



THE ATMOSPHERIC RESERVOIR

Examining the Atmosphere and Atmospheric Resource Management



“Bowman Radar Relocation”

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Last May, the new Bowman Regional Airport opened for business five miles east of the original airport site. Because of this relocation, it became necessary to move the North Dakota Atmospheric Resource Board's (NDARB) WSR-74C weather radar which provides support for the North Dakota Cloud Modification Project's (NDCMP) cloud seeding operations during the summer and supplements weather radar coverage for the region year-round. The radar's origins date back to 1975, when it was first installed in Fargo by the National Weather Service (NWS). Only two years after this installation as a NWS temporary network radar, the WSR-74C was moved to Bismarck. Here it would serve its purpose for two decades, when in 1997 the next generation WSR-88D Doppler radar replaced it. When it came up for surplus, NDARB purchased the WSR-74C (along with two other radars) and placed it in Bowman in May of 1997.

The radar technician who took initial delivery of the radar in 1975 and maintained it for the next four decades is Clem Aadland. Aadland worked with the NWS from 1971-97 and then continued to maintain the radar as a private contractor after his retirement. When it was determined that the Bowman radar would need to be moved to the new airport location, Aadland was up to the task.

The actual move of the radar, tower, and electrical components took a full month due to the coordination of numerous contractors and the complexity of the task. The phone calls and email inquiries received by NDARB during the September 16 to October 15 radar outage were a testament of its value to the residents of the region.

The new site includes a 16x24 foot building to house the radar transmitter, receiver, antenna servo, and computer equipment. The 55-foot radar tower, pedestal, and radome were erected adjacent to the building. Meteorological operations during the upcoming NDCMP will be conducted from an office in the airport terminal building under an arrangement with the Bowman Airport Board.

A weather radar at a small, regional airport is rather unique in North Dakota. Pilots utilizing Bowman Regional Airport now have access to real-time radar data for flight planning, making it a significant enhancement to airport operations. NDARB wishes to thank all of the contractors and individuals who participated in the radar relocation.

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