

MINUTES

NORTH DAKOTA ATMOSPHERIC RESOURCE BOARD OCTOBER 25, 2005

The meeting of the North Dakota Atmospheric Resource Board was called to order by Chairman Jay Sandstrom at 10:00 a.m., October 25, 2005 in the Board Room of Hector International Airport, Fargo, North Dakota.

ROLL CALL

Roll call was taken and members present were Jay Sandstrom, Hank Bodmer, David Hagert, Judith DeWitz, Dale Frink, and Roger Pfeiffer, representing Gary Ness, ND Aeronautics Commission. Member Bobb Brewer participated via telephone conference.

Others present were Darin Langerud, Director; Aaron Gilstad, Chief Meteorologist; LeNor Dollinger, Business Manager; Hans Ahless, Jim Sweeney, and Jody Fischer, Weather Modification, Inc.

MINUTES

Judy DeWitz made a motion to accept the minutes of the July 14, 2005 telephone conference call meeting as distributed. Second by Hank Bodmer. Motion carried.

FINANCIAL STATUS REPORT

LeNor Dollinger distributed and reviewed the final financial status report for the 2003-2005 biennium. There were no questions.

2005 ND Cloud Modification Project

ARB staff reviewed the cost report, chemical usage, generator performance, and intern programs for the 2005 ND Cloud Modification Project.

Darin Langerud reviewed aircraft operations and possible contract penalties as follows:

July 13 – Seed 8 launched but unable to fly due to a burned out navigation light. Possible penalty amount \$793.86.

July 21 – Seed 5 launched but inoperable because Pilot-In-Command not available. Possible penalty amount \$793.86.

Discussion was held on the proposed contract penalties. It was felt a full-day penalty for July 13 may be too harsh. Mr. Bodmer expressed the crew of Seed 8 were very cognizant in aircraft preparation.

Bob Brewer moved to reduce the penalty for July 13 by one-half, assess a full-day penalty for July 21, for a total penalty of \$1,190.79. Second by Hank Bodmer. There were 6 votes aye, 0 vote nay. Motion carried.

CONTRACTOR'S FINAL REPORT

Hans Ahlness, Vice President of Operations, Weather Modification, Inc., reviewed and noted specific areas of the contractor's final report with the Board.

Jim Sweeney, Weather Modification, Inc., commented on the Board's internship programs and their importance to the university and the ND Cloud Modification Project.

David Hagert inquired if the Board has ever looked at the EPSCOR program for assistance with the internship programs. Mr. Langerud stated not to his knowledge.

Hank Bodmer made a motion to accept the contractor's final report and authorize final contract payment, less penalties. Second by Judith DeWitz. There were 6 votes aye, 0 nay. Motion carried.

FOG CLEARING R&D EXEMPTION REQUEST

Mr. Langerud reviewed a request for a weather modification permit exemption for fog-clearing trials by Weather Modification, Inc., a current licensee. It was noted specific information was provided regarding the target area for the trials (Burleigh and Cass County). The objective of the trials is to clear the atmosphere of fog, which limits visibility, hampering (or even halting) airport operations, and decreasing roadway safety. In accordance with North Dakota Administrative Code 89-07-02-04 specific information is on file at the NDARB office regarding the trials. Mr. Langerud recommended granting the exemption.

Dale Frink made a motion to grant Weather Modification, Inc., a current licensee, a permit exemption for fog clearing trials as stated in the proposal. Second by David Hagert. There were 6 votes aye, 0 nay. Motion carried.

RESEARCH & EVALUATION

Darin Langerud briefly reviewed the Board cooperative agreements of 2002 and 2003 of the Weather Damage Modification Program with the Bureau of Reclamation. Final reports, both technical and financial, for the work completed under the 2003 cooperative agreements have been forwarded to the Bureau. The final reports for the 2002 cooperative agreement will be finalized by the end of December.

A study is also being done on intercomparisons of the Bowman and Stanley radars with National Weather Service NEXRAD radar. The comparison study is to try to determine which radar does better at identifying a cloud. It was suspected the NEXRAD will do better and it looks like it does. In the future it may be possible that

we could use some of the NEXRAD data in real time in our operations. In the future dual-polarimetric capability will be available. This allows the radars to differentiate whether the particles the radar detects are solid (ice) or liquid. It will also be able to provide other information that would be very important in the identification of hail and looking at areas where super-cooled liquid is at in the clouds which is raw ingredient we are looking for when seeding. When this upgrade has been made to NEXRAD this is something we could use operationally. We are currently doing some work with the University of North Dakota in this area doing some case study analysis. There are also plans to do some spring hygroscopic seeding field trials to see what kind of changes may be seen in the radar signature.

Cloud condensation nuclei data collection analysis is on-going. We have been doing data collection at both radar sites. One paper has been published on this research and another is expected this year. This data collection was done in order to determine what type of clouds we have in North Dakota to see if they are suitable for a particular type of seeding. Knowing in advance what type of clouds we are seeding would be very beneficial.

Work on the TITAN evaluation methodology was set aside during the NDCMP this summer. This work will again be focused on during the winter and hope to have it in place to provide for evaluation within the 4-D database.

There are two bills that have been introduced in Congress. One is SB.517 introduced by Senator Hutchinson of Texas which would create a weather modification research and advisory board within the Department of Commerce. The legislation includes a proposal to fund at \$10 million per year for a 10-year basis. This legislation would allow for research grants in the area of weather modification. There is a companion bill introduced in the House of Representatives by Congressman Udall of Colorado. (H.R. 2995). This bill mirrors SB.517. Work in support of this legislation is being done through the North American Interstate Weather Modification Council (NAIWMC), of which this Board is a member.

ARBCON UPDATE

Aaron Gilstad distributed copies of precipitation maps and reported on the efforts of the Atmospheric Resource Board Cooperative Observer's Network.

Mr. Gilstad reported that as the ARBCON is being set up for 2006, efforts will be made to get as many observers as possible to report via online reporting.

STAFF CHANGE

Darin Langerud reported Dawn Moen has left the staff for another position. Mr. Langerud would like to fill this position with someone who could carry on the work Dawn had been doing in the area of technical data management and project management. Mr. Langerud recommends reclassifying the position to a environmental scientist.

It was the general consensus of the Board to act as quickly as possible on reclassification of this position and getting the position filled.

ELECTION OF OFFICERS

Chairman – Judith DeWitz nominated Jay Sandstrom as Chairman. Second by Roger Pfeiffer. Motion carried.

Vice Chairman – Judith DeWitz nominated Henry Bodmer as Vice Chairman. Second by Roger Pfeiffer. Motion carried.

Secretary – Henry Bodmer nominated Judith DeWitz as Secretary. Second by David Hagert. Motion carried.

Being no further business the meeting adjourned.

Following the meeting members toured the facilities of Weather Modification, Inc., and the Fargo Jet Center.

JAY SANDSTROM, CHAIRMAN

Transcribed by LeNor Dollinger