

U. S. DEPARTMENT OF COMMERCE
LUTHER H. HODGES, Secretary
WEATHER BUREAU
F. W. REICHELDERFER, Chief

CLIMATOLOGICAL DATA

NEW JERSEY

MARCH 1962
Volume 67 No. 3



ASHEVILLE: 1962

NEW JERSEY - MARCH 1962

TEMPERATURE AND PRECIPITATION EXTREMES

Highest Temperature: 81° on the 30th at Burlington

Lowest Temperature: -4° on the 3rd at High Point Park

Greatest Total Precipitation: 5.83 inches at Tuckerton

Least Total Precipitation: 1.57 inches at Newton

Greatest One-Day Precipitation: 2.53 inches on the 12th at Midland Park

Greatest Reported Total Snowfall: 10.0 inches at Flemington 1 NE

Greatest Reported Depth of Snow on Ground: 9 inches on the 7+ at High Point Park

SPECIAL WEATHER SUMMARY

GREAT ATLANTIC COAST STORM, MARCH 6-8

A slow moving late winter coastal storm combined with spring tides (maximum range) wrought tremendous destruction to coastal installations from southern New England to Florida on March 6-9. This storm, which consisted of a series of LOWS, has been described as one of the most damaging extratropical cyclones to hit the United States coastline. Although gale-force winds, and at times hurricane-force winds, accompanied the storm, this is not unusual for a North Atlantic winter extratropical cyclone. It was the long fetch and the persistence of these strong northeasterly winds which raised the spring tides to near-record levels. The tidal flooding which attended this storm was in many ways more disastrous than that which accompanies hurricanes. The storm surge in tropical cyclones generally recedes rapidly after one or two high tides, but the surge accompanying this storm occurred in many locations on four and five successive high tides. In addition to this, many places reported run-up of waves 20 to 30 feet high.

This successive onslaught of wave and tidal action for over 2 days weakened and undermined even the more permanent shoreline structures, and after a period of time some suffered structural damage and collapsed. Needless to say many of the less sturdy summer cottages on the exposed coast were washed away completely.

The erosive effect of wave and tidal action changed the face of the immediate coastline, and on many of the well-known beaches the most severe loss was often the sand of the beach itself. In addition many new channels and inlets were cut in the shoreline. It may

be many months before new surveys of the topography and hydrography of the area reveal all the numerous changes.

In New Jersey, as in other states along the coast, the major damage was restricted to property facing the beach itself. The entire coastline and even the Delaware Bay area suffered from the high tides. Highways along the coast were cut in many places or buried under several feet of sand. Thousands of homes along the coast were damaged or destroyed. One of the hardest hit areas was Long Beach Island. At Atlantic City the major damage was the cutting of the famed Steel Pier. The storm swept away the quarter-mile section of the pier which connects the auditorium at the end of the pier with the mainland boardwalk. A Navy destroyer, the MONSSEN, was beached about a half mile north of Beach Haven after breaking its tow. The destroyer was unmanned and was being towed to Philadelphia from Bayonne Navy Yard. Another destroyer, the PENOBSCOT, ran aground a little farther south.

The storm did an estimated \$80 million damage in New Jersey. Deaths mounted to 15, with 6 other persons, including 5 aboard a fishing trawler, missing and presumed dead. Agricultural losses from the storm were chiefly due to flooding of around 1,000 acres in Cumberland County, along Delaware Bay.

Donald V. Dunlap
Weather Bureau State Climatologist
Weather Bureau Office, % General Delivery
Trenton, New Jersey

