

Re: What makes an ideal Moon base?

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Joann Evans <bondage@frontiernet.net> wrote in message news:<41521907.2A6DC3A0@frontiernet.net>...

> AA Institute wrote:

>>

>> *This is another 'space adventure' sort of fun question, but its fairly*

>

<snip>

> *You don't have to go to the trouble of trying to pressurize a cave of
> unknown (and possibly impractical) porosity. If suitable ones can be
> found, set up pressurized habitats within them. You still have the
> advantages of meteorite/thermal extreme/solar and cosmic radiation
> protection. Inflatables derived from Transhab could easily be used here.*

>

Some thoughts I have personally on this 'fun' project:–

LOCATION, LOCATION, LOCATION

As with all real estate projects, there are three primary considerations when it comes to investing in an **ideal** Moonbase: location, location, location! And we only have one chance to get this right. A Moon base is a far longer term endeavour than an orbital station like Mir was or ISS is.

I would personally like to see the base established on the edge of the Moon's near side disk (i.e. on the limb of the hemisphere visible from Earth). There are a number of reasons why I would choose such a location. Firstly, good for direct communications with Earth (subject to windows permitted during the 'libration' cycle of the Moon of course) as opposed to a complete far side location.

Secondly, for radio and dark sky optical observatories, a far side location would be within easy reach via ground crawling manned rovers from a limb-located lunar base. Locating observatories over the local horizons from such a base would cut out the vast amounts of radio noise and light glares coming from the blue-white globe of the Earth, which will hang **permanently** in the lunar sky as seen from any outright near side base locations. And the Earth would be a huge glare. Not only is it huge in disc diameter, but with a mirror-like 37% albedo (reflectivity), it will dazzle you far more than what the

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Moon dazzles us on Earth (lunar albedo: just 12%).

Thirdly, if Platinum–group metals and Helium 3 prospecting become key commercial commodities for mining from the Moon, then these are likely to be found in greater abundance on the lunar far side compared to the near side. This is by virtue of the fact the