

## A Note on the Global Warming

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José Francisco García Juliá

jfgj1@hotmail.es

We think that the so-called global warming would affect mainly to the north hemisphere, because in part it would be produced by the human action in that area.

*Key words:* north hemisphere, human action.

From the ideal gas law

$$PV = Nk_B T \quad (1)$$

where  $P$  is the pressure,  $V$  the volume,  $N$  the number of particles (atoms or molecules),  $k_B$  the Boltzmann's constant and  $T$  the absolute temperature, we see that for a constant volume, the pressure is directly proportional to the temperature, then

$$\Delta P = k \Delta T \quad (2)$$

with  $k = Nk_B/V = \text{const.}$

If  $\Delta T$  decreases, then  $\Delta P$  decreases. If the difference of temperature between the equator and the north pole decreases, then the difference of pressure between both, equator and north pole, decreases proportionally, and then the cold currents from the north pole can go farther toward the south. This was what happened this past winter when New York was "frozen".

And in reverse, if  $\Delta T$  increases, then  $\Delta P$  increases. If the difference of temperature between the equator and the north pole increases, then the difference of pressure between both increases proportionally, and then the cold currents from the north pole can go less far toward the south. This is what is happening this autumn warmer than usual.

All this happens in the north hemisphere, which has been since forever the hemisphere much more inhabited and industrialized.

Are natural the changes in  $\Delta T$  mentioned above?. It seems that at least in the north hemisphere part of these changes might be due to the human action.

In summary, we think that the so-called global warming would affect mainly to the north hemisphere, because in part it would be produced by the human action in that area.