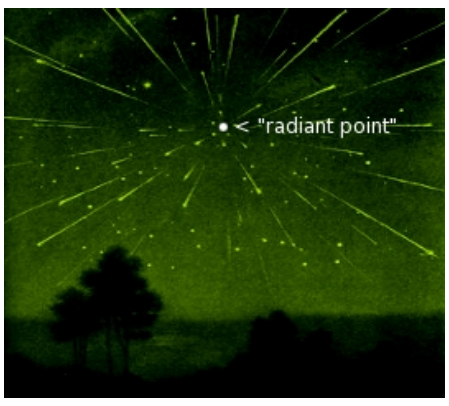
Appendix 41

The Tychos – Our Geoaxial Binary System

24 August 2020, 9:07 pm[1]

The Tychos probes the major meteor showers

There's probably no more fascinating celestial spectacle than the so-called "shooting stars" that we've all occasionally witnessed in our lifetimes. Amateur astronomers know where and when to look for even more spectacular events known as "meteor showers". These events, which can last for a couple of days or up to several weeks, occur on a regular, annual basis in various parts of our skies and, fairly reliably, in the same periods of the year. Most people will have heard of the largest known meteor showers, such as the Geminids, the Perseids, the Orionids or the Aquariids, all of which are named after the constellations (i.e., the celestial spots, areas or "radiant points") from which they appear to originate and to spread out from in all directions.



Historically, these meteor showers have been a cause of great perplexity among astronomers and cosmologists. The obvious, principal questions were what causes them and why they occur every year at virtually the same place in the sky. Let me outline the current understanding of the nature of meteor showers by reproducing a few excerpts from the Wikipedia:

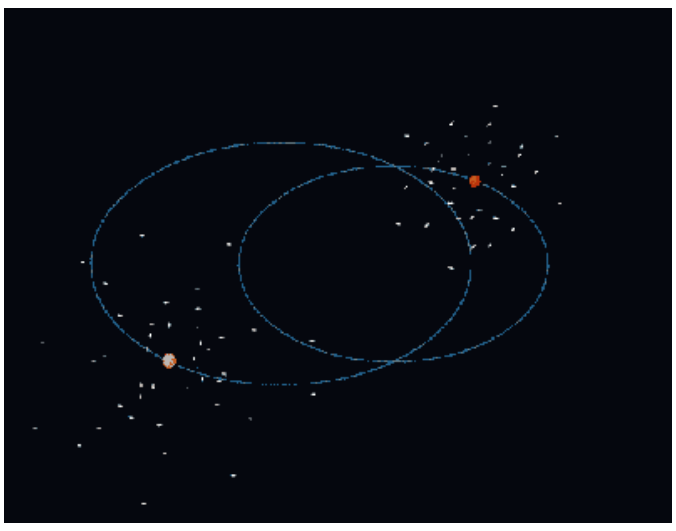
> *"The actual nature of meteors was still debated during the 19th century. Meteors were conceived as an atmospheric phenomenon by many scientists (Alexander von Humboldt, Adolphe Quetelet, Julius Schmidt) until the Italian astronomer Giovanni Schiaparelli ascertained the relation between meteors and comets in his work 'Notes upon the astronomical theory of the falling stars' (1867). [...] A meteor shower is a celestial event in which a number of meteors are observed to radiate, or originate, from one point in the night sky. These meteors are caused by streams of cosmic debris called meteoroids entering Earth's atmosphere at extremely high speeds on parallel trajectories. [...] Most meteors are smaller than a grain of sand, so almost all of them disintegrate and never hit the Earth's surface. A meteor shower is the result of an interaction between a planet, such as Earth, and streams of debris from a comet. Comets can produce debris by water vapor drag, as demonstrated by Fred Whipple in 1951, and by breakup."*[2]

In other words, meteor showers are currently assumed to be caused by Earth, as it supposedly hurtles around the Sun at 30 km/s, colliding with streams of debris left over from comets which periodically visit our solar system. However, there are a number of problems with this assumption:

1. Comets which enter our solar system rarely, if ever, stray right across (i.e., intersect) Earth's orbital plane, whether it be the Copernican or the Tychosian one. Cometary orbits are almost invariably tilted in relation to Earth's orbital plane and very few, if any, pass right through Earth's celestial path. That is, most comets (which are all rather tiny celestial bodies measuring a few kilometers in diameter) pass either "above" or "below" our planet and are unlikely to leave any significant amount of debris trails precisely along Earth's orbital path.
2. Even if some comets intersected Earth's Copernican orbit, it would take no longer than a few seconds or minutes for Earth to pass through their debris trails as it (allegedly) travels at 30 km/s (90 times the speed of sound). How then could large meteor showers that last for several weeks be explained?
3. Comets have vastly different periods (e.g., 76 years for Halley's comet, 3.3 years for Comet Encke). Indeed, the famous Perseid meteor shower is believed to be caused by the Swift-Tuttle comet which has a period of no less than 133 years. How then could this possibly explain the annual recurrence of the major meteor showers and their fairly constant intensity? Is this cometary debris supposed to linger for years, decades or even centuries on end in the same area of the sky?

