

## Proof from NASA that $\pi$ is 4

by Miles Mathis

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Those who have found my paper on  $\pi$  to be shocking will find this one even more shocking. Here I will show that NASA's own rockets have provided simple proof of my assertion concerning  $\pi$ , and have been providing it since 1958, the year of the first successful orbit.

It has been known for some time that the orbit of Explorer 1 contained a huge anomaly, billions of times larger than the Pioneer Anomaly, in fact. An article in *Newsweek* in 1999 told us that the Pioneer Anomaly was "one ten-billionth the effect of gravity on Earth." While that published number is dubious, in my opinion, the Explorer Anomaly is known to be much much larger. The launch of Explorer 1 in 1958, presided over by none other than Werner von Braun, provided an orbit that was more than 1/3 higher than expected. The orbit was so much larger that the rocket was at first thought to be lost. The expected signal was late, not by a few seconds, but by 12 minutes. Later that decade, Explorers 3 and 4 confirmed the anomaly, as did the three navy rockets of the Vanguard program.

The year 1959 saw two more confirmations of this huge anomaly, as the Soviet Luna mission missed the Moon by a large margin. The US mission Pioneer 4 also missed, by an even larger margin.

Clearly, the math was very wrong. The standard model has buried this anomaly, telling us that it was a matter of propellants not fully understood; but rocket propulsion at that time, though not an exact science, was not unknown by a third. We might have expected an error of a few percentage points, but not of one third. Nor was field gravity undergoing some sort of revolution in the late 50's. They can't have tinkered with the field equations, since the field equations are now exactly what they were then.

The equations were soon fixed, but not as a matter of propulsion or gravity. Those of us outside the programs can't know how, but given what we do know of human nature, of institutions like NASA, and of modern science and math, we must assume that the equations were simply pushed. If they were off by 1/3, the engineers changed them by 1/3, that is all. If the propellant was causing 1/3 more thrust, they used 1/3 less propellant. That is good heuristics and may be called good engineering—since engineering is concerned not with theory but with results. The Russians were the first to push their equations in the right amount, finally hitting the Moon in late 1959. It wouldn't have been at all difficult to push the equations in this way, since they are not highly complex. It would be nearly as simple as I have stated it here.

This anomaly has been unreported on for decades, and has been known to only a few. Most recently it has been publicized by Richard Hoagland, and has, in that way, reached a larger audience.

Hoagland uses it as a foundation for his own new theory, which he calls the Hyper-dimensional Model. He claims this model can explain the Explorer Anomaly, though his website is very squishy when it comes to precisely how. In a nutshell, he claims that the higher orbit of the rocket was caused by the rocket's spin. In support of this he provides a simple experiment by Bruce DePalma of a spinning steel ball. He shows strobe evidence that a ball bearing spinning 27,000rpm will launch higher than a non-spinning ball bearing.

There are several very basic problems with Hoagland's theory, even at this early stage. One, he fails to consider that DePalma's experiment was done in air and that air is material. I have no doubt that a spinning ball bearing would fly slightly higher than a non-spinning one, but I think it is clear that the reason for this is a simple drill effect, not an effect of any mysterious hyper-dimension. The first thing to look at is whether the spinning ball, moving quickly forward, sets up a vortex in front, which would ease its path through the air. DePalma and Hoagland should state that this possibility was exhausted, and they don't do this, so it is difficult to read much beyond that. The experiment should also be done in vacuum, but even that would not be proof of a hyper-dimension. It would only be proof of the power of the electrical field the ball was moving through. We do not need to look for other dimensions to explain anomalies like this, since even in vacuum we have very powerful non-gravity fields that require exploring. Spin is known to be an important factor in E/M theory, so Hoagland's hypothesis does not look promising from the start.

Another reason it looks unpromising is that the rockets he is talking about were not launched as drills. He claims a rate of spin of up to 750rpm, but it is not clear what exactly is spinning. We know it is not the whole rocket itself, since we have seen rockets launch. Rockets do not spin on the launch pad, they do not take off spinning at high rates, and they normally do not spin at high rates in later stages. If some stage of the rocket is spinning in some "tub", as he quotes, this is not really to the point. Internal parts of the rocket would not create any drill effect, and it is not clear that they would act like DePalma's balls in any way. Beyond this, Hoagland admits—and even publishes an illustration showing—that the Vanguard rockets were only spinning in a short third stage, at 100rpm. How can this level of spin, even if we admit to it, cause a 33% change in orbit?

Another immediate problem is that DePalma's balls do not fly 1/3 higher or farther, even at such a high rate of spin. They are spinning 36 times faster than Hoagland claims Explorer was (and 270 times faster than Vanguard's third stage), but have a smaller drill or hyper-dimensional effect. Hoagland shows no math, simple or otherwise, to show why this is. And he never provides a mechanism. He makes up a name (a "propagating torsion field distortion") but does not show how this might work mechanically.

