Re: The space station is a "turkey in the sky"

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- *From*: Willie.Mookie@xxxxxxxxx
- *Date*: 14 Apr 2007 09:11:38 −0700

On Apr 14, 11:17 am, Fred J. McCall <fmcc...@xxxxxxxxxxxxx> wrote:

> "Ian Parker" <ianpark...@xxxxxxxxx> wrote:
>
> :Work in robotics and AI is generally useful ...
>
> To whom?
>
> :... and a
> :space program in which these technologies were promenant would have
> :loads of spin offs.
>
> Not. All the robotics stuff is done down here (don't need a space
> program) and any AI done for space would be mission−specific and hence
> useless for anything else.
>
> This is just Ian on his usual 'AI is magic' spiel...
>
> −−
> "Some people get lost in thought because it's such unfamiliar
> territory."
> −−G. Behn

A space station properly concieved gives us experience in building long−term habitation in space. So, its useful for prototyping a moonbase, a mars transfer habitation module, and a mars base − its a space home..

ISS was less than ideal given where we came from.

Consider a Skylab module. Its an SIVB upper stage adapted for habitation − AFTER being used as a stage. A great concept. Such a vehicle is easily adapted for lunar landing (rather than just lunar flyby). And on a one way pilotless journey it would have worked to place a moonbase on the moon about the same time Skylab flew. This at less cost and far earlier than ISS and Shuttle.

And once we had Skylab (which cost less than $2 billion btw) I don't

know why we didn't reboost the Skylab and loft more of those SIVB elements up there to create a space station 25 years ago.

There were designs on the drawing boards that used several SIVB elements to create a rotating station with gravity at far less cost than the ISS. Those same SIVB elements could also be used as a moonbase and in a mars expedition and mars base, once they were tried out in those roles in space and on the moon.

Of course I also don't know why we scrapped the Saturn rocket and the plans for a Nerva upper stages in favor of the Shuttle .

Nerva could also have been adapted for space power to power a moon base and a long duration mission as well as a mars base. The reactor would be only marginally more sophisticated than a nuclear reactor for a submarine, with attention being paid for cooling in a vacuum and sheilding. A nuclear powered skylab with a nuclear thermal rocket attached to nuclear upper stage would have been dandy to send people for long stays on the moon or mars or just tour around the solar system.

And the Saturn needn't be so costly. What's wrong with putting a simple heat shield on the nose of a stage and a parachute on its tail? That's the way SRBs work. Why not all stages?

Developing recovery procedures for the Saturn launch elements would have been far more useful and less expensive than the Space Shuttle. Von Braun favored parachute recovery with a simple ballistic entry and TPS on the nose of each stage that absorbed the shock of landing. He recovered V2 rockets back in the 40s like this and felt that 100 or more uses could be made of booster rockets like the Saturn when reocvered in this way. This is how the SRBs are recovered. It could easily have been applied to Saturn to reduce costs to 1% their costs. Today, with GPS we could be there to catch boosters at their re−entry point. Heck, we could snatch the boosters mid−air and fly them back to the launch center without touchdown − with very little modification of the stages..A parasail properly strung on the stage could easily be snagged mid−flight by a tow plane and towed back to the launch center no matter where it re−entered.

So, I try to imagine what it would be like if the billions spent on space shuttle and ISS were spent on improving Saturn rockets, building Nerva upper stages, and nuclear powered skylab modules adapted for long−duration deep space missions?

We'd already have cities on the moon, mars and on orbit and a network of outposts throughout the solar system and the US would be hailed as a futuristic visionary nation leading the world into the future.

What if the hundreds of billions spent on Vietnam and Korea were spent on space? We'd have a powerful industrial presence across the solar

system and humanity would be far wealthier than today and the US would dominate the world's economy with a strong currency based on imports from space based resources and assets.

What if the trillions of dollars spent on nuclear weapons systems during the cold were were spent on space? We'd be exploring the nearby stars in laser light sail starships and there would be a spaceship in every garage and the average American would own a home aboard a space colony as well as on Earth and we'd be planning the construction of black hole dusts to see if we could create a real warp drive.

We can't say we didn't have the chance as we sink to our demise in the trash heap of history.

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