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Weather Modification

The primary goals of the temporarily suspended Oklahoma Weather Modification Program are to augment water supplies and prevent future drought and/or hail damage to crops and property. Directed by the OWRB and Oklahoma Weather Modification Advisory Board, and operating from 1996 through 2001, the effort was typically conducted in the spring and fall from bases in Oklahoma City and Woodward. The OWRB and Advisory Board continuously monitored moisture and related agricultural conditions throughout Oklahoma to identify prime seeding areas.

Rather than a fleeting "drought relief" effort, the Oklahoma program has been designed as a long-term water resource management and hazard mitigation tool. The effort has been modeled after operational programs in Kansas, North Dakota and Texas where rainfall increased 20 percent or more and losses to hail decreased as much as 45 percent. In Oklahoma, hail is responsible for many millions of dollars in crop and property damage each year.

Under a contract with the OWRB, the Oklahoma Climatological Survey (Environmental Verification and Analysis Center) conducted [independent evaluations of the Oklahoma Weather Modification Program](#) in 1996 and 1998 to determine its effectiveness in augmenting rainfall and suppressing hail damage throughout the state. The evaluation concluded that program results are consistent with results from similar programs in other states. More specifically, radar response images indicated precipitation and increased cloud development downwind of project operations.

Numerous other states--including [Kansas](#) (operated by the Western Kansas Groundwater Management District #1), [North Dakota](#) (North Dakota Atmospheric Resource Board), and [Texas](#) (Texas Department of Licensing and Regulation)--are employing weather modification technology with general success. The State of Texas participates in 10 separate cloud seeding programs.

Weather Damage Modification Program (Oklahoma, Texas & New Mexico)

For FY-02 and FY-03, Congress appropriated more than \$3 million to establish the Weather Damage Modification Program (WDMP), a multi-state weather modification research program, including Oklahoma. Administered through the Bureau of Reclamation, the regional, multi-state research program will seek to scientifically verify the potential benefits of weather modification technology in mitigating weather-induced hazards. State partners involved in the WDMP--including Oklahoma, Texas and New Mexico--and officials from the Oklahoma Weather Center are planning to initiate the cooperative research effort later in 2003.



QUICK LINKS

- [Ongoing Research \(Weather Damage Modification Program\)](#)

RESOURCES

- [Oklahoma Weather Modification Program Independent Evaluation \(Environmental Verification & Analysis Center\)](#)
- [Western Kansas Weather Modification Program](#)
- [North Dakota Cloud Modification Project](#)
- [Texas Weather Modification Programs](#)

Many documents available on this site are in Adobe® Acrobat (.PDF) format and require the free [Adobe® Acrobat Reader software](#) to view and print.

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