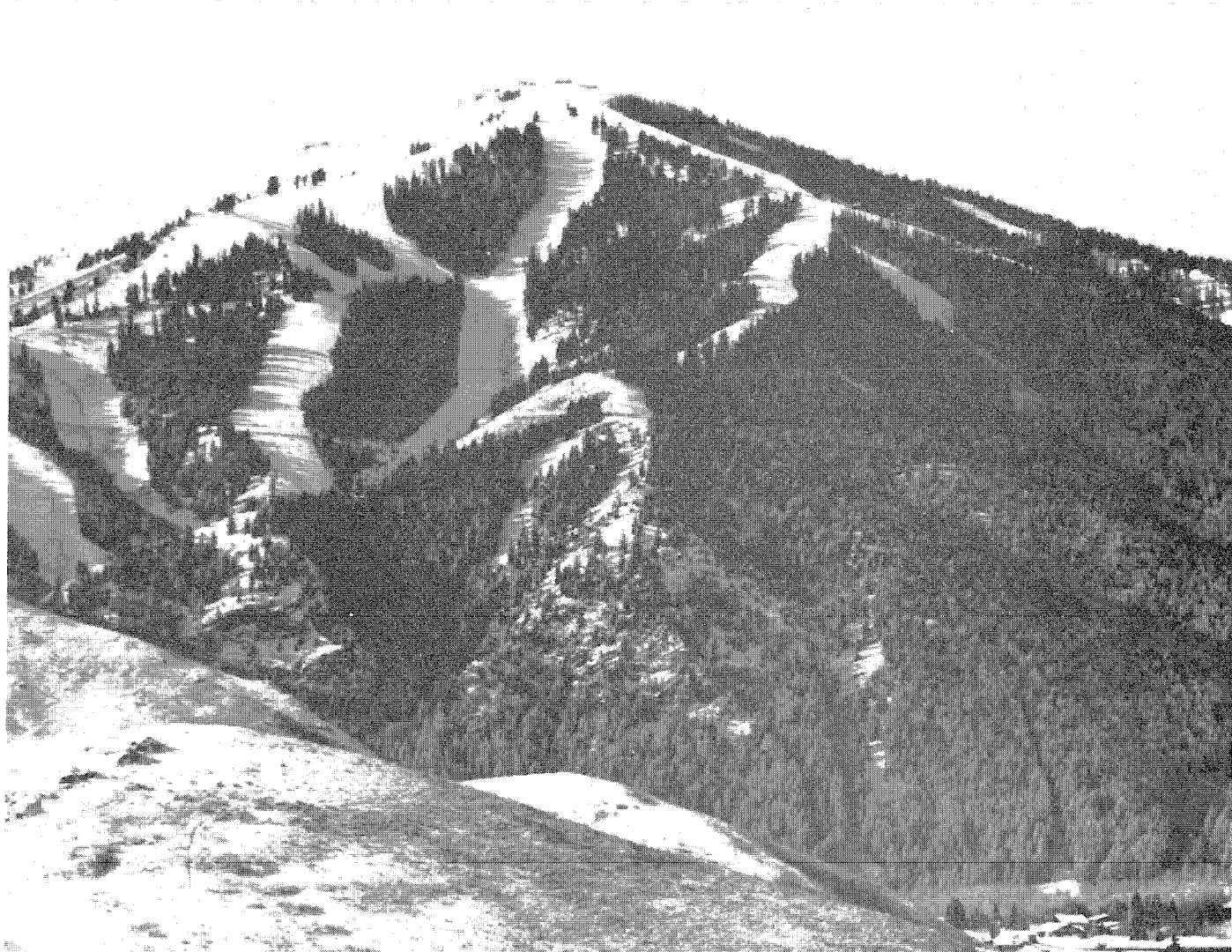


# 52nd ANNUAL MEETING WESTERN SNOW CONFERENCE

April 17-19, 1984

Sun Valley, Idaho



PROCEEDINGS  
of the  
WESTERN SNOW CONFERENCE

Sun Valley, Idaho  
April 17 - 19, 1984

FIFTY-SECOND ANNUAL MEETING

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Fort Collins, Colorado 80523

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Spokane, Washington 99214

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Jerry Beard  
Jack Wilson  
Lloyd Cox

Editorial Committee

Bernard A. Shafer, Editor  
Robert T. Davis  
Charles Troendle

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PROCEEDINGS OF THE WESTERN SNOW CONFERENCE

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MINUTES OF THE EXECUTIVE COMMITTEE  
WESTERN SNOW CONFERENCE  
Sun Valley, Idaho

The meeting was called to order by General Chairman J. Meiman at 11:45 A.M.

