U. S. DEPARTMENT OF COMMERCE
SINCLAIR WEEKS, *Secretary*

WEATHER BUREAU
F. W. REICHELDERFER, *Chief*

TECHNICAL PAPER NO. 22

Wind Patterns over Lower Lake Mead

Prepared by

HYDROLOGIC SERVICES DIVISION

For sale by the Superintendent of Documents, U. S. Government Printing Office
Washington 25, D. C. - Price 25 cents

ILLUSTRATIONS

TABLES

WIND PATTERNS OVER LOWER LAKE MEAD

INTRODUCTION

The study reported in this paper is in reality a part of a rather extensive inter-agency water-loss investigations project conducted by the Bureau of Reclamation, Geological Survey, Navy Bureau of Ships, and Weather Bureau. The overall objective of the project is the derivation of reliable methods for estimating evaporation from large reservoirs such as Lake Mead, and for predicting evaporation from proposed reservoirs.

Although it would have been desirable to conduct the evaporation studies at Lake Mead where results would be of immediate economic importance, it appeared that conclusive results could be expected only if a pilot study were conducted at a lake where an accurate water budget could be maintained. Pending favorable results from the pilot study, it was planned to transfer operations to Lake Mead to substantiate any conclusions reached and for practical application.

A field survey of all reservoirs and lakes which appeared to merit consideration resulted in the selection of Lake Hefner, an off-channel water-supply reservoir at Oklahoma City, Okla. Observations were conducted at Lake Hefner for the period May 1950 through August 1951. The scope and objectives of these investigations have been published[1,2,3,4] previously and, therefore, are not covered in detail here.

[1]ANDERSON, E.R., L.J. ANDERSON and J.J. MARCIANO, "A Review of Evaporation Theory and Development of Instrumentation", U.S. Navy Electronics Laboratory Report No. 159, San Diego, Calif., Feb. 1950.

[2]HARBECK, E. G., Jr., and OTHERS, "Utility of Selected Western Lakes and Reservoirs for Water-Loss Studies", U. S. Geological Survey Cir. No. 103, Washington, D. C., Mar. 1951.

[3]NICHOLS, H.B., "Oklahoma Studies on Evaporation Data", The Scientific Monthly, Vol. LXXII, No. 1, Jan. 1951, pp. 57-61.

[4]"Water-Loss Investigations: Volume I - Lake Hefner Studies Technical Report", Published as U.S. Geological Survey Circular No. 229, 1952, Washington, D.C., and Navy Electronics Labaratory Report No. 327, 1952, San Diego, Calif.

Because of the cost of instrumentation and collection and analysis of the data, particularly for the turbulent transport approach, it was evident that planned observations at Lake Mead would, of necessity, be limited to a rather small segment of the reservoir. To make the most of such a limited program, a knowledge of the wind pattern over the reservoir was deemed necessary in order that truly representative sites could be selected for the observational equipment. It is this phase of the program (determination of flow patterns) for which the wind analyses reported herein were conducted.

PURPOSE OF REPORT

It is not the purpose of this report to describe the use of wind observations in the evaporation studies. Rather, the prime objective is publication of the data in a form suitable for microclimatological research. Reliable observations of wind movement over and adjacent to large bodies of water, particularly in rugged terrain, have been too sparse for intensive study of "land and sea" and "mountain and valley" breezes. Since the data collected indicate the existence of pronounced diurnal variation in the wind pattern over Lower Lake Mead, it is believed they may provide the means of extending our knowledge in this phase of microclimatology. Thus, through publication, the data are readily available to any who wish to pursue such studies.

EXTENT OF OBSERVATIONAL PROGRAM

At the Lake Hefner and Lake Mead Water Loss Conference held in Oklahoma City (April 5-7, 1950), it was agreed that initial studies at Lake Mead would be confined to the lower portion -- the Boulder Basin. It was further agreed that a network of recording wind stations should be established in this area as soon as feasible, and operated for a period of at least one year to determine the local flow patterns. The Weather Bureau was to furnish the necessary instrumental equipment and analyze the records, and the Office of River Control (Bureau of Reclamation) was to undertake installation and maintenance of the equipment.

At a subsequent conference in Boulder City (April 19-20, 1950), representatives of the Bureau of Reclamation, Navy, and Weather Bureau discussed detailed arrangements relative to instrumentation and installation and operation of the network. On April 20th, the group attending this conference made an inspection of the Lower Basin to select sites for the wind stations. Considering the overall accessibility of the possible sites, the time required for servicing of equipment, height above water level, and availability of suitable equipment, nine sites were selected (fig. 1).

There was some delay in shipment of the instrumental equipment and in construction of the masts and shelters, so that the network was not placed in operation until June 15, 1950. Because of instrumental difficulties later described, the records collected prior to the first of August were not suitable for analysis. The nine stations were closed October 31, 1951, providing 15 months of data for analysis.

On March 27, 1951, one additional wind station was established at Pierce Ferry (fig. 1) in the Colorado arm of Lake Mead to provide information required by the Bureau of Reclamation. Although there are about seven months of record at this station concurrent with that from the original network, it has been excluded from the wind rose charts principally because of its rather remote location. Nevertheless, summarized data have been included for what value they may have in showing the flow pattern over the lake as a whole.

INSTRUMENTATION

The purpose to be served required that observations of wind speed and direction be recorded, and to minimize the cost of operation it was planned that the equipment be serviced at weekly intervals. Of the equipment which could be made available for the project, 5-pen Autocall recorders were selected because they had been found quite dependable in the past and, moreover, they are easy to service and economical to operate.

These recorders (fig. 2) have one time pen and four direction pens. The clock drives the chart (2-1/4 inch adding machine tape) at a rate of three-fourths-inch per hour and actuates the pen producing a pip each clock hour. The four direction pens were actuated by 2-mile contacts on 3-cup totalizing anemometers. Each 2-mile contact of the anemometer produced a pip on one or two of the direction pens, depending upon the orientation of the wind vane, providing wind direction to eight points of the compass. Figure 3 illustrates the type of installations made.

Considerable difficulty was experienced in keeping the recorders in operation at the outset, principally because the paper-feed mechanisms were not functioning properly. It later became evident that space provided in the shelter for storing the used paper was insufficient and resulted in clogging similar to that illustrated by figure 2. This difficulty was overcome by removing the batteries from the paper compartment and by servicing the equipment twice weekly rather than once a week.

STATION DESCRIPTIONS

The locations of the ten stations (including that at Pierce Ferry) are shown on the map of figure 1. Although a concerted effort was made to select sites within a relatively narrow elevation range, other considerations resulted in the selection of locations ranging from 1211 to 1296 ft., m.s.l., as shown in the following tabulations:

No. 1 - 1296 ft.	No. 5 - 1234 ft.
No. 2 - 1260 ft.	No. 6 - 1235 ft.
No. 3 - 1211 ft.	No. 7 - 1257 ft.
No. 4 - 1237 ft.	No. 8 - 1216 ft.
No. 9 - 1265 ft.	

The Pierce Ferry station was installed adjacent to the existing Class A evaporation station at an elevation of approximately 1370 ft., m.s.l. It should be pointed out, however, that the height of the instruments above the water surface varied considerably during the observational period in accordance with seasonal fluctuations in contents of the reservoir. Variations in reservoir level are shown graphically in figure 4. The anemometers were mounted with the cups about eight feet above the ground surface, and the vanes were about two feet higher (fig. 3).

ANALYSIS AND RESULTS

Wind roses and other types of wind frequency data are customarily presented in terms of "percent of time", primarily because observations of wind direction are normally taken as a time series. The recorders used in this study provided an observation of wind direction each time the anemometer indicated an accumulated wind movement of two miles, and thus the data are in a form directly suitable for computation of "percent of wind movement" from each direction. Since it was apparent that data in this form would fully serve the purpose of the study, all frequency analyses presented here are in terms of "percent of wind movement".

To adequately define diurnal and seasonal variations in the wind pattern, the data were analyzed by 4-hour periods throughout the days of each month of record, and the results for the six 4-hour periods were in turn summarized to obtain daily values. Table 1 presents the results for the nine stations in tabular form. In addition to the frequency data, average speed, hours of record, and resultant speed and direction are also given. Table 2 presents similar data for Pierce Ferry, except that resultant winds were not computed for this station.

The frequency data of table 1 are presented as wind roses in figures 5 through 19. The daily wind rose for each station is encircled by the six 4-hour wind roses, and the average wind speed is shown at the center of each.

CONCLUSIONS

The most striking feature of the wind pattern over the Boulder Basin is its pronounced diurnal fluctuation brought about by the topographic configuration (mountain-valley and canyon breezes), and by the temperature differences between land and water areas (land-sea breeze).

The winds at Station #8 display a very prominent seasonal variation relative to those at most other stations. This can be explained by canyon effects, and by the fact that movement resulting from temperature contrasts between land and water are more nearly in phase with the general circulation. The greatest temperature contrasts occur in about January and June -- the water being colder than the air in summer and warmer in winter -- and the general circulation in the lower levels is northeasterly in winter and southerly in summer. Close examination of winds for other stations reveals similar effects resulting from topography and land-water temperature contrasts.

It is believed that thorough and detailed analyses of the data presented should clarify concepts of circulation over large reservoirs in mountainous terrain. Any analysis of these data should take into consideration the fact that the records, station by station and month by month, are not strictly comparable since the periods of record are not always concurrent.

Figure 1
LOCATION OF WIND STATIONS

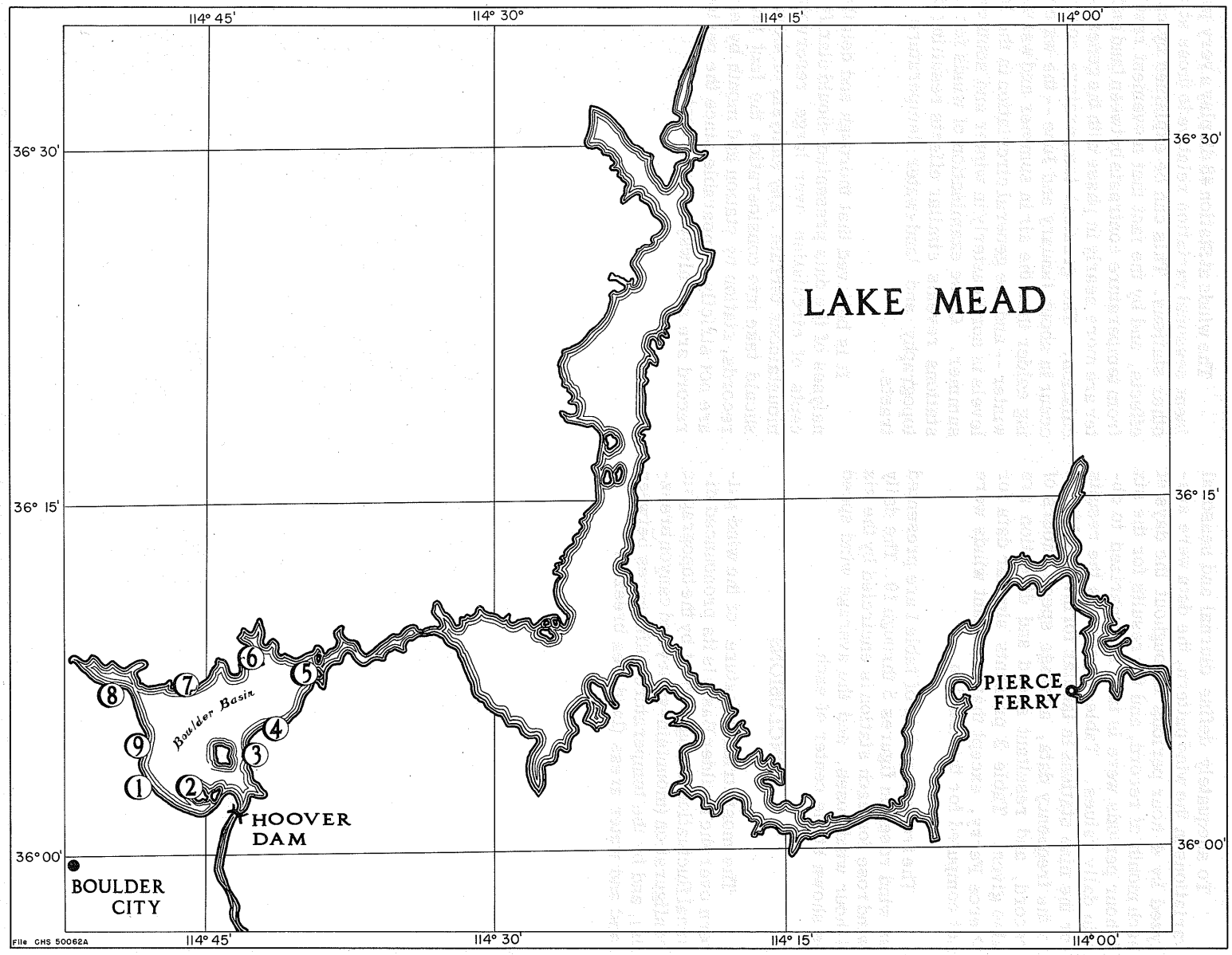
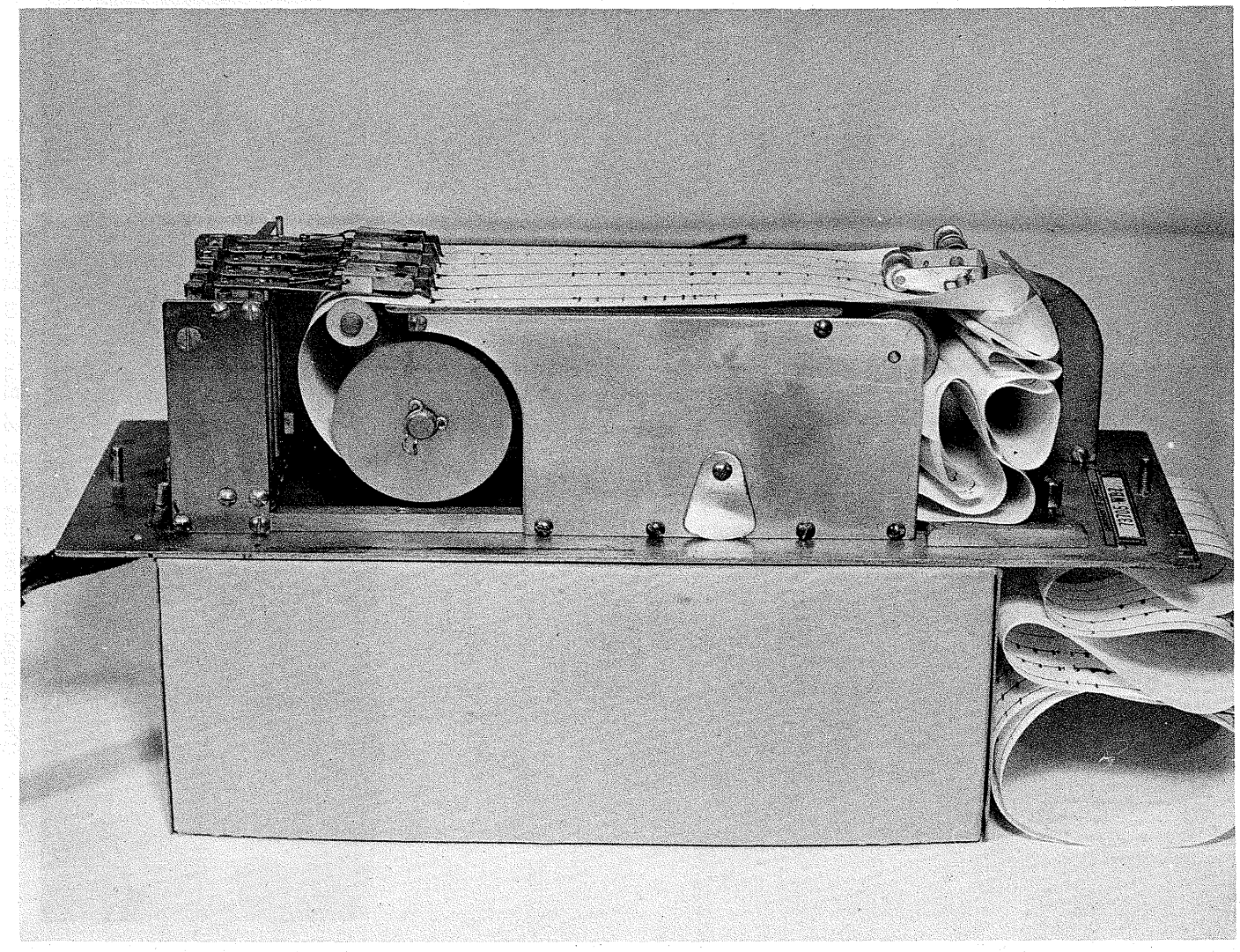
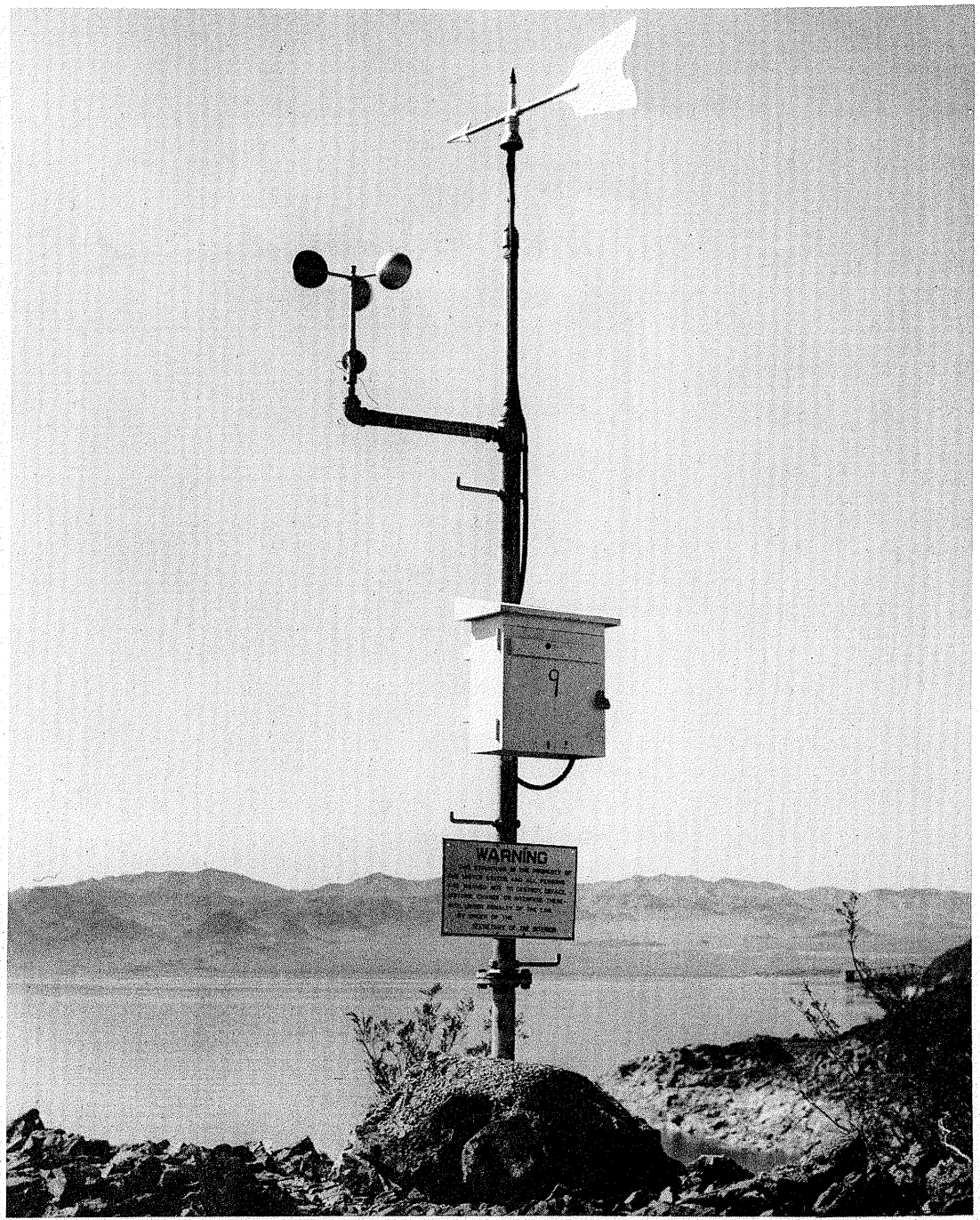


Figure 2
AUTOCALL WIND RECORDER



(Photograph by courtesy of U. S. Bureau of Reclamation)

Figure 3
INSTALLATION AT STATION 9



(Photograph by courtesy of U. S. Bureau of Reclamation)

