MEAN NUMBER OF DAYS WITH THUNDERSTORMS IN THE UNITED STATES

Definition.--In the recording of thunderstorm occurrences by Weather Bureau Observers, the instructions, beginning with the year 1894, have defined a day with thunderstorms as the local calendar day on which thunder is heard. Prior to 1894 these instructions called for the additional requirement that rain must accompany the thunder, thus reducing somewhat the frequency of the recorded occurrences during those earlier years. A day with thunderstorms is so recorded regardless of the number occurring on that day. Also, when a storm begins before midnight and ends after midnight, local time, a day with thunderstorms is recorded for both dates involved. These records, therefore, do not indicate the frequency of occurrence of individual storms. The duration of an individual thunderstorm is defined by Weather Bureau instructions as the time interval between the first and last thunder. The occurrence of lightning without thunder is not recorded as a thunderstorm in Weather Bureau climatological records.

Source of Data.--The data presented in the accompanying charts and tables were taken directly from the 1951 "Local Climatological Summary" issued for 266 Weather Bureau Offices in Continental United States, 16 in Alaska, 5 in certain islands of the Pacific and 2 in the West Indies. The charts cover only Continental United States but data for all these locations are shown in the table. The computed mean values shown are based on the official records at each location.

Reliability of Data.--These data are based on official Weather Bureau records at those locations where trained observing staffs are maintained. For the specific locations involved, therefore, they can be accepted as accurate. It should be understood, however, that the requirement that thunder be heard limits the area covered by each observing point to one having a radius of not more than 10 or 12 miles. Consequently a network of only 266 locations for the entire country may be inadequate for accurate interpolations for areas between the points of observation. The considerable distances between stations, however, probably eliminate all or nearly all duplication of records, i.e., of the same thunderstorm being recorded by more than one observing station. These facts, together with the fact that there is considerable variation in the years-of-record on which the mean values are based at different stations, should be given due consideration in using the isoline charts.

Discussion of Data.--It will be noted from the charts and tables shown herein that the area having the greatest number of days with thunderstorms per year is central Florida, with relatively high values for the entire southeastern portion of the country and an area of secondary maxima centered roughly over northeastern New Mexico and south-central Colorado; also that the Pacific coastal regions have the least number of days with thunderstorms. As is to be expected, since the chief source of energy in the formation of thunderstorms is solar heating, there is a direct variation of the frequency of thunderstorm days with the seasons; the months of highest frequency being July and August and those of lowest frequency, December and January. In fact, thunderstorms rarely occur in most of the northern States during the winter season.

Thunderstorm days are relatively infrequent in most of Alaska but average 10 and 11 per year, respectively, in the Fairbanks and Northway areas. They are also rather infrequent in the Hawaiian Islands and the islands of Canton and Wake. Except for Honolulu, however, records for these locations are too short to indicate normal values. The two locations in the West Indies for which Weather Bureau records of these data are available, namely San Juan, Puerto Rico and St. Croix, Virgin Islands, indicate frequencies of 50 and 45 thunderstorm days per year, respectively. The latter figure, however, is based on only 4 years of record.

THUNDERSTORMS

(Mean number of days)

State and Station	Years of record	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.	Spring March–May	Summer June–August	Autumn Sept.–Nov.	Winter Dec.–Feb.	Annual
ALABAMA																		
Anniston	45	1	2	4	5	7	11	12	10	5	1	1	1	16	33	7	4	60
Birmingham	48	1	2	4	5	7	12	14	12	6	2	1	1	16	38	9	4	67
Mobile	71	1	2	3	4	6	10	14	13	6	2	1	2	13	37	9	5	64
Montgomery	79	1	2	4	4	6	10	11	9	4	1	1	1	14	30	6	4	54
ARIZONA																		
Flagstaff	19	•	•	•	1	1	2	6	11	12	2	•	•	2	19	14	•	35
Payson	4	0	0	1	3	3	5	15	13	9	4	•	•	7	33	13	1	54
Phoenix	56	•	1	1	1	1	1	7	8	4	1	1	•	3	16	6	1	26
Prescott	9	•	•	1	1	1	1	15	15	7	2	•	•	3	31	9	•	43
Tucson	11	•	•	1	•	•	1	11	12	6	3	1	•	1	24	10	•	35
Winslow	3	0	0	•	2	2	3	12	7	7	1	0	0	4	22	8	0	34
Yuma	28	•	•	•	•	•	•	3	4	2	1	•	•	•	7	3	•	10
ARKANSAS																		
Fort Smith	70	1	2	4	6	8	8	7	7	4	3	2	1	18	22	9	4	53
Little Rock	59	2	2	5	7	7	9	9	8	4	2	1	2	19	26	7	6	58
Texarkana	9	2	4	7	7	11	9	10	7	6	3	3	2	25	26	12	8	71
CALIFORNIA																		
Bakersfield	18	•	•	1	1	•	•	0	•	1	•	•	•	2	•	1	•	3
Beaumont	13	•	•	•	1	•	0	2	2	1	1	•	•	2	4	2	1	9
Blue Canyon	11	•	1	•	1	2	2	1	1	1	1	•	0	4	4	2	1	11
Eureka	65	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	3	3
Fresno	64	•	•	1	1	•	•	•	•	•	1	•	•	3	•	1	•	4
Los Angeles	68	•	1	1	1	•	•	•	•	•	•	•	•	2	•	•	1	3
Mt. Shasta	9	0	•	•	2	3	3	3	2	1	0	•	0	5	8	1	•	14
Oakland	21	•	•	•	•	•	•	•	•	•	•	•	•	1	•	•	1	2
Red Bluff	7	•	1	1	1	3	2	•	1	•	•	•	•	5	3	•	•	9
Sacramento	4	•	•	1	1	•	•	•	•	•	•	•	•	2	•	•	•	4
Sandberg	20	0	0	0	1	1	0	1	1	1	1	0	0	2	2	2	0	6
San Diego	80	1	•	•	•	•	•	1	1	•	•	•	•	•	2	•	1	3
San Francisco (City)	61	•	•	•	•	•	•	•	•	•	•	•	•	1	•	•	1	2
San Francisco (Airport)	24	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Santa Catalina	7	0	0	•	0	0	0	0	0	0	0	0	0	•	0	0	0	0
Santa Maria	9	•	•	•	•	0	0	•	•	•	0	0	•	•	•	•	•	•
COLORADO																		
Alamosa	7	0	•	0	2	7	6	14	14	6	2	•	0	9	34	8	•	51
Colorado Springs	4	0	0	1	3	10	12	18	15	7	2	0	0	14	45	9	0	68
Denver	68	•	•	•	2	6	9	12	10	4	1	•	•	8	31	5	•	44
Grand Junction	53	•	•	1	2	4	5	11	10	5	2	•	•	7	26	7	1	41
Pueblo	63	•	•	•	2	6	8	12	10	3	1	•	•	8	30	4	•	42
CONNECTICUT																		
Hartford	47	•	•	1	2	4	5	7	5	2	1	•	•	7	17	3	•	27
New Haven	79	•	•	1	1	3	5	6	5	2	1	•	•	5	16	3	•	24
DELAWARE																		
Wilmington	4	0	0	1	2	6	7	6	7	2	1	1	0	9	20	4	0	33
DIST. OF COLUMBIA																		
Washington	63	•	1	1	2	5	7	9	6	3	1	•	•	8	22	4	1	35
FLORIDA																		
Apalachicola	29	1	2	4	4	5	11	17	16	10	2	1	1	13	44	13	4	74
Daytona Beach	7	2	1	4	6	8	15	22	18	9	4	2	2	18	55	15	5	93
Fort Myers	7	1	1	1	4	8	15	24	20	12	3	1	1	13	59	16	3	91
Jacksonville	61	1	2	3	4	7	13	18	16	8	2	1	1	14	47	11	4	76
Key West	68	1	1	2	2	4	8	11	12	10	4	1	1	8	31	15	3	57
Melbourne	7	1	1	4	6	10	13	19	18	10	3	2	1	20	50	15	3	88
Miami	41	1	1	2	5	8	11	14	13	9	4	1	1	15	38	14	3	70
Orlando	7	1	•	3	6	8	16	23	18	11	3	1	1	17	57	15	2	91
Pensacola	58	2	2	4	4	6	11	15	14	7	2	1	2	14	40	10	6	70
Tallahassee	12	1	2	5	4	7	14	18	15	7	2	2	1	16	47	11	4	78
Tampa	61	1	1	3	3	7	15	20	19	11	3	1	1	13	54	15	3	85
West Palm Beach	9	1	•	2	4	9	12	17	17	10	5	1	1	15	46	16	2	79
GEORGIA																		
Albany	32	1	2	4	6	7	9	17	11	5	2	1	1	17	37	8	4	66
Athens	8	1	1	3	3	6	10	11	8	4	1	1	0	12	29	6	2	49
Atlanta	73	1	1	3	4	6	9	11	9	3	1	1	1	13	29	5	3	50
Augusta	79	•	1	2	3	5	7	10	8	3	1	1	•	10	25	5	1	41
Columbus	6	1	2	4	6	8	9	16	10	4	1	2	1	18	35	7	4	64
Macon	53	1	2	3	5	6	11	13	11	4	1	1	1	14	35	6	4	59
Rome	6	3	2	4	4	9	10	12	11	5	2	2	1	17	33	9	6	65
Savannah	76	1	1	2	3	6	10	13	11	5	1	•	•	11	34	6	2	53
Valdosta	4	0	2	1	4	8	14	18	12	5	2	2	1	13	44	9	3	69
IDAHO																		
Boise	12	0	•	1	1	4	4	3	2	2	1	•	0	6	9	3	•	18
Lewiston	5	0	0	0	1	3	4	4	3	1	1	•	0	4	11	2	•	17
Pocatello	13	•	•	•	1	4	4	6	7	4	1	•	•	5	17	5	•	27
ILLINOIS																		
Cairo	68	1	2	4	6	8	10	9	8	5	2	2	1	18	27	9	4	58
Chicago	72	•	•	2	3	5	7	7	6	4	2	1	•	10	20	7	•	37
Joliet	10	1	1	2	3	6	8	6	7	4	1	1	1	11	21	6	3	41
Moline	17	•	1	3	4	7	9	8	7	4	2	2	•	14	24	8	1	47
Peoria	47	•	1	3	4	7	9	8	7	5	2	1	•	14	24	8	1	47
Springfield	73	•	1	3	5	8	9	8	7	5	2	1	•	16	24	8	1	49
INDIANA																		
Evansville	55	1	1	4	5	7	9	8	7	4	2	1	1	16	24	7	3	50
Fort Wayne	40	•	1	2	3	6	8	8	6	4	2	1	•	11	22	7	1	41
Indianapolis	77	0	1	3	4	6	8	7	6	4	2	1	0	13	21	7	1	42
South Bend	12	1	1	3	4	7	9	7	7	5	2	1	1	14	23	8	3	48
Terre Haute	39	1	1	3	4	7	9	8	7	5	2	2	•	14	24	9	3	49
IOWA																		
Burlington	10	•	1	3	5	7	12	10	7	5	3	2	1	15	29	10	2	56
Davenport	72	•	•	2	3	7	8	8	6	5	2	1	•	12	22	8	•	42
Des Moines	73	•	•	2	4	7	9	8	7	5	3	1	•	13	24	9	•	46
Dubuque	77	•	•	2	3	6	8	7	6	4	2	1	•	11	21	7	•	39
Sioux City	62	0	0	1	3	6	9	8	8	5	2	0	0	10	25	7	0	42
KANSAS																		
Concordia	66	•	•	1	4	7	9	8	8	5	2	1	•	12	25	8	•	45
Dodge City	76	0	0	1	3	6	9	8	7	3	2	0	0	10	24	5	•	39
Goodland	12	0	0	0	2	6	10	12	8	5	1	0	0	8	30	6	0	44
Topeka	65	•	1	2	5	8	9	8	8	6	3	1	•	15	25	10	1	51
Wichita	63	•	1	3	5	9	10	8	8	6	3	1	•	17	26	10	1	54
KENTUCKY																		
Lexington	64	1	1	2	3	6	8	9	7	4	1	1	1	11	24	6	3	44
Louisville	59	1	1	3	4	6	9	8	7	4	2	1	0	13	24	7	2	46
LOUISIANA																		
Baton Rouge	7	4	3	6	5	7	10	15	13	7	2	3	3	18	38	12	10	78
Lake Charles	13	3	3	5	6	8	10	15	12	8	2	3	3	19	37	13	9	78
New Orleans	52	2	2	4	5	6	11	16	15	8	2	2	2	15	42	12	6	75
Shreveport	76	2	2	4	6	6	7	8	6	3	2	2	2	16	21	7	6	50

See footnotes at end of table.

