

DOUGLAS W. FOSTER  
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PROCEEDINGS 31ST ANNUAL MEETING  
WESTERN SNOW CONFERENCE

YOSEMITE NATIONAL PARK, CALIFORNIA

APRIL 1963

PROCEEDINGS  
of the  
WESTERN SNOW CONFERENCE

Yosemite National Park, California

April 17-19, 1963

THIRTY-FIRST ANNUAL MEETING

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## FOREWORD

This publication reports the available papers and formal discussions presented at the Thirty-First Annual Meeting of the Western Snow Conference. On this occasion the Conference convened in Yosemite National Park, California, on April 17-19, 1963. It is hoped that the various reports presented in these Proceedings will be of value to those concerned with snow and water in their several forms and many important uses and will be an inspiration to vigorously continue research, development, and application in this field of science.

Correspondence regarding these Proceedings or other Western Snow Conference matters should be addressed to Wilbur D. Simons, Post Office Box 1352, Tacoma 1, Washington.

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PROCEEDINGS OF THE WESTERN SNOW CONFERENCE

TABLE OF CONTENTS

Yosemite National Park, California

April 17-19, 1963

	Page
OPERATIONAL FORECASTING OF THE DAY-TO-DAY RUNOFF IN THE FEATHER RIVER BASIN, By W. A. Arvola and A. L. Raimundo. . . . .	1
SOIL MOISTURE FORECASTING, By P. E. Farnes, M. W. Nelson, T. G. Freeman. . . . .	6
SOIL SAMPLING RESULTS WITH DIFFERING SNOW SAMPLERS, By R. T. Beaumont and R. A. Work. . . . .	15
SNOW PACK EVAPORATION FACTORS, By George W. Peak. . . . .	20
USE OF LAKE ROOSEVELT STORAGE TO LOWER RIVER TEMPERATURES, By H. A. Kramer and J. P. Corley. . . . .	28
SNOWFALL EXTREMES IN THE WESTERN UNITED STATES, By Marvin D. Magnuson. . . . .	38
SNOW PROBLEMS ON MOUNTAIN HIGHWAYS IN WASHINGTON STATE, By J. L. Stackhouse and Fred R. Weber. . . . .	51
DESIGN, MAINTENANCE AND OPERATIONS OF A TRANS-SIERRA HIGHWAY, CALIFORNIA, By Roland I. Nicholson. . . . .	55
AVALANCHE CONTROL ON HIGHWAYS, By M. M. Atwater. . . . .	59
HIGHSPEED SNOW REMOVAL PROCEDURES, By Edward F. Taylor. . . . .	62
INSTRUMENTATION FOR HYDROLOGIC MEASUREMENTS AT THE UNIVERSITY OF IDAHO, By D. L. Duncan and C. C. Warnick. . . . .	67
OPERATIONAL PROBLEMS OF STORAGE PRECIPITATION GAGES, By Louis Billones. . . . .	74
SNOW SURVEYS OF WESTERN UNITED STATES WITH THE AID OF SATELLITE PICTURES, By Richard D. Tarble. . . . .	77
HYDROLOGIC DATA TELEMETRY IN THE CORPS OF ENGINEERS, By Frank Hanes. . . . .	81
SNOW LINE MAPPING FROM HIGH ALTITUDE AERIAL PHOTOGRAPHY, By Harold Felgenhauer. . . . .	87
AFTER SIXTEEN YEARS, By Vincent J. Schaefer. . . . .	94
ABRUPT SHIFTS IN SEASONAL RUNOFF RELATIONSHIPS AS RELATED TO CLOUD- SEEDING ACTIVITY, By R. D. Elliott and J. T. Walser. . . . .	99
INDICATIONS OF RESIDUAL EFFECTS FROM SILVER IODIDE RELEASED INTO THE ATMOSPHERE, By Lewis O. Grant. . . . .	109
THE PUBLIC AND WEATHER MODIFICATION, By Edward A. Morris. . . . .	116

	Page
PRELIMINARY TESTS ON A NON-COMBUSTION TYPE SILVER IODIDE GENERATOR, By Richard A. Schleusener, Lewis O. Grant, and Roger Steele. . . . .	122
HUMAN ATTITUDES IN SNOW SCIENCE, By David M. Rockwood. . . . .	132
Minutes of Executive Committee Meeting of The Western Snow Conference. . .	I
Minutes of Business Meeting of The Western Snow Conference. . . . .	III
Resolutions. . . . .	V
Roster of Attendance. . . . .	VII

# MINUTES OF THE EXECUTIVE COMMITTEE MEETING

Yosemite National Park, California

The meeting was called to order by the General Chairman Wilbur Simons, at noon, April 17, 1963.