Figure 4

LAKE MEAD ELEVATION DURING THE PERIOD OF WIND OBSERVATIONS

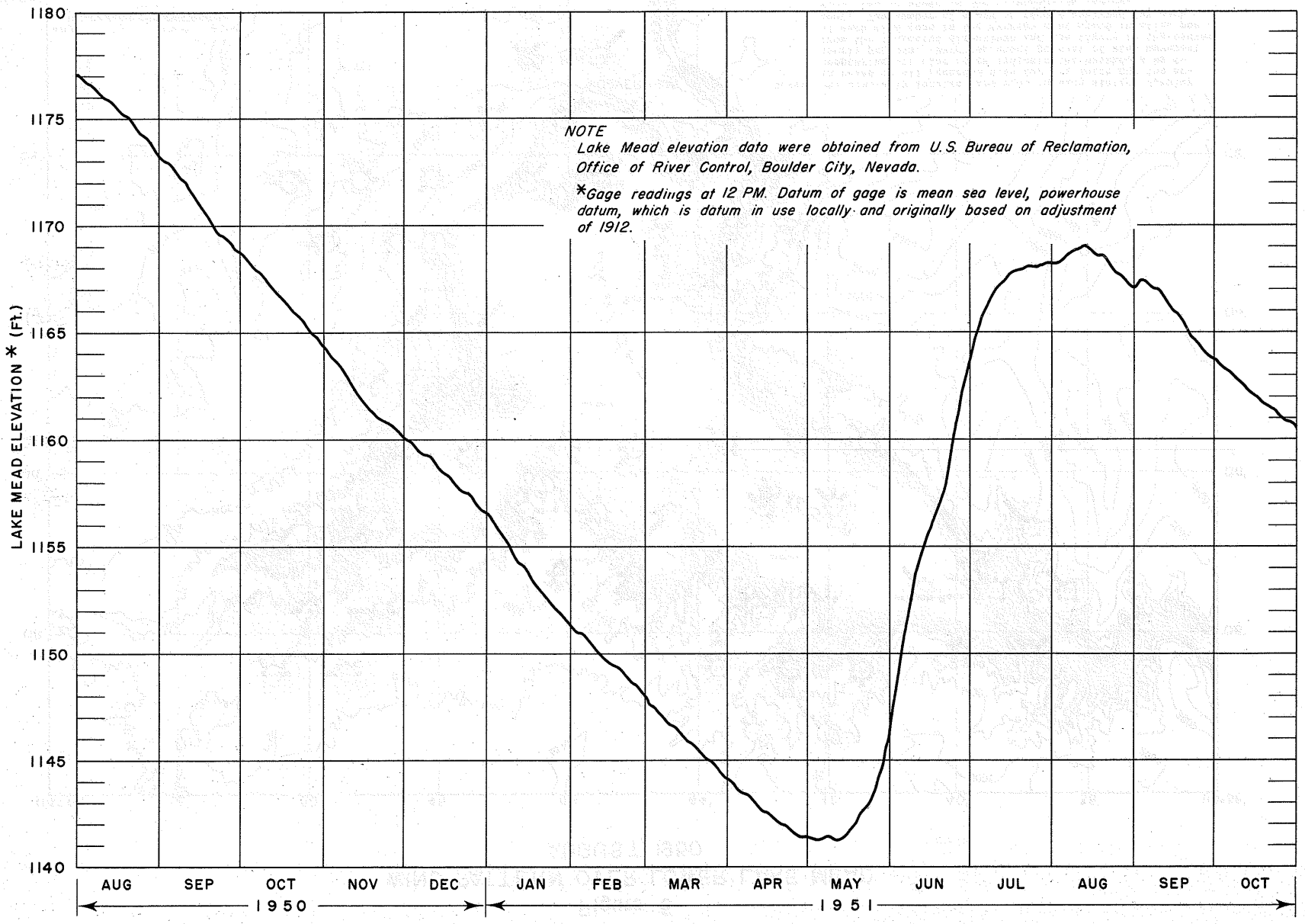
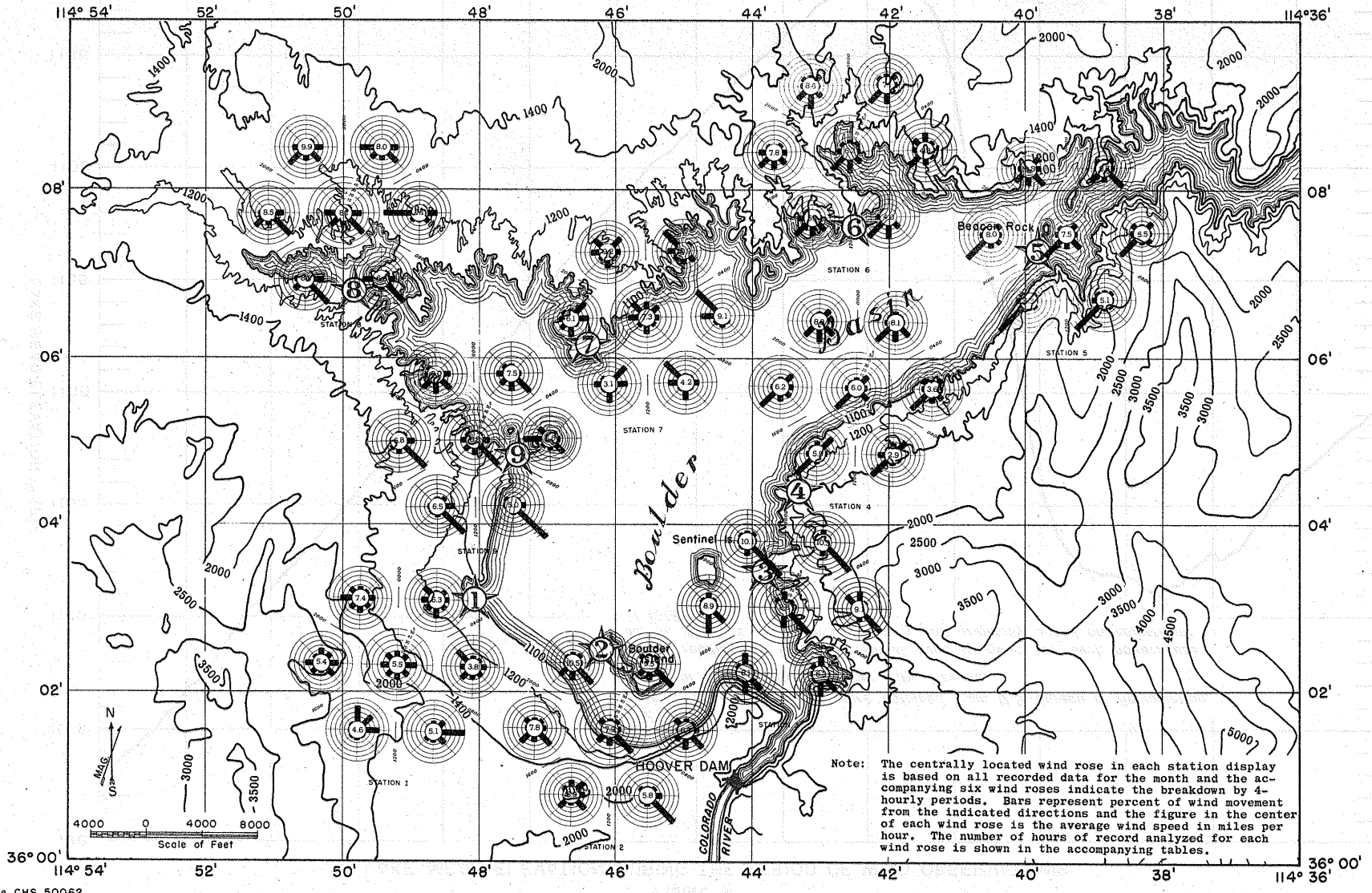
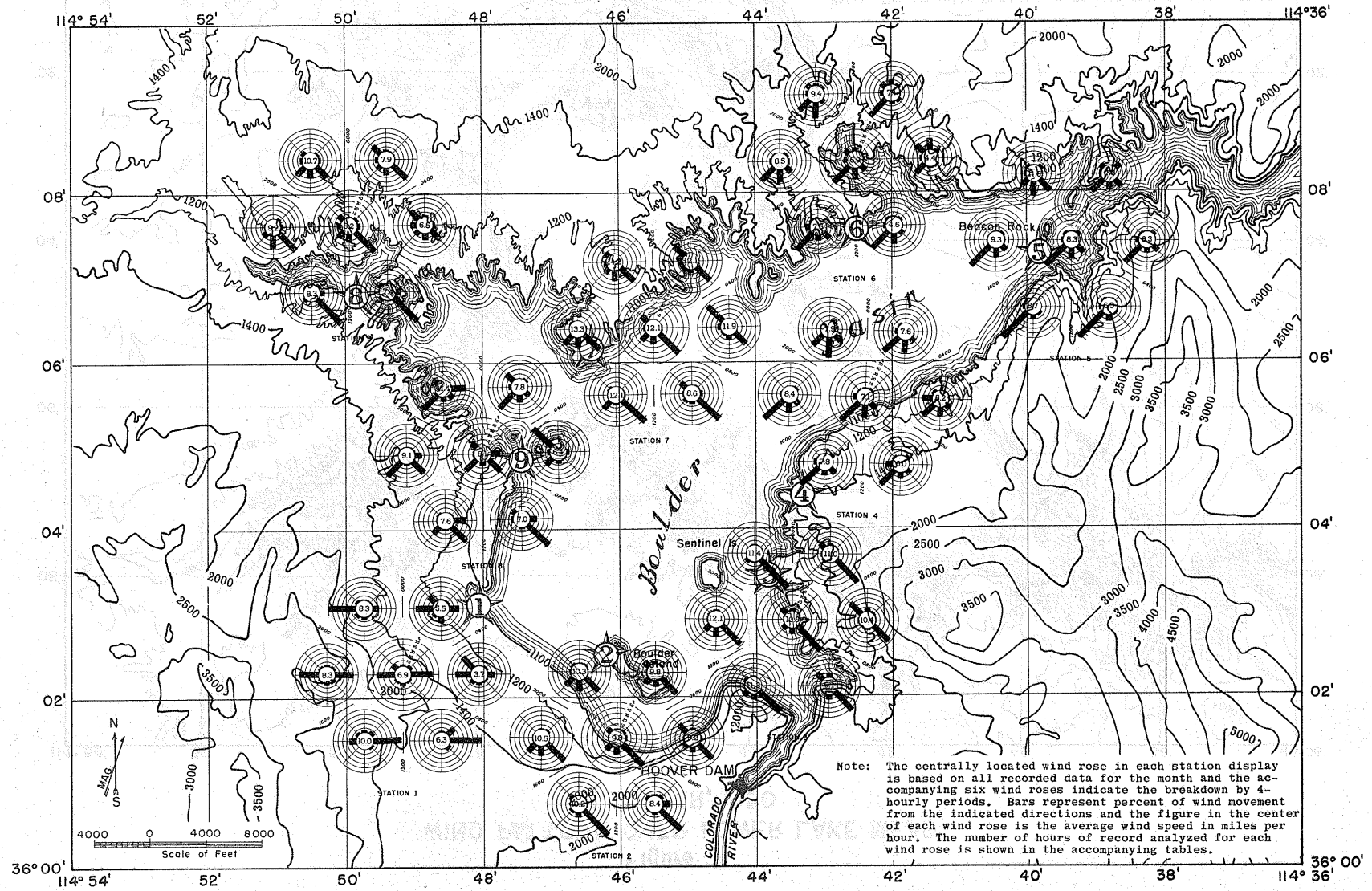


Figure 5
WIND PATTERN OVER LOWER LAKE MEAD
AUGUST, 1950



le CHS 50062

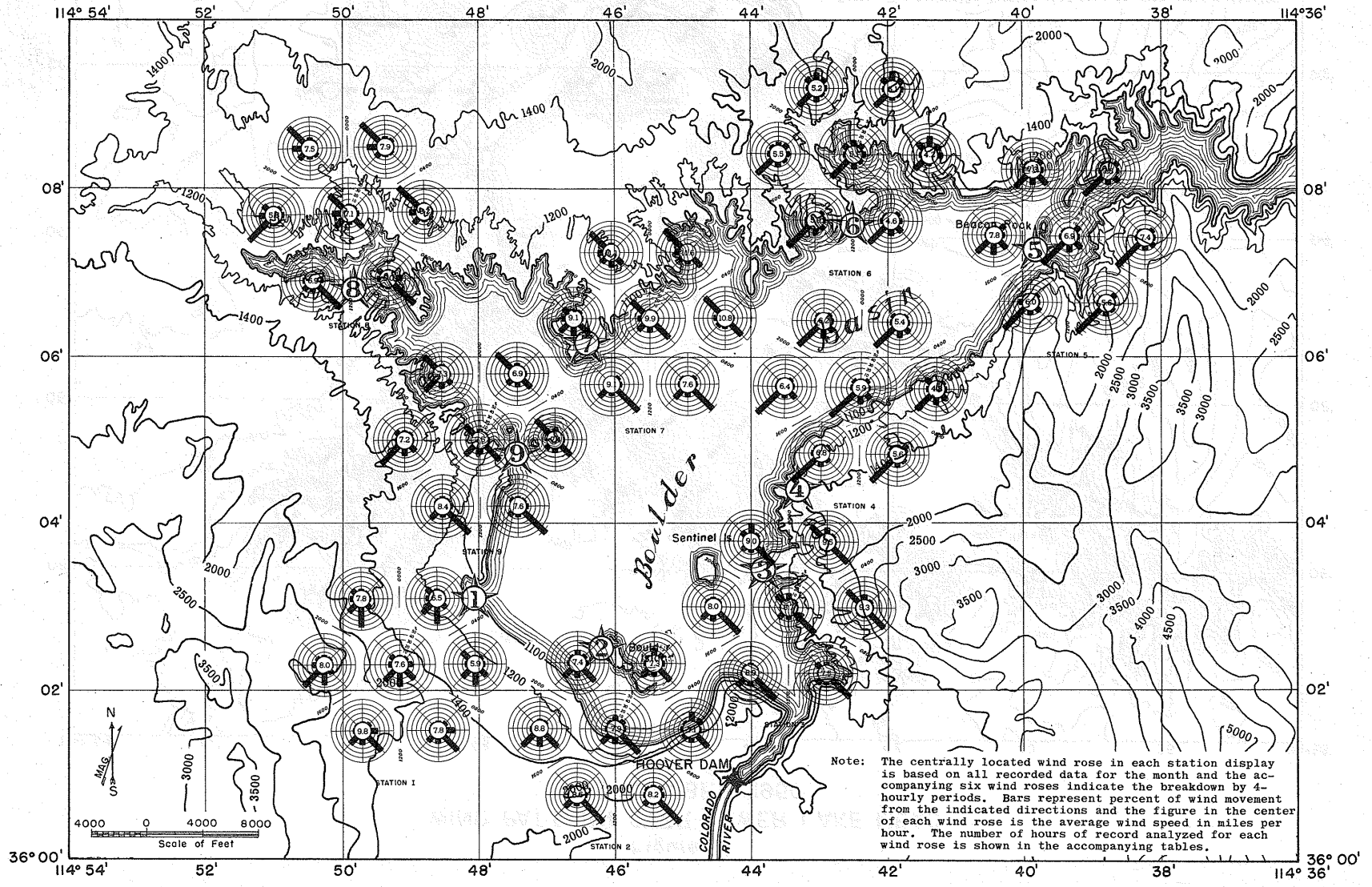
Figure 6
WIND PATTERN OVER LOWER LAKE MEAD
SEPTEMBER, 1950



Note: The centrally located wind rose in each station display is based on all recorded data for the month and the accompanying six wind roses indicate the breakdown by 4-hourly periods. Bars represent percent of wind movement from the indicated directions and the figure in the center of each wind rose is the average wind speed in miles per hour. The number of hours of record analyzed for each wind rose is shown in the accompanying tables.

File CHS 50062

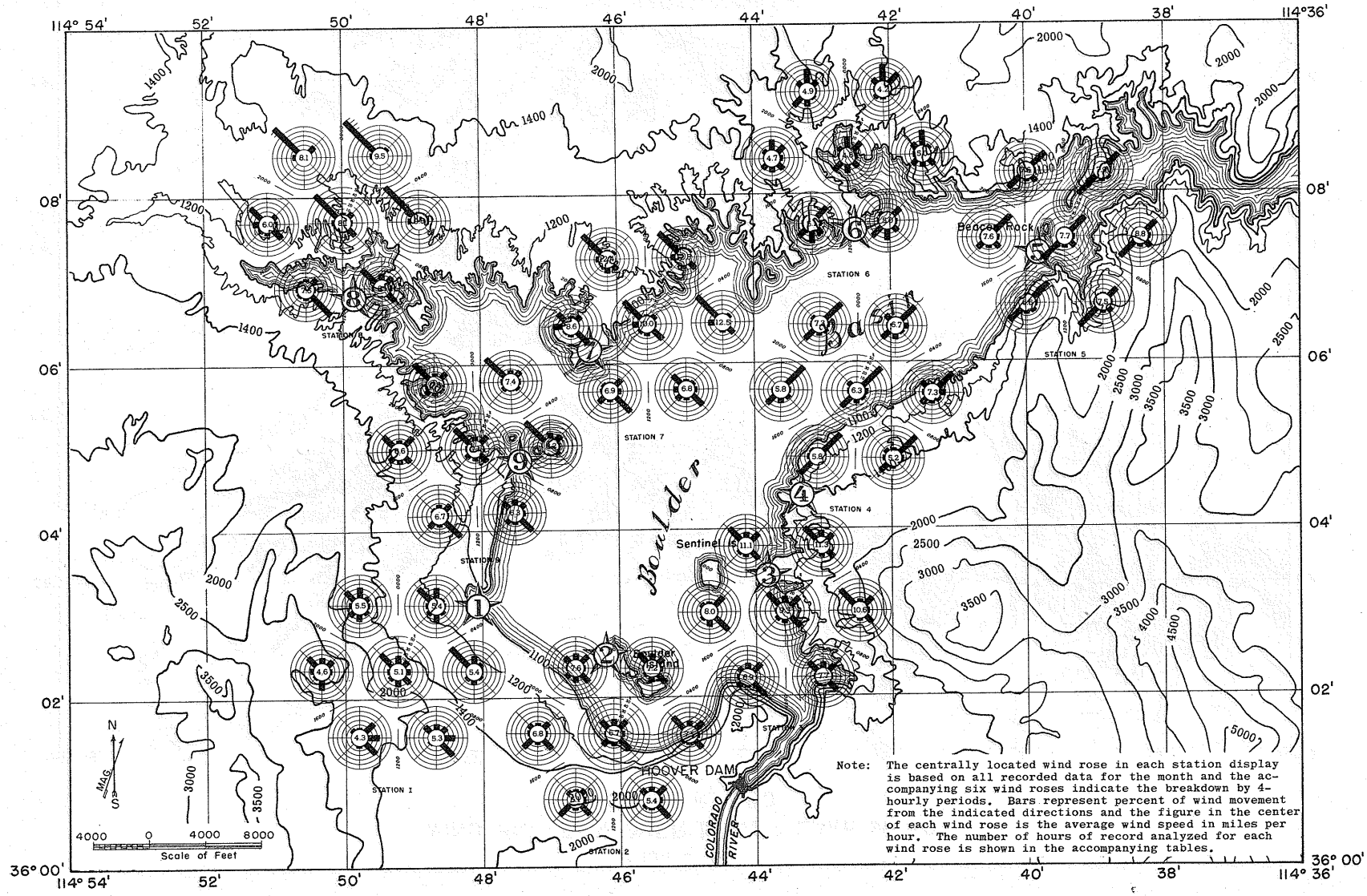
Figure 7
WIND PATTERN OVER LOWER LAKE MEAD
OCTOBER, 1950



Note: The centrally located wind rose in each station display is based on all recorded data for the month and the accompanying six wind roses indicate the breakdown by 4-hourly periods. Bars represent percent of wind movement from the indicated directions and the figure in the center of each wind rose is the average wind speed in miles per hour. The number of hours of record analyzed for each wind rose is shown in the accompanying tables.

