

AIR FORCE NUCLEAR WEAPONS CENTER

Never Doubted, Always Feared

SBIR/STTR and STRATFI/TACFI Briefing for New Space New Mexico



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Agenda

- 1. AFNWC**
- 2. SBIR/STTR Overview**
- 3. SBIR/STTR Eligibility Requirements**
- 4. SBIR/STTR Phases**
- 5. STRATFI/TACFI**
- 6. Funding**



AFNWC Overview

The U.S. Strategic Nuclear Triad

NUCLEAR TRIAD

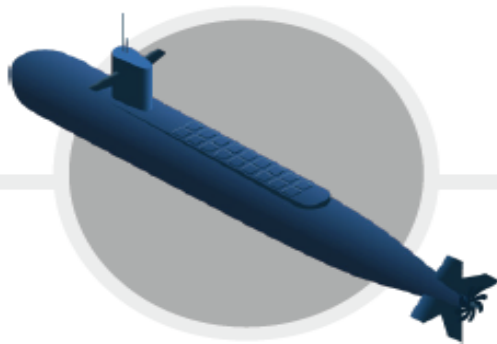
RESPONSIVE

With 400 ICBMs, no adversary can disarm the U.S. nuclear deterrent without attacking hundreds of targets simultaneously.



SURVIVABLE

A portion of the SSBN fleet and its 240 SLBMs is always on patrol, making them very difficult to find and track.



VISIBLE

The 60 nuclear-capable bombers are a clear and visible signal of U.S. intent and resolve during a crisis, and provide the President a variety of options.



The three legs of the U.S. nuclear Triad are complementary, with each component offering unique strengths. Together, the Triad ensures the United States can effectively withstand and respond to any attack.

“The Nuclear Triad has kept the peace since nuclear weapons were introduced and has sustained the test of time.”

-General Mark A. Milley, CJCS

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AFNWC Mission at a Glance

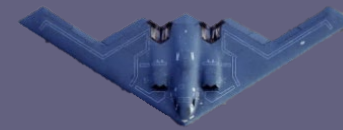
Delivering nuclear capabilities Warfighters use every day to deter and assure

Nuclear Command, Control, and Communications Integration



WGF Program Integration

Weapon / Aircraft Integration



B83



W80



Air Delivered Capabilities



B61-12 Tail Kit Assembly



Air Launched Cruise Missile / Long Range Stand Off Weapon



Weapon Storage and Security Systems



ICBM Systems Capabilities

Air-Delivered Capabilities



ICBM

Minuteman III / Sentinel (GBSD)

