

MINUTES
NORTH AMERICAN INTERSTATE
WEATHER MODIFICATION COUNCIL
Desert Research Institute
Reno, Nevada
April 24, 2002

The meeting was called to order by Chairman Darin Langerud at 10:00 a.m., April 24, 2002 at the Desert Research Institute, Reno, Nevada. A roll call of members showed the following were present. Maurice Roos, California; Arlen Huggins, Nevada; Darin Langerud and LeNor Dollinger, North Dakota; Mike Mathis, Oklahoma; Jane Lee and George Bomar, Texas; Tommy Shearer and Dale Bates, Texas Weather Modification Association; Dave Cole, Utah; and Joe Warburton, Walker River Irrigation District.

Other present were: Steve Chai, Bill Finnigan, Nathan Kuhnert, Archie Ruiz, Curt Hartzell, Todd Adams, Aaron Gilstad, and Tom DeFelice.

MINUTES

Joe Warburton moved the minutes of the meetings of September 27, 2001; December 18, 2001 (conf. Call); and February 25, 2002 (conf. Call) be approved as distributed. Second by Dale Bates. Motion carried.

ELECTION OF OFFICERS

Chairman Langerud called for nominations for Chairman.

Dr. Joe Warburton nominated Darin Langerud for Chairman. Dale Bates moved nominations cease and a unanimous ballot be cast for Darin Langerud for Chairman. Second by Dave Cole. Motion carried.

Mr. Langerud called for nominations for Vice Chairman.

Dale Bates nominated Mike Mathis as Vice Chairman. Dr. Joe Warburton moved nominations cease and a unanimous ballot be cast for Mike Mathis for Vice Chairman. Second by Maurice Roos. Motion carried.

Mr. Langerud called for nominations for Secretary-Treasurer.

Maurice Roos nominated Dr. Joe Warburton for Secretary-Treasurer. Mike Mathis moved nominations cease and a unanimous ballot be cast for Dr. Joe Warburton for Secretary-Treasurer. Second by Dale Cole. Motion carried.

FINANCIAL STATUS REPORT

Dr. Joe Warburton presented the financial status report dated 4-24-02.

Mike Mathis moved the financial status report of 4-24-02 be approved as presented. Second by Maurice Roos. Motion carried.

MEMBERSHIP REPORT

Dr. Warburton gave a brief report on memberships stating an Associate membership had been received from the Texas Weather Modification Association since the last meeting.

REPORT FROM BY-LAWS COMMITTEE

Arlen Huggins reviewed proposed changes to the Council By-Laws. The changes were distributed prior to the meeting and included defining the Board of Directors; selection and term of office for officers; council meetings; notices of meetings; council committees; and deletes reference to regions.

Dave Cole moved to adopt the proposed amendments to the Council By-Laws. Further discussion was held on the amended by-laws.

Mike Mathis moved the motion be amended to add a description of the voting rights of each membership category in the by-laws as follows:

“At meetings of the Council each Full Member state shall have 1 vote.”

“At meetings of the Council each state’s Association Member(s) shall collectively have 1 vote, regardless of number.”

“At meetings of the Council Affiliate Members shall not vote.”

Second by Dale Bates. The motion to amend carried.

Dr. Joe Warburton moved to adopt the amended motion. Second by Maurice Roos. Motion carried.

TRAVEL REIMBURSEMENT POLICY

Chairman Langerud noted the Council had received two requests for travel reimbursement associated with travel to Washington, D.C. regarding the Weather Damage Modification Program.

Mike Mathis moved to reimburse Dr. Joe Warburton \$802 for travel to Washington, D.C. on behalf of the NAIWMC. Second by Dale Bates. Motion carried.

Arlen Huggins moved to reimburse George Bomar \$833.14 for travel to Washington, D.C. on behalf of the NAIWMC. Seconded by Dr. Joe Warburton. Motion carried.

Chairman Langerud noted a draft policy for travel reimbursement will be forwarded to the members for their consideration, which will include naming a committee to consider travel reimbursement requests.

MEETING LOCATIONS

Discussion was held on future locations for Council meetings.

Dennis Gibbs expressed the Santa Barbara County Water Agency would very much like to accommodate NAIWMC at a future meeting. Airfare to Santa Barbara was a prime concern for many members.

Arlen Huggins stated the Desert Research Institute (DRI) welcomes the Council at any time to continue to hold meetings at their facility.

