

By

L. Lansing 1/

The 1950 Conference was, I believe, the 7th Annual Conference. Previous to that, we understand from the records, the Eastern Snow Conference got under way in 1939 or 1940, did not take place during the war years, and resumed in 1946 or 1947.

The first known snow survey with documented methods is found in a letter dated March 7, 1903, from Charles A. Mixer, Resident Engineer of the Rumford Falls Power Company at Rumford Falls, Maine, on the Androscoggin River, to Dr. H. C. Frankenfield, in charge of the River and Flood Service of the Department of Agriculture.

Meanwhile in 1906 across the continent in the high Sierras near Reno, Nevada, a young professor of the classics offered to climb Mount Rose every month of the year to obtain temperature readings, snow depth, and water content of the snow. This man was Dr. James E. Church, the father of snow surveying as we know it today.

Somewhat later in the East, in the early 1930's, Ed Cullings, Chief Engineer of the Black River Regulating District, started the Adirondack Snow Survey in the Black River Basin area of the western Adirondacks. Later Cullings became a prime mover in the founding of the Eastern Snow Conference.

In the early 50's, besides snow, there was much emphasis, as we can recall, on frazil and anchor ice, both of which often impeded the flow into hydro power plants. Later on there were papers on the developing ski industry, and how snow surveys were used to locate some of the best ski sites. Snow removal techniques used by railway and highway officials appeared in other papers. Later, in the 60's, many papers dealt with snow cover in various types of hardwoods and softwoods, and the length of snow-covered seasons in these stands.

During the 60's also there were quite a number of papers on lake effect snow conditions over the lee shores of Lakes Erie and Ontario, and back from the shores as much as 50 or 60 miles. All during these periods there were many discussions of snow survey methods and equipment. More recently sampling of snow for chemical analysis has started with emphasis on the acidity of the snow cover in conjunction with acid precipitation studies.

At best we have touched on just a few points that stayed in our mind through the years. A perusal of programs for the Conference will indicate a wide variety of interests by a very diverse group of members, all of whom have been interested in ice and snow, one way or another.

The Eastern Snow Conference basically has been made up through the years of hydrologists, meteorologists, geologists who are involved with ground water and stream flow, foresters, engineers, persons involved with snow removal, with flood control, with operating hydro plants, geographers, educators, research scientists, consultants involved in increasing precipitation on watersheds, and many others.

A few government agencies and corporations have been strong backers and their personnel have attended most Eastern Snow Conferences. Among those who have been strong participants are the Hudson-Black River Regulating District, the New England Power Company, the U. S. Geological Survey - especially the offices at Albany and Boston, the U. S. Weather Bureau - now the National Weather Service - particularly the offices at Buffalo, Albany, Hartford and Boston, the U. S. Forest Service, the U. S. Army Cold Regions Research and Engineering Laboratory (CRREL) at Hanover, New Hampshire, the McGill University Sub-Arctic Laboratory, Hydro Quebec, and Ontario Hydro, to name only a small portion of all those who have participated over the years.

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1/ ASRC-SUNY, Tug Hill Field Station, Boonville, New York

Through the years the Conference appears to fall into five different groups, based on the areas covered. First we think of the New Englanders, especially the State of Mainers who have long been involved with river flow and regulation in that far northeastern State. Another group is represented by the New York Staters, the Pennsylvanians and the New Jerseyites, where the terrain varies from the Great Lakes through the Appalachian mountains to the Atlantic coastal plain. Then up in Canada are the Atlantic provinces with interests in the effects of snow on forests and hydro power, then the French speaking Quebecers with their vast snow-covered area and the enormous interest in hydro development, and last but not least, the people from Ontario with their vast expanse from Lake Ontario to the Hudson Bay, with a diverse interest in all kinds of snow problems.

