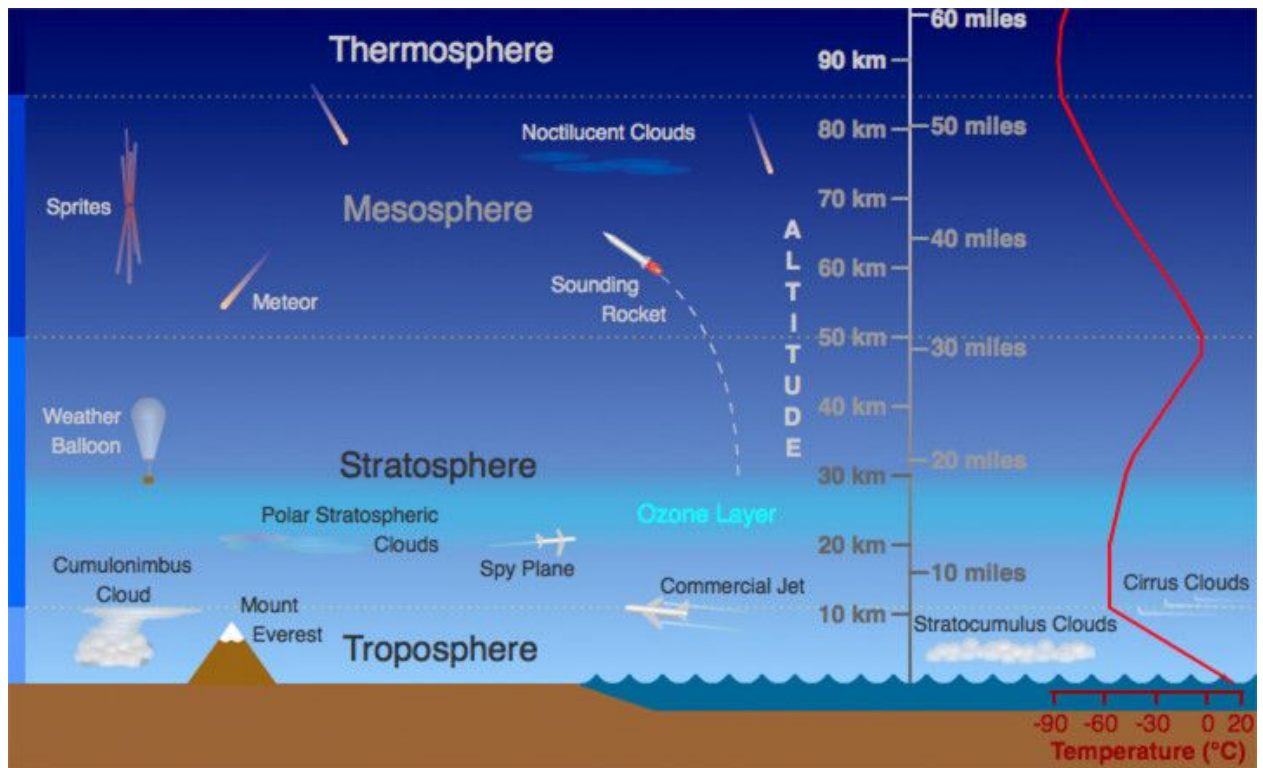


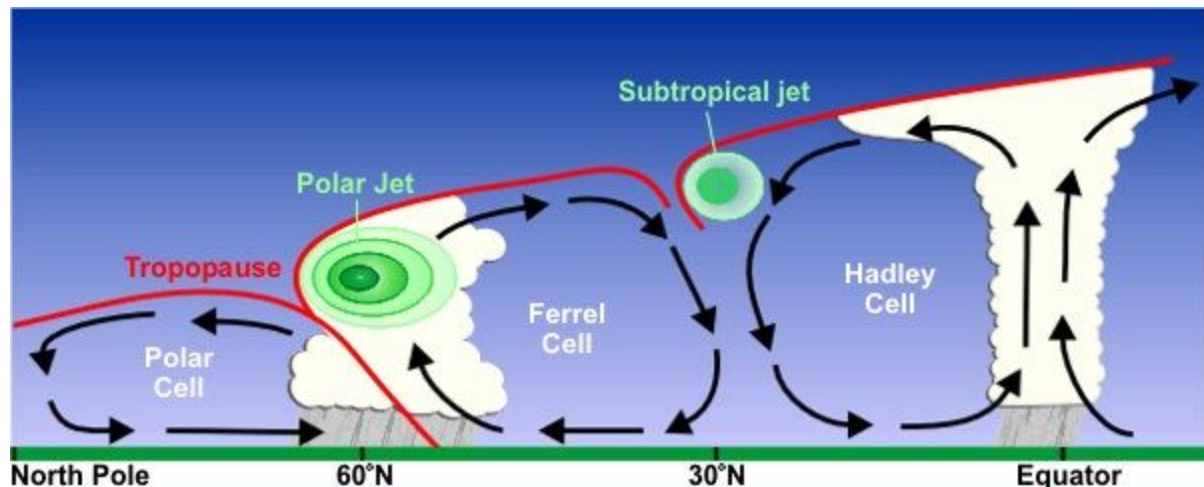
The Atmosphere Gang



Hi, I am the Troposphere. I am the closest atmosphere level to the earth. Speaking Of the Earth, the Earth is my closest friend. We're only 5 miles apart or 12 kilometers. I hate where I live. All the storms form here but, I love watching the clouds go by.



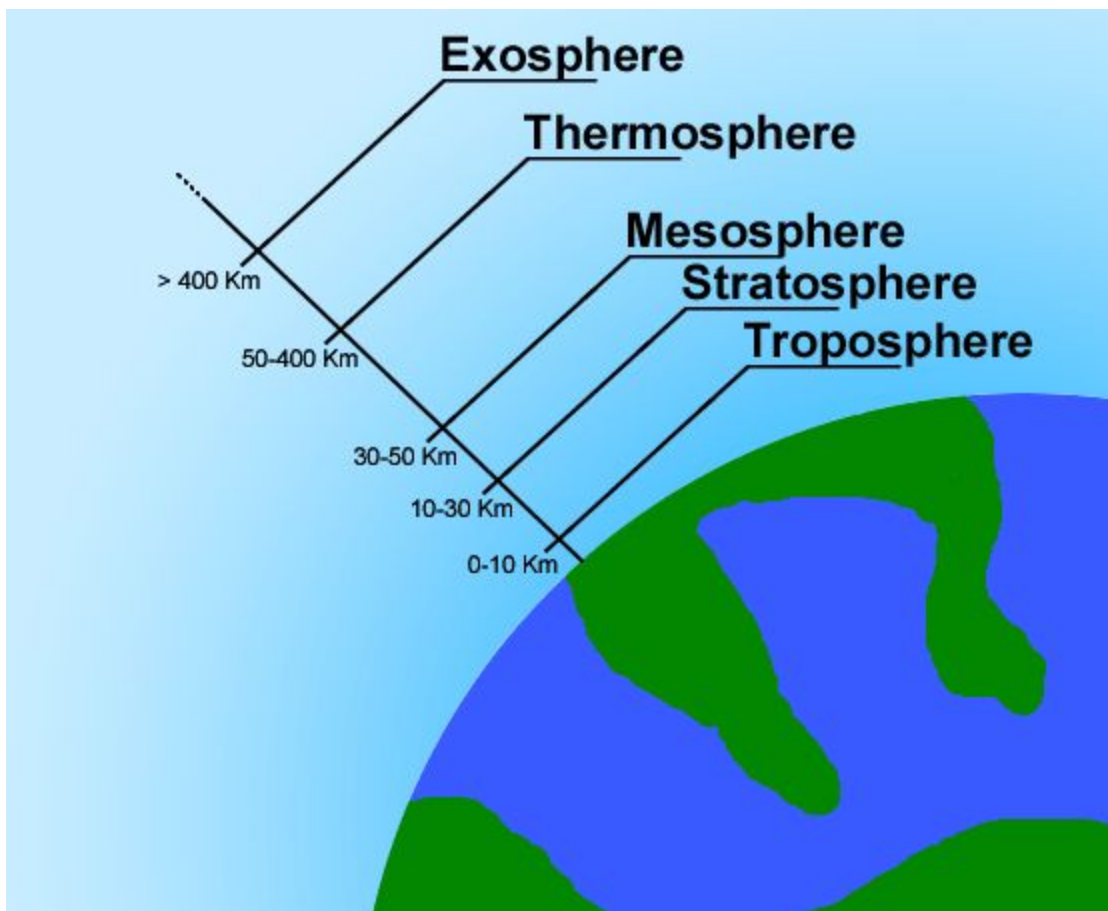
My favorite sibling is my brother, Stratosphere. He lives in the coolest place. Most of the airplanes fly there and he barely gets to see storms or clouds. Stratosphere is always chilly up there, the temperature extends to -60 degrees celsius. He also has the jet stream. All the planes love going through them. The jet stream flows from west to east, opposite of the wind.



