Washington Watch

44th District of California • Fall 2003 Congressman Ken Calvert

Dear Students:

Another school year is here and for many students this will be your last year in high school. Your senior year should be filled with academics, school pride, ambition and excitement as you move beyond the secure haven of high school and into a world of new challenges. The opportunities ahead are endless.

In light of the choices that you will soon be making about your future, this newsletter focuses on the importance of science and technology education and our nation's future in space exploration.

In the past few months there has been increased speculation about the future of space exploration. Specifically, the loss of the Columbia has highlighted America's struggle with the benefits gained from space exploration versus the risks of human spaceflight. Since its inception, NASA has provided our country with insights into our universe and existence that would have been impossible without reaching into the unknown.

I hope that you will not only learn more about NASA and the role of the government in space exploration, but also how crucial it is for Americans to embrace exploration and to further our unrelenting quest to broaden our experience and knowledge of the world and universe that we inhabit.

As you consider your future I hope that you will explore the opportunities in the field of science and technology. The success of our space program depends on individuals who can create the vision and supply the knowledge to keep us the leader in science and space exploration.

Sincerely,

Ken Calvert

NASA—A History

On October 4, 1957, the Soviet Union successfully orbited the first artificial satellite, Sputnik 1, and the "race to space" began. After several failures, the first U.S. satellite, Explorer 1, was developed and launched successfully by the U.S. Army on January 31, 1958. However, the U.S. lacked a cohesive mission and direction for the space program. In order to accomplish this, the government defined the role of space exploration in the country.

President Eisenhower's desire to separate civilian and military space activities led to the "NASA Act" and in 1958 the National Aeronautics and Space Administration (NASA) was created to head the U.S. civilian space program. The Department of Defense (DOD) retained and still controls military space programs.

In April of 1961, the Soviets once again pulled ahead in the space race with the first man, Yuri Gagarin, to ever orbit earth. President Kennedy responded by announcing that the U.S. would put a man on the moon within the decade. In 1961,



Alan Shepard was the first American launched in a suborbital flight and in 1962 John Glenn became the first American to orbit the earth. In 1969, our goal was accomplished when Neil Armstrong and Buzz Aldrin became the first men to ever walk on the moon.

Since those first steps on the moon, the U.S. has launched many missions including the Apollo missions, the Skylab space station and the 1975 Apollo-Soyuz Test Project in which a U.S. Apollo spacecraft, with 3 astronauts, and a soviet Soyuz spacecraft, with 2 cosmonauts, docked for 2 days of exploration. In 1972, the U.S. embarked on a program to develop a reusable spacecraft and the first shuttle Columbia was born in 1981. The tragedy of the Challenger in 1986 grounded shuttle operations for 2 years and 8 months.

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NASA—History (continued)

In 1984, President Reagan directed NASA to build a permanently occupied space station and in 1988 Europe, Canada, and Japan agreed to be partners in the construction. The International Space Station is currently under construction with

6 major modules and other hardware in orbit and the station has been permanently occupied since 2000.

The Space Shuttle

The space shuttle is NASA's only way of launching humans into space. Since the tragedy of the space shuttle Columbia all space shuttle launches have been discontinued indefinitely. The Columbia Accident Investigation Board recently released

findings and recommendations that will have a lasting impact on the future of NASA. Since the 1980s, NASA and the DOD have been working on an alternative means of human spaceflight; unfortunately those programs have not been successful. Prior to the Columbia tragedy, NASA announced that it would keep the shuttle operational until at least 2015 and maybe even 2020. The impact of the Columbia accident on that decision is not vet known. You can view the report at CAIB's website at www.caib.us.



In wake of the Columbia tragedy, many have questioned the purpose of having a space program. Space exploration has many successes including the four "Great Observatories" – the Hubble Space Telescope, the Compton Gamma

Ray Observatory, the Chandra X-Ray Observatory, and the Space Infrared Telescope Facility. These observatories give us a glimpse into the beginnings of the universe. NASA also has solar-terrestrial physics programs that study the interaction of the Sun and Earth. There is also a biological and physical science aspect that conducts research related on how humans can better live and safely work in space. NASA also works with other agencies for weather, communication, and geographical research. The research done in space by NASA has very real and beneficial impacts on life on Earth. To learn more about what NASA does visit their website at www.nasa.gov.

The Future of Space Exploration

Since the Columbia accident, critics of NASA have charged that the risks outweigh the benefits of space exploration, specifically human spaceflight. With approximately 19,000 employees and a budget of approximately \$15 billion, NASA has struggled to find a vision for the future of its operations. This lack of vision has only contributed to the lack of interest by most Americans. In order to rejuvenate our space program a vision must be created that will inspire and recharge American enthusiasm and launch NASA into a new era of accomplishment. That new vision lies in the hands of our future generations. Whether it is a mission to Mars or inhabiting the Moon, NASA needs the support and talent of a new line of visionaries. With that new vision, the benefits of space exploration will be as endless as the universe itself.

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in Washington. DC to discuss legislation.