the year of occurrence.

Some stations existed for brief periods of time for specific purposes. The summarized data for these locations serves only as documentation of precipitation events during the specified period of time and have no other significance. A word of caution is in order with respect to the Lookout Peak station (Area 26, LP). The rain gage was exposed near the highest point on the mountain on a sharp ridge normal to the prevailing winds. This exposure resulted in precipitation amounts on the order of 60 percent of expectations for the elevation and location of the station. An anomalously high monthly precipitation amount for station TS2 (Area 17), initially recorded as 8.65 inches for September 1975, cannot be supported in retrospect and has been downgraded to 3.65 inches. The initial amount was based on the observation that the bucket was near brimful and is within the realm of possibility, but seems improbable in consideration of the synoptic situation and the characteristics of the widely scattered thunderstorms over a period of several days.

Measurable precipitation is defined as an amount that is detectable in the recorder trace produced by the rain gage. The minimum detectable amount for tipping-bucket rain gages is one hundredth of an inch. This limit also applies in general to the weighing rain gages; however, in many cases lesser amounts may have been recorded as precipitation events when supported by evidence in the trace of a hygrothermograph co-located with a rain gage.

The Annual Precipitation Cycle.

The locations of 4 National Weather Service (NWS) stations used to represent the characteristics of the annual precipitation cycle in southern Nevada are shown in Figure 2 relative to 13 active NTS stations with continuous records since October 1964. The record for Tonopah AP includes data for Tonopah prior to July 1954 and the Beatty station was moved to Beatty 8N in December 1972. Elevations at these locations were weighted in proportion to the applicable periods of record when station relocations occurred during the time period specified by a data sample under analysis.

The annual precipitation cycle is shown in Figure 3 as the average of 13 NTS

stations during the 17-year period October 1964 through September 1981 in comparison with the average of the 4 surrounding NWS stations during the same period and for the 1951-80 normal period. The precipitation ordinate is expressed as the ratio of precipitation amount in inches to station elevation in thousands of feet. This ratio effectively suppresses substantial differences in precipitation amount due to differences in elevation. The 13-station NTS average conforms to the 4-station NWS average with greater precipitation during the November-March period and lesser precipitation during the April-October period. The 4-station NWS average shows that precipitation during the October 1964-September 1981 period was above normal (1951-80) for most of the year with the greatest departure in February and March. The annual cycle with a winter maximum, a secondary maximum in summer and minima during the transition seasons is well established in the 17-year record and consistent with the 30-year normal.

The individual stations show rather pronounced variations on the average annual cycle. The annual cycle for the 4 NWS stations for the 1951-80 normal period are shown in Figure 4. The precipitation/elevation ratios at Pioche, the most easterly station, are highest both winter and summer. The indication is that summer precipitation, for a given elevation, decreases from east to west. Winter precipitation is more erratic but also shows a decrease from east to west for a given elevation. Tonopah AP is unique in that the winter maximum disappears entirely.

The annual cycle for 13 NTS stations during the October 1964-September 1981 period are grouped in Figures 5 to 9, in descending order, on the basis of the annual precipitation/elevation ratio. All of the groups have a summer peak with very nearly the same magnitude. The magnitude of the winter peak decreases with decreasing values of the annual precipitation/elevation ratio and has become secondary at station PM1 in the northwest corner of the NTS and the station with the lowest annual precipitation/elevation ratio. The annual cycle at station PM1 is very similar to that of Tonopah AP (see Figure 4). The annual cycle for the NTS station with the greatest precipitation/elevation ratio and the NTS 13-station average have been repeated in Figure 9 to emphasize the pronounced variation in the winter precipitation maximum while the secondary maximum in summer changes very little. The NTS 13-station average clearly shows that the winter maximum dominates the annual precipitation cycle over the NTS. Comparison of the PM1 annual cycle with that for the nearest NTS

station (see Figure 5, station A12) indicates that the disappearance of the winter precipitation maximum occurs very abruptly in the northwestern extremities of the NTS.

Precipitation in Relation to Elevation.

Approximately 45 percent of the NTS is at an elevation greater than 5000 feet but only 2 of the 13 NTS stations shown in Figure 2 are above 5000 feet, A12 (Area 12) and PM1 (Area 20). The 11 remaining stations range in elevation from 3000 to 5000 feet. The linear regression of annual and seasonal precipitation amounts on elevation in thousands of feet is shown in Figure 10 for these 11 stations along with the plotted values for 13 NTS stations and 4 NWS stations. The cool season is defined as October through April and the warm season as May through September. Station A12 at an elevation of 7490 feet in Area 12 fits the regression well in both seasons and for the year. Station PM1 at an elevation of 6550 feet in Area 20, along with Tonopah AP (elevation of 5426 feet), fits the warm season regression well but exhibits a pronounced precipitation deficit for the cool season and for the year. These stations are outside the valid range of elevations for the regression equations; however, they are indicative of the rapid decrease in cool season precipitation in the northwestern portion of the NTS. Pioche at an elevation of 6110 feet is clearly in a heavier precipitation regime than the NTS with excessive precipitation in both seasons and for the year. Beatty at an adjusted elevation of 3437 feet and Desert NWR at an elevation of 2920 feet fit the seasonal and annual regressions well.

While linear regression describes the relationship between precipitation amount and elevation reasonably well for the range of elevations encountered on the NTS, it drops off much too rapidly at elevations below 3000 feet. This difficulty can be resolved with an exponential fit to the data for which the logarithm of precipitation increases linearly with elevation. Exponential curves fitted to the data for 11 NTS stations between 3000 and 5000 feet are shown in Figure 10. These curves fall off to reasonable values for a station in Death Valley at an elevation of 194 feet below sea level but, with reference to station A12 at 7490 feet, appear to increase too rapidly at higher elevations and rapidly approach unrealistically high values above the range of elevations of the data sample. The linear and log-linear regressions fit the main body of the data between 3000 and 5000 feet equally well. A combination of the two

should provide a reasonable climatological estimate of seasonal and annual precipitation at an unsampled point on the NTS. There is a high degree of uncertainty with regard to such an estimate for a point on the high mesas in the northwest of the NTS due to the strong gradient in the cool season precipitation deficit between stations A12 and PM1.

An areal analysis of the annual precipitation/elevation ratio is presented in Figure 11. The analysis near the NTS boundaries is highly subjective but has been guided by information from limited data samples for the surrounding area. Precipitation records with continuity over extended time periods for a dense network of stations surrounding the NTS do not exist. An analysis for a 10-year period (1972-81) is shown in Figure 12 for comparison. Data in parentheses indicate that one year of data was missing during the period and values were adjusted to the 10-year period. The area to the northwest is clearly an area of diminished precipitation for a given elevation (low ratio). The area between the NTS and the Pahranagat and Sheep ranges to the east appears also to be an area of diminished precipitation with a sharp increase in the ratio to the east of these ranges. The area of large ratios oriented north-south over the NTS stands out as an anomaly within the larger area in the 10-year sample and is clearly an organized characteristic of the 17-year sample for the NTS. The anomaly appears to be a consequence of enhanced precipitation in this portion of the NTS during the cool season (Oct-Apr) as shown in Figure 13. The pattern is almost identical to the annual pattern (see Figure 11) and in marked contrast to the flat gradient in the precipitation/elevation ratio during the warm season (May-Sept) shown in Figure 14. This reflects the excellent correlation between warm season precipitation and elevation, as seen in Figure 10, and the substantially reduced correlation for cool season precipitation.

Extreme Value Precipitation.

Annual series of extreme daily precipitation amount have been determined for selected NTS stations for observational years (October through September) as opposed to calendar years, for the 17-year period October 1964-September 1981. These annual series have been plotted on extreme probability paper as Figures 15 and 16 and have been fitted with the exponential function proposed by Gumbel,

$$F(x) = \exp(-e^{-y})$$

in which $y = a(x-u)$

$$1/a = s_x\sqrt{6}/\pi$$

and $u = x - 0.4505sx$

The mean ($\bar{x}$) and standard deviation (s_x) are derived from the series of annual values.

The variation in the distributions of daily extreme values is very great and appears to be keyed to location more than to elevation. Station MV at an elevation of 4660 feet in the area of the precipitation/elevation anomaly of Figure 11 has experienced greater extreme values than station A12 at an elevation of 7490 feet (compare Figures 15 and 16), while extreme values at station PM1 at an elevation of 6550 feet are not much different than at station UCC at an elevation of 3924 feet.

Precipitation-frequency values for durations of 5 minutes to 1440 minutes have been derived from NOAA Atlas 2 for points corresponding to the locations of stations 4JA, A12, and UCC. Values from the atlas are for n-minute durations, as opposed to observational days or clock-hour amounts, and apply to partial-duration series rather than annual series. A partial-duration series consists of, at least, the N highest independent values in N years as opposed to the highest value each year in the annual series. An n-minute duration interval can start at any minute, a clock-hour amount can start at any hour while an observational day starts at a fixed hour. Statistical values for the 1440-minute duration series from NOAA Atlas 2 are equal to 1.13 times the values for the observational day series for a given return period. This relationship is empirical and not built on causal relationships. Data from the atlas for locations corresponding to stations A12 and UCC were adjusted to the annual series and are presented in Figures 17 and 18 respectively. Data for station 4JA differed little from that for station UCC and are not shown. The adjustment of atlas data to the annual series converts the data to a straight line on extreme probability paper but does not alter the 1.13 ratio of the 1440-minute duration series to the observational day series. Comparison of the 1440-minute duration lines of Figures 17 and 18 with the observational day representation in Figures 15 and 16 indicates that NOAA Atlas 2 falls far short of being able to provide the high degree of variability

in the frequency of precipitation extremes that is evident in the 17-year sample, October 1964-September 1981.

References

Gumbel, E. J., 1958: Statistics of Extremes. Columbian University Press, New York.

National Oceanic and Atmospheric Administration, National Weather Service, 1973: Precipitation-Frequency Atlas of the Western United States, NOAA Atlas 2, Volume VII - Nevada. Washington, D.C.

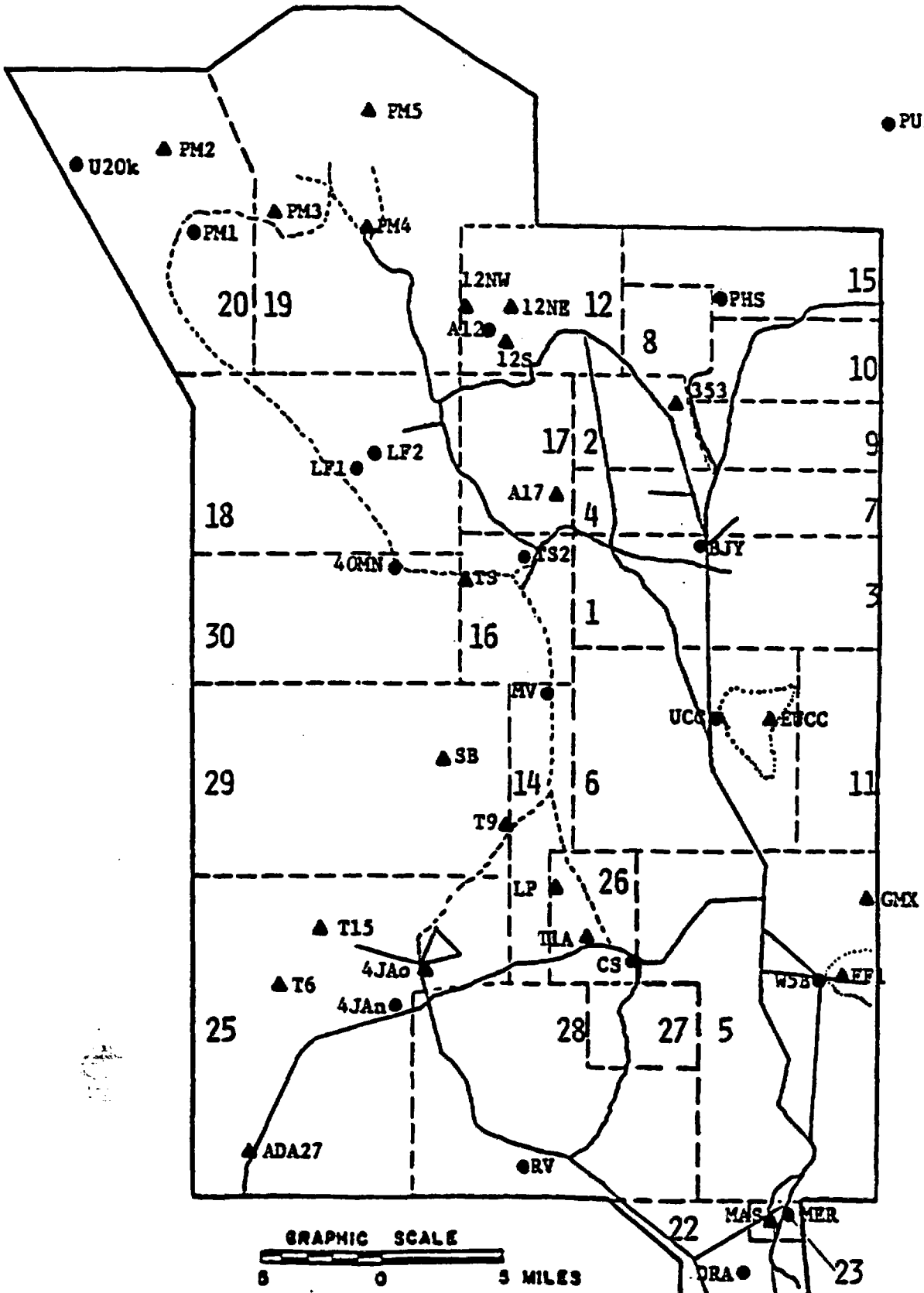

Figure 1. Station locator. See Table 1 for identifying information.

