Pierre Robitaille and the Origin of the CMB

For those who have been investigating the remarkable alignments of the CMB with our Earth since *The Principle* debuted in 2014, there is one fly in the ointment of which we wish to make you aware. It comes from a professional, although not a one in the hard sciences of cosmology or cosmogony, but a radiologist named Pierre Robitaille. He has written several private papers although none in peer-reviewed journals.

Basically, Robitaille claims that hydrogen bonds in the oceans form a 2.75K microwave that goes into the Earth's atmosphere. He claims that it is this ocean-generated 2.75K temperature that is being mistaken for the 2.725K cosmic microwave. Robitaille claims that the 1990 COBE probe, since it was 500 miles above the Earth, was measuring the microwaves from the ocean and it had nothing to do with the cosmic microwave radiation. He further claims that the 2001 Wilkinson Microwave Anisotropy Probe (WMAP) and the 2013 Planck probe, which were placed at Lagrange point L2 and were 2 million miles from Earth, not only were not measuring any cosmic microwaves, he claims that it is virtually impossible to separate the Milky Way's signal from any real microwave signals coming from the cosmos, since the "noise" from the Milky Way is too large. Of the resulting signal of 2.725K that is claimed by the scientists in charge of the WMAP and Planck missions, Robitaille claims that the "coefficients" are adjusted to get to the 2.725K temperature.

Let's examine Robitaille's claims, one by one.

One of the key features of Robitaill's analysis of the microwave radiation is the equation he uses to sort out the relevance of the signal. It is E1/E2 = k1/k2. As put by his colleague, Stephen Crothers:

> The ratio of the energy emissions from the hydroxyl bond and the hydrogen bond is equal to the ratio of the force constants of the bonds. If E1 is the energy in the hydroxyl bond and E2 that in the hydrogen bond, and k1 and k2 the corresponding force constants of the bonds, then E1/E2 = k1/k2. It is known that k1/k2 = 100. Thus, E1/E2 = 100. It then follows that if the temperature of the oceans is T1 = ~300 K and the temperature from the spectrum of the hydrogen bond is T2, then T1/T2 = 100 = (~300 K)/T2, hence T2 = ~3 K.

The reason he does so is because 275K is very close to the freezing temperature of water, but there are few, if any, oceans on Earth that are at freezing temperature, except perhaps some glacier filled water at the north or south pole.

This means that 90% of ocean water is much warmer than 275K, and thus would not produce 2.75K microwaves. They would be closer to 300K, since that is about 26 degrees Celsius.

So now we know why Robitaille uses 3.0K in his equation. He knows that 2.75 won't work. And 2.725K, plus or minus .004K, is the only microwave energy we are interested in, and the only microwave energy that is attributed to the CMB.

This number is so precise that the anisotropies that make up the Axis of Evil range from 2.721K to 2.729K, and not a thousandth of a degree higher or lower. If the anisotropies were between 2.75K and 3.00K, they would be so monstrously large that there would be no question the universe was not homogeneous and isotropic. But there are no such large differences claimed by either COBE, WMAP or Planck.

In fact, Robitaille claims that since COBE was only 500 miles above the Earth it would naturally pick up the microwaves from the oceans. But the fact is, COBE would not be picking up 2.75K microwaves since none of the oceans are at freezing temperature.

But COBE did, in fact, pick up 2.725K microwaves, the same as WMAP and Plank. Could that be just a coincidence, especially since WMAP and Planck were at Lagrange point 2, two million miles away from Earth, while COBE was only 500 miles away? Hardly. It is much more likely that COBE, WMAP and Planck are picking up the same microwaves, since the microwaves they all detect range from 2.721 or 2.729K and no where near 3.0K.

Robitaille just dismisses that congruence by claiming that WMAP and Planck are not picking up microwaves, claiming that it would be "impossible" to separate the galactic signal from the CMB signal. Suffice it to say, in all the literature on the CMB, not one scientist agrees with him. Although the Milky Way signal is about 1000 times stronger than the non-Milky Way signals, they can, indeed, be separated by hard painstaking work.

When I posed the blatant contradiction of how he used the numbers 2.75K and 3.0K to Robitaille, he said the difference between the two numbers is accounted for by his "error bar." I objected that an error bar does not solve the discrepancy. It only shows that he could be making a serious error in his methodology and calculations.

As for the fact that a 2.75K microwave would necessitate that the oceans were frozen and that there are no such oceans on Earth, Robitaille did not even address the issue.

Robitaille's thesis is further complicated by the fact that hydrogen bonds cannot create a 3.0K microwave spectrum. This is even admitted by Robitaille, since his paper goes through great pains to tell us that the microwave spectrum of hydrogen bonds can only be 2.75K. This means that if we measure a 3.0K microwave, then the microwaves are not coming from hydrogen bonds.

Apparently, Robitaille is trying to get away with saying that 2.75K is close enough to 3.0K so that he can make his theory seem legit, but in reality, he is doing the same fudging of figures that he accuses Smoot of doing when Smoot adjusts the CMB coefficients to stabilize the CMB signals.

Since Robitaille realized that the 3.0K he used in his equation did not match the 2.75K he was claiming was coming from the oceans, he then asked me: "What is the blackbody spectrum of a source at 2.75 K versus a source at 3 K?"

What this question showed me is that as Robitaille first attempted to cover the discrepancy by appealing to his "error bars," here he wanted to hedge his bets by claiming that since the blackbody spectrum of 2.75K is not that much different than a spectrum at 3.0K, then it's ok for him to use the 3.0K in his equation. Unfortunately for Robitaille, it doesn't work that way. Since he claimed that the oceans produce the microwaves due to hydrogen bonding, then the hydrogen spectrum from those bonds cannot be more than 2.75K. But 2.75K, by his own equation (E1/E2 = k1/k2), can only be the product of an ocean at 275K, but there are hardly any oceans on Earth at that temperature, if any.

Robitaille then tried to take the focus off of the discrepancy between 2.75K and 3.0K by asking: "If you agree that the Earth can emit at 3.0K, where do you expect to see the Earth's 3K photons?" I found this question a bit desperate. Certainly the Earth can emit many and varied wavelengths and frequencies of

electromagnetic radiation, especially since it contains all the known elements. But they are all irrelevant, except for the temperature ranges between 2.721 and 2.729K, since that range is the only range that the WMAP and Planck teams are claiming as the CMB microwave temperature, since that is the only temperature range they are getting in their instruments. They don't get 3.0K, and if they did, then the Big Bang would be dead for sure, since a range of 2.75K to 3.00K would show that there is almost complete anisotropy in the universe – the very opposite of the Big Bang prediction.

The Big Bangers, of course, want to stick to 2.75K since the Big Bang explosion must be homogeneous and isotropic. But since the actual microwave temperature ranges from 2.721K to 2.729K; and since that variance in temperature is seen in organized pockets of sequential order; and it has been determined that those pockets are oriented around, of all places, our ecliptic and equinoxes, none of this is what was predicted by the Big Bang. It smacks of geocentrism like nothing else before or since.

So, for all intents and purposes, Dr. Robitaille's thesis is shot through with holes by the very assumptions in his equation and the very facts of what is actually being produced by the Earth's oceans.

In the end, it is certainly no coincidence that all three probes (COBE, WMAP and Planck), whether they were close to the Earth or far away, all picked up only 2.721K to 2.729K microwave temperature. Even if they have to adjust their "coefficients" in order keep the results stable, none of the adjustments will bring us even close to a 3.0K microwave temperature.

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June 2017