

Re: Terminal Velocity of Impacting our Moon

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Terminal velocity, to my understanding, is a *constant velocity* resulting from the equilibrium of a force such as gravity and the drag of a resisting medium, such as a planet's atmosphere.

Are we on the same page?

Sam Wormley,

Keep a good hold onto that constant velocity notion (w/o thrust applied), replace whatever's your atmospheric density with whatever's of SM or ISM, increase that wishful velocity factor up to 10% 'c' (30,000 km/s) and utilizing stellar gravity instead of merely local gravity is what should keep us at least within the same footnotes of that very same page.

Remember that such fewer atoms of the SM or ISM do have some room to give a little without their significantly packing too much into one another. However, the forward compression wave is likely going to become somewhat of a thicker soup that's taking up volume and unavoidably demanding of energy as it represents an extra amount of drag coefficient.

Interesting in how you're so good at intentionally dragging this one out. Is it something I said that's supposed to remain as nondisclosure?

Are you afraid to stipulate or even shy as to speculate as to what such a javelin impactor might have to deal with? or of whatever a interstellar probe has to overcome if making such horrific velocity as 10% 'c'?

If you'd like to include a consideration for the lunar atmospheric terminal velocity, whereas starting in at LL-1 that's perhaps offering us as few as 100 atom/cm³ while we're situated at 34.37r, and obviously dramatically increasing in population density/cm³ with every closing km, then picking up a few extra atoms of sodium from the distance of 9r (15,642 km) seems fairly obvious (actually there's also the fairly substantial [moon sized] sodium cloud that's worth potentially on

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average hundreds of those sodium atoms/cm³, that's trailing a good 900,000 km stream as continually blown away from our salty moon by the solar wind), and then essentially following the expected increase as per getting closer to the moon until eventually there's millions upon millions of those various atoms/cm³ to work with, many of which holding nearest the surface being the likes of argon and radon.

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Brad Guth

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