THUNDERSTORMS

(Mean number of days)

State and Station	Years of record	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.	Spring March–May	Summer June–August	Autumn Sept.–Nov.	Winter Dec.–Feb.	Annual
MAINE																		
Caribou	12	0	0	•	1	2	5	7	4	1	1	•	0	3	16	2	0	21
Eastport	66	•	•	•	•	1	3	4	3	1	1	•	•	1	10	2	•	13
Portland	21	•	•	1	1	3	6	7	5	3	1	•	•	5	18	4	•	27
MARYLAND																		
Baltimore	68	•	•	1	2	5	6	8	6	3	1	•	•	8	20	4	•	32
Frederick	10	•	•	1	1	5	5	5	4	2	1	•	0	7	14	3	•	24
MASSACHUSETTS																		
Boston	59	•	•	1	1	3	4	5	4	2	•	•	•	5	13	2	•	20
Nantucket	65	•	•	1	1	2	3	3	3	1	1	•	•	4	9	2	•	15
Pittsfield	13	0	•	1	1	4	6	8	5	3	1	•	0	6	19	4	•	29
MICHIGAN																		
Alpena	78	•	•	1	1	3	5	6	4	3	1	•	0	5	15	4	•	24
Detroit	81	•	1	1	3	5	6	6	5	3	1	1	•	9	17	5	1	32
Escanaba	53	•	•	1	1	4	6	8	6	4	2	1	•	6	20	7	•	33
Grand Rapids	48	•	1	2	3	5	7	7	6	5	2	1	•	10	20	8	1	39
Lansing	42	•	1	2	3	5	7	7	7	5	2	1	•	10	21	8	1	40
Marquette	71	0	•	1	1	3	5	6	5	3	1	•	0	5	16	4	•	25
Muskegon	10	0	0	1	3	5	6	5	6	4	2	1	0	9	17	7	0	33
Sault Ste. Marie	63	0	0	1	1	3	4	5	4	4	2	0	0	5	13	6	0	24
MINNESOTA																		
Duluth	59	•	•	•	1	4	6	7	6	4	1	•	•	5	19	5	•	29
International Falls	12	0	0	0	1	2	6	8	7	3	1	0	0	3	21	4	0	28
Minneapolis	59	•	•	1	2	6	8	7	7	5	2	1	0	9	22	8	2	39
Rochester	10	•	•	1	3	7	8	8	7	4	2	•	•	11	23	6	•	40
St. Cloud	12	0	•	1	2	5	7	8	7	4	2	•	0	8	22	6	•	36
St. Paul	63	0	•	1	2	5	7	7	6	4	2	•	•	8	20	6	•	34
MISSISSIPPI																		
Jackson	13	3	3	5	6	7	10	12	8	4	2	2	2	18	30	8	8	64
Meridian	60	2	3	4	5	7	10	13	10	5	1	2	2	16	33	8	7	64
Vicksburg	67	2	3	5	6	6	9	11	9	5	2	2	2	17	29	9	7	62
MISSOURI																		
Columbia	62	1	1	3	5	9	11	8	9	6	3	2	•	17	28	11	2	58
Kansas City	63	•	1	3	5	8	10	8	9	6	3	1	1	16	27	10	2	55
St. Joseph	42	0	1	2	5	8	10	8	9	7	3	1	0	15	27	11	1	54
St. Louis	59	1	1	3	5	7	9	7	7	5	3	1	•	15	23	9	2	49
Springfield	64	1	1	4	6	9	10	9	8	5	3	2	1	19	27	10	3	59
MONTANA																		
Billings	12	0	0	•	1	5	8	10	7	2	•	0	0	6	25	2	0	33
Butte	13	0	0	•	1	6	9	13	10	4	•	0	0	7	32	4	0	43
Glasgow	8	0	0	•	1	3	7	6	8	2	•	0	0	4	21	2	0	27
Great Falls	14	0	•	•	1	4	7	9	6	2	•	0	0	5	22	2	•	29
Havre	70	0	0	•	1	3	6	6	5	2	•	0	0	4	17	2	0	23
Helena	72	•	•	•	1	5	7	9	7	2	•	•	•	6	23	2	•	31
Kalispell	50	•	0	•	•	3	5	6	6	2	•	•	0	3	17	2	•	22
Missoula	16	0	0	•	1	4	5	8	6	3	•	0	0	5	19	3	0	27
NEBRASKA																		
Grand Island	13	0	•	2	3	8	11	10	8	5	3	•	•	13	29	8	•	50
Lincoln	55	•	•	1	4	7	10	8	8	5	3	1	•	12	26	9	•	47
Norfolk	6	0	0	2	5	9	10	8	9	5	4	1	0	16	27	10	•	53
North Platte	77	0	•	•	2	6	9	9	8	3	1	•	•	8	26	4	•	38
Omaha	81	•	•	1	3	6	8	7	7	5	2	•	•	10	22	7	•	39
Scottsbluff	8	0	0	1	2	7	12	11	9	4	2	0	0	10	32	6	0	48
Valentine	60	0	0	•	2	5	9	10	8	4	1	•	•	7	27	5	•	39
NEVADA																		
Ely	13	•	•	•	2	5	4	8	7	3	2	•	•	7	19	5	•	31
Las Vegas	15	•	•	•	1	1	1	4	3	2	1	•	•	2	8	3	•	13
Reno	45	0	0	•	•	2	3	4	3	2	•	0	0	2	10	2	0	14
Winnemucca	73	0	•	•	1	2	2	3	2	1	•	•	•	3	7	1	•	11
NEW HAMPSHIRE																		
Concord	49	0	0	1	1	3	5	6	5	2	1	0	0	5	16	3	0	24
Mt. Washington	19	0	0	•	1	2	4	5	3	1	•	•	•	3	12	1	•	16
NEW JERSEY																		
Atlantic City	78	•	•	1	2	3	5	5	4	2	1	•	•	6	14	3	•	23
Newark	21	•	0	1	1	4	6	7	5	2	1	•	0	6	18	3	•	27
Trenton	39	•	•	1	2	5	7	9	7	3	1	•	•	8	23	4	•	35
NEW MEXICO																		
Albuquerque	21	•	•	1	2	4	6	13	13	5	3	•	•	7	32	8	•	47
Clayton	5	•	•	•	2	10	13	16	13	5	2	0	•	12	42	7	•	63
Raton	10	0	0	1	4	11	11	20	18	7	3	0	0	16	49	10	0	75
Roswell	47	•	•	1	3	6	8	10	9	5	3	•	•	10	27	8	•	45
NEW YORK																		
Albany	78	•	•	•	1	3	5	6	5	2	1	•	•	4	16	3	•	23
Bear Mountain	11	0	0	0	1	4	6	9	5	3	0	0	0	5	20	3	0	28
Binghamton	55	•	•	1	1	5	6	8	6	3	1	•	•	7	20	4	•	31
Buffalo	61	•	•	1	2	4	5	7	5	3	1	1	•	7	17	5	•	29
New York	68	•	•	1	2	4	6	7	6	3	1	1	•	7	19	5	•	31
Oswego	68	•	•	1	3	5	6	7	5	3	1	•	•	5	16	4	•	25
Rochester	68	•	•	1	2	3	5	7	5	3	1	•	•	6	17	4	•	27
Syracuse	49	•	•	1	2	4	6	7	6	3	1	•	•	7	19	4	•	30
NORTH CAROLINA																		
Asheville	49	•	1	2	3	7	11	13	10	5	1	•	•	12	34	6	1	53
Charlotte	73	•	1	2	3	6	9	11	9	3	1	1	•	11	29	5	1	46
Greensboro	23	•	1	2	3	7	10	12	9	4	1	1	•	12	31	6	1	50
Hatteras	54	1	1	2	3	5	6	8	7	4	1	1	1	10	21	6	3	41
Raleigh	65	•	1	2	3	6	8	10	7	3	1	•	•	11	25	4	1	41
Wilmington	81	1	1	2	3	5	8	11	9	4	1	1	•	10	28	6	2	46
Winston-Salem	6	•	•	2	2	9	9	10	9	3	1	0	0	13	28	4	1	46
NORTH DAKOTA																		
Bismarck	61	0	0	•	1	4	7	8	7	3	1	•	0	5	22	4	0	31
Devils Lake	47	0	0	•	1	3	7	8	7	3	1	•	0	4	22	4	0	30
Fargo	68	0	•	•	1	4	7	7	6	3	1	•	0	5	20	4	•	29
Williston	70	0	0	0	1	3	7	7	5	2	•	0	0	4	19	2	0	25
OHIO																		
Akron	21	•	•	2	3	6	7	8	6	4	1	1	•	11	21	6	•	38
Cleveland	64	•	•	2	2	5	7	7	5	4	2	1	•	9	19	7	•	35
Cincinnati	36	1	1	4	4	7	9	10	8	5	2	1	1	15	27	8	3	53
Columbus	73	•	1	2	3	6	8	8	6	3	1	1	1	11	22	5	2	40
Dayton	37	1	1	3	4	7	9	9	7	4	2	1	•	14	25	7	2	48
Sandusky	68	0	0	1	2	5	7	7	5	3	1	0	0	8	19	4	0	31
Toledo	61	•	•	2	3	5	7	7	5	3	2	1	•	10	19	6	•	35
Youngstown	8	0	0	2	3	6	7	7	6	3	1	1	0	11	20	5	0	36
OKLAHOMA																		
Oklahoma City	61	1	1	3	5	7	8	5	6	4	3	1	1	15	19	8	3	45
Tulsa	16	1	2	3	6	10	11	7	7	5	4	1	1	19	25	10	4	58

See footnotes at end of table.

THUNDERSTORMS

(Mean number of days)