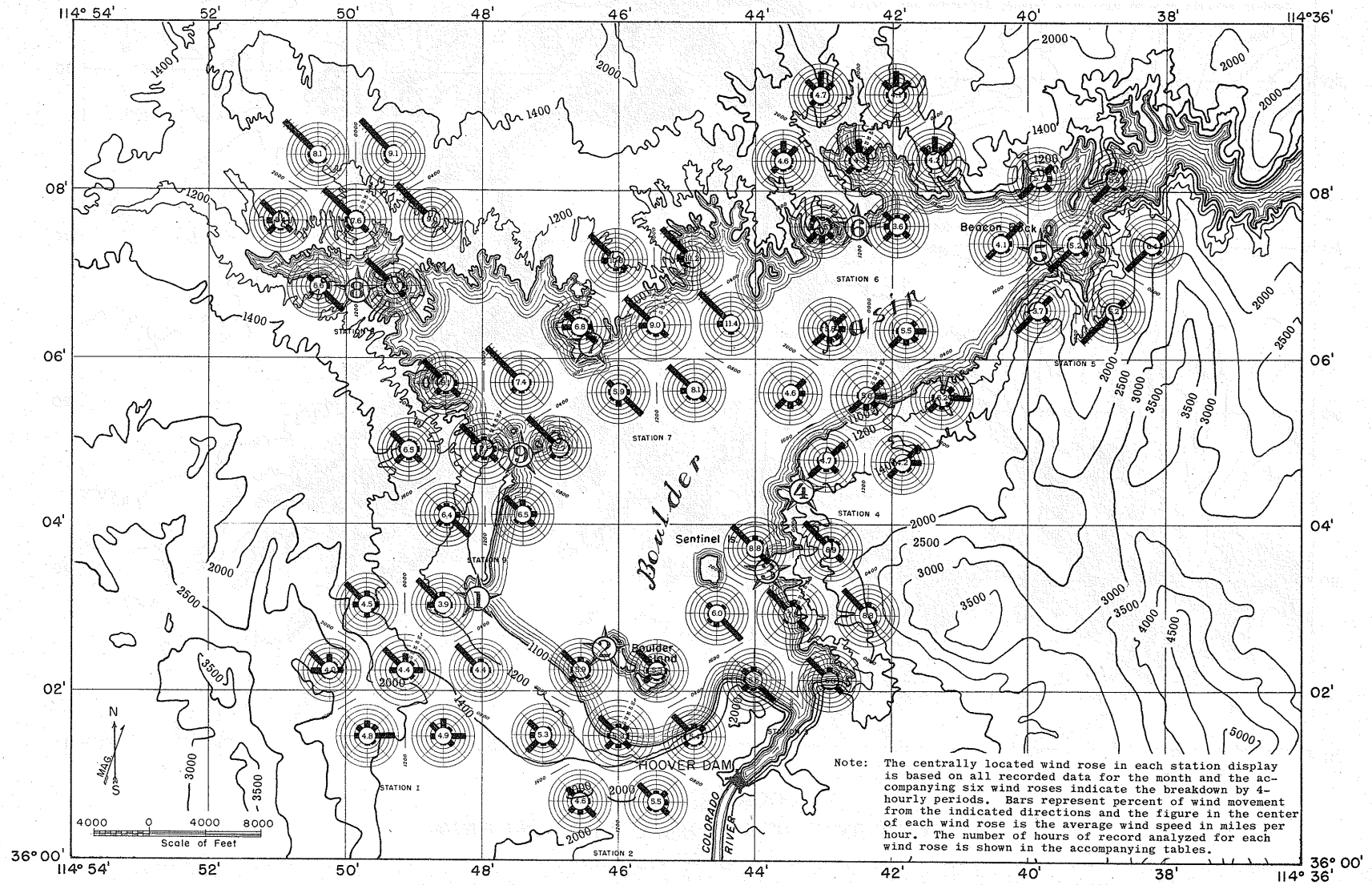
File CHS 50062

Figure 8
WIND PATTERN OVER LOWER LAKE MEAD
NOVEMBER, 1950



File CHS 50062

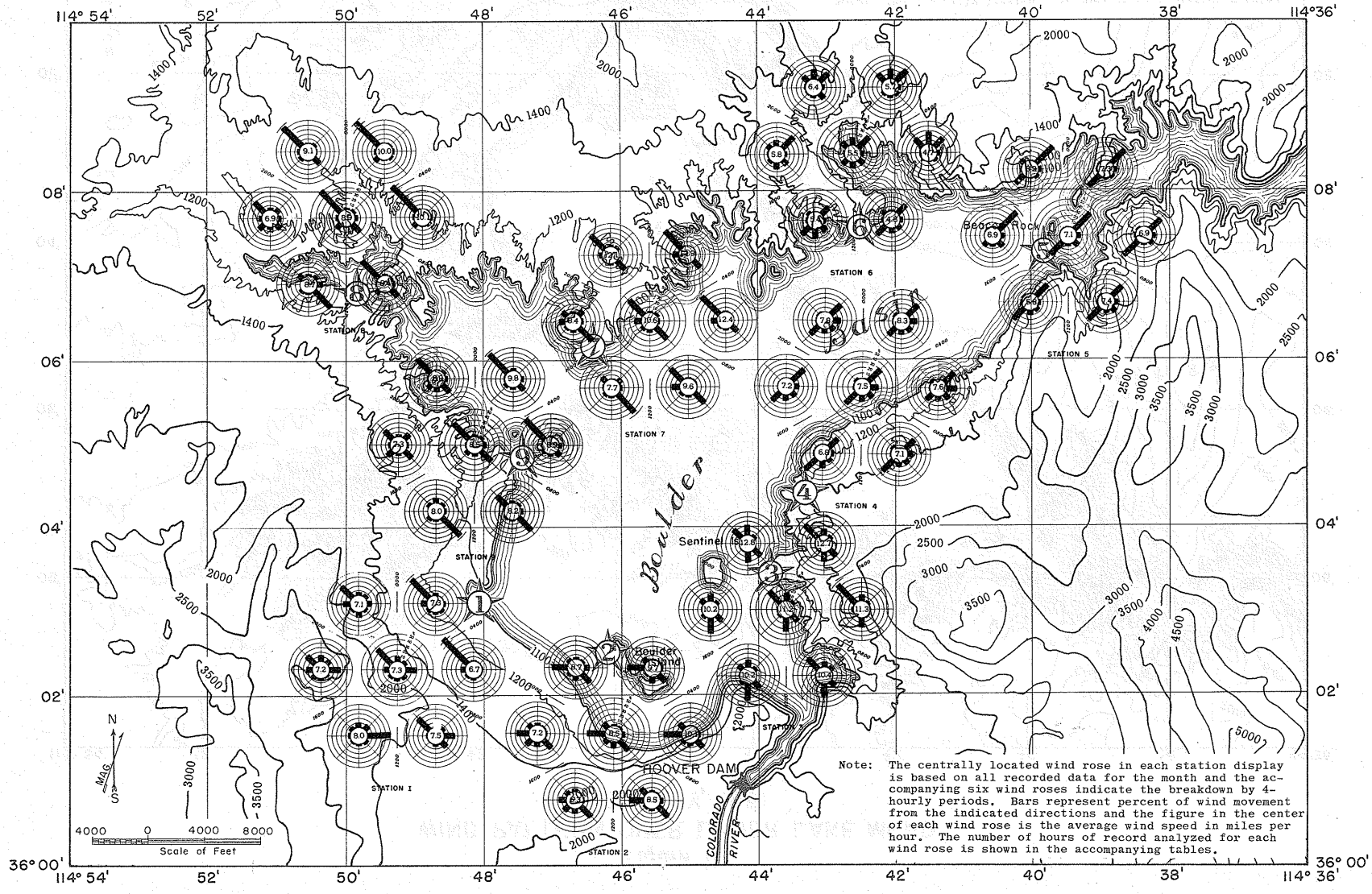
Figure 9
WIND PATTERN OVER LOWER LAKE MEAD
DECEMBER, 1950



Note: The centrally located wind rose in each station display is based on all recorded data for the month and the accompanying six wind roses indicate the breakdown by 4-hourly periods. Bars represent percent of wind movement from the indicated directions and the figure in the center of each wind rose is the average wind speed in miles per hour. The number of hours of record analyzed for each wind rose is shown in the accompanying tables.

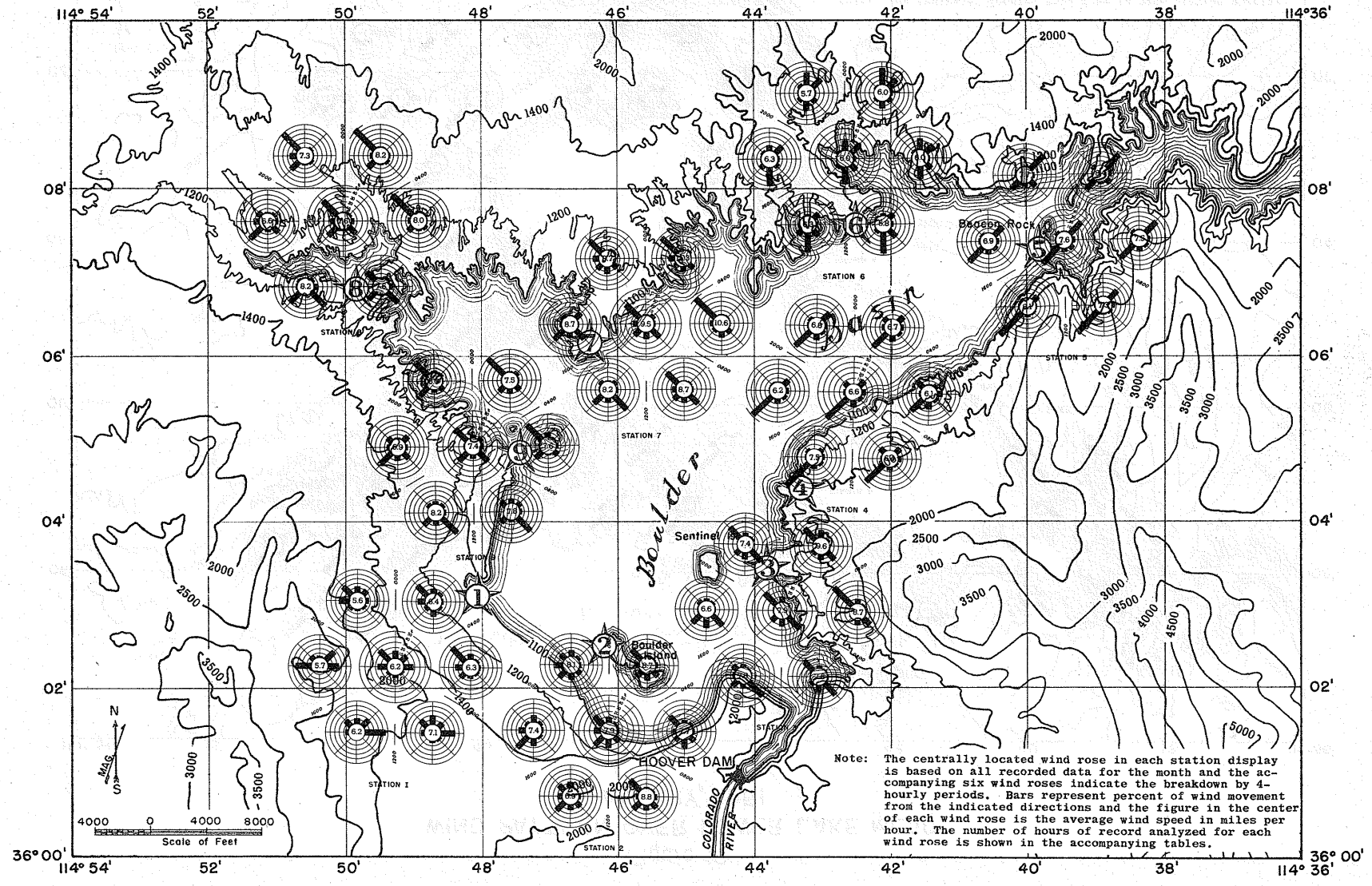
File CHS 50062

Figure 10
WIND PATTERN OVER LOWER LAKE MEAD
JANUARY, 1951



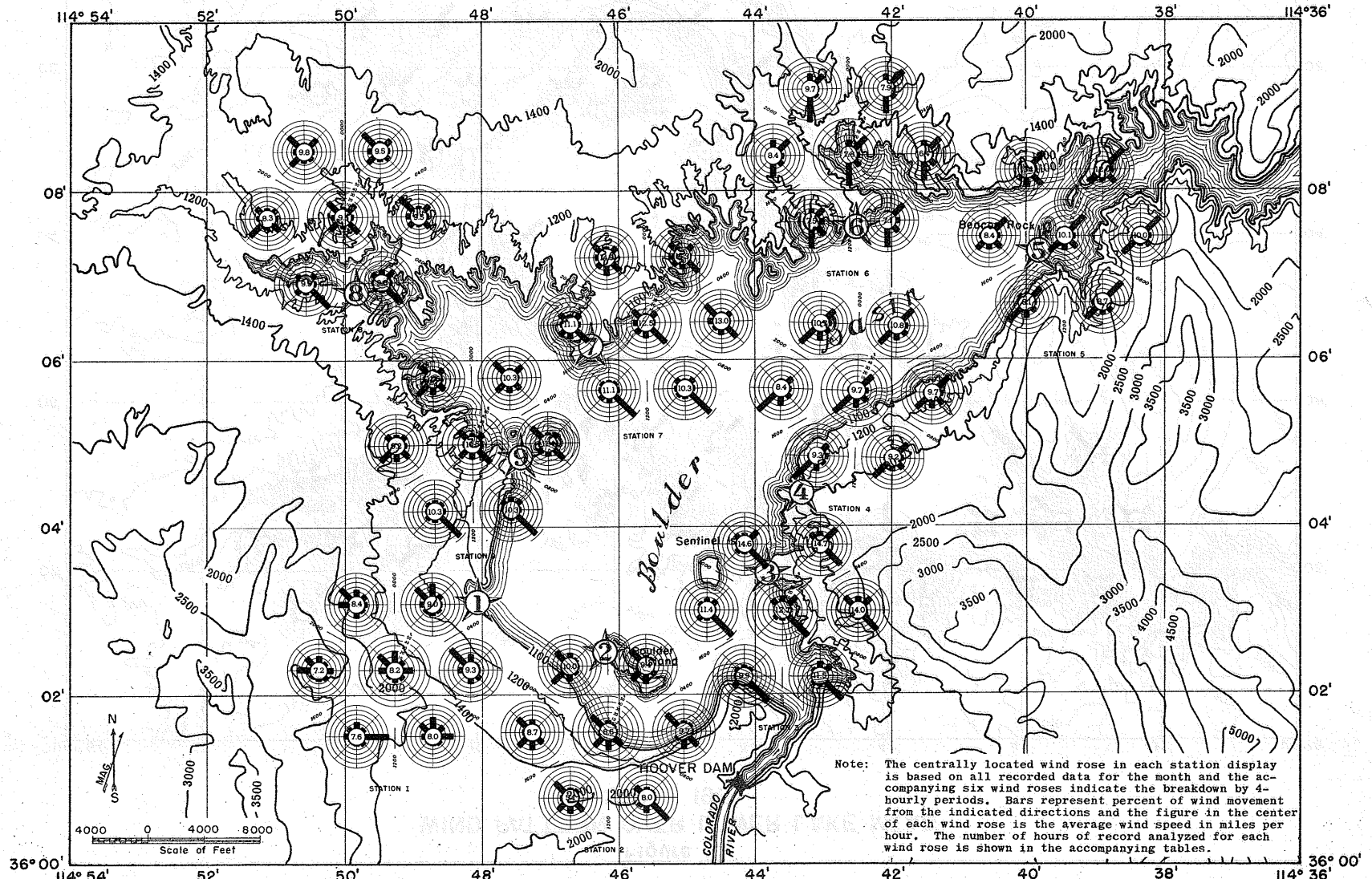
File CHS 50062

Figure 11
WIND PATTERN OVER LOWER LAKE MEAD
FEBRUARY, 1951



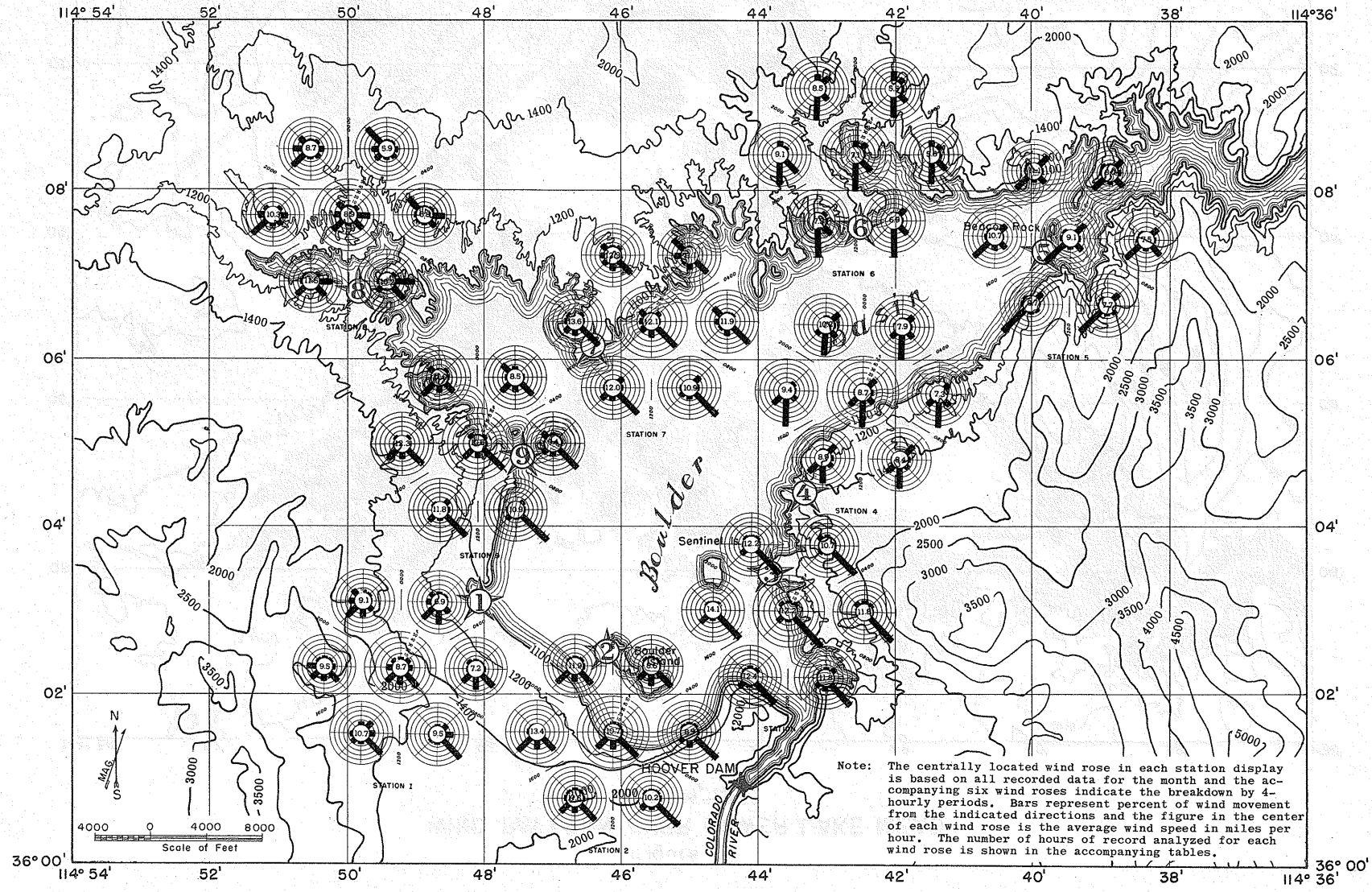
File CHS 50062

Figure 12
WIND PATTERN OVER LOWER LAKE MEAD
MARCH, 1951



File GHS 50062

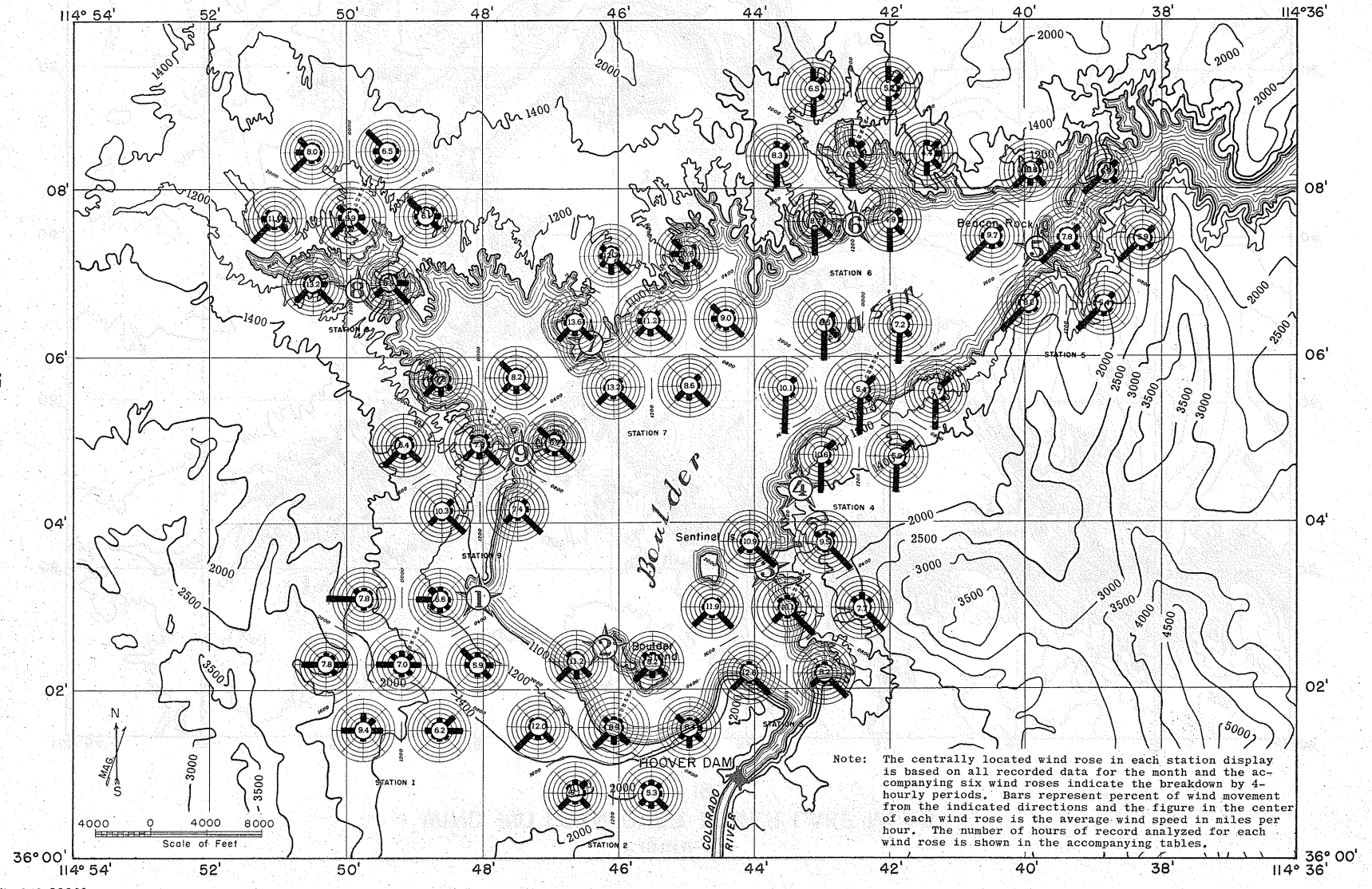
Figure 13
WIND PATTERN OVER LOWER LAKE MEAD
APRIL, 1951



Note: The centrally located wind rose in each station display is based on all recorded data for the month and the accompanying six wind roses indicate the breakdown by 4-hourly periods. Bars represent percent of wind movement from the indicated directions and the figure in the center of each wind rose is the average wind speed in miles per hour. The number of hours of record analyzed for each wind rose is shown in the accompanying tables.

