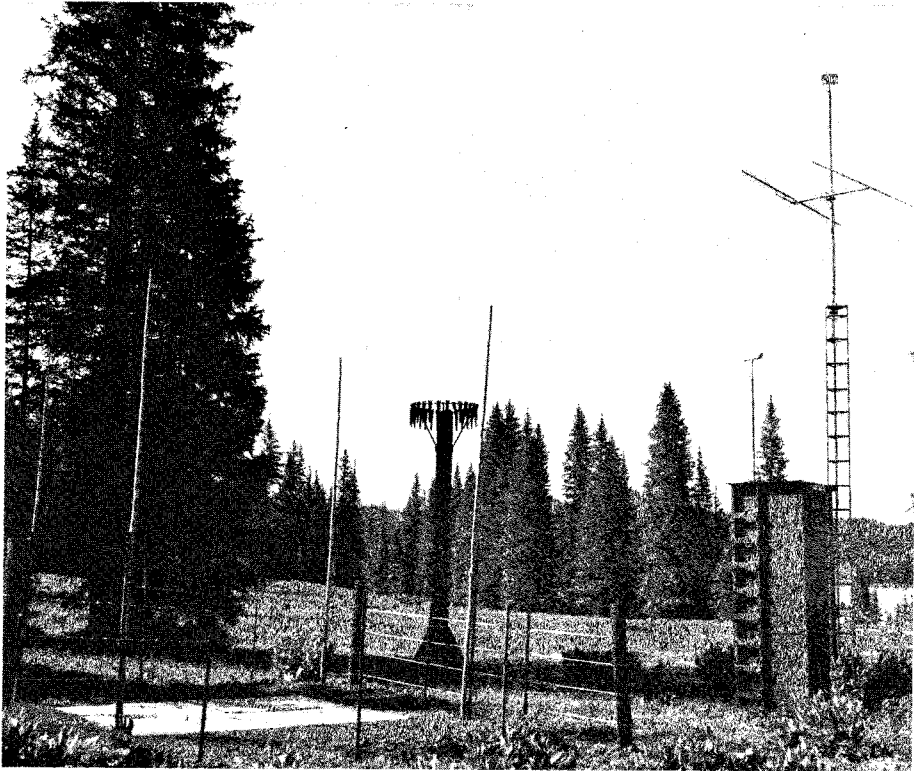


50th ANNUAL MEETING WESTERN SNOW CONFERENCE

April 19-23, 1982

Reno, Nevada



PROCEEDINGS
of the
WESTERN SNOW CONFERENCE

Reno, Nevada
April 19-23, 1982

FIFTIETH ANNUAL MEETING

Jack Wilson (General Chairman)
Soil Conservation Service
Room 345, 304 N. Eighth St.
Boise, Idaho 80217

Robert T. Davis (Secretary)
Soil Conservation Service
Room 360 U. S. Courthouse
Spokane, Washington 99201

Program Committee

Robert T. Brown, Chairman
Donald Kuehl
Jack F. Hannaford
Ronald Tabler
Bernard Shafer

Editorial Committee

Bernard A. Shafer, Editor
Robert T. Davis
James R. Meiman

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PROCEEDINGS OF THE WESTERN SNOW CONFERENCE

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MINUTES OF THE EXECUTIVE COMMITTEE
WESTERN SNOW CONFERENCE
RENO, NEVADA

The meeting was called to order by J. Wilson, General Chairman at 12:00 noon on April 21, 1982 in Reno, Nevada.

The General Chairman requested that R. Davis, Secretary, read the minutes of the previous meeting held in St. George, Utah. R. Davis stated that the minutes were published in the Proceedings for the 49th annual meeting and moved that they be accepted as published. Seconded by B. Lang. Carried.

The General Chairman asked that the Secretary present the 1981 financial statement. The Secretary stated that a copy of the audited financial statement was in front of each member and he would briefly review its major points. The St. George meeting was profitable. The income was approximately \$400.00 more than the expenses. The Secretaries expense was about \$800.00 more than last year - the added cost of postage. The last line was a loss of \$2151.72. There being no questions R. Davis moved the acceptance of the financial statement as presented. Seconded by W. Simons. Carried.

The General Chairman stated that two proxy letters were received. A. Rango appointed B. Whaley as Area Chairman and B. Shafer as his voting proxy. J. Beard is proxy for J. Werner.

The General Chairman thanked the ex officio members for being present and asked them to participate fully in the proceedings.

