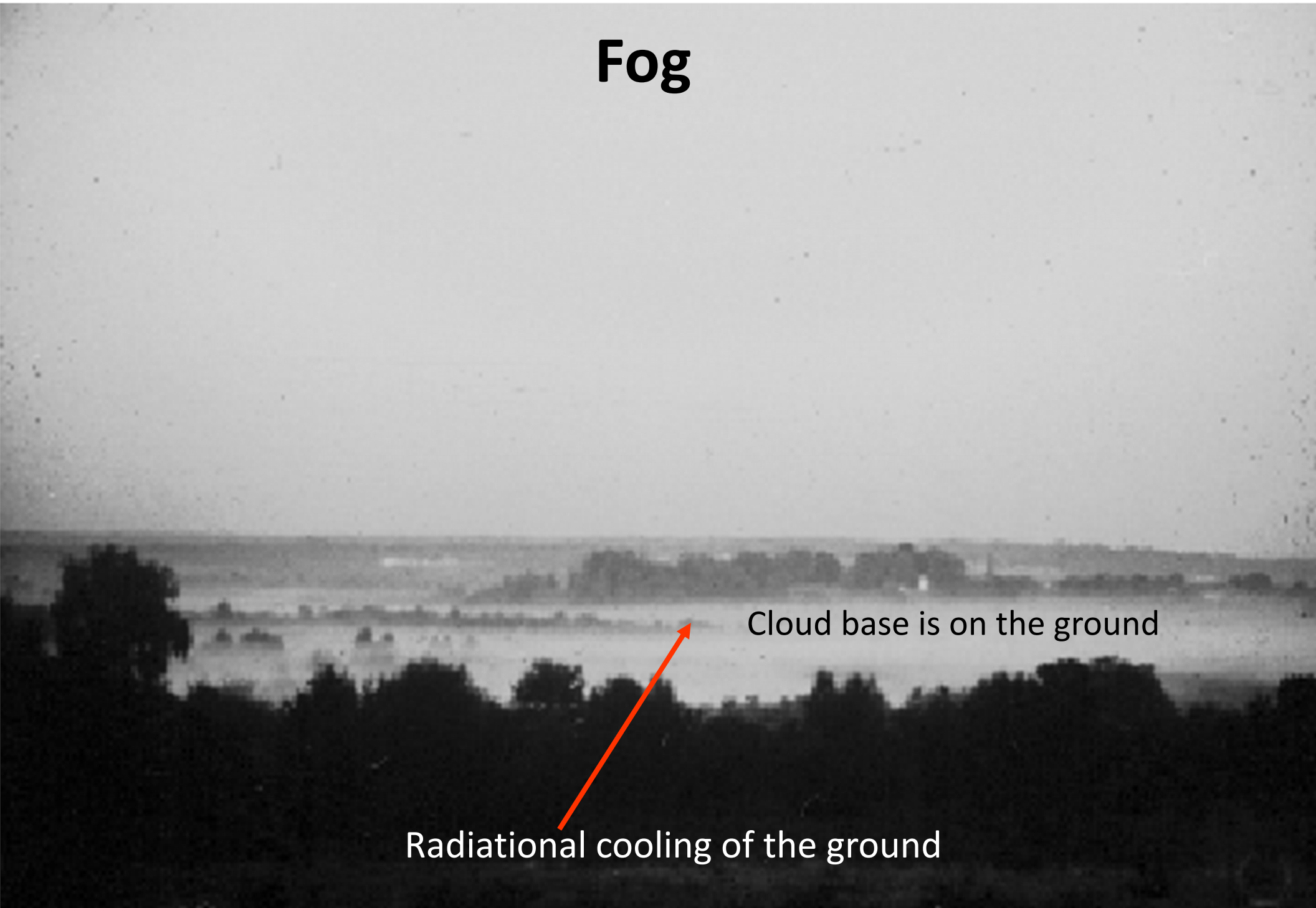




Fog

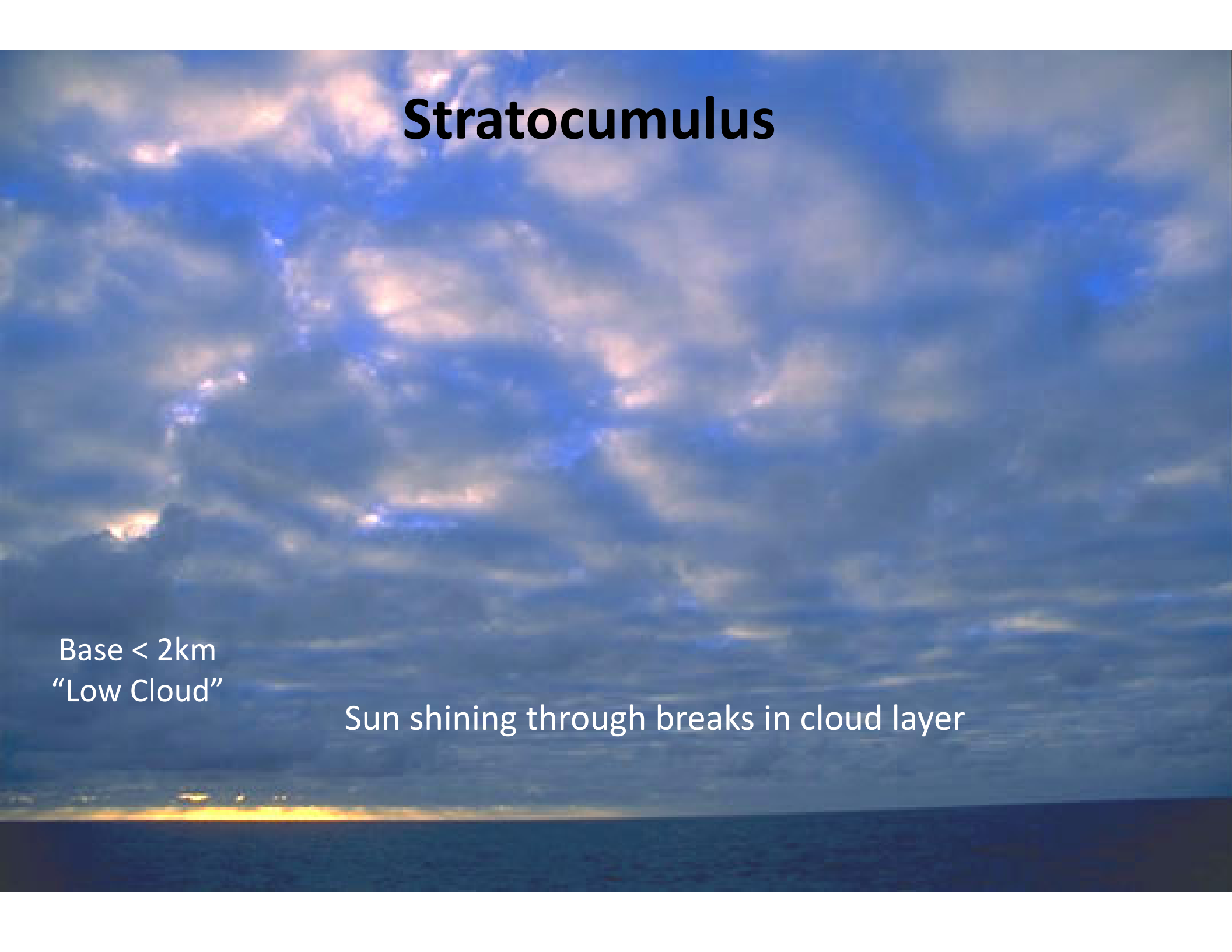
Cloud base is on the ground

Radiational cooling of the ground





Stratocumulus



Base < 2km
“Low Cloud”

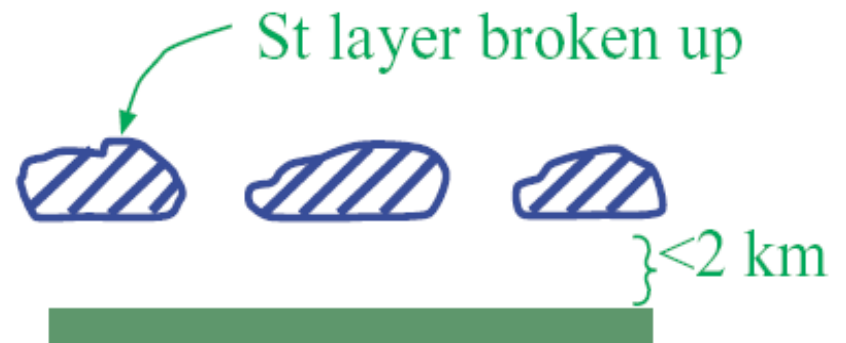
Sun shining through breaks in cloud layer

Low Clouds (bases <2 km above ground)

STRATUS (St)



STRATOCUMULUS (Sc)