● Active Stations
▲ Inactive Stations } as of 4/1/83

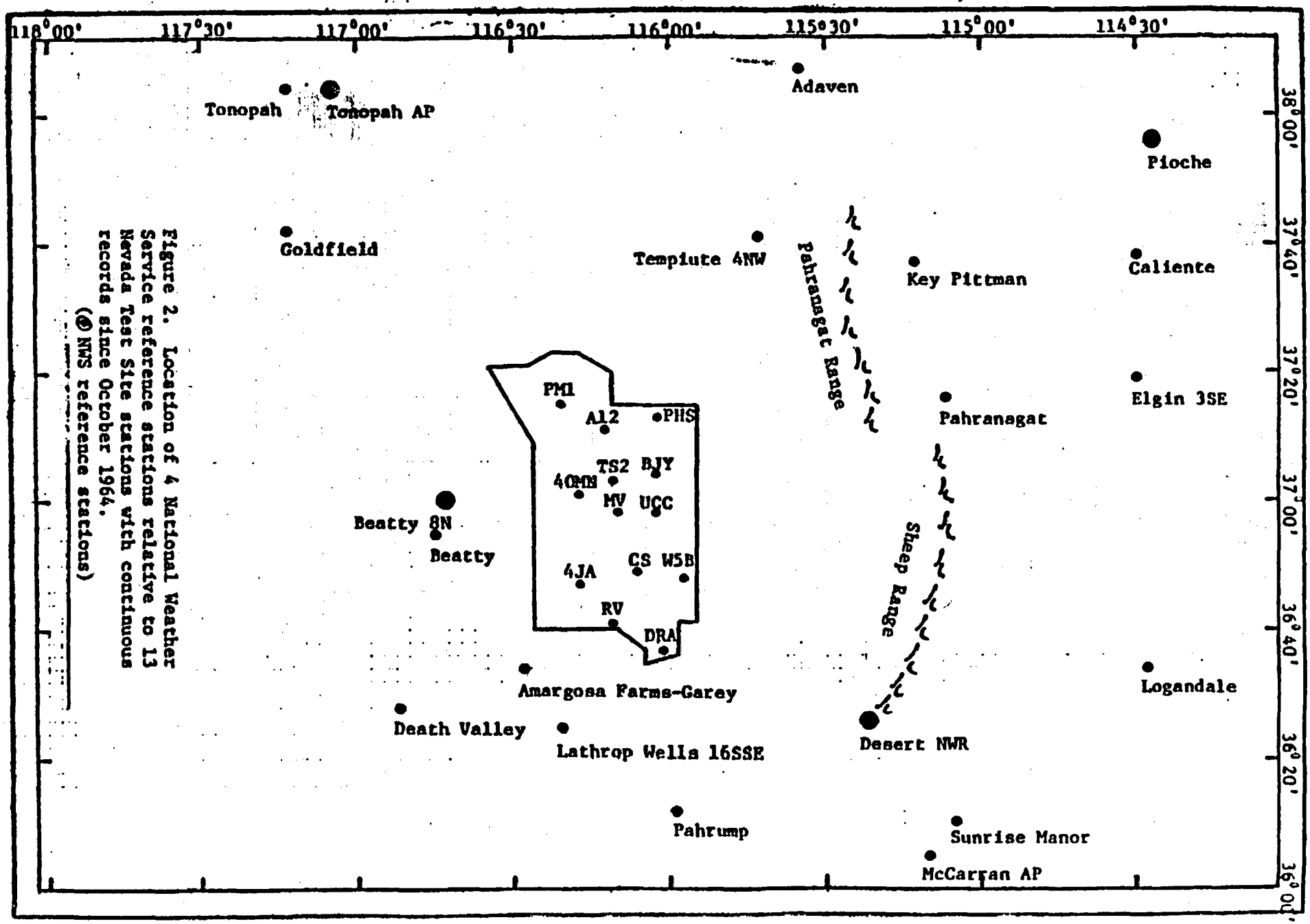

Figure 2. Location of 4 National Weather Service reference stations relative to 13 Nevada Test Site stations with continuous records since October 1964.
(● NWS reference stations)

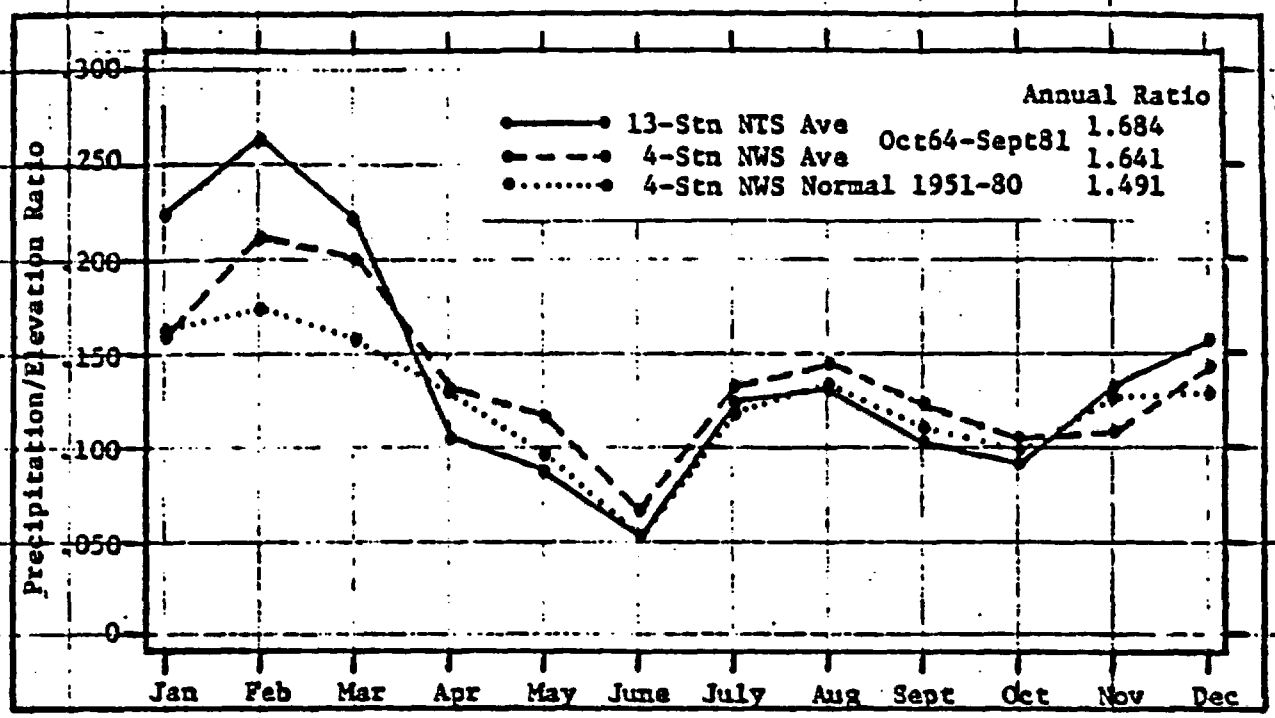

Figure 3. The annual precipitation cycle averaged for 13 NTS stations in comparison with the average of 4 reference NWS stations.

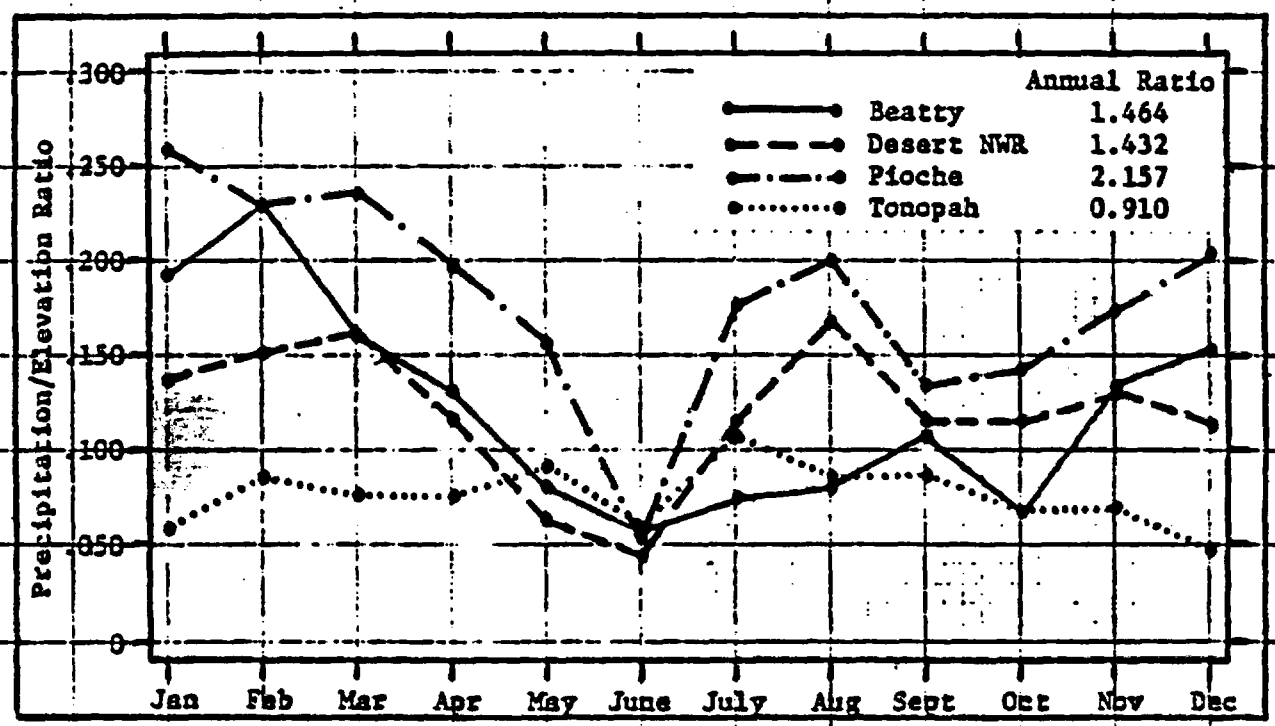

Figure 4. Annual precipitation cycle for 4 NWS reference stations, 1951-80 normal.

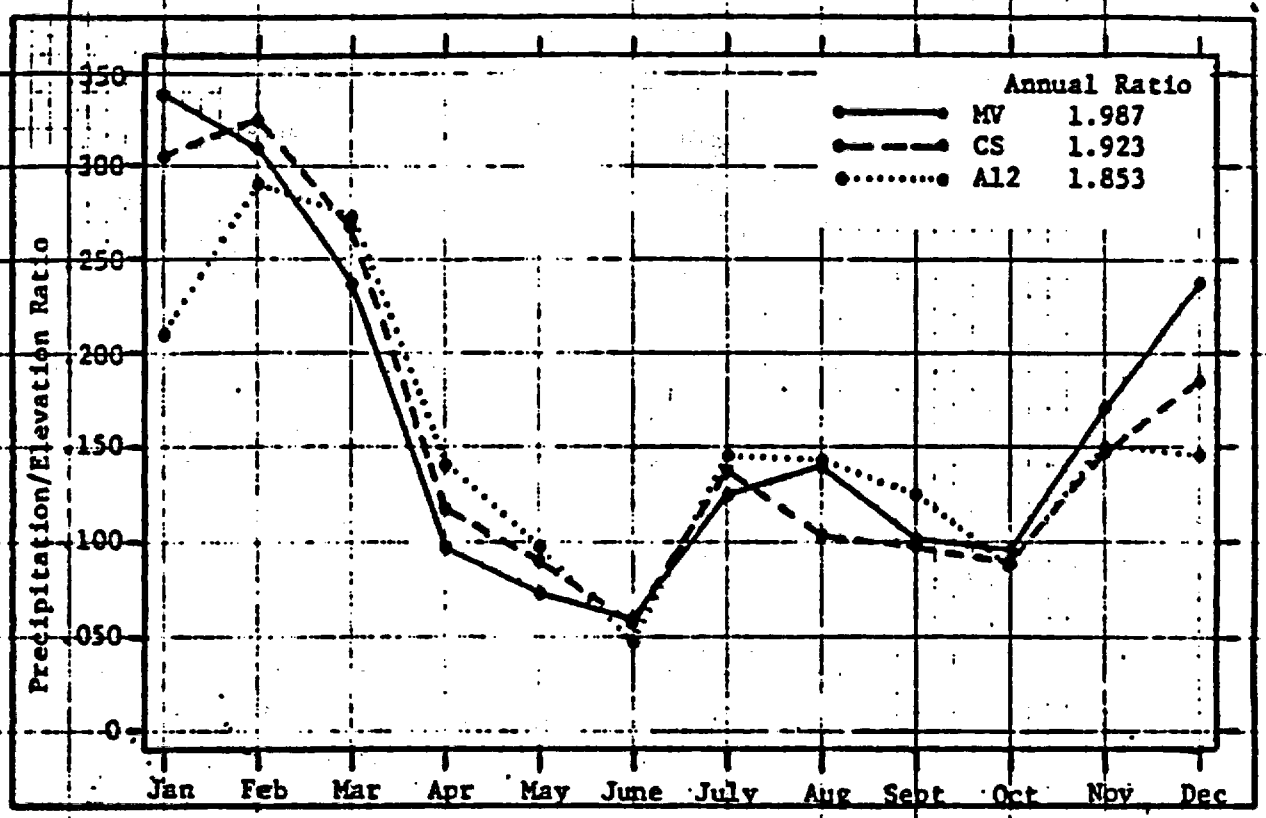

Figure 5. Annual precipitation cycle for 3 NTS stations with the highest annual precipitation/elevation ratio, October 1964-September 1981.

