SNOW SURVEYORS SEMINAR

WHITEFACE MOUNTAIN
Dec. 5, 1968

On December 5, 1968, a group of 28 snow pluggers met at the ASRC field station on Whiteface Mountain for a seminar on snow surveying. Represented were members of power companies, river regulating districts, paper companies, and state and federal agencies. A list of participants follows this summary.

Talks were given by Ray Falconer of the Atmospheric Sciences Research Center in Albany, Donald Quick, US Weather Bureau, Albany, Livingston Lansing, Atmospheric Sciences Research Center Field Station in Boonville, and Joe Lalley, US Geological Survey, Albany.

Ray Falconer welcomed the group and gave a brief description of the various studies being conducted at the Whiteface Mountain Field Station. He showed slides of some of the projects and described the projects and various people visiting and studying at the ASRC field station. Ray also acted as chief cook and bottle washer for the group. Along with all these chores, Ray also performed his regular duty of weather forcasting.

Don Quick displayed various equipment used to measure snow. This equipment varied from the latest device, a fiberglass Adirondack snow tube, to an 8 inch rain gage with a saw tooth cutter attached. Also on display was an aluminium Adirondack snow tube still widely used by many cooperators in the northeast and a Mount Rose snow sampler which is very popular in the Western States. Don discussed the two major weather systems that affect New York State in relation to snow fall. Specifically, these are coastal lows or more commonly known as "Northeasters" and the locally heavy producing "Lake Effect Storms." As an illustration, Don showed the river forcast network for the Hudson and Mohawk River Basins and the relationship of the two storm systems to these basins. He explained how the river observers report snow depth and water content to the Albany office where the data is used for forcasting floods in the Mohawk and Hudson River Basins. Discussions followed with questions and answers plus comments from many of the participants.

Liv Lansing spoke on personal experiences of measuring snow in the Tug Hill area of New York State. After a brief discussion, Liv gave a few recommendations he felt should be incorporated into the New York Cooperative Snow Survey. These items were: a fifth snow survey at the end of March of the beginning of April, a map showing the location of the snow courses measured in New York State, permission from land owners where snow courses are located to brush out and maintain these courses, recommend level land & north or northeast exposure for snow courses, and making sure the mud or ice is removed from the cutter before each sample is taken.

Liv then passed around some photos showing unusual snow formations and extreme snow depths. He also showed some slides of unusual snow formations and snow loads experienced in the Tug Hill area. Some of the slides were taken during the winter of 1963 when a snow depth of 70 inches was measured during March. Even more amazing were some slides that showed snow up to the

eves of Liv's garage, snow depths along the road almost twice the height of a car and a large accumulation of snow on a stump which Liv called a "snow mushroom."

Joe Lalley talked on the history of snow surveying. As far back as 1830 some estimate of water equivalent was made on an area in the Upper Chenango River Basin. The method of estimation is not known nor is any of the data available, but this perhaps was the first attempt at snow surveying. Joe also spoke on the history of snow measuring equipment and its application since snow surveying started. Advantages and disadvantages were cited for the present day equipment.

A brief description of the processing of snow surveys was discussed from the time a snow survey is made until its final publication in the Snow Cover Survey bulletin published by the ESSA.

Some recommendations were made in regard to standardization of snow surveying methods such as: maintenance of snow courses, number of samples per snow course, location of snow course, prompt reporting, soil conditions and the standardization of equipment.

After some open discussion and a lunch break, the entire group adjourned to the outdoors where mother nature provided plenty of snow, wind, and cold for a demonstration of the various types of equipment. The results were pretty much what was anticipated. Both fiberglass snow tubes used with different cutters showed almost the same results. The Mt. Rose snow tube seemed to over measure compared with the Adirondack snow tube, and the 8 inch rain gage was slightly deficient but was more comparable than the Mt. Rose tube.

An open discussion followed the measuring demonstration and then the meeting was adjourned.

The consensus of comments seemed to indicate that the school was successful and that most of the participants would recommend another worthwhile school in the future.

Joe Lalley

Joe Lalley, Editor
New York Cooperative
Snow Survey