

Limnic eruption of world s oceans

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Limnic eruption of world s oceans – or Something new to worry about.

First: The mechanism for the variability of CO₂ in the Earth s Atmosphere: A Simplified Explanation.

When the top is removed from a bottle of carbonated water the resulting pressure drop causes the dissolved CO₂ to come out of solution. If that solution is then warmed then even more CO₂ will come out of solution. This is the most basic reason for the changes of CO₂ in the Earth s atmosphere.

CO₂ will dissolve in sea water and rain water and the resultant solution is heavier than pure water. Therefore the sea contains most of the planet s CO₂ gas as a solution. Deeper down in the Oceans the pressure increases and like the soda water it can dissolve more and more CO₂.

Climate swings have brought great CO₂ pulses up from the deep sea

http://www.eurekalert.org/pub_releases/2007-05/teia-csh051107.php

The volcanic activity of hydrothermal vents, such as those in the mid Atlantic ridge and in the Mariana Arc (Mariana Trench) over millions of years, suggests that much of the world s oceans are saturated with carbon dioxide. One such submarine volcano, Eifuku, is nicknamed Champagne due to the presence of liquid carbon dioxide in its discharge.

Submarine venting of liquid carbon dioxide on a Mariana Arc volcano:

http://www.pmel.noaa.gov/publications/search_abstract.php?fmContributionNum=2843

Limnic eruptions occasional occur in fresh water lakes linked to volcanic regions. This is a rare type of natural disaster in which carbon dioxide suddenly erupts from deep lake water, suffocating wildlife, livestock and humans."

http://en.wikipedia.org/wiki/Limnic_eruption

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Thus the seas, lakes and atmosphere form storage reservoirs for carbon dioxide.

However, scientists have known for some time that the gas also goes through natural cycles. By far most of the world s mobile carbon is stored in the oceans 40 trillion metric tons, or 15 times more than in air, soil and water combined. But how this vast marine reservoir interacts with the atmosphere has been a subject of debate for the last 25 years.

Some oceanic areas can therefore act like the capped bottle of carbonated water, with the atmosphere above. The quantity of carbon dioxide in atmosphere depends to a large extent upon the temperature of the water and the atmospheric pressure.

Ernst-Georg Beck has made a detailed study of historic records of carbon dioxide in the atmosphere. He presented a paper at a Geo-Ecological Seminar at the University of Bayreuth on the 17th July 2008 titled: Evidence of variability of atmospheric carbon dioxide concentration during the 20th century

He found that carbon dioxide in the Northern hemisphere reached a peak of 400ppm in 1942. This peak has a strong correlation with the arctic sea surface temperature but has absolutely no correlation with the ice core samples from the Law Dome the subject of the paper Historical Carbon Dioxide Records from the Law Dome published by D.M. Etheridge, L.P. Steele, R.L. Langenfelds and R.J. Francey. Most important he considers that he has found a 65 year climate cycle.

Ernst-Georg Beck s data shows that atmospheric levels of carbon dioxide follow global observed temperature changes and do not precede them. There is an approximate 5 year time lag between the increase in ocean surface temperature and the corresponding increase of carbon dioxide in the atmosphere.

http://www.biokurs.de/treibhaus/180CO2_supp.htm

So the quantity of CO₂ in the atmosphere is related to Ocean temperature.

Misleading data:–

The paper Historical CO₂ Records from the Law Dome DE08, DE08–2, and DSS Ice Cores published by CDIAC the Carbon Dioxide Information Analysis Center which includes the World Data Center for Atmospheric Trace Gases, has served as the primary climate-change data and information analysis centre of the U.S. Department of Energy (DOE) since 1982.

<http://cdiac.ornl.gov/trends/co2/lawdome.html>

The Law Dome ice core CO₂ records show major growth in atmospheric

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CO2 levels over the industrial period, except during 1935–1945 A.D. when levels stabilized or decreased slightly.

During this period their readings were 310 ppm whereas measurements quoted by Ernst–Georg Beck show a peak increasing from 308 rising to 412 ppm and down again over the years 1930 through 1960.

So the data unearthed by Ernst–Georg Beck is completely opposite to that obtained from the ice core samples.

The data from the Law Dome has in turn been questioned by Zbigniew Jaworowski, M.D., Ph.D., and D.Sc. in his paper CO2: The Greatest Scientific Scandal of Our Time

<http://www.warwickhughes.com/icecore/zjmar07.pdf>

As we now entered a period of Global Cooling we have something new to worry about:–

On two occasions; 250 million and 180 million years ago there were sudden increases of atmospheric CO2 to 3,000 ppm.

Could we expect a Limnic eruption of world s oceans at any time?

World consumption of Crude oil has increased from 75,000 to 85,000 barrels per day over the over the last 10 years. If say 50,000 barrels per day has been burnt over the last 100 years Where is the CO2 now?

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