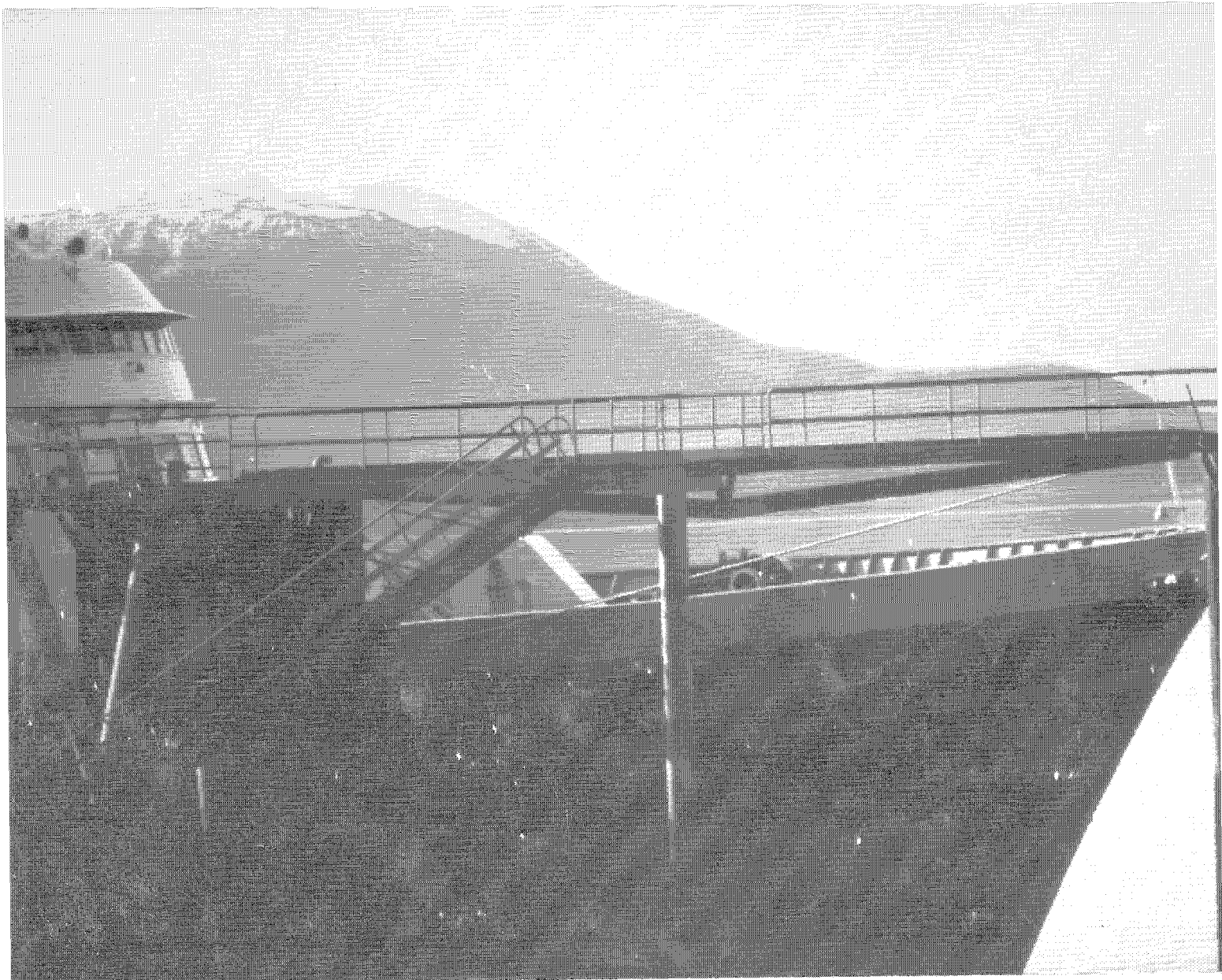


59th Annual Meeting

Western Snow Conference

**April 12-15, 1991
Juneau, Alaska**



PROCEEDINGS
OF THE
WESTERN SNOW CONFERENCE

Juneau, Alaska

April 12-15 1991

FIFTY-NINTH ANNUAL MEETING

Dr. Albert Rango (General Chairman)
USDA-ARS Hydrology Laboratory
Bldg. 265, Room 205, BARC-East
10300 Baltimore Avenue
Beltsville, MD 20705-2350

James K. Marron (Secretary)
P.O. Box 2646
Portland, OR 97208-2646

Barbara Sarantitis (Treasurer)
P.O. Box 2646
Portland, OR 97208-2646

Program Committee

Robert Richards, Chairperson
George Clagett
Douglas Golding
Donald Huffman
Norbert Leupold
Douglas Speers

Editorial Committee

Charles Troendle, Chairperson
Bernard Shafer, Editor
James K. Marron

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P.O. Box 2646
Portland, OR 97208-2646

PROCEEDINGS OF THE WESTERN SNOW CONFERENCE

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MINUTES OF THE EXECUTIVE COMMITTEE
WESTERN SNOW CONFERENCE
BELLINGHAM, WASHINGTON

The 59th meeting of Western Snow Conference Executive Committee was called to order at 1:00 pm, April 13, 1991, by the General Chairperson Dr. Albert Rango. The meeting began with introduction of the members of the Executive Committee and those representing Executive Committee members by proxy. Doug Helms attended representing Bernie Shafer for the South Continental Area, Peter Palmer represented Jerry Beard of the North Continental Area, Phil Farnes represented Harold Stepphun of the North Continental Area, Phyllis Snow was the acting Chairperson of the North Continental Area, and Hal Klieforth represented Tom Henderson of the South Pacific Area.

Minutes of the 1990 Western Snow Conference Annual Meeting: Jim Marron

Jim Marron indicated that the minutes of the 1990 Western Snow Conference had been published in the 58th Proceeding of the Conference and moved that the minutes of that meeting be accepted as published. The motion to accept the minutes was seconded by George Clagett. The floor was opened to discussion and having non the vote was called. The motion passed unanimously.

