

# Re: michelson morley experiment

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- *From:* [vern@xxxxxxxxxxxxx](mailto:vern@xxxxxxxxxxxxx)
  - *Date:* 19 Apr 2006 09:35:25 -0700
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vern@xxxxxxxxxxxxx wrote:

[snip]

We are evidently talking past each other. This has nothing to do with SRT and the frame in the experiment is the not the ECI frame, it is in the frame of the Earth's surface. The comment I made in the previous post was only an analogy to HK and GPS and aether theories which use an ECI frame. That was only relative to a positing a reason why terrestrial light does not have aberration. Do you accept that terrestrial light does not have aberration (in the reference frame of the Earth's surface), and if so, why do you believe there is no aberration, when all light should exhibit aberration.

Sorry to have to respond to my own post, but obviously the above paragraph of Message No. 36 is in error as I was in a hurry and I have taken some time to try to think the experiment through from the standpoint of reference frames. The experiment is based on the assumption that when a laser pulse is in the air between the source and target, the target continues to move along with the Earth in the essentially linear motion of the Solar System towards the constellation Leo. The target will have moved about 4 inches before the pulse hits it. So the reference frame for the whole experiment is the CMBR frame. Does the target move in the reference frame of the Earth's surface in the time the pulse is in the air? I guess the answer is "no" because both the source and target are stationary during the length of time starting when the pulse is fired from the source and ending when the pulse hits the target in the reference frame of the Earth's surface. But that can't be used as a reason that there is no aberration of terrestrial light, since in the reference frame of the CMBR, the Earth is moving and that resulting aberration of terrestrial light should be evident in any experiment using light on the surface of the Earth.

Vern

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