

# NORTH AMERICAN INTERSTATE WEATHER MODIFICATION COUNCIL

## Minutes

Spring Meeting: Westminster, CO  
April 22, 2008

The meeting of the North American Interstate Weather Modification Council (referred to as the Council in these minutes) was called to order by Joe Busto, Chair, on April 22, 2008, at 6:15 pm in a meeting room of the AMS conference hotel in Westminster, Colorado. 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 and Maury Roos, State of California; and Mark Schneider, representing the North Dakota Weather Modification Association.

### MINUTES

Barry Lawrence noted a correction in the draft minutes to the Wyoming state report from the fall meeting, and Darin Langerud made a correction to the North Dakota state report.

Barry Lawrence moved to approve the amended minutes of the September 2007 meeting. Second by Darin Langerud. Motion carried.

### FINANCIAL STATUS REPORT

Arlen Huggins, Secretary-Treasurer, presented and reviewed the financial status report as of 4/22/08. The report showed a balance of \$34,332.56. An error in the date of deposit of the Kansas Water Office dues was noted and corrected.

Darin Langerud moved to accept the amended 4/22/08 financial status report. Second by Barry Lawrence. Motion carried.

### MEMBERSHIP REPORT

Arlen Huggins reported that to date 8 of 14 members have paid their dues, with three members also paying all or part of the special research assessment. The membership now consists of eight full members, four associate members and two affiliate members. Joe Busto indicated that the Central Arizona Water Conservancy District (CAWCD) is interested in starting a weather modification program in Arizona and will likely join the Council this year as an affiliate member. The CAWCD would like to host the Council's fall meeting and combine it with a workshop on weather modification to be attended by NCAR scientists, Arizona university staff, and staff from the CAWCD and the Salt River Project.

Discussion of the appropriate membership category for the CAWCD spawned a more general discussion of membership categories, with John Andrew favoring a category, possibly non-paying, that might attract more members and give the Council better representation over the western U.S. Tom Ryan and John Andrew agreed to review the current bylaws regarding memberships and give a recommendation for possible category revisions at the next meeting.

## STATE REPORTS

A state report was 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 provided a handout summarizing NDCMP operational areas for the upcoming summer season and a hygroscopic seeding experiment conducted using the POLCAST radar in 2006. A change in the state funding system has allowed the project to obtain some funding for equipment and research that was previously unavailable. He noted a second experimental season would be conducted in 2008, and that future hygroscopic seeding experiments may be randomized.

Barry Lawrence of Wyoming introduced Glenn Tootle from the U. of Wyoming who gave a brief report on his use of a physical streamflow model to study the potential impact of the Wyoming cloud seeding project on streamflow, in addition to studying the impact of land use changes due to beetle kill. Global climate model output is also being used to predict streamflow changes over the next 75-100 years. Barry noted that the Wind River portion on his project is operational seeding using ground generators and aircraft while the Sierra Madre/Medicine Bow region is a randomized experiment designed to test ground seeding only. He indicated that the environmental issues are now mostly confined to the Wind River region, and that the silver analyses in that region helped reduce the fears that snow and surface water would be negatively affected by cloud seeding. He did note that a new categorical exclusion would be required if the randomized project became completely operational with no research component.

John Andrew noted the attendance of both himself and Maury Roos, California's previous delegate to the Council. California is in the process of soliciting comments (through May 2008) to their Water Plan which is expected to again contain language on the use of cloud seeding as one means of increasing water supply. John noted that about 6 of 11 cloud seeding projects in California would require new operators since Atmospherics, Inc. had gone out of business in October 2007. One project conducted by Santa Barbara County did not operate in WY2008 due to fire damage the previous summer and the fear of erosion with additional runoff. He also mentioned the start of a new and large project by PG&E in the northern Sierra Nevada east of Mt. Shasta in WY2009. The snow water enhancement from that project was estimated to be on the order of 200,000+ acre-feet. Maury noted that the new version of the ASCE manual, "Guidelines for Cloud Seeding to Augment Precipitation", is now available.

Arlen Huggins summarized the WY2008 Nevada project and noted that poor late season snowfall led to a generally below average number of seeding operations in most areas. Aircraft seeding hours were also below average due to a lack of suitable seeding conditions during the January through March period that the aircraft was available. The communications networks are in the process of being upgraded and the full complement of the project's ground generators will likely not be active again until WY2010.

Dave Cole of Utah noted that the main change to Utah's projects was the expansion of the Emery Water Conservancy District propane seeding network to six dispensers. Utah mainly used Lower Basin funding to extend operations and acquire three icing sensors. Dave noted that the snow water enhancement from cloud seeding over all Utah projects has been estimated to be about 223,000 acre-ft over the past 4-5 years.

Joe Busto gave an overview of Colorado winter seeding projects and noted the distribution of Lower Basin funds to Upper Basin projects for adding equipment or extending seeding operations, or both. He passed out the latest inventory (in the hundreds) of reports on weather modification that have been scanned and archived by the CWCB. Joe also mentioned that the

Grand Mesa project used its first remotely operated weather station (with icing sensor) and seeding generator using Lower Basin and CWCB funding.

There was a question regarding activities in Idaho and New Mexico. It was mentioned that a new cloud seeding feasibility study was ongoing in Idaho, and that New Mexico had again failed to get a cloud seeding funding bill through its legislature. Also, New Mexico currently has no active cloud seeding projects.

