APPENDIX E

Index of Refraction of Propagated Outward Flow vs. of Light

Referring to Figure 6-1 and its related text, the deflection of light is there treated in terms of the indices of diffraction. The development in the present Appendix E is to the effect that index of diffraction is not a factor of significance in the deflection of gravitational field.

The traditional modern physics treatment of the index of refraction has no knowledge of the underlying *Propagated Outward Flow* basis of the light propagation that the index of refraction treats. The traditional index is a composite of the refracting material's affect on the *Propagated Outward Flow* [the slowing affect of direct encounters of the material's *Propagated Outward Flow* and the *Propagated Outward Flow* carrying the light] and the refracting material's electrons' interaction with the light's electromagnetic field.

Based on the various indexes of refraction for various kinds of glass and the index variation with the wavelength of the light passing through them, about *5%* or less [depending on the particular material] of the index of refraction, *n*, is the variation of *n vs. frequency*, that due to the light's electromagnetic interaction with the atomic electrons of the material the light passes through.

In Figure E-1, below, *Index of Refraction vs. Wavelength, Frequency*, the variations vs. frequency are parallel and increase in range with glass type approximately in proportion to glass density. The overall levels are also proportional to glass density. The range of the variation vs. frequency is about

1.500 – 1.475 = 0.025 out of *1.5*

to about

1.800 – 1.720 = 0.080 out of *1.8*

or about *4%* to *5%* of the total.

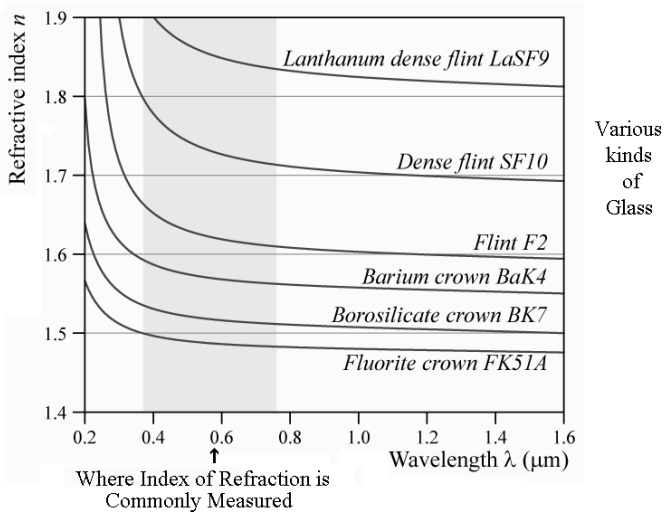

Figure E-1
Index of Refraction vs. Wavelength, Frequency
[Wikipedia, "Index of Refraction"]

The figure would indicate that about the remaining *95%* of the index is due to the frequency-independent action of the material on the *Propagated Outward Flow* carrying the light.

However, the index of refraction relationship to *Propagated Outward Flow* propagation depends on the *Propagated Outward Flow* slowing interaction of *Propagated Outward Flow* propagations encountering each other as described in equation *(5-1)* and its related text.

As developed in *Appendix C, Relative Propagated Outward Flow Concentrations: Earth Surface Objects vs. Earth Gravitational Field*, the medium flow concentration of gravitation at the Earth's surface is so immensely greater than the ambient flow in local matter that no useful slowing of the Earth's gravitational flow can be directly effected by a reasonable amount of matter.

Put in other terms, the index of refraction of the Earth's gravitational *Propagated Outward Flow* remains unchanged for practical purposes regardless of the local matter or empty space through which it passes because the ambient *Propagated Outward Flow* concentration of the local matter or empty space through which the Earth's gravitational *Propagated Outward Flow* passes is so minute compared to that of Earth's gravity.

That is, unless some alternative configuration that increases the effectiveness of the ambient *Propagated Outward Flow* concentration in local matter can be found, Finding and developing such a configuration is the case in Section 6.