The General Chairman announced that the order of business would be changed in order to bring in the newly elected General Chairman to participate in the meeting. The General Chairman requested that the South Pacific Area Chairman report their recommendation to the Committee for action. R. T. Brown, acting Area Chairman for the South Pacific Area, nominated Jack Hannaford for the position of General Chairman of the Western Snow Conference for the next two years. The nomination was seconded by J. Pardee. The General Chairman then called for the vote and J. Hannaford was elected unanimously. The newly elected General Chairman was escorted into the meeting room and welcomed by the members.

The General Chairman requested that the Secretary report on the minutes of the last meeting. R. Davis stated that the minutes of the 1983 meeting held at Vancouver, Washington, were published in the Proceedings of that Conference and moved that they be accepted as published. The motion was seconded by A. Rango and passed by the members.

The General Chairman reported on the proxies that he had received; for B. Van Haveren, D. Sturgis who was absent; for G. Leavesley, C. Troendle; for G. Schaefer, B. Whaley; for R. Moreland, J. Capurro; for J. Werner, G. Beard.

The General Chairman welcomed the past General Chairmen who were present; P. Farnes and M. Barton. The General Chairman then welcomed the newly elected members of the Executive Committee.

The General Chairman requested that the financial statement of the Conference be presented. R. Davis presented the financial statement of the Conference as audited by D. Felgenhauer of Washington Water Power, a member of the Conference, and moved that it be accepted. (All members present had a copy of the financial statement for review). The motion was seconded by B. Shafer. After limited discussion the motion was passed.

The General Chairman requested that the reports from the Standing Committees be presented, and asked C. Torendle to give the report of the activity of the Publication Committee.

C. Troendle stated that it appeared that most of the items in the 1983 minutes relating to the Publications Committee have been accomplished. The Metrication Brochure was printed and supplied in all Proceedings mailed out. It was sent to all National Societies and Publications for their information. Two of the Proceedings that were mailed were returned in such damaged condition that the address was totally unreadable so two members did not get their Proceedings. It appears that the Conference is going to be charged an 18% overhead charge for the printing in the future unless the Conference can come up with an IMO. C. Troendle stated that the last time he went over to CSU to get some of the Camera Ready paper that the Conference has been using that the University no longer stocks that size paper. He suggested that the Conference might want to change the paper size to 75% reduction with a two column format. This has an advantage in that you can get more on a page which would take less paper for the same length presentation, or would allow the authors to make a longer presentation for the same number of pages. The main problem is the illustrations, they would be reduced still further. It was suggested that the two column format not be used for the Proceedings, as not all word processors are set up to handle that type of output. B. Shafer mentioned that examples of the way the papers should be typed were not included with the information that went out to the selected authors. C. Troendle stated that he would take one of this years short papers and have it reproduced as an example for next year.

The General Chairman explained the process that had been followed in the past with the printing of the Proceedings but stated that the past process will no longer work and that the Conference will have to pay the overhead charge or find some other source for their printing. The General Chairman charged the Publication Committee and the Editor to investigate this matter.

The General Chairman requested R. Brown to make the Awards Committee report. R. Brown stated that he needed the names for the candidates for Life Memberships from the Area Chairmen. The following names were presented for consideration: Ned Peterson, Fred Strauss, Ken Reed, Fred Bertle and Don Norseth. It was moved that the above named persons be awarded a Life Membership in the Western Snow Conference. The motion was seconded and passed. R. Brown stated that it was required that each Area Chairman supply him with at least one candidate for the El Farsante award. A meeting of All Area Chairmen for the purpose of selecting the El Farsante candidates will take place in the General Chairmans suite at 4:30. The next subject to be discussed was the award for the Best Presentation, this was an award that was discussed last year and was left in the hands of the Program Committee and the General Chairman to implement or not. It was decided to make this award and to have a secret committee selected by the General Chairman and Technical Program Chairman to make the selection. The award to be announced at the annual banquet. The criteria to be used in this selection is 1) technical content, 2) organization of the presentation, 3) use of visual aids, and 4) other factors such as oral presentation. The General Chairman announced that the question is not for this year, as that has already been decided by the Technical Committee, but what about future years. Do we want to continue this endeavor or not? After considerable discussion it was decided that at least try it for one more year and then decide if it should be a permanent award of the Conference. This will cover the formal presentations only, not the poster papers. The award will be mentioned in the Proceedings and placed as first paper in the Proceedings. Further discussion was presented relative to the presentation of the poster papers themselves.

