



# FY 2018 Year in Review

**Presenter: David Shahady**  
**U.S. Air Force SBIR/STTR Program Director**





# Our Leadership

## OFFICE OF THE ASSISTANT SECRETARY OF THE AIR FORCE FOR ACQUISITION

**Dr. William Roper** - Assistant Secretary of the Air Force for Acquisition, Technology, and Logistics

## AIR FORCE SMALL BUSINESS PROGRAMS

**Valerie Muck** - Director, Air Force Office of Small Business Programs (OSBP)

**Jeffrey Stanley** - Deputy Ast. Secretary of the Air Force Office for Science, Technology, and Engineering

**Neville Thompson** - Air Force SBIR|STTR Program Element Monitor

## AIR FORCE TECHNOLOGY EXECUTIVE OFFICER

**Maj Gen William T. "Bill" Cooley** - Air Force Research Laboratory (AFRL) Commander

## AFRL SMALL BUSINESS (SB) OFFICE

**William Harrison III** - Director

## AIR FORCE SBIR|STTR PROGRAM OFFICE

**David Shahady** - Program Director

**Heather Gudorf** - Operations Manager and Deputy Director

**James Sweeney III** - Commercialization Readiness Program (CRP) Manager

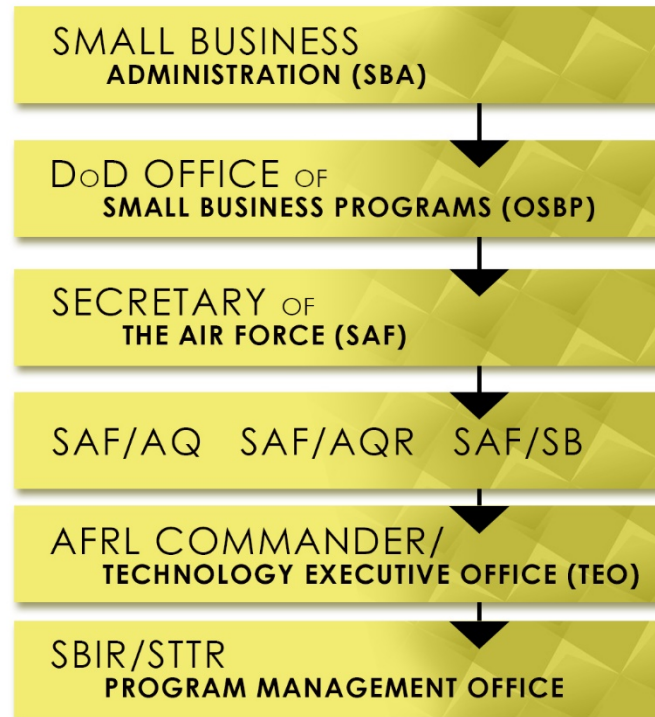
**Oswaldo Delacruz** - Infrastructure Manager

**Rupak Shah** - Financial Manager

**Michelle Tritt** - Contracting Officer



# Program Oversight





# Air Force Participating Organizations

## CALIFORNIA

### 1. Edwards AFB

Air Force Research Laboratory  
Air Force Flight Test Center

### 2. Los Angeles AFB

Space & Missile Systems Center

## HAWAII

### 3. Maui

Air Force Research Laboratory

## NEVADA

### 4. AFWERX

## UTAH

### 5. Hill AFB

Air Force Sustainment Center

## NEW MEXICO

### 6. Kirtland AFB

Air Force Research Laboratory  
Air Force Nuclear Weapons Center

## OKLAHOMA

### 7. Tinker AFB

Air Force Sustainment Center

## TEXAS

### 8. Lackland AFB

Air Force Surgeon General  
Air Force Civil Engineer Center

### 9. AFWERX

## OHIO

### 10. Wright-Patterson AFB

Air Force Research Laboratory  
Air Force Life Cycle Management Center

## TENNESSEE

### 11. Arnold AFB

Air Force Test Center

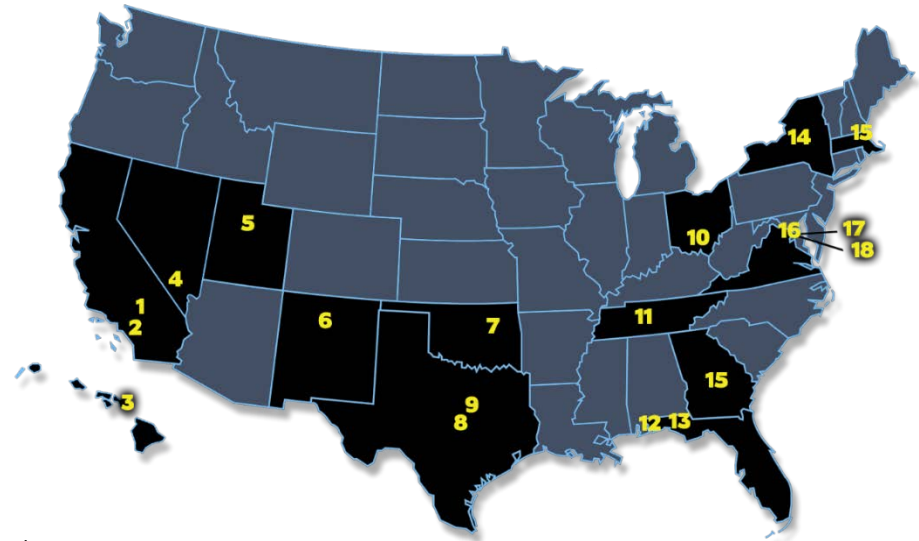
## FLORIDA

### 12. Hurlburt Field

Air Force Special Operations Command

### 13. Eglin AFB

Air Force Research Laboratory  
Air Force Life Cycle Management Center  
Air Force Test Center



