

Re: Interstellar Propulsion idea using an Asteroid and a few comets!

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From: AA Institute (abdul.ahad_at_ntlworld.com)

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"Grimble Gromble" <grimble.gromble@virgin.net> wrote in message news:<2ZFYc.82\$cb6.75@newsfe5-gui.ntli.net>...

> "AA Institute" <abdul.ahad@ntlworld.com> wrote in message

> news:adb5bc1.0408291046.1b3c3daf@posting.google.com...

>> *Let's say we have a starship of biosphere volume 3km x 3km x 0.2km*

>> *(ceiling), population average of 2,000 people in total carried on this*

>> *hypothetical voyage to Alpha Cen. How much Uranium (kg) would be*

>> *required to power the day to day electricity needs of this community of*

>> *people, plus all biosphere heating, lighting, etc needs over 4,300*

>> *years continuously?*

>

> *Not sure why you're thinking in terms of a rectangular biosphere as gravity*

> *won't be much of a consideration but I have estimated a sphere of radius*

> *750m would provide roughly equivalent volume.*

That 'rectangular' bio was a point of illustration for this 0.001c hypothetical voyage that Rob Dekker was referring to. Of course inside a cylindrical asteroid that I envision in my article, the biosphere shape would be circular/cylindrical, where the asteroid spin would create artificial gravity in even measure all around, causing things like trees, for example, to grow their roots going *down* into the soil (i.e. toward the outer edge of the asteroid).

>

> *Given how much better we can do by replacing the rock with some decent*

> *insulation, and how much mass can be saved by doing so, it would suggest we*

> *don't bother with an asteroid at all! Sorry.*

I would totally agree with you, why push an elephant when a much slicker horse will do the job at a fraction of the weight? But I look at the ISS – humanity's largest space engineering project ever – where potentially we would have 450 metric tonnes...ISS final mass... accommodating a mere 3–man crew, floating around inside a tiny cubicle with crap food, appalling living arrangements, with no gravity, no biosphere, etc...

That don't inspire much confidence for me in larger scale man-made

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structures! And the ISS is not even propulsive (no engines). Imagine trying to manoeuvre and dock a large vessel with a moving comet. The number of knocks, misaligned impacts, etc. that would need to be endured for not 100 years or even 1,000 years, but for aeons...

For the foreseeable future, I still see an asteroid as the most robust, most durable framework that can withstand the stresses of a voyage of such cosmic proportions, bridging enormous light years across the millennia of time. The other advantage is you save the cost of materials being ferried up from Earth to build the ship's enormous outer body work.

Abdul