Subject: Re: Luner-Landings - What do you think.
Posted by Crimson on Mon, 31 Jul 2006 19:07:04 GMT
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The moon landing site is too small to be seen with a telescope.

THE LINK I FUCKING POSTEDWhy don't we just point Hubble or some other big telescope at the moon to show the moon landing sites? Wouldn't that settle the argument once and for all?

If only it was that easy! The biggest problem with this is that they simply are not powerful enough. The lunar landers are very,very,very small in astronomical terms and they're pretty far away as well. There isn't a telescope in existence that could take a picture of one.

There are lots of mathematics we could show to demonstrate this, but's it's very complicated and we don't fully understand it anyway. But here's our abridged dumbed-down version.

Size of Lunar Module. Let's be really generous and say 10m square.
Distance between Hubble and Moon. About 350, 000km.
This works out as an visual angle of (10m)/(3.5 x 10^8m) * (180/PI) = 1.6 x 10^-6 degrees = 6 milliarcseconds.
The WFPC2 'telescope' on Hubble has the following resolution: 800x800 pixels of a 35 arcseconds field of view with a pixel scale of 46 milliarcseconds. Actually resolution in practice is a little below this.

So what does this all mean? Well, roughly speaking, it means that the lunar lander would have to be 15 times larger before it would even cause a dot on a Hubble picture.