The rest of Hoagland's theory does not really require comment, but I will say that the title itself is a tip-off. Anytime anyone calls something a hyper-dimensional anything, it means they don't really know what they are talking about. If you have a firm explanation of something, you don't need a fuzzy name for it. Fuzzy names are generally a nod to a fuzzy audience. Of course this barb can be aimed just as easily at most quarters of the standard model, as well as at Hoagland. Almost everyone, standard and non-standard, mainstream and fringe, is now involved in fuzzy thinking for a fuzzy audience.

I will give one more example before I move on. I don't want anyone to think I am dismissing Hoagland prejudicially. I have actually combed his website, and made my mind up post-judicially.

Concerning this hyper-dimension, he says, “The act of mere ‘rotation’—in the HD Model—literally ‘opens a type of “gate,” or “geometric doorway ...”’ between other dimensions”. Gobbledygook of the first order, sprinkled heavily with unnecessary quotation marks.

Now, I am not singling out Hoagland for derision, he just happens to have been on my slate today. His theories and sentences are no worse than the theories and sentences one sees in QED or string theory, at the highest and most respected levels. In fact, his flavor of terminology would appear to have been borrowed from mainstream science, which has become a fairytale of its own. Nor should my comments on Hoagland be read as a defense of his critics. Hoagland may be correct about any number of other things, concerning other cover-ups at NASA. I certainly wouldn’t put it past them. But I haven’t done my research there, and it isn’t pertinent to this paper anyway.

After all that, we may be pretty sure that spin is not what caused the Explorer Anomaly. So we still have an experimental failure of about 33%. As I hinted above, the first thing we should have looked at is the E/M field. But, as I have shown in a series of other papers, even the E/M field is not strong enough to cause such a large gap. I have shown that the E/M field of the Earth is  $.009545\text{m/s}^2$ , negative to gravity, which would cause a .1% change in  $g$ . But this change would not be apparent in any equations at NASA, since they are and always have been measuring a compound field. 9.81 is the correct value for this compound field, so their ignorance about its make-up cannot be a factor.

No unknown perturbations or tidal forces from the Moon can have caused a 33% failure either, since we would have seen these forces in other experiments. A directional perturbation like this must have caused predictable or post-dictable changes in the shape of the expected orbit as well, and this is not what we find. We do not find the rockets pushed toward or away from the Moon.

So what could cause a 33% failure in such a simple experiment? Well, what is the difference between  $\pi$  and 4? It is 27%. This would lower the propulsion error to around 5% and make it believable. That is some simple math, with the mechanism included, and no talk of other dimensions or mysteries of any kind.

A close reader will say, "According to your theory, the circumference is 4 times the diameter in a kinematic situation. That means that any curve—including an orbit—must be larger than we previously thought. Shouldn't the rocket miss short and not long?" No. The engineers know a straight-line velocity for the rocket, based on tests done here on Earth. That velocity is our given, and it doesn't change with different math. They had thought that the rocket would fly  $x$  distance in a curve, and they found  $x$  by using  $\pi$ . But now we know  $\pi$  has the value of 4 in kinematic situations, so the rocket will fly further.  $4v$  is greater than  $\pi v$ . Remember, the velocity may be treated like the diameter itself. The diameter *is* a velocity. So if you want to compare the velocity to the orbit, it is just like comparing the diameter to the orbit. The same diameter creates a larger orbit, so the same velocity also creates a larger orbit. In NASA's own reports right after the Explorer mission, they reported the orbit as larger based mainly on apogee. Well, apogee is measured in a straight line. If you keep the velocity the same and increase the value of  $\pi$ , the apogee will of course be larger.

Critics will say that we now launch satellites with great precision and reliability. There is no room for a 33% or a 27% correction. But that is because the correction was made long ago, in the heuristic equations of rocket propulsion. If Russia solved this anomaly in 1959, probably by creating some

sort of constant, there is no need for NASA or JPL to re-solve it this decade or last decade or any other decade. NASA and JPL have long since moved on to other anomalies, ones that are so small they can even report them in the mainstream press with no major embarrassment. A report like that in *Newsweek*, of a one ten-billionth error, is as much a brag as an admission of failure. With only a slight tweek, *Newsweek* could have changed the tone of the article to: “we are within one ten-billionth of the truth—yea!—aren’t we smart!”

This begs the question of the real status of rocketry. Do NASA and JPL and Russia know that  $\pi$  is wrong in the orbit or the kinematic circle, or are they just flying on fumes? Is it crashing and persistent ignorance or is it another conspiracy? I don’t know. If Hoagland is right, and NASA and the government are keeping alien civilizations from us, then they probably have  $\pi$  buried at Area51 with everything else. They can’t admit that  $\pi$  is wrong, because that would make everyone look very stupid. The public might stop reading science journals and funding hadron colliders.

But it is also possible that they still haven’t figured it out. They may honestly think that Russian constant will someday be filled out by string theory or bosons or dark matter. Or they may even hold out some hope that torsion distortion in a hyper-dimension may be the key.