Weapon System Command & Control



Transporter Erector

Payload Transporter



Launch System



Flight System



W78
W87

Nuclear Technology and Integration

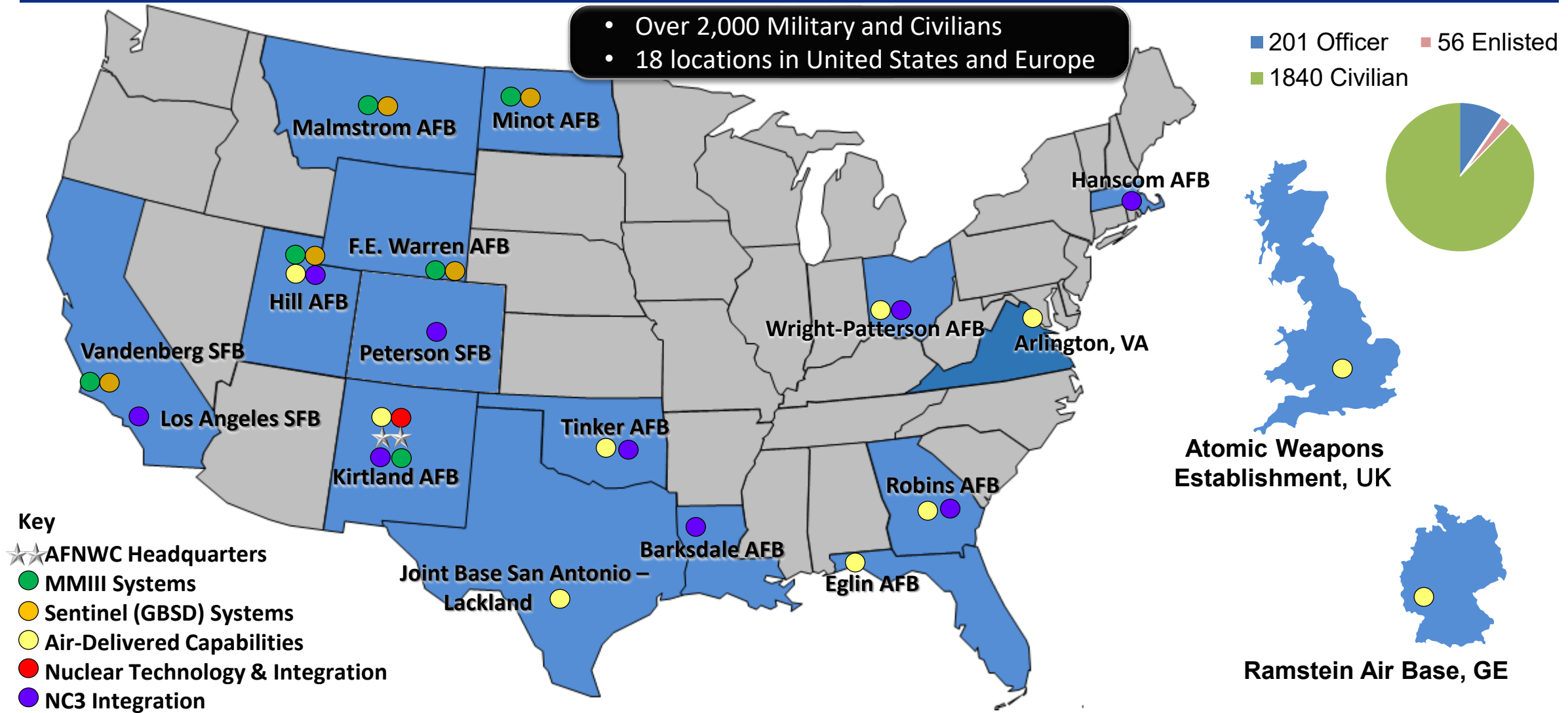
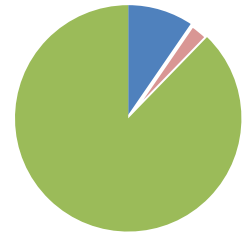




AFNWC Snapshot

- Over 2,000 Military and Civilians
- 18 locations in United States and Europe

■ 201 Officer ■ 56 Enlisted
■ 1840 Civilian



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SBIR/STTR Overview

What is SBIR

- **“The Small Business Innovation Research (SBIR) program was established by Congress in 1982 to fund research and development (R&D) by small businesses of 500 or fewer employees. Eleven federal agencies participate in the program, including the Department of Defense.”**

What is STTR

- **“The Small Business Technology Transfer (STTR) program was established in 1992 to fund cooperative R&D projects with small businesses and non-profit U.S. research institutions, such as universities. Five federal agencies participate, including the Department of Defense. Both programs focus on projects and services with the potential to develop into a product for military or commercial sectors.”**

<https://www.afsbirsttr.af.mil/About/Program-Overview/>



SBIR/STTR Eligibility Requirements

SBIR

- Applicant is for-profit business based in the United States
- 500 or fewer employees
- Principal investigator's primary employment (>50%) must be with small business
- Additional requirements apply

STTR

- Applicant is non-profit business based in the United States
- Partner with U.S. research institution
- Formal cooperative research and development effort
- At least 40% of work performed by small business while 30% of work performed by research institution
- Additional requirements apply

