

http://www.ranches.org/rainmaking_experiment_endangers.htm

Rainmaking Experiment Endangers Livelihood of Texas Ranchers

Statement by [Jay O'Brien](#) 8/20/02 to the Panhandle Groundwater District.

I would like to thank the board for hearing me. To introduce myself, I am a rancher and a farmer in Donley, Armstrong and Potter counties. I have been visiting with Mr. Williams for over a year expressing my concern with cloud seeding. In the paper Mr. Williams said that he has had satisfied people from the east side of the Panhandle. A large part of my operation is on the east side and I can assure you that I am not satisfied and he has known it. I can personally guarantee you that there are owners or operators of well over 700,000 acres of grass land in your district who are not satisfied. When this was discussed at a board meeting of the Panhandle Livestock Association last year, there was no one who spoke out for cloud seeding. No one knew that this experiment with their livelihood was going on. I don't know how many acres are represented by farmers and ranchers who have expressed satisfaction.

Mr. Williams said in the paper that you have data that says it works. Having heard similar statements last spring, I asked for that data. I received rainfall maps that showed that it had rained from 8 to 18 inches last summer in the northwest corner of Potter county. Being as my partners and I ranch in that area and I knew that it had not rained as much as 8 inches in the area; I came to your office to see the data. On over 80,000 acres there are just two gauges with data kept by Panhandle Groundwater District and they are within a couple of miles of each other. I asked how with these two gauges, they drew the contour maps and the first answer was that they used gauges off the map. The gauges would have had to have been on my brother's ranch in Oldham County and they backed off this and said that it would have been from your radar readings and these two gauges. Your office took our readings that showed over seven inches of rain and rounded it up to 8". On the other gauge, their readings showed 99 inches of rain last summer with most months showing over 20". This would have been the equivalent monthly rainfall of more than caused the south Texas floods last month. When confronted with this, your employees said it must have been faulty data. They said they knew that they poured water out when it did not look as if it had rained. When asked how they came up with 18", they could not explain it. Could the reader have been over zealous in supporting his job? I have no answer except that the data is false.

If you will look at the rainfall information, you will see that the highest rainfall amounts are in areas where there are few or no rain gauges. In East Central Potter County, there are contours based on two gauges that take the rain last summer from 8 to 22" over about 100,000 acres.

Johnny Micou, who is here, is in the area that is shown to receive 22" and he did not have a good year last year and can testify that this data is false.

In southern Armstrong County, there is an oblong area that shows 16" (the most rain in that county by far). That area is also on a ranch I manage and has NO substantiation in fact. *(upon hearing this, CE Williams said they had other data points. O'Brien asked him what data points were and he said rain gauges. O'Brien again pointed out that there were no Panhandle Groundwater District gauges on this ranch and Williams said they obviously had a problem with their data.)*

I do not know why there is bad data, but I do know that faulty data is being used to justify the expenditure of taxpayer's monies and that is wrong. This is not data that says the program works. Your Cuban meteorologist who just spoke talked of your data that shows that seeded clouds last longer than unseeded data. He says they pick the best clouds to seed. This is not a double blind control group. No scientist would give any value to this data.

Let me continue examining data. When I came over to your office in June, Mr. Williams and your meteorologist showed me a computer run of a mid June cloud that they said proves seeding increases rain. One cloud was very dense and the radar showed that it rained over 2" and another unseeded cloud died off. It so happened that I watched the seeded cloud because it passed over ranchland north of Amarillo with which I am involved. The weathermen were warning of heavy rain and I was excited. However, all of the rainfall amounts were under 1/10 with most in the 1 to 2/100 area. This was confirmed by Channel 7's School Net readings. I don't know if the seeding kept it from raining on our parched land, but it certainly didn't cause it to rain.

The first of July, I sent Mr. Williams some information on cloud seeding and asked him to share it with you. To remind you of some of the information: Australia participated in a forty year program of cloud seeding and discontinued it because there was no scientific evidence that it works.

