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(54) **SYSTEM FOR FACILITATING CLOUD FORMATION AND CLOUD PRECIPITATION**

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(57) **ABSTRACT**  
 A system for facilitating cloud formation and cloud precipitation includes a controller and a beam emitter that is responsive to the controller. The beam emitter is configured to emit a beam to form charged particles within an atmospheric zone containing water vapor. The charged particles enhance the formation of cloud condensation nuclei such that water vapor condenses on the cloud condensation nuclei forming cloud droplets. The system further includes a sensor configured to detect a cloud status and output a signal corresponding to the cloud status to the controller.

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