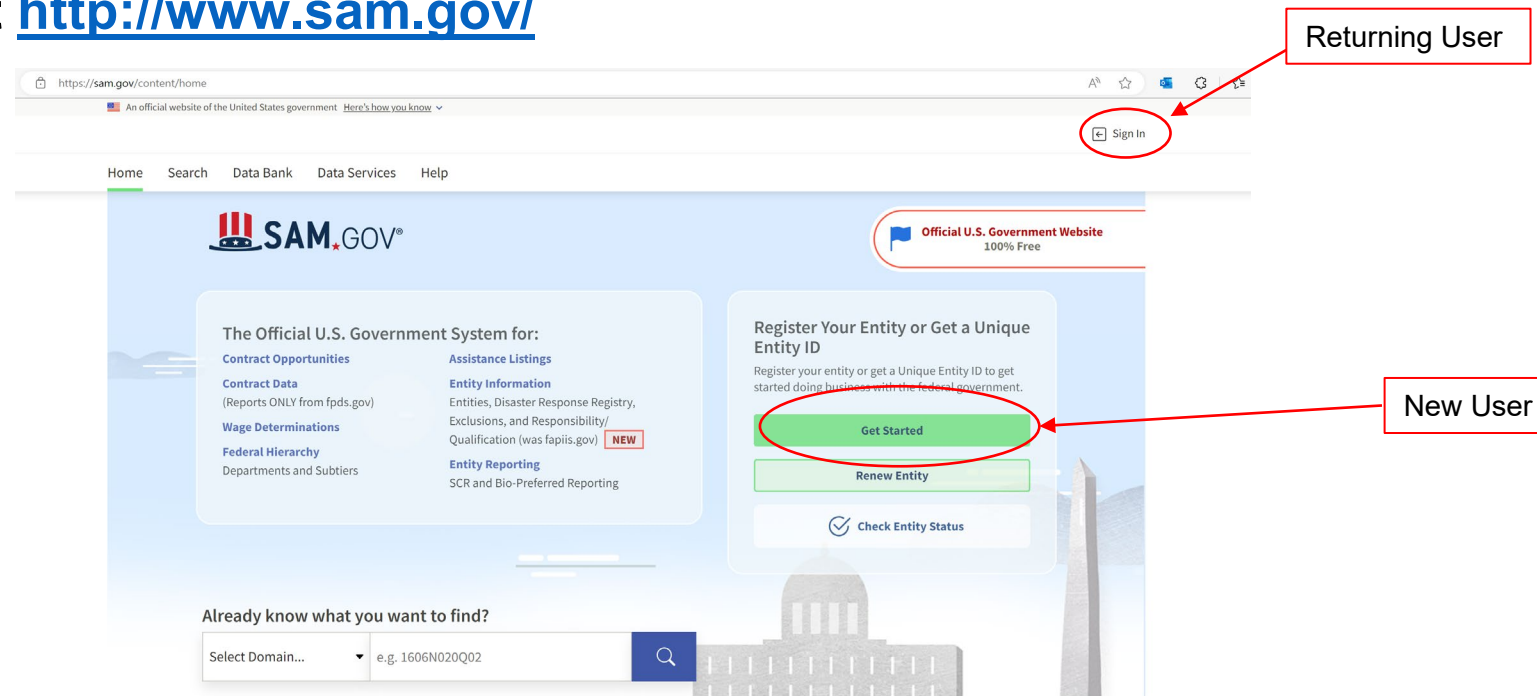
<https://www.afsbirsttr.af.mil/About/Program-Overview/>



SBIR/STTR Eligibility Requirements

SAM Registration

- All small businesses must be registered in the System of Award Management (SAM).
- SAM allows firms interested in conducting business with the federal government to provide basic information on their business capabilities and financial information.
- To register, visit <http://www.sam.gov/>



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The Phases of the SBIR Program

Phase I

- The objective of Phase I is to establish the technical merit, feasibility, and commercial potential of the proposed Research/Research and Development (R/R&D) efforts and to determine the quality of performance of the small business awardee organization prior to providing further Federal support in Phase II. SBIR/STTR Phase I awards are generally \$50,000 - \$250,000 for 6 months (SBIR) or 1 year (STTR).

Phase II

- The objective of Phase II is to continue the R/R&D efforts initiated in Phase I. Funding is based on the results achieved in Phase I and the scientific and technical merit and commercial potential of the project proposed in Phase II. SBIR/STTR Phase II awards are generally \$750,000 for 2 years.

Direct to Phase 2 (D2P2)

- D2P2 topics allow small business concerns, having completed “Phase I-like” feasibility studies with resources other than SBIR/STTR, to apply for a Phase II award.

STRATFI/TACFI

- An extension of Phase 2 or D2P2 to continue work on a product while simultaneously transitioning to the marketplace.

Phase III

- The objective of Phase III, where appropriate, is for the small business to pursue commercialization objectives resulting from the Phase I/II R/R&D activities. The SBIR/STTR programs do not fund Phase III.

