

CLOUD SEEDING IN THE TEXAS PANHANDLE

- A Legal Viewpoint -

Jerome W. Kirby, Attorney
Littlefield, Texas

This paper is designed as a review of the legal activities and maneuvers involved in the weather modification programs in the Texas Panhandle. In order to appreciate some of the legal problems one needs to become familiar with the legal concepts that are brought to play. The legal system does not pretend to create new legal theories to solve new problems. When a new area unfolds, the law always goes back to the old basic common law concepts with a view similar to making do with bailing wire. For some quaint reason it seems that the early English Judges put it all together. Be that as it may, there are five basic concepts that fit in plus the influence of statutory regulations. These are discussed in an appendage to this paper in a general sense in an attempt to shed some light on this paper.

The Texas High Plains legal battles were really born in the early 1950's. A group of farmers in what we call Far West Texas, organized a hail suppression program. The prevailing weather moved to their farmland from the southwest which consists of very arid ranchland. The ranchers felt that this program was designed and operated with the purpose of breaking up and dissipating the clouds over the ranchland which would reduce the rainfall.

Two suits were brought in the ranchland counties to stop the operations. Each suit was to enjoin the operators from flying planes over the lands of the Plaintiffs. In order to obtain a temporary injunction until the case can be heard on its merits for a permanent injunction, the Plaintiffs had to show that they would suffer irreparable harm if the planes operated during the period that the suit was pending. This is an action before the Court without a jury. Such temporary actions are discretionary with the trial judge, and will stand up on appeal except where there is a clear abuse of discretion. Normally, a minimum of testimony is offered because the attorneys do not want to try their whole case until the final hearing where a jury may be demanded.

The trial judge granted the temporary injunction under the theory that landowners have certain natural rights, one of which is to prevent people from doing things above the surface without the consent of the surface owner. This notion stems from the old English idea that the surface ownership carries with it ownership downward to the center of the earth and upward to the heavens. Anyone who crosses the magic line without consent is a trespasser. This was based upon the mistaken belief that the earth was flat and that the sun revolves around the earth. The trial judge's action was upheld on appeal, but the Texas Supreme Court expressed serious misgivings about the "natural rights" theory by making it clear that they found no abuse of discretion. This disposition was ignored by the forces against weather modification as they considered the matter settled once and for all in Texas. Unfortunately for the development of the law, the case was never tried on its merits. Presumably the weather modifiers just gave up. These cases were nationally known as the Southwest Research cases,

and most authorities assumed weather modification in Texas was dead. This was true despite the fact that the United States government guaranteed the freedom of the air to all persons in 1926. The only limitation of any consequences has been to require the payment of damages when aircraft unreasonably interferes with the surface use, such as flying so low as to cause property damages. In such cases injunction would presumably be in order. This realistic view has been widely accepted after it was adopted by the drafters of the Restatement of Torts. This is, or will probably be, the law in most jurisdictions.

After the Southwest Research cases, Texas passed a weather modification act which provides for the licensing of persons who qualify as weather modifiers and for the issuance of permits for specific projects. This gave some stature to weather modification by making it an acceptable activity. The Act did not disturb those opposed to weather modification because they inserted a rather curious provision. This provision announced that nothing in the act shall affect private legal relationships. If the "natural rights" theory was in fact the law of Texas, the Act was meaningless.

The area where the Texas High Plains weather modification activities have been carried on in the 70's, consists of a high flat area with rich soil and an abundance of underground water suitable for irrigation. The prevailing weather is from the southwest to the northeast. To the south, west and east there is a large farming area with little irrigation water backed up by dry rangeland. In 1969 several hail storms of gigantic proportions caused staggering crop losses to the irrigated farmers. This prompted a concerted effort to organize some sort of hail control. This effort culminated in present hail suppression and rain stimulation program.

