Voluntary observers of the Signal Service, on land, from whom meteorological reports were received in time to be used in the preparation of the Monthly Weather Review for December, 1884.

Observer and place of observation.

Anderson, Dr. W. W., Stateburg, S. C.
Altaffer, J. M., Independence, Kans.
Adams, Dr. O. H., Vineland, N. J.
Andrews, L., Southington, Conn.
Abbott, Dr. E. K., Salinas City, Cal.
Bennett, Geo. Bandon, Oreg.
Beloit College, Beloit, Wis.
Bell, Joseph, Franklin, Pa.
Bowen, F. W., Humboldt, Iowa.
Brainerd, Dr. H. G., Independence, Iowa.
Baker, Dr. Henry B., Lansing, Mich.
Beall, Dr. R. L., Lenoir, N. C.
Brendel, Fred., Peoria, Ill.
Bentley, David, Princeton, Cal.
Bowman, Peter, Ruggles, Ohio.
Boerner, Prof. Chas. G., Vevay, Ind.
Bartlett, E. B., Vermillion, N. Y.
Baldwin, A. L., Bethel, Conn.
Bardsley, Jas. G., Nephi, Utah.
Briggs, John, Albany, Oreg.
Boggs, W. R., Brevard, N. C.
Beans, Thos. J., Moorestown, N. J.
Betts, Prof. Arthur, Webster, Dak.
Breed, J. E., Embarras, Wis.
Buck, Mrs. R., Red Willow, Nebr.
Baker, Dr. L. J., Ottumwa, Iowa.
Boynton, J. F., Syracuse, N. Y.
Boies, Lieut. A. H., Hudson, Mich.
Becker, Rev. W., Prairie du Chien, Wis.
Ballou, Dr. N. E., Sandwich, Ill.
Boyd, Joseph, Oskaloosa, Iowa.
Blake, J. H., Christmas Prairie, Cal.
Beebe, A., Manistique, Mich.
Beecher, Chas., Newport, Fla.
Bryant, A. F., Yutan, Nebr.
Charbonnier, Prof. L. H., Athens, Ga.
Cook, S. A., Milledgeville, Ga.
Cotton, Dr. D. B., Portsmouth, Ohio.
Clark, A. C., Wausau, Wis.
Casey, Geo., Auburn, N. Y.
Crawford, E. A., Liberty Hill, La.
Curtiss, G. G., Fallston, Md.
Cornell University, Ithaca, N. Y.
Cutler, B. B., Heath, Mass.
Cocke, A. R., Indianola, Iowa.
Cutting, Hiram A., Lunenburg, Vt.
Crosier, Adam, Laconia, Ind.
Caulkins, John S., Thornville, Mich.
Clark, T. A., Weldon, N. C.
Crawford, D. F. G., Leetsdale, Pa.
Coffin, Prof. S. J., Easton, Pa.
Carleton College, Northfield, Minn.
Chandler, Dr. W. J., South Orange, N. J.
Cass, John J., Allison, Kans.
Chase, Pliny E., Haverford College, Pa.
Carter, Rev. Dr. W. H., Tallahassee, Fla.
Comstock, Prof. F. M., Le Roy, N. Y.
Cochran, Wm. P., Clay Centre, Kans.
Calhoun, P. B., Austin, Tenn.
Carpenter, Dr. W. B., Leavenworth, K.
Christ, Jacob, Franklin, Wis.
Cheney, Wm., Minneapolis, Minn.
Cox, Prof. T. E., Emmitsburg, Md.
Caffee, Wm. K., Carthage, Mo.
Collin, Prof. Alonzo, Mt. Vernon, Iowa.
Cooper, Dr. Geo. C., Manatee, Fla.
Couch, E. D., Contoocook, N. H.
Chapin, Miss M. A., Highlands, N. C.
Chapin, Adams, Poway, Cal.
Cleveland, Dr. G. H., Moorestown, Mich.
Cowgill, Mrs. S. P., Sterling, Kans.
Cutler, J. L., Quitman, Ga.
Culver, G. E., Vermilion, Dak.

Observer and place of observation.