The General Chairman requested a report of the Historical Committee. Since W. Simons was not present, no report was available. R. Davis read a letter from W. Simons explaining his absence. The General Chairman directed the Secretary to send Wilbur a note stating that he was missed and hoped that he would be able to attend the future meetings.

The General Chairman asked if J. Capurro was giving the Church and Archives reports for R. Moreland. J. Capurro stated that the only activity regarding the Archives was the transfer of some Western Snow Conference material from the Snow Survey office in Reno to the University of Nevada. He stated that if anyone had any material that they wished to place in the archives to please send it to his office with a covering letter, so that he can make arrangements to have it transferred to the University. He was informed that all the Metrification Report material will be boxed up and sent to Reno for inclusion in the Archives. He announced that the 1984 recipient of the J. E. Church Award would be Andrew Y. Koh, a biology major at Reno High School who plans to go on to college and take pre-medicine. There was some discussion as to the amount of the award and at the request of the General Chairman a motion was made that the Church Award be increased to \$250.00. The motion was seconded and passed.

The General Chairman requested that the Chairman of the South Continental Area present the meeting information for the 1985 meeting. A. Rango presented a handout giving the highlights of the activity of the Committee to date. The meeting will be held in Boulder, Colorado, which is a first, at the Hilton Harvest House. A rate of \$50.00 per night single or double has been promised. The dates are April 16 to 18 and the theme will be "Forecasting Snow Melt Runoff-Water Supplies in Extreme Events". A keynote address is planned for the first day and Governor Lamb has been asked to give this address. The banquet speaker is planned to be a ghost town speaker by the name of Robert Brown. Frontier Airlines has promised a discount for people attending the Conference. All committees have been set up and the call for papers is hoped to be issued by August 1, 1984. The General Chairman stated that A. Rango moved the acceptance of Boulder, Colorado as the location of the 1985 Western Snow Conference. The motion was seconded by B. Whaley and after limited discussion was passed. The General Chairman commented and expressed his appreciation for the detail that the South Continental Area Committee has gone into so far in setting up this meeting. The General Chairman directed the Secretary to see that this format was used by future committees in their preparations. The General Chairman requested that the South Pacific Area Committee make their recommendation for the 1986 meeting. J. Hannaford gave a brief history of the locations of the past meetings held in the South Pacific Area and stated that it was their recommendation that the 1986 meeting be held in Phoenix, Arizona.

J. Hannaford went on to state that since the new General Chairman has come out of the Executive Committee, R. Jones has been appointed to fill the vacancy, and R. Brown has been named as the Area Chairman. This is in accordance with the Constitution and By-Laws of the Conference.

Under old business, the General Chairman reviewed the charges as specified at last years meeting, and stated that all appeared to have been accomplished. The Library of Congress number was a part of the Proceedings and the Conference had an official photographer at this meeting by the name of D. Huffman. The only item that he has identified is that of the Wilderness Committee. The General Chairman stated that he was not sure that the Wilderness Committee had been active this last year as he had heard nothing from J. Wilson, the last Committee Chairman. The General Chairman said that A. Crook had been attending some inter-agency meetings and asked for a report. A. Crook stated that the USBR has proposed snow pack augmentation studies on the Colorado River Drainage, a project known as CREST. A Catch 22 effect is in place in that the authorization for the project is based on the fact that the project will be instrumented and the instrumentation is contingent upon the authorization. This involves the Wilderness Areas in the project area. He went on to explain some of the processes that are going on in connection with this problem and others in the west. There was considerable discussion by several members of the group but no direct action was proposed. The General Chairman reported that the sale of the weather satellites that was proposed last year was "laid to rest" and that issue appears to no longer "be an issue". Regarding the Metrication Report, R. Richards asked if there was any progress in the change over to metric in the USA. He was told that under the present administration the issue was dead. He stated that the BC Government was not using the new metric cutter and tubes and would not change until the US entities did so. There being no further old business, the General Chairman stated that they would now take up any new business.