Those present were: Wilbur Simons - General Chairman  
Allan West - Secretary

<u>South Pacific Area</u>	<u>North Pacific Area</u>	<u>South Continental Area</u>	<u>North Continental Area</u>
Jerry van de Erve	Vail Schermerhorn	Bert Goodell	M. W. Nelson
W. A. Lang	John Summersett for	Eugene Peck	Earl Neff
Fred A. Strauss	Oliver Johnson	Jack Washichek	George Peak
Francis B. Blanchard	R. H. Benker for		R. Lindgren
R. W. Miller	Walter Johnson		
	H. Hunter for		
	W. Raudsepp		

Manes Barton - Church Memorial Award  
Bob Davis - incoming Secretary

Proxies were presented for the following: Benker for Walter Johnson, Summersett for Oliver Johnson, Goodell for Garstka and Peck for Mayo.

Changes in the Executive Committee. Bob Davis resigned and was appointed to the position of Secretary for the 1963-65 term. Walter Raudsepp, Victoria, B.C. was appointed to complete Bob Davis's unexpired term.

Eastern Snow Conference. Bob Beaumont attended the Eastern Snow Conference, and presented greetings from the Western Snow Conference. The next meeting of the Eastern Snow Conference will be held at the Sipre Lab in Vermont sometime mid February, 1964.

Resolutions. A resolutions committee of Bert Goodell, chairman, Robert W. Fisher and H. Gene Herring was appointed to prepare the resolutions for 1963.

- a. John Preston, Park Superintendent and staff
- b. Local arrangement, ladies and program committees
- c. Secretary, Allan West

Photograph Contest. Fred Strauss recommended that the Conference sponsor a photograph contest at the Annual meeting advertising the Western Snow Conference itself. This would further illustrate the interest of the Western Snow Conference work in snow. Such things as watershed measurements, antartic work, etc. should be included.

It was moved by Bob Miller, seconded by Bill Lang and carried unanimously. Three judges will be selected by the General Chairman, and ribbons will be given to the winners.

Forum. Jack Hannaford did an excellent job and the 1962 edition was one of the best Forums. Jack Hannaford stated that he does not wish to continue as editor. The General Chairman will appoint a new editor. The Forum still needs more material.

Awards. Bill Lang listed those eligible for life membership from the South Pacific Area: George A. Lewis, Ernest I. Bulpitt, J. Cecil Alter, and Irvin M. Ingerson. There were no candidates from the other areas.

Present members of the Awards Committee are: Bill Lang, Arch Work, and Wayne Criddle. The General Chairman will reorganize the Awards Committee and bring it up to date.

Church Memorial. Manes Barton reported that a letter was sent to the Chairman of the Science Department of Reno High School and a recipient for 1963 has been selected -- Richard W. Harris. The Science Department has selection rights using Western Snow Conference criteria. Manes Barton will present the award again this year.



Church Memorial Library. Manes Barton stated that \$500 had been donated by each of several power companies to organize Dr. Church's files at the University of Nevada. The University needs \$4,500 to do the project. Fred Strauss moved that we recommend to the membership at the Annual Business meeting that the Conference also contribute \$500. This was seconded by R. Miller and carried unanimously.

Financial Statement. Copies of the financial statement were distributed by Chairman Wilbur Simons. R. Miller moved that the financial statement be accepted as read, this was seconded by Francis Blanchard. The Executive Committee accepted the financial statement.

Proceedings and Forums. The secretary stated that the estimate to bind two sets of both the Proceedings and Forums was \$136. It was also discussed that we should get bids on the cost to microfilm all Proceedings. We should look into possible help from the University of Nevada and University of California Archives.

Bibliography. Ash Codd is continuing his bibliography Conference Proceeding, and when completed it will be published by the Conference.

Membership Brochure. The General Chairman stated that 3,000 copies of the brochure have been printed. At present they are not being given widespread distribution. Three committees will be formed to work out details of a plan to increase corporate, individual and student memberships. Jerry van de Erve stated that all members of the Executive Committee should have a small supply of the brochures.

Ad hoc Committee. The General Chairman stated that an Ad hoc Committee of past General Chairmen had been formed. They will study Conference procedures and policies and will recommend any desirable changes.

1964 Annual Meeting. Harry Hunter, British Columbia, proposed that the 1964 meeting be held at Nelson, B.C. located on the shores of Kootenay Lake and near Trail, B.C. The population of Nelson is about 12,000 to 14,000 and it is served by two daily air flights, and two daily trains from the West. It is just a three to four hour bus ride from Spokane.

