

Removal of Microdust from the Atmosphere

Summary

- Microdust of 0.1 to 1 µm in diameter are not removed as effectively as larger or smaller sized particles.
- Microdust, including black carbon pollution, is incorporated into cloud particles.
- The atmosphere lacks microdust that nucleates ice at warm temperatures.
- Cloud seeding with ice nuclei increases precipitation and hence increases the removal of microdust incorporated into cloud particles.
- Microdust of 0.1 to 1 µm in diameter are not removed by rainfall as effectively as larger or smaller sized particles.
- Precipitation mixes the atmosphere and removes particles.
- Measurements can determine the effectiveness of cloud seeding and removing of microdust.

Key Points

- Proven Science, Technology, Equipment, and Operators
- Cloud Seeding Increases Precipitation and Air Mixing
- Precipitation and Air Mixing Reduces Microdust

➔ Cloud Seeding Increases Precipitation/Reduces Microdust

• Multiple Additional Benefits that Include Enhanced Understanding of Microdust Origin, Definition, Tracking and Forecasting

→ <u>Science-based Project Leading to Results, not Just Data</u>



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