

Re: That global warming thingy

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- *From:* don@xxxxxxxxxxxxxxxx (Don Klipstein)
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In article <45F4D15C.51DF91EB@xxxxxxxxxxxx>, Eeyore wrote:

Jeff L wrote:

but the real problem is not the ice melting, but the water expanding as it warms up. We warm the massive amounts of water on the planet up a few degrees, and it expands enough to raise the sea level to very bad levels. Considering the deep sea oceans are 12 + km deep in most places,

Where ? I thought mainly 3 km for deep ocean.

Most deep ocean is more like 5 km deep.

So when I said in my other post 2.4 meter sea level rise from thermal expansion being on the alarmist side, take that down to 1 meter to correct from 12 km to 5 km average ocean depth.

a small volumetric change of a 1% expansion could roughly raise the levels:
 $12,000 \text{ m} * 0.01 = 120\text{m!}$

Where did you get your 1% from ?

And it's not all 12km deep btw. In fact I know of nowhere that deep. A heck of a lot of it is shallow. Plus it takes apparently ~ 10,000 years to make significant changes in overall ocean temperatures.

I figured a century or two for thermal time constant of the ocean mass with respect to a change in balance between incoming and outgoing radiation. Maybe soon I will try again and see if I get something different – but I still expect somewhere from several decades to a few

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or at most several centuries.

If 1 century is correct, then 1980–2007 linearly warming from "normal" to .6 degree C high would have warmed the ocean mass so far by roughly 27% of .3 degree C, a bit less than .1 degree C. With most of the ocean mass at temperature close to that of maximum density of water, I am not surprised if from 1980 to 2007 the sea level rose an inch or a centimeter or stayed the same. I expect pretty much the same story in terms of ocean expansion for the next .1 degree C rise in temperature of the hydrosphere (2019–2020 or so), and not getting much worse until mid–century. A century or two from now we may or may not have the oceans expand enough to raise sea level by a meter. The big problem is if things warm up enough to melt down the Greenland and Antarctica icecaps.

– Don Klipstein (don@xxxxxxxxx)

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