Treasurers Report: Barbara Sarantitis

A copy of the treasurers report was distributed to each of the Executive Committee members. The balance at the end of the 1990 fiscal year was \$2597.63. We were able to make a rather large purchase last year which will be reported on later. This years Conference was handled entirely by Mariner Travel and the Secretary and Treasurer have had very little involvement with this Conferences finances. Dues for 1991 were not included in the registration fee as has been the practice in the past. Members dues for 1991 are now due. Jim Marron indicated that the attendance as of April 11 was 108. Three individuals from India have dropped due to reservation difficulties. Total attendees should be around 105. A motion was made by Phyllis Snow to accept the treasurers report as presented. The motion was seconded by Neil Berg. The floor was then opened for discussion and having non the vote was called. The motion passed unanimously. Barbara pointed out to the executive committee that the infamous \$950 dollars of last year was absorbed as the books were corrected. Peter Palmer asked why she had not found money this year.

Publication Committee Report: Jim Marron

Bob Richards gave a short report on the preparation of a new bibliography. He indicated that the bibliography was about 2/3 complete in Data Perfect software. When completed the bibliography will be sent to Bob Swanson. Bob Swanson will then convert the data files to a run time version of dbase 4. The bibliography will then be distributed to the membership for the price of the disk and postage.

Jim gave a report on the cleanup of the past proceedings and move into a new storage area. The new storage area is much smaller reducing the cost of storage. The Western Snow Conference splits the current storage with Boy Scout Troup 872 of Beaverton, Oregon. Proceeding prior to 1970 are limited. Corporate member proceedings have been sent out whether payment was received or not. Beginning in 1989 the invoices for proceedings were in the corporate members hands well in advance of the publication of the proceedings and currently no proceedings are sent unless payment has been received. All of the billing and payment records have been computerized.

Jim gave the report on last years proceedings publication. In 1990 we missed the critical cutoff date and consequently the proceedings were 1 1/2 months behind schedule. Peter Palmer asked the current back issues rate. The basic back issue fee is \$20. Individual member back issues are charged at the dues rate of the publication year. Jim promised that the proceedings would be out on time this year.

Wilderness Committee Report: Jim Marron

Jack Hannaford and Clay Brandow will both be attending this years conference. It was just not possible for them to make the Executive Committee meeting. The Wilderness Resolution printed in the 1990 proceedings is the correct resolution as modified at the 1990 meeting in Sacramento. The only question is whether the Western Snow Conference should mail the resolution to congress as it did in 1990. Maurie Roos asked how expensive it was or would be to mail the resolution to congress again. The effort was significant. The largest task is updating the congressional list again. The cost of mailing is about \$130.00. Peter Palmer indicated that he thought the Resolution would be worthwhile for the Conference to mail. The question was asked whether Montana and Idaho were the only states remaining without an undated wilderness legislation. This question will be forwarded to the annual meeting on board ship.

Awards Committee Report: Jim Marron

The Executive Committee was then asked if there were any life members to be nominated from any of the Area's. There were no nominees. Jim then asked for any deceased members. Jim announced that R. A. "Arch" Work passed away this past year.

Doug Golding was reminded that he and his committee needed to be prepared to evaluate papers presented for the best poster and formal presentations.

Barbara Sarantitis has been responsible for the James E. Church award for the past couple of years and gave the report on this years recipient. This years recipient is the first woman, Mary Kay Orgil, to receive the award and is an outstanding student. The past year she has interned with Porsche Cars of North America and last year she was interned with Range Wildlife and Forestry Department in research. She is interested in math and/or chemistry in design and research. She is a straight "A" student and participated in track and volley ball. Barbara indicated that she is probably pretty too.

1990 Western Snow Conference Annual Meeting: Neil Berg

In Sacramento, 1990, the program committee prepared a conference evaluation form and Neil Berg wished to share the responses from the evaluation. The rating of the conference was excellent, 35%. The cost of the Conference was reasonable for most of the conference but a few items were rated expensive. The tour should be at about \$20. Technical interest was about 30-31% in forecasting with the next closest in snow hydrology and climate meteorology but this had a significantly lower interest rate. What was the single best improvement that the members would like to see in the conference? The respondents indicated that positioning of the posters should be in the main presentation area instead of being mixed with the vendors. Neil felt this was important. Neil indicated that visual aides, presentation materials, and presentation skills needed to be improved substantially. Hal Klieforth indicated that overhead materials do not present well. Neil suggested that a monetary award might be made for the best presentation to attract attention to paper quality. Neil asked for any other comments. Presentation materials and improved presentation techniques were a broad discussion in the meeting. Neil indicated that the cash award was just a recommendation but should be considered. Barbara indicated that we need to be more concerned with presentation quality. Al Rango suggested sending a list of things not to do with the presentation materials. Al also suggested that we obtain materials used by Ivan Johnson to be distributed with presentation documents from the Conference. Jim Marron indicated that the publication policy needed to be updated and that the presentation documents should include materials to improve presentations. Finally, presentations need substance and well prepared visuals. Presenters should have a review of the presentation provided to them so that the presenter can improve. Al Rango appointed Bob Swanson, Phyllis Snow, and the Technical Program Committee for 1992 to develop an evaluation technique and form to help the individual presenters improve their presentations. Materials for use in the 1992 information packets should be sent to:

Phyllis Snow
Flathead National Forest
1935 3rd Avenue South
Kalispell, Montana 59901

1991 Western Snow Conference Annual Meeting: Bob Richards

The initiation of the project was begun with a considerable amount of trepidation. Many other conferences have been held on board ship before and were very successful. Bob did indicate that holding a conference like this without professional help would have been even more fool hardy than usual. Attendance is around 108 with some adjustments. The Pacific Northwests only regret is that the goal of having the Conference in different areas is to give the local members an opportunity to attend at a reasonable cost. This years Conference will not be available to local members at that more reasonable rate. Apart from this disappointment everything else is on schedule. The Conference schedule has been set so that everyone will be able to take advantage of the scenery. The last portion of the meeting will take place in Juneau and all arrangements have been made. Exhibitors will be available on board ship and/or in Juneau. Bob indicated that the technical committee would try to take into consideration the recommendations made at this meeting. The acquisition of a guest speaker is one of the more interesting adventures of this particular meeting. The guest speaker is rather famous, at least in his own mind, and lives in Boise, Idaho but will be available to give the banquet address. The guest speakers resume is four pages long and very impressive. Al Rango asked if anyone had seen Len Laurance and whether he was coming on the trip. Bob assured everyone that he was coming aboard. Al was also concerned with the brand of beer that would be available aboard ship. George Clagett indicated that there is a Chairs hospitality session aboard ship and that there was also a bar on board ship available to passengers. Len Laurance is very personable and everyone will enjoy his involvement in the activities. A recommendation was made to give Len Laurance a string tie as recognition for his assistance. Phil Farnes recommended that this proceedings be dedicated to R. A. Work. The Executive Committee concurred in this recommendation.

