## Excerpt from iUniverse book: "Booklet on Naval War changes Climate" by Arnd Bernaerts

## CHAPTER E, Climate changes today, page 91

## **Dimension**

If the sun were "turned off," the temperature of the atmosphere would be with only 28°C above absolute zero, viz. -245°C. With the sun and the "greenhouse gases", but without enough water, the average temperature on earth would be of -11°C (resulting from a daytime mean temperature of approximately +135°C and a nighttime temperature of approximately -175°C). The moon provides such conditions at night. CO2 would delay the cooling towards the absolute minimum only for a short time. Its functioning on earth is not so much different.

The amount and the concentration of water in the atmosphere do matter. If the atmosphere is divided into two 'warming' or energy bearing mediums, more precisely water and greenhouse gases (CO<sub>2</sub>, methane, etc.), then the atmospheric humidity will have a warming capacity equal to a two-meter deep layer of the ocean surface, while greenhouse gases, a power equal to a one-meter deep layer. Practically, this means that a rise of the atmospheric temperature with 1°C must cause a drop of an equivalent amount in the upper three meters of the ocean. But because water vapor is usually in a much higher concentration at lower altitudes, its impact on the weather is much more powerful than CO2. CO2 is always equally distributed throughout the atmosphere. Their weather and temperature functioning are extremely different from 'water in the air'. Water vapor is well above 95% responsible for the greenhouse effect; and on a foggy day, even 100%.

Since so much has been written about the greenhouse effect, whatever is written here will be insignificant. Basic understanding about carbon dioxide issue is relevant only as far as it is needed to provide a comparison between possible contributors to the warming trend (including human input). While atmospheric water is only a remote subject in IPCC reports on climate, the naval war and the shipping issue is practically inexistent.