## NEW YORK

### 14. Rome

Air Force Research Laboratory

## MASSACHUSETTS

### 15. Hanscom AFB

Air Force Life Cycle Management Center

## VIRGINIA

### 16. Arlington

Air Force Research Laboratory  
F-35 Joint Strike Fighter

## WASHINGTON D.C.

### 17. AFWERX

### 18. MD5

## GEORGIA

### 19. Robins AFB

Air Force Sustainment Center



# The SBIR|STTR Program Management Office







# FY 18 BAA Schedule

PROGRAM	PRE-RELEASE	OPEN	CLOSE
SBIR 18.1 AND STTR 18.A	NOV 29, 2017	JAN 8, 2018	FEB 7, 2018
SBIR 18.2 AND STTR 18.B	APR 20, 2018	MAY 22, 2018	JUN 20, 2018
SBIR 18.3 AND STTR 18.C	AUG 24, 2018	SEP 24, 2018	OCT 24, 2018



# Standard Topics vs. Special Topics

- The Air Force SBIR/STTR Program provides undiluted capital as a means of leveling the playing field for small businesses involved in research, development, testing and evaluation of cutting-edge technologies and systems.
- In FY 2018, the program implemented several experimental processes designed to reduce the time to contract, increase exposure of the opportunity, to increase technology relevance, and to reduce time to transition.

AIR FORCE SBIR/STTR STANDARD TOPICS



AIR FORCE SPECIAL TOPICS



# Special Topics

**“The resounding success of the easy entry and process for the topic with multiple awards that [AFWERX and Air Force SBIR/STTR] has enabled was so helpful that we have asked to do it again [during the 19.2 Broad Agency Announcement]. This has been an awesome model for PEOs that are looking to help close the transition gap between labs and PEOS.”**

**– Capt Christopher Giacomo, AFLCMC Force Protection Division**



- **Epic streamlining and simplification of proposal process**
- **Provides Air Force innovation “store fronts” throughout the country**
- **Achieving success metric in 3 months**





# Air Force SBIR|STTR Special Topics

## Air Force SBIR|STTR Special Topics

MANAGING ORGANIZATION	TOPIC	BAA	PROPSALS	SELECTIONS
AFRL	Weather	18.2	27	12
AFRL	PNT Accelerator	18.2	36	8
AFWERX/AFRL	C-UAS	18.2	65	8
AFWERX/AFRL	Logistics	18.2	47	4
AFWERX/AFRL	Open Innovation	18.2	166	52
AFRL	RH Accelerator	18.2	33	8
AFRL/RV	Small Sat Extra Phase Is	18.2	80	5*
MD5	Human-Unmanned Teaming	18.3	43	TBD
MD5	Machine Learning	18.3	81	TBD
MD5	Security of Cyber-Physical Systems	18.3	62	TBD
MD5	Medical Monitoring, Diagnostics and Triage	18.3	50	TBD
AFRL/RQ	AF IP: Hair Sensor	18.3	4	TBD
AFWERX/AFRL	Open Innovation	18.3	279	84
AFWERX/AFRL	Training VR/AR	18.3	104	20

*"This was a traditional SBIR that received an overwhelming number of proposals. The Air Force SBIR|STTR program manager for special topics provided them additional awards to determine if there was a positive result from making more awards.*





# SBIR|STTR Budgets

## Annual Air Force SBIR Budget

	BUDGET	TOPICS	SBIR PH I PROPOSALS	SBIR PH I AWARDS	SBIR PH II PROPOSALS	SBIR PH II AWARDS
FY 2015	285,172,000	158	2,031	337	465	493
FY 2016	293,832,500	167	1,910	297	447	167
FY 2017	357,458,934	157	1,926	267	410	209
FY 2018	542,849,828	218	3,534	358	370	224

## Annual Air Force STTR Budget

	BUDGET	TOPICS	STTR PH I PROPOSALS	STTR PH I AWARDS	STTR PH II PROPOSALS	STTR PH II AWARDS
FY 2015	39,000,000	29	274	76	56	16
FY 2016	43,928,499	29	196	65	82	48
FY 2017	50,111,066	38	267	56	75	30
FY 2018	81,597,172	37	316	50	77	33



