NOAA Initial Report Attachment

TARGET AREA LOCATION

Bowman and part of Slope Counties, North Dakota

6. DESCRIPTION

Cloud seeding will be conducted through the combustion of a liquid solution producing $AgI_{0.8}Cl_{0.2}$-NaCl aerosol or through the combustion of AgI pyrotechnics. The generators and flares will be placed on twin-engine turbo aircraft (PA-34 or equivalent type).

Seeding agent will be released at or near cloud base. Cloud candidates for seeding will be selected on the basis of a comprehensive weather forecast, a WRS300 Dual-polarization weather radar utilizing TITAN software, aircraft tracking, and radar measurements and cloud parameters measured by aircraft.

Seeding rates will be selected according to modification purpose, cloud characteristics, and existing atmospheric conditions. In general, seeding shall be conducted to obtain at least one artificial nucleus per liter for rain increase. In hail suppression, 10 to 100 artificial nuclei are desired per liter or until effect has been observed.

8. SAFETY AND ENVIRONMENT

The field office will be assisted in operations by the forecast office of the North Dakota Department of Water Resources, Atmospheric Resources Division, located in Bismarck, ND in acquiring the latest information pertaining to weather advisories and warnings.

Safety procedures and environmental guidelines have been included in the operational program by use of NWS data pertaining to flood forecasts, local weather conditions, etc. Each county weather modification authority has been empowered with the ability to stop operations for any given period of time as determined by that authority. The director of the division also has the power to enjoin seeding activities if it is determined that the public or environmental health is in jeopardy.

9. OPTIONAL REMARKS

The North Dakota Cloud Modification Project Operations Manual will govern the project.