Continued

DAILY TEMPERATURES

NEW JERSEY
MARCH 1962

Station		Day Of Month																															Average
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
SOMERVILLE	MAX	38	28	32	35	40	36	40	44	40	50	46	46	52	48	48	48	48	48	53	54	48	56	57	54	58	60	57	64	74	78	75	50.2
	MIN	22	10	9	10	28	31	32	24	21	30	25	35	33	31	32	29	33	28	20	35	30	33	32	30	35	31	35	28	29	40	46	28.6
SUSSEX	MAX	39	27	28	30	34	35	34	41	45	38	48	50	43	46	43	44	42	45	44	54	51	39	57	53	50	52	58	55	63	75	77	46.5
	MIN	20	7	6	6	11	22	30	18	12	14	20	25	32	32	34	30	31	28	22	27	29	30	30	28	30	31	31	28	29	29	47	24.8
TOMS RIVER	MAX	32	31	34	37	40	34	37	40	40	46	44	53	55	56	49	55	48	48	54	52	50	54	56	57	60	58	59	63	74	79	76	50.7
	MIN	28	14	10	9	23	32	29	26	23	32	25	37	36	34	33	27	32	32	25	40	33	34	28	27	35	29	40	28	32	48	53	30.1
TRENTON WB CITY	MAX	41	27	34	37	39	35	39	39	38	48	43	54	51	48	47	46	46	48	54	51	47	55	57	54	59	59	57	63	74	78	74	49.7
	MIN	14	12	11	15	30	32	33	30	29	30	32	36	38	36	36	32	34	32	33	40	37	36	37	34	36	38	38	38	42	50	56	33.1
TUCKERTON	MAX	42	40	36	40	40	39	40	38	40	46	46	57	56	50	50	50	48	50	56	49	47	53	54	57	60	59	53	60	60	67	65	49.9
	MIN	28	11	9	10	18	30	31	28	25	33	25	38	37	34	31	29	32	30	21	40	33	35	30	26	36	33	38	30	47	51	30.2	
WOODSTOWN	MAX	43	30	35	40	38	37	38	40	42	48	49	57	53	48	50	46	48	50	54	54	52	57	57	57	61	59	60	65	75	78	75	51.5
	MIN	27	12	12	14	19	32	29	24	24	32	27	38	36	34	33	31	32	30	24	39	37	34	32	31	35	32	33	29	33	49	52	30.5

DAILY SOIL TEMPERATURES

Station And Depth		Day of month																															Average	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
NEW BRUNSWICK EXP STATION																																		
Plot #1																																		
1 INCH	MAX	33	32	31	28	28	28	28	29	29	36	35	36	40	36	41	42	42	42	44	44	41	46	48	45	46	50	42	51	52	55	57	39.9	
	MIN	30	29	28	28	28	28	28	28	28	28	28	28	28	31	33	32	36	35	36	35	35	39	38	38	37	37	37	38	41	40	41	45	50
2 INCHES	MAX	33	32	31	28	28	28	28	28	28	35	34	36	39	36	41	42	41	42	43	44	40	45	46	45	46	45	45	48	48	50	51	54	39.3
	MIN	30	29	28	28	28	28	28	28	28	28	28	28	31	33	32	36	35	36	35	35	39	38	38	37	37	37	38	41	40	41	45	50	34.2
4 INCHES	MAX	33	33	33	29	29	29	29	29	29	32	32	34	37	36	41	40	40	41	41	42	40	42	44	43	43	45	45	47	48	50	52	38.1	
	MIN	32	30	29	29	29	29	29	29	29	28	29	30	31	33	33	37	37	37	36	37	39	39	39	39	39	39	39	39	42	42	42	45	48
8 INCHES	MAX	35	35	34	30	30	30	30	29	30	31	31	33	35	35	42	39	39	39	40	40	40	41	42	41	42	43	44	44	45	48	51	37.6	
	MIN	33	31	30	29	30	29	29	29	29	30	30	31	33	33	38	38	38	37	37	39	39	39	39	39	39	40	40	42	42	42	45	48	35.7
16 INCHES	MAX	36	36	36	32	31	32	31	31	31	31	31	33	33	34	42	39	39	39	39	39	39	40	40	40	41	40	41	42	42	43	45	47	37.2
	MIN	34	33	32	31	31	31	31	30	31	30	31	31	33	33	38	38	38	38	37	39	39	39	39	40	40	40	40	42	42	42	44	45	36.2
32 INCHES	MAX	37	38	38	34	33	34	34	33	33	33	33	34	34	34	42	39	39	39	39	39	39	40	40	40	40	40	41	41	41	42	43	44	37.7
	MIN	34	34	33	34	33	33	33	33	33	32	32	32	33	33	38	38	38	39	39	39	39	40	40	40	40	40	40	41	41	41	42	43	43
Plot #2																																		
1 INCH	MAX	35	32	31	28	28	29	28	28	29	42	43	39	48	42	47	48	47	48	52	51	42	52	56	52	52	59	56	61	62	66	66	45.1	
	MIN	30	28	24	21	28	28	28	28	28	28	29	32	32	30	38	34	34	34	33	39	36	34	34	34	34	34	35	39	36	38	45	51	33.0
2 INCHES	MAX	35	32	31	28	28	29	28	28	28	41	42	39	47	42	47	47	47	48	51	50	42	51	55	51	52	58	55	60	62	65	65	44.3	
	MIN	30	28	25	23	28	28	28	28	28	28	29	32	32	30	38	34	34	34	33	39	36	34	34	34	34	35	39	36	38	45	51	33.0	
4 INCHES	MAX	35	33	32	28	28	28	28	28	28	38	39	38	44	35	44	45	45	49	48	41	50	52	49	49	54	52	57	58	61	62	43.1		
	MIN	31	29	28	27	28	28	28	28	28	28	30	32	32	31	40	35	35	35	34	40	37	35	36	36	36	36	40	38	40	47	52	34.1	
8 INCHES	MAX	33	34	33	29	29	29	29	29	29	34	35	35	38	39	40	41	41	41	42	44	41	45	46	45	43	46	47	49	51	54	55	39.4	
	MIN	32	30	29	29	29	29	29	29	28	28	28	31	33	33	33	40	37	37	37	36	40	40	36	38	39	39	39	43	42	43	47	50	35.5

