

PROBLEM STATEMENT

Requirement Title: Solid Rocket Motors

Critical Sector: Kinetic Capabilities

BACKGROUND: Solid-propellant engines or Solid Rocket Motors (SRMs) are rocket engines that use solid propellants versus liquid propellants. SRMs are used in air-air and air-ground missiles, model rockets, and as boosters for satellite launchers. The SRM manufacturing capacity is constrained and fragile due to current geopolitical events. The United States Defense Industrial Base (DIB) currently does not have enough manufacturing capacity of SRMs to support ongoing engagements in the Middle East, Ukraine, and preparations in the Pacific, nor enough to quickly replenish domestic stockpiles.

Desired Objective: The Manufacturing Capability Expansion and Investment Prioritization (MCEIP) office is seeking additional SRM and/or SRM component or sub-component suppliers to create a more resilient industrial base, increase domestic capacity, increase competition, and thereby drive down unit cost.

Proposers must demonstrate the technical and manufacturing feasibility of establishing one (1) or more domestic, commercially viable prototype production line capable of producing SRMs and/or components or sub-components. The resulting prototype SRMs or components/sub-components must meet the criteria for Technology Readiness Level (TRL) 6 or above – with TRL 6 defined as “System/Subsystem model or prototype demonstrated in relevant environment*.” A successful prototype solution will demonstrate how the SRMs or components/sub-components meet the system performance criteria for the targeted application for successful performance in a relevant operational environment.

Anticipated Funding: Multiple awards are anticipated with individual project agreement funding estimated between \$5M - \$75M over the next five years, subject to future Government availability of funding. Proposed solutions are subject to negotiation, if selected for award.

Anticipated Security Level: Classified information up to and including Secret.

Estimated Period of Performance: Up to five years

Anticipated Data Rights: Government Purpose Rights (as appropriate for any data developed using government funding)

Technical POC(s): Designated technical SMEs for Army, NASA, Navy, Missile Defense Agency, Space Force, and Air Force will be provided upon selection for award.

*per the DoD R&E Technology Readiness Assessment Guidebook, dated June 2023
<https://www.cto.mil/wp-content/uploads/2023/07/TRA-Guide-Jun2023.pdf>