

Re: Hey Mr. Hyde!

Source: <http://coding.derkeiler.com/Archive/Assembler/alt.lang.asm/2004-03/0522.html>

From: Evenbit (*nbaker2328_at_charter.net*)

Date: 03/21/04

Date: 21 Mar 2004 00:38:16 -0800

"Beth" <BethStone21@hotmail.NOSPICEDHAM.com> wrote in message news:<jvP6c.580\$_r2.450@newsfep3-gui.server.ntli.net>...

> *Evenbit* wrote:

> > *Beth* wrote:

> > <<going via the Andromeda galaxy and visiting the new

> > planet, Sedna, on your way back>>

> >

> > *Is Sedna really a planet? Or is it just a member of the*

> > *long-hypothesized Oort Cloud?*

>

> *If Pluto is, then Sedna is...the problem may have been, in fact,*

> *jumping so quickly to call Pluto a "planet"...as it's big, true, but*

> *in planetary terms, it's sitting on the edge for sure...and its orbit*

> *is _highly eccentric_ (when first discovered, it was the "planet"*

> *furthest out...this is actually no longer true and that's one of the*

> *weird things about Pluto's orbit...sometimes it's further out than*

> *Neptune, sometimes it isn't ;), which gives it more of an "asteroid"*

> *than "planet" feel...*

>

Some other things to note about Pluto:

1) It's moon, Charon, doesn't exactly orbit Pluto so much as BOTH Pluto and Charon orbit a common spot and their rotations are the same as the orbit such that the same sides face one another. Thus, it is as if Pluto and Charon together form a single planet that somehow got cracked in two.

2) Like Varuna, Pluto is classified as a Trans-Neptunian Object (TNO), that is, objects at least 100 km across having orbits beyond Neptune. These are also referred to as Kuiper Belt objects.

3) Not only is Pluto's orbit *_highly eccentric_*, but it also deviates from the elliptical plane. Very near the Sun (in the vicinity of the inner 4 planets, for instance) it would likely be difficult for a sizable object to maintain an orbit outside the plane because of the strong tidal forces of gravity. Pluto, however, being the "black

sheep" of the family, is so far away from mother Sun and big brother Jupiter that he can get by with not following all the orbiting rules.

4) Pluto rotates in the opposite direction from most of the other planets.

> Also, ummm, it would be a Kuiper Belt object, if I properly understood
> what I heard them say on the TV about it...the "Oort cloud" (what a
> fantastic name, eh? ;) would be further out there still...the Kuiper
> Belt is a bit like the "asteroid belt" that exists between Mars and
> Jupiter, as a "belt" of rocks in orbit...the "Oort Cloud" – should
> there be one – is, as the name suggests, just a whole bunch of rocks
> all over the place way out in the solar system...though the metaphors
> aren't perfect, the terms "belt" and "cloud" should convey the general
> difference between the two...the "Oort Cloud" would be less likely to
> be subject to the "elliptic" plane like the planets and the "belts"
> are...being more "diffuse" from the plane – with lots more "eccentric
> orbits" exhibited – as the term "cloud" befits it...
>

That's sort of how I understand it. Artist depictions typically show the Oort Cloud as a three-dimensional sphere around the entire solar system but show asteroid belts as two-dimensional items painted on the plane.

Also, from my understanding, the Oort cloud is suggested as the source of the comets that get tossed into wild orbits bringing them close to the Sun. A theory popularized during the '80s was that either a neighboring star came close to the solar system or perhaps Nemisis {reasoning from the fact that most stars are binary stars [see, even the universe is digital ;-)] therefore, odds are our own Sol should have a twin, therefore (discounting Jupiter) it must be either very dim/small/&far away or dead (in the since that Jupiter is made of the same material as the Sun but just hasn't been "lit") so that we haven't discovered it yet and they decided to call this "star" Nemisis} came close every so often and tossed these comets inwards. This theory was used to try to explain the mass extinctions on Earth that seemed to be periodic. And {to continue my original train-of-thought of the first sentence of this paragraph} since comets don't always obey the elliptic-plane rule, perhaps the Oort cloud itself doesn't.

> I heard a really bizarre and not-yet-scientifically-approved theory
> about the "asteroid Belt" and the "Kuiper Belt"...overlaying a
> "harmonic series" over the solar system, the planets' orbits roughly
> coincide with "good harmonies"...and where the "asteroid belt" exists
> would be a "harmony" but a "rough harmony"...hence, the theory
> stipulates – though it is a kind of weird theory, seeing as it
> actually stems from looking at "harmonies" and uses musical theory as
> a base – that gravitational influences are, in effect, creating
> "harmonies"...just not of sound or colour, but of gravity and
> energy...and, thus, the "asteroid belt" is where there should have

- > *been a planet, which never actually formed...that idea isn't new but*
- > *the theory does try something new in trying to come up with a reason*
- > *_why_ this never happened there...the "harmonies" are all wrong...of*
- > *course, those of a scientific mind will rightly be sceptical of this*
- > *explanation, due to the fact that it could be summed up as, *ahem*, a*
- > *case of "bad vibes"...which hardly sounds deeply scientific...but it's*
- > *an interesting theory that even if it turns out to be utterly, utterly*
- > *wrong, it still makes for a good "story", anyway...*
- >

Actually, this theory makes a lot of sense. Especially when looking at the tidal effects of gravity. But some would also include the magnetic influences of the Sun and the large planets into the equation because it seems that magnetism plays a large role in the artistic shape of whole galaxies so it probably has a role in solar orbits as well. Try the following thought-experiment:

Order a large ACME trampoline. Use an ACME contraption to vibrate one corner of the trampoline canvas. Use another contraption to vibrate the opposite corner of the canvas. Then toss a few cups of seeds or beans in the center of the trampoline. The seeds or beans will dance around but you will notice something: they will tend to settle in patterns. This is due to the interaction of the waves from the vibrating devices. I think this is called refraction ...but I'm not sure.. my physics is rusty because it has been YEARS ago...

Also, I read somewhere that if you use the distance from the Sun to Mercury as one unit, you can use certain multiples of this unit to "discover" the approximate orbits of the other planets.

Then too, in orbital mechanics there is something called Lagrange points. These are mathematically-determined orbital locations that are stable orbits due to the gravitational pulls of the nearby objects. For instance, if you are travelling between the Earth and the Moon, somewhere along the line, you will be pulled equally by both the Earth and the Moon and since the pulls are in opposing directions, they cancel out. Somehow, though I don't quite understand the math, there are also points along the Moon's orbit such that one point is a certain distance ahead of the Moon in its orbit and the other one is behind. If you place a satellite in one of these Lagrange points, you would not have to stockpile large quantities of fuel onboard for the satellite to use in its retro-rockets so that it can stay in orbit — it would automatically stay in orbit indefinitely without the need for retro-rockets. [that is, if I'm understanding Lagrange points correctly] As a matter of fact, there is a group of asteroids 60 degrees in front of Jupiter's orbit and another group 60 degrees behind. Also, I believe I read somewhere that one can use Lagrange points to navigate the solar system extremely efficiently. If you fly your ship to the Moon's L point, then to the Earth's L point, then to Mars's L point, you could get to Mars (although rather slowly) without using much fuel at all because you'd be letting orbital mechanics do

alt.lang.asm: Re: Hey Mr. Hyde!

most of the work for you.