

Re: On the Nature of Exploration

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From: Edward Wright (edwright2000_at_hotmail.com)

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dave@atomicrazor.com (Dave O'Neill) wrote in message
news:<381574c2.0407220143.ab4addf@posting.google.com>...

>> *The first airplanes didn't fly at hundreds of miles per hour. They
>> didn't cruise at thousands of feet. They didn't carry hundreds of
>> people or tons of cargo. They didn't do any of the "hard" stuff.
There
>> was a lot of energy missing from that equation.*

> *No, actually they did do all the hard stuff for heavier than air
> flight. They demonstrated sustained powered flight, they showed how
> to control an aircraft (that being the really hard thing which had
> beaten previous attempts) and they had a light weight engine.*

No, they had a very poor controllability, by modern standards (so poor that modern test pilots can barely fly the Wright Flyer replica), and a very heavy engine, as well, by modern standards.

Ignoring those factual errors, you completely ignored what I said. Orville and Wilbur did not achieve long-distance flight, high-altitude flight, long-range flight, etc. It did not attempt the hard flight regimes at all. Therefore, by the logic you apply to SpaceShip One, it was a "stunt plane" that had no value, because it could never lead to those things.

> *For the purposes of powered flight anybody could take that design,
> play with it and have an aircraft and within a few years lots and lots
> of people all over the world were. 5 years later people were making
> long sustained flights over wide bodies of water.*

Yes, and people can take SpaceShip One, play with the design, and within a few years, lots and lots of people all over the world will be doing so. Some may even fly over bodies of water.

> *SS1 has shown that we can fly a low Mach numbers at high altitude.
> Something we already knew how to do (we being humans) – what they
> might be able to do is show that a fairish number of people want to do
> it, which would be a move forward.*

We already knew a lot of people want to do it. What SS1 has shown is that it's possible to do it at lower cost.

- > *They have not demonstrated that this is a step into orbital or a*
- > *dramatic reduction in cost to LEO.*

For people who understand incremental development, they have demonstrated it. For those who understand, no further proof is necessary. For those who don't understand, no proof is possible.

- >> *Thus, it was unrealistic to expect airplanes would improve. They would*
- >> *never be more than fun machines built for a specific purpose and cool*
- >> *looks, right?*
- >
- > *Like balloons and airships?*

Non sequitar. Balloons and airships did improve. The reason they stopped improving is because a better technology came along to largely replace them. Nevertheless, more people ride on balloons and airships every day than the United States and Russia have sent into space in the last 40 years.

So, if SpaceShip One led to spaceships all over America, which couples could hire for champagne flights the way they hire balloons today, you would consider that a failure? Interesting.

- > *For a while aircraft were fun machines, fortunately a lot of cash, a*
- > *lot of people playing in their garages, a war and a shift in*
- > *technology paradigm solved that for us.*

As, yes, the old chestnut -- airplanes didn't start to develop until we had a war. First of all, there were over 14,000 people who flew *prior* to World War I. That's an order of magnitude more people than the United States and Soviet Union managed to fly in space in four decades. And you had a very expensive Cold War to pay for spacecraft development, so please stop using the lack of a war as an excuse.

The United States government has spent something like a trillion dollars on space technology. What kind of spaceflight did we get as a result? Fewer than a dozen people got to walk, bounce, and hit golf balls on the Moon. There's one space station where astronauts and kosmonauts can balance jelly beans on their noses. One Shuttle, which is grounded, and costs hundreds of millions of dollars every time it flies.

We just have a paradigm shift, if you don't recognize it. We now have people who recognize cost as an important element in designing spacecraft. From now on, *lots* of people will have fun in space.

I know, that last statement will probably appall you. I suspect you're going to tell me there's no value in having fun. We ought to be doing things in space that are "important," serious, and above all, pompous. To that, I can only say -- deal with it! :-)

- > *According to the Scaled press releases on this, they don't have a*
- > *"proper" life support system beyond oxygen because the vehicle doesn't*
- > *spend long enough at a significant altitude to need one.*

They have a life-support system. If you don't consider it "proper," that's your problem. I just checked the Scaled press releases, and they say no such thing.

- > *Either you're realistic about the challenges that the industry and*
- > *space travel face or not. I'm not.*

I'm glad you're honest about it. :-)

- > *I don't believe that following SSI, for example, millions upon*
- > *millions in private capital is going to flooding into private space*
- > *companies.*

So? Your belief is not required. You're entitled to believe whatever you want, even if your beliefs are, as you say, "not realistic."