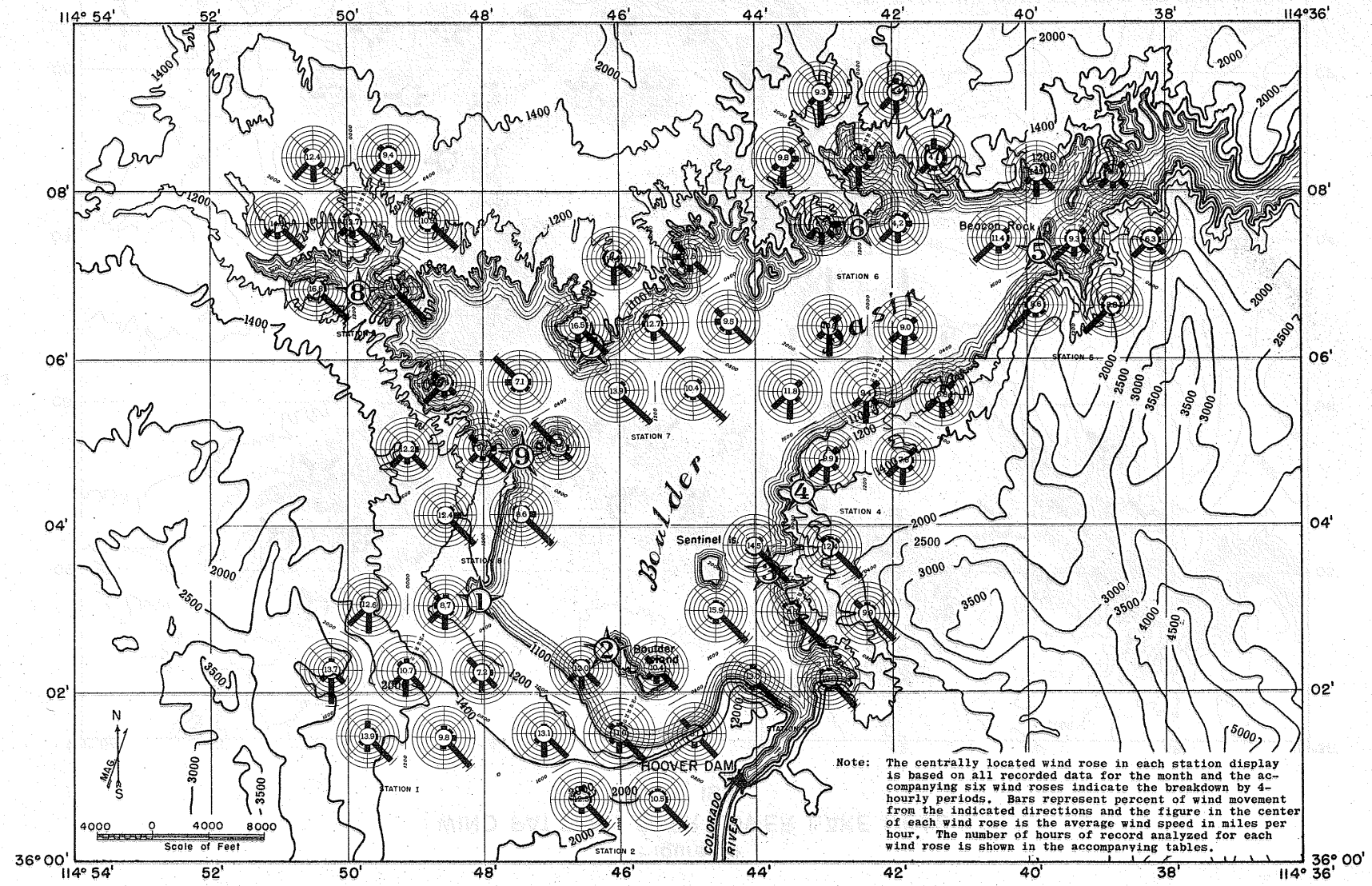
File CHS 50062

Figure 14
WIND PATTERN OVER LOWER LAKE MEAD
MAY, 1951



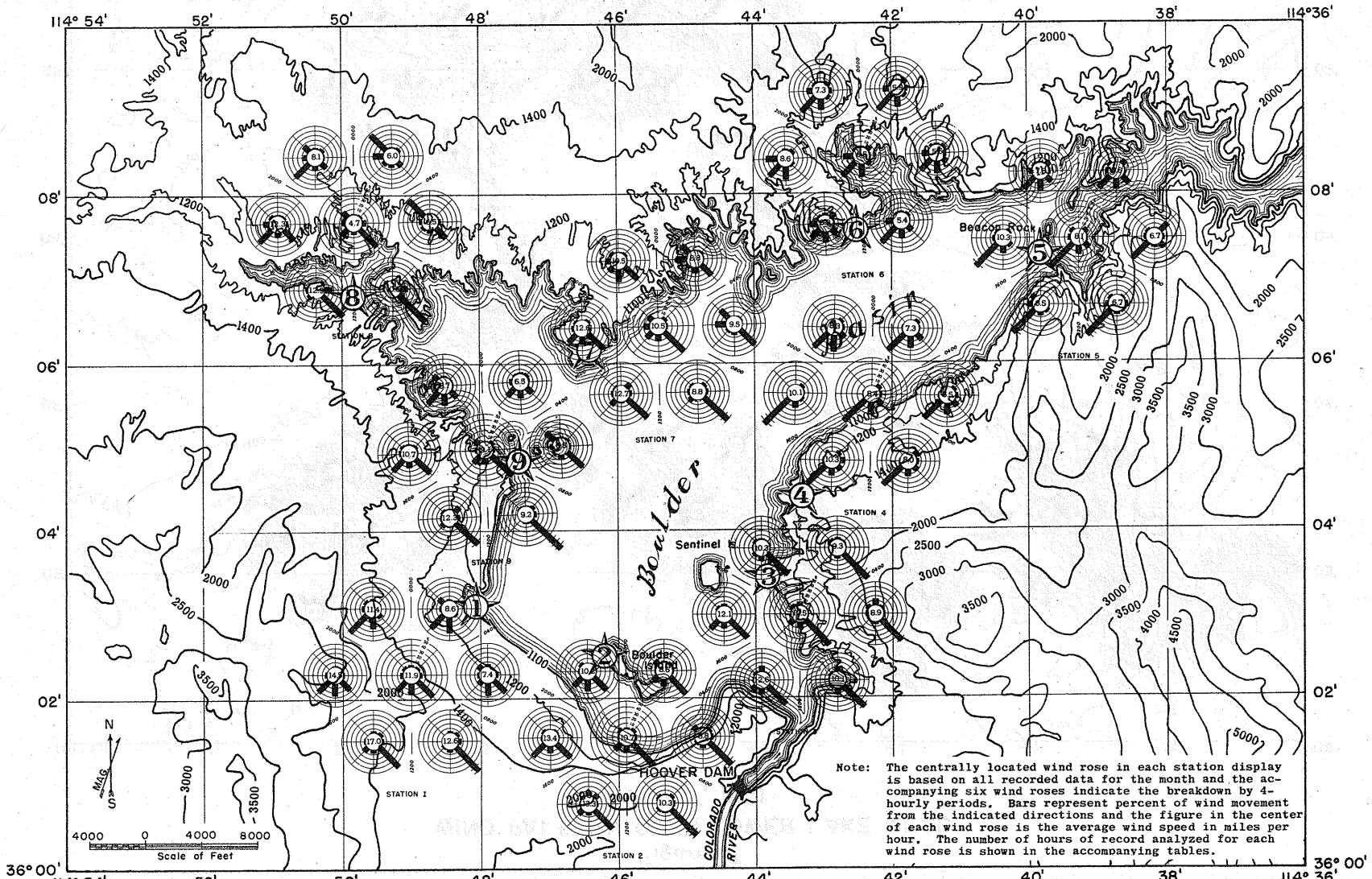
File CHS 50062

Figure 15
WIND PATTERN OVER LOWER LAKE MEAD
JUNE, 1951



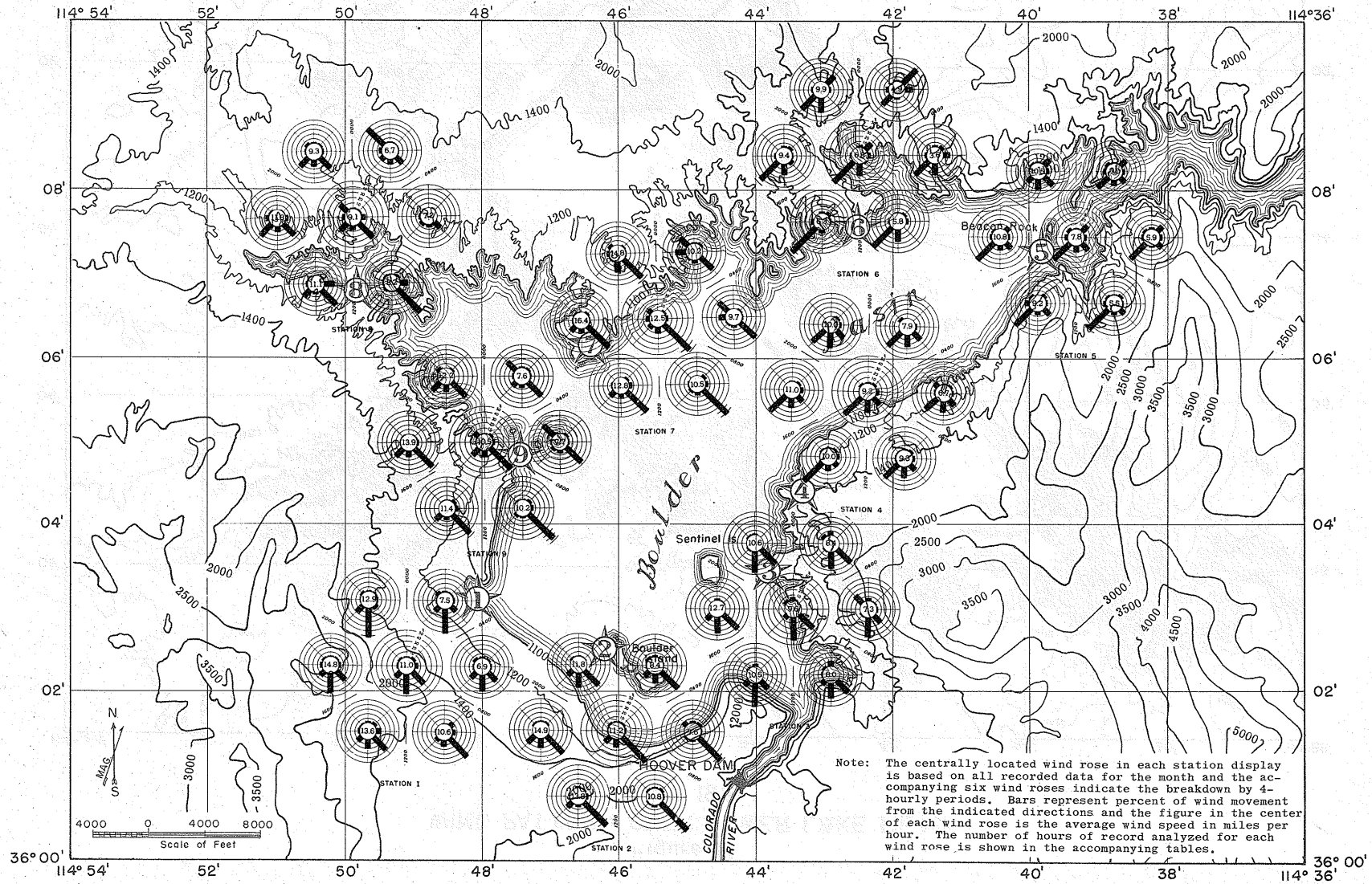
File CHS 50062

Figure 16
WIND PATTERN OVER LOWER LAKE MEAD
JULY, 1951



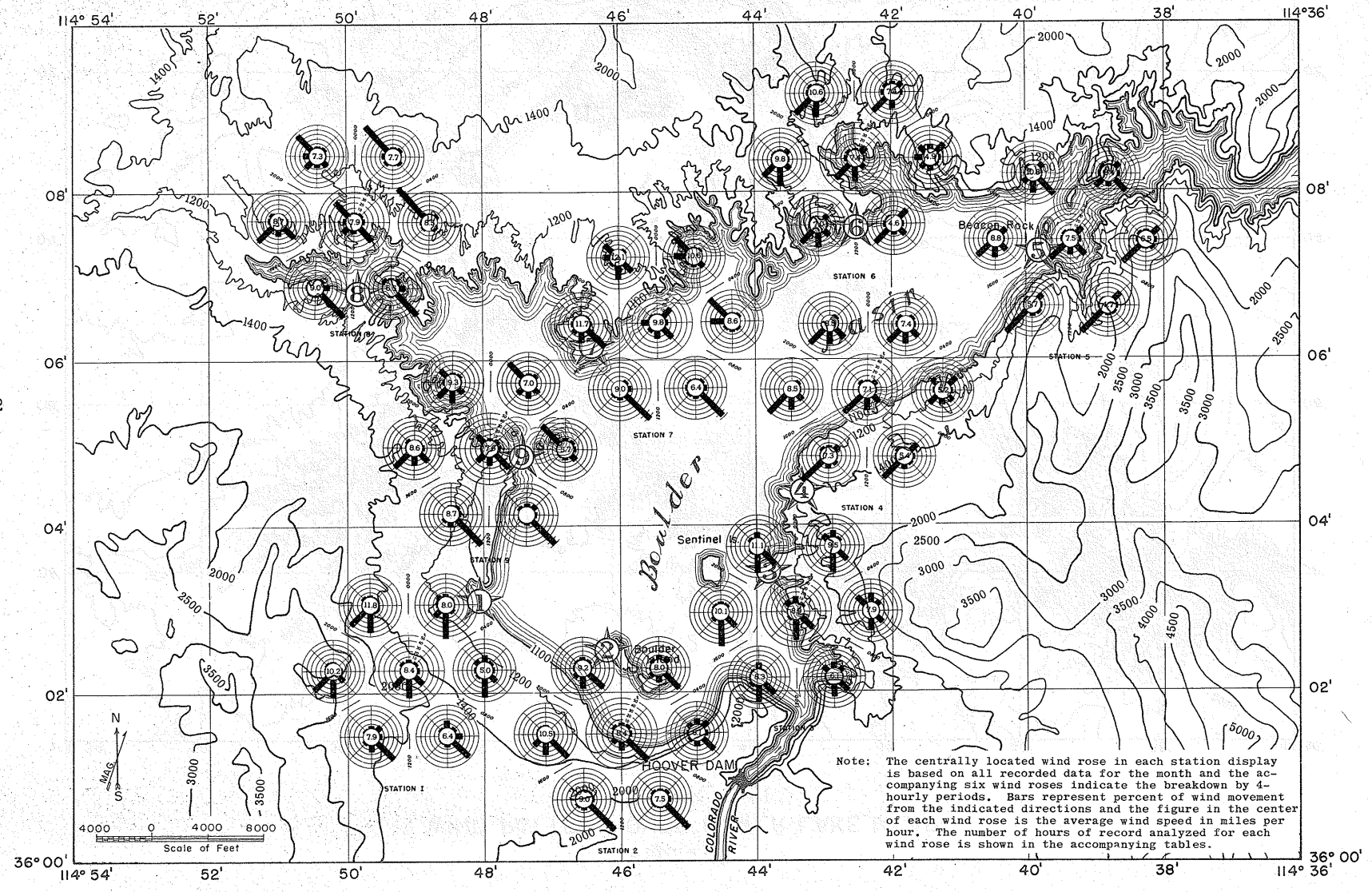
File CHS 50062

Figure 17
WIND PATTERN OVER LOWER LAKE MEAD
AUGUST, 1951



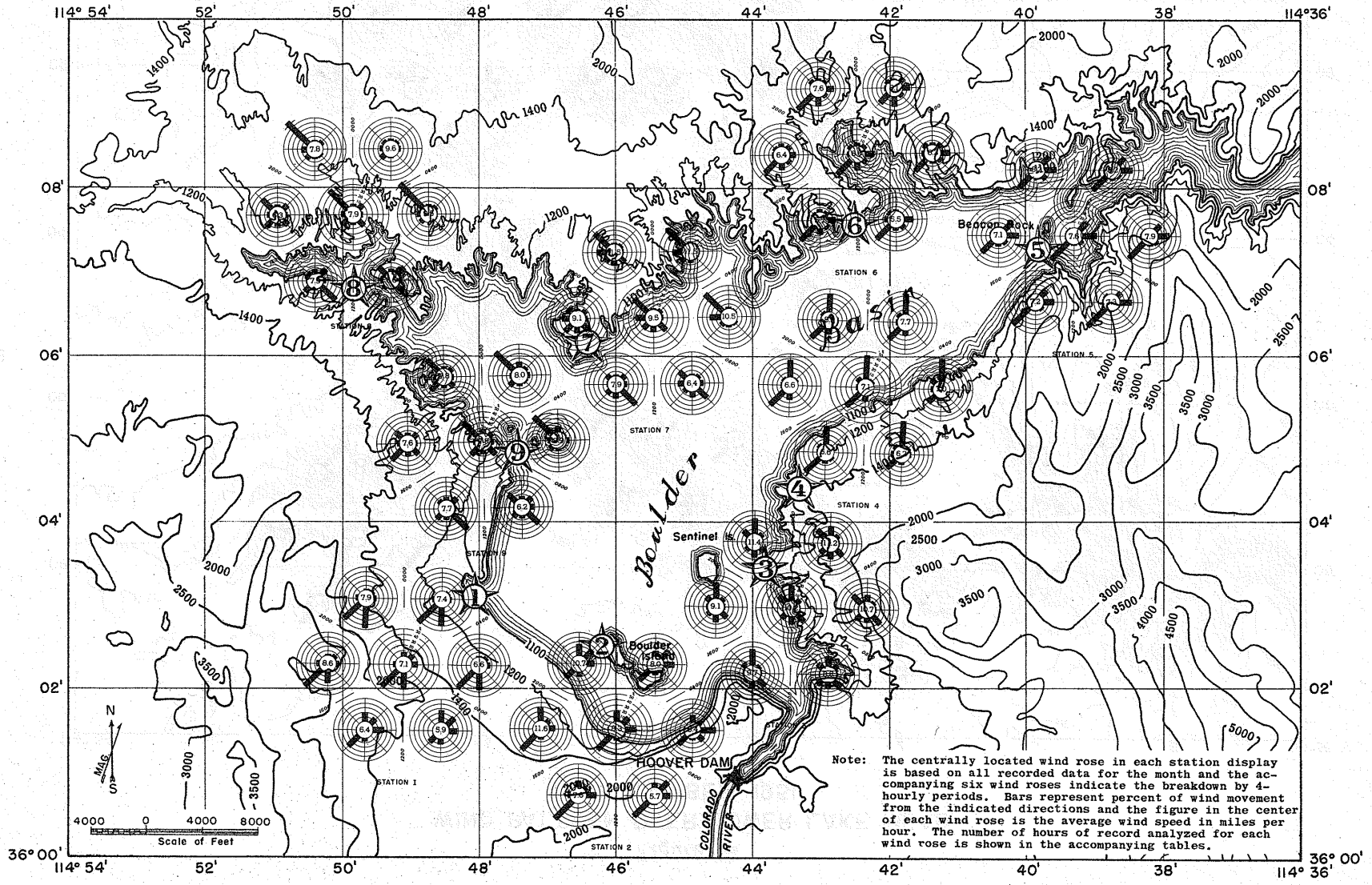
File CHS 50062

Figure 18
WIND PATTERN OVER LOWER LAKE MEAD
SEPTEMBER, 1951



File CHS 50062

Figure 19
WIND PATTERN OVER LOWER LAKE MEAD
OCTOBER, 1951



File CHS 50062

TABLE 1 - SUMMARIZED WIND DATA FOR BOULDER BASIN

August 1950

Period	Station No.	Av. Speed (mph)	Hours of Record	PERCENT OF WIND MOVEMENT W	SW	S	SE	E	NE	N	NW	RESULTANT WIND Direction	Speed (mph)
	1	6.3	67	16	11	22	11	9	8	2	21	SW	1.4
	2	9.5	84	1	13	17	52	2	3	3	9	SSE	5.5
	3	10.3	105	2	2	11	69	0	1	10	5	SE	6.5
0000	4	8.1	52	5	39	24	24	2	1	4	1	SSW	5.3
to	5	8.7	116	2	22	12	39	5	9	3	8	SSE	3.7
0400	6	7.1	103	3	37	24	4	4	13	7	8	SSW	2.6
	7	10.9	54	19	9	10	14	0	5	0	43	WNW	4.5
	8	8.0	68	30	14	9	29	18	0	0	0	S	3.1
	9	7.5	92	14	15	20	38	3	0	3	7	S	3.8
	1	3.8	66	10	17	9	10	13	6	6	29	W	0.8
	2	6.7	86	1	11	23	33	5	3	7	17	SSE	2.3
	3	9.1	100	0	0	8	49	0	1	20	22	ESE	1.9
0400	4	3.6	47	5	43	12	13	3	11	2	11	SW	1.5
to	5	5.5	104	8	48	5	9	3	14	2	11	SW	2.2
0800	6	4.3	102	9	29	13	5	2	8	20	14	W	1.2
	7	9.1	52	29	4	6	2	0	0	0	59	WNW	7.2
	8	7.1	58	60	6	2	10	21	1	0	0	WSW	2.8
	9	5.6	80	39	5	8	25	5	1	1	16	WSW	2.0
	1	5.1	61	0	7	6	17	49	14	6	1	E	3.4
	2	5.8	76	0	1	5	65	13	7	2	7	ESE	4.6
	3	6.3	100	3	3	31	29	1	1	22	10	SSE	1.6
0800	4	2.9	45	15	47	4	3	0	21	8	2	WSW	1.0
to	5	5.1	102	10	70	3	6	1	4	2	4	SW	3.7
1200	6	4.0	98	9	43	30	15	0	0	0	3	SSW	3.0
	7	4.2	43	20	2	19	1	12	1	1	44	WNW	1.7
	8	6.6	60	23	5	7	53	10	2	0	0	ESE	3.5
	9	5.0	85	3	0	1	81	9	1	0	5	SE	4.1
	1	4.6	50	1	2	2	2	29	26	36	2	NE	3.1
	2	6.9	64	0	19	3	27	11	19	14	7	E	1.9
	3	8.1	95	2	4	28	32	1	2	26	5	SE	2.3
1200	4	5.9	46	7	46	4	1	3	29	9	1	WSW	1.1
to	5	6.3	90	10	72	2	4	1	4	0	7	SW	4.8
1600	6	5.1	109	14	35	23	20	2	2	0	4	SSW	3.3
	7	3.1	47	15	1	23	1	23	34	0	3	E	0.9
	8	8.1	69	4	15	1	56	22	2	0	0	SE	5.7
	9	6.5	91	1	1	4	67	19	7	1	0	ESE	5.3
	1	5.4	72	18	11	3	19	19	11	13	6	E	0.5
	2	7.8	79	2	26	12	32	8	7	3	10	SSE	2.9
	3	8.9	104	2	5	41	31	2	3	13	3	SSE	4.7
1600	4	6.2	48	3	41	13	12	10	19	2	0	S	2.2
to	5	8.0	115	6	53	11	10	5	12	0	3	SSW	4.1
2000	6	7.8	112	18	27	19	18	10	6	0	2	SSW	3.7
	7	6.1	53	8	12	22	2	21	28	1	6	ESE	1.3
	8	8.5	64	3	22	9	50	16	0	0	0	SSE	5.9
	9	6.8	87	1	5	7	64	17	4	2	0	SE	5.3
	1	7.4	71	26	12	16	9	15	4	6	12	WSW	1.8
	2	10.5	87	1	21	19	43	2	7	4	3	SSE	5.9
	3	10.1	104	1	1	15	71	1	7	2	2	SE	8.0
2000	4	8.3	59	1	26	28	26	3	15	1	0	SSE	4.5
to	5	10.5	120	5	20	19	31	8	14	1	2	SSE	5.1
2400	6	8.6	111	4	22	31	16	2	13	5	7	S	3.4
	7	9.2	55	19	4	18	1	11	26	0	21	NNW	1.1
	8	9.9	64	11	32	11	25	19	2	0	0	S	5.0
	9	9.0	88	5	20	24	28	16	1	0	6	SSE	5.0
	1	5.5	387	14	11	10	12	21	10	10	12	ESE	0.3
	2	7.9	476	1	16	15	42	6	7	5	8	SSE	3.6
	3	8.8	608	1	2	21	49	1	3	14	7	SE	4.1
0000	4	6.0	295	5	38	17	16	3	15	4	2	S	2.5
to	5	7.5	647	7	41	11	20	5	10	1	5	SSW	3.3
2400	6	6.2	635	9	31	24	13	4	8	5	6	SSW	2.7
	7	7.3	304	19	6	14	5	8	14	13	21	NW	1.6
	8	8.1	383	20	17	7	37	18	1	0	0	SSE	3.7
	9	6.8	523	10	9	12	48	12	2	2	5	SSE	3.5

TABLE 1 - (Continued)

September 1950

Period	Station No.	Av. Speed (mph)	Hours of Record	PERCENT OF WIND MOVEMENT W	SW	S	SE	E	NE	N	NW	RESULTANT WIND Direction	Speed (mph)
	1	5.5	112	37	5	13	0	21	3	2	19	W	1.7
	2	9.8	68	3	14	14	46	0	3	3	17	SSE	4.0
	3	11.0	92	3	4	2	68	0	1	7	15	SE	5.2
0000	4	7.6	90	6	45	29	14	2	1	0	3	SSW	5.7
to	5	7.0	88	4	37	16	19	1	12	1	10	SSE	2.9
0400	6	7.1	103	9	50	5	8	1	5	9	13	WSW	3.5
	7	12.1	78	10	9	9	42	0	0	0	30	SSW	3.0
	8	7.8	16	6	45	16	10	0	2	0	21	SW	4.7
	9	7.9	52	6	9	15	42	1	1	5	21	S	2.3
	1	3.7	104	33	7	4	2	17	3	1	33	WNW	1.7
	2	9.2	55	1	9	12	44	3	3	3	25	SSE	2.6
	3	10.4	88	3	2	4	46	1	3	7	34	ESE	0.8
0400	4	5.2	99	24	36	20	11	2	2	0	5	SW	3.2
to	5	6.3	88	10	50	9	15	1	8	3	4	SSW	3.3
0800	6	4.4	100	6	28	4	4	1	7	26	24	WNW	1.7
	7	11.9	66	8	3	9	34	0	0	0	46	W	2.1
	8	6.4	19	6	20	8	2	7	0	0	57	WNW	3.6
	9	6.5	70	13	10	16	28	3	1	3	26	SW	1.8
	1	6.3	97	1	0	0	6	70	19	3	1	E	4.2
	2	8.4	64	0	1	3	61	18	7	4	6	ESE	5.8
	3	9.1	92	2	2	12	54	0	1	10	19	SE	3.3
0800	4	6.0	94	16	44	15	11	0	7	1	6	SW	3.5
tc	5	6.3	87	4	72	15	4	1	2	0	2	SW	5.3
1200	6	4.6	96	7	50	24	9	1	3	1	5	SSW	3.2
	7	8.6	72	2	7	4	64	6	1	0	16	SE	4.6
	8	7.0	23	7	0	3	64	16	1	0	9	SE	4.4
	9	7.4	60	1	5	1	72	10	3	1	7	SE	5.3
	1	10.0	92	17	0	0	3	61	9	5	5	ENE	5.0
	2	10.2	66	0	5	11	73	2	2	2	5	SE	7.8
	3	11.3	90	3	11	12	64	0	0	4	6	SSE	7.2
1200	4	7.8	97	8	56	11	16	0	6	2	1	SSW	5.1
to	5	8.7	96	6	74	10	6	0	0	0	4	SW	7.4
1600	6	7.5	94	10	50	12	19	1	0	1	7	SSW	4.9
	7	12.1	86	1	23	5	65	3	1	0	2	SSE	8.7
	8	7.6	30	1	19	2	45	28	1	0	4	SE	4.7
	9	8.3	56	0	5	0	74	9	6	2	4	SE	6.3
	1	8.3	106	42	2	3	4	40	3	3	3	-	0
	2	10.5	74	1	22	21	53	0	2	1	0	SSE	8.0
	3	12.1	96	2	17	20	57	0	0	2	2	SSE	9.1
1600	4	8.4	92	2	59	22	12	0	4	1	0	SSW	6.4
to	5	9.3	98	1	57	19	14	2	5	1	1	SSW	6.5
2000	6	8.5	96	6	39	29	17	3	4	0	2	SSW	5.7
	7	13.3	88	1	27	21	48	1	0	0	2	SSE	9.7
	8	9.1	28	0	42	3	36	17	1	1	0	SSE	5.3
	9	9.2	52	2	11	29	51	3	4	0	0	SSE	7.2
	1	8.3	108	61	8	8	1	14	1	2	5	W	4.5
	2	10.3	74	3	25	24	40	2	2	1	3	S	7.0
	3	11.4	96	1	8	3	84	0	1	2	1	SE	8.9
2000	4	7.9	95	2	31	45	18	2	2	0	0	S	7.1
to	5	11.6	98	3	19	30	33	1	8	0	6	S	6.5
2400	6	9.4	102	4	33	33	8	1	6	4	11	SSW	5.0
	7	14.2	78	4	13	32	41	0	0	0	10	S	8.8
	8	11.4	16	0	43	9	12	30	0	0	6	S	4.6
	9	10.7	47	5	25	20	34	4	4	0	8	S	5.7
	1	6.9	619	33	3	5	3	38	6	3	9	NE	0.4