Mike Mathis stated he feels holding the spring meeting in conjunction with the Weather Modification Association (WMA) is a very good idea. The WMA meeting for 2003 is scheduled for Rapid City, South Dakota. The fall NAIWMC meeting could continue to be held in Reno at DRI for convenience.

COUNCIL WEB SITE

Chairman Langerud noted at this time the NAIWMC does not have a functioning web site. Early attempts were made to start a web site with Utah hosting the site. Dave Cole was not aware of what his predecessor had done in this regard.

Mr. Langerud stated the availability of an Information Technology Network Specialist with the North Dakota Water Commission who would be available to put together a web site for the NAIWMC and host the site. The cost to the council would be \$70 to register the domain name for a two-year period.

Dale Bates made a motion to accept the North Dakota offer to host the web site and to authorize expending \$70 to register the domain name for two years. Second by Dave Cole. Motion carried.

MEMBER REPORTS

California – Maurice Roos distributed a report of a summary of water conditions as of April 1, 2002 for the State of California. Mr. Roos stated the water supply outlook is much better than last year, except in the south. However, users should have adequate supplies in 2002. Mr. Roos also distributed copies of maps depicting seasonal precipitation percent of average to date; forecast of April through July unimpaired snowmelt runoff; and, a map depicting 13 rain and snow enhancement programs operating in California for the 2001-2002 season.

Santa Barbara County Water Board – Dennis Gibbs reported their program runs from September through March. Since December, they have only had 5 seeded days.

Nevada – Arlen Huggins distributed copies of a report regarding water conditions as of April 1, 2002. Mr. Huggins noted in the 5 seeded basins, snowpack ranged from 80% to 100% of normal. He also noted equipment used on the program and hours of operation of the equipment. Mr. Huggins reported some of the problems of the 2002 programs, which were, late arrival of funding which shortened the aircraft seeding period, lost seeding hours because of an early season suspension of seeding due to abnormally high snowpack (~200% of normal), usual problems with aircraft seeding in getting all items requested in contract, and more than the usual number of problems with communications with remote generators. Most were cell phone provider problems. Mr. Huggins also stated the biggest problem is determining if seeding criteria are being met.

NEW MEXICO – Copies were distributed of a letter report by Scotty Savage in which she reported New Mexico has made much progress in promoting acceptance of weather modification. The Llano Estacada Weather Modification Association submitted a five-year plan to the Interstate Stream Commission (ISC) for expansion of the program to include nearly 13 million acres of rain enhancement and a couple of trial programs of snow enhancement and a research component for hygroscopic flares. The plan was endorsed and there is a good possibility that it will be funded. The summer of 2002, the Sandy Land Underground Water Conservation District of Texas will begin a new program comprised of 2.2 million acres in Texas and 3 million acres in eastern New Mexico. Two twin engine aircraft will be used for this 5.2 million acres.

NORTH DAKOTA – Mr. Langerud reported the 2002 project in North Dakota will cover 6.7 million acres and will run from June 1 through August 31. The program is a combined hail suppression and rainfall enhancement project. Eight twin engine aircraft (2 cloud-top and 6 cloud-base) will be used to dispense AgI complexes with salts to produce condensation-freezing nucleation. Dry ice, flares (ejectable and burn-in-place) and wing-tip generators will be used. The NDARB is revising the ground school training program to take more advantage of case studies utilizing radar, satellite, and video imagery. The training cases will incorporate instruction by experienced staff and interaction by field personnel.

OKLAHOMA – Mike Mathis reported they have had no operations since June, 2001. No additional funding was included by legislative activity this year. The funding request failed in committee and there is no new activity in the legislature at this time. Mr. Mathis stated they plan to continue cooperative agreements with Kansas and Texas.

TEXAS – Dale Bates reported they now have 8 ongoing programs covering 52 million acres and utilizing 20 aircraft. The programs are being run by water districts and counties. Two aircraft are being supplied by contractors for the Abilene program. Strides have been made in getting the program back into the hands of the people that are paying at least 50% or more of the cost. The Edwards Aquifer Authority and the Littlefield program have both entered into contract with Dr. William Woodley to assess their programs independently of what the Texas Weather Modification Association is doing. Mr. Bates presented information regarding this assessment. The assessment showed a 17% increase for one year and a 4% decrease in the next year. Mr. Bates also reported on future planned evaluations.

Mr. Archie Ruiz presented information regarding the TITAN graphical interface being used. Texas started using TITAN IN 1997 and now also use it for assessment of the program.