State and Station	Years of record	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.	Spring March–May	Summer June–August	Autumn Sept.–Nov.	Winter Dec.–Feb.	Annual
OREGON																		
Baker .32	60	•	0	•	1	2	4	4	3	2	•	•	•	3	11	2	•	16
Burns	13	0	•	0	1	2	3	3	3	1	•	0	•	3	9	1	•	14
Eugene	9	0	•	•	•	2	1	•	1	•	•	•	0	2	2	1	•	5
Meacham	7	0	0	•	1	5	4	4	5	2	•	•	0	6	13	2	0	21
Medford	24	•	•	0	1	2	2	2	1	1	•	•	0	3	5	1	•	9
Pendleton	15	0	0	•	1	2	2	2	2	2	1	•	0	3	6	3	0	12
Portland .62	11	•	•	•	•	2	1	1	1	1	•	•	0	2	3	1	•	6
Roseburg .46	70	•	0	•	•	1	1	1	1	1	•	•	0	1	3	1	•	5
Salem	18	•	0	•	•	1	1	1	1	1	•	•	•	1	3	1	•	5
Sexton Summit	7	•	0	•	•	2	2	1	1	1	•	0	0	3	4	1	•	8
Troutdale	6	•	•	1	1	1	3	1	1	1	2	1	0	3	5	4	•	12
PENNSYLVANIA																		
Allentown	8	0	•	1	2	6	6	9	7	4	1	•	0	9	22	5	•	36
Curwensville	9	•	1	2	4	7	9	12	7	4	1	•	•	13	28	5	1	47
Erie 1.20	70	•	•	1	2	5	6	7	5	4	2	1	•	8	18	7	•	33
Harrisburg	63	•	•	1	2	5	7	8	6	3	1	•	•	8	21	4	•	33
Park Place	9	0	0	1	2	5	6	7	6	2	1	•	0	8	19	3	0	30
Philadelphia	81	•	•	1	2	4	5	7	5	2	1	•	•	7	17	3	•	27
Pittsburgh 1.12	66	0	0	2	3	6	8	9	7	4	1	•	•	11	24	5	•	40
Reading	39	•	•	1	2	5	7	9	6	3	•	•	•	8	22	3	•	33
Scranton	51	•	•	1	2	4	7	8	6	3	1	•	•	7	21	4	•	32
Williamsport	56	•	•	1	1	3	4	5	3	2	1	•	•	5	12	3	•	20
RHODE ISLAND																		
Block Island 1.14	71	•	•	1	1	2	3	4	3	2	1	•	•	4	10	3	•	17
Providence 1.17	47	•	•	1	1	3	4	5	4	2	1	•	•	5	13	3	•	21
SOUTH CAROLINA																		
Charleston	61	1	1	2	3	6	10	13	13	5	1	1	•	11	36	7	2	56
Columbia 1.38	65	•	1	2	4	6	9	11	9	4	1	•	•	12	29	5	1	47
Florence	6	0	0	3	5	7	10	13	10	5	1	2	0	15	33	8	0	56
Greenville 1.60	34	•	1	3	3	7	10	13	9	4	1	1	•	13	32	6	1	52
Spartanburg	21	1	1	2	3	6	9	12	9	4	1	1	•	11	30	6	2	49
SOUTH DAKOTA																		
Huron 1.02	70	0	•	•	2	5	9	9	8	4	1	•	0	7	26	5	•	38
Rapid City 1.02	52	0	0	•	1	6	11	11	9	3	•	•	0	7	31	3	0	41
Sioux Falls	6	0	•	1	3	7	9	9	8	6	3	•	0	11	26	9	0	46
TENNESSEE																		
Bristol	8	1	1	2	3	8	11	11	8	6	1	1	0	13	30	8	2	53
Chattanooga 1.56	73	1	2	4	5	7	11	12	10	4	1	1	•	16	33	6	3	58
Knoxville 1.37	71	•	1	3	4	7	9	10	8	4	1	1	•	14	27	6	1	48
Memphis 1.66	70	2	2	4	5	6	8	8	7	4	2	2	1	15	23	8	5	51
Nashville 1.44	79	1	2	4	5	7	9	10	7	4	1	1	1	16	26	6	4	52
TEXAS																		
Abilene 1.30	66	•	1	2	5	8	6	5	5	3	2	1	•	15	16	6	1	38
Amarillo 1.23	60	0	0	1	3	6	7	7	8	4	2	0	0	10	22	8	0	38
Austin 1.54	25	1	2	4	5	7	5	5	4	4	2	2	1	16	14	8	4	42
Brownsville 1.90	29	•	1	1	2	4	3	4	4	5	2	1	1	7	11	8	2	28
Corpus Christi 1.55	65	1	1	2	3	5	4	4	4	5	2	1	1	10	12	8	3	33
Dallas 1.68	38	2	3	4	6	8	7	5	5	4	3	2	2	18	17	9	7	51
Del Rio 1.26	46	•	1	2	4	5	4	3	3	2	2	1	•	11	10	5	1	27
El Paso .46	73	•	•	•	1	2	4	8	8	3	2	•	•	3	20	5	•	28
Fort Worth 1.80	53	1	2	3	6	8	6	6	5	4	3	1	1	17	17	8	4	46
Galveston 2.18	60	2	2	3	4	5	5	8	8	6	2	2	2	12	21	10	6	49
Houston 1.98	42	2	2	3	4	6	7	10	10	6	3	2	2	13	27	11	6	57
Laredo	9	1	2	2	4	8	5	4	3	4	1	1	1	14	12	6	4	36
Lubbock	5	0	1	1	3	11	12	10	8	5	1	0	0	15	30	6	1	52
Palestine 1.68	70	1	2	4	5	6	6	6	6	4	2	2	2	15	18	8	5	46
Port Arthur 2.20	35	3	3	4	5	6	9	14	13	7	3	2	3	15	36	12	9	72
San Angelo	4	•	3	1	5	8	7	7	6	4	3	1	0	14	20	8	3	45
San Antonio	67	1	1	2	5	6	4	5	4	4	2	2	1	13	13	8	3	37
Victoria	5	1	2	2	6	7	5	8	7	7	1	1	2	15	20	9	5	49
Waco	21	1	2	3	4	6	4	4	4	3	2	1	1	13	12	6	4	35
Wichita Falls	8	1	3	3	5	10	9	7	5	4	3	1	1	18	21	8	5	52
UTAH																		
Milford	3	0	0	0	3	3	3	9	7	3	•	•	•	6	19	3	•	28
Salt Lake City .80	24	•	1	1	3	4	5	7	8	4	2	•	•	8	20	6	1	35
VERMONT																		
Burlington	46	0	0	0	1	3	6	8	6	3	1	0	0	4	20	4	0	28
VIRGINIA																		
Cape Henry	60	•	1	2	3	5	7	9	7	3	1	1	•	10	23	5	1	39
Lynchburg	68	•	•	1	2	5	8	9	7	3	•	•	•	8	24	3	•	35
Norfolk	67	•	1	2	3	5	7	9	7	3	1	•	•	10	23	4	1	38
Richmond	54	•	•	2	3	6	8	10	7	3	1	•	•	11	25	4	•	40
Roanoke	5	0	0	1	3	8	9	9	8	4	0	0	0	12	26	4	0	42
WASHINGTON																		
Ellensburg	7	0	0	•	•	3	2	2	3	1	•	•	0	3	7	1	0	11
North Head .52	64	•	•	•	•	•	•	•	•	1	1	1	•	•	3	•	•	3
Olympia	10	0	•	0	•	1	1	•	1	•	0	•	0	1	2	•	•	3
Port Angeles .38	5	0	0	0	0	1	1	1	1	•	0	0	0	1	3	•	0	4
Seattle .42	58	•	•	•	•	1	1	1	1	1	•	•	0	1	3	1	•	5
Spokane .36	71	•	0	•	1	2	3	2	2	1	•	•	0	3	7	1	•	11
Stampede Pass	8	0	0	•	•	2	2	1	2	1	•	•	0	2	5	1	0	8
Stevenson	5	•	•	1	•	1	1	1	1	2	1	1	0	3	3	4	•	10
Tacoma .50	55	•	•	•	1	1	•	1	1	1	•	•	•	2	3	1	•	6
Tatoosh Island .80	66	•	•	•	•	•	•	•	•	•	1	1	1	•	•	2	1	3
Walla Walla .32	66	•	•	•	1	1	2	2	2	1	•	0	0	2	6	1	•	9
Yakima .22	43	0	•	•	•	1	1	1	1	1	•	0	0	1	3	1	•	5
WEST VIRGINIA																		
Charleston	4	1	2	2	4	9	9	9	5	4	1	1	•	15	23	6	3	47
Elkins 1.22	53	•	1	2	3	7	10	11	7	4	1	•	•	12	28	5	1	46
Parkersburg 1.18	63	•	1	2	3	7	9	9	7	4	1	•	•	12	25	5	1	43
Petersburg	7	1	0	1	3	7	9	8	7	4	•	1	0	11	24	5	1	41
WISCONSIN																		
Green Bay 1.03	65	•	•	1	2	4	6	7	5	4	2	1	•	7	18	7	•	32
La Crosse 1.22	78	•	•	1	3	5	7	7	6	4	2	1	•	9	20	7	•	36
Madison	47	•	•	1	3	6	8	8	7	5	2	1	•	10	23	8	•	41
Milwaukee 1.16	77	•	•	1	3	5	6	6	5	4	2	1	•	9	17	7	•	33
WYOMING																		
Casper	12	0	0	•	2	6	8	11	7	4	1	0	0	8	26	5	0	39
Cheyenne .90	70	0	0	•	2	6	10	13	10	4	1	•	0	8	33	5	•	46
Lander .60	60	0	0	0	1	3	5	6	5	2	•	•	0	4	16	2	0	22
Rock Springs	19	•	•	•	3	5	7	11	8	4	2	•	0	8	26	6	•	40
Sheridan .86	44	0	0	0	1	5	10	10	7	2	•	0	0	6	27	2	0	35

See footnotes at end of table.

THUNDERSTORMS

(Mean number of days)

State and Station	Years of record	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.	Spring March–May	Summer June–August	Autumn Sept.–Nov.	Winter Dec.–Feb.	Annual
ALASKA																		
Annette	4	•	0	0	0	0	1	0	0	0	0	0	0	0	1	0	•	1
Anchorage	9	0	0	0	0	0	1	•	•	•	0	0	0	0	1	•	0	1
Barrow	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bethel	8	0	0	0	0	0	1	1	0	0	0	0	0	0	2	0	0	2
Cordova	6	0	0	0	0	0	•	0	0	0	0	0	0	0	•	0	0	•
Fairbanks	22	0	0	0	0	1	4	4	1	0	0	0	0	1	9	0	0	10
Galena	4	0	0	0	0	•	2	2	0	0	0	0	0	•	4	0	0	4
Gambell	8	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	1
Juneau	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kotzebue	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
McGrath	9	0	0	0	0	0	3	3	0	•	0	0	0	0	6	•	0	6
Nome	45	0	0	0	0	0	•	•	•	•	•	0	0	0	•	•	0	•
Northway	9	0	0	0	0	1	3	6	1	0	0	0	0	1	10	0	0	11
St. Paul Island	17	0	0	0	0	0	•	0	0	0	0	0	0	0	•	0	0	•
Umiat	4	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	1
Yakutat	3	0	0	0	0	0	0	0	0	0	•	0	•	0	0	•	•	1
PACIFIC AREA																		
Canton Island	5	0	0	0	1	1	1	•	•	0	0	0	0	2	1	0	0	3
Hilo, T. H.	6	•	1	1	1	•	0	•	0	0	1	1	•	2	•	2	2	6
Honolulu, T. H.	47	1	1	1	•	•	•	•	•	•	1	1	1	1	•	2	3	6
Lihue	2	0	1	2	1	1	0	0	0	2	1	0	1	4	0	3	2	9
Wake Island	2	0	0	0	0	0	0	2	1	1	2	2	1	0	3	5	1	9
PUERTO RICO																		
San Juan	53	•	•	•	2	5	6	7	7	10	8	3	1	7	20	21	2	50
St. Croix, Virgin Is.	4	0	1	1	1	4	6	4	5	9	8	4	2	6	15	21	3	45

Note: Years of record through 1951.
• Less than one-half day.

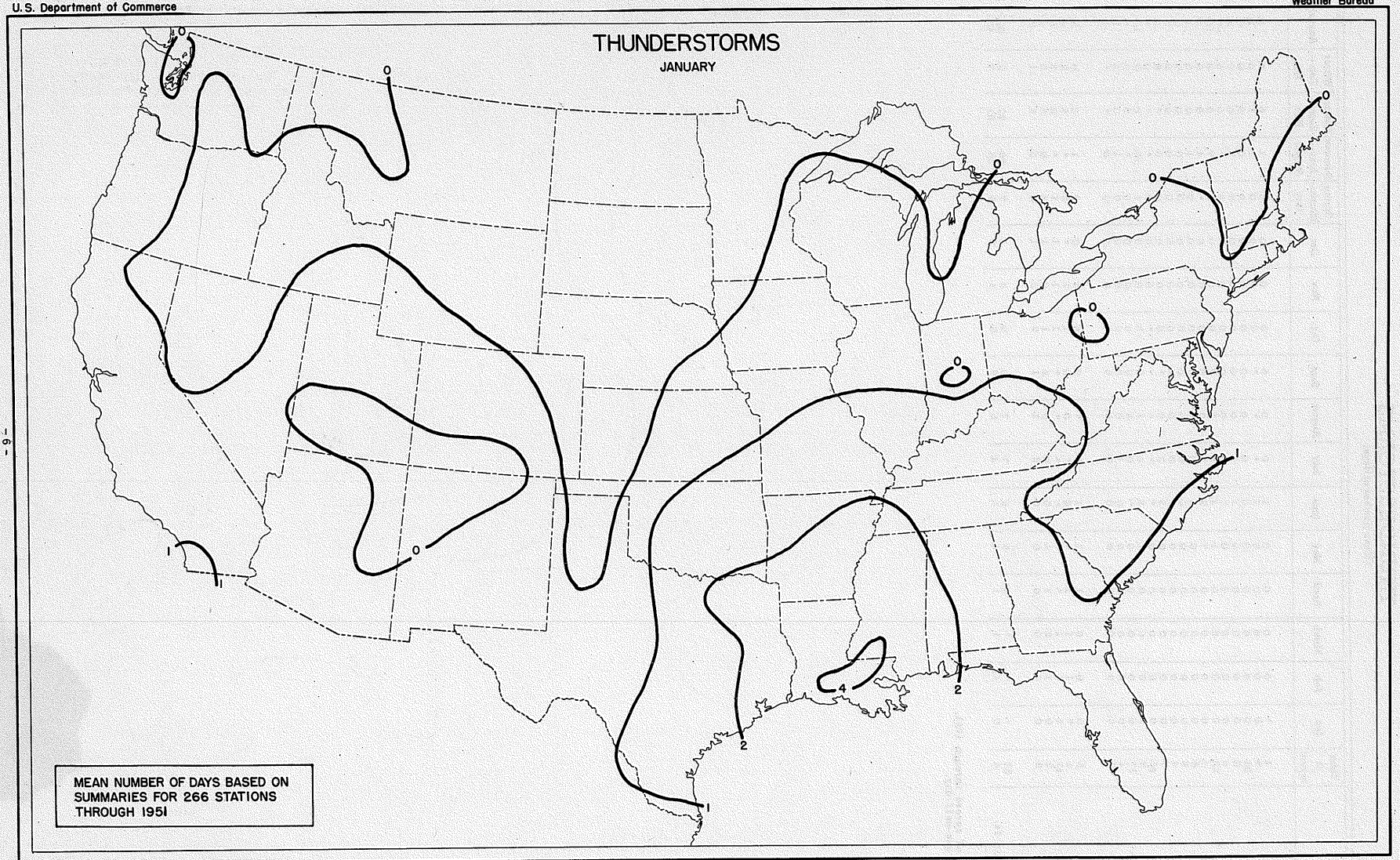
THUNDERSTORMS
JANUARY
MEAN NUMBER OF DAYS BASED ON SUMMARIES FOR 266 STATIONS THROUGH 1951