	2	9.8	401	1	14	15	53	4	3	2	8	SSE	5.9
	3	10.9	554	2	8	9	63	0	1	5	12	SSE	5.8
0000	4	7.1	567	8	46	24	14	1	4	1	2	SSW	4.8
to	5	8.3	555	4	49	18	17	1	6	1	4	SSW	5.1
2400	6	6.9	591	7	41	20	12	1	4	6	9	SW	3.6
	7	12.1	468	4	15	15	49	1	0	0	16	S	6.2
	8	8.1	132	3	29	6	31	18	1	0	12	SSE	3.2
	9	8.2	337	4	11	14	50	5	3	2	11	SSE	4.2

TABLE 1 - (Continued)

October 1950

Period	Station No.	Av. Speed (mph)	Hours of Record	PERCENT OF WIND MOVEMENT W	SW	S	SE	E	NE	N	NW	RESULTANT WIND Direction	Speed (mph)
	1	6.5	116	8	28	37	10	1	1	2	13	SSW	3.8
	2	7.3	91	4	19	9	33	6	9	17	3	SE	1.9
	3	9.5	124	0	3	3	45	1	3	14	31	E	1.0
0000	4	5.4	105	4	56	15	12	3	3	0	7	SSW	3.6
to	5	7.5	112	2	57	11	13	4	9	2	2	SSW	4.3
0400	6	5.1	112	2	34	7	3	7	12	21	14	WNW	1.0
	7	11.6	124	9	7	7	24	0	0	1	52	WNW	4.1
	8	7.9	51	22	11	2	2	1	4	4	54	WNW	5.7
	9	6.9	120	1	12	10	24	2	1	5	45	W	1.4
	1	5.9	116	4	22	28	18	3	3	1	21	SSW	2.5
	2	7.1	92	6	8	10	35	4	12	20	5	SE	2.0
	3	9.3	124	1	3	3	43	1	3	11	35	ENE	0.6
0400	4	4.8	111	5	44	16	12	4	5	0	14	SW	2.4
to	5	7.4	112	2	68	9	9	3	7	0	2	SSW	5.0
0800	6	4.2	108	3	26	4	0	12	13	24	18	NNW	1.1
	7	10.8	124	8	7	4	34	1	0	0	46	W	2.3
	8	8.2	52	15	16	3	4	1	0	1	60	WNW	5.7
	9	7.4	119	0	9	9	29	2	1	8	42	W	1.0
	1	7.8	116	2	15	11	43	19	6	2	2	SE	4.7
	2	8.2	90	3	11	3	66	5	5	3	4	SE	5.2
	3	7.5	124	2	12	8	56	0	2	7	13	SSE	3.4
0800	4	5.6	111	3	63	9	5	1	12	3	4	SW	3.2
to	5	5.6	112	2	71	10	6	1	9	0	1	SW	4.0
1200	6	4.6	101	6	48	15	16	6	6	0	3	SSW	2.7
	7	7.6	112	2	23	10	57	2	4	0	2	SSE	5.1
	8	6.0	40	6	4	4	62	13	1	1	9	SE	3.7
	9	7.6	114	0	10	7	69	4	2	3	5	SE	5.3
	1	9.8	108	2	21	12	42	17	4	1	1	SSE	6.0
	2	8.6	85	1	19	7	64	2	1	1	5	SSE	5.7
	3	8.9	117	2	21	10	61	0	1	3	2	SSE	6.1
1200	4	6.8	106	4	70	11	7	0	5	1	2	SW	5.1
to	5	6.0	118	8	63	9	11	1	6	0	2	SW	4.2
1600	6	5.9	109	3	63	14	9	4	7	0	0	SSW	4.1
	7	9.1	123	0	20	7	66	3	4	0	0	SSE	6.8
	8	6.9	49	4	11	8	69	6	0	1	1	SSE	5.2
	9	8.4	122	0	18	6	66	4	2	3	1	SSE	6.0
	1	8.0	120	9	47	25	7	1	2	3	6	SW	5.4
	2	8.8	90	2	35	21	38	0	2	2	0	S	6.2
	3	8.0	124	0	18	13	62	0	2	3	2	SSE	6.6
1600	4	6.4	107	1	66	8	17	3	4	0	1	SSW	4.5
to	5	7.8	120	1	35	24	21	4	13	1	1	S	4.1
2000	6	5.5	96	5	45	11	7	8	11	8	5	SW	1.9
	7	9.1	124	8	23	19	30	2	3	1	14	SSW	4.0
	8	5.8	56	13	58	5	2	5	3	1	13	WSW	3.7
	9	7.2	120	1	54	16	15	1	2	2	9	SSW	4.6
	1	7.8	120	8	21	44	9	3	2	3	10	SSW	4.5
	2	7.4	94	4	23	14	37	3	6	10	3	SSE	3.1
	3	9.0	124	0	8	6	51	1	3	20	11	SE	2.8
2000	4	6.2	114	2	57	19	13	3	3	0	3	SSW	4.4
to	5	7.3	114	3	37	15	27	5	9	1	3	S	3.7
2400	6	5.2	105	3	38	12	3	5	8	17	14	WSW	1.4
	7	11.1	124	11	11	14	16	0	0	3	45	W	4.4
	8	7.5	55	20	15	6	6	0	1	5	47	WNW	4.7
	9	7.3	123	0	34	13	12	1	0	2	38	WSW	3.3
	1	7.6	696	6	26	25	22	8	3	2	8	S	3.7
	2	7.9	542	3	20	11	46	3	6	8	3	SSE	3.9
	3	8.7	737	1	11	7	52	1	2	10	16	SSE	3.1
0000	4	5.9	654	3	60	13	11	2	5	1	5	SSW	3.8
to	5	6.9	688	3	54	13	15	3	9	1	2	SSW	4.1
2400	6	5.1	631	4	43	11	6	7	9	11	9	SW	1.6
	7	9.9	731	7	14	10	36	1	1	1	30	SSW	2.6
	8	7.1	303	15	19	4	21	3	2	2	34	W	2.4
	9	7.5	718	0	23	10	37	2	1	4	23	S	2.3

TABLE 1 - (Continued)

November 1950

Period	Station No.	Av. Speed (mph)	Hours of Record	PERCENT OF WIND MOVEMENT W	SW	S	SE	E	NE	N	NW	RESULTANT WIND Direction	Speed (mph)
	1	5.4	92	4	9	19	5	2	2	21	38	NW	1.9
	2	7.2	112	1	5	11	23	4	14	17	25	NNE	1.1
	3	11.3	120	0	1	8	20	1	18	14	38	N	3.5
0000	4	6.7	91	1	21	11	3	10	41	1	12	NE	1.3
to	5	7.9	111	0	55	4	5	2	33	1	0	SSW	2.0
0400	6	4.2	88	2	9	4	2	1	30	39	13	N	2.4
	7	12.8	120	9	1	5	19	0	4	4	58	NW	5.9
	8	9.5	48	3	0	0	0	0	4	2	91	NW	8.9
	9	7.4	90	2	7	2	5	3	13	9	59	NW	4.3
	1	5.4	91	0	8	10	3	1	7	18	53	NW	3.0
	2	7.5	112	1	4	4	21	3	22	11	34	N	2.3
	3	10.6	120	0	0	4	19	2	21	8	46	N	4.1
0400	4	7.3	88	3	17	6	6	11	43	1	13	NW	2.0
to	5	8.8	111	1	45	4	16	4	29	0	1	S	2.3
0800	6	5.0	88	2	15	10	18	1	7	34	13	NNW	0.7
	7	12.5	120	12	0	2	16	0	6	1	63	NNW	5.3
	8	9.8	51	6	1	0	0	1	2	2	88	NW	9.0
	9	8.2	91	1	2	2	9	2	13	12	59	NNW	4.9
	1	5.3	88	0	1	0	35	23	12	11	18	E	2.3
	2	5.4	104	0	7	3	36	6	22	10	16	E	1.7
	3	7.7	120	2	7	3	24	2	19	16	27	NNE	1.8
0800	4	5.2	86	5	22	6	1	4	50	4	8	NNE	1.4
to	5	7.5	108	1	53	6	10	2	25	2	1	SSW	2.5
1200	6	5.0	90	4	29	23	13	3	22	2	4	S	1.6
	7	6.8	113	10	12	5	31	6	7	4	25	SSW	0.7
	8	8.1	50	3	0	1	21	6	14	14	41	N	3.0
	9	6.3	86	0	10	6	36	4	12	13	19	E	1.2
	1	4.3	87	0	1	7	31	27	24	3	7	E	2.6
	2	5.1	97	1	30	4	29	4	21	4	7	SSE	1.2
	3	6.9	115	4	11	4	36	0	23	12	10	E	1.5
1200	4	5.8	85	4	36	2	2	2	51	1	2	NE	0.8
to	5	6.6	115	0	38	6	6	3	45	2	0	ESE	0.8
1600	6	5.1	101	2	22	24	15	6	30	0	1	SSE	1.8
	7	6.9	120	2	17	4	46	7	17	2	5	SE	3.2
	8	7.5	65	3	3	5	61	3	16	6	3	SSE	2.4
	9	6.7	94	0	15	6	48	2	18	9	2	SE	3.1
	1	4.6	88	9	4	22	2	3	15	11	34	NW	1.3
	2	6.8	108	3	27	7	29	2	15	7	10	S	1.4
	3	8.0	120	1	6	13	40	1	27	4	8	ESE	3.2
1600	4	5.8	94	1	25	11	8	3	52	0	0	E	1.6
to	5	7.6	116	1	18	8	16	5	49	2	1	ENE	2.1
2000	6	4.7	92	1	12	13	16	8	20	22	8	ENE	0.9
	7	8.6	120	20	3	4	34	1	13	4	21	SW	0.3
	8	6.0	56	11	7	7	27	4	10	1	33	W	0.5
	9	6.6	96	3	11	10	15	1	23	7	30	NNW	1.1
	1	5.5	92	4	12	16	8	3	9	22	26	NW	1.2
	2	7.6	112	1	10	12	23	4	20	14	16	WNW	1.2
	3	11.1	120	0	5	7	21	0	21	12	34	N	2.8
2000	4	7.3	92	2	29	8	4	3	48	0	6	ENE	1.2
to	5	7.6	116	1	37	5	13	2	40	1	1	SE	1.1
2400	6	4.9	93	0	27	15	3	2	12	30	11	NW	0.9
	7	12.4	120	7	3	11	13	0	4	3	59	NW	5.8
	8	8.1	56	8	0	0	0	0	16	0	76	NW	6.6
	9	7.5	96	2	11	8	5	2	18	8	46	NNW	3.2
	1	5.1	538	3	6	12	14	9	11	15	30	N	0.9
	2	6.7	645	1	13	7	26	4	19	11	19	ENE	0.9
	3	9.3	715	1	5	6	26	1	21	11	29	NNE	1.9
0000	4	6.3	536	2	25	8	4	6	47	1	7	ENE	1.3
to	5	7.7	677	1	41	5	11	3	37	1	1	SSE	1.3
2400	6	4.8	552	2	19	16	11	4	20	20	8	ENE	0.3
	7	10.0	713	10	5	5	24	2	7	3	44	WNW	2.5
	8	8.1	326	5	2	2	18	2	10	4	57	NW	3.4
	9	7.1	553	2	9	6	18	2	17	9	37	NNW	1.6

TABLE 1 - (Continued)