It was moved, seconded and passed unanimously by the Executive Committee that the proposal for the 1964 Annual Meeting to be held in Nelson, B.C., the third week in April, be presented to the Conference membership at the business meeting.

Adjournment. The meeting was adjourned by General Chairman, Wilbur Simons.

Allan J. West  
Secretary

W. D. Simons  
General Chairman

## MINUTES OF BUSINESS MEETING

April 19, 1963

The meeting was called to order by General Chairman, Wilbur Simons.

Secretary Allan West presented the annual financial statement.

The General Chairman indicated recent changes in the Executive Committee. Manes Barton was appointed to the South Pacific Area to complete the unexpired term of Francis Blanchard who resigned. Walter Raudsepp was appointed to the North Pacific Area, to complete Bob Davis's unexpired term. Bob Davis resigned from the Executive Committee to accept the position as the next Secretary of the Western Snow Conference.

The General Chairman exhibited the new membership brochure which was developed by a committee composed of: Arch Work, chairman, Earl Neff and Bruce Mitchell. A new committee will be formed to develop a program for increasing corporate, individual and student memberships.

The session chairmen were reminded that Jack Washichek should receive all papers that were presented at the annual meeting.

The General Chairman commended Jack Hannaford for the excellent job he did on last year's Snow Surveyors Forum. Dick Tarble, W. B. Sacramento, California, will be editor of the 1964 Forum.

Manes Barton gave a report on the Church Memorial Award and showed the group the plaque presented last year.

### New business:

1. The General Chairman had been authorized to set up an Ad hoc Committee of past General Chairmen to study possible changes in the organization of the Conference. Arch Work, chairman of the group, reported on the status of the committee's deliberations. They will offer a series of constructive amendments intended to strengthen the Conference later this year.
2. A letter of invitation to hold the Annual Meeting in Nelson, B.C. in 1964 was read. It was moved by Fred Strauss and seconded by R. W. Miller that the invitation be accepted. The motion was carried unanimously.
3. Manes Barton told the group of the work the University of Nevada is doing in trying to raise \$4,500 to organize the snow files of the late Dr. Church. Manes Barton proposed that the Western Snow Conference contribute \$500 to the J. E. Church Memorial Fund. This motion was seconded by Fred Strauss and unanimously passed by the Conference.
4. Dick Tarble moved that a committee be formed to look into the placement of a plaque at the site of the first snow surveys. The committee should work with the historical societies of Nevada and California to find a possible site. Tahoe City was proposed as the possible site. This motion was seconded by Fred Strauss. The General Chairman will form a committee.
5. Glen Castle conveyed the appreciation of the ladies for the excellent ladies' program developed by Francis and Elanor Blanchard.
6. The General Chairman presented the Resolution Committee: Bert Goodell, chairman; R. W. Fischer and Gene Herring. Bert Goodell read the names of recipients of the resolutions:
  - a. Superintendent of Yosemite National Park, John Preston and staff members Granville Liles and Herbert B. Ewing.
  - b. Members of the local arrangements committee: Jerry van de Erve, chairman; Fred Strauss, William Lang, R. W. Miller, Carroll Horton, Mr. and Mrs. Francis Blanchard.

- c. Program committee, R. Elliott, chairman; Glenn Castle, Fred Weber, Thomas Henderson and Manes Barton.
- d. Outgoing secretary, Allan West.

Resolutions called from the floor:

- a. Pacific Gas and Electric Co. for the Haas Powerhouse tour.
- b. Editor of the Forum, Jack Hannaford.
- c. That a telegram be sent to Walter Johnson saying the Conference missed him, moved by Benker and seconded by Fred Strauss.

The General Chairman indicated that the Resolution Committee will be appointed prior to the next annual meeting.

The meeting was adjourned by the General Chairman.

Allan J. West  
Secretary

W. D. Simons  
General Chairman

# ATTENDANCE ROSTER

WESTERN SNOW CONFERENCE  
Ahwahnee Hotel  
Yosemite National Park, California  
April 17 - 19, 1963

