

# **MINUTES - NORTH DAKOTA ATMOSPHERIC RESOURCE BOARD**

**NOVEMBER 8, 2012**

Chairman Henry Bodmer called the meeting of the North Dakota Atmospheric Resource Board (ARB) to order at 10:06 a.m., November 8, 2012 in the Upper Level Conference Room, Hector International Airport, Fargo, ND.

## ***ROLL CALL***

Roll call was taken. Members present were Henry Bodmer, David Hagert, Monte Hininger, John Bollingberg, Tom Tupa, Todd Sando and Larry Taborsky.

Others present were Darin Langerud, Director; Mark Schneider, Chief Meteorologist; Kelli Schroeder, Business Manager; Hans Ahlness, Weather Modification, Inc. (WMI); Alex Ahlness, WMI; and Jack Dwyer, ND Weather Modification Association.

## ***MINUTES***

**IT WAS MOVED BY MR. BOLLINGBERG, SECONDED BY MR. TUPA, AND CARRIED ON A VOICE VOTE TO APPROVE THE MINUTES OF THE APRIL 3, 2012 MEETING AS DISTRIBUTED.**

## ***FINANCIAL UPDATES***

### **2011-13 Budget and Financial Status Report**

Ms. Schroeder reviewed the 2011-13 budget and the financial status report for the period ending September 30, 2012.

Mr. Langerud explained that the Resource Trust Fund dollars are ARB's portion of the 20% of oil extraction taxes that are allocated to the State Water Commission. The Water Commission's portion is based on the percentage received by the State; however, ARB's portion is fixed by legislative appropriation.

In response to questions, Ms. Schroeder noted that the federal funds listed on the report are an appropriation (authority to receive and expend federal funds should we get any). However, ARB has not received federal funding since 2005.

Mr. Langerud noted that the amount appropriated for county funds is somewhat a similar situation. We are keeping a larger appropriation than the amount of county funds received so that there is room in the budget for additional counties to join the program without having to go before the Emergency Commission for additional spending authority.

In response to a question about having to move the Bowman radar and office to the new airport site, Mr. Langerud noted that he doesn't feel we will require funds outside of our appropriation. He believes the timeline of the move may be around 2014 or later. There were no further questions.

## **2012 NORTH DAKOTA CLOUD MODIFICATION PROJECT (NDCMP)**

### **Project Overview**

Mr. Langerud provided the Board with an overview of the 2012 NDCMP project. He explained the breakdown of cloud seeding activities and noted the increased usage of “Other” flight hours. The Watford City airport ramp was under construction all summer with no access to fuel. Our crews there had to refuel elsewhere before returning to home base, which increased “Other” flight hours.

He also discussed how pleased everyone was with the new cloud seeding documentation application developed for the iPads. Development, testing and correction went very well. Paul Moen did a terrific job on the development of this program.

Mr. Langerud also reviewed drought maps for the year. There were concerns about the drought in southwest North Dakota. Some citizens from that area were concerned the cloud seeding program was having a negative impact on the drought. Discussion followed regarding drought and atmospheric conditions.

Mr. Langerud informed the board about a new 2-year agreement we have with the University of North Dakota to help fund operational numerical weather modeling for our cloud seeding project.

### **Cost Summary**

Ms. Schroeder reviewed the cost report for the 2012 NDCMP. District I was \$6,188 under budget. District II was \$41,391 under budget, primarily due to limited flight hours flown in August.

### **Seeding agent usage / inventory**

Mr. Schneider reviewed the ending chemical inventory and usage for the 2012 NDCMP. We fired 354 burn-in-place flares this summer and 1433 ejectable flares. The dud ratio is under 10%.

Mr. Langerud noted, in response to a question, that placebos noted on the inventory form were leftovers from previous research experiments.

### **Generator performance**

Mr. Schneider reviewed generator performance. In 2012, there was 2.45% failure, well below the 10% failure penalty trigger. The 5-year average failure rate is 3.44%.

### **Intern Programs**

Ms. Schroeder reviewed the intern program. There were 8 intern co-pilots and 3 intern meteorologists. We have trained a total of 325 pilots and 41 meteorologists.

Due to the small number of applicants for the intern pilot program lately, we made a concerted effort to increase awareness of the pilot internship.