Up until the completion of the 1973 crop, by and large the opposition consisted of complaints, harangues, threats and unsubstantiated rumors. The 1973 crop amounted to an unbelievable nightmare of farm profits. Prices tripled, costs remained low, and production set new all time records. With all pockets lined with lots of silver, the opposition got loud and the whiskey got hot. Any time you get a large group of mad folks with a lot of money, you immediately get the attention of the lawyers and the litigation starts. The more the money, the more the litigation. With the false security of the Southwest Research cases, the opposition made only a token opposition to the 1974 permits.

When the 1974 operations began, those opposed to weather modification filed a suit in the District Court of Lamb County, Texas, requesting a permanent injunction. As a matter of routine, the Plaintiffs requested a temporary injunction to be in effect until the case could be heard on its merits. Armed with the Southwest Research cases, this seemed to be an easy task. However, they did not reckon with the tough intellectual honesty of Judge Pat Boone, Jr. of Littlefield, Texas. The Defendants, Atmospherics Inc., Fresno, California, Better Weather, Inc., Littlefield, Texas, and Plains Weather Improvements Association, Plainview, Texas, decided the best way to handle the matter was to go all out on the temporary injunction. This would be by an all out attempt to educate those who were not beyond listening objectively to scientific facts.

The Defendants, by then dubbed the "rainmakers," countered the old wives tales, outrageous and ridiculous rumors, Bible quotes, worn out and antiquated

experts, soothsayer maxims and hysteria with a massive barrage of unimpeachable scientific evidence. This consisted of such heavies as Pierre St. Amand, Richard Schleusener, Merlin Williams, Ray Booker, Stan Changnon, Lew Grant, Paul Schickedanz, Tom Henderson, and John Carr. With the Southwest Research cases in their hip pockets, Plaintiffs' confidence in an immediate injunction made them impatient with themselves in having to try the case. It was "an injunction in 10 days" rather than "home by Christmas for the troops." The laughter and sniggers rocked the courtroom when a little fellow with a goatee and the unlikely name of Pierre St. Amand marched to the witness chair in this small rural community. Eight hours later you could still hear a pin drop and the "rain-makers" had taken on an air of respectability. After five days of testimony, weather modification in Texas was reborn as an acceptable activity and the old "natural rights" theory was put to rest. The Court refused to grant the temporary injunction, and the Plaintiffs never asked for the case to be heard on its merits for a permanent injunction. The Plaintiffs had some possible theories of recovery, trespass, nuisance, negligence and the forces of nature. They were unable to prove that the rainmakers were in any way damaging Plaintiffs' property or were in any manner interfering with Plaintiffs' use of the surface of their land. The idea that the rainmakers had to get Plaintiffs' consent was summarily ignored. This eliminated trespass and nuisance. There was absolutely no evidence that the rainmakers were negligent in their operations which eliminated another theory. The forces of nature theory has to do with giving a person rights in those things that he can capture. Of course no one has ever devised a satisfactory way to capture a cloud. It is sort of like trying to shovel smoke.

The stunning set back to what appeared to be a quick repeat of the Southwest Research cases, calmed matters back to the rumor, threat, talk and complain stage through the 1975 operations. However, the whiskey got hot again in the quest for the 1976 permit. The opposition accepted the fact that they had two chances in Court, slim and none, so they decided that the best strategy was to overwhelm the administrative processes with maneuvers, delays, bodies and loud noises. They apparently felt that they could wear the rainmakers out. This strategy was considerably more gratifying to the opposition since it gave them ample opportunities to get their licks in on all gripes on all subjects. The Texas law provides for public hearings in the area of the operations upon request. These public hearings are before members of the Texas Water Development Board without any rules as to what is said or how it is said. In these type proceedings every crank and crackpot in the country can have his personal day in Court. It is a no holds barred proceeding.

In the processes leading to the 1976 permits, two of these wierd-o hearings were held. One in Plainview, Texas, and one in Littlefield, Texas. It would defy the caustic pen of H. L. Mencken who covered the infamous Scopes trial to vividly describe these mioptic adventures in paranoia. The 1925 arbor meetings at night in the Dayton, Tennessee, countryside by the anti-ape fanatics had nothing on these hearings held 51 years later. It would be difficult to distinguish the orgasms. Nothing worthwhile was accomplished at these exercises once you discount the primitive entertainment factor. The hearings have no force of law and are designed solely to let the powers-that-be know what the folks at the cross roads think. They did serve as pep rallies for the coming battles on the 1976 permits whose ominous drums were already being heard in the background.