The Mesosphere is my least favorite sister.

She has always been so cold. The temperature there is -100 degrees. She's 85 kilometers above the earth's surface. She is the reason why meteoroids heat up.

She is so lucky, clouds or storms never form there.



The Thermosphere is my cool sister. She is 500 kilometers above the earth's surface. The temperature there is really hot but, since the air is so dense, if you were outside there you wouldn't even feel the hot temperature.



The Exosphere is my least favorite sibling as we always been so far apart. He blends with the complete vacuum of space. The exosphere never liked the earth that much, he always keeps his distance from the earth. He is 1000 km above the earth's surface



The pauses are my favorite part of the atmosphere. The tropopause is between me and the stratosphere. The temperature there remains constant. The stratopause is between the stratosphere and the mesosphere. Like the tropopause the temperature there remains constant. The mesopause is between the mesosphere and the thermosphere. The temperature there also remains constant.

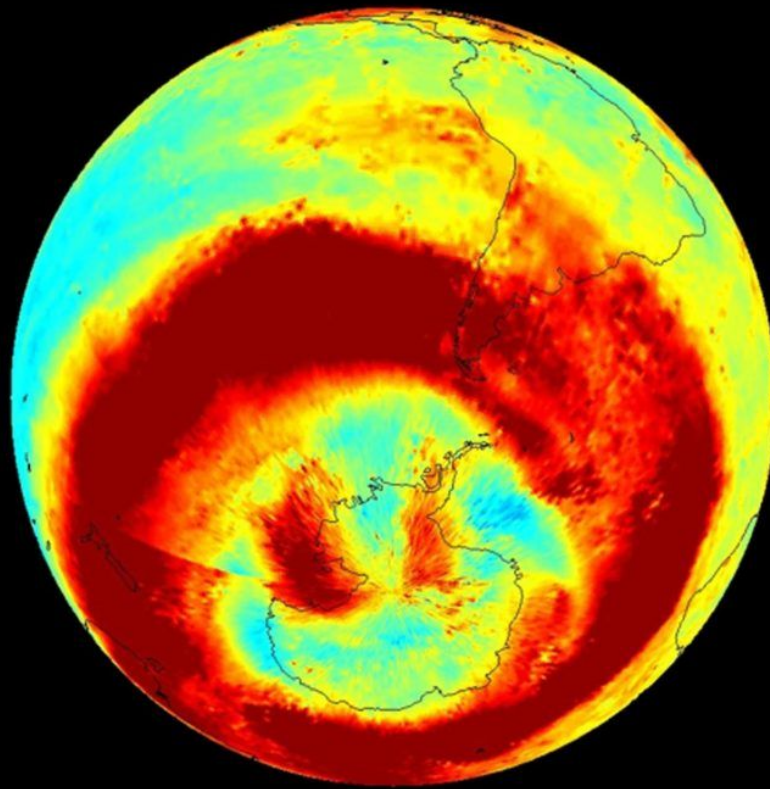
The Ionosphere is the Thermospheres best friend. The Ionosphere contains particles called ions. Low frequency radio waves bounce of the Ionosphere and returns to my friend the earth. The Ionosphere is also the reason we have aurora borealis.



The ozone layer is the Stratosphere's best friend. The ozone layer protects the earth from UV rays from the sun. The oxygen in the ozone is O₃. The oxygen down in earth is O₂. So if one those weird things called humans go there they will pass away quickly.