The General Chairman asked R. Richards if he wanted to make his motion at this time. R. Richards stated that the Leupold-Stevens Company had been a staunch supporter of the Conference for many years, and as N. Leupold, Sr., had been a member of the Conference since nearly its inception, and since N. Leupold, Sr., had passed away this last year, he moved that the 1984 Proceedings be dedicated to his memory. The motion was seconded and passed. B. Shafer asked if the members wanted something placed in the Proceedings about the Metrification Report. Discussion was held as to where and what this notification should consist of, i.e., a one page, different color paper in the Proceedings or an article in the Snow Notes section of the Proceedings. B. Shafer moved that an article authored by P. Farnes and R. Richards be prepared for inclusion in the Snow Notes section of the Proceedings, subject to the approval of the Technical Committee. Seconded by C. Slaughter and passed. J. Hannaford reintroduced the idea, first proposed last year by B. Lang, of the Commemorative Stamp honoring Snowshoe Thompson. He had written the Post Office and received a very inadequate answer so had rewritten and had yet to receive a reply. He wished to report that he was proceeding on this, but was not sure that the Post Office was.

The General Chairman stated that he had met with the Forest Service Research attendees to try to encourage them to use the Western Snow Conference as a time for them to get together as the SCS sometimes does. This met with favorable response, they in turn mentioned their concern with the lack of funding for snow research. The General Chairman stated that that is not unique to the Forest Service and asked if this group wanted to develop some kind of a general statement similar to the Satellite issue and the Wilderness issue. Discussion followed by several of the members. It was moved by H. Steppuhn that a letter of concern over the lack of funding for Snow Research be prepared by the Conference for distribution to the agencies concerned, both Federal, State and Provincial. This letter to be signed by the General Chairman and distributed by the Area Chairmen. The motion was seconded by C. Troendle and passed. A drafting committee composed of R. Swanson, N. Berg and A. Crook with Swanson to act as Chairman was appointed by the General Chairman. J. Capurro stated that R. Moreland requested that he be removed as Chairman of the J. E. Church Award Committee and the Archives Committee and suggested that J. Capurro, or the Water Supply Specialist, be appointed in his place.

There being no further business to come before this Committee, the General Chairman thanked the committees that he had worked with and wished them luck, then adjourned the meeting at 1:50 P.M.

Respectfully submitted,

R. Davis, Secretary

MINUTES OF THE BUSINESS MEETING  
WESTERN SNOW CONFERENCE  
Sun Valley, Idaho

The General Business Meeting of the Western Snow Conference was called to order by the General Chairman, April 19, 1984 at the Sun Valley Inn, Sun Valley, Idaho.

In order to assist some of the members that might not be aware of the travel problems, the General Chairman asked G. Beard to review the weather/travel problems and to give the latest assessment of the solutions. An overview was presented by G. Beard and several others.

The General Chairman asked R. Davis to present the minutes of the 1983 Business Meeting. The Secretary said that the minutes of that meeting were published in the Proceedings of that year and moved that they be accepted as published. B. Whaley seconded the motion and it was passed. The General Chairman requested the Secretary to give the report of the financial status of the Conference in summary form. R. Davis presented the financial report and moved its acceptance. The motion was seconded by D. Huffman and passed.

The General Chairman then asked for the Committee reports. B. Shafer was asked to present the Publications Committee report in the absence of C. Troendle. Since B. Shafer was also absent, the General Chairman summarized the information for the group (See minutes of the Executive Committee). The General Chairman requested the report of the Awards Committee and asked J. Capurro to present the name of the J. E. Church Award recipient. The name of Andrew Y. Koh was presented with a brief history. The General Chairman then stated that the Executive Committee had passed a recommendation that the award to the Church recipient be increased from \$150.00 to \$250.00 and asked if J. Capurro wished to make the motion that the general membership accept the recommendation of the Executive Committee. The motion was made, seconded by M. Barton and passed. The General Chairman requested that R. Brown announce, for the record, the names of the new Life Members, El Farsante, and the new award, Best Presentation. The Life Awards went to Ned Peterson and Fred Strauss of the South Pacific Area, Ken Reed of the North Pacific Area, and Fred Bertle and Don Norseth of the South Continental Area. The recipient of the El Farsante Award was Phil Farnes and Bernie Shafer won the Best Presentation Award. The General Chairman then announced that the Executive Committee recommended that the Best Presentation Award be continued for another year at least. Next years Executive Committee will decide its fate. Any comments regarding this award are to be directed to the Chairmen of the Technical Committee for the 1985 meeting. B. Van Haveren and G. Leavesley are co-chairing according to A. Rango.