FIGURE 1

U.S. Department of Commerce

Weather Bureau

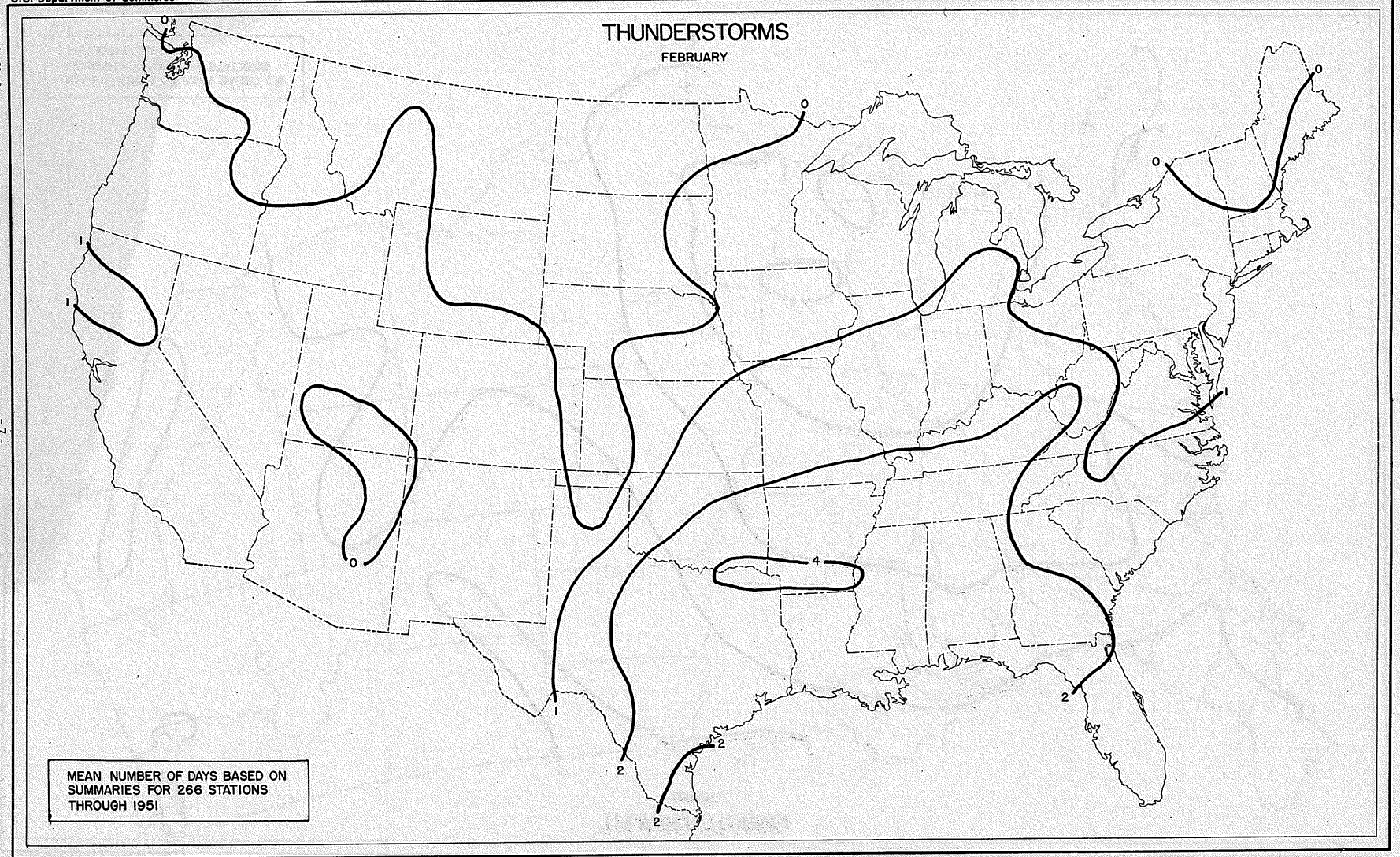

FIGURE 2

253239 O - 52 - 2

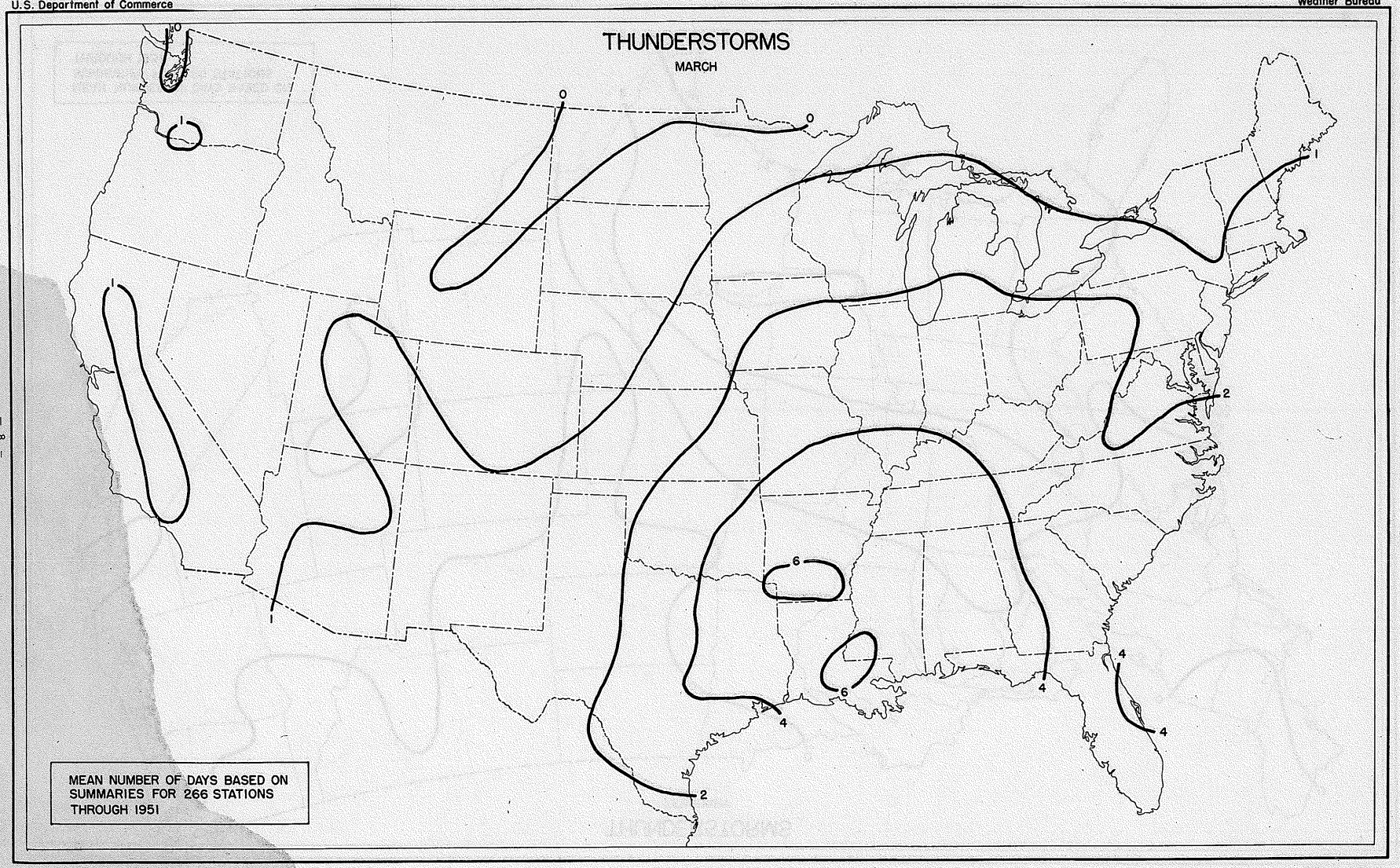
THUNDERSTORMS
MARCH
0
0
0
1
1
2
6
6
4
4
4
4
2
MEAN NUMBER OF DAYS BASED ON SUMMARIES FOR 266 STATIONS THROUGH 1951

