

Re: OVER-G'ed Bumpy ride in Soyuz?

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- *From:* mdicenso@xxxxxxxxxxxxxxxxxxxxxxxx
 - *Date:* 14 Apr 2006 15:27:43 -0700
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John wrote

Mike (or other)
Would anyone please care to expand on "Yes". Thanks

Almost any SRB, whether it's the shuttle, an Ariane 5, Delta II, or what have you is going to be a fairly "rough" ride for any number of reasons due to the nature of how solid rockets work, the aerodynamics of the shuttle stack's shape not really being a contributing factor. Essentially the solid rocket does not burn as evenly as a liquid rocket does, and because of the amount of surface area of the exposed fuel, as well as the shape of the grain, the high-thrust of the SRBs required to carry the rocket off the launch pad tends to make for the less gentle ride. So if you were riding an Ariane 5 into orbit, you'd still get shaken around just about the same as you would if you were on the shuttle.

Oh by the way, the term "hybrid" when speaking about rocketry tends to refer to a rocket where the oxidizer is a liquid, but the fuel is a solid, and not to the parallel, but separate use of liquid and solids:

<http://www.ukrocketman.com/rocketry/hybridscience.shtml>

Hope this helps.
-Mike
-Mike

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