Plot #1 - Slope of Ground: Flat. Soil Type: Loam. Ground Cover: Kentucky bluegrass. Instrumentation: Copper-constantan thermocouples connected to a Brown Electronik Potentiometer.

Plot #2 - Slope of Ground: Flat. Soil Type: Loam. Ground Cover: Barren. Instrumentation: Brown recording Potentiometer with copper-constantan thermocouples.

SNOWFALL AND SNOW ON GROUND

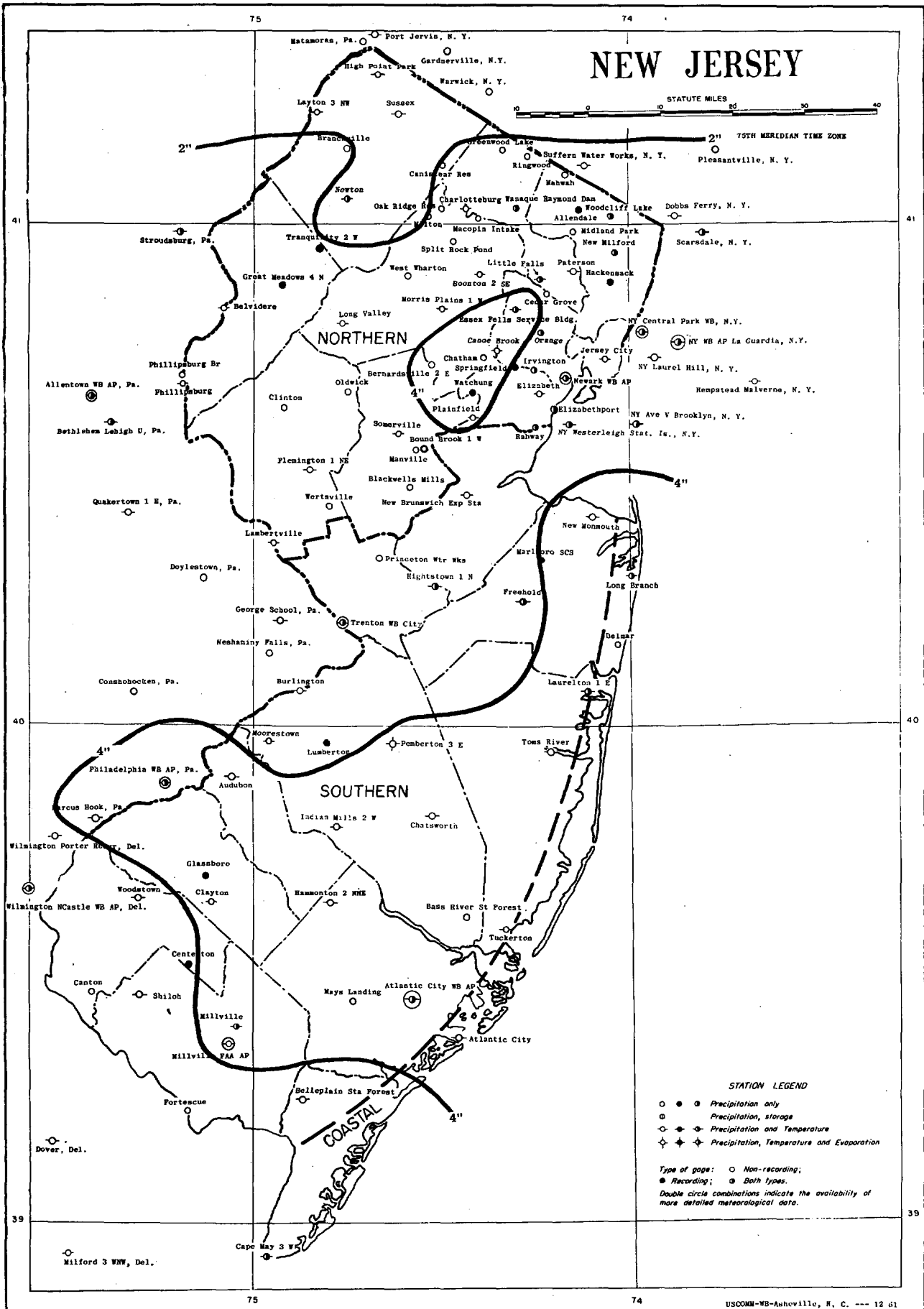
NEW JERSEY
MARCH 1962

Station	Day of month																														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
ATLANTIC CITY WB AP					T	3.6	2	T	.3	T																					
					T		.2	T	T																						
BELVIDERE		T	T	T	T	2.0	T	T		.5	T																				
		T	T	T	T	2	T	T																							
CHARLOTTEBURG						1.0	1.0			.3								T					T								
	4	4	4	4	4	5	6	5	5	4	3	2	1	T			T						T								
CLAYTON						4.5	5	3	T	T																					
						5	5	3	T	T																					
FLEMINGTON 1 NE		T	T	T	T	8.0	.5	2	1	1.5	T	T																			
		T	T	T	T	7	4	2	1	T	T																				
FREEHOLD						5.0	.5	5	4	1.3																					
						5	6	5	4	5	3																				
HIGHTSTOWN 1 N						6.5	T	2		1.0																					
						6	4	2		T	T																				
INDIAN MILLS 2 W						3.9	.2	2	2	1.0																					
						4	3	2	2	1																					
LAMBERTVILLE						4.0	4	2	T	1.5																					
						4	2	T	T	T																					
LITTLE FALLS		1	T			.3	.1			.1																					
		1	T			T	T			T																					
LONG BRANCH						4.5	4	3	1.0	T																					
