



# UNLEASHING THE POWER OF SCIENCE & TECHNOLOGY FOR WARFIGHTING ADVANTAGE

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# A STRATEGIC MILITARY & TECHNOLOGICAL COMPETITION IS HERE

## Aggressive Military Actions & Modernization

Russia's Anti-Satellite Weapons: An Asymmetric Response to U.S. Aerospace Superiority

ARMS CONTROL TODAY

EurAsian Times

China's 'Carrier-Killer' & Russia's 'Super-Weapon' – Why Ripples In The West?

INDEPENDENT NEWS

China tests army of tiny drone swarm' enemies during sea

U.S. takes down a Chinese spy balloon off the South Carolina coast

**THE WARZONE**  
China's Big New Twin-Jet Long-Endurance Armed Combat Drone Emerges

**npr**  
Chinese AI Learns To Beat Top Fighter Pilot In Simulated Combat

US military responded to Chinese and Russian vessels near Alaska

Top military leader says China's hypersonic missile test 'went around the world'

Newsweek  
China's Moon Base to Rival NASA Advances After Russia Deal

**The Sun**  
ATTACK OF THE DRONES  
a drone war with China as Wa been 'preoccupied' with ISIS expert warns

**THE DRIVE**  
China Acquiring New Weapons Five Times Faster Than U.S. Warns Top Official

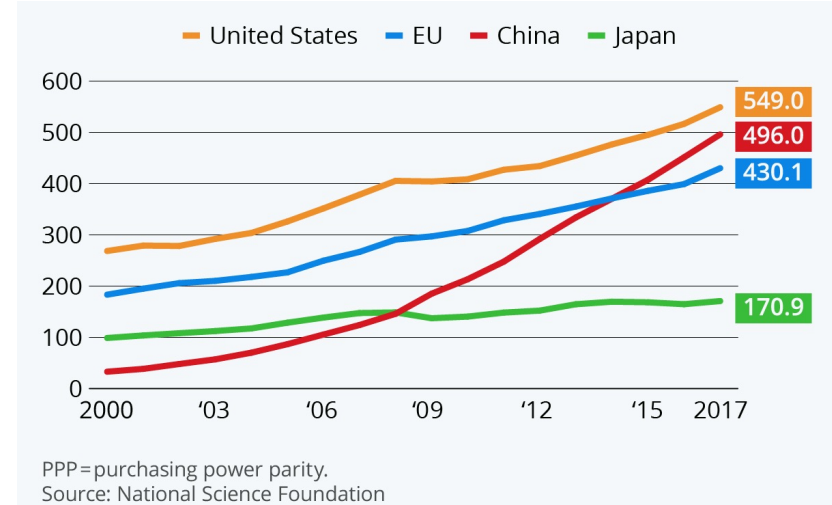
**Budget**  
China's Military-Spending Growth to Accelerate This Year

China / Diplomacy  
China's BeiDou and Russian GLONASS sign new deal to rival America's GPS satellite navigation

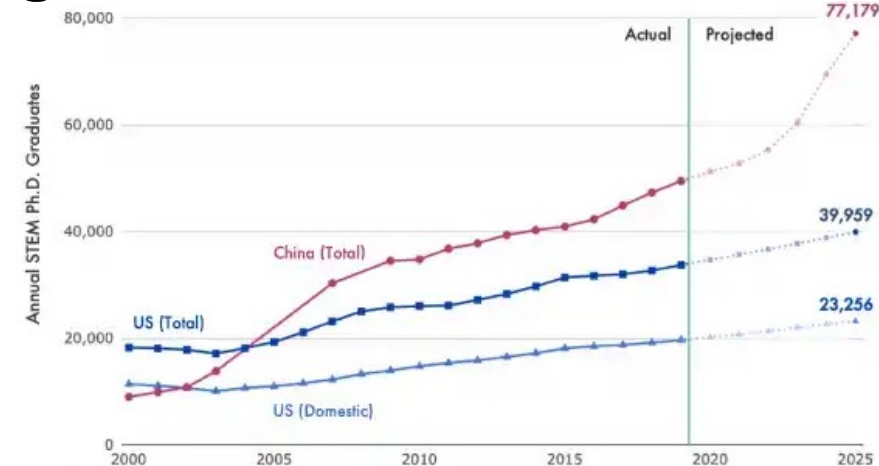
**WIRED**  
Russian Missiles and Space Debris Could Threaten Satellites

...continues, the growing debris in low Earth orbit is a matter of national security.

