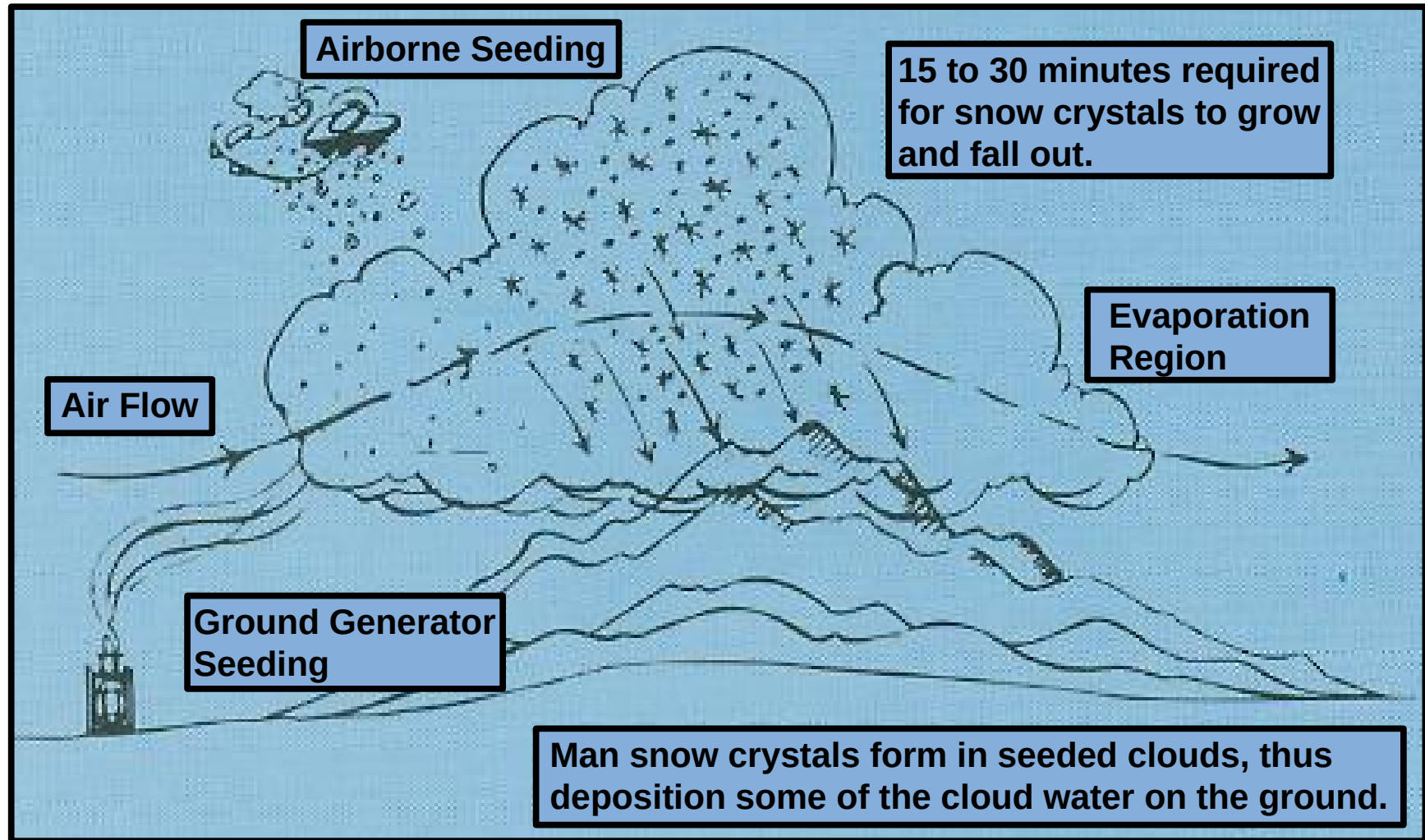


# Snowfall Increase (Orographic Clouds)



# Winter Cloud Seeding with Silver Iodide

## WINTER CLOUD SEEDING WITH SILVER IODIDE

**1**  
**CLOUD**  
Air flows over the mountain forming a cloud that may contain supercooled liquid water

**2**  
**RELEASE**  
Silver iodide particles are released by an aircraft or ground based generator