Davis, Jacob, Rowe, Mass.
Dickinson, Jas. R., Guttenberg, Iowa.
Dechant, Wm., Tamaqua, Pa.
Deming, H. D., Wellsboro, Pa.
Dozier, Wm., Mattoon, Ill.
Dewhurst, Rev. E., Voluntown, Conn.
Day, Theodore, Dyberry, Pa.
Dawson, Wm., Spiceland, Ind.
Dunton, Lieut. W. R., Dorset, Vt.
Dunlap, W. L., Tecumseh, Nebr.
Dow, Roswell, Sycamore, Ill.
Dudley, C. B. Altoona, Pa.
Doton, Hosea, Woodstock, Vt.
Douglas, Dr. B. H., Asheville, N. C.
Davis, Prof. C. F., Fort Collins, Colo.
Eliason, W. A., Statesville, N. C.
Eckstein, Rev. M., Conception, Mo.
Ellis, John, Marquette, Nebr.
Ellsworth, W. W., Hartford, Conn.
Elliott, J. C., Swanwick, Ill.
Fernald, Prof. M. C., Orono, Me.
Friend, Chas. W., Carson City, Nev.
Fleming, John, Readington, N. J.
Ferris, B. F., Sunman, Ind.
Fouch, Dr. A., College City, Cal.
Foss, E. T., Hydesville, Cal.
Fox, F. E., Fall Brook, Cal.
Ferguson, W., Paterson, N. J.
Gates, W. B., Burlington, Vt.
Gillingham, W., Accotink, Va.
Grathwohl, John, Blooming Grove, Pa.
Gillingham, Milnor, Fallsington, Pa.
Gardiner, R. H., Gardiner, Me.
Gowey, H. D., North Lewisburg, Ohio.
Gibson, John H., Salina, Kans.
Green, Dr. Jesse C., West Chester, Pa.
Gerrish, S. H., Sacramento, Cal.
Gray, J. W., Stockham, Nebr.
Gray, F. R., Yates Centre, Kans.
Goodwin, Wm., North Colebrook, Conn.
Geddings, Dr. W. H. Aiken, S. C.
Gregory, J. W., Sherlock, Kans.
Gibbs, Geo. J., Grand Turk, British West Indies.
Heath, E. R., Wyandotte, Kans.
Horn, Dr. H. B., Atchison, Kans.
Hiram College, Hiram, Ohio.
Harvard College Observatory, Cambridge, Mass.
Hammitt, John W., College Hill, Ohio.
Heaton, Isaac E., Fremont, Nebr.
Helm, Thos. B., Logansport, Ind
Hoskinson, R. M., Bainbridge Island, Wash Ter.
Hunter, Dr. T. C., Wabash, Ind.
Haywood, John, Westerville, Ohio.
Hyde, G. A., Cleveland, Ohio.
Hassler, B. K., Chambersburg, Pa.
Hartzler, J. A., Mottville, Mich.
Hall, J. B., Worcester, Mass.
Hazen, L. G., Terre Haute, Ind.
Hurlin, Rev. Wm., Antrim, N. H.
Howe, Prof. J. L., Richmond, Ky.
Hoyt, F. C., Easton, Pa.
Houghton Farm Experiment Station, Mountainville, N. Y.
Heatwole, L. J., Dale Enterprise, Va.
Hurley, J. M., Lancaster, Wis.
Harris, Thos. C., Raleigh, N. C.
Heacock, J. L., Quakertown, Pa.
Hazen, Rev. A., Deerfield, Mass.
James, John W., Marengo, Ill.
Jones, Dr. E. U., Taunton, Mass.

Observer and place of observation.