1992 Western Snow Conference Annual Meeting: Peter Palmer

Peter Palmer presented a short slide show for the 1992 Conference. The Snow King Resort is the location of the 1992 meeting scheduled for April 13-16, 1992. The theme for the Conference is "Snow in a Changing Environment". Jackson Hole is located in Western Wyoming just a few miles south of Grand Teton National Park. Yellowstone National Park is just to the north but will be virtually inaccessible at this time of year due to road closures because of snow. The National Elk refuge is in the area and is the largest if not the only refuge of its kind in the world. The resort is located at the foot of Snow King Mountain just at the south edge of Jackson, Wyoming with its many good restaurants and shopping. Jackson has a modern jet port serviced by Delta, Continental, American, and United. A shuttle service from the airport to the resort is available free of charge. Room rates for the Conference will be \$45 single and \$55 for a double room. Unfortunately in Wyoming there is a 7% tax. The resort accepts American Express, Cart Blanche, Dinners Club, Visa, and Master Card. The tour for the Conference will be sponsored by the US Bureau of Reclamation at Jackson Dam and Palisades Dam. Jackson Dam improved the storage in natural Jackson Lake. New techniques were used to enlarge and improve the structure. These improvements are the topic of most of the tour that will be held. Both structures are multiple use facilities that provide irrigation water, flood control, storage, and recreation. Palisades is one of the larger dams on the Snake River system with 1.2 million acre feet of storage. Palisades is a power generation facility and the tour will include these facilities. Peter agreed to check whether the room rate would be extended for those who wish to come earlier or stay later.

1993 Western Snow Conference Annual Meeting: Albert Rango

Al indicated that he has been involved in and has had some discussions with Jim Foster who works at NASA and is in charge of planning the 1993 Eastern Snow Conference. The Western Snow Conference has agreed to travel back east to help them celebrate their 50th anniversary. Albert Rango, Bernie Shafer, and Tom Carroll are trying to work with the Eastern Snow Conference in planning the meeting. Jim Foster sent Al a letter in December saying that the Eastern Snow Conference thought that Atlantic City would be the best location. The three members of the Western Snow Conference and Jim Foster began to think that Atlantic City would not be the best due primarily to the possible reduced Western Snow Conference attendance. In the mean time Al indicated that he had received a letter from Nabil El Hadi, President of the Eastern Snow Conference. He indicated that Atlantic City was the place for the 50th meeting. The committee of four, Rango, Foster, Carroll, and Shafer,

protested the location of the meeting again. Other suggestions were made including Bar Harbor, Maine, Cape Cod, and Shawnee on the Delaware, Pennsylvania. Tom Carroll indicated that the location was up for discussion and would be settled at the upcoming meeting in Guelph, Ontario. The sessions will be held from June 8th to June 10th. Dick Armstrong would like to know which sites were popular with the Eastern snow Conference. The meeting farthest to the south was in Washington D.C. The Western Snow Conference recommends that the Eastern Snow Conference select the meeting location from one of the more successful meeting areas they have used. Quebec City was one of those better locations and should be considered. Al Rango, Jim Marron, Tom Carroll, John Metcalfe, and Don Wiesnet will discuss the location on board the ship and report back to the business meeting. Bob Swanson was most concerned about the cost of the meeting. Tom Carroll asked that the Executive Committee take an informal poll of those in favor of Atlantic City. Only one individual indicated their interest in Atlantic City. Seventeen indicated that they were not interested in Atlantic City. The proceedings will be a joint proceedings but with two different covers. A Conference theme has not been set.

Old Business: Albert Rango

By-Laws Changes: Jim Marron

The new constitution and by-laws were sent out to each Executive Committee member but the pages were just slightly confused. All the pertinent points were in the set but you just had a difficult time putting them together.

The important components will be reviewed at this meeting. The purpose of the organization had to be changed to allow the Western Snow Conference to be recognized by the US Postal Service as a non-profit organization.

The membership section has been expanded to better define corporate memberships for institutions and businesses.

Meetings were changed to reflect that the Executive Committee would hold its meeting prior to the actual Conference. This section also improves the definition of a quorum.

Administration of the Conference would be vested in a General Chairperson, Chairperson Elect, Secretary, and Executive Committee made of twenty members, five from each of the four areas of the Conference. These changes are then carried on through the remainder of the document. The primary reason for these changes is to make sure that the Chairperson is responsible for the Conference and remains well informed on its activities and needs.

Bob Richards asked if the this discussion was opened to questions from the floor. Jim indicated that it was and that if anyone had a question they should ask at any time. Bob asked if the General Chairperson Elect would be active at this meeting or would they become active as soon as we vote on the constitution. The constitution and by-laws would become active upon their enactment. This next years election will be for the General Chairperson Elect from the North Pacific Area. George asked why the Conference currently had a treasurer but under the new constitution it did not appear that the treasurer had any duties. Jim indicated that the treasurers position would be absorbed by the General Chairperson, General Chairperson Elect, and the Secretary.

The other primary change occurs in the publication committee. This committee will include the chairperson of the publication committee, the editor, and a documents manager. The work that is being done by the General Chairperson, the Secretary, and the Treasurer will now be done by four individuals including the General Chairperson, the General Chairperson Elect, the Secretary, and the Documents Manager.

Keith Cooley had a question on the Executive Committee. The by-laws indicated that the Executive Committee would have twenty members but within that section indicates that if a tie occurs in an area that the Executive Committee members from that area can choose to allow six members for the current term of office or appoint one or the other of the members who have tied. From the by-laws as written in the case of a tie each area of the Executive Committee could have an extra member and the Conference would then have twenty-four members of the Executive Committee. The wording of section eight was then modified to state that the

Executive Committee would "normally" be twenty individuals.

The nomination of the General Chairperson Elect by the Area Executive Committee would be limited to a single individual. This means that the Executive Committee of each area needs to resolve who will be their nominee before hand and not leave it up to the entire Executive Committee.

It is also stated specifically that the ballot of the Western Snow Conference is a secret ballot and will be sent to only those members in good standing.

