

Reinventing NASA

The Washington Times

April 22, 2010

Our space program, once the envy of every nation on Earth, has been showing its age of late.

Its ambitions, though laudable are starting to appear a little outdated. Technologies that once dazzled the masses now seem almost “everyday and routine.” Visions of new planetary terrain, once the fodder of science fiction, seem somewhat commonplace in light of the discoveries made by robotic spacecraft and the capabilities of other countries. And while the moon remains a fascinating destination, there’s an entire galaxy of other regions – and countless possibilities – just waiting to be explored.

With a renewed sense of energy and vision, NASA is now well-positioned to reinvent itself.

Last week, President Obama outlined an ambitious new plan that focuses NASA’s efforts on bold new exploration goals through the development of exciting aerospace technologies.

While some are lamenting the cancellation of a return to the moon’s surface, the type of inspiring vision proposed is exactly what is needed to propel the U.S. beyond the trappings of the technologies developed nearly 50 years ago, and to again take a leadership role through innovation and daring, the qualities that first took us to the lunar surface in 1969.

While some of the President’s plans are exceptionally grand in scope – landing on an asteroid, walking on Mars – the bulk of this vision will have a tangible and positive impact upon scientific development, our brightest talent, and economic growth.

The most exciting element of NASA’s new direction is a greater emphasis on research and innovation. Instead of limiting ourselves to repeating past accomplishments, this renewed emphasis establishes new and challenging goalposts, that can once again place the U.S. in a technological leadership position that can and will be admired by the rest of the world.

To move beyond the moon will require new transportation architectures, propulsion systems and a host of other technological innovations. This new vision of U.S. space exploration encourages NASA to collaborate with academia, private industry, and its international partners to design and develop these technologies – a challenge that couldn’t be more timely.

A commitment to working with start-up companies to develop the technologies and hardware necessary for success, will inspire and create a new generation of businesses and technology-focused jobs, and will nurture and strengthen our top research institutions. With this new emphasis, NASA will return to its roots as an important catalyst for innovation and economic expansion for the U.S. economy.

Aerospace companies aren’t created in a vacuum. The fundamental ideas and breakthroughs that form the core of these businesses are typically developed at research institutions, focused on fundamental science and commercializing the technologies developed. These institutions have historically served as the cradle of progress, providing opportunity in all sectors of our economy.

In an almost prescient manner, the President’s budget request for NASA lays a foundation for future generations of technologists, engineers and scientists by committing to major new initiatives in education, from middle and high schools to the university and post-graduate level.

One of the most exciting elements is a new graduate fellowship program – equivalent in stature to current opportunities from the National Science Foundation – that will enable 500 graduate students per year to develop new technologies and work at NASA research centers.

This new attitude is truly reflective of the 21st century, engaging industry, academia and our international partners to work together and to collaborate in order to reach once unimaginable goals.

Space is a big place with many compelling destinations. Focusing NASA's budget on the technology of space travel will unleash a host of new options for exploration well beyond Earth's orbit. A future sojourn to the lunar regions – which admittedly is a worthy goal and still has plenty of terrain left to explore – could one day prove easy by comparison.

The President has presented us with a difficult challenge, one that will push our definition of progress and the limits of our imagination.

If we succeed – even partially – we will in the process, have created exciting new industries, dynamic new traditions and will have reestablished the U.S. as the premier center of innovation and technological development in the world.

This surely is a worthy aspiration.