Marine stratocumulus



VISIBLE 5 4 2010 1745Z

Marine stratocumulus



IR

5 4 2010 1745Z

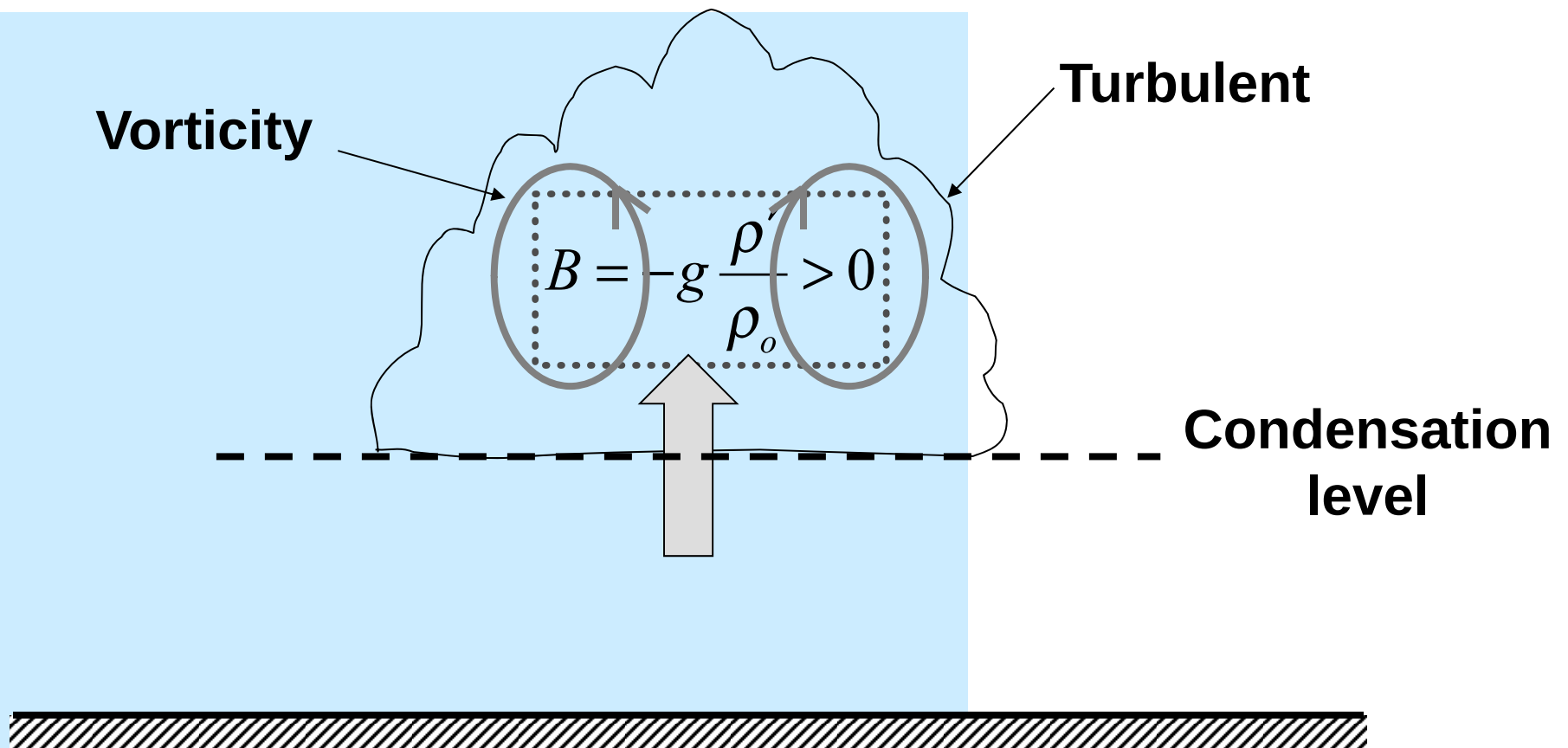


Cumulus
'heaped'