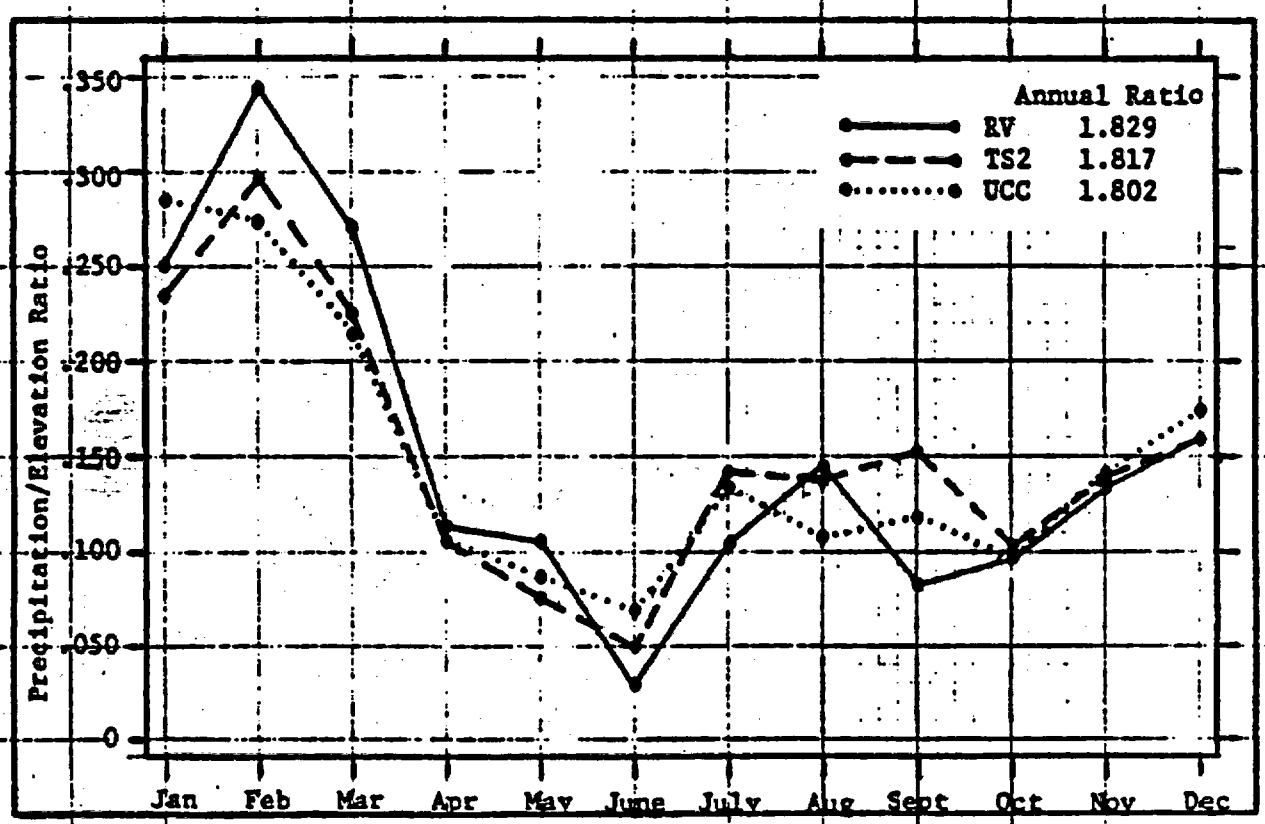

Figure 6. Same as Figure 5 for the second highest group of 3 NTS stations.

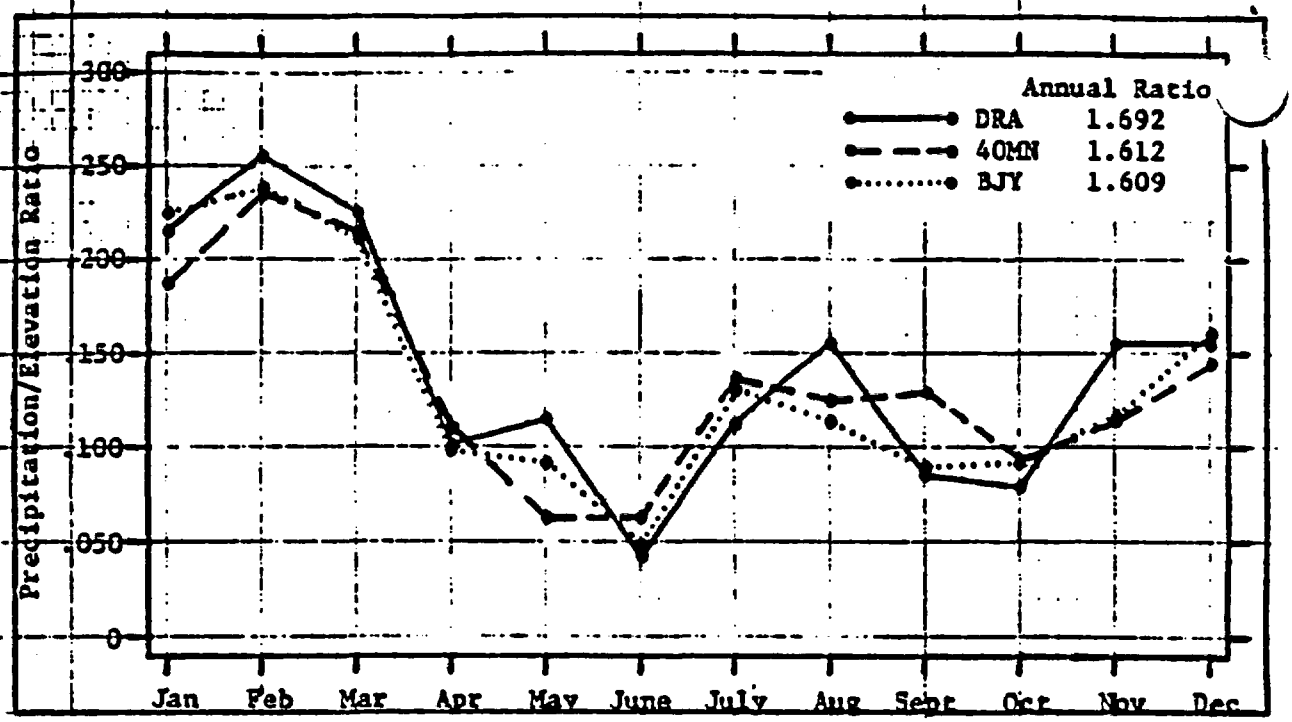

Figure 7. Same as Figure 5 for the third highest group of 3 NTS stations.

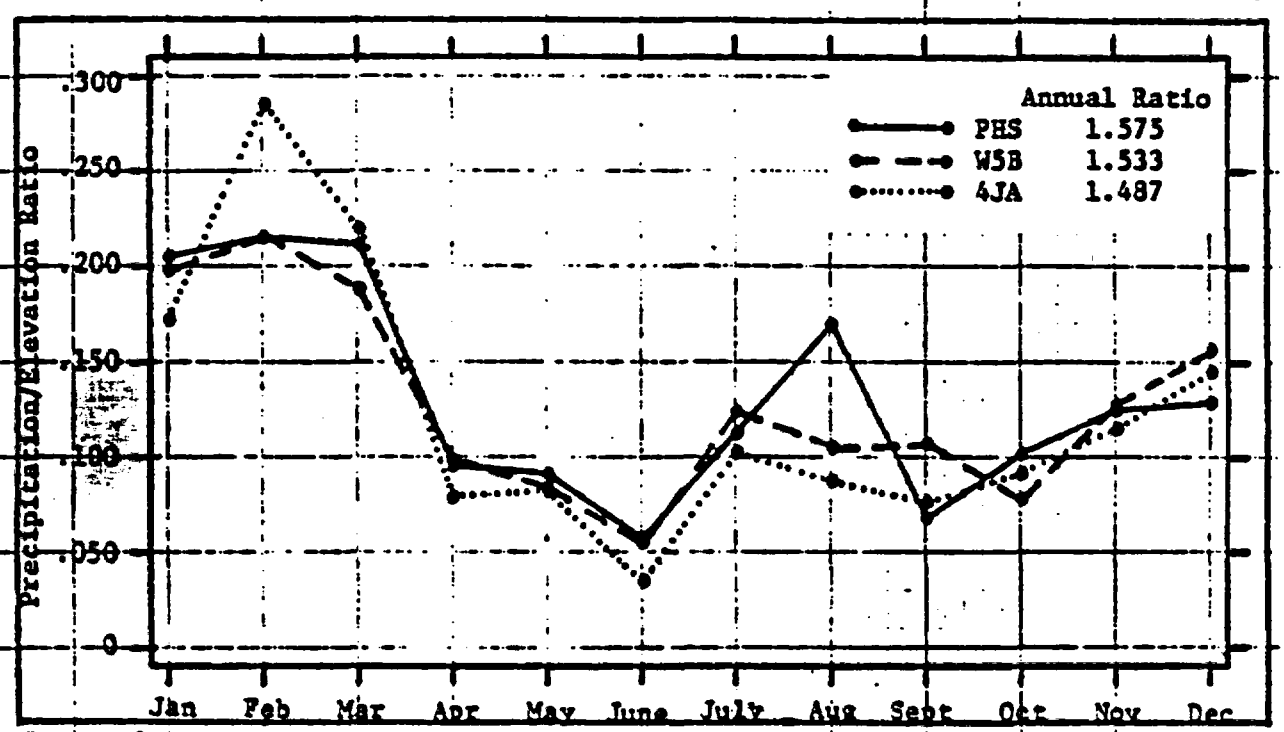

Figure 8. Same as Figure 5 for the fourth highest group of 3 NTS stations.

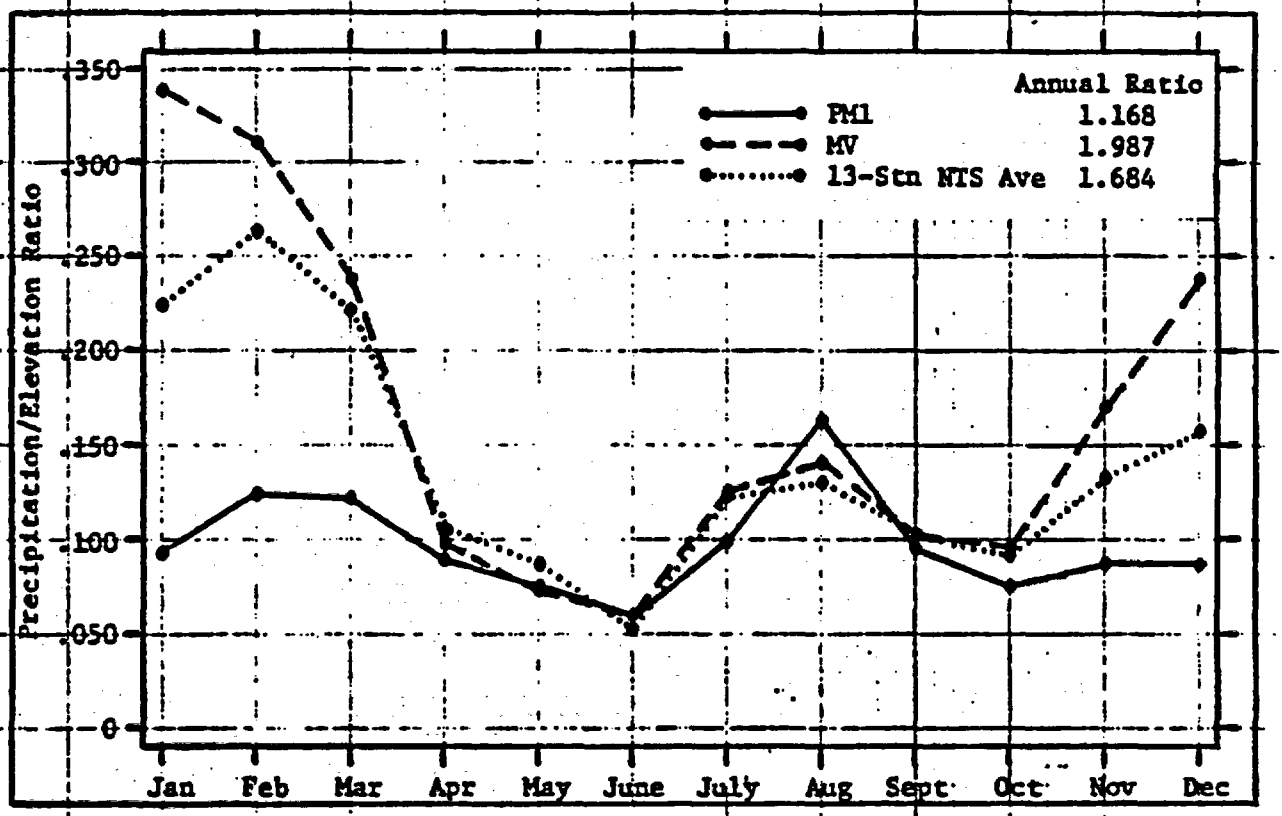

Figure 9. Annual precipitation cycle for the NTS station with the lowest annual precipitation/elevation ratio in comparison with the 13-station average and the NTS station with the highest ratio.