FIGURE 3

U.S. Department of Commerce

Weather Bureau

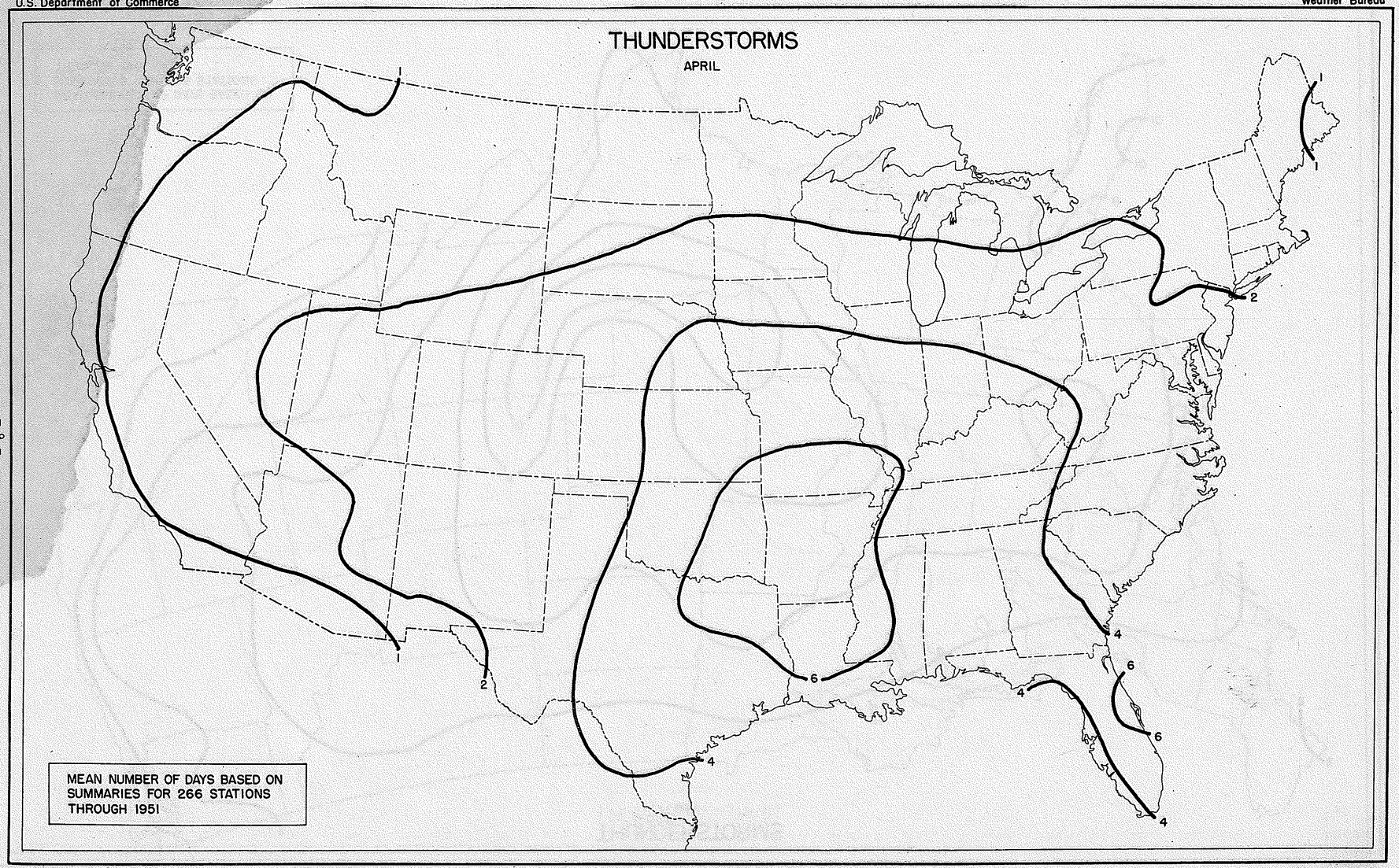

FIGURE 4

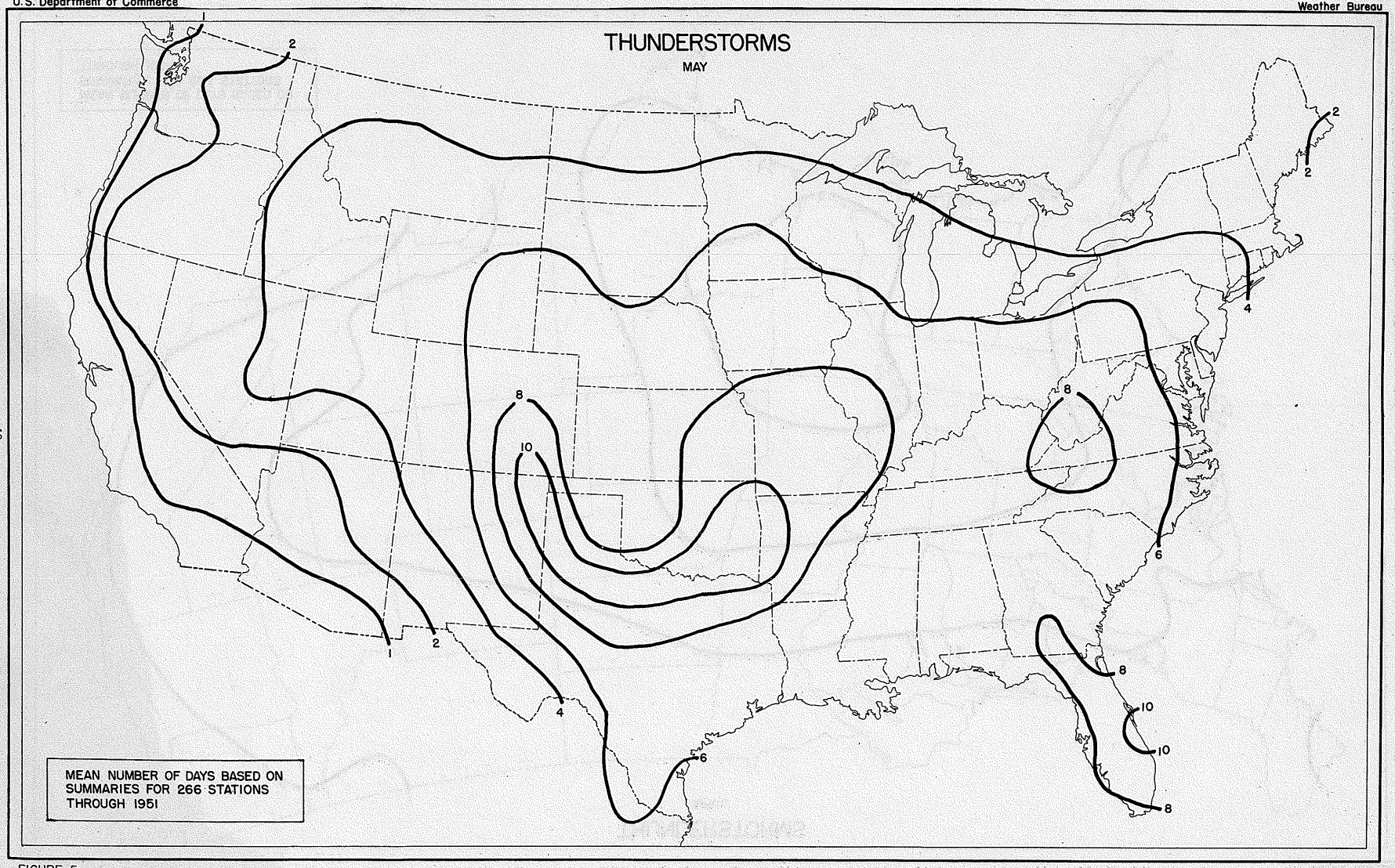
THUNDERSTORMS
MAY
2
2
2
4
8
8
10
6
1
2
4
6
8
10
10
8
MEAN NUMBER OF DAYS BASED ON SUMMARIES FOR 266 STATIONS THROUGH 1951

FIGURE 5

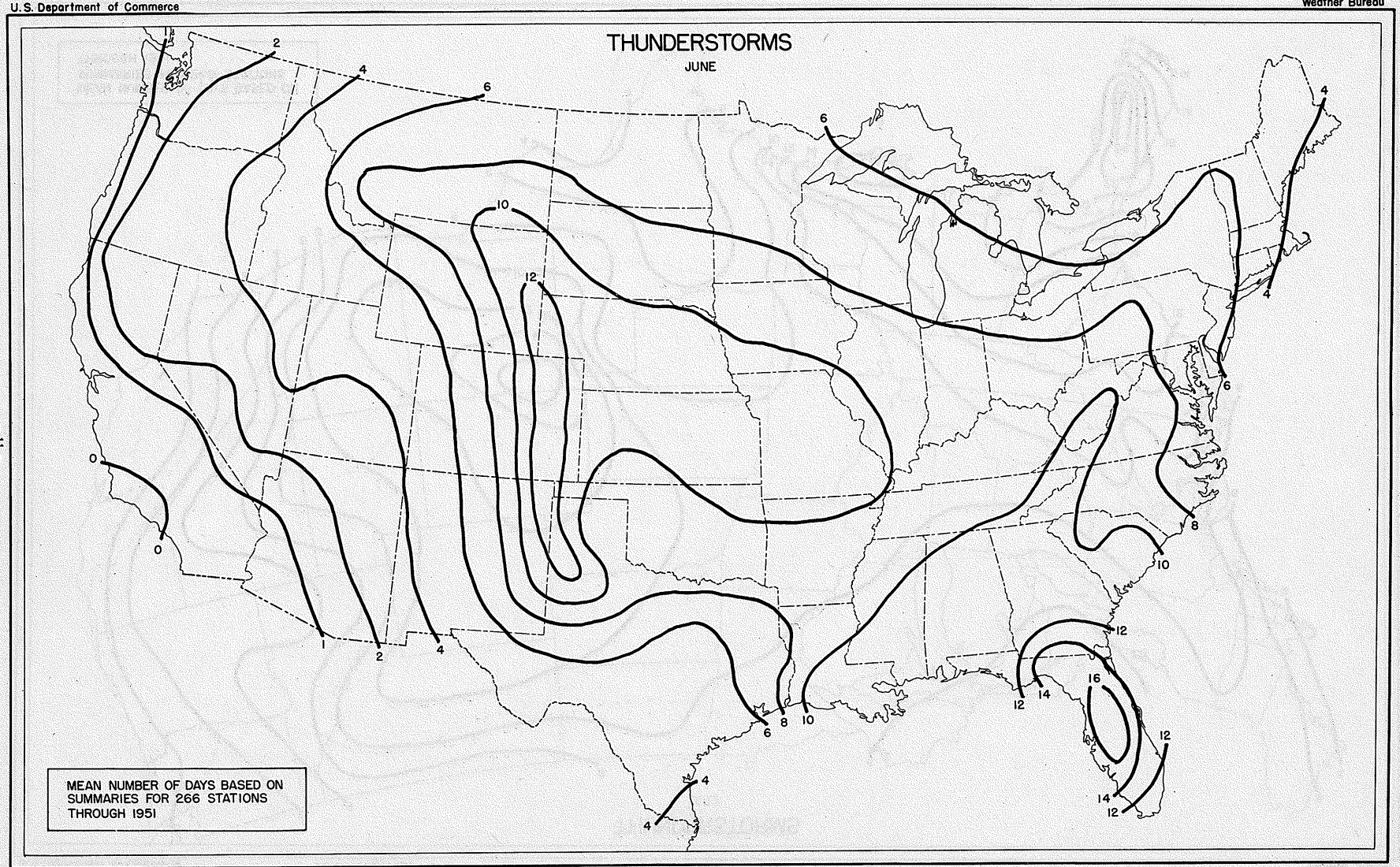
THUNDERSTORMS
JUNE
MEAN NUMBER OF DAYS BASED ON SUMMARIES FOR 266 STATIONS THROUGH 1951

FIGURE 6

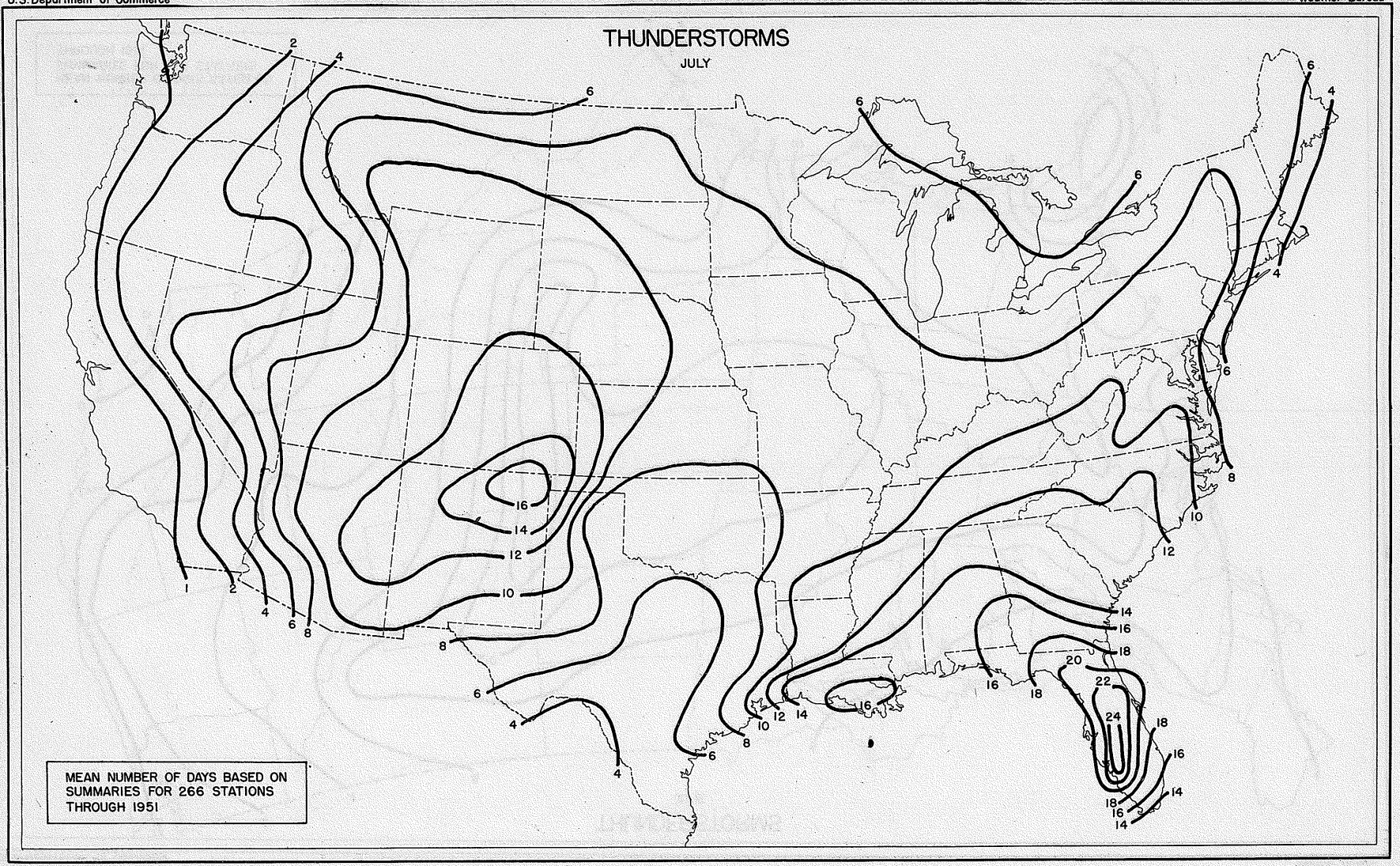
THUNDERSTORMS
JULY
MEAN NUMBER OF DAYS BASED ON SUMMARIES FOR 266 STATIONS THROUGH 1951