						5	4	3	2	T	T																				
LONG VALLEY						4.0	4	2	1	T	.1																				
	2	2	1	1	1	4	2	1	T	T	T																				
MAYS LANDING							3.0	2	1	T																					
							3	2	1	T																					
MILLVILLE						-				-	-																				
						-				-	-																				
MILLVILLE FAA AIRPORT					T	4.0	T		T	T																					
					T	4	4	2	T	T																					
MOORESTOWN						1.0	5.0	2	T	2.0																					
						1	4	2	T	1																					
MORRIS PLAINS						1.5	1.0	-	-	.5																					
						-	-	-	-	-																					
NEWARK WB AIRPORT					T	1.1	T		.3	.1																					
					T	T	T		T	T																					
NEW BRUNSWICK EXP STA						4.0	4	2	T	1.0																					
						4	4	2	T	1.0																					
NEWTON		1	1	1	T	1.2	T	1	1	.3																					
		1	1	1	T	1	1	1	1	1	T	T	T																		
PATERSON						T	T			T																					
						T	T			T																					
PEMBERTON 3 E						6.0	6	5	4	2	1.0																				
						6	6	5	4	2	1																				
PLAINFIELD						3.5				1.0																					
						3.5				1.0																					
RAHWAY						2.5	2	T		T																					
						2	2	T		T	T																				
SOMERVILLE						2.5	3																								
						3	3																								
TRENTON WB CITY						3.7	1	4	1	1.0	.2																				
						1	1	4	1	1	1	T	T																		
WANAQUE RAYMOND DAM		3	2	T	T	.5	1	T	T	T	T																				
		3	2	T	T	1	1	T	T	T	T																				

See reference notes following Station Index.