In A Policy Statement of the American Meteorological Society adopted by the Council on 5 January 1992, the society says, "the economic feasibility of cloud modification methods needs to be determined." They do not see science that shows that it is efficacious. In fact, their statement says, "More complete understanding and documentation of the physical processes involved in both deliberate and inadvertent weather modification is needed. These are challenging tasks requiring well-focused, long-term efforts. Breakthroughs in any of these areas are unlikely..."

Most interesting is their statement, “The impacts of weather modification on society can be far reaching. Therefore, the ecological, hydrological, socioeconomic, and legal ramifications of such activities must be considered and assessed. The complexity of the effects of altered weather have been found to lead, in most cases, to both benefits and problems in various societal sectors and environmental areas. Wise use of planned weather modification should recognize this varying distribution of effects and plan to assess the impacts in the design, operation, and evaluation of field projects. There may need to be compensation for those affected negatively and liabilities must be assessed and understood where possible, to inform the public and those who make decisions relating to the use of weather modification.”

I know that this sort of study has not been done before our district or our state embarked on cloud seeding. The American Meteorological Society is very direct in saying that the type of project you are doing could hurt some people and you should plan for compensation.

There is no evidence that cloud seeding works. But man is messing with a very complex system when man messes with nature and rain; and man does not have God’s knowledge. Mr. Williams claims that causing rain in one place does not take it from another. However, we all know there is only so much moisture in the sky at any given time. Cloud seeding will have unintended consequences—if it effects the weather at all. And those hurt should be compensated.

Your weatherman told us that seeding would spread out the rain. The university of North Dakota answers the question of whether increasing rain one place robs another: " [By seeding developing clouds before they start to produce precipitation, the precipitation process is accelerated and rain falls sooner, and from smaller clouds than it would naturally. Some redistribution of rainfall can occur within the scope of the storm itself, with computer models suggesting that regions of very intense precipitation may be slightly reduced while the total storm rain volume is increased.](#)" For those who depend on rainfall to fill dams, this is bad news. They should be compensated. For those who get rain in hundredths of an inch instead of inches, they should be compensated for the loss of grass and crop production.

If we could change rain fall patterns, someone will suffer. In a finite area such as we have, we would always be seeding when a cloud enters from the outside area. This means that some people would always get left out. AMS says that those who get left out should be compensated.

Certainly, the district doesn’t want to get involved in compensation for death, crop failures, and lack of water in tanks.

Other districts are stopping seeding. Our district should follow their example.

Lastly, the Panhandle should be opposed to these programs on a statewide basis.

1. If they don't work, they are a waste of money.
2. If they do work, someone will be hurt by unintended consequences and should be compensated by the district.
3. If they do work, considering the distance we are from the moisture sources in the Gulf and on the Pacific, areas that are seeding between us and the source of moisture would squeeze the moisture out before it reaches us.

The pilot who seeds plants stood up and explained that ranchers on the edge of the district, such as O'Brien, were "Geographically handicapped" in that the program did not help them. Board members said that if the program helps 90% and hurts 10%, it should continue. Others suggested that opposing cloud seeding was like opposing research on medicines. Rancher Johnny Micou pointed out that research on humans comes only after conclusive evidence that it works on animals. Researchers do not do research on humans when they don't have a lot of evidence that it will work. This experiment is with rancher's lives with lots of evidence that the researchers do not know if it will help or hurt.

In further conversation, one board member pointed out that if the experiment continues for another year, they get to keep the two airplanes the state owns. O'Brien pointed out that he pays state taxes, as well, and continuing a bad program to get two airplanes is an example of what is wrong with the government.

Petitions are circulating throughout the Texas Panhandle by ranchers and farmers who don't like the idea that taxing districts are experimenting on them without them having a say. Please contact [Jay O'Brien](#) if you would like to receive sample petitions.

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Scientific paper on [weather modification](#).

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