

NORTH AMERICAN INTERSTATE
WEATHER MODIFICATION COUNCIL
Desert Research Institute, Las Vegas, Nevada
April 8, 1999

The meeting of the North American Interstate Weather Modification Council was called to order by Chairman George Bomar at 1:15 p.m., April 8, 1999 at the Desert Research Institute, Las Vegas, Nevada. Present at the meeting were:

California	-Maurice Roos	North Dakota	-LeNor Dollinger
Kansas	-Tina Rajala	Oklahoma	-Mike Mathis
Nevada	-Arlen Huggins -Dick Smith	Texas	-George Bomar -Dale Bates
New Mexico	-Scotty Savage	Utah	-Norm Stauffer

MINUTES

Mike Mathis moved the minutes of the December 10, 1998 conference call and the November 19, 1998 meeting be approved as distributed. Second by LeNor Dollinger. Motion carried.

MEMBERSHIP

Chairman Bomar announced New Mexico has joined the council and is represented by Scotty Savage, and the South Dakota School of Mines & Technology - Institute of Atmospheric Sciences has joined as an affiliate member. Chairman Bomar stated a letter of invitation had been sent to all past state contacts to join the reactivated NAIWMC. Several of the letters came back undelivered.

FINANCIAL STATUS REPORT

In the absence of the Secretary/Treasurer, Chairman Bomar distributed and reviewed a copy of the council's financial statement dated April 8, 1999. There were no questions.

It was noted the Desert Research Institute at Reno is moving to a new address, so members wishing to correspond with Dr. Warburton should use his home address.

Maurice Roos moved to accept the April 8, 1999 financial statement as presented. Seconded by LeNor Dollinger. Motion carried.

STATE REPORTS

Nevada - Dick Smith & Arlen Huggins - Wintertime programs started in mid-November and up until January 1 snow pack was slightly below normal. The program in the Tahoe area was suspended when the suspension criteria was attained. Five basins are seeded with ground generators and two basins are seeded with aircraft. The aircraft are using

generators. No flares are being used on the aircraft at this time. S2 tracker aircraft are being used and Mr. Huggins noted they are pleased with the aircraft operations at this time.

North Dakota - LeNor Dollinger - Reported projects will begin June 1 and continue through August 31. Eight aircraft will be used on the two projects covering 6.5 million acres. The project is primarily for hail suppression. Six meteorologists will be hired by the ND Atmospheric Resource Board (NDARB) to run the board's radars at Bowman and Stanley, North Dakota, and a forecaster at the Bismarck forecast office. Legislation is pending to make some small changes in the board's law to allow for projects to be carried out in defined geographical areas, now just entire counties. The board will continue to fund intern co-pilots on each aircraft during the 1999 project in an effort to keep trained weather modification pilots available. The cloud seeding projects in North Dakota are managed by the NDARB through contracts with each participating County Weather Modification Authority or Water Resource Board. NDARB contracts for aircraft, pilots, and related services, radar maintenance, and procurement of chemicals and pyrotechnics.

Texas - George Bomar - Mr. Bomar reported seven projects to be ongoing in Texas by May 1 covering approximately 36 million acres. Texas cost-shares with local entities at 4.5 cents per acre, primarily through water districts. All seven projects use aircraft. The legislature is now meeting and funding is proposed at \$2.7 million per year for these projects. A percentage of this funding will be allocated for research and assessment.

Texas - Dale Bates - Reported they are now making flares at the rate of 10 per hour. They will soon be testing the flares. Mr. Bates expressed that they need to push hard on doing a good job of assessment of their program. Mr. Bates stated he would like to point their research toward answering questions such as, "How many flares do we put into a cloud?" and, "What is the volume of a seeded cloud?". He also expressed concerns about flares and feels ejectable flares should be "caseless".

Oklahoma - Mike Mathis - The 1998 weather modification program was very successful for hail suppression and rainfall enhancement. Independent evaluation shows the program consistent, and evidence of increased precipitation downwind of the seeded area. The program uses 3 aircraft and two radars for the statewide program. Senate bill 101 was introduced to the Oklahoma Legislature which contained an assessment of 3 mills on each dollar of property and casualty insurance premiums. It is estimated this would yield between \$3-5 million dollars of funding each year for the weather modification program. The bill passed the Senate with the funding intact but the House side removed the funding. The bill is now in conference committee. The efficacy of the program is not an issue in Oklahoma. A means of a stable funding source for the program, in addition to state general funds, still needs to be decided. The program in Oklahoma began due to drought conditions, and is now being driven by a need to reduce property losses due to hail, which are very high in the state. Mr. Mathis stated the insurance industry was guarded about SB 101 when it was first introduced but at this point is quite supportive.

