

Re: Paths against gravity and using gravity vs energy used

Source: <http://sci.tech-archive.net/Archive/sci.physics/2008-07/msg00609.html>

- *From:* "Spaceman" <spaceman@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx>
 - *Date:* Sun, 6 Jul 2008 11:36:33 -0400
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Cwatters wrote:

"Spaceman" <spaceman@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote in message news:QeKdnT5P34quOfLVnZ2dnUVZ_hadnZ2d@xxxxxxxxxxxxxxxxxx

hhc314@xxxxxxxxxx wrote:

> According to all know facts, a longer path will always take

more fuel (energy) than a shorter one would as long as the paths are already there of course.

Not true. Drag is proportional to the square of velocity so a constant speed route can take less energy than one that involves a variable speed. Even if the constant speed route is longer. My reply is irrelevant though because your problem is badly specified.

I am sorry, I meant to include if traveling at the same speed.
same speed longer path = more fuel than same speed shorter path.