**3**  
**DISPERSION**  
Silver iodide particles reach the targeted cloud

**4**  
**ICE**  
The silver iodide forms ice crystals

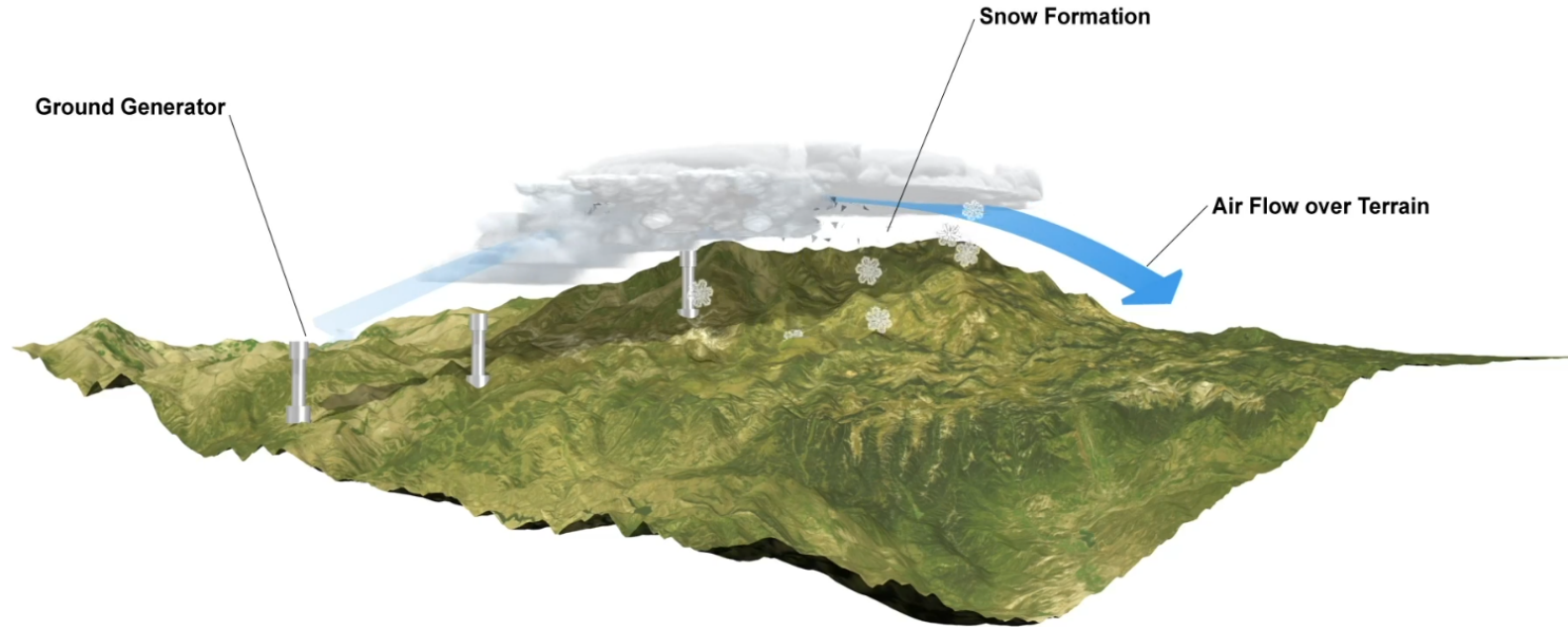
**5**  
**SNOW**  
The ice crystals grow at the expense of supercooled water and become large enough to fall and create snow