## R&D Investments Rate Increase per Year



## Higher Education Graduation Rates



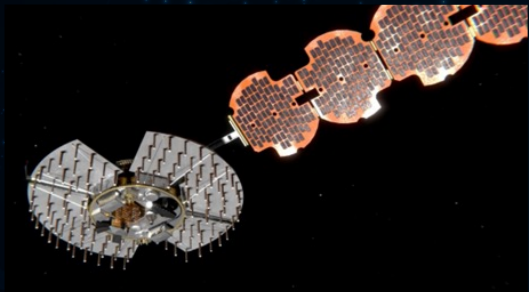
# HISTORY TEACHES US...



**It takes 20 YEARS to be an OVERNIGHT SUCCESS!**

# DRIVING THE FIGHT WITH S&T *Requires a Strong Technical Foundation*

## TRANSFORMATIONAL CAPABILITY FOCUSED



NAVIGATION TECHNOLOGY SATELLITE 3 (NTS-3)



SKYBORG



ROCKET CARGO



GOLDEN HORDE

## MULTI-DOMAIN, MULTI-DISCIPLINARY



HYPERSONICS



LONG RANGE KILL CHAIN



SPACE SITUATIONAL AWARENESS



JADC2



ALT-PNT

**TECHNICAL DEPTH IN CROSS DISCIPLINES BUILDS TRANSFORMATIONAL CAPABILITIES | EXAMPLE: HYPERSONIC TECHNOLOGY**

AERO/AEROTHERMAL	COMMAND AND CONTROL	COMMUNICATIONS	HUMAN PERFORMANCE
NAVIGATION, GUIDANCE AND CONTROL	MANUFACTURING	MATERIALS	ORDNANCE
PROPULSION (AIRBREATHING)	PROPULSION (ROCKET)	SENSORS	STRUCTURES



# AFRL

**MISSION:** Leading the discovery, development, and integration of affordable warfighting technologies for our air, space, and cyberspace forces.

**VISION:** We defend America by unleashing the power of innovative air and space technology.

## COMMANDER'S INTENT

### DRIVE THE FIGHT

- // Aligned to DAF priorities
- // Warfighter focused
- // Strategic foresight
- // Balanced portfolio
- // Asymmetric advantage

### ONE AFRL, ONE FIGHT

- // Integrating S&T
- // Multi-domain
- // Multi-disciplinary
- // Enablers: C3BM, Autonomy

### OUR WORKFORCE, OUR ADVANTAGE

- // Cultivate S&T workforce
- // Incentivize talent
- // Infrastructure of the future
- // Modern digital foundation



# AFRL *is* EVOLVING

## **Reposturing for GPC**

Synchronizing S&T with Acquisition to Deliver Integrated Capabilities

## **Warfighter Focused**

Integrating & Applying Strategic Foresight for Warfighters  
Asymmetric Advantage

## **Partnership Centric**

Harnessing the Braintrust of Gov't, Industry, Academia,  
and International Partners





Transition Partner:  
PEO, Fighters and  
Advanced Aircraft

# SKYBORG

Flight Autonomy for  
Uncrewed Air Vehicles



# PARTNER WITH US

Collaborative R&D

Technology Licensing

Educational Partnerships

Regional Hub Network

K-12 STEM

S&T Front Door

Internships, Faculty Sharing

Small Business Funding

Venture Matching

Rapid Acquisitions

Challenge Workshops

Priming Emerging Markets

End-User Collider Events

Innovation Inject, S&T to Operations

## TOGETHER, WE WIN.



# ONE TEAM. ONE FIGHT.