December 1950

Period	Station No.	Av. Speed (mph)	Hours of Record	PERCENT OF WIND MOVEMENT W	SW	S	SE	E	NE	N	NW	RESULTANT WIND Direction	Speed (mph)
	1	3.9	94	18	5	3	0	3	1	10	60	NW	3.0
	2	5.3	121	5	19	6	6	7	8	7	42	NW	1.9
	3	8.9	116	0	1	1	18	1	5	8	66	NW	4.7
0000	4	5.5	111	5	32	14	12	27	10	0	0	SSE	2.3
to	5	5.9	124	1	51	3	15	3	16	4	7	SSW	2.2
0400	6	4.1	74	6	7	0	1	5	22	36	23	N	2.5
	7	11.2	120	16	5	2	1	0	0	0	76	WNW	9.7
	8	9.1	112	4	7	0	0	0	0	1	88	NW	8.5
	9	7.4	69	4	12	6	3	3	0	1	71	WNW	5.0
	1	4.4	100	7	3	3	3	6	3	9	66	NW	3.0
	2	5.4	120	4	10	5	6	4	13	10	48	NW	2.5
	3	8.8	113	0	1	1	8	1	6	12	71	NNW	6.3
0400	4	5.2	110	5	24	9	5	44	13	0	0	ESE	2.1
to	5	6.4	124	1	61	4	7	4	21	1	1	SSW	2.7
0800	6	4.2	74	3	3	2	3	1	34	34	20	N	2.8
	7	11.4	120	12	1	4	2	0	0	1	80	NW	9.9
	8	9.0	113	3	2	0	1	1	2	1	90	NW	8.2
	9	7.7	66	5	10	4	2	4	1	4	70	NW	5.3
	1	4.9	95	10	0	1	12	31	6	20	20	NE	1.7
	2	5.5	123	0	8	7	20	9	13	7	36	N	0.8
	3	6.8	110	3	6	3	19	1	6	12	50	NW	2.7
0800	4	4.2	113	5	27	4	6	23	35	0	0	E	1.2
to	5	5.2	119	0	74	3	4	3	15	0	1	SW	3.1
1200	6	3.6	68	11	22	5	14	3	16	7	22	W	0.7
	7	8.1	116	12	7	4	12	3	2	2	58	WNW	4.2
	8	7.5	116	5	4	1	14	5	2	3	66	NW	4.1
	9	6.5	69	1	7	6	17	13	5	14	37	N	1.4
	1	4.8	95	10	0	4	6	43	11	15	11	ENE	2.1
	2	4.6	114	2	17	13	29	6	4	7	22	S	0.9
	3	5.6	110	4	15	5	46	1	4	11	14	SSE	1.6
1200	4	4.7	109	1	31	9	18	5	36	0	0	SSE	1.0
to	5	3.7	118	4	49	4	15	3	23	1	1	SSW	1.2
1600	6	4.5	79	4	29	19	18	6	7	6	11	SSW	1.5
	7	5.9	120	4	6	12	51	8	3	1	15	SE	2.8
	8	6.6	120	1	9	2	59	8	3	4	14	SE	3.2
	9	6.4	77	0	12	6	49	10	5	8	10	SE	2.9
	1	4.0	96	21	3	1	1	11	4	19	40	NW	2.4
	2	5.3	116	11	31	6	20	2	4	1	25	WSW	2.0
	3	6.0	112	2	9	11	57	1	7	2	11	SE	3.1
1600	4	4.6	112	0	26	17	16	16	24	1	0	SE	1.7
to	5	4.1	116	3	24	4	5	8	48	5	3	NE	1.2
2000	6	4.6	77	1	17	6	6	5	23	26	16	N	1.4
	7	6.8	120	20	3	4	32	9	4	2	26	SW	0.5
	8	5.4	120	12	20	4	16	1	4	2	41	W	2.3
	9	6.5	76	4	22	7	19	5	4	4	35	W	1.6
	1	4.5	94	13	2	10	3	9	3	12	48	NW	2.2
	2	5.9	119	5	19	4	8	6	9	10	39	NW	2.0
	3	8.8	112	1	2	2	27	1	6	10	51	NNW	2.8
2000	4	5.8	112	3	31	13	11	16	25	1	0	SE	1.7
to	5	5.7	118	1	41	5	17	10	23	2	1	SSE	1.6
2400	6	4.7	72	4	11	4	2	1	19	32	27	NNW	2.5
	7	10.8	120	16	3	6	12	1	0	0	62	NW	5.1
	8	8.1	120	5	7	1	3	0	1	0	83	NW	6.7
	9	8.1	76	1	14	6	12	9	1	6	51	WNW	2.8
	1	4.4	574	13	2	4	4	18	5	14	40	NNW	1.8
	2	5.3	713	4	17	7	14	6	9	7	36	WNW	1.2
	3	7.5	673	1	5	3	27	1	6	9	48	NW	2.1
0000	4	5.0	667	3	29	11	12	22	23	0	0	SE	1.6
to	5	5.2	719	1	52	4	11	5	23	2	2	SSW	1.6
2400	6	4.3	444	4	15	6	7	4	20	24	20	NNW	1.3
	7	9.0	716	14	4	5	14	3	1	1	58	WNW	4.6
	8	7.6	701	5	7	1	14	2	2	2	67	NW	4.3
	9	7.1	433	3	13	5	17	7	3	6	46	WNW	2.0

TABLE 1 - (Continued)

January 1951

Period	Station No.	Av. Speed (mph)	Hours of Record	PERCENT OF WIND MOVEMENT W	SW	S	SE	E	NE	N	NW	RESULTANT WIND Direction	Speed (mph)
	1	7.3	114	12	6	6	7	5	1	7	56	NW	4.1
	2	9.7	119	37	5	16	21	5	2	2	12	SW	3.6
	3	12.7	90	1	1	21	20	0	4	13	40	WNW	1.9
0000	4	8.3	124	2	22	10	11	18	33	0	4	ESE	2.4
to	5	7.3	90	3	36	4	7	7	40	1	2	ESE	0.8
0400	6	5.7	98	0	5	7	8	5	33	21	21	NNE	2.6
	7	12.9	124	14	5	4	23	0	1	1	52	WNW	5.3
	8	10.0	124	5	11	3	5	3	2	1	70	NW	6.5
	9	9.8	124	1	8	6	17	6	0	5	57	NW	3.5
	1	6.7	112	9	4	5	2	3	1	3	73	NW	5.0
	2	10.1	122	39	9	9	21	4	1	1	16	WSW	4.1
	3	11.3	90	3	0	21	3	0	3	13	57	NW	5.9
0400	4	7.6	124	1	18	8	15	22	30	0	6	WSW	2.9
to	5	6.9	92	1	44	3	8	8	33	0	3	S	1.1
0800	6	4.7	100	2	2	2	7	7	28	29	25	N	2.9
	7	12.4	123	14	4	4	18	0	1	2	57	WNW	6.1
	8	10.1	120	4	9	2	5	2	1	0	77	NW	7.3
	9	8.9	121	1	6	7	13	6	1	3	63	NW	3.8
	1	7.5	111	1	0	5	16	25	7	8	38	NNE	2.1
	2	8.5	104	30	4	5	32	7	1	3	18	SW	1.9
	3	10.4	93	1	4	29	16	0	7	11	32	WSW	1.0
0800	4	7.1	122	1	33	8	12	13	28	0	5	SE	1.6
to	5	7.4	91	2	39	8	11	9	29	0	2	SSE	1.7
1200	6	4.8	100	3	28	12	10	7	27	4	9	SSE	0.5
	7	9.6	119	18	5	3	31	1	2	2	38	W	2.4
	8	8.4	117	3	10	2	22	5	3	4	51	NW	2.4
	9	8.2	111	0	5	4	42	7	6	6	30	E	1.2
	1	8.0	112	4	3	4	7	51	12	11	8	ENE	4.4
	2	6.3	96	19	14	11	33	3	2	9	9	SSW	1.9
	3	10.2	92	1	7	37	19	0	7	17	12	S	2.4
1200	4	6.8	122	2	35	16	9	7	29	1	1	S	1.6
to	5	5.8	95	4	37	10	8	4	35	0	2	SSE	0.9
1600	6	5.4	106	3	26	22	15	5	21	1	7	S	1.6
	7	7.7	118	2	7	5	56	6	10	2	12	SE	3.9
	8	8.7	121	0	5	4	51	14	9	6	11	ESE	4.3
	9	8.0	115	1	8	4	57	5	7	12	6	SE	3.9
	1	7.2	116	13	6	6	3	24	10	13	25	N	1.8
	2	7.2	109	28	18	11	25	1	2	5	10	SW	2.9
	3	10.2	96	1	8	34	19	0	7	19	12	S	2.0
1600	4	7.2	124	0	26	15	12	11	36	0	0	ESE	2.3
to	5	6.9	96	0	11	7	15	9	56	1	1	ENE	3.7
2000	6	5.8	102	1	7	16	14	6	34	13	9	ENE	1.7
	7	8.4	120	12	6	7	39	4	14	5	13	NE	0.9
	8	6.9	124	9	17	8	14	6	9	6	31	WNW	1.4
	9	7.3	120	4	16	6	23	3	15	6	27	NW	0.3
	1	7.1	120	16	6	12	5	10	8	8	35	NW	2.3
	2	8.7	111	34	5	9	26	12	3	4	7	SSW	2.0
	3	12.8	93	1	2	23	20	0	6	22	26	N	0.8
2000	4	7.8	124	1	27	10	12	18	30	0	2	ESE	2.4
to	5	8.2	96	2	27	2	8	7	52	1	1	NE	2.4
2400	6	6.4	108	3	3	7	17	7	26	21	16	NE	2.3
	7	12.1	123	9	2	5	28	0	7	5	44	NW	2.5
	8	9.1	124	6	7	2	18	2	4	2	59	NW	4.0
	9	8.9	123	2	9	9	23	5	7	2	43	WNW	1.3
	1	7.3	685	9	4	6	7	20	7	9	38	NNW	2.0
	2	8.5	661	33	9	10	25	6	2	3	12	SW	2.6
	3	11.2	554	1	4	27	16	0	6	16	30	W	1.1
0000	4	7.5	740	1	27	11	12	15	31	0	3	ESE	2.2
to	5	7.1	560	2	32	5	9	8	41	1	2	E	1.3
2400	6	5.5	614	2	12	11	12	6	28	15	14	NE	1.2
	7	10.6	727	12	5	5	30	1	5	3	39	WNW	1.9
	8	8.9	730	4	9	3	19	5	5	3	52	NW	2.9
	9	8.5	714	2	8	6	28	5	6	5	40	NW	0.8

TABLE 1 - (Continued)

February 1951

Period	Station No.	Av. Speed (mph)	Hours of Record	PERCENT OF WIND MOVEMENT W	SW	S	SE	E	NE	N	NW	RESULTANT WIND Direction	Speed (mph)
	1	6.4	102	18	6	14	7	4	8	10	33	WNW	2.2
	2	8.7	98	8	17	15	16	6	3	6	29	WSW	2.4
	3	9.6	80	0	9	11	23	0	4	18	35	NW	1.7
0000	4	6.7	101	6	41	14	6	6	17	0	10	SW	2.3
to	5	8.4	96	2	29	5	11	6	40	0	7	E	1.3
0400	6	6.0	83	0	4	17	9	4	26	38	2	NE	2.3
	7	11.3	112	15	8	10	14	0	4	1	48	WNW	3.4
	8	8.2	108	6	20	2	5	2	1	1	63	WNW	5.2
	9	7.5	112	2	16	9	12	2	8	2	49	WNW	2.5
	1	6.3	104	16	14	6	4	2	3	13	42	WNW	3.5
	2	7.7	104	9	10	19	14	5	6	8	29	WSW	1.4
	3	8.7	84	0	2	10	20	2	3	10	53	NW	2.8
0400	4	6.1	99	4	36	16	6	11	9	1	17	SW	1.8
to	5	7.5	96	1	40	8	6	5	33	2	5	S	0.8
0800	6	6.0	80	1	0	28	15	2	22	27	5	NE	1.7
	7	10.6	112	8	5	13	10	1	2	2	59	WNW	5.3
	8	8.0	108	7	13	3	6	1	3	4	63	WNW	5.0
	9	7.6	112	2	20	4	11	5	2	9	47	WNW	3.0
	1	7.1	90	9	0	4	4	32	12	20	19	NNE	3.0
	2	8.8	88	5	21	13	16	6	2	3	34	WSW	2.5
	3	7.6	80	1	8	18	35	2	1	8	27	S	1.5
0800	4	6.4	95	2	53	8	3	8	13	0	13	SW	2.7
to	5	7.3	95	2	57	2	3	8	24	1	3	SSW	2.0
1200	6	5.8	75	1	6	47	21	4	13	4	4	SSE	3.1
	7	8.7	112	8	13	12	26	2	2	2	35	WSW	2.2
	8	7.6	104	2	21	2	32	8	5	2	28	S	1.1
	9	7.8	108	0	15	4	42	6	9	9	15	SE	2.0
	1	6.2	89	6	0	0	0	46	19	13	16	NE	3.4
	2	6.9	84	10	25	13	13	4	3	14	18	WSW	2.0
	3	7.6	85	5	17	9	44	1	1	8	15	S	2.5
1200	4	7.5	96	4	68	8	5	4	7	0	4	SW	5.0
to	5	8.1	98	2	69	6	3	2	14	1	3	SW	4.8
1600	6	6.3	82	2	12	43	18	4	17	3	1	SSE	3.3
	7	8.2	108	3	24	10	41	4	8	2	8	SSE	3.7
	8	8.2	102	4	28	3	43	10	6	2	4	SSE	3.9
	9	8.2	109	0	21	8	47	4	6	7	7	SSE	3.7
	1	5.7	87	35	0	0	0	24	26	5	10	N	1.7
	2	7.4	99	15	34	17	5	2	7	16	4	SW	2.8
	3	6.6	83	2	25	23	31	2	2	7	8	S	3.2
1600	4	6.2	97	2	57	10	7	6	15	1	2	SSW	3.0
to	5	6.9	96	4	42	10	8	5	27	1	3	SSW	1.7
2000	6	6.3	85	1	9	40	8	4	21	13	4	SW	1.7
	7	8.7	111	5	29	11	27	2	17	2	7	S	2.7
	8	6.6	108	14	38	6	16	5	7	2	12	SW	2.7
	9	6.9	112	5	33	11	17	4	15	3	12	SSW	1.7
	1	5.6	99	23	7	3	5	8	12	14	28	NW	2.3
	2	8.1	104	19	20	14	10	4	6	14	13	WSW	2.3
	3	7.4	82	1	11	15	33	0	1	8	31	SSW	1.3
2000	4	6.8	100	2	47	13	5	5	23	0	5	SSW	2.2
to	5	7.7	96	0	24	8	17	5	42	2	2	W	2.2
2400	6	5.7	86	2	6	20	8	3	26	28	7	NW	1.4
	7	9.7	112	13	13	16	12	1	5	1	39	W	3.5
	8	7.3	108	16	25	3	4	1	3	0	48	W	4.6
	9	6.7	112	5	26	7	9	2	5	4	42	W	2.7
	1	6.2	571	17	5	5	4	19	12	13	25	NNW	1.8
	2	7.9	577	11	21	16	12	4	4	10	22	WSW	2.2
	3	7.9	494	1	11	14	31	1	2	10	30	SSW	1.0
0000	4	6.6	588	3	51	12	5	7	14	0	8	SW	2.9
to	5	7.6	577	2	44	6	8	5	30	1	4	SSW	1.4
2400	6	6.0	491	1	6	32	13	4	21	19	4	ESE	1.3
	7	9.5	667	9	14	12	20	2	6	2	35	WSW	2.4
	8	7.6	638	8	23	3	18	5	4	2	37	W	2.3
	9	7.4	665	2	21	7	23	4	8	6	29	WSW	1.0

TABLE - 1 (Continued)

March 1951

Period	Station No.	Av. Speed (mph)	Hours of Record	PERCENT OF WIND MOVEMENT W	SW	S	SE	E	NE	N	NW	RESULTANT WIND Direction	Speed (mph)
	1	9.0	72	10	7	7	5	4	9	27	31	NNW	4.1
	2	9.4	70	2	27	21	10	1	4	5	30	WSW	3.6
	3	14.7	115	1	2	2	44	0	30	7	14	E	5.9
0000	4	10.8	98	1	37	13	11	7	31	0	0	SSE	3.0
to	5	12.0	111	1	20	8	19	5	44	1	2	E	3.8
0400	6	7.9	87	0	0	36	10	3	37	14	0	E	2.9
	7	14.3	124	12	10	10	31	1	15	0	21	S	2.0
	8	9.5	124	9	19	5	9	3	16	2	37	WNW	3.0
	9	10.3	117	1	22	12	14	2	18	2	29	WSW	1.2
	1	9.3	76	9	2	11	10	2	2	18	46	NW	4.2
	2	9.7	63	0	7	20	26	2	4	5	36	SW	1.2
	3	14.0	116	1	1	2	41	1	20	12	22	ENE	4.1
0400	4	9.7	103	2	30	16	16	6	30	0	0	SSE	3.0
to	5	10.0	110	1	36	4	12	6	40	1	0	ESE	1.8
0800	6	6.4	93	0	0	38	17	3	31	11	0	ESE	2.6
	7	13.0	124	12	6	12	29	1	8	1	31	SW	1.8
	8	9.5	124	9	11	3	14	4	15	4	40	NW	2.9
	9	11.4	116	1	10	10	29	3	11	5	31	SSE	0.2
	1	8.0	83	7	2	2	5	27	13	24	20	NNE	3.0
	2	8.0	55	1	9	16	49	2	2	4	17	SSE	3.4
	3	11.5	113	1	6	4	52	0	16	15	6	ESE	4.6
0800	4	9.2	100	2	41	11	14	5	27	0	0	S	2.9
to	5	8.7	111	3	31	9	10	2	42	1	2	ESE	1.2
1200	6	7.1	78	0	0	40	16	10	31	3	0	ESE	3.6
	7	10.3	123	5	7	5	58	3	10	2	10	SE	5.0
	8	9.6	124	3	6	3	43	5	19	11	10	ESE	3.8
	9	10.3	113	0	3	4	57	3	12	11	10	ESE	4.9
	1	7.6	88	9	1	2	7	52	7	14	8	ENE	3.8
	2	5.1	55	3	19	16	21	2	6	4	29	SW	1.1
	3	9.9	116	4	14	3	57	1	7	8	6	SE	4.5
1200	4	9.3	99	1	52	15	7	8	17	0	0	SSW	4.5
to	5	8.1	112	1	40	17	8	3	26	1	4	S	2.4
1600	6	7.5	83	0	0	40	23	9	19	9	0	SE	3.9
	7	11.1	117	4	10	8	58	5	5	3	7	SE	6.4
	8	9.9	114	3	12	4	54	5	12	2	8	SE	4.8
	9	10.3	112	1	8	7	59	5	6	7	7	SE	5.7
	1	7.2	80	28	3	5	8	14	7	14	21	NW	2.2
	2	8.7	61	3	25	20	14	1	1	9	27	SW	2.8
	3	11.4	119	1	10	4	60	1	11	8	5	SE	5.6
1600	4	8.4	99	0	51	19	10	4	15	1	0	SSW	4.4
to	5	8.4	109	3	21	12	19	7	35	2	1	ESE	2.4
2000	6	8.4	92	0	0	38	11	6	29	16	0	ESE	2.9
	7	11.1	124	4	13	13	36	4	13	3	14	SSE	3.3
	8	8.3	124	4	35	7	19	4	10	5	16	SW	2.3
	9	9.2	111	2	29	17	18	4	11	6	13	SSW	2.6
	1	8.4	71	21	1	12	4	7	11	14	30	NW	3.1
	2	10.0	65	1	34	15	6	2	4	11	27	WSW	2.8
	3	14.6	120	1	8	2	52	1	21	6	9	ESE	6.4
2000	4	10.7	99	0	43	20	9	6	22	0	0	S	3.7
to	5	13.1	117	1	12	18	28	3	34	1	3	ESE	5.4
2400	6	9.7	77	0	0	53	6	2	23	16	0	SE	3.1
	7	14.9	124	8	12	21	22	1	13	4	19	SSW	3.0
	8	9.8	123	8	24	6	6	4	21	1	30	WNW	2.5
	9	11.6	114	3	29	16	17	1	12	2	20	SSW	3.4
	1	8.2	470	13	3	6	7	18	8	19	26	N	2.5
	2	8.6	369	2	21	18	19	2	3	7	28	SW	2.3
	3	12.7	699	1	6	3	50	1	19	9	11	ESE	5.0
0000	4	9.7	598	1	42	16	11	6	24	0	0	S	3.6
to	5	10.1	670	2	25	12	17	4	37	1	2	ESE	2.6
2400	6	7.8	510	0	0	41	13	5	29	12	0	ESE	3.0
	7	12.5	736	8	10	12	37	2	11	2	18	SSE	2.9
	8	9.5	733	6	18	5	24	4	16	4	23	SW	0.5
	9	10.5	683	1	17	11	32	3	12	5	19	SSE	2.1

TABLE 1 - (Continued)