Those weird human things love to bully the ozone layer. Stuff like hairspray cause the ozone layer to break. When humans use carbon fossils, it causes global warming. If only they start banning the stuff that ruins the earth, things wont get worse. Sorry I just don't like those weird humans

AIRS Ozone Burden during Antarctic Winter



DU

340

320

300

280

260

240

220

200

180

August 11, 2005

Air Is the reason why there are living things on earth. Air is made up of 78% nitrogen, 21% oxygen and 1% of other elements. Air's brother is Air pressure. Air pressure is pushing down on the atmosphere. Humans measure air pressure by using a Barometer.

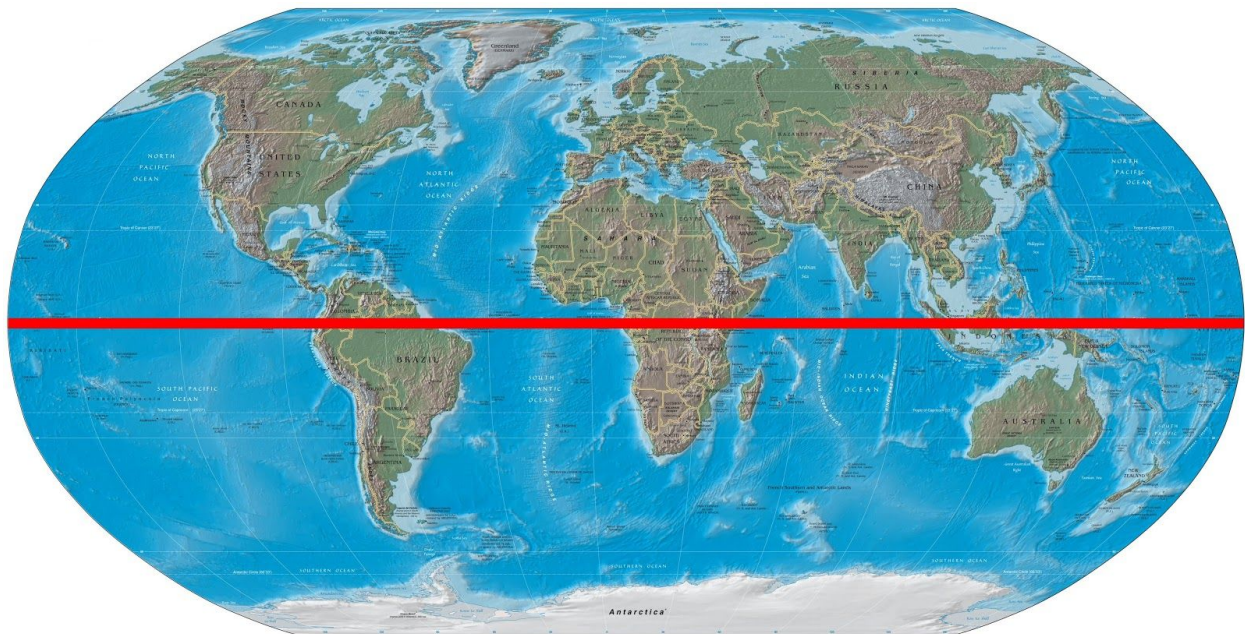


Now That we talked about the Atmosphere, lets talk about my best friend the earth. Lets start with the coriolis effect and winds.

The coriolis effect describes how objects not on the ground seem to change direction as they travel long distances. The coriolis effect is also the reason for many big storms like hurricanes.



