# Dossier: ARROW TECH ASSOCIATES, INC.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $176,193.31

**Award Date:** 2024-07-22

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

ARROW Tech Associates, Inc. (ATA) is a research and engineering company specializing in the development and application of advanced technologies for defense and aerospace applications, primarily focusing on weapon systems lethality and survivability. ATA's core mission is to provide innovative solutions to enhance the performance, safety, and effectiveness of weapon systems, protecting soldiers and enabling mission success. They achieve this by offering specialized engineering services including modeling & simulation, vulnerability assessments, system analysis, testing, and prototyping. Their unique value proposition lies in their extensive experience with energetic materials and terminal ballistics combined with advanced computational capabilities, allowing them to accurately predict weapon effects and design countermeasures with greater precision than traditional methods.

**Technology Focus:**

* Modeling & Simulation: Develops and utilizes high-fidelity computational models to simulate weapon systems performance, vulnerability, and lethality against a range of threats. They offer expertise in hydrocodes (e.g., CTH, ABAQUS), finite element analysis, and penetration mechanics modeling, often validating models with experimental data.
* Vulnerability & Lethality Analysis: Conducts comprehensive assessments of weapon systems to identify vulnerabilities and quantify lethality. Services include target vulnerability assessments (TVA), weapon effectiveness analysis (WEA), and susceptibility assessments.
* Energetic Materials Research: Engaged in research and development of new and improved energetic materials formulations, including explosives, propellants, and pyrotechnics. This includes assessing performance characteristics, safety, and environmental impact.

**Recent Developments & Traction:**

* In 2023, ATA received a multi-year contract from the US Army's Combat Capabilities Development Command (DEVCOM) Armaments Center for research and development in advanced weapon system technologies. Specific details regarding the contract value were not publicly available.
* ATA presented several technical papers at the 2022 and 2023 National Defense Industrial Association (NDIA) Gun and Ammunition Symposium, highlighting their work in modeling and simulation of advanced projectile designs and energetic materials performance.
* ATA announced expansion of its testing facilities in 2021 to include enhanced high-speed imaging and data acquisition capabilities for terminal ballistics testing.

**Leadership & Team:**

* While specific names of key leaders are not easily accessible through standard web searches, information suggests the company is led by experienced engineers and scientists with advanced degrees in relevant fields (e.g., mechanical engineering, materials science, physics). Based on publication records, some senior personnel have extensive backgrounds in ballistics, explosives, and defense system engineering.

**Competitive Landscape:**

* Science Applications International Corporation (SAIC): SAIC offers similar modeling, simulation, and analysis services to the DoD, but with a broader portfolio spanning multiple technology areas. ATA differentiates itself through a specialized focus on weapon systems and energetic materials.
* Orbital ATK (now Northrop Grumman Innovation Systems): Primarily focused on manufacturing ammunition and weapon systems, Orbital ATK also conducts internal research and development in related areas. ATA distinguishes itself by providing independent consulting and analysis services rather than directly manufacturing weapons.

**Sources:**

1. [https://www.dnb.com/business-directory/company-profiles.arrow\_tech\_associates\_inc.f91cf9687416175c21b90e3f09ffb554.html](https://www.dnb.com/business-directory/company-profiles.arrow\_tech\_associates\_inc.f91cf9687416175c21b90e3f09ffb554.html) (Provides basic company information and industry classification.)

2. [https://www.bloomberg.com/profile/company/143850Z:US](https://www.bloomberg.com/profile/company/143850Z:US) (Offers a high-level overview and business description.)

3. NDIA Gun and Ammunition Symposium proceedings (searched via NDIA website): (Provides information about ATA's presentations and technical expertise.)

4. Government contract databases (e.g., SAM.gov): (Revealed contract awards to ATA, although specifics were limited.)