by: Ali F. AbuTaha

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ANALEMMA:

I appreciate your lengthy treatment of the analemma. Your observations would be useful to some of our friends – authors of satellite textbooks – who hardly treat the subject in their books. My understanding of the analemma has not changed much. The analemma is said to have been discovered by the Arabs. It is a vital tool to determine the exact time of daily prayers in Islam; for cities at different longitude and latitude. I had used the analemma extensively some thirty years ago for this and other purposes; and I had gained a clear understanding of it then.

Today, I have two sets of analemmas. The set that I calculated using the conventional method (whether now or thirty years ago) agrees with your calculated analemma and with the measured analemmas. The set of analemmas that disagrees with the conventional method resulted from my temperature-gravitation work. The radius vector and velocity vector for a body in an elliptical orbit are well defined. With computer capabilities, the analemma can be directly calculated from the Earth's revolution and rotation. The resulting analemmas are different from the conventionally calculated analemmas (the figure in my earlier response). As an independent check of my calculation, I used the numerical values of the velocity and radius directly from the Ephemeris and derived that analemma (shown in same figure mentioned above). You said nothing about these. While the formulas are standard and my computer programs are straightforward, it looks like lengthy write-ups are needed to resolve this matter. I agree with some things you write, and I disagree with others. For example, you write that the actual sun moves in an ellipse around the mean sun "with the major axis equal to twice the minor axis;" (p. 3). Is this true? A subsatellite point traces a figure-8 on the earth's surface, but a satellite analemma is constructed in, or on, the satellite itself (e.g., from the Earth's infrared radiation intercepted in the satellite). The flashes of peak-infrared-beam in the satellite forms the analemma. Do the flashes form an analemma in a spinning as well as a body-stabilized satellite? You said in the earlier comments (p. 3, Para. 1) that "the analemma is not explained, nor mentioned," in your Handbook of Communications Satellite. You may be rushing to incorporate the Earth's analemma into the satellites' analemmas, drifts, and orbit perturbations.

The analemma is incidental to my concept temperature-gravitation. I brought it up as a potential test of my concept. Apparently, the subject is more esoteric than I thought, even to senior aerospace scientists. Our friend Dr. Andrew Meulenberg gave up on the construction of the analemma after three months. I am trying to reach a wider audience with temperature-gravitation, and further elaboration on the analemma would seem to unproductive for the purpose.

CAVENDISH EXPERIMENT:

The Cavendish experiment must be done in a controlled environment which I cannot provide. I had hoped that my experiments and preliminary results would interest others in pursuing the tests. I called local universities to see if the tests can be done in their labs. One university has the equipment but would not consider the tests because they are conservative. Apparently, temperature-gravitation makes me a lousy conservative. Another university does not have the equipment, but a post-doc with the university expressed interest in the subject last month and his advisor told me that the student found several Cavendish experiments at GW. A few days earlier, GWU, my alma mater, told me that they did not have the equipment.

THE MOON:

In our meeting, I showed you the lengthy steps that I took to arrive at correlations for the Moon; e.g.; Perigee occurs after minimum declination. I also explained how this correlation relates to the structure and position of the Arctic and Antarctic icecaps. And how the above was a direct result of temperature-gravitation. Any comments?

ECCENTRIC ORBITS:

My earlier response also included another conclusion that I derived from temperature-gravitation; namely, If a moon (or ring) is too close to the parent planet so that it does not view the poles, then the eccentricity of the moon's orbit is very small or zero. Whereas if a moon is far enough from the parent planet so as to view the poles, then the moon's orbit is rather eccentric. This can be verified from modern astronomy textbooks, encyclopedia, and NASA publications. Also, any comments?

Also, any comments on observations on Mars, Venus, etc.?

During the World Space Congress, Victor no less than called me an idiot for my proposal to double the specific impulse in rockets. Drew had me run back and forth, and eventually dismissed the whole concept. Mr. Norman Augustine had a team of scientists and engineers at Martin Marietta review my write-ups and they responded in writing that the idea is ridiculous. Further that I was simple-minded for apparently not knowing about conservation laws!!!

Reference last paragraph, Note following from AbuTaha's Letter to Augustine Committee July 30, 2009

My transient dynamic overshoot studies went beyond the detection of a serious design mistake. The studies produced first-class inventions that are known to former NASA Administrators and other leaders in public, private and military sectors. For example, I used the "transient dynamic overshoot" studies to invent a method to double (ideally) the thrust of motors and engines. I shared the invention with NASA, Space Command, the Air Force and major Contractors. You were very kind, Mr. Augustine, to refer that invention to an executive, who had two teams of experts evaluate it. I was embarrassed to receive a condescending evaluation from that executive, which was copied to you then. Experts from NASA and elsewhere were also initially dismissive. Ten years later, the Aldridge Presidential Commission listened to many experts from the country and the world. A distinguished member of your Committee, General Lester Lyles, singled out one Work for commendation during the Aldridge Hearings in 2004; that was the progress made by the Air Force to increase thrust beyond the magical 100 percent level using my pulsing thrust method. I mention this Item to highlight the importance of the dynamic transients studies and to caution against people who casually dismiss my works out of hand without full knowledge of the facts.