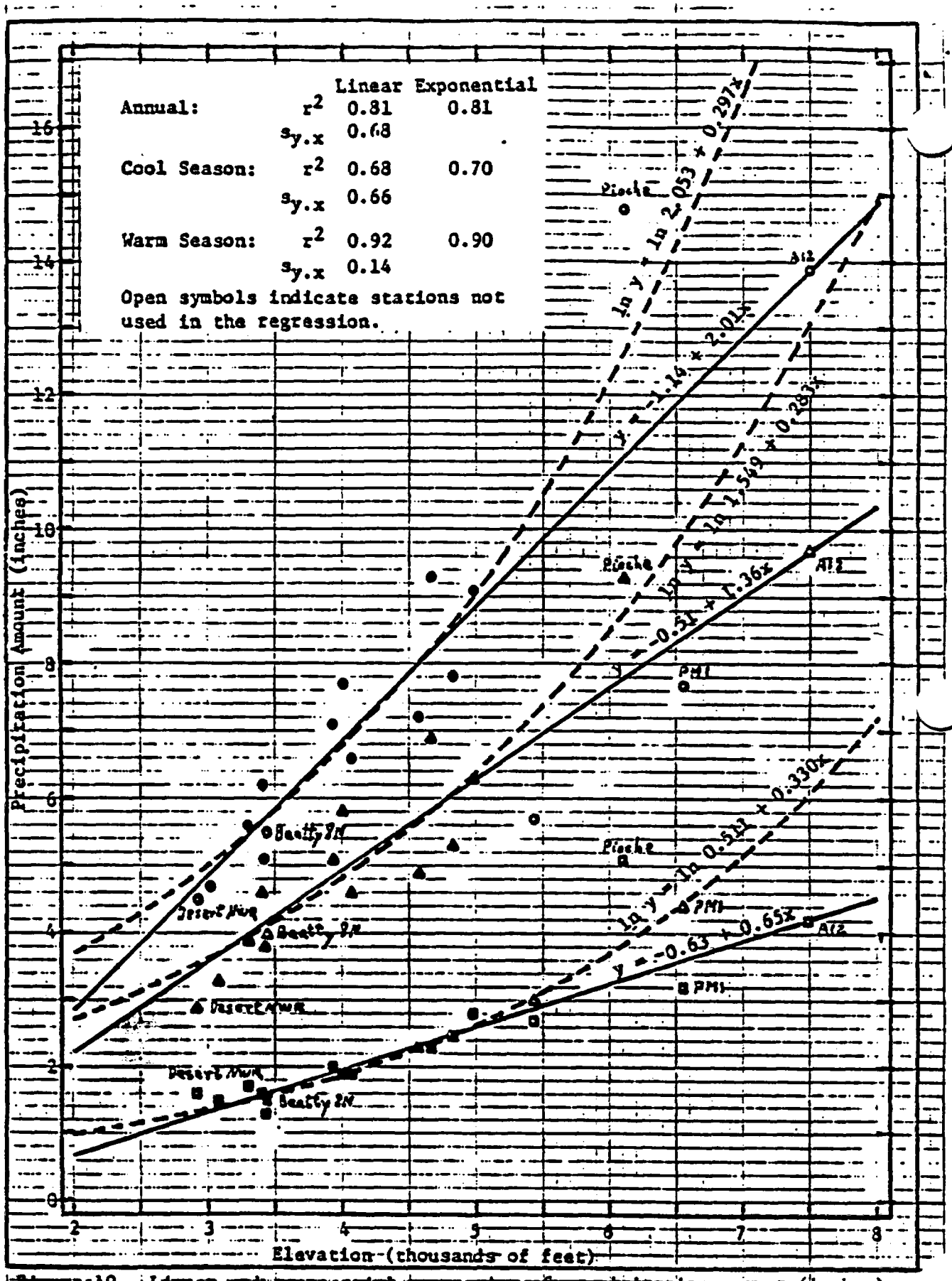

Figure 10. Linear and exponential regression of precipitation amount (inches) on elevation (thousands of feet) based on data for 11 NTS stations below 5000 feet, October 1964-September 1981.

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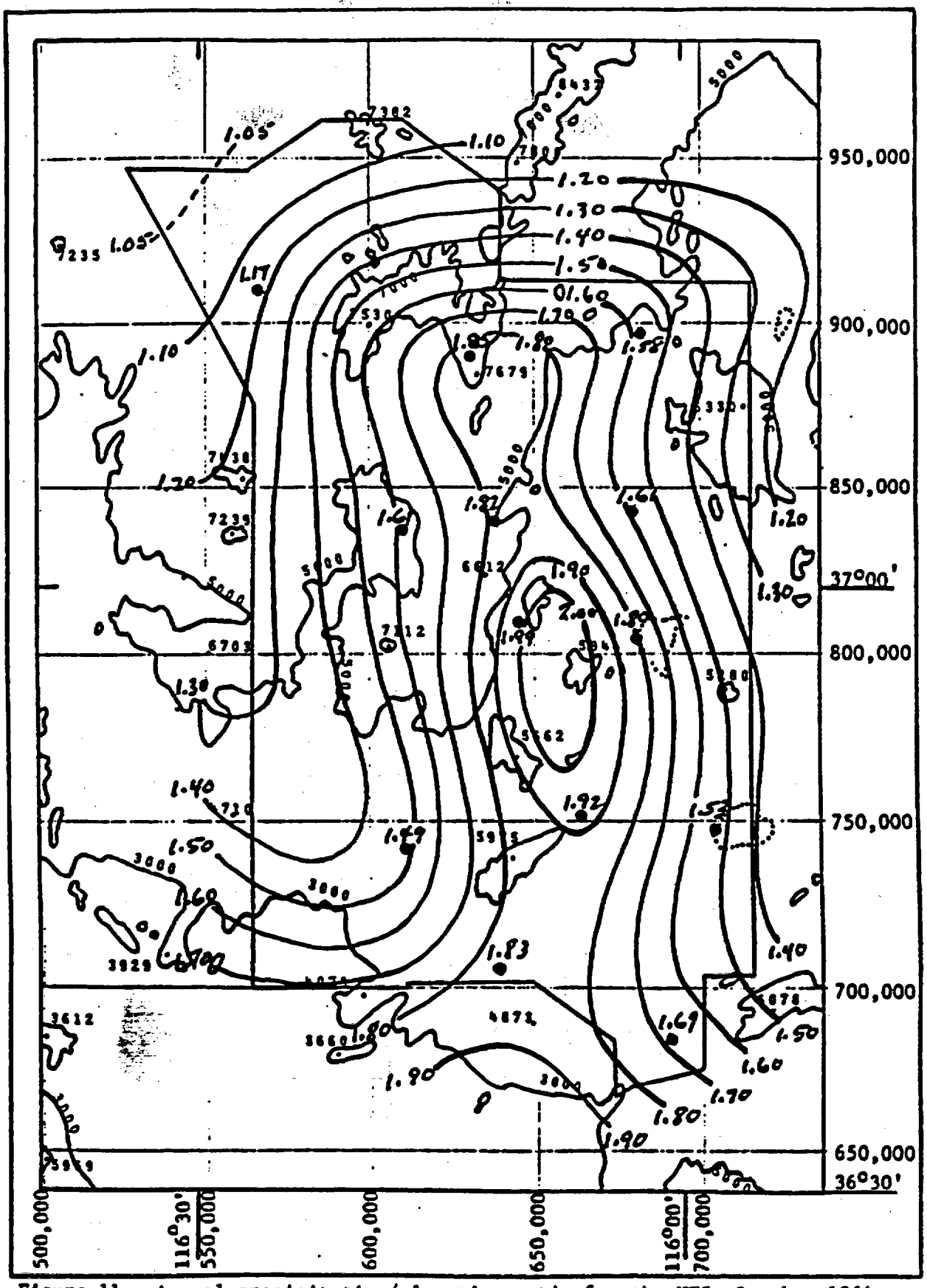

Figure 11. Annual precipitation/elevation ratio for the NTS, October 1964-September 1981.

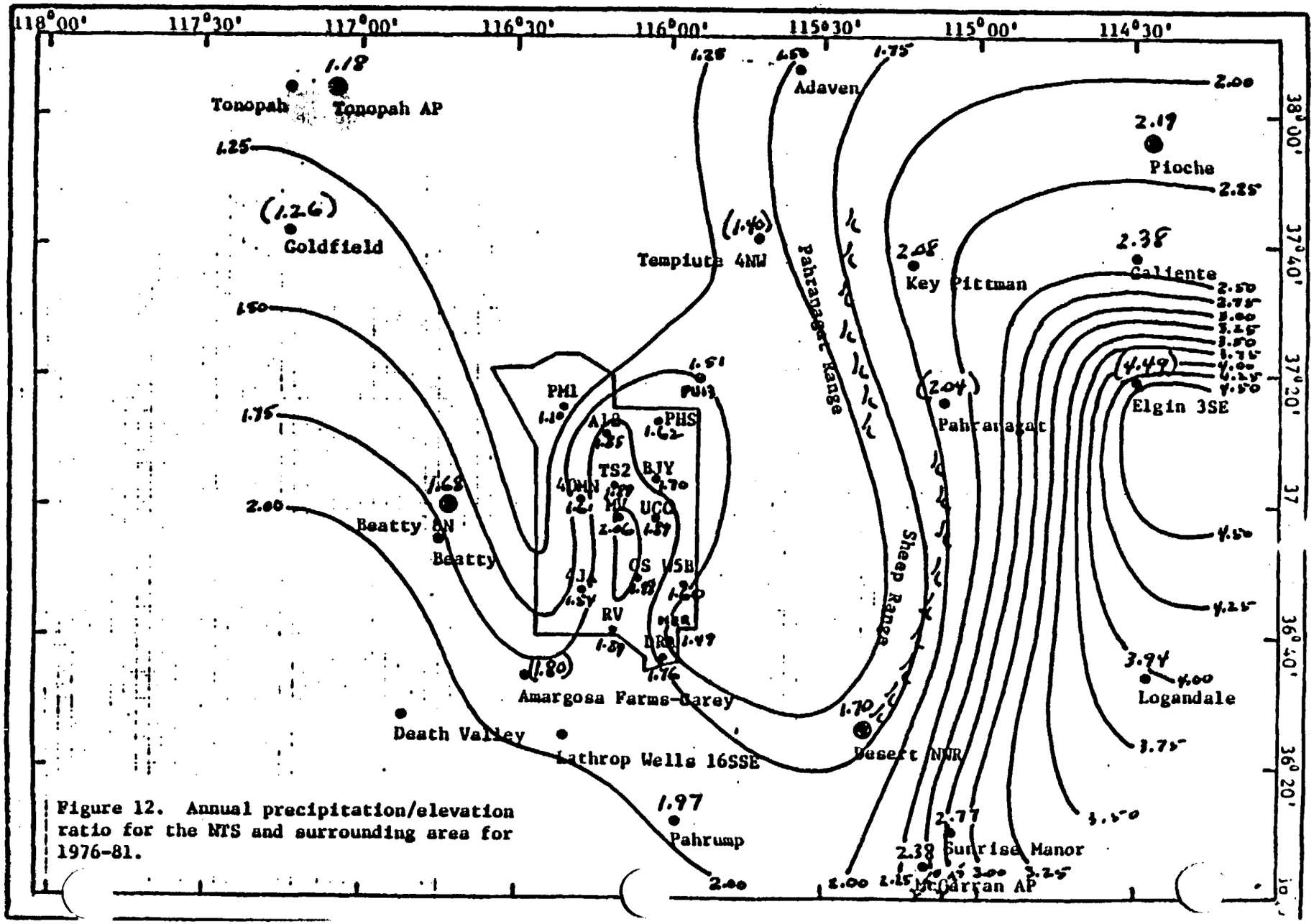

Figure 12. Annual precipitation/elevation ratio for the NTS and surrounding area for 1976-81.

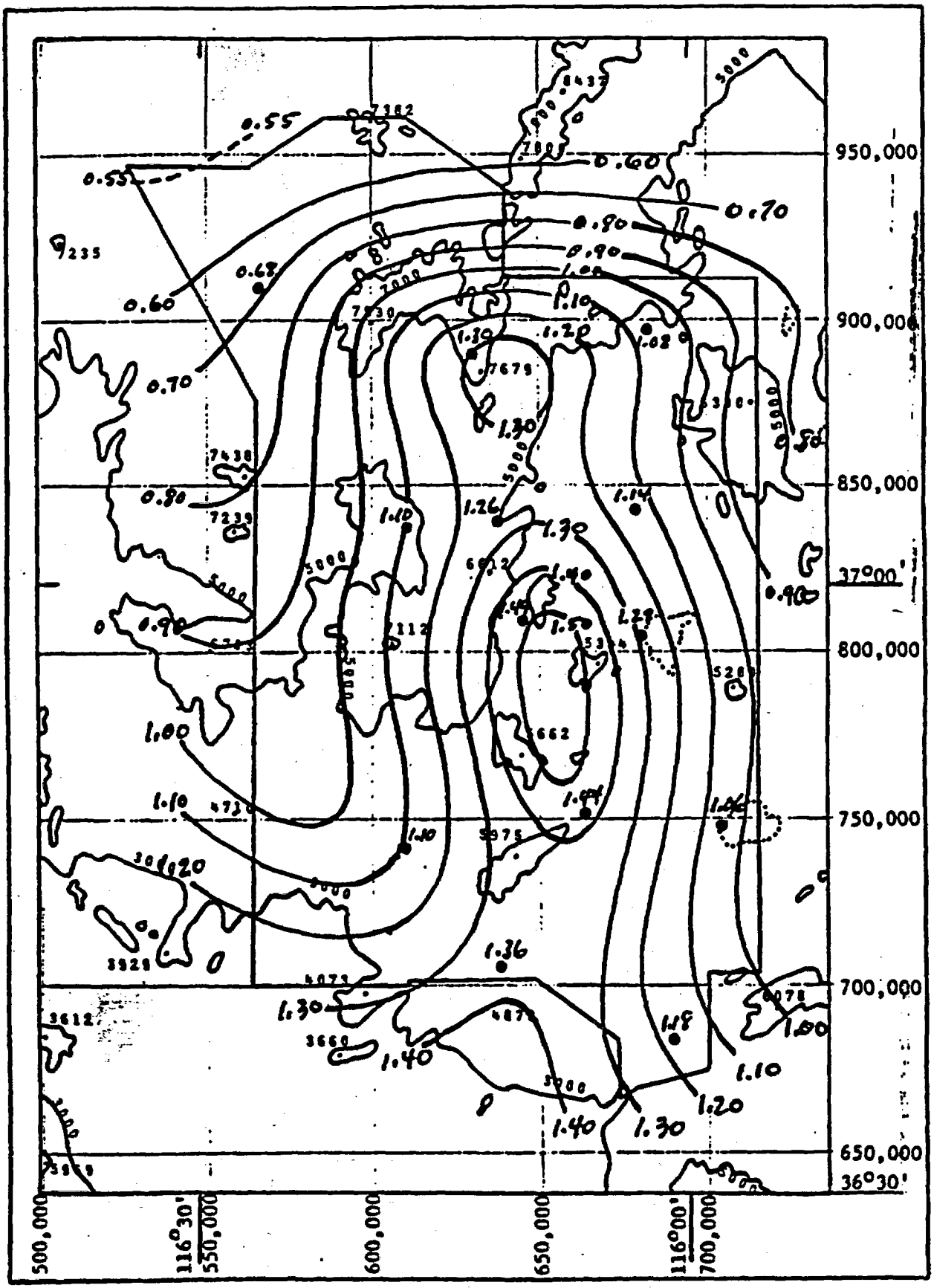

Figure 13. Cool season (Oct-Apr) precipitation/elevation ratio for the NTS, October 1964-September 1981.