<u>Name</u>	<u>City</u>	<u>Organization</u>
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Atwater, Mr. and Mrs. M. M.	Tahoe City, Calif.	U. S. Forest Service
Bacon, Thomas R.	San Bernardino, Calif.	Municipal Water Dist.
Baldwin, Leonard B., Mr. & Mrs.	Laramie, Wyo.	University of Wyoming
Bannister, George	Medford, Ore.	Tucker Sno-Cat Corp.
Barsch, Mr. & Mrs. Raymond E.	Rancho Cordova, Calif.	Dept. of Water Resources
Barton, Manes	Reno, Nevada	Soil Conservation Serv.
Beck, N. E.	Carmichael, Calif.	Bureau of Reclamation
Bei, Mr. and Mrs. Rino	San Francisco, Calif.	Hetch Hetchy Project
Bellamy, John C.	Laramie, Wyoming	University of Wyoming
Benker, R. H.	Spokane, Wash.	Wash. Water Power Co.
Benson, Mr. and Mrs. Raymond K.	Loveland, Colo.	Bureau of Reclamation
Berg, Harold	Fresno, Calif.	P. B. Loader Mfg. Co.
Billones, Louis	Sacramento, Calif.	U. S. Weather Bureau
Blanchard, Mr. & Mrs. Francis B.	Oakland, California	E. Bay Municipal Utility
Boyer, Peter B.	Portland, Ore.	Corps of Engineers
Brown, French C., Mr. & Mrs.	Los Angeles, Calif.	Corps of Engineers
Carpenter, Mr. and Mrs. Adelbert	Oakland, Calif.	Fischer and Porter
Castle, Mr. and Mrs. Glenn	Sacramento, Calif.	U. S. Army Engineers
Chadwick, Duane G.	Logan, Utah	Utah State University
Christensen, Eddie G.	Salt Lake City, Utah	U. S. Weather Bureau
Clausen, Harold L.	San Francisco, Calif.	U. S. Bureau of Public Rds.
Clorety, Bernard	Sacramento, Calif.	S M U D
Codd, Ashton R.	Pacific Grove, Calif.	Retired
Cook, Mr. & Mrs. Robert P.	Piedmont, Calif.	Corps of Engineers
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Dana, George F. (Pete)	Laramie, Wyoming	University of Wyoming
Dauber, Clarence A.	Boston, Mass.	Chas. T. Main, Inc.
Davidson, K. D.	Leadville, Colo.	Climax Molybdenum Co.
Davis, Mr. & Mrs. Robert A.	San Francisco, Calif.	Pacific Gas & Electric Co.
Davis, Robert T.	Spokane, Wash.	Soil Conservation Serv.
Dommes, Mr. & Mrs. Charles J.	North Hollywood, Calif.	L. A. Water & Power
Duncan, Don L.	Moscow, Idaho	University of Idaho
Elliott, Robert D.	Goleta, Calif.	No. Amer. Weather Consult.
Ellis, J. D.	Portland, Ore.	Pacific Power & Light Co.
Enderlin, H. C.	Berkeley, Calif.	Soil Conservation Serv.
Enz, Mr. & Mrs. Richard W.	Tempe, Ariz.	Soil Conservation Serv.
Farnes, Phillip E.	Bozeman, Mont.	Soil Conservation Serv.
Felgenhauer, Harold	Palo Alto, Calif.	Itek Corp.
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Fowler, W. B.	Wenatchee, Wash.	U. S. Forest Service
Freeman, T. G.	Portland, Ore.	Soil Conservation Serv.
Frost, W. T.	Portland, Ore.	U.S.D.A. - S.C.S.
German, Bill	Victoria, B.C.	B.C. Government
Glassey, Gene	Mtn. View, Calif.	Exactel Instrument Co.
Goodell, Bert	Fort Collins, Colo.	U. S. Forest Service
Grant, Lewis O.	Fort Collins, Colo.	Colorado State University

Hanes, Francis P.  
 Hannaford, Jack E.  
 Henderson, Mr. & Mrs. Thomas F.  
 Herring, Gene  
 Hickok, Robert B.  
 Hinde, E. J.  
 Hofmann, Walter  
 Horn, William L.  
 Horton, Carrol H., Mr. & Mrs.  
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 Hunter, H. T.  
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 Peterson, Ned R.  
 Powell, Douglas R.  
 Powers, Joseph B.  
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 Stafford, Mr. and Mrs. Harlowe M.  
 Stevens, R. J.  
 Stockwell, Homer J.