The General Chairman stated the new General Chairman was to be selected at this meeting and that he was to be from the South Continental Area and requested that B. Whaley present their candidate. B. Whaley stated that the area committee had selected J. Meiman as their candidate. The General Chairman asked if there were any objections. There being none, the General Chairman asked that J. Meiman be asked in to sit with us and participate in our discussions.

The General Chairman asked for the report of the awards committee from R. Brown. R. Brown stated that it was the responsibility of each Area Chairman to supply him with the names of candidates for El Farsante. R. Brown asked for the names of any candidates for Life Membership. Rules for qualification were reviewed. The following names were submitted for consideration: T. Freeman, D. Kuehl and R. Benker and it was moved that they be awarded Life Memberships, seconded and passed.

The General Chairman asked B. Shafer for the publication committee report. There were discussions both pro and con for the continuation of the Poster Sessions as well as discussion on how to improve the presentations if continued. It was moved and seconded that future conferences include poster papers and that the publication committee develop a policy statement relating to preparation as well as presentation and publication of poster papers. There was much discussion by J. Marron, W. Simons, D. Dunlap, A. Crook, B. Shafer. Motion passed. The General Chairman stated that the publication committee will set the criteria for the number of poster papers and how they are to be presented and published. It was suggested that the number of poster papers presented is "not to exceed twelve". The General Chairman named B. Shafer to continue as chairman of the publication committee composed of himself, Jack Hannaford and Jim Marron.

There was a question by D. Pfankuch about the security of past copies (records) of the Proceedings. The General Chairman requested W. Simons to respond. W. Simons stated that they were all on record in a University Library. A Bibliography is available from the beginning in 1933 through 1973 with the abstract cards printed in each subsequent Proceedings, a complete annotated bibliography is available.

The General Chairman stated that the next Conference was scheduled for the North Pacific area and asked if there was a representative from that area with a proposal. R. Richards, Chairman of the North Pacific area, stated that D. Kuehl as the previous Area Chairman had done considerable leg work and the committee had selected Vancouver, Washington as the location for the 1983 annual meeting of the Western Snow Conference. R. Richards

read letters from the Office of the Mayor of the City of Vancouver and the Governor of the State of Washington. D. Kuehl was thanked for his work in setting up this 1983 meeting location. R. Richards introduced his committees: Local Arrangements - T. George and C. Fetty, Program Committee - D. Speers and A. Crook. R. Richards then requested that each committee present a brief report. T. George stated the conference location will be the "Inn on the Quay". J. George and J. Fetty have agreed to handle the ladies program. Possibilities for tours will be something in the area of Mt. St. Helens or a tour of Bonneville Power House or a tour of the Portland-Vancouver harbors. C. Fetty handed out a description of the Inn, and also handed out bottles of Mt. St. Helens ash. He stated that the facility is right on the river and is very beautiful. The dates of the meeting are April 19, 20, 21, 1983. A. Crook announced that the theme of the meeting was "Snow Hydrology in a Rain on Snow Environment". This is not just a Northwest problem but is somewhat universal. It was moved by R. Richards that the 1983 meeting be held in Vancouver, Washington as described by his committees, seconded and passed by the members.

The General Chairman asked if there was a representative of the North Continental area to make an invitation for the 1984 meeting. J. Beard invited the conference to hold their 1984 meeting in Idaho and stated that information had been received from the Sun Valley area asking to be considered and some from the Boise area.

The General Chairman stated that since some of the members wanted to go on the Snow Lab tour he wished to change his agenda to accommodate them. He asked if there was any old business to come before the group. There being none he asked if there was any new business. A. Work stated that the conference should extend by letter and/or resolution a thank you to Norbert and Lillian Leupold and to the Leupold-Stevens Company for the generous entertainment extended to the Western Snow Conference. The General Chairman stated that the resolution committee was done away with several years ago, but that he would personally see that a letter of thanks would be sent. J. Hannaford moved that a specific resolution be prepared to thank the Leupolds as well as the Leupold-Stevens Company. Seconded and passed. The General Chairman then appointed A. Work, B. Lang and J. Hannaford as a committee to prepare this resolution.

A. Work suggested that W. Simons be appointed as official historian of the Conference and be requested to tabulate a list of all Past General Chairman, Life Members, Honorary Life Members, Dr. Church award recipients, El Farsante recipients, and to keep this in a suitable form. This motion was made by A. Work. seconded and passed. W. Simons was requested to prepare a constitutional amendment for later consideration to make this position a formal position of the Conference.

The General Chairman asked that the membership consider the problem of not getting true areal representation on the Executive Committee, i.e., one from each state or province instead of everyone from the state or province that has the most members. This is to be corrected at the next meeting.

