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23 February 2010

Frank R. Wolf
Congressman, 10th District, Virginia
U.S. House of Representatives
241 Cannon House Office Building
Washington, DC 20515-4610

Dear Mr. Wolf,

First, I want to thank you for your kind gesture in soliciting my thoughts in regard to the president's budget request as it regards NASA and our nation's human spaceflight program.

Second, I believe that this budget request advocates a strategy that is, frankly, disastrous for the U.S. human spaceflight program, a crown jewel of this nation's achievements in the long history of human affairs.

Third, I must explicitly note that the fault with this budget lies *not* in the total amount – the so called “top line” – recommended for NASA, but in the *choices* which are offered concerning how the money should be allocated. In fact, the FY11 budget for NASA offers the best top line for the agency since the FY05 budget request was put forth in February 2004. The FY05 request was mooted, however, when President Bush failed to prevent the Office of Management and Budget (OMB) from implementing some \$12 billion of critical reductions and offsets to NASA's human spaceflight budget over the years FY06-09.

While President Obama has not restored the funding lost in those years, and in fact recommended further out-year cuts in his FY10 budget amendment, beginning in FY11 his administration has practically restored the NASA top line that was minimally necessary for a successful program of human exploration. Regrettably, he has chosen to accompany that budget with disastrously poor strategic choices concerning how it should be utilized. These choices embodied in the president's FY11 budget request are flawed for the reasons discussed below.

- 1) First and most importantly from a geopolitical viewpoint, the FY11 budget strategy clears the way for China to be the next nation to put its own people on the moon, and to establish a long-term human outpost on that body. I ask only that you imagine what

the relative standing of China and the U.S. will be in the world at large when they can send astronauts and scientists to the moon, and we cannot. Societies, nations, and alliances form around those who lead. No one clusters around those who once led. The world civilization of the future will be shaped by those who are perceived to be leaders. We have a choice to make, now, as to whom we want that leader to be.

- 2) The FY11 budget strategy signals a clear departure from the program of activity authorized for NASA by the Congress not once, but twice, in 2005 and 2008. The direction of civil space policy had been exhaustively reviewed and debated for nearly three years following the loss of Space Shuttle *Columbia* in February, 2003. The Congress had decided upon its direction, had appropriated funds toward that end, and had reaffirmed its earlier decision in 2008. The U.S. space program cannot possibly produce useful results in response to significant course changes offered every few years by a new president. This is a case where Congress should "just say no".
- 3) Masked in all of the debates being promulgated by the media and various political pundits is the fact that the choice confronting NASA and the nation's civil space program is not one concerning the details of space architecture strategy and rocket design. NASA is perfectly competent to decide such matters at the career-staff level; no other organization is, and that is where such matters should be placed. This is why we have a National Aeronautics and Space Administration. The actual choice confronting us today is at a higher level. *The choice confronting us concerns whether there will in fact be a NASA-led human spaceflight program.* It is that simple. I believe that there are some things that are important for our society to do, that should not be left solely to the dictates of private enterprise, and that the expansion of the human frontier in space, with our nation in the lead, is one of those things. The FY11 budget plan takes NASA, and therefore our nation, off that path. In law, going back to the original Space Act of 1958, NASA is charged on behalf of our nation with the task of conducting missions to explore space, to develop the art and science of spaceflight, to expand and develop the human frontier. NASA is also charged with developing the necessary technology to carry out these missions. The FY11 budget strategy effectively eliminates NASA's role as a "space mission" agency, and renders unto it only the much-reduced role of "space technology" agency, while offering no U.S. government strategy by which we ensure the performance of those space missions believed by policy makers to be important to our future. If our policy is to leave the choice of what is to be done in space to be that which of interest to private enterprise, then in my opinion we are headed down the wrong path.
- 4) In connection with my comments in Paragraph (3), above, I cite Norm Augustine's recent remarks to the American Physical Society on 15 February. Norm indicated that he was not surprised to see Ares 1 cancelled: "Our conclusion is that it would likely be a

very fine launch vehicle, it would be very reliable; the question wasn't, 'can we build it', the question was 'should we build it'... "The current step, if you think about, was almost preordained," Augustine said later. "The view of our committee, the unanimous view, was that at least the Ares 1 had little chance of ever providing a useful role. I'm not questioning its technology, just its utility." Now, my regard and respect for Norm Augustine is nearly unbounded, but in his remarks above, his comments are more closely aligned with the interests of private contractors than of the U.S. government. Ares 1 and Orion are, quite simply, the U.S. government programs to provide for replacement of the U.S. Space Shuttle system, and to do so as rapidly as the pace of funding permits. To say that Ares/Orion should not be built, is to say that there should be no U.S. government human spaceflight system. It is to say that U.S. human spaceflight capability will exist, if it does, when and as it can be provided by contractors. To that point, I must then ask: What do you do when the contractor has spent the money which has been provided – up front – and the hardware isn't there? What do you do when the contractor wants to change the terms? How do you set the price when there is no comparable government solution and, quite possibly, no other private competitor? Who will be responsible if there is an accident, and who will bear the financial consequences? How will the U.S. government assure continuity of service in the event of an accident where the financial liability exceeds that of the supplier's assets? There are as yet no good answers to these questions. What we are seeing here is the obvious fact that contractors would – of course – prefer an environment where there is no government capability to set a limit as to how one-sided the terms and conditions can be.

- 5) The current use of the word "commercial" in discussing "commercial space" is difficult to understand. A commercial enterprise is one in which a hopeful purveyor of goods and services raises his own capital, brings his product to market, and sells it for what the market will bear. The plan advocated in the FY11 budget requires a huge up-front expenditure of government funds to sponsor the development of systems for which there is still no other market besides government, and for which there is unlikely to be any change soon. The only difference appears to be that we will be using new contractors who demand less government supervision. By this definition, an enterprise is "commercial" as long as it is not built by an established contractor working to government specifications with government oversight. Is this where we want to go?
- 6) Constellation – dismissively labeled the "program of record" – is being routinely branded as being "overrun and behind schedule." To that point, I refer you to this comment by Sally Ride, as quoted by Amy Klamper in *Space News*, 8/13/2009: Klamper noted "that while Constellation...funding...has been significantly diminished since former President George W. Bush called for a return to the Moon...the Aerospace Corp.

found that the program is largely on track and within the original funding profile." Augustine Commission member Sally Ride said, "The program comes pretty close to performing as NASA advertised as it would. ... NASA's planning and development phase of Constellation was actually pretty good."

- 7) The FY11 budget strategy completely ignores the recommendations of the Columbia Accident Investigation Board, to the effect that "The design of the (next) system should give overriding priority to crew safety, rather than trade safety against other performance criteria, such as low cost and reusability, or against advanced space operation capability other than crew transfer." (CAIB, p. 211)

I will close with the thought I have offered many times, in many venues, including to your Appropriations Committee in earlier years. The development and advocacy of commercial spaceflight for both cargo and crew has no stronger advocate than I. The efficiency of the free market, where it can serve us, has no stronger advocate than I. But not everything that is beneficial to the United States can be accomplished by means of private enterprise, and the expansion of the human frontier into space – cited correctly by the Augustine Committee as *the* key reason to have a human spaceflight program at all – is one of those things. The development of commercial spaceflight cannot come at the expense of government space missions, led by NASA, for the reasons I have cited above, among others.

The correct course for our nation is to hold course, to stay on track with Constellation, and to fund it appropriately.

Thank you.

Sincerely,

Michael D. Griffin