Air Flow

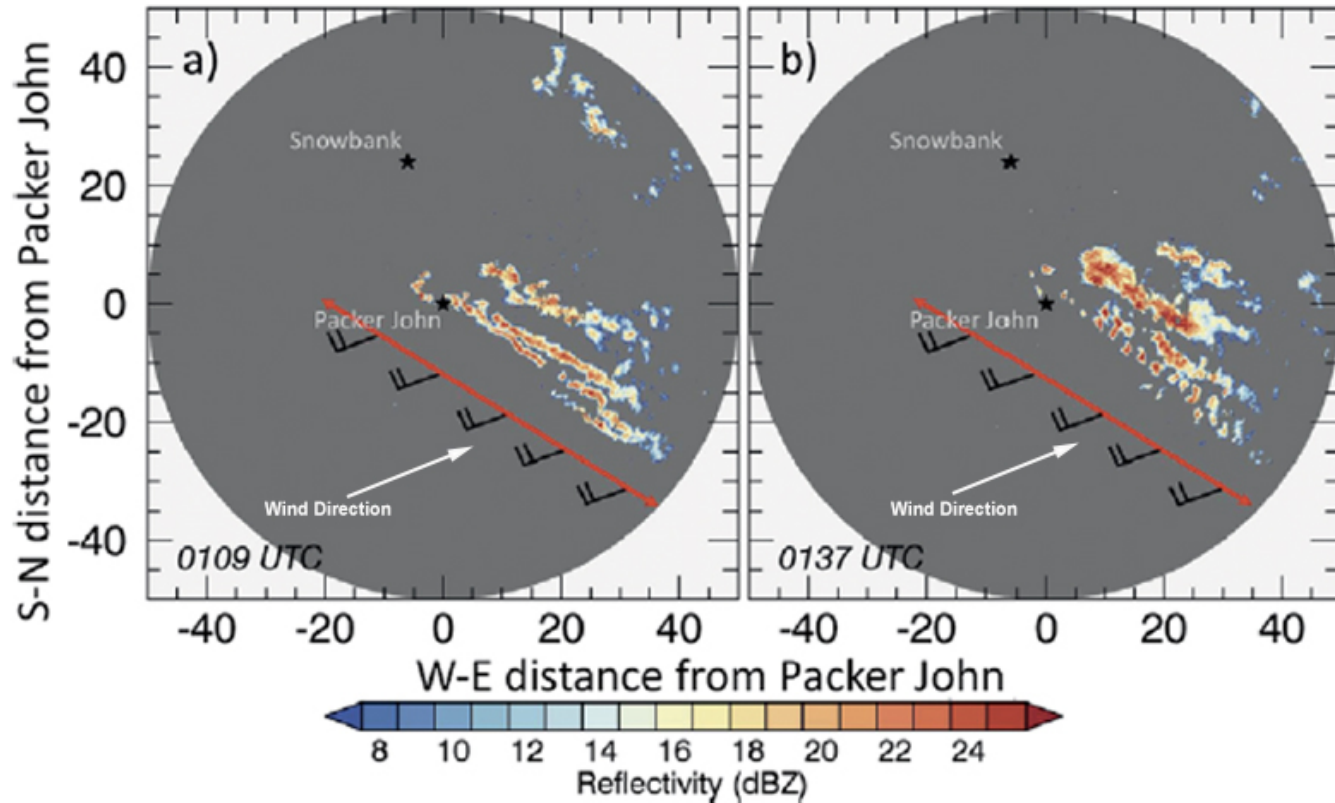
# Simulation of Winter-time Cloud Seeding

[http://aerosol.atmos.und.edu/AtSc252\\_Spring2023/Presentations/m\\_sim.mp4](http://aerosol.atmos.und.edu/AtSc252_Spring2023/Presentations/m_sim.mp4)