It was proposed by T. Carroll that a special session of the Vancouver, Washington meeting be dedicated to the results of an international/interagency project centered around Regina, Saskatchewan on February 15, 1982. This session would comprise approximately 4 to 6 papers and 2 to 4 poster papers. Several possible subjects and authors were suggested. M. Barton commented on the result of the Sparks joint meeting with NASA. A. Crook responded re the effect on the 1983 meeting, stating that it would be a major portion of the meeting without the theme being considered. R. Moreland, B. Shafer commented further. It was decided that the researchers would submit their abstracts for consideration in the normal manner without any special consideration.

It was suggested that the conference reinstate the tie cutting ceremony, but keep it under control by using set-ups.

The General Chairman requested the metrification committee report be presented by its chairman, P. Farnes. It was stated that the committee had been in existence since 1978 and the final report was ready to be published. It was the question as to who should release this report, CRREL or the WSC, and the question of the specification of the equipment. Should the Conference be the leader or someone else? B. Goodison and W. Simons suggested that since the original work was done by Conference people and somewhat under the sponsorship of the Conference, the final report and specifications should be a Conference project. It was

moved by B. Shafer that the Conference publish the final report as a separate report. Seconded by T. George. Under discussion it was suggested that approximately \$2,000.00 be allocated for the job. B. Shafer amended his motion to read "Joint ESC - WSC Publication" T. George seconded. Passed.

The General Chairman requested W. Simons to give the historical committee report. He reported on historical exhibits that were prepared and stated that he would develop a General Chairmans handbook which would give pertinent information that would answer some of the questions which come up at the meetings. There being no questions of Wilbur, the General Chairman asked J. Marron to present the Church Award report. J. Marron stated that Stephen Havas, a senior from Reno High School whose main study was chemistry will be the 1982 recipient of the Dr. Church award. Stephen will be at the banquet Thursday evening and could be recognized at that time. The award will not be presented at that time but during the Reno High School awards ceremony.

The General Chairman asked R. Moreland to give the archives report. R. Moreland stated that the archives consist of 3 boxes, located at the historical section at UNR which is located where the Church archives are. I have some material ready to put in. Material from the SCS office here in Reno. This is old newspaper clippings, etc., that was scheduled for tossing. The General Chairman reiterated the standing request for material from the members that they wished to have placed in the archives.

The General Chairman stated that there was no report from the wilderness committee. The committee would be reappointed prior to the close of the meeting on Friday and that L. Ambrose would be a member.

There being no further business the meeting was adjourned.

Respectfully submitted,

Robert T. Davis, Secretary

MINUTES OF THE BUSINESS MEETING
WESTERN SNOW CONFERENCE
RENO, NEVADA

The General Chairman called the meeting to order at 10:00 a.m. on April 23, 1982.

The General Chairman requested the Secretary to read the minutes of the 1981 meeting. The Secretary stated that the minutes were published in the Proceedings of that meeting and moved that they be accepted as printed. Seconded by W. Simons. Carried.

The General Chairman asked the Secretary to present the financial report. The financial report of the conference was audited by D. Felgenhauer of WWP, a member of this organization, and was presented in detail to the executive committee and will be highlighted here. The meeting at St. George was a financial success to the tune of about \$400.00 but the years expenses exceeded the income by \$2151.72. The year end balance was \$4670.34. The Secretary moved that the financial statement, as accepted by the executive committee be accepted by the general membership. Seconded by B. Lang. Carried.

The General Chairman requested B. Shafer give the publications committee report. B. Shafer stated that there were only two items at this time: 1) size of Proceedings will now be 8½ by 11, 2) develop a set of proceedings and policy for the poster paper sessions.

The General Chairman requested a report from the awards committee. R. Brown announced that Life Memberships were awarded T. Freeman, D. Kuehl and R. Benker. An Honorary Life Membership was awarded to W. Simons. The General Chairman announced that El Farsante was awarded to R. Brown.

The General Chairman requested a report from the historical committee. W. Simons report can be found as part of the Executive minutes. The General Chairman stated that W. Simons was also appointed Historian for the Conference.

The General Chairman stated that there was no wilderness committee report and a new committee had been named consisting of O. Foehner, D. Pfankuch, L. Ambrose and J. Wilson.

The General Chairman asked if there was anyone with an announcement of the 1983 - 51st annual meeting. R. Richards reported that the 51st meeting will be hosted by the North Pacific area and the Inn at the Quay in Vancouver, Washington will be the location. The usual format will be followed. R. Richards moved that the 1983 meeting of the Western Snow Conference be held April 19-21, 1983 at the Inn at the Quay in Vancouver, Washington. Seconded by D. Pfankuch. Carried.