April 1951

Period	Station No.	Av. Speed (mph)	Hours of Record	PERCENT OF WIND MOVEMENT W	SW	S	SE	E	NE	N	NW	RESULTANT WIND Direction	Speed (mph)
	1	6.9	111	9	31	29	13	1	3	5	9	SSW	3.6
	2	8.6	96	1	20	23	43	2	3	4	4	SSE	5.2
	3	10.7	112	1	5	3	72	1	1	7	10	SE	6.4
0000	4	7.9	120	1	15	51	15	3	14	1	0	SSE	4.9
to	5	8.0	116	4	31	7	23	8	20	1	6	SE	2.4
0400	6	5.5	93	0	0	43	20	4	13	20	0	SE	2.2
	7	11.1	96	14	2	13	37	0	0	2	32	SW	2.1
	8	5.9	120	16	14	6	9	8	3	1	43	WNW	2.5
	9	8.5	104	3	23	13	34	1	0	5	21	SSW	2.8
	1	7.2	117	2	22	27	34	3	2	3	7	S	4.2
	2	8.9	98	1	10	14	62	3	4	4	2	SE	6.4
	3	11.8	107	1	1	1	74	1	6	7	9	SE	7.3
0400	4	7.3	120	1	17	52	17	1	12	0	0	SSE	5.1
to	5	7.5	116	2	41	6	28	4	16	0	3	S	3.2
0800	6	5.6	91	0	0	44	28	3	11	14	0	SE	2.9
	7	11.9	96	9	3	13	47	0	2	2	24	SSE	3.6
	8	6.8	119	6	12	3	17	26	3	1	32	NE	0.2
	9	9.4	101	1	11	9	57	1	2	5	14	SSE	4.5
	1	9.5	100	2	6	5	55	17	11	3	1	SE	4.1
	2	10.2	86	0	14	7	69	3	3	2	2	SE	7.7
	3	11.8	104	1	9	11	63	1	9	4	2	SE	7.8
0800	4	8.4	96	1	18	44	9	3	24	1	0	SSE	3.9
to	5	7.7	110	2	62	6	8	1	18	0	3	SW	3.9
1200	6	6.9	79	0	0	57	23	1	18	1	0	SSE	5.2
	7	10.9	88	2	8	9	64	2	15	0	0	SE	7.6
	8	10.2	120	2	12	1	36	42	5	1	1	ESE	6.6
	9	10.9	98	2	9	2	76	2	8	0	1	SE	8.4
	1	10.7	96	8	10	4	44	12	15	7	0	ESE	4.9
	2	11.6	97	4	23	14	46	3	4	3	3	SSE	6.7
	3	12.4	108	1	15	4	65	0	8	5	2	SE	7.7
1200	4	8.9	102	0	27	37	9	5	20	2	0	S	4.3
to	5	9.7	119	5	69	3	4	1	16	0	2	SW	5.7
1600	6	7.3	80	0	0	64	23	2	9	2	0	SSE	5.5
	7	12.0	89	1	18	10	54	3	13	0	1	SE	7.4
	8	11.5	115	4	26	2	28	28	8	1	3	SE	5.1
	9	11.8	91	1	15	5	62	4	11	0	2	SE	8.0
	1	9.5	94	20	20	14	26	7	4	5	4	SSW	3.5
	2	13.4	89	3	40	20	35	0	0	1	1	S	9.5
	3	14.1	114	1	20	4	68	0	3	1	3	SSE	9.9
1600	4	9.4	103	0	22	58	10	2	7	1	0	S	7.1
to	5	10.7	116	5	45	11	18	1	18	0	2	SSW	4.6
2000	6	9.1	81	0	0	48	36	1	3	12	0	SSE	6.1
	7	13.6	93	5	15	11	54	2	9	0	4	SSE	7.6
	8	10.3	117	14	41	7	10	13	8	0	7	WSW	2.3
	9	12.3	98	1	28	15	46	1	5	0	4	SSE	7.5
	1	9.1	104	12	30	19	11	2	4	9	13	SW	3.6
	2	11.9	93	2	35	16	35	3	4	3	3	S	6.9
	3	12.2	112	1	11	0	77	1	4	2	4	SE	8.8
2000	4	10.2	116	0	10	47	18	2	21	2	0	SSE	5.6
to	5	11.1	112	3	38	5	18	3	29	0	4	S	2.8
2400	6	8.5	88	0	0	50	16	1	19	14	0	SE	2.6
	7	12.9	96	9	10	15	39	1	8	3	15	SSE	4.0
	8	8.7	120	20	33	4	8	11	6	1	17	ESE	3.3
	9	11.0	95	1	34	14	26	3	8	2	12	S	4.4
	1	8.7	622	9	19	15	31	8	7	5	6	SSE	3.3
	2	10.7	559	2	25	16	47	2	3	3	2	SSE	6.6
	3	12.2	657	1	11	4	70	0	5	4	5	SE	8.1
0000	4	8.7	657	0	18	49	13	3	16	1	0	S	5.2
to	5	9.1	689	4	48	6	16	3	20	0	3	SSW	3.3
2400	6	7.1	512	0	0	51	25	2	12	10	0	SSE	4.1
	7	12.1	558	6	10	12	49	1	8	1	13	SSE	5.1
	8	8.9	711	10	24	4	19	22	6	1	14	S	1.8
	9	10.6	587	2	20	10	50	2	6	2	8	SSE	5.4

TABLE 1 - (Continued)

May 1951

Period	Station No.	Av. Speed (mph)	Hours of Record	PERCENT OF WIND MOVEMENT W	SW	S	SE	E	NE	N	NW	RESULTANT WIND Direction	Speed (mph)
	1	5.6	73	33	10	11	10	6	4	10	16	W	2.0
	2	8.2	105	2	38	16	24	4	3	4	9	SSW	4.1
	3	9.5	124	0	4	4	64	2	9	6	11	SE	5.0
0000	4	7.2	116	0	4	66	15	2	13	0	0	SSE	5.2
to	5	6.9	120	2	49	7	15	6	15	0	6	SSW	2.8
0400	6	5.2	88	0	0	29	10	7	24	30	0	ENE	1.7
	7	10.8	124	18	5	16	26	1	8	0	26	SW	2.3
	8	6.5	116	13	18	3	10	7	2	1	46	WNW	3.1
	9	8.2	108	3	22	18	20	2	3	2	30	SW	2.6
	1	5.9	91	8	2	8	19	18	4	10	31	N	0.8
	2	6.4	95	1	11	24	19	10	9	5	21	SSE	1.3
	3	7.7	124	1	4	3	52	2	11	16	11	ESE	2.9
0400	4	5.7	119	0	0	66	7	2	25	0	0	SSE	3.4
to	5	5.9	119	2	53	9	12	3	18	1	2	SSW	2.5
0800	6	4.4	101	0	0	29	24	14	22	11	0	ESE	2.2
	7	9.0	123	15	8	8	36	1	5	2	25	SSW	1.5
	8	6.1	117	8	9	2	21	15	6	2	37	NW	0.6
	9	6.7	113	2	8	10	40	4	3	4	29	SSE	1.3
	1	6.2	81	14	4	5	6	34	26	9	2	ENE	2.6
	2	5.3	65	1	16	14	30	6	11	12	10	SE	1.4
	3	8.2	112	4	22	6	54	0	1	7	6	SSE	4.3
0800	4	5.9	105	0	0	61	9	1	29	0	0	SSE	3.2
to	5	5.4	110	5	62	9	5	2	13	0	4	SW	3.2
1200	6	4.9	90	0	0	51	23	8	15	3	0	SSE	3.1
	7	8.6	117	1	24	14	42	5	13	0	1	SSE	5.0
	8	8.9	116	1	22	2	43	26	4	1	1	SE	4.7
	9	7.4	106	0	21	6	54	7	10	1	1	SE	4.6
	1	9.4	60	29	1	6	2	25	17	19	1	NNE	2.4
	2	9.1	55	0	30	5	26	5	17	12	5	SE	1.7
	3	12.6	120	1	32	5	48	1	2	8	3	S	6.6
1200	4	10.6	100	0	0	66	8	2	24	0	0	SSE	6.5
to	5	8.2	116	5	65	4	7	3	13	0	3	SW	9.5
1600	6	8.7	75	0	0	55	32	4	6	3	0	SSE	6.8
	7	13.2	113	3	30	8	47	3	7	1	1	SSE	7.8
	8	13.2	113	3	37	2	40	13	2	0	3	SSE	6.9
	9	10.3	77	0	22	3	52	6	15	1	1	SE	5.8
	1	7.8	64	37	1	5	13	27	8	8	2	ENE	0.3
	2	12.0	93	3	51	10	26	1	2	2	5	SSW	6.2
	3	11.9	124	3	40	6	45	0	3	1	2	S	7.4
1600	4	10.1	105	0	0	79	8	1	12	0	0	SSE	7.6
to	5	9.7	120	7	56	10	12	2	12	0	1	SSE	5.6
2000	6	8.3	92	0	0	50	14	4	18	14	0	SE	3.5
	7	13.6	120	6	36	12	35	2	5	1	3	S	7.5
	8	11.0	116	11	52	4	20	6	0	0	7	SSW	6.7
	9	6.4	59	2	42	12	30	4	5	2	3	S	3.6
	1	7.8	73	63	1	7	5	2	4	7	11	W	4.9
	2	11.2	110	2	39	19	27	1	1	3	8	SSW	6.6
	3	10.9	124	3	16	7	61	1	4	4	4	SSE	6.5
2000	4	8.5	110	0	0	63	23	3	11	0	0	SSE	6.5
to	5	10.8	120	2	32	16	27	3	16	2	2	S	5.0
2400	6	6.5	91	0	0	43	11	3	15	28	0	ESE	1.6
	7	12.3	124	8	13	23	38	1	3	2	12	S	5.9
	8	8.0	113	18	40	5	7	3	2	2	23	WSW	4.5
	9	7.8	69	3	32	20	14	3	3	2	23	SW	3.3
	1	7.0	442	31	3	7	9	19	11	10	10	NW	0.8
	2	8.9	523	2	35	15	25	4	5	5	9	S	3.8
	3	10.1	728	2	22	5	53	1	5	7	5	SSE	4.9
0000	4	7.9	659	0	1	67	12	2	18	0	0	SSE	5.4
to	5	7.8	705	4	51	10	14	3	14	1	3	SSW	3.7
2400	6	6.2	537	0	0	44	19	6	16	15	0	SE	2.6
	7	11.2	721	8	20	14	37	2	7	1	11	S	4.5
	8	8.9	691	8	32	3	26	12	2	1	16	SSW	2.8
	9	7.8	532	2	23	11	36	4	7	2	15	S	2.6

TABLE 1 - (Continued)

June 1951

Period	Station No.	Av. Speed (mph)	Hours of Record	PERCENT OF WIND MOVEMENT W	SW	S	SE	E	NE	N	NW	RESULTANT WIND Direction	Speed (mph)
	1	8.7	86	8	30	34	4	1	1	8	14	SW	4.4
	2	10.4	102	0	10	16	45	2	3	6	18	SSE	4.0
	3	12.4	119	1	2	2	73	1	6	6	9	SE	7.7
0000	4	9.0	120	0	27	40	18	1	12	2	0	S	5.5
to	5	9.3	118	3	25	18	25	5	16	1	7	SSE	3.5
0400	6	6.4	111	3	30	27	7	6	9	14	4	SSW	2.0
	7	11.5	120	20	5	16	33	0	2	1	23	SSW	3.4
	8	7.1	75	15	8	4	7	6	1	1	58	WNW	4.0
	9	9.4	64	4	32	20	24	0	3	4	13	SSW	4.6
	1	7.2	85	1	11	26	26	5	3	2	26	S	2.1
	2	8.1	96	0	3	13	49	4	5	2	24	SE	2.9
	3	9.9	119	2	0	2	66	0	3	7	20	SE	4.2
0400	4	6.8	119	0	31	33	14	2	19	1	0	S	3.5
to	5	6.3	119	3	35	6	25	5	17	4	5	S	1.8
0800	6	4.1	119	2	27	10	10	10	12	24	5	NE	0.1
	7	9.5	116	12	7	10	48	1	0	0	22	S	3.2
	8	7.7	76	8	3	2	20	5	0	0	62	NW	3.3
	9	10.5	69	1	4	6	69	2	1	1	16	SE	6.2
	1	9.8	86	0	0	8	66	10	6	8	2	SE	7.4
	2	10.5	78	0	1	9	71	5	4	5	5	SE	7.7
	3	10.0	119	2	4	11	68	1	1	4	9	SE	6.4
0800	4	7.8	115	1	31	37	10	3	18	0	0	S	4.2
to	5	5.8	111	5	64	5	4	3	9	1	9	SW	3.5
1200	6	4.2	108	1	35	25	6	14	11	6	2	S	1.6
	7	10.4	115	0	4	5	80	2	7	1	1	SE	8.7
	8	8.6	82	1	2	1	76	14	2	0	4	SE	7.1
	9	13.0	65	0	1	6	87	3	3	0	0	SE	12.4
	1	13.9	61	0	5	16	55	4	4	16	0	SE	8.6
	2	12.5	76	0	2	13	64	3	4	11	3	SE	8.1
	3	13.0	120	1	2	10	73	1	1	9	3	SE	9.2
1200	4	9.9	119	0	35	34	13	3	15	0	0	S	5.6
to	5	8.6	116	8	64	9	9	2	4	0	4	SW	6.2
1600	6	6.7	114	0	22	27	20	23	6	1	1	SSE	3.8
	7	13.9	118	0	1	2	84	3	7	1	2	SE	12.0
	8	12.4	83	0	3	2	71	18	5	0	1	SE	10.5
	9	16.8	64	0	4	8	80	4	4	0	0	SE	15.1
	1	13.7	63	1	14	53	22	1	0	8	1	S	9.6
	2	13.1	86	1	8	33	54	1	1	2	0	SSE	10.5
	3	15.9	120	0	3	11	77	0	4	4	1	SE	12.9
1600	4	11.8	120	0	34	41	9	3	13	0	0	S	7.3
to	5	11.4	112	1	54	17	12	5	9	1	1	SSW	7.0
2000	6	9.8	111	0	14	46	9	16	14	1	0	SSE	5.4
	7	16.5	120	0	1	17	70	3	6	2	1	SE	13.9
	8	12.2	86	0	34	15	39	9	3	0	0	SSE	8.3
	9	14.8	50	0	20	16	61	1	2	0	0	SSE	11.7
	1	12.6	76	3	45	45	1	0	0	2	4	SSW	10.2
	2	12.0	104	1	20	29	37	1	5	1	6	S	7.3
	3	14.5	120	0	1	3	86	0	7	1	2	SE	12.6
2000	4	10.8	120	0	18	49	20	0	13	0	0	S	7.3
to	5	14.5	112	0	16	36	34	3	9	1	1	SSE	9.7
2400	6	9.3	109	0	17	53	8	8	9	4	1	S	5.6
	7	14.4	120	6	4	39	38	1	5	0	7	SSE	8.9
	8	9.6	80	8	41	15	17	2	1	1	15	SE	5.3
	9	12.4	57	1	44	36	11	0	0	0	8	SSW	9.3
	1	10.7	457	2	18	31	29	3	2	8	7	S	5.5
	2	11.0	542	1	8	20	52	2	4	4	9	SSE	6.5
	3	12.6	717	1	2	7	75	0	4	5	6	SE	8.8
0000	4	9.4	713	0	29	40	14	2	15	0	0	S	5.5
to	5	9.3	688	3	39	18	20	4	11	1	4	S	4.6
2400	6	6.7	672	1	22	35	10	13	10	7	2	SSE	2.9
	7	12.7	709	6	3	16	59	2	5	1	8	SE	7.6
	8	9.7	482	4	17	7	42	10	2	0	18	SSE	3.6
	9	12.7	369	1	16	14	59	2	2	1	5	SSE	8.5

TABLE 1 - (Continued)

July 1951

Period	Station No.	Av. Speed (mph)	Hours of Record	PERCENT OF WIND MOVEMENT W	SW	S	SE	E	NE	N	NW	RESULTANT WIND Direction	Speed (mph)
	1	8.6	64	4	40	35	3	1	1	3	13	SW	5.6
	2	8.6	104	1	12	17	50	2	4	3	11	SE	4.5
	3	9.3	112	1	1	5	79	1	2	6	5	SE	7.6
0000	4	7.3	112	1	49	25	18	1	6	0	0	SSW	5.2
to	5	8.6	109	5	35	22	21	2	11	0	4	S	4.4
0400	6	5.9	71	13	43	21	6	5	9	1	2	SSW	3.2
	7	8.8	124	22	9	12	31	0	2	1	23	SW	2.6
	8	6.0	92	22	7	6	12	0	4	2	47	WNW	3.1
	9	6.5	96	4	22	18	18	1	3	2	32	SW	2.1
	1	7.4	74	5	10	28	37	4	1	5	10	SSE	3.6
	2	8.8	102	0	2	6	70	4	5	2	11	SE	5.8
	3	8.9	111	1	1	5	65	2	3	15	8	SE	4.5
0400	4	6.5	109	1	52	23	13	5	6	0	0	SSW	4.4
to	5	6.7	112	4	48	4	13	3	23	1	4	SSW	2.1
0800	6	5.5	66	14	32	25	12	2	8	3	4	SSW	2.8
	7	9.5	119	22	3	4	44	0	1	0	26	SSW	1.9
	8	6.5	88	6	5	5	31	3	1	1	48	WNW	1.2
	9	6.8	105	3	6	11	49	1	2	2	26	SSE	2.1
	1	12.6	77	0	2	5	75	8	6	4	0	SE	10.3
	2	10.3	84	0	3	2	83	2	6	1	3	SE	9.7
	3	10.1	109	1	3	15	66	1	1	9	4	SE	6.7
0800	4	8.0	102	1	58	16	9	5	11	0	0	SSW	4.8
to	5	6.7	111	7	76	5	4	1	3	0	4	SW	5.5
1200	6	5.4	76	17	45	19	13	1	3	1	1	SW	3.6
	7	8.8	123	3	9	2	73	5	6	0	2	SW	7.1
	8	10.6	92	1	0	1	81	16	0	0	1	SE	9.5
	9	9.2	115	0	1	1	84	4	8	1	1	SE	7.9
	1	17.0	72	3	11	8	61	5	6	6	0	SE	10.9
	2	13.3	93	1	12	8	56	2	10	9	2	SE	7.4
	3	12.6	112	1	11	12	57	1	1	13	4	SE	6.6
1200	4	10.3	108	1	56	16	10	10	7	0	0	SSW	6.3
to	5	8.5	115	11	66	7	5	1	0	0	10	SW	6.7
1600	6	6.9	62	16	23	22	17	1	12	5	4	SSW	2.6
	7	12.7	124	3	16	2	62	5	11	0	1	SE	8.0
	8	12.9	94	3	7	0	67	19	3	0	0	SE	10.1
	9	12.3	104	1	8	1	68	5	14	1	2	SE	8.6
	1	14.5	67	5	33	28	28	2	2	2	0	S	10.0
	2	13.4	102	1	36	13	42	1	3	1	3	S	8.7
	3	12.1	110	0	25	13	55	0	1	4	2	SSE	8.2
1600	4	10.1	108	0	74	14	4	1	7	0	0	SW	8.1
to	5	10.3	116	4	68	15	8	0	3	0	2	SW	8.2
2000	6	8.6	69	26	33	28	3	0	8	2	0	SW	5.2
	7	12.6	124	5	26	18	44	2	3	0	2	SSE	8.2
	8	12.3	92	13	38	10	31	3	2	1	2	SSW	7.3
	9	10.7	98	1	33	13	45	1	2	1	4	S	6.8
	1	11.4	73	5	52	25	8	0	1	4	5	SSW	8.1
	2	10.2	102	1	27	26	40	1	1	0	4	S	7.0
	3	10.3	112	1	7	10	75	1	1	2	3	SE	8.1
2000	4	8.3	106	1	42	35	14	3	5	0	0	S	6.0
to	5	7.8	106	7	32	25	18	3	10	2	3	S	4.0
2400	6	7.3	51	12	42	23	7	6	6	1	3	SSW	4.2
	7	10.5	124	9	11	28	40	1	3	1	7	S	5.9
	8	8.1	92	8	41	10	16	2	4	2	17	SW	3.9
	9	8.7	91	2	35	26	20	1	1	1	14	SSW	5.0
	1	11.9	427	4	23	19	39	4	3	4	4	SSE	6.5
	2	10.7	587	1	17	12	55	2	5	3	5	SSE	6.3
	3	10.5	666	1	9	10	66	1	1	8	4	SE	6.7
0000	4	8.4	645	1	56	21	11	4	7	0	0	SSW	5.8
to	5	8.1	669	6	55	14	11	2	7	0	5	SSW	5.0
2400	6	6.5	395	18	36	23	9	2	8	2	2	SSW	3.4
	7	10.5	738	10	13	11	49	3	5	0	9	SSE	5.0
	8	9.4	550	8	17	5	45	9	2	1	13	SSE	3.8
	9	9.1	609	1	17	10	52	3	6	1	10	SSE	4.7

TABLE 1 - (Continued)

August 1951

Period	Station No.	Av. Speed (mph)	Hours of Record	PERCENT OF WIND MOVEMENT W	SW	S	SE	E	NE	N	NW	RESULTANT WIND Direction	Speed (mph)
	1	7.5	86	2	15	53	14	3	1	3	9	S	4.9
	2	8.4	93	1	15	21	52	1	2	3	5	SSE	5.5
	3	8.4	91	0	1	40	41	0	0	9	9	SSE	4.9
0000	4	7.9	60	1	41	27	22	3	0	0	6	SSW	5.5
to	5	7.0	117	7	32	13	15	5	19	1	8	SSW	2.0
0400	6	4.9	49	7	28	2	0	18	44	1	0	ENE	1.1
	7	10.2	122	23	3	8	37	0	3	1	25	SW	2.3
	8	6.7	100	7	10	11	20	1	1	1	49	W	2.2
	9	7.6	113	3	11	9	43	1	3	3	27	S	1.8
	1	6.9	84	4	18	37	26	3	3	3	6	S	4.1
	2	7.6	94	1	5	5	68	2	4	5	10	SE	4.4
	3	7.3	82	0	1	44	21	2	1	7	24	S	2.7
0400	4	6.7	60	2	36	24	19	3	4	1	11	SSW	3.5
to	5	5.9	119	4	49	3	13	6	17	3	5	SSW	1.9
0800	6	3.6	41	5	43	26	0	15	8	3	0	SSW	1.8
	7	9.7	113	17	2	4	46	1	1	0	29	S	1.7
	8	7.2	93	4	7	6	18	0	0	1	64	S	1.7
	9	7.7	105	1	6	7	46	2	3	1	34	SSE	1.4
	1	10.6	85	1	8	15	56	9	10	1	0	SE	7.6
	2	10.8	87	0	1	4	82	2	5	3	3	SE	8.8
	3	8.0	84	2	9	34	36	0	0	12	7	SSE	4.0
0800	4	9.3	61	1	41	26	18	6	5	1	2	S	5.8
to	5	5.5	113	6	58	8	14	1	8	1	4	SW	3.4
1200	6	5.8	51	4	60	27	0	3	5	1	0	SSW	4.3
	7	10.5	123	2	4	6	73	7	7	0	1	SE	8.5
	8	8.2	98	1	4	0	70	18	3	1	3	SE	6.6
	9	10.2	112	0	5	4	77	5	6	1	2	SE	8.2
	1	13.6	79	4	13	21	39	11	7	3	2	SSE	7.8
	2	13.8	91	0	17	4	69	4	3	3	0	SE	7.3
	3	10.5	87	0	16	51	23	1	0	6	3	S	7.4
1200	4	10.0	64	1	58	14	10	6	5	2	4	SSW	6.0
to	5	9.2	99	10	49	8	19	3	7	0	4	SSW	5.1
1600	6	6.3	58	7	74	8	0	0	9	2	0	SW	3.4
	7	12.8	124	1	15	9	61	9	4	0	1	SE	6.9
	8	11.1	100	4	20	4	46	23	2	0	1	SE	6.9
	9	11.4	111	0	18	8	56	9	7	1	1	SE	7.6
	1	14.8	80	5	14	42	29	4	2	1	3	S	10.1
	2	14.9	90	0	22	21	51	0	3	1	2	SSE	10.9
	3	12.7	85	0	16	36	44	0	1	3	0	SSE	9.8
1600	4	11.0	63	0	49	21	18	7	4	1	0	S	7.3
to	5	10.8	69	4	51	11	18	2	11	0	3	SSW	6.0
2000	6	9.4	52	4	54	24	8	1	7	2	0	SSW	6.5
	7	16.4	124	1	16	11	65	1	4	0	2	SSE	12.3
	8	11.8	102	9	35	13	34	6	1	0	2	S	7.1
	9	13.9	115	1	24	14	55	3	2	0	1	SSE	11.1
	1	12.9	76	2	20	63	8	0	2	1	4	S	10.2
	2	11.8	92	1	18	32	45	0	1	1	2	SSE	9.0
	3	10.6	97	0	2	47	46	0	1	2	2	SSE	9.0
2000	4	10.0	64	0	40	34	21	3	2	0	0	S	7.7
to	5	10.5	82	2	16	22	28	7	19	1	5	SE	4.5
2400	6	9.9	52	1	41	31	0	3	24	0	0	SSW	4.5
	7	14.8	124	7	3	24	56	1	2	0	7	SSE	9.6
	8	9.3	104	4	26	16	32	2	2	2	16	S	4.0
	9	12.2	115	1	26	18	44	0	2	0	9	S	7.3
	1	11.0	490	3	14	38	30	6	4	2	3	SSE	6.9
	2	11.2	547	1	14	15	61	1	3	2	3	SSE	8.0
	3	9.6	526	1	8	42	37	0	0	6	6	SSE	6.2
0000	4	9.2	372	1	45	24	18	5	3	1	3	SSW	6.1
to	5	7.8	599	5	42	11	18	4	14	1	5	SSW	3.2
2400	6	6.8	303	4	51	21	2	5	16	1	0	SSW	3.5
	7	12.5	730	7	8	11	58	3	4	0	9	SSE	6.9
	8	9.1	597	5	19	8	38	9	2	1	18	S	3.2
	9	10.5	671	1	16	11	54	3	4	1	10	SSE	5.8

