Re: OT: is the AGW bubble about to burst?

Source: http://sci.tech−archive.net/Archive/sci.electronics.design/2007−08/msg04254.html

- *From*: don@xxxxxxxxxxxxx (Don Klipstein)

- *Date*: Wed, 22 Aug 2007 03:29:55 +0000 (UTC)

In article <pnvyi.6701$4w7.2638@xxxxxxxxxxxxxxxxxxxxxxxxxxx>, JosephKK wrote:

> Don Klipstein don@xxxxxxxxxxxxx posted to sci.electronics.design:
>
> > Sunlight over 1 day at north pole during summer solstice: 1366 watts
> > per square meter, times sine of 23.45 degrees:
>
> Wrong! The correct value is 66.55 degrees. It is the Artic circle
> not the tropic circle.

OK, cosine of 66.55 degrees, same thing!

Just try seeing what my 543 watts per square meter during summer solstice becomes if sine of 66.55 degrees was correct, rather than sine of 23.45 degrees (cosine of 66.55 degrees).

> > 543 watts per square meter. Of course about half that gets
> > scattered by the atmosphere before reaching the surface.
> >
> > Sunlight over 1 day at equator during equinox: 1366 watts per
> > square meter, times 2 over pi, times 12 hours over 24 hours:
> >
> > Daily average of 435 watts per square meter. I suspect about 1/3
> > of that gets scattered by the atmosphere. I know that at high noon
> > only about 20% is scattered.
> >
> > Meanwhile, Wiki has a map of average yearround insolation in a
> > color coded map, obviously including even effects of clouds.
> >
> > The lowest insolation area in the arctic shown on that map is
> > east of Greenland and northwest of Scandanavia, and appears to me to
> > be color−coded to indicate for between 60 and 80 watts per square
> > meter. A small part of Greenland and a good size chunk of

> Antarctica appears to me to be colo−coded for 120−140 watts per square meter.

Gosh That is a LOT lower 1366 W / m^2 cited above.

Course it is, because that is after considering sun being up only half the time, angle above horizon being less than 90 degrees and at least half the time being below 45 degrees, in arctic/antarctic mostly being within 30 and always within 46.9 degrees of the horizon, atmospheric scattering, and clouds.

> The highest insolation areas in the tropics appear to me to be color coded for 280−300 watts per square meter.

Not the least bit consistent are you.

280−300 watts per square meter annual average for most−sunbaked parts of the Sahara Desert sounds to me about the same as my calculation for equator during equinox (435 watts per square meter) would be after reducing it by my estimated 1/3 for atmospheric scattering.

Since Sahara should get a little less yearround than equator gets on a coudless equinox day and I expect Sahara is not quite 100.00% cloud−free, I suspect I overestimated a little when estimating that 1/3 of the sun's energy fails to get past the atmosphere on the way to sunlit equatorial parts of the world.

− Don Klipstein (don@xxxxxxxxx)

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