For the first few years Burt Fear was the Conference Secretary. He was soon followed by Dean Bogart of the Albany office of the U. S. Geological Survey. In the late 50's Bogart was transferred to Puerto Rico, and Gordon Ayer became the secretary at that time, and his tenure extended well into the 70's. Ron Allen, also from the Albany office, as was Gordon Ayer, served for several years, followed by Bob Sykes at the State University College at Oswego, who recently turned the job over to Don Dunlap.

At the first meeting we attended at the Weldon Hotel, Greenfield, Mass., in February 1950, B. L. Bigwood was president, H. M. Nelson was Vice-President, and H. W. "Burt" Fear was Secretary. During this meeting Bryant Hopkins was named chairman of a committee to prepare a history of snow surveys in the Eastern Snow Conference area. The report of the equipment committee was given by E. B. Shupe, substituting for E. S. Cullings of the Black River Regulating District, the chairman. Dr. Vincent Schaefer and others took part in the discussion.

Names that are prominent in those early years during the 50's, and who became president during that period of time were H. M. "Fin" Finlayson of the Shawinigan Water and Power Company of Montreal, Dr. Carrol Merriam of the Safe Harbor Power Company, Pennsylvania, who was Dean of the Conference in those early years and retired to Prospect Harbor, Maine, at the end of the 50's, a gentleman and scholar in every respect.

Charlie Knox of the USGS Boston office, an interesting New Englander with a dry sense of humor, preceded the speaker as president of the Eastern Snow Conference in the mid 50's. Also we had the services of J. A. S. "Archie" Milne of Ontario Hydro, one of the leading lights of that Company and noted for his wearing of the kilts. Then there was Art Simmonds, New England Power Company in Littleton, N. H., with whom we corresponded for many years, and who was a true friend. Among other officials or snow surveyors of New England Power we especially recall Bill Sullivan of Shelburne Falls in Massachusetts.

Then there was Ernie Johnson, that misplaced southerner who headed up the Albany office of the U. S. Weather Bureau for many years, not to mention Elliott Childs with the Corps of Engineers in Boston, plus the two real down-easters with the well-known Main accent, and both from the Kennebec Water Power Company, namely Bryant Hopkins and Otis Bacon. Among the New York Staters there was Art Brown of the Hudson River Regulating District and a long-time snow surveyor who posed the question at each conference - "Will someone tell me how you get over a four-strand fence on snowshoes?", and was inevitably given the same answer - "Wait until the snow is deep enough to make it a two-strand fence".

Also from New York State was Cullings' successor, Levi Gaylord, Chief Engineer for the Black River Regulating District. In the very early 60's Sam Lazier, Professor of Civil Engineering at Queens University in Kingston, Ontario, became active in the Conference, and continues so today. Also at about the same time and in much the same way, Art Eschner of the State College of Forestry at Syracuse followed in Lazier's footsteps, along with the well-known Ray Falconer of the Atmospheric Sciences Research Center, State University of New York at Albany, a long-time radio-weather forecaster, who became very active, along with the genial "Hap" Hayes of the USGS in Augusta, Maine, not to mention Oscar Tenenbaum, chief of the Boston office of the U. S. Weather Bureau - more on him later - and T. Lloyd Richards of Toronto, Department of Transport, Metro Branch, who offered many papers on snow cover in Ontario and lake effect storms that affected the snow belt of Ontario lying southeast of Lake Huron.

Then there was Barney Wiggin, our old boss and in charge of the Buffalo office of the Weather Bureau, a native of Maine who pronounced the Western New York highway people consistently plowed snow into the wind, when any Main sea captain knew when you had to spit, you

always spat down wind. Others we recall in that period were Bob Muller of the Syracuse University Department of Geography, and a man who made the best snow map of New York State ever, which defines the snowbelts of the State to the lee of the Great Lakes and defines, in addition, the snow shadow areas of the State in the valleys of the Genesee, the Hudson, and Lake Champlain. Others who joined at various times in the 60's were Charlie Hopkins of Hartford, U. S. Weather Bureau River Forecaster for New England, and Bob Sykes, a forecaster of many words and of unusual ways of measuring snowfalls, plus an authority on lake-effect storms at the east end of Lake Ontario. Bob has served as an instructor and professor of meteorology for many years at the State University of New York, Oswego campus. Lew Cross, with the Charles T. Main Company in Boston, is another long-time member who has served as president of the Conference.