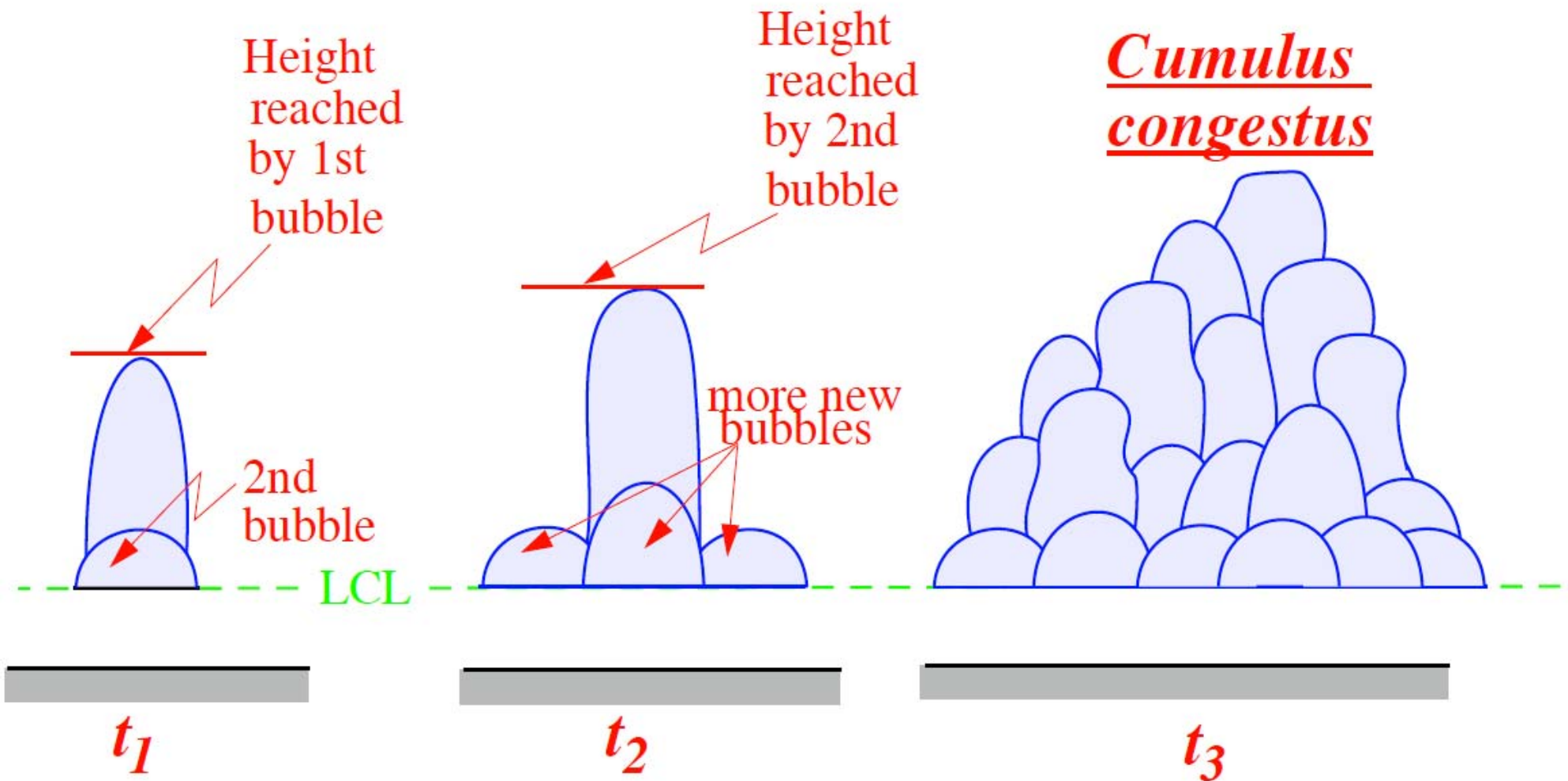


All Convective Clouds

Buoyancy phenomena



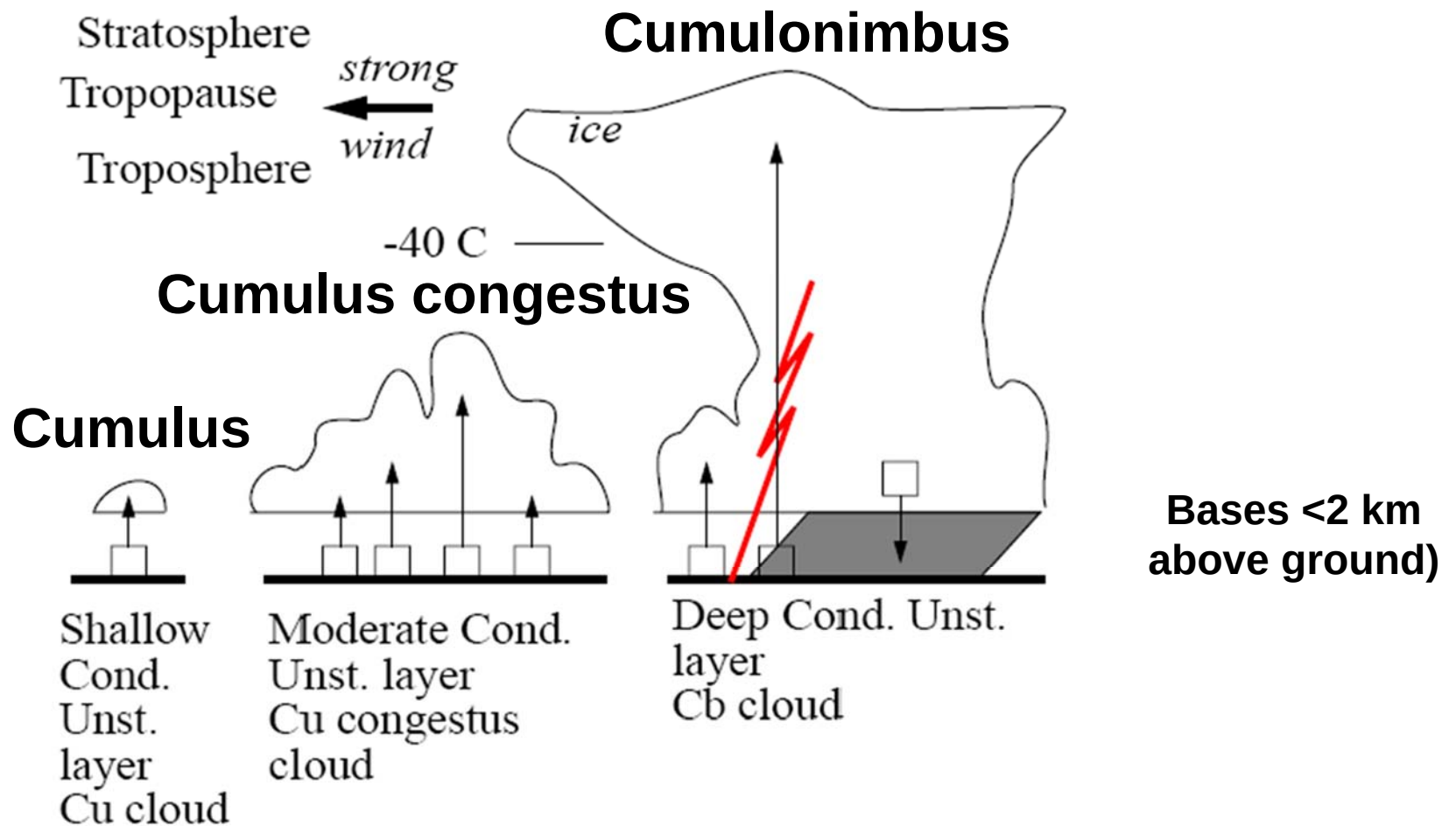
Development of Cumulus Congestus



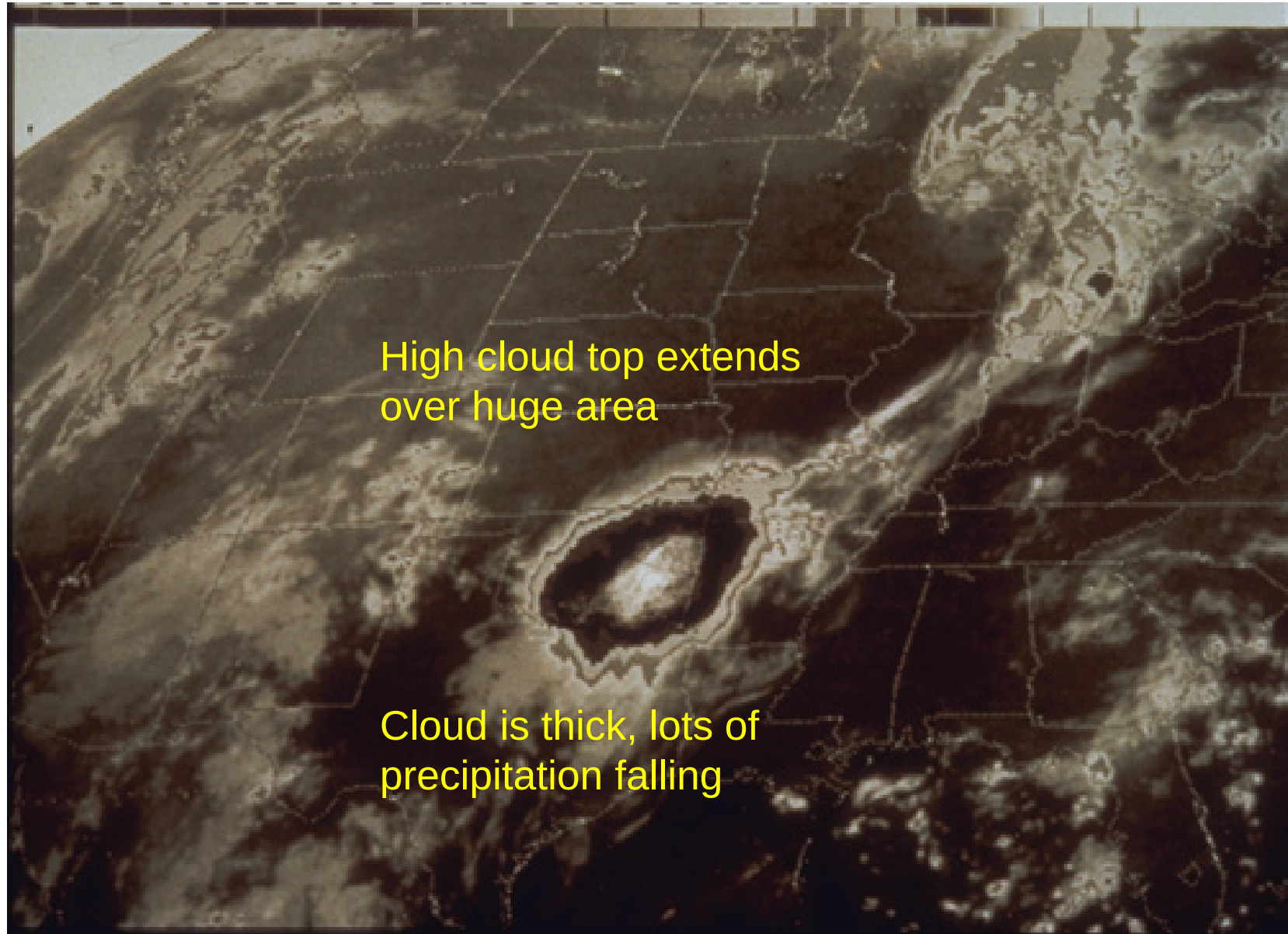