In Texas, at a contested hearing on an application for a permit, the applicant must prove that the operation will not significantly dissipate the clouds to the material detriment of persons and property within the area where the operations are to be conducted. The rules of the Texas Water Development Board provide that where an application for a permit is contested a judicial hearing must be held in the area to determine the above issue. The applications for the 1976 permits were contested in a full blown judicial hearing before an administrative judge in Lubbock, Texas. This hearing was basically a rehash of the same evidence used in the 1974 injunction hearing. At this hearing the applicants proved that they not only would not dissipate the clouds, but that they could not dissipate the clouds with Twin Comanches and silver iodide. Of course if applicants do not dissipate the clouds the rest of the issue becomes moot. They also proved that they had dramatically reduced the hail without reducing the rainfall.

This hearing was an extreme exercise in emotion by a group of contestants who were still trying to revive the Southwest Research cases. Again the consent of the surface owners theory fell on deaf ears. At this hearing a new banner was raised. A considerable number of the contestants switched to the argument that the application should be put before the people for a vote. This argument fell because it was not presented to the proper forum. The hearing officer was to determine the dissipation issue and he was without any authority to order a vote. The applications were for four year permits, but the hearing officer recommended a one-year permit because hail suppression operations are seasonal in nature as opposed to year around operations. The opponents contested the recommendation, but the Texas Water Development Board granted a one year permit for 1976.

After the 1976 action, the agitation for voting on permits intensified. The proponents of the right to vote grew dramatically and their pressure began to show on the Governor, Senators, Representatives, Administrators and Board appointees. It is very difficult to effectively argue against the right to vote to a politician. It gives the impression that you have something to hide if you do not want folks to vote on an issue. This vote matter grew dramatically and it afforded politicians and administrators with a convenient way to dodge a very hot potato. All sorts of bills were prepared for the 1977 Legislature and all kinds of promises were extracted from the politicians. Since the rainmakers were enjoying the status quo, they failed to do their homework with the political forces. As a result of this the rainmakers are at this time suffering what may be a slow death.

The 1977 permits were made so that a hearing could be held in November of 1976, which would be before the 1977 Legislature would begin its session. The pressure on the powers-that-be began to tell by unexplained delays in the permit processes. The judicial hearing for November was indefinitely postponed by reason of pressure from above the judicial officer. The 1977 Legislature was in full session before anything began to move on the permits. Voting bills were in full progress when the hearing was finally set in February of 1977. A full hearing was held in Lubbock, Texas, where much the same evidence as had been previously used was brought forward. The permit applications included rain stimulation on a year around basis to add to the seasonal hail suppression. After another emotionally packed exercise, the hearing officer found that the applicants would not significantly dissipate the clouds and recommended the

granting of four year permits. In the ordinary course of events the permits would have been issued in time to start operations by the beginning of the hail season on May 1, 1977. Ordinarily an administrative board will accept the findings and recommendations of a hearing officer absent any abuse. However, in this instance the Texas Water Development Board completely ignored the hearing officer. As alarming and unorthodox as it may seem, one board member took it as his personal toy, and wanted more evidence as a delay tool. It was obvious that two members could not stand the heat, but refused to get out of the kitchen and let someone else do the cooking.

While the board was fiddling as Rome burned, the Legislature passed a voting bill that did not apply to pending applications. At this stage the board decided to grant a conditional permit to expire October 31, 1977, or sooner as determined by the results of various elections to be called in the area. The rules laid down by the board amounted to an abortion of the bill finally passed by the Legislature. With a "damn the torpedoes, full speed ahead" attitude the elections were shifted to the responsibility of the permit holders. This is true despite the clear legislative intent that permits are in order unless the opponents initiate and succeed in a vote against the permits. The votes outside the target area were so heavily opposed to weather modifications that the administrative forces were frightened into impulsively cancelling the permits despite the fact that the voters within the target area either voted in favor of weather modification or did not want a vote at all.