Then there was Don Quick, long-time Weather Service technician who served the large cooperative network of weather observers in New York State, and who regularly called on us in that capacity at our home in Boonville. Also Ken Mayhew, our good friend over the years, now Chief Engineer of the combined Hudson-Black River Regulating District, and working on studies for a new flood control and hydro dam at Hawkinsville, on the Black River, just east of Boonville. Last, but not least, during that period, Bob Beaumont of the U. S. Soil Conservation Service office in Portland Oregon, a long-time snow surveyor and developer of the snow pillow in the West.

Finally, in more recent years, that is the 1970's, along came Don Dunlap, then the Weather Service State Climatologist for New Jersey and a professor at Rutgers University, and a long-time member of the Eastern Snow Conference. Also another friend, Dr. Boyd Pack of Cornell University, former New York State Climatologist with the Weather Service, and attached to the meteorology program in the Agronomy Department at Cornell. Then there was a Canadian long involved with snow cover surveys and active in the Conference in the 70's, one Don McMullen, along with many others whose names can be found in the programs from the 50's to the early 80's.

A few of the incidents we recall were the "snow fu" awards, one of which the speaker was presented for his reported activity of "making snow measurements in woodchuck holes". We also seem to recall that Bob Sykes got one of these awards for staying up all night and all day making visibility observations of intense lake-effect snowfalls and converting those visibility observations to inches of snow during that period. It was never explained just how Bob could compare this system which produced prodigious amounts of snow when compared to the stick method, because settling of the snow was not taken into consideration, and how does one discriminate in visibility measurements between wind-blown snow and regular falling snow? (Since giving this talk to the joint meeting of the Eastern and Western Snow Conferences, we now find that Bob won the "snow fu" award, not for the above, but for the fact that he was able to schedule a massive lake-effect snow storm in 1972, that snowed everyone in at the time the Eastern Snow Conference was held in Oswego. Bob is said to have made the forecast, a year in advance, that the participants could get to Oswego, but not get out.)

We also recall a paper presented by a Professor Chapsky of the University of Vermont at the Burlington Snow Conference sometime in the early 60's, entitled "Melting Points of Thin Ice Sheets", which probably took the all-time award for not being understood, and as a result, for putting many people to sleep. In the end, when the listeners were awakened for the question and answer session, about the only one who seemed able to comprehend anything at all of the professor's blackboard talk and complicated equations was Dr. Vincent Schaefer, a long-time snow conference member and renowned scientist.

Something must certainly be said about the mid-winter trips to conference sites, many of which were beset by severe winter snowstorms. We recall especially the trip back home from Burlington, Vermont, with Bill Carnes of Pulaski, New York, conference member and long-time superintendent of track for the St. Lawrence Division of the New York Central Railroad at Richland, in the heart of the Lake Ontario snowbelt. Rather than going north to swing all the way around Lake Champlain, we decided in the darkening hours of late afternoon to cross the middle of the lake on the ice, in a raging snowstorm, following the willow wands set up in the ice and snow to mark the road across the lake. Somehow we got off this road in the blinding storm and wandered around for nearly ten minutes before we could find the trail again. If you have never been in a position like this on a large lake in a blinding snowstorm at dusk, you have got an experience coming to you. To make a long story short, we finally got headed back to Burlington and got back on the highway system that went around over the top of the lake. One thing we learned was no more short cuts over a desolate lake in a blinding winter snowstorm. We got back as far as Gouverneur, in St. Lawrence County,

the next day, with the storm continuing. At this point Carnes, who had a rail pass, said "I am going to get on the train", and left us to drive home alone the rest of the way.