FIGURE 7

U.S. Department of Commerce

Weather Bureau

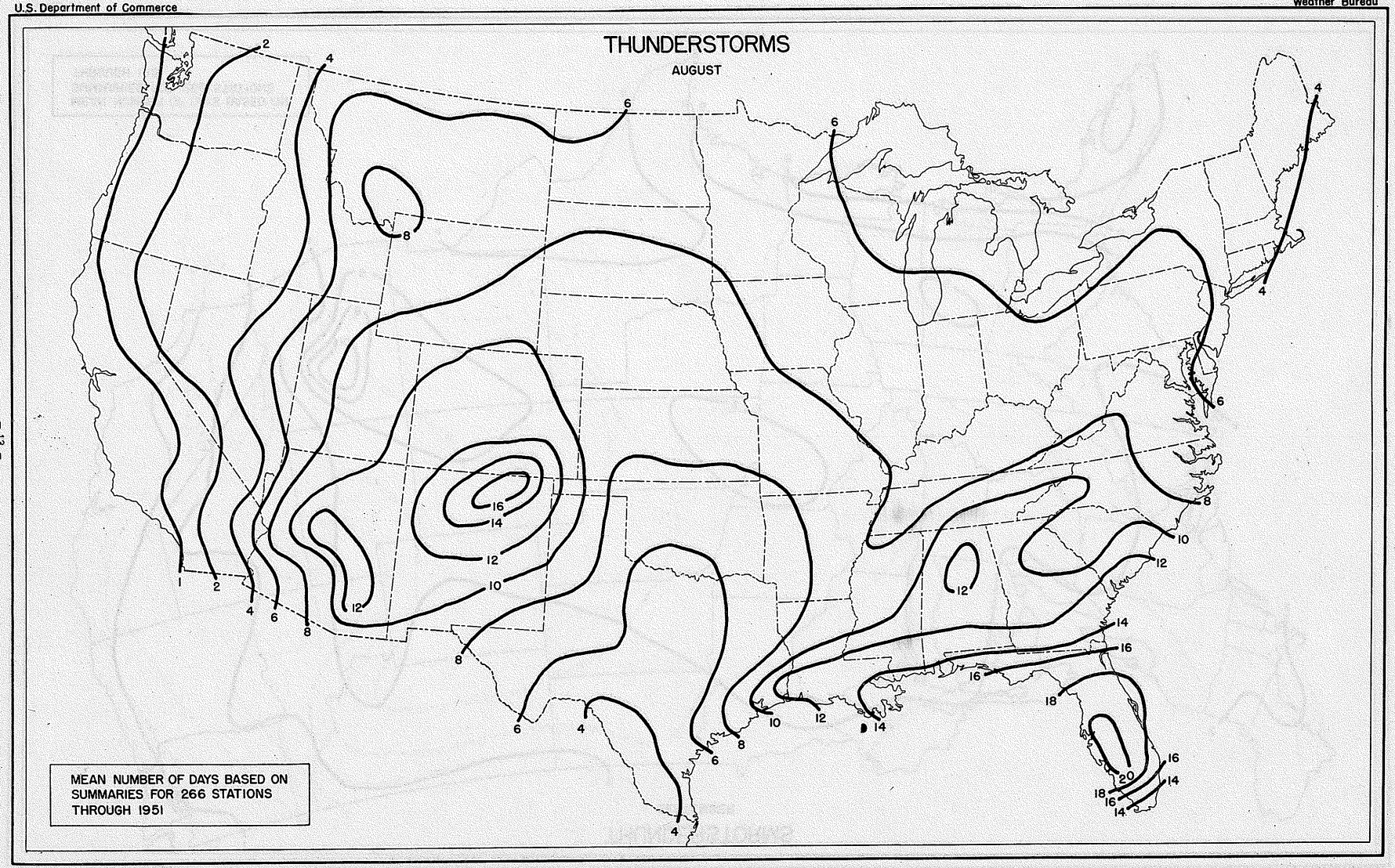

FIGURE 8

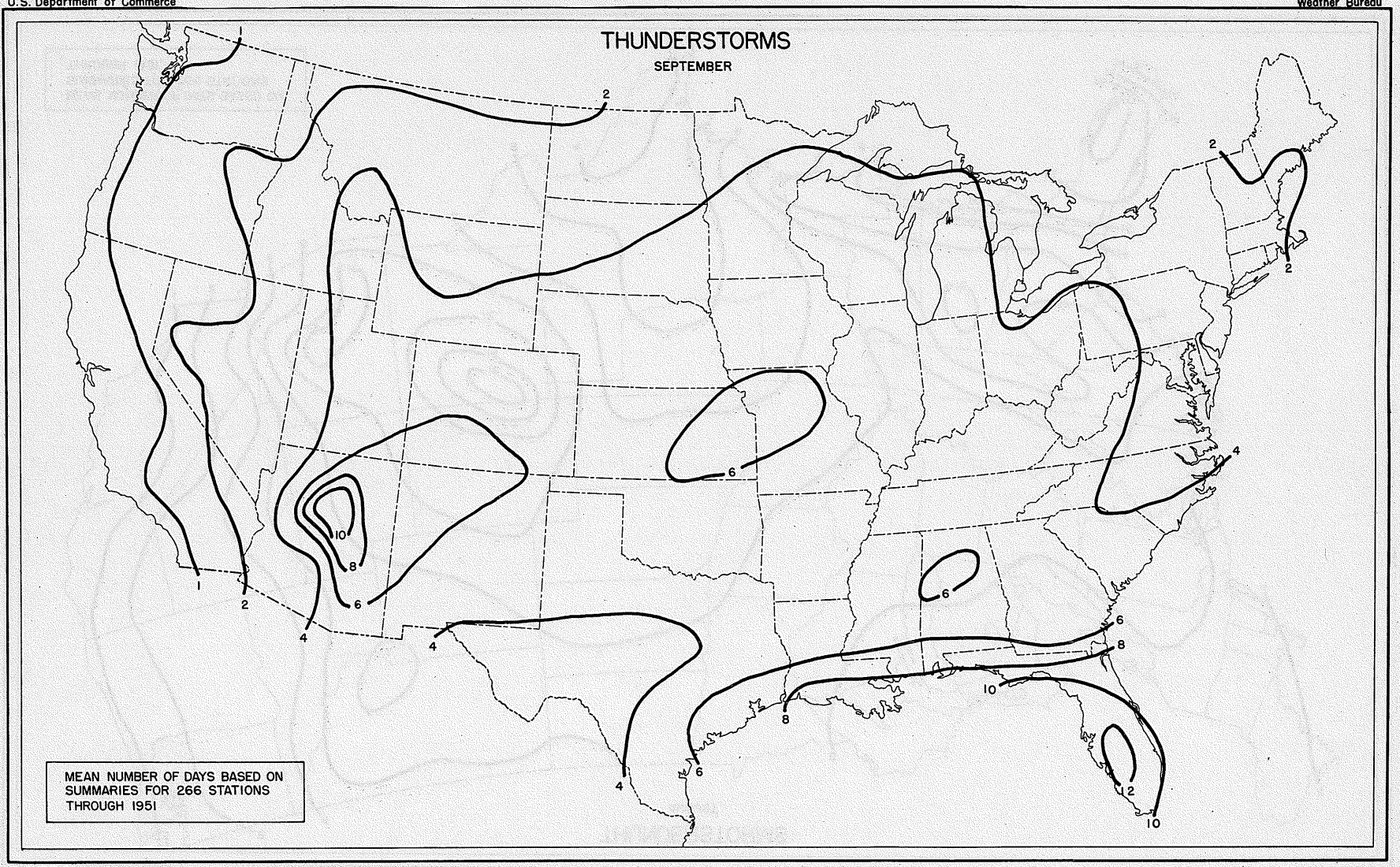
THUNDERSTORMS
SEPTEMBER
MEAN NUMBER OF DAYS BASED ON SUMMARIES FOR 266 STATIONS THROUGH 1951

FIGURE 9

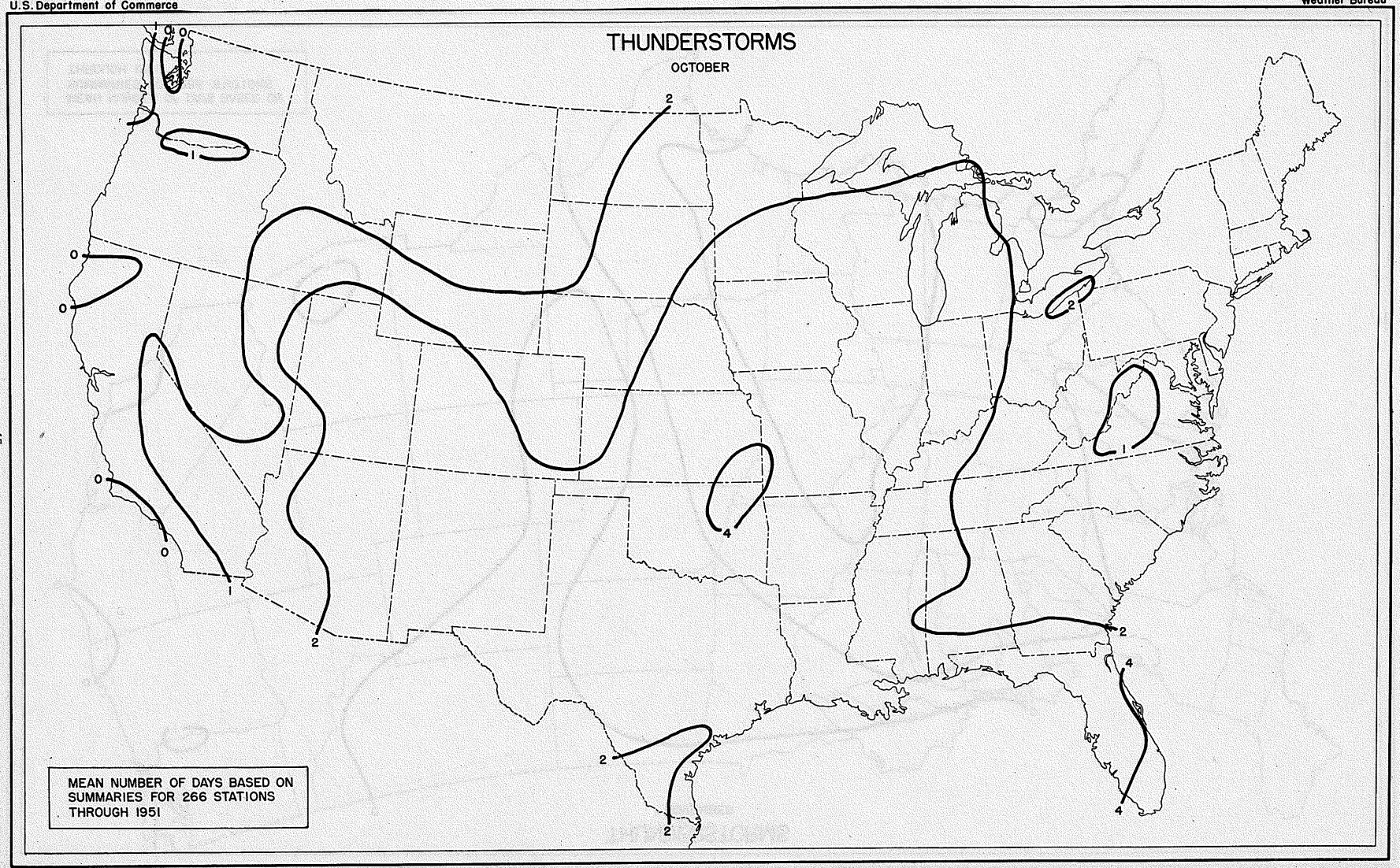
THUNDERSTORMS
OCTOBER
MEAN NUMBER OF DAYS BASED ON SUMMARIES FOR 266 STATIONS THROUGH 1951

FIGURE 10

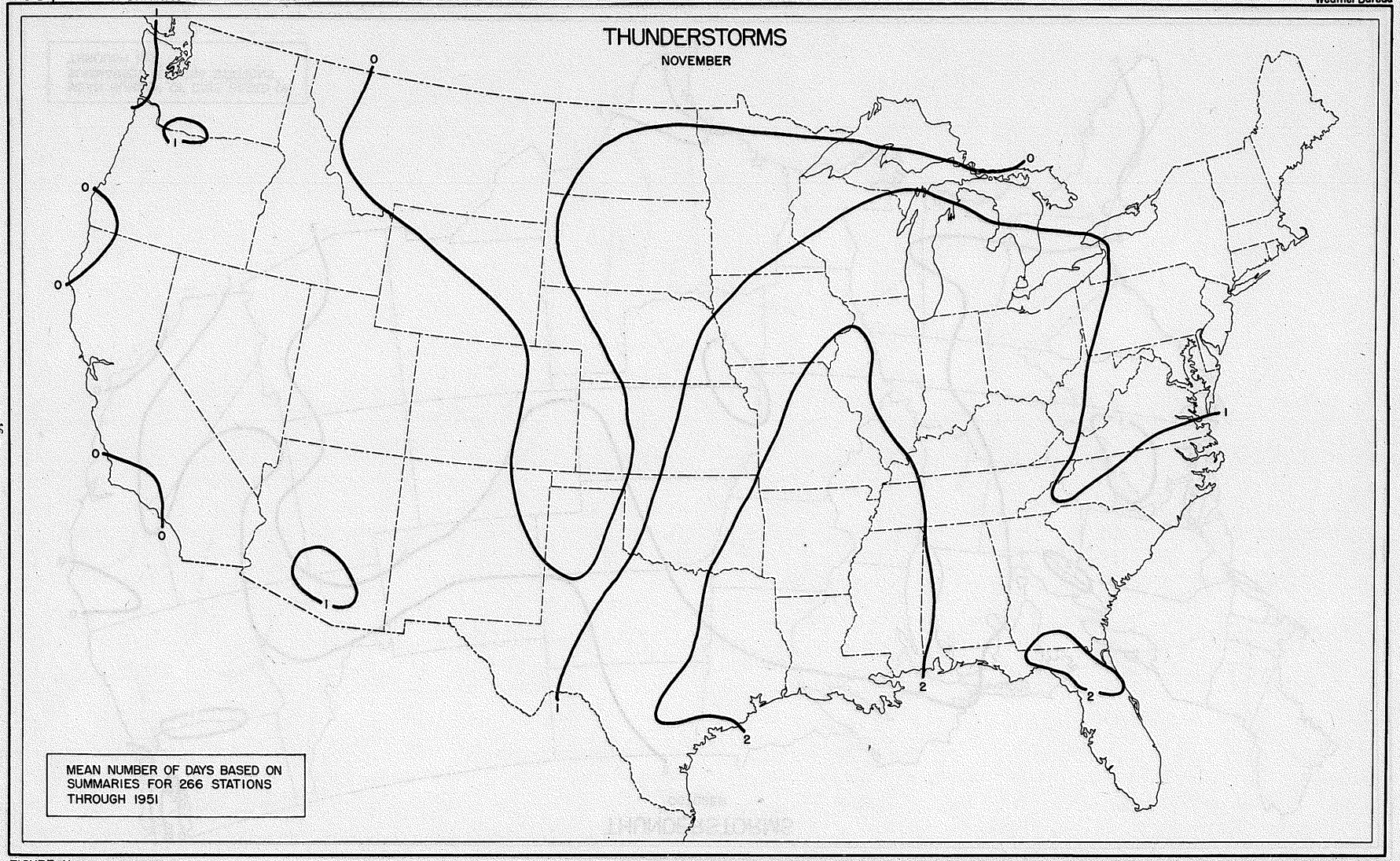
THUNDERSTORMS
NOVEMBER
0
0
0
0
0
1
1
0
1
2
2
2
MEAN NUMBER OF DAYS BASED ON SUMMARIES FOR 266 STATIONS THROUGH 1951