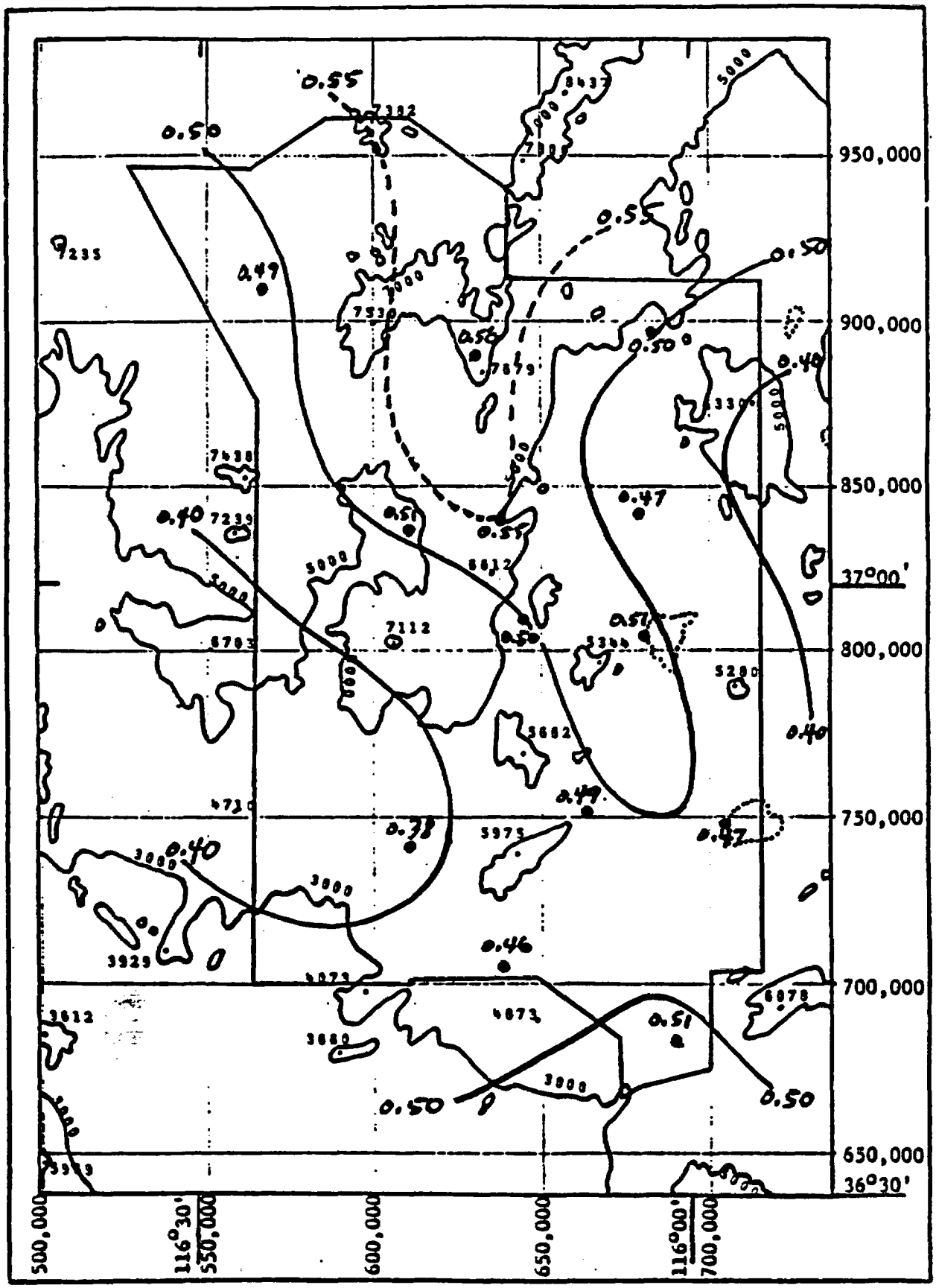

Figure 14. Warm season (May-Sept) precipitation/elevation ratio for the NTS, October 1964-September 1981.

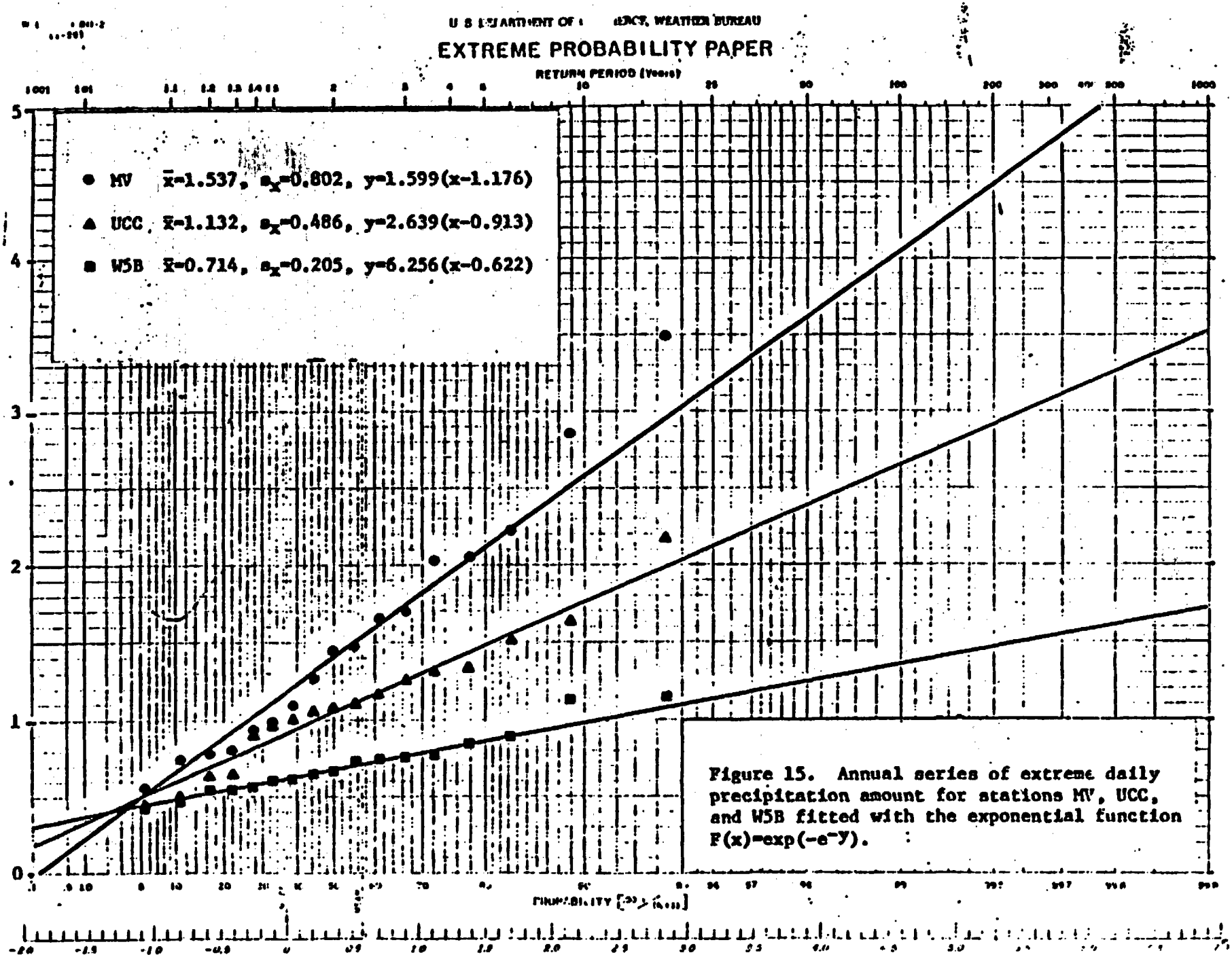

Figure 15. Annual series of extreme daily precipitation amount for stations MV, UCC, and W5B fitted with the exponential function $F(x)=\exp(-e^{-y})$.

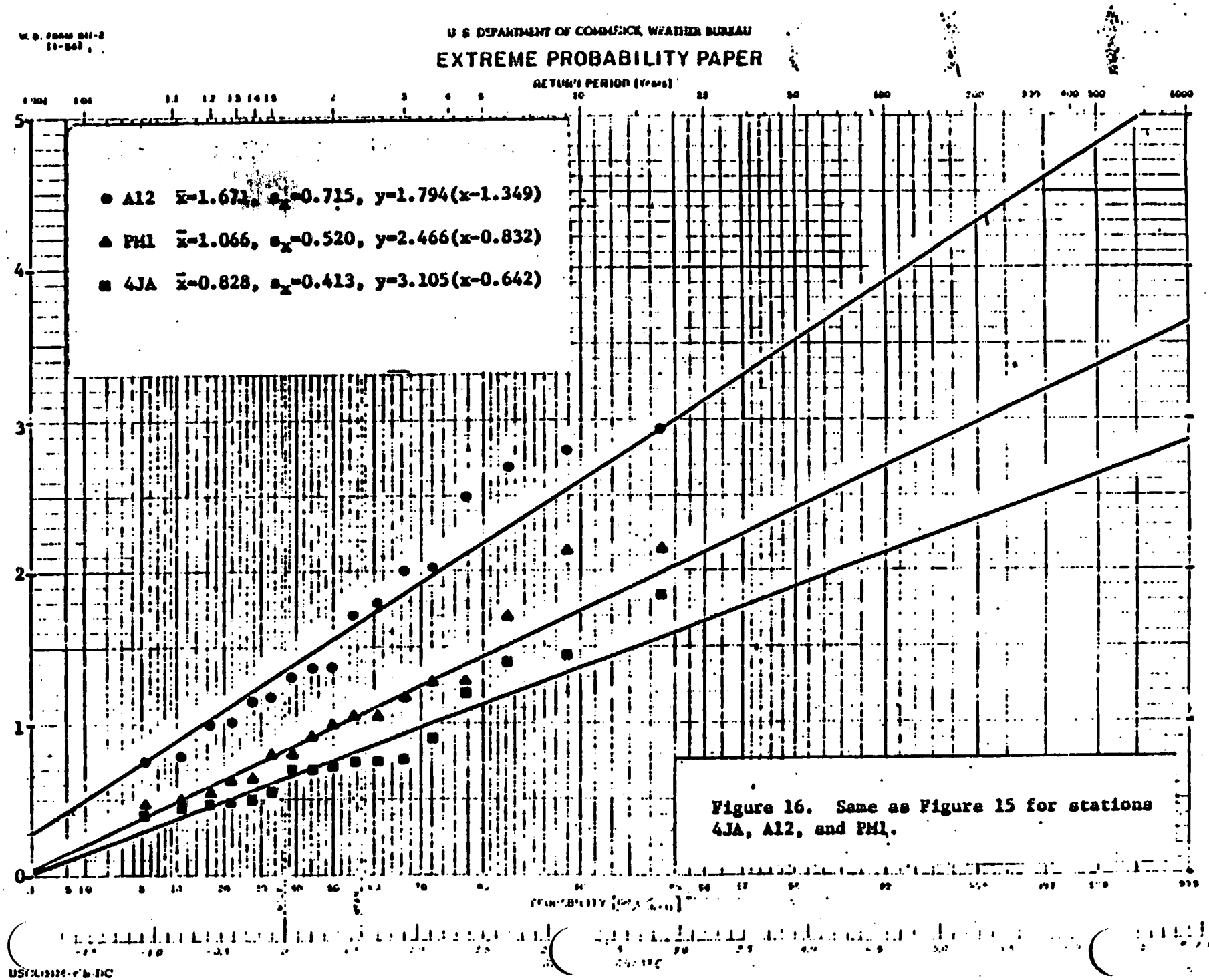

Figure 16. Same as Figure 15 for stations 4JA, A12, and PM1.

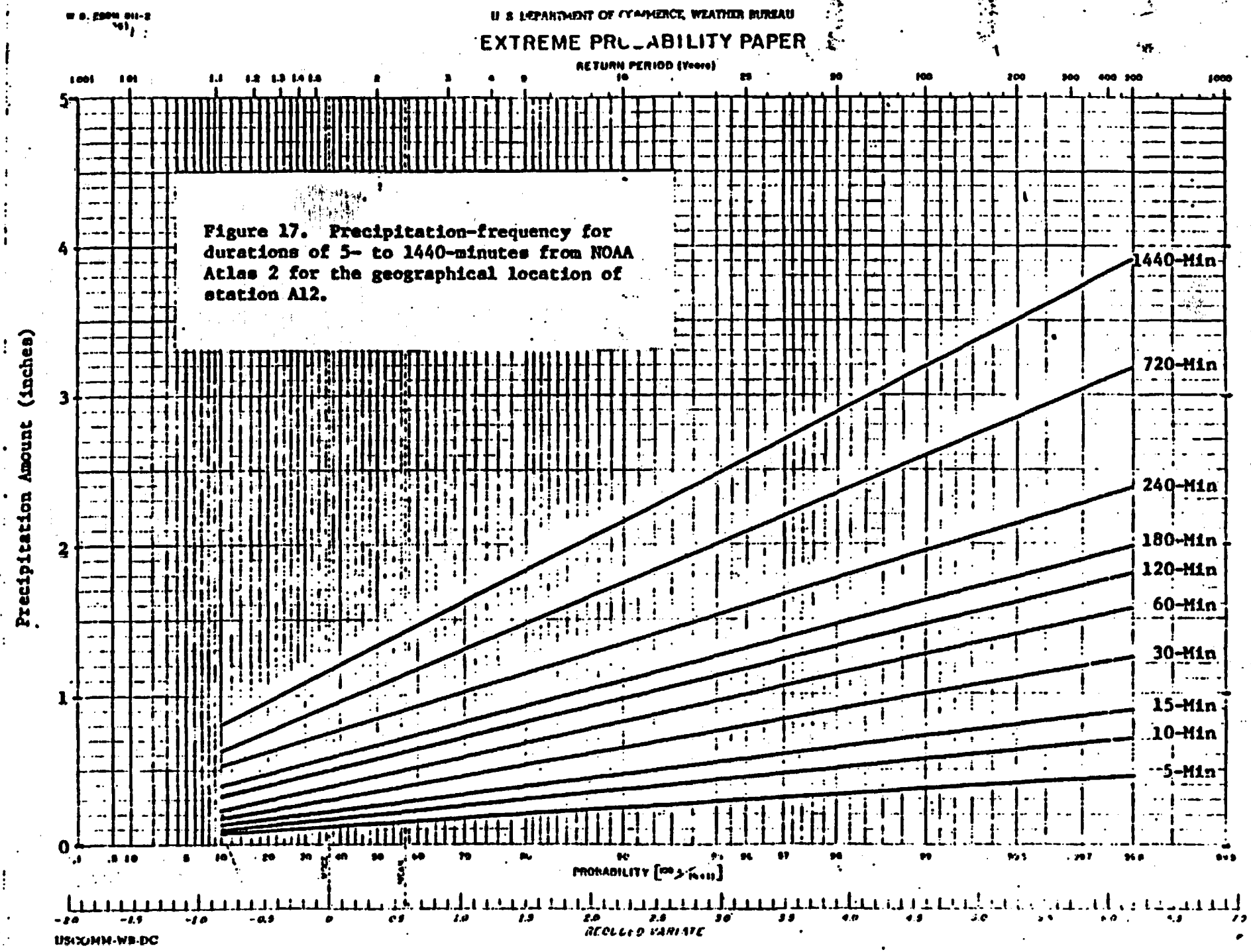

Figure 17. Precipitation-frequency for durations of 5- to 1440-minutes from NOAA Atlas 2 for the geographical location of station A12.

