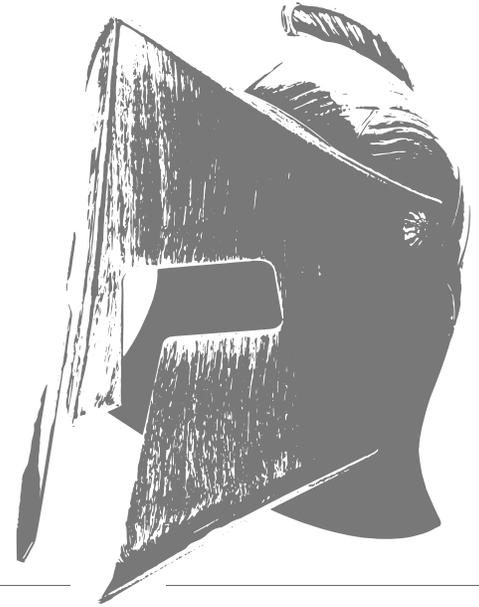


A SPARTN PROBLEM POWERED BY ARMY SBIR AND BACKED BY AAL

PALADIN | FIRE FASTER

INCREASING THE RATE OF FIRE FOR THE SELF-PROPELLED HOWITZER (SPH)



BACKGROUND ON THE PROBLEM

Reloading the cannon armament of Self-Propelled Howitzers is a highly manual process. A limited number of projectiles and propellant charges are stored in each vehicle. Right now, those projectiles and propellants must be pulled from their stowed position and loaded into the cannon by hand any time we need to fire. After one round is fired, the bore has to be reloaded and the process repeated — one munition at a time.

We need a way to do this better, both to reduce the physical strain on Soldiers and to keep up with our mission during the next generation of U.S. Army operations.

As part of the SPARTN program, the Army is exploring alternative cannon reloading approaches that can support high, sustained rates of fire. We want to identify subsystem technologies that optimize this ammunition handling process internal to the SPH as well as those that can improve the process overall.

DETAILS ON THE OPPORTUNITY

This opportunity invites US-based small businesses to develop a system or components of a system that can help increase the rate of fire for the Self-Propelled Howitzer. This could include ammunition/material handling, material storage, inventory management, or something else we haven't considered.

Ultimately, the solution should be able to:

- Fit within the cab of a Self-Propelled Howitzer
- Work in extreme conditions, including hot and cold temperatures as well as blowing dust or sand
- Withstand overpressure and shock
- Work with the onboard high voltage system
- Include a robust safety profile



This SPARTN project can provide a contract of up to \$200,000 for four months of work during which you will deliver a concept design brief, concept demonstration, and a Phase II proposal.

Companies selected for Phase 1 will also be invited to participate in an 18-week cohort program. Those who participate will have both virtual and in-person access to Army stakeholders and end users. They will have the chance to join remote roundtable discussions with the people in the Army who buy these systems and those working to modernize them. The in-person weeks will include trips to Army bases where cohort participants will witness an SPH live fire and talk directly with the Soldiers who use the system as part of their jobs.

You can find a link to the full solicitation as well as a link to join an upcoming webinar on this topic at aal.army/SPARTN.

Learn more about current problems we're solving through SPARTN and how you can get involved at aal.army/spartn.

BRINGING THE SPARTN PROGRAM TO LIFE

Special Program Awards for Required Technology Needs (or simply SPARTN) is a brand new program for the Army — and for the small businesses that want to work with us — led by the Army Small Business Innovation Research (SBIR) team and bolstered by AAL models and outreach.

SPARTN blends government and industry best practices to introduce a new whole-of-Army, collaborative approach to solution innovation. This novel approach is made possible by tapping funding through the SBIR program. The result is a way to solve Army problems faster and accelerate the process by which successful technology is purchased by the Army.

Here's what makes SPARTN different:

1. Problems released through SPARTN are tied to the Army's critical needs and to other focused modernization efforts
2. Faster contracting speed, with the goal of having companies on contract within 30 days of close (vs. up to 180 days)
3. Option to join a problem-specific cohort for end-to-end access to Army decision makers and end users (Soldiers)
4. Potential for \$2.5 million total value follow-on contract to build a prototype related to the specific problem
5. Acquisition teams included early with the goal of easing transition & building new tech into recurring Army budgets
6. Potential for future high-value contracts via SBIR, other government funds, and private investment that you secure

If the program name conjures up ancient warriors or obstacle courses, that's perfect. We're all about having the courage to push past our comfort zones and conquer new ground.

The initial SPARTN program features challenging and important problem statements from problem owners across the Army. These represent some of our biggest problems and the ones we want to work closely with the commercial industry to solve.

CO-HORT

/'kō,hōrt/

noun

a group of people banded together or treated as a group

AAL is putting our Cohort Program to work for SPARTN. Companies that are selected to help solve a SPARTN problem will also be invited to join a focused cohort to gain deeper insight into the problem and direct interaction with Army stakeholders and end users.

ABOUT THE AAL COHORT PROGRAM

Our Cohort Program is similar to an accelerator, similar to a hackathon, similar to traditional acquisitions, but none of those things by itself. It brings together companies that don't usually work with the DoD and focuses them on solving a specific Army problem. They work side by side with Soldiers and with a community of Army experts and stakeholders on a shared learning journey. While joining a cohort isn't required, it can provide a deeper level of insight to help refine your solution.

A DIFFERENT KIND OF COHORT

- ✓ Not a conventional cohort or accelerator program
- ✓ 18-week hybrid program with virtual and in-person activities
- ✓ Each cohort focuses on solving a specific SPARTN problem
- ✓ Increased contact with key Army stakeholders and end users
- ✓ Visits to Army facilities where you can see the problem firsthand
- ✓ Only open to companies with Phase 1 SPARTN contracts

To learn more about this first-of-its-kind Army program and the benefits of participating, visit aal.army/cohortprogram.

ABOUT THE ARMY APPLICATIONS LABORATORY

We're not a laboratory in the traditional sense of the word. As the U.S. Army's innovation unit, we don't make things — we make things possible. The Army Applications Laboratory (AAL) is fundamentally reshaping how the Army works with industry to reunite American innovation and national security. Together, we question *why* and deliver *what if*. Learn how we do it at aal.army.