TOTAL PRECIPITATION

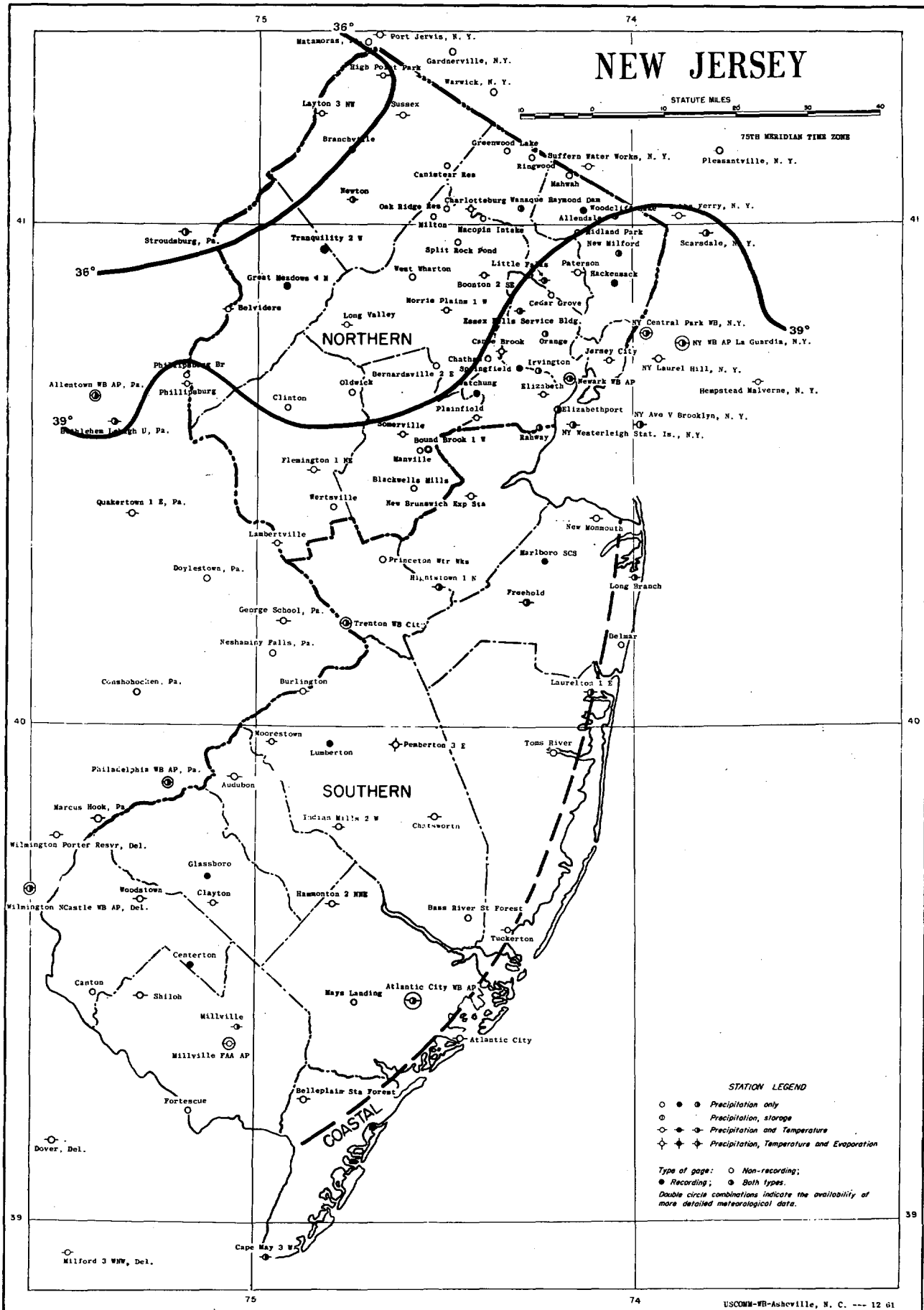
NEW JERSEY
MARCH 1962



Isolines are drawn through points of approximately equal values. Hourly precipitation data from recorder substations will be available in the publication "Hourly Precipitation Data". Caution advised in using these maps for interpolation, particularly in mountainous areas.

AVERAGE TEMPERATURE

NEW JERSEY
MARCH 1962



Isotherms are drawn through points of approximately equal values. Hourly precipitation data from recorder substations will be available in the publication "Hourly Precipitation Data". Caution advised in using these maps for interpolation, particularly in mountainous areas.

REFERENCE NOTES

Additional information regarding the climate of New Jersey may be obtained by writing to the State Climatologist at Weather Bureau Office, c/o General Delivery, Trenton, New Jersey or to any Weather Bureau Office near you.

Figures and letters following the station name, such as 12 SSW, indicate distance in miles and direction from the post office.

Delayed data and corrections will be carried only in the June and December issues of this bulletin.

Monthly and seasonal snowfall and heating degree days for the 12 months ending with the preceding June data will be carried in the July issue of this bulletin.

Stations appearing in the Index, but for which data are not listed in the tables, either are missing or were received too late to be included in this issue.

Divisions, as used in "Climatological Data" Table and on the maps, became effective with data for September 1956.

