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Title: Update on Cloud Seeding Flare Testing using the Pi Cloud Chamber

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Abstract: Initial work to use the Pi Cloud Chamber at Michigan Technological University to test Silver Iodide (AgI) cloud seeding flares has been conducted and plans made for the first chamber tests. A flare burning and dilution system is used to ensure that the Pi Cloud Chamber is not contaminated by AgI. The system burns flares reproducing the air flow over flares at aircraft speeds and provides particle dilution of between 10⁵ and 10⁶ in number concentration. Temperature conditions for the flare testing experiments focus on the -4 to -12 °C range. A high (1.0 g/m³) and low (0.5 g/m³) cloud liquid water content (LWC) will be tested. Experiments are planned where AgI particles are inject at realistic concentration into the Pi Cloud Chamber which is setup to simulate prescribed cloud conditions.