

The second race for space: nasa vs. private space enterprise

[Science](#), [Astronomy](#)



“ NASA spent millions of dollars inventing the ball-point pen so they could write in space. The Russians took a pencil. ” This quote stated by the historian Will Chabot signifies the controversy surrounding NASA’s excessive spending throughout the years. In 1957 it was made clear the Soviets were the first into space when an alien like beeping sounds were projected through radios across America. President Dwight. D Eisenhower portrayed America was far behind the Soviets when he signed the National Aeronautics and Space Administration (NASA) Act of 1958.

Despite the past significance of Neil Armstrong’s walk on the moon, we find ourselves today charitably donating this government run bureaucracy billions of dollars that could be used more effectively in the field by others. People still believe in the government ran NASA, stating they use their funds effectively towards research and space exploration. These people feel organization should continue to receive money from the government to better our knowledge on space exploration and research.

There is, in contrast, the growingly popular view that independently funded and run commercial space corporations deserve a share of the funding contributed to NASA. From looking at NASA’s wasteful past, its unproductive organizational management, along with what commercial enterprise has already proven for itself, it is made clear that there are effective alternatives to the National Aeronautics and Space Administration. Many American citizens know little about NASA’s projects throughout the past few decades; sure enough there is a reason why.

Since the 1980s nearly five billion dollars have been wasted by NASA's projects that had little success nor benefits for the science community. In President Reagan's 1986 State of the Union Address, he proposed The National Aerospace Plane to be built by NASA. Just six years and 1.7 billion dollars later, the program was canceled before anything was even built. In the years to come Vice President Al Gore announced the acceptance of the replacement X-33 project, a spacecraft that could be used more than once.

In 2001, by NASA's error, cracks were found in the spacecraft's fuel tanks. This led to yet another botched NASA project, causing a waste of a staggering 1.2 billion dollars. Throughout the same years as the X-33, NASA was working on the X-34 and X-38, a reusable rocket and a reusable lifeboat for the International Space Station. After four years and almost no hardware production, both were canceled resulting in another waste of well over one billion dollars. The amount of scientific data gathered from these models didn't compare to a fraction of the price NASA contributed.

During the year 2000, even as the previous projects were being exterminated, NASA managed to get approval for another program known as the Space Launch Initiative. For two years this project consumed 800 million dollars resulting in nothing other than blueprints (Zimmerman). These pricey papers were soon added to the heaping pile of waste NASA accumulated when the project was cut. While these numbers seem baffling to most, there is still more ways this organization has wasted our tax dollars.

NASA's ill equipped security systems put at a costly risk the successful projects they have spent so much money on creating. There has been a

minimum of 5, 408 successful breaches in NASA's security, many of which were sponsored by foreign intelligence agencies (Fogarty, par. 7). To illustrate why this is such a critical problem for our funding, we will take only the years of 2011 and 2012 into account. Throughout this time NASA has not only lost control of the International Space Station's functions, but suffered a loss of seven million dollars in hacked restricted data (Fogarty, par.). Is this the corporation we want to invest billions in? From what continues to happen to this day it is made clear that NASA has, and will continue, to improperly manage the money it is given for space exploration and research. Though the staggering number of wasted funds seem unbelievable to most, the reason for their existence can be found in the organizations very own infrastructure. NASA's organizational management is counterproductive when working with a budget.

NASA has shifted resources away from effective principal investigators, when a single man is responsible for a projects completion, and towards manufacturers that operate under the governments bureaucratic rein (Baker, pg. 2). While looking into NASA's management it is clear that there isn't close to a sufficient amount of authoritative decision making. It is not that teams operating under a bureaucracy such as NASA aren't skilled enough to take the best plan of action; it's that no one has the jurisdiction to assign tasks and hold people accountable for their completion. (Molta, par. 2).

This lack of authority has led to shuttle catastrophe where America's citizens watch their countries creation ignite in a ball of flame. The NASA Administrator Sean O'Keefe presented himself before a Senate committee

years after the Columbia tragedy. Senator Fritz Hollings scolded O'Keefe for taking one of the Columbia shuttle managers who was criticized for the explosion and made him second in command of NASA's safety office. " That doesn't indicate to me that you got it," Hollings stated (Zimmerman). While something must be going on behind the scenes there is another problem at hand.

Bureaucracies such as NASA have trouble with establishing proper p of control. There is of course no set number of subordinates a NASA advisor can successfully supervise. This leads to employees not getting enough management support when taking actions that may jeopardies the project (Molta, par. 3). After all most of us cannot even fathom the money and precision that goes into creating something such as a space shuttle. NASA's thriftiness is further decreased from the basis in which it receives funds. The entrepreneur who co-founded PayPal, Mr.

Musk, stated " NASA's contractors work by the " Cost plus" model encouraging aerospace companies to find the most expensive way to do something and drag it out as long as possible. " He went on to say "Future contracts should be given to meet milestones based on objective design reviews and actual hardware completion. If a company meets the milestone, they get paid. If not, they don't" (Tierney, par. 9). Due to the fact that NASA does not get any reward for accomplishing any landmarks within a specified time zone, there is no telling how inefficient they will be with the funding they receive.

They have no incentive to be thrifty with the funds that they have. From these reasons it is made clear NASA's flawed structure wastes our money. Indeed this negative talk of NASA may make it appear as though space exploration is nothing but a waste of money. However, independently owned commercial space corporations have proven to be highly beneficial. Throughout NASA's most notorious years of the 1960s it was the competing private space enterprises that manufactured the products NASA gets accredited for.

Specialized private companies manufactured for NASA rockets, capsules, and lunar landers for cheap prices with the intentions of the government buying their products for years to come. However, once the Cold War was over NASA stopped working with outside companies, causing many to collapse (Zimmerman). It is clear from NASA's history that it hasn't been close to as efficient as it has been while it was purchasing from outside manufacturers. Present day Private space corporations have had several innovational breakthroughs NASA had not discovered after its nearly sixty years in existence.

After only a few years in existence, Xcore developed for NASA the rocket engines that are generally inside the jets of the nascent rocket-racing industry. They have also provided NASA with an engine that can run on nothing other than liquid oxygen and methane (Klerx, pg. 18). The next example is a key reason why private companies forced to accomplish tasks on a minimum budget have the brain power to do so accordingly. While

NASA goes about building every rocket vertically, Space X revolutionized the assembly process by instead creating rockets horizontally.

This avoids the multimillion dollar cost NASA incurs for having to create and move customized towers and scaffolding (Tierney, pg. 7). From four private enterprise's recent accomplishment came \$269 million gifted to them by NASA. This award was granted by the Obama administration's Commercial Crew Development Program, whose goal is to push outside companies to get their ships into orbit at a quicker pace and at a lower cost than NASA (Chang). From looking back from NASA's glory days to recent monetary rewards, commercial space corporations have already left their mark in what humans have accomplished.

With the government increasingly working with private enterprise, there is no telling what NASA's fate will be. What can be made certain of is the fact that there will always be at least two points of views surrounding this controversy of government versus private space enterprise. While many will stick by NASA's side until life itself is over, others will take into consideration NASA's improperly managed funds, its flawed organizational management, and commercial enterprises advances that have already been accomplished.

These supporting groups of information all revolve around the fact that commercial space enterprise will much more effectively put to use the money that NASA consumes. Stephen Hawking proclaimed " I don't think the human race will survive the next thousand years unless we spread into space. " For this reason and many more humans will forever continue their

mission to the final frontier. Only time will truly tell if private or public will better help man in this race for space.