Neil Berg asked if the change in the secretarial position was documented. Barbara Sarantitis indicated that Jim Marron had skipped over that section. Jim indicated that the job of secretary was essentially unchanged from before. The Secretary's term of office has been changed to coincide with the General Chairperson's term of office. There is no secretary elect but the General Chairperson Elect would need to find a person willing to serve as secretary prior to his assuming the office of General Chairperson so that the Secretary to-be will be able to become familiar with the operations.

Bob Richards indicated that a correction needed to be made to the zoning section. The wording currently indicates that the "United States shall be divided into four areas". Peter Palmer suggested that the wording should be changed to the "Conference shall be divided into four areas". Keith Cooley asked for clarification on the term of office of the Executive Committee. Jim indicated that the term of the Executive Committee begins at the Executive Committee Meeting in the year the members are elected.

Peter Palmer asked about the fact that the by-laws states that the mailing list of the Western Snow Conference will not be distributed. Jim indicated that the Western Snow Conference will not distribute the mailing list for open use. Jim also indicated that mailing labels would be provided to those individuals who wanted to make a mailing to the Conference Members but at the discretion of the General Chairperson and/or the Secretary.

Don Huffman indicated that he would like the word problem or problems removed from the document in either the purpose and/or the meetings sections of the by-laws and constitution.

Bob Swanson recommended that all the underlining be deleted from the document.

Bob Swanson made the motion that the Constitution and By-laws be accepted as modified. The motion was seconded by Bob Richards. The floor was opened to further discussion and having non the question was called for. The vote was unanimous.

Laptop Computer purchase: Barbara Sarantitis

The Conference purchased a Compaq IIIe. It is a 286 machine with hard disk and a 5 1/4 floppy disk. Tom Carroll donated a copy of Symphony to automate the Conferences business. The purchase was made possible by the good work of last years organizing committee who were able to raise substantial funds from commercial exhibitors.

Membership Certificate: Jim Marron

Jim described the new membership certificate along with the new letterhead of the Western Snow Conference. The membership certificate is being designed so that each member can display the certificate and consequently advertise the Western Snow Conference. Letterhead will be provided to the Area Chairpersons and the General Chairperson. The Western Snow Conference has a permanent address that is shown on the letterhead. Bob Swanson made a suggestion that the telephone numbers of the General Chairperson, General Chairperson Elect, and the Secretary be added to the letterhead. Doug Speers suggested that WSC be left off of the letterhead. The thought was that this would detract from the name of the Conference. Al indicated that the General Chairperson and Secretary would take these suggestions into consideration and make appropriate changes.

New Business: Albert Rango

Sponsorship of Conference Activities: George Clagett

George Clagett wanted to bring up several items concerning conference activities. Len Laurance suggested that we consider soliciting contributions by the private sector. The examples were that coffee breaks, Chairpersons reception, and other activities could be sponsored by vendors. George indicated that Len believed we were really missing an opportunity for financial assistance. George indicated that the morning coffee break in Juneau would be sponsored by Leupold Stevens. The only policy that exists concerning exhibitors is the \$200 dollar exhibitors fee. This years fees were adjusted because of the lack of space but the policy is \$200 for exhibiting. Local organizers can pursue sponsorship if they wish. Gary Freeman indicated that the \$200 fee was very cheap if the vendors material was relevant if the material was marginal then the fee was rather expensive.

Secretary Elect: Neil Berg

Neil indicated that Gary Hester, Chief Forecaster of the California Department of Water Resources, has agreed to become the Secretary when Neil Berg takes the reins as the General Chairperson.

Center for Snow Science in Alta: Hal Klieforth

Hal Klieforth was interested in information on the meeting and what might be occurring. Dick Armstrong indicated that the meeting was to honor Ed La Chapel and Vick Tundell. Al suggested that Dick Armstrong report to the Western Snow Conference on the activities of that Conference. The primary reason for the Conference was to revive snow and avalanche research begun in the 50's and 60's.

Al Rango pointed out that we were fast approaching 4:00 pm and that the fun was about to begin. Keith Cooley made a motion to adjourn. The motion was seconded by Barbara Sarantitis. The meeting was adjourned at 3:45 pm April 13, 1991.

MINUTES OF THE BUSINESS MEETING
WESTERN SNOW CONFERENCE
JUNEAU, ALASKA

The 59th annual business meeting of Western Snow Conference was called to order at 4:25 pm in the ships dining area of the Alaska Marine Highways Ferry M/V Matanuska, on April 13, 1991, by the General Chairman Dr. Albert Rango.

Minutes of the 1990 Western Snow Conference Annual Meeting: Jim Marron

Jim Marron reported to the business meeting that a motion to accept the minutes of the Annual Business Meeting as published in the proceedings was made, seconded, and passed unanimously by the Executive committee.

Treasurers Report: Barbara Sarantitis

Barbara reported that the treasurers report was presented to the Executive Committee and was accepted. The report indicated that the Conference had a balance on hand on April 1, 1990 of 10,450.72, a profit of negative 7,853.09, with a balance on hand on April 1, 1991 of 2,597.53. The balance on hand had been increasing slightly over the years due mainly to an increase in dues to 15 dollars. With the large income from exhibitors at last year Conference the Western Snow Conference was able to purchase a small portable computer. The books and all regular mailings will be entered onto that computer.

Publication Committee Report: Chuck Troendle

Chuck indicated that the publication of the proceedings last year was late due primarily to a delay in some of the papers. This year should be no problem primary because most papers are already available.

Bob Richards gave a short report on the preparation of a new bibliography. He indicated that he had taken on the task of computerizing the 1973 through 1990 bibliographies of the Conference. He indicated that if he went slow enough 1991 would be included. This one time activity encompasses a lot of work. The bibliography will include the abstract as well as other pertinent information. When the entry work is complete the document will be turned over to Bob Swanson who will then put it in its final computer form.

Bob Swanson indicated that the bibliography will be placed on a run time version of Dbase 4 and made available to the members for the cost of the disk and postage. They will be available through the Documents Manager of the Western Snow Conference at the Conferences permanent mailing address. This disk can be added to by the members to allow them to have a complete bibliography.

