

Re: Cheap access to space

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From: Jeff Findley (jeff.findley_at_ugs.nojunk.com)

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"Earl Colby Pottinger" <earlcp@idirect.com> wrote in message
news:68KdnTdRsb17fovRVn-rw@look.ca...

> *My beef is that the cluster idea is a good one. I would like to see the
idea*

> *worked on. CNC can be use to make a series of plates that stacked
together*

> *will do the job, but you still can't build something that works unless you
do*

> *the fine detail work. And I am starting get angry at the people who don't*

> *realize how much work is needed to make working hardware – not hardware –*

> *Working Hardware.*

One reason that such a "modular" rocket tends to fail is the poor performance of the overall design. Too many tanks, too many engines, too many valves, too many joints, and etc. In the end, all of those excess components end up producing a performance and reliability problems.

Furthermore, you're missing some very useful pieces of information. Smaller engines tend to have lower ISP and lower thrust to weight ratios than bigger engines.

Since your cluster engine "design" is carved from a huge piece of aluminum, the thrust to weight will be horrible. The aluminum won't let you design combustion chambers with very high temperatures and pressures (negatively impacting ISP) and the fact that it's one huge slab will mean it will negatively impact the thrust to weight.

In the end, you haven't done the math or done any testing to show the superiority of your "design". Repeatedly saying that "the cluster idea is a good one" doesn't make it so.

Case in point, where did you get "specific impulse is about 3 km/s" for the engine cluster?

Jeff

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