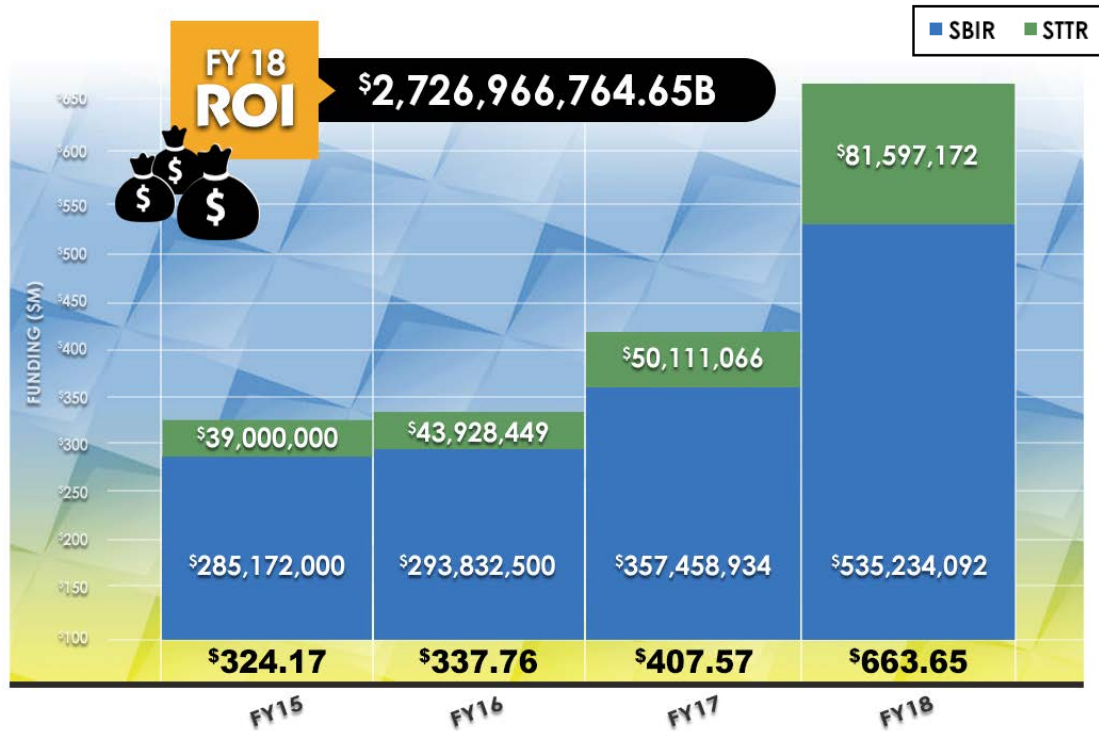
# SBIR|STTR Budgets

## SBIR|STTR Funding by State

STATE	TOTAL \$	STATE	TOTAL \$	STATE	TOTAL \$
AK	\$0	LA	\$750k	OH	\$31.3M
AL	\$6.4M	MA	\$27.4M	OK	\$0
AR	\$750k	MD	\$11M	OR	\$4.8M
AZ	\$9.6M	ME	\$0	PA	\$5.8M
CA	\$46M	MI	\$5.8M	RI	\$150k
CO	\$20.7M	MN	\$2.3M	SC	\$0
CT	\$999k	MO	\$2.2M	SD	\$0
DE	\$900k	MS	\$898k	TN	\$50k
FL	\$11.6M	MT	\$0	TX	\$10.5M
GA	\$1.4M	NC	\$4.8M	UT	\$7.1M
HI	\$400k	ND	\$0	VA	\$16.5M
IA	\$900k	NE	\$0	VT	\$150K
ID	\$150k	NH	\$1.7M	WA	\$2M
IL	\$2M	NJ	\$4.1M	WI	\$1M
IN	\$1.5M	NM	\$8.1M	WV	\$750k
KS	\$0	NV	\$0	WY	\$1.4M
KY	\$1M	NY	\$9.4M	DC	\$50k
				PR	\$0



# Total Air Force SBIR|STTR Funding



**\$4.65B Phase III dollars since FY 15**  
**\$2.7B in FY 18**





# SBIR TAP

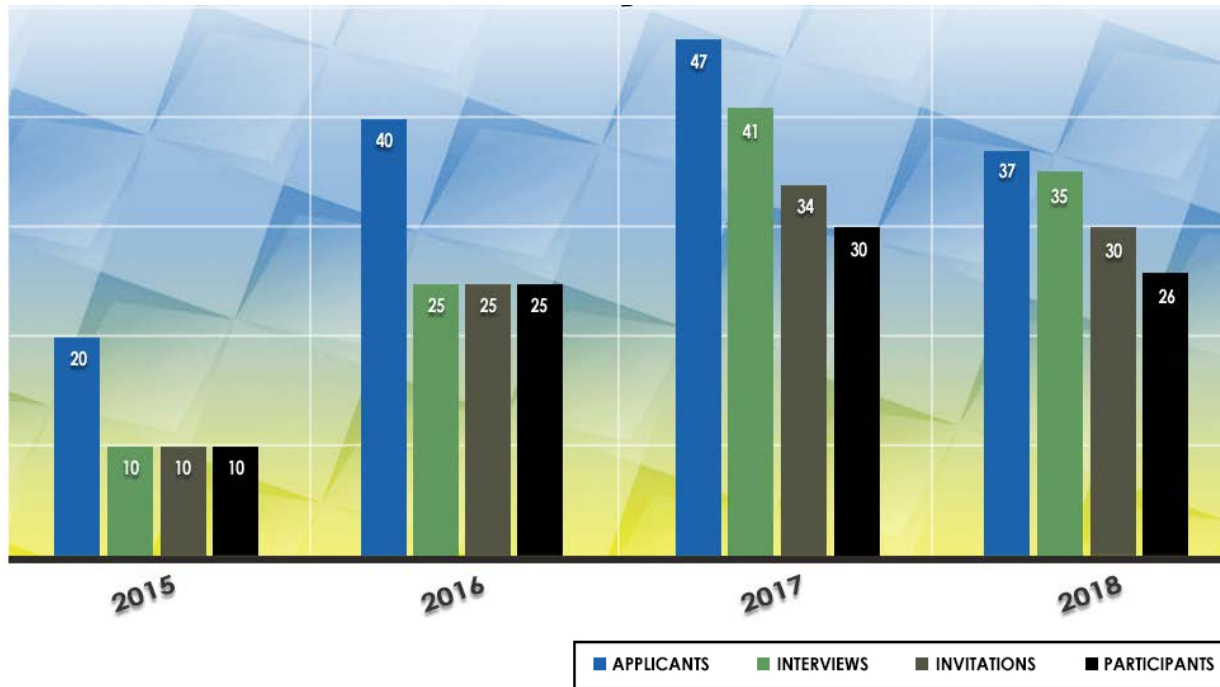
- **The Air Force SBIR/STTR Technology Acceleration Program selects a group of small businesses that have received Phase I SBIR/STTR contracts from the Air Force. It supports these businesses in assessing the commercial viability of their technology, creating actionable commercialization plans, seeing investment capital, and in better preparing commercialization plans should they seek further Air Force funding through a SBIR Phase II request.**







# SBIR TAP Participation



Participating companies have raised  
**\$8.6M in investment to date**

Companies seeking Phase II have an  
**87% success rate**





# Interagency Agreement with GSA



*"GSA is honored to assist the Air Force in meeting its mission by providing additional contracting options for SBIR Phase III contracts. We understand the importance of the SBIR program to our warfighters and to our nation's economy and we are glad to have the opportunity to assist."*

— Kim Brown

GSA Great Lakes Region Federal Acquisition Service Commissioner





# Tech Warrior Enterprise



## 18 Tech Warrior **CONNECT** and 3 Tech Warrior **OPS**

events provided special operator and first responder communities with early demonstration of small business technologies



## In 12 months

Tech Warrior Enterprise activities resulted in:

- **9 Phase I awards = \$580K**
- **4 Phase II awards > \$9M**
- **3 Phase II+ awards > \$7M**
- **2 venture capital offers = \$2.5M**
- **1 grant = \$100K**





# Tech Warrior Enterprise Participants

## Alabama

- Mike Sutton Consulting, Inc.

## California

- ATV Corp.
- Cryptomove
- HarpoonX
- HVMN
- Yotta Navigation Corp.

## Florida

- Bloodstone Division, LLC
- Mainstream Engineering
- Virtual Reality Rehab, Inc.