Jim then gave a report on the cleanup of the past proceedings and move into a new storage area. The new storage area is much smaller reducing the cost of storage. The Western Snow Conference splits the current storage with Boy Scout Troop 872 reducing our storage costs significantly. The Western Snow Conference now has approximately 25 of each of the past proceedings with 30 of the last five years. Proceedings prior to 1970 are almost exhausted but a few are available. Those proceedings since 1970 are readily available for the most part. The proceedings are available for purchase at 20 dollars. Members who wish back issues can obtain those at the dues rate at the time of publication.

Jim Marron indicated that the publication policy distributed to presenters this year was incorrect and did not reflect Publication Committee Policy as set by the Executive Committee. The final established publication policy of the Western Snow Conference will be that the primary units of publication be SI and that the units in the presentation be at the presenters discretion but encourage SI units, at the authors discretion, English units in parenthesis may follow the SI units in the publication. The instructions to authors from the Western Snow Conference will point out that centimeters is not the correct description of precipitation. Precipitation should be expressed in millimeters. The new presentation documents will include material to help presenters improve presentations at the Western Snow Conference.

Wilderness Committee Report: Jack Hannaford

The Policy Statement of the Western Snow Conference was prepared and sent to all member of congress. Clay indicated that it would be very timely to have the Resolution sent out again. Al Rango indicated that the Executive Committee had decided to distribute the Resolution to the new members of congress as well as a mailing to those congressional members where Wilderness bills have not been passed.

Awards Committee Report: Jack Hannaford

Jack indicated that the technical programs committee was on the search for the best formal and poster paper presentation. An announcement of the winners of those awards will be made at the banquet in Juneau. Jack also reminded the area chairs that they needed to provide him with the names of deceased members and retired members that were eligible for life membership. Jim Marron announced that Arch Work, past General Chairman of the Western Snow Conference, passed away this last year and the 59th proceedings would be dedicated to his memory.

Barbara Sarantitis announced that this years recipient of the J. E. Church award at Reno High School was Mary Kay Orgil the first woman recipient. She is an excellent student. Jack indicated that the four area chairpersons needed to meet with Jack to provide their nominees for the El Farsante award and to defend themselves.

1991 Western Snow Conference Annual Meeting: Bob Richards

Bob reported a Conference in progress and that he would like to thank his local arrangements committee for all the good work that they had done to make the arrangements. Bob recognized George Clagett, local arrangements, Doug Golding, technical program, Don Huffman, Norbert Leupold. The North Pacific Committee also recognized Phyllis Snow for her contribution as nature guide and providing information materials for the trip.

Bob indicated that to this point the Conference has completed 8 of the 16 formal papers and that attendance had been very good. The unusual circumstances and facilities had made for some discomfort but things have generally gone very well. One of the more memorable events was when there were six individuals standing around the overhead projector trying to make it work and he swore that he heard several incantations during that time. The tour at Ketchikan will occur and should be very interesting.

1992 Western Snow Conference Annual Meeting: Peter Palmer

The 1992 meeting of the Western Snow Conference will be held at the Snow King Resort in Jackson, Wyoming on April 13-16, 1992. The room rates for the Conference will be 45 dollars single occupancy, 55 dollars double and Peter will provide information as to whether these rates would be available to attendees before and after the Conference. The theme for the Conference is "Snow in a Changing Environment". The tour would be of the Jackson and Palisades Dams and would include construction, as well as uses of the water in irrigation, flood control, and power generation. The resort accepts American Express, Carte Blanche, Dinners Club, Visa, and Master Card.

1993 Western Snow Conference Annual Meeting: Albert Rango

In 1982 the Eastern Snow Conference met with the Western Snow Conference to celebrate the 50th anniversary of the Western Snow Conference. At the 1989 meeting the Eastern Snow Conference invited the Western Snow Conference to join them at their 50th annual meeting in 1993. The Eastern Snow Conference annual meeting would be held in the South Continental Area which would be the appropriate rotation for the Western Snow Conference but would be held in an Eastern City which would be out of the normal state rotation of the South Continental Area. The Executive Committee decided at that time to accept the invitation. John Metcalfe of the Eastern Snow Conference was introduced and was asked to say a few words about the 1993 meeting. John presented the General Chairperson and Secretary with 50th Anniversary sweat shirts and told them that they would be required to wear those shirts at meetings to

advertise the 50th Anniversary. Al and Jim agreed. John indicated that the final arrangements had not been made and that Al Rango, Bernie Shafer, and Tom Carroll would be working with the arrangements committee to help decide on the meeting location. John did indicate that the travel expenses from the west would be around 500 to 600 dollars and that 25 oral and 12 poster papers would be presented. The meeting itself would be held the second week of June from the 7th to the 10th in 1993. The meeting would be 3 complete days instead of the normal 1 1/2 days.

Old Business: Bob Swanson

By-Laws Changes: Jim Marron

The new by-laws and constitution of the Western Snow Conference has been passed by the Executive Committee of the Western Snow Conference and will be published in the 59th proceedings for review by the membership.

The principle changes are that:

The purpose statement of the Western Snow Conference be modified. The new purpose statement would read, "The purpose of the Conference shall be to provide a forum for individuals and organizations to share scientific, management, and socio-political information on snow and runoff from any viewpoint and to advance the Snow and Hydrologic Sciences". This statement is being modified to comply with US Postal Service requirements to qualify as a non-profit group. This change will save the Western Snow Conference 15 cents a mailing.

It is recommended that the Western Snow Conference establish a General Chairperson Elect who will take office two years prior to assuming the office of General Chairperson. This will give the individual who will become the General Chairperson the opportunity to learn what is expected of the General Chairperson and begin working on those items that, as General Chairperson, would be accomplished under that administration. This period would also give the General Chairperson Elect the opportunity to find an individual willing to become Secretary of the Western Snow Conference for the two years of that administration.

It is recommended that the Western Snow Conference change the term of office for the Secretary to coincide with the term of office of the General Chairman. The Secretary would be from the same area as the General Chairperson. Associated with these changes the committee also recommends that the position of Secretary handle the job as secretary and treasurer. This recommendation is based on the fact that the Western Snow Conference has a computer, that the books will have been automated, and the mailing list as well as calendar of events will have been included on the computer. Additionally, the General Chairperson and Secretary will be in close proximity so that the job will actually be handled by both office holders.

It is recommended that the Western Snow Conference establish the position of documents manager on the publication committee. This individual will be in Portland, Oregon and will handle all of the mailings and coordination of publication of the proceedings. It is further recommended that the Chairperson of the Publications committee become an ex-officio member of the Executive Committee with full voting rights.

