

## Re: Size of the proposed "new" space vehicle?

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*Source:* <http://sci.tech--archive.net/Archive/sci.space.shuttle/2005-10/msg00103.html>

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- *From:* "Mike Dennis" <[mapson@xxxxxxxxxx](mailto:mapson@xxxxxxxxxx)>
  - *Date:* Thu, 06 Oct 2005 22:07:57 GMT
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"tomcat" <[jlavine@xxxxxxxxxxxxxx](mailto:jlavine@xxxxxxxxxxxxxx)> wrote in message  
[news:1128377003.416445.242400@xx](mailto:news:1128377003.416445.242400@xx)  
> For whatever reason NASA is taking a step backwards. They don't have  
> to.  
>  
> Waveriders are now a proven technology. The Space Shuttle is a  
> waverider. Nanotube cloth with the strength of steel, and 600 times  
> lighter besides, exists. Atomic hydrogen rocket fuel with 5X thrust  
> exists. The SSME (Space Shuttle Main Engine) exists.  
>  
> And, no matter what the option, any returning space vehicle has to  
> either retrofire equal to the returning velocity -- an extremely fuel  
> consuming option -- or a heat shield of some kind must be affixed to  
> the hull of the vehicle, regardless of whether it is a capsule -- or a  
> waverider.  
>  
> Today, a waverider spaceplane is possible and practical. Free  
> Enterprise knows this and though the construction of a spaceplane will  
> be expensive, I believe that Free Enterprise will build one.  
>

I'm not convinced you know much more about these subjects than the buzzwords you're tossing about. Characterizing the shuttle as a waverider is quite a stretch. The nanotube cloth will be cool someday, but not quite yet. I agree it looks very promising. The atomic hydrogen approach, something I've worked with a little, has it's own problems and is more likely better suited to "NERVA"-like Nuclear or Inductive Reactance motors. But since neither exists today, there's a lot of work to be done. Free Enterprise by itself could make any of these work individually, but it takes a National effort (or a really really long time) to integrate it. It could be done by Free Enterprise, but free isn't really free--if you know what I mean.

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- *Follow-Ups:*
    - ◆ *[Re: Size of the proposed "new" space vehicle?](#)*

Re: Size of the proposed "new" space vehicle?

◇ *From:* tomcat

- Prev by Date: ***Re: NASA Administrator Agrees With What Many Critics Have Been Saying for Years***
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