FIGURE 11

U.S. Department of Commerce

Weather Bureau

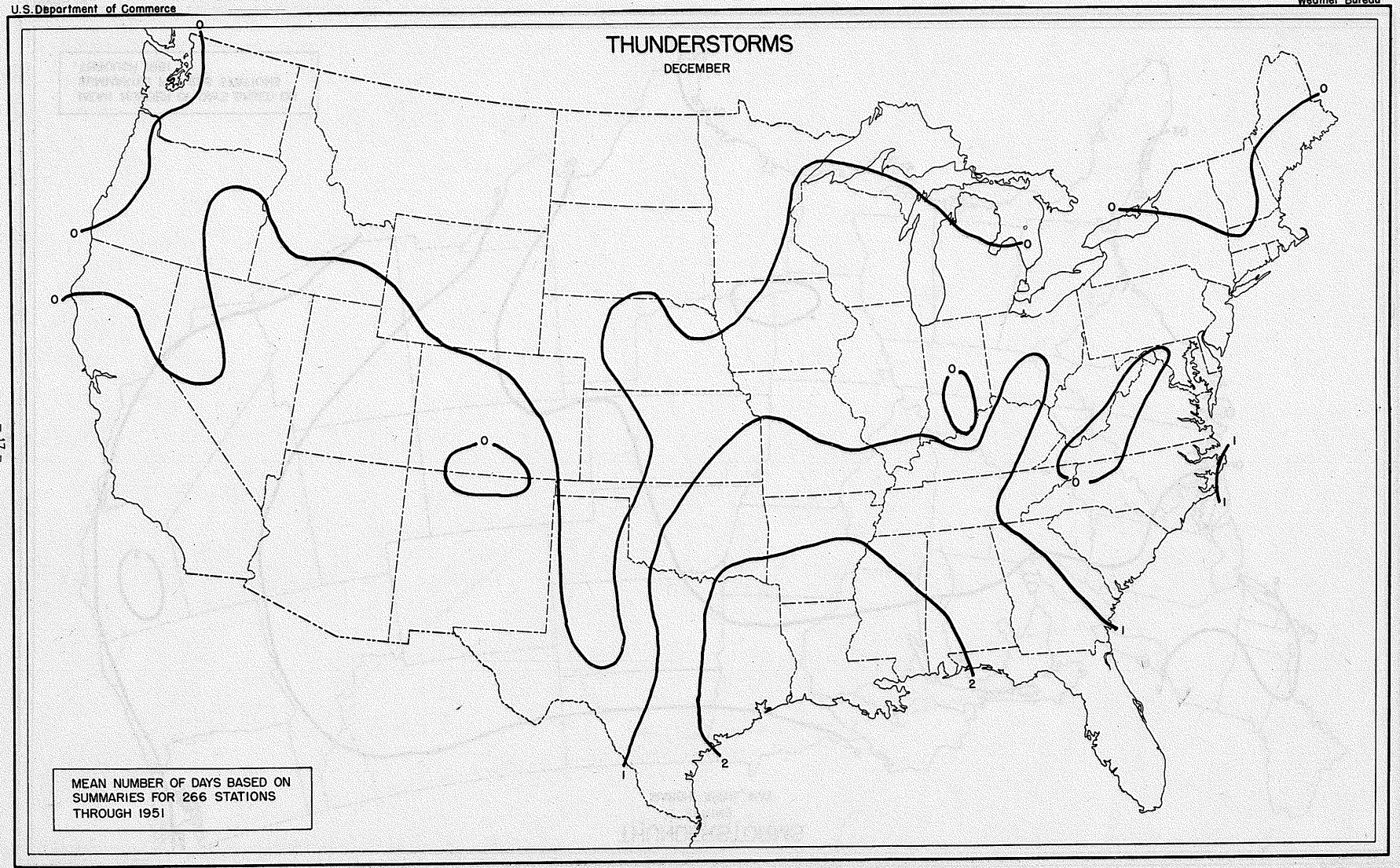

FIGURE 12

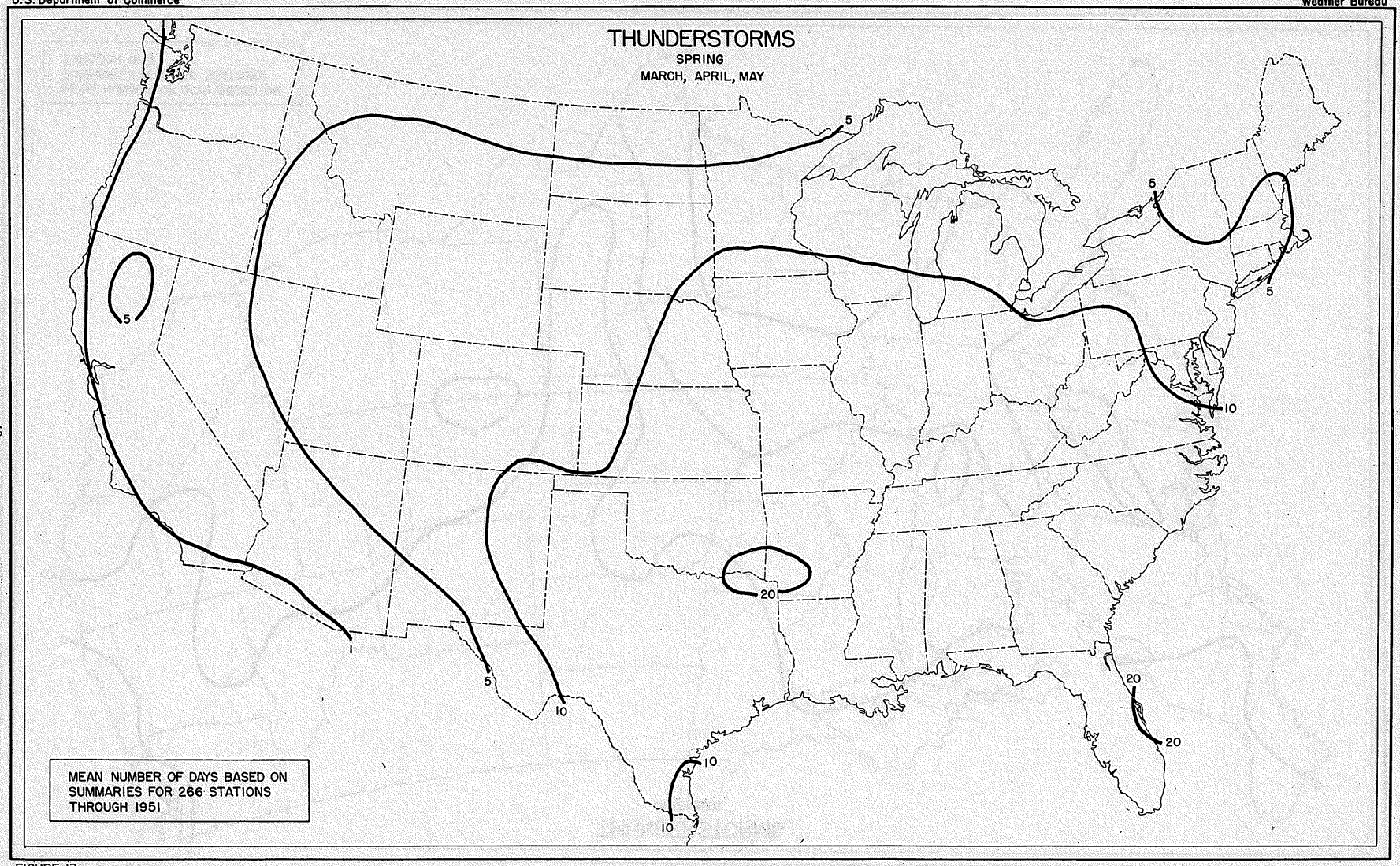
THUNDERSTORMS
SPRING
MARCH, APRIL, MAY
5
5
5
5
10
20
1
5
10
10
10
20
20
MEAN NUMBER OF DAYS BASED ON SUMMARIES FOR 266 STATIONS THROUGH 1951

