

Re: Are politicians averse to leaving LEO?

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On 17 Jan, 02:18, "Jorge R. Frank" <jrfr...@xxxxxxxxxxxx> wrote:

Rand Simberg wrote:

On Fri, 16 Jan 2009 05:47:56 GMT, in a place far, far away, "Martha Adams" <mh...@xxxxxxxxxxxx> made the phosphor on my monitor glow in such a way as to indicate that:

That's a lot of discussion up in this thread, but it misses a key point.

The idea of an orbiting supply station has been around for a long time

and I cannot believe anyone lost it before thinking of today's ISS. Yet

the ISS is placed 1) in such a low orbit that if not reboosted frequently, it will come down shortly ("re-enter") and 2) in an orbit

very inclined from the Solar System's orbital plane so that *you cannot*

launch from the ISS out to the rest of the System except by extravagant

fuel usage to correct the bad velocity vector you have from the ISS

orbit.

That this would be the case, would be clear enough to any highschool

student interested in space travel; and so there must be *some reason*

the ISS is in such a useless orbit. Since the basic physics is so plain

and obvious, I think it's reasonable to believe the reason ISS is in

such an orbit is *just so* that it cannot be used for a System travel

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launch resource. My guess is that the reason for doing this is to be found in Washington's religious/ideological character: they thought, if we don't do this now that's progress toward *never* doing it.

(Yes, I've heard the reasons that were given for this orbit, so far out of the ecliptic. Isn't PR a useful resource for covering-up things? My guess is some Big Names wanted that space money kept here, available for coming wars.)

There are no earth orbits that remain in the ecliptic. And the reason that ISS is in a 52 degree orbit is because the Russians can't reach one in any lower inclination from Baikonur, your nutty paranoid conspiracy theories notwithstanding.

I see my decision to killfile Ms. Adams some time ago has been fully justified by subsequent events.

In addition to Rand's arguments on orbital inclination, the argument on orbital altitude is that ISS had to be situated below the Van Allen belts to minimize radiation shielding requirements, and had to be reachable by both the space shuttle and Soyuz/Progress, the latter of which has an altitude ceiling of 425 km.

That is the reason for the low orbit. The inclination is another matter, if anything a high inclination gives more radiation.

That is the reason why ISS must be in such a low orbit. The basic physics are so plain and obvious, I think it's reasonable to believe that only an idiot or a paranoid schizophrenic could believe otherwise.

This is my point we don't seem able to treat one and other with respect. It is true that a usergroup is not a scientific conference. This means though that we should tolerate a few mistakes and errors, but we should not be using that sort of language.

The pilot of US Airlines did a marvellous job. However I note from the newspapers that he was in the Air Force and has a masters degree in psychology. Is that a standard part of Air Force training? I hope he

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has forgotten all he learnt and only remembers engineering and flying!

Quite honestly if you put everyone in your killfile there will be no discussion at all. Is she really in your killfile or are you just saying so?

As far as myself and the necessity for VN machines is concerned I feel I should say this. What is clearly necessary for MANNED spaceflight is a series of intermediate points. These intermediate points must be set up using the resources of space. We have low orbits (Earth, Mars etc.) surfaces and quadratures.

A Zubrin type system is needed. By this I am not really distinguishing between methane and hydrogen, whether or not you have CO₂ or just H₂O is a detail. To achieve Zubrin you need one hell of a lot of automation. You would certainly want to know whether the system worked or not before you risked the lives of astronauts. There is one further point Zubrin solves one problem, how to get back from Mars. There is still a raft of other problems.

The level of automation requires :-

Essential

1) The ability to assemble a chemical processing kit, and operate it reliably. Interestingly I see that Pat Flannery regards the breakdown of CO₂ as "desirable" for the ISS. Needed a piece of solar processing kit that operates reliably.

Strongly desirable

2) The ability to build a habitat on Mars. The ability to carry out what is in essence a small scale civil engineering project completely automatically.

3) The ability to repair a chemical processing plant should it go wrong.

Desirable

4) Complete self repair

This is NOT a strict VN machine, but I think it comes fairly close. There are of course implications for civil engineering here on earth as well as in the operation of chemical plants. My point about carbon capture.

Unmanned flight by contrast simply means building on the corpus of knowledge we have already built up. Desirable might well include fast (~5km/h) movement on the surface of Mars.

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Are the resources of space required for SSP? No, but they are strongly desirable. Essential for transmission is a coherent array.

A number of people seem to be in complete denial about this. They seem to think that there is some magic solution that will provide cheap access to LEO. In point of fact the Pentagon has already done a series of experiments documented here.

[http://en.wikipedia.org/wiki/Blackstar_\(spaceplane\)](http://en.wikipedia.org/wiki/Blackstar_(spaceplane))

If they had worked. If they really did provide low cost to LEO there would by now be regular Air Force flights. The fact that they have all been abandoned to me speaks volumes. There have in fact been flights of varying degrees of success and a number of UFOs have now been attributed to Blackstar.

Fred, Rand et al. all know this better than me. Why they keep wittering on about low cost spacflight in the presence of all this evidence I really don't know. If their ideas were sound the Pentagon would be flying now. I think it is all part of the master's degree in psychology and is calculated disinformation.

Martha Adams in fact strikes me as one of the more sensible people in this group. A little bit visionary, perhaps we need this. I am really arguing with her on the best concrete route in scientific and economic terms.

– Ian Parker

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