Appendix B: The following was presented as an invited talk in September 2000 at the Civil GPS Service Interface Committee - Timing Subcommittee.

Overview of a New Unified Field Theory with a New Model of Gravity

By

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A new theory of gravity as well as a <u>unified field theory</u> (UFT) are being proposed, showing how the four force fields work together, implicating also a fifth field. A main feature of this new model is the proposal of the existence of diallel, gravitational-field lines that emanate from every entity. For the earth, for example, they emanate radially from its center. These diallel lines provide a conduit for combined particle and wave flow and exchange beyond the speed of light, and they have quantum states similar to the atom. On the web site, we present a general field equation showing the importance of energy density in this new UFT. We also present a new gravitational force equation, that has as a special case the commonly accepted gravitational equation.

As we have been working on this new theory, we have been amazed at insights, applications and heretofore unexplained phenomena to which it applies. On the web site we list a large number of such phenomena, and the list continues to grow from information often supplied by others.

The Brigham Young University Physics and Astronomy Department has been very supportive of our research by letting us use their laser laboratory facilities and by also loaning us some excellent students to help with the research efforts. During private conversation with him, Dr. Leonard S. Cutler of <u>Agilent Technologies</u> learned of our need for a UV spectrometer, and he loaned us a UV monochrometer, which would very nicely allow us to do the spectrometry over the UV spectral region — expected according to the theory and according to other external experimental evidence.

We have conducted four experiments to date to differentiate the new theory from traditional thinking, and we have obtained affirmative results on all four. The first one demonstrated pendulum clock slowing as a result of introducing high energy-density sources underneath the clock as predicted by the new UFT. The second experiment showed evidence that these diallel lines for the earth define the <u>local vertical</u>. We were able to bend the local vertical slightly using high energy-density sources. In the third experiment we obtained pulsed UV emissions from diallel-line electrons that had been placed in an excited state. Most recently (9 Sept. 2000) we obtained <u>continuous diallel-line quantum emissions at 420 nm</u>. In this same experiment we also observed blue shifted He-Ne 631 nm photons, as predicted by the theory and as they interacted with the diallel-line excited electrons. Papers are in preparation documenting the above, and some additional information is available on the web site.

While we are confident of the general model and we see great ramifications coming from the theory, we nevertheless sense our inadequacy to relate it clearly and accurately to the manifold areas to which it is sure to find application. That is why we are anxious to garner the interest of other researchers and theorists who can help flesh out the theory, expand the equations, and probe the manifold applications and ramifications.

Our web site <u>www.allanstime.com</u> is designed to be a catalyst to encourage others to participate in developing the theory and in doing experimentation. We trust you will be patient with our exuberance at times as we may tend to overextend the applications in some cases, and reveal our lack of professional knowledge of other areas outside our field of expertise. We also hope you will be understanding of the need we feel to go ahead and make this unfolding theory – and very different way of viewing nature – available publicly prior to its being published in a peer-review journal so that others may participate in the pioneering.

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We would like to thank all our friends and colleagues who have thus far helped and facilitated the development of this theory and the experimentation to go with it. Its many manifestations as well as applications for the benefit of society are very motivational to us. And we would like to invite all who are interested to join with us as we continue this exciting pursuit. The fifth force field is particularly exciting as it appears to couple beyond the physical. We call it – following Gustaf Stromberg (Franklin Institute Journal, Vol.272, 1961, p134) – the Eternity Domain. Our work could not have progressed as it has without the hand of Providence – to whom we are most grateful, first and last.