In the final analysis, it is fairly certain that the scientific facts justify weather modification as a worthwhile and desirable activity despite the arguments of the opposition. Further, present legal theories do not act as stumbling blocks or as impossible hurdles. The forces of political pressure in Texas seem to be more than the light hearted can effectively cope with.

APPENDIX

TREPASS

Trepass involves some sort of entry or breaking of the close. Pilcher vs. Kirk, 55 Tex. 208 (Tex. Sup. Ct. 1881). In weather modification the entry poses a tough problem aside from the fact that an aircraft entry in the airspace is not a trespass (49 USCA 180). When you consider that the central updraft of a cloud may be many miles in one direction or another from the processing part of a cloud cell, that the cloud is moving, and that it takes about 20 minutes for the injected material to reach the processing area, you must conclude that the injection is normally not done over the land to be affected. To use trespass, a plaintiff has to say that the planes are trespassing over lands of others and doing damage to his land or are trespassing over my land and damaging others.

There is the possibility that there is an entry upon the affected land by a landing of one or more of the minute particles injected in the cloud. An entry by particle or energy is a trespass even if it is ever so small. Martin vs. Reynolds Metal Co., 342 P2d 790 (Ore. 1959) Cert. denied, 362 U.S. 918 (1960). The kicker here is that silver iodide particles are so small that their presence on the affected land is not detectable by any known scientific method.

(Testimony of Dr. Pierre St. Amand, WM-008, and WM-009, Texas Water Development Board).

If a litigant could prove a trespass, then he has the unenviable task of proving damages and causation. No one yet has established a reliable method of proving what a specific cloud would have done, but for the seeding activities. Of course, generally the trespass in and of itself entitles the litigant to nominal damages. Champion vs. Vincent, 20 Tex. 812 (Tex. Sup. Ct. 1858). (See: Keeton, Trespass, Nuisance, and Strict Liability, 59 Colum L. Rev. 457 (1959).) With the nominal damages of trespass the litigant has a claim for an injunction against further trespasses. Parsons vs. Hunt, 84 SW 644 (Tex. Sup. Ct. 1905); Southwest Weather Research, Inc. vs. Joe Roundsaville, *supra*. However, the equitable remedy of injunction can be easily refused by the Court balancing the equities. The Court must juggle the probable good against the nominal damages. (See: Slutsky vs. City of New York, 97 N.Y.S. 2d 238 (Sup. Ct. 1950), where the need of the City for water outweighed the need of the ski resorts for snow.) The probable good can be readily established by experts who are willing to testify that in their opinion the desired effects was or will be accomplished. Few, if any, noted experts are willing to take the opposite side. This may be because the weather modifiers are right or it may stem from scientific leeriness of hindsight ridicule in the event they are eventually proven wrong. One can recall the surgeons' laughter at Dr. Lister over his idea of washing the hands before an operation.

NUISANCE

Nuisance is a tort that will cover an interference with the joyful use of land without the necessity of a technical trespass entry. Burditt v. Swenson, 17 Tex. 489 (Tex. Sup. Ct. 1856). It would seem to be a snug fit for weather modification. However, a person opposed to the modification is simply overwhelmed by the proof obstacles. Like trespass, the plaintiff must show that there is a causal connection between the modification and the claim of damages. RESTATEMENT OF TORTS (SECOND) Sec. 9. This pre-supposes that he can show damages in fact. The classic complaint is that the activities decreased the rainfall upon the plaintiff's land. Damagewise there must first be a showing of how much rain a tract of land received. Then there must be a showing of how much rain the tract would have received had particular clouds been left untouched. There is absolutely no way to reconstruct or simulate the situation. It would take an extremely ignorant or dishonest expert to say a particular plaintiff would have received a certain quantity of increased rain from a particular unseeded cloud. There are just too many variables and too many unknown factors. About all the expert can say is that in his opinion the cloud seeding program in general enhanced or decreased the rainfall in quantity or quality. However, as to any particular cloud or any particular tract of land the same expert will not hazard a guess. This is what stymies the plaintiff. Rain records are of no value to an individual party. They must be statistically tested over a long period of time to be of much reliability even for a large area in general.