### CONGRESSIONAL ACTIVITIES

Joe Busto summarized the Council's most recent involvement in congressional activity, primarily the advocacy for the two bills in the current Congress related to weather modification. He noted Council members had more than 30 meetings with congressional staff from member states during a March 2008 trip to Washington, D.C. Key meetings were held with the staff from the offices of the bill sponsors, Senator Hutchison and Congressman Udall. Udall staff noted that their priorities were to get a hearing on the House bill this year, and to get cosponsors to sign on to the bill. At the time of our meeting no other states had agreed to cosponsor. Hutchison's staff indicated that their latest tack was to try to get the Senate bill attached to one of the climate bills moving through Congress. Jamie Moore thought the research proposed in the weather modification bill fit well with climate related research. Several new offices, particularly ones from California, were visited and the reception to our presentations was generally good. The staffer in Senator Feinstein's office was very interested in the dollar value of augmented water and requested estimates from Tom Ryan. Joe Busto indicated that he and Tom also had a lengthy meeting in Congressman Rohrabacher's office (member House Science Committee) and felt they educated staff quite well on weather modification issues.

Joe Busto received an unofficial draft of the OSTP report regarding concerns about the legislation, but no official version has been given to Senator Hutchison.

Darin Langerud noted that he had no luck in getting Senator Dorgan to sign onto the Senate bill, because the senator would not sign without cost offsets. Tom Ryan also indicated that the AMS would not send a letter of support for the bill, citing among other things that they (reviewers) did not like the title. However, Arlen Huggins noted that during a live news conference held in conjunction with the ongoing AMS conference the AMS phoned in a question regarding funding for weather modification and gave Huggins and others a chance to promote the bills. The research funding issue was subsequently given to several different news agencies.

The Western States Water Council continues to support the weather modification bills via letters and visits to congressional offices. The Council (Langerud, Huggins, Busto and Ryan) reviewed and provided feedback on a WSWC document related to legal issues in weather modification. The focus of our comments were related to the general lack of law suits over the 50+ year history of cloud seeding in the U. S., and how state statutes and interstate agreements tend to help in this regard. The Council also sent WSWC a new set of informational "bullets" related to weather modification and research, for use with the Western Governor's Association.

### COMMITTEE ACTIVITIES

Travel Committee – Chair of the committee was not present – no report.

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

Scholarship Committee – No new information.

### ELECTION OF OFFICERS

The nominating committee (Darin Langerud) indicated the recommendations for offices for the upcoming year were:

Joe Busto, Chair; Tom Ryan, Vice-Chair; and Arlen Huggins, Secretary-Treasurer

John Andrew moved to accept the slate of candidates put forth by the nominating committee. Second by Barry Lawrence. Motion carried by roll call voice vote.

### OTHER BUSINESS

Darin Langerud gave an update on the status of the Marketing Plan being developed for the Council by Tammy Langerud as part of her MBA degree. He indicated that the plan would be finished before the next Council meeting and that it would be ready for presentation to the Council at that time.

John Andrew moved that the Council pay the expenses for travel for Tammy Langerud to present the marketing plan report at the fall meeting. Second by Barry Lawrence. Motion carried. (Darin Langerud abstained from voting)

Darin Langerud reported on the letter inquiry made to the Alfred P. Sloan Foundation, which supports funding of grants for topics on the Known, Unknown, and Unknowable. He indicated he got an immediate response that this particular program had been discontinued, and that none of the other Sloan programs fit very well with weather modification.

Joe Busto mentioned his awareness of a good technical writer that the CWCB uses to put together good quality newsletters and other publications. He suggested the Council consider using such a person to produce some of its documents. Discussion suggested general agreement, but it was decided to postpone any action pending the recommendations that might come out of the marketing plan related to this topic.

There was a discussion regarding the role the Council might take in responding to the Chinese claims of controlling the weather for the upcoming Olympics in Beijing. Some thought a response was needed to clarify that the Chinese efforts (to prevent rain from reaching Beijing) were counter to all current efforts in the U.S. aimed at augmenting rainfall. On the other hand it was also suggested that Council members knew too little about the methods and concepts to issue a meaningful statement regarding the Chinese program. In the end it was decided that Darin Langerud would work with WMA members regarding the wording of any response to the Chinese program, and that any official statement would be issued by the WMA.

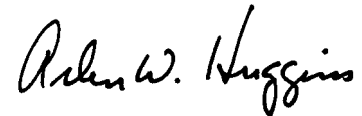
There was a brief discussion regarding our contract with Josh McClintock, and whether the contract, if negotiated for the next year could be terminated sooner. The terms of the contract needed to be reviewed for clarification, but the general consensus was that the contract could be ended during the contract year, if both parties were in agreement. A more general philosophical discussion on whether the Council should continue to use a paid lobbyist, or use our funds for other endeavors, was postponed until the fall meeting.

NEXT MEETING

After a discussion of several alternative sites for the fall 2008 meeting, the offer of the Central Arizona Project to host the meeting in Arizona was given priority.

Darin Langerud moved that the fall 2008 Council meeting be held in Arizona.  
Second by Tom Ryan. Motion carried.

Being no further business the meeting adjourned at about 9:05 pm MDT.



Arlen W. Huggins

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ARLEN HUGGINS, Secretary-Treasurer