Heavy rain, thunder, lightning

Three smallest members of the cumulus family

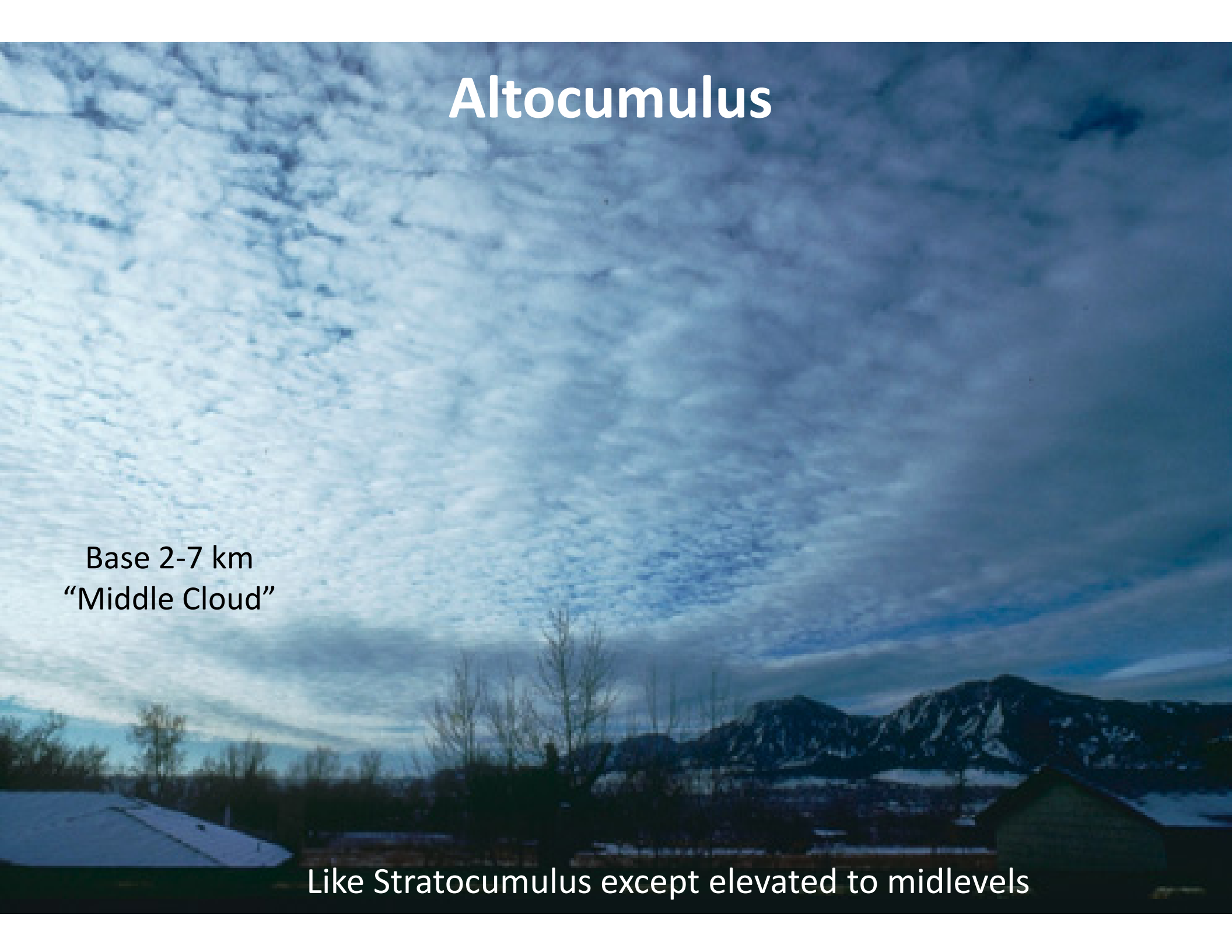


Biggest member of the cumulus family: “Mesoscale Convective System”