On the face of it, it would seem most unlikely that cometary debris trails are the cause of meteor showers, especially the larger, long-lasting ones. But is there no reasonable alternative explanation? Let's take a look at this issue throught the "lens" of the Tychos model.

First, I'd like to submit an animated gif that I've used to illustrate my theses on a couple of earlier occasions. The below animation is to be found at the Binary Research Institute's website and shows how a binary system composed of two bodies revolving around their common barycenter will occasionally cause "meteor showers" as the respective debris trails of the two bodies collide:[3]



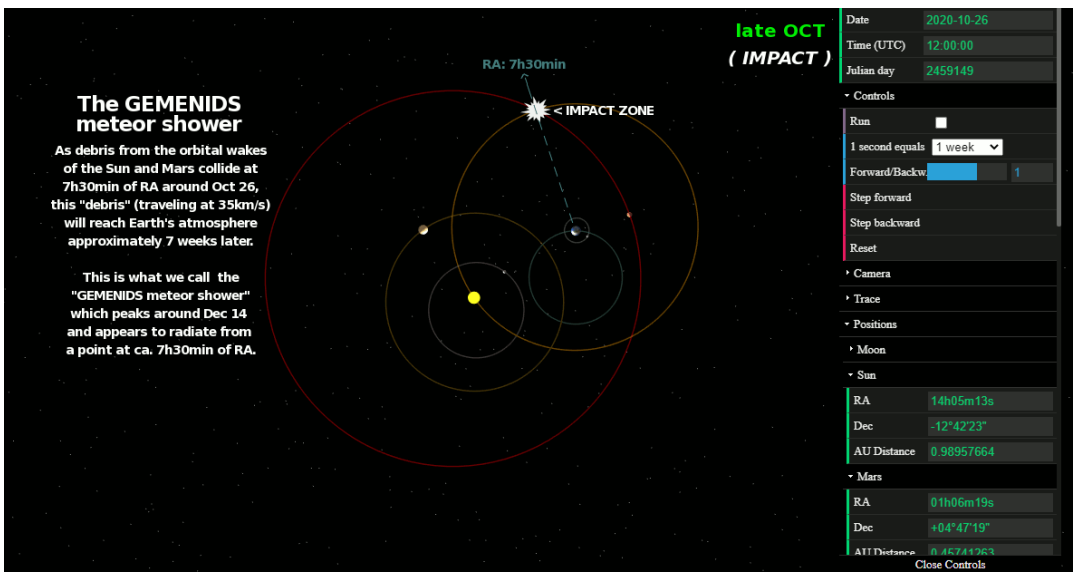
[1] http://cluesforum.info/viewtopic.php?f=34&t=1989&sid=a77f81f8c33e997044d1e67edd79e504&start=165#p2414670
[2] https://en.wikipedia.org/wiki/Meteor_shower
[3] To view the animation, go to: binaryresearchinstitute.com/bri/evidence/sheer-edge/

The above animation should give you a rough idea of what I'm about to propose and illustrate in consummate detail regarding the possible cause for our major annual meteor showers as viewed under the Tychos model's core paradigm, which posits that the Sun and Mars are binary companions revolving around planet Earth.