## Georgia

- Georgia Institute of Technology
- Silver Oak Leaf, Inc.

## Hawaii

- Kinetics

## Louisiana

- Carver Scientific, Inc.

## Ohio

- 361 Interactive, LLC
- AlphaMicron
- B5 Systems
- Battle Sight Technologies
- CFD Research Group
- Cornerstone Research Group
- The Design Knowledge Group
- Eccrine Systems Inc.
- Edaptive Computing, Inc.
- Functional Formularies
- GlobalFlyte, Inc.
- Hyprum
- IncludeHealth
- Selecttech Services Corp.
- Three Firefighters
- Unveil, LLC

## Oregon

- Ameristar Solar

## Maryland

- Intelligent Automation

## Massachusetts

- Aptima
- ARMR
- Legionarius
- Puffin Innovations
- Smarter Armour

## Michigan

- SoarTech
- yawPITCH

## Montana

- NOMAD
- Salient Technologies, Inc.

## New Jersey

- New Comer Arms, LLC

## Rhode Island

- Propel LLC

## Utah

- Conductive Composites

## Virginia

- Kay Kare, LLC
- Microinvestigate, LLC
- Protective Innovations

## Washington D.C.

- Centeye

## Wisconsin

- Northern Star Fire





# Small Business Outreach Events

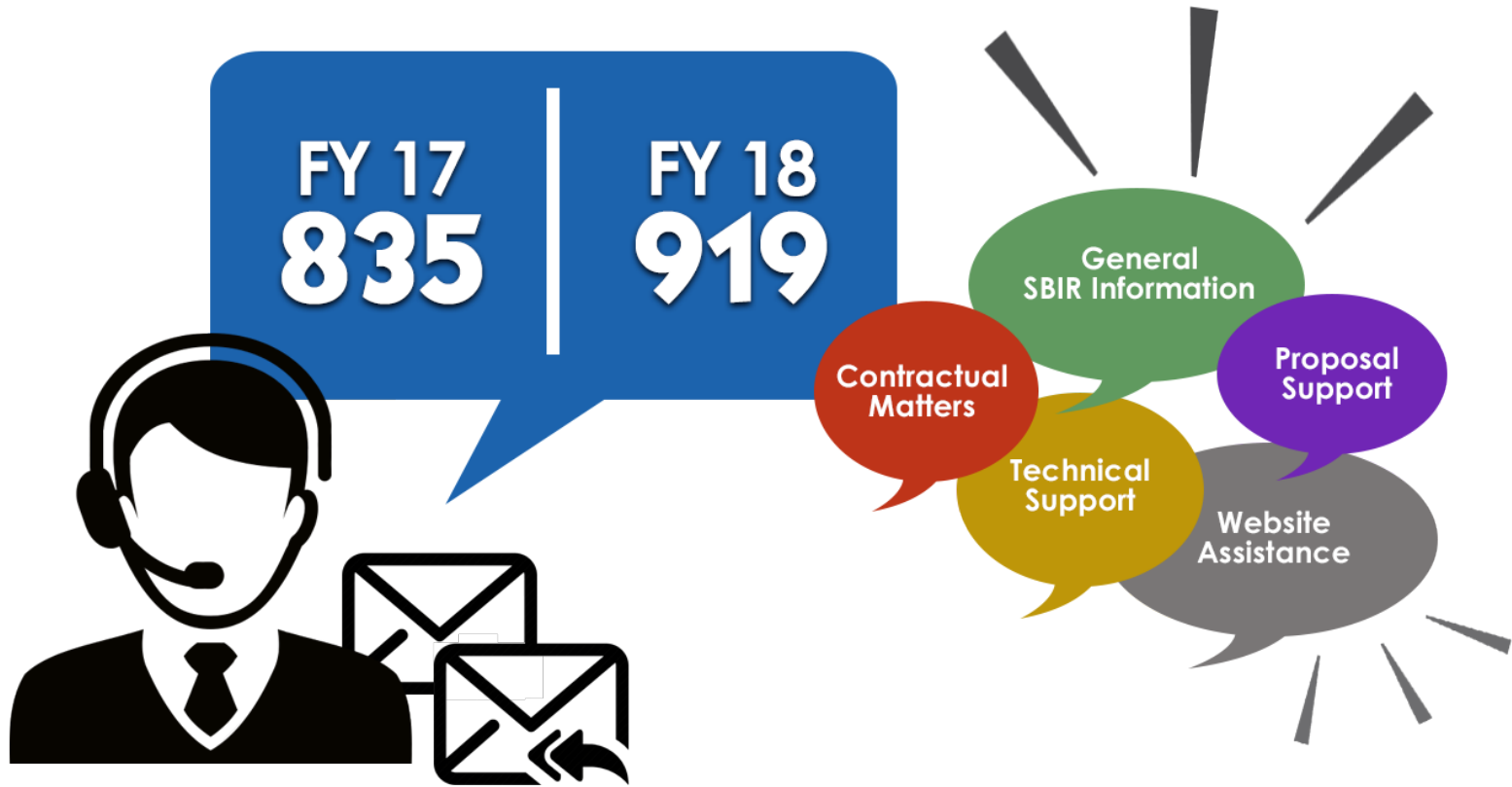
- **In FY 2018 the Air Force SBIR/STTR Program participated in a variety of outreach and training events, including:**
  - Dayton Defense Member/Community Showcase
  - UDRI SBIR/STTR Proposal Writing Workshop
  - Small Business Matchmaker at Wright State University
  - Wright Dialogue With Industry
  - TRIAD Ohio
  - Briefing for Industry
  - 711<sup>th</sup> Human Performance Wing Bench to Business
  - Beyond Phase II







