TABLE 3.—*Mean free-air temperatures, relative humidities, vapor pressures, and resultant winds (m. p. s.) during January, 1926, at Washington, D. C.*

Altitude m. s. l.	Naval air station (7 meters)			Weather Bureau (34 meters)—	
Wind	Temperature	Relative humidity	Vapor pressure	Wind	
Meters	(° C.)	(*Per cent*)	(*mb.*)	*Direction*	*Velocity m. p. s.*
Surface	−3.1	77	3.79	N. 55° W.	1.6
250	−1.8	71	3.91	N. 72° W.	4.2
500	−1.6	65	3.77	N. 74° W.	6.6
750	−1.7	63	3.70	N. 72° W.	8.1
1,000	−2.2	62	3.49	N. 77° W.	8.5
1,250	−3.0	62	3.25		
1,500	−3.5	60	3.02	N. 70° W.	11.6
2,000	−4.7	58	2.70	N. 73° W.	12.5
2,500	−6.5	54	2.25	N. 69° W.	15.7
3,000	−8.9	57	2.10	N. 84° W.	18.5

THE WEATHER ELEMENTS

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PRESSURE AND WINDS

Probably the most notable fact concerning the weather of January, 1926, was the general absence of particularly unfavorable or unpleasant weather. As in the preceding month atmospheric pressure was high over the Plateau and Pacific coast sections and no storms moved inland from the North Pacific States until near the end of the month, and again as in December this high-pressure area was mainly a local phenomenon and lacked the cold conditions usually attending such high pressure when augmented through anticyclones moving into that region from the Canadian Northwest.

Over central and eastern districts cyclonic disturbances were comparatively infrequent and of rather mild character, though they brought generally heavy precipitation over some southeastern districts.

The first important cyclone developed over the far Southwest about the 1st and moved slowly toward the Great Lakes attended by scattered and generally light precipitation over the southern mountains and Great Plains, but becoming heavier toward the Mississippi Valley and portions of the Gulf States. This storm gave precipitation over a wide area, though it lacked any marked severity until reaching the St. Lawrence Valley where pressure became unusually low, and it passed eastward into the ocean as a severe storm.

A slight barometric depression that first appeared in the east Gulf on the 7th and had moved to the Georgia coast by the morning of the 8th was attended by heavy rains over the Southeastern States and by more or less precipitation as it moved northward near the coast during the following day or two.

Several unimportant low areas, mostly forming near the Great Lakes, gave light precipitation in that region from the 10th to 15th. About the latter date another disturbance formed in the Southwest and by the 17th it was central over Arkansas and heavy rain was falling over portions of the West Gulf States and lower Mississippi Valley. As this storm moved northeastward toward the lower Lakes heavy rains occurred over portions of the Ohio Valley and east Gulf States, continuing during the following day into the Northeastern States.

A rather unusual storm formed in the middle plateau about the 17th and moved slowly southeastward to the south Texas coast by the morning of the 21st, whence it moved with great rapidity and markedly increased severity to the Canadian Maritime Provinces during the following 24 hours, attended by heavy rains in the Ohio Valley and some other districts and by more or less snow in the lower Lake region and to the eastward and northeastward.

During the remainder of the last decade no important storms visited the eastern two-thirds of the country though some heavy rains occurred near the end over the Southeastern States, particularly in southern Florida where locally some of the heaviest rains ever known in January occurred.

The last few days of the month were notable for the breaking up of the pressure distribution that had prevailed for a long period over the far West and Northwest. The high pressure area over the plateau and Pacific Coast States began to disintegrate and by the 29th a low pressure area appeared off the North Pacific coast and rain had set in from central California northward, and during the following few days more or less rain or snow occurred over much of the plateau and Pacific coast area, some heavy rains occurring at the lower elevations of California and considerable snow falling in the mountains, relieving a severe drought and improving the outlook for a substantial water supply.

No important anticyclones moved into the United States from the Canadian Northwest during the first two decades, though one of moderate intensity at the beginning of the last decade brought sharp changes of temperature from the Great Plains region eastward, the weather continuing cold in the Southern States for several days, particularly in Texas, where on the 24th and 25th freezing occurred to the extreme southern part of the State. During the remainder of the decade several anticyclones of only moderate intensity moved eastward along the northern border from the Dakotas to New England, causing sharp temperature changes over the northern districts, and about the 29th the coldest weather of the month occurred over some Middle Atlantic and Northeastern States.

From the Rocky Mountains westward the average pressure was above normal, the maximum occurring over the northern plateau. The eastern two-thirds of the United States and the greater part of Canada had pressure averages less than normal, the greatest deficiencies occurring along the northern border from the Dakotas to New England.