Many board members would like to see our intern hourly wage raised. Based on the market rate for entry-level positions out in western North Dakota, we are well below market pay rates at \$11 per hour. They feel higher pay is needed more than other benefits they receive such as quality flight time, housing assistance, etc.

Currently, prospective student pilots must take UND's Atmospheric Sciences 250 (Introduction to Weather Modification) and 251 (Advanced Weather Modification) classes to qualify for the internship. UND is currently reviewing curriculum and is combining these courses. We feel this will help increase interest in the pilot internship for a number of reasons.

In response to a question, Mr. Langerud noted that the required classes are set by UND and agreed to by us through a Memorandum Of Understanding. In the event of not enough interest, the aircraft experience cannot be waived but the coursework could potentially be waived. However that is not ideal as the student would then have no training in the field of weather modification. We are working to keep ourselves out of that position with increasing student awareness.

### **Aircraft Operations**

Mr. Langerud summarized flight log data. He also reviewed the contract clause, which requires aircraft to be operational. There were two incidents this year where aircraft were unable to launch due to various reasons. Those were reviewed with surrounding circumstances and Mr. Langerud recommended two penalties be applied to the final contract payment.

**IT WAS MOVED BY MR. HININGER AND SECONDED BY MR. HAGERT TO APPROVE THE DIRECTOR'S RECOMMENDATION TO APPLY TWO ONE-DAY PENALTIES (\$1,054.56 + 1,254.66 = \$2,309.22) TO THE FINAL CONTRACT PAYMENT. MR. HAGERT, MR. HININGER, MR. BOLLINGBERG, MR. TUPA, MR. SANDO AND MR. TABORSKY VOTED AYE. THERE WERE NO NAYES. MOTION CARRIED.**

### **Contractor's Final Report**

Mr. Ahlness reviewed the contractor's Final Operations for the 2012 project.

**IT WAS MOVED BY MR. TUPA AND SECONDED BY MR. BOLLINGBERG TO ACCEPT THE FINAL OPERATIONS REPORT AND AUTHORIZE THE FINAL CONTRACT PAYMENT TO WEATHER MODIFICATION, INC. MR. HAGERT, MR. HININGER, MR. BOLLINGBERG, MR. TUPA, MR. SANDO AND MR. TABORSKY VOTED AYE. THERE WERE NO NAYES. MOTION CARRIED.**

### ***ISSUES FOR NDCMP 2013***

#### ***WMI 2013-15 contract negotiation***

Mr. Langerud reviewed issues related to negotiating a new contract for 2013-15 services.

Mr. Hininger excused himself from the meeting at 11:56 a.m.

### ***2013 NDCMP permitting***

Mr. Langerud reviewed the permitting process. He noted that questions had arisen from the District I area that he feels are drought-driven. He spoke with some people who feel they don't have a voice in how the project is being conducted. For the most part, these people are in the buffer zone, not the target area. He anticipates there will be public comment during the permitting process next year. In the last 5 years, there has not been a single comment upon publishing our Notice of Intention. Due to this, Mr. Langerud is anticipating moving up our spring Board meeting dates and moving up publishing of the Notice of Intent by 2-3 weeks so that we have time to deal with a public hearing if the Board so chooses.

### ***Availability of housing***

Mr. Schneider reviewed housing issues expected for 2013. The two certain places for staff to live are the San Way Ve in Kenmare and our apartment in Stanley. We lost the Gaebe Ranch House in Bowman. They are getting a lot of requests for year-round rental.

### ***Airport construction***

Mr. Langerud noted that it looks like 3 site locations will be affected by airport construction in 2013: Stanley, Watford City & Kenmare. According to the Stanley airport manager, their project will be significant and the airport will be shut down during that time. However, they do not know what the timeframe will be. Our radar will remain there, but the pilot staff will probably have to be moved to another town.

Mr. Bodmer indicated that Kenmare's airport project would be the same as Stanley, if they can get a bidder. He didn't think it would take more than a couple of weeks.

### ***District 2 radio communications enhancement***

Mr. Langerud briefed the Board on issues we have with radio communications between the radar in Stanley and base-seeding aircraft in southern McKenzie County when they are flying low enough to lose line-of-sight contact.

We are considering setting up a repeater or telephone patch system that would allow the aircraft to call into a repeater system. This type of system would call the Stanley radar via telephone, allowing the aircraft and radar to exchange information and logistics. We are also collaborating with WMI on this.