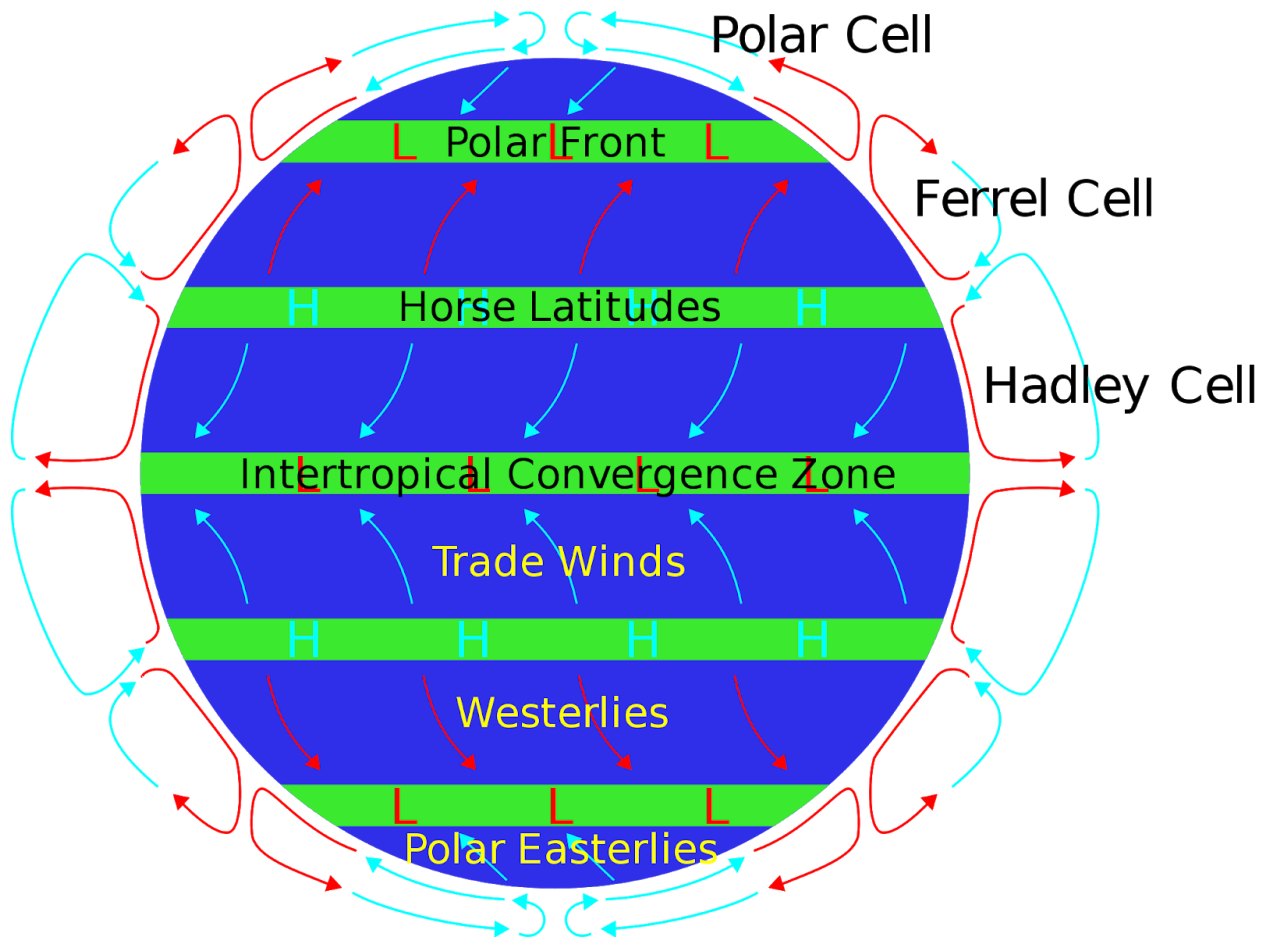
The trade winds are my twin cousins. They are the large temperature pressure differences around the earth and mostly around different latitudes. They occur at the equator. Prevailing winds are my step cousins. They always blow in a given direction in a specific area of the earth. They are so annoying, they love to bother me



