

Re: BBC's Pegasus spaceship

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From: Henk Boonsma (hboonsma_at_teranet.news)

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"Earl Colby Pottinger" <earlcp@idirect.com> wrote in message
news:sNednZ_X97UKZgHcRVn-tQ@look.ca...

> "Henk Boonsma" <hboonsma@teranet.news> :

>

> > *Those of you who've seen the BBC's Space Odessey documentary will agree
> that*

> > *the Pegasus is a pretty good design for an interplanetary tour around
the*

> > *solar system. The only thing that we didn't hear too much about was how
> they*

> > *would sustain themselves for 6 or more years. There's no way you could
> carry*

> > *that much food for a crew of 8 people.*

> >

> > <http://www.bbc.co.uk/sn/tvradio/programmes/spaceodyssey/pegasus.shtml>

>

> *Did you try to do the math before making that statement? Basicly a person
> needs about 0.5 metric tons of food per year and about 1.0 tons of water
for*

> *a total of 1.5 tons of supplies per person per year. $6 * 8 * 1.5 = 72$
tons*

> *of supplies needed at max.*

>

> *Take another look at your spaceship, it is already carrying landers that
mass*

> *35, 45, 15, 28 and 29 tons each! What would be the problem adding in the
> food? And worse to your claim is water is highly reclaimable and is being*

> *generated the entire trip by the crew. You probably don't need to ship
more*

> *than 1.0 tons of water per person period, and maybe noteven that much.*

>

> *So you get $6 * 8 * 0.5 = 24$ tons of food.*

> *And you get $8 * 1.0 = 8$ tons of water.*

> *Total 32 tons of supplies plus equipment to recycle the water, which I
expect*

> *to mass far less than 40 tons!*

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The ship itself weights in at 400 tons but that's including its own mass and propellants. That doesn't necessarily leave a lot of room for consumables and water. The pictures don't seem to show a lot of storage space aboard eith