Exosphere

The exosphere (the sphere of dispersion) lies above the altitude of 800 km and it needs further studies. Characteristics of exosphere is an extreem rarefaction of the air; gas particles moving with tremendous velocities, nearly fail to meet one another and there takes place an outflow of gas particles into the interplanetary space.

Magnetosphere

The Magnetosphere, lies beyond the Exosphere, is the earthis magnetic belt, where streams of spiralling protons and electrons, pouring out from the Sun, are trapped by the earth. The magnetic field extends to about 40,000 miles or some 64,000 kilometres above the earth — 10 times the radius of the earth. On that part of the earth exposed to the sun (the sun-lit side) the solar wind sweeps along the Magnetopause past the earth (the night-side). The solar wind converges again and compresses the magnetic field into a plume or tail, more or less like what it does to comets.

MAGNETOPAUSE :- This is the outer boundary of the Magnetosphere.

ATMOSPHERIC ELEMENT

There are four basic characteristics of the atmosphere that serve as the ingrediants of weather and climate.
They are —

(i) Solar energy (Insolation)
(ii) Temperature
(iii) Precipitation (Moisture)
(iv) Winds (and pressure)

INSOLATION

Like all other Stars the SUN is a self luminous mass of gases that emit radiant energy.

The energy emitted by the Sun which reaches the surface of the earth is called INSOLATION.

The Sun, a mass of intensity hot gases, with a temperature at the surface be 6000°C, and at the centre 80,000,000°F pours out radiant energy in the forms of waves, which consists of very short wave-length X-rays, gamma rays and ultraviolet rays; the visible light rays and the longer infra-red rays.