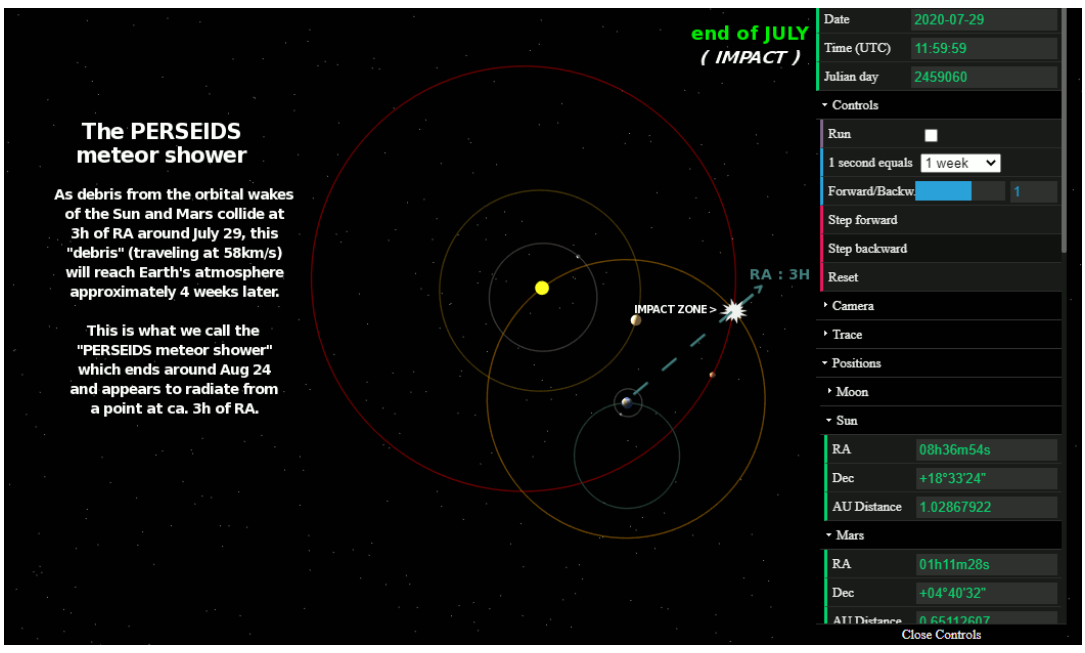
The basic premise of my working hypothesis is quite simple: the major meteor showers may be caused by the debris trails perennially circulating around the Sun's and Mars' orbits. Both celestial bodies are constantly shedding small particles along their orbital paths. As the two slightly oscillating orbits occasionally intersect in both right ascension (RA) and declination, the solar and martian orbital particles will collide and send "meteorites" in all directions, including towards Earth.

What follows are four animations depicting how four of our largest meteor showers (the Gemenids, the Perseids, the Orionids and the Aquariids) would "play out" in the Tychos model. The animations were made with sequential screenshots from the wondrous Tychosium 3D simulator.[4]

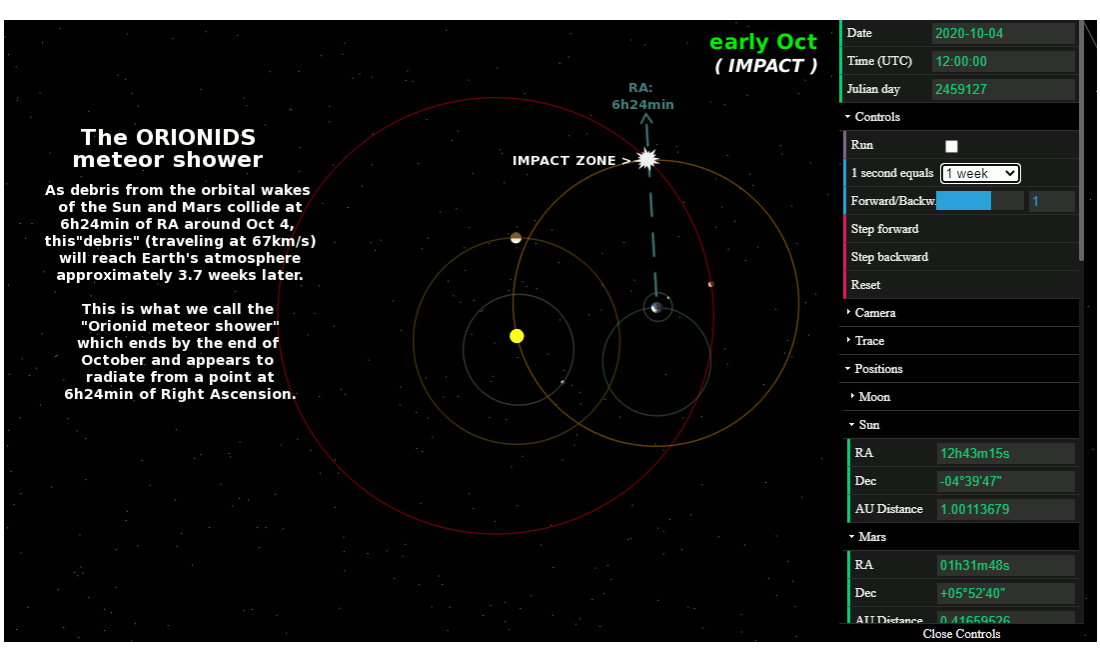
We shall start with the famous Gemenid meteor shower. It recurs every year roughly between 4 December and 17 December, peaking on 14 December. The observed "radiant point" of this shower is located around 7 h 30 min of RA. According to the Wikipedia, the average speed of the Gemenid meteors is 35 km/s. This means that, if the impact between the Sun's and Mars' orbital wakes occurs at the distance of 1 AU (i.e., the distance between the Sun and Earth: 150 million km), the Gemenid meteors will employ about 7 weeks to reach Earth's atmosphere. Hence, in this case, we should expect the impact to occur in the last days of October. And, in fact:[5]