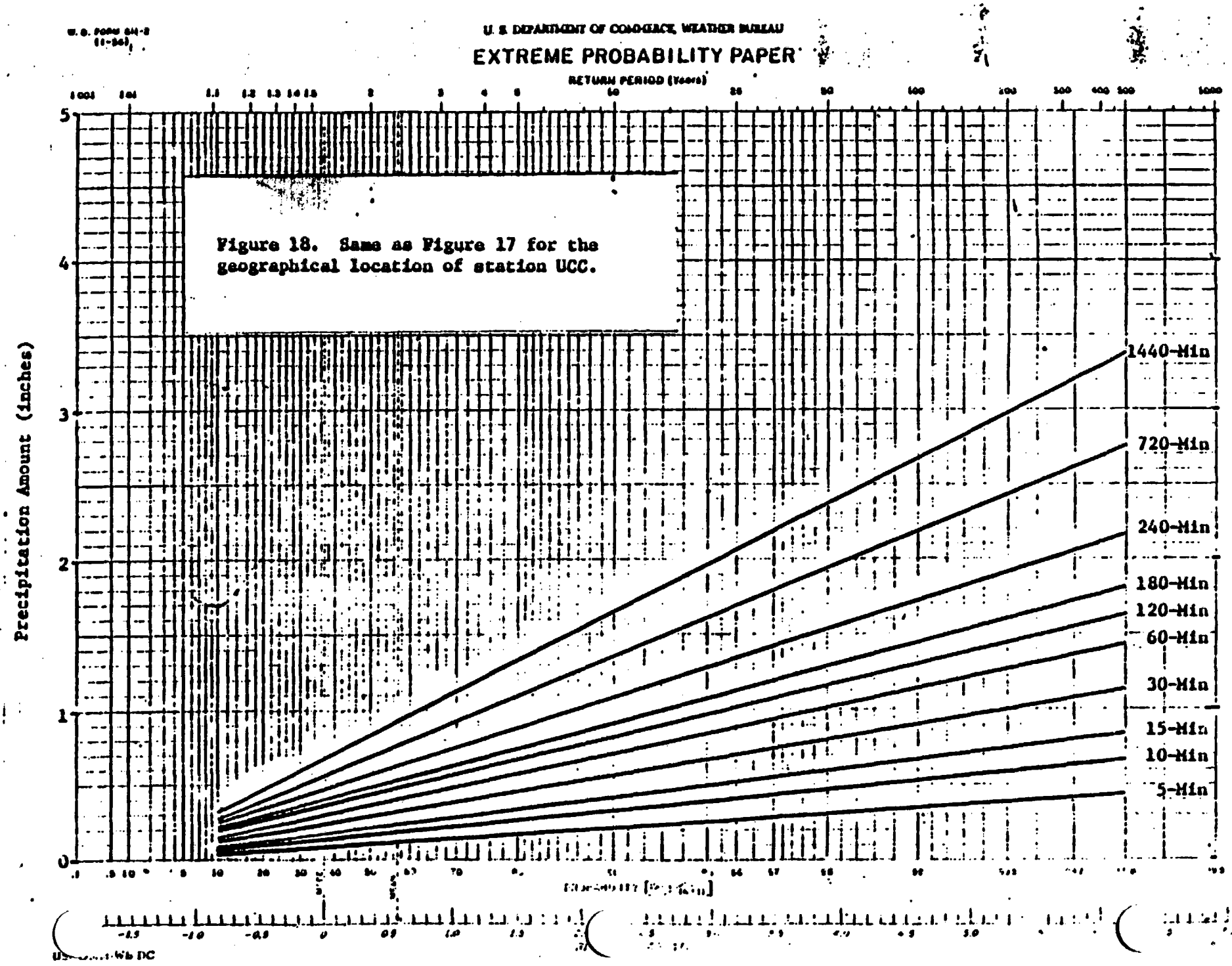

Figure 18. Same as Figure 17 for the geographical location of station UCC.

Table 1. Identifying information for NTS precipitation stations

NTS Area	Station Name	Map ID	Type of Gage[1]	Elev (ft)	Nevada Coordinate System (Central) East	North	Latitude Deg	Min	Sec	Longitude Deg	Min	Sec	Record Starts	Ends
1	BJY	BJY	W	4070	679,100	842,300	37	03	46	116	03	09	2/17/60	
2	Station 353	353	W	4360	672,619	873,094	37	08	50	116	04	27	2/17/60	9/21/64
5	Frenchman Flat #1	FF1	W	3079	709,450	748,400	36	48	15	115	57	05	6/25/62	9/9/63
5	GMX	GMX	TB	3180	715,390	764,310	36	50	50	115	55	50	2/24/71	2/11/80
5	Well 5B	W5B	W	3080	705,200	747,600	36	48	07	115	57	55	9/9/63	
6	East Yucca	EUCC	W	3920	693,382	804,596	36	57	32	116	00	18	2/15/60	9/23/64
6	Yucca	UCC	W[2]	3924	680,875	803,600	36	57	23	116	02	51	5/11/58	
12	Area 12 Mesa	A12	W	7490	631,400	888,900	37	11	28	116	12	55	3/11/59	
12	Area 12 Mesa NE	12NE	W	7240	635,900	894,000	37	12	19	116	12	00	3/14/60	9/21/64
12	Area 12 Mesa NW	12NW	W	7670	625,800	896,000	37	12	39	116	14	04	3/14/60	9/21/64
12	Area 12 Mesa S	12S	W	7640	633,695	885,800	37	10	58	116	12	29	3/14/60	9/21/64
13	PU13	PU13	TB	4580	720,000	935,000	37	19	00	115	54	36	1/6/72	
14	Mid Valley	MV	W[3]	4660	644,500	809,250	36	58	21	116	10	19	9/28/64	
15	PHS Farm	PHS	TB[4]	4565	682,870	895,640	37	12	32	116	02	19	10/1/64	
16	Tippipah Spring	TS	W	5470	625,882	834,368	37	02	30	116	14	07	2/15/60	9/28/64
16	Tippipah Spring #2	TS2	W	4980	638,650	838,600	37	03	11	116	11	29	9/28/64	
17	Area 17	A17	TB	4932	646,488	853,330	37	05	36	116	09	51	4/21/78	3/26/79
18	Little Feller #1	LF1	TB	5160	602,000	858,520	37	06	30	116	19	02	8/4/76	
18	Little Feller #2	LF2	W	5120	605,850	862,100	37	07	05	116	18	14	8/4/76	
19	Pahute Mesa #3	PM3	W	6490	583,900	914,750	37	15	47	116	22	42	9/10/64	7/17/73
19	Pahute Mesa #4	PM4	W	6900	604,250	911,500	37	15	15	116	18	30	10/12/64	7/17/73
19	Pahute Mesa #5	PM5	W	6750	604,750	937,800	37	19	33	116	18	22	9/10/64	7/3/73
20	Pahute Mesa #1	PM1	TB[5]	6550	566,700	909,700	37	14	56	116	26	15	1/17/64	
20	Pahute Mesa #2	PM2	W	6340	560,000	928,700	37	18	04	116	27	36	9/10/64	7/17/73
20	U20K 1 Mi N	U20k	S	6070	541,300	926,000	37	17	37	116	31	29	8/10/77	

(Continued)

Table 1 Continued

NTS Area	Station Name	Map ID	Type of Gage[1]	Elev (ft)	Nevada Coordinate System (Central) East	North	Latitude Deg	Min	Sec	Longitude Deg	Min	Sec	Record Starts	Ends
22	Desert Rock	DR	M[6]	3298	690,040	682,790	36	37	27	116	01	08	10/17/63	
23	Mercury Airstrip	MAS	W	3640	694,100	694,300	36	39	21	116	00	19	9/17/62	10/17/63
23	Mercury	MER	W	3770	696,738	695,045	36	39	29	115	59	45	3/12/71	
25	ADA27	ADA27	W	2840	580,500	708,000	36	41	42	116	23	31	2/4/65	10/15/69
25	4JA (old)	4JAo	W	3610	617,000	748,000	36	48	16	116	16	02	12/10/57	1/11/67
25	4JA (new)	4JAn	TB[7]	3422	610,605	740,840	36	47	05	116	17	20	1/11/67	
25	Tower 6	T6	W	3256	584,789	745,662	36	47	53	116	22	38	12/19/58	9/17/64
25	Tower 15	T15	TB	3740	594,000	758,000	36	49	56	116	20	44	9/1/66	4/30/68
26	Cane Spring	CS	W	4000	663,600	751,000	36	48	44	116	06	29	9/24/64	
26	Lookout Peak	LP	W	5644	646,150	766,750	36	51	20	116	10	02	2/16/60	5/15/67
26	Tower 1A[10]	T1A	W	4355	653,452	755,673	36	49	30	116	08	33	10/29/59	6/25/62
28	Rock Valley	RV	TB[8]	3400	639,050	704,700	36	41	07	116	11	33	2/26/63	
29	Shoshone Basin	SB	W	5660	620,700	795,000	36	56	01	116	15	14	10/22/59	7/23/73
29	Tower 9	T9	W	4868	636,195	780,510	36	53	36	116	12	03	12/18/58	9/17/64
30	40MN	40MN	W[9]	4820	610,600	837,100	37	02	57	116	17	15	2/15/60	
Other	Schultz Ranch	SR	W	2390	527,840	665,210	36	34	39	116	34	24	1/19/64	9/15/70

Reference Notes:

1. Type of gage -- W = Weighing, TB = Tipping Bucket, S = Storage, M = Manual (6-hourly readings).
2. Yucca -- Manual raingage 6/3/66 to 5/15/78.
3. Mid Valley -- Tipping bucket raingage 8/30/66 to 7/12/71.
4. PHS Farm -- Weighing raingage prior to 7/31/73.
5. Pahute Mesa #1 -- Weighing raingage prior to 8/2/68.
6. Desert Rock -- Weighing raingage prior to 4/12/66, tipping bucket raingage 4/12/66 to 5/15/78. Location prior to 5/15/78 was approximately 2200 feet WSW at an elevation of 3250 feet.
7. 4JA (new) -- Weighing raingage prior to 7/19/73.
8. Rock Valley -- Weighing raingage prior to 8/25/66.
9. 40MN -- Tipping bucket raingage 9/15/66 to 7/7/71.
10. Tower 1A -- Raingage moved to E655,131 N756,000 at elevation of 4299 feet on 12/19/61.

Table 2. Average monthly and annual precipitation for the period of record through 1981.