The Secretary requested that a constitutional amendment be adopted which would increase the dues from \$7.50 to \$10.00 with an increase in the cost of the Proceedings and Bibliography. It was suggested by V. Bissel that the amount of the dues and the cost of the publications should be removed from the constitution and by-laws and set by the Executive Committee with the approval of the general membership. B. Lang moved that the Constitution be amended to remove all reference to the "Dollar amount" of dues and cost of the proceedings, etc. and it be stated therein that these dollar amounts will be set by the Executive Committee and approved by the general membership. A. Work commented about the lack of Corporate support to the WSC and suggested the individual Executive Committee members contact those corporations with interest in water supply forecasting for financial support. J. Davis suggested that the \$50.00 limit for corporate contributions has been removed and some paying more. T. Henderson state that the corporate membership dues should be fixed by the Executive Committee, but does not belong in the constitution and by-laws. W. Simons stated that both these items are covered by the same article, and could be changed easily. The sale of the publications is covered under a separate article. This article also requires some clarification to allow the Executive Committee to set the price without having to change the constitution. V. Bissel commented on the fact that if these motions are passed nothing can be done until the Executive Committee meets next year. Further discussion by B. Thomas, T. Henderson, W. Simons, J. Davis. The motion was amended to not take effect until 1983. The motion was seconded and defeated. The original motion passed. The Secretary moved that the dues structure for individual membership be \$10.00. Corporate membership dues not to exceed \$500.00. Seconded by B. Lang. Passed. The Secretary moved that the sale of the Bibliography and Proceedings be set at \$10.00 per copy. B. Shafer seconded. The motion

was amended to increase the cost of the Proceedings to non-members to \$20.00. Seconded and passed. The original motion passed.

The General Chairman asked P. Farnes to present the metrification report since the ESC members have now joined the group. The committee as chaired by P. Farnes moved that the Western Snow Conference adopt the proposed design of the WSC small diameter snow sampler and the large diameter ESC as presented by the WSC metrification committee and recommended that agencies making snow surveys in North America implement the use as soon as practical and feasible and that the WSC print the final report and sell these reports to recover the cost of printing and distribution and that 10 copies be provided without charge to the four agencies that supported the work of the metrification committee and that a brochure describing this report and the work of the Committee and the necessary information for ordering this report be prepared and distributed by the WSC with its regular mailing and distributed to other related societies and information sources and that we ask the ESC to distribute this brochure in its news letter and to suggest that the ESC entertain a comparable motion to adopt the proposed design of the snow sampling equipment. This motion was seconded and discussion followed by V. Bissel and others. Motion carried.

V. Bissel asked about procurement of the ESC in english units. B. Shillinglaw and P. Farnes responded.

The General Chairman thanked the South Pacific group and the area chairman for making this what he considered the best WSC meeting ever, and stated that J. Hannaford wished to make a statement. J. Hannaford stated that it was a committee effort. He specifically wanted to thank R. Moreland, local arrangements chairman and R. Jones for the Snow Lab tour. R. Brown was program chairman and put together an excellent program. J. Brown was also thanked for his effort as was T. Henderson.

The General Chairman J. Wilson then turned the meeting over to the new General Chairman, J. Meiman with the request that he take the plaque which had been presented by the ESC and see that it is present at future sessions of the WSC.

General Chairman J. Meiman then presented J. Wilson with a silver snowflake for past general chairman. There being no further business, the meeting was adjourned.