The General Chairman stated that W. Simons, the Historian, was unable to attend due to recent surgery and stated that the Secretary had been directed to write a letter to Wilbur wishing him well and a speedy recovery. The General Chairman stated that since the Wilderness question is an on going problem, and many states are in the process of developing their own Wilderness Legislation it was felt that the Conference should "dust off" the resolution that had been developed in the past and use it in a similar manner to the way the Satellite commercialization problem was handled this past year. The General Chairman then asked J. Hannaford if he had any comment. J. Hannaford stated that they would try to find out in which of the states this type of legislation was pending and to direct the material to them.

The General Chairman reported that last year there was concern about the commercialization of Satellites especially in the natural resources field and that this body had prepared a resolution expressing their concerns about such action. That issue now appears to be laid to rest, at least for the time being. The General Chairman stated that the recommendations of last years meeting all appear to be met.

Under new business, M. Barton put forth the idea that the order of the meeting might be rearranged: i.e., move the Executive meeting up one day, and hold the Business meeting some time during the presentations. This would insure a larger attendance at the meeting. Further comments were expressed by the General Chairman, P. Farnes, R. Richards, J. Hannaford and others. The General Chairman conducted a straw poll among the members for their opinions. J. Hannaford stated that he would get together with A. Rango to determine how they might proceed this next year. The General Chairman reported on an article in the Idaho Statesman



by M. Nelson, a former General Chairman, on climate changes and his interpretation of why it is getting colder and wetter. C. Slaughter stated that there was discussion during the Executive Meeting about the concern for shrinking research budgets especially in the resource fields. The General Chairman stated that R. Swanson was asked to prepare something and since Swanson was not present, the General Chairman asked if anybody had worked with him on this assignment. N. Berg stated that he, Swanson, Slaughter, and Crook had put together a statement stating the problem, as they see it, which they hoped would be a one page statement that could be sent out to different agencies. At the the request of the General Chairman, N. Berg read the draft statement. N. Berg then made a motion that the statement be developed so that it could be distributed by the General Chairman and the Area Chairmen to those locations and individuals thought to be appropriate. The motion was seconded and after considerable discussion, passed. The General Chairman stated that the Executive Committee voted that this years Conference and Proceedings would be dedicated to Norbert Leupold, Sr., of Leupold and Stevens Co., a long time supporter of the Conference who had passed away this last year. The General Chairman asked if there were any others who had passed away that the Conference should take formal note of. There being none, the General Chairman asked if there was any further new business. R. Richards asked if the Conference had any further instructions regarding the assignment of the Metrication note for the Proceedings. The General Chairman stated that as he saw it, it would be a page in the Snow Notes section of the Proceedings outlining and encouraging the use of the Metrication Report. He further stated that it was not just an advertisement for the report. The General Chairman went on to urge the conference to make more use of the Snow Notes; as a vehicle for the stories of field experiences, ideas and including the use of humor; all as was once in the Forum.

The question was asked if the group wished the Metrication Brochure placed in the Proceedings as was done this last year. The response to this question was affirmative. It was also requested that a supply of the membership brochures be sent to the Area Chairmen for their distribution. There was some discussion on the plans for the tour of the Big Thompson Project Thursday of the 1985 Conference. It was suggested that each tour bus have an experienced guide to explain what is being observed at all times. The General Chairman stated that the last piece of business that he had on the agenda was to turn the gavel over to the new General Chairman. J. Meiman asked J. Hannaford to come up and take over as General Chairman of the Western Snow Conference. J. Meiman wished J. Hannaford all the best of luck for the up-coming two years and thanked all the members for their support this past two years. J. Hannaford thanked the group for their support and stated that the plans for the next two years were being developed, and with everybody working together it would be a profitable two years. The meeting was then adjourned.

