



# BELL RINGER

1. WHAT ARE THE FOUR INGREDIENTS FOR TORNADOES IN THE UNITED STATES?
2. WHAT KIND OF CLOUDS PRODUCE LIGHTNING?
3. WHY DON'T HURRICANES OCCUR AT THE EQUATOR?

# TOWER CHALLENGE

- Build a tower that can survive high winds from a hurricane...
- You have a budget of \$6.00
- Design your tower first, then gather resources, then build.



# CLOUD BINGO

- On a scrap piece of paper, draw a 4x4 grid, big enough to put the following in each square:

Cirrus

Cirrostratus

Lenticular

Stratocumulus

Cirrocumulus

Tornado

Cumulonimbus

Contrails

Hurricane

Nimbostratus

Altostratus

Lightning

Fog

Alto cumulus

Cumulus

Stratus

WHAT IS THE FOLLOWING A PICTURE OF?



**CONTRAILS!**

# WHAT IS THE FOLLOWING A DESCRIPTION OF?

- Typically rain producing clouds, these are found at the edges of warm fronts and result in steady, light rain or snow.

**NIMBOSTRATUS CLOUDS**

# WHAT IS THE FOLLOWING A DESCRIPTION OF?

- Outside you look up and see puffy looking clouds scattered around the sky smaller than the size of your thumbnail.

**CIRROCUMULUS**

WHAT IS THE FOLLOWING ANIMATION OF?



**CUMULONIMBUS**

# WHAT IS THE FOLLOWING A DESCRIPTION OF?

- Whenever people say “overcast”, this is generally the type of cloud they are referring to. These can sometimes turn into rain producing clouds.

**STRATUS**



# WHAT DO THE FOLLOWING INGREDIENTS CREATE?

1. Warm, wet air mass from the Gulf
2. Cold air mass from the north
3. Warm, dry air from the southwest
4. Jet stream

**TORNADO**



# WHAT IS THE FOLLOWING A DESCRIPTION OF?

- I step outside and see that there is a blanket of clouds above me, but I can still barely see where the sun is. I can't really make out any defined edges though.

**ALTOSTRATUS**

WHAT IS THE FOLLOWING A PICTURE OF?

**CIRRUS**



# WHAT IS THE FOLLOWING A DESCRIPTION OF?

- I step outside and see that there are puffy clouds about the size of my fist.

**STRATOCUMULUS**

# WHAT IS THE FOLLOWING A DESCRIPTION OF?

- The temperature of the surface is equal to the dew point for this area of pressure and humidity.

**FOG**

THE FOLLOWING IS A PICTURE OF WHAT?