Alto cumulus



Base 2-7 km
“Middle Cloud”

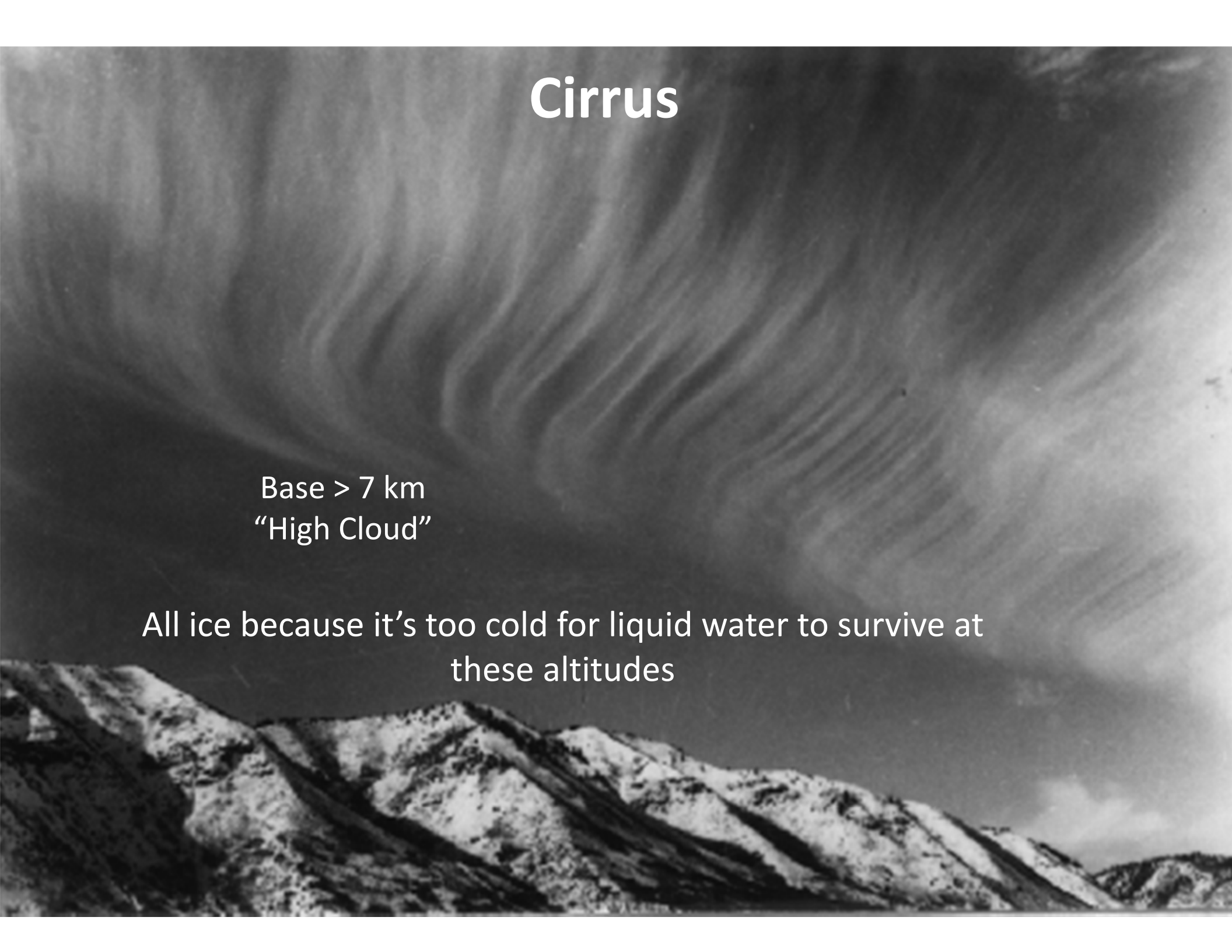
Like Stratocumulus except elevated to midlevels



Cirrus

Base > 7 km
“High Cloud”

