



THE ATMOSPHERIC RESERVOIR

Examining the Atmosphere and Atmospheric Resource Management

"2014 NDCMP: Extending Circumstances"

By Mark D. Schneider

The 2014 North Dakota Cloud Modification Project (NDCMP) completed two, 8-day extensions (concluding on September 16) due to the late harvest conditions that were experienced over much of the state. Bowman, Slope, and Ward Counties elected to continue hail suppression operations, while McKenzie (August 31), Mountrail (September 8), and Williams (September 8) Counties concluded their cloud seeding activities sooner. According to the National Agricultural Statistics Service (NASS) *North Dakota Crop Progress and Condition* report on September 8, "harvested spring wheat was 42 percent (state-wide), well behind 70 last year and 74 average." Most other crops were behind average for harvest, slowing the progress of producers.

Several factors led to a delayed harvest including late planting in spring, cooler than normal growing season temperatures, and an unusually wet August. Looking back at the monthly precipitation for May, many areas of western, north central, and northeastern North Dakota received 150 to 200 percent of average precipitation. Quite a few farmers were racing to get their



Photo taken by NDCMP Intern Pilot Sarah Mahloch

crops in the ground to meet June planting deadlines. The months of June and July were cooler than normal and 90-degree temperatures were few and far between during the entire summer. Many areas of southwestern North Dakota received their wettest August on record, with Dickinson recording an astounding 6.79 inches!

This was the 39th year that the NDCMP has operated as a state cost-share program. During this summer's project, Bill Fisher, the last of the original pioneers of weather modification in North Dakota, passed away. Fisher, Wilbur Brewer, and Bill Mazaros were farmers and pilots that saw the need to mitigate hail damage to crops in southwestern North Dakota. Initially, during the 1950s, only a few townships funded cloud seeding. As interest increased, groups of counties developed their own programs and over the years,

36 of the state's 53 counties have at least had a program for one year or more. What began as a small, grass-roots effort has evolved into a six-county program encompassing nearly 6.7 million acres, utilizing eight aircraft and two weather radars. It is the longest-running airborne hail suppression program in the world.

The future of the NDCMP looks promising. As more producers recognize the program as a valuable risk-management tool, the prospects of the program expanding are bright. With input costs high and commodity prices well off their recent lofty levels, any assistance in mitigating the hazards of uncertain weather is important. Through continual operational improvements and advances in research and development, cloud seeding is poised to provide a valuable benefit to North Dakota producers far into the future.

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