The remaining changes in the by-laws either allowed for these changes in the remaining sections or corrected changes that have been enacted in the constitution and by-laws over the last several years.

Laptop computer purchase: Barbara Sarantitis

Barbara Sarantitis reported that the Conference purchased a Compaq IIIe 286 computer and that the job of computerizing the books is currently going on. The computer cost approximately 2500 dollars.

Membership Certificate: Jim Marron

The Western Snow Conference will now use a membership certificate that can be framed and exhibited. The certificate will have a snowflake and appropriate membership information. A question was asked as to whether dues could be paid at the meeting. Barbara and Jim both indicated that they would more than happy to accept dues payments.

New Business: Albert Rango

Al indicated that only one piece of new business came up during the Executive Committee meeting. George Clagett had indicated that the Conference may have been missing an opportunity to save some money by not soliciting sponsors for Conference activities such as the coffee breaks and the Chairs reception. The Executive Committee gave the local arrangements committees the latitude to take advantage of any opportunity available to the Conference.

A motion to adjourn was made by Bob Richards and seconded by Ken Wahl. The annual business meeting adjourned at 5:06 pm April 13, 1991.

BANQUET DOINGS

The awards presented during the banquet included, the best formal presentation, Charles Troendle, the best poster presentation, John Metcalfe, and of course the El Farsante competition was tremendous including outstanding entries by Al Rango, Jim Marron, George Clagett, Jerry Beard, and many others. The winner going away was George Clagett. George won mainly due to outstanding speaking abilities and repeated **PROLONGED** performances over the last several years. He just accumulated too much momentum. Generally everyone believed that if George had not received the award for his past performance he would certainly have been given the award by acclamation for his performance as local arrangement person for the banquet and the primary functions at that banquet. Glaciologist Dr. Maynard Miller was the speaker for the finale. Ron Jones performed the job as Master of Ceremonies very well controlling the rowdiness of the evening.

WESTERN SNOW CONFERENCE
ATTENDEES OF THE 59th MEETING
JUNEAU, ALASKA
APRIL 12-15, 1991

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>BUREAU OR AGENCY</u>	<u>CITY</u>	<u>STATE</u>	<u>COUNTRY</u>
Armstrong	Richard L.	U of Colorado CIRES	Boulder	CO	
Babhija	T. S.				
Berg	Neil	USDA Forest Service	Berkeley	CA	
Bhola	A. M.				
Bornemeier	Doug				
Brandow	Clay	Sacramento River Forecast Center	Davis	CA	
Brunengo	Matthew	MS PY12 - Div. of Geology & Natural Res.	Olympia	WA	
Burns	Joseph I.	Burns Kienlen ET AL	Sacramento	CA	
Campbell	William				
Carroll	Tom	National Weather Service	Minneapolis	MN	
Chin	William Q.	B.C. Hydro	Vancouver	BC	CANADA
Christner	Jere		Sitka	AK	
Clagett	George	SCS Snow Survey	Anchorage	AK	
Cooley	Keith R.	USDA-Agricultural Research	Boise	ID	
Covert	Kevin G.	Los Angeles Dept. of Water & Power	Los Angeles	CA	
Crook	Arthur G.	Arthur G. Crook and Associates	Beaverton	OR	
Dietrich	Tom		Cheyenne	WY	
Dracup	John A.	UCLA	Los Angeles	CA	
Ester III	Charles	Salt River Project	Phoenix	AZ	
Farnes	Phillip	Soil Conservation Service	Bozeman	MT	
Ford	Glenn				
Freeman	Gary J.	PGE-Hydro Generation, Rm 502	San Francisco	CA	
Glassey	Gene	Fluid Data Systems	San Diego	CA	
Golding	Dr. Douglas	University of British Columbia	Vancouver	BC	CANADA
Gregory	Tabitha				
Hall	Roderick L.	Sierra Hydrotech	Placerville	CA	
Hannaford	Jack F.	Sierra Hydrotech	Placerville	CA	
Harlow	Robert				
Hasencamp	Wm. J.	LA Dept. of Water & Power	Los Angeles	CA	
Helms	J. Douglas	Soil Conservation Service	Washington	DC	
Huffman	Don	Soil Conservation Service	Portland	OR	
Iyer	S.S.				
Jones	Kenneth C.	Soil Conservation Service	Beaverton	OR	
Jones	Ronald A.	Soil Conservation Service	Mesa	AZ	
Josberger	Ed				
Kite	Geoff	Hydrometeorological Research Div.	Saskatoon	SK	CANADA
Klieforth	Harold E.	Desert Research Institute	Reno	NV	
Koch	Roy W.	Dept of Civil Engineering, PSU	Portland	OR	
Kuehl	Don		Portland	OR	
Leith	Dr. Rory M.	Inland Water Directorate	Vancouver	BC	CANADA
Leupold Jr.	Norbert	Leupold & Stevens	Beaverton	OR	
Mahoney	Jennifer L.	NOAA/ERL/FS1 325 Broadway	Boulder	CO	
Marron	James K.	USDA Soil Conservation Service	Beaverton	OR	
Martinez	Manuel H.	US Forest Service	Ft. Collins	CO	