The winds were mainly from northerly points in the Gulf States and southern plains and from the south or southwest over the Atlantic Coast States, the Ohio and middle Mississippi Valleys, the central plains, and Lake region. Elsewhere they were variable.

In the main there were few severe storms save along the North Atlantic coast. Over the North Pacific coast, where January is usually a stormy month, high winds were noted in only a few instances. A table showing the important facts concerning the more severe storms of the month appears at the end of this section.

TEMPERATURE

The month was remarkably free from severe cold and no low-temperature records were broken, though it was quite cold in southern Florida on the 12th and again on the 15th. On the latter date temperatures as low as 24° were reported from points in the trucking districts of the Everglades, where practically all tender vegetation was destroyed. Again from the 20th to 25th the temperatures were low over the west Gulf States, freezing weather

extending to the coast districts of Texas on the 24th and 25th.

Over all northern districts of the United States from the Atlantic to the Pacific, the average temperatures for the month were above the normal, the excesses increasing toward Canada, where, in portions of the Northwest Provinces, the monthly means were 20° or more above normal, and among the highest of record for January. Farther north, at Eagle, Alaska, near the Arctic Circle, the average temperature was nearly 30° above normal and it was apparently much warmer than usual over all portions of that Territory. The month was colder than normal over most southern districts, particularly in Texas and New Mexico, where moderate cold persisted for long periods.

Some sharp contrasts were noted in temperature conditions over near-by areas, notably at Yellowstone Park and Lander, Wyo.; the former was materially above normal and the latter nearly 4° below, while farther south at Grand Junction, Colo., it was again more than 4° above. Similarly, in the Great Valley of California there were local areas with averages materially less than normal while surrounding areas showed values well above.

The warmest periods of the month were mainly during the latter half and over much of the territory from the Mississippi Valley eastward about the 18th to 20th, though in a few localities the warmest weather occurred during the first week. West of the Mississippi the warmest days were mainly toward the end of the month.

The coldest periods also occurred mostly during the latter half, and frequently during the last decade, notably over the Great Plains and Gulf States from the 20th to 24th, and over most northern districts from the Dakotas eastward on the 28th or 29th.

PRECIPITATION

Considering the entire country about one-half had precipitation above normal while over the other half it was deficient. The excesses were confined mainly to the Southern States from Texas eastward and to the Great Plains area. Over the Gulf States the amounts ranged from 2 to 5 inches above normal, but in the Great Plains they were usually less than 1 inch above. Over the middle and upper Mississippi Valley and thence eastward to the Atlantic, save in portions of the Appalachian Mountains, precipitation was nearly everywhere less than usually falls in January, and similar conditions existed in the States west of the Rocky Mountains, save locally at a few points in California and elsewhere. Over the coast districts from northern California to Washington the precipitation was mainly from 2 to 4 inches deficient.

Precipitation was rather irregularly distributed for a winter month and ranged from none at numerous points in the Southwest to nearly 15 inches at points in the Southeastern States.

In portions of the lower Lakes there was precipitation on nearly every day, while in the far west, notably in California, there was little until near the end. In the Gulf States there were local heavy falls, particularly in the vicinity of Miami, Fla., where unusually heavy rains occurred on the night of the 29th–30th, flooding low ground and causing heavy losses in the near-by farming districts.

SNOWFALL

Snow was widely but irregularly distributed and measurable amounts were recorded at points far south of its usual occurrence. Greater depths were reported from points in southern Texas, where snow rarely falls, than occurred at numerous points in the Great Lakes region, where the fall is usually heavy.

Generally speaking, there was less snow than usually falls in January, though in limited areas there was more, notably portions of West Virginia and Ohio, where the fall was unusually heavy, and there were some heavy falls in eastern Colorado, northeastern Wyoming and portions of Nebraska and South Dakota.

In southern Texas there were unusually heavy falls about the 23d and 24th, the amounts at numerous points being the greatest ever known.

In the western mountain districts there was mainly less snow than usually falls in January. This was most notable in the high mountains of California and near-by States, where but little snow had accumulated until near the end of the month.

At the close of the month the northern third of the country east of the Rocky Mountains had a more or less general snow cover, though the depths were mainly small except from Pennsylvania to New England, over the upper Lake region and thence westward, except in portions of Montana where there was little or no cover.

In the western mountains the stored snowfall at the higher elevations was far less than normal over the central and southern districts, but to the northward the amounts approached more nearly those common to the end of January.

Despite the moderate warmth of the month conditions were mainly favorable for ice formation of sufficient thickness for harvest and a good supply was gathered over most sections where provision is usually made for its storage.

RELATIVE HUMIDITY

In the main relative humidity was higher than is usually experienced in a midwinter month, though the excesses were not large except locally over the Great Plains and along the east slopes of the Rocky Mountains. It was quite low at a few points in the far Southwest, and generally less than normal over the Appalachian Mountain region.