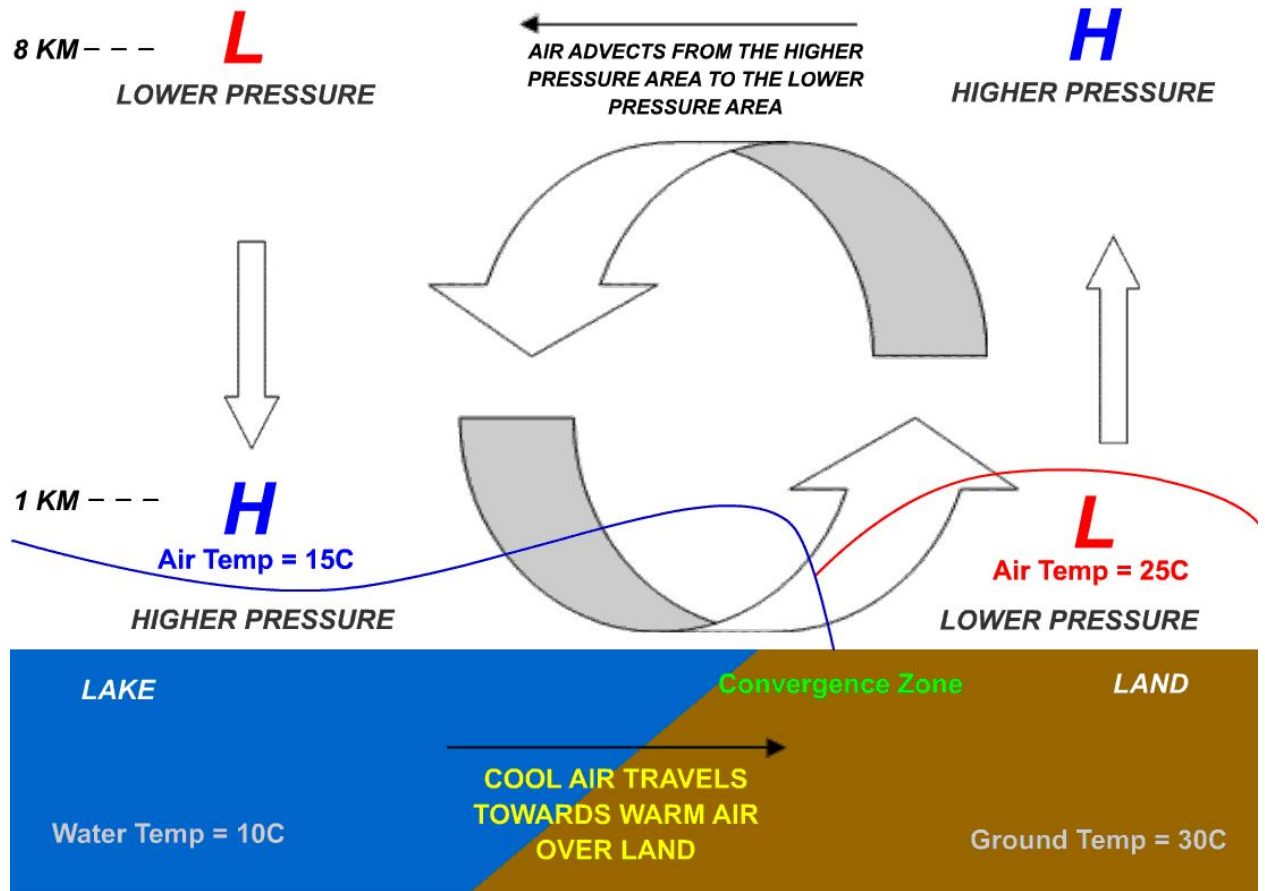
Doldrums are my calm aunt and uncle. They are an area of the equator where a light ocean currents and wind in a tropical convergence zone. Horse latitudes are my meat loving aunts. The area there is also very calm and where high pressure circles the earth. The reason why we called them horse latitudes is because back in the olden days for humans, when they were stuck in the horse latitudes they would put there animals(mainly horses) in the ocean.



Here are some cool things about my grandma the Wind. Winds that blow from 30 degrees to the equator are called trade winds. Winds that blow from 30 to 60 degrees are called prevailing winds. Winds that blow from 60 to 90 degrees are called polar winds.



Sea breeze during the day is my nice step sister. She causes the land to heat faster than ocean which creates low pressure that goes over the land and high pressure that goes over the ocean. Sea breeze during the night is the evil side of my step sister. She is the reason why land breezes during the night lose heat very quickly and makes those humans cold at night. The ocean during the night loses heat a lot slower than the land.



Mountain breezes are my step brothers.

They always make the warm air rise in mountain valleys during the day. During the night the cold air goes down the mountain valleys.



Now that I told you all about my family and friends. I hope that you learned about the atmosphere and the earths wind. See you next time for the 1.2 lessons.

Troposphere out