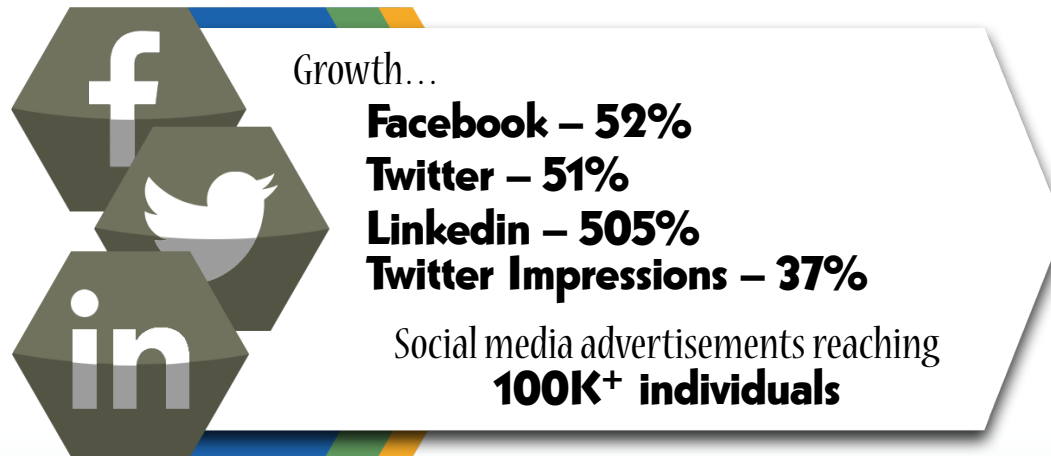
# SBIR|STTR Hotline





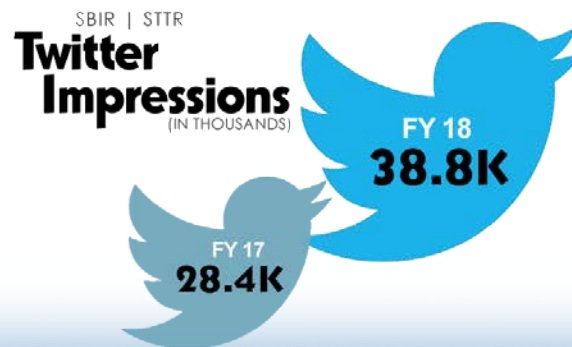
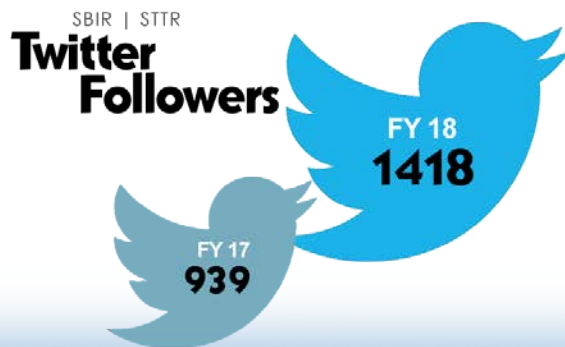
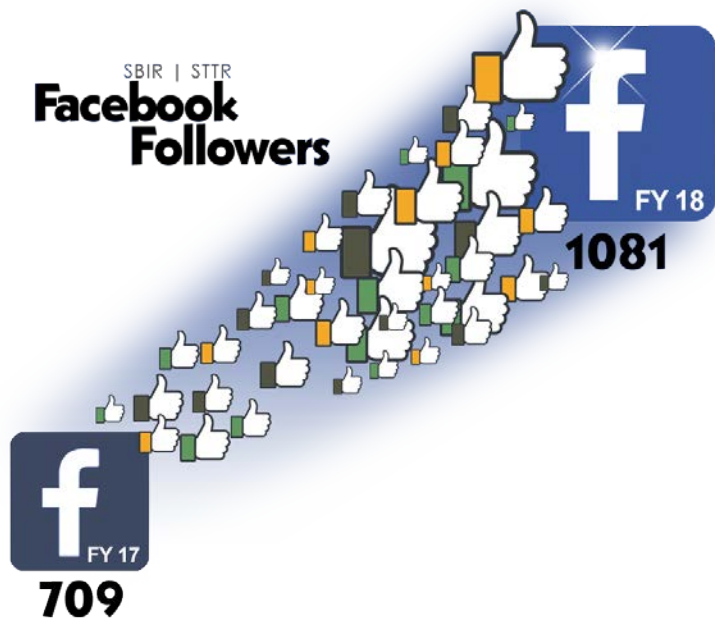
# Our Social Media

- In the interest of reaching a broad audience, including stakeholders, small business communities, and partners, the program management office has been active on several social media platforms.