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>BUREAU OR AGENCY</u>	<u>CITY</u>	<u>STATE</u>	<u>COUNTRY</u>
Mergen	Bernard	The George Washington University	Washington	DC	
Metcalfe	John R.	Enviro Canada - Atmos. Enviro	Downsview	ON	CANADA
Moffitt	Robert				
Molloy	Paul				
Morgan	Dennis	VIA-SAT Data Systems	North Vancouver	BC	CANADA
Page	Wallace L.	US Forest Service, Flathead N.F.	Kalispell	MT	
Palmer	Peter L.	USDA Soil Conservation Service	Boise	ID	
Pardee	Jack G.	Calif Dept of Water Res.	Sacramento	CA	
Perry	John		Beaverton	OR	
Powell	Douglas R.	UC Berkeley	Berkley	CA	
Rango	Albert	USDA Agriculture Research Ser.	Beltsville	MD	
Redmond	Kelly	Western Regional Climate Center	Reno	NV	
Richards	R.P.	BC Ministry of Environ	Victoria	BC	CANADA
Rocchetti	Paul	VIA-SAT Data Systems	North Vancouver	BC	CANADA
Roos	Maurice	California DWR	Sacramento	CA	
Sarantitis	Barbara C.	Soil Conservation Service	Portland	OR	
Shillinglaw	Robert M.	Carpenter Machine Works	Seattle	WA	
Snow	Phyllis Jeanne	Flathead NR, US Forest Serv.	Kalispell	MT	
Speers	Douglas D.	Corps of Engineers, NPD	Portland	OR	
Stockinger	Gary G.	Washinton Water Power	Spokane	WA	
Swanson	Dr. Robert H.	Canadian Forestry Service	Edmonton	AB	CANADA
Sytsma	Don	Meteor Communications Corporation	Kent	WA	
Tarboton	David G.	Utah Water Research Lab	Logan	UT	
Toews	David A. A.	BC Ministry of Forests	Nelson	BC	CANADA
Tonnessen	Kathy	Air Resources Board/Research Division	Sacramento	CA	
Troendle	Charles	USDA Forest Service	Ft. Collins	CO	
Waage	Marc D.	Denver Water Department	Denver	CO	
Wahl	Kenneth	USGS Denver Federal Cntr	Lakewood	CO	
Walser	John T.	Weather Consultants Inc.	Santa Rosa	CA	
Weller	William F.	Soil Conservation Service	Spokane	WA	
Wiesnet	Donald		Vienna	VA	

CONSTITUTION AND BY-LAWS
"Western Snow Conference"

ARTICLE - I - NAME

The name of this organization shall be the "Western Snow Conference".

ARTICLE - II - PURPOSE

The purpose of the Conference shall be to provide a forum for individuals and organizations to share scientific, management, and socio-political information on snow and runoff from any viewpoint and to advance the Snow and Hydrologic Sciences.

ARTICLE - III - MEMBERSHIP

There shall be four (4) types of membership:

- (1) Individual - Open to any person having an interest in snow and runoff problems.
- (2) Business - Open to any organization wishing to support the activities of the Western Snow Conference and it's members. These memberships fall into three categories, corporate, standing, and purchasers.

Corporate - Open to businesses who wish to support the Western Snow Conference.

Standing - Open to institutions who wish to support the Western Snow Conference.

Purchasers - Open to those interested in purchase of the Western Snow Conference proceedings.
- (3) Honorary - Open to any person who shall have made a distinct contribution to the Western Snow Conference or to the science of snow hydrology and streamflow forecasting. Honorary membership awards shall be recommended by the Awards Committee and shall be subject to unanimous approval by the General Chair and all four Area Chairpersons. Total number of honorary memberships outstanding at any calendar date shall not exceed five (5) in number.
- (4) Life - Open to any member or former member of the Conference who is a past Executive General Chairperson of the Conference or who has been active in the Western Snow Conference for not less that ten (10) years and who has retired and is spending less than 50 percent of their time in gainful employment.

ARTICLE - IV - DUES

All dues shall be payable on a fiscal year basis (April 1 - March 31) and shall be set by the Executive Committee. Annual dues shall include one (1) copy of the Proceedings and other official Conference material. Copies for business members are provided as required with a minimum of one (1) copy provided for a business membership.

Honorary and Life Members are exempt from the payment of membership dues.

ARTICLE - V - MEETINGS

An Executive Committee meeting shall be held each year preceding the general meeting of the Conference. The General Chairperson or General Chairperson Elect (or any three of the four Area Chairpersons) and ten members, or members representatives, of the Executive Committee shall constitute a quorum for the transaction of any business of the Executive Committee. The results of discussions held at the Executive Committee meeting will constitute the items for review at the Conference general business meeting.

An annual meeting of the Western Snow Conference shall be held for the presentation and discussion of reports and papers concerning snow, and runoff science as well as other

related activities. This meeting shall be open to all members and interested parties. The meeting shall normally be held the third full week of April but the meeting may be changed at the discretion of the Executive Committee.

A general business meeting shall be held concurrently with the annual meeting of the Conference. This meeting will include reports from the General Chairperson, the Secretary and standing committees as well as items of discussion as forwarded from the Executive Committee.

The Annual Meetings shall be rotated through the four areas so that all members shall have a chance to attend these meetings with a minimum of travel expense. The location of annual meetings shall be designated two years in advance and is the sole responsibility of the General Chairperson, the Secretary, and the Area Committee in which the meeting is being held. The local Area Chairperson will be the final authority on the meeting held within that area. Fees for the annual meeting shall be set by the local arrangements committee and the Area Chairperson with the approval of the General Chairperson.

ARTICLE - VI - ADMINISTRATION

The administration of the Conference shall be vested in a General Chairperson, a General Chairperson Elect, a Secretary, and an Executive Committee of twenty members apportioned among the four areas of the United States, and the adjoining Provinces of Canada.

ARTICLE - VII - DUTIES OF GENERAL CHAIRPERSON, GENERAL CHAIRPERSON ELECT, AND SECRETARY

General Chairperson

The General Chairperson shall be responsible for the administration of the Conference. He shall appoint such committees as he deems necessary for the successful accomplishment of the Conference aims. All funds of the Conference shall be disbursed by the General Chairperson, and, together with the Secretary, shall keep an accurate account thereof. The General Chairperson shall provide the Secretary with sufficient funds to conduct the ordinary business of the Conference. The General Chairperson shall preside at all meetings and shall be a member ex-officio of all committees.

General Chairperson Elect

In the absence of the General Chairperson, the General Chairperson Elect shall preside. The General Chairperson Elect will also function as an ex-officio member of the Executive Committee and will be kept abreast of the activities of the Conference by the General Chairperson and Secretary. The accounts of the Conference shall be audited by the General Chairperson Elect and Secretary designee. This audit will be reported to the Executive Committee for review with copies provided to the membership at each annual meeting. The General Chairperson Elect shall succeed to the office of General Chairperson for the unexpired term should the office become vacant. The General Chairperson shall then serve the remainder of the term of office plus his own term as General Chairperson. The Area Chairman of the area of the General Chairperson shall succeed to the office of General Chairperson Elect for the remainder of the unexpired term. This rule shall apply even if the Area Chairperson has served a term as General Chairperson.

Secretary

The Secretary, under the direction of the General Chairperson shall conduct the ordinary business of the Conference, including the keeping of records and the collecting and banking of funds, of which the Secretary shall keep an accurate account. The Secretary shall be in attendance at, and shall keep the minutes of, the Executive Committee meeting and the annual General Business meeting.