Let us now look at the famous Perseid meteor shower. It recurs every year roughly between 17 July and 24 August, peaking on 12 December. The observed "radiant point" of this shower is located around 3 h of RA. According to the Wikipedia, the average speed of the Perseid meteors is 58 km/s. This means that, if the impact between the Sun's and Mars' orbital wakes occurs at the distance of 1 AU, the Perseid meteors will employ about 4 weeks to reach Earth's atmosphere. Hence, in this case, we should expect this impact to occur in the last days of July. And, in fact:[6]

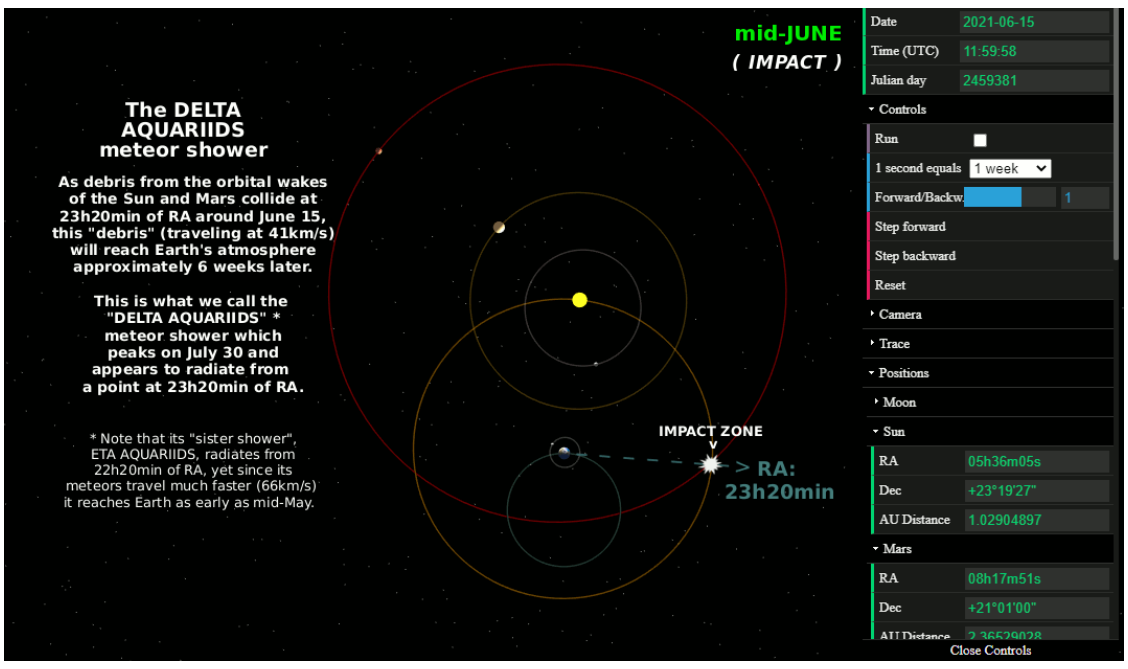


Okay, so let's look at the famous Orionid meteor shower. It recurs every year roughly between 2 October and 7 November, peaking on 21 October. The observed "radiant point" of this shower is located around 6 h 24 min of RA. According to the Wikipedia, the average speed of the Orionid meteors is 67 km/s. This means that, if the impact between the Sun's and Mars' orbital wakes occurs at the distance of 1 AU, the Orionid meteors will employ about 3.7 weeks to reach Earth's atmosphere. Hence, in this case, we should expect this impact to occur in early October. And, in fact:[7]