<http://www.sbir.gov/about>



AFNWC Direct to Phase 2 (D2P2)

- **AFNWC holds an industry webinar called the Collider Event**
 - The purpose of the Collider Event is to share information about the topics AFNWC has identified and will be asking for help to fill from industry small businesses.
 - Technical leads present their topic(s) and answer questions from industry in real time.
 - The Collider Event takes place after pre-release of the topics submitted by DAF.

- **How do you get information for the Collider Event?**
 - AFNWC Website <https://www.afnwc.af.mil/Innovation/>
 - To be added to our invitation list, email afnwc.sbirsttr@us.af.mil

- **For more information on the Direct to Phase 2 process, visit Defense SBIR/STTR Innovation Portal (DSIP)**
 - <http://www.dodsbirsttr.mil/submissions/login>



STRATFI/TACFI Purpose

- **“Catalyze relationship between Air Force and Space Force end-users and acquisition professionals, private-sector innovators, and investors. It acts in a way that drives more money and research opportunity to an already achieved phase II, allowing companies that need a little more time for research and development to have the funding to do so.”**
- **"Bridge the capability gap between current SBIR/STTR Phase II efforts and Phase III scaling efforts, facilitating delivery of the strategic capabilities for the Department of the Air Force."**

[STRATFI TACFI v1.pdf \(af.mil\)](#)

[STRATFI/TACFI 2022- A Reasonable Step After Phase II? - Long Capture](#)

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STRATFI/TACFI Eligibility

- **All Criteria must be met:**
 - **Active DAF SBIR/STTR Phase II (or completed within 3 years)**
 - **The subject effort has not already been awarded a “Sequential” Phase II.**
 - **At least 90 days have passed since the beginning of Phase II execution**
 - **Not executing a prior STRATFI effort at the time of submission**
 - **Able to achieve the minimum matching/investment requirements**
 - **Able to obtain the required End-User and Customer Memorandum**

[STRATFI TACFI v1.pdf \(af.mil\)](#)



STRATFI/TACFI Candidates

- **"The best candidate for a STRATFI/TACFI, are companies who made progress in phase II but need more RDT&E funding to develop their product to the point that it can be scaled in a Phase III. In order to apply, you need an active DAF SBIR/STTR Phase 2, or you must have completed one within the past three years."**
- **"Qualified candidate will need to either have or be able to achieve the minimum matching investment requirements. For TACFI, that minimum is 375K, and for STRATFI, the minimum is 3M."**
- **"In addition to the matching requirements, qualified candidates need a clear and identified end-user and customer memorandum."**

STRATFI/TACFI 2022- A Reasonable Step After Phase II? - Long Capture



STRATFI/TACFI Funding Requirement

	Minimum		Maximum
TACFI	\$375K SBIR/STTR Funds	up to	\$1.7M SBIR/STTR Funds
STRATFI	\$3M SBIR/STTR Funds	up to	\$15M SBIR/STTR Funds



STRATFI/TACFI Matching Funding

	Defense-Only		Dual-Use
TACFI	1:1 SBIR/STTR : Gov*	or	1:1 SBIR/STTR : Private**
STRATFI	1:2 SBIR/STTR : Gov*	or	1:1:2 SBIR/STTR : Gov*: Private**

* Phase III awards w/in 12 months of submission count toward Gov matching. SBIR funds do not count toward Gov matching.

** All funds must be received prior to TACFI award. Eligible third-party funds received after the start of P2 and w/in 24 months of submission counts toward Private matching during the course of STRATFI

[STRATFI TACFI v1.pdf \(af.mil\)](#)

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QUESTIONS?



References

- <https://www.sbir.gov/about>
- <https://www.afsbirsttr.af.mil/About/BAA-CSO/>
- <https://www.afsbirsttr.af.mil/About/Program-Overview/>
- <https://www.afsbirsttr.af.mil/Program/Phase-I-and-II/>
- <https://www.afsbirsttr.af.mil/FAQs/>
- <https://www.defensesbirsttr.mil/SBIR-STTR/Opportunities/>
- [SecAF Infographic20220331](#)
- <https://www.afnwc.af.mil/Innovation/>
- [STRATFI TACFI v1.pdf \(af.mil\)](#)