Jordan, Dr. M. D. L., Milan, Tenn.
Jones, Ira B., Neillsville, Wis.
Knapp, J. G., Limona, Fla.
Keese, G. Pomeroy, Cooperstown, N. Y.
Kuhne, F. W., Fort Wayne, Ind.
Keeler, W. F., Mayport, Fla.
Kirkwood, E., Manzy, Ind.
Kent, Miss E., Phillipsburg, N. J.
Lueps, Miss Johanna, Manitowoc, Wis.
Lincoln, A. T., Marion, Va.
Loomis, J. C., Jeffersonville, Ind.
Lay, Dr. J. C., Pueblo, Colo.
Lucas, Dr. G. L., Albion, Idaho.
Luther, S. M., Garrettsville, Ohio.
Ladshaw, Geo. E., Pacolett, S. C.
Lovewell, Prof. J. T., Topeka, Kans.
Miller, H. D., Drifton, Pa.
McDonogh Institute, McDonogh, Md.
McCready, Miss L. A., Fort Madison, Iowa.
Moore, C. R., Johnsontown, Va.
Munn, A. M., Kalamazoo, Mich.
Metcalf, Dr. John G., Mendon, Mass.
Micklem, J. Howard, Variety Mills, Va.
Meehan, Thos., Germantown, Pa.
Moore, Nathan, Grampian Hills, Pa.
Mikesell, Thos., Wauseon, Ohio.
McPherson, Wm., San Rafael, Cal.
McClintock, F., West Union, Iowa.
Marshall, G., Cresco, Iowa.
Neal, Dr. J. C., Archer, Fla.
Newbegin, John D., Anna, Ill.
Nelson, P. P., Northport, Mich.
Neill, Thos., Sandusky, Ohio.
Newcomb, G. S., Westborough, Mass.
Nourse, H. D., Washington, D. C.
Noll, A. B., Somerville, N. J.
Nordberg, A., Richardton, Dak.
Nicholson, Dr. A. W., Boyne, Mich.
Nickerson, W. W., Klamath Agency, Oreg.
Osborn, Dr. Thos. C., Cleburne, Tex.
Osmond, Prof. I. T., State College, Pa.
Olds, H. D., Cedar Rapids, Iowa.
Owsley, Dr. J. B., Jacksonborough, O.
Pearce, Thomas, Eola, Oreg.
Parmelee, Francis D., Hillsdale, Mich.
Pierson, Rev. J., Ionia, Mich.
Powrie, W., Sussex, Wis.
Parrish, Geo. W., Ellensburg, Wash. T.
Patterson, Wm., Salem, N. J.
Partrick, J. M., North Volney, N. Y.
Purdue University, La Fayette, Ind.
Prosser, Chas. S., Ithaca, N. Y.
Remington, C. V. S., Fall River, Mass.
Robertson, T. D., Rockford, Ill.
Rogers, F. M., Luling, La.
Renfrew, H. N., Wilton Center, Ill.
Rodman, Thos. R., New Bedford, Mass.
Rockwood, Prof. C. G., Princeton, N. J.
Shaw, J., Chester, Minn.
Shriver, E. T., Cumberland, Md.
Seltz, Chas., De Soto, Nebr.
Scott, Thos. G., Forsyth, Ga.
Stucky, Dr. C. T., Helvetia, W. Va.
Stern, Jacob T., Logan, Iowa.
Slade, Elisna, Somerset, Mass.
Slenker, Mrs. E. D., Snowville, Va.
Scribner, H. F. J., Strafford, Vt.
Shriver, Howard, Wytheville, Va.
Smith, H. D., Monticello, Iowa.
Shahan, Chas. C., Edgington, Ill.
Safford, A. T., Williamstown, Mass.

Observer and place of observation.

Sherman, W. B., Manchester, Iowa.
Smith, Rev. D. W., Troy, Pa.
Samostz, Oscar, Austin, Tex.
Spooner, Lieut. G. H., Blacksburg, Va.
Staudenmayer, Dr. L. R., Lincolnton, N. C
Snell, Miss S. C., Amherst, Mass.
Sanderson, H. S., Clarksville, Tex.
Shaw, E., Maud, Kans.
Sim, John R., Summit, Va.
Sewell, T. M., New Athens, Ohio.
Sommerville, W. B., Birmingham, Ala.
Snow, Prof. F. H., Lawrence, Kans.
Shepard, E. M., Springfield, Mo.
Starr, Prof. F., Cedar Rapids, Iowa.
Sadler, Prof. H. E., Emporia, Kans.
Spilman, J. J., Pierce City, Mo.
Stone, W. E., Amherst, Mass.
Trembley, Dr. J. B., Oakland, Cal.
Todd, Prof. David P., Amherst, Mass.
Teele, Rev. A. K., Milton, Mass.
Truman, Geo. S., Genoa, Nebr.
Turnbo, Silas C., Pro Tem, Mo.
Tillinghast, C. B., Albany, N. Y.
Turner, Ernest, Point Pleasant, La.
Tyrrel, A. C., Madison, Nebr.
Treimer, Geo., Round Grove, Iowa.
Upton, Prof. W., Providence, R. I.
Van Inwegen, C. F., Port Jervis, N. Y.
Voegeli, Adolphus, Des Moines, Iowa.
Venable, Prof. F. P., Chapel Hill, N. C.
Washburne Observatory, Madison, Wis.
Wild, Rev. E. P., Newport, Vt.
Williams, Rev. C. F., Ashwood, Tenn.
Wing, Miss M. E., Charlotte, Vt.
West, Silas, Cornish, Me.
Went, E. C., Frankfort, Ky.
Wylie, Wm., Mount Forest, Canada.
Whittington, G., Mount Ida, Ark.
Walton, J. P., Muscatine, Iowa.
Wait, S. E., Traverse City, Mich.
Woodstock College, Woodstock, Md.
Wolfe, John H., Wellington, Kans.
West, Dr. Jos. O., Princeton, Mass.
Washington Aqueduct, { Receiving Reservoir, D. C / Distributing " / Great Falls Reservoir, Md / Rock Creek Bridge, D. C.
Winipiseogee Lake Cotton and Woolen Manufacturing Co., { Weir's Bridge, N. H. / Woodstock, N. H. / Wolfborough, N. H. / Lake Village, N. H. / Bristol, N. H. / Belmont, N. H. / Ashland, N. H.
Willis, O. R., A. M., Ph. D., White Plains, N. Y.
Williams, Dr. A. C., Elk Falls, Kans.
Whitney, Chas. E., Humphrey, N. Y.
Wigg, Dr. Geo., East Portland, Oreg.
Watters, Dr. Jas., Holton, Kans.
Woods, Mrs. Dr. A. G., Maynard, Iowa.
Wetmore, E. L. Tucson, Ariz.
Wright, J. W. A., Greensboro, Ala.
Watson, Dr. S. T., Nayatt Point, R. I.
Wadsworth, Dr. J. L. R., Collinsville, Ill.
Watson, Evan, Fort Scott, Kans.
Widman, Rev. C. M., Grand Coteau, La.
Wistrom, M. F., Harvard, Nebr.
Worth, J. M., Kelley's, N. C.
Yetter, Wm. G., Catawissa, Pa.
Yates, T. P., Factoryville, N. Y.
Young, Geo. R., Penn Yan, N. Y.
Zimmerman, F. C., Bunker Hill, Ill.