Respectfully submitted,

R. Davis, Secretary

ATTENDANCE ROSTER  
WESTERN SNOW CONFERENCE  
Sun Valley, Idaho

Armstrong, Richard	Boulder, Colorado
Baird, G. H. (Pete)	Roseville, California
Barton, Mr. & Mrs. Manes	Gresham, Oregon
Bates, Mr. & Mrs. William	Denver, Colorado
Beach, Chauncey	Seattle, Washington
Beard, Gerald	Boise, Idaho
Berg, Neil	Berkeley, California
Berling, Mr. & Mrs. Bob	Loveland, Colorado
Bissell, Mr. & Mrs. Vernon	Portland, Oregon
Brown, Bob	Rosemead, California
Buer, Stein	Sacramento, California
Capurro, John	Reno, Nevada
Carroll, Tom	Minneapolis, Minnesota
Coles, Gerald	Edmonton, Alberta
Cooley, Keith	Boise, Idaho
Crook, Mr. & Mrs. Arthur	Beaverton, Oregon
Cundy, Terry	Seattle, Washington
Dahl, Mr. & Mrs. Bob	Oakdale, California
Daly, Mr. & Mrs. Christopher	Boulder, Colorado
Davis, Ed	Portland, Oregon
Davis, Larry	Idaho Falls, Idaho
Davis, Robert E.	Santa Barbara, California
Davis, Mr. & Mrs. Robert T.	Spokane, Washington
Dearing, Mr. & Mrs. William	Wenatchee, Washington
Dobson, Don A.	Westbank, British Columbia
Dozier, Jeff	Santa Barbara, California
Eckhardt, John	Loveland, Colorado
Ericson, Mr. & Mrs. Richard	Modesto, California
Farnes, Phillip	Bozeman, Montana
Fecke, William C.	Fairfax, Virginia
Fetty, Mr. & Mrs. Carl	Hillsboro, Oregon
Fike, Richard	Portland, Oregon
Fong, Mr. & Mrs. William	Sacramento, California
Foster, James	Greenbelt, Maryland
Freeman, Gary J.	San Francisco, California
Gewe, Gerald	Los Angeles, California
Glasse, Mr. & Mrs. Gene	San Diego, California
Goodell, Mr. & Mrs. Bert	Livingston, Montana
Gordon, John	Vancouver, British Columbia
Gunderson, Mr. & Mrs. Robert	Logan, Utah
Hack, Amy	Moscow, Idaho
Hannaford, Jack F.	Placerville, California
Harrelson, Ed	Salt Lake City, Utah
Hearn, Roger	Vancouver, Washington
Hudson, Rick	Sidney, British Columbia
Huffman, Don	Bozeman, Montana
Jairell, Robert	Laramie, Wyoming
Kattelman, Rick	Soda Springs, California
Keane, John L.	Phoenix, Arizona
Kolipinski, Milton	San Francisco, California
Kuehl, Mr. & Mrs. Don	Portland, Oregon
Ladine, Jay	Glendale, California
Lute, Dan	Boise, Idaho
McCool, Don	Pullman, Washington
McCurk, Bruce	Berkeley, California
Marks, Danny	Santa Barbara, California
Meiman, Dr. & Mrs. James	Wellington, Colorado
Mihevc, Todd	Olympic Valley, California
Molnau, Myron	Moscow, Idaho
Morris, Scott	Moscow, Idaho
Morrison, Rod	San Marcos, California

Ondrechen, William  
Palmer, Peter  
Pardee, Jack  
Pedersen, Vic  
Perla, Ron  
Peterson, Ned  
Potter, Mr. & Mrs. Val  
Potts, Donald  
Powell, Leslie  
Rango, Albert  
Raschko, Bob  
Reed, Mr. & Mrs. Kenneth  
Richards, Bob  
Robertson, Dave  
Rockwood, Mr. & Mrs. David  
Sarantitis, Barbara  
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Sherrets, Mr. & Mrs. Ray  
Shillinglaw, Mr. & Mrs. Robert  
Skau, Clarence  
Slaughter, Charles  
Smith, Mark  
Stephens, George  
Steppuhn, Mr. & Mrs. Harold  
Stockinger, Gary  
Strangeways, Ian  
Strauss, Mr. & Mrs. Fred  
Sturges, David  
Swanson, Robert  
Sytsma, Mr. & Mrs. Don  
Swanson, Angie  
Tabler, Ronald  
Toews, David  
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Wallace, Mr. & Mrs. Jack  
Washichek, Mr. & Mrs. Jack  
Wlech, Robert  
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Whaley, Mr. & Mrs. Bob  
Wheeler, Paul  
Wilford, David  
Wilson, Ray  
Wilson, Robert  
Wilson, Mr. & Mrs. Ted  
Wilson, Wally

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Boise, Idaho  
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