



SCIENCE, TECHNOLOGY, ENGINEERING, MATH (STEM) KEY TALKING POINTS

MAKE EVERY AIRMAN AN INNOVATOR

Innovative and technically-savvy Airmen are essential to continued mission execution success. Science, technology, engineering and math (STEM) are a part of every mission we do. We will support the joint mission by assuring technically superior warfighting capabilities through attracting, recruiting/assessing, developing, and retaining a world class workforce of innovators.

VIEW FROM THE TOP:

“Whether it’s improving our health or harnessing clean energy, protecting our security or succeeding in the global economy, our future depends on reaffirming America’s role as the world’s engine of scientific discovery and technological innovation.”

President Barack Obama

“Strategic management of Airmen is the cornerstone of our future, and STEM Airmen will play an ever-increasing role in our success.”

Michael B. Donley, Secretary of the Air Force

“Innovation is what we’re all about. We always have been – technology, great people, an important mission, and a focus that nobody else brings to the game.”

Gen. Mark A. Welsh III, Chief of Staff of the Air Force

Key Messages, Facts, and Figures

- **Being the world’s greatest Air Force is not a birthright; we have technical workforce challenges to overcome**
 - ✓ Declining “homegrown” talent from the U.S. educational system
 - ✓ Worldwide competition for STEM talent
 - ✓ Aging STEM workforce
- **Sustain the Air Force heritage of technological superiority**
 - ✓ The Air Force relentlessly seeks the best innovative and technical solutions to increase mission readiness and capabilities for the warfighter
 - ✓ Innovative and technically savvy Airmen are our most important asset
 - ✓ Our ability to network information from multiple Intelligence, Surveillance and Reconnaissance sources, including platforms, sensors, people, and databases enables our success and reflects our innovative application of cutting edge technology
- **The Air Force is a significant contributor to our Nation’s strategy to establish greater economic and military security by educating and producing more scientists, engineers, and innovators**
 - ✓ “America’s long-term leadership depends on educating and producing future scientists and innovators.” (2010 National Security Strategy)
 - ✓ “The Air Force will leverage the innovative ability and technological acumen of its Airmen as we conduct the military missions that protect our core national interests.” (2012 Air Force Posture Statement)
 - ✓ “We are ensuring the Air Force continues to have war-winning technology through the careful and proactive management of our STEM workforce and improving our means to attract and recruit future innovators for the Air Force.” (2012 Air Force Posture Statement)
 - ✓ Airmen serve as influencers in youth communities, bringing additional focus on the value of math and science education and directing talented students to Air Force careers-military and civilian
- **The success of the Air Force will depend on our continued innovation and technical excellence**
 - ✓ Never before in our history have we depended more heavily on the application of technology – to fly, fight and win...in air, space, and cyberspace
 - ✓ The future holds new technologies, such as directed energy, cyber warfare, autonomous systems, and robotics. Our need for the world’s best scientists, technologists, engineers, and mathematicians will continue to increase
 - ✓ We rely on the dedication and discipline of all Airmen to be innovators and be technically minded
 - ✓ *Bright Horizons*, the Air Force STEM Workforce Strategic Roadmap, is our effort to actively manage the STEM workforce and ensure that we maintain technological superiority (Published March 2011, signed by SecAF/CSAF)

Quick Facts

- U.S. 15-year olds rank 17th in reading, 30th in math, and 23rd in science worldwide (STEM Education Report, Apr 12, www.jec.senate.gov)
- U.S. is 27th in percent of first degrees in STEM vs. all degrees (STEM Education Report, Apr 12, www.jec.senate.gov)
- Approximately 40% of Air Force STEM civilians are over 50 years old
- The Air Force has over 25K STEM-degreed Airmen working in STEM jobs
- The Air Force conducts 150+ STEM outreach events per year
- We leverage local, state, and federal STEM events, affecting 100,000+ students/teachers
- The Air Force spends \$40M+ per year on STEM outreach activities
- Since 1977, the Community College of the Air Force has awarded more than 335,000 applied science degrees
- Since 1956, the Air Force Institute of Technology has awarded 16,350 STEM graduate degrees
- The Air Force established the STEM Outreach Coordination Office in September 2011. (<http://www.afstem.org>)
- A publication to arm Airmen with tools to more effectively deliver the Air Force message.
- AF Portal: Under AF Banner, select “Telling the Air Force Story.” POC: SAF/PAX; DSN: 227-6715