

THE ATMOSPHERE

COMPOSITION:

Made up of invisible gases. These gases are:

- A) 78% Nitrogen
- B) 21% Oxygen
- C) 1% Other (Argon, carbon Dioxide, water vapour, etc.)

From the standpoint of weather, ***water vapour*** is the most important component of the air.

PROPERTIES OF THE ATMOSPHERE

- A) Mobility
- B) Compression
- C) Expansion

These in combination are the cause of almost all atmospheric weather phenomena.

The most important property of the atmosphere is Expansion.

TROPOSPHERE

- Temperature and pressure decrease with height.
- Lowest layer of the atmosphere.
- Most weather occurs here!
- Top layer is known as Tropopause. Here the temperature stops dropping.

STRATOSPHERE

- -Pressure still decreases but temperature continues to increase gradually to zero degrees Celsius.
- -Water vapour and air currents are almost non-existent
- -Top layer is called Stratopause

MESOSPHERE

- Marked increase in temperature that reaches 10°C. this is due to presence of the ozone layer (the ozone layer absorbs radiation from the sun).
- Top layer is called *Mesopause*.
- Temperature drops rapidly to -100°C at the Mesopause.

THERMOSPHERE

- Thermosphere is the highest layer of the atmosphere.
- Temperature continues to rise in the Thermosphere.
- The Ionosphere is located within the Thermosphere and reflects low and medium frequency waves affecting radio communications.

EXOSPHERE

- Layer wherein the pressure drops too little more than a vacuum.
- The spectacular auroras (Northern Lights) form in this region.
- Bottom is undefined and is located at 500km above the surface of the Earth.

SPACE

- Very difficult to define because of density.
- The temperature can rise as high as 3,000 degrees Celsius at 600 kilometres.

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