ARTICLE - VIII - EXECUTIVE COMMITTEE

The total number of members on the Executive Committee shall not normally exceed twenty, and shall not normally have more than five from any one area. In the event of a tie in an area's election results the Executive Committee may chose to either have the members of the current Executive Committee from that area decide on the individual to serve or the Executive Committee may chose to have an extra member for that term only. If any area should have a vacancy for any reason, the General Chairperson, with the advice and consent of the incumbent Committee members for the said area, may by appointment from within the area fill the vacancy until the next election.

The Secretary shall be entitled to vote with the members of the Executive Committee in passing on the business of the Conference.

All past General Chairpersons shall be ex-officio members of the Executive Committee and shall be in addition to the twenty (20) duly elected members.

ARTICLE - IX - ZONING

For election and assembly purposes, the Conference shall be divided into four areas as follows:

- (1) North Continental Area, comprising Montana, Wyoming, Idaho, Alberta and the provinces to the east of the Continental Divide.
- (2) South Continental Area, comprising Colorado, Utah, New Mexico, and the states to the east of the Continental Divide including any membership from outside of the United States and Canada.
- (3) North Pacific Area, comprising Oregon, Washington, British Columbia and Alaska.
- (4) South Pacific Area, comprising California, Nevada, Arizona, and the Pacific Islands.

ARTICLE - X - NOMINATION

Preceding each election for Executive Committee members, the Chairperson of each Area Committee shall, with the consent of the majority of members of the concerned Area Committee, name to the General Chairperson eight members of the Conference in that area, who, together with the others similarly chosen, shall constitute the nominees for the four areas.

Candidates for General Chairperson Elect shall be nominated by the members of the Executive Committee of the Area in rotation and provided to the Area Chairperson of that area. The members of the Executive Committee from that area will then meet and decide on the individual to be presented to the Executive Committee as the area's nominee for General Chairperson Elect. The order of rotation shall be the North Continental, South Continental, South pacific, and North Pacific. Candidates for the position as General Chairperson Elect shall be selected from 1) members of the current executive committee; 2) former members of the Executive Committee who have served two or more terms on the Executive Committee; and 3) members of the Conference who have served as chairperson of a standing committee of the Western Snow Conference for the equivalent of two or more terms of the Executive Committee. Potential candidates provided for in the above manner must reside in the area which presents the nomination and shall have an active interest in the current affairs of the Conference.

ARTICLE - XI - ELECTION

An election shall be held once every two years. The General Chairperson shall place the names of nominees to the Executive Committee on a ballot and distribute it along with a brief biography of each candidate to all members in good standing for final balloting. The five from each area who shall receive a plurality of the total votes shall be declared elected. In addition, the person receiving the most votes in each area shall be declared the Chairperson of the Executive Committee for that area.

Members shall vote only for nominees in their area. Ballots shall be mailed eight to ten weeks and returned four to six weeks before the date of the annual meeting in even-numbered years. The ballot itself shall be a secret ballot and will only be sent to members in good standing, paid dues, of the Western Snow Conference with return postage provided.

The General Chairperson Elect shall be elected by the Executive Committee at the annual Executive Committee meeting in even-numbered years and will become the General Chairperson at the end of the two year term as General Chairperson Elect.

The Secretary shall be appointed by the General Chairperson in office with the consent of not less than two-thirds of the members of the Executive Committee present at the Executive Committee meeting.

ARTICLE - XII - TERM OF OFFICE

The term of all elected or appointed officials of the Western Snow Conference shall be two years. The number of consecutive two-year terms that any member of the Executive Committee may serve is limited to four terms. Following a two-year break in service a member may again be eligible for nomination to the Executive Committee. The term of office of the Executive Committee shall begin at the start of the Executive Committee meeting in the even-numbered years.

The term of office of the General Chairperson Elect shall begin at the close of the meeting in the even-numbered years after recognition by the new General Chairperson.

The General Chairperson shall be limited to one term in office except as provided in Article VI. The term of office of the General Chairperson shall begin at the close of the annual meeting in the even-numbered years.

The Secretary shall be appointed for a two-year term beginning at the close of the annual business meeting in the even-numbered years.

ARTICLE - XIII - REFERENDUMS

A referendum of any proposal may be initiated by the General Chairperson, three members of the Executive Committee, or ten members at large. The voting on any question, including removal of officers, shall be conducted by the General Chairperson among the eligible voters, except that if the removal of the General Chairperson is proposed, the General Chairperson Elect shall conduct the voting among members of the Executive Committee. A court consisting of the General Chairperson, the General Chairperson Elect, and the four Area Chairpersons or their designee shall consider any dispute on procedure and its decision shall be final.

ARTICLE - XIV - PUBLICATIONS

The Executive Committee shall determine policies regarding all Conference publications, together with their content and distribution.

The execution of the directions of the Executive Committee will be vested in a permanent publications committee including a Chairperson, Editor, and Documents Manager. The duties of the Chairperson will be to coordinate the publication of the annual proceedings and to organize the publications committee. The editor will review all papers to insure compliance with the Executive Committee publication policy. The

Documents Manager will prepare an index, foreword, and dedication, if included, and collate the proceedings for publication as well as handle proceedings and there distribution. The Documents Manager shall distribute all mailings of the Conference through its permanent mailing location.

The Proceedings of the annual meeting shall be published each year and distributed to all dues paying members. A copy of each publication of the Conference shall be mailed free of charge to each Honorary or Life member. At the General Chairperson's discretion institutions may be designated to receive a complimentary copy of the proceedings. These complimentary copies may be either a one time contribution or continuing at the discretion of the General Chairperson. These distributions shall be coordinated through the Secretary and Documents Manager of the Conference.

At the discretion of the Executive Committee, non-conference material may be distributed to Conference members upon payment of mailing costs. The mailing list of the Western Snow Conference will not be distributed.

ARTICLE - XV - EMOLUMENT

The Secretary shall receive payment in the amount to be set by the Executive Committee.

ARTICLE - XVI - DISSOLUTION

In the event that the Western Snow Conference shall become dissolved and shall cease to continue its activities as provided in this Constitution and By-Laws, all assets of the Conference remaining after payment of all outstanding obligations, shall become the property of the University of Nevada, Reno, Nevada.