Respectfully submitted,

Robert T. Davis, Secretary

ATTENDANCE ROSTER
WESTERN SNOW CONFERENCE
EL DORADO HOTEL
RENO, NEVADA
APRIL 19-23, 1982

Adams, Mr. & Mrs. Peter	Petersborough, Ontario
Aldridge, Bill	Redwood City, California
Ambrose, Lewis	Seattle, Washington
Anderson, Mr. & Mrs. Henry	Lafayette, California
Andre, Mr. & Mrs. Joseph	Berkeley, California
Archer, Wayne	Guelph, Ontario
Baird, G. H.	Roseville, California
Baker, Mr. & Mrs. Malthus	Flagstaff, Arizona
Barton, Mr. & Mrs. Manes	Gresham, Oregon
Bates, Roy	Hanover, New Hampshire
Beach, Chauncey	Seattle, Washington
Beard, Mr. & Mrs. Gerald	Boise, Idaho
Berg, Neil	Berkeley, California
Bergman, James	Soda Springs, California
Bhatia, Amarjit	Fredericton, New Brunswick
Bissell, Vernon	Portland, Oregon
Boyne, Harold	Fort Collins, Colorado
Brown, A. J.	Sacramento, California
Brown, Bob	Rosemead, California
Brown, John Webster	Reno, Nevada
Brush, Mr. & Mrs. Harold	Boise, Idaho
Carlson, Dr. & Mrs. Paul	Downsview, Ontario
Carroll, Tom	Minneapolis, Minnesota
Castle, Mr. & Mrs. Glenn	Sacramento, California
Cathey, Ernest	Burleson, Texas
Chang, Alfred	Greenbelt, Maryland
Christner, Jere	Eugene, Oregon
Clagett, George	Anchorage, Alaska
Clorety, Mr. & Mrs. Bernard	Sacramento, California
Cooley, Keith	Boise, Idaho
Cox, Bud	Meridian, Idaho
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Dahl, Mr. & Mrs. Robert	Oakdale, California
Daugherty, Mr. & Mrs. David	Fredericton, New Brunswick
Davis, Robert E.	Santa Barbara, California
Davis, Mr. & Mrs. Robert T.	Spokane, Washington
Dean, Bill	Sacramento, California
Dearing, Mr. & Mrs. Bill	Wenatchee, Washington
Deslauriers, Mario	Arvida, Quebec
Dewey, Kenneth	Lincoln, Nebraska
Dezman, Lawrence	Denver, Colorado
Dosch, Theron	Littleton, Colorado
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Dunlap, Donald	New Brunswick, New Jersey
Eaton, Joan	Toronto, Ontario
Emmert, Rick	Walla Walla, Washington
Enz, Mr. & Mrs. Richard	Tempe, Arizona
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Foster, James	Greenbelt, Maryland
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Greenan, Hugh	Danville, Vermont
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Hearn, Roger	Portland, Oregon
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Jones, E. Bruce	Fort Collins, Colorado
Jones, Kenneth	Casper, Wyoming
Jones, Ronald	Phoenix, Arizona
Kattelman, Rick	Soda Springs, California
Keane, John	Phoenix, Arizona
Kent, Roger	Irvine, California
Kleppe, John	Sparks, Nevada
Klieforth, Harold	Reno, Nevada
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Kuehl, Don	Portland, Oregon
Ladine, D. A.	Glendale, California
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Lansing, Mr. & Mrs. Livingston	Boonville, New York
Lazier, Mr. & Mrs. Samuel	Kingston, Ontario
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Lee, Jerry S.	Washington, D. C.
Leupold, Mr. & Mrs. Norbert	Beaverton, Oregon
Leupold, Mr. & Mrs. Norbert, Jr.	Beaverton, Oregon
Lillie, Dale	Kansas City, Missouri
Limpert, Mr. & Mrs. Fred	Beaverton, Oregon
LuBean, Henry	Spokane, Washington
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McCrossen, Darold	Albuquerque, New Mexico
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Marsh, Philip	Hamilton, Ontario

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Nelson, Mr. & Mrs: Morlan
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Pfankuch, Dale
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Sytsma, Don
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Taylor, Philip
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Turman, Dale
Twedt, Tom
Ulrich, Clint
van de Erve, Mr. & Mrs. Jerry
Versteeg, James
Wallace, Mr. & Mrs. Jack
Walser, Mr. & Mrs. John T.
Whaley, Mr. & Mrs. Bob
White, Ron J.
Wiesnet, Donald
Williams, Gerald
Williams, Robert A.
Wilson, Mr. & Mrs. Jack
Wilson, Mr. & Mrs. T. T., Jr.
Wilson, Wallace
Woo, Ming-ko
Work, Mr. & Mrs. R. A.

LATE REGISTRATION
Fischer, Robert

Watertown, New York
Fort Collins, Colorado
Downsview, Ontario
Moscow, Idaho
Reno, Nevada
Idaho Falls, Idaho
Edmonton, Alberta
Hudson, Quebec
Boise, Idaho
Sacramento, California
Lakewood, Colorado
Missoula, Montana
Sacramento, California
Lakewood, Colorado
Victoria, British Columbia
Vancouver, Washington
Vancouver, British Columbia
Boulder, Colorado
Portland, Colorado
Fort Collins, Colorado
Denver, Colorado
Sacramento, California
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Sacramento, California
Boise, Idaho
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Glendale, California
Hamilton, Ontario
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Denver, Colorado