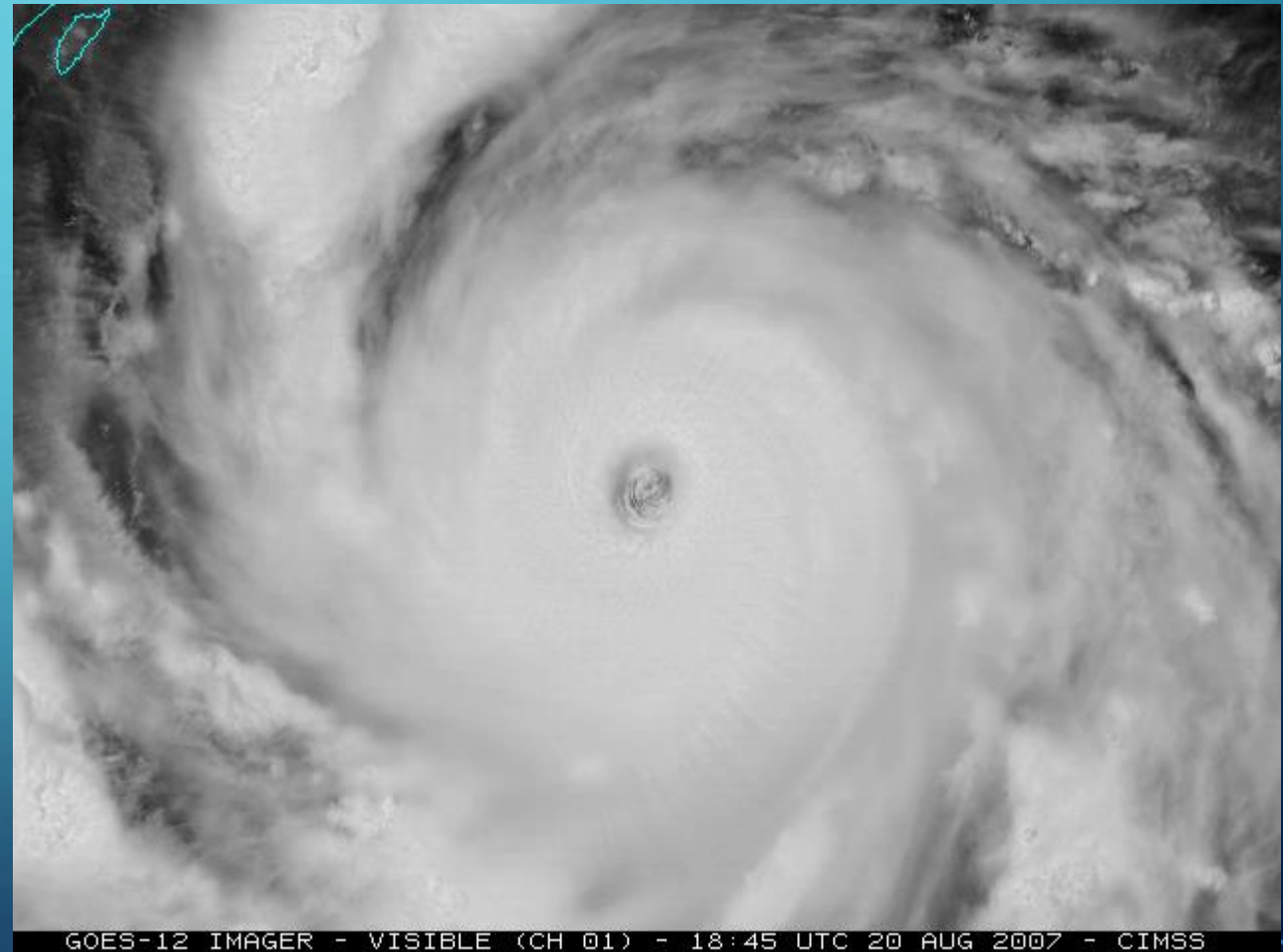


**LENTICULAR CLOUDS**

# THE FOLLOWING INGREDIENTS FORM WHAT?

1. Very warm water
2. Low wind speeds at high altitudes
3. Coriolis effect

**HURRICANE**



GOES-12 IMAGER - VISIBLE (CH 01) - 18:45 UTC 20 AUG 2007 - CIMSS

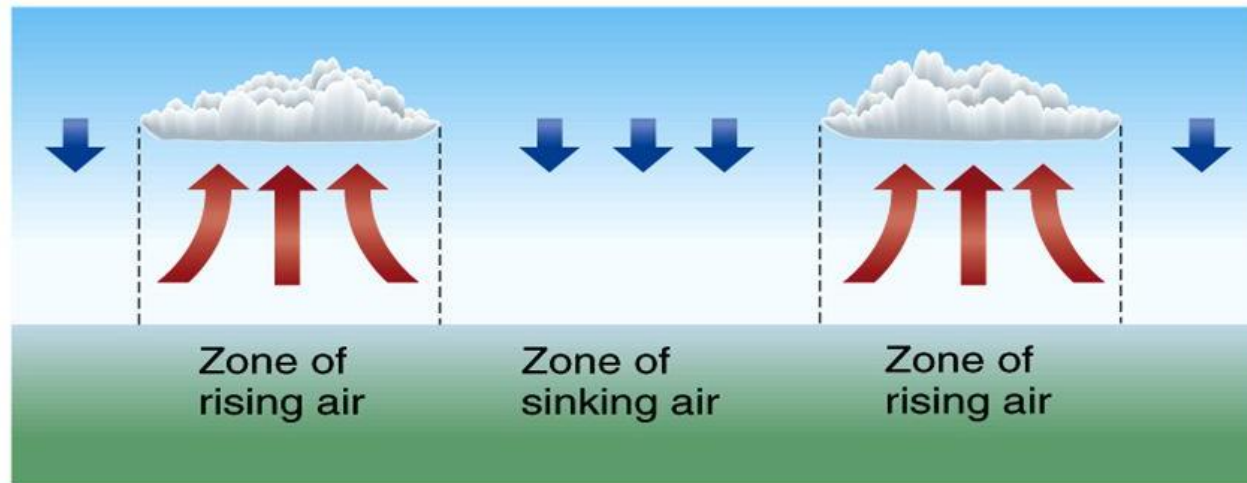
# THE FOLLOWING IS A DESCRIPTION OF WHAT?

- I step outside and notice there's a large blanket of cloud cover, but I can still see the Sun clearly through the clouds.

**CIRROSTRATUS**



THE FOLLOWING IS A DIAGRAM OF WHAT?



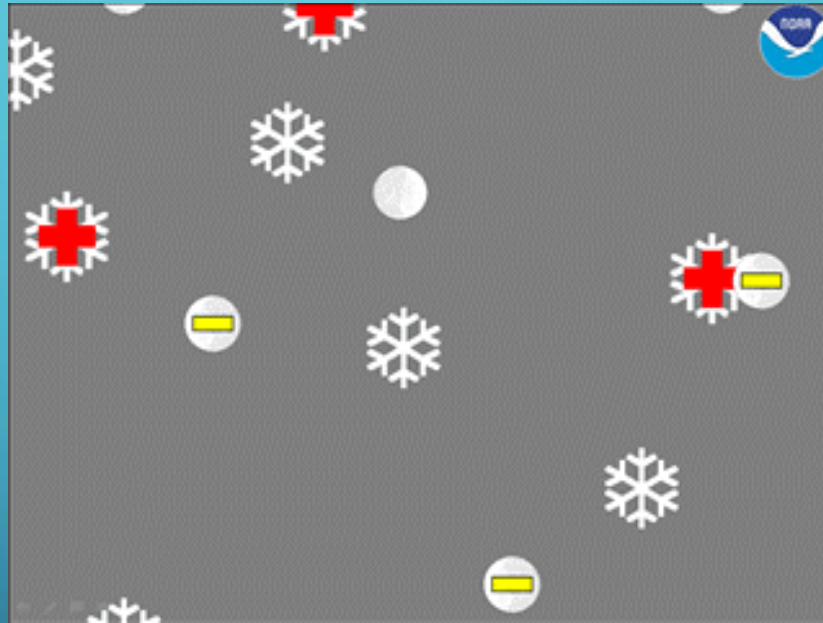
**CUMULUS**

## THE FOLLOWING IS A DESCRIPTION OF WHAT?

- I step outside and see that there are puffy clouds in the sky, each one is about the size of my thumbnail.

**ALTOCUMULUS**

THE FOLLOWING ANIMATION SHOWS AN EFFECT THAT CAUSES WHAT?



**LIGHTNING**