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 Oakland, Calif.  
 Menlo Park, Calif.  
 Sacramento, Calif.  
 Fresno, Calif.  
 San Rafael, Calif.  
 Victoria, B.C.  
 Sacramento, Calif.  
 Independence, Calif.  
 Sacramento, Calif.  
 Bozeman, Montana  
 Corcoran, Calif.  
 Fresno, Calif.  
 Los Angeles, Calif.  
 Portland, Ore.  
 Portland, Oregon  
 Boise, Idaho  
 Seattle, Wash.  
 Soda Springs, Calif.  
 Seattle, Wash.  
 Sacramento, Calif.  
 Boise, Idaho  
 Phoenix, Arizona  
 Reno, Nevada  
 San Francisco, Calif.  
 Berkeley, Calif.  
 Boise, Idaho  
 Boise, Idaho  
 Marysville, Calif.  
 Walla Walla, Wash.  
 Victoria, B. C.  
 San Francisco, Calif.  
 Riverside, Calif.  
 Berkeley, Calif.  
 Casper, Wyo.  
 Salt Lake City, Utah  
 Salt Lake City, Utah  
 Sacramento, Calif.  
 Berkeley, Calif.  
 Sacramento, Calif.  
 Sacramento, Calif.  
 Portland, Ore.  
 Sacramento, Calif.  
 Portland, Ore.  
 Menlo Park, Calif.  
 Portland, Ore.  
 Schenectady, N. Y.  
 Denver, Colo.  
 Portland, Ore.  
 Olympia, Wash.  
 Tacoma, Wash.  
 Boulder City, Nevada  
 San Francisco, Calif.  
 Menlo Park, Calif.  
 Kitimat, B.C.  
 Sacramento, Calif.  
 Portland, Ore.  
 Portland, Ore.

USAE Waterways Expr. Sta.  
 USWB, RFC  
 Atmospherics, Inc.  
 U. S. Forest Serv.  
 Agr. Res. Serv., USDA  
 Hinde Engr. Co.  
 USGS  
 Dept. of Water Resources  
 Pacific Gas & Electric Co.  
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 B. C. Government  
 Retired  
 L.A. Dept. of Water & Pow.  
 U. S. Geological Survey  
 Electric Research Lab  
 J. G. Boswell Co.  
 The Fresno Bee  
 So. Calif. Edison Co.  
 Bonneville Power Admin.  
 Leupold & Stevens Instrum.  
 Bureau of Reclamation  
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 PSWF & RES  
 U. S. Weather Bureau  
 Calif. Water Resources  
 Idaho Power Co.  
 Salt River Project  
 Desert Research Inst.  
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 Pac. S.W.F. & R. Expt. Sta.  
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 Calif., Div. of Hwys.  
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 Soil Conservation Service  
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 A S R C  
 U. S. Bureau of Reclama.  
 U. S. Weather Bureau  
 Dept. of Conservation  
 U. S. G. S.  
 Bureau of Reclamation  
 Pacific Gas & Electric Co.  
 U. S. Geological Survey  
 Aluminum Co. of Canada  
 Dept. Water Resources  
 Leupold & Stevens Instrum.  
 Soil Conservation Service

Stout, Don  
 Strauss, Mr. & Mrs. Fred  
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 Taylor, Edward  
 Taylor, Elmer J.  
 Thomas, Harold E., Mr. & Mrs.  
 Towner, George R.  
 Van de Erve, Mr. & Mrs. Jerry  
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 Walker, A. S.  
 Walser, John T.  
 Warner, Michael R., Mr. & Mrs.  
 Washichek, Mr. & Mrs. Jack  
 Weber, Fred R.  
 Wellington, Mr. & Mrs. R. B.  
 West, Mr. & Mrs. Allan J.  
 Weste, Loren A.  
 Whaley, Mr. & Mrs. Bob L.  
 White, Mr. & Mrs. John J.  
 Williams, Mr. & Mrs. Charles H.  
 Williams, Merlin C.  
 Wilson, J. Alden  
 Wolfe, Charles G.  
 Woodman, Douglas  
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 Zinke, Paul

Concord, Calif.  
 Porterville, Calif.  
 Portland, Ore.  
 Sacramento, Calif.  
 Denver, Colo.  
 Salt Lake City, Utah  
 Menlo Park, Calif.  
 Emeryville, Calif.  
 Sacramento, Calif.  
 Laramie, Wyoming  
 Emeryville, Calif.  
 Goleta, Calif.  
 Mt. Baldy, Calif.  
 Fort Collins, Colo  
 Boise, Idaho  
 Frisco, Colo.  
 Soda Springs, Calif.  
 Rancho Cordova, Calif.  
 Portland, Ore.  
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 Boise, Idaho  
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 U. S. Weather Bureau  
 Snowblast Co.  
 Utah Power & Light Co.  
 U. S. Geological Survey  
 Berkeley Instruments  
 U. S. Weather Bureau  
 University of Wyoming  
 Berkeley Instruments  
 No. Amer. Weather Consult.  
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 Dept. of Highways  
 American Metal Climax  
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 Kern County Land Co.  
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 Kings River Water Assn.  
 SCS  
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