TABLE 1 - (Continued)

September 1951

Period	Station No.	Av. Speed (mph)	Hours of Record	PERCENT OF WIND MOVEMENT W	SW	S	SE	E	NE	N	NE	RESULTANT WIND Direction	Speed (mph)
	1	8.0	57	3	19	55	6	1	1	7	8	SSW	4.8
	2	8.0	117	3	8	14	44	2	12	10	7	SE	3.1
	3	9.5	100	0	1	39	27	0	4	15	14	SSE	3.0
0000	4	7.4	92	2	37	25	20	3	6	0	7	SSW	4.2
to	5	8.4	109	3	24	10	35	7	13	1	7	SSE	3.4
0400	6	7.4	63	8	41	19	2	4	12	6	8	SW	3.1
	7	10.6	120	28	8	6	13	1	4	1	39	WNW	5.3
	8	7.7	108	7	5	1	6	1	7	2	71	NW	5.4
	9	7.0	105	2	15	15	13	1	8	3	43	W	2.0
	1	5.0	54	5	4	41	17	4	6	13	10	S	1.6
	2	6.1	115	6	6	11	33	7	17	11	9	ESE	1.6
	3	7.9	93	1	0	25	18	1	10	19	26	N	0.4
0400	4	5.2	87	4	23	15	14	3	24	0	17	SE	0.7
to	5	6.5	108	4	52	2	9	6	19	3	5	SW	2.1
0800	6	4.9	58	18	13	11	4	4	25	10	15	NW	1.0
	7	8.6	115	30	5	4	4	1	4	1	51	WNW	6.0
	8	8.5	105	3	3	0	3	0	6	2	83	NW	7.1
	9	5.7	102	1	2	6	15	5	9	9	53	NNW	2.2
	1	6.4	56	0	1	7	48	16	7	17	4	ESE	3.4
	2	7.5	107	1	2	2	72	6	7	4	6	SE	5.2
	3	6.1	88	4	4	28	26	1	9	13	15	SSE	1.2
0800	4	5.4	85	3	48	11	4	5	20	2	7	SW	1.8
to	5	4.7	107	4	63	3	3	3	20	1	3	SW	2.2
1200	6	4.6	68	6	40	8	17	3	24	0	2	S	1.4
	7	6.4	114	4	5	6	67	8	5	1	4	SE	4.4
	8	6.5	109	1	1	2	64	14	8	3	7	ESE	4.4
	9	6.4	110	0	1	3	70	3	10	8	5	ESE	4.2
	1	7.9	54	0	5	16	51	7	12	7	2	SE	4.8
	2	9.0	106	1	5	6	78	3	3	2	2	SE	7.3
	3	8.3	101	2	9	37	32	0	1	15	4	SSE	4.0
1200	4	7.3	87	1	61	10	8	2	11	3	4	SW	4.0
to	5	5.7	106	3	63	8	6	3	14	0	3	SW	3.2
1600	6	7.0	64	1	37	32	16	1	10	0	3	S	4.3
	7	9.0	120	0	4	7	74	9	6	0	0	SE	7.6
	8	9.0	112	2	2	2	73	14	4	1	2	SE	7.4
	9	8.7	111	0	5	10	74	5	6	1	0	SE	7.2
	1	10.2	68	1	41	39	14	2	0	1	2	SSW	8.0
	2	10.5	120	0	18	28	51	1	0	0	2	SSE	8.2
	3	10.1	104	1	8	53	28	0	4	4	2	SSE	7.3
1600	4	8.5	88	0	53	28	16	1	2	0	0	SSW	6.7
to	5	8.8	108	1	38	24	18	3	14	1	1	S	4.6
2000	6	9.8	64	1	33	41	12	2	10	1	0	S	6.2
	7	11.7	120	5	9	23	54	2	2	1	4	SSE	7.9
	8	8.7	106	4	43	14	31	2	1	0	5	SSW	5.5
	9	8.6	104	1	41	21	25	6	1	0	5	S	5.3
	1	11.8	65	1	43	42	4	1	1	2	6	SSW	9.0
	2	9.2	120	4	9	27	43	1	5	7	4	SSE	5.1
	3	11.1	100	0	2	40	39	0	1	12	6	SSE	6.2
2000	4	8.5	92	0	42	28	27	1	2	0	0	S	6.5
to	5	10.8	104	2	12	26	46	1	11	0	2	SSE	7.1
2400	6	10.6	63	3	47	36	6	1	2	0	5	SSW	8.0
	7	12.1	120	14	5	30	26	0	3	0	22	SSW	4.5
	8	7.3	104	11	18	8	13	1	4	2	43	W	3.1
	9	9.3	99	3	28	28	13	1	4	3	20	SSW	4.2
	1	8.4	354	2	25	35	20	4	3	6	5	S	4.5
	2	8.4	685	2	9	16	54	3	6	5	5	SE	4.8
	3	8.9	586	1	4	39	29	0	4	13	10	SSE	3.7
0000	4	7.1	531	2	44	21	16	2	9	1	5	SSW	3.9
to	5	7.5	642	3	37	14	23	4	15	1	3	S	3.2
2400	6	7.4	380	5	37	28	9	2	11	3	5	SSW	3.7
	7	9.8	709	14	6	14	38	3	4	1	20	S	2.6
	8	7.9	644	4	12	5	32	5	5	2	35	SW	0.6
	9	7.6	631	1	17	14	36	3	6	4	19	SSE	2.4

TABLE 1 - (Continued)

October 1951

Period	Station No.	Av. Speed (mph)	Hours of Record	PERCENT OF WIND MOVEMENT W	SW	S	SE	E	NE	N	NW	RESULTANT WIND Direction	Speed (mph)
	1	7.4	36	4	54	40	0	1	1	0	0	SSW	6.4
	2	8.0	35	1	31	6	4	22	24	12	0	E	1.5
	3	11.2	80	2	11	16	19	2	6	20	24	WNW	1.0
0000	4	7.7	88	3	33	10	0	0	0	45	9	WNW	2.8
to	5	8.2	108	2	44	3	3	27	20	0	1	SSE	1.8
0400	6	8.1	67	3	29	22	8	18	12	2	6	S	2.8
	7	11.5	108	21	11	7	1	1	2	5	52	WNW	7.9
	8	9.6	96	8	11	1	0	3	4	3	70	NW	7.4
	9	8.0	99	4	13	5	2	5	6	11	54	NW	4.5
	1	6.6	29	0	49	37	0	7	6	1	0	SSW	4.6
	2	6.4	27	1	27	4	12	31	9	16	0	ESE	1.7
	3	10.7	78	2	14	10	25	2	5	15	27	W	0.6
0400	4	7.0	71	6	21	8	2	0	0	49	14	NW	3.2
to	5	7.9	106	2	47	2	5	26	17	0	1	S	2.2
0800	6	6.3	60	6	37	5	9	20	9	5	9	SSW	1.3
	7	10.5	108	25	8	5	3	0	1	3	55	WNW	7.7
	8	9.5	96	9	8	0	1	1	5	3	73	NW	7.7
	9	7.9	94	5	9	4	3	7	3	12	57	NW	4.7
	1	5.9	49	1	18	12	0	19	22	28	0	NE	1.7
	2	5.7	25	1	47	1	0	17	24	10	0	S	0.4
	3	8.8	76	2	15	12	21	2	10	23	15	N	0.2
0800	4	6.2	71	7	28	4	0	1	1	53	6	NW	2.3
to	5	7.3	105	2	56	2	1	27	11	0	1	SSW	2.6
1200	6	5.5	57	8	42	8	9	20	1	5	7	SSW	2.0
	7	6.4	107	14	9	12	28	8	6	3	20	S	1.1
	8	6.6	93	5	7	1	30	9	21	7	20	ENE	1.5
	9	6.2	89	0	9	8	32	9	12	7	23	ESE	1.2
	1	6.4	57	1	32	9	0	23	16	19	0	E	0.6
	2	7.6	23	5	52	0	0	21	8	14	0	SW	1.7
	3	9.7	77	4	6	17	21	1	5	35	11	NNE	1.0
1200	4	6.6	88	1	43	6	4	0	2	39	5	W	2.1
to	5	7.2	107	2	51	2	4	21	19	0	1	S	1.9
1600	6	5.7	65	2	44	14	8	16	6	7	3	SSW	2.2
	7	7.9	110	2	10	14	44	6	10	4	10	SE	3.5
	8	7.9	97	1	15	3	43	5	18	8	7	ESE	3.0
	9	7.7	98	0	14	7	47	2	15	9	6	SE	3.1
	1	8.6	47	8	51	25	0	7	7	2	0	SSW	5.4
	2	11.6	22	0	44	5	0	12	9	30	0	W	1.5
	3	9.1	76	3	7	17	16	2	9	34	12	N	1.5
1600	4	6.6	89	2	43	13	0	0	1	38	3	W	2.2
to	5	7.1	104	1	34	6	7	26	24	1	1	SE	2.0
2000	6	6.4	68	3	36	16	8	14	9	9	5	SSW	1.9
	7	9.1	112	17	21	15	18	4	8	4	13	SW	2.7
	8	6.3	100	6	19	11	14	3	12	5	30	W	1.2
	9	7.6	104	6	32	10	17	2	11	5	19	SW	2.1
	1	7.9	51	5	42	47	0	4	1	1	0	SSW	6.4
	2	10.7	28	0	25	10	0	16	24	25	0	NE	2.1
	3	11.4	71	2	9	17	11	1	8	34	18	NNW	2.5
2000	4	8.5	88	2	37	14	1	1	0	40	5	W	2.6
to	5	8.2	106	1	36	3	10	26	22	1	1	SE	2.3
2400	6	7.6	62	0	44	20	6	17	4	3	6	SSW	3.5
	7	11.5	110	20	9	10	12	1	4	2	42	WNW	5.1
	8	7.8	97	11	10	2	2	0	6	3	66	NW	5.8
	9	7.8	104	3	24	8	12	3	9	5	36	W	2.2
	1	7.1	269	4	41	28	0	10	9	8	0	SSW	3.3
	2	8.3	160	1	36	5	3	19	17	19	0	E	0.5
	3	10.2	458	2	10	15	19	2	7	27	18	N	1.0
0000	4	7.1	495	3	35	10	1	0	1	43	7	WNW	2.4
to	5	7.6	636	2	45	3	5	25	19	0	1	SSE	2.0
2400	6	6.6	379	4	38	15	8	17	7	5	6	SSW	2.3
	7	9.5	655	18	11	10	16	2	5	3	35	W	3.2
	8	7.9	579	7	11	3	13	4	10	5	47	NW	3.0
	9	7.5	588	3	17	7	18	5	9	8	33	WNW	1.2

Table 2 - Summarized Wind Data for Pierce Ferry

April 1951

Period	Av. Speed (mph)	Hours of Record	Percent of Wind Movement							
			W	SW	S	SE	E	NE	N	NW
0000-0400	3.1	108	25	59	8	0	1	2	3	2
0400-0800	2.4	96	26	52	5	1	3	7	4	2
0800-1200	5.7	108	3	36	8	8	14	29	1	1
1200-1600	8.2	103	7	63	9	3	2	14	0	2
1600-2000	7.1	106	7	77	5	2	3	2	3	1
2000-2400	6.1	108	8	74	8	0	0	3	6	1
0000-2400	5.4	629	9	62	8	3	4	10	3	1

May 1951

Period	Av. Speed (mph)	Hours of Record	Percent of Wind Movement							
			W	SW	S	SE	E	NE	N	NW
0000-0400	4.0	98	12	72	11	0	0	0	2	3
0400-0800	2.9	93	19	52	11	2	2	6	5	4
0800-1200	6.1	94	2	52	6	6	13	14	4	3
1200-1600	9.2	98	2	64	8	6	5	11	2	2
1600-2000	8.5	100	6	72	8	4	2	5	1	2
2000-2400	7.1	100	5	75	10	0	1	3	3	3
0000-2400	6.3	583	6	66	9	3	4	7	2	3

June 1951

Period	Av. Speed (mph)	Hours of Record	Percent of Wind Movement							
			W	SW	S	SE	E	NE	N	NW
0000-0400	4.6	100	9	72	8	1	0	1	4	5
0400-0800	2.6	98	20	58	6	3	2	3	2	6
0800-1200	4.9	100	2	29	5	8	13	32	6	5
1200-1600	8.7	100	4	49	8	7	2	18	0	12
1600-2000	10.2	99	14	67	7	3	0	3	1	5
2000-2400	7.5	96	5	80	8	2	0	1	3	1
0000-2400	6.4	593	8	60	7	4	3	10	2	6

July 1951

Period	Av. Speed (mph)	Hours of Record	Percent of Wind Movement							
			W	SW	S	SE	E	NE	N	NW
0000-0400	3.6	92	11	56	13	2	1	5	6	6
0400-0800	2.4	92	16	53	11	4	4	2	7	3
0800-1200	5.3	102	3	33	5	3	11	36	6	3
1200-1600	8.9	100	5	66	9	5	2	6	0	7
1600-2000	9.5	100	3	68	11	10	0	2	2	4
2000-2400	6.9	98	4	59	16	8	0	3	8	2
0000-2400	6.2	584	5	58	11	6	3	8	4	5

August 1951

Period	Av. Speed (mph)	Hours of Record	Percent of Wind Movement							
			W	SW	S	SE	E	NE	N	NW
0000-0400	3.5	104	13	56	9	5	2	4	9	2
0400-0800	2.2	99	16	54	16	1	1	5	6	1
0800-1200	4.3	109	5	34	5	5	11	27	10	3
1200-1600	8.4	108	5	46	16	6	3	16	3	5
1600-2000	7.9	107	7	60	15	7	3	3	1	4
2000-2400	6.7	98	5	69	14	4	2	2	2	2
0000-2400	5.5	625	7	54	13	5	4	10	4	3

September 1951

Period	Av. Speed (mph)	Hours of Record	Percent of Wind Movement							
			W	SW	S	SE	E	NE	N	NW
0000-0400	2.9	113	30	46	5	2	4	5	3	5
0400-0800	2.1	112	41	34	8	4	0	5	6	3
0800-1200	2.0	116	7	12	9	10	22	28	10	2
1200-1600	5.9	116	8	37	8	7	5	32	2	1
1600-2000	6.4	116	17	61	8	3	2	7	1	1
2000-2400	6.3	113	19	60	12	3	1	1	1	3
0000-2400	4.4	686	17	46	9	5	5	13	3	2

TABLE 2 - (Continued)

October 1951

Period	Av. Speed (mph)	Hours of Record	Percent of Wind Movement W	SW	S	SE	E	NE	N	NW
0000-0400	3.7	118	15	56	15	4	1	2	6	1
0400-0800	3.1	114	22	32	22	8	2	4	8	2
0800-1200	3.5	112	6	28	19	15	17	7	8	0
1200-1600	4.9	120	2	39	11	6	15	15	9	3
1600-2000	5.2	117	8	55	19	1	2	2	11	2
2000-2400	4.9	124	6	67	11	2	1	3	7	3
0000-2400	4.2	705	9	48	16	5	6	6	8	2

November 1951

0000-0400	4.0	75	14	33	39	1	1	0	12	0
0400-0800	3.6	76	24	11	41	1	4	4	14	1
0800-1200	2.7	78	22	9	31	9	12	6	11	0
1200-1600	3.1	84	11	12	35	8	13	11	10	0
1600-2000	3.5	80	20	21	30	1	6	4	14	4
2000-2400	4.0	78	7	31	33	2	2	3	18	4
0000-2400	3.5	471	16	21	35	3	6	4	13	2

December 1951

0000-0400	5.5	87	21	52	9	3	3	5	3	4
0400-0800	5.4	89	23	54	7	1	0	6	6	3
0800-1200	5.2	91	15	47	23	6	2	3	4	0
1200-1600	5.6	84	17	44	15	9	9	4	0	2
1600-2000	5.8	86	19	49	12	5	4	6	3	2
2000-2400	5.8	87	15	67	10	4	4	0	0	0
0000-2400	5.6	524	18	52	13	4	4	4	3	2

January 1952

0000-0400	2.9	124	37	52	3	1	1	1	1	4
0400-0800	2.1	118	44	43	3	1	2	0	2	5
0800-1200	2.2	122	33	34	7	5	7	9	4	1
1200-1600	4.0	121	11	44	7	9	17	7	5	0
1600-2000	4.8	120	15	45	10	4	7	9	7	3
2000-2400	3.9	121	27	49	8	1	5	4	3	3
0000-2400	3.3	726	25	45	7	4	7	5	4	3

February 1952

0000-0400	4.4	105	39	29	3	1	9	6	10	3
0400-0800	4.1	104	47	29	1	0	5	10	7	1
0800-1200	3.3	105	46	16	5	2	12	8	4	7
1200-1600	4.1	108	49	3	0	1	17	13	7	10
1600-2000	3.5	106	55	2	0	0	9	13	11	10
2000-2400	3.0	113	56	12	0	1	6	3	12	10
0000-2400	3.7	637	48	16	1	1	10	9	8	7

March 1952

0000-0400	6.2	96	65	21	3	2	7	1	0	1
0400-0800	4.6	93	67	21	4	3	1	1	2	1
0800-1200	3.8	100	54	10	3	2	16	9	3	3
1200-1600	6.0	91	33	25	4	2	15	18	0	3
1600-2000	7.2	93	60	17	3	1	8	8	2	1
2000-2400	6.1	90	63	20	3	0	11	1	1	1
0000-2400	5.6	563	57	19	3	2	9	7	1	2

TABLE 2 - (Continued)

April 1952

Period	Av. Speed (mph)	Hours of Record	Percent of Wind Movement W	SW	S	SE	E	NE	N	NW
0000-0400	3.4	87	70	26	1	0	1	0	0	2
0400-0800	2.6	81	52	31	4	2	5	1	4	1
0800-1200	4.4	85	19	28	3	4	28	15	2	1
1200-1600	6.0	78	30	25	4	2	25	13	0	1
1600-2000	5.4	78	58	19	1	1	6	4	7	4
2000-2400	4.3	83	71	19	1	0	4	1	1	3
0000-2400	4.3	492	48	24	2	2	13	7	2	2

May 1952

0000-0400	3.9	64	5	56	8	1	1	12	9	8
0400-0800	2.2	60	8	45	12	1	6	17	8	3
0800-1200	4.9	63	0	26	3	11	20	37	2	1
1200-1600	8.2	66	2	46	7	7	17	14	4	3
1600-2000	8.0	66	4	59	8	1	10	10	5	3
2000-2400	5.5	64	3	56	13	0	7	11	6	4
0000-2400	5.5	383	3	49	8	4	12	15	5	4

June 1952

0000-0400	8.0	72	2	83	14	1	0	0	0	0
0400-0800	4.1	72	3	77	13	5	0	0	1	1
0800-1200	3.8	57	1	71	5	3	4	13	2	1
1200-1600	9.5	60	2	63	14	6	2	13	0	0
1600-2000	14.3	60	2	71	15	5	1	6	0	0
2000-2400	11.4	71	1	83	11	4	0	0	0	1
0000-2400	8.5	392	1	75	13	4	1	5	0	1

☆GPO : 1953 O - 266838