Simulation of mountain with various cloud seeding locations



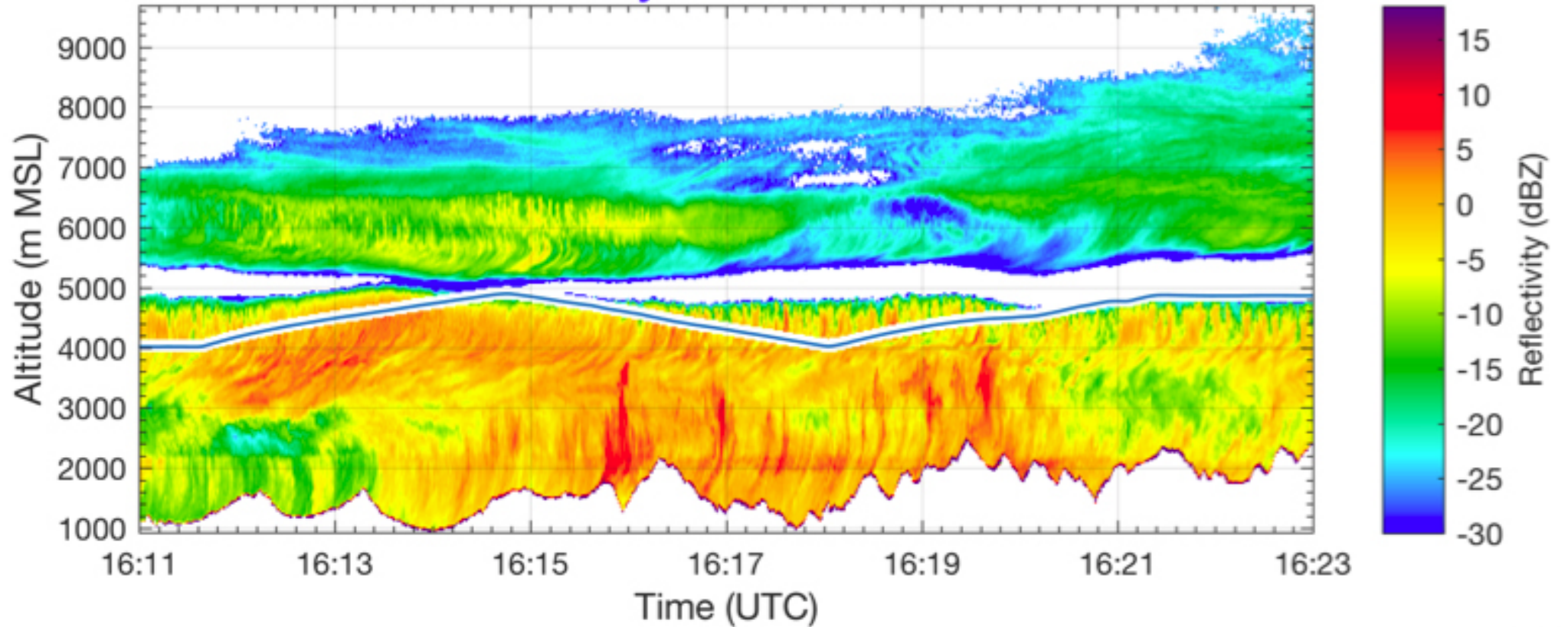
# DOW Radar Observation of Aircraft Seeding



**FIG. 12. PPI scans ( $0.99^\circ$  elevation angle) at (left) 0109 and (right) 0137 UTC from the Packer John DOW radar. The red line denotes the track of the seeding aircraft. The track was repeated eight times between 0003 and 0129 UTC. The wind barbs indicate mean flight-level winds (kt;  $1 \text{ kt} \approx 0.5144 \text{ m s}^{-1}$ ).**

# WCR Radar Observation of Aircraft Seeding

WCR Reflectivity 09 Mar 2017 16:11-16:23



USBR

Wyoming Cloud Radar (WCR) Reflectivity from March 9, 2017

# Snowfall Augmentation (MedEd)

- Check Out MetEd Module, How Cloud Seeding Works  
[https://www.meted.ucar.edu/USBR/cloud\\_seeding/index.htm](https://www.meted.ucar.edu/USBR/cloud_seeding/index.htm)