Finally, there was the infamous trip to the conference at Quebec City in 1963, in which we recall we drove with Ray Falconer and the Western Snow Conference's Bob Beaumont as passengers. Stopping in late afternoon at a small Quebec town, we tried to get a cup of coffee while Ray Falconer took time out to make one of his regularly scheduled radio broadcasts over 'phone wires to the various U. S. radio stations he serviced. However, no one in the town could speak English and any French we knew was so rudimentary that we were offered beer, water, sandwiches, and several other items of food, but not the coffee we so desperately wanted. Arriving in Quebec their famous month-long winter carnival was under way - a sort of Mardi Gras of the North. Everyone was loaded, so to speak, and for once a Conference had more emphasis on playing around than in attending the papers presented, some of which were in French. The Quebecers themselves, with the temperatures well below zero, Fahrenheit, forded the St. Lawrence River with a kind of punt, jumping from ice cake to ice cake in the rapidly flowing river - something it must have taken quantities of the "cup that cheers" to accomplish. At a ski exhibition most of the spectators standing on snowbanks with their proverbial bottles, slid off these snowbanks and landed under the parked cars, and had to be rescued by a group of equally inebriated local residents. Later, Oscar Tenenbaum of the Boston Weather Bureau office started home in a blinding snowstorm through the eastern townships of Quebec, where he became completely mired in the snow for several days, and not being able to speak a word of French, was at a considerable disadvantage. Oscar finally made it back to Boston in three days, a trip that normally takes one day, and he said "that's one snow conference I will never forget, for several reasons".

ANNUAL MEETINGS OF THE EASTERN SNOW CONFERENCE, 1949-1982

<u>Meeting</u>	<u>Year</u>	<u>Location</u>	<u>President</u>
6th	1949	Greenfield, Mass.	H. B. Kinnison
7th	1950	Greenfield, Mass.	B. L. Bigwood
8th	1951	Lake Placid, N. Y.	Bryant L. Hopkins
9th	1952	Springfield, Mass.	Elliott F. Childs
10th	1953	Albany, N. Y.	Leon H. Mann
11th	1954	Greenfield, Mass.	Ernest C. Johnson
12th	1955	Burlington, Vt.	H. M. Finlayson
13th	1956	Hanover, N. H.	Charles E. Knox
14th	1957	Syracuse, N. Y.	Livingston Lansing
15th	1958	Worcester, Mass.	Arthur T. Simmonds
16th	1959	Cambridge, Mass.	George E. Townsend
17th	1960	Troy, N. Y.	Richard A. Lane
18th	1961	Northfield, Vt.	Gordon S. Hayes
19th	1962	New Haven, Conn.	Ralph F. Kresge
20th	1963	Quebec, P. Q.	Leonard Cartier
21st	1964	Utica, N. Y.	Elmer L. Munger
22nd	1965	Hanover, N. H.	Otis Bacon
23rd	1966	Hartford, Conn.	George H. Scruton
24th	1967	Niagara Falls, Ont.	J. A. S. Milne
25th	1968	Boston, Mass.	Nicholas Lally
26th	1969	Portland, Maine	L. L. Cross, Jr.
27th	1970	Albany, N. Y.	David R. Campbell
28th	1971	Fredericton, N. B.	Gaynor P. Williams
29th	1972	Oswego, N. Y.	Donald N. McMullen
30th	1973	Amherst, Mass.	Robert E. Lautzenheizer
31st	1974	Ottawa, Ont.	Raymond E. Falconer
32nd	1975	Manchester, N. H.	Charles D. Hopkins, Jr.
33rd	1976	Glens Falls, N. Y.	Robert B. B. Dickison
34th	1977	Belleville, Ont.	Arthur B. Eschner
35th	1978	Hanover, N. H.	John E. Peters
36th	1979	Alexandria Bay, N. Y.	Donald V. Dunlap
37th	1980	Peterborough, Ont.	Samuel S. Lazier
38th	1981	Syracuse, N. Y.	Wayne Tobiasson
39th	1982	Reno, Nevada	Barry E. Goodison