FIGURE 13

U.S. Department of Commerce

Weather Bureau

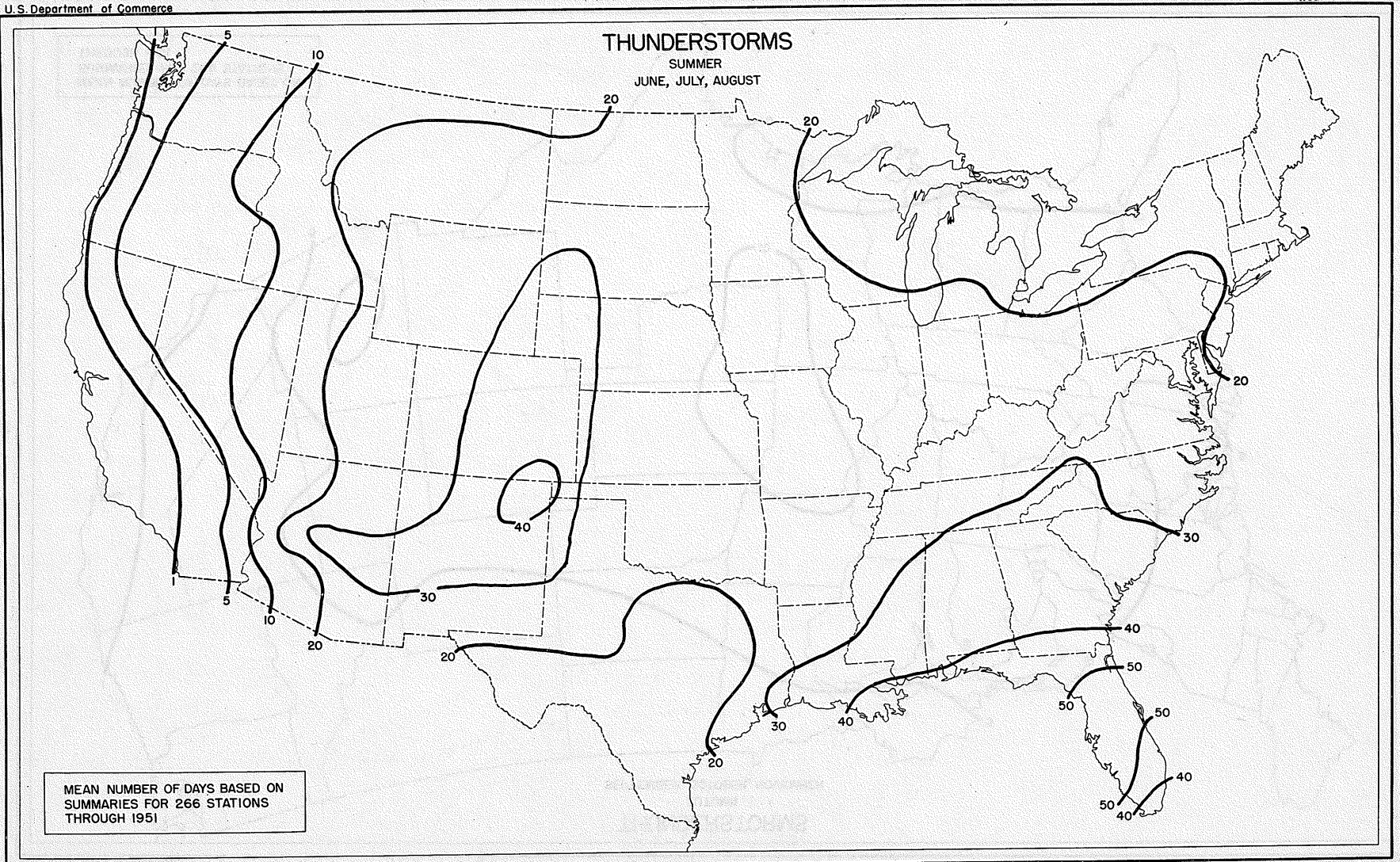

FIGURE 14

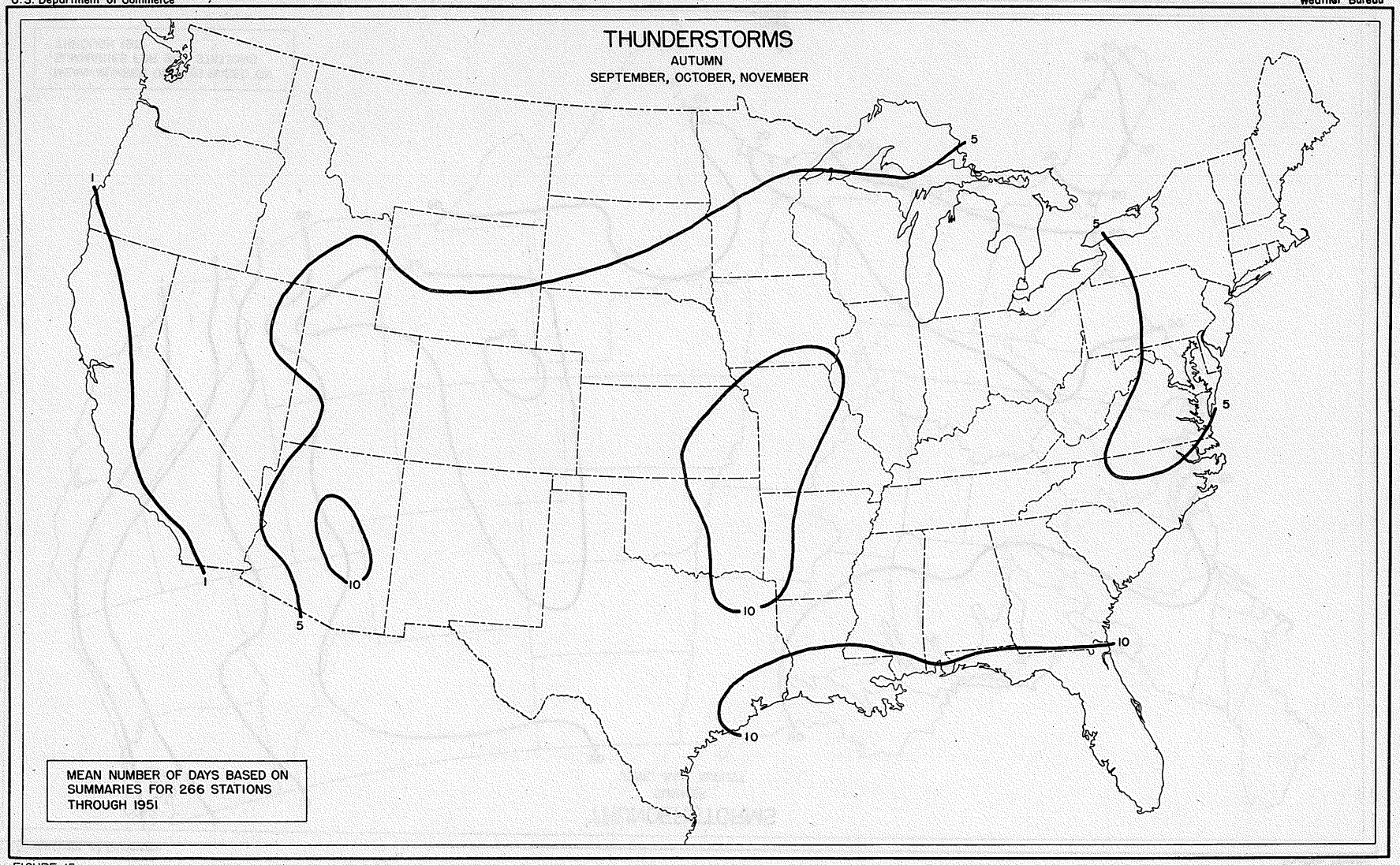
THUNDERSTORMS
AUTUMN
SEPTEMBER, OCTOBER, NOVEMBER
1
1
5
10
5
10
5
5
10
10
MEAN NUMBER OF DAYS BASED ON SUMMARIES FOR 266 STATIONS THROUGH 1951

FIGURE 15

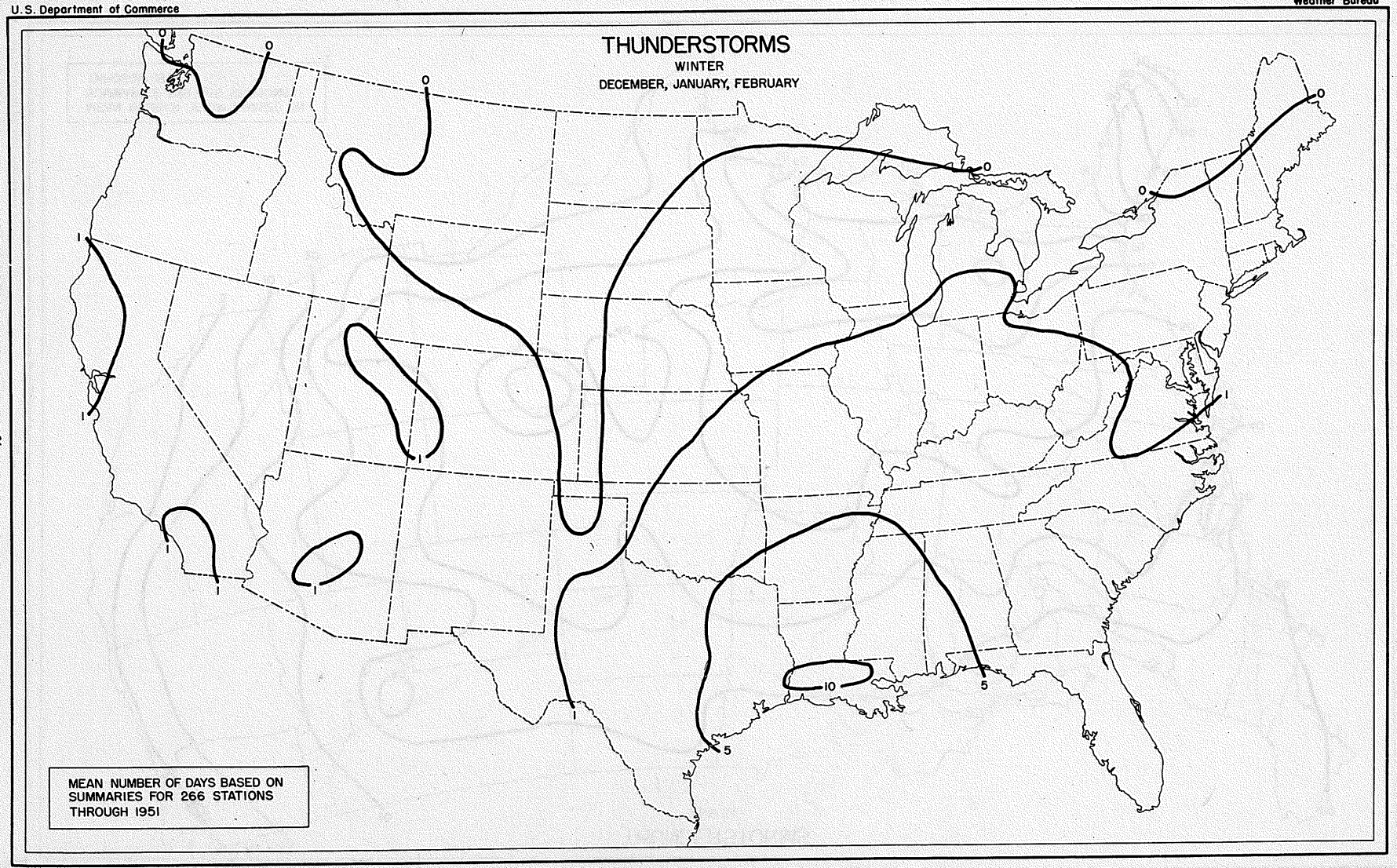
THUNDERSTORMS
WINTER
DECEMBER, JANUARY, FEBRUARY
0
0
0
0
0
0
1
1
1
1
1
1
10
5
5
MEAN NUMBER OF DAYS BASED ON SUMMARIES FOR 266 STATIONS THROUGH 1951

FIGURE 16

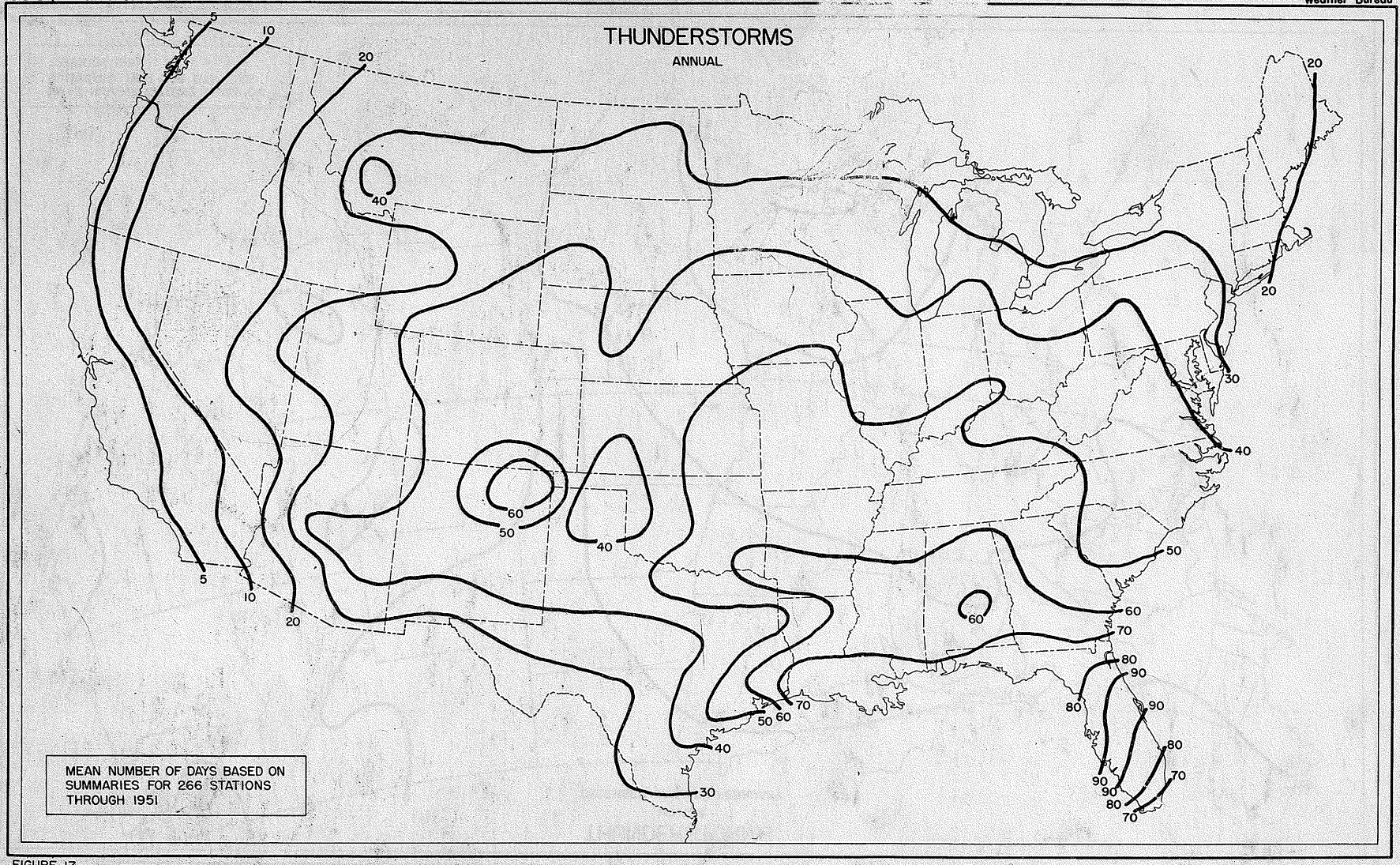

FIGURE 17

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