



**Mike Massimino
Speech Topics and Descriptions**

Topics:

Leadership, Motivation, Inspirational Stories, Overcoming Obstacles and Challenges, Resilience, Teamwork and Teambuilding, Courage and Heroism, Professional Achievement, Environment, STEM Education, Science and Technology, Crisis Management, Innovation and Creativity, Peak Performance, Personal Growth and Achievement, Risk Management, Corporate Culture, Trust, Adventure, Space Exploration, Private Space Travel and the Future of Spaceflight

Note: All speaking events are tailored to the specific audience according to the topics the client wants to prioritize. Every speech is unique to that audience and speaking event.

Following Dreams, Setting Goals, and Never Giving Up

Mike's dream of becoming an astronaut began when he was six years old watching television as Neil Armstrong took the first steps on the moon. The path to achieving this dream was wrought with unexpected challenges, failures, disappointments, and self-doubt. Mike was rejected three times by NASA including a medical disqualification which Mike overcame by teaching his eyes to "see better." His persistence paid off with two missions on the Space Shuttle and four spacewalks on the Hubble Space Telescope. Mike stresses that as long as you keep trying no matter what the obstacles, achieving your goal is possible.

Teamwork and Leadership

Upon arriving at NASA, Mike discovered he was part of team that put the success of the team and the mission above individual accomplishments. The culture at NASA fostered strong relationships between astronauts and with NASA leadership. Teamwork and leadership was developed through the extraordinary experiences that Mike and his fellow astronauts shared during their training and spaceflights. Through these experiences strong friendships and working relationships were forged that enable Mike and his colleague's to complete astronaut training, overcome tragedy, and repair the greatest scientific instrument in space – the Hubble Space Telescope. Mike discusses how teamwork and leadership led to success during his spaceflights and in life.

Innovation and Problem Solving

Mike's second spaceflight was the final Space Shuttle servicing mission to the Hubble Space Telescope. On that mission Mike was tasked with the most complicated spacewalk ever attempted: the in-space repair of a delicate scientific instrument inside of the telescope. A major miscue during that spacewalk nearly led to failure. But the ground control team and the astronaut's in space worked together to come up with an innovative solution that saved the day and the mission. Mike explains how although not every problem has an obvious solution, preparation and innovation can help us with overcoming unforeseen challenges and adapting to change.

Being Resilient and Adaptable

Mike's second space flight was one of the last of the Space Shuttle Program. It was time for NASA to retire the space shuttle and move on to the next phase in space exploration. That next phase included flying exclusively on the Russian Soyuz for the foreseeable future, and working with commercial companies in the coming age of private space travel. Many at NASA did not want to accept these changes. But the last few years have shown that those who accepted these changes have thrived, while those who resisted are no longer contributing. Technological progress and entrepreneurship are inevitable in every industry, and the NASA team learned to embrace the changes in order to move on to that next phase. We now have partnerships and burgeoning private space industry. Our future in space is bright because of these changes.

Recognizing the Purpose in your Work

No matter how much we enjoy our jobs we sometimes get caught up in the day to day activities and can forget the big picture. This can even happen to astronauts. Mike stresses the importance of trying to remember the reason why we work as hard as we do. In addition to supporting our families and enjoying the challenges of our jobs, we should always remember how we are making the world a better place through our work. For Mike, as an astronaut, it was servicing and repairing the Hubble Space Telescope. Arguably the greatest scientific instrument ever built, Hubble made some of the greatest scientific discoveries in history while showing us the beauty of our universe. Contributing to great projects makes all the hard work and sacrifice worthwhile.

Finding and Pursuing that next Challenge

After realizing a dream, there comes a time when one needs to find that next dream in life. For Mike, his astronaut career was a little boy dream come true. After 18 years it was time to find a new challenge in life and a new dream. Mike discusses the difficulty of giving up the most exciting and interesting job he could ever have for the next phase in life. New challenges are needed for happiness, and there is no reason why one dream job cannot be replaced by another. In Mike's case that has meant a new career as a university professor, museum advisor, author, television personality, and speaker sharing his lessons and experiences from his life as an astronaut.

An Astronaut's View on Planet Earth

The orbit of the Hubble Space Telescope is 350 miles above the Earth, 100 miles higher than the International Space Station. From that altitude, astronauts are able to see the curvature of our planet, and spacewalking astronauts are able to take in the magnificent views through their helmet visors with a 360-degree view of our planet and the surrounding universe. Mike describes his observations and feelings while viewing our planet, including its fragility and the importance of taking care of it.

Private Space Travel and the Future of Spaceflight

We are in a very interesting time for space travel, transitioning from over 50 years of human space programs conducted exclusively by governments, to programs that provide new opportunities for private enterprise. It is similar to air travel a century ago when airplanes were used for government and military purposes and for barnstorming. Those early years led to the thriving commercial airline industry of today. Some of these programs are governments working with private enterprise such as the NASA Commercial Crew Program with Boeing and Elon Musk's SpaceX. Others are more purely commercial companies such as Jeff Bezos' Blue Origin and Richard Branson's Virgin Galactic. There are also many smaller companies developing private space opportunities in tourism, rocket propulsion, zero gravity

science, and planetary exploration. Mike's students at Columbia, as well as students he meets around the world, are very excited about careers in the space program, because in the near future it will not only be governments going to space, but also private innovators and entrepreneurs.

STEM Education

Inspired at age 6 to become an astronaut while watching Neil Armstrong taking the first steps on the moon, Mike had no idea how to make his idea come true. But he discovered in elementary, middle, and high school that he liked math and science and decided to study engineering in college. Although being an astronaut was not on his mind in college, Mike followed his STEM interests which eventually would lead him to NASA and the astronaut program. Following one's interests can lead toward a happy and successful career even if a person is undecided about what they want to do with their lives while in school. Mike's parents never had the opportunity to go to college, but going to college and getting a STEM education changed his life. He learned not only about engineering, but also about how dreams come true – by getting an education in an area in which one is passionate.

Safety is Everyone's Job

Mike's first flight was on Space Shuttle Columbia STS-109. The very next time Columbia went to space with the crew of STS-107, it had a breach in its thermal protection system while re-entering the Earth's atmosphere destroying the vehicle and killing everyone on board. Space shuttle missions are generally flown in order. STS-107 was assigned prior to and was originally scheduled to fly before STS-109. But launch delays forced NASA planners to switch the flight order. Mike's crew got the slot previously given to STS-107, and STS-107 got the original STS-109 slot. Mike and his crew returned safely to Earth, the crew of STS-107 did not. Spaceflight is a dangerous business and now it had claimed the lives of 7 of his friends. Mike found that much can be learned from investigating space flight accidents, not only the Columbia accident but also the Challenger Space Shuttle accident and the Apollo 1 fire. He shares lessons learned from tragic accidents and miscues and how to move forward. The biggest lesson is that safety is everyone's job, and everyone has a responsibility to speak up when an unsafe situation arises.