NTS Area	Map ID	Yrs of Rec	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1	BJY	21	.76	.87	.73	.34	.33	.21	.48	.45	.43	.36	.50	.57	6.03
2	353	4	.27	.43	.27	.13	.17	.14	.35	.71	.68	.31	.64	.37	4.47
5	FF1	1	(Included with W5B)												
5	GMX	9	.68	.64	.64	.16	.38	.12	.31	.40	.25	.37	.28	.48	5.23
5	W5B	18	.55	.62	.54	.30	.25	.18	.36	.32	.43	.22	.38	.44	4.59
6	EUCC	4	.13	.44	.24	.16	.11	.28	.19	.48	.81	.41	.73	.40	4.38
6	UCC	23	.91	.92	.72	.36	.28	.24	.48	.41	.49	.35	.59	.59	6.34
12	A12	22	1.39	1.92	1.72	.87	.62	.35	.93	1.05	.93	.60	1.12	.88	12.38
12	12NE	4	.49	.79	.46	.26	.24	.29	.51	.71	.90	.32	.84	.23	6.04
12	12NW	4	.62	1.03	.60	.33	.38	.38	.57	1.07	1.04	.36	1.02	.34	7.74
12	12S	4	.51	.93	.70	.44	.36	.35	.56	.87	.95	.41	1.02	.31	7.41
13	PU13	10	1.06	.86	1.06	.27	.42	.25	.63	.78	.38	.60	.37	.23	6.91
14	MV	17	1.58	1.45	1.11	.45	.34	.28	.58	.65	.47	.43	.81	1.05	9.20
15	PHS	17	.93	.98	.96	.44	.41	.26	.51	.77	.31	.46	.56	.56	7.15
16	TS	4	.37	.69	.51	.27	.13	.22	.50	.78	.79	.40	.84	.53	6.03
16	TS2[1]	17	1.17	1.48	1.12	.53	.38	.25	.70	.68	.75	.50	.71	.75	9.02
17	A17	0	(Less than 1 year)												
18	LF1	5	1.26	.89	1.60	.43	.39	.06	.33	.64	.80	.30	.23	.29	7.22
18	LF2	5	1.69	1.10	2.00	.54	.56	.14	.35	.64	1.04	.39	.29	.33	9.07
19	PM3	8	.86	1.25	.68	1.01	.53	.94	1.48	1.59	.52	.43	1.13	1.15	11.57
19	PM4	8	1.12	1.68	.91	1.08	.56	.63	1.75	1.37	.42	.43	1.68	1.51	13.14
19	PM5	8	.52	.79	.47	.80	.44	.69	1.57	.75	.34	.56	.76	.78	8.47
20	PM1	17	.58	.78	.77	.58	.51	.38	.67	1.06	.59	.50	.56	.54	7.50
20	PM2	8	.63	.84	.66	.90	.44	.69	.84	1.08	.44	.42	.87	.91	8.72
20	U20k	4	1.40	1.19	1.96	1.03	.80	.03	.79	.82	.77	.22	.32	.40	9.73

(Continued)

Table 2 Continued

NTS Area	Map ID	Yrs of Rec	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
22	DRA	19	.64	.78	.70	.33	.35	.14	.34	.52	.38	.25	.50	.46	5.39
23	MAS	1	(Included with DRA)												
23	MER	10	.78	.80	.88	.25	.47	.13	.30	.36	.39	.35	.35	.49	5.53
25	ADA27	4	.50	.85	.18	.48	.09	.38	.83	.27	.14	.09	.83	.63	5.27
25	4JAn	15	.63	1.08	.83	.18	.31	.13	.35	.31	.28	.32	.33	.33	5.08
25	4JAo	9	.27	.39	.16	.34	.11	.07	.19	.25	.47	.21	.54	.63	3.63
25	T6	5	.37	.59	.16	.10	.15	.14	.50	.22	.50	.22	.61	.44	4.00
25	T15	1	(Record unreliable)												
26	CS	17	1.22	1.30	1.07	.47	.36	.23	.55	.41	.39	.35	.60	.70	7.65
26	LP[2]	7	.26	.37	.23	.42	.08	.13	.35	.73	.46	.20	.75	.57	4.55
26	T1A	2	.40	.74	.36	.13	.14	.10	.27	.45	.63	.49	1.03	.80	5.54
28	RV	18	.81	1.11	.86	.37	.33	.11	.36	.49	.32	.31	.47	.48	6.02
29	SB	13	.90	1.23	.72	.51	.30	.31	.65	.98	.62	.41	1.17	1.13	8.93
29	T9	5	.52	1.03	.26	.26	.10	.19	.37	.55	.93	.26	.67	.66	5.80
30	40MN	21	.78	1.05	.88	.46	.26	.28	.64	.62	.70	.43	.61	.60	7.31
Other	SR	6	.31	.78	.10	.34	.07	.15	.40	.38	.06	.04	.39	.35	3.37

Reference Notes:

1. Excessive precipitation initially recorded for September 1975 has been downgraded from 8.65 to 3.65 inches.

2. Precipitation amounts at this location are about 60 percent of expectations due to extreme windiness.

Table 3. Average monthly and annual number of days with measurable precipitation for the period of record through 1981.

NTS Area	Map ID	Yrs of Rec	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1	BJY	21	4	4	5	4	3	2	3	3	3	2	3	3	38
2	353	4	3	3	4	4	3	3	3	3	2	3	3	1	35
5	FF1	1	(Included with W5B)												
5	GMX	9	4	4	5	2	3	1	2	2	2	2	2	3	31
5	W5B	18	4	4	4	3	2	2	3	2	2	2	3	2	32
6	EUCC	4	1	2	3	3	2	2	2	3	2	2	3	1	28
6	UCC	23	4	4	5	3	2	2	3	3	2	2	3	2	34
12	A12	22	5	6	7	5	4	3	5	5	3	3	4	4	54
12	12NF	4	3	4	6	5	4	3	4	5	3	4	4	2	46
12	12NW	4	3	5	6	5	4	4	3	6	2	4	4	2	47
12	12S	4	3	4	7	5	4	4	3	5	2	4	5	2	49
13	PU13	10	6	4	7	4	3	2	3	3	3	3	3	2	42
14	MV	17	5	5	6	4	3	2	3	4	2	2	3	4	42
15	PHS	17	5	5	6	4	3	2	4	4	3	2	3	3	42
16	TS	4	2	4	5	4	3	3	3	5	3	4	4	2	41
16	TS2	17	6	5	6	4	4	2	4	4	3	3	3	4	46
17	A17	0	(Less than 1 year)												
18	LF1	5	7	5	9	4	3	1	1	3	3	2	2	3	45
18	LF2	5	8	5	10	4	5	1	2	3	4	3	2	3	49
19	PM3	8	4	5	4	6	4	4	6	6	3	3	5	6	56
19	PM4	8	4	6	5	6	3	4	7	6	3	3	6	6	59
19	PM5	8	4	5	4	6	3	4	6	5	3	3	5	6	53
20	PM1	17	5	5	6	5	4	2	4	4	3	2	4	4	48
20	PM2	8	4	5	4	6	4	4	5	6	3	2	5	5	54
20	U20k	4	(Data not available)												

(Continued)

Table 3 Continued

NTS Area	Map ID	Yrs of Rec	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
22	DRA	19	4	4	4	3	2	2	3	3	2	2	3	2	32
23	MAS	1	(Included with DRA)												
23	MER	10	5	4	6	3	3	1	2	3	2	3	3	3	35
25	ADA27	4	3	3	2	3	2	3	3	3	1	1	3	2	30
25	4JAn	15	4	4	5	3	2	1	2	2	2	2	2	2	32
25	4JAo	9	2	3	3	3	1	1	2	3	2	1	3	2	25
25	T6	5	2	4	3	2	1	2	2	2	2	2	3	1	25
25	T15	1	(Record unreliable)												
26	CS	17	5	4	5	3	2	2	3	3	2	2	2	3	36
26	LP	7	2	2	3	5	1	2	3	3	2	1	4	2	31
26	T1A	2	3	4	4	2	2	2	2	4	2	3	4	2	32
28	RV	18	4	4	4	3	2	2	2	2	2	2	3	2	31
29	SB	13	3	5	5	5	3	3	4	4	2	3	4	4	43
29	T9	5	3	4	4	3	2	3	3	2	2	3	3	2	33
30	4QMN	21	5	5	6	4	3	2	3	3	3	3	3	3	43
Other	SR	6	2	3	2	4	1	2	3	3	1	1	3	2	24

Table 4. Greatest monthly and annual precipitation amounts, with the year of occurrence (most recent year if more than one), for the period of record through 1981.

NTS Area	Map ID	Yrs of Rec	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1	BIY	21	3.41/69	3.42/78	3.58/73	2.40/65	2.02/77	1.22/72	1.54/65	2.38/77	1.89/63	1.49/72	2.37/65	2.61/71	12.23/78
2	353	4	.47/61	1.33/62	.45/63	.20/63	.30/64	.27/60	.96/64	1.53/61	1.53/63	.88/60	1.50/60	1.20/61	5.22/61
5	FF1	1	(Included with WSB)												
5	GMX	9	1.86/78	2.27/78	2.40/73	.48/78	1.16/77	.98/72	1.29/74	1.51/77	.90/72	1.09/76	1.09/72	1.32/71	8.22/78
5	WSB	18	1.93/78	2.79/69	2.40/73	1.66/65	1.03/77	.88/69	1.63/74	1.51/77	2.16/63	1.13/76	1.39/65	2.28/65	8.72/78
6	EUCC	4	.35/61	1.15/62	.32/62	.39/64	.19/61	.83/63	.40/64	1.39/63	2.04/63	1.06/60	1.57/60	1.17/61	6.12/63
6	UCC	23	4.02/69	3.60/78	3.50/78	2.70/65	1.62/71	2.66/72	1.87/76	2.52/77	2.38/69	1.69/76	3.02/65	2.66/65	14.0[illegible]/77
12	A12	22	6.21/69	8.45/69	7.82/78	5.67/65	2.60/77	1.35/69	3.24/68	3.85/77	3.82/76	2.90/74	4.67/65	4.33/65	26.79/78
12	12NE	4	.74/62	2.48/62	.64/64	.51/64	.58/64	.74/63	1.44/61	1.64/61	2.18/63	.52/60	2.43/60	.69/61	6.12/63
12	12NW	4	.81/62	3.20/62	.90/64	.72/64	.84/64	.90/63	1.36/61	2.97/61	2.60/63	.48/60	2.89/60	.94/61	8.63/62
12	12S	4	.76/62	2.98/62	.91/62	.72/60	.74/64	1.06/63	1.13/61	2.25/61	2.06/63	.71/60	2.80/60	.93/61	7.43/62
13	PU13	10	2.84/78	2.75/78	2.80/78	.75/78	2.14/77	1.39/72	2.03/76	4.05/77	1.21/76	1.37/74	1.33/72	.76/77	13.14/78
14	MV	17	7.45/69	5.05/69	4.70/78	2.97/65	1.70/71	1.61/72	1.65/66	2.44/77	3.19/76	2.02/72	5.50/65	4.00/71	18.45/78
15	PHS	17	3.69/69	3.52/78	3.70/78	3.15/65	2.10/77	1.32/72	1.66/68	2.44/71	1.95/76	1.67/72	2.66/65	2.68/65	15.01/78
16	TS	4	.50/64	1.96/62	.75/62	.45/63	.20/63	.40/60	1.31/64	1.54/61	1.73/63	.78/60	2.13/60	1.60/61	6.26/63
16	TS2[1]	17	4.91/69	6.15/69	4.04/78	2.88/65	1.61/71	1.15/69	3.67/69	2.74/77	3.65/75	2.51/72	3.41/65	2.92/65	19.36/69
17	A17	0	(Less than 1 year)												
18	LF1	5	2.64/78	2.70/78	3.08/78	1.50/78	1.33/77	.26/77	1.41/79	2.63/77	1.64/76	1.07/76	.62/78	.60/77	13.43/78
18	LF2	5	3.30/78	3.37/78	3.70/78	1.69/78	1.63/77	.39/77	1.53/79	2.94/77	2.00/76	1.30/76	.93/78	.79/78	13.78/78
19	PM3	8	4.70/69	4.05/69	1.95/73	3.06/65	1.90/73	3.18/72	3.50/68	2.92/67	2.88/67	2.33/72	2.72/65	2.75/65	19.05/69
19	PM4	8	6.60/69	6.00/69	2.75/73	2.98/65	2.14/71	1.40/72	4.91/68	2.85/71	1.00/72	2.43/72	5.56/65	4.25/71	24.56/69
19	PM5	8	2.55/69	2.86/68	1.55/73	2.37/65	1.70/71	1.84/72	2.93/69	1.92/65	1.11/66	2.79/72	1.57/65	1.83/71	11.31/69
20	PM1	17	2.50/69	2.73/68	3.20/78	2.24/67	2.04/77	2.36/72	1.62/74	3.24/71	1.95/78	1.84/74	2.51/65	1.84/65	11.9[illegible]/65
20	PM2	8	2.70/69	2.55/68	3.35/73	2.33/67	1.80/71	2.61/72	1.91/68	1.89/71	1.74/67	2.02/72	1.99/65	2.24/65	10/76/65
20	U20k	4	2.20/80	2.80/78	3.65/78	2.70/78	1.55/80	.05/80	1.50/79	2.25/77	1.95/78	.55/81	.79/77	.95/78	16.75/78

(Continued)

Table 4 Continued

NTS Area	Map ID	Yrs of Rec	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
22	DRA	19	2.15/66	2.57/69	3.08/73	1.95/65	1.57/81	.56/66	1.46/68	1.57/77	2.28/63	1.05/76	2.07/65	2.45/65	10.08/78
23	MAS	1	(Included with DRA)												
23	MER	10	2.07/80	2.03/78	2.63/73	.79/78	1.18/77	1.19/72	.96/76	1.83/72	1.67/76	1.07/72	1.67/78	1.42/71	9.62/78
25	ADA27	4	1.21/69	2.68/69	.52/69	1.20/65	.35/67	1.00/69	1.46/69	.55/67	.27/69	.28/68	2.00/65	2.38/65	7.34/65
25	4JAn	15	2.29/78	3.45/69	3.00/78	.63/67	1.41/77	.67/69	1.50/68	1.97/77	2.13/76	1.42/72	1.22/72	1.78/71	11.62/78
25	4JAo	9	.62/60	1.01/63	.35/63	1.91/65	.28/63	.26/64	.48/66	.71/61	1.68/63	.63/58	1.67/65	3.03/65	8.06/65
25	T6	5	.88/60	1.20/62	.30/64	.45/64	.48/63	.55/64	2.29/64	.54/61	1.62/63	.76/60	1.49/60	1.14/59	4.61/63
25	T15	1	(Record unreliable)												
26	CS	17	4.31/69	4.70/69	3.89/78	2.94/65	1.62/71	1.82/69	3.16/68	1.93/72	3.54/76	1.46/74	2.36/65	2.38/65	16.31/78
26	LF	7	.50/61	1.29/62	.46/65	2.24/65	.18/63	.45/63	.99/66	1.57/63	1.23/63	.60/60	2.47/65	1.70/65	8.87/65
26	TIA	2	.63/60	1.57/62	.49/62	.31/60	.24/61	.16/62	.47/61	.87/61	1.26/60	.80/60	1.63/60	1.55/61	5.80/60
28	RV	18	2.68/69	4.06/69	3.02/73	2.37/65	1.80/77	.48/69	2.01/68	2.34/77	2.01/76	1.37/76	1.94/65	2.46/65	13.78/78
29	SB	13	7.03/69	4.61/69	3.40/73	2.36/65	1.73/71	.95/72	2.41/68	3.21/71	2.48/63	2.01/72	6.31/65	3.95/65	18.63/69
29	T9	5	.96/61	2.07/62	.41/64	1.13/64	.27/63	.50/64	.92/64	1.17/64	1.79/63	.77/60	1.39/60	1.47/59	6.13/59
30	40MM	21	4.15/69	4.63/76	3.55/78	2.69/65	1.45/77	1.96/69	2.52/69	2.84/77	3.23/76	2.18/74	2.42/65	2.17/65	14.69/78
Other	SR	6	.92/69	2.27/69	.23/65	1.04/65	.29/64	.60/69	1.39/64	1.13/67	.18/67	.13/68	.89/67	1.51/65	5.17/65

Reference Note:

1. Value for September uncertain because chart drive had stopped and chart limit had been exceeded. Value could have been as great as 8.65 inches based on the observation that the bucket was near brimful.