Mr. Ahlness indicated that WMI is still working on this as it wouldn't quite work for 2012. We may have to use a different system because the current system is not performing as advertised.

### **2013 Legislative Session**

Mr. Langerud briefed the board on the division's budget submission for the 2013 legislative session, as directed by the Governor. Each agency was instructed to submit a 100% general fund budget. The State Water Commission submitted an optional adjustment request agency-wide for additional travel funding.

### **ARB RESEARCH & EVALUATION PROGRAM**

#### **Polarimetric Cloud Analysis and Seeding Test 3 (POLCAST3)**

Mr. Langerud reviewed the research experiment on hygroscopic seeding that has been ongoing every two years since 2006. This summer there were 17 randomized cases. The procedure typically follows this pattern: The airplane flies, finds a cloud, and makes sure it has the desired characteristics. Pilot then calls the radar. The radar operator then opens an envelope to find "seed" or "no seed" instructions. With 27 cases from previous years, we now have 44 randomized cases for review.

Three papers will be given on the POLCAST project at the American Meteorological Society annual meeting in Austin, Texas in January. Darin will be going to that meeting and is also on the planning committee for that part of the conference.

### **RADAR OPERATIONS**

#### **HVPS/Modulator modification status**

Mr. Langerud updated the Board regarding a modification we have going on right now with the modulators. The Stanley radar modulator is currently being worked on and could be returned in the next week or two. Our technician will then re-install and test it. This modification has already been done to the Bowman radar.

#### **NLSC spare parts availability**

Mr. Langerud has contacted the National Logistical Service Center, a NOAA facility. They manage all of the equipment and hardware for NOAA with regard to the radars. Since the Williston radar was shut down a year ago, the National Weather Service no longer has those types of radars in its system. They will be surplus those parts. We are going to try to acquire some of the spare parts when they are available and are hoping this happens before the 2013 project.

#### **Year-round Bowman radar operations**

Mr. Langerud mentioned that we've been operating the Bowman radar year-round since January 1, 2011 in addition to the NDCMP operational season through support from eight counties: six in southwest North Dakota, Fallon County in Montana, and Harding County in South Dakota. Emergency managers were the primary point of contact. We are expecting to continue this service.

**Bowman airport construction, radar relocation**

Mr. Langerud reported the status of the relocation of the Bowman Airport, which will precipitate the need to move our radar as well. It's possible we may be able to put the radar antenna and pedestal on the roof of the new maintenance building rather than reconstructing the tower setup.

**2012 ARB COOPERATIVE OBSERVER NETWORK (ARBCON) REPORT**

**Status report**

Mr. Schneider reported that we had 608 active observers reporting precipitation. Of those, 331 report rainfall only during April through September. 277 observers report year-round. 73% of the 608 observers are reporting through the mail on a monthly basis, while 27% report online.

**Growing season rainfall totals and grid maps**

Mr. Schneider displayed precipitation maps for the growing season months.

**ELECTION OF OFFICERS**

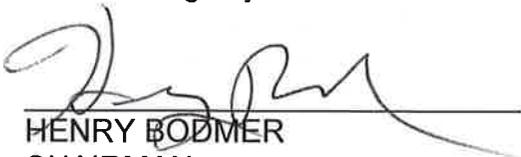
Mr. Langerud called for nominations for offices.

**MR. BOLLINGBERG MOTIONED TO NOMINATE THE EXISTING SLATE OF OFFICERS. MR. TUPA SECONDED THE MOTION. MR. HAGERT, MR. BOLLINGBERG, MR. TUPA, MR. SANDO AND MR. TABORSKY VOTED AYE. THERE WERE NO NAYES. MOTION CARRIED.**

At 1:00 p.m., the board broke for a lunch break.

At 2:15 p.m., the board gathered at the offices of Weather Modification, Inc. for a tour of their facilities and those of the Fargo Jet Center as well. At this time, the only board members remaining were Mr. Bodmer, Mr. Bollingberg and Mr. Hagert. Therefore, no quorum remained.

The meeting adjourned at the end of the tour, approximately 3:45 p.m.

  
HENRY BODMER  
CHAIRMAN

  
DAVID HAGERT  
SECRETARY-TREASURER

Transcribed by Kelli Schroeder