UTAH – Dave Cole distributed copies of a Summary Report of cloud seeding activities for Utah for the 2001-2002 winter season. It was noted there were 4 active project areas during the reporting period. The projects are all using silver iodide ground generators. A total of 109 ground generators are being used. It was noted cloud seeding opportunities have been less than normal this season due to the nature and infrequency of storm systems. A recent study by the Division of Water Resources estimated the average annual increase in runoff due to cloud seeding to be about 250,000 acre-feet (13%) for projects seeded during the 1999-2000 season. The estimated cost of the water developed was about one dollar per acre-foot.

WEATHER DAMAGE MITIGATION PROGRAM

Chairman Langerud informed the members the status of the reprogramming effort at this time. The Bureau of Reclamation has submitted the reprogramming to the Energy and Water Subcommittee last Friday. The committee has 15 days to act on this. Information from Mr. Rick Spees indicates the committee intends to deny the reprogramming request.

Mr. Langerud introduced Curt Hartzell, Bureau of Reclamation (BOR). Mr. Hartzell stated another avenue the BOR has looked at is trying to find another agency to take the program and do a funding transfer.

Mr. Langerud distributed copies of a memo from Rick Spees which is a summary of on-going activities regarding the Weather Damage Modification Program.

Dr. Warburton briefly reported he has not had a response to his request for an update on the National Research Council Study. He has heard they have had their first meeting regarding this study.

Chairman Langerud noted due to the amount of research funds available and the number of interested parties, funds for projects may be limited. It was suggested by the Bureau of Reclamation the Council may want to explore the possibility of submitting topical proposals (e.g. rain enhancement, hail suppression, and snowpack). This may have merit, but Chairman Langerud feels each state or entity that has interest needs to be involved.

George Bomar noted the BOR had stated at an earlier meeting that one primary contractor may be the way to approach this research and suggested that be the NAIWMC.

LeNor Dollinger asked Curt Hartzell if the Council would then be the prime recipient and the states/entities would be subcontracting with the Council for these funds. Mr. Hartzell felt this would be the case.

Further discussion was held on the issue of the Council being the prime recipient of the grant funds. It was noted the Council does not have staff to do the contract monitoring or reporting that would be required. Also, discussion was held regarding collaboration of states on similar areas of interest.

Those states/entities that have indicated plans to submit proposals for research funds are: Kansas, Nevada, North Dakota, Oklahoma, Texas, Santa Barbara County Water Agency (Calif.), and Walker River Irrigation District (Nevada).

CSU CLOUD CHAMBER

Chairman Langerud reported discussions have been held about the possibility of moving the Colorado State University cloud chamber to the University of North Dakota (UND). UND has some interest in acquiring the cloud chamber and the capability of using some funds for this purpose. Additional funding needs to be identified and obligated. There is some interest from the private sector in assisting this endeavor. Mr. Langerud asked if there is interest by the members of the Council in a proposal for BOR funds that would facilitate funding for the move and set up of this facility. No consensus was reached on this question.

Discussion was held on the use of the cloud chamber for the purpose of testing pyrotechnics and generator burners.

WEATHER MODIFICATION ASSOCIATION – TOM DEFELICE

Mr. Tom DeFelice, President of the Weather Modification Association (WMA) stated a Legislative Affairs Committee of the WMA has been created to assist the WMA, NAIWMC, and other groups to make advancements and improvements in weather modification operations. Mr. John Leedham is serving as chairman of the committee.

Mr. DeFelice also informed the council of the WMA-ASCE workshop that will be held in conjunction with the WMA annual meeting and urged attendance.

Mr. DeFelice stated the WMA is committed to working with NAIWMC in furthering the goals and objectives of both organizations.

OTHER BUSINESS

George Bomar stated Dave Matthews, BOR, has indicated he would like to hold weekly telephone conference calls with those groups planning to submit proposals. Mondays at 1:00 p.m. was the suggested time. Some participants had schedule problems with this time. It was noted schedule conflicts should be sent to Darin so Dave Matthews could be informed of these.

The next meeting is tentatively set for Reno, September 12, 2002.

Being no further business, Tommy Shearer moved the meeting adjourn. Second by Dr. Joe Warburton. Motion carried.

DARIN LANGERUD, CHAIRMAN

DR. JOSEPH WARBURTON
SECRETARY-TREASURER

Transcribed by LeNor Dollinger