Military posts from which meteorological reports were received, through the Surgeon General of the Army, in time to be used in the preparation of the Monthly Weather Review for December, 1884.

Alcatraz Island, Cal.
Angel Island, Cal.
Assinaboine, Fort, Mont.
A. Lincoln, Fort, Dak.
Benicia Barracks, Cal.
Bidwell, Fort, Cal.
Buford, Fort, Dak.
Brady, Fort, Mich.
Bridger, Fort, Wyo.
Brown, Fort, Tex.
Barrancas, Fort, Fla.
Concho, Fort, Tex.
Columbus, Fort, N. Y.
David's Island, N. Y. H.
Ellis, Fort, Mont.
Fred Steele, Fort, Wyo.
Gaston, Fort, Cal.
Hamilton, Fort, N. Y.
Klamath, Fort, Oreg.
Keogh, Fort, Mont.
Lyon, Fort, Colo.
Lewis, Fort, Colo.
Mason, Fort, Cal.
Madison Barracks, N. Y.
McDermitt, Fort, Nev.
Monroe, Fort, Va.
McHenry, Fort, Md.
Meade, Fort, Dak.
Mount Vernon B'ks, Ala.
Niagara, Fort, N. Y.
Presidio of San Francisco, Cal.
Plattsburg Barracks, N. Y.
Randall, Fort, Dak.
Robinson, Fort, Nebr.
Snelling, Fort, Minn.
Saint Augustine, Fla.
Sully, Fort, Dak.
Sisseton, Fort, Dak.
Shaw, Fort, Mont.
Townsend, Fort, Wash. T.
Totten, Fort, Dak.
Union, Fort, N. Mex.
West Point, N. Y.
Wingate, Fort, N. Mex.
Yates, Fort, Dak.

State weather services from which meteorological reports were received in time to be used in the preparation of the Monthly Weather Review for December, 1884.

Alabama State Weather Service, under direction of Prof. P. H. Mell, Jr., Auburn, Alabama.
Louisiana Weather Service, under direction of Mr. Robert S. Day.
Missouri State Weather Service, under direction of Prof. Francis E. Nipher, Saint Louis, Mo.
Nebraska State Weather Service, under direction of Prof. Goodwin D. Swezey, Crete, Nebraska.
Indiana Volunteer Weather Service, under direction of Prof. W. H. Ragan, Greencastle, Indiana.
Indiana State Weather Service, under direction of Prof. H. A. Huston, La Fayette, Indiana.
Iowa State Weather Service, under direction of Prof. Gustavus Hinrichs, Iowa City, Iowa.
Tennessee State Weather Service, under direction of Hon. A. J. McWhirter, Nashville, Tennessee.
Minnesota State Weather Service, under direction of Prof. W. W. Payne, Northfield, Minnesota.
Illinois State Weather Service, under direction of Mr. S. D. Fisher, Springfield, Ill.
New England Meteorological Society: Prof. Winslow Upton, of Providence, director; Mr. W. M. Davis, of Cambridge, secretary.
Data have also been used from meteorological records of the Central Pacific and Southern Pacific railway companies.