



# Air Force Science and Technology Strategy

## Creating Dominant Capabilities for the Airmen of Today and Tomorrow

*“The first essential of air power necessary for our national security is preeminence in Research.”*  
- General Henry “Hap” Arnold

*“Science, the key to air supremacy.”*  
- Theodore von Kármán

**The Air Force must continue to evolve and advance our technological capabilities in response to an even more dynamic global environment if we are to remain the most powerful air, space and cyber force in the world.**

The Air Force Science and Technology (S&T) program has a vital role in ensuring dominant *Global Vigilance, Global Reach* and *Global Power* capabilities for our joint and coalition forces. In close coordination with the requirements, intelligence, and acquisition communities, the Air Force S&T program will discover, develop and deliver warfighter-centered capabilities that enable our Airmen to unleash the full potential of U.S. airpower.

Would-be adversaries are using emergent globalized technology and manufacturing infrastructure to rapidly develop sophisticated and multi-layered military capabilities. They are creating operational environments for our forces that will be more contested than recent history. Our Airmen, in close coordination with joint and coalition partners, require innovative ways to monitor, assess, deter, defend against, and defeat these adversaries.

**The challenge is to ensure our Airmen get the best technology, at the right time, to meet mission needs.**

The S&T program must deliver a continuous flow of disruptive capabilities to counter the rapid technological advances our potential adversaries could exploit. To achieve this, we will invest in science and technology for the future, as well as leverage our organic capacity, and the capacity of our partners, to integrate existing capabilities and mature technologies into innovative, affordable, and sustainable solutions.

The Air Force must begin designing agility and affordability into capability development, requiring an ever-closer relationship between our S&T, acquisition, and requirements disciplines. To facilitate this, the S&T program will use technology demonstrations and prototypes to prove

### AIR FORCE S&T GUIDING PRINCIPLES

- Address the highest priority needs of the Air Force across the near-, mid-, and far-term
- Execute a balanced, integrated S&T program that is responsive to the Air Force core missions
- Advance critical technical competencies needed to address the full range of product and support capabilities

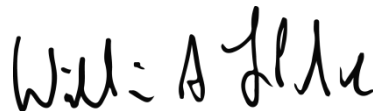
new concepts, reduce integrated system S&T risks, create data for program decisions, or maintain key design capabilities in our industrial and manufacturing base.

The S&T program will leverage outside resources. While our S&T investments are a prime source of innovation for our Service, domestic and international investments now dwarf our internal resources. To ensure Airmen receive the best technologies to meet their needs, the S&T program will include efforts to guide and harvest science and technology developed outside of our core investments and leverage them for warfighter use.

### **AIR FORCE S&T STRATEGIC GOALS**

- Leverage and create technology trade space with sufficient technical and manufacturing maturity to support near-, mid-, and far-term acquisition programs
- Innovate technical solutions to rapidly respond to urgent warfighter needs
- Develop concepts and create new science and technology options that address threats and maintain or increase capability, readiness, and availability at reduced cost
- Invent concepts and science and technology options that enable new missions or new capabilities to support *Global Vigilance, Global Reach, and Global Power*
- Employ business practices that increase the S&T enterprise's inventiveness, productivity, and responsiveness to Air Force needs
- Recruit, develop, and retain a talented and high performing S&T workforce
- Invest in core S&T infrastructure to ensure its future health

By embodying Air Force S&T program priorities, and utilizing the process of turning science into capabilities, the Air Force S&T program will provide the technological edge needed to win today's fight and prepare for tomorrow's challenges.



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