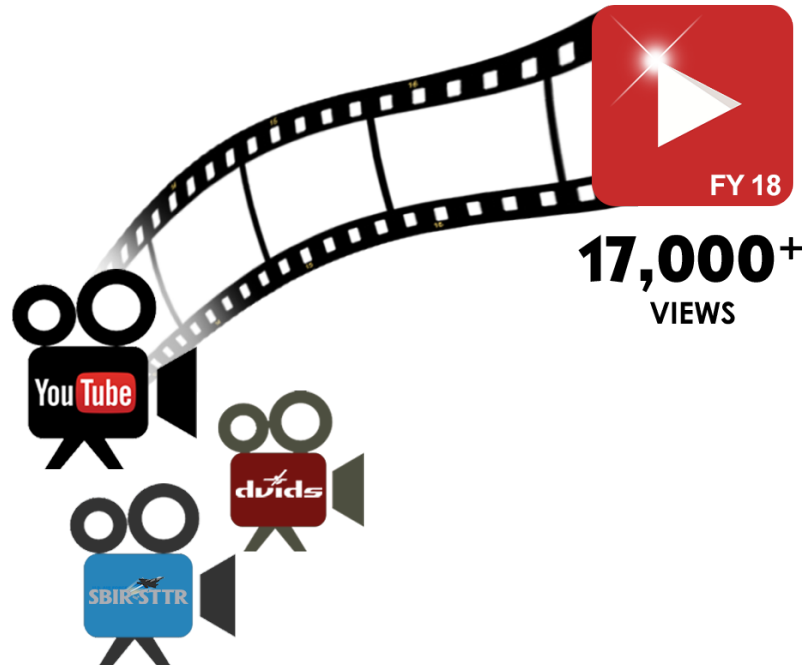


# Social Media





# FY 2018 Videos

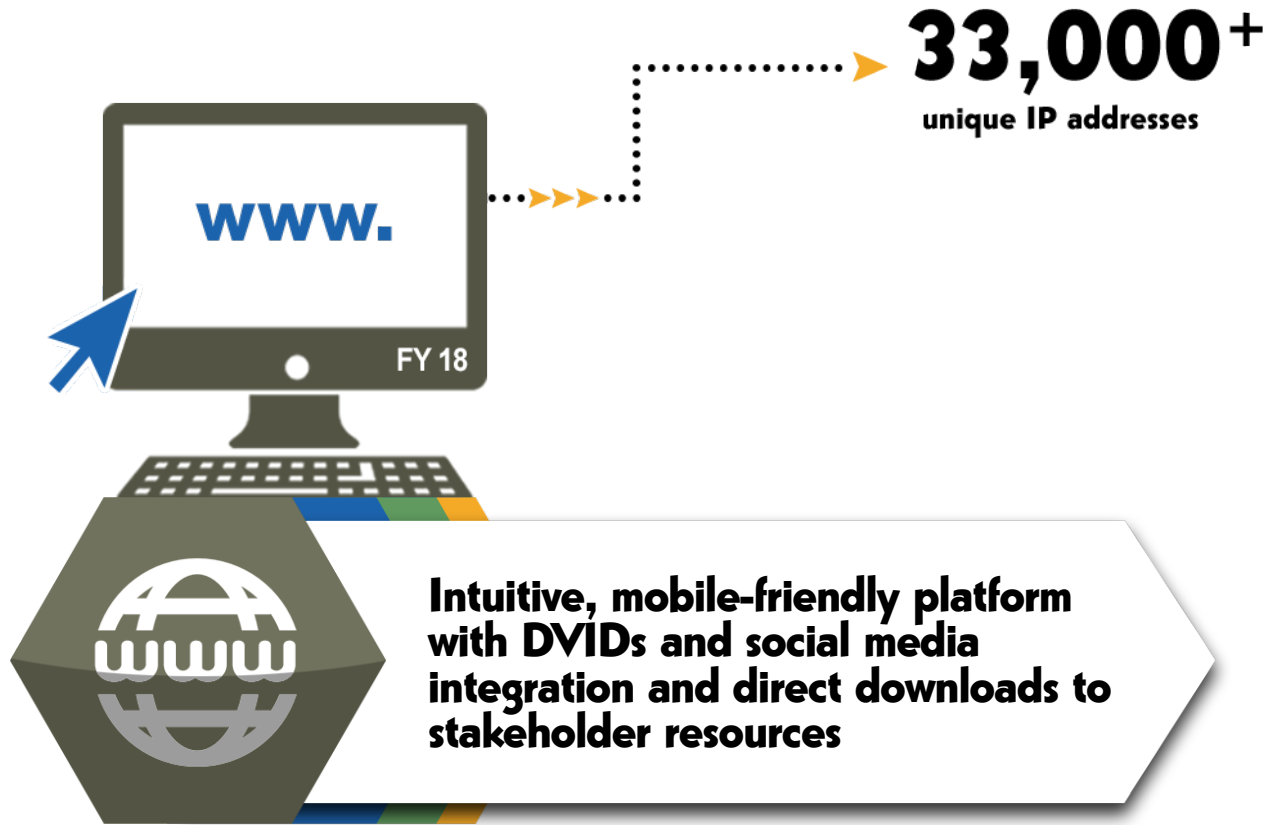


- **Double the number of subscribers from previous years**
- **> 8% increase in video views**





