

Department of Meteorology and Climatology

The Director,

Nevada Agricultural Experiment Station,

Sir:—

The report of the Department of Meteorology and Climatology for the year ending June 30, 1908 has ^{been} included with the report of last year in Bulletin No. 67 (June, 1908):
 "The Wt. Rose Weather Observatory, 1906-1907, with Notes on the Progress of the Observatory, 1907-1908," now in press.

The satisfactory study of Frost Forecasting from Mountain tops ~~has~~ ^{is} now ~~been~~ assured by the completion of a long-range meteorograph designed by S. P. Ferguson of Blue Hill Observatory especially for this work.

The recording of photographic evidence on the Influence of Mountain Forests upon the Conservation of Snow has been greatly facilitated by the purchase of a Century Circuit Camera suitable for either panoramic or plate work. During the year trips were made to the upland region between Truckee and Mt. Pluto, to the source of the Yuba River at Summit, California, and to the streams that flow eastward from Mt. Rose.

The publications of the Department during the year include
 "The Wt. Rose Observatory, 1905-1907" ... Sierra Club Bulletin
 Vol. 6 (1907) No. 3, pp 177-185-

"Electric Disturbances and Perils on Mountain Tops" . . .

Monthly Weather Review Vol. xxxv No. 12 (December, 1907),
pp. 578-579.

Respectfully submitted,

Signed: J. E. Church, Jr.,
Co-operative Observer

DEPARTMENT OF METEOROLOGY AND CLIMATOLOGY.

The Director,
Nevada Agricultural Experiment Station.

Sir:--

The report of the Department of Meteorology and Climatology for the year ending June 30, 1908, has been included with the report of last year in Bulletin No. 67 (June, 1908): "THE MT. ROSE WEATHER OBSERVATORY, 1906-1907, WITH NOTES ON THE PROGRESS OF THE OBSERVATORY, 1907-1908", now in press.

The satisfactory study of Frost Forecasting from Mountain tops is now assured by the completion of a long-range meteorograph designed by S. P. Fergusson of Blue Hill Observatory especially for this work.

The recording of photographic evidence on the Influence of Mountain Forests upon the Conservation of Snow has been greatly facilitated by the purchase of a Century Cirkut Camera suitable for either panoramic or plate work. During the year trips were made to the upland region between Truckee and Mt. Pluto, to the source of the Yuba River at Summit, California, and to the streams that flow eastward from Mt. Rose.

The publications of the Department during the year include
"The Mt. Rose Observatory, 1905-1907" . . . Sierra Club Bulletin,
Vol. 6 (1907) No. 3, pp. 177-185.

"Electric Disturbances and Perils on Mountain Tops" . . . Monthly Weather
Review Vol. XXXV No. 12 (December, 1907), pp. 576-579.

Respectfully submitted,

Signed: J. E. Church, Jr.,

Co-operative Observer.

LAST PARAGRAPH OF THE ANNUAL REPORT FOR THE YEAR 1908-1909, AGRICULTURAL EXPERIMENT STATION, UNIVERSITY OF NEVADA.

It is the ambition of the department to lay the foundations for the extensive study of the snow, which is now finding its incentive in the reclamation work now claiming the public attention. The scientific aspect of the problem is naturally its most attractive feature, yet its practical application is immediate. The knowledge of the exact relationship of the forest cover to the snow will be invaluable to the Forestry Department in so conserving forests and thinning them as to provide the largest possible conservation of the snow. It will also aid the forecaster by more fully appreciating the nature of the snow and its environment to predict floods and to estimate the summer run-off. An example of this kind is furnished by the Lake Tahoe basin itself, where careful estimate of the tendency to flooding must be made, in order to dam the lake to its maximum height without exposing the shores to sudden inundation by freshets from the watershed. By carefully determining the snow content of the various districts of the watershed and the tendency of each to lose its snow under climatic influence, such knowledge of the run-off can be acquired as to predict the result to the lake level within close limits, and a similar study of other watersheds would give the forecaster similar mastery of prediction there. In this way the cause of agriculture under irrigation can be materially advanced.