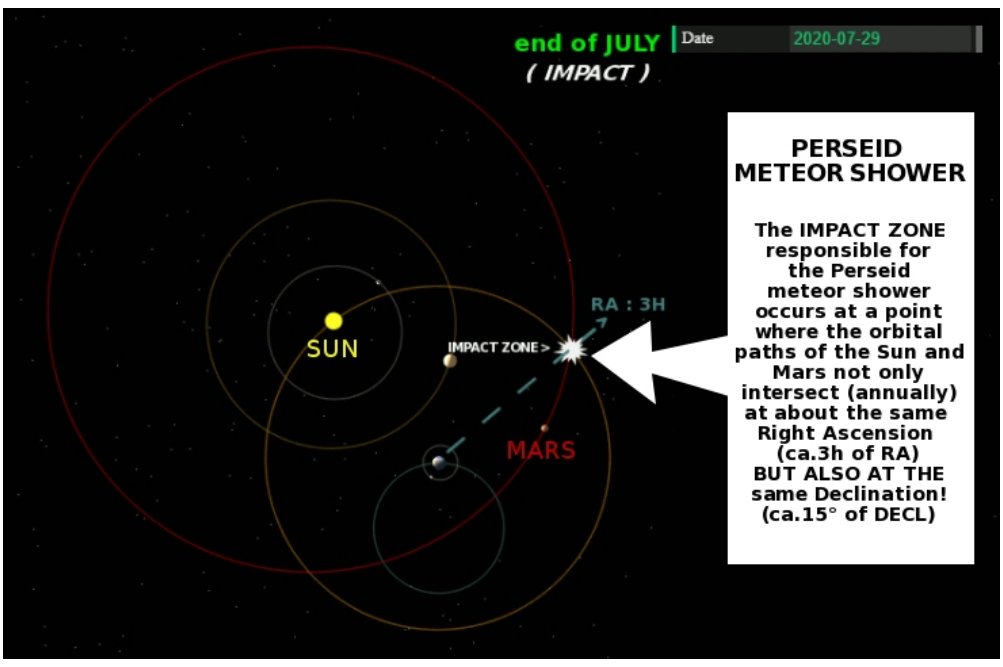
[4] https://tychos.space/ts
[5] To view the animation, go to: http://septclues.com/TYCHOS/METEOR_SHOWER_Gemenids_01.gif
[6] To view the animation, go to: http://septclues.com/TYCHOS/METEOR_SHOWER_Perseids_01.gif
[7] To view the animation, go to: http://septclues.com/TYCHOS/METEOR_SHOWER_Orionids_01.gif

Finally, let us look at the famous Delta Aquariid meteor shower. It recurs every year roughly between 12 July and 23 August, peaking on 30 July. The observed "radiant point" of this shower is located around 23 h 20 min of RA. According to the Wikipedia, the average speed of the Delta Aquariid meteors is 41 km/s. This means that, if the impact between the Sun's and Mars' orbital wakes occurs at the distance of 1 AU, the Aquariid meteors will employ about 6 weeks to reach Earth's atmosphere. Hence, in this case, we should expect this impact to occur in mid-June. And, in fact:[8]



Please note that the "impact zones" marked in my above animations are actually meant to be "initial impact points", as the gradual and sweeping collisions between the slightly tilted (by only about 2°) orbital paths of the Sun and Mars and their respective debris would likely protract for a number of days or weeks, unlike current theory, which holds that meteor showers are caused by Earth swiftly smashing into tiny trails of cometary debris which would have momentarily "cut through" Earth's orbital path. As it is, this would nicely go to explain why meteor showers can last for several weeks. All in all, I would humbly submit that this hypothesis of mine holds water and supersedes current theory in terms of plausibility and empirical probation.

In any event, it makes little sense that meteor showers are caused by Earth smashing into lingering cometary debris. As mentioned above, the most famous meteor shower of them all, the Perseids, is supposedly caused by Earth impacting the orbital wake of the tiny Swift-Tuttle comet, which returns only once every 133 years. Yet, the Perseid meteor shower occurs reliably in mid-August every year. Far more plausibly, the annual Perseid shower is caused by the orbital paths of the Sun and Mars intersecting every year in pretty much the same place in the sky. "Pretty much the same?" you may ask. Well, here is what the Tychosium simulator shows: not only does the annual impact zone of the Sun and Mars orbits occur at about the same right ascension (3h of RA), but it also occurs at about the same declination (15° of DECL). For this to be deemed as a total coincidence you would have to be a 'total coincidence theorist'!



Of course, considering the enormous amount of near-earth asteroids and assorted cosmic matter revolving around our planet, random meteors (or 'shooting stars') may enter our earthly skies from time to time. However, the grand annual Perseid shower is, as empirically demonstrated by the Tychos model, most likely caused by the intersection of the orbits of the Sun and Mars.

I rest my case and, as I like to say, the Tychos model is here to stay.

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[8] To view the animation, go to: http://septclues.com/TYCHOS/METEOR_SHOWER_Delta_Aquariids_01.gif