Unless otherwise indicated, dimensional units used in this bulletin are: Temperature in °F, precipitation and evaporation in inches and wind movement in miles. Monthly degree day totals are the sums of the negative departures of average daily temperatures from 65° F.

Evaporation is measured in the standard Weather Bureau type pan of 4 foot diameter unless otherwise shown by footnote following the "Evaporation and Wind" Table. Max and Min in "Evaporation and Wind" Table refer to extremes of temperature of water in pan as recorded during 24 hours ending at time of observation.

Normals for all stations are climatological standard normals based on the period 1931-1960.

Water equivalent values published in the "Snowfall and Snow on Ground" Table are the water equivalent of snow, sleet, or ice on the ground. Samples for obtaining measurements are taken from different points for successive observations; consequently occasional drifting and other causes of local variability in the snowpack result in apparent inconsistencies in the record.

Entries of snowfall in the "Climatological Data" Table and the "Snowfall and Snow on Ground" Table, and in the "Seasonal Snowfall" Table include snow and sleet. Entries of snow on ground include snow, sleet and ice.

Data in the "Extremes Table"; "Daily Precipitation" Table; "Daily Temperature" Table; and "Evaporation and Wind" Table; and snowfall in the "Snowfall and Snow on Ground" Table; when published, are for the 24 hours ending at time of observation. The Station Index shows observation times in local standard time. During the summer months some observers take the observations on daylight saving time.

Snow on ground in the "Snowfall and Snow on Ground" Table is at observation time for all except Weather Bureau and FAA stations. For these stations snow on ground values are at 7:00 a.m., E.S.T.

In the Station Index the letters C, G, H, and J in the "Special" column under the heading "Observation Time and Tables", indicate the following:

- C Recording Rain Gage Station. Hourly precipitation values are processed for special purposes, and are published later in "Hourly Precipitation Data" Bulletin.
- G "Soil Temperature" Table.
- H "Snowfall and Snow on Ground" Table. Omission of data in any month indicates no snowfall and/or snow on ground in that month.
- J "Supplemental Data" Table.

OTHER REFERENCE NOTES

No record in the "Climatological Data" Table and the "Daily Temperature" Table is indicated by no entry.

Interpolated values for monthly precipitation totals may be found in the annual issue of this publication.

- No record in the "Supplemental Data" Table; "Daily Precipitation" Table; "Evaporation and Wind" Table; "Daily Soil Temperature" Table, "Snowfall and Snow on Ground" Table; and the Station Index.
- + And also on an earlier date or dates.
- ++ Fastest observed one minute wind speed. This station is not equipped with automatic wind instruments.
- * Amount included in following measurement, time distribution unknown.
- # Thermometers are generally exposed in a shelter located a few feet above sod-covered ground; however, the reference indicates that the thermometers are exposed in a shelter located on the roof of a building.
- // Gage is equipped with a windshield.
- AR This entry in time of observation column in Station Index means after rain.
- B Adjusted to a full month.
- D Water equivalent of snowfall wholly or partly estimated, using a ratio of 1 inch water equivalent to every 10 inches of new snowfall.
- M One or more days of record missing; if average value is entered, less than 10 days record is missing. See "Daily Temperature" Table for detailed daily record. Degree day data, if carried for this station, have been adjusted to represent the value for a full month.
- R Amounts from recording gage. (These amounts are essentially accurate but may vary slightly from the amounts to be published later in Hourly Precipitation Data.)
- SS This entry in time of observation column in Station Index means observation made near sunset.
- T Trace, an amount too small to measure.
- V Includes total for previous month.
- X Observation time is 1:00 a.m., E.S.T. of the following day.
- VAR This entry in time of observation column in Station Index means variable.

General weather conditions in the U. S. for each month are described in the publications MONTHLY WEATHER REVIEW, MONTHLY CLIMATOLOGICAL DATA-NATIONAL SUMMARY, and STORM DATA, all of which may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

Information concerning the history of changes in locations, elevations, exposure etc., of substations through 1955 may be found in the publication "Substation History" for this state. That publication may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. for 15 cents. Similar information for regular Weather Bureau stations may be found in the latest annual issue of Local Climatological Data for the respective stations, obtained as indicated above, 15 cents.

Subscription Price: 20 cents per copy, monthly and annual; \$2.50 per year. (Yearly subscription includes the Annual Summary). Checks, and money orders should be made payable to the Superintendent of Documents. Remittance and correspondence regarding subscriptions should be sent to the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

USCOMM-WB-Asheville, N. C. --- 5/3/62 --- 900