

NORTH AMERICAN INTERSTATE
WEATHER MODIFICATION COUNCIL

Fall Meeting: Salt Lake City, UT
September 13-14, 2007

MINUTES

The meeting of the North American Interstate Weather Modification Council was called to order by Joe Busto, Chair, on September 13, 2007, at 1pm in a meeting room of the Utah Division of Water Resources, Salt Lake City, Utah. Roll call confirmed the following members present: Arlen Huggins, State of Nevada; Joe Busto, State of Colorado; Tom Ryan, Metropolitan Water District of Southern California; Darin Langerud, State of North Dakota; Dave Cole, State of Utah; Barry Lawrence, State of Wyoming; John Andrew, State of California; Diane Coe, State of Kansas, and Robert Sandbo, State of Oklahoma.

Others present were Todd Adams (Utah DWR), Hal Anderson (Idaho DWR), Josh McClintock (McClintock Associates), and Tony Willardson (Western States Water Council). Kevin Moran (Western Governors Association) participated by conference call. Don Griffith and Mark Solak of North American Weather Consultants attended the second day of the meeting.

MINUTES

John Andrew moved to approve the minutes of the April 17, 2007 meeting as distributed. Second by Darin Langerud. Motion carried.

FINANCIAL STATUS REPORT

Arlen Huggins, Secretary-Treasurer, presented and reviewed the financial status report as of 9/13/07. The report showed a balance of \$33,926.31.

Darin Langerud moved to accept the 9/13/07 financial status report. Second by John Andrew. Motion carried.

MEMBERSHIP REPORT

Arlen Huggins reported that to date 11 of 13 members have paid their dues, with six of these also paying the special research assessment. Huggins requested an update on member delegates and alternates, which Darin Langerud will then add to the Council web page. Discussion was held on possible additional new memberships which included New Mexico, Arizona and Idaho. There was also discussion regarding a possible new membership category (without dues) for groups from nonmember states that might have interest in learning about the Council, but with no desire to commit to one of the current member categories. It was decided that interested groups could

be invited to meetings and attend to see how the Council functions, without creating a membership category.

NAIWMC WEB PAGE

Darin Langerud agreed to update the member list on the web page, as well as the delegates and alternates for each membership. Arlen Huggins suggested that member state reports be sent to Darin for posting, and Darin agreed to do that as they were sent to him.

CONGRESSIONAL ACTIVITIES

Kevin Moran joined the meeting by telephone to discuss activity related to the two bills in Congress related to weather modification. The discussion was quite lengthy with the following main points being made:

- Josh McClintock explained the differences in the current Senate and House bills. The Council agreed to make “suggested” modifications to the Udall bill so it will match the Senate bill more closely. Suggested modifications will be given to Udall staff.
- An effort should be made to get additional support from farm organizations, since the proposed research program will have benefits to agriculture. The ski industry and insurance companies were also mentioned as possible supporting groups.
- The Council should formulate responses to the OSTP letter and give the specific responses to Hutchison and Udall staff. Joe Busto and Arlen Huggins volunteered to draft the responses.
- A letter requesting bill cosponsors will be prepared by Josh McClintock for use by Council members in contacting their delegations.
- Kevin Moran noted similarities of S. 1807 and HR 3445 to the National Drought Preparedness Act, and thought the timing of the weather modification bills was good based on the critical water issues in the West.
- Various pros and cons regarding the agency, NOAA or NSF, best suited to house the bill’s research program were discussed. NOAA had a slight edge based on the applied nature of the research, the history with administering previous weather modification programs, and the interest expressed by a specific NOAA lab. It was also noted that language might be added to limit the administrative fee imposed by the managing agency.
- Regarding legal issues in the bills, Tony Willardson expressed the opinion that state laws should prevail; i.e. that no new federal policy should override state laws. There was discussion about possible state compacts to avoid liability issues, and also whether current state laws were adequate to cover all legal issues.
- There was discussion regarding the type of program that might evolve from the bills and regional summer and winter programs were suggested.
- Regarding the makeup of the weather modification board, it was thought that a line should be added to indicate each member should have some knowledge of the subject.
- The Council requested a new WSWC support letter and Tony Willardson agreed to supply one.

STATE REPORTS

State reports were given by each member present at the meeting. Copies were made available to members present, so only brief highlights are included in these minutes.

Darin Langerud reported that the North Dakota program operated routinely in the summer of 2007. For the first time they had no responses to their letters of notice of intent to perform cloud seeding. He noted that the project changed to a smaller dry ice pellet which is more efficient in producing ice crystals. On interstate issues, he noted that North Dakota has no formal agreement with either South Dakota or Montana.

Barry Lawrence discussed the nearly completed design of the Wyoming randomized weather modification program, which will include the statistical methods to be used for evaluation. The project made use of the WRF model to create back trajectories of seeding plumes and use this information to reposition and add seeding generators for the 2008 season. Barry noted that the U. of Wyoming aircraft will fly about 20 hours with their research aircraft for the project in 2008. He also mentioned a problem with access to generators came up when the Forest Service proposed shutting down areas for prescribed burns due to beetle kill.