Table 5. Greatest daily precipitation amount, with the year of occurrence (most recent year if more than one), for the period of record through 1981.

NTS Area	Hwy ID	Yrs of Rec	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1	BIY	21	1.31/69	1.22/78	.95/78	1.05/65	.83/71	.39/72	1.32/65	1.99/77	1.14/69	1.20/76	1.23/60	1.30/74	1.99/Aug. 77
2	353	4	.47/61	.47/62	.42/63	.12/64	.25/61	.27/60	.88/64	.97/63	.92/60	.65/60	1.20/60	1.28/61	1.28/Dec. 61
5	FF1	1	(Included with W5B)												
5	GMX	9	.48/78	.74/78	.55/78	.37/75	.48/77	.53/72	.46/74	1.05/77	.85/72	1.09/76	.55/78	.71/71	1.09/Oct. 76
5	W5B	18	.78/67	.77/69	.74/78	.57/65	.52/71	.47/69	.65/74	1.04/77	.89/81	1.13/76	.61/70	1.16/65	1.16/Dec. 65
6	EUCC	4	.35/61	.57/63	.25/60	.25/64	.17/61	.72/63	.27/61	1.22/63	1.23/60	.98/60	1.33/60	1.17/61	1.33/Nov. 60
6	UCC	23	1.25/69	1.51/76	.99/78	1.08/65	.86/71	1.03/72	1.26/59	2.18/77	2.13/69	1.65/76	1.11/60	1.31/65	2.18/Aug. 77
12	A12	22	1.86/69	2.95/69	1.79/65	1.37/65	.82/71	.73/69	1.57/69	2.80/77	2.69/76	1.56/76	1.87/60	2.50/65	2.95/Feb. 69
12	12NE	4	.55/61	.68/62	.22/64	.23/60	.43/64	.30/63	.63/61	.45/63	1.10/60	.40/60	1.10/60	.58/61	1.10/Nov. 60
12	12NW	4	.68/61	.83/62	.40/62	.33/60	.72/64	.28/60	.63/64	.97/63	1.11/62	.40/60	1.25/60	.85/61	1.25/Nov. 60
12	12S	4	.60/61	.77/62	.50/62	.40/64	.59/64	.28/63	.72/64	.65/64	1.12/60	.48/60	1.18/60	.71/61	1.18/Nov. 60
13	PU13	10	1.00/80	.85/78	.85/78	.58/81	.68/77	.64/72	1.07/78	3.64/77	.79/76	.95/81	.50/81	.66/74	3.64/Aug. 77
14	MV	17	3.50/69	2.10/69	1.45/78	.99/65	.88/71	.80/72	1.06/80	2.05/77	1.60/76	1.64/76	1.75/65	2.87/66	3.50/Jan. 69
15	PM5	17	1.23/69	1.27/73	1.12/78	1.09/65	.72/71	.67/80	1.28/68	1.77/77	.88/76	1.18/75	1.10/70	.84/71	1.77/Aug. 77
16	TS	4	.45/61	.78/62	.53/62	.30/60	.20/61	.23/61	.45/61	.75/63	1.20/62	.40/60	1.08/60	1.52/61	1.52/Dec. 61
16	TS2[1]	17	1.35/69	1.98/69	1.37/78	.86/65	.71/71	.54/80	2.28/69	1.95/77	2.03/76	.42/76	1.95/70	1.62.65	2.28/July 69
17	A17	0	(Less than 1 year)												
18	LF1	5	.80/78	.93/78	.73/78	.35/78	.66/77	.24/77	.70/79	2.05/77	1.40/78	1.04/76	.30/81	.30/76	2.05/Aug. 77
18	LF2	5	.98/78	.88/78	.95/78	.38/78	.82/77	.35/77	.69/79	2.34/77	1.20/78	1.24/76	.36/81	.33/78	2.34/Aug. 77
19	PM3	8	1.45/69	1.40/69	.75/69	.77/65	1.06/73	.82/69	1.99/69	2.32/67	.97/67	.90/72	1.29/70	1.47/71	2.32/Aug. 67
19	PM4	8	2.05/69	2.05/69	.90/69	.80/65	.72/71	.64/72	1.74/69	1.61/69	.83/72	.82/72	1.88/70	2.44/71	2.44/Dec. 71
19	PM5	8	.80/69	1.35/68	.35/73	.63/65	.55/71	.72/69	2.13/66	1.23/65	.68/66	1.10/72	.90/70	.98/66	2.13/July 66
20	PM1	17	.78/69	1.05/68	.95/78	.45/67	.63/77	1.05/72	.92/69	2.15/77	1.70/78	1.44/76	.88/70	1.28/66	2.15/Aug. 77
20	PM2	8	.85/69	1.00/68	.75/73	.50/71	.66/71	1.17/72	1.06/69	1.27/66	.50/69	.92/68	.88/70	1.02/66	1.27/Aug. 66
20	U20K	4	(Data not available)												

(Continued)

Table 5 Continued

NTS Area	Map ID	Yrs of Rec	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
22	DRA	19	.90/67	.95/76	.83/73	.89/65	1.53/81	.56/66	.66/79	.87/79	1.01/76	1.05/76	.94/65	1.21/65	1.53/May 81
23	MAS	1	(Included with DRA)												
23	MER	10	.63/78	.84/76	.79/78	.46/75	1.10/81	.58/72	.57/79	1.52/72	1.03/72	.82/76	.70/78	.92/74	1.52/Aug. 72
25	ADA27	4	.51/69	.60/69	.21/69	.47/67	.29/67	.50/69	1.33/69	.40/67	.24/67	.26/68	.58/65	1.20/65	1.33/July 69
25	4JAn	15	.51/78	1.40/76	.89/78	.50/76	.62/81	.35/69	.50/68	1.46/77	1.23/76	.89/76	.76/70	.77/71	1.46/Aug. 77
25	4JAo	9	.42/62	.90/63	.20/63	.47/65	.26/61	.26/64	.24/66	.50/59	.86/62	.51/58	.89/60	1.85/65	1.85/Dec. 65
25	T6	5	.56/59	.92/63	.15/64	.42/64	.48/63	.54/64	1.71/64	.36/63	.83/62	.62/60	.92/60	.93/61	1.71/July 64
25	T15	1	(Record unreliable)												
26	CS	17	1.57/69	1.81/78	.88/73	1.05/65	1.01/71	1.04/69	1.79/68	1.55/72	1.78/76	1.15/76	.95/70	1.18/66	1.81/Feb. 78
26	LF	7	.50/62	.75/63	.30/62	.52/65	.16/63	.23/63	.53/66	1.10/63	.88/62	.40/60	.95/60	1.12/65	1.12/Dec. 65
26	T1A	2	.40/61	.48/62	.40/60	.15/60	.22/61	.14/62	.40/61	.25/61	.77/60	.65/60	1.20/60	1.48/61	1.48/Dec. 61
28	RV	18	.90/67	1.54/76	1.39/78	.61/67	1.13/81	.43/67	.94/68	2.16/77	1.60/76	1.37/76	.74/70	1.26/65	2.16/Aug. 77
29	SB	13	2.30/69	1.44/69	.72/73	.68/65	.74/71	.62/67	2.05/69	1.61/70	1.75/62	.59/73	2.50/65	2.40/65	2.50/Nov. 65
29	T9	5	.82/61	1.31/63	.27/63	1.06/64	.14/61	.48/64	.46/61	1.13/64	1.48/62	.31/60	1.03/60	1.44/61	1.48/Sept. 62
30	40MM	21	1.27/69	1.38/76	1.15/78	.85/65	.64/77	1.15/67	1.95/69	2.07/77	2.00/76	1.45/76	1.20/60	1.56/74	2.07/Aug. 77
Other	SR	6	.32/69	.93/70	.20/65	.27/65	.29/64	.54/69	.99/64	.65/67	.18/67	.11/68	.30/65	.87/65	.99/July 64

Reference Note:

1. Value for September may have been exceeded in 1975.

Table 6. Greatest monthly and annual number of days with measurable precipitation, with the year of occurrence (most recent year if more than one), for the period of record through 1981.

NTS Area	Map ID	Yrs of Rec	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1	BJY	21	12/79	11/73	10/81	11/65	8/77	8/72	7/67	8/65	8/76	8/74	9/65	8/77	59/78
2	353	4	3/64	9/62	7/61	9/63	6/64	7/63	5/62	10/61	7/63	4/63	5/61	2/62	49/63
5	FF1	1	(Included with W5B)												
5	GMK	9	9/79	8/73	11/75	7/78	5/77	4/72	5/76	8/79	6/76	8/74	8/72	6/74	48/78
5	W5B	18	10/69	9/78	11/78	9/67	5/77	6/72	5/80	8/65	7/76	6/74	8/78	7/65	51/78
6	EUCC	4	2/62	6/62	6/62	6/63	5/63	4/63	3/64	7/61	5/63	3/62	4/61	2/62	40/63
6	UCC	23	12/79	12/73	11/73	10/78	6/77	8/72	8/76	9/65	7/76	8/74	9/65	7/77	52/65
12	A12	22	14/78	13/73	14/79	14/67	10/80	9/72	10/68	12/61	8/67	11/74	9/72	12/77	77/78
12	12NE	4	5/62	10/62	10/61	8/63	6/64	10/63	7/62	13/61	6/63	4/63	7/60	4/61	54/63
12	12NW	4	6/62	11/62	8/61	9/63	7/64	10/63	5/62	12/61	6/63	5/61	6/63	4/61	59/63
12	12S	4	5/62	11/62	10/61	9/63	6/64	10/63	7/62	11/61	6/63	5/63	6/63	4/61	62/63
13	PU13	10	13/79	8/80	14/79	11/78	7/77	6/72	6/76	6/79	8/76	7/74	9/78	7/77	65/78
14	MV	17	12/79	13/69	13/73	11/78	8/77	7/69	8/68	9/65	9/76	9/74	8/65	8/77	60/65
15	PHS	17	13/79	13/69	15/79	11/78	8/77	7/72	8/65	9/71	10/76	9/72	9/65	7/77	65/78
16	TS	4	3/62	9/62	7/62	7/63	4/63	7/63	6/62	11/61	6/63	6/63	5/63	6/61	53/63
16	TS2	17	12/79	13/73	13/73	12/67	8/77	9/69	9/68	9/71	7/67	10/74	9/65	10/77	65/78
17	A17	0	(Less than 1 year)												
18	LF1	5	11/78	10/78	13/79	11/78	6/80	3/77	3/79	6/78	6/80	4/81	5/78	10/77	65/78
18	LF2	5	13/79	10/78	13/79	11/78	10/80	3/77	3/80	6/78	5/80	7/81	6/78	10/77	68/78
19	PM3	8	11/69	13/73	12/73	15/67	10/71	8/72	9/68	14/71	10/67	11/72	9/72	10/65	68/67
19	PM4	8	13/69	14/73	13/73	15/67	8/71	7/72	11/68	15/71	10/67	9/72	9/65	11/71	74/67
19	PM5	8	10/69	11/73	12/73	16/67	8/71	7/72	11/70	11/71	8/67	10/72	9/65	10/65	64/67
20	PM1	17	13/79	12/73	13/79	15/67	9/77	8/72	9/65	13/71	9/67	8/74	8/72	9/77	66/78
20	PM2	8	10/69	12/73	13/73	15/67	10/71	8/72	8/68	13/71	6/72	9/72	8/65	9/71	68/71
20	U20k	4	(Data not available)												

(Continued)

Table 6 Continued

NTS Area	Map ID	Yrs of Rec	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
22	DRA	19	11/79	10/69	11/78	8/65	5/77	6/63	5/80	7/67	9/76	8/74	8/78	7/71	54/78
23	MAS	1	(Included with DRA)												
23	MER	10	10/78	9/78	11/75	7/78	6/77	5/72	7/76	6/79	7/76	8/74	9/78	8/71	47/65
25	ADA27	4	10/69	9/69	5/67	8/65	5/65	5/65	6/68	4/67	3/69	2/68	7/65	4/67	47/65
25	4JAn	15	11/79	10/73	11/79	9/78	6/71	5/72	7/68	6/77	5/76	7/74	8/78	7/71	58/78
25	4JAo	9	4/65	6/62	5/65	9/65	2/64	4/65	5/65	7/61	6/63	3/63	7/65	5/65	47/65
25	T6	5	3/60	7/62	4/64	5/63	2/61	3/63	3/64	6/61	6/63	3/63	4/63	4/59	36/63
25	T15	1	(Record unreliable)												
26	CS	17	11/79	12/73	13/79	9/67	5/77	7/72	8/76	8/65	7/76	8/74	8/72	8/71	55/65
26	LP	7	4/65	6/62	7/65	12/65	3/62	5/63	6/65	8/65	6/63	2/63	7/65	7/65	57/65
26	T1A	2	5/60	6/62	6/62	3/60	3/62	2/62	2/61	7/61	3/60	4/61	4/61	4/59	32/61
28	RV	18	10/79	10/73	12/73	10/65	4/81	5/72	6/68	5/81	6/76	8/74	9/78	7/71	53/78
29	SB	13	11/69	11/69	13/73	12/65	5/73	8/63	7/68	10/71	5/67	7/72	8/72	10/71	62/65
29	T9	5	4/62	10/62	7/61	5/63	3/64	5/63	5/62	5/61	6/63	4/62	5/61	4/59	41/61
30	40MN	21	14/79	11/73	16/79	11/78	9/77	6/72	8/68	9/61	8/67	10/74	8/72	12/77	62/78
Other	SR	6	4/69	8/69	3/65	8/67	2/67	3/65	5/65	7/67	1/69	2/68	8/65	4/65	43/65