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Geason: It's time to base U.S. space policy on the "truth"

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Jeff Geason is a founder of XCOR Aerospace company, the Personal Spaceflight Federation, and one of the most outspoken members of the White House's Review of United States Human Space Flight Plans Committee. He has said that the committee work took up about 90 hours a week since it was created last May to take hard look at NASA's human exploration plans. He spoke to Sentinel Space Editor **Robert Block** by telephone from New Mexico shortly after the committee report was released in Washington on Thursday. Here is an excerpt of the interview:



OS: *I want to read to you remarks that just came out from Congresswoman **Gabrielle Giffords** (D-Arizona), the chair of the NASA oversight subcommittee in the House, and get your thoughts about what she said. In a statement released today Giffords said: "Now that both internal and external independent reviews have confirmed that the Constellation program is being well executed, we know what needs to be done. Let's get on with it and cease contemplating our collective navels." Is that what the report does?*

JG: I can't from memory speak for every word in a 155-page report, but I don't believe that we discuss in any detail, if at all, the question of whether or not the current program is well executed. It wasn't our thrust. What we were examining was more the question of what are the options the United States has going forward? And how do the different ways we can proceed from where we are today give us good value and benefit to various national stakeholders that have a reason to expect benefit from the national space program? And that's my take on what we as a committee were about.

Now the following is my opinion. My opinion is -- and the supporting data for this can be found in the report -- that there are elements of the current architecture which would probably would continue to be useful in a variety of future architectures, and there are elements of the current architecture that I really don't agree give us good value going forward. The current architecture, for example, depends for its budget assumptions the assumption that the space station will be canceled in 2016. I don't agree that's good value for the nation. The current architecture employs a one-and-a-half launch architecture in which the flight rate of the small launcher, Ares I, is very low, with the result being that we would be investing alot of money in a small booster that duplicates the ability we have elsewhere that we don't expect to fly very much. And it would arrive late to serve the program that it is intended to serve. So, I don't think it's a fair characterization to say that what we found is that everything is wonderful. But what we have done is laid out what the other options are and what their relative strengths and weaknesses are and it is now a subject for national policy makers...to decide what the nation is going to do going forward.

OS: *But there are clearly recommendations in the report too. It's not just options. For example it is clearly a recommendation of the report that the U.S. involve international partners to help share the risks and costs of human exploration.*

JG: There were areas where we thought there were clear findings and we attempted pointed those out. And there were other areas where what the country wants to do will depend on what figures of merit are important to policy makers.

OS: *Now, let me put something to you that has been put to me. I don't necessarily agree with it but it is a sentiment that is out there. By not finding anything useful the U.S. can do in space for NASA's current human space flight budget of \$7 billion or \$8 billion a year, the committee failed. What's your reaction to that sentiment?*

JG: It's not failure to point out truth. The truth is the truth. And it is high time that national space policy was made on the basis of truth and not on the basis of convenience. It is not true to say that we found there is nothing NASA can do within its current budget. There are two options laid out in the report that NASA can do with its current budget. What we did not find was a way for NASA to do significant human exploration beyond low Earth orbit in the near term with this current budget. And I don't like that answer either but that is not going to change it.

OS: *Now it seems to me that the argument that has fallen out of the committee's findings is that the decision facing the White House is a choice between Ares I and commercial; it's Ares I vs. commercial. It's Ares I vs. Atlas V. It's Ares I vs the world. But it seems to me like the choice is more Ares I vs. the International Space Station. Or perhaps better put, it's about how to keep the station and develop a rocket for exploration we can afford. Do you think that's correct?*

JG: I am going to say something back to you that I think is more correct but it's along the lines of what your are saying. It was not our task either to defend or attack what NASA is currently doing. It was our task to look for a way forward that gave us good value for the nation in human exploration of space. And there were pieces of what we have today, like the space station, that proved to be more valuable than perhaps has been appreciated. And there were pieces of what is being worked on today, like Ares I that perhaps looked less valuable than we might have expected. But again the goal was not let's change this, let's stick to that, let's defend this. It's we are where we are and we want to explore. How do we best do it? And the sunk cost fallacy is a fallacy. Having spent money on something doesn't make it valuable unless it has value. But, of course, if you have something half built that means you only have half as much left to spend on it. That part of it is true. But if you spent a lot of money doing something that you don't need any more, or which doesn't serve its original purpose anymore, you still don't need it. It really was an attempt to take a fresh, clean sheet look, saying we have tools in the toolbox, we have programs, we have assets, how can we use them to best use them to explore beyond LEO in a cost effective manner.

OS: *What's your view about the criticism of commercial companies from members of Congress and others? Those*

criticisms are that relying on commercial space companies to transport crew and cargo is inherently risky, and the companies that are doing it don't have a track record. There is also a sense that before we let them carry crew they should prove themselves handling cargo.

JG: I would love to address that. Let me pick as two of the examples companies that I would think would be likely bidders were there to be a commercial solicitation of the type the committee suggests. I think it is extremely likely that one or more of the bidders will choose to use Atlas V derived or Atlas V boosters for their launch. And I think it is very likely that the Boeing Co. might choose to be a bidder for a lightweight crew taxi capsule. No guarantee that there will be a solicitation or who will bid but based on my knowledge of the industry these are two bidders that are probable. So you are now talking about a booster that has the most successful track record of any expendable launch vehicle in the U.S. inventory from a company that has -- oh, I forget the exact number -- 60 or 70 consecutive successful launches; a company that launches multi-billion dollar one-of-a-kind, irreplaceable national defense and reconnaissance assets. And a capsule that might come from a company that is responsible for the design and construction of every manned spacecraft in U.S. history. It is difficult to characterize these as dangerous players.

Furthermore, while NASA has a great legacy and great history, and I think very highly of the organization, the people currently responsible for building these new boosters are doing it, by and large, for the first time. Does that mean they are not going to work? Absolutely I am not saying that. But the notion that somehow sprinkling NASA on the side of a rocket is all it takes to radically change the safety of a booster or the safety of a capsule is an assertion unsupported by data.

OS: *I think though for many when they think commercial they think one company, SpaceX, and the criticism is being leveled on the basis of that perception, that somehow commercial space has become a short hand for SpaceX.*

JG: Well, that's bogus. I think well of SpaceX. I am please with their progress, but they are only one entrant and if you actually read the section of what we talk about or how commercial solicitation will be structured I don't know how much more clear we can make it that our view of who the commercial industry is is a great deal broader than that. And I think the people who are choosing to characterize the industry in the way that you just suggested as a straw man are doing so because they wish to fudge the issue...To repeat a theme I mentioned earlier, it's really high time that we make our national space policy decisions on the basis of things that are true.