John Andrew mentioned an interesting funding possibility for weather modification projects in California if they become part of integrated water district projects. The money is available through a state fund that promotes integrated regional water management. He noted that none of the current projects in California have tried to take advantage of this. John also noted that weather modification will again be part of the new water plan for California, as it was in the past version.

Diane Coe of Kansas noted that Kansas still has funding issues with their programs and continued to seek support from the insurance industry. They are using a risk management firm to compile statistics that show the benefits of cloud seeding, which might help them with negotiations with insurance companies. She indicated that the State had provided \$240K to the operational program this past season, but would prefer not to do that on a continuing basis.

Arlen Huggins noted that Nevada project areas had a well below average snowpack in WY2007, and the lack of storms led to about 33% fewer ground seeding hours than normal. Aircraft seeding hours were similar to prior years, with most being used in February, the wettest month of the winter. Problems with older analog communications systems also caused loss of operational ground seeding hours in some areas. A radio communication system is being installed in the Tahoe area, and will be tested this coming winter.

Dave Cole of Utah reported that a new assessment of their seeding program using ratio statistics showed a 14% increase in precipitation, similar to the results of the regression method that had been done previously.

Hal Anderson, representing Idaho, noted that the Idaho Dept. of Agriculture handles cloud seeding permits, but that the process is pretty lax and his department gets little information regarding the operation of some small projects in eastern Idaho. The largest project in Idaho is

operated by Idaho Power in the Payette Basin. He noted that Idaho is developing a long-term strategic plan for water resources, that the state is considering cloud seeding as one option to increase supply, and that the state recently funded a weather modification feasibility study for the eastern portion of the Snake River Basin. He indicated that, based on the results, other feasibility studies of the same type could follow. Don Griffith mentioned the possibility of a future interstate project between Idaho and Wyoming.

Joe Busto gave an overview of Colorado winter seeding projects and noted that New Mexico added \$40K in funding to extend the seeding project in the San Juan Mountains at the end of the 2006-07 season. Regarding summer programs Joe mentioned that a hail cannon project was receiving considerable opposition. He also mentioned that a new NOAA weather data processing and display system (FXnet) was being tested for possible use by cloud seeding operators, and that the state continued to provide funds to the NRCS to expand the SNOTEL network in Colorado.

Tom Ryan discussed the evolving plan for augmenting cloud seeding in the Upper Colorado River Basin. The project which has about \$294K of funding from the Lower Basin states for the coming winter season will be contributing about \$85K to Wyoming for enhancements to their program, about \$77K to Utah for new equipment and to extend operations in some areas, and about \$132K to Colorado, the distribution of which is still to be determined.

COMMITTEE ACTIVITIES

Travel Committee - No requests were received – nothing to report.

By-Laws Committee – No proposed changes – nothing to report.

Scholarship Committee - Darin Langerud, chair of the Scholarship Committee created at the previous business meeting, lead a brief discussion regarding possible NAIWMC scholarship funding. Several possibilities were mentioned including some type of field project internship for undergraduates that might be completed during a summer or winter break. No new action was taken, but Darin will present a more formal proposal to the Council at the Spring Meeting.

OTHER BUSINESS

Don Griffith, current President of the Weather Modification Association, gave a brief update on plans for the Joint AMS/WMA Conference on Weather Modification to be held in the Denver area the week of 21-25 April 2008. He indicated that the Call for Papers was out, but that no due date for abstracts had been set. He noted that the AMS committee was inviting the AMS Committee on Hydrology and the AMS Board on Societal Impacts to be part of the conference.

PUBLIC RELATIONS & OTHER

Darin Langerud noted that the public relations project for the Council that was authorized at the previous meeting was just getting underway and an update would be given at the Spring

Meeting. The report, which will be part of a degree program at UND, should be completed by December 2007.

Darin Langerud reported on further inquiries made to the Alfred P. Sloan Foundation, which supports funding of grants for areas of the Known, Unknown, and Unknowable. He indicated that this foundation provides up to \$45K in funding for conferences in their unique topic areas.

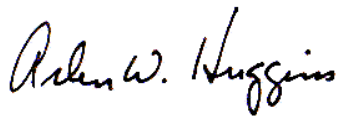
John Andrew moved that the Council (Langerud) send a letter of inquiry to Alfred P. Sloan Foundation to determine their interest in a conference related to weather modification. Second by Arlen Huggins. Motion carried.

In a discussion that began at the previous Council meeting Tom Ryan reiterated the need for the Council to have a policy regarding members of the public who wish to address the Council at one of its open meetings. Todd Adams suggested setting aside a certain portion of each meeting for public comment. It was noted that the Chair could state a time limit for comment at the beginning of a meeting. There was general agreement on this approach. On the general topic of open meeting laws, members agreed to review their states laws and discuss them at the next meeting.

NEXT MEETING

It was agreed that the next meeting of the Council would be held sometime during the week of 21 April 2008, in conjunction with the AMS Conference on Weather Modification and WMA Annual Meeting in the Denver, CO area.

Being no further business the meeting adjourned at about 5 pm MDT.



ARLEN W. HUGGINS, Secretary-Treasurer