All ice because it's too cold for liquid water to survive at these altitudes



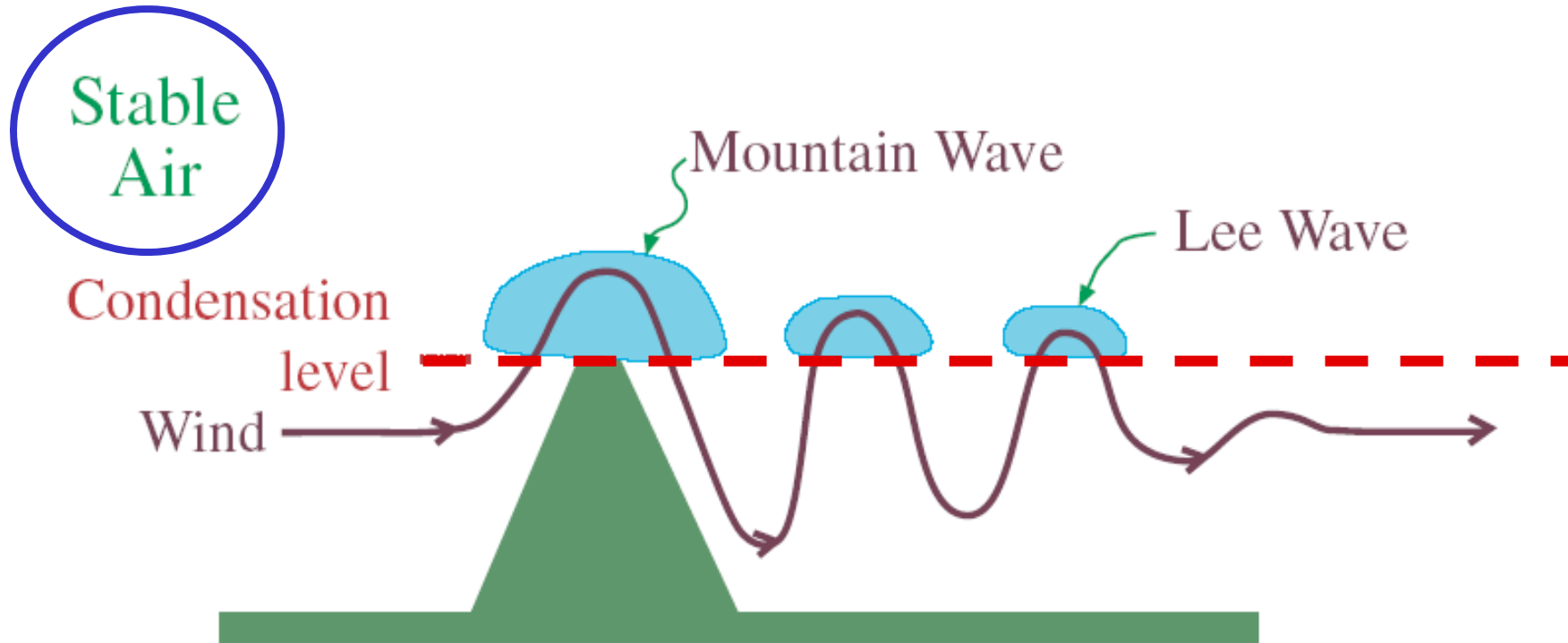


Mountain Wave Cloud

Airflow



Mountain Wave & Lee Wave Clouds



Unusual wave clouds



Unusual wave clouds



Wave clouds on Mars



Island wake cloud in marine Sc

2245 21MR76

Nimbostratus

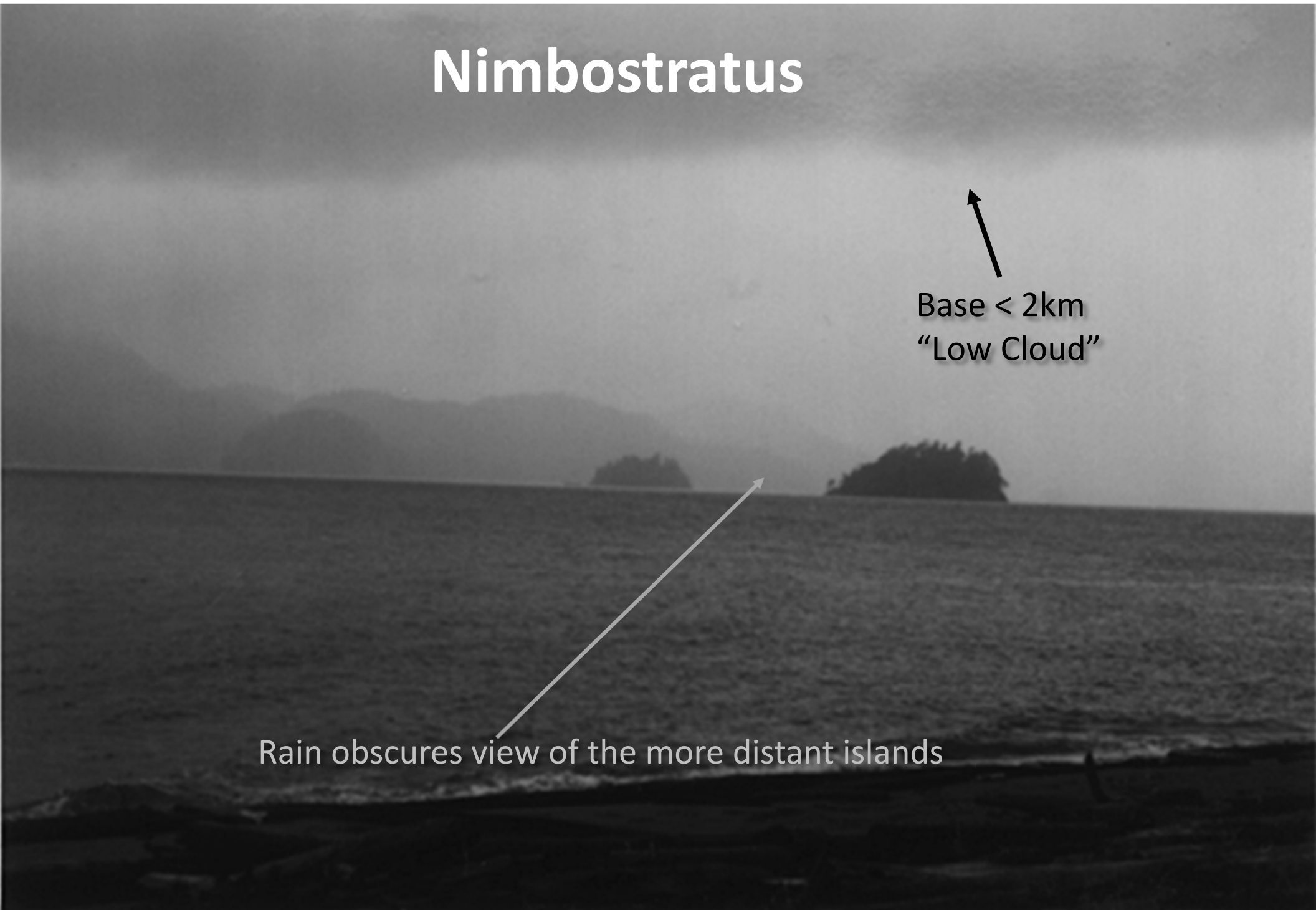


**Extratropical
Cyclone**

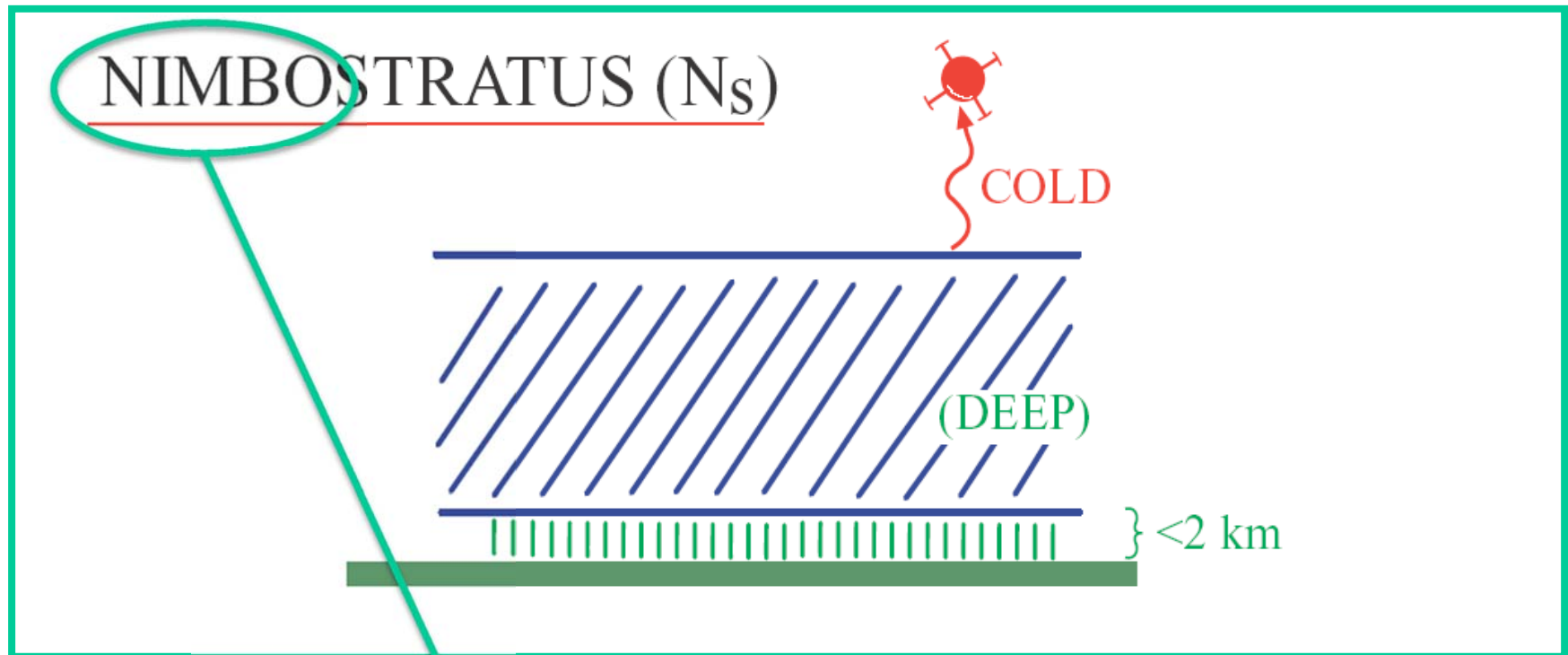
Nimbostratus

Base < 2km
"Low Cloud"

Rain obscures view of the more distant islands



Low Clouds (bases <2 km above ground)



The prefix “nimbo-” or suffix “-nimbus”
means precipitating

International Cloud Classification

Table 1.1
Genera and Étages of Clouds Identified Visually

Genus	Étage	Height of cloud base		
		Polar regions	Temperate regions	Tropical regions
Cumulus Cumulonimbus Stratus Stratocumulus Nimbostratus	Low	below 2 km	below 2 km	below 2 km
Altostratus Altocumulus	Middle	2–4 km	2–7 km	2–8 km
Cirrus Cirrostratus Cirrocumulus	High	3–8 km	5–13 km	6–18 km

Additional categories

Fog

Orographic clouds

Mesoscale and synoptic-scale storm clouds (MCSs, frontal cloud systems, tropical cyclones)

ISSCP-type Satellite Cloud Classification