Restatement of Torts (Second Revised), Sec. 159, is couched in terms of a trespass by aircraft, but it is really unreasonable interference with the use of the surface. It provides that there is a trespass, if, and only if, there is

an entry into the immediate reaches of the air space next to the land, and it interferes unreasonably with the other's use of the land. This pulls away from common law trespass in air space disputes and combines it with nuisance for a more workable theory. This reasoning is used effectively in spray plane drift cases. Schronk vs. Gilliam, 380 SW2d (Civ. App. Tex.). This seems to give some comfort to a plaintiff who sues the cloud seeders, but you still must make the cause and damage proof or you are limited to physical damage to property such as scaring the chickens out of their egg laying habits by low flying planes. This is certainly not what the plaintiff wants. Seldom is a cloud seeding aircraft within the immediate reaches of the airspace next to the land.

FERAE NATURAE

Instantaneously with the posing of a legal question involving nature, mouth to mouth resuscitation is given to the almost extinct carcass of an old dead fox. The rights to and ownership of those things that are not mankind in nature are dependent upon the taking of possession. Pierson vs. Post, 3 Caines (N.Y.) 175, 2 Am. Dec. 264 (1805). Suffice it to say that it is obviously impossible to possess a cloud in its cloud state. It is certainly arguable that the only way to capture or possess a cloud is to reduce it to rain. Since this inures to the benefit of the cloud seeders, plaintiff is given little comfort from this legal concept.

CUJUS EST SOLUM, EJUS EST USQUE AD COELUM

If a lay land owner writes a letter to the editor in righteous indignation over weather modification, his claim is usually based upon the idea that he owns everything above him to the heavens. While this idea does import a 300 year old doctrine of Lord Coke, (Prosser Torts, Sec. 13, 4th ed. 1971), it has collected considerable barnacles along the way. The idea would work much better if the earth was flat and stationary. It works fairly well when going downward because it is fairly easy to identify the area under ground with the surface itself. It seldom becomes a problem except in such cases as whipstock oil drilling. (See: Hastings Oil Co., et al vs. Texas Co., et al, 234 SW2d 389 (Tex. Sup. Ct. 1950)). In a slant oil case the trespass and the damage is provable to a reasonable degree of certainty. Man has not yet used the sub-surface to a depth where the shape and movement of the earth makes any difference. Doodle-bug travel has not become a reality. The space above the surface is a different bucket of molasses.

Obviously the doctrine had to give way to airtravel as limited by U.S. vs. Causby, and Restatement of Torts, supra. Even if the doctrine were alive and well, fitting it to weather modification is much like trying to fit the square pegs in the round holes. With the earth revolving around the sun in a wobbly manner and getting minutely closer, it can be said that the area from a landowner's surface to the heavens is never the same for more than a flash. By the time he gets to the courthouse his space at the time of the complaint is long gone. Since the atmosphere moves with relation to the earth's position, the real search must be as to the atmosphere, not the airspace. As previously stated, a cloud

is seldom seeded over the affected land.

NEGLIGENCE

All of the previously discussed legal concepts seem to presuppose that weather modification is a bad activity, and that we are struggling to find a doctrine by which the rainmakers are liable without any real fault for their activities. The inapplicability of these concepts leads one to the inescapable conclusion that so long as these activities are carried on by the standard methods of operation, weather modification is not an undesirable activity. It also leads one to believe that wild claims of those opposed to weather modification are more hallucinatory than real. Once you accept the premise that weather modification, like automobile driving, is an acceptable activity, then the laws of negligence can be applied.

Negligence, being a liability for fault notion, Restatement (Second) of Torts, Sec. 283 (1965), would require weather modification activities to be carried on with a certain degree of care commensurate with the skills required. Sophisticated radar can document the degree of care actually used; however, this road is plagued with the same proof problem of rain loss damages as in nuisance. Even though you could establish that a pilot negligently overseeded a cloud or failed to seed one properly, you are still faced with speculativeness of your cause and damages from alleged loss of moisture. Pinning down this elusive damage maiden is much like trying to shovel smoke. There is really nothing unwholesome about not awarding money for alleged damages that are not susceptible of proof. It is entirely probable that the reason the damages cannot be proven is because they do not in fact exist. On the other hand, actual damages to property such as where low flying planes scare turkeys to death is recoverable under negligence. Miller vs. Maples, 278 SW2d 385 (Civ. App. Amarillo, 1954).

REGULATORY INFLUENCE

By and large weather modification operations are conducted under the watchful eyes of administrative agencies. These agencies normally have specialized staffs of skilled personnel in the field to screen applicants for qualifications, monitor activities, promulgate rules and generally prescribe acceptable methods of operations with powers of enforcement for the protection of the public interest. Ordinarily a person must demonstrate to the agency that he has the education, skill, personnel, training and equipment to carry on a safe and successful program before he is licensed to operate weather modification programs generally in the particular state. Then the licensee must convince the agency staff that a specifically planned operation can be done successfully without injury to the public interest before a permit is issued for the particular project. At all stages people with affected interests are afforded ample opportunity to protest and be heard under administrative procedures that are tailored to meet our traditional notions of due process. The Texas agency is set up by the Weather Modification Act, Sec. 14.001 et seq., of the Water Code. The 1977 Legislature consolidated the agencies, but the rules of procedure will still apply. The due process is properly and fairly set out in the General and Special Rules of

Practice and Procedure of the Texas Water Development Board, Rules, Regulations and Modes of Procedure Relating to the Texas Weather Modification Act, and the Administrative Procedure and Texas Register Act, Art. 6252-13a, Texas Revised Civil Statutes.

Under the Texas procedure a permit for a particular weather modification project cannot be issued unless the applicant holds a valid weather modification license, pays a permit fee, publishes prescribed notice of intentions in affected area, furnishes proof of financial responsibility. S14.061 Water Code. Then after a properly conducted hearing which affords all interested parties a right to participate, the board must find affirmatively on the one issue. This issue is as follows:

"...the weather modification and control operation as proposed in the permit application will not significantly dissipate the clouds and prevent their natural course of developing rain in the area where the operation is to be conducted to the material detriment of persons or property in that area...."

The applicant has the burden of proof under the issue as worded. Sec. 13 of the Administrative Procedure and Texas Register Act prescribes for the notice and opportunity to be heard in contested cases. Sec. 14 sets out the requirements that safeguard the reliability of the evidence to be used and considered, and Sec. 19 provides for judicial review. Under this act and the rules of the agency, it can be fairly concluded that the final decision of the agency does protect the public interest. Recently the Texas Legislature added the right to reject hail suppression by the voters in the area. Senate Bill 632, 1977.

From the safeguards of the administrative processes with judicial review one would wonder how the legal ghosts discussed earlier came to haunt us. Even though you hold a valid permit to conduct weather modifications in a particular area, any person who resides in the affected area or owns property in the affected area has his causes of action as the operations may affect him or his property. In Texas, Sec. 14.102, Weather Modification Act, provides that "...this chapter shall not affect private legal relationships,...." Thus the permit does not give the modifiers any protection from the legal ghosts except that strict liability is eliminated.

CONCLUSION

Weather modification in 1977 is a far cry from the fly-by-night carnival operator who shot rockets into the sky while his helpers sold a cure-all liniment to the audience. Operators are now regulated by administrative agencies with expertise in the programs. Operators must meet certain standards in education and experience and must use acceptable operating equipment and trained personnel. It is certainly not unrealistic to believe that the public good to be served from weather modification outweighs the dangers from some of the uncertainties involved in an advancing science. Like vivisection, evolution and flouridation, weather modification has its outspoken opposition. History may or may not be kind to them. For the present, the administrative expertise seems infinitely more reliable than the existing legal concepts that will have to be drastically re-tooled to do the job.