# Program Website Modernization





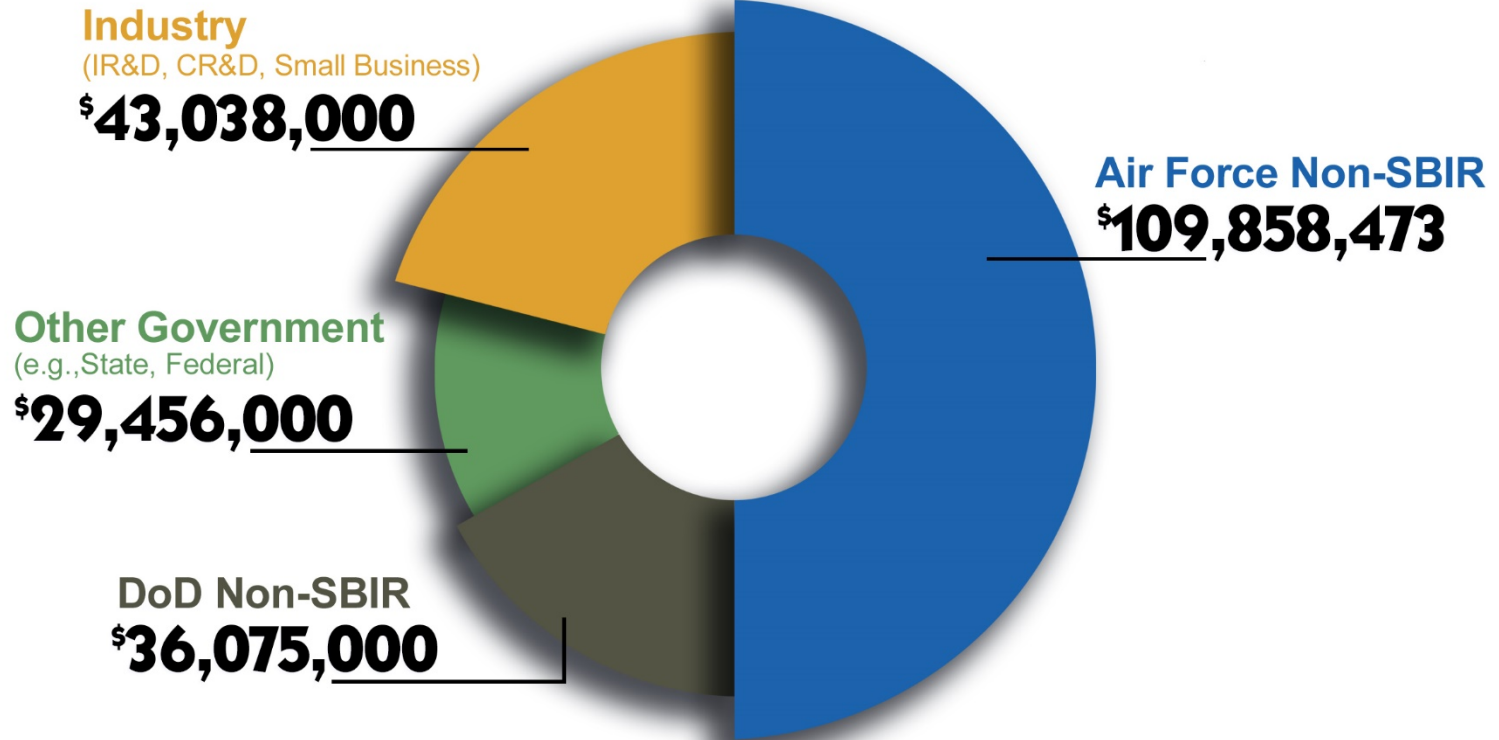


# Commercialization Readiness Program

- **The Air Force SBIR/STTR Commercialization Readiness program provides a strategically driven process that helps focus SBIR and STTR topics on high-priority needs and works with small businesses, program offices, program managers, technical points of contact and industry technology integrators to accelerate technology transition.**
- **Each year, the Air Force dedicates one percent of its overall budget to its CRP efforts.**



# Air Force SBIR|STTR Breakdown of Funding Leveraged



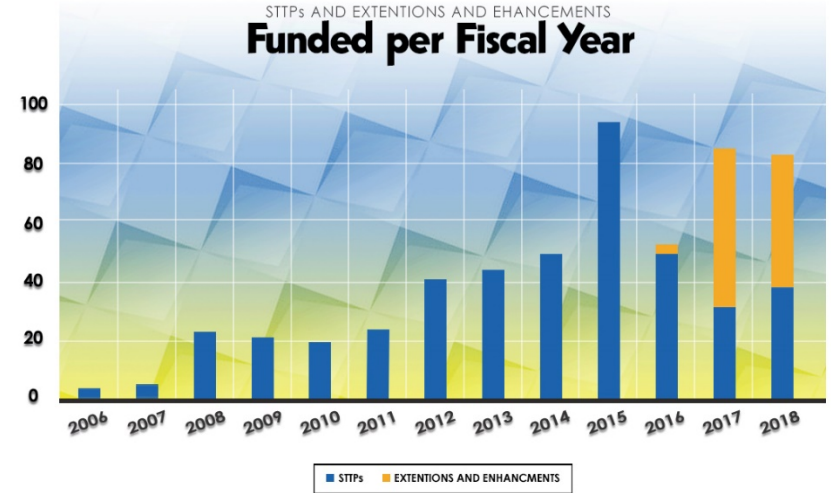
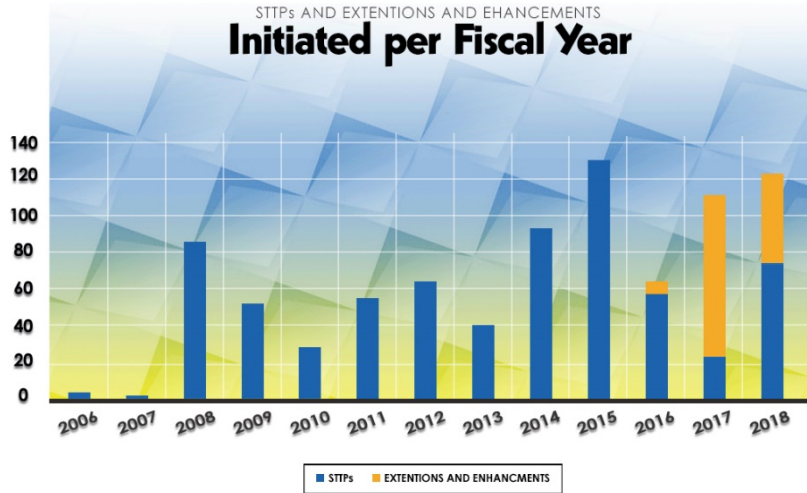


# Technology Transition Plans

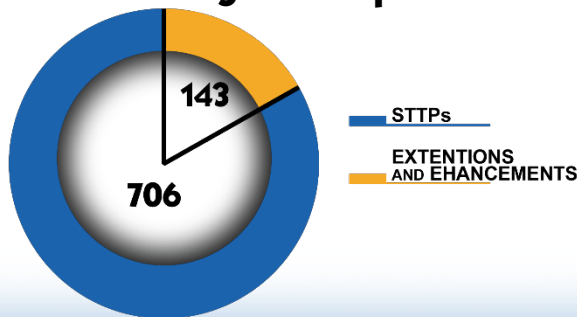
- **The Air Force SBIR/STTR CRP approach brings together key stakeholders utilizing Air Force technology analysts to help focus topics on high-priority technology needs.**
- **In FY 2018, 83 projects were approved for CRP funding.**
- **Total Air Force CRP SBIR/STTR funding: \$140.6M**
- **Total non-SBIR/STTR funding: \$214.8M**



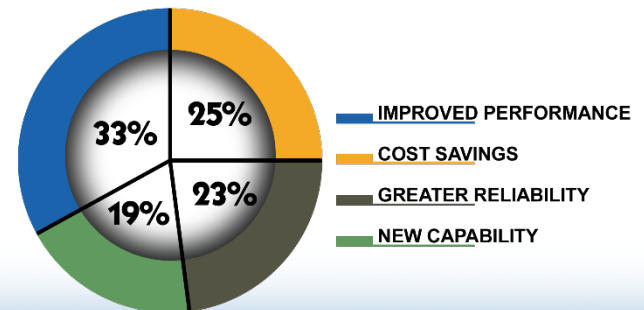
# Extensions and Enhancements



## Total STTPs and Extensions and Enhancements Initiated Since Program Inception



## Benefit to Warfighter from 2018 Successes





# Small Business Industry Days

- **SBIDs highlight existing small business products and capabilities, Air Force contracting opportunities, and technology development prospects by matching stakeholders from centers/PEOs, large business, and small business communities.**
  - Armament Directorate, July 2014
  - Air Force Test Center, November 2014
  - Air Force Sustainment Center, July 2015
  - Air Force Space and Missile Center, October 2016
  - Air Force Test Center, November 2017
  - Air Force Sustainment Center, July 2018



