Applied Weather Modification - Homework 3: Statistical Analysis

Reference (Tuftedal et al., 2022): Tuftedal, Matthew, David J. Delene and Andrew Detwiler, Precipitation Evaluation of the North Dakota Cloud Modification Project (NDCMP) using Rain Gauge Observations, Atmospheric Research, 2022, https://doi.org/10.1016/j.atmosres.2021.105996.

http://aerosol.atmos.und.edu/AtSc252_Spring2022/ATMOS105996_20220208.pdf

Read and review the above reference peer-reviewed scientific paper. Based on class discussions and the articles, answer the following questions.

1. What is the main point of the article? Is it an opinion piece or is it meant to provide facts? State evident for your answer.

2. Was the experiment discussed in the article randomized? Was the experiment discussed in the article a blind experiment? State the reason for each of your answers.

3. Was the experiment discussed in the article a Black Box type of experiment? Was the experiment discussed in the article a physical type of experiment? State the reason for each of your answers.

4. Did the article use hypothesis testing? Were any nonparametric statistical test used in the articles. State the reason for each of your answers.

5. How did the article's results compare with other analysis of weather modification programs? How does this recent result compare to initial results of the evaluation of weather modification programs?