

# From Apollo To The Space Shuttle... Does NASA Inspire?

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Two events are bringing NASA a great deal of attention, with the added dimension that one looks back to a time of certainty and accomplishment while the other looks forward during a time of uncertainty and delays. The former event is the 40th anniversary of the Apollo 11 lunar landing, and the latter is the Senate confirmation of Charles Bolden as the new NASA Administrator and Lori Garver as his deputy. Both events have led to a great deal of commentary, and as is frequently the case when discussing the real and perceived value of NASA, supporters proclaim that NASA must be given the resources it needs because one of its missions is to inspire students to become scientists and engineers.

Here are just two examples of the "inspire" mantra:

1. In a June 22nd Op-ed in Space News entitled, "End of Shuttle Era Creates an 'Inspiration Gap'," Challenger Center President Daniel Barstow concludes, "... we can keep alive the spirit of exploration that drives our nation's soul and inspires our young people to dream big dreams,..."
2. During his Senate confirmation hearing, Charles Bolden described one of NASA's four challenges as "Inspire a rising generation... committed to increasing knowledge in the fields of science, technology engineering and math by making NASA and its programs relevant to the American public."

I think "inspire" is as abused as "new and improved" and "easy to use." Here's why:

There is no "I" in NASA; it is not the National Inspiration and Space Administration. In other words, is it really necessary for NASA to formally declare that one of its missions is to inspire? Every time I hear this, I think that if NASA's programs were inspirational in and of themselves then there would be no need to state that one of its missions is to inspire. It would just happen by default, it would be obvious, and you wouldn't need to talk about it as one of your missions. It's like a company's marketing department needing to convince consumers that Product Z cures the common cold and puts that luster back in your hair when it really doesn't do anything of the sort.

During the last few years I've lectured to classes of engineering students at several universities, and very few of them are inspired by NASA or want to work at NASA. What really puts the fire in their eyes are the accomplishments and promise of the NewSpace companies; the successful launches of SpaceX Corp., the two habitat modules placed in orbit by Bigelow Aerospace, the Virgin Galactic test flights, the XCOR Aerospace development of The Lynx, and so forth.

There is no doubt that the Apollo program was inspirational. Can the same claim be made for the space shuttle program after the avoidable loss of two vehicles and the failure to meet the promised flight rate of 55 launches per year and radically lower launch costs? The main inspiration I've seen is the motivation for entrepreneurs to create the companies mentioned above. In other words, the inspiration to do what NASA has not and will never accomplish; regular, cost-effective, and efficient space transportation. If NASA isn't very, very careful, this is the kind of inspiration it will continue to create.