of ten, as reported principally by voluntary observers, ranges throughout the Middle and Eastern States from 9 to 23; South Atlantic States, 5 to 9; Ohio valley and Tennessee, 8 to 15; Lower Lakes, 9 to 23; Upper Lakes, 5 to 16; Northwest, 6 to 14; from Colorado to the Missouri valley, 3 to 17; Gulf States, 5 to 11. The least cloudiness is reported from Colorado, 3 days, and the greatest from New York, 23 days.

Rainy days.—The number of days on which rain or snow has fallen, as reported by the Signal Service observers, is least at Fort Dodge, Kan., 4 days, and greatest at Rochester, N. Y., 25 days. An average of 4 or 5 days is reported over the region from Nebraska to northern Texas, as also at Galveston and San Francisco; 6 to 7 in northern Florida; 9 to 12 are reported in the remaining portion of the Gulf States, Georgia, South Carolina, and the interior of North Carolina, as also over a narrow belt from Louisiana to Dakota; 19 to 23 are reported from the immediate coast between New Jersey and the Bay of Fundy; 20 to 25 are reported from the southern shores of Lakes Michigan, Huron and Ontario.

RELATIVE HUMIDITY.

The lowest monthly averages of relative humidity have been as follows: Cheyenne and Montgomery, 60; Cairo and Nashville, 59; Fort Gibson, 58; Lynchburg, 54; Salt Lake City, 53; Santa Fe, 32 per cent. The highest monthly averages have been: Mt. Washington, 88, (uncorrected;) Albany and Erie, 82; Cape May and Pembina, 81 per cent.

WINDS.

Prevailing Winds—Are shown by the arrows upon Chart No. II. Southerly winds are reported from numerous stations west of the Mississippi. Southwest to northwest winds are reported from most stations in the Lake region, Middle and Eastern States.

Total movements of the Air.—The largest total movements are: Pike's Peak, 20,646 miles; Cape May, 13; Sandy Hook, 14,060; Cape Lookout, 13,721; Kittyhawk, 13,379; Barnegat, 12,575; Thatcher's Island, 12,126. The smallest total movements have been: Nashville, 4,503; Shreveport, 4,426; Lynchburg, 4,364; Salt Lake City, 4,219; Augusta, 3,964; Dubuque, 3,573.

Highest Winds.—The highest hourly velocities reported during the month are: at Mt. Washington, on the 4th and 19th, NW. 102; Pike's Peak, 6th, 84; Boston, 9th, SE. 72; Dodge City, 3rd, —72; Kittyhawk, 22nd, N. 72, and Breckenridge, — 75, (estimated.)

Local Storms, Tornadoes, &c.—On the 8th tornadoes passed over Mississippi, Alabama and Georgia. One appears to have developed in the southwestern part of Mississippi, passed northeastward to Tallapoosa county, Ala. Another passed over Mitchel, Thomas, Colquit and Worth counties, Ga. Martinsville, Ill., March 20th, 6:40 p. m. to 6:55 p. m. "a regular whirlwind, or series of whirlwinds, moving due east. One passed about twenty links south of house; vortex was from four to six rods wide, blowing down trees, fences, hay-stacks, &c. Another whirlwind, similar to the above, passed about six miles to the north."

VERIFICATIONS.

Indications.—The detailed comparison of the tri-daily weather "Indications" with the telegraphic weather reports for the succeeding twenty-four hours, shows a general percentage of verifications of 84.6, and of omissions 0.5 per cent. The percentages for the four elements have been: Weather, 86.6; Wind, 83.2; Temperature, 85.1; Barometer, 83.7. The percentages for the geographical districts have been: New England, 82.8; Middle Atlantic States, 83 1; South Atlantic States, 88.6; East Gulf States, 89.4; West Gulf States, 85.8; Lower Lakes, 83.2; Upper Lakes, 80.1; Ohio valley and Tennessee, 83.3; Lower Missouri valley, 84.5; Upper Mississippi valley, 85.6.

Cautionary Signals.—During the month 248 Cautionary Signals have been displayed at stations on the Gulf and Atlantic coasts and on Lake Michigan. Of these, 207, or 83 per cent., were justified by subsequent high winds within one hundred miles of the station where they were displayed, and 41, or 17 per cent., were not justified so far as known. Sixty-one instances of high winds when no signals were ordered were also reported from these stations during the month, of which 13 occurred at Cape Lookout, N. C., where the orders to hoist signals were not received, owing to interrupted telegraphic communication.

NAVIGATION.

The highest and lowest stages of the rivers are shown in the table on chart No. III. With but few exceptions the rivers were decidedly higher at the close of the month than at the beginning. Several illustrations have occurred during the month of the effect of strong winds on the depth of water; for instance, southerly winds prevailed throughout the Mississippi and Missouri valleys on the 5th, but a high "norther," on the 6th, 7th and 8th, advanced southward. It prevailed at Omaha from the 6th to 10th; at Leavenworth from the 7th to 10th; at St. Louis and below from the 8th to 10th. The water was driven southward from the upper stations, falling 4 ft. 2 in. at Plattsmouth, 2 ft. at St. Joseph, &c., &c., but was heaped up at Cairo 3 ft. 1 in., and less at lower stations, remaining nearly stationary at St. Louis. Many of the lowest waters recorded on chart No. III occurred during this period.