**235 attendees**

representing small business,  
major defense contractors and  
government officials



# Technology Interchange Meetings

- **The Air Force SBIR/STTR CRP team leverages TIMs, tailored and unique technology meetings hosted at major defense contractor facilities, to bring together key stakeholders and to integrate small business capabilities with larger defense industries.**
- **In 2018:**
  - Boeing
  - Harris Corporation, Northrop Grumman (previously Orbital ATK)
  - Raytheon
  - Rolls-Royce





# Air Force Contracting Sprint

- **Contracting officials and innovators from across the Air Force, looking to speed up the acquisition process, recently awarded more than 100 contracts in 40 hours.**

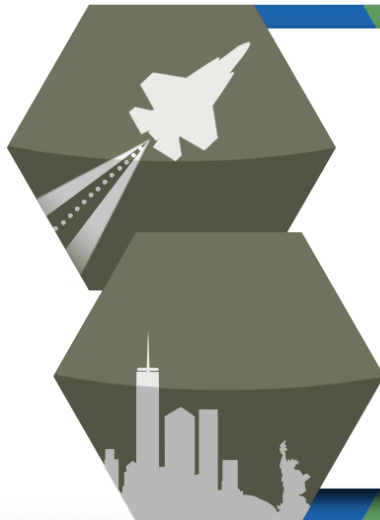


- **Epic streamlining and simplification in Air Force contracting**
- **Solicitation to contract award cut from 180 days to a few days**



*Inaugural*  
**AIR FORCE PITCH DAY**

6-7 MARCH 2019 | NEW YORK CITY, NY



- An open door to sole-source contracts within a \$100 billion market
- Funding matching opportunities, reduced investment risk, and increased impact and success of U.S. technology startups
- An easy connection point for prime contractors to try and test technologies against Air Force mission needs





# FY 19 BAA Schedule

FY19 BROAD AGENCY ANNOUNCEMENT

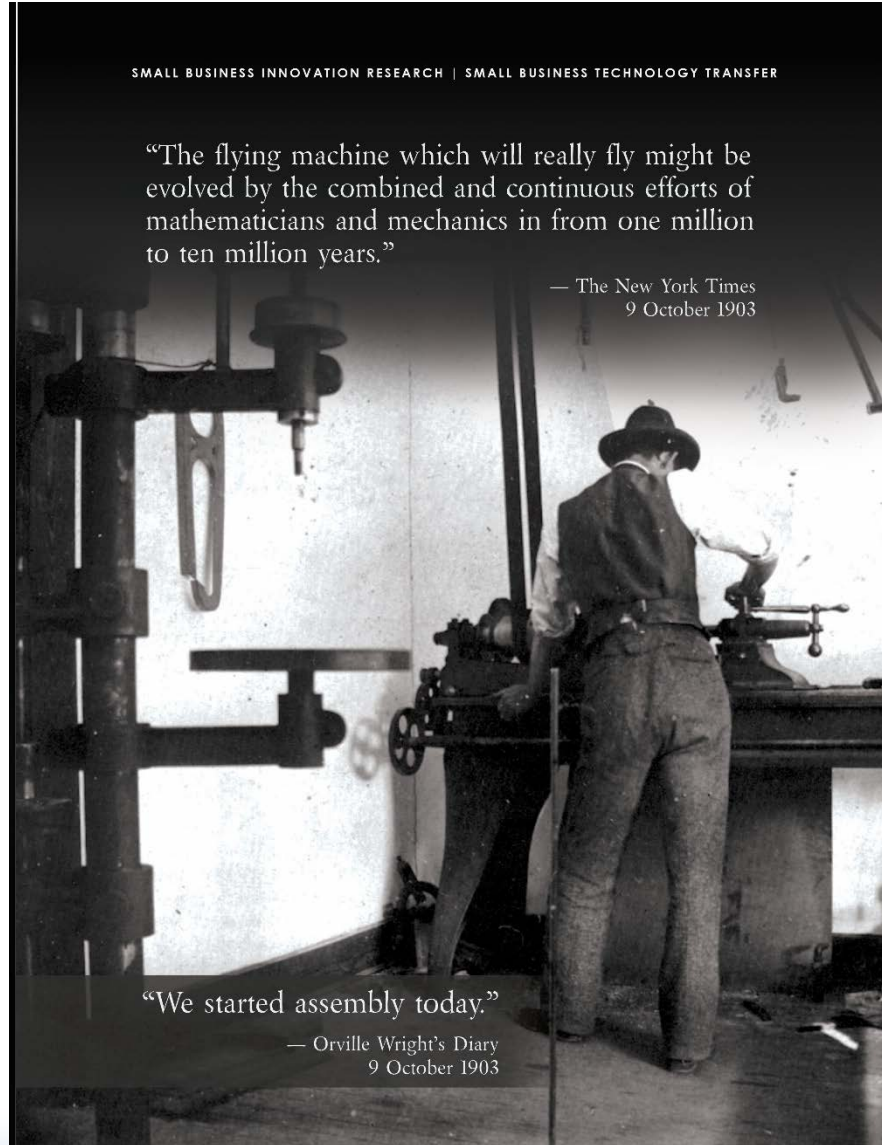
	Program	Pre-release	Open	Close
19	SBIR 19.1 AND SSTR 19.A	NOV 28, 2018	JAN 8, 2019	FEB 6, 2019
19	SBIR 19.2 AND SSTR 19.B	APR 19, 2019	MAY 20, 2019	JUN 19, 2019
19	SBIR 19.3 AND SSTR 19.C	AUG 23, 2019	SEP 24, 2019	OCT 23, 2019





“The flying machine which will really fly might be evolved by the combined and continuous efforts of mathematicians and mechanics in from one million to ten million years.”

— The New York Times  
9 October 1903



“We started assembly today.”

— Orville Wright’s Diary  
9 October 1903



# QUESTIONS?



U.S. AIR FORCE  
**SBIR-STTR**

<https://www.afsbirsttr.af.mil>