

Team America Rocketry Challenge

*Remarks as Delivered by Secretary of Defense Robert M. Gates, The Plains, Virginia
Saturday, May 19, 2007*

Thank you John. And it is a pleasure to be here. I appreciate the kind introduction. And thanks to the Aerospace Industries Association and the National Association of Rocketry for inviting me to this great event.

Texas A&M is the sixth largest university in the country, with 46,000 students. Ten thousand of them are in engineering. I have a feeling that your secret is out, and that you may find your ranks swollen next year by some recruiters from various universities.

Well I just came from seeing some very impressive displays. And congratulations to everyone for the hard work that you put into preparing for today. The awards for the challenge, as you know, are going to be given out in a few minutes. It's perfectly obvious, I think, why they make you sit through the speeches before the awards are given out.

There is a large group of parents, coaches, and teachers here, and I especially wanted to recognize you. You are supporting your children and young adults in an activity that's not only educational but obviously a lot of fun.

As Secretary of Defense, I'm in charge of some of the most high-tech hardware anywhere in the world. One of the most advanced projects is a system to shoot down missiles that might be fired at our country. Basically, it's like trying to hit a bullet with another bullet. It's not easy. And if any of you had a breakthrough on propulsion or ballistics during this competition, I hope you'll let me know.

The work of the Department of Defense protects our nation but it also benefits the public in ways you may not realize. Some of you may have used GPS to get here. And then there's the Internet. Not everyone knows that these technologies had their origins in Department of Defense research.

You've heard that invention is one percent inspiration and 99 percent perspiration. That recipe leaves out one crucial ingredient – the eggs. Even when they did break over the last couple of days, a valuable lesson was reinforced: that an experiment that doesn't go perfectly is not failure. Each attempt is one step along the way to making something work better.

The task you were given has a wonderful historical echo to it. Your goal was to propel a raw egg to a height of 850 feet and, within 45 seconds, return it safely to earth. I remember when President Kennedy challenged America to "commit itself to achieving the goal, before this decade is out, of landing a man on the moon and returning him safely to earth."

I'd like to talk about someone else from that era for just a couple of minutes, who no doubt broke a few eggs in his time. His name was Homer Hickam. You've probably heard of him, or seen the movie "October Sky."

Homer grew up during the 1950s in a poor mining town in West Virginia. People my age recall when the Soviet Union sent the first satellite, called Sputnik, into space in 1957. While Sputnik made the parents of America worry that the United States was falling behind the Russians in science, some of their children, like Homer Hickam, felt inspired – inspired to send something into space themselves.

To do this, Homer and his buddies had to start from scratch. They went searching through the kitchen drawer, the company store, and the local library, for materials and know-how. They used cardboard, model glue, saltpeter, scrap metal, and the application of Newton's third law of action and reaction.

The first rocket Homer made blew up and destroyed his mother's fence. It took the team several tries to get a rocket to rise six feet.

At first, the "rocket boys" were treated as the village nuisance. But it didn't stop them. They built their own rocket range. They called it Cape Coalwood, in imitation of Cape Canaveral. Eventually, their parents and the entire community rallied behind them.

When they competed at science fairs, they were up against hotshots from bigger schools and bigger towns. But Homer and his friends won prizes anyway. And their efforts took them places they never imagined they would go.

Each of them went to college, in a community where that was rare. Four became

engineers. Homer went on to work for NASA, where he helped design many of America's spacecraft.

I tell you this story because it's about becoming part of something larger than yourself. It's about friendship and the excitement of accomplishing something difficult with others who are as passionate about the same things as you are.

Your teamwork on your rockets has done this for you as well. Today's contest and others like it are fun, and they're great learning experiences. They can also be the beginning of a journey that will lead you as far as your aspirations can take you. Science opens up our world to us – and it is a breath-taking place. There has never been a better time to learn about physics, the mechanics of flight, and space exploration.

You've taken your first steps; now keep going. As Virgil said, "So shall you scale the stars!"

Thank you.