Kansas - Tina Rajala - Reported licensing and permitting for weather modification projects for 1999. A group called the Concerned Citizens for Natural Weather had expressed concern for some permits. Ms. Rajala reported cloud seeding will be carried out in 22 counties in (16 county-wide and 6 partial counties in western Kansas and portions of three counties in Colorado in 1999. It was noted that local support is required before permitting will be allowed in the northwest area in 2000. The requirement that the Northwest Kansas Groundwater Management District #4 request every county in which the weather modification program is active, place the question of support of the program before all voters within their respective jurisdictions; a resolution of support for the program by the county commissioners of each county in GMD#4; or by demonstrating by some other means to show there is local support for the program. The State of Kansas does cost-share to fund the cloud modification projects carried out within the state. Kansas is very interested in federal funding for carrying out research on the effects of weather modification on severe (tornadic) storms. Also, an article, *Evaluation of the Western Kansas Weather Modification Program*, will be appearing in the April, 1999 issue of the *Weather Modification Journal*.

California - Maurice Roos - California had 13 projects this current season, all of which are wintertime operations. One project will continue this summer in the southern Sierras. Four of the projects are for power production and the other primarily for water supply. The State of California does not fund these projects. They are all funded by power companies or water districts. Water supply in California at this time is good.

Utah - Norm Stauffer - Reported the north one-third of the state near normal precipitation. Seeding has not been carried out in the Wasatch for several years. North American Weather Consultants still has a contract with the ski industry for snowpack increase in areas near Salt Lake City. All seeding is carried out by use of ground generators. Mr. Stauffer noted that legal notices for permitting to carry out projects gets very little attention, probably one or two calls each year. The State of Utah allocated funds from a revolving fund to assist the projects. Cost-share is now at approximately 50%. \$240,000 was spent on the two projects carried out this year.

New Mexico - Scotty Savage - This is the third year of their project which started in May and is piggy-backed on a Texas project. The project covers 10 million acres (8 million in Texas, 2 million in New Mexico) using 3 aircraft. Funding for the project is by donation in three counties. The New Mexico portion of the project has about \$125,000 in funding, which in a normal year will not be enough. \$200,000 has been requested. A rain gage network has been set up with a gage placed every 6 miles throughout the 3-county target area in New Mexico and every 6 miles for 15 miles outside of the target area. The soil conservation district supervisors assisted in this endeavor.

WEATHER DAMAGE MITIGATION PROGRAM

Chairman Bomar reported on the work done to date by Richard Spees, Inc. on behalf of the Council and its efforts to secure funding for the Weather Damage Mitigation Program. Mr.

Bomar also reported on efforts made by representatives of several states on a recent trip to Washington, D. C. Mr. Bomar encouraged all members to contact Mr. Spees to assist in his efforts and that the council members need to be active in intensifying the synergy. It was also noted no response has been received from Arizona to date.

Chairman Bomar also stated members should do what they can to generate support in the House Agriculture Committee.

WEB SITE DEVELOPMENT - At this time nothing has been done.

WMA STANDARDS AND ETHICS

Mr. Bomar reported the proposed standards and ethics may be further modified and then voted upon at the spring meeting in Lubbock in 2000. Legal counsel (R.J. Davis) is now reviewing them.

OTHER BUSINESS

Weather Modification Association Nominating Committee is looking for nominees for the position of secretary for the association. If anyone has any suggestions, please pass them on to the committee (Maurice Roos and George Bomar).

NEXT MEETING

It was decided the next meeting of the Council will be held at the Desert Research Institute in Reno, Nevada, October 21, 1999.

Arlen Huggins will send hotel information to those planning to attend.

Being no further business, the meeting adjourned at 5:30 p.m.

GEORGE BOMAR, CHAIRMAN

DR. JOSEPH WARBURTON
SECRETARY-TREASURER

Transcribed from notes taken by LeNor Dollinger