

## PROJECT AIRCRAFT



**Cloud Top Airplane Releases Dry Ice**



**Burn-In-Place Flares for Hail Suppression**



**Wingtip Generator for Rain Increase & Hail Suppression / 42 Grams**

## ADVANTAGES FOR BEING IN THE PROGRAM



### Hail Suppression

Helps Protect Crops, Property & Wildlife  
Has a range of 27% to 35% Reduction in Hail



### Helps Use Ogallala Aquifer Wisely

The irrigation water used for each crop saved from hail  
is considered beneficial use and not a waste of water



### Benefit to Cost Ratio as high as 37:1

For EVERY DOLLAR spent for Weather Modification  
There is a potential for 37 dollars to be placed  
back in the community

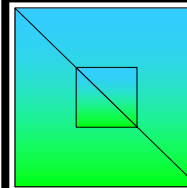


### Turning Your \$ into more \$\$\$ for Western Kansas

**Our Program Has the Capability to Turn  
\$90,000 into \$900,000 on the Low End**

- Benefit to Cost Ratio of 10:1
- Proven in the 2008 KS Water Office Evaluation  
**and into \$3,330,000 at the High End**
- Benefit to Cost Ratio of 37:1
- Proven in the 1994 KS Water Office Evaluation

Western Kansas Weather Modification Program  
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## Western Kansas Weather Modification Program

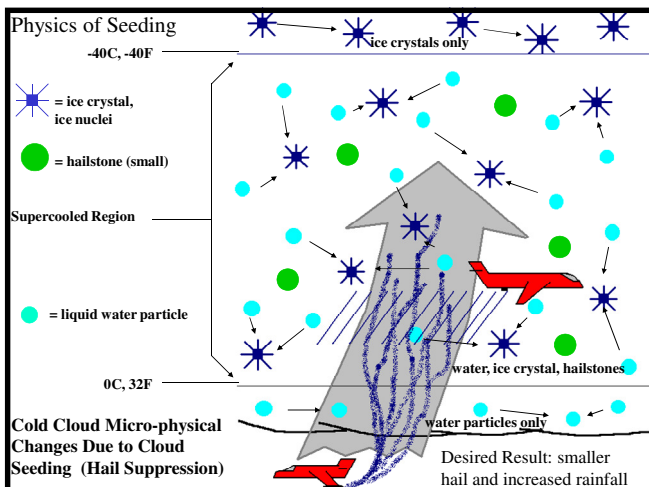
**A COMMUNITY  
BASED PROGRAM  
WORKING TO  
PROTECT CROPS & PROPERTY  
BY DECREASING THE  
SEVERITY OF HAILSTORMS**



### LAKIN RADAR

Located at the Kearny County Airport  
(620)-355-6914  
Email: [hailman.pld.com](mailto:hailman.pld.com)

## HOW THE PROGRAM WORKS



## HOW CLOUD SEEDING WORKS






Cloud seeding is a tool to help mitigate hail damage & protect crop yields, homes & other property, thus reducing the economic harm from disastrous storm damage. Since hail is itself ice that is produced only by vigorously developing thunderstorms, it is certain that such clouds are cold enough to be responsive to modern cloud seeding techniques. Hail develops when excess sub-freezing liquid water develops within strong updrafts. However, if the excess might be induced to freeze into large numbers of small particles, through cloud seeding, rather than much smaller numbers of large particles, the ice that does precipitate may melt during its travel through the warm air below the cloud, or if it doesn't it will reach the ground as much smaller, less damaging, ice.

**IT ONLY COSTS A COUNTY**  
**6.2 cents per cropland acre**  
**and**  
**2.2 cents per acre of grassland**

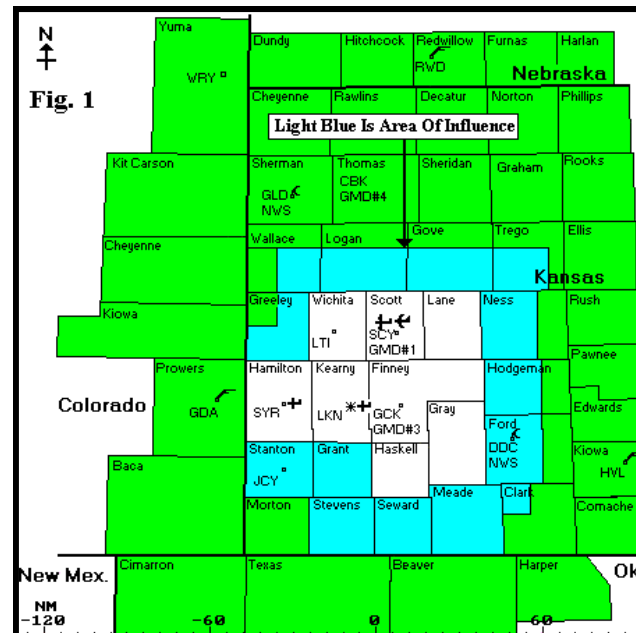


**For the price of approximately**  
**ONE bushel of corn:**  
**Your County can help protect a**  
**circle of 120 acres from hail**

## OBJECTIVES

-  Seed Clouds while Crops are being planted, grown & harvested
-  Decrease the occurrence of crop damaging hail by seeding thunderstorms
-  Optimize areal rainfall by seeding selected clouds in the absence of severe weather
-  Demonstrate the feasibility & effectiveness of an operational seeding program
-  Produce weekly newsletters during the operational season

## CURRENT TARGET AREA



**Western Kansas**  
**Is the**  
**2nd Most Hail Prone Area**  
**In the**  
**United States**

**Western Kansas**  
**Weather Modification Program